CITY PLANNING BOARD

BOARD AGENDA

Planning Board Regular Meeting - Monday, April 14, 2025 - 2:00 p.m.
City Hall - City Commission Chambers, 100 North U.S. #1, Fort Pierce, Florida

1. **CALL TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL**

4. **CONSIDERATION OF ABSENCES**

5. **APPROVAL OF MINUTES**

   a. Minutes from the March 10, 2025 meeting

6. **NEW BUSINESS**

   a. Conditional Use with New Construction - Crossroads RV Park
   Parcel ID: 2324-312-0005-000-4

   b. Site Plan and Innovative Residential Development - Margareta Villas Apartments
   4101 Oleander Avenue

   c. Site Plan – The District.- 2591 McNeil Road
   Parcel ID(s): 2419-241-0001-010-7 and 2419-244-0035-000-6

7. **ELECTION OF CHAIR AND VICE-CHAIR**

8. **DIRECTOR'S REPORT**

9. **COMMENTS FROM THE PUBLIC**

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

10. **BOARD COMMENTS**

11. **ADJOURNMENT**

Any person seeking to appeal any decision by the Planning Board with respect to any matter considered at this meeting is advised that a record of proceedings is required in any such appeal and that such person may need to insure that a verbatim record of the proceedings is made including the testimony and evidence upon which the appeal is to be based.
Persons who require special accommodations under the Americans with Disabilities Act (ADA) should contact (772) 467-3729, at least five (5) days prior to the meeting. Persons who are hearing or speech impaired may use the Florida Relay System by dialing 711.

Planning Board **5. a.**

Meeting Date: 04/14/2025

Re: Planning Board Minutes 3/10/25

Submitted For: Kev Freeman, Planning Director, Planning Department

Information

SUBJECT:

Minutes from the March 10, 2025 meeting

Attachments

Planning Board Minutes 3/10/25

Form Review

Form Started By: Alicia Rosenthal Started On: 03/12/2025 11:34 AM

Final Approval Date: 03/12/2025

D R A F T

CITY OF FORT PIERCE

PLANNING BOARD

Planning Board Minutes

OF THE REGULAR MEETING OF THE FORT PIERCE CITY PLANNING BOARD HELD ON MONDAY, MARCH 10, 2025, IN FORT PIERCE CITY HALL, COMMISSION CHAMBERS, 100 NORTH US HIGHWAY 1, FORT PIERCE, FLORIDA.

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Present: Justine Carter; Clayton Johnson; Alexander Edwards; Christopher Widing; Nichelle Clemons; Anton Kreisl, Chairman

Staff Present: Kev Freeman, Planning Director
Kerry Driver, Senior Planner
Alicia Rosenthal, Planning and Development Organizer

4. CONSIDERATION OF ABSENCES

All members were in attendance.

5. APPROVAL OF MINUTES

a. Minutes from the February 10, 2025 meeting

Motion was made by Nichelle Clemons, and seconded by Alexander Edwards to approve the minutes from the February 10, 2025 meeting.

AYE: Alexander Edwards, Christopher Widing, Nichelle Clemons, Justine Carter, Clayton Johnson, Chairman Anton Kreisl

Passed

6. NEW BUSINESS

a. **Final Planned Development - Gordy Creek**
Parcel ID(s): 2326-130-0000-000-7, 2326-130-0000-010-0

Mr. Freeman gave an overview of the application and answered questions from the Board. He stated the Gordy Greek Final Planned Development (PD), is a PD rezoning application and a Final PD site plan for a proposed residential development of a total of 317 residential units (179 single-family homes and 138 townhome units). The property is located on Gordy Road, south of Okeechobee Road. The site is approximately 76.97 acres and is currently zoned agricultural and the Future Land Use is Mixed Use. The application sets out to provide integration of the proposed development with the natural environment. 10-mile creek is on the west side of the site, within a large, preserved wetland. A 1.36-acre lake situated in the northwest area of this site is surrounded by a trail open to both the public and residents of the development and provides a unique opportunity for outdoor enjoyment and environmental education. Mr. Freeman reviewed the site plan, phasing and architectural drawings with the Board.

Staff recommend the Planning Board move the proposed rezoning of the Gordy Creek Final PD and the site plan to the City Commission with a recommendation of approval subject to the Gordy Creek Residential Planned Development Agreement, including the special conditions of development and the timetable of development.

George Missimer, from Cotleur and Hearing, stated the property was annexed into the City of Fort Pierce in 2006 with agricultural zoning and the proposed zoning is PD with up to 6 dwelling units per acre. He said the site has a 17-acre wetland preserve. Mr. Missimer said a fence around the perimeter, an extensive landscape buffer and a perimeter sidewalk on the frontage of the property are proposed. He highlighted the boardwalk around the 1.63-acre lake is open to the public and will have a small parking area. Mr. Missimer said there will be 170 units built in Phase 1 and 140 units in Phase 2.

Board discussion ensued regarding the location of the school bus stop, the bus stop location being covered, and how the school bus would turn around.

Lara Swanson, applicant representative from Swanson Land Company, explained that Gordy Road terminates to the south and the school bus stop is on the outside of the development. She said they will need to coordinate the bus stop details with the St. Lucie County School Board. Ms. Swanson noted the St. Lucie County cross-section will be improved as well as the access concerns on Okeechobee Road. She said they have addressed the DOT concerns, and they have Access Management Control conditional approval.

Wesley Mills, Civil Engineer, from Mills Short Associates, stated they have designed an entrance with a larger vehicle turn around before the gate with provisions for the school bus turn around.

Motion was made by Nichelle Clemons, and seconded by Alexander Edwards to forward a recommendation of approval to the City Commission subject to the Gordy Creek Residential Planned Development Agreement, including the 12 special conditions of development, shown below and the timetable of development.
1. The phasing of the project shall adhere to City Code Sections 125- 212(b)(6) and 125-212(c)(1)(c): Phasing. Each phase of development must be so planned and so related to previous development, surrounding properties, and the available public facilities and services, that failure to proceed with subsequent phases will not adversely impact drainage, utilities, parking or the traffic flow of the completed phases.
2. The minimum Open Space shall be 50.62% of the Final PD site area.

3. The maximum density shall be 6 dwelling units per acre of the Final PD site area.
4. Prior to Building Permit, a Gopher Tortoise Survey shall be carried out on site.
5. Prior to Building Permit, and if required by the USFWS (US Fish and Wildlife Service), a Wood Stork foraging Habitat Assessment shall be carried out on site.
6. A detailed stormwater and drainage plan and statement shall be submitted at the time of Building Permit. The reports will be reviewed for compliance with City Code Chapter 119. Stormwater Management and Site Development Technical Regulations.
7. The Final PD site plan shall be in unified control and property ownership. All land intended to be included in the planned development shall be under the legal control of the applicant.
8. The Final PD site plan shall include all agreements, provisions and covenants which govern the use, maintenance, and continued protection of the planned 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.
9. A Unity of Title with the St. Lucie County Clerk of Courts and a Parcel Combination with the St. Lucie County Property Appraiser shall be completed prior to the issuance of any Building Permit.
10. At the time of Development Permit Review Compliance (DPCR) a full review of the appropriate tree survey and tree mitigation calculations will be performed.
11. Gordy Road is a St. Lucie County owned and maintained facility, the applicant/developer shall coordinate with St. Lucie County pertaining to required roadway improvements.
12. Readdress and look at the school bus turn around.

AYE: Christopher Widing, Nichelle Clemons, Justine Carter, Clayton Johnson, Alexander Edwards, Chairman Anton Kreisl

Passed

b. **Final Planned Development and (Phase 1) Site Plan - Millcreek**
2407-124-0001-000-3

Mr. Freeman gave an overview of the application and answered questions from the Board. Mr. Freeman stated the Millcreek Final Planned Development is an application amending the Millcreek Planned Development (PD) zoning in respect of one parcel of approximately 62.51 acres of land, generally located north of Orange Avenue and west of 41st Street, to include the Millcreek PD Phase 1 Final Site Plan. The site is approximately 62.51 acres and was annexed into the City of Fort Pierce through an FPUA utility agreement along with properties to the north and west, which retained a light industrial St. Lucie County zoning. Mr. Freeman said the development includes a total of 439 dwelling units, distributed in 309 townhomes and 130 detached single-family homes. The main access to the property is located on Orange Avenue to the south. The primary connection to the major road network is from Orange Avenue between Jenkins Road and Hartman Road at the existing intersection of Orange Avenue and Bent Creek Drive. The project proposes a clubhouse with amenities (to be constructed in phase 2), a dog park and a pocket park. Mr. Freeman said the annexed properties to the north and west would need a Future Land Use change when redeveloped and the property could be rezoned as well. Mr. Freeman reviewed the roadway improvements, phasing plan and architectural drawings. Mr. Freeman said staff recommended approval subject to the Millcreek Residential Planned Development and Traffic Contribution Agreement, including the special conditions of development and the timetable of development.

Tod Mowery, applicant representative, Redtail Design Group, stated it has been two (2) years since the preliminary Master PD. He stated the site used to be citrus groves before being annexed into the city. Mr. Mowery said the main access to the property will be on Orange Avenue, and they are working with the DOT for a traffic deceleration lane. He stated

the community is gated and there will be emergency access on 43rd Street. Mr. Mowery noted the adjoining 5-acre St. Lucie County parcel which they tried to purchase would be given access to the roadway since the access to their property would be taken away. Mr. Mowery said there will be 150 single-family homes and 309 townhomes with a clubhouse, playground, event lawn, dog park, pool and three (3) pocket parks. He said there will be an extensive landscape buffer along with a fence around the property. Mr. Mowery was excited to announce the national home builder, Dreamfinders, for the Millcreek PD.

Dr. Juan Ortega, Engineer from JFO Group, said an analysis was done to get FDOT conceptual approval for using the Orange Avenue intersection as the main access. He said more detailed traffic analysis will be needed by FDOT at a later date.

Mr. Mowery answered questions from the Board about the left turn lane, elevation changes, school bus stop location, emergency access road completion, and if Orange Avenue access is sufficient for the development.

Motion was made by Nichelle Clemons, and seconded by Justine Carter to forward a recommendation of approval of the Millcreek PD Final Site Plan to the City Commission subject to the Millcreek Residential planned development and traffic contribution agreement, including the special conditions of development and the timetable of development.

The special conditions include (not limited to):
1. The phasing of the project shall adhere to City Code Sections 125- 212(b)(6) and 125-212(c)(1)(c): Phasing. Each phase of development must be so planned and so related to previous development, surrounding properties, and the available public facilities and services, that failure to proceed with subsequent phases will not adversely impact drainage, utilities, parking or the traffic flow of the completed phases.
2. The Final PD plan shall conform to the requirements of the City Code of Ordinances and be subject to the general standards for approval of Planned Development Zoning at section 125-212 – Planned Development Zone (PD).
3. A Unity of Title with the St. Lucie County Clerk of Courts and a Parcel Combination with the St. Lucie County Property Appraiser shall be completed prior to the issuance of any Building Permit.
4. Reach out to the St. Lucie County School District for final determination of school bus stop location.
5. Emergency access details are to be spelled out in the development agreement.

AYE: Nichelle Clemons, Justine Carter, Clayton Johnson, Alexander Edwards, Christopher Widing, Chairman Anton Kreisl

Passed

c. **Site Plan - Treasure Townhomes - 4601 Regina Drive**

Ms. Driver gave an overview of the application. She said the applicant is requesting site plan review and approval for the development of ninety-four (94) fee simple townhome units which will be divided into 15 six-and-seven-unit buildings on an approximately 9-acre parcel. The future land use of the parcel is Medium Density Residential, RM, and the zoning is Medium Density Residential, R-4. Ms. Driver showed the site plan, landscape plan, lighting plan, elevations, rendering and color board. She said staff recommend approval with six conditions.

Ms. Driver answered questions from the Board about sidewalk improvements and originally being submitted as an innovative residential development.

George Missimer, applicant representative, Coutleur and Hearing, showed a presentation and explained the site allowed 12 dwelling units per acre, but they went with 10 dwelling units per acre to allow for additional parking. He showed the surrounding uses and site plan and said the access would be on Weatherbee Road. Mr. Missimer said there would be four (4) seven (7) unit buildings and 11 six (6) unit buildings with a one-car garage. He said all the units are three (3) bedrooms and 1,800 square feet with lots of color options. Mr. Missimer stated there would be a sidewalk on the north, east and south sides with substantial landscape buffers and an internal 50-foot-wide roadway within the development. He said they are using larger palm tree species because they don't cause long-term issues with tree roots, causing a tripping hazard on sidewalks. Mr. Missimer highlighted that there is substantially more parking than what is required. He said the community is not gated, and a school bus can circulate completely around the community without any barriers.

Mr. Missimer answered questions from the Board about the location of the overflow parking, number of cars that can fit in a driveway, on-street parking, dumpster location, and why a dog park and playgrounds were not included in the site plan.

Motion was made by Christopher Widing, and seconded by Nichelle Clemons to forward a recommendation of approval to the City Commison for the site plan with the following six (6) conditions:
1. Prior to issuance of final certificate of occupancy, a Landscape Maintenance Agreement shall be approved and shall acknowledge the following:
a. All approved 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, in conformity with the following requirements:
i. Vegetation required by this article shall be replaced with equivalent or better vegetation if it is not living. All trees for which credit is awarded, and which subsequently die shall be replaced by the same or greater number of living trees according to the standards established in this article.
ii. Maintenance shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices to ensure that the landscaping continues to maintain a healthy, neat, and orderly appearance.
2. An updated Environmental Assessment shall be required
3. The project shall have a Florida Fish and Wildlife Conservation Commission (FFWCC) Gopher Tortoise Permit in place prior to conducting any land clearing operations as the submitted Environmental Assessment indicates that gopher tortoises are present on the site
4. A 5-ft sidewalk is required along Poinsetta Ave.
5. 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 for the required mitigation of the City's regulated trees proposed to be removed as a result of its site development/construction activity.
6. Addresses will need to be submitted to the Planning Department for all units prior to the building permit application.

AYE: Justine Carter, Clayton Johnson, Alexander Edwards, Christopher Widing, Nichelle Clemons, Chairman Anton Kreisl

Passed

d. **Final Plat – Savannah Preserve (Phase 1)**
Parcel ID(s): 2427-433-0002-000-1, 2426-333-0015-000-5, 2427-433-0001-000-4, 2434-121-0001-000-8

Mr. Freeman gave an overview of the application and answered questions from the Board. He stated the Final Plat is for Phase 1 of the Savannah Preserve PD. He said Phase 1 includes 203 townhome lots; 98 2-family lots; community recreation tract, and areas reserved for future development - phase 2 plat area. Mr. Freeman said the final plat will allow the developer to get precise lot layouts to make obtaining building permits easier. He said the Final Plat was reviewed by the Engineering department and the Engineering consultant. Mr. Freeman stated staff recommended approval with two conditions.

Dennis Murphy, applicant from Culpepper and Terpening, said the first phase is 2/3 townhomes and 1/2 villa units. He said the cul-de-sac was changed in the preliminary site plan to a 'T' configuration to make it fit better. He said Savannah Preserve is a non-gated community with a Community Development District (CDD) and the streets will be maintained by the CDD. He noted the two school bus pickups are by the mail kiosk and the clubhouse.

The chair noted the significant portion of wetland area that is being preserved in the site plan design.

Motion was made by Nichelle Clemons, and seconded by Justine Carter to forward a recommendation of approval to the City Commission with two (2) conditions:

1. The applicant will supply two (2) Mylars for appropriate signatures prior to the plat being recorded with the St. Lucie County Clerk of Courts in accordance with Florida State Statute 177.111.
2. Prior to endorsement of the Mylars by the City's reviewing Surveyor, a bond in the amount of the agreed opinion of probable cost be submitted to the City Engineer for final approval.

AYE: Clayton Johnson, Alexander Edwards, Christopher Widing, Nichelle Clemons, Justine Carter, Chairman Anton Kreisl

Passed

e. **Final Plat - Mohawk**
Parcel ID(s): 1428-702-0425-000-7, 1428-702-0382-000-3, 1428-702-0050-000-7

Mr. Freeman gave an overview of the application and answered questions from the Board. This application requests approval for a Final Plat in respect of the Mohawk Subdivision. The applicant is proposing a Final Plat on approximately 4.109 acres of land lying immediately at the northwest corner of Mohawk Avenue and Bryant Road, within the City of Fort Pierce. The properties consist of three (3) parcels and will be subdivided into 14 residential lots. Mr. Freeman said the R-1 zoned parcels are surrounded mostly by St. Lucie County single-family residences. He concluded that staff recommends approval with two conditions.

Jerardo Ayala, Builder, Mohawk/The Outdoors Quality, said they are turning three (3) lots into 14 homes, and they recently built one on the south side in just over six months. He said they will have to provide drainage plans for each individual home at the time of building permit.

Motion was made by Christopher Widing, and seconded by Nichelle Clemons to forward a recommendation of approval of the Mohawk Final Plat to the City Commission with the following conditions:

1. The applicant will supply two (2) Mylars for appropriate signatures prior to the plat being recorded with the St. Lucie County Clerk of Courts in accordance with Florida State Statute 177.111.
2. Prior to endorsement of the Mylars by the City's reviewing Surveyor, a fully executed St. Lucie County Road Improvement Agreement shall be provided.

AYE: Alexander Edwards, Christopher Widing, Nichelle Clemons, Justine Carter, Clayton Johnson, Chairman Anton Kreisl

Passed

7. COMMENTS FROM THE PUBLIC

There were no comments from the public.

8. DIRECTOR'S REPORT

a. Directors Update: Strategic Plan

Mr. Freeman gave an update on the strategic plan and stated the goals for 2030 all affect Planning: Beautify the Community, Develop the Community, Engage the Community, Serve the Community and Enjoy the Community. He said with the goals there are objectives and challenges. Mr. Freeman asked the Board to review the strategic plan summary and bring back any specific plan or ideas to the Planning Board meeting for discussion. He mentioned several planning actions for 2025, including Affordable Housing, Port Overlay District, Comprehensive Plan Update, Kings Landing Site Plan Amendment, Downtown Development Master Plan, Economic Policies in the Comprehensive Plan, Annexations, Agricultural Zoning in the Comprehensive Plan, Code Changes to Advertising and Mailing Notices, Development Economic Impact, Promoting Natural Environment, Interlinking the City, and Looking at Crime through Community Design. Mr. Freeman mentioned some of the top priorities being code regulations, jobs corridor development, annexations, city-owned properties, beautification, street conditions, community brand and a residential design catalog.

Mr. Freeman explained that the Law Enforcement Impact Fee was presented to the City Commission at the March 10, 2025, meeting. Mr. Freeman noted the state is looking at a couple of bills regarding more leadway on affordable housing and amending the existing property tax exemptions for affordable housing.

9. BOARD COMMENTS

Mr. Widing noted that over 1,000 residents will be added to the city based on the five (5) agenda items discussed at the Planning Board meeting,

Ms. Carter asked Mr. Freeman if the legislative bills are likely to pass.

10. ADJOURNMENT

CITY OF FORT PIERCE

PLANNING BOARD

MARCH 10, 2025

GORDY CREEK REZONING TO FINAL PD SITE PLAN

SUMMARY

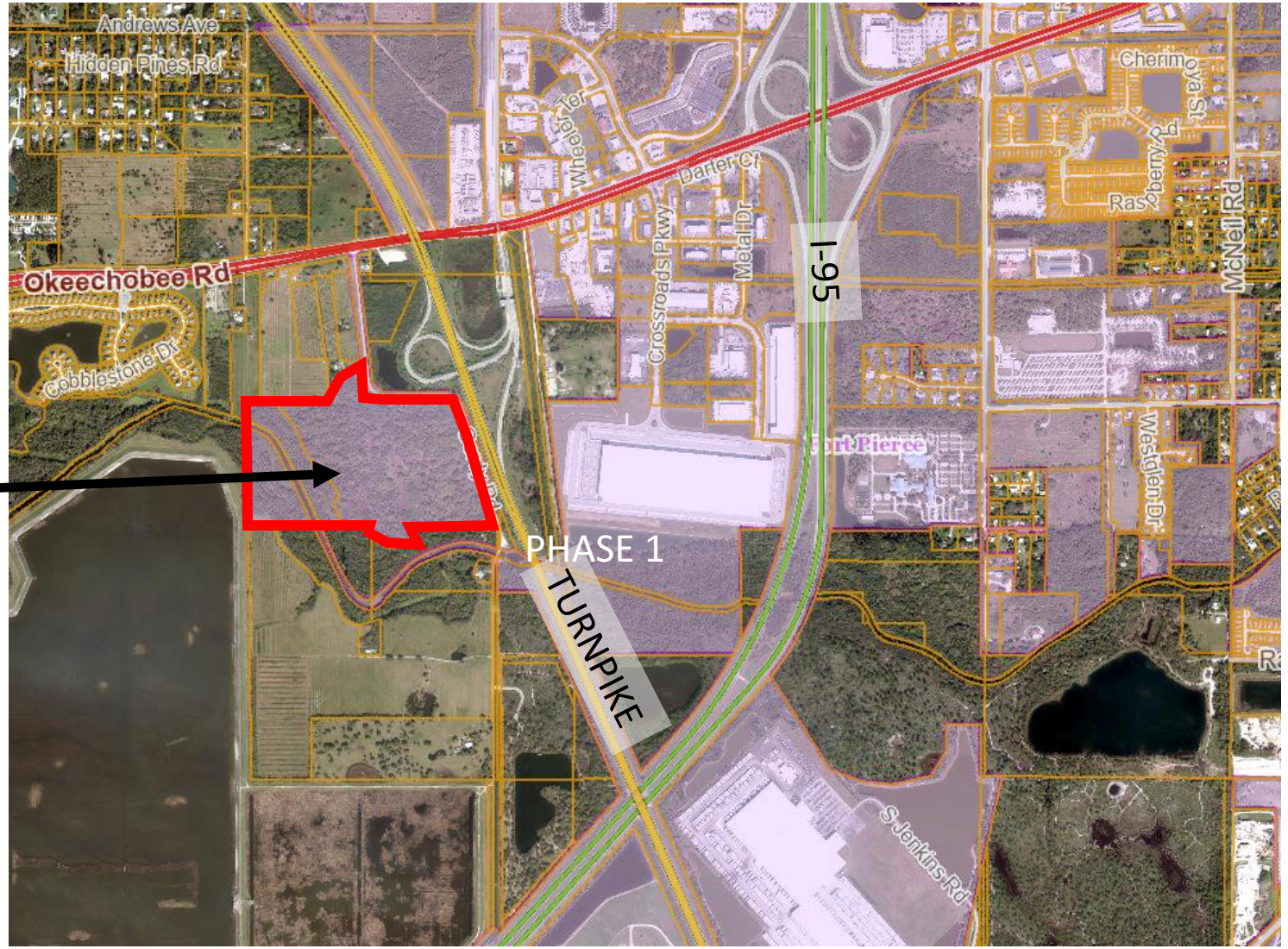
Gordy Greek Final Planned Development (PD), is a PD Rezoning application for Final PD Site Plan for a proposed residential development of a total of 317 residential units (179 single-family homes and 138 townhome units). The property is located on Gordy Road, south of Okeechobee Road.

APPLICANT

Cotleur & Hearing

SITE LOCATION

SITE



SITE AREA +/- 76.97 Acres

APPLICATION

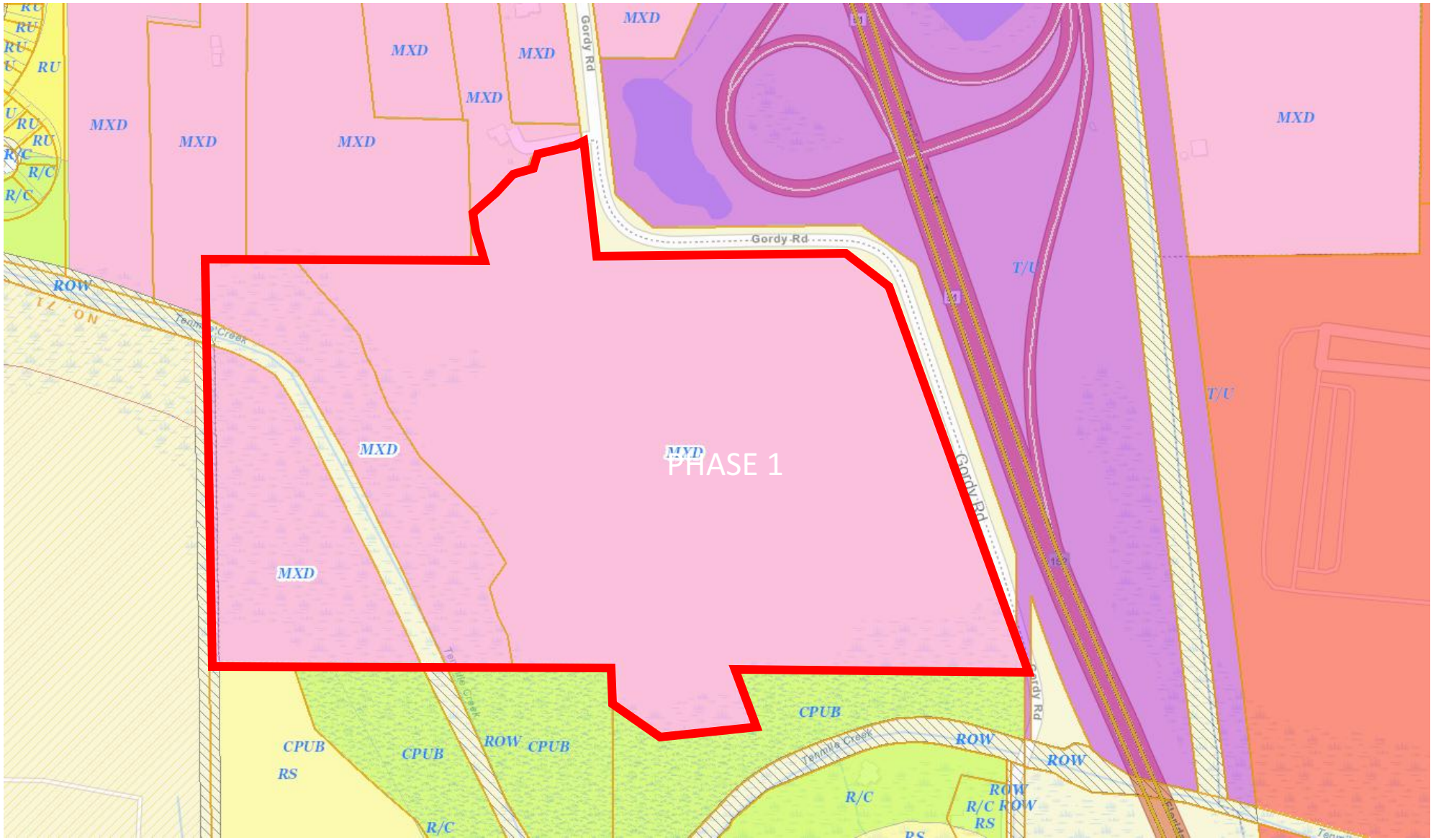
The application sets out to provide integration of the proposed development with the natural environment. 10-mile creek on the west side of the site, within a large, preserved wetland. This creek is the focal point of the development, providing residents and visitors with a beautiful view, while also serving as a natural habitat.

A 1.36-acre lake situated in the Northwest area of this site is surrounded by a trail open to both the public and residents of the development and providing a unique opportunity for outdoor enjoyment and environmental education.

The trail is designed to enhance community engagement a will feature educational signs that provide insights into the wetland ecosystem.

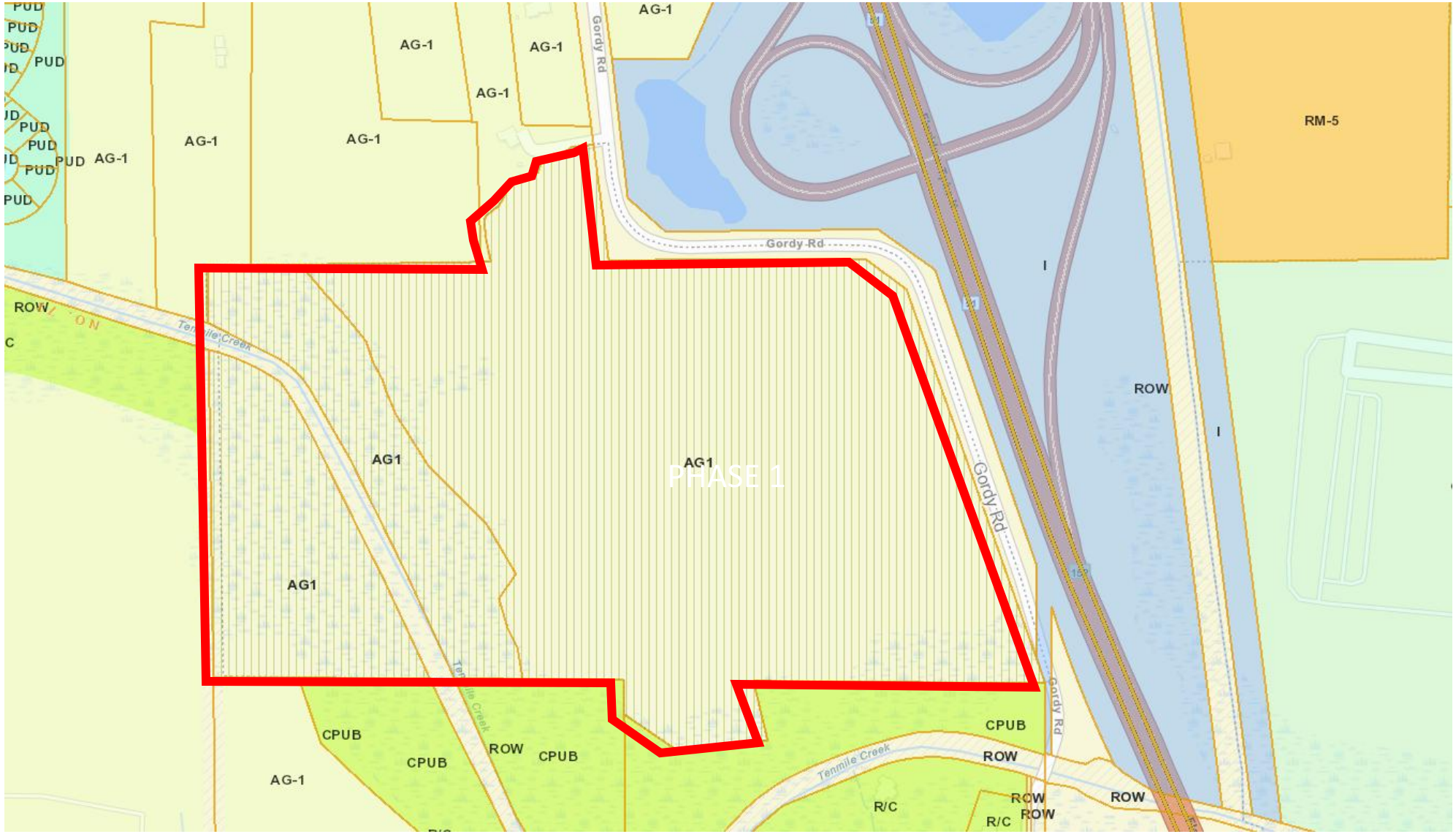
Access to this natural area is facilitated through a separate entryway accessible from Gordy Road, with dedicated parking available for the public.

FUTURE LAND USE



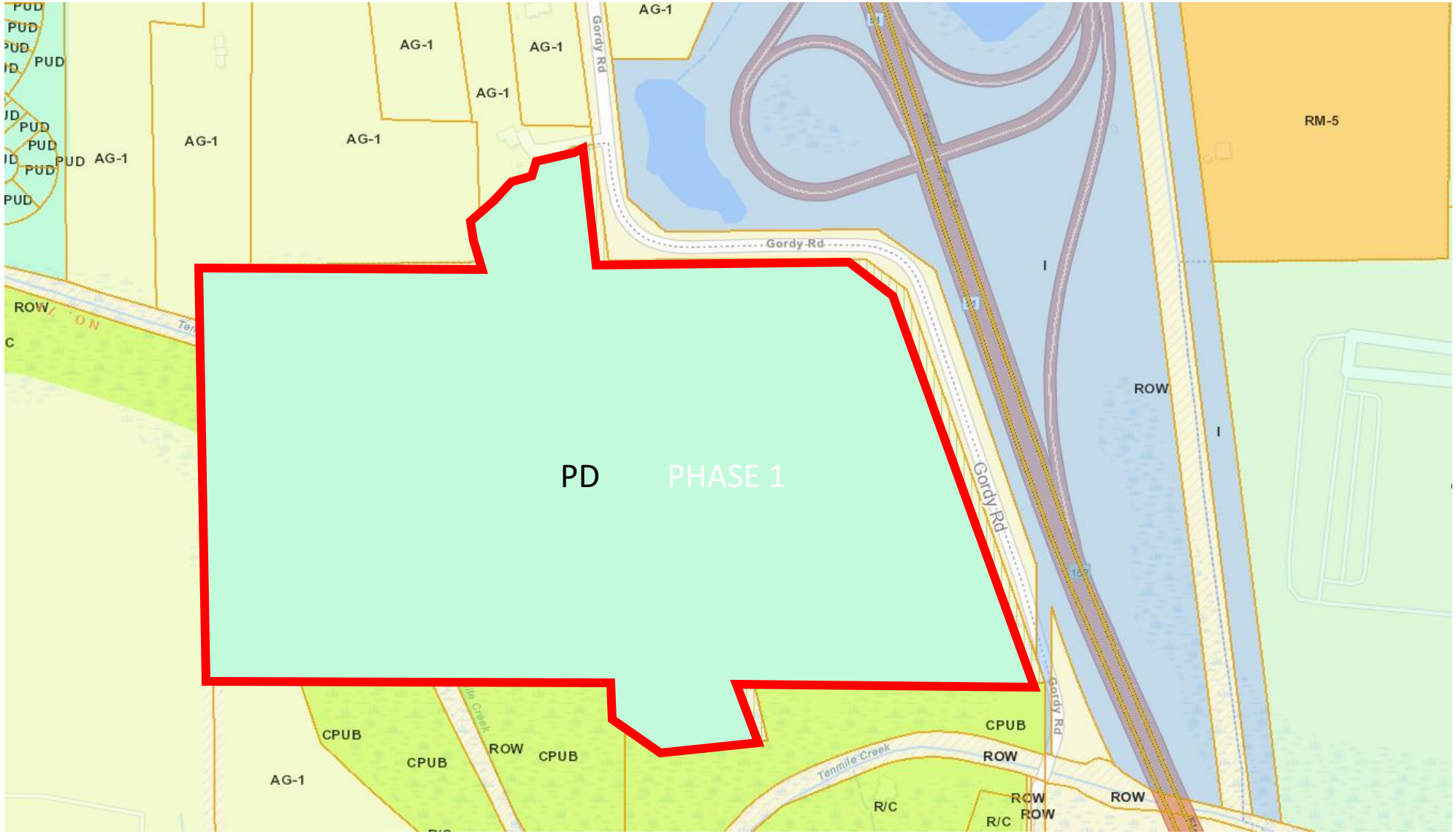
SITE AREA +/- 76.97 Acres

ZONING



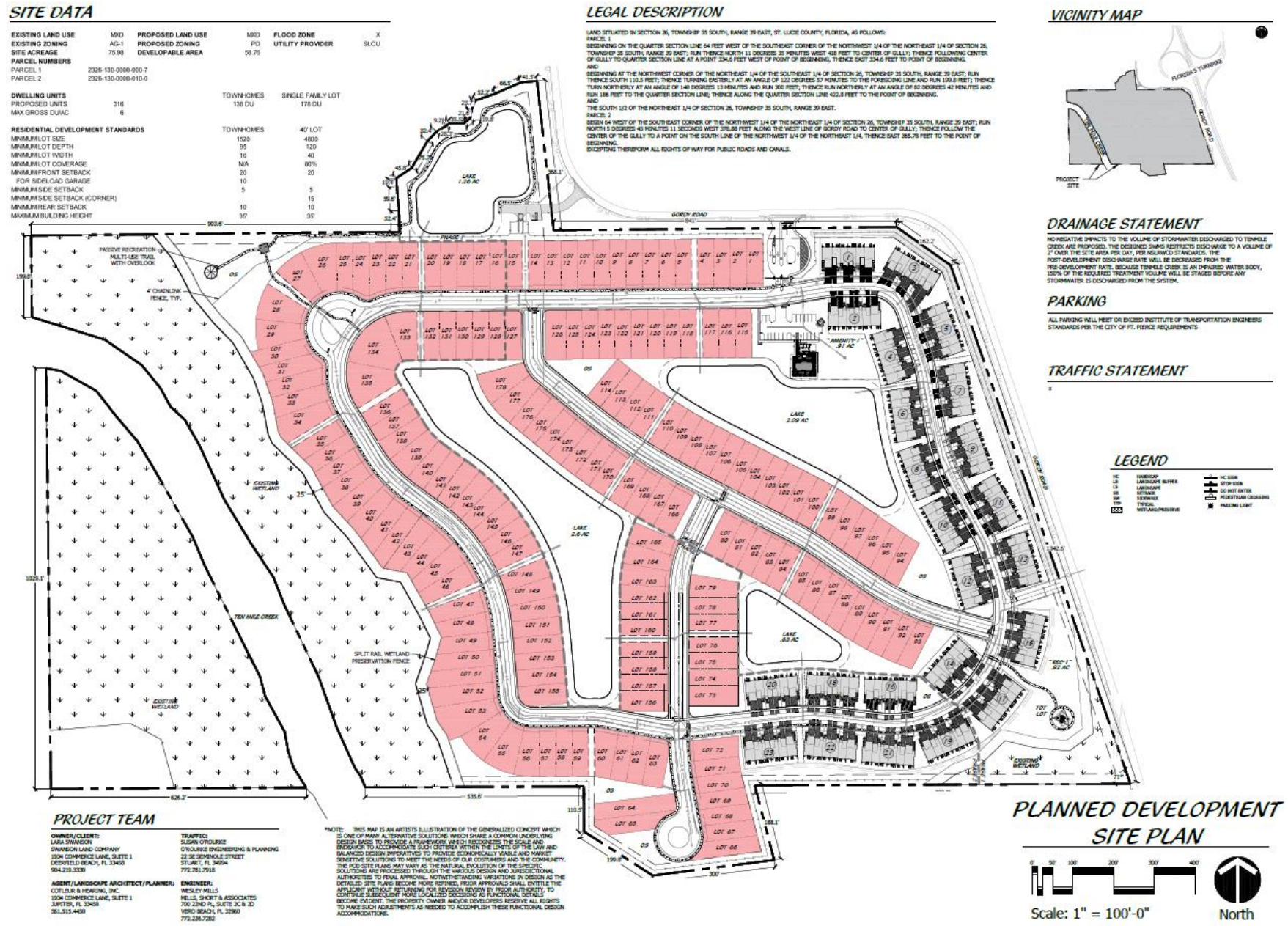
SITE AREA +/- 76.97 Acres

ZONING



SITE AREA +/- 76.97 Acres

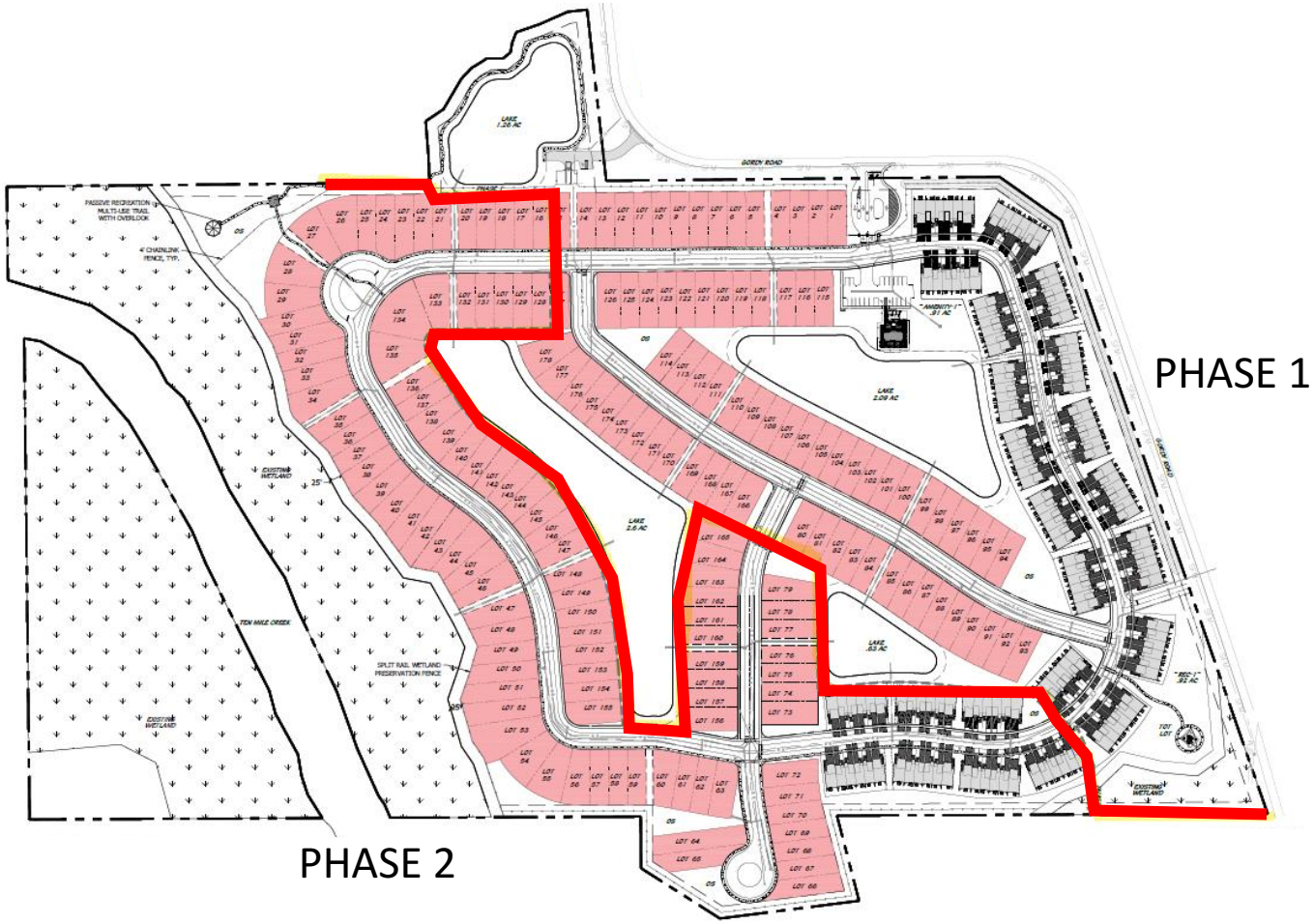
GORDY CREEK PD - FINAL SITE PLAN



FORT PIERCE, FL THE SUNRISE CITY

GORDY CREEL– FINAL SITE PLAN - PHASING

	Phase 1	Phase 2
Single Family Units	76	103
Multifamily Units	96	42
Estimated Start Date	2025	2027
Estimated Completion Date	2025	2027
Maximum Building Height	35’	35’
Maximum Building Coverage (Single-Family)	80%	80%
Maximum Building Coverage (Multifamily)	90%	90%
Amenity Area	100%	0%
Parking Lot	100%	0%
Preserve Overlook Area	0%	100%
Tot Lot	100%	0%
Lift Station	100%	0%
Lakes	6.58 ac	0 ac



GORDY CREEK – ARCHITECTURALS



GORDY CREEK – ARCHITECTURALS



RECOMMENDATION

Staff recommend the Planning Board move the proposed Rezoning of the Gordy Creek Final PD and Site Plan to City Commission with a recommendation of APPROVAL subject to the Gordy Creek Residential Planned Development Agreement, including the special conditions of development and the timetable of development.
The special conditions include (not limited to):

1. The phasing of the project shall adhere to City Code Sections 125- 212(b)(6) and 125-212(c)(1)(c): Phasing. Each phase of development must be so planned and so related to previous development, surrounding properties, and the available public facilities and services, that failure to proceed with subsequent phases will not adversely impact drainage, utilities, parking or the traffic flow of the completed phases.

RECOMMENDATION – (continued)

2. The minimum Open Space shall be 50.62% of the Final PD site area.

3. The maximum Density shall be 6 dwelling units per acre of the Final PD site area.

4. Prior to Building Permit, a Gopher Tortoise Survey shall be carried out on site.

5. Prior to Building Permit, and if required by the USFWS (US Fish and Wildlife Service), a Wood Stork foraging Habitat Assessment shall be carried out on site.

6. A detailed stormwater and drainage plan and statement shall be submitted at the time of Building Permit. The reports will be reviewed for compliance with City Code Chapter 119. Stormwater Management and Site Development Technical Regulations.

RECOMMENDATION – (continued)

7. The Final PD site plan shall be in unified control and property ownership. All land intended to be included in the planned development shall be under the legal control of the applicant.

8. The Final PD site plan shall include all agreements, provisions and covenants which govern the use, maintenance, and continued protection of the planned 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.

9. A Unity of Title with the St. Lucie County Clerk of Courts and a Parcel Combination with the St. Lucie County Property Appraiser shall be completed prior to the issuance of any Building Permit.

RECOMMENDATION – (continued)

10. At the time of Development Permit Review Compliance (DPCR) a full review of the appropriate tree survey and tree mitigation calculations will be performed.

11. Gordy Road is a St. Lucie County owned and maintained facility, the applicant/developer shall coordinate with St. Lucie County pertaining to required roadway improvements.

ALTERNATIVE RECOMMENDATION

Approve with amended Conditions

Or

Disapprove

Cotleur & Hearing

Gordy Creek
PD Rezoning
Project #24-43900001

Planning and Zoning Commission – March 10th, 2025
Fort Pierce, Florida

Project Team| The professionals

Cotleur & Hearing

Applicant – Swanson Land Company
- Lara Swanson

Landscape Architects and Planners – Cotleur & Hearing
- George Missimer, AICP
- Leah Heinzelmann, PLA
- Phobe Prentner

Civil Engineer – Mills Short Associates
- Wesley Mills, P.E.
- Katie Rogers

Traffic Engineer- O'Rourke Engineering & Planning
- Luke Lambert, AICP, PTP

Site | Property Overview

- Property: +/- 75.98 AC
- Existing Land Use: Mixed Use (MXD)
- Existing Zoning: Agricultural (AG-1)
  - This is a previous St Lucie County zoning that was never rezoned after the site was annexed into Fort Pierce
- Proposed Zoning: PD for up to 6 du/ac

Location | Context Map

Cotleur & Hearing

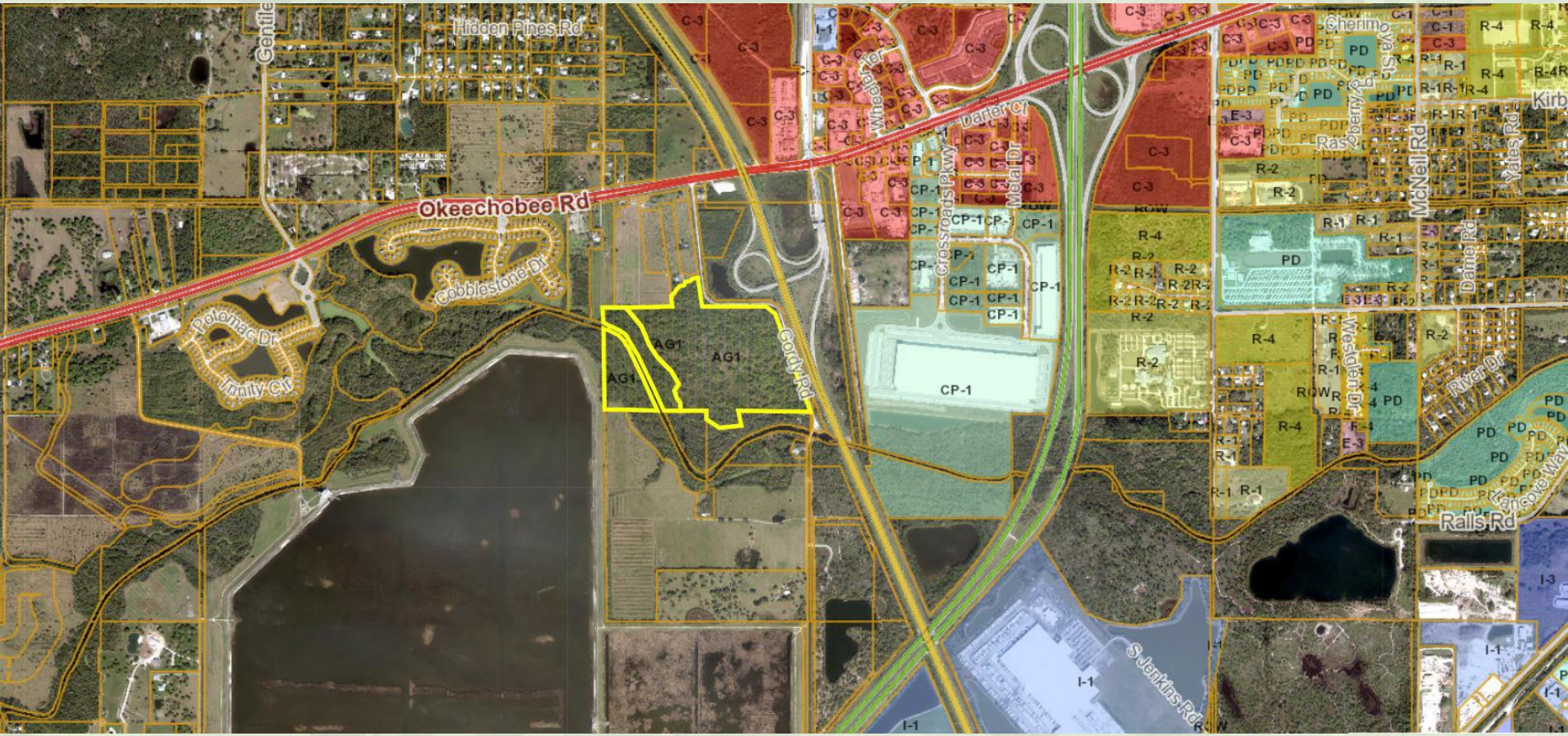


PD Rezoning

Fort Pierce, FL

Context | Zoning Map

The property is located in proximity to the highly active and intensive node that is the interchange of Okeechobee Road and I-95 as well as the interchange of Okeechobee Road and the Turnpike. The proximity to these Commercial and Commercial Parkway zoning districts will provide additional housing opportunities for workers in the area.



Site | Proposed Site Plan

Cotleur & Hearing

75.98 AC

138 Townhome Units
178 Single-Family Units
316 Total Units

6 DU/AC



PD Rezoning
Fort Pierce, FL

Site | Proposed Site plan

Cotleur & Hearing



PD Rezoning

Fort Pierce, FL

Request

Low-density residential development with a mix of housing types provides good use of an existing undeveloped Mixed-Use site near an active commercial and employment area.

The PD zoning allows for the best design to preserve the sensitive areas adjacent to the Ten Mile Creek.

Requested rezoning and density is consistent with the provisions in the underlying land use and is compatible with the surrounding area.

Technical Review Committee recommends approval of Project #24-43900001.

Cotleur & Hearing

Thank You

Questions?

CITY OF FORT PIERCE

PLANNING BOARD

MARCH 10, 2025

MILLCREEK PD PHASE 1 FINAL SITE PLAN

SUMMARY

PD2024-00001 Millcreek Final Planned Development, an application amending the Millcreek Planned Development (PD) zoning in respect of one parcel of approximately 62.51 acres of land, generally located north of Orange Ave and west of 41st Street, to include the Millcreek PD Phase 1 Final Site Plan

APPLICANT

REDTAIL DG. Tod Mowery.

SITE LOCATION



SITE AREA +/- 62.51 Acres

APPLICATION

The application for the Millcreek PD Phase 1 Final Planned Development Site Plan includes a total of 439 dwelling units, distributed in 309 townhomes and 130 detached single-family homes. The density is 7.1 du/ac. (allowed 12 du/ac). The main access to the property is located on Orange Avenue to the south. The primary connection to the major road network is from Orange Avenue between Jenkins Road and Hartman Road at the existing intersection of Orange Avenue and Bent Creek Drive.

The project proposes a clubhouse with amenities (to be constructed at phase 2), a dog park and a pocket park. Phase 1 incorporates 4 stormwater lakes. Emergency access is planned which aligns with N 43rd Street.

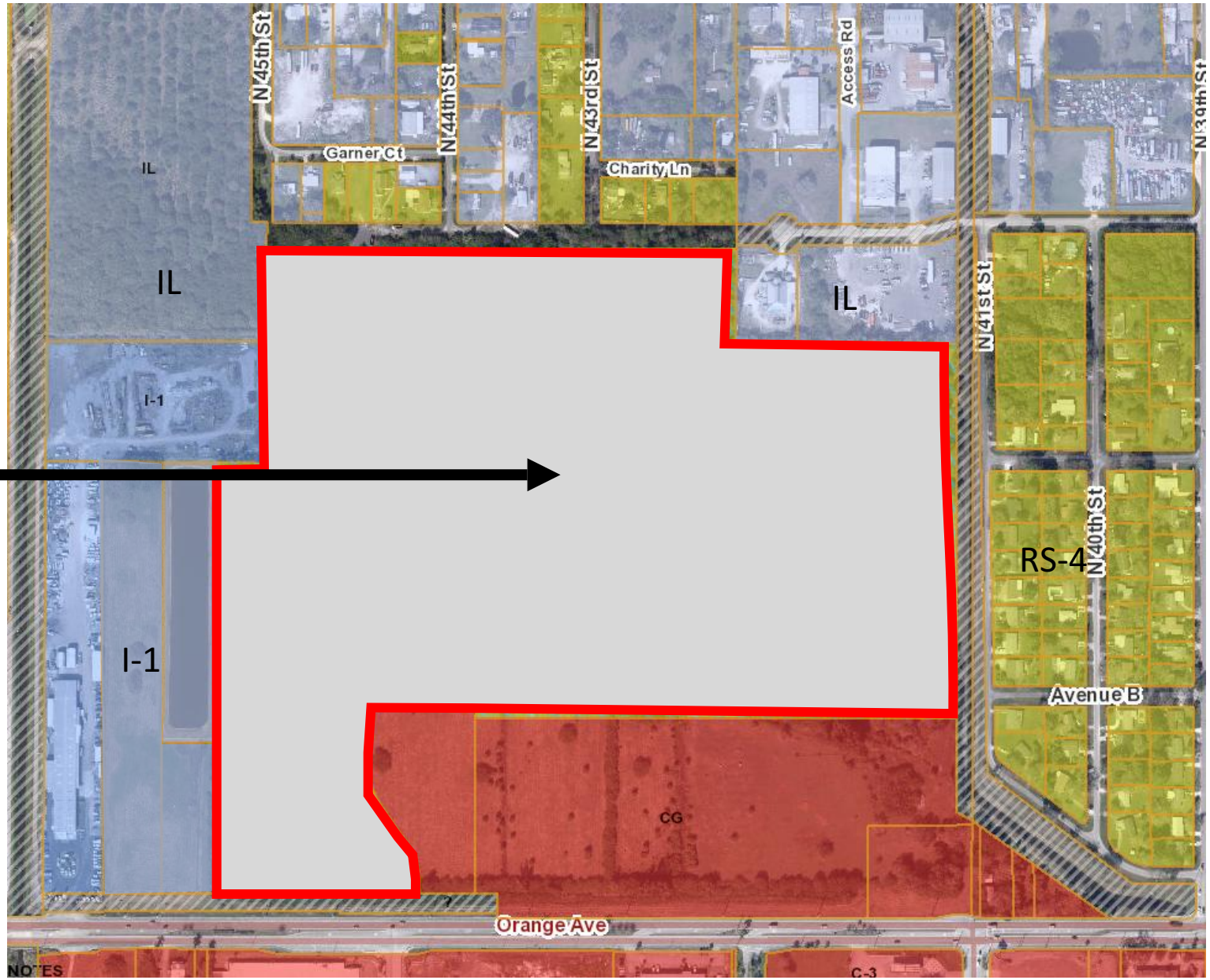
PROPOSED ZONING - PLANNED DEVELOPMENT (PD)

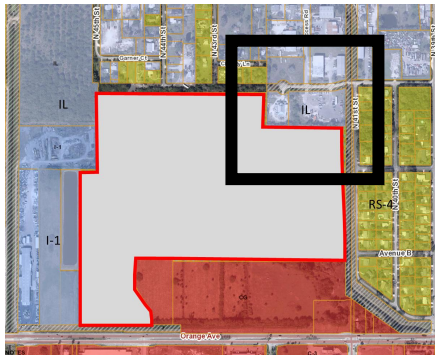
NORTH: County RS-4 & IL
SOUTH: City C-1, County CG
EAST: County RS-4
WEST: City I-1, County IL

Phase 1 : Millcreek
Planned Development

439 dwelling units (309 townhomes and 130 detached single-family homes.

The density is 7.1 du/ac

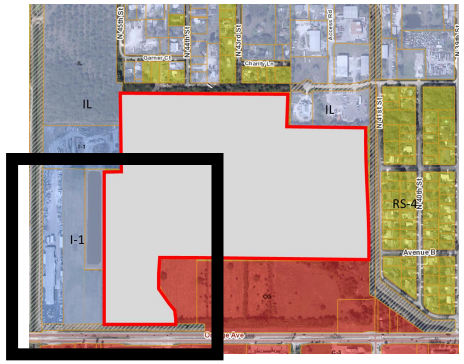


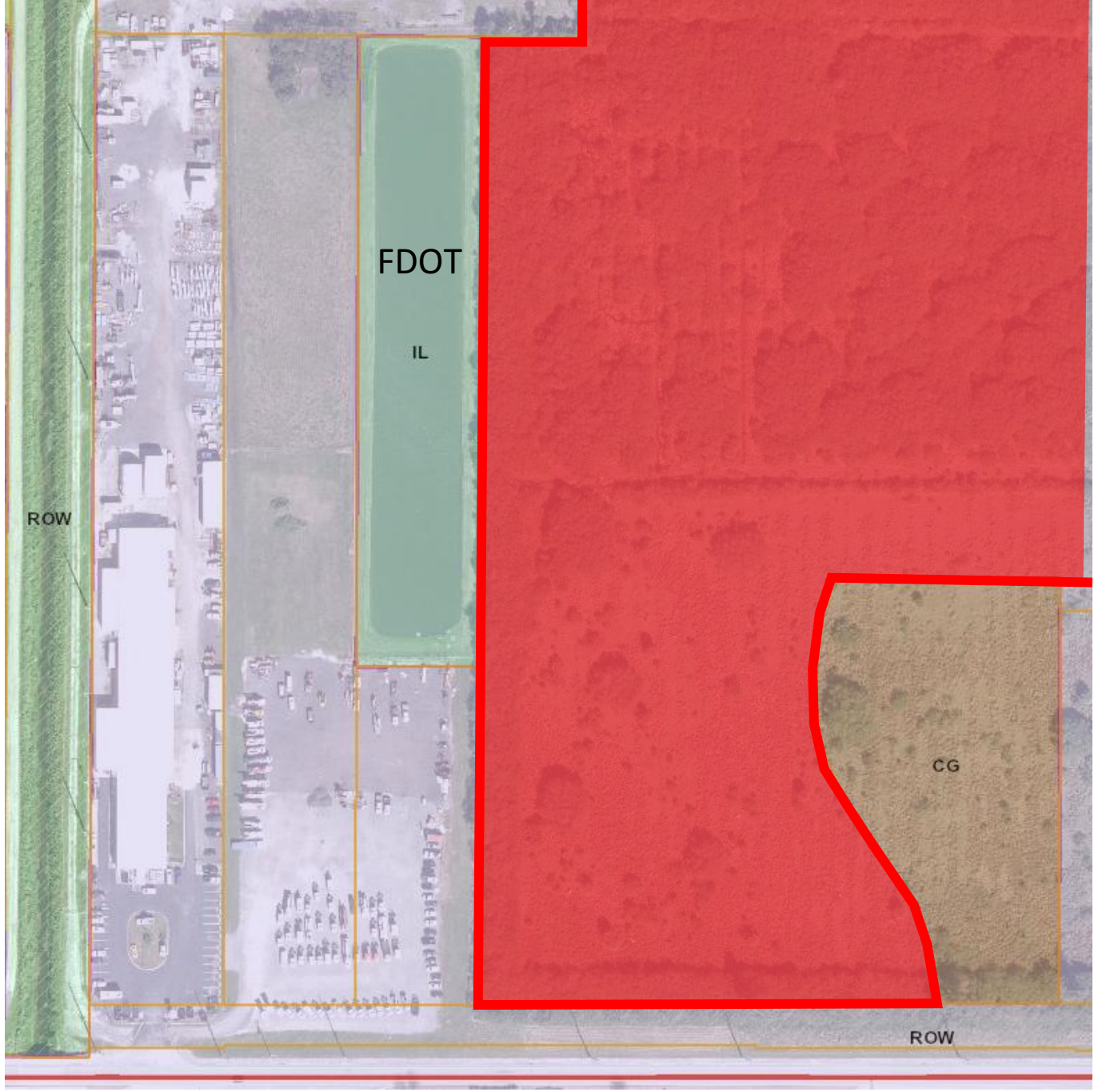


© 2025 Google 4105 Muriah CIR Zoned County IL – Annexed as part of a FPUA agreement – zoning is retained



© 2025 Google 4105 Muriah CIR Zoned County IL – Annexed as part of a FPUA agreement – zoning is retained



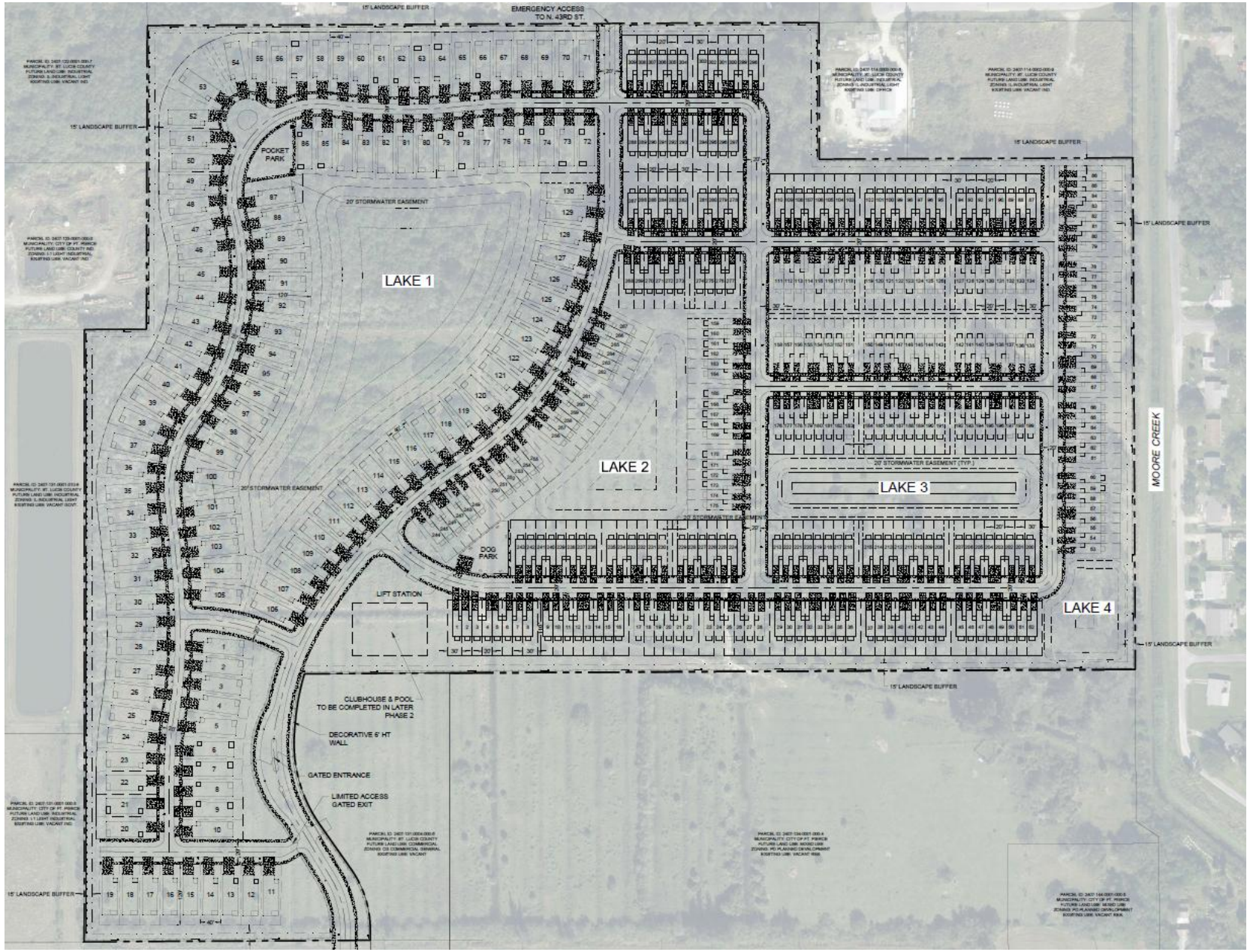


© 2025 Google 4850 Orange Ave Zoned County IL – Annexed as part of a FPUA agreement – zoning is retained



© 2025 Google 4850 Orange Ave Zoned County IL – Annexed as part of a FPUA agreement – zoning is retained

MILLCREEK PD PHASE 1 – FINAL SITE PLAN



ROADWAY IMPROVEMENTS:

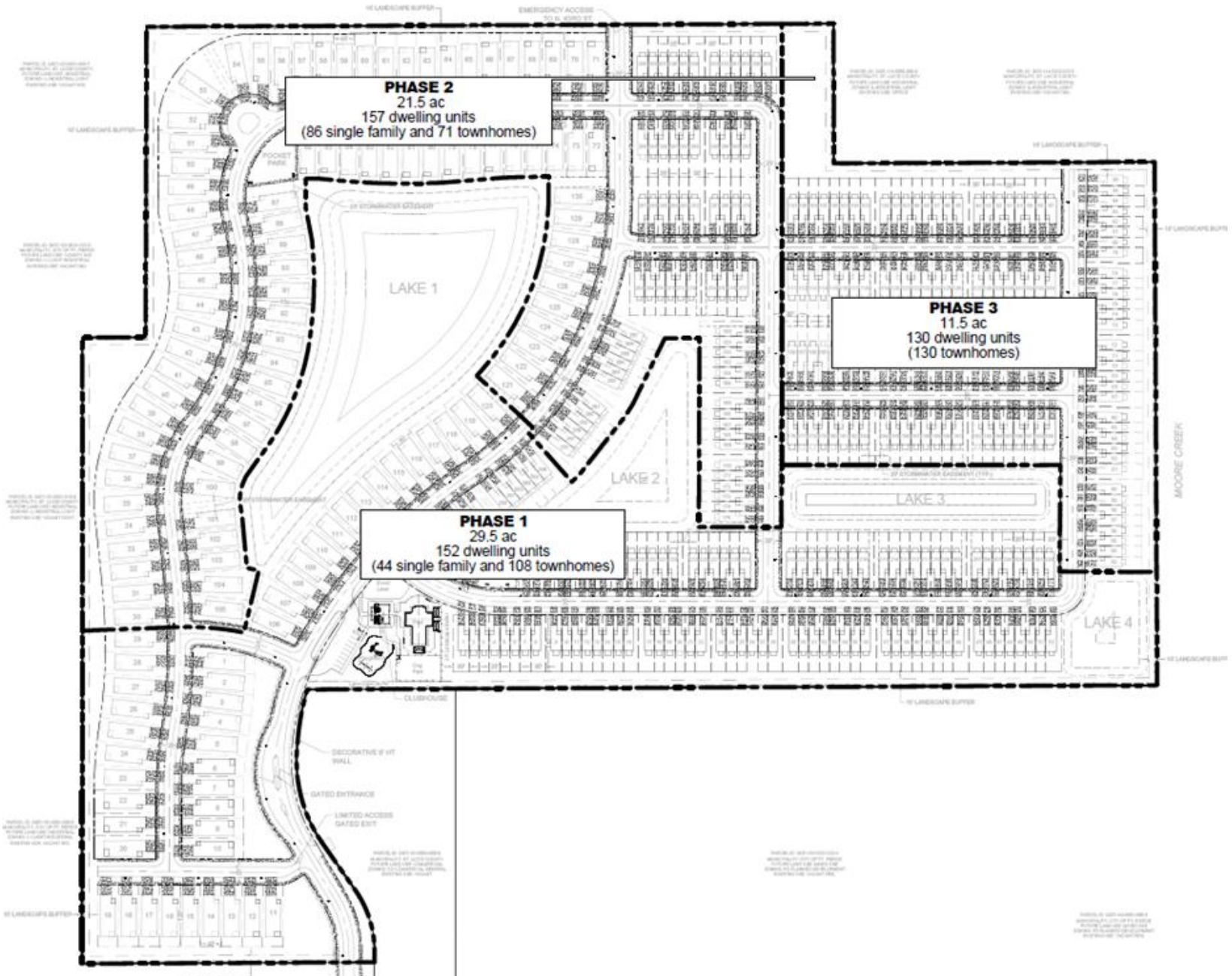
It is proposed that the applicant make the following intersection improvements at Orange Avenue and Bent Creek Drive:

1. Eastbound: Subject to approval by FDOT at the time of driveway permits, the queue length for the existing eastbound left turn lane will be determined and improved accordingly as required by FDOT.

2. Westbound: Subject to approval by FDOT at the time of driveway permits, a westbound right turn lane will be built according to the requirements of the Florida Design Manual (FDM).

3. Should FDOT require a traffic signal as part of the approvals, then the applicant will construct a traffic signal at the intersection of Orange Avenue and Bent Creek Drive, which will align with the primary access to the PD.

MILLCREEK PD PHASE 1 – FINAL SITE PLAN - PHASING



MILLCREEK PD PHASE 1 – ARCHITECTURALS

AVONDALE

1,844 sq. ft. | 3 Bed | 2 Bath | 2-Car Garage



MILLCREEK PD PHASE 1 – ARCHITECTURALS

STOCKTON

2,036 sq. ft. | 4 Bed | 2.5 Bath | 2-Car Garage



MILLCREEK PD PHASE 1 – ARCHITECTURALS

VILANO

2,500 sq. ft. | 4 Bed | 3 Bath | 2-Car Garage



MILLCREEK PD PHASE 1 – ARCHITECTURALS

Warbler

1,445 sq. ft. | 3 Bed | 2.5 Bath | 1-Car Garage



RECOMMENDATION

Staff recommend the Planning Board move the proposed Millcreek PD Final Site Plan to City Commission with a recommendation of APPROVAL subject to the Millcreek Residential Planned Development and Traffic Contribution Agreement, including the special conditions of development and the timetable of development.
The special conditions include (not limited to):

1. The phasing of the project shall adhere to City Code Sections 125- 212(b)(6) and 125-212(c)(1)(c): Phasing. Each phase of development must be so planned and so related to previous development, surrounding properties, and the available public facilities and services, that failure to proceed with subsequent phases will not adversely impact drainage, utilities, parking or the traffic flow of the completed phases.

RECOMMENDATION – (continued)

2. The Final PD plan shall conform to the requirements of the City Code of Ordinances and be subject to the general standards for approval of Planned Development Zoning at section 125-212 – Planned Development Zone (PD).

3. A Unity of Title with the St. Lucie County Clerk of Courts and a Parcel Combination with the St. Lucie County Property Appraiser shall be completed prior to the issuance of any Building
Permit.

ALTERNATIVE RECOMMENDATION

Approve with amended Conditions

Or

Disapprove



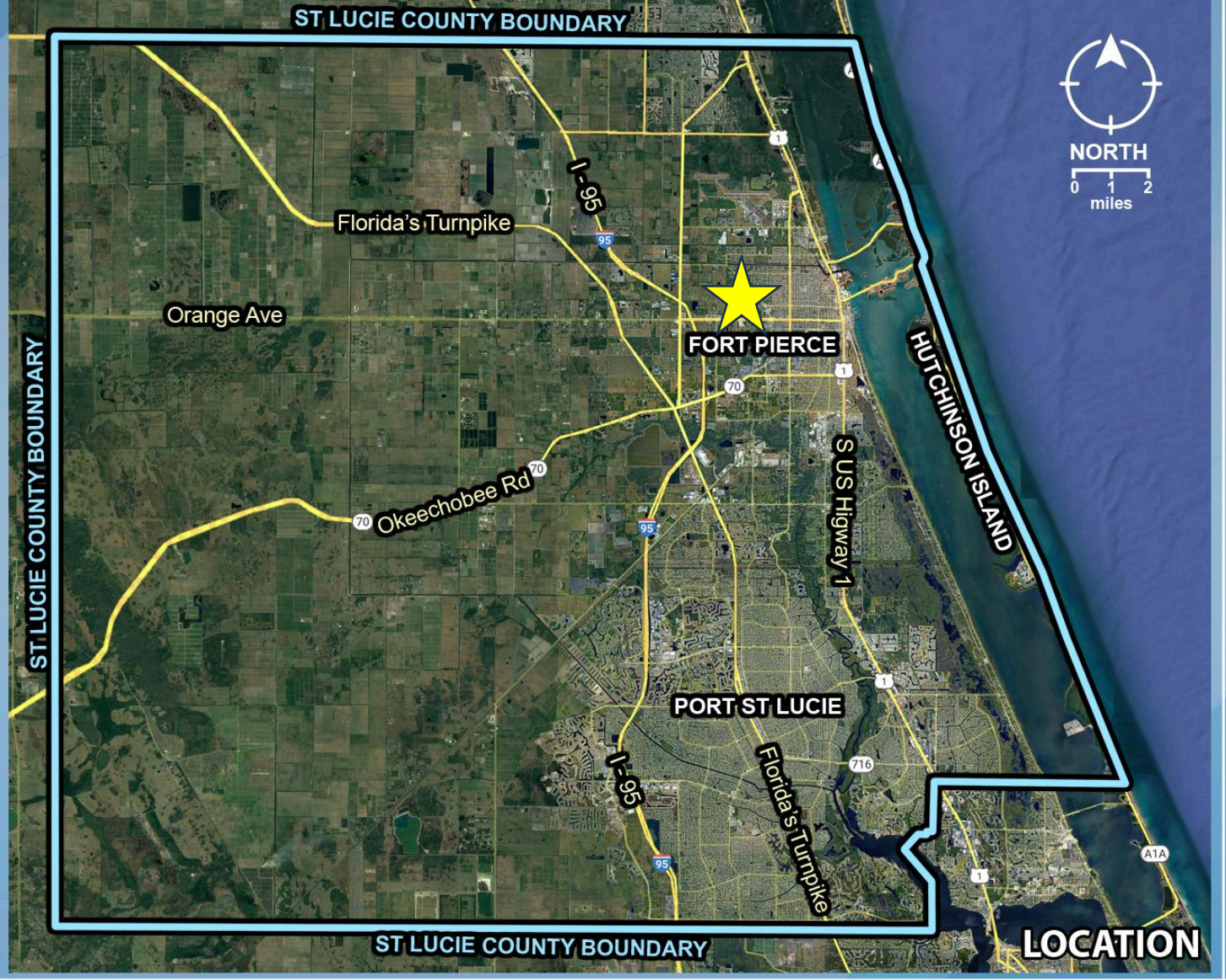
MILLCREEK

Final PD

City of Fort Pierce

Planning Board Meeting

Monday, March 10, 2025

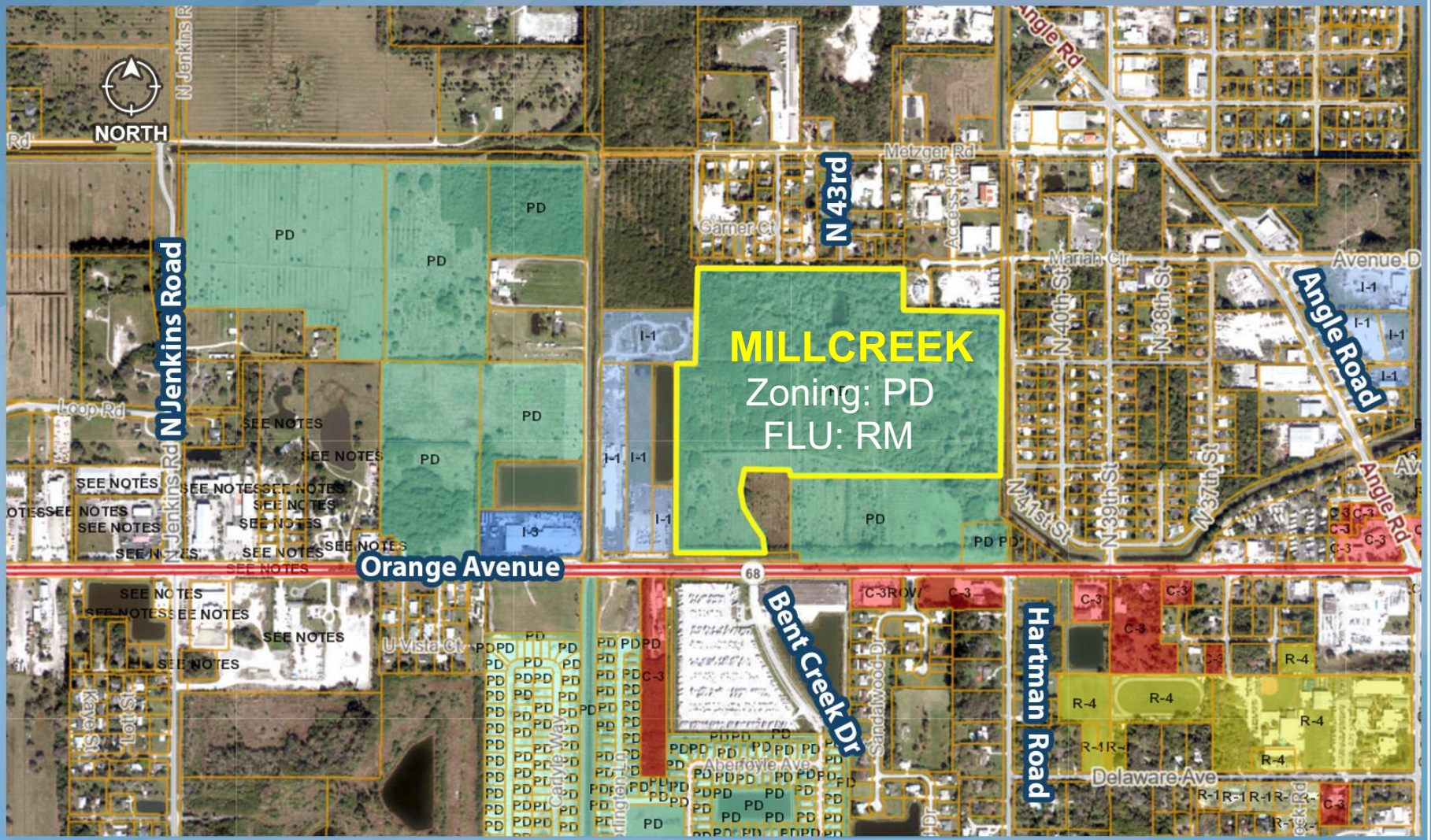

ST LUCIE COUNTY BOUNDARY
NORTH
0 1 2
miles
I-95
Florida's Turnpike
Orange Ave
FORT PIERCE
HUTCHINSON ISLAND
ST LUCIE COUNTY BOUNDARY
Okeechobee Rd
S US Higway 1
PORT ST LUCIE
I-95
Florida's Turnpike
ST LUCIE COUNTY BOUNDARY
LOCATION

MILLCREEK

VICINITY

City of Fort Pierce

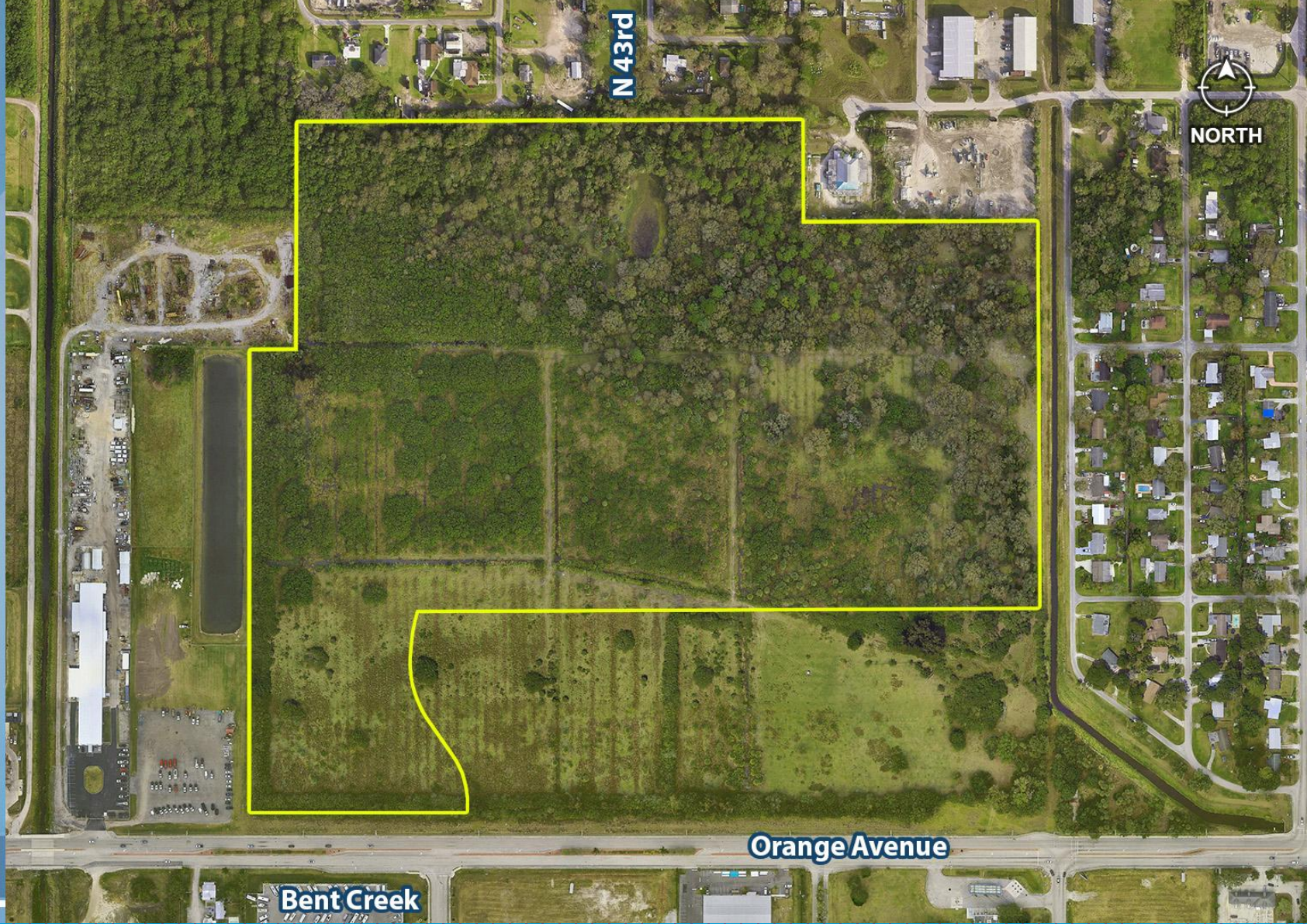
ZONING MAP



REDTAIL DG

ACREAGE

Acreage: 62.51 ac



MILLCREEK

REDTAIL DG

STORMWATER AND ACCESS

5.84 ac Stormwater

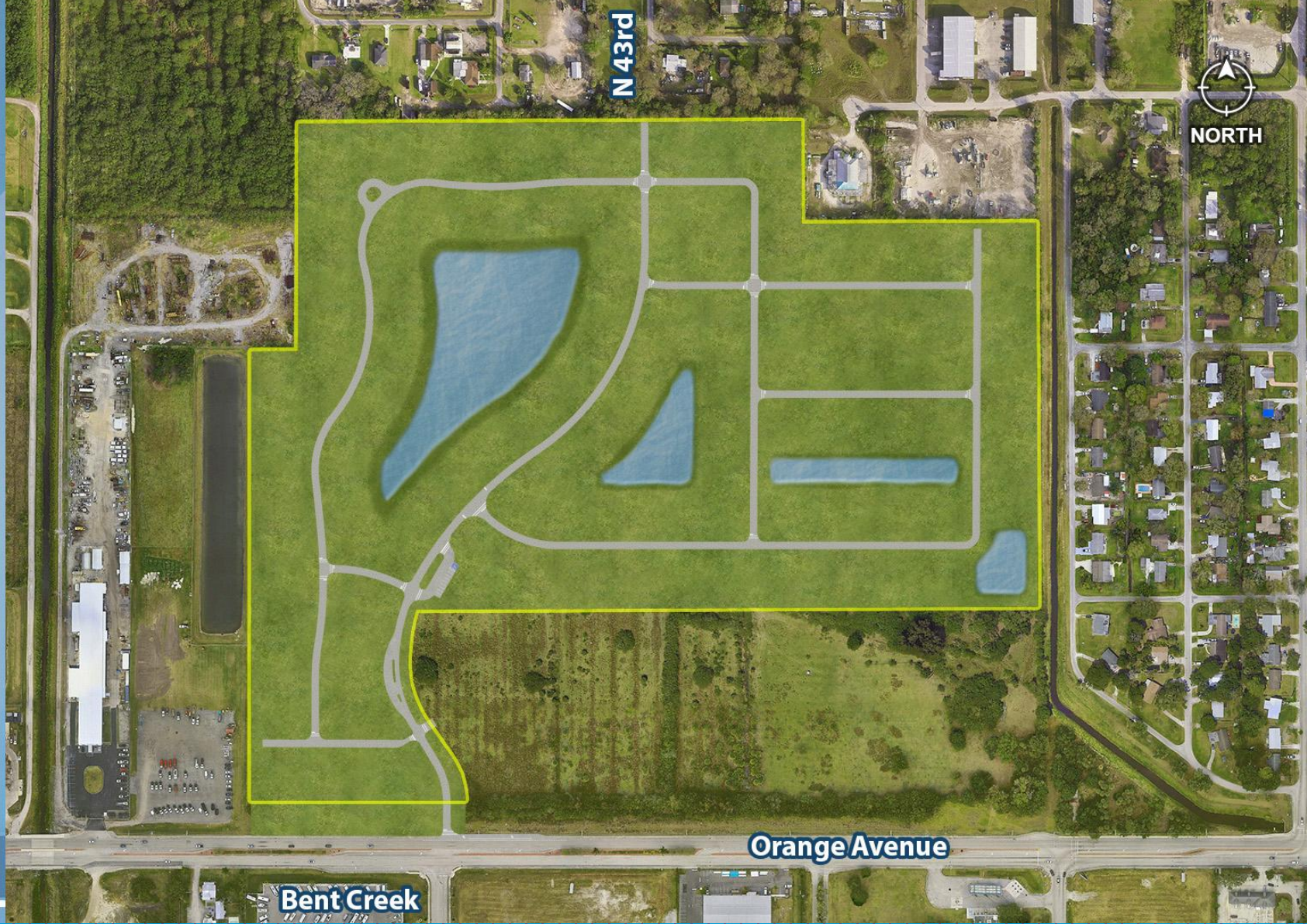
Access



MILLCREEK

REDTAIL DG

STORMWATER AND ACCESS



MILLCREEK

REDTAIL DG

MAIN ACCESS



MILLCREEK

Gated Entrance

Access to the neighboring property

Gated Exit only

Main Access

Deceleration lane

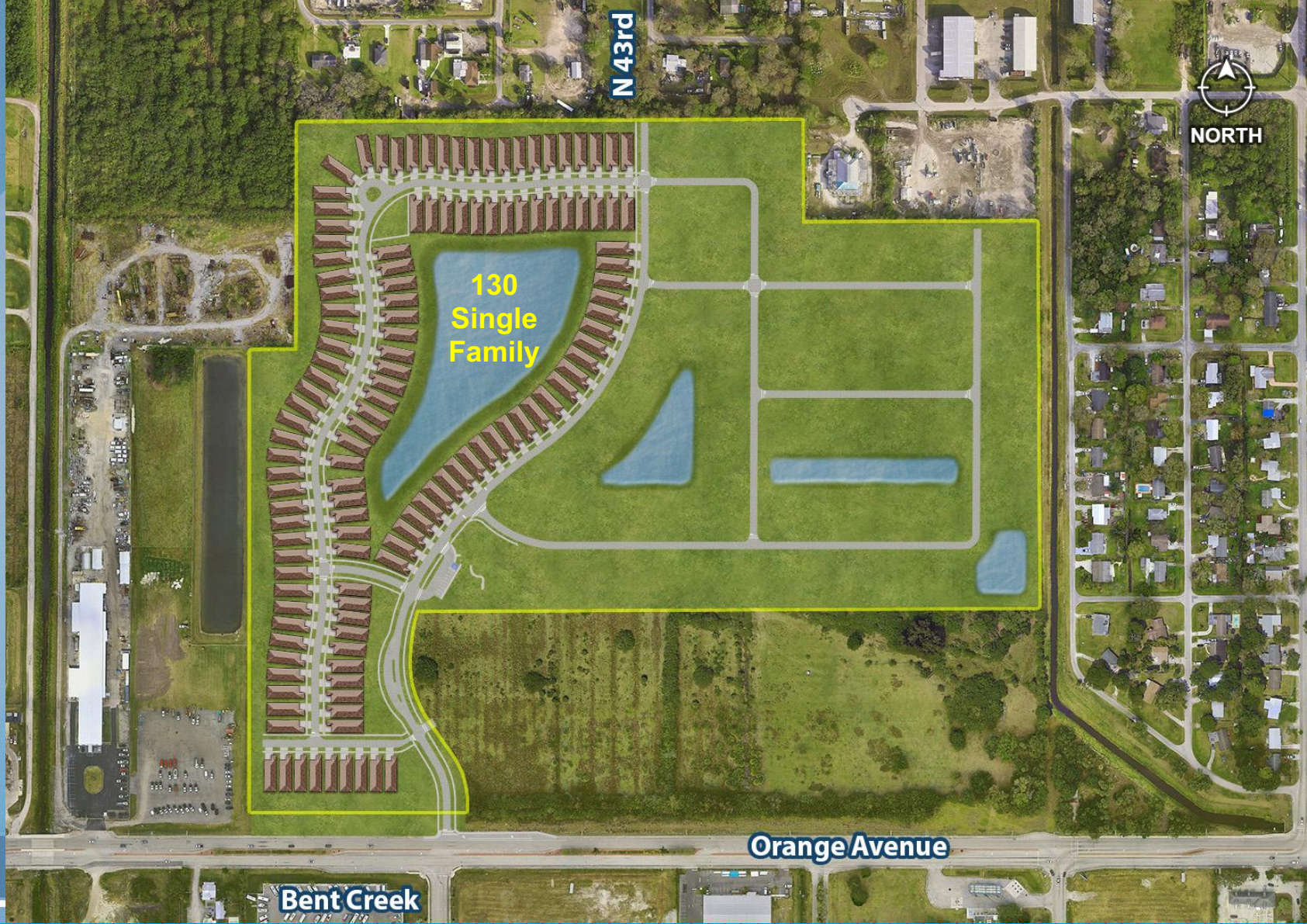
Orange Avenue

Bent Creek

REDTAIL DG

SITE PLAN

130 Single Family



MILLCREEK

REDTAIL DG

SITE PLAN

130 Single Family

309 Townhomes

439 Total homes

7 dwelling units/ac

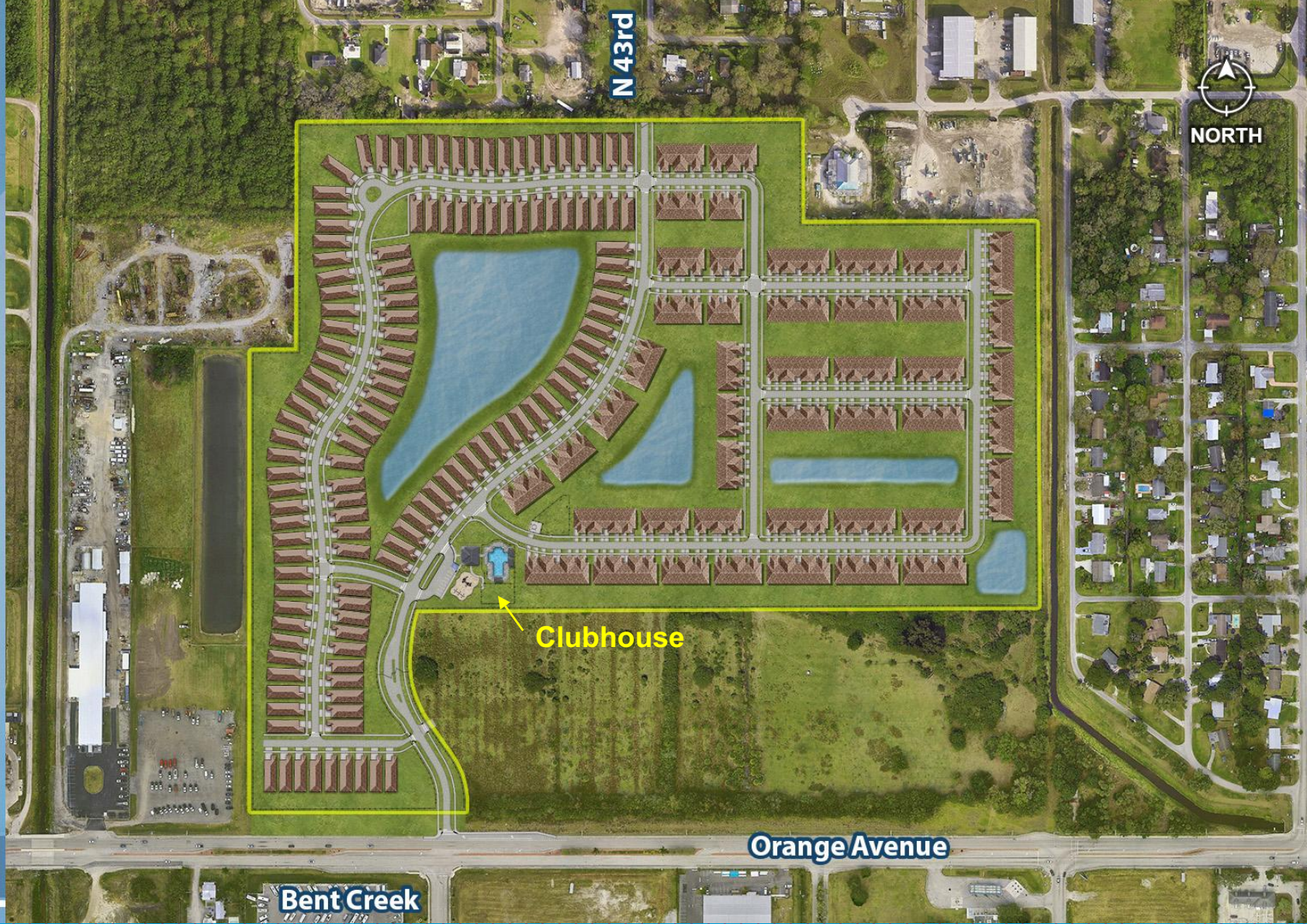


MILLCREEK

REDTAIL DG

AMENITIES

- Clubhouse
- Pool Deck
- Pool
- Playground
- Dog Park
- Event Lawn



MILLCREEK



Clubhouse Elevations

EVENT LAWN

CLUBHOUSE

POOL

PLAYGROUND

DOG PARK

MILLCREEK

REDTAIL DG

PARKS



MILLCREEK

REDTAIL DG

LANDSCAPING



MILLCREEK

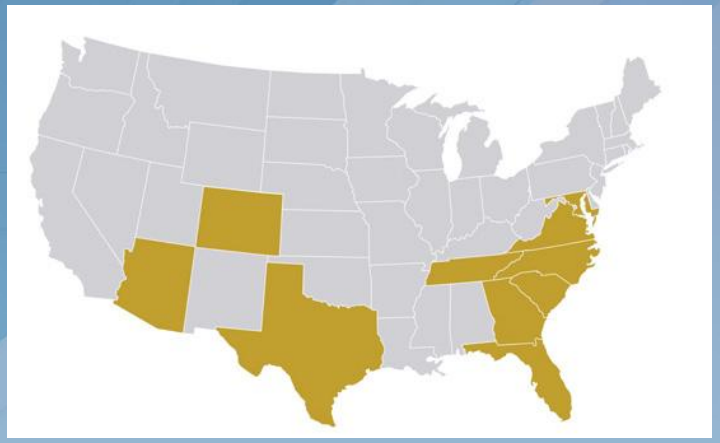
REDTAIL DG

PHASING PLAN



MILLCREEK

REDTAIL



10 STATES
22 MARKETS
225 COMMUNITIES
31,000 HOMES
SENIOR LIVING
2021 NASDAQ
2022 PGA TOUR
2024 BUILDER

DREAM FINDERS HOMES
ACTIVE ADULT LIFESTYLE

FOUNDED IN 2008

DREAM FINDERS HOMES

Nasdaq

PGA TOUR

Builder
2024 Builder 100
14 Dream Finders Homes (p)

MILLCREEK

NATIONAL HOME BUILDER

REDTAIL DG

AVONDALE

1,864 SQFT
3 Beds
2 Full Baths
2-Car Garage







DREAM FINDERS HOMES

Avondale 1,864 SQFT
First Floor
3 Beds
2 Full Baths

No Options Selected



DREAMFINDERSHOMES.COM
Dream Finders Homes reserves the right to change elevations, specifications, materials and pricing without prior notice. Variations within the floor plans and elevations do exist. Square footage are approximate and will vary. Options may differ from what is shown per community, please contact a sales consultant for more information. © 2024 Dream Finders Homes CBC1257579

REDTAIL DG

STOCKTON

2,098 SQFT
3 Beds
2 Full Baths
1 Half Bath
2-Car Garage





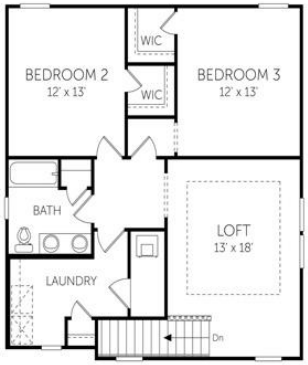


DREAM FINDERS HOMES

Stockton
First Floor
3 Beds
2 Full Baths | 1 Half Bath
2,098 Sq. Ft.

No Options Selected





DREAMFINDERSHOMES.COM
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REDTAIL DG

VILANO

2,500 SQFT
4 Beds
3 Full Baths
2-Car Garage



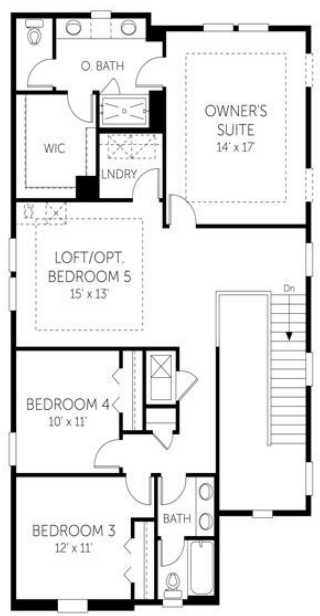




DREAM FINDERS HOMES

Vilano
Second Floor
4 Beds
3 Full Baths
1 Garage
2,500 Sq. Ft.

No Options Selected





DREAMFINDERSHOMES.COM
Dream Finders Homes reserves the right to change elevations, specifications, materials and pricing without prior notice. Variations within the floor plans and elevations do exist. Square footage are approximate and will vary. Options may differ from what is shown per community, please contact a sales consultant for more information. © 2014 Dream Finders Homes CBC1257579 Revision: 5/22/2015

WARBLER

1,438 SQFT
3 Beds
2 Full Baths
1 Half bath
1-Car Garage




OPTION 2


OPTION 3



REDTAIL DG

THANK YOU FOR YOUR ATTENTION

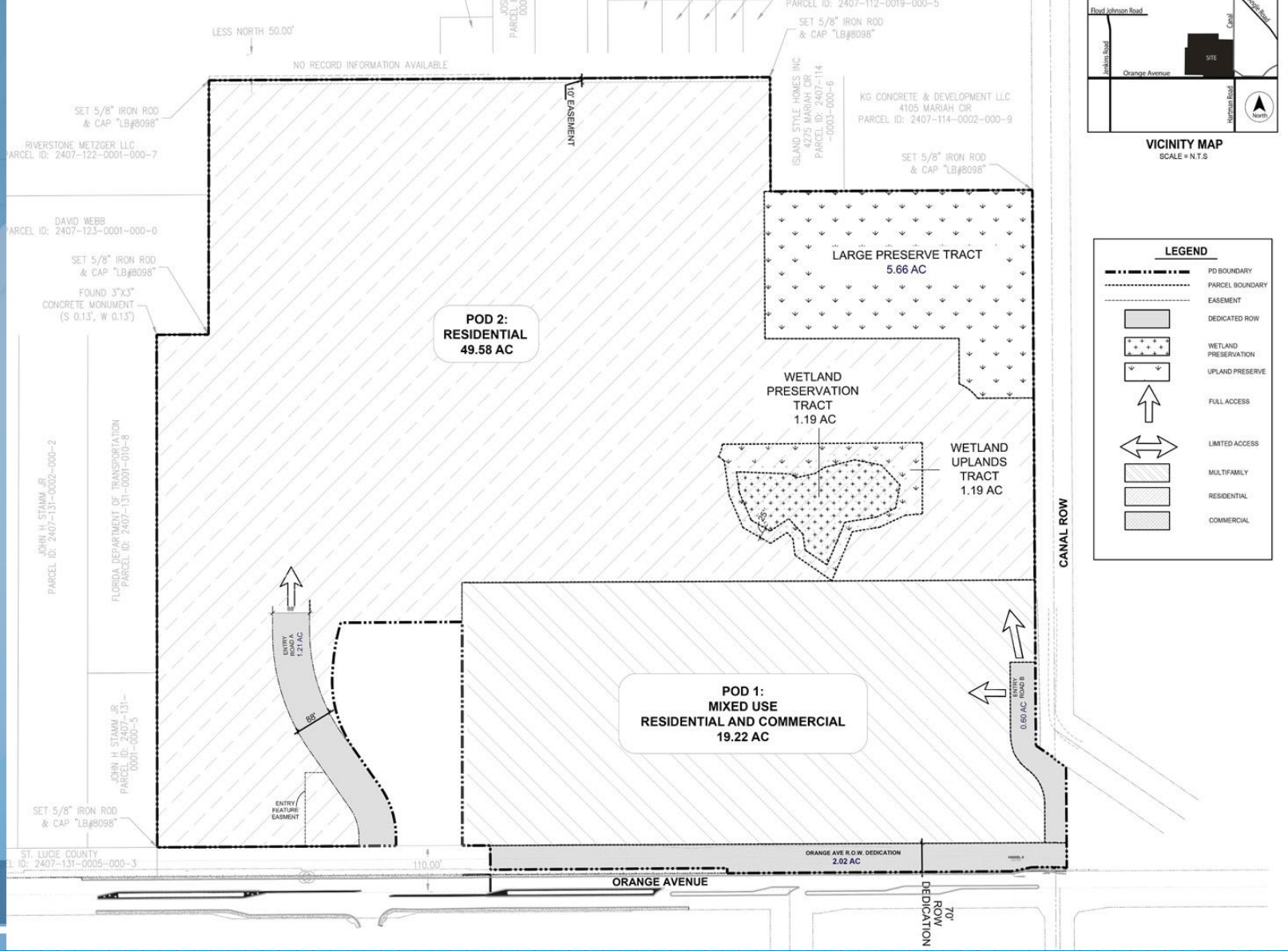
QUESTIONS?

MILLCREEK



REDTAIL DG

APPROVED PRELIMINARY PLAN



VICINITY MAP
SCALE = N.T.S

MILLCREEK

CITY OF FORT PIERCE

Planning Board

March 10th, 2025

Treasure Townhomes- Site Plan

4601 Regina Dr.

APPLICANT

Cotleur & Hearing

PROPERTY OWNER(S)

Treasure Townhomes, LLC

PARCEL ID #(S):

3403-501-0025-000-5

SUMMARY

The applicant is requesting a site plan review and approval for development of townhomes at 4601 Regina Drive. The ninety-four (94) fee simple units will be divided into 15 six-and-seven- unit buildings.

The proposed development is located on a parcel with an approximate 9 acres. The future land use of the parcel is Medium Density Residential, RM, and the zoning is Medium Density Residential, R-4.

SITE LOCATION



SITE AREA= 9 +/- Acres

FUTURE LAND USE

FLU: RM (Medium Density Residential

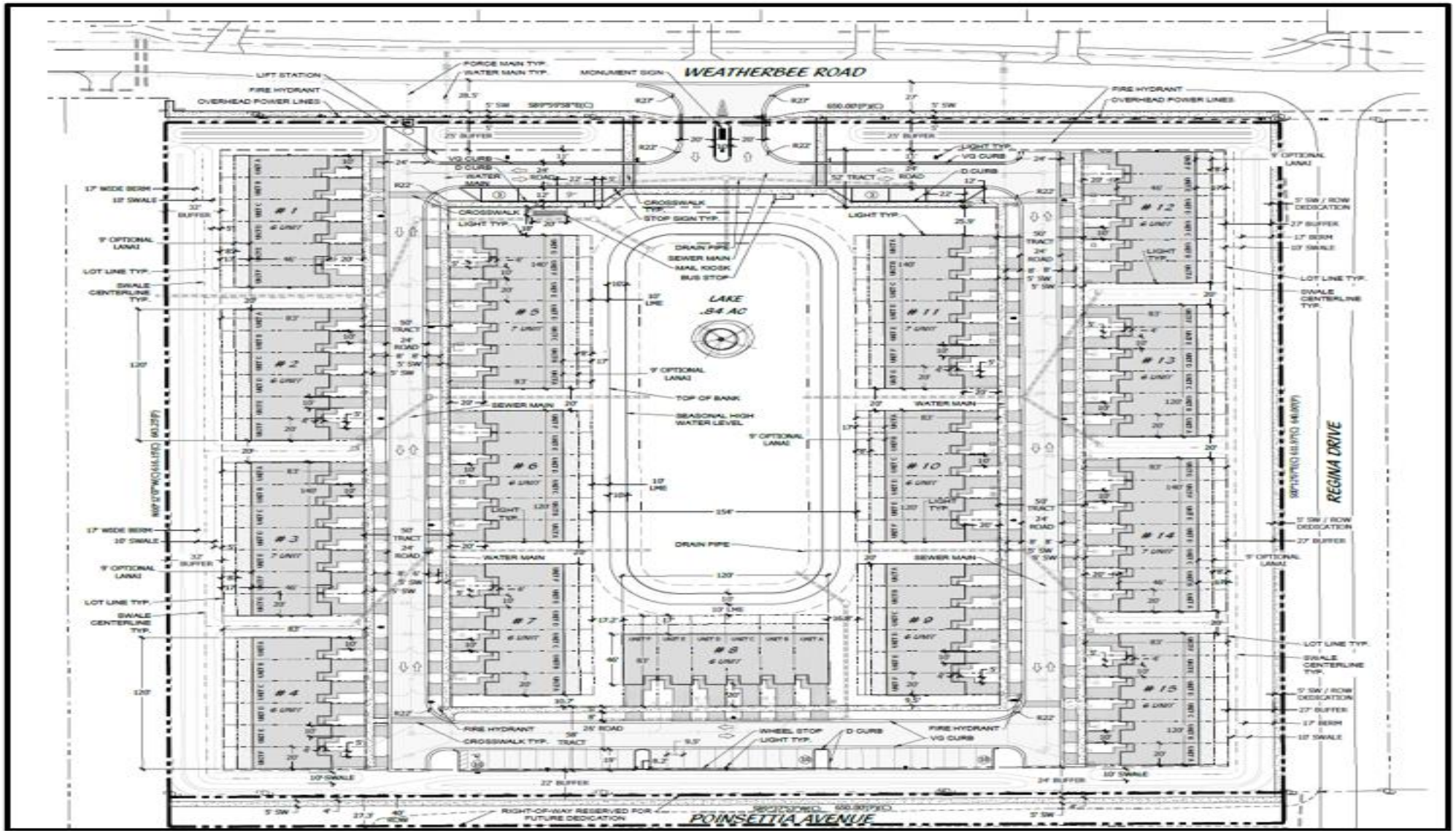


ZONING

Zoning: R-4, Medium Density Residential



SITE PLAN



4601 Regina Dr. - Treasure Townhomes – Site Plan

SITE PLAN details

TREASURE TOWNHOMES SITE DATA

PARCEL: 340350100250005
4601 REGINA DRIVE

LAND USE	RM	
ZONING	R-4	
FIRM/FLOOD ZONE	ZONE X, A; MAP # 12111C0279K	

BUILDING DATA

	ACRES	SQUARE FEET
TOTAL SITE AREA	9.574	417,043

TOTAL BUILDINGS	15	BUILDINGS
7 UNIT BUILDINGS	4	
6 UNIT BUILDINGS	11	
TOTAL PROPOSED UNITS	94	UNITS
DENSITY	9.82	UNITS/ACRE
MEDIAN ROOF HEIGHT	23'	

PARKING CALCULATIONS

REQUIRED PARKING	188	SPACES
*1.5 SPACES PER UNIT		
PROVIDED PARKING		
OFF-STREET STANDARD PARKING	34	SPACES
OFF-STREET HANDICAPPED PARKING	2	SPACES
DRIVEWAY PARKING	94	SPACES
GARAGE PARKING	94	SPACES
TOTAL	224	SPACES

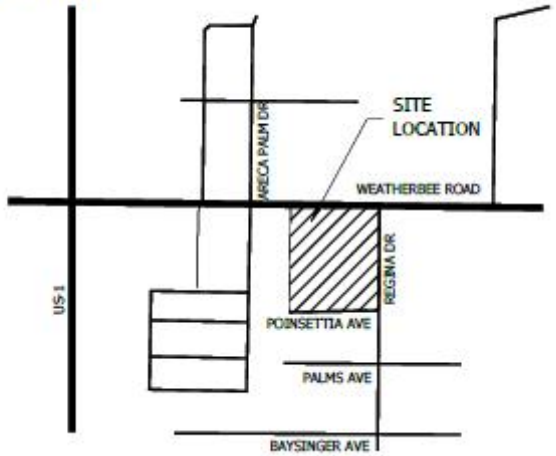
PERVIOUS/IMPERVIOUS CALCULATIONS

PERVIOUS	ACRES	SQUARE FEET	PERCENT
BUFFER TRACT	1.49	65,055	15.6%
LME & LAKE PLANTING	0.41	17,909	4.3%
40' WIDTH TRACT	0.41	17,916	4.3%
LOT OPEN SPACE	0.76	33,134	7.9%
OTHER LANDSCAPE AREA	0.96	41,852	10.0%
SUB-TOTAL	4.04	175,866	42.2%

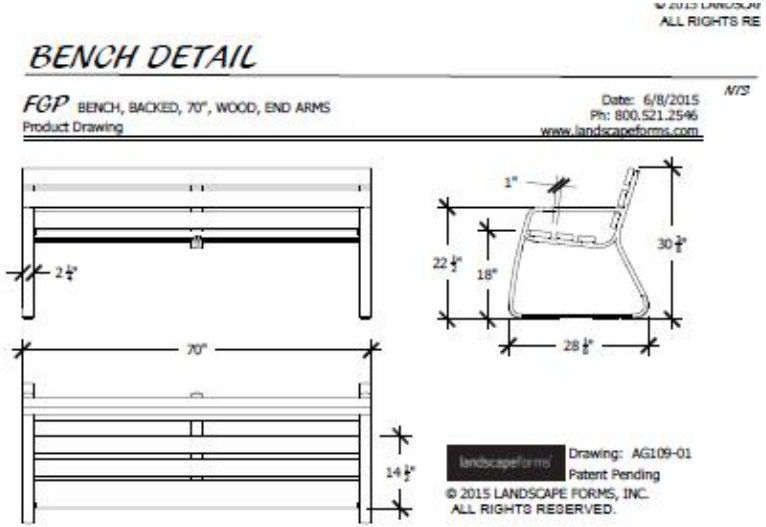
IMPERVIOUS	ACRES	SQUARE FEET	PERCENT
BUILDING COVERAGE	1.86	80,888	19.4%
VEHICULAR USE AREA	1.29	56,129	13.5%
PAVER DRIVEWAYS & WALKS	0.75	32,806	7.9%
OPTIONAL LANAI (MAX COVERAGE)	0.39	16,920	4.1%
SIDEWALKS, CONCRETE PADS	0.41	17,809	4.3%
WATER SURFACE	0.84	36,625	8.8%
SUB-TOTAL	5.54	241,177	57.8%

TOTAL	9.574	417,043	100.0%

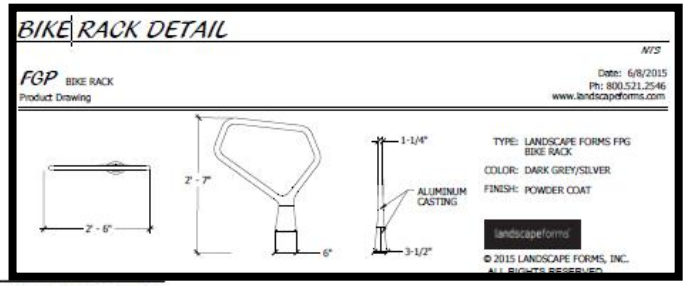
KEY MAP



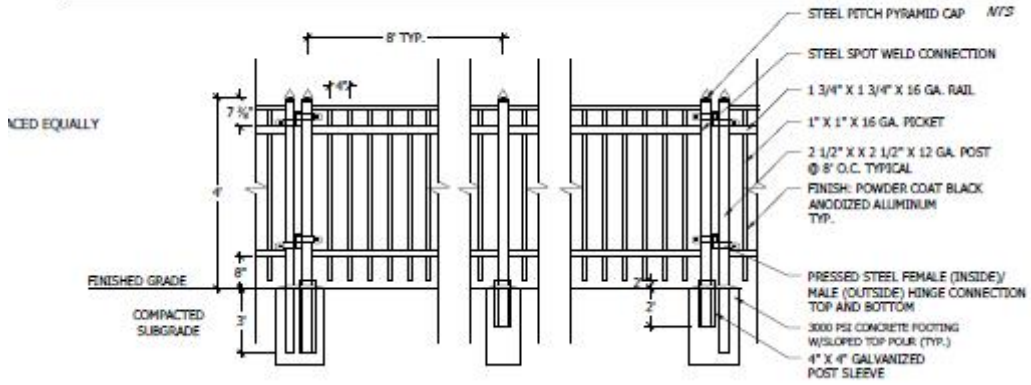
BENCH DETAIL



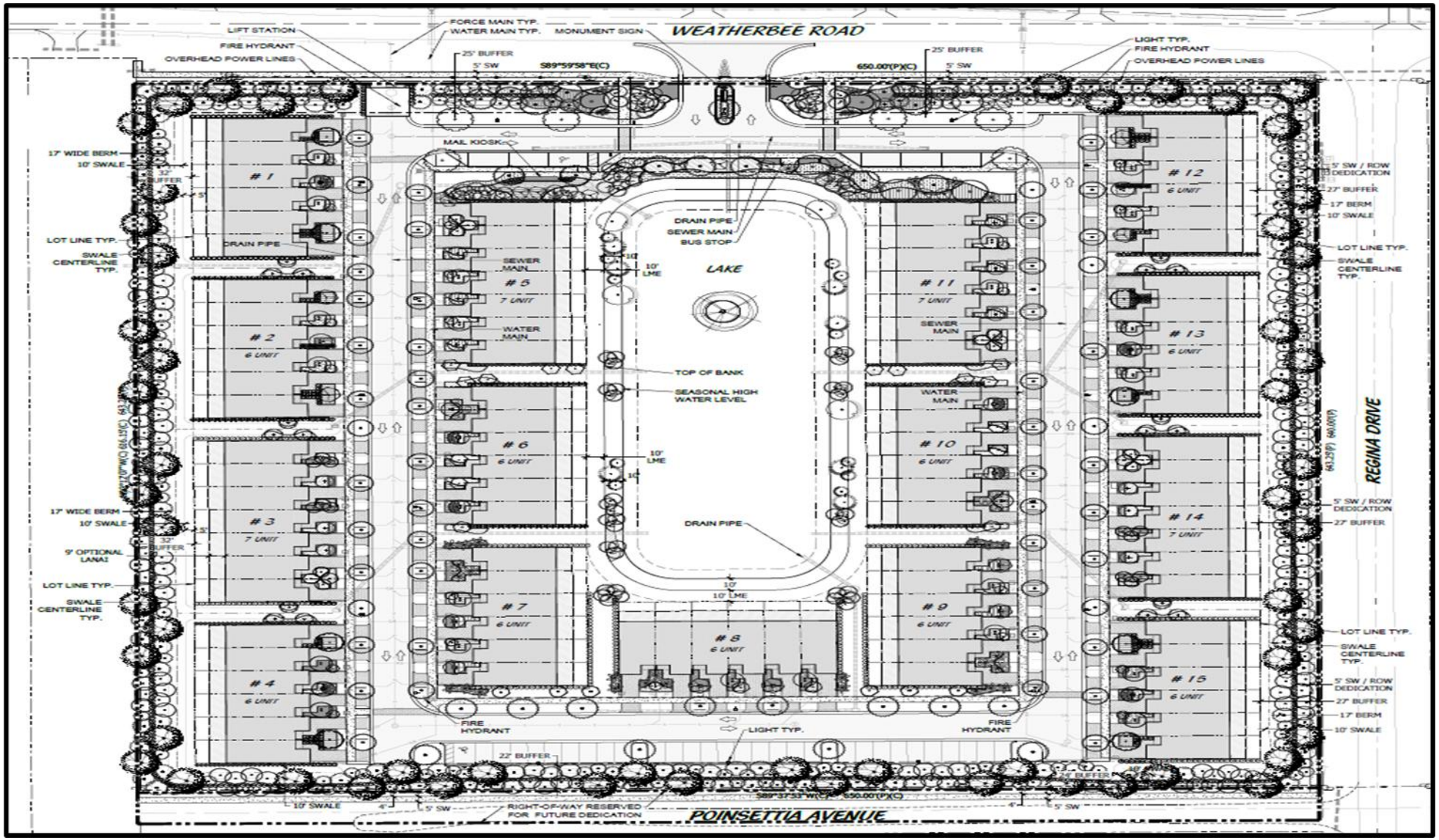
BIKE RACK DETAIL



DECORATIVE FENCE DETAIL



LANDSCAPE PLAN



4601 Regina Dr. – Treasure Townhomes – Site Plan

LANDSCAPE PLAN details

LANDSCAPE DATA

VUA REQUIREMENTS:

1 SF OF INTERIOR LANDSCAPE / 15 SF OF VUA

REQUIRED: 3700 SF (55499/15)
PROVIDED: >3700 SF

1 TREE / 100 SF OF REQUIRED LANDSCAPE AREA

REQUIRED: 37 TREES (3700/100)
PROVIDED: 61 TREES

- 30 LIVE OAKS UPSIZED TO 3" DBH (COUNTING TOWARDS TREE MITIGATION
- 8 JAPANESE BLUEBERRIES
- 15 SABAL PALM CLUSTERS (3 PER CLUSTER OR TOTAL 45)
- 4 GREEN BUTTONWOODS
- 4 LIGUSTRUMS

BUFFER REQUIREMENTS:

10' WIDE LANDSCAPE STRIP AROUND PERIMETER
1 TREE / 300 SF OF REQUIRED LANDSCAPE

REQUIRED: 23,760 / 300 = 79
PROVIDED: 80 TREES + 363 MITIGATION TREES

- 57 LIVE OAKS UPSIZED TO 5" DBH (COUNTING TOWARDS TREE MITIGATION)
- 12 ROYAL PALMS
- 3 VERAWOOD TREES
- 8 SILVER BUTTONWOODS

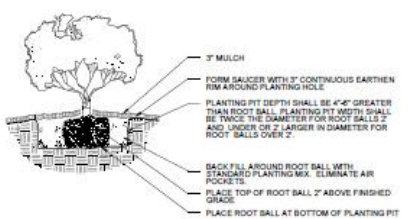
- 85 CABBAGE PALMS (FOR MITIGATION*)
- 88 SLASH PINES AT 4" DBH (FOR MITIGATION*)
- 190 SLASH PINES AT 1.5" DBH (FOR MITIGATION*)

3' CONTINUOUS SCREEN
PROVIDED: 3' CONTINUOUS COCOPLUM HEDGE

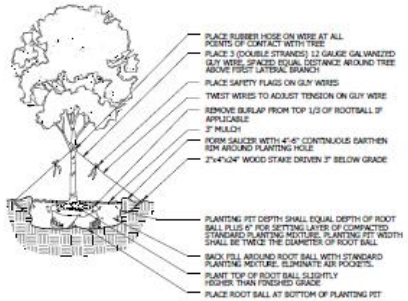
LEGEND

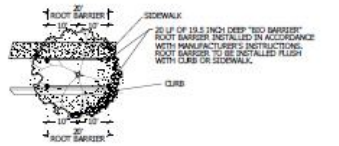
HC	HANDICAP		HC SIGN		PARKING LIGHT
LB	LANDSCAPE BUFFER		STOP SIGN		
SB	SETBACK		DO NOT ENTER		BUILDING/ACCENT LIGHT
SW	SIDEWALK		PEDESTRIAN CROSSING		
TYP	TYPICAL				

PLANTING DETAILS

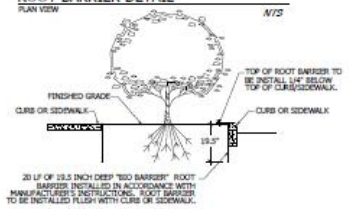


SHRUB/GROUNDCOVER PLANTING DETAIL
NTS

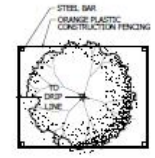


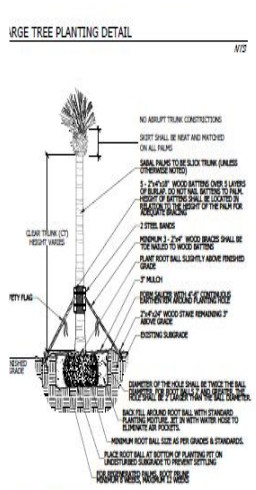


ROOT BARRIER DETAIL
PLAN VIEW
NTS

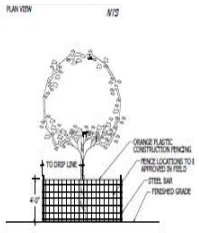


ROOT BARRIER DETAIL
SECTION VIEW
NTS

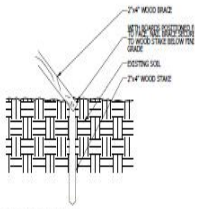




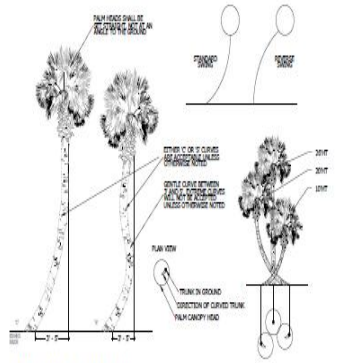
ABAL PALM PLANTING DETAIL
NTS



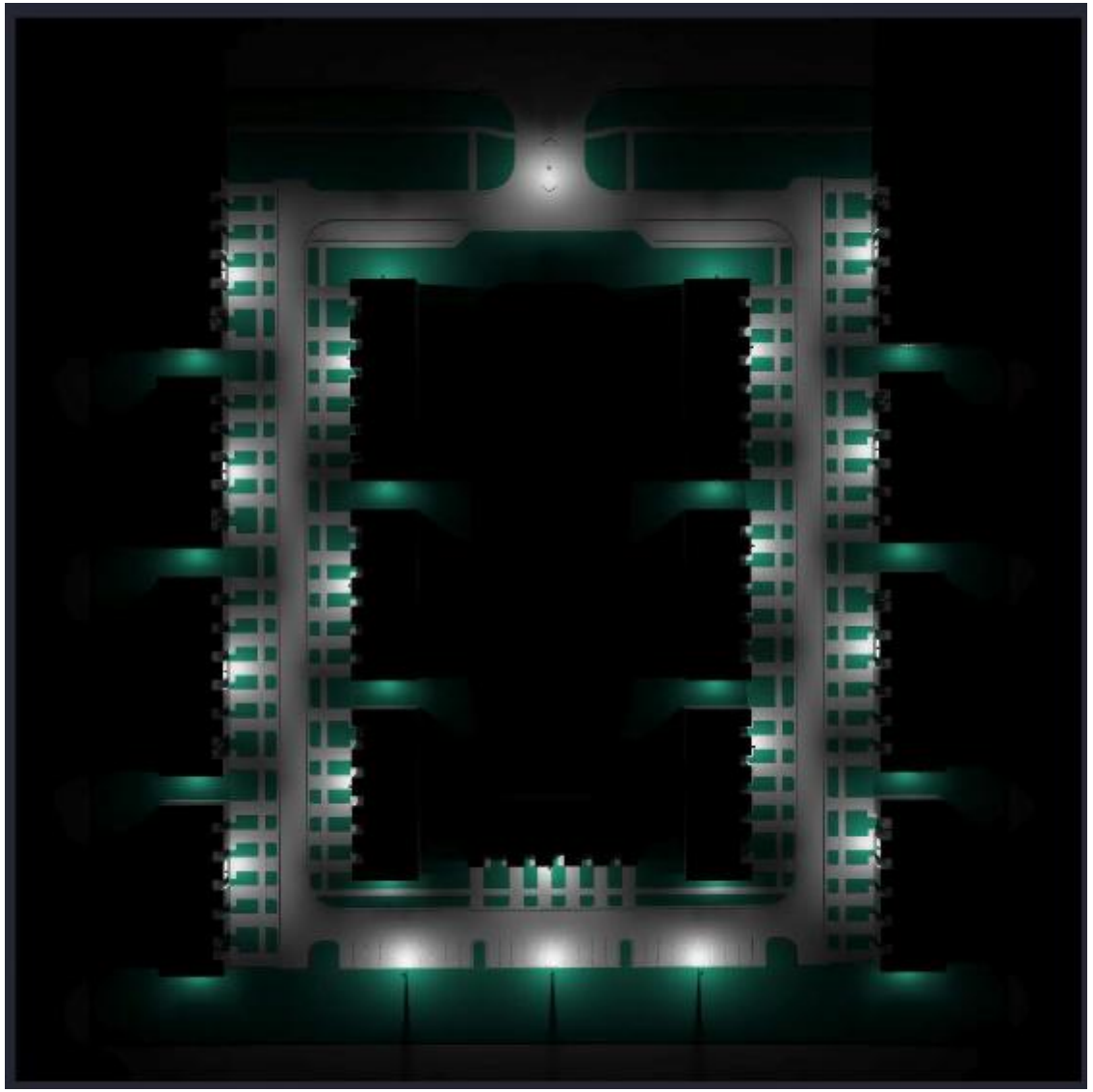
TREE PROTECTION DETAIL
SECTION VIEW



STAKING DETAIL



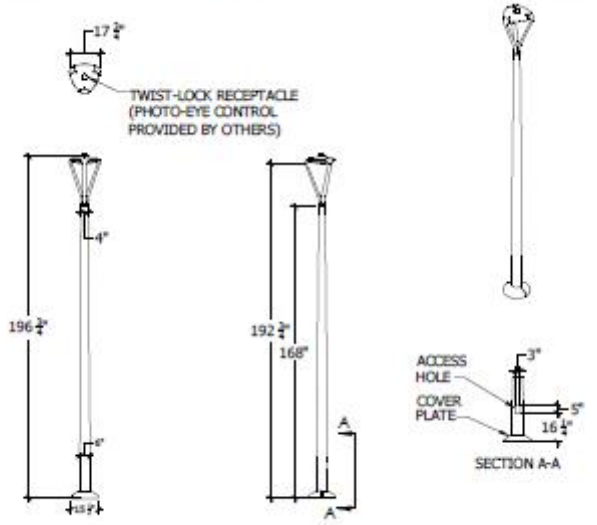
LIGHTING PLAN



LIGHTING DETAIL

FGP LIGHT
AREA LIGHT, 16 FT, TYPE 5, WITH COVER PLATE, TWIST LOCK

Date: 10/5/2018
Ph: 800.521.2546
www.landscapeforms.com

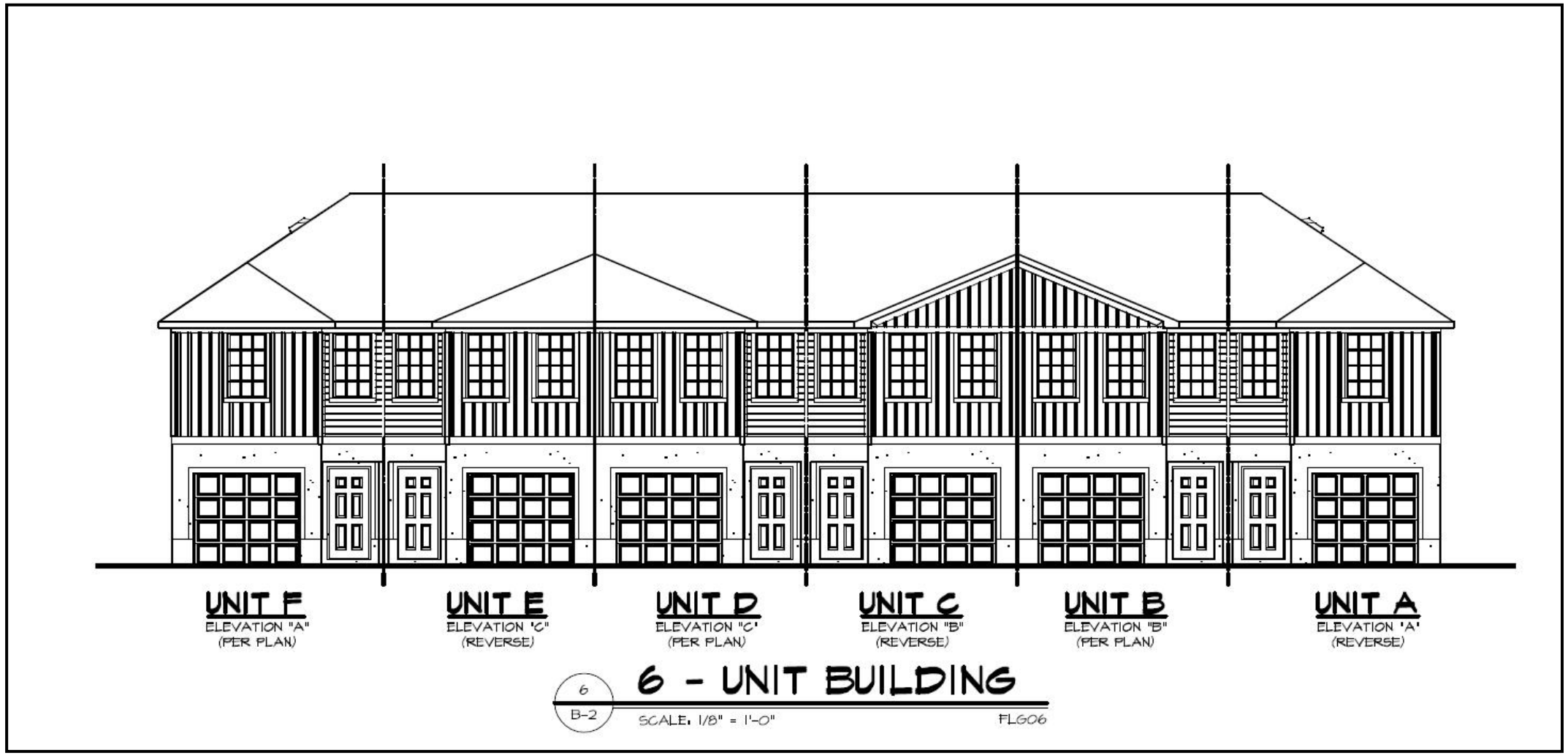


FIXTURE SCHEDULE

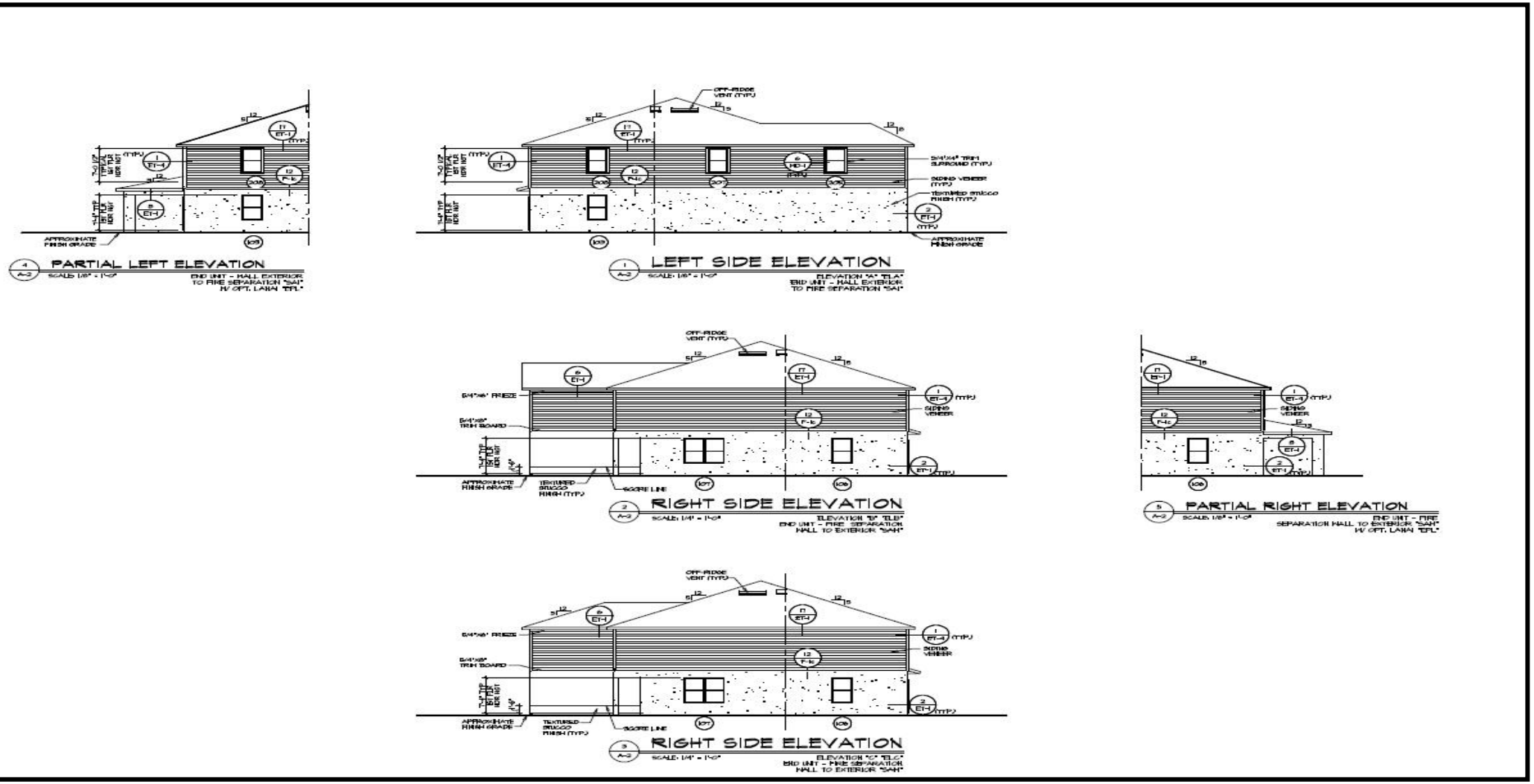
Luminaire Schedule

Qty	Symbol	Label	Arrangement	Lum. Watts	Total Watts	Lum. Lumens	LLF	Description
21		A1-P	Single	234.05	4915.05	31724	0.930	STRK2305K T4 U SF BZ
4		B-P	Single	236.44	945.76	32883	0.930	STRK2305K T3 U SF BZ
14		C	Single	27.1608	380.251	6879	0.930	NOVA2 WSCS BZ

ELEVATION DETAILS



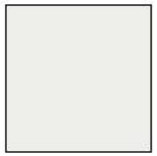
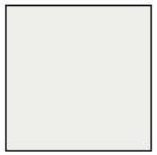
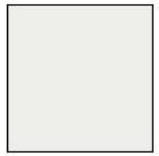
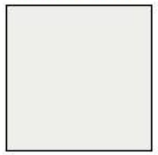
ELEVATION DETAILS cont'd



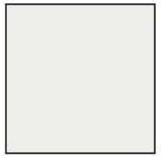
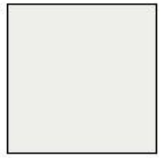
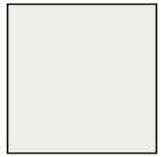
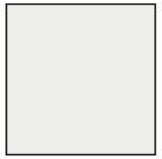
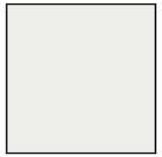
ELEVATION RENDERINGS cont'd



COLOR BOARD

Ryan (FL) Lake Core & Simply Ryan/Lifestyle Single Family Attached (SFA) Exterior Color Schemes								
Scheme	**Primary Siding (Sherwin Williams)**	**Accent Siding (Sherwin Williams)**	**Trim (Sherwin Williams)**	**Shutter Color**	**Front Door Paint Color**	**Environmental Stone (if applicable)**	**Boral Dutch Quality Stone (if applicable)**	**Shingles**
Lake TH 01	Tradewind (SW6218)	Nebulous White (SW7063)	Extra White (SW7006)	Dovetail (SW7018)	Dovetail (SW7018)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2001								
Lake TH 02	Meditative (SW6227)	Meditative (SW6227)	Extra White (SW7006)	Extra White (SW7006)	Convival Yellow (SW6393)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2002								
Lake TH 03	Uncertain Gray (SW6234)	Misty (SW6232)	Extra White (SW7006)	Marea Baja (SW9185)	Marea Baja (SW9185)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2003								

COLOR BOARD cont'd

Lake TH 04	Light French Gray (SW0055)	Light French Gray (SW0055)	Extra White (SW7006)	Westchester Gray (SW2849)	Meditative (SW6227)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2004								
Lake TH 05	**Rare Gray (SW6199_)**	**Aloof Gray (SW6197)**	**Extra White (SW7006)**	**Mount Etna (SW7625)**	**Mount Etna (SW7625)**	**Carolina Ledgestone**	**Quail Gray Weather Ledge**	**Rustic Black**
ETF2005								
Lake TH 06	**Oyster Bay (SW6206)**	**Oyster Bay (SW6206)**	**Extra White (SW7006)**	**Salty Dog (SW9177)**	**Salty Dog (SW9177)**	**Carolina Ledgestone**	**Quail Gray Weather Ledge**	**Rustic Black**
ETF2006								
Lake TH 07	**Dorian Gray (SW7017)**	**Repose Gray (SW7015)**	**Extra White (SW7006)**	**Extra White (SW7006)**	**Tradewind (SW6218)**	**Carolina Ledgestone**	**Quail Gray Weather Ledge**	**Rustic Black**
ETF2007								

RECOMMENDATIONS

Staff's recommendation is **APPROVAL** of the site plan with the following six (6) conditions:

1. Prior to issuance of final certificate of occupancy, a Landscape Maintenance Agreement shall be approved and shall acknowledge the following:

    a. All approved 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, in conformity with the following requirements:

        i. Vegetation required by this article shall be replaced with equivalent or better vegetation if it is not living. All tees for which credit is awarded, and which subsequently die shall be replaced by the same or greater number of living trees according to the standards established in this article

        ii. Maintenance shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices to ensure that the landscaping continues to maintain a healthy, neat, and orderly appearance

2. An updated Environmental Assessment shall be required

3. The project shall have a Florida Fish and Wildlife Conservation Commission (FFWCC) Gopher Tortoise Permit in place prior to conducting any land clearing operations as the submitted Environmental Assessment indicates that gopher tortoises are present on the site

4. A 5-ft sidewalk is required along Poinsetta Ave.

RECOMMENDATIONS cont'd

5. 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 for the required mitigation of the City's regulated trees proposed to be removed as a result of its site development/construction activity.
6. Addresses will need to be submitted to the Planning Department for all units prior to building permit application

ALTERNATIVE RECOMMENDATION

1. Recommend Approval with additional/modified conditions.

2. Recommend Disapproval.

CITY OF FORT PIERCE

Planning Board

March 10th, 2025

Treasure Townhomes- Site Plan

4601 Regina Dr.

Cotleur & Hearing

Treasure Townhomes

Treasure Townhomes LLC

Project #PZSITE2024-00001

Planning and Zoning Commission – March 10th, 2025

Fort Pierce, Florida

Project Team| The professionals

Applicant – Treasure Townhomes, LLC

Martin Ugarte

Santiago Silva

Landscape Architects and Planners – Cotleur & Hearing

- George Missimer, AICP
- Leah Heinzelmann, PLA
- Anna Erickson, PLA

Civil Engineer – MBV Engineering, Inc.

- Aaron Stanton, P.E.

Traffic Engineer- O'Rourke Engineering & Planning

- Susan E. O'Rourke, P.E.

Cotleur & Hearing

Treasure Townhomes



Ft. Pierce's Newest
Townhome Community

407 E. Weatherbee Road

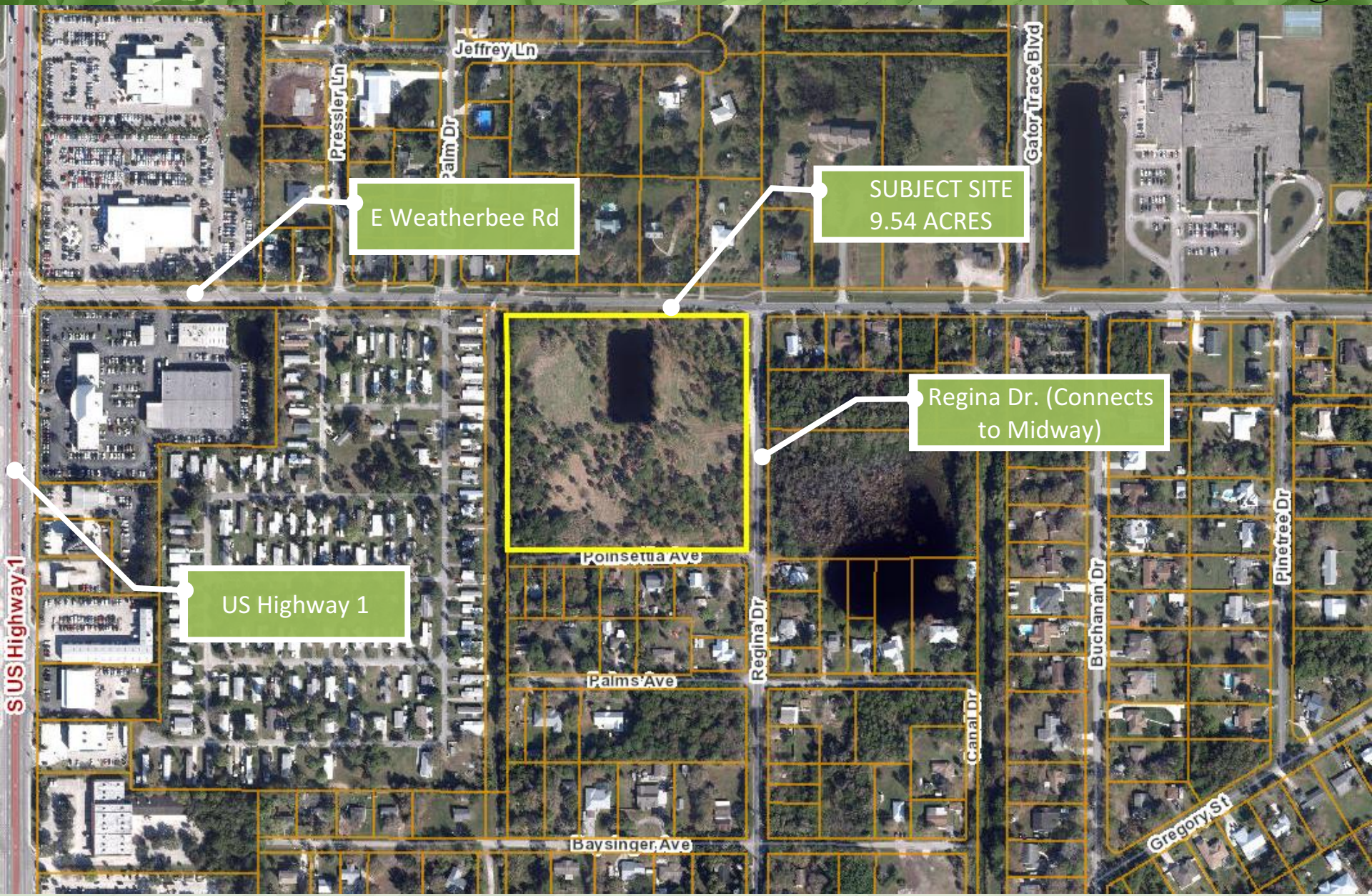
Site | Property Overview

- Property: +/-9.578 AC
- Ex. Future Land Use: Residential Medium (RM)
- Ex. Zoning: R-4 (up to 12 DU/acre)
- Site Ingress/egress off E. Weatherbee Road

Location | Context Road Network



Location | Context Road Network



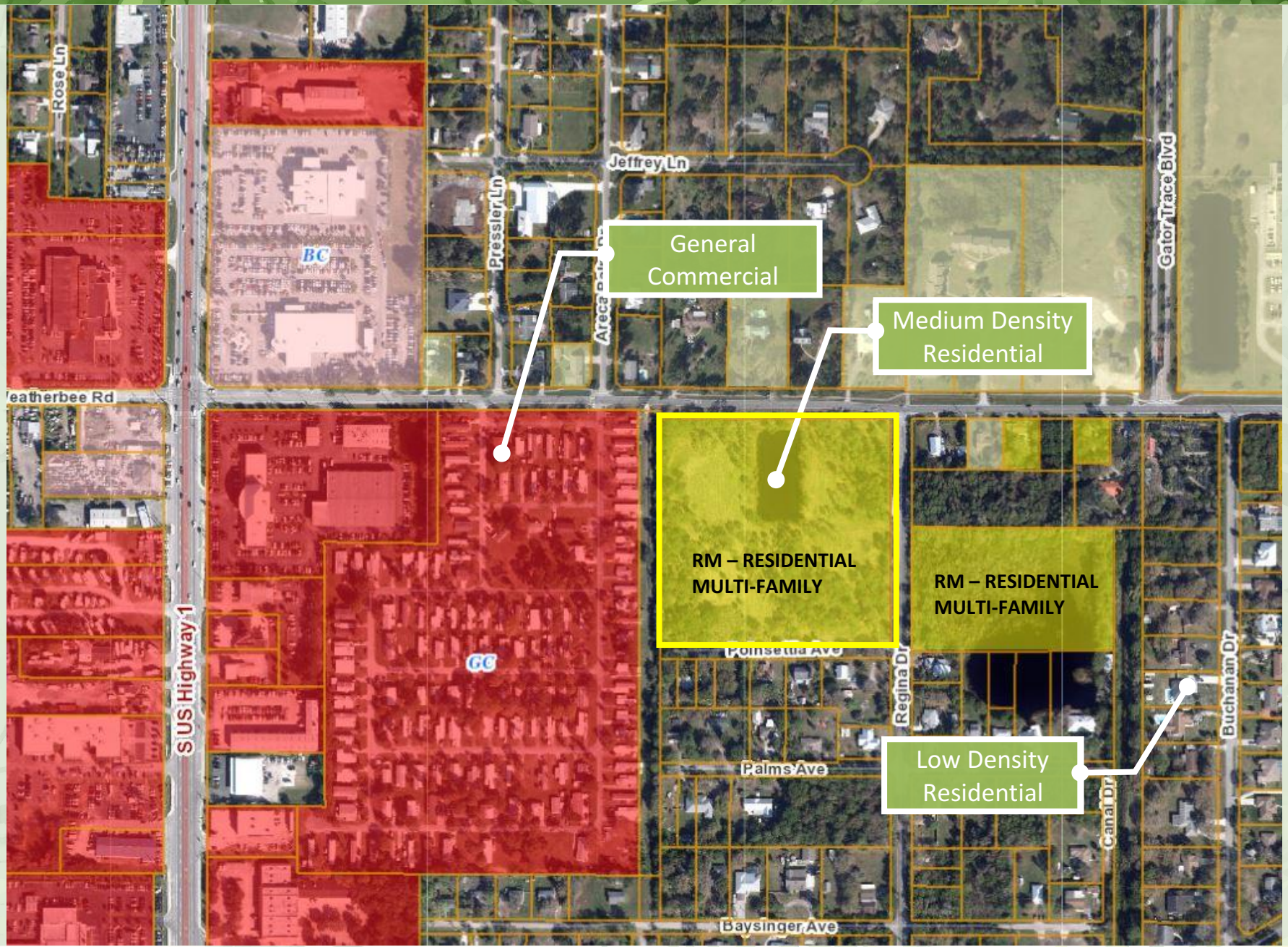
Location | Surrounding Uses

Cotleur & Hearing



Location | Future Land Use

Cotleur & Hearing



Location | Zoning



Cotleur & Hearing

TREASURE TOWNHOMES

Fort Pierce, Florida

Cotleur & Hearing



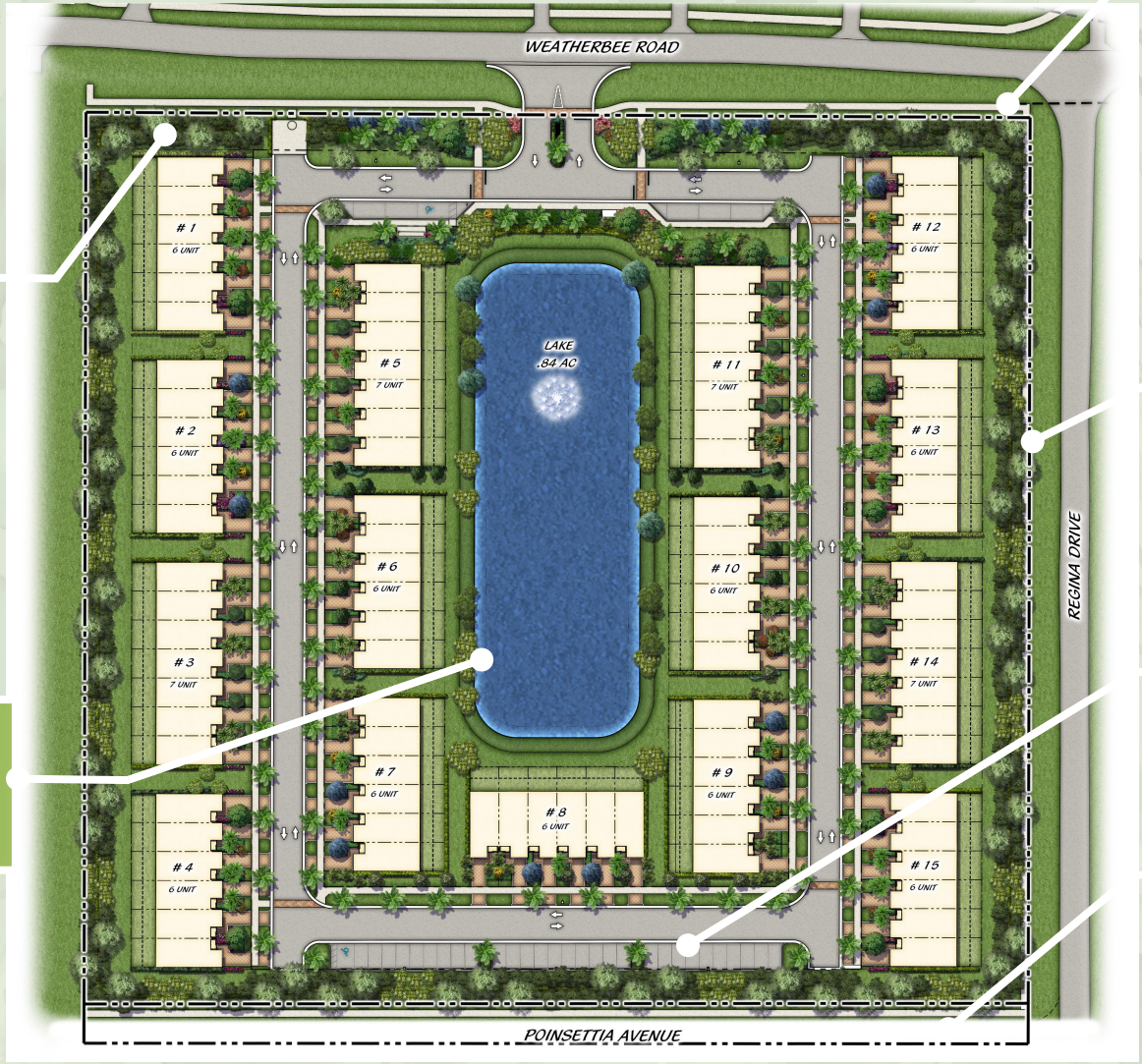
SITE PLAN

Site | Proposed Site plan

Cotleur & Hearing

Sidewalk

Extensive landscape buffer – Native Oaks, Pines, and Sabals



Sidewalk

On-street parking

Added Stormwater Treatment Area with Littoral Plants & Fountain

ROW reserved for dedication

Site | Project Unit Mix

Cotleur & Hearing

94 Townhome Units (3 Bedroom)

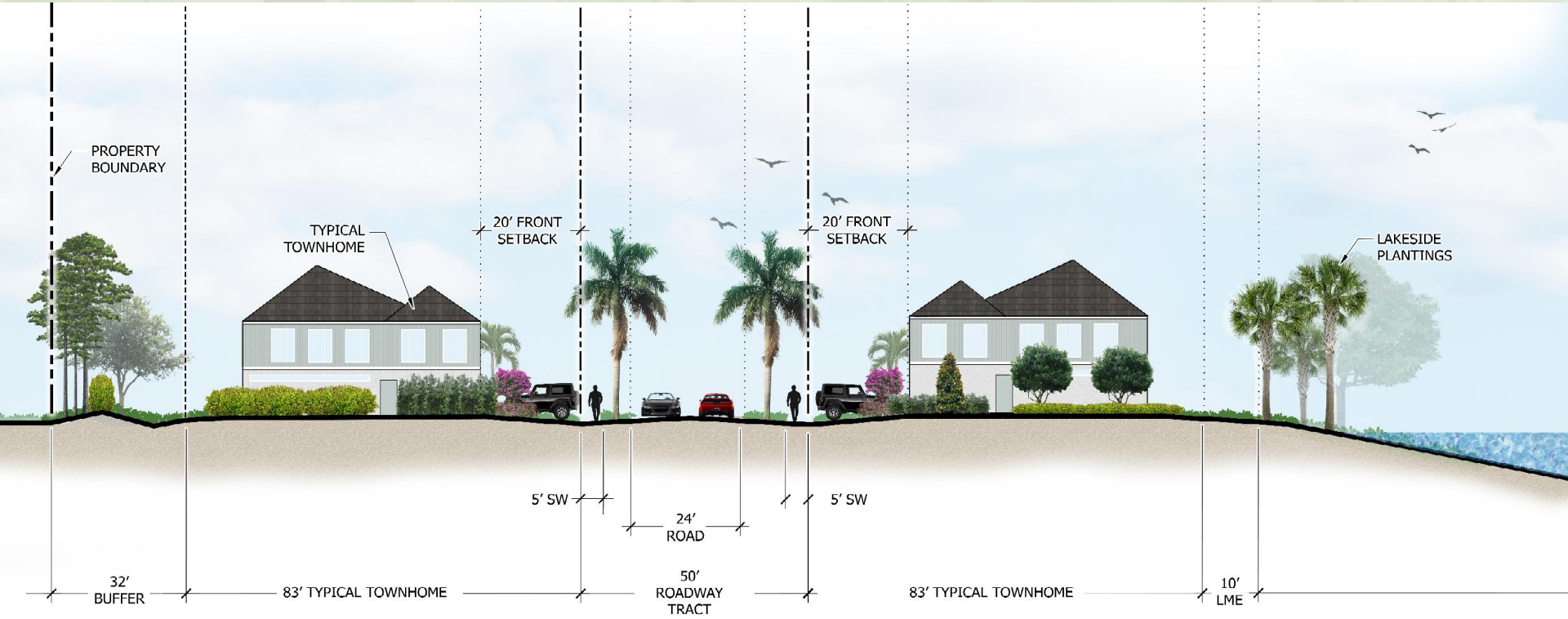
(4) Buildings Containing 7 units

(11) Buildings Containing 6 Units

9.82 DU/AC

Scheme	Primary Siding (Sherwin Williams)	Accent Siding (Sherwin Williams)	Trim (Sherwin Williams)	Shutter Color	Front Door Paint Color	Environmental Stone (if applicable)	Boral Dutch Quality Stone (if applicable)	Shingles
Lake TH 01	Tradewind (SW6218)	Nebulous White (SW7063)	Extra White (SW7006)	Dovetail (SW7018)	Dovetail (SW7018)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2001								
Lake TH 02	Meditative (SW6227)	Meditative (SW6227)	Extra White (SW7006)	Extra White (SW7006)	Convival Yellow (SW6393)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2002								
Lake TH 03	Uncertain Gray (SW6234)	Misty (SW6232)	Extra White (SW7006)	Marea Baja (SW9185)	Marea Baja (SW9185)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2003								
Lake TH 04	Light French Gray (SW0055)	Light French Gray (SW0055)	Extra White (SW7006)	Westchester Gray (SW2849)	Meditative (SW6227)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2004								
Lake TH 05	Rare Gray (SW6199)	Aloof Gray (SW6197)	Extra White (SW7006)	Mount Etna (SW7625)	Mount Etna (SW7625)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2005								
Lake TH 06	Oyster Bay (SW6206)	Oyster Bay (SW6206)	Extra White (SW7006)	Salty Dog (SW9177)	Salty Dog (SW9177)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2006								
Lake TH 07	Dorian Gray (SW7017)	Repose Gray (SW7015)	Extra White (SW7006)	Extra White (SW7006)	Tradewind (SW6218)	Carolina Ledgestone	Quail Gray Weather Ledge	Rustic Black
ETF2007								

Townhome Graphics| Section



Townhome Graphics| Architecture

Cotleur & Hearing



Cotleur & Hearing

Medium-density residential townhome project provides good use of an existing undeveloped infill site.

Requested Site Plan and density is consistent with the provisions in the Land Development Code and the Comprehensive Plan and is compatible with the surrounding area.

Technical Review Committee recommends approval.

Request favorable support of Project #PZSITE2024-00001

Cotleur & Hearing

Thank You

Questions?

CITY OF FORT PIERCE

PLANNING BOARD

MARCH 10, 2025

SAVANNAH PRESERVE PHASE 1 FINAL PLAT

SUBJECT:

Final Plat – Savannah Preserve (Phase 1) – Parcel ID#'s: 2427-433-0002-000-1, 2426-333-0015-000-5, 2427-433-0001-000-4 and 2434-121-0001-000-8

SUMMARY:

Final Plat for Phase 1 of the Savannah Preserve PD (Phase 1 includes 203 town-home lots; 98 2-family lots; community recreation tract, and areas reserved for future development (phase 2 plat area). Located at or near the East Side of S US Highway 1 at the intersection of Dickson Drive and lying north of the existing Gator Trace Planned Development. Parcel ID(s):

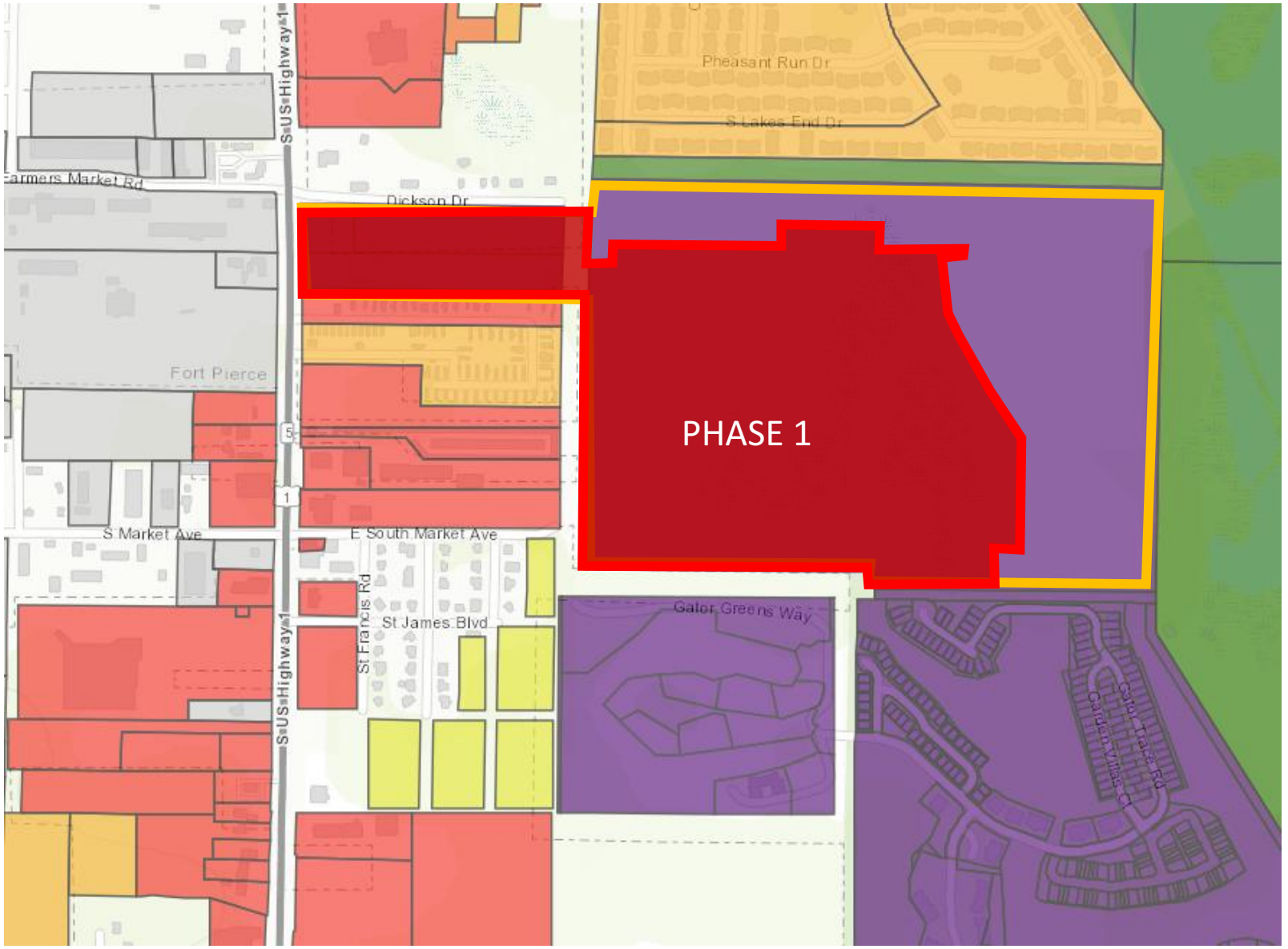
APPLICANT

Dennis Murphy, Culpepper & Terpening, Inc

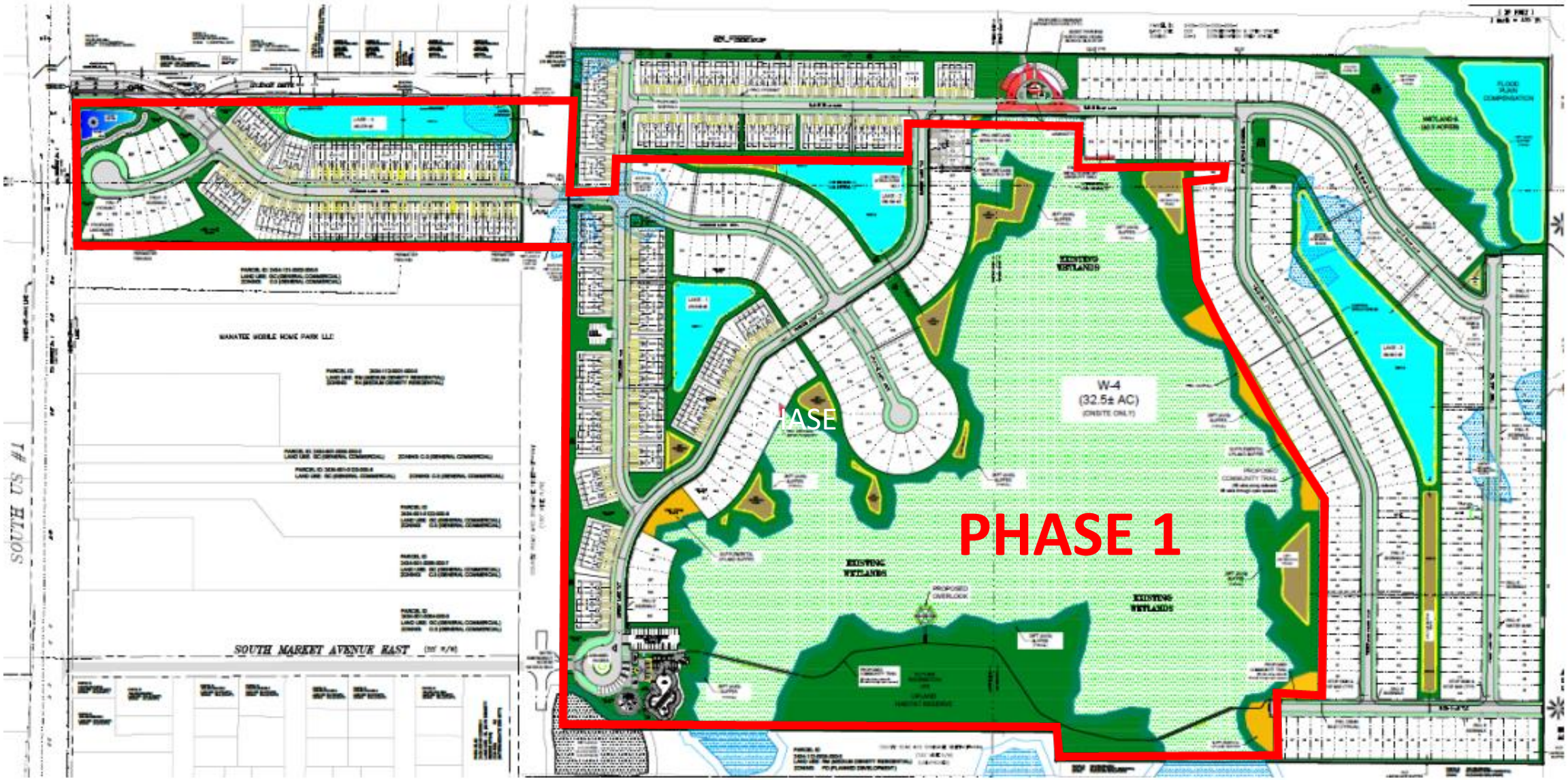
SITE LOCATION (PHASE 1 HIGHLIGHTED)



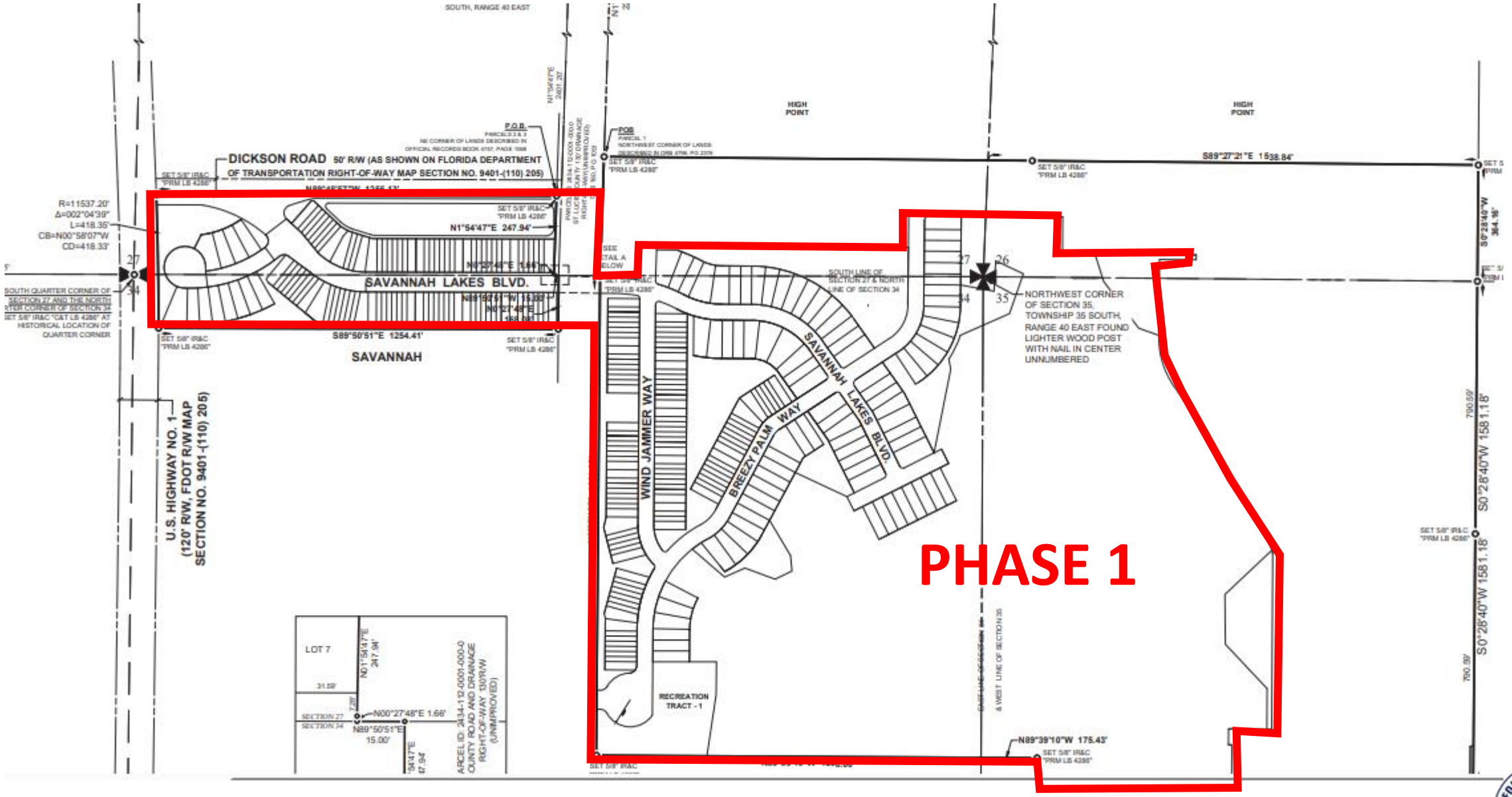
ZONING (PHASE 1 HIGHLIGHTED)



APPROVED SITE PLAN - July 18, 2022. Ord 22-017



SAVANNAH PRESERVE PHASE 1 – FINAL PLAT



RECOMMENDATION

The Application for Final Plat meets the criteria as specified in Chapter 121 of the City Code of Ordinances and is consistent with the City's Land Development Code and Comprehensive Plan. Therefore, Staff recommends that the Planning Board forward a recommendation of APPROVAL to the City Commission with conditions:

1. The applicant will supply two (2) Mylars for appropriate signatures prior to the plat being recorded with the St. Lucie County Clerk of Courts in accordance with Florida State Statute 177.111.
2. Prior to endorsement of the Mylars by the City's reviewing Surveyor, a bond in the amount of the agreed opinion of probable cost be submitted to the City Engineer for final approval.

ALTERNATIVE RECOMMENDATION

Approval with amended Conditions

Or

Denial

CITY OF FORT PIERCE

PLANNING BOARD

MARCH 10, 2025

MOHAWK FINAL PLAT

SUBJECT:

PZSUB2024-00008 - MOHAWK Final Plat - Parcel IDs:Parcel ID(s): 1428-702-0425-000-7, 428-702-0382-000-3, 1428-702-0050-000-7

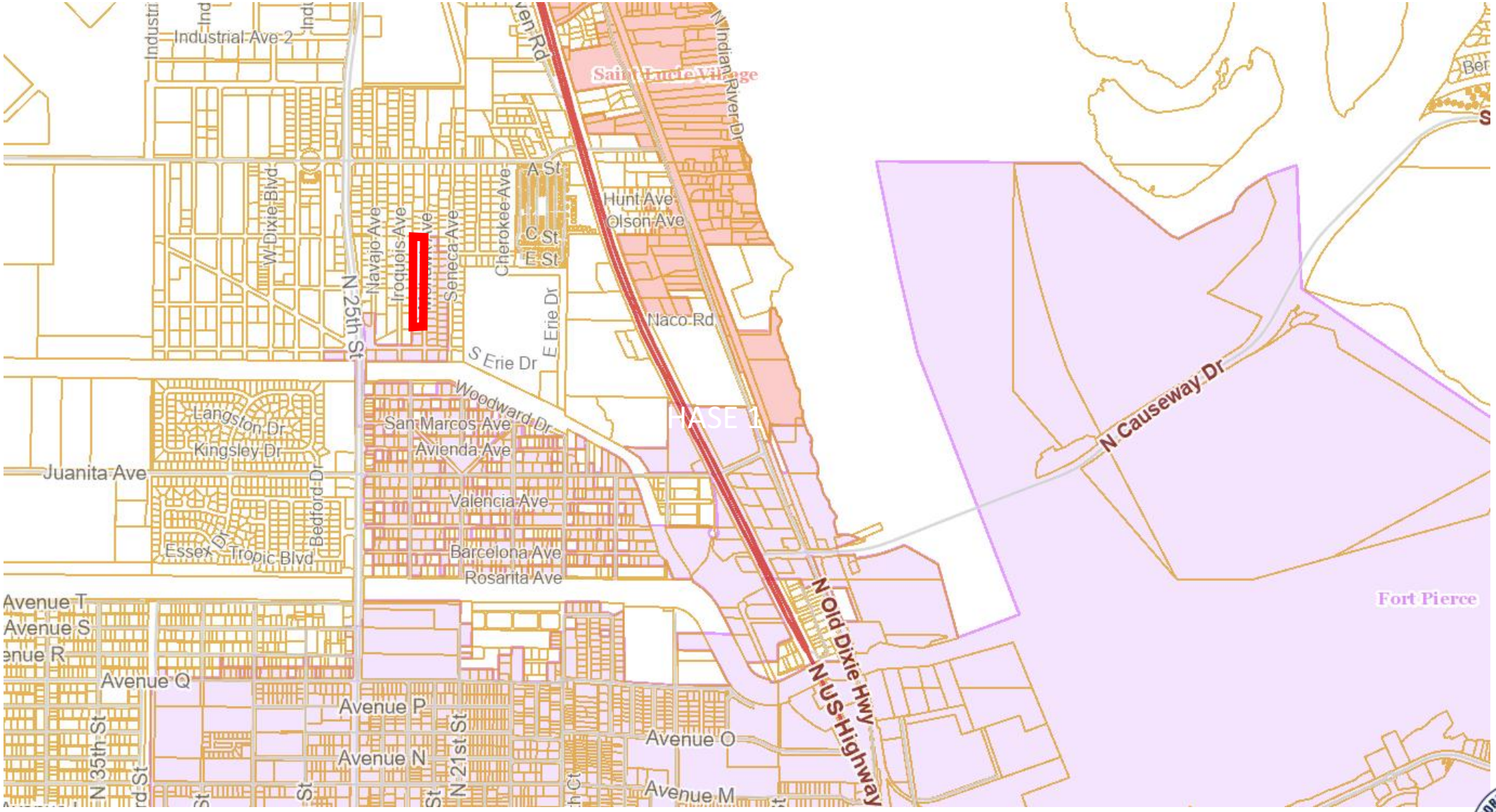
SUMMARY:

This application requests approval for a Final Plat in respect of the Mohawk Subdivision. The applicant is proposing a Final Plat on approximately 4.109 acres of land lying immediately at the northwest corner of Mohawk Avenue and Bryant Road, within the City of Fort Pierce. The properties consist of three (3) parcels and will be subdivided into 14 residential lots.

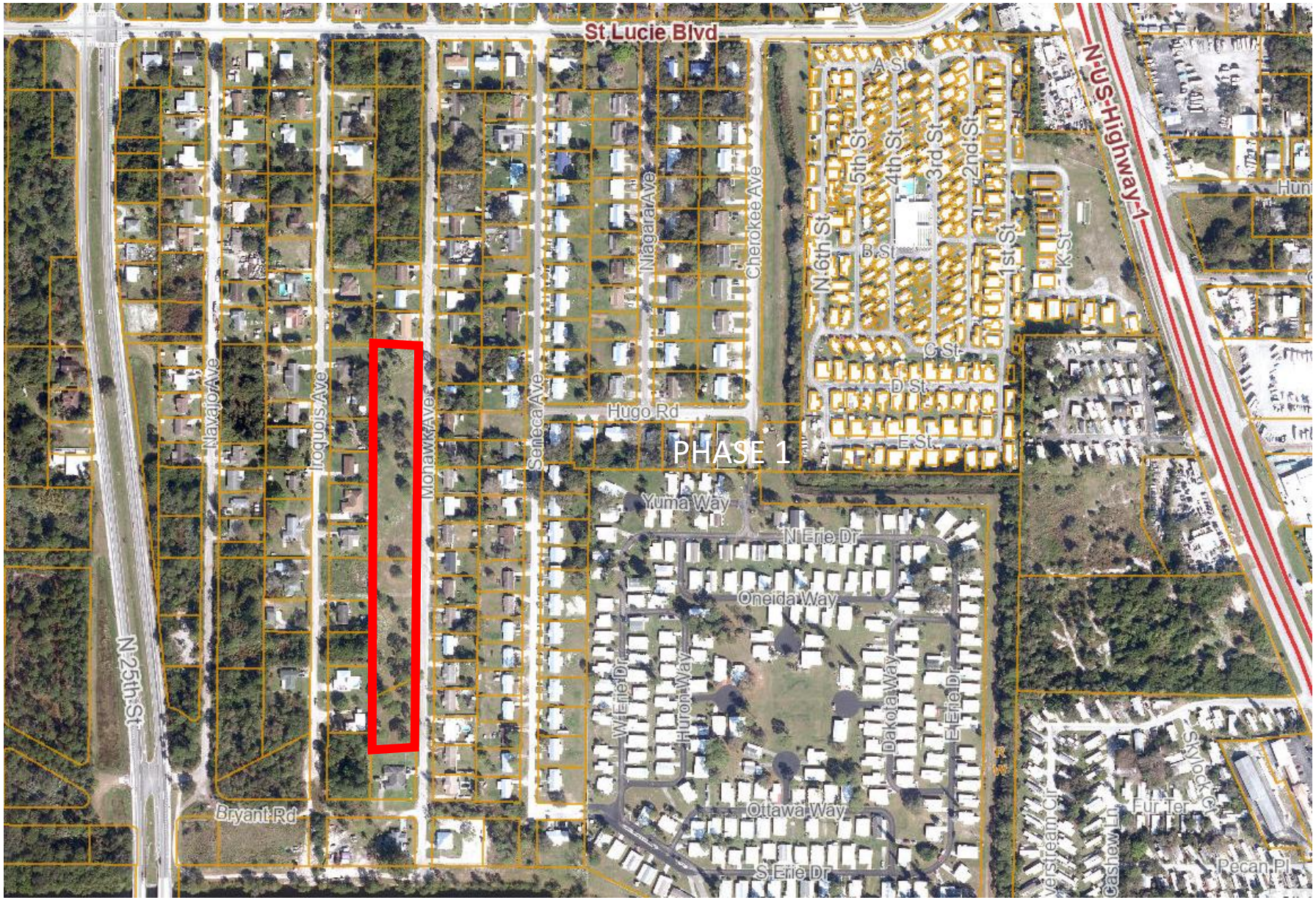
APPLICANT

AYALA JERARDO, THE OUTDOORS QUALITY LLC

SITE LOCATION



SITE LOCATION

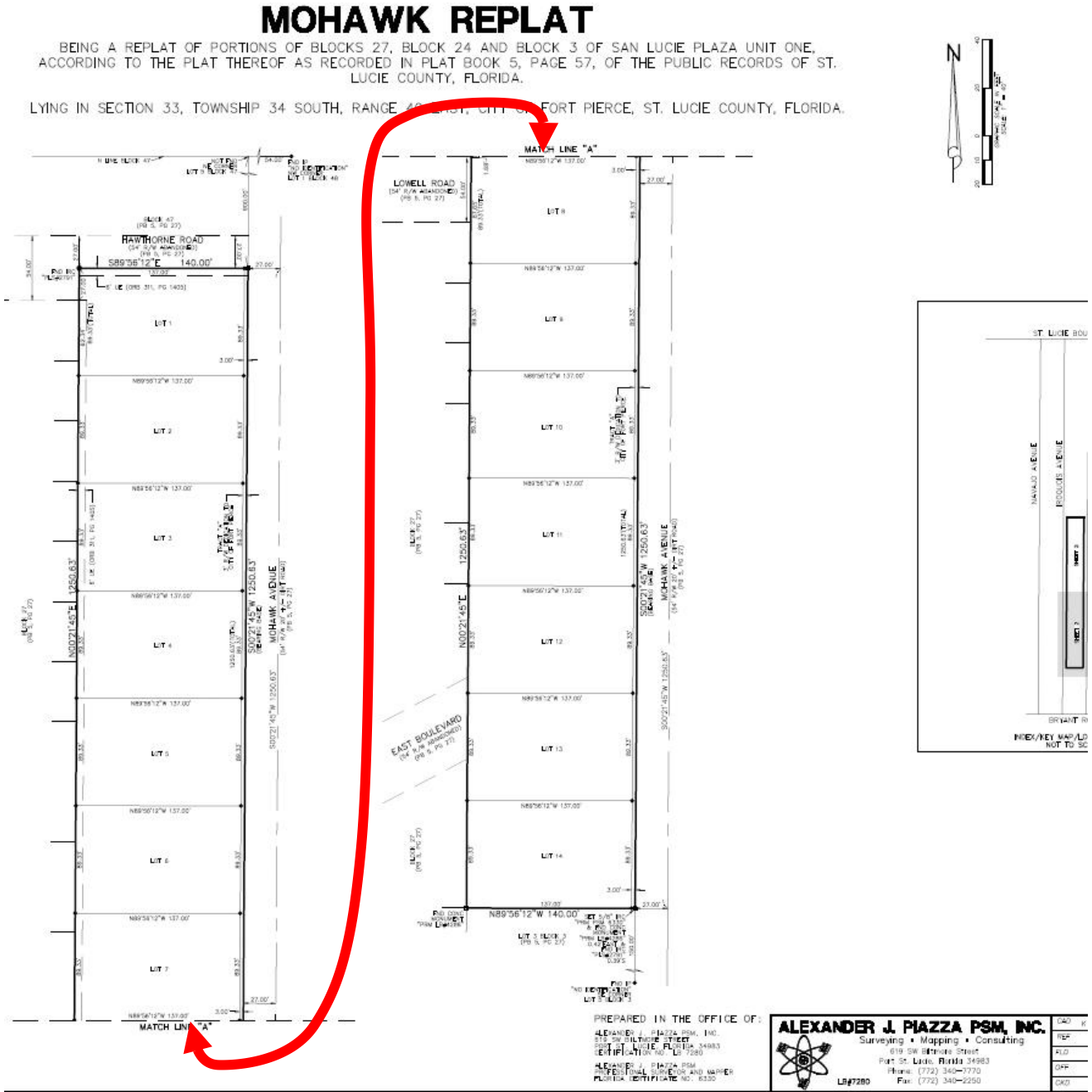


ZONING


Navajo Ave
Iroquois Ave
Mohawk Ave
Seneca Ave
Hugo Rd
Yuma Way
N
Oneida
W Erie Dr
Huron Way
Ottawa
S Erie
N 25th St
Bryant Rd
R-1
I-1

MOHAWK– FINAL PLAT

14 LOTS



RECOMMENDATION

The proposed Final Plat application adheres to the requirements of the City Land Development Code and the guidelines of the City's Comprehensive Plan. Therefore, Staff recommends that the Planning Board move the Mohawk Final Plat to the City Commission with a recommendation of APPROVAL with the following conditions:

1. The applicant will supply two (2) Mylars for appropriate signatures prior to the plat being recorded with the St. Lucie County Clerk of Courts in accordance with Florida State Statute 177.111.
2. Prior to endorsement of the Mylars by the City's reviewing Surveyor, a fully executed St. Lucie County Road Improvement Agreement shall be provided.

ALTERNATIVE RECOMMENDATION

Approval with amended Conditions

Or

Denial

Planning Board **6. a.**

Meeting Date: 04/14/2025

Re: Conditional Use w/ New Construction - Crossroads RV Park - 2324-312-0005-000-4

Submitted For: Kev Freeman, Planning Director, Planning Department

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Information

SUBJECT:

Conditional Use with New Construction - Crossroads RV Park
Parcel ID: 2324-312-0005-000-4

SUMMARY:

A ‘conditional use: with new construction’ application has been submitted for design review. Crossroads Recreational Vehicle Park is seeking approval for an 84 RV park with a community amenity center, pool and pickle ball court, on 10.90 acres of land.

The property is in the C-3, General Commercial zoning district and has a future land use designation of GC, General Commercial.

RECOMMENDATION:

Staff's recommendation is Approval of the conditional use with new construction application with the following six (6) conditions:

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 for the required mitigation of the City's regulated trees proposed to be removed as a result of its site development/construction activity
2.Prior to issuance of final certificate of occupancy, a Landscape Maintenance Agreement shall be approved and shall acknowledge the following:
a. All approved 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, in conformity with the following requirements:
i. Vegetation required by this article shall be replaced with equivalent or better vegetation if it is not living. All tees for which credit is awarded, and which subsequently die shall be replaced by the same or greater number of living trees according to the standards established in this article.
ii. Maintenance shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices to ensure that the landscaping continues to maintain a healthy, neat, and orderly appearance.

3. A South Florida Water Management District (SFWMD) ERP shall be required prior to the DPCR approval

4. An approved Saint Lucie County Development Permit shall be required prior to DPCR approval

5. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR.
6. An address request form shall be submitted to the Planning Department prior to applying for a building permit

**Note that issuance of a development permit or development order by the City of Fort Pierce does not create any right on the part of an applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the municipality for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law.

ALTERNATIVES:

1. Recommend approval with additional conditions
2. Recommend disapproval

RESPONSIBLE STAFF:

Kerry C. Driver - Senior Planner

COORDINATED WITH:

1. Technical Review Committee

Fiscal Impact

OTHER INFORMATION:

N/A

Attachments

Staff Presentation
Applicant File
Staff Supporting Documents

Form Review

Form Started By: Kerry Driver Started On: 03/11/2025 04:37 PM
Final Approval Date: 04/08/2025

CITY OF FORT PIERCE

PLANNING BOARD

April 14th, 2025

Crossroads Recreational Vehicle Park

Conditional Use: w/ New Construction

Parcel ID: 2324-312-0005-000-4

APPLICANT

Leo Giangrande, Principle, GEP

PROPERTY OWNER(S)

Alexander George & Company Corp.

PARCEL ID #(S):

2324-312-0005-000-4

SUMMARY

A ‘conditional use: with new construction’ application has been submitted for design review. Crossroads Recreational Vehicle Park is seeking approval for an 84 RV park with a community amenity center, pool and pickle ball court.

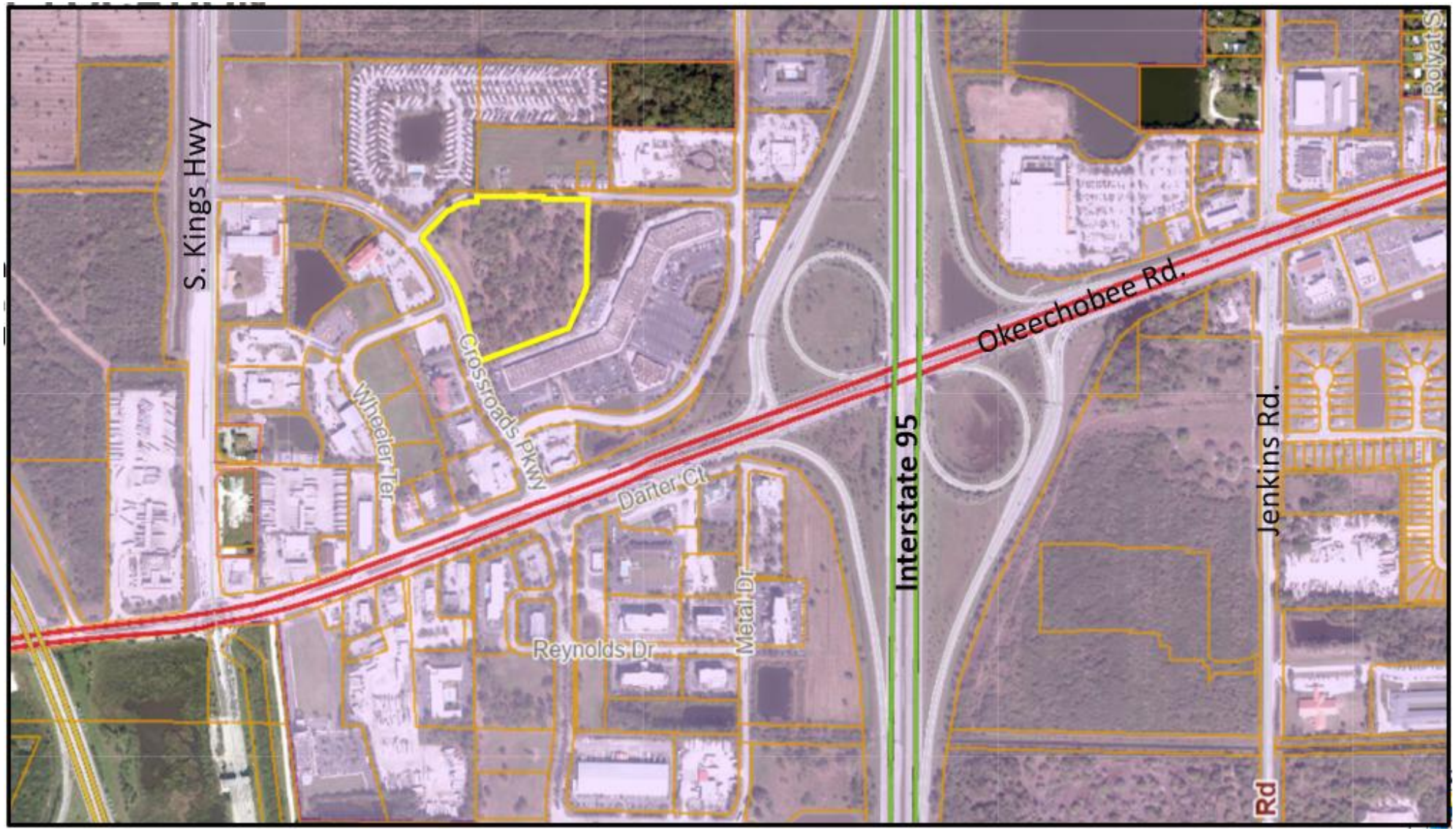
The property is in the C-3, General Commercial zoning district and has a future land use designation of GC, General Commercial.

CONDITIONAL USE

Article V: Section 125-325

The purpose of the conditional use process is to allow, when desirable, uses that would not be appropriate generally or without restriction throughout the particular zoning district, but which, if controlled as to number, area, location or relation to the neighborhood, would not adversely affect the public health, safety, comfort, good order, appearance, convenience and the general welfare.

SITE LOCATION



Crossroads Recreational Vehicle Park– Conditional Use w/ New Construction

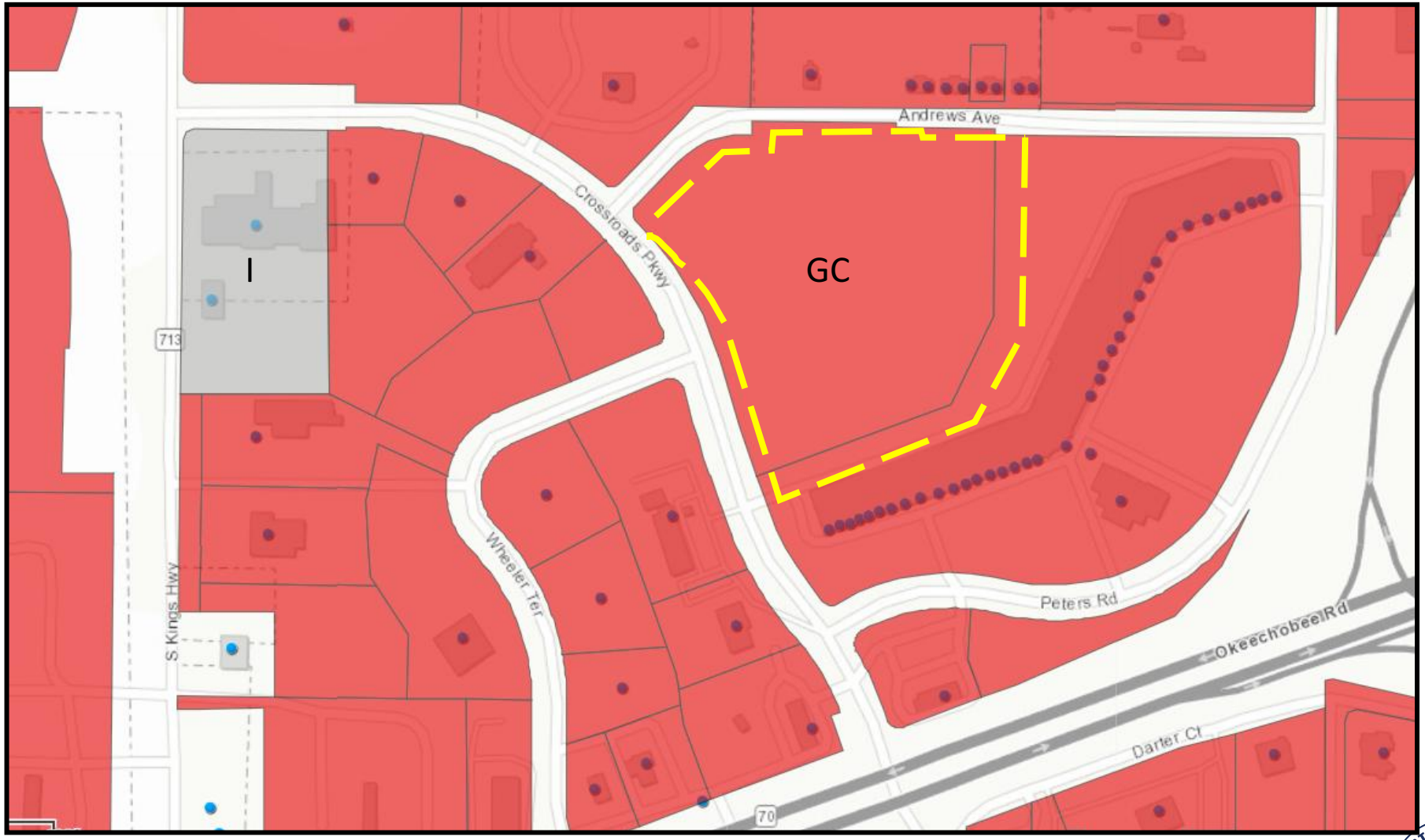
SITE LOCATION



SITE AREA= 10.90/- Acres

FUTURE LAND USE

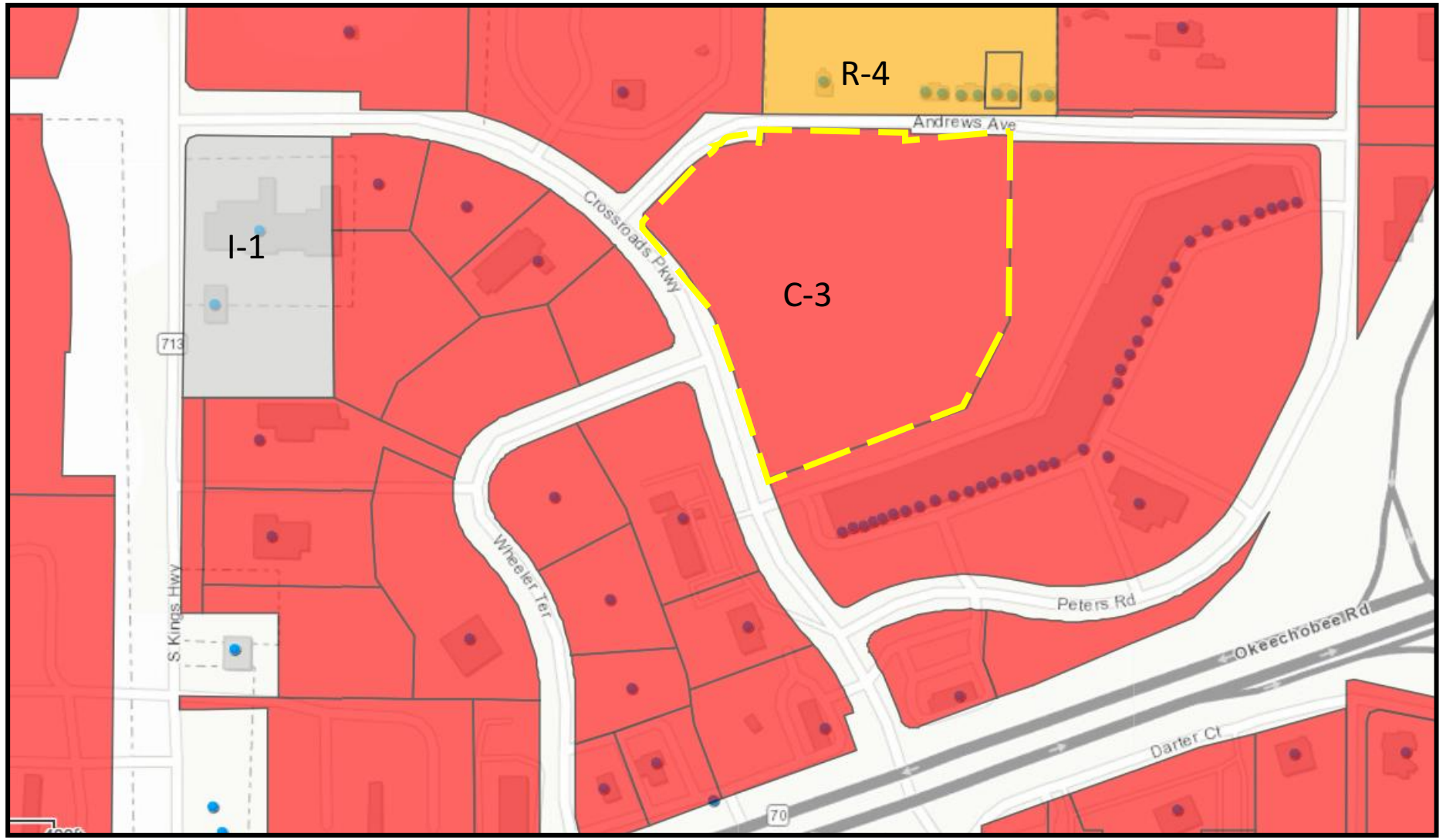
FLU: GC,
General Commercial



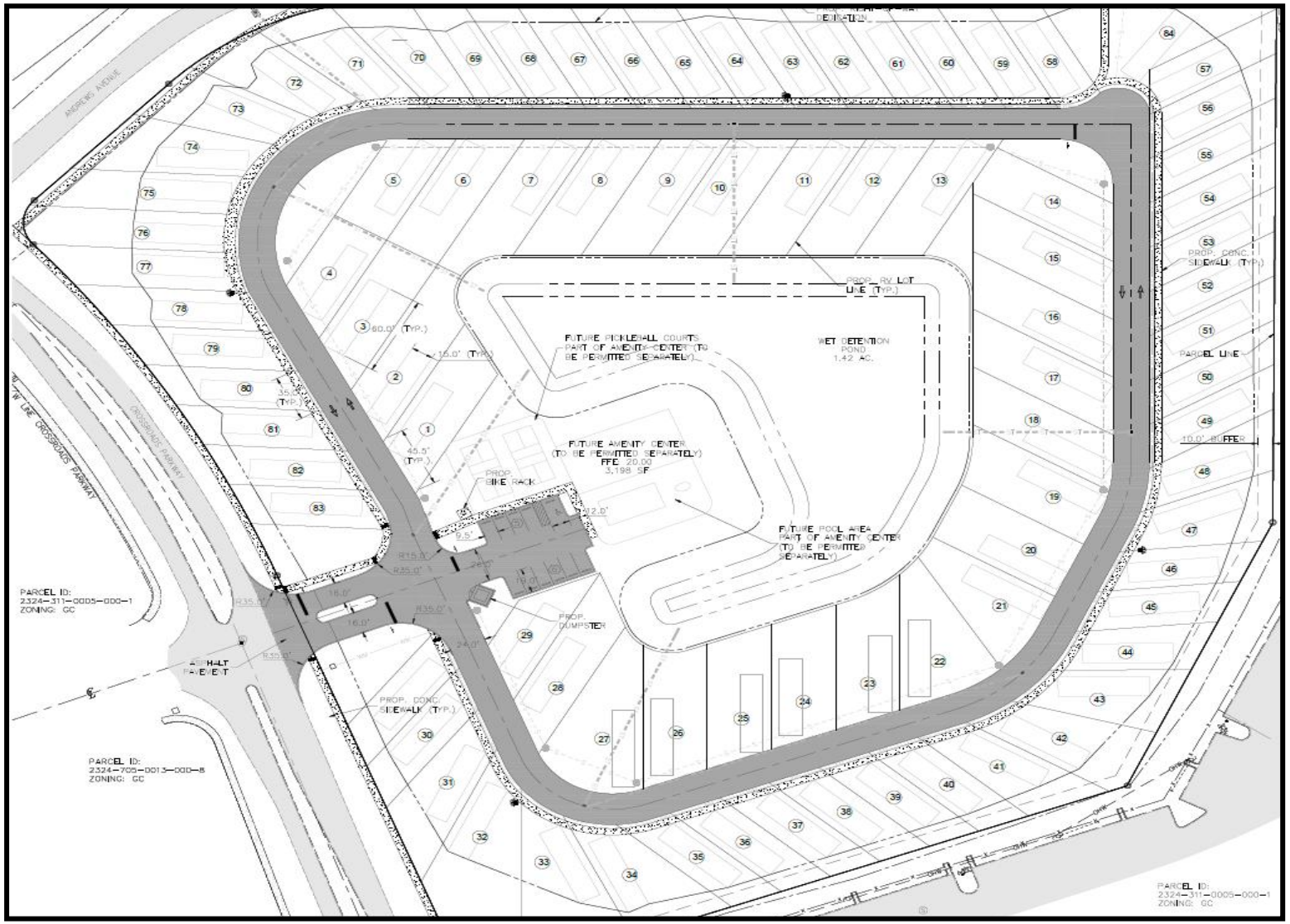
Crossroads Recreational Vehicle Park– Conditional Use w/ New Construction

ZONING

Zoning: C-3,
General Commercial



SITE PLAN DETAILS





Proposed RV Lots	84
Lot sizes	35-45’
Community:	Amenity Center
	Pool
	Pickleball Court
Wet pound	1+ acre
Bike rack	

LANDSCAPE PLAN



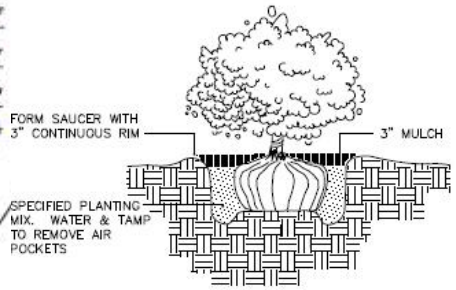
REQUIRED TREE DATA

PERIMETER LANDSCAPE BUFFER 2,721.92 L. FT.–41' ACCESS WAY=2,680.92 L. FT. DIVIDED BY 30 L. FT. – 89.36 TREES = 90 TREES REQUIRED

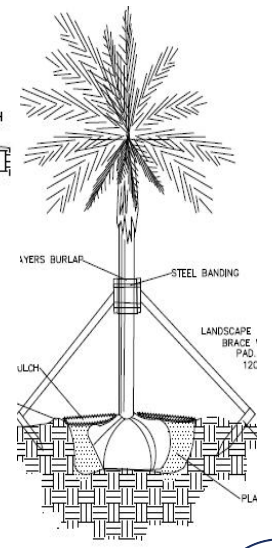
PERIMETER TREES

PROPOSED		EXISTING		TOTAL	
PINES	13	PINES	1	PINES	14
SABAL PALMS	2	SABAL PALMS	1	SABAL PALMS	3 = 1
LIVE OAKS	64	LIVE OAKS	12	LIVE OAKS	75

TOTAL PERIMETER TREES 90



SHRUB PLANTING



PALM PLANTIN

Crossroads Recreational Vehicle Park– Conditional Use w/ New Construction

RECOMMENDATION w/ CONDITIONS

Staff's recommendation is **Approval** of the site plan with the following six (6) conditions

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 for the required mitigation of the City's regulated trees proposed to be removed as a result of its site development/construction activity
2. Prior to issuance of final certificate of occupancy, a Landscape Maintenance Agreement shall be approved and shall acknowledge the following:
    a. All approved 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, in conformity with the following requirements:
        i. Vegetation required by this article shall be replaced with equivalent or better vegetation if it is not living. All trees for which credit is awarded, and which subsequently die shall be replaced by the same or greater number of living trees according to the standards established in this article.
        ii. Maintenance shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices to ensure that the landscaping continues to maintain a healthy, neat, and orderly appearance.
3. A South Florida Water Management District (SFWMD) ERP shall be required prior to the DPCR approval
4. An approved Saint Lucie County Development Permit shall be required prior to DPCR approval
5. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR.

RECOMMENDATION w/ CONDITIONS cont'd

6. An address request form shall be submitted to the Planning Department prior to applying for a building permit

**Note that issuance of a development permit or development order by the City of Fort Pierce does not create any right on the part of an applicant to obtain a permit from a state or federal agency and does not create any liability on the part of the municipality for issuance of the permit if the applicant fails to obtain requisite approvals or fulfill the obligations imposed by a state or federal agency or undertakes actions that result in a violation of state or federal law.

ALTERNATIVE RECOMMENDATION

1. Recommend Approval with additional conditions.

2. Recommend Disapproval.

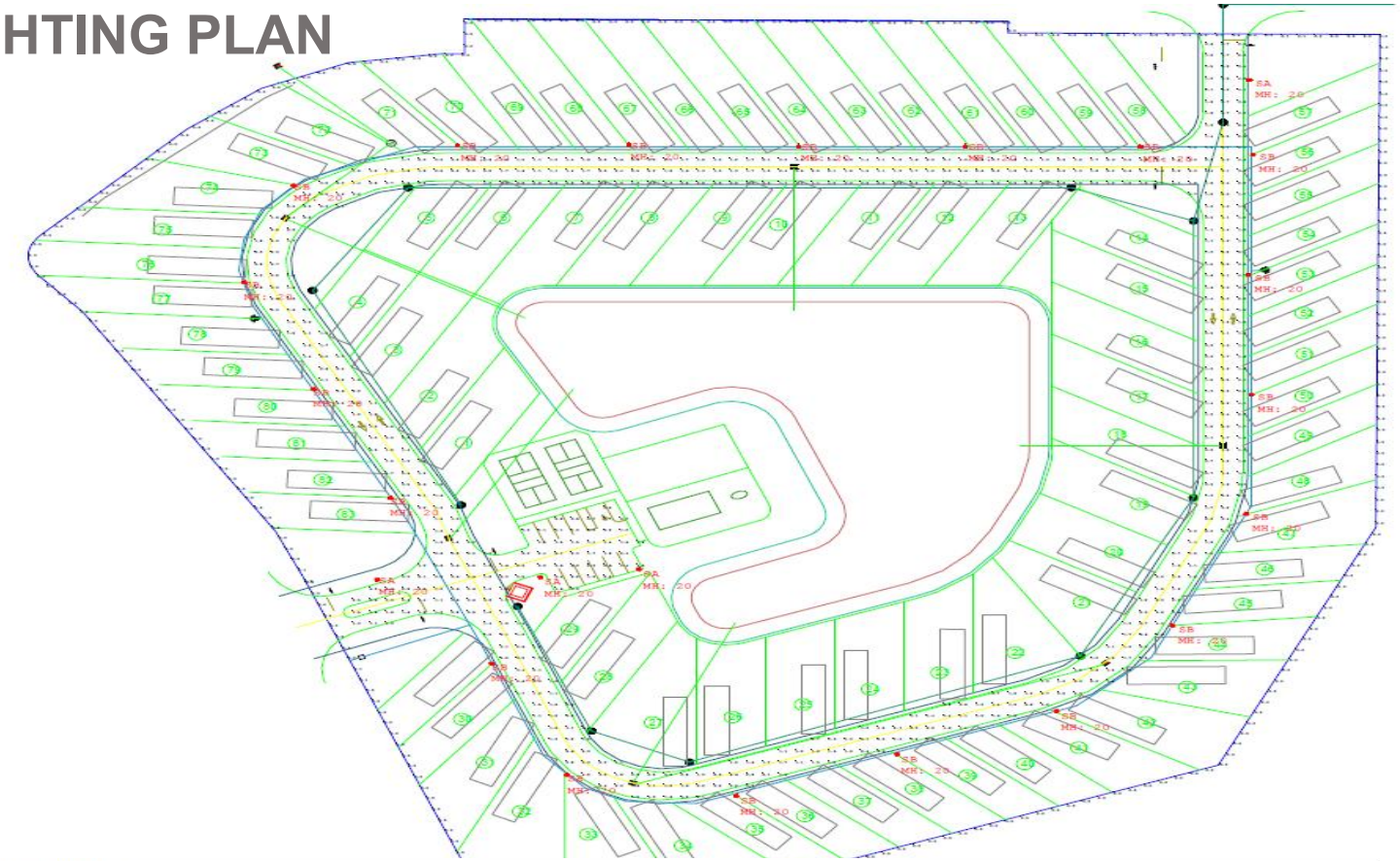
CITY OF FORT PIERCE

PLANNING BOARD

April 14th, 2025

Crossroads Recreational Vehicle Park
Conditional Use: w/ New Construction
Parcel ID: 2324-312-0005-000-4

LIGHTING PLAN



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Property Line	Illuminance	Fc	0.02	0.4	0.0	N.A.	N.A.
Roadway	Illuminance	Fc	1.83	4.8	0.5	3.66	9.60
Small Parking Lot	Illuminance	Fc	1.80	4.9	0.5	3.60	9.80

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	4	SA	Single	Cree Lighting OSQM-C-11L-40K7-4M-XX-NM-XX, Single Head	0.900	10450	68	272
	19	SB	Single	Cree Lighting OSQM-C-11L-40K7-3M-XX-NM-XX, Single Head	0.900	10450	68	1292

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComfort™ Technology – Version C

Rev. Date: V7 1/01/2023

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weatherright LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. Medium is suitable upgrade for HID applications up to 400 Watts. Large is suitable upgrade for HID applications up to 1000 Watts. Extra Large is suitable upgrade for HID applications up to multiple 1000 Watts.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, pickleball courts, high-mast and internal roadways

Performance Summary

Utilizes Patented NanoComfort™ Technology

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: 4,000 - 85,000

Efficacy: Up to 171 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty[1]: 10 years for luminaire; 10 years for Colorfast DeltaGuard® finish; 5 years for BML sensor; up to 5 years for Synapse® accessories; 1 year for luminaire accessories

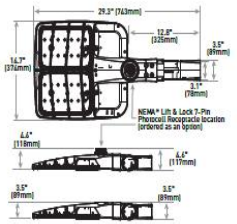
[1]See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-C-AA-BK + **Luminaire:** OSQM-C-4L-30K7-2M-UL-NM-BK

OSQM - AA Mount





Luminaire	Weight
OSQM	19.3 lbs. (8.8kg)

Note. For OSQL, OSQX and additional mounts, refer to drawings on page 27.

Mount (Luminaire must be ordered separately)*

OSQ-

Medium/Large Mounts	Extra Large Mounts	Color Options:	
OSQ-ML-C-AA Adjustable Arm	OSQ-X-C-AA Adjustable Arm	SV Silver	BZ Bronze
OSQ-ML-C-DA Direct Arm	OSQ-X-C-DA Direct Arm	BK Black	WH White
OSQ-ML-C-TM Trunnion Mount			

* Reference fixture mounting drill pattern, EPA, and pole configuration suitability data beginning on page 14.

Luminaire (Mount must be ordered separately)

OSQ C

Family	Size	Series	Lumen Package[2]	CCT/ CRI	Optic	Voltage	Mount	Color Options	Controls*	Options
OSQ	M Medium L Large X Extra Large	C	**Medium** 4L 4,000 Lumens 6L 6,000 Lumens 9L 9,000 Lumens 11L 11,000 Lumens 16L 16,000 Lumens **Large** 22L 22,000 Lumens 30L 30,000 Lumens 40L 40,000 Lumens **Extra Large** 50L 50,000 Lumens 65L 65,000 Lumens 75L 75,000 Lumens 85L 85,000 Lumens	30K7 3000K, 70 CRI 40K7 4000K, 70 CRI 50K9 5000K, 90 CRI 57K7 5700K, 70 CRI	**Asymmetric** 2M Type II Med 2MH Type II Med w/ Factory-Installed Backlight Shield - Available with all lumen packages except BSL. 3M Type III Med 3MH Type III Med w/ Factory-Installed Backlight Shield - Available with all lumen packages except BSL. 4M Type IV Med 4MF Type IV Med w/Factory-Installed Backlight Shield - Available with all lumen packages except BSL. AF Automotive FrontlineOptic™ AFH Automotive FrontlineOptic™ w/Factory-Installed Backlight Shield - Available with all lumen packages except BSL. **Symmetric** 5M Type V Med 5N Type V Narrow 33 NEMA® 3x3 44 NEMA® 4x4 55 NEMA® 5x5 66 NEMA® 6x6 75 NEMA® 7x5	UL Universal 120-277V UH Universal 347-480V - Not available with 6L, 75L or 85L lumen packages UE Universal 277-480V - Available only with 40L, 75L and 85L lumen packages	NM No Mount - Must specify mount from table above - Mount ships separately	BK Black BZ Bronze SV Silver WH White	**BML** Bluetooth® Technology Enabled Multi-Level Sensor - Utilizes a multifunction sensor - Refer to BML spec sheet for details - 20-40' sensor lens installed on luminaire, 8-20' sensor lens and aids abroad included - Intended for downlight applications at 0° tilt - Not available with Q or X options or Synapse TLT-HMS accessory **01/02/07/10/05/00/22/32/01 Field-Adjustable Output** - Must select 01, 02, 07, 10, 05, 00, 22, 32, or 01 - Offers full range adjustability - Refer to pages 15-26 for power and lumen values - Not available with BML or X options or Synapse TLT-HMS accessory **XD/X7/X/X5/XL/X3/X2/X1 Locked Lumen Output** - Must select XD, X7, XL, X5, XL, X3, X2, or X1 - Not available with BML or Q options - X1 option not available with the following lumen package/voltage offerings: 9L/UL, 16L/UL, 16L/UH, 30L/UC, 30L/UH, 65L/UL, 65L/UH - X2 option not available 9L/UL lumen package/voltage - Lumen output is permanently locked to the setting selected - Refer to pages 15-26 for power and lumen values	20KV 20kV 10kA Surge Suppression - Replaces standard 10kV/5kA surge protection F Fuse - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) N When code dictates fusing, use time delay fuse **Utility Label and NEMA® Lift & Lock 7-Pin Photocell Receptacle** - External utility label per ANSI C136.15-2020 - 7-pin receptacle per ANSI C136.41 - Available only with OSQM & OSQL luminaires - Intended for downlight applications with maximum 65° tilt - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others R NEMA® Lift & Lock 7-Pin Photocell Receptacle - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 65° tilt - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others - Refer to page 2 for compatible Synapse control offerings RL Rotate Left - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics RR Rotate Right - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics

[2] Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.
* Luminaire comes standard with 0-10V dimming. To luminaire optic and may not be removed in the field. For field-install backlight control, please refer to the External Backlight Shields in the accessory table on page 2.

CREE LIGHTING

Crossroads Recreational Vehicle Park– Conditional Use w/ New Construction

GIANGRANDE
Engineering & Planning

710 SE Ocean Blvd
Stuart, FL 34994
772-888-9076

January 3, 2025

The City of Fort Pierce
Planning Department
Kerry Driver
100 N U.S. Highway 1
Fort Pierce, FL 34950
772-467-3000

RE: Site Plan –Parcel ID: 2324-312-0005-000-4
Technical Review Committee Comments for February 15, 2024, TRC Meeting
Response Letter

Dear Ms. Driver,

Thank you for the review of the above-referenced project. Giangrande Engineering & Planning is pleased to provide this response to the December 16, 2024 Comments Letter received via email. Supporting documentation addressing each comment is supplied with this submittal. A summary of the comments and response is provided below:

City of Fort Pierce Planning Department

1. Site Plan states 84 lots however, only 83 lots are depicted. Please correctly reflect on its accuracy.

   Response: The 84th lot is located in the NE corner of the site. It was added when the north driveway connection was removed and created an empty area. The additional lot is found in the plans provided with this response.

2. Sec. 125-247(3) Recreational Vehicle Parks
   a. There shall be one lavatory and one shower or bathtub for each sex for each five recreational vehicle parks or fraction thereof; one toilet for females for each five recreational vehicles or fraction thereof; and one toilet for males for each ten recreational vehicles or fraction thereof, not more than one-third of which shall be urinals

   Response: The bathroom comment has been reviewed and researched. We believe the referenced code is onerous and excessive, especially in relation to nearby similarly used project sites. In particular is the code would require approximately 26 lavatories with showers/bathtubs to service RV's which mostly have onboard facilities and water/sewer connections at each lot. Further, the city code is in strong contradiction with Florida Health Department Code which requires one bathroom facility for each sex for non-self-contained RV parks. This reflects better the surrounding RV parks located within a mile and within City limits. These parks are the Treasure Coast RV Resort to the NW and the Fort Pierce West KOA Holiday to the SE. In particular, the KOA is less than 5 years old and only contains 1 restroom building in the current phase that has been constructed and contains many more RV lots than this proposed project.

   Please reference the attached letter summarizing our findings and request for reassessment of the required bathrooms.

b. No recreational vehicle space shall be more than 200 ft. from a service building with a lavatory, toilet and a shower or bathtub for each sex.

Response: Please reference the previous answer along with the attached letter summarizing our findings related to this comment. The previous referenced Fort Pierce West KOA Holiday currently has one bathroom building constructed that is 1000 feet away from the furthest lot on a straight line. Even factoring in the second small bathroom building within Phase 2, the majority of the lots will be more than 200 feet away from either of the two proposed bathroom buildings.

3. Prior to issuance of CO, a notarized Landscape Maintenance Agreement is required.

Response: Acknowledged.

Fort Pierce Engineering Department

Site Plan: Do Not Recommend

1. The Boundary and Topography survey provided both electronically and hardcopy were neither signed nor sealed. A full sized original and electronic signed and sealed Boundary and Topography survey in accordance with the City of Fort Pierce Code of Ordinance Section 125-314(c)(1)(a) shall be required.

Response: Signed and sealed copies of the survey are provided with this letter.

2. The resubmitted site plan still does not reflect the installation of sidewalks along Andrews Road adjacent to the property in accordance with the City of Fort Pierce Code of Ordinance Section 125-317 and as required by Saint Lucie County.

Response: A sidewalk is shown in the revised plans provided with this resubmittal. The sidewalk was aligned along the northern end of the site to avoid impacts to existing large trees, but still within the ROW.

3. Access drives shall be paved, and surface material must be in accordance with the City of Fort Pierce Code of Ordinance Section 125-315(c)(6). Asphalt millings remain in the plan's legend and shall be removed from the plan's legend.

Response: Acknowledged. The driveway has been changed to be all paved. In addition, the erroneous legend label of asphalt millings has been removed.

4. The resubmitted site plan does not denote the 20-foot Right-of-way dedication along Andrews Avenue as required by Saint Lucie County.

Response: The ROW dedication has been better labeled to clearly show the dedication to reach the half of a 70' ROW as required for Andrews Avenue.

710 SE Ocean Blvd
Stuart, FL 34994
772-888-9076

5. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR.

   Response: Acknowledged.

ADVISORY COMMENTS:

1. A South Florida Water Management District (SFWMD) ERP shall be required prior to DPCR approval.

   Response: Acknowledged.

2. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.

   Response: Acknowledged.

3. The tree mitigation plan and associated mitigation fees will be reviewed in depth at the time of DPCR submittal.

   Response: Acknowledged.

4. At time of DPCR submittal update the engineering plans to reflect the attached City of Fort Pierce Standard Details.

   Response: Acknowledged.

St. Lucie County PW/Engineering

1. **Condition:** Crossroads parkway and Andrews Avenue are County roads in this location. Site Development Permits will be required for driveway connections and Right-of-Way work within these sections of roadway.

   Response: Acknowledged.

2. A 5-foot sidewalk is required along Andrews Avenue.

   Response: A 5' sidewalk is shown in the revised plans within the proposed Andrews Avenue ROW dedication. The sidewalk was aligned along the northern end of the site to avoid impacts to existing large trees, but still within the ROW.

GIANGRANDE
Engineering & Planning

710 SE Ocean Blvd
Stuart, FL 34994
772-888-9076

Florida Department of Transportation (Stephanie Torres is the contact person)

1. **Sidewalks/Bicycle-Pedestrian Connectivity:** There are no designated areas for bicycle travel, parking, or storage on the site. The proposed development does not appear to include sidewalks on either side of the internal drive aisles. No sidewalks are provided along Crossroads parkway or Andrews Avenue in the Conceptual Site Plan. Additionally, no sidewalk connections are provided along either of the proposed driveway entrances. As it is understood that many RV owners' bicycle or walk for local trips because they do not have a smaller vehicle for these trips, 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 RV Park. Sidewalks and bicycle facilities should be provided both within the RV Park and along Crossroads Parkway and Andrews Avenue for pedestrian and bicyclist safety as part of the proposed development.

   Response: Sidewalks are proposed along both Crossroads and Andrews, along with internal sidewalks within the RV park. There is a connection to the sidewalks at the entrance and in the NE corner of the site. A bike rack is provided adjacent to the parking lot. The majority of RV patrons that use bicycles have storage systems as part of their RV, so use of any bike racks will be limited.

Additional Comments Received from St. Lucie County Public Works on 12/17/2024

1. Provide a stormwater analysis demonstrating the pre vs post discharge analysis.

   Response: A stormwater report is provided with this resubmittal.

2. Andrews Avenue is a substandard Right-of-Way. A Right-of-way dedication will be required along Andrews Avenue.

   Response: The ROW dedication has been better labeled to clearly show the dedication to reach the half of a 70' ROW as required for Andrews Avenue.

3. Provide an updated traffic statement verifying whether turn lanes are required.

   Response: An updated traffic statement is provided with this resubmittal justifying that there is no need for turn lanes. In addition, this reflects the conditions at nearby RV parks – the Treasure Coast RV Resort to the NW and the Fort Pierce West KOA Holiday to the SE. Neither of these RV parks have dedicated turn lanes. Treasure Coast RV Resort in particular is located on Crossroads Parkway and is a similar size as the proposed project.

4. The sidewalk on Andrews Avenue is shown partially in the Right-of-Way and partially on private property. Revise the plan to show the Right-of-Way dedication and verify that the sidewalk will be placed in the Right-of-Way.

   Response: A sidewalk is shown in the revised plans provided with this resubmittal. The sidewalk was aligned along the northern end of the site to avoid impacts to existing large trees, but still within the ROW.

GIANGRANDE
Engineering & Planning

710 SE Ocean Blvd
Stuart, FL 34994
772-888-9076

Please do not hesitate to contact me if you require additional information or have any questions. Thank you for your review of this project. Please do not hesitate to contact me with questions or comments at (772) 888-9076.

Best regards,



Leo Giangrande, P.E.
Principal

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers

710 SE Ocean Blvd
Stuart, FL 34994
772.888.9076

Traffic Memorandum

Date: December 26, 2024

To: City of Fort Pierce Planning Department

From: Leo Giangrande, PE

Subject: Traffic Statement – Crossroads RV Park
GEP Project No. 22-024

Distribution: File

This traffic statement is being prepared as part of the site plan application to Saint Lucie County Growth Management.

The proposed project is a 10.90-acre RV Park with 84 spaces located at the Intersection of Crossroads Pkwy and Andrews Ave with two driveway. Please refer to the provided site plan.

The project trips have been calculated to determine the percent impact upon the adjacent roadway Crossroads Parkway. The daily, AM, and PM peak hour trips were estimated using the ITE Trip Generation 11th Edition with an ITE Land Use Code No. 416 – Recreational Vehicle Park. ITE Trip Gen does not provide an ADT for the LU – 416. It was estimated to be 4 trips per space per day.

RV Park								
ITE Trip Generation 11th Edition - Peak Hour of Adjacent Street - Average Rate								
AM			PM			Daily		
In	Out	Total	In	Out	Total	In	Out	Total
6	10	16	14	8	22	148	148	296

The greatest peak hour peak directional impact upon the adjacent roadway is 14 entering trips during the PM peak hour. The ADT is estimated at 296 trips.

When distributed upon the roadway network, the project trips are expected to generate a de minimis impact of less than 1.0% upon the existing roadway level of service as defined in the Saint Lucie County Land Development Code Section 5.01.00. The existing roadway data was obtained from the Saint Lucie TPO Roadway Report Fall 2023.

Segment Number	Road Name	From	To	Type	2023 AADT	2023 PH (dir) Existing
1	Crossroads Pkwy	Okeechobee Rd	Kings Hwy	2	2,142	970

Annual Growth	2028 PH (dir) Growth	Project Assign.	Project Trips	2028 PH (dir) Build-out	Service Volume	Project % of Service	Concurrency Test
2.0%	1,071	100%	14	1,085	2,100	0.7%	OK

The project's driveway is (right-in, left-in, right-out, left-out) at a median opening for the intersection of Crossroads Pkwy and Wheeler Terrace. No additional off-site improvements for capacity are found to be necessary since the existing level of service on the segment of roadway reveals that there is sufficient capacity for the de minimis project trips.

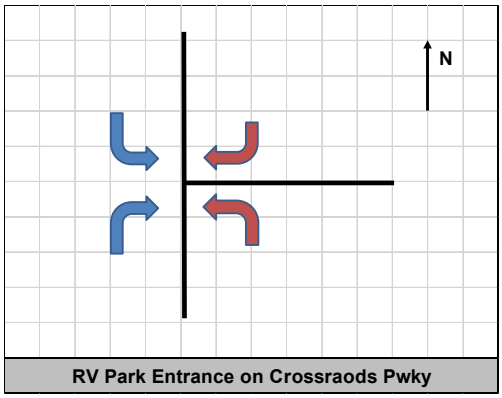


Figure 1: Driveway Movements for Crossroads Pkwy.

In accordance with the Saint Lucie County Land Development Code Section 11.02.09 concurrency is requested for this project based upon the de minimis traffic analysis presented.

A turn lane was evaluated as to whether one is needed and it was deemed unnecessary for this application. The Treasure Coast RV Resort located to the NW of the site, also on Crossroads Parkway, does not utilize a turn lane from Crossroads. With the small number of anticipated trips, combined with the similar sized project to the NW, a turn lane is considered unnecessary for the proposed Crossroads RV Park.

The following pages include the ITE Trip Generation 11th Edition and the Saint Lucie Roadway Report.

Should you have any questions, please contact Leo Giangrande at (772) 888-9076 or e-mail at Leo@GEP-LLC.com

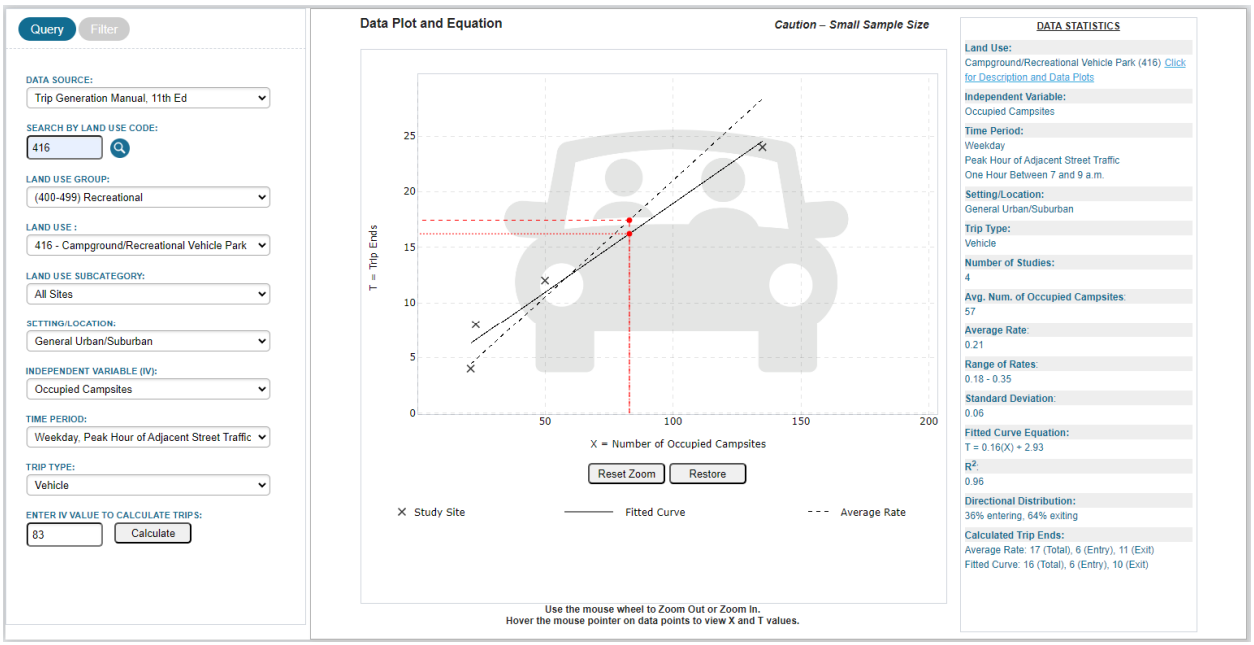


Figure 2: ITE Trip-Gen AM Peak-Hour Data

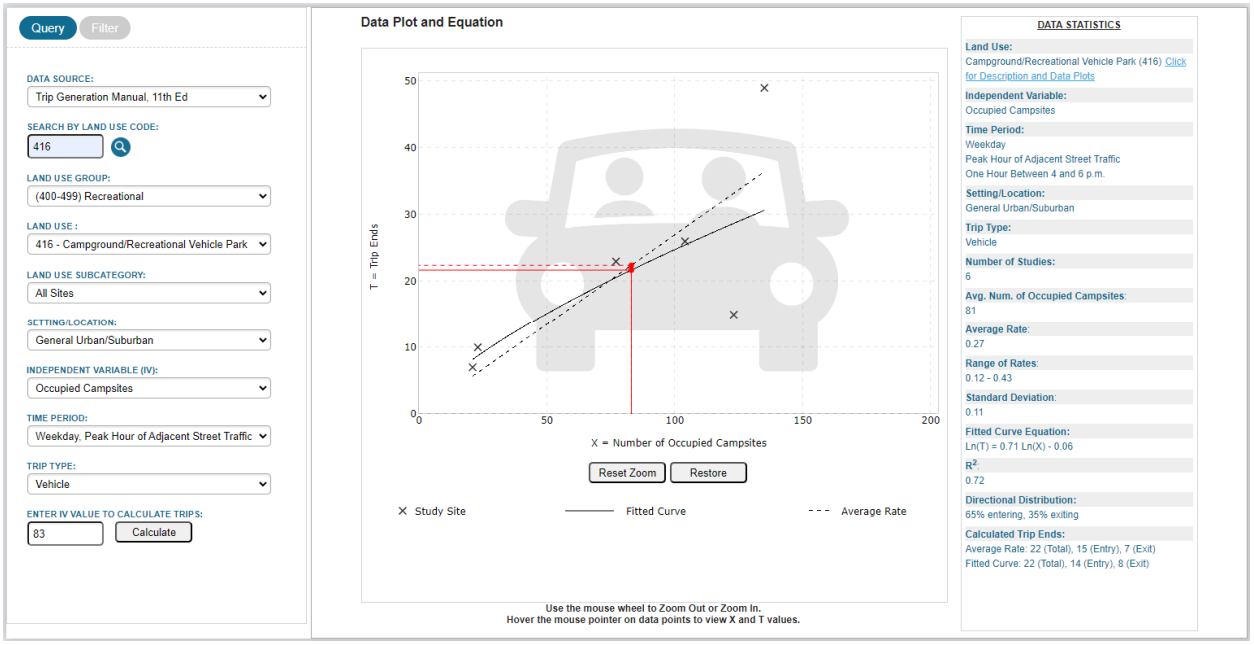


Figure 3: ITE Trip-Gen PM Peak-Hour Data

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers

2081 SE Ocean Blvd. St. 1A
Stuart, FL 34996
(Ph.) 772 888 9076

August 6, 2024

City of Port St Lucie
Planning Department
121 SW Port St Lucie Blvd
Port St Lucie, FL 34984

Re: **Code Sec. 125-247(3) Bypass**
Crossroads Site RV Park
Parcel ID: 2324-312-0005-000-4

To whom it may concern,

Giangrande Engineering & Planning (GEP) is providing this memorandum regarding the Crossroads Site Plan project, located between Crossroads Parkway and Andrews Avenue in Fort Pierce, FL 34950. This project proposes the development of 10.90 acres into 84 self-contained recreational vehicle (RV) spaces, which will be sold to individual buyers for their own use. Each RV space will have separate utility connections that will connect to the greater FPUA system.

Additionally, an amenity center is planned, potentially featuring a pool/spa, kitchen, communal lounge area, showers/lavatories, and pickleball courts. Please note that, as of the current date of this submission, the amenity center will be a separately permitted project.

According to the current code (Sec. 125-247(3)), Recreational Vehicle Parks are required to provide a sufficient number of lavatories and showers/bathtubs. Based on the number of lots and spacing provided, our project would require 26 lavatories and showers/bathtubs, distributed across five separate buildings to service the park.

After reviewing adjacent RV parks and similar or larger RV parks in the City of Fort Pierce, we found that none of them provided the number of lavatories or showers/bathtubs as required by the current code. Additionally, the Florida Health Department Code FAC 64E-15.005 requires one bathroom (male and female) for non-self-contained RV parks. Given that our project aims to service only self-contained RVs, we respectfully request a variance to bypass the requirement from code Sec. 125-247(3).

We appreciate your consideration of this request and are available to discuss this matter further at your convenience and we look forward to delivering a successful project with you.

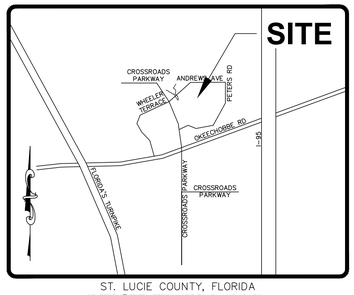
Best regards,



Leo Giangrande, P.E.
Principal

BOUNDARY & TOPOGRAPHY

FOR: ALEXANDER GEORGE & CO



ST. LUCIE COUNTY, FLORIDA

VICINITY MAP

NO SCALE

LEGAL DESCRIPTION
SOURCE (ORB 4843, PG 2274)

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, AND A PORTION OF LOTS 3 AND 6 OF BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION OF SECTION 24, AS RECORDED IN PLAT BOOK 3 AT PAGE 32 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 24 AND RUN SOUTH 00°07'24" EAST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, FOR 15.00 FEET; THENCE RUN SOUTH 89°41'32" EAST 15.00 FEET SOUTH OF AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, ALONG THE SOUTH RIGHT OF WAY LINE OF ANDREWS AVENUE (A 30 FOOT WIDE RIGHT OF WAY) FOR 739.44 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°41'32" E ALONG SAID RIGHT OF WAY FOR 919.16 FEET; THENCE RUN SOUTH 00°06'01" EAST FOR 10.00 FEET; THENCE RUN SOUTH 89°41'29" EAST FOR 226.79 FEET; THENCE RUN SOUTH 00°18'28" WEST FOR 425.04 FEET; THENCE RUN SOUTH 25°04'02" WEST FOR 226.43 FEET; THENCE RUN SOUTH 70°04'02" WEST FOR 459.41 FEET; THENCE RUN NORTH 21°40'15" WEST FOR 344.63 FEET TO A POINT OF CURVETURE OF A CIRCULAR CURVE TO THE LEFT, CONCAVE SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 855.00 FEET THROUGH A CENTRAL ANGLE OF 47°21'31" FOR 706.71 FEET TO THE POINT OF BEGINNING, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THEREFROM THE FOLLOWING DESCRIBED REAL PROPERTY CONVEYED TO SUNDIAL HOMES, INC BY DEED RECORDED IN OR BOOK 1150, PAGE 2226, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT LYING ON THE CENTERLINE OF ANDREWS AVENUE, A 30 WIDE ROAD RIGHT OF WAY, THENCE RUN SOUTH 00°06'16" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 24, A DISTANCE OF 15.00 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THENCE CONTINUE SOUTH 00°06'16" EAST A DISTANCE OF 30 FEET; THENCE RUN NORTH 89°41'32" WEST, PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 11.88 FEET TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 220.00 FEET AND A CENTRAL ANGLE OF 46°02'51" AN ARC DISTANCE OF 176.81 FEET TO A POINT OF TANGENCY; THENCE RUN SOUTH 44°15'37" WEST, A DISTANCE OF 126.72 FEEL TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 25.00 FEET AND A CENTRAL ANGLE OF 86°25'00" AN ARC DISTANCE OF 37.71 FEET TO A POINT ON A CURVE ON THE NORTHERLY RIGHT OF WAY LINE OF CROSSROADS PARKWAY AS SHOWN ON THE PLAT ENTITLED ST. LUCIE CROSSROADS AS RECORDED IN PLAT BOOK 30 AT PAGES 8 AND 8A OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE WITH A RADIAL BEARING FROM SAID POINT OF SOUTH 47°50'37" WEST, RUN NORTHWESTERLY ALONG THE ARC OF A CURVE AND THE NORTHERLY RIGHT OF WAY LINE OF CROSSROADS PARKWAY HAVING A RADIUS OF 855.00 FEET AND A CENTRAL ANGLE OF 26°52'23" AN ARC DISTANCE OF 401.01 FEET TO A POINT OF INTERSECTION WITH THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE, BEING A 30 FOOT WIDE RIGHT OF WAY AND SAID SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE LYING 15 FEET SOUTH OF THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24; THENCE RUN SOUTH 89°41'32" EAST ALONG THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 587.48 FEET TO THE POINT OF BEGINNING.

LEGEND

(P)	PLAT DATA
(C)	CALCULATED FROM FIELD MEASUREMENTS
(M)	MEASURED
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
P.L.S.	PROFESSIONAL LAND SURVEYOR
L.B.	LICENSED BUSINESS
PRM	PERMANENT REFERENCE MONUMENT
IR&C	5/8" IRON ROD & CAP
C.M.	CONCRETE MONUMENT
O.R.B.	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PG	PAGE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CATCH BASIN
CD	CHORD DISTANCE
UGE	UNDERGROUND ELECTRIC
UG AT&T	UNDERGROUND AT&T
R/W	RIGHT OF WAY
PC	POINT OF CURVE
PRC	POINT OF REVERSE CURVE
WM	WATER MAIN
A/C	AIR CONDITIONING
BLDG	BUILDING
PT	POINT OF TANGENCY
F.F.E.	FINISHED FLOOR ELEVATION
N.A.V.D.	NORTH AMERICAN VERTICAL DATUM
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
NR	NON-RADIAL
NSLRWCD	NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT
————	CHAIN-LINK FENCE
℄	CENTERLINE
ℙ	PROPERTY LINE
No.	NUMBER
TYP	TYPICAL
EL	ELEVATION
CONC	CONCRETE
CATV	CABLE TELEVISION
SQ.	SQUARE
FT.	FEET
INFO.	INFORMATION
TOB	TOP OF BANK
OHW	OVERHEAD UTILITIES
HDPE	HIGH DENSITY POLYETHYLENE
LS	LIFT STATION
WW	WET WELL
L	LOT LINE
ℬ	BUILDING WALL LINE
	WOOD POWER POLE
	FIRE HYDRANT
	VALVE
	DRAINAGE MANHOLE
CLF	CHAIN LINK FENCE
RCP	REINFORCED CONCRETE PIPE
	POWER RISER
(D)	BENCHMARK
(D)	DEED
INV	INVERT
	SANITARY MANHOLE
	HAND HOLE
	SANITARY CLEAN OUT
	WOOD POWER POLE
	CONCRETE POWER POLE
	GUY WIRE AND ANCHOR
	WELL
	CABLE TV JUNCTION BOX
	SIGN
	LIGHT POLE
BW	BARBED WIRE
OHW	OVERHEAD WIRE
TOB	TOP OF BANK
TOE	TOE OF SWALE

SURVEYORS NOTES AND REPORT:

1. THIS BOUNDARY SURVEY WAS PERFORMED FOR THE PURPOSE OF MAPPING EXISTING FEATURES AND CONDITIONS, AS SHOWN AND DEPICTED HEREON. I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS IS A TRUE AND ACCURATE DEPICTION OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON OCTOBER 4, 2021. I FURTHER CERTIFY THAT SAID DRAWING IS IN COMPLIANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, IN CHAPTER 5J–17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.
2. THIS SURVEY MAP AND REPRODUCTIONS THEREOF ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. THIS SURVEY CANNOT BE TRANSFERRED OR ASSIGNED WITHOUT THE SPECIFIC WRITTEN PERMISSION OF ENGINEERING, DESIGN AND CONSTRUCTION, INC. IT IS A VIOLATION OF CHAPTER 5J–17, FLORIDA ADMINISTRATIVE CODE, TO ALTER THIS SURVEY WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF THE SURVEYOR. ADDITIONS AND/OR DELETIONS MADE TO THE FACE OF THIS SURVEY WILL MAKE THIS SURVEY INVALID.
3. THE LAST DATE OF FIELD WORK (AND DATA ACQUISITION) WAS OCTOBER 18, 2021.
4. CURRENT DESCRIPTION(S) SHOWN HEREON PROVIDED BY: THE CLIENT. A TITLE SEARCH FOR THIS PROPERTY HAS NOT BEEN ABSTRACTED TO SHOW MATTERS OF RECORD SUCH AS EASEMENTS OR OTHER ENCUMBRANCES OR RESTRICTIONS.
5. PARCELS CONTAIN A TOTAL OF 10.904 ACRES, MORE OR LESS.
6. THIS BOUNDARY SURVEY HAS BEEN REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM–EAST ZONE, NAD 83 (1990).
7. SUB–SURFACE IMPROVEMENTS INCLUDING UNDERGROUND UTILITIES, UTILITY SERVICES, WERE NOT LOCATED AS PART OF THIS SURVEY.
8. REVISIONS SHOWN HEREON DO NOT REPRESENT A "FIELD SURVEY UPDATE" UNLESS OTHERWISE NOTED.
9. BEARINGS SHOWN HERON ARE BASED UPON GRID BEARINGS AND REFERENCE TO THE LINE LABELED HERON AS (BEARING BASIS) AND ALL OTHER BEARINGS ARE RELATIVE THERETO. DISTANCES ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
10. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON THE FLORIDA PERMANENT REFERENCE NETWORKS (FPRN) USING GPS REAL TIME KINEMATIC (RTK) OBSERVATION WITH AND ACCURACY OF ±0.06'–0.10'. SITE BENCHMARKS UTILIZED ARE SHOWN HEREON.
11. THIS SITE WAS SURVEYED UTILIZING TRIMBLE/SPRECTRA HARDWARE TOGETHER WITH SPECTRA SURVEY PRO REALTIME PROCESSING AND WAS BASED ON TRIMBLES "VRS NOW" NETWORK AND/OR THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN). THE PROCEDURES AND NETWORK DESIGN MEETS THE GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATED POSITIONING AS SET FORTH BY THE FEDERAL GEODETIC CONTROL COMMITTEE IN THE MOST CURRENT PUBLICATION FOR 3RD ORDER CLASS ONE FOR HORIZONTAL CONTROL SURVEYS.
12. IN SOME INSTANCES, GRAPHIC REPRESENTATIONS AND SYMBOLS SHOWN HAVE BEEN EXAGGERATED TO MORE CLEARLY ILLUSTRATE THE RELATIONSHIP BETWEEN PHYSICAL IMPROVEMENTS AND/OR LOT LINES. THE DIMENSIONS SHOWN SHALL CONTROL THE LOCATION, OF THE IMPROVEMENTS, OVER THE SCALED POSITIONS.
13. THE OWNERSHIP OF PERIMETER FENCES, WALLS, HEDGES AND LANDSCAPING, IF ANY, SHOWN HEREON ARE NOT KNOWN AND ARE NOT LISTED AS ENCROACHMENTS. THEIR RELATIVE LOCATION IS SHOWN IN RELATION TO THE BOUNDARY LINES SHOWN.
14. THE SURVEY MAP SHOWN HEREON DOES NOT NECESSARILY CONTAIN ALL OF THE INFORMATION OBTAINED OR DEVELOPED BY THE UNDERSIGNED SURVEYOR IN HIS FIELD WORK, OFFICE WORK OR RESEARCH.
15. THE PROPERTY WHICH IS THE SUBJECT OF THIS SURVEY APPEARS TO BE SITUATE IN AN AREA OF MINIMAL FLOOD HAZARD AT THIS TIME PURSUANT TO F.E.M.A. FIRM NUMBER 12111C0167F, HAVING AN EFFECTIVE DATE OF FEBRUARY 16, 2012. FOR APPROXIMATE DELINEATION OF THE FLOOD ZONE LIMITS, REFER TO AFOREMENTIONED FIRM PANELS.

LIDAR FLIGHT NOTES & ACCURACY REPORT:

1. THIS SITE WAS FLOWN DURING OCTOBER 7, 2021 UTILIZING A DJI MATRICE 300 UAV.
2. FLIGHT PLANNING WAS PERFORMED WITH DJI PILOT FOR FLIGHT PLANNING AND POST–PROCESSED USING TRIMBLE BUSINESS CENTER AND/OR PIX4D SURVEY.
3. THE FLIGHT WAS OBSERVED BY CERTIFIED REMOTE PILOT NO. 4064815.
4. GROUND ELEVATIONS WHERE SPOT CHECKED WITH GPS REAL TIME KINEMATIC (RTK) OBSERVATION.
5. MEASUREMENTS OF DISTANCE, AREA AND VOLUME WITHIN THE MAP ARE ACCURATE TO WITHIN 1–3 TIMES THE GROUND SAMPLING DISTANCE. MAP MEASUREMENTS ARE WITHIN 1–3% OF GROUND–BASED MEASUREMENTS.
6. FEATURES ARE LIMITED TO THOSE VISIBLE AT TIME OF THE FLIGHT AND ARE SUBJECT TO FIELD VERIFICATION BY THE END USER. AREAS DESIGNATED AS "OBSCURED" INDICATE THE GROUND IS OBSCURED BY VEGETATION AND/OR SHADOWS. MAPPING WITHIN THESE AREAS MAY NOT MEET STANDARD ACCURACY.
7. RELATIVE ACCURACY:
   - VERTICAL ACCURACY IS ± 0.25' FOR OPEN AREAS
   - VERTICAL ACCURACY IS ± 0.50' AREAS OF DENSE VEGETATION.

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

SIGNATURE DATE:

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

DRAWN BY	AV
CHECKED BY	MTO
FIELD CREW	JM
FILENAME	21-456_SURV REV1.dwg
SCALE	AS SHOWN
DATE	October 4, 2021

DATE	
08/11/22	REVISE LEGAL DESCRIPTION & SKETCH_AV
2/8/1122	REVISION COMMENTS

BOUNDARY AND TOPOGRAPHIC SURVEY
FOR: ALEXANDER GEORGE AND CO.
PORTION OF
SEC. 24, TWNSHP. 34 SOUTH, RGE. 35 EAST
ST. LUCIE COUNTY, FLORIDA

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

21-456

1 OF 1

Z:\EDC-2021\21-456\ - George - Crossroads Parkway FPSL\SURVEY\dwg - PDF\Survey\21-456_SURV REV1.dwg, 8/11/2022 1:44 PM
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ANY UNAUTHORIZED USE, CHANGE OR REUSE OF THESE DRAWINGS, WITHOUT WRITTEN AUTHORIZATION AND APPROPRIATE COMPENSATION TO EDC, INC. WILL BE UNLAWFUL AND SUBJECT TO EDC, INC.

Stormwater Management Report

Engineering Calculations & Supplementary Documents
Supporting a Surface Water Management System Serving

Crossroads RV Park Project

Location:
Fort Pierce, Florida
Saint Lucie County
PCN: 2324-312-0005-000-4

Prepared by:

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers
710 SE Ocean Blvd.
Stuart, Florida 34994
772-888-9076
FL Certification: 30901

Prepared: September 2024
Revised: December 2024

Prepared by:

Leo D. Giangrande, PE
PE Reg #66387

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Appendix C ..... Existing Conditions Stormwater Calculations
Appendix D ..... Existing Conditions StormWise Model Report
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Appendix F ..... Proposed Conditions StormWise Model Report
Appendix G ..... Proposed Conditions 10-Year, 3-Day Volumetric Discharge Analysis

1. PROJECT DESCRIPTION

This project proposes an RV Park located on Crossroads Parkway North of Okeechobee Road (PCN: 2324-312-0005-000-4). The proposed site is 10.91 acres. It is also proposed that there will be 84 camper lots with pads, a clubhouse, and a pickleball court. A location map is provided in **Figure 1** below.



Figure 1 – Location Map

2. EXISTING CONDITIONS

2.1 Existing Site

The subjected site covers 10.91 acres of land, situated to the North of SR-70 (Okeechobee Rd.). A majority of the land on the site is covered in palm, pine, and oak trees along with cabbage palm and shrubs. Stormwater sheet flows toward the lowland area in Northwest which then connects to an existing culvert running underneath Andrews Avenue. Currently, the entirety of the site sits two feet above the wet season water table except. For a comprehensive understanding of the existing site conditions, please refer to the provided aerials and existing conditions maps on Sheet EX-1.

2.2 Control Elevation

The RV Park to the northwest of the site has a control elevation of 14' NGVD based upon reflecting the control elevation from the adjacent, Treasure Coast RV Park, dated December 1, 2003, SFWMD permit (56-01855-P).

This corresponds well with the adjacent wet pond to the east that had a surveyed water level of 13.6 ft-NAVD at the time of the survey in October, during the wet season. The proposed site will be controlled at 14.5 ft-NAVD as shown in the calculations and plans.

3. PERMITTING REQUIREMENTS

The project is located within the City of Fort Pierce and is within the boundaries of both the South Florida Water Management District (SFWMD) and North St. Lucie River Water Control District (NSLRWCD). These are the permitting agencies regulating the activities on this project site.

3.1. Rainfall

The following storm events were used in the project design (from the SFWMD ERP Applicant's Handbook Volume II, Appendix C):

Table 1 – Rainfall Summary Table

Storm Event	Rainfall (in)	Design Purpose
10-year, 1-day	6	Roads (lowest pavement elevation)
10-year, 3-day	8.5	Pre vs. Post Discharge Analysis, Min. Perimeter Berm (NSLRWCD requirement)
25-year, 3-day	9.5	Pre vs. Post Discharge Analysis, Min. Perimeter Berm (SFWMD requirement)
100-year, 3-day	12.23	Zero Discharge Event for Min. Finished Floor Elevation

4. PROPOSED CONDITIONS

4.1 Project Description

The proposed improvements for the 10.91 acres site will include 84 RV pads as well as a clubhouse and a pickleball court. The parking lot outside of the clubhouse will include 10 parking spaces as well an individual handicap space. The runoff generated from the areas of proposed parking/driveway and buildings/RV pads will be captured by the multiple inlets and moved to a wet detention pond in the center of the site.

4.2 Land Use

The following table provides a post-development land use breakdown of the project.

Land Use Summary			
Land Use	**Pre-Dev (ac)**	**Post-Dev (ac)**	**Difference (ac)**
Roadway Asphalt	0.00	1.33	1.33
Concrete	0.00	0.19	0.19
Building	0.00	0.07	0.07
RV Pads	0.00	1.71	1.71
Lake at Control Elevation	0.00	1.08	1.08
Slope of Lake	0.00	0.34	0.34
Open Space	10.91	6.19	(-) 4.72
Parcel Total	**10.91**	**10.91**	

4.3 Water Quality

Water quality storage is provided for the site based on the greater of 1 inch of rainfall over the project area or the total runoff of 2.5 inches times the percent impervious. The required 1.36 ac-ft of storage will be provided in the proposed wet detention pond based on the 2.5-inch times the impervious area. Calculations are provided in Appendix C.

4.4 Stormwater Runoff Volume

As previously laid out, the proposed project is within the drainage area of North St. Lucie River Water Control District (NSLRWCD), whose discharge requirements limit the discharge from a developed site to 2" over the site area during any 24-hour period from the 10-year, 3-day storm event. Based on the site area of the subject project of 10.91 acres, this results in a maximum volumetric discharge from the site during any 24-hour period from the 10-year, 3-day storm event of 1.82 ac-ft. A StormWise (formerly ICPR) model was assembled for the site and the 10-year, 3-day storm event was run with the volumetric discharges analyzed following the model run. The maximum 24-hour volumetric discharge resulted in 1.79 ac-ft coming from the developed site, meeting the NSLRWCD requirements.

4.5 Stormwater Design Elevation

The proposed stormwater area, consisting of a wet detention pond, is sized to service the site for the stormwater requirements as set forth by SFWMD and NSLRWCD. The discharge from the 25-year / 3-day storm event will be decreased in the post-development conditions compared to the pre-development conditions. The proposed roadway/parking area will be set above the 10-year / 1-hour. The table below provides a summary of the design stage for this project. Proposed stormwater calculations are provided in the appendices to this report.

Design Elevations					
Design Storm	**Pre Discharge (cfs)**	**Post Discharge (cfs)**	**Post Stage (ft NAVD)**	**Design Elev (ft NAVD)**	**Category**
Water Quality	N/A	N/A	**15.69**	**15.70**	**WQ**
10-yr / 1-day	N/A	N/A	**16.69**	**16.75**	**Road**
10-yr / 3-day	N/A	(see above)	**17.23**	N/A	**NSLRWCD Discharge**
25-yr / 3-day	**5.39**	**0.97**	**17.40**	**17.40**	**Discharge / Perimeter Berm**
100-yr / 3-day Zero Discharge	N/A	N/A	**18.03**	**19.00**	**FFE**

Additional project design information is listed as follows:

- Outfall: Discharge from the stormwater wet detention area will be controlled by a control structure. The structure overflows into the existing culvert under Andrews Avenue in the northwest corner of the site, matching historic drainage patterns.

- Geotechnical Information: The soils onsite were determined by usings the USDA soil maps. The maps show that there is a split between Nettles and Oldsmar Sands, Wabasso Sand, and a small percentage of Riviera fine sand.

5. CONCLUSION

The proposed project meets or exceeds current Saint Lucie County and SFWMD regulations for stormwater attenuation and control. In addition, the project will reduce existing runoff into surrounding sites, resulting in greatly improved water quality. The project will also not impact surrounding properties during storm events as shown in the attached calculations and plans.

APPENDICES

Appendix A
FEMA Map

National Flood Hazard Layer FIRMette

FEMA

80°23'57"W 27°25'20"N



80°23'19"W 27°24'48"N

Feet

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

1:6,000

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

Legend

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

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

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

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

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

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

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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/30/2022 at 2:11 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Appendix B
USDA Soil Map

Soil Map—St. Lucie County, Florida



Map Scale: 1:2,130 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

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

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 17, Sep 6, 2023

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
25	Nettles and Oldsmar sands	10.5	77.5%
38	Riviera fine sand, 0 to 2 percent slopes	0.4	2.9%
48	Wabasso sand, 0 to 2 percent slopes	2.6	19.6%
Totals for Area of Interest		**13.5**	**100.0%**

St. Lucie County, Florida

25—Nettles and Oldsmar sands

Map Unit Setting

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

Map Unit Composition

Nettles and similar soils: 41 percent
Oldsmar and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nettles

Setting

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

Typical profile

A - 0 to 8 inches: sand
E - 8 to 33 inches: sand
Bh1 - 33 to 39 inches: sand
Bh2 - 39 to 55 inches: sand
Btg - 55 to 80 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 31 to 50 inches to ortstein
Drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 1.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Ecological site: F156BY040FL - Sandy Pine Flatwoods and Hammocks
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Description of Oldsmar

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: sand
E - 5 to 32 inches: sand
Bh - 32 to 42 inches: sand
Btg - 42 to 80 inches: fine sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 4.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: F156BY040FL - Sandy Pine Flatwoods and Hammocks
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Minor Components

Oldsmar

Percent of map unit: 4 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R156BY021FL - Mineral Isolated Marshes and Swamps
Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G156BC145FL)
Hydric soil rating: Yes

Wabasso

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F156BY040FL - Sandy Pine Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Ankona

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F156BY040FL - Sandy Pine Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Pineda

Percent of map unit: 4 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F156BY041FL - Sandy Over Loamy Pine Flatwoods and Hammocks
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL)
Hydric soil rating: Yes

Pepper

Percent of map unit: 4 percent

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F156BY040FL - Sandy Pine Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Data Source Information

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 17, Sep 6, 2023

St. Lucie County, Florida

48—Wabasso sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2svyr
Elevation: 0 to 70 feet
Mean annual precipitation: 46 to 55 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 355 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Wabasso and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wabasso

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: sand
E - 6 to 25 inches: sand
Bh - 25 to 30 inches: sand
Btg - 30 to 58 inches: sandy clay loam
Cg - 58 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 9 to 50 inches to strongly contrasting textural stratification
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Minor Components

Brynwood

Percent of map unit: 6 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)
Hydric soil rating: Yes

Cypress lake

Percent of map unit: 5 percent
Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, convex
Across-slope shape: Concave, linear
Ecological site: F155XY130FL - Sandy over Loamy Flatwoods and Hammocks
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), South Florida Flatwoods (R155XY003FL)
Hydric soil rating: Yes

Pineda

Percent of map unit: 4 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Linear
Across-slope shape: Linear, concave
Ecological site: F155XY130FL - Sandy over Loamy Flatwoods and Hammocks
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Slough (R155XY011FL)

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 17, Sep 6, 2023

St. Lucie County, Florida

38—Riviera fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tzw2
Elevation: 0 to 80 feet
Mean annual precipitation: 44 to 59 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Riviera and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Riviera

Setting

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

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 28 inches: fine sand
Bt/E - 28 to 32 inches: fine sandy loam
Btg - 32 to 42 inches: sandy clay loam
C - 42 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 3 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Ecological site: F155XY130FL - Sandy over Loamy Flatwoods and Hammocks
Forage suitability group: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Slough (R155XY011FL)
Hydric soil rating: Yes

Minor Components

Wabasso

Percent of map unit: 8 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Pinellas

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: F155XY130FL - Sandy over Loamy Flatwoods and Hammocks
Other vegetative classification: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL), Cabbage Palm Flatwoods (R155XY005FL)
Hydric soil rating: No

Brynwood

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)
Hydric soil rating: Yes

Floridana

Percent of map unit: 2 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Ecological site: R155XY080FL - Sandy over Loamy Freshwater Isolated Marshes and Swamps
Other vegetative classification: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL), Freshwater Marshes and Ponds (R155XY010FL)
Hydric soil rating: Yes

Oldsmar

Percent of map unit: 2 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL), South Florida Flatwoods (R155XY003FL)
Hydric soil rating: No

Data Source Information

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 17, Sep 6, 2023

Appendix C
Existing Conditions Stormwater Calculations

Pre-Development Land Use Calculations

Project Explanation

Project Name:	Crossroads RV Park		
Project #:	22-024		
Engineer:	DCC	**Engineer:**	
Date:	11/1/2022	**Revision Date:**	

Computation Type: Land Use & Stage-Storage

Datum: NAVD

Average Ground Elevation (EL_{grnd}) = 17.00 ft-NAVD **Source:** Treasure Coast Motor Coach Resort

Control Elevation (CE) = 14.00 ft-NAVD **Source:** Permit No. 56-01855-P

Site Land Use

	Open Space	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Total
	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)
Percentage of On-Site	100.0%	0.0%	0.0%	0.00%	0.00%	0.0%	0.0%	0.00%	0.00%	
Total Areas (SF)	474,955 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	474,955 SF
Total Areas (A_t)	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
Bldg. %	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
Bldg. Area (A_r)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pervious %	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Pervious Area (A_p)	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
Impervious %	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Impervious Area (A_i)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Open Water %	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%
Open Water Area (Ac.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pre-Development Stage-Storage Calculations
Project Explanation

Storage Type:	**Stage-Volume**
Starting Stage =	**15.00**
Ending Stage =	**20.00**
Stage Increment =	**0.10**

Name	**Open Space**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	
Area	**10.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Start Elev	**15.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
End Elev	**18.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.60	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
15.70	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
15.80	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
15.90	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
16.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
16.10	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65
16.20	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
16.30	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16
16.40	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47
16.50	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.82
16.60	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.20
16.70	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.62
16.80	3.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.07
16.90	3.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.56
17.00	4.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.09
17.10	4.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.65
17.20	5.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.25
17.30	5.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.89
17.40	6.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.56
17.50	7.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.27
17.60	8.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.01
17.70	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.80
17.80	9.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.61
17.90	10.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.47
18.00	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.36
18.10	12.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.28
18.20	13.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.25
18.30	14.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.25
18.40	15.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.28
18.50	16.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.36
18.60	17.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.45

Pre-Development Stage-Storage Calculations
Project Explanation

Storage Type:	**Stage-Volume**
Starting Stage =	**15.00**
Ending Stage =	**20.00**
Stage Increment =	**0.10**

Name	**Open Space**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	
Area	**10.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Start Elev	**15.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
End Elev	**18.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
18.70	18.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.54
18.80	19.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.63
18.90	20.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.72
19.00	21.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	21.81
19.10	22.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.90
19.20	23.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.99
19.30	25.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.08
19.40	26.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.17
19.50	27.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.26
19.60	28.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.35
19.70	29.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.44
19.80	30.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.53
19.90	31.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.62

Pre-Development Stage-Area Calculations
Project Explanation

Storage Type:	**Stage-Area**
Starting Stage =	**15.00**
Ending Stage =	**20.00**
Stage Increment =	**0.10**

Name	**Open Space**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	
Area	**10.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Start Elev	**15.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
End Elev	**18.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac
15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.60	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
15.70	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73
15.80	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
15.90	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45
16.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.82
16.10	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.18
16.20	2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.54
16.30	2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.91
16.40	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.27
16.50	3.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.63
16.60	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00
16.70	4.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.36
16.80	4.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
16.90	5.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.09
17.00	5.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.45
17.10	5.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.82
17.20	6.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.18
17.30	6.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.54
17.40	6.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.91
17.50	7.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.27
17.60	7.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.63
17.70	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00
17.80	8.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.36
17.90	8.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.72
18.00	9.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.09
18.10	9.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.45
18.20	9.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.81
18.30	10.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.18
18.40	10.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.54
18.50	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
18.60	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90

Pre-Development Stage-Area Calculations
Project Explanation

Storage Type:	**Stage-Area**
Starting Stage =	**15.00**
Ending Stage =	**20.00**
Stage Increment =	**0.10**

Name	**Open Space**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	
Area	**10.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Start Elev	**15.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
End Elev	**18.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac
18.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
18.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
18.90	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.00	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.10	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.20	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.30	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.40	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.50	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.60	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.70	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.80	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90
19.90	10.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90

PRE-Development Stormwater Calculations

Project Explanation

Revised:

Project: Crossroads RV Park
Engineer: DCC
Project #: 22-024
Date: 11/1/2022

Land Use Table

Use	Imp. (ac)	Bldg. (ac)	Pervious (ac)	Total (ac)
Basin =	0.00	0.00	10.90	10.90
TOTAL =	0.00	0.00	10.90	10.90

Find Curve Number:

Avg. Pervious Ground El. =	17.00
Control Elev. =	14.00
Distance to Water Table =	3.00

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
0.0	0.0	0.0	0.0
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

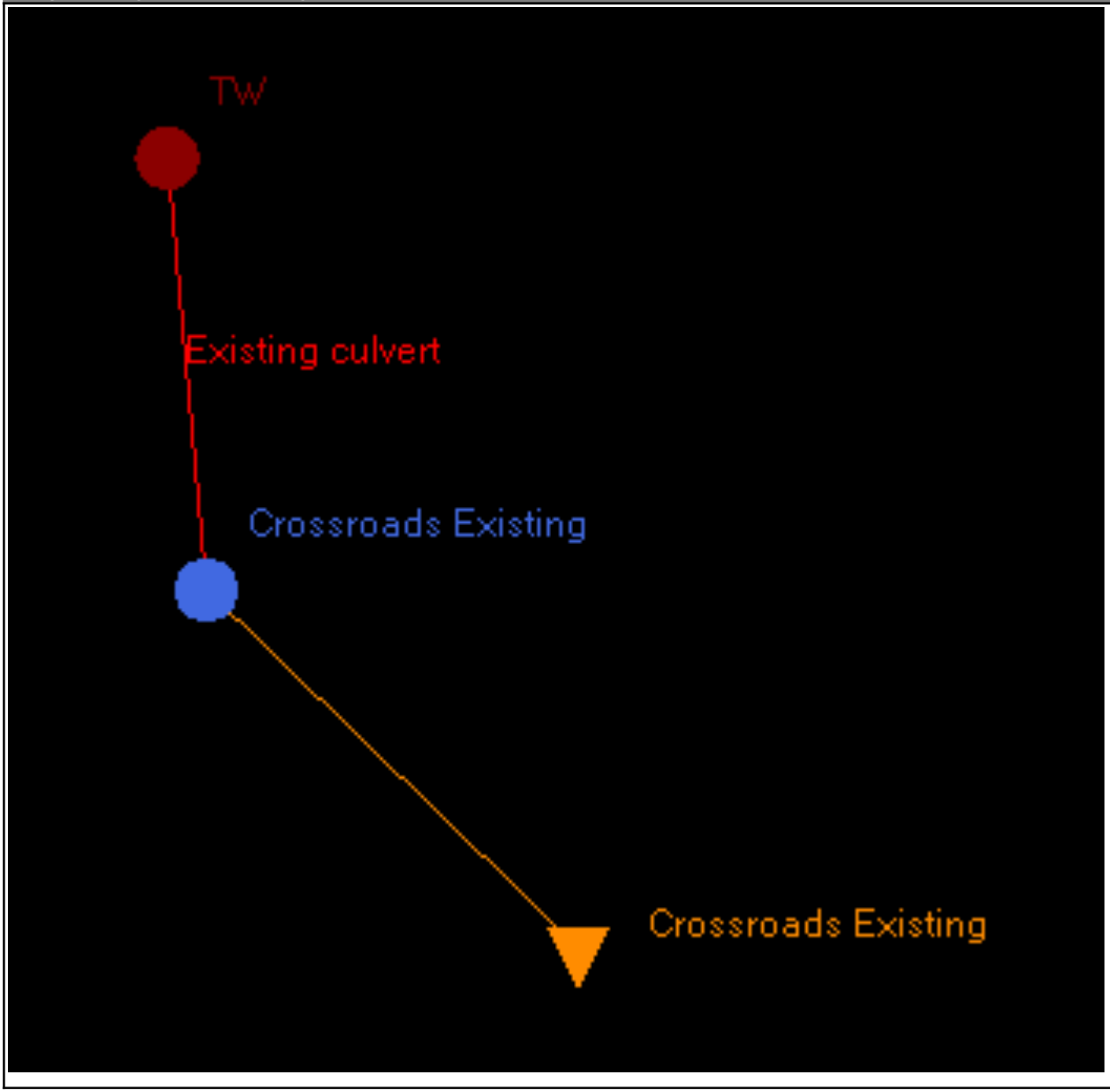
Find the basin's soil classification and input below as "Soil Storage" using the above "Depth to W.T.".

Soil Type =	Flatwoods		
Max. Available Soil Storage (S_{max}) =	5.40	inches	
Compaction Factor ($F_{compact}$) =	0%		(Use 25% for developed site)
Compacted Soil Storage ($S_{compact}$) =	5.40	inches	$(S_{max})(F_{compact})$
Available Soil Storage (S_{avail}) =	5.40	inches	$(A_p)(S_{compact})/(A_t)$
Curve Number (CN) =	**65**		1000 / (S_{avail}+10)

Notes:
1. Soil Storage Table taken from Section 5.7.4.2 of the SFWMD ERP Applicant's Handbook Volume II.
2. Curve Number determination based on method presented in USDA NRCS Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds".

Appendix D
Existing Conditions StormWise Model Report

Background Image: Pre Dev Nodal Diagram



Simulation: 10Y-1D

Scenario: Pre-Dev
Run Date/Time: 8/16/2024 2:10:33 PM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	120.0000

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

Output Time Increments

Hydrology

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

Surface Hydraulics

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

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

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

Tolerances & Options

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

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FLMOD
Rainfall Amount: 6.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10Y-3D

Scenario: Pre-Dev
Run Date/Time: 8/16/2024 2:11:00 PM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

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

Output Time Increments

Hydrology

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

Surface Hydraulics

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

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

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

Tolerances & Options

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

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SFWMD-72
Rainfall Amount: 8.50 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25Y-3D

Scenario: Pre-Dev
Run Date/Time: 8/16/2024 2:13:27 PM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

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

Output Time Increments

Hydrology

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

Surface Hydraulics

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

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

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

Tolerances & Options

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

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SFWMD-72
Rainfall Amount: 9.50 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simple Basin: Crossroads Existing

Scenario:	Pre-Dev
Node:	Crossroads Existing
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	60.0000 min
Max Allowable Q:	999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	10.9000 ac
Curve Number:	65.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Mass Balance Summary [Pre-Dev]

Basin Name	Sim Name	Total Rainfall	Total Runoff	Change Soil Storage
Crossroads Existing [in]	10Y-1D	6.00	2.35	3.65
Crossroads Existing [ft3]	10Y-1D	237402	93004	144398
Crossroads Existing [ac-ft]	10Y-1D	5.45	2.14	3.31
Crossroads Existing [in]	10Y-3D	8.50	4.30	4.20
Crossroads Existing [ft3]	10Y-3D	336319	170171	166148
Crossroads Existing [ac-ft]	10Y-3D	7.72	3.91	3.81
Crossroads Existing [in]	25Y-3D	9.50	5.14	4.36
Crossroads Existing [ft3]	25Y-3D	375886	203240	172646
Crossroads Existing [ac-ft]	25Y-3D	8.63	4.67	3.96

Node: Crossroads Existing

Scenario: Pre-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.00 ft
Warning Stage: 25.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
15.00	0.0000	0
15.10	0.0000	0
15.20	0.0000	0
15.30	0.0000	0
15.40	0.0000	0
15.50	0.0000	0
15.60	0.3600	15682
15.70	0.7300	31799
15.80	1.0900	47480
15.90	1.4500	63162
16.00	1.8200	79279
16.10	2.1800	94961
16.20	2.5400	110642
16.30	2.9100	126760
16.40	3.2700	142441
16.50	3.6300	158123
16.60	4.0000	174240
16.70	4.3600	189922
16.80	4.7200	205603
16.90	5.0900	221720
17.00	5.4500	237402
17.10	5.8200	253519
17.20	6.1800	269201
17.30	6.5400	284882
17.40	6.9100	301000
17.50	7.2700	316681
17.60	7.6300	332363
17.70	8.0000	348480
17.80	8.3600	364162
17.90	8.7200	379843
18.00	9.0900	395960
18.10	9.4500	411642
18.20	9.8100	427324

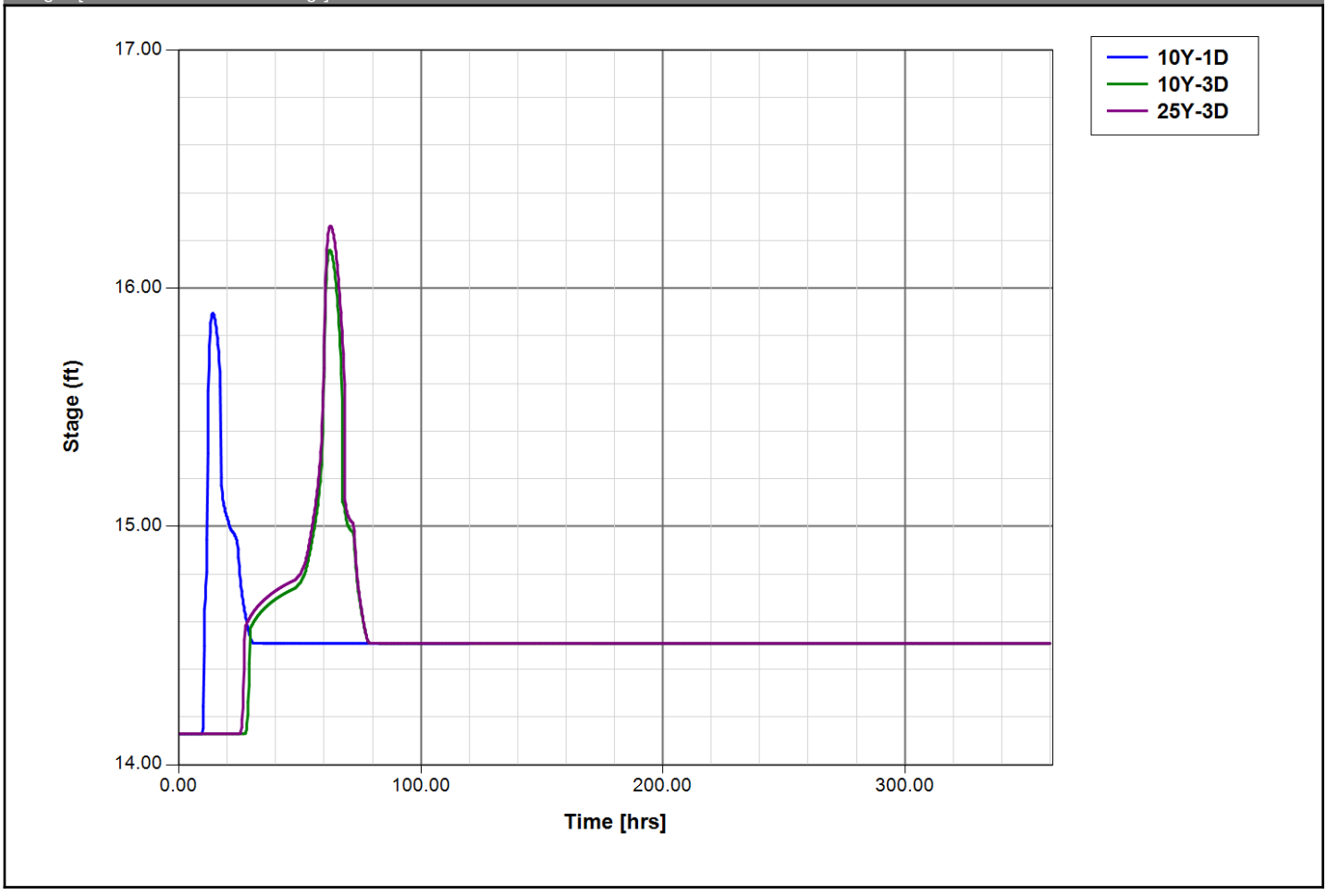
Stage [ft]	Area [ac]	Area [ft2]
18.30	10.1800	443441
18.40	10.5400	459122
18.50	10.9000	474804
18.60	10.9000	474804
18.70	10.9000	474804
18.80	10.9000	474804
18.90	10.9000	474804
19.00	10.9000	474804
19.10	10.9000	474804
19.20	10.9000	474804
19.30	10.9000	474804
19.40	10.9000	474804
19.50	10.9000	474804
19.60	10.9000	474804
19.70	10.9000	474804
19.80	10.9000	474804
19.90	10.9000	474804

Comment:

Node Max Conditions w/ Times [Pre-Dev]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
Crossroads Existing	10Y-1D	25.00	0.00	15.90	0.0010	6.62	3.93	62490	14.0902	11.9250	12.7503	14.0569
Crossroads Existing	10Y-3D	25.00	0.00	16.16	-0.0013	11.21	5.00	104430	62.4820	67.5188	60.5508	62.4487
Crossroads Existing	25Y-3D	25.00	0.00	16.26	-0.0013	13.23	5.39	120537	62.7150	68.6309	60.5492	62.7983

Stage [Node: Crossroads Existing]



Node: TW

Scenario: Pre-Dev
Type: Time/Stage

Base Flow: 0.00 cfs
Initial Stage: 14.00 ft
Warning Stage: 25.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

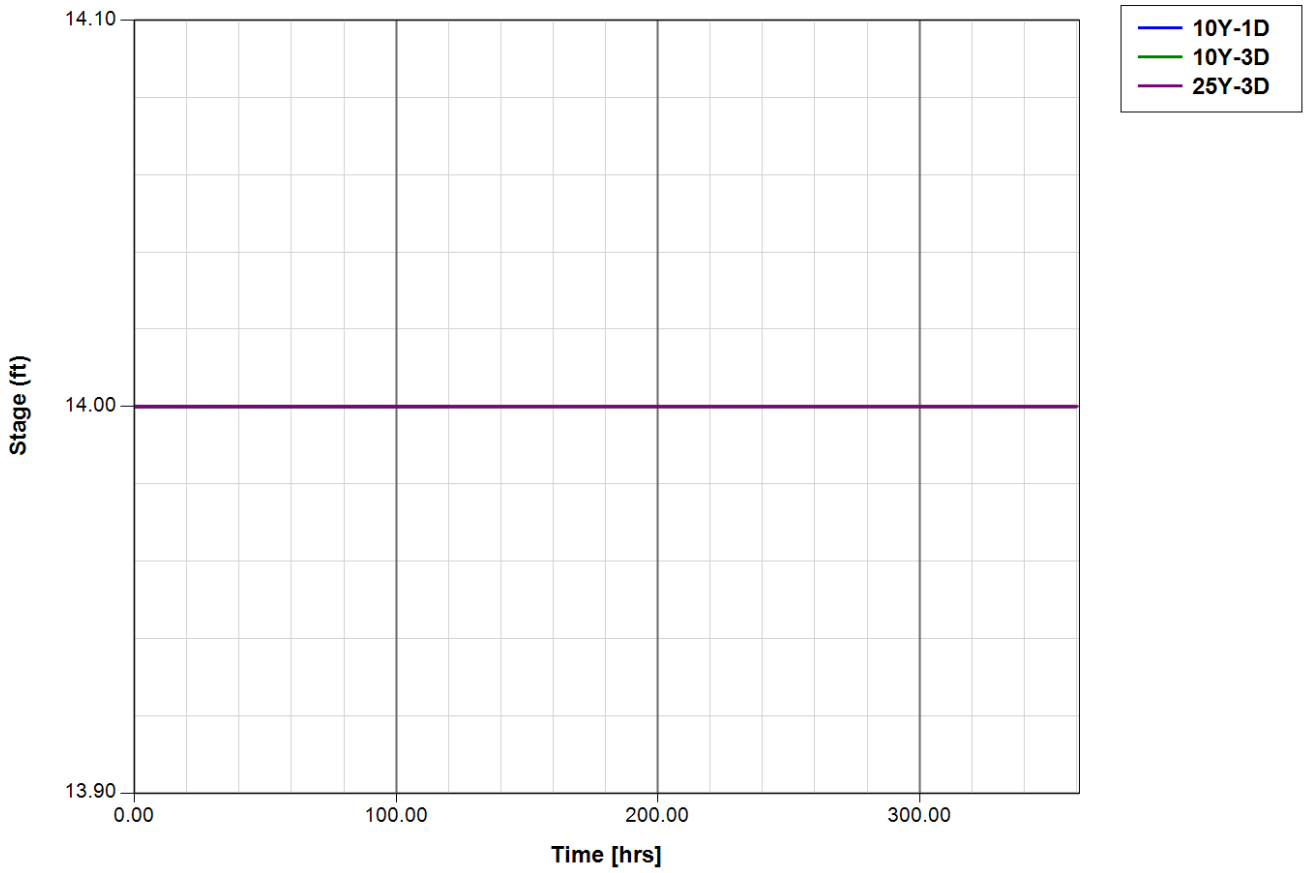
Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	14.00
0	0	0	5000.0000	14.00

Comment:

Node Max Conditions w/ Times [Pre-Dev]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
TW	10Y-1D	25.00	0.00	14.00	0.0000	3.93	0.00	0	0.0000	0.0000	14.0569	0.0000
TW	10Y-3D	25.00	0.00	14.00	0.0000	5.00	0.00	0	0.0000	0.0000	62.4487	0.0000
TW	25Y-3D	25.00	0.00	14.00	0.0000	5.39	0.00	0	0.0000	0.0000	62.7983	0.0000

Stage [Node: TW]



Pipe Link: Existing culvert		Upstream		Downstream	
Scenario:	Pre-Dev	Invert:	14.51 ft	Invert:	14.13 ft
From Node:	TW	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	Crossroads Existing	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	43.00 ft	Op Table:		Op Table:	
FHWA Code:	5	Ref Node:		Ref Node:	

Entr Loss Coef:	1	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1	Top Clip			
Bend Loss Coef:	0	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Link Min/Max Conditions with Times [Pre-Dev]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
Existing culvert	10Y-1D	0.00	-3.93	0.01	-3.11	-4.39	0.0000	14.0569	16.4552	14.0569	14.1736
Existing culvert	10Y-3D	0.00	-5.00	0.01	-3.95	-4.88	0.0000	62.4487	65.5637	62.4487	62.5737
Existing culvert	25Y-3D	0.00	-5.39	0.01	-4.26	-5.06	0.0000	62.7983	67.0697	62.7983	62.7983

Appendix E
Proposed Conditions Stormwater Calculations

Post-Development Land Use Calculations
Project Explanation

Project Name: Crossroads RV Park
Project #: 22-024
Engineer: DCC
Engineer: BMS
Date: 11/1/2022
Revision Date: 3/22/2023

Computation Type: Land Use & Stage-Storage
Datum: NAVD

Average Ground Elevation (EL_{grnd}) = 17.62 ft-NAVD **Source:** Treasure Coast Motor Coach Resort
Control Elevation (CE) = 14.50 ft-NAVD **Source:** Permit No. 56-01855-P

Site Land Use

	Open Space	Wet Pond at CE	Wet Pond Slopes	Asphalt	Concrete	RV Pads	Pickle Ball Courts	Clubhouse	Pool Area	Total
	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)
Percentage of On-Site	54.1%	9.9%	3.1%	11.3%	3.43%	15.9%	0.8%	0.67%	0.75%	
Total Areas (SF)	256,814 SF	47,013 SF	14,854 SF	53,683 SF	16,268 SF	75,600 SF	3,966 SF	3,200 SF	3,557 SF	474,955 SF
Total Areas (A_t)	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
Bldg. %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.67%
Bldg. Area (A_r)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.07
Pervious %	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	57.20%
Pervious Area (A_p)	5.90	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	6.24
Impervious %	0.00%	0.00%	0.00%	100.00%	100.00%	100.00%	100.00%	0.00%	100.00%	32.23%
Impervious Area (A_i)	0.00	0.00	0.00	1.23	0.37	1.74	0.09	0.00	0.08	3.51
Open Water %	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.90%
Open Water Area (Ac.)	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08

Post-Development Stage-Storage Calculations
Project Explanation

Storage Type: Stage-Volume
Starting Stage = 14.00
Ending Stage = 22.00
Stage Increment = 0.10

Name	Open Space	Wet Pond at CE	Wet Pond Slopes	Asphalt	Concrete	RV Pads	Pickle Ball Courts	Clubhouse	Pool Area	
Area	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	
Start Elev	16.40	14.50	14.50	16.75	16.00	17.00	18.50	19.00	18.30	
End Elev	19.00	0.00	17.80	18.50	19.00	19.00	19.00	0.00	19.00	
Stage	Linear	Vert	Linear	Linear	Linear	Linear	Linear	Vert	Linear	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.60	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
14.70	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
14.80	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
14.90	0.00	0.43	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.44
15.00	0.00	0.54	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.55
15.10	0.00	0.65	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.67
15.20	0.00	0.76	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.78
15.30	0.00	0.86	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.90
15.40	0.00	0.97	0.04	0.00	0.00	0.00	0.00	0.00	0.00	1.01
15.50	0.00	1.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	1.13
15.60	0.00	1.19	0.06	0.00	0.00	0.00	0.00	0.00	0.00	1.25
15.70	0.00	1.30	0.07	0.00	0.00	0.00	0.00	0.00	0.00	1.37
15.80	0.00	1.40	0.09	0.00	0.00	0.00	0.00	0.00	0.00	1.49
15.90	0.00	1.51	0.10	0.00	0.00	0.00	0.00	0.00	0.00	1.61
16.00	0.00	1.62	0.12	0.00	0.00	0.00	0.00	0.00	0.00	1.74
16.10	0.00	1.73	0.13	0.00	0.00	0.00	0.00	0.00	0.00	1.86
16.20	0.00	1.83	0.15	0.00	0.00	0.00	0.00	0.00	0.00	1.99
16.30	0.00	1.94	0.17	0.00	0.01	0.00	0.00	0.00	0.00	2.12
16.40	0.00	2.05	0.19	0.00	0.01	0.00	0.00	0.00	0.00	2.25
16.50	0.01	2.16	0.21	0.00	0.02	0.00	0.00	0.00	0.00	2.39
16.60	0.05	2.27	0.23	0.00	0.02	0.00	0.00	0.00	0.00	2.56
16.70	0.10	2.37	0.25	0.00	0.03	0.00	0.00	0.00	0.00	2.76
16.80	0.18	2.48	0.27	0.00	0.04	0.00	0.00	0.00	0.00	2.98
16.90	0.28	2.59	0.30	0.01	0.05	0.00	0.00	0.00	0.00	3.23
17.00	0.41	2.70	0.32	0.02	0.06	0.00	0.00	0.00	0.00	3.51
17.10	0.56	2.81	0.35	0.04	0.08	0.00	0.00	0.00	0.00	3.83
17.20	0.73	2.91	0.38	0.07	0.09	0.02	0.00	0.00	0.00	4.19
17.30	0.92	3.02	0.41	0.11	0.11	0.04	0.00	0.00	0.00	4.60
17.40	1.13	3.13	0.43	0.15	0.12	0.07	0.00	0.00	0.00	5.04
17.50	1.37	3.24	0.47	0.20	0.14	0.11	0.00	0.00	0.00	5.52

Post-Development Stage-Storage Calculations
Project Explanation

Storage Type:	**Stage-Volume**
Starting Stage =	**14.00**
Ending Stage =	**22.00**
Stage Increment =	**0.10**

Name	**Open Space**	**Wet Pond at CE**	**Wet Pond Slopes**	**Asphalt**	**Concrete**	**RV Pads**	**Pickle Ball Courts**	**Clubhouse**	**Pool Area**	
Area	**5.90**	**1.08**	**0.34**	**1.23**	**0.37**	**1.74**	**0.09**	**0.07**	**0.08**	
Start Elev	**16.40**	**14.50**	**14.50**	**16.75**	**16.00**	**17.00**	**18.50**	**19.00**	**18.30**	
End Elev	**19.00**	**0.00**	**17.80**	**18.50**	**19.00**	**19.00**	**19.00**	**0.00**	**19.00**	
Stage	Linear	Vert	Linear	Linear	Linear	Linear	Linear	Vert	Linear	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
17.60	1.63	3.35	0.50	0.25	0.16	0.16	0.00	0.00	0.00	6.04
17.70	1.92	3.45	0.53	0.32	0.18	0.21	0.00	0.00	0.00	6.61
17.80	2.22	3.56	0.56	0.39	0.20	0.28	0.00	0.00	0.00	7.21
17.90	2.55	3.67	0.60	0.47	0.22	0.35	0.00	0.00	0.00	7.86
18.00	2.90	3.78	0.63	0.55	0.25	0.43	0.00	0.00	0.00	8.54
18.10	3.28	3.89	0.66	0.64	0.27	0.53	0.00	0.00	0.00	9.27
18.20	3.67	3.99	0.70	0.74	0.30	0.62	0.00	0.00	0.00	10.03
18.30	4.09	4.10	0.73	0.85	0.33	0.73	0.00	0.00	0.00	10.84
18.40	4.54	4.21	0.77	0.96	0.36	0.85	0.00	0.00	0.00	11.68
18.50	5.00	4.32	0.80	1.08	0.39	0.98	0.00	0.00	0.00	12.56
18.60	5.49	4.43	0.84	1.20	0.42	1.11	0.00	0.00	0.01	13.48
18.70	6.00	4.53	0.87	1.32	0.45	1.25	0.00	0.00	0.01	14.44
18.80	6.53	4.64	0.90	1.45	0.49	1.41	0.01	0.00	0.01	15.43
18.90	7.09	4.75	0.94	1.57	0.52	1.57	0.01	0.00	0.02	16.45
19.00	7.66	4.86	0.97	1.69	0.56	1.74	0.02	0.00	0.03	17.51
19.10	8.25	4.96	1.01	1.82	0.60	1.91	0.03	0.01	0.04	18.59
19.20	8.84	5.07	1.04	1.94	0.63	2.08	0.04	0.01	0.04	19.67
19.30	9.43	5.18	1.07	2.06	0.67	2.26	0.05	0.02	0.05	20.75
19.40	10.02	5.29	1.11	2.19	0.71	2.43	0.06	0.03	0.06	21.83
19.50	10.61	5.40	1.14	2.31	0.75	2.60	0.07	0.04	0.07	22.92
19.60	11.20	5.50	1.18	2.43	0.78	2.78	0.08	0.04	0.08	24.00
19.70	11.79	5.61	1.21	2.56	0.82	2.95	0.09	0.05	0.09	25.08
19.80	12.38	5.72	1.24	2.68	0.86	3.12	0.10	0.06	0.09	26.16
19.90	12.97	5.83	1.28	2.80	0.90	3.30	0.10	0.07	0.10	27.25
20.00	13.56	5.94	1.31	2.93	0.93	3.47	0.11	0.07	0.11	28.33
20.10	14.15	6.04	1.35	3.05	0.97	3.64	0.12	0.08	0.12	29.41
20.20	14.74	6.15	1.38	3.17	1.01	3.82	0.13	0.09	0.13	30.49
20.30	15.33	6.26	1.42	3.30	1.05	3.99	0.14	0.10	0.13	31.57
20.40	15.92	6.37	1.45	3.42	1.08	4.17	0.15	0.10	0.14	32.66
20.50	16.51	6.48	1.48	3.54	1.12	4.34	0.16	0.11	0.15	33.74
20.60	17.10	6.58	1.52	3.67	1.16	4.51	0.17	0.12	0.16	34.82
20.70	17.69	6.69	1.55	3.79	1.20	4.69	0.18	0.12	0.17	35.90
20.80	18.28	6.80	1.59	3.91	1.23	4.86	0.19	0.13	0.18	36.99
20.90	18.87	6.91	1.62	4.04	1.27	5.03	0.20	0.14	0.18	38.07
21.00	19.46	7.02	1.65	4.16	1.31	5.21	0.20	0.15	0.19	39.15
21.10	20.05	7.12	1.69	4.28	1.34	5.38	0.21	0.15	0.20	40.23

Post-Development Stage-Storage Calculations
Project Explanation

Storage Type:	**Stage-Volume**
Starting Stage =	**14.00**
Ending Stage =	**22.00**
Stage Increment =	**0.10**

Name	**Open Space**	**Wet Pond at CE**	**Wet Pond Slopes**	**Asphalt**	**Concrete**	**RV Pads**	**Pickle Ball Courts**	**Clubhouse**	**Pool Area**	
Area	**5.90**	**1.08**	**0.34**	**1.23**	**0.37**	**1.74**	**0.09**	**0.07**	**0.08**	
Start Elev	**16.40**	**14.50**	**14.50**	**16.75**	**16.00**	**17.00**	**18.50**	**19.00**	**18.30**	
End Elev	**19.00**	**0.00**	**17.80**	**18.50**	**19.00**	**19.00**	**19.00**	**0.00**	**19.00**	
Stage	Linear	Vert	Linear	Linear	Linear	Linear	Linear	Vert	Linear	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
21.20	20.63	7.23	1.72	4.41	1.38	5.55	0.22	0.16	0.21	41.31
21.30	21.22	7.34	1.76	4.53	1.42	5.73	0.23	0.17	0.22	42.40
21.40	21.81	7.45	1.79	4.65	1.46	5.90	0.24	0.18	0.22	43.48
21.50	22.40	7.55	1.82	4.78	1.49	6.07	0.25	0.18	0.23	44.56
21.60	22.99	7.66	1.86	4.90	1.53	6.25	0.26	0.19	0.24	45.64
21.70	23.58	7.77	1.89	5.02	1.57	6.42	0.27	0.20	0.25	46.72
21.80	24.17	7.88	1.93	5.15	1.61	6.60	0.28	0.21	0.26	47.81
21.90	24.76	7.99	1.96	5.27	1.64	6.77	0.29	0.21	0.27	48.89

Post-Development Stage-Area Calculations
Project Explanation

Storage Type:	**Stage-Area**
Starting Stage =	**14.00**
Ending Stage =	**20.00**
Stage Increment =	**0.10**

Name	**Open Space**	**Wet Pond at CE**	**Wet Pond Slopes**	**Asphalt**	**Concrete**	**RV Pads**	**Pickle Ball Courts**	**Clubhouse**	**Pool Area**	
Area	**5.90**	**1.08**	**0.34**	**1.23**	**0.37**	**1.74**	**0.09**	**0.07**	**0.08**	
Start Elev	**16.40**	**14.50**	**14.50**	**16.75**	**16.00**	**17.00**	**18.50**	**19.00**	**18.30**	
End Elev	**19.00**	**0.00**	**17.80**	**18.50**	**19.00**	**19.00**	**19.00**	**0.00**	**19.00**	
Stage	Linear	Vert	Linear	Linear	Linear	Linear	Linear	Vert	Linear	Total
Feet	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac
14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.50	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08
14.60	0.00	1.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.09
14.70	0.00	1.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.10
14.80	0.00	1.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	1.11
14.90	0.00	1.08	0.04	0.00	0.00	0.00	0.00	0.00	0.00	1.12
15.00	0.00	1.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	1.13
15.10	0.00	1.08	0.06	0.00	0.00	0.00	0.00	0.00	0.00	1.14
15.20	0.00	1.08	0.07	0.00	0.00	0.00	0.00	0.00	0.00	1.15
15.30	0.00	1.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	1.16
15.40	0.00	1.08	0.09	0.00	0.00	0.00	0.00	0.00	0.00	1.17
15.50	0.00	1.08	0.10	0.00	0.00	0.00	0.00	0.00	0.00	1.18
15.60	0.00	1.08	0.11	0.00	0.00	0.00	0.00	0.00	0.00	1.19
15.70	0.00	1.08	0.12	0.00	0.00	0.00	0.00	0.00	0.00	1.20
15.80	0.00	1.08	0.13	0.00	0.00	0.00	0.00	0.00	0.00	1.21
15.90	0.00	1.08	0.14	0.00	0.00	0.00	0.00	0.00	0.00	1.22
16.00	0.00	1.08	0.16	0.00	0.00	0.00	0.00	0.00	0.00	1.23
16.10	0.00	1.08	0.17	0.00	0.01	0.00	0.00	0.00	0.00	1.26
16.20	0.00	1.08	0.18	0.00	0.02	0.00	0.00	0.00	0.00	1.28
16.30	0.00	1.08	0.19	0.00	0.04	0.00	0.00	0.00	0.00	1.30
16.40	0.00	1.08	0.20	0.00	0.05	0.00	0.00	0.00	0.00	1.33
16.50	0.23	1.08	0.21	0.00	0.06	0.00	0.00	0.00	0.00	1.57
16.60	0.45	1.08	0.22	0.00	0.07	0.00	0.00	0.00	0.00	1.82
16.70	0.68	1.08	0.23	0.00	0.09	0.00	0.00	0.00	0.00	2.07
16.80	0.91	1.08	0.24	0.04	0.10	0.00	0.00	0.00	0.00	2.36
16.90	1.13	1.08	0.25	0.11	0.11	0.00	0.00	0.00	0.00	2.68
17.00	1.36	1.08	0.26	0.18	0.12	0.00	0.00	0.00	0.00	3.00
17.10	1.59	1.08	0.27	0.25	0.14	0.09	0.00	0.00	0.00	3.41
17.20	1.81	1.08	0.28	0.32	0.15	0.17	0.00	0.00	0.00	3.81
17.30	2.04	1.08	0.29	0.39	0.16	0.26	0.00	0.00	0.00	4.22
17.40	2.27	1.08	0.30	0.46	0.17	0.35	0.00	0.00	0.00	4.63
17.50	2.49	1.08	0.31	0.53	0.19	0.43	0.00	0.00	0.00	5.03

Post-Development Stage-Area Calculations
Project Explanation

Storage Type:	**Stage-Area**
Starting Stage =	**14.00**
Ending Stage =	**20.00**
Stage Increment =	**0.10**

Name	**Open Space**	**Wet Pond at CE**	**Wet Pond Slopes**	**Asphalt**	**Concrete**	**RV Pads**	**Pickle Ball Courts**	**Clubhouse**	**Pool Area**	
Area	**5.90**	**1.08**	**0.34**	**1.23**	**0.37**	**1.74**	**0.09**	**0.07**	**0.08**	
Start Elev	**16.40**	**14.50**	**14.50**	**16.75**	**16.00**	**17.00**	**18.50**	**19.00**	**18.30**	
End Elev	**19.00**	**0.00**	**17.80**	**18.50**	**19.00**	**19.00**	**19.00**	**0.00**	**19.00**	
Stage	Linear	Vert	Linear	Linear	Linear	Linear	Linear	Vert	Linear	Total
Feet	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac
17.60	2.72	1.08	0.32	0.60	0.20	0.52	0.00	0.00	0.00	5.44
17.70	2.95	1.08	0.33	0.67	0.21	0.61	0.00	0.00	0.00	5.85
17.80	3.17	1.08	0.34	0.74	0.22	0.69	0.00	0.00	0.00	6.25
17.90	3.40	1.08	0.34	0.81	0.24	0.78	0.00	0.00	0.00	6.65
18.00	3.63	1.08	0.34	0.88	0.25	0.87	0.00	0.00	0.00	7.05
18.10	3.85	1.08	0.34	0.95	0.26	0.95	0.00	0.00	0.00	7.44
18.20	4.08	1.08	0.34	1.02	0.27	1.04	0.00	0.00	0.00	7.84
18.30	4.31	1.08	0.34	1.09	0.29	1.13	0.00	0.00	0.00	8.23
18.40	4.54	1.08	0.34	1.16	0.30	1.21	0.00	0.00	0.01	8.64
18.50	4.76	1.08	0.34	1.23	0.31	1.30	0.00	0.00	0.02	9.05
18.60	4.99	1.08	0.34	1.23	0.32	1.39	0.02	0.00	0.03	9.41
18.70	5.22	1.08	0.34	1.23	0.34	1.48	0.04	0.00	0.05	9.76
18.80	5.44	1.08	0.34	1.23	0.35	1.56	0.05	0.00	0.06	10.12
18.90	5.67	1.08	0.34	1.23	0.36	1.65	0.07	0.00	0.07	10.47
19.00	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.10	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.20	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.30	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.40	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.50	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.60	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.70	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.80	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
19.90	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90
20.00	5.90	1.08	0.34	1.23	0.37	1.74	0.09	0.07	0.08	10.90

Post-Development Stormwater Calculations

Project Explanation

Revised: 3/22/2023

Project: Crossroads RV Park
Engineer: DCC
Project #: 22-024
Date: 11/1/2022

Land Use Table

Use	Imp. (ac)	Bldg. (ac)	Pervious (ac)	Total (ac)
Basin =	4.59	0.07	6.24	10.90
TOTAL =	4.59	0.07	6.24	10.90

Find Curve Number:

Avg. Pervious Ground El. =	17.62
Control Elev. =	14.50
Distance to Water Table =	3.12

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
0.0	0.0	0.0	0.0
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

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

Soil Type =	Flatwoods		
Max. Available Soil Storage (S_{max}) =	5.81	inches	
Compaction Factor ($F_{compact}$) =	25%		(Use 25% for developed site)
Compacted Soil Storage ($S_{compact}$) =	4.36	inches	$(S_{max})(F_{compact})$
Available Soil Storage (S_{avail}) =	2.49	inches	$(A_p)(S_{compact})/(A_t)$
Curve Number (CN) =	**80**		1000 / (S_{avail}+10)

Notes:
1. Soil Storage Table taken from Section 5.7.4.2 of the SFWMD ERP Applicant's Handbook Volume II.
2. Curve Number determination based on method presented in USDA NRCS Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds".

Post-Development Water Quality Calculations

GIANGRANDE Engineering & Planning

Revised: 3/22/2023

Project: Crossroads RV Park **Engineer:** DCC

Project #: 22-024 **Date:** 01-Nov-22

1-inch Over the Project Area

(Treated Volume) 1-inch * 1-ft/12-in * 10.90 (PROJECT AREA) = 0.91 (TREATED VOLUME) ac-ft

2.5-inches Times the Percent Impervious

(Site Area) 10.90 (PROJECT AREA (AC)) - (1.08 (LAKES (AC)) + 0.07 (ROOFS (AC))) = 9.75 (SITE AREA) ac

(Impervious Area) 9.75 (SITE AREA (AC)) - 6.24 (PERVIOUS AREA (AC)) = 3.51 (IMPERVIOUS AREA) ac

(% Impervious) IMPERVIOUS AREA * 100% / SITE AREA (AC) = 36.04%

(2.5-in * % Imp.) 2.5-inches * 36.04% (PERCENT IMPERVIOUS) = 0.90 (INCHES TO BE TREATED) in

(Treated Volume) 0.90 (TREATED (IN)) * 1-ft/12-in * 9.82 (PROJECT AREA - LAKES (AC)) = 0.74 (TREATED VOLUME) ac-ft

Required Wet Detention = 0.91 ac-ft

Required Dry Detention (75% of Wet Detention) = 0.68 ac-ft

Required Retention (50% of Wet Detention) = 0.45 ac-ft

Treatment System Type Wet Detention

Treatment Volume Required = 0.91 ac-ft

Direct Discharge to OFW? Yes

Total Treatment Volume Required = 1.36 ac-ft

Water Quality Elevation (EL_{wq}) = 15.69 ft NAVD

Estimated Required Attenuation

Project Explanation

Revised:

Project: Crossroads RV Park Engineer: DCC

Project #: 22-024 Date: 11/1/2022

Pre-Developed Runoff

100 Year - 3 Day

Area, A (ac) = 10.90

Soil Storage, S (inches) = 5.40

Curve Number, CN = 1000/(S+10)

= 65

100 Year - 3 Day Rainfall, P (inches) = 12.23 (From Fort Pierce Ordinance No. J-216)

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 7.51

Volume, V (AC-FT) = A * Q

= 6.83

Post Developed Runoff

100 Year - 3 Day

Area, A (ac) = 10.90

Soil Storage, S (inches) = 2.49

Curve Number, CN = 1000/(S+10) =

80

100 Year - 3 Day Rainfall, P (inches) = 12.23 (From Fort Pierce Ordinance No. J-216)

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 9.67

Volume, V (AC-FT) = A * Q

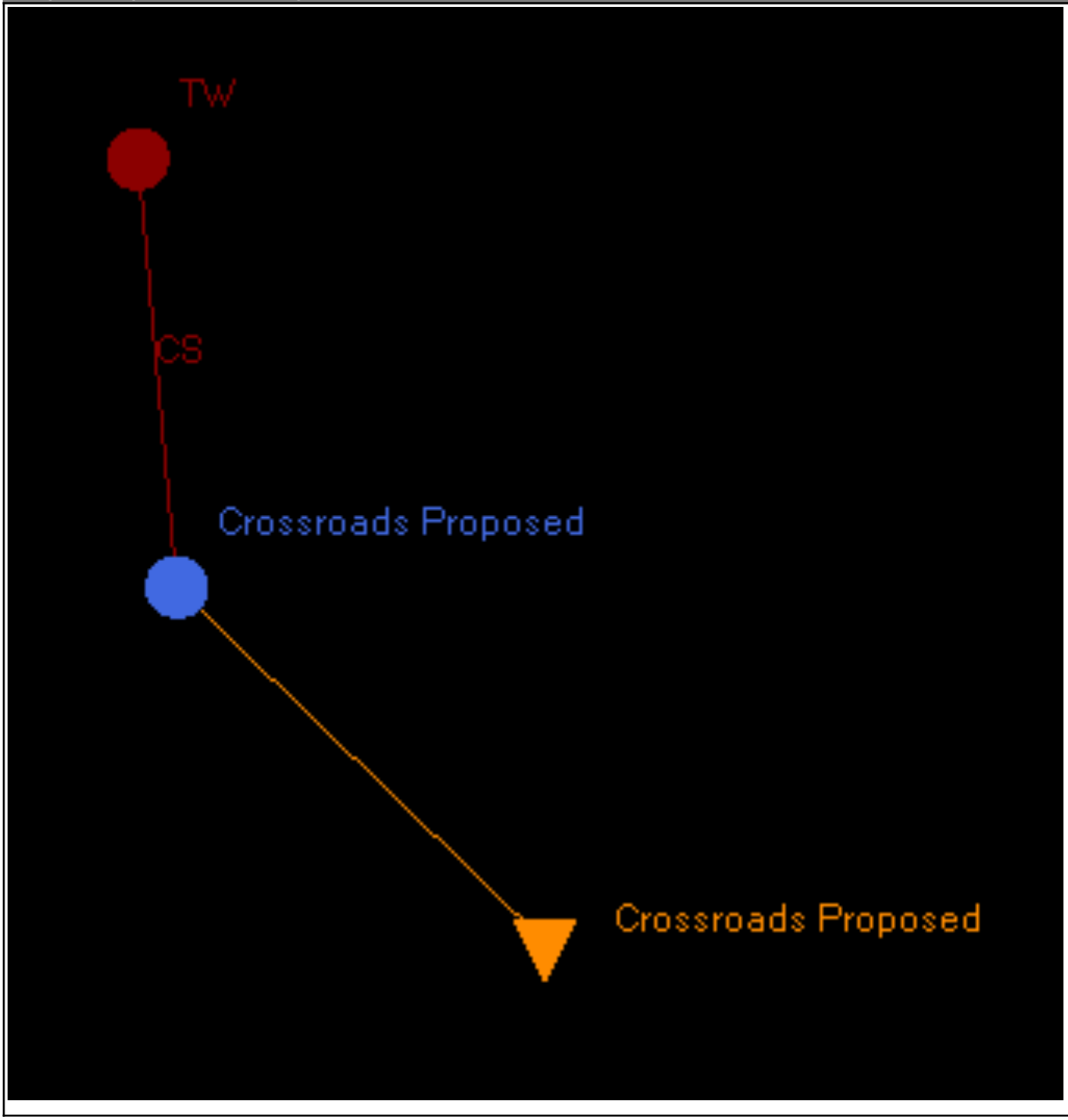
= 8.79

100Y-3D Elevation = **18.03** ft NAVD

Appendix F

Proposed Conditions StormWise Model Report

Background Image: Post Dev Nodal Diagram



Simulation: 10Y-1D

Scenario: Post-Dev
Run Date/Time: 9/12/2024 9:01:39 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	120.0000

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

Output Time Increments

Hydrology

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

Surface Hydraulics

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

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

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

Tolerances & Options

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

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~FLMOD
Rainfall Amount: 6.00 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10Y-3D

Scenario: Post-Dev
Run Date/Time: 9/12/2024 9:02:11 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

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

Output Time Increments

Hydrology

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

Surface Hydraulics

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

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

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

Tolerances & Options

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

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SFWMD-72
Rainfall Amount: 8.50 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 25Y-3D

Scenario: Post-Dev
Run Date/Time: 9/12/2024 9:04:43 AM
Program Version: StormWise 4.08.03

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	360.0000

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

Output Time Increments

Hydrology

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

Surface Hydraulics

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

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Unit Hydrograph Folder:

Lookup Tables

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

Tolerances & Options

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

IA Recovery Time: 24.0000 hr
Ia/S: 0.20 dec
Smp/Man Basin Rain Opt: Global
Rainfall Name: ~SFWMD-72
Rainfall Amount: 9.50 in
Storm Duration: 72.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simple Basin: Crossroads Proposed

Scenario:	Post-Dev
Node:	Crossroads Proposed
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	30.0000 min
Max Allowable Q:	999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	10.9000 ac
Curve Number:	80.0
Ia/S:	0.00
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Mass Balance Summary [Post-Dev]

Basin Name	Sim Name	Total Rainfall	Total Runoff	Change Soil Storage
Crossroads Proposed [in]	10Y-1D	6.00	3.78	2.22
Crossroads Proposed [ft3]	10Y-1D	237402	149563	87839
Crossroads Proposed [ac-ft]	10Y-1D	5.45	3.43	2.02
Crossroads Proposed [in]	10Y-3D	8.50	6.09	2.41
Crossroads Proposed [ft3]	10Y-3D	336319	241091	95229
Crossroads Proposed [ac-ft]	10Y-3D	7.72	5.53	2.19
Crossroads Proposed [in]	25Y-3D	9.50	7.04	2.46
Crossroads Proposed [ft3]	25Y-3D	375886	278597	97289
Crossroads Proposed [ac-ft]	25Y-3D	8.63	6.40	2.23

Node: Crossroads Proposed

Scenario: Post-Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 14.50 ft
Warning Stage: 25.00 ft
Alert Stage: 0.00 ft

Stage [ft]	Area [ac]	Area [ft2]
13.00	0.0000	0
13.10	0.0000	0
13.20	0.0000	0
13.30	0.0000	0
13.40	0.0000	0
13.50	0.0000	0
13.60	0.0000	0
13.70	0.0000	0
13.80	0.0000	0
13.90	0.0000	0
14.00	0.0000	0
14.10	0.0000	0
14.20	0.0000	0
14.30	0.0000	0
14.40	0.0000	0
14.50	1.0800	47045
14.60	1.0900	47480
14.70	1.1000	47916
14.80	1.1100	48352
14.90	1.1200	48787
15.00	1.1300	49223
15.10	1.1400	49658
15.20	1.1500	50094
15.30	1.1600	50530
15.40	1.1700	50965
15.50	1.1800	51401
15.60	1.1900	51836
15.70	1.2000	52272
15.80	1.2100	52708
15.90	1.2200	53143
16.00	1.2300	53579
16.10	1.2600	54886
16.20	1.2800	55757

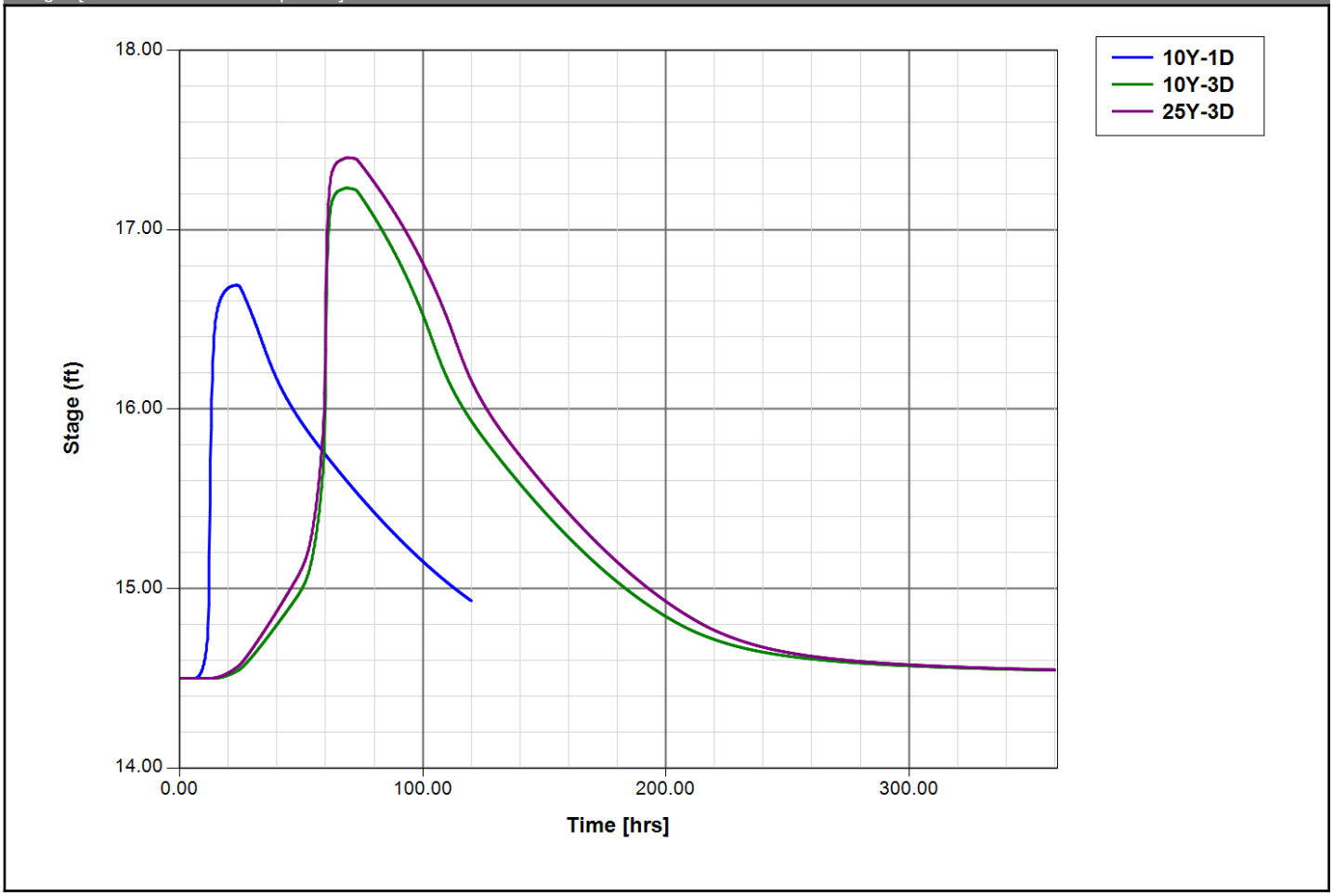
Stage [ft]	Area [ac]	Area [ft2]
16.30	1.3000	56628
16.40	1.3300	57935
16.50	1.5700	68389
16.60	1.8200	79279
16.70	2.0700	90169
16.80	2.3600	102802
16.90	2.6800	116741
17.00	3.0000	130680
17.10	3.4100	148540
17.20	3.8100	165964
17.30	4.2200	183823
17.40	4.6300	201683
17.50	5.0300	219107
17.60	5.4400	236966
17.70	5.8500	254826
17.80	6.2500	272250
17.90	6.6500	289674
18.00	7.0500	307098
18.10	7.4400	324086
18.20	7.8400	341510
18.30	8.2300	358499
18.40	8.6400	376358
18.50	9.0500	394218
18.60	9.4100	409900
18.70	9.7600	425146
18.80	10.1200	440827
18.90	10.4700	456073
19.00	10.9000	474804
19.10	10.9000	474804
19.20	10.9000	474804
19.30	10.9000	474804
19.40	10.9000	474804
19.50	10.9000	474804
19.60	10.9000	474804
19.70	10.9000	474804
19.80	10.9000	474804
19.90	10.9000	474804
20.00	10.9000	474804

Comment:

Node Max Conditions w/ Times [Post-Dev]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
Crossroads Proposed	10Y-1D	25.00	0.00	16.69	0.0010	17.20	0.74	89120	23.5438	11.9609	12.2999	23.8438
Crossroads Proposed	10Y-3D	25.00	0.00	17.23	0.0010	22.47	0.92	171741	68.7940	57.5527	60.1997	68.7523
Crossroads Proposed	25Y-3D	25.00	0.00	17.40	0.0010	25.63	0.97	201859	69.1697	58.7109	60.2000	69.5280

Stage [Node: Crossroads Proposed]



Node: TW

Scenario: Post-Dev
Type: Time/Stage

Base Flow: 0.00 cfs
Initial Stage: 14.00 ft
Warning Stage: 25.00 ft
Alert Stage: 0.00 ft
Boundary Stage:

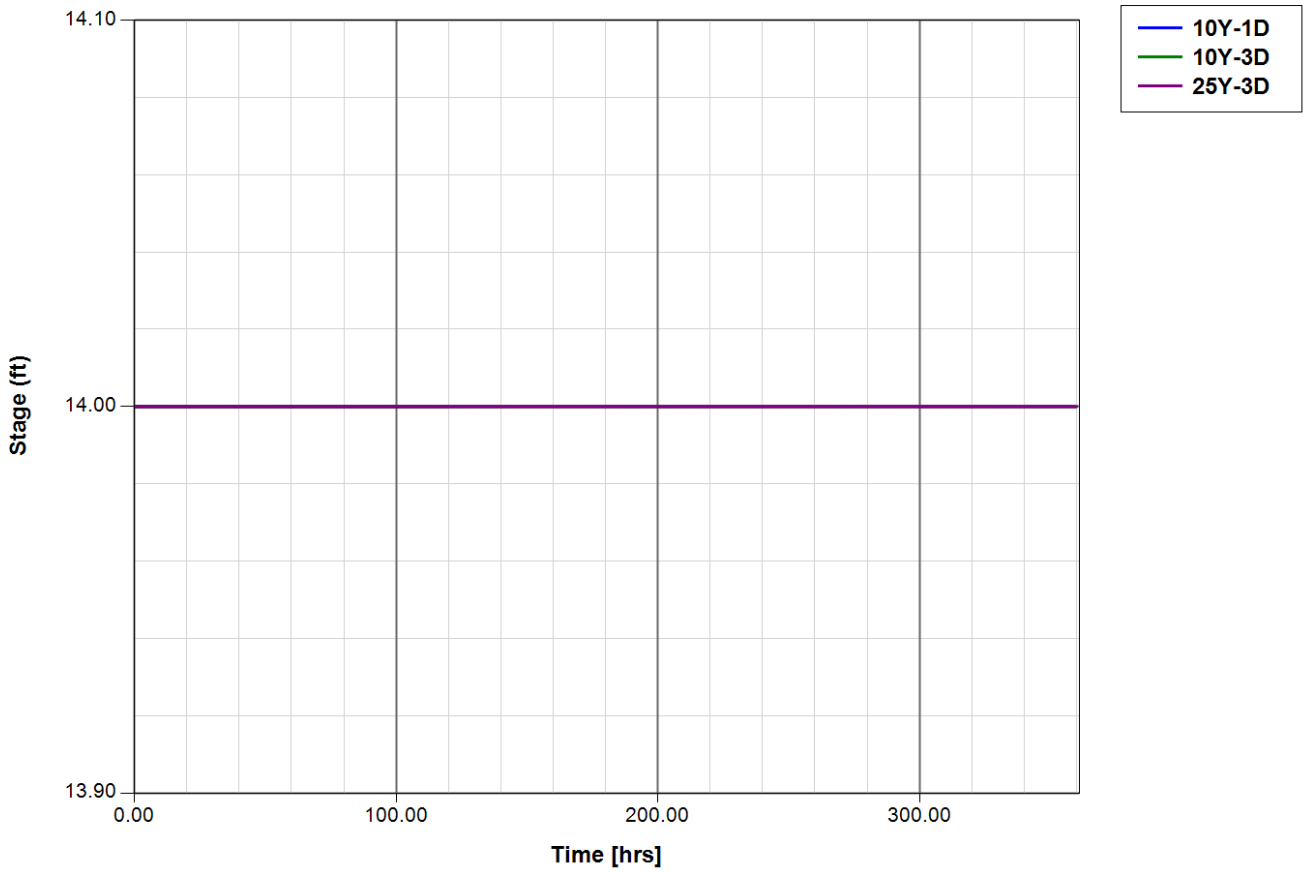
Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	14.00
0	0	0	5000.0000	14.00

Comment:

Node Max Conditions w/ Times [Post-Dev]

Node Name	Sim Name	Warning Stage [ft]	Alert Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
TW	10Y-1D	25.00	0.00	14.00	0.0000	0.74	0.00	0	0.0000	0.0000	23.8438	0.0000
TW	10Y-3D	25.00	0.00	14.00	0.0000	0.92	0.00	0	0.0000	0.0000	68.7523	0.0000
TW	25Y-3D	25.00	0.00	14.00	0.0000	0.97	0.00	0	0.0000	0.0000	69.5280	0.0000

Stage [Node: TW]



Drop Structure Link: CS		Upstream Pipe		Downstream Pipe	
Scenario:	Post-Dev	Invert:	10.15 ft	Invert:	14.13 ft
From Node:	Crossroads Proposed	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	TW	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Pipe Flow Direction:	Both	Bottom Clip			
Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	0	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	

Damping:	0.0000 ft	Manning's N:	0.0000	Manning's N:	0.0000
Length:	135.00 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1	Op Table:		Op Table:	
Exit Loss Coef:	1	Ref Node:		Ref Node:	
Bend Loss Coef:	0	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component			
Weir:	1	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Circular	Default:	0.00 ft
Invert:	14.50 ft	Op Table:	
Control Elevation:	14.50 ft	Ref Node:	
Max Depth:	0.25 ft	Discharge Coefficients	
		Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component			
Weir:	2	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	V-Notch Up	Default:	0.00 ft
Invert:	15.70 ft	Op Table:	
Control Elevation:	15.70 ft	Ref Node:	
Max Depth:	0.50 ft	Discharge Coefficients	
Max Width:	0.42 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Link Min/Max Conditions with Times [Post-Dev]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
CS - Pipe	10Y-1D	0.74	0.00	0.00	0.00	0.00	23.8438	0.0000	13.5455	0.0000	0.0000
CS - Weir: 1	10Y-1D	0.33	0.00	0.00	0.00	0.00	23.2771	0.0000	11.7611	0.0000	0.0000
CS - Weir: 2	10Y-1D	0.41	0.00	0.00	3.90	3.90	23.2771	0.0000	13.5681	23.2771	23.2771

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Time to Max Flow [hrs]	Time to Min Flow [hrs]	Time to Min/Max Delta Flow [hrs]	Time to Max Us Velocity [hrs]	Time to Max Ds Velocity [hrs]
CS - Pipe	10Y-3D	0.92	0.00	0.00	0.00	0.00	68.7523	0.0000	60.1013	0.0000	0.0000
CS - Weir: 1	10Y-3D	0.37	0.00	0.00	0.00	0.00	68.7523	0.0000	57.5527	0.0000	0.0000
CS - Weir: 2	10Y-3D	0.55	0.00	0.00	5.27	5.27	68.7523	0.0000	60.1007	68.7523	68.7523
CS - Pipe	25Y-3D	0.97	0.00	0.00	0.00	0.00	69.5280	0.0000	59.8739	0.0000	0.0000
CS - Weir: 1	25Y-3D	0.38	0.00	0.00	0.00	0.00	69.0030	0.0000	56.8694	0.0000	0.0000
CS - Weir: 2	25Y-3D	0.59	0.00	0.00	5.63	5.63	69.0030	0.0000	59.8731	69.0030	69.0030

Appendix G

Proposed Conditions 10-Year, 3-Day Volumetric Discharge Analysis

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres

Allowable Vol = 1.82 ac-ft (calculated)

Max Modeled Vol = 1.79 ac-ft

Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	0.00	14.50	0	
10y-3d	0.25	14.50	0	
10y-3d	0.51	14.50	0	
10y-3d	0.75	14.50	0	
10y-3d	1.00	14.50	0	
10y-3d	1.25	14.50	0	
10y-3d	1.50	14.50	0	
10y-3d	1.75	14.50	0	
10y-3d	2.00	14.50	0	
10y-3d	2.25	14.50	0	
10y-3d	2.50	14.50	0	
10y-3d	2.75	14.50	0	
10y-3d	3.00	14.50	0	
10y-3d	3.25	14.50	0	
10y-3d	3.50	14.50	0	
10y-3d	3.75	14.50	0	
10y-3d	4.00	14.50	0	
10y-3d	4.25	14.50	0	
10y-3d	4.50	14.50	0	
10y-3d	4.75	14.50	0	
10y-3d	5.00	14.50	0	
10y-3d	5.25	14.50	0	
10y-3d	5.50	14.50	0	
10y-3d	5.75	14.50	0	
10y-3d	6.00	14.50	0	
10y-3d	6.25	14.50	0	
10y-3d	6.50	14.50	0	
10y-3d	6.75	14.50	0	
10y-3d	7.00	14.50	0	
10y-3d	7.25	14.50	0	
10y-3d	7.50	14.50	0	
10y-3d	7.75	14.50	0	
10y-3d	8.00	14.50	0	
10y-3d	8.25	14.50	0	
10y-3d	8.50	14.50	0	
10y-3d	8.75	14.50	0	
10y-3d	9.00	14.50	0	
10y-3d	9.25	14.50	0	
10y-3d	9.50	14.50	0	
10y-3d	9.75	14.50	0	
10y-3d	10.00	14.50	0	
10y-3d	10.25	14.50	0	
10y-3d	10.50	14.50	0	
10y-3d	10.75	14.50	0	
10y-3d	11.00	14.50	0	
10y-3d	11.25	14.50	0	
10y-3d	11.50	14.50	0	
10y-3d	11.75	14.50	0	
10y-3d	12.00	14.50	0	
10y-3d	12.25	14.50	0	
10y-3d	12.50	14.50	0	
10y-3d	12.75	14.50	0	
10y-3d	13.00	14.50	0	

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	13.25	14.50	0	
10y-3d	13.50	14.50	0	
10y-3d	13.75	14.50	0	
10y-3d	14.00	14.50	0	
10y-3d	14.25	14.50	0	
10y-3d	14.50	14.50	0	
10y-3d	14.75	14.50	0	
10y-3d	15.00	14.50	0	
10y-3d	15.25	14.50	0	
10y-3d	15.50	14.50	0	
10y-3d	15.75	14.50	0	
10y-3d	16.00	14.50	0	
10y-3d	16.25	14.50	0	
10y-3d	16.50	14.50	0	
10y-3d	16.75	14.50	0	
10y-3d	17.00	14.50	0	
10y-3d	17.25	14.51	0	
10y-3d	17.50	14.51	0	
10y-3d	17.75	14.51	0	
10y-3d	18.00	14.51	0	
10y-3d	18.25	14.51	0	
10y-3d	18.50	14.51	0	
10y-3d	18.75	14.51	0	
10y-3d	19.00	14.51	0	
10y-3d	19.25	14.51	0	
10y-3d	19.50	14.51	0	
10y-3d	19.75	14.52	0	
10y-3d	20.00	14.52	0	
10y-3d	20.25	14.52	0	
10y-3d	20.50	14.52	0	
10y-3d	20.75	14.52	0	
10y-3d	21.00	14.52	0	
10y-3d	21.25	14.52	0	
10y-3d	21.50	14.52	0	
10y-3d	21.75	14.53	0	
10y-3d	22.00	14.53	0	
10y-3d	22.25	14.53	0	
10y-3d	22.50	14.53	0	
10y-3d	22.75	14.53	0	
10y-3d	23.00	14.53	0	
10y-3d	23.25	14.54	0	
10y-3d	23.50	14.54	0	
10y-3d	23.75	14.54	0	
10y-3d	24.00	14.54	0	0.00
10y-3d	24.25	14.54	0	0.00
10y-3d	24.50	14.55	0	0.00
10y-3d	24.75	14.55	0	0.00
10y-3d	25.00	14.55	0	0.00
10y-3d	25.25	14.55	0	0.00
10y-3d	25.50	14.56	0	0.00
10y-3d	25.75	14.56	0	0.00
10y-3d	26.00	14.56	0	0.00
10y-3d	26.25	14.57	0	0.00

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres

Allowable Vol = 1.82 ac-ft (calculated)

Max Modeled Vol = 1.79 ac-ft

Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	26.50	14.57	0	0.00
10y-3d	26.75	14.57	0	0.00
10y-3d	27.00	14.58	0	0.00
10y-3d	27.25	14.58	0	0.00
10y-3d	27.50	14.58	0	0.00
10y-3d	27.75	14.59	0	0.00
10y-3d	28.00	14.59	0	0.00
10y-3d	28.25	14.60	0	0.00
10y-3d	28.50	14.60	0	0.00
10y-3d	28.75	14.60	0	0.00
10y-3d	29.00	14.61	0	0.00
10y-3d	29.25	14.61	0	0.00
10y-3d	29.50	14.61	0.01	0.01
10y-3d	29.75	14.62	0.01	0.01
10y-3d	30.00	14.62	0.01	0.01
10y-3d	30.25	14.63	0.01	0.01
10y-3d	30.50	14.63	0.01	0.01
10y-3d	30.75	14.63	0.01	0.01
10y-3d	31.00	14.64	0.01	0.01
10y-3d	31.25	14.64	0.01	0.01
10y-3d	31.50	14.65	0.01	0.01
10y-3d	31.75	14.65	0.01	0.01
10y-3d	32.00	14.66	0.01	0.01
10y-3d	32.25	14.66	0.01	0.01
10y-3d	32.50	14.66	0.01	0.01
10y-3d	32.75	14.67	0.01	0.01
10y-3d	33.00	14.67	0.01	0.01
10y-3d	33.25	14.68	0.02	0.02
10y-3d	33.50	14.68	0.02	0.02
10y-3d	33.75	14.69	0.02	0.02
10y-3d	34.00	14.69	0.02	0.02
10y-3d	34.25	14.69	0.02	0.02
10y-3d	34.50	14.70	0.02	0.02
10y-3d	34.75	14.70	0.02	0.02
10y-3d	35.00	14.71	0.02	0.02
10y-3d	35.25	14.71	0.02	0.02
10y-3d	35.50	14.72	0.03	0.03
10y-3d	35.75	14.72	0.03	0.03
10y-3d	36.00	14.72	0.03	0.03
10y-3d	36.25	14.73	0.03	0.03
10y-3d	36.50	14.73	0.03	0.03
10y-3d	36.75	14.74	0.03	0.03
10y-3d	37.00	14.74	0.03	0.03
10y-3d	37.25	14.75	0.04	0.04
10y-3d	37.50	14.75	0.04	0.04
10y-3d	37.75	14.76	0.04	0.04
10y-3d	38.00	14.76	0.04	0.04
10y-3d	38.25	14.77	0.04	0.04
10y-3d	38.50	14.77	0.04	0.04
10y-3d	38.75	14.77	0.05	0.05
10y-3d	39.00	14.78	0.05	0.05
10y-3d	39.25	14.78	0.05	0.05
10y-3d	39.50	14.79	0.05	0.05

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	39.75	14.79	0.05	0.05
10y-3d	40.00	14.80	0.06	0.06
10y-3d	40.25	14.80	0.06	0.06
10y-3d	40.50	14.81	0.06	0.06
10y-3d	40.75	14.81	0.06	0.06
10y-3d	41.00	14.82	0.06	0.06
10y-3d	41.25	14.82	0.07	0.07
10y-3d	41.50	14.82	0.07	0.07
10y-3d	41.75	14.83	0.07	0.07
10y-3d	42.00	14.83	0.07	0.07
10y-3d	42.25	14.84	0.07	0.07
10y-3d	42.50	14.84	0.08	0.08
10y-3d	42.75	14.85	0.08	0.08
10y-3d	43.00	14.85	0.08	0.08
10y-3d	43.25	14.86	0.08	0.08
10y-3d	43.50	14.86	0.09	0.09
10y-3d	43.75	14.87	0.09	0.09
10y-3d	44.00	14.87	0.09	0.09
10y-3d	44.25	14.88	0.09	0.09
10y-3d	44.50	14.88	0.1	0.10
10y-3d	44.75	14.89	0.1	0.10
10y-3d	45.00	14.89	0.1	0.10
10y-3d	45.25	14.89	0.1	0.10
10y-3d	45.50	14.90	0.11	0.11
10y-3d	45.75	14.90	0.11	0.11
10y-3d	46.00	14.91	0.11	0.11
10y-3d	46.25	14.91	0.11	0.11
10y-3d	46.50	14.92	0.12	0.12
10y-3d	46.75	14.92	0.12	0.12
10y-3d	47.00	14.93	0.12	0.12
10y-3d	47.25	14.93	0.12	0.12
10y-3d	47.50	14.94	0.13	0.13
10y-3d	47.75	14.94	0.13	0.13
10y-3d	48.00	14.95	0.13	0.13
10y-3d	48.25	14.95	0.14	0.14
10y-3d	48.50	14.96	0.14	0.14
10y-3d	48.75	14.96	0.14	0.14
10y-3d	49.00	14.97	0.14	0.14
10y-3d	49.25	14.97	0.15	0.15
10y-3d	49.50	14.98	0.15	0.15
10y-3d	49.75	14.98	0.15	0.15
10y-3d	50.00	14.99	0.16	0.16
10y-3d	50.25	15.00	0.16	0.16
10y-3d	50.50	15.00	0.16	0.16
10y-3d	50.75	15.01	0.16	0.16
10y-3d	51.00	15.02	0.17	0.17
10y-3d	51.25	15.02	0.17	0.17
10y-3d	51.50	15.03	0.17	0.17
10y-3d	51.75	15.04	0.18	0.18
10y-3d	52.00	15.05	0.18	0.18
10y-3d	52.25	15.05	0.18	0.18
10y-3d	52.50	15.06	0.19	0.19
10y-3d	52.75	15.07	0.19	0.19

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	53.00	15.08	0.19	0.19
10y-3d	53.25	15.09	0.2	0.20
10y-3d	53.50	15.11	0.2	0.19
10y-3d	53.75	15.12	0.2	0.19
10y-3d	54.00	15.13	0.21	0.20
10y-3d	54.25	15.15	0.21	0.20
10y-3d	54.50	15.16	0.21	0.20
10y-3d	54.75	15.18	0.22	0.21
10y-3d	55.00	15.20	0.22	0.21
10y-3d	55.25	15.22	0.22	0.21
10y-3d	55.50	15.24	0.23	0.22
10y-3d	55.75	15.26	0.23	0.22
10y-3d	56.00	15.28	0.24	0.23
10y-3d	56.25	15.30	0.24	0.23
10y-3d	56.50	15.33	0.24	0.23
10y-3d	56.75	15.35	0.25	0.24
10y-3d	57.00	15.38	0.25	0.24
10y-3d	57.25	15.40	0.26	0.24
10y-3d	57.50	15.43	0.26	0.24
10y-3d	57.75	15.46	0.27	0.25
10y-3d	58.00	15.50	0.27	0.25
10y-3d	58.25	15.53	0.27	0.25
10y-3d	58.50	15.57	0.28	0.26
10y-3d	58.75	15.61	0.28	0.26
10y-3d	59.00	15.65	0.29	0.27
10y-3d	59.25	15.70	0.29	0.27
10y-3d	59.50	15.76	0.3	0.27
10y-3d	59.75	15.85	0.3	0.27
10y-3d	60.00	16.07	0.31	0.28
10y-3d	60.25	16.41	0.32	0.29
10y-3d	60.50	16.65	0.33	0.30
10y-3d	60.75	16.80	0.35	0.32
10y-3d	61.00	16.90	0.37	0.34
10y-3d	61.25	16.97	0.38	0.34
10y-3d	61.50	17.02	0.4	0.36
10y-3d	61.75	17.07	0.42	0.38
10y-3d	62.01	17.10	0.44	0.40
10y-3d	62.25	17.13	0.46	0.42
10y-3d	62.50	17.14	0.47	0.43
10y-3d	62.75	17.16	0.49	0.44
10y-3d	63.00	17.17	0.51	0.46
10y-3d	63.25	17.18	0.53	0.48
10y-3d	63.50	17.18	0.55	0.50
10y-3d	63.75	17.19	0.57	0.52
10y-3d	64.00	17.20	0.59	0.53
10y-3d	64.25	17.20	0.61	0.55
10y-3d	64.50	17.21	0.63	0.57
10y-3d	64.75	17.21	0.64	0.58
10y-3d	65.00	17.21	0.66	0.60
10y-3d	65.25	17.21	0.68	0.61
10y-3d	65.50	17.22	0.7	0.63
10y-3d	65.75	17.22	0.72	0.65
10y-3d	66.00	17.22	0.74	0.67

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	66.25	17.22	0.76	0.69
10y-3d	66.50	17.22	0.78	0.70
10y-3d	66.75	17.22	0.8	0.72
10y-3d	67.00	17.23	0.82	0.74
10y-3d	67.25	17.23	0.83	0.75
10y-3d	67.50	17.23	0.85	0.76
10y-3d	67.75	17.23	0.87	0.78
10y-3d	68.00	17.23	0.89	0.80
10y-3d	68.25	17.23	0.91	0.82
10y-3d	68.50	17.23	0.93	0.83
10y-3d	68.75	17.23	0.95	0.85
10y-3d	69.00	17.23	0.97	0.87
10y-3d	69.25	17.23	0.99	0.89
10y-3d	69.50	17.23	1.01	0.90
10y-3d	69.75	17.23	1.03	0.92
10y-3d	70.00	17.23	1.04	0.93
10y-3d	70.25	17.23	1.06	0.95
10y-3d	70.50	17.23	1.08	0.96
10y-3d	70.75	17.23	1.1	0.98
10y-3d	71.00	17.23	1.12	1.00
10y-3d	71.25	17.23	1.14	1.02
10y-3d	71.50	17.23	1.16	1.03
10y-3d	71.75	17.23	1.18	1.05
10y-3d	72.00	17.22	1.2	1.07
10y-3d	72.25	17.22	1.22	1.08
10y-3d	72.50	17.22	1.24	1.10
10y-3d	72.75	17.22	1.25	1.11
10y-3d	73.00	17.22	1.27	1.13
10y-3d	73.25	17.21	1.29	1.14
10y-3d	73.50	17.21	1.31	1.16
10y-3d	73.75	17.20	1.33	1.18
10y-3d	74.00	17.20	1.35	1.19
10y-3d	74.25	17.19	1.37	1.21
10y-3d	74.50	17.19	1.39	1.23
10y-3d	74.75	17.18	1.41	1.25
10y-3d	75.00	17.18	1.42	1.25
10y-3d	75.25	17.17	1.44	1.27
10y-3d	75.50	17.17	1.46	1.29
10y-3d	75.75	17.16	1.48	1.30
10y-3d	76.00	17.16	1.5	1.32
10y-3d	76.25	17.15	1.52	1.34
10y-3d	76.50	17.15	1.54	1.35
10y-3d	76.75	17.14	1.56	1.37
10y-3d	77.00	17.14	1.57	1.38
10y-3d	77.25	17.13	1.59	1.39
10y-3d	77.50	17.13	1.61	1.41
10y-3d	77.75	17.12	1.63	1.43
10y-3d	78.00	17.12	1.65	1.44
10y-3d	78.25	17.11	1.67	1.46
10y-3d	78.50	17.11	1.68	1.47
10y-3d	78.75	17.10	1.7	1.48
10y-3d	79.00	17.10	1.72	1.50
10y-3d	79.25	17.09	1.74	1.52

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	79.50	17.08	1.76	1.53
10y-3d	79.75	17.08	1.78	1.55
10y-3d	80.00	17.07	1.79	1.55
10y-3d	80.25	17.07	1.81	1.57
10y-3d	80.50	17.06	1.83	1.59
10y-3d	80.75	17.06	1.85	1.60
10y-3d	81.00	17.05	1.87	1.62
10y-3d	81.25	17.05	1.88	1.62
10y-3d	81.50	17.04	1.9	1.64
10y-3d	81.75	17.03	1.92	1.65
10y-3d	82.00	17.03	1.94	1.67
10y-3d	82.25	17.02	1.95	1.68
10y-3d	82.50	17.02	1.97	1.69
10y-3d	82.75	17.01	1.99	1.71
10y-3d	83.00	17.01	2.01	1.72
10y-3d	83.25	17.00	2.03	1.74
10y-3d	83.50	16.99	2.04	1.74
10y-3d	83.75	16.99	2.06	1.76
10y-3d	84.00	16.98	2.08	1.77
10y-3d	84.25	16.98	2.1	1.78
10y-3d	84.50	16.97	2.11	1.78
10y-3d	84.75	16.96	2.13	1.78
10y-3d	85.00	16.96	2.15	1.78
10y-3d	85.25	16.95	2.17	1.79
10y-3d	85.50	16.95	2.18	1.78
10y-3d	85.75	16.94	2.2	1.78
10y-3d	86.00	16.93	2.22	1.78
10y-3d	86.25	16.93	2.23	1.77
10y-3d	86.50	16.92	2.25	1.78
10y-3d	86.75	16.91	2.27	1.78
10y-3d	87.00	16.91	2.29	1.78
10y-3d	87.25	16.90	2.3	1.77
10y-3d	87.50	16.90	2.32	1.77
10y-3d	87.75	16.89	2.34	1.77
10y-3d	88.00	16.88	2.35	1.76
10y-3d	88.25	16.88	2.37	1.76
10y-3d	88.50	16.87	2.39	1.76
10y-3d	88.75	16.86	2.4	1.76
10y-3d	89.00	16.86	2.42	1.76
10y-3d	89.25	16.85	2.44	1.76
10y-3d	89.50	16.84	2.45	1.75
10y-3d	89.75	16.84	2.47	1.75
10y-3d	90.00	16.83	2.49	1.75
10y-3d	90.25	16.82	2.5	1.74
10y-3d	90.50	16.82	2.52	1.74
10y-3d	90.75	16.81	2.53	1.73
10y-3d	91.00	16.80	2.55	1.73
10y-3d	91.25	16.80	2.57	1.74
10y-3d	91.50	16.79	2.58	1.73
10y-3d	91.75	16.78	2.6	1.73
10y-3d	92.00	16.78	2.62	1.73
10y-3d	92.25	16.77	2.63	1.72
10y-3d	92.50	16.76	2.65	1.72

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	92.75	16.76	2.66	1.71
10y-3d	93.00	16.75	2.68	1.71
10y-3d	93.25	16.74	2.7	1.71
10y-3d	93.50	16.73	2.71	1.70
10y-3d	93.75	16.73	2.73	1.70
10y-3d	94.00	16.72	2.74	1.70
10y-3d	94.25	16.71	2.76	1.70
10y-3d	94.50	16.70	2.77	1.69
10y-3d	94.75	16.70	2.79	1.69
10y-3d	95.00	16.69	2.8	1.68
10y-3d	95.25	16.68	2.82	1.68
10y-3d	95.50	16.67	2.83	1.67
10y-3d	95.75	16.67	2.85	1.67
10y-3d	96.00	16.66	2.87	1.67
10y-3d	96.25	16.65	2.88	1.66
10y-3d	96.50	16.64	2.9	1.66
10y-3d	96.75	16.64	2.91	1.66
10y-3d	97.00	16.63	2.93	1.66
10y-3d	97.25	16.62	2.94	1.65
10y-3d	97.50	16.61	2.95	1.64
10y-3d	97.75	16.60	2.97	1.64
10y-3d	98.00	16.60	2.98	1.63
10y-3d	98.25	16.59	3	1.63
10y-3d	98.50	16.58	3.01	1.62
10y-3d	98.75	16.57	3.03	1.62
10y-3d	99.00	16.56	3.04	1.62
10y-3d	99.25	16.55	3.06	1.62
10y-3d	99.50	16.55	3.07	1.61
10y-3d	99.75	16.54	3.08	1.60
10y-3d	100.00	16.53	3.1	1.60
10y-3d	100.25	16.52	3.11	1.59
10y-3d	100.50	16.51	3.13	1.59
10y-3d	100.75	16.50	3.14	1.58
10y-3d	101.00	16.49	3.15	1.58
10y-3d	101.25	16.49	3.17	1.58
10y-3d	101.50	16.48	3.18	1.57
10y-3d	101.75	16.47	3.19	1.56

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	102.00	16.46	3.21	1.56
10y-3d	102.25	16.45	3.22	1.55
10y-3d	102.50	16.44	3.23	1.55
10y-3d	102.75	16.43	3.25	1.55
10y-3d	103.00	16.42	3.26	1.54
10y-3d	103.25	16.41	3.27	1.53
10y-3d	103.50	16.40	3.29	1.53
10y-3d	103.75	16.39	3.3	1.52
10y-3d	104.00	16.38	3.31	1.52
10y-3d	104.25	16.37	3.33	1.52
10y-3d	104.50	16.36	3.34	1.51
10y-3d	104.75	16.36	3.35	1.50
10y-3d	105.00	16.35	3.36	1.49
10y-3d	105.25	16.34	3.37	1.49
10y-3d	105.50	16.33	3.39	1.49
10y-3d	105.75	16.32	3.4	1.48
10y-3d	106.00	16.31	3.41	1.47
10y-3d	106.25	16.30	3.42	1.47
10y-3d	106.50	16.29	3.43	1.46
10y-3d	106.75	16.28	3.45	1.46
10y-3d	107.00	16.27	3.46	1.45
10y-3d	107.25	16.26	3.47	1.44
10y-3d	107.50	16.26	3.48	1.44
10y-3d	107.75	16.25	3.49	1.43
10y-3d	108.00	16.24	3.5	1.42
10y-3d	108.25	16.23	3.51	1.41
10y-3d	108.50	16.22	3.52	1.41
10y-3d	108.75	16.22	3.53	1.40
10y-3d	109.00	16.21	3.54	1.39
10y-3d	109.25	16.20	3.55	1.38
10y-3d	109.50	16.19	3.56	1.38
10y-3d	109.75	16.18	3.57	1.37
10y-3d	110.00	16.18	3.58	1.36
10y-3d	110.25	16.17	3.59	1.36
10y-3d	110.50	16.16	3.6	1.35
10y-3d	110.75	16.15	3.61	1.34
10y-3d	111.00	16.15	3.62	1.33
10y-3d	111.25	16.14	3.63	1.33
10y-3d	111.50	16.13	3.64	1.32
10y-3d	111.75	16.13	3.65	1.31
10y-3d	112.00	16.12	3.65	1.30
10y-3d	112.25	16.11	3.66	1.29
10y-3d	112.50	16.11	3.67	1.28
10y-3d	112.75	16.10	3.68	1.28
10y-3d	113.00	16.09	3.69	1.27
10y-3d	113.25	16.09	3.69	1.25
10y-3d	113.50	16.08	3.7	1.25
10y-3d	113.75	16.07	3.71	1.24
10y-3d	114.00	16.07	3.72	1.23
10y-3d	114.25	16.06	3.73	1.23
10y-3d	114.50	16.06	3.73	1.21
10y-3d	114.75	16.05	3.74	1.21
10y-3d	115.00	16.04	3.75	1.20

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	115.25	16.04	3.76	1.19
10y-3d	115.50	16.03	3.76	1.18
10y-3d	115.75	16.03	3.77	1.17
10y-3d	116.00	16.02	3.78	1.16
10y-3d	116.25	16.02	3.78	1.15
10y-3d	116.50	16.01	3.79	1.14
10y-3d	116.75	16.00	3.8	1.14
10y-3d	117.00	16.00	3.8	1.12
10y-3d	117.25	15.99	3.81	1.11
10y-3d	117.50	15.99	3.82	1.11
10y-3d	117.75	15.98	3.83	1.10
10y-3d	118.00	15.98	3.83	1.09
10y-3d	118.25	15.97	3.84	1.08
10y-3d	118.50	15.97	3.84	1.07
10y-3d	118.75	15.96	3.85	1.06
10y-3d	119.00	15.96	3.86	1.06
10y-3d	119.25	15.95	3.86	1.04
10y-3d	119.50	15.95	3.87	1.04
10y-3d	119.75	15.94	3.88	1.03
10y-3d	120.00	15.93	3.88	1.01
10y-3d	120.25	15.93	3.89	1.01
10y-3d	120.50	15.92	3.89	0.99
10y-3d	120.75	15.92	3.9	0.99
10y-3d	121.00	15.92	3.91	0.98
10y-3d	121.25	15.91	3.91	0.97
10y-3d	121.50	15.91	3.92	0.97
10y-3d	121.75	15.90	3.92	0.95
10y-3d	122.00	15.90	3.93	0.95
10y-3d	122.25	15.89	3.94	0.94
10y-3d	122.50	15.89	3.94	0.93
10y-3d	122.75	15.88	3.95	0.92
10y-3d	123.00	15.88	3.95	0.91
10y-3d	123.25	15.87	3.96	0.90
10y-3d	123.50	15.87	3.97	0.90
10y-3d	123.75	15.86	3.97	0.89
10y-3d	124.00	15.86	3.98	0.88
10y-3d	124.25	15.85	3.98	0.87
10y-3d	124.50	15.85	3.99	0.86
10y-3d	124.75	15.84	3.99	0.85
10y-3d	125.00	15.84	4	0.85
10y-3d	125.25	15.83	4	0.83
10y-3d	125.50	15.83	4.01	0.83
10y-3d	125.75	15.83	4.02	0.83
10y-3d	126.00	15.82	4.02	0.81
10y-3d	126.25	15.82	4.03	0.81
10y-3d	126.50	15.81	4.03	0.80
10y-3d	126.75	15.81	4.04	0.79
10y-3d	127.00	15.80	4.04	0.78
10y-3d	127.25	15.80	4.05	0.78
10y-3d	127.50	15.79	4.05	0.76
10y-3d	127.75	15.79	4.06	0.76
10y-3d	128.00	15.79	4.06	0.75
10y-3d	128.25	15.78	4.07	0.74

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	128.50	15.78	4.07	0.73
10y-3d	128.75	15.77	4.08	0.73
10y-3d	129.00	15.77	4.09	0.73
10y-3d	129.25	15.76	4.09	0.72
10y-3d	129.50	15.76	4.1	0.71
10y-3d	129.75	15.76	4.1	0.70
10y-3d	130.00	15.75	4.11	0.70
10y-3d	130.25	15.75	4.11	0.69
10y-3d	130.50	15.74	4.12	0.69
10y-3d	130.75	15.74	4.12	0.67
10y-3d	131.00	15.73	4.13	0.67
10y-3d	131.25	15.73	4.13	0.66
10y-3d	131.50	15.73	4.14	0.66
10y-3d	131.75	15.72	4.14	0.65
10y-3d	132.00	15.72	4.15	0.65
10y-3d	132.25	15.71	4.15	0.64
10y-3d	132.50	15.71	4.16	0.64
10y-3d	132.75	15.70	4.16	0.63
10y-3d	133.00	15.70	4.17	0.63
10y-3d	133.25	15.70	4.17	0.62
10y-3d	133.50	15.69	4.18	0.62
10y-3d	133.75	15.69	4.18	0.61
10y-3d	134.00	15.68	4.19	0.61
10y-3d	134.25	15.68	4.19	0.60
10y-3d	134.50	15.67	4.2	0.60
10y-3d	134.75	15.67	4.2	0.59
10y-3d	135.00	15.67	4.21	0.59
10y-3d	135.25	15.66	4.21	0.58
10y-3d	135.50	15.66	4.22	0.58
10y-3d	135.75	15.65	4.22	0.57
10y-3d	136.00	15.65	4.23	0.58
10y-3d	136.25	15.65	4.23	0.57
10y-3d	136.50	15.64	4.24	0.57
10y-3d	136.75	15.64	4.24	0.56
10y-3d	137.00	15.63	4.25	0.56
10y-3d	137.25	15.63	4.25	0.56
10y-3d	137.50	15.63	4.26	0.56
10y-3d	137.75	15.62	4.26	0.55
10y-3d	138.00	15.62	4.27	0.55
10y-3d	138.25	15.61	4.27	0.54
10y-3d	138.50	15.61	4.28	0.55
10y-3d	138.75	15.60	4.28	0.54
10y-3d	139.00	15.60	4.29	0.54
10y-3d	139.25	15.60	4.29	0.53
10y-3d	139.50	15.59	4.3	0.54
10y-3d	139.75	15.59	4.3	0.53
10y-3d	140.00	15.58	4.31	0.53
10y-3d	140.25	15.58	4.31	0.53
10y-3d	140.50	15.58	4.31	0.52
10y-3d	140.75	15.57	4.32	0.52
10y-3d	141.00	15.57	4.32	0.52
10y-3d	141.25	15.56	4.33	0.52
10y-3d	141.50	15.56	4.33	0.51

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	141.75	15.56	4.34	0.51
10y-3d	142.00	15.55	4.34	0.51
10y-3d	142.25	15.55	4.35	0.51
10y-3d	142.50	15.54	4.35	0.51
10y-3d	142.75	15.54	4.36	0.51
10y-3d	143.00	15.54	4.36	0.50
10y-3d	143.25	15.53	4.37	0.51
10y-3d	143.50	15.53	4.37	0.50
10y-3d	143.75	15.52	4.38	0.50
10y-3d	144.00	15.52	4.38	0.50
10y-3d	144.25	15.52	4.39	0.50
10y-3d	144.50	15.51	4.39	0.50
10y-3d	144.75	15.51	4.39	0.49
10y-3d	145.00	15.51	4.4	0.49
10y-3d	145.25	15.50	4.4	0.49
10y-3d	145.50	15.50	4.41	0.49
10y-3d	145.75	15.49	4.41	0.49
10y-3d	146.00	15.49	4.42	0.49
10y-3d	146.25	15.49	4.42	0.48
10y-3d	146.50	15.48	4.43	0.49
10y-3d	146.75	15.48	4.43	0.48
10y-3d	147.00	15.47	4.44	0.49
10y-3d	147.25	15.47	4.44	0.48
10y-3d	147.50	15.47	4.44	0.47
10y-3d	147.75	15.46	4.45	0.48
10y-3d	148.00	15.46	4.45	0.47
10y-3d	148.25	15.46	4.46	0.48
10y-3d	148.50	15.45	4.46	0.47
10y-3d	148.75	15.45	4.47	0.48
10y-3d	149.00	15.44	4.47	0.47
10y-3d	149.25	15.44	4.48	0.48
10y-3d	149.50	15.44	4.48	0.47
10y-3d	149.75	15.43	4.48	0.46
10y-3d	150.00	15.43	4.49	0.47
10y-3d	150.25	15.43	4.49	0.46
10y-3d	150.50	15.42	4.5	0.47
10y-3d	150.75	15.42	4.5	0.46
10y-3d	151.00	15.41	4.51	0.47
10y-3d	151.25	15.41	4.51	0.46
10y-3d	151.50	15.41	4.51	0.46
10y-3d	151.75	15.40	4.52	0.46
10y-3d	152.00	15.40	4.52	0.46
10y-3d	152.25	15.40	4.53	0.46
10y-3d	152.50	15.39	4.53	0.46
10y-3d	152.75	15.39	4.54	0.46
10y-3d	153.00	15.39	4.54	0.45
10y-3d	153.25	15.38	4.54	0.45
10y-3d	153.50	15.38	4.55	0.45
10y-3d	153.75	15.37	4.55	0.45
10y-3d	154.00	15.37	4.56	0.45
10y-3d	154.25	15.37	4.56	0.45
10y-3d	154.50	15.36	4.57	0.45
10y-3d	154.75	15.36	4.57	0.45

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	155.00	15.36	4.57	0.44
10y-3d	155.25	15.35	4.58	0.45
10y-3d	155.50	15.35	4.58	0.44
10y-3d	155.75	15.35	4.59	0.45
10y-3d	156.00	15.34	4.59	0.44
10y-3d	156.25	15.34	4.59	0.44
10y-3d	156.50	15.33	4.6	0.44
10y-3d	156.75	15.33	4.6	0.44
10y-3d	157.00	15.33	4.61	0.44
10y-3d	157.25	15.32	4.61	0.44
10y-3d	157.50	15.32	4.62	0.44
10y-3d	157.75	15.32	4.62	0.44
10y-3d	158.00	15.31	4.62	0.43
10y-3d	158.25	15.31	4.63	0.44
10y-3d	158.50	15.31	4.63	0.43
10y-3d	158.75	15.30	4.64	0.44
10y-3d	159.00	15.30	4.64	0.43
10y-3d	159.25	15.30	4.64	0.43
10y-3d	159.50	15.29	4.65	0.43
10y-3d	159.75	15.29	4.65	0.43
10y-3d	160.00	15.29	4.66	0.43
10y-3d	160.25	15.28	4.66	0.43
10y-3d	160.50	15.28	4.66	0.42
10y-3d	160.75	15.28	4.67	0.43
10y-3d	161.00	15.27	4.67	0.42
10y-3d	161.25	15.27	4.68	0.43
10y-3d	161.50	15.27	4.68	0.42
10y-3d	161.75	15.26	4.68	0.42
10y-3d	162.00	15.26	4.69	0.42
10y-3d	162.25	15.26	4.69	0.42
10y-3d	162.50	15.25	4.69	0.41
10y-3d	162.75	15.25	4.7	0.42
10y-3d	163.00	15.25	4.7	0.41
10y-3d	163.25	15.24	4.71	0.42
10y-3d	163.50	15.24	4.71	0.41
10y-3d	163.75	15.24	4.71	0.41
10y-3d	164.00	15.23	4.72	0.41
10y-3d	164.25	15.23	4.72	0.41
10y-3d	164.50	15.23	4.73	0.42
10y-3d	164.75	15.22	4.73	0.41
10y-3d	165.00	15.22	4.73	0.41
10y-3d	165.25	15.22	4.74	0.41
10y-3d	165.50	15.21	4.74	0.41
10y-3d	165.75	15.21	4.74	0.40
10y-3d	166.00	15.21	4.75	0.41
10y-3d	166.25	15.20	4.75	0.40
10y-3d	166.50	15.20	4.76	0.41
10y-3d	166.75	15.20	4.76	0.40
10y-3d	167.00	15.19	4.76	0.40
10y-3d	167.25	15.19	4.77	0.40
10y-3d	167.50	15.19	4.77	0.40
10y-3d	167.75	15.18	4.77	0.39
10y-3d	168.00	15.18	4.78	0.40

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	168.25	15.18	4.78	0.39
10y-3d	168.50	15.17	4.78	0.39
10y-3d	168.75	15.17	4.79	0.40
10y-3d	169.00	15.17	4.79	0.39
10y-3d	169.25	15.16	4.8	0.40
10y-3d	169.50	15.16	4.8	0.39
10y-3d	169.75	15.16	4.8	0.39
10y-3d	170.00	15.16	4.81	0.39
10y-3d	170.25	15.15	4.81	0.39
10y-3d	170.50	15.15	4.81	0.38
10y-3d	170.75	15.15	4.82	0.39
10y-3d	171.00	15.14	4.82	0.38
10y-3d	171.25	15.14	4.82	0.38
10y-3d	171.50	15.14	4.83	0.39
10y-3d	171.75	15.13	4.83	0.38
10y-3d	172.00	15.13	4.83	0.38
10y-3d	172.25	15.13	4.84	0.38
10y-3d	172.50	15.12	4.84	0.38
10y-3d	172.75	15.12	4.84	0.37
10y-3d	173.00	15.12	4.85	0.38
10y-3d	173.25	15.12	4.85	0.37
10y-3d	173.50	15.11	4.85	0.37
10y-3d	173.75	15.11	4.86	0.38
10y-3d	174.00	15.11	4.86	0.37
10y-3d	174.25	15.10	4.86	0.37
10y-3d	174.50	15.10	4.87	0.37
10y-3d	174.75	15.10	4.87	0.37
10y-3d	175.00	15.10	4.87	0.36
10y-3d	175.25	15.09	4.88	0.37
10y-3d	175.50	15.09	4.88	0.37
10y-3d	175.75	15.09	4.88	0.36
10y-3d	176.00	15.08	4.89	0.37
10y-3d	176.25	15.08	4.89	0.36
10y-3d	176.50	15.08	4.89	0.36
10y-3d	176.75	15.07	4.9	0.36
10y-3d	177.00	15.07	4.9	0.36
10y-3d	177.25	15.07	4.9	0.36
10y-3d	177.50	15.07	4.91	0.36
10y-3d	177.75	15.06	4.91	0.36
10y-3d	178.00	15.06	4.91	0.35
10y-3d	178.25	15.06	4.92	0.36
10y-3d	178.50	15.05	4.92	0.35
10y-3d	178.75	15.05	4.92	0.35
10y-3d	179.00	15.05	4.93	0.36
10y-3d	179.25	15.05	4.93	0.35
10y-3d	179.50	15.04	4.93	0.35
10y-3d	179.75	15.04	4.94	0.35
10y-3d	180.00	15.04	4.94	0.35
10y-3d	180.25	15.04	4.94	0.35
10y-3d	180.50	15.03	4.95	0.35
10y-3d	180.75	15.03	4.95	0.35
10y-3d	181.00	15.03	4.95	0.34
10y-3d	181.25	15.02	4.96	0.35

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	181.50	15.02	4.96	0.34
10y-3d	181.75	15.02	4.96	0.34
10y-3d	182.00	15.02	4.96	0.34
10y-3d	182.25	15.01	4.97	0.34
10y-3d	182.50	15.01	4.97	0.34
10y-3d	182.75	15.01	4.97	0.33
10y-3d	183.00	15.01	4.98	0.34
10y-3d	183.25	15.00	4.98	0.34
10y-3d	183.50	15.00	4.98	0.33
10y-3d	183.75	15.00	4.99	0.34
10y-3d	184.00	14.99	4.99	0.33
10y-3d	184.25	14.99	4.99	0.33
10y-3d	184.50	14.99	4.99	0.33
10y-3d	184.75	14.99	5	0.33
10y-3d	185.00	14.98	5	0.33
10y-3d	185.25	14.98	5	0.32
10y-3d	185.50	14.98	5.01	0.33
10y-3d	185.75	14.98	5.01	0.33
10y-3d	186.00	14.97	5.01	0.32
10y-3d	186.25	14.97	5.01	0.32
10y-3d	186.50	14.97	5.02	0.33
10y-3d	186.75	14.97	5.02	0.32
10y-3d	187.00	14.96	5.02	0.32
10y-3d	187.25	14.96	5.03	0.32
10y-3d	187.50	14.96	5.03	0.32
10y-3d	187.75	14.96	5.03	0.32
10y-3d	188.00	14.95	5.03	0.31
10y-3d	188.25	14.95	5.04	0.32
10y-3d	188.50	14.95	5.04	0.31
10y-3d	188.75	14.95	5.04	0.31
10y-3d	189.00	14.94	5.05	0.32
10y-3d	189.25	14.94	5.05	0.31
10y-3d	189.50	14.94	5.05	0.31
10y-3d	189.75	14.94	5.05	0.31
10y-3d	190.00	14.93	5.06	0.31
10y-3d	190.25	14.93	5.06	0.31
10y-3d	190.50	14.93	5.06	0.30
10y-3d	190.75	14.93	5.06	0.30
10y-3d	191.00	14.92	5.07	0.31
10y-3d	191.25	14.92	5.07	0.30
10y-3d	191.50	14.92	5.07	0.30
10y-3d	191.75	14.92	5.08	0.31
10y-3d	192.00	14.92	5.08	0.30
10y-3d	192.25	14.91	5.08	0.30
10y-3d	192.50	14.91	5.08	0.30
10y-3d	192.75	14.91	5.09	0.30
10y-3d	193.00	14.91	5.09	0.30
10y-3d	193.25	14.90	5.09	0.29
10y-3d	193.50	14.90	5.09	0.29
10y-3d	193.75	14.90	5.1	0.30
10y-3d	194.00	14.90	5.1	0.29
10y-3d	194.25	14.89	5.1	0.29
10y-3d	194.50	14.89	5.1	0.29

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	194.75	14.89	5.11	0.29
10y-3d	195.00	14.89	5.11	0.29
10y-3d	195.25	14.89	5.11	0.29
10y-3d	195.50	14.88	5.11	0.28
10y-3d	195.75	14.88	5.12	0.29
10y-3d	196.00	14.88	5.12	0.29
10y-3d	196.25	14.88	5.12	0.28
10y-3d	196.50	14.87	5.12	0.28
10y-3d	196.75	14.87	5.13	0.29
10y-3d	197.00	14.87	5.13	0.28
10y-3d	197.25	14.87	5.13	0.28
10y-3d	197.50	14.87	5.13	0.28
10y-3d	197.75	14.86	5.14	0.28
10y-3d	198.00	14.86	5.14	0.28
10y-3d	198.25	14.86	5.14	0.28
10y-3d	198.50	14.86	5.14	0.27
10y-3d	198.75	14.86	5.15	0.28
10y-3d	199.00	14.85	5.15	0.28
10y-3d	199.25	14.85	5.15	0.27
10y-3d	199.50	14.85	5.15	0.27
10y-3d	199.75	14.85	5.15	0.27
10y-3d	200.00	14.84	5.16	0.27
10y-3d	200.25	14.84	5.16	0.27
10y-3d	200.50	14.84	5.16	0.27
10y-3d	200.75	14.84	5.16	0.26
10y-3d	201.00	14.84	5.17	0.27
10y-3d	201.25	14.83	5.17	0.27
10y-3d	201.50	14.83	5.17	0.26
10y-3d	201.75	14.83	5.17	0.26
10y-3d	202.00	14.83	5.17	0.26
10y-3d	202.25	14.83	5.18	0.26
10y-3d	202.50	14.82	5.18	0.26
10y-3d	202.75	14.82	5.18	0.26
10y-3d	203.00	14.82	5.18	0.25
10y-3d	203.25	14.82	5.19	0.26
10y-3d	203.50	14.82	5.19	0.26
10y-3d	203.75	14.82	5.19	0.25
10y-3d	204.00	14.81	5.19	0.25
10y-3d	204.25	14.81	5.19	0.25
10y-3d	204.50	14.81	5.2	0.25
10y-3d	204.75	14.81	5.2	0.25
10y-3d	205.00	14.81	5.2	0.25
10y-3d	205.25	14.80	5.2	0.24
10y-3d	205.50	14.80	5.2	0.24
10y-3d	205.75	14.80	5.21	0.25
10y-3d	206.00	14.80	5.21	0.25
10y-3d	206.25	14.80	5.21	0.24
10y-3d	206.50	14.79	5.21	0.24
10y-3d	206.75	14.79	5.21	0.24
10y-3d	207.00	14.79	5.22	0.24
10y-3d	207.25	14.79	5.22	0.24
10y-3d	207.50	14.79	5.22	0.24
10y-3d	207.75	14.79	5.22	0.23

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	208.00	14.78	5.22	0.23
10y-3d	208.25	14.78	5.23	0.24
10y-3d	208.50	14.78	5.23	0.24
10y-3d	208.75	14.78	5.23	0.23
10y-3d	209.00	14.78	5.23	0.23
10y-3d	209.25	14.78	5.23	0.23
10y-3d	209.50	14.77	5.24	0.23
10y-3d	209.75	14.77	5.24	0.23
10y-3d	210.00	14.77	5.24	0.23
10y-3d	210.25	14.77	5.24	0.23
10y-3d	210.50	14.77	5.24	0.22
10y-3d	210.75	14.77	5.24	0.22
10y-3d	211.00	14.76	5.25	0.23
10y-3d	211.25	14.76	5.25	0.22
10y-3d	211.50	14.76	5.25	0.22
10y-3d	211.75	14.76	5.25	0.22
10y-3d	212.00	14.76	5.25	0.22
10y-3d	212.25	14.76	5.25	0.21
10y-3d	212.50	14.76	5.26	0.22
10y-3d	212.75	14.75	5.26	0.22
10y-3d	213.00	14.75	5.26	0.21
10y-3d	213.25	14.75	5.26	0.21
10y-3d	213.50	14.75	5.26	0.21
10y-3d	213.75	14.75	5.26	0.21
10y-3d	214.00	14.75	5.27	0.21
10y-3d	214.25	14.75	5.27	0.21
10y-3d	214.50	14.74	5.27	0.21
10y-3d	214.75	14.74	5.27	0.21
10y-3d	215.00	14.74	5.27	0.20
10y-3d	215.25	14.74	5.27	0.20
10y-3d	215.50	14.74	5.27	0.20
10y-3d	215.75	14.74	5.28	0.20
10y-3d	216.00	14.74	5.28	0.20
10y-3d	216.25	14.74	5.28	0.20
10y-3d	216.50	14.73	5.28	0.20
10y-3d	216.75	14.73	5.28	0.19
10y-3d	217.00	14.73	5.28	0.19
10y-3d	217.25	14.73	5.28	0.19
10y-3d	217.50	14.73	5.29	0.20
10y-3d	217.75	14.73	5.29	0.19
10y-3d	218.00	14.73	5.29	0.19
10y-3d	218.25	14.72	5.29	0.19
10y-3d	218.50	14.72	5.29	0.19
10y-3d	218.75	14.72	5.29	0.18
10y-3d	219.00	14.72	5.29	0.18
10y-3d	219.25	14.72	5.3	0.19
10y-3d	219.50	14.72	5.3	0.19
10y-3d	219.75	14.72	5.3	0.18
10y-3d	220.00	14.72	5.3	0.18
10y-3d	220.25	14.71	5.3	0.18
10y-3d	220.50	14.71	5.3	0.18
10y-3d	220.75	14.71	5.3	0.17
10y-3d	221.00	14.71	5.3	0.17

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	221.25	14.71	5.31	0.18
10y-3d	221.50	14.71	5.31	0.18
10y-3d	221.75	14.71	5.31	0.17
10y-3d	222.00	14.71	5.31	0.17
10y-3d	222.25	14.71	5.31	0.17
10y-3d	222.50	14.70	5.31	0.17
10y-3d	222.75	14.70	5.31	0.16
10y-3d	223.00	14.70	5.31	0.16
10y-3d	223.25	14.70	5.32	0.17
10y-3d	223.50	14.70	5.32	0.17
10y-3d	223.75	14.70	5.32	0.17
10y-3d	224.00	14.70	5.32	0.16
10y-3d	224.25	14.70	5.32	0.16
10y-3d	224.50	14.70	5.32	0.16
10y-3d	224.75	14.70	5.32	0.16
10y-3d	225.00	14.69	5.32	0.15
10y-3d	225.25	14.69	5.32	0.15
10y-3d	225.50	14.69	5.33	0.16
10y-3d	225.75	14.69	5.33	0.16
10y-3d	226.00	14.69	5.33	0.16
10y-3d	226.25	14.69	5.33	0.15
10y-3d	226.50	14.69	5.33	0.15
10y-3d	226.75	14.69	5.33	0.15
10y-3d	227.00	14.69	5.33	0.15
10y-3d	227.25	14.69	5.33	0.14
10y-3d	227.50	14.68	5.33	0.14
10y-3d	227.75	14.68	5.34	0.15
10y-3d	228.00	14.68	5.34	0.15
10y-3d	228.25	14.68	5.34	0.15
10y-3d	228.50	14.68	5.34	0.14
10y-3d	228.75	14.68	5.34	0.14
10y-3d	229.00	14.68	5.34	0.14
10y-3d	229.25	14.68	5.34	0.14
10y-3d	229.50	14.68	5.34	0.14
10y-3d	229.75	14.68	5.34	0.13
10y-3d	230.00	14.68	5.34	0.13
10y-3d	230.25	14.67	5.35	0.14
10y-3d	230.50	14.67	5.35	0.14
10y-3d	230.75	14.67	5.35	0.14
10y-3d	231.00	14.67	5.35	0.13
10y-3d	231.25	14.67	5.35	0.13
10y-3d	231.50	14.67	5.35	0.13
10y-3d	231.75	14.67	5.35	0.13
10y-3d	232.00	14.67	5.35	0.13
10y-3d	232.25	14.67	5.35	0.12
10y-3d	232.50	14.67	5.35	0.12
10y-3d	232.75	14.67	5.35	0.12
10y-3d	233.00	14.67	5.36	0.13
10y-3d	233.25	14.66	5.36	0.13
10y-3d	233.50	14.66	5.36	0.12
10y-3d	233.75	14.66	5.36	0.12
10y-3d	234.00	14.66	5.36	0.12
10y-3d	234.25	14.66	5.36	0.12

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	234.50	14.66	5.36	0.12
10y-3d	234.75	14.66	5.36	0.12
10y-3d	235.00	14.66	5.36	0.11
10y-3d	235.25	14.66	5.36	0.11
10y-3d	235.50	14.66	5.36	0.11
10y-3d	235.75	14.66	5.36	0.11
10y-3d	236.00	14.66	5.37	0.12
10y-3d	236.25	14.66	5.37	0.12
10y-3d	236.50	14.65	5.37	0.11
10y-3d	236.75	14.65	5.37	0.11
10y-3d	237.00	14.65	5.37	0.11
10y-3d	237.25	14.65	5.37	0.11
10y-3d	237.50	14.65	5.37	0.11
10y-3d	237.75	14.65	5.37	0.11
10y-3d	238.00	14.65	5.37	0.10
10y-3d	238.25	14.65	5.37	0.10
10y-3d	238.50	14.65	5.37	0.10
10y-3d	238.75	14.65	5.37	0.10
10y-3d	239.00	14.65	5.37	0.10
10y-3d	239.25	14.65	5.37	0.10
10y-3d	239.50	14.65	5.38	0.11
10y-3d	239.75	14.65	5.38	0.10
10y-3d	240.00	14.65	5.38	0.10
10y-3d	240.25	14.65	5.38	0.10
10y-3d	240.50	14.64	5.38	0.10
10y-3d	240.75	14.64	5.38	0.10
10y-3d	241.00	14.64	5.38	0.10
10y-3d	241.25	14.64	5.38	0.10
10y-3d	241.50	14.64	5.38	0.09
10y-3d	241.75	14.64	5.38	0.09
10y-3d	242.00	14.64	5.38	0.09
10y-3d	242.25	14.64	5.38	0.09
10y-3d	242.50	14.64	5.38	0.09
10y-3d	242.75	14.64	5.38	0.09
10y-3d	243.00	14.64	5.38	0.09
10y-3d	243.25	14.64	5.39	0.09
10y-3d	243.50	14.64	5.39	0.09
10y-3d	243.75	14.64	5.39	0.09
10y-3d	244.00	14.64	5.39	0.09
10y-3d	244.25	14.64	5.39	0.09
10y-3d	244.50	14.64	5.39	0.09
10y-3d	244.75	14.63	5.39	0.09
10y-3d	245.00	14.63	5.39	0.09
10y-3d	245.25	14.63	5.39	0.08
10y-3d	245.50	14.63	5.39	0.08
10y-3d	245.75	14.63	5.39	0.08
10y-3d	246.00	14.63	5.39	0.08
10y-3d	246.25	14.63	5.39	0.08
10y-3d	246.50	14.63	5.39	0.08
10y-3d	246.75	14.63	5.39	0.08
10y-3d	247.00	14.63	5.39	0.08
10y-3d	247.25	14.63	5.39	0.07
10y-3d	247.50	14.63	5.4	0.08

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	247.75	14.63	5.4	0.08
10y-3d	248.00	14.63	5.4	0.08
10y-3d	248.25	14.63	5.4	0.08
10y-3d	248.50	14.63	5.4	0.08
10y-3d	248.75	14.63	5.4	0.08
10y-3d	249.00	14.63	5.4	0.08
10y-3d	249.25	14.63	5.4	0.08
10y-3d	249.50	14.62	5.4	0.07
10y-3d	249.75	14.62	5.4	0.07
10y-3d	250.00	14.62	5.4	0.07
10y-3d	250.25	14.62	5.4	0.07
10y-3d	250.50	14.62	5.4	0.07
10y-3d	250.75	14.62	5.4	0.07
10y-3d	251.00	14.62	5.4	0.07
10y-3d	251.25	14.62	5.4	0.07
10y-3d	251.50	14.62	5.4	0.07
10y-3d	251.75	14.62	5.4	0.06
10y-3d	252.00	14.62	5.4	0.06
10y-3d	252.25	14.62	5.41	0.07
10y-3d	252.50	14.62	5.41	0.07
10y-3d	252.75	14.62	5.41	0.07
10y-3d	253.00	14.62	5.41	0.07
10y-3d	253.25	14.62	5.41	0.07
10y-3d	253.50	14.62	5.41	0.07
10y-3d	253.75	14.62	5.41	0.07
10y-3d	254.00	14.62	5.41	0.07
10y-3d	254.25	14.62	5.41	0.06
10y-3d	254.50	14.62	5.41	0.06
10y-3d	254.75	14.62	5.41	0.06
10y-3d	255.00	14.62	5.41	0.06
10y-3d	255.25	14.61	5.41	0.06
10y-3d	255.50	14.61	5.41	0.06
10y-3d	255.75	14.61	5.41	0.06
10y-3d	256.00	14.61	5.41	0.06
10y-3d	256.25	14.61	5.41	0.06
10y-3d	256.50	14.61	5.41	0.06
10y-3d	256.75	14.61	5.41	0.06
10y-3d	257.00	14.61	5.41	0.05
10y-3d	257.25	14.61	5.41	0.05
10y-3d	257.50	14.61	5.41	0.05
10y-3d	257.75	14.61	5.42	0.06
10y-3d	258.00	14.61	5.42	0.06
10y-3d	258.25	14.61	5.42	0.06
10y-3d	258.50	14.61	5.42	0.06
10y-3d	258.75	14.61	5.42	0.06
10y-3d	259.00	14.61	5.42	0.06
10y-3d	259.25	14.61	5.42	0.06
10y-3d	259.50	14.61	5.42	0.06
10y-3d	259.75	14.61	5.42	0.06
10y-3d	260.00	14.61	5.42	0.05
10y-3d	260.25	14.61	5.42	0.05
10y-3d	260.50	14.61	5.42	0.05
10y-3d	260.75	14.61	5.42	0.05

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	261.00	14.61	5.42	0.05
10y-3d	261.25	14.61	5.42	0.05
10y-3d	261.50	14.61	5.42	0.05
10y-3d	261.75	14.60	5.42	0.05
10y-3d	262.00	14.60	5.42	0.05
10y-3d	262.25	14.60	5.42	0.05
10y-3d	262.50	14.60	5.42	0.05
10y-3d	262.75	14.60	5.42	0.05
10y-3d	263.00	14.60	5.42	0.05
10y-3d	263.25	14.60	5.42	0.05
10y-3d	263.50	14.60	5.42	0.04
10y-3d	263.75	14.60	5.42	0.04
10y-3d	264.00	14.60	5.42	0.04
10y-3d	264.25	14.60	5.43	0.05
10y-3d	264.50	14.60	5.43	0.05
10y-3d	264.75	14.60	5.43	0.05
10y-3d	265.00	14.60	5.43	0.05
10y-3d	265.25	14.60	5.43	0.05
10y-3d	265.50	14.60	5.43	0.05
10y-3d	265.75	14.60	5.43	0.05
10y-3d	266.00	14.60	5.43	0.05
10y-3d	266.25	14.60	5.43	0.05
10y-3d	266.50	14.60	5.43	0.05
10y-3d	266.75	14.60	5.43	0.05
10y-3d	267.00	14.60	5.43	0.05
10y-3d	267.25	14.60	5.43	0.04
10y-3d	267.50	14.60	5.43	0.04
10y-3d	267.75	14.60	5.43	0.04
10y-3d	268.00	14.60	5.43	0.04
10y-3d	268.25	14.60	5.43	0.04
10y-3d	268.50	14.60	5.43	0.04
10y-3d	268.75	14.60	5.43	0.04
10y-3d	269.00	14.60	5.43	0.04
10y-3d	269.25	14.60	5.43	0.04
10y-3d	269.50	14.60	5.43	0.04
10y-3d	269.75	14.59	5.43	0.04
10y-3d	270.00	14.59	5.43	0.04
10y-3d	270.25	14.59	5.43	0.04
10y-3d	270.50	14.59	5.43	0.04
10y-3d	270.75	14.59	5.43	0.04
10y-3d	271.00	14.59	5.43	0.04
10y-3d	271.25	14.59	5.43	0.04
10y-3d	271.50	14.59	5.43	0.03
10y-3d	271.75	14.59	5.43	0.03
10y-3d	272.00	14.59	5.44	0.04
10y-3d	272.25	14.59	5.44	0.04
10y-3d	272.50	14.59	5.44	0.04
10y-3d	272.75	14.59	5.44	0.04
10y-3d	273.00	14.59	5.44	0.04
10y-3d	273.25	14.59	5.44	0.04
10y-3d	273.50	14.59	5.44	0.04
10y-3d	273.75	14.59	5.44	0.04
10y-3d	274.00	14.59	5.44	0.04

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	274.25	14.59	5.44	0.04
10y-3d	274.50	14.59	5.44	0.04
10y-3d	274.75	14.59	5.44	0.04
10y-3d	275.00	14.59	5.44	0.04
10y-3d	275.25	14.59	5.44	0.04
10y-3d	275.50	14.59	5.44	0.04
10y-3d	275.75	14.59	5.44	0.04
10y-3d	276.00	14.59	5.44	0.04
10y-3d	276.25	14.59	5.44	0.03
10y-3d	276.50	14.59	5.44	0.03
10y-3d	276.75	14.59	5.44	0.03
10y-3d	277.00	14.59	5.44	0.03
10y-3d	277.25	14.59	5.44	0.03
10y-3d	277.50	14.59	5.44	0.03
10y-3d	277.75	14.59	5.44	0.03
10y-3d	278.00	14.59	5.44	0.03
10y-3d	278.25	14.59	5.44	0.03
10y-3d	278.50	14.59	5.44	0.03
10y-3d	278.75	14.59	5.44	0.03
10y-3d	279.00	14.59	5.44	0.03
10y-3d	279.25	14.58	5.44	0.03
10y-3d	279.50	14.58	5.44	0.03
10y-3d	279.75	14.58	5.44	0.03
10y-3d	280.00	14.58	5.44	0.03
10y-3d	280.25	14.58	5.44	0.03
10y-3d	280.50	14.58	5.44	0.03
10y-3d	280.75	14.58	5.44	0.03
10y-3d	281.00	14.58	5.44	0.03
10y-3d	281.25	14.58	5.45	0.04
10y-3d	281.50	14.58	5.45	0.04
10y-3d	281.75	14.58	5.45	0.03
10y-3d	282.00	14.58	5.45	0.03
10y-3d	282.25	14.58	5.45	0.03
10y-3d	282.50	14.58	5.45	0.03
10y-3d	282.75	14.58	5.45	0.03
10y-3d	283.00	14.58	5.45	0.03
10y-3d	283.25	14.58	5.45	0.03
10y-3d	283.50	14.58	5.45	0.03
10y-3d	283.75	14.58	5.45	0.03
10y-3d	284.00	14.58	5.45	0.03
10y-3d	284.25	14.58	5.45	0.03
10y-3d	284.50	14.58	5.45	0.03
10y-3d	284.75	14.58	5.45	0.03
10y-3d	285.00	14.58	5.45	0.03
10y-3d	285.25	14.58	5.45	0.03
10y-3d	285.50	14.58	5.45	0.03
10y-3d	285.75	14.58	5.45	0.03
10y-3d	286.00	14.58	5.45	0.03
10y-3d	286.25	14.58	5.45	0.03
10y-3d	286.50	14.58	5.45	0.03
10y-3d	286.75	14.58	5.45	0.03
10y-3d	287.00	14.58	5.45	0.03
10y-3d	287.25	14.58	5.45	0.03

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	287.50	14.58	5.45	0.03
10y-3d	287.75	14.58	5.45	0.03
10y-3d	288.00	14.58	5.45	0.03
10y-3d	288.25	14.58	5.45	0.02
10y-3d	288.50	14.58	5.45	0.02
10y-3d	288.75	14.58	5.45	0.02
10y-3d	289.00	14.58	5.45	0.02
10y-3d	289.25	14.58	5.45	0.02
10y-3d	289.50	14.58	5.45	0.02
10y-3d	289.75	14.58	5.45	0.02
10y-3d	290.00	14.58	5.45	0.02
10y-3d	290.25	14.58	5.45	0.02
10y-3d	290.50	14.58	5.45	0.02
10y-3d	290.75	14.58	5.45	0.02
10y-3d	291.00	14.58	5.45	0.02
10y-3d	291.25	14.57	5.45	0.02
10y-3d	291.50	14.57	5.45	0.02
10y-3d	291.75	14.57	5.45	0.02
10y-3d	292.00	14.57	5.45	0.02
10y-3d	292.25	14.57	5.45	0.02
10y-3d	292.50	14.57	5.46	0.03
10y-3d	292.75	14.57	5.46	0.03
10y-3d	293.00	14.57	5.46	0.03
10y-3d	293.25	14.57	5.46	0.03
10y-3d	293.50	14.57	5.46	0.03
10y-3d	293.75	14.57	5.46	0.03
10y-3d	294.00	14.57	5.46	0.03
10y-3d	294.25	14.57	5.46	0.03
10y-3d	294.50	14.57	5.46	0.03
10y-3d	294.75	14.57	5.46	0.03
10y-3d	295.00	14.57	5.46	0.03
10y-3d	295.25	14.57	5.46	0.03
10y-3d	295.50	14.57	5.46	0.03
10y-3d	295.75	14.57	5.46	0.03
10y-3d	296.00	14.57	5.46	0.02
10y-3d	296.25	14.57	5.46	0.02
10y-3d	296.50	14.57	5.46	0.02
10y-3d	296.75	14.57	5.46	0.02
10y-3d	297.00	14.57	5.46	0.02
10y-3d	297.25	14.57	5.46	0.02
10y-3d	297.50	14.57	5.46	0.02
10y-3d	297.75	14.57	5.46	0.02
10y-3d	298.00	14.57	5.46	0.02
10y-3d	298.25	14.57	5.46	0.02
10y-3d	298.50	14.57	5.46	0.02
10y-3d	298.75	14.57	5.46	0.02
10y-3d	299.00	14.57	5.46	0.02
10y-3d	299.25	14.57	5.46	0.02
10y-3d	299.50	14.57	5.46	0.02
10y-3d	299.75	14.57	5.46	0.02
10y-3d	300.00	14.57	5.46	0.02
10y-3d	300.25	14.57	5.46	0.02
10y-3d	300.50	14.57	5.46	0.02

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	300.75	14.57	5.46	0.02
10y-3d	301.00	14.57	5.46	0.02
10y-3d	301.25	14.57	5.46	0.02
10y-3d	301.50	14.57	5.46	0.02
10y-3d	301.75	14.57	5.46	0.02
10y-3d	302.00	14.57	5.46	0.02
10y-3d	302.25	14.57	5.46	0.02
10y-3d	302.50	14.57	5.46	0.02
10y-3d	302.75	14.57	5.46	0.02
10y-3d	303.00	14.57	5.46	0.02
10y-3d	303.25	14.57	5.46	0.02
10y-3d	303.50	14.57	5.46	0.02
10y-3d	303.75	14.57	5.46	0.02
10y-3d	304.00	14.57	5.46	0.02
10y-3d	304.25	14.57	5.46	0.02
10y-3d	304.50	14.57	5.46	0.02
10y-3d	304.75	14.57	5.46	0.02
10y-3d	305.00	14.57	5.46	0.02
10y-3d	305.25	14.57	5.46	0.01
10y-3d	305.50	14.57	5.46	0.01
10y-3d	305.75	14.57	5.46	0.01
10y-3d	306.00	14.57	5.46	0.01
10y-3d	306.25	14.57	5.46	0.01
10y-3d	306.50	14.57	5.46	0.01
10y-3d	306.75	14.57	5.46	0.01
10y-3d	307.00	14.56	5.47	0.02
10y-3d	307.25	14.56	5.47	0.02
10y-3d	307.50	14.56	5.47	0.02
10y-3d	307.75	14.56	5.47	0.02
10y-3d	308.00	14.56	5.47	0.02
10y-3d	308.25	14.56	5.47	0.02
10y-3d	308.50	14.56	5.47	0.02
10y-3d	308.75	14.56	5.47	0.02
10y-3d	309.00	14.56	5.47	0.02
10y-3d	309.25	14.56	5.47	0.02
10y-3d	309.50	14.56	5.47	0.02
10y-3d	309.75	14.56	5.47	0.02
10y-3d	310.00	14.56	5.47	0.02
10y-3d	310.25	14.56	5.47	0.02
10y-3d	310.50	14.56	5.47	0.02
10y-3d	310.75	14.56	5.47	0.02
10y-3d	311.00	14.56	5.47	0.02
10y-3d	311.25	14.56	5.47	0.02
10y-3d	311.50	14.56	5.47	0.02
10y-3d	311.75	14.56	5.47	0.02
10y-3d	312.00	14.56	5.47	0.02
10y-3d	312.25	14.56	5.47	0.02
10y-3d	312.50	14.56	5.47	0.02
10y-3d	312.75	14.56	5.47	0.02
10y-3d	313.00	14.56	5.47	0.02
10y-3d	313.25	14.56	5.47	0.02
10y-3d	313.50	14.56	5.47	0.02
10y-3d	313.75	14.56	5.47	0.02

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	314.00	14.56	5.47	0.02
10y-3d	314.25	14.56	5.47	0.02
10y-3d	314.50	14.56	5.47	0.02
10y-3d	314.75	14.56	5.47	0.02
10y-3d	315.00	14.56	5.47	0.02
10y-3d	315.25	14.56	5.47	0.02
10y-3d	315.50	14.56	5.47	0.02
10y-3d	315.75	14.56	5.47	0.02
10y-3d	316.00	14.56	5.47	0.02
10y-3d	316.25	14.56	5.47	0.02
10y-3d	316.50	14.56	5.47	0.01
10y-3d	316.75	14.56	5.47	0.01
10y-3d	317.00	14.56	5.47	0.01
10y-3d	317.25	14.56	5.47	0.01
10y-3d	317.50	14.56	5.47	0.01
10y-3d	317.75	14.56	5.47	0.01
10y-3d	318.00	14.56	5.47	0.01
10y-3d	318.25	14.56	5.47	0.01
10y-3d	318.50	14.56	5.47	0.01
10y-3d	318.75	14.56	5.47	0.01
10y-3d	319.00	14.56	5.47	0.01
10y-3d	319.25	14.56	5.47	0.01
10y-3d	319.50	14.56	5.47	0.01
10y-3d	319.75	14.56	5.47	0.01
10y-3d	320.00	14.56	5.47	0.01
10y-3d	320.25	14.56	5.47	0.01
10y-3d	320.50	14.56	5.47	0.01
10y-3d	320.75	14.56	5.47	0.01
10y-3d	321.00	14.56	5.47	0.01
10y-3d	321.25	14.56	5.47	0.01
10y-3d	321.50	14.56	5.47	0.01
10y-3d	321.75	14.56	5.47	0.01
10y-3d	322.00	14.56	5.47	0.01
10y-3d	322.25	14.56	5.47	0.01
10y-3d	322.50	14.56	5.47	0.01
10y-3d	322.75	14.56	5.47	0.01
10y-3d	323.00	14.56	5.47	0.01
10y-3d	323.25	14.56	5.47	0.01
10y-3d	323.50	14.56	5.47	0.01
10y-3d	323.75	14.56	5.47	0.01
10y-3d	324.00	14.56	5.47	0.01
10y-3d	324.25	14.56	5.47	0.01
10y-3d	324.50	14.56	5.47	0.01
10y-3d	324.75	14.56	5.47	0.01
10y-3d	325.00	14.56	5.47	0.01
10y-3d	325.25	14.56	5.47	0.01
10y-3d	325.50	14.56	5.47	0.01
10y-3d	325.75	14.56	5.47	0.01
10y-3d	326.00	14.56	5.47	0.01
10y-3d	326.25	14.56	5.48	0.02
10y-3d	326.50	14.56	5.48	0.02
10y-3d	326.75	14.56	5.48	0.02
10y-3d	327.00	14.56	5.48	0.02

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	327.25	14.56	5.48	0.02
10y-3d	327.50	14.56	5.48	0.02
10y-3d	327.75	14.56	5.48	0.02
10y-3d	328.00	14.55	5.48	0.02
10y-3d	328.25	14.55	5.48	0.02
10y-3d	328.50	14.55	5.48	0.02
10y-3d	328.75	14.55	5.48	0.02
10y-3d	329.00	14.55	5.48	0.02
10y-3d	329.25	14.55	5.48	0.02
10y-3d	329.50	14.55	5.48	0.02
10y-3d	329.75	14.55	5.48	0.02
10y-3d	330.00	14.55	5.48	0.02
10y-3d	330.25	14.55	5.48	0.02
10y-3d	330.50	14.55	5.48	0.02
10y-3d	330.75	14.55	5.48	0.02
10y-3d	331.00	14.55	5.48	0.01
10y-3d	331.25	14.55	5.48	0.01
10y-3d	331.50	14.55	5.48	0.01
10y-3d	331.75	14.55	5.48	0.01
10y-3d	332.00	14.55	5.48	0.01
10y-3d	332.25	14.55	5.48	0.01
10y-3d	332.50	14.55	5.48	0.01
10y-3d	332.75	14.55	5.48	0.01
10y-3d	333.00	14.55	5.48	0.01
10y-3d	333.25	14.55	5.48	0.01
10y-3d	333.50	14.55	5.48	0.01
10y-3d	333.75	14.55	5.48	0.01
10y-3d	334.00	14.55	5.48	0.01
10y-3d	334.25	14.55	5.48	0.01
10y-3d	334.50	14.55	5.48	0.01
10y-3d	334.75	14.55	5.48	0.01
10y-3d	335.00	14.55	5.48	0.01
10y-3d	335.25	14.55	5.48	0.01
10y-3d	335.50	14.55	5.48	0.01
10y-3d	335.75	14.55	5.48	0.01
10y-3d	336.00	14.55	5.48	0.01
10y-3d	336.25	14.55	5.48	0.01
10y-3d	336.50	14.55	5.48	0.01
10y-3d	336.75	14.55	5.48	0.01
10y-3d	337.00	14.55	5.48	0.01
10y-3d	337.25	14.55	5.48	0.01
10y-3d	337.50	14.55	5.48	0.01
10y-3d	337.75	14.55	5.48	0.01
10y-3d	338.00	14.55	5.48	0.01
10y-3d	338.25	14.55	5.48	0.01
10y-3d	338.50	14.55	5.48	0.01
10y-3d	338.75	14.55	5.48	0.01
10y-3d	339.00	14.55	5.48	0.01
10y-3d	339.25	14.55	5.48	0.01
10y-3d	339.50	14.55	5.48	0.01
10y-3d	339.75	14.55	5.48	0.01
10y-3d	340.00	14.55	5.48	0.01
10y-3d	340.25	14.55	5.48	0.01

PROPOSED CONDITIONS ICPR TIME SERIES

Allowable NSLRWCD Discharge Rate is 2" over site area over 24 hours for 10Y-3D event

Total Site Area = 10.90 acres
Allowable Vol = 1.82 ac-ft (calculated)
Max Modeled Vol = 1.79 ac-ft
Max Stage = 17.23 FT-NAVD

Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	340.50	14.55	5.48	0.01
10y-3d	340.75	14.55	5.48	0.01
10y-3d	341.00	14.55	5.48	0.01
10y-3d	341.25	14.55	5.48	0.01
10y-3d	341.50	14.55	5.48	0.01
10y-3d	341.75	14.55	5.48	0.01
10y-3d	342.00	14.55	5.48	0.01
10y-3d	342.25	14.55	5.48	0.01
10y-3d	342.50	14.55	5.48	0.01
10y-3d	342.75	14.55	5.48	0.01
10y-3d	343.00	14.55	5.48	0.01
10y-3d	343.25	14.55	5.48	0.01
10y-3d	343.50	14.55	5.48	0.01
10y-3d	343.75	14.55	5.48	0.01
10y-3d	344.00	14.55	5.48	0.01
10y-3d	344.25	14.55	5.48	0.01
10y-3d	344.50	14.55	5.48	0.01
10y-3d	344.75	14.55	5.48	0.01
10y-3d	345.00	14.55	5.48	0.01
10y-3d	345.25	14.55	5.48	0.01
10y-3d	345.50	14.55	5.48	0.01
10y-3d	345.75	14.55	5.48	0.01
10y-3d	346.00	14.55	5.48	0.01
10y-3d	346.25	14.55	5.48	0.01
10y-3d	346.50	14.55	5.48	0.01
10y-3d	346.75	14.55	5.48	0.01
10y-3d	347.00	14.55	5.48	0.01
10y-3d	347.25	14.55	5.48	0.01
10y-3d	347.50	14.55	5.48	0.01
10y-3d	347.75	14.55	5.48	0.01
10y-3d	348.00	14.55	5.48	0.01
10y-3d	348.25	14.55	5.48	0.01
10y-3d	348.50	14.55	5.48	0.01
10y-3d	348.75	14.55	5.48	0.01
10y-3d	349.00	14.55	5.48	0.01
10y-3d	349.25	14.55	5.48	0.01
10y-3d	349.50	14.55	5.48	0.01
10y-3d	349.75	14.55	5.48	0.01
10y-3d	350.00	14.55	5.48	0.01
10y-3d	350.25	14.55	5.48	0.00
10y-3d	350.50	14.55	5.48	0.00
10y-3d	350.75	14.55	5.48	0.00
10y-3d	351.00	14.55	5.48	0.00
10y-3d	351.25	14.55	5.48	0.00
10y-3d	351.50	14.55	5.48	0.00
10y-3d	351.75	14.55	5.48	0.00
10y-3d	352.00	14.55	5.48	0.00
10y-3d	352.25	14.55	5.48	0.00
10y-3d	352.50	14.55	5.48	0.00
10y-3d	352.75	14.55	5.49	0.01
10y-3d	353.00	14.55	5.49	0.01
10y-3d	353.25	14.55	5.49	0.01
10y-3d	353.50	14.55	5.49	0.01

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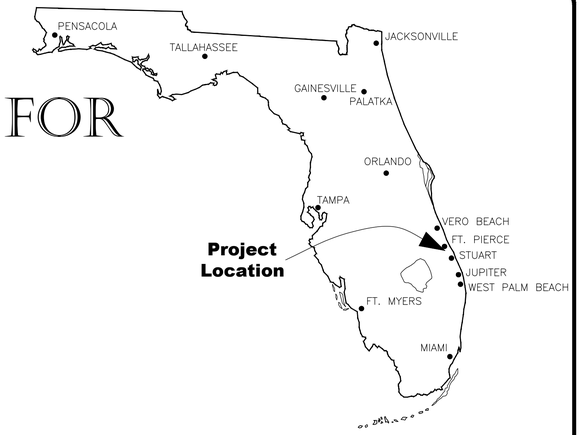
Sim	Time (hr)	Max Stage (FT-NAVD)	Total Outflow Volume (ac-ft)	24-hour Discharge (ac-ft)
10y-3d	353.75	14.55	5.49	0.01
10y-3d	354.00	14.55	5.49	0.01
10y-3d	354.25	14.55	5.49	0.01
10y-3d	354.50	14.55	5.49	0.01
10y-3d	354.75	14.55	5.49	0.01
10y-3d	355.00	14.55	5.49	0.01
10y-3d	355.25	14.55	5.49	0.01
10y-3d	355.50	14.55	5.49	0.01
10y-3d	355.75	14.55	5.49	0.01
10y-3d	356.00	14.55	5.49	0.01
10y-3d	356.25	14.55	5.49	0.01
10y-3d	356.50	14.55	5.49	0.01
10y-3d	356.75	14.55	5.49	0.01
10y-3d	357.00	14.55	5.49	0.01
10y-3d	357.25	14.55	5.49	0.01
10y-3d	357.50	14.55	5.49	0.01
10y-3d	357.75	14.55	5.49	0.01
10y-3d	358.00	14.54	5.49	0.01
10y-3d	358.25	14.54	5.49	0.01
10y-3d	358.50	14.54	5.49	0.01
10y-3d	358.75	14.54	5.49	0.01
10y-3d	359.00	14.54	5.49	0.01
10y-3d	359.25	14.54	5.49	0.01
10y-3d	359.50	14.54	5.49	0.01
10y-3d	359.75	14.54	5.49	0.01
10y-3d	360.00	14.54	5.49	0.01

CONSTRUCTION PLANS & SPECIFICATIONS FOR CROSSROADS RV ST. LUCIE COUNTY, FLORIDA

SECTION 24, TOWNSHIP 35S, RANGE 39E



THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS, FY 2023–24.

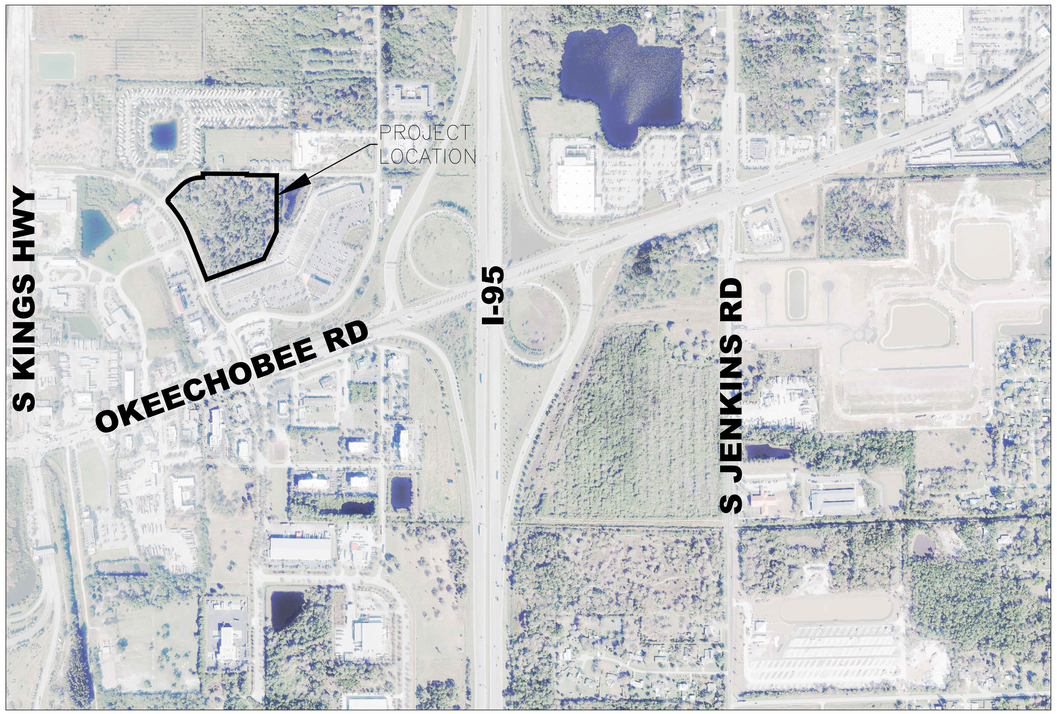
GOVERNING SPECIFICATIONS:
FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, FY 2023–24.

THE FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, FY 2024–25.

THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS (GREENBOOK), 2018.

THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), 11TH EDITION, DECEMBER 2023.

AND THE ST. LUCIE COUNTY LAND DEVELOPMENT REGULATIONS, LATEST EDITIONS AND STANDARDS SET FORTH BY THE CITY OF FORT PIERCE



VICINITY MAP
NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
G–1	COVER SHEET
G–2	GENERAL NOTES
S–1	SITE PLAN
P–1	PAVING, GRADING, & DRAINAGE PLAN
E–1	EROSION CONTROL PLAN
W–1	WATER & WASTEWATER PLAN
CS–1	TYPICAL SECTIONS
D–1	DETAILS
D–2	DETAILS
D–3	DETAILS
D–4	DETAILS
D–5	DETAILS
D–6	DETAILS

CLIENT AND PROPERTY OWNER:
ALEXANDER GEORGE AND COMPANY
14800 INDRIO RD
FORT PIERCE, FL 34945

DESIGN TEAM:
SITE PLANNER AND CIVIL ENGINEER
GIANGRANDE ENGINEERING & PLANNING
2081 SE OCEAN BLVD, SUITE 1A
STUART, FL 34996
(772) 888–9076

SURVEYOR:
EDC, INC.
10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
(772) 462–2455

LANDSCAPE ARCHITECT:
SUGG DESIGN STUDIO
2336 SE OCEAN BLVD
STUART, FL 34996
(772) 979–5696

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

APRIL 2024

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD
STUART, FLORIDA 34994
PH. (772) 888-9076
Cert. No. 30901

LEO D. GIANGRANDE, PE
License No: 66387

SHEET C-1

SUPPLEMENTAL CONDITIONS

SCOPE OF WORK: THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, SUPERVISION, TRANSPORTATION AND INCIDENTALS NECESSARY TO CONSTRUCT THE PAVING, DRAINAGE, UTILITIES AND ASSOCIATED IMPROVEMENTS, IN ACCORDANCE WITH THE PROVISIONS OF THESE SUPPLEMENTAL CONDITIONS, SPECIFICATIONS AND THE DRAWINGS, ENTITILED, "CONSTRUCTION PLANS & SPECIFICATIONS FOR "CROSSROADS RV", PREPARED BY GIANGRANDE ENGINEERING AND PLANNING, LLC, 710 SE OCEAN BLVD., STUART, FLORIDA 34994, (772) 888-9076. IT IS THE OBJECTIVE OF THESE DOCUMENTS TO ASSURE THE TOTAL COMPLETION OF THE WORK REQUIRED TO PROVIDE PAVING, GRADING, AND DRAINAGE IMPROVEMENTS FOR THE "CROSSROADS RV"

PERMITS AND LICENSES: CONSTRUCTION PERMITS FOR CERTAIN ELEMENTS OF THE PROJECT WORK ARE REQUIRED, AND THE DESIGN AND CONSTRUCTION REQUIREMENTS OF THE PROJECT REFLECT CONSTRAINTS AND CONDITIONS IMPOSED BY THESE PERMITS. THESE INCLUDE CONSTRUCTION PERMITS FROM THE CITY OF FORT PIERCE, AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

THE CONTRACTOR SHALL PERFORM HIS WORK AND SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THESE "DESIGN" PERMITS AND APPROVALS, COPIES OF WHICH ARE AVAILABLE FOR REVIEW AND USE FROM THE ENGINEER, UPON REQUEST. THE CONTRACTOR SHALL SECURE ALL WORK PERMITS, APPROVALS AND LICENSES REQUIRED TO PERFORM THE WORK, AND HE SHALL PERFORM THE WORK IN STRICT ACCORDANCE WITH THOSE PERMITS, APPROVALS AND LICENSES.

REFERENCE TO OTHER DOCUMENTS: FOR BREVITY, REFERENCE MAY BE MADE TO OTHER SPECIFICATIONS OR DOCUMENTS WHICH WILL BE USED TO SPECIFY OR CONTROL THE MATERIALS PLACED IN THE WORK, THE CONSTRUCTION METHODS TO BE USED, THE TOLERANCES THAT WILL BE ACCEPTABLE, AND CONTRACTUAL OR LEGAL OBLIGATIONS. THE SPECIFICATIONS OR DOCUMENTS SHALL INCLUDE:

1. "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT." THE LATEST EDITION, PREPARED BY THE ENGINEER'S JOINT CONTRACT DOCUMENTS COMMITTEE AND PUBLISHED BY THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS. REFERENCE SHALL BE MADE: "GENERAL CONDITIONS."
2. "FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2023-2024," PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE: "FDOT SPECIFICATIONS."
3. "STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2023-2024" PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE "FDOT INDEX" OR "FDOT STANDARDS."
4. "AMERICAN SOCIETY FOR TESTING AND MATERIALS SPECIFICATIONS", LATEST EDITION REFERENCE SHALL BE MADE: "ASTM."
5. "ST LUCIE COUNTY MINIMUM CONSTRUCTION STANDARDS", LATEST EDITION. REFERENCE SHALL BE MADE AS "COUNTY CODE" OR "COUNTY STANDARDS" OR "COUNTY SPECIFICATIONS."

BY REFERENCE, THE DOCUMENTS CITED ABOVE ARE MADE PART OF THESE SUPPLEMENTAL CONDITIONS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE COPIES OF EACH IN HIS POSSESSION FOR USE THROUGHOUT THE BIDDING AND CONSTRUCTION OF THIS PROJECT WORK AND/OR BE FAMILIAR WITH THE APPLICABLE SECTIONS OF EACH DOCUMENT AND BE ABLE TO VERITY THAT ALL MATERIALS AND CONSTRUCTION METHODS ARE CONFORMANCE WITH THESE DOCUMENTS AND SPECIFICATIONS.

ADDITIONALLY, THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL OTHER APPLICABLE LOCAL, REGIONAL, STATE AND FEDERAL LAWS, REGULATIONS ANO CODES, ESPECIALLY OSHA STANDARD 29 CFR, SECTION 1926.650 SUBPART P, WHICH IS PART OF THE TRENCH SAFETY ACT AS PART OF LAWS OF FLORIDA, CHAPTER 90-96.

CONTRACT ISSUES

GENERAL CONDITIONS: UNLESS OTHERWISE STATED IN THESE SUPPLEMENTAL CONDITIONS, THE PROVISIONS OF THE "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT," REFERENCED ABOVE, SHALL BE USED TO GOVERN ALL ISSUES ADDRESSED IN THOSE GENERAL CONDITIONS FOR THIS PROJECT.

OWNER-ENGINEER RELATIONSHIP: ANY AGREEMENT BETWEEN OWNER AND ENGINEER SHALL NOT BE CONSTRUED TO PROVIDE ANY OBLIGATION FROM THE ENGINEER TO ANY THIRD PARTIES INCLUDING, BUT NOT LIMITED TO, ARCHITECTS, OTHER ENGINEERS, ANY CONTRACTORS (GENERAL OR SUB), NOR TO ANY SUCCESSORS TO THE OWNER. THE RIGHTS UNDER ANY AGREEMENT BETWEEN OWNER AND ENGINEER INURE ONLY TO THOSE TWO PARTIES.

ERRORS OR OMISSIONS IN THE DRAWINGS OR SPECIFICATIONS: PRIOR TO INITIATION OF THE WORK, THE CONTRACTOR SHALL CHECK DIMENSIONS, GRADES, ELEVATIONS AND THE SUMMARY OF ESTIMATED QUANTITIES SHOWN ON THE DRAWINGS TO ASSURE HIMSELF THAT THEY ARE CORRECT AND THAT THE WORK CAN BE ACCOMPLISHED AS INTENDED. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY APPARENT ERROR OR OMISSION WHICH HE MIGHT DISCOVER, BUT SHALL IMMEDIATELY NOTIFY THE ENGINEER OF SUCH DISCOVERY, WHO WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS HE DEEMS NECESSARY FOR REFLECTING THE ACTUAL SPIRIT AND INTENT OF THE DRAWINGS AND SPECIFICATIONS.

BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION WAS PROVIDED BY EDC INC. (772) 462-2455.

HORIZONTAL AND VERTICAL CONTROL: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS IN THE LOCATIONS SHOWN ON THE DRAWINGS, AND SHALL USE AS HORIZONTAL CONTROL POINTS THE EXISTING PROPERTY CORNERS AS SHOWN ON THE PLAN SHEET. THE HORIZONTAL CONTROL POINTS WERE PROVIDED BY EDC INC. (772) 462-2455. AS VERTICAL CONTROL, BENCHMARKS SHALL BE PROVIDED AT THE SITE, FOR USE IN ESTABLISHING THE NECESSARY ELEVATIONS AND GRADES AT THE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL CONTROL POINTS AND TO RE-ESTABLISH SAID POINTS AS NECESSARY. REMAINING HORIZONTAL AND VERTICAL CONTROL WORK SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS AND DETAILS.

WRITTEN DIMENSIONS ARE PROVIDED FOR CLARITY. WHERE WRITTEN AND SCALED DIMENSIONS CONFLICT, WRITTEN DIMENSIONS SHALL GOVERN.

COORDINATION OF WORK WITH OTHERS: THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OR IMPROVEMENTS OF OTHERS WITH REGARD TO NEW CONSTRUCTION, OR FOR THE NEED OF REMOVAL, RELOCATION OR ALTERATION OF EXISTING IRRIGATION AND DRAINAGE FACILITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE OWNER, HIS CONTRACTORS, SUBCONTRACTORS OR AGENTS.

THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PUBLIC AGENCIES PRIOR TO COMMENCING THE WORK WITHIN THEIR JURISDICTION.

SHOP DRAWINGS: ONE DIGITAL COPY OF SIGNED SHOP DRAWINGS AND SIGNED AND SEALED DESIGN DATA SHALL BE SUBMITTED PRIOR TO ORDERING MATERIALS. ALLOW 10 WORK DAYS TURNAROUND FOR SUBMITTALS.

STANDARDS FOR QUALITY AND WORKMANSHIP: ALL MATERIALS, EQUIPMENT AND SUPPLIES FURNISHED BY THE CONTRACTOR FOR PERMANENT INCORPORATION IN THE WORK SHALL BE NEW AND OF THE QUALITY STANDARDS SPECIFIED. WORKMANSHIP SHALL BE FIRST-CLASS AND THE FINISHED PRODUCT EQUAL TO THE BEST ACCEPTED STANDARDS OF THE TRADE FOR THE CATEGORY OF WORK PERFORMED.

TEMPORARY UTILITIES: ALL ARRANGEMENTS AND COSTS FOR TEMPORARY POWER, WATER AND WASTEWATER FACILITIES DURING CONSTRUCTION SHALL BE RESPONSIBILITY OF THE CONTRACTOR.

OBSERVING THE WORK: THE PROGRESS AND QUALITY OF THE WORK WILL BE OBSERVED BY THE OWNER'S ENGINEER OR ENGINEER'S APPOINTED EMPLOYEE. NO OBSERVER IS AUTHORIZED TO CHANGE ANY PROVISIONS OF THE SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION OF THE OWNER'S ENGINEER, NOR SHALL THE PRESENCE NOR THE ABSENCE OF AN OBSERVER RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 48 HOURS NOTICE PRIOR TO REQUIRED INSPECTIONS, AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

IN ADDITION TO THE REQUIREMENTS PREVIOUSLY REFERENCED, THE FOLLOWING MINIMUM CONSTRUCTION CONTROL CHECKPOINTS SHALL BE ADHERED TO, AND THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE FOR OBSERVATION:

1. PRIOR TO ANY DEVIATION FROM THE DRAWINGS;
2. PRIOR TO ANY BACKFILLING TRENCHES CONTAINING HYDRAULIC CONDUITS, SO THAT JOINTING MAY BE INSPECTED;
3. PRIOR TO TESTING OF ALL HYDRAULIC CONDUITS.
4. PRIOR TO PLACEMENT OF ROADWAY BASE MATERIAL, CONCRETE OR ASPHALTIC CONCRETE.
5. UPON COMPLETION OF CONSTRUCTION FOR FINAL INSPECTION WITH THE CONTRACTOR OR HIS REPRESENTATIVE.

TESTING: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE INDEPENDENT TESTING LABORATORY DESIGNATED BY THE OWNER, THE TESTING AND RETESTING NECESSARY TO ASSURE THAT THE WORK HAS BEEN PERFORMED IN STRICT COMPLIANCE WITH THE SPECIFICATIONS. COST FOR THE INITIAL TESTING SHALL BE BORNE BY THE OWNER. ANY RETESTS REQUIRED DUE TO FAILURE TO MEET THE MINIMUM REQUIREMENTS SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR. THE NAME OF OWNER'S TESTING LABORATORY SHALL BE SUPPLIED AT THE PRECONSTRUCTION MEETING.

EXISTING UTILITIES AND STRUCTURES: EXISTING UTILITIES, STRUCTURES AND FACILITIES SHOWN ON THE DRAWINGS WERE LOCATED AS ACCURATELY AS POSSIBLE FROM THE RECORDS EXAMINED. NO GUARANTEE IS MADE THAT ALL EXISTING FACILITIES ARE SHOWN OR THAT THOSE SHOWN ARE ENTIRELY ACCURATE. THE CONTRACTOR SHALL ASSURE HIMSELF OF THE ACTUAL LOCATION OF THE UTILITIES, STRUCTURES OR FACILITIES PRIOR TO PERFORMANCE OF ANY WORK IN THE VICINITY. THE UTILITY COMPANIES OR UTILITY AGENCIES WILL CO-OPERATE WITH THE CONTRACTOR IN LOCATING UNDERGROUND UTILITIES THAT MAY BE SUBJECT TO DAMAGE OR INTERRUPTION OF SERVICES DURING THE CONTRACTOR'S OPERATIONS. PRIOR TO START OF THE WORK, THE CONTRACTOR SHALL REQUEST THAT EACH UTILITY AGENCY ADVISE HIM OF THE LOCATION OF THEIR FACILITIES IN THE VICINITY. THE OWNER WILL ASSUME NO LIABILITY FOR DAMAGES SUSTAINED OR COSTS INCURRED BECAUSE OF THE CONTRACTOR'S OPERATION IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, OR TO THE TEMPORARY BRACING AND SHORING OF SAME. IN THE EVENT THAT IT IS NECESSARY TO SHORE, BRACE OR SWING A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION SECURED AS TO THE METHOD USED FOR ANY SUCH WORK.

THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL NOTIFY UTILITY OWNER THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (800-432-4770) AND UTILITY OWNERS LISTED BELOW AT LEAST TWO BUSINESS DAYS (OR 10 DAYS IF ON THE JOB SITE).

RESTORATION OF DAMAGED STRUCTURES OR UTILITIES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING UTILITIES, STRUCTURES, EQUIPMENT, APPURTENANCES OR FACILITIES. OTHER THAN THOSE TO BE PAID FOR UNDER THIS CONTRACT, WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION, AT NO COST TO THE OWNER.

FINAL CLEANUP: UPON COMPLETION OF THE WORK BUT BEFORE FINAL PAYMENT WILL BE MADE, THE CONTRACTOR SHALL CLEAR AND REMOVE FROM THE PROJECT AREA, ALL FALSE WORK, EQUIPMENT, SURPLUS AND DISCARDED MATERIALS, RUBBISH AND TEMPORARY STRUCTURES WHICH RESULT FROM THE WORK UNDER THIS AGREEMENT, AND SHALL RESTORE IN AN ACCEPTABLE MANNER ALL PROPERTY WHICH HAS BEEN DAMAGED DURING THE EXECUTION OF THE WORK.

TECHNICAL SPECIFICATIONS

MATERIALS, CONSTRUCTION METHODS, TESTING AND TOLERANCES FOR ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, AND WITH THE SPECIFICATIONS REFERENCED UNDER THE "SUPPLEMENTAL CONDITIONS." IN THE EVENT OF CONFLICT, THE MORE STRINGENT PROVISION SHALL APPLY.

1. MOBILIZATION/DEMOBILIZATION: THE WORK SPECIFIED IN THIS SECTION CONSISTS OF THE PREPARATORY WORK AND OPERATIONS IN MOBILIZING FOR BEGINNING WORK ON THE PROJECT, INCLUDING, BUT NOT LIMITED TO, THOSE OPERATIONS NECESSARY FOR THE MOVEMENT OF PERSONNEL, EQUIPMENT, SUPPLIES, AND INCIDENTALS TO THE PROJECT SITE, AND FOR THE ESTABLISHMENT OF TEMPORARY OFFICES, BUILDINGS, SAFETY EQUIPMENT AND FIRST AID SUPPLIES, SANITARY AND OTHER FACILITIES, AS REQUIRED BY THESE SPECIFICATIONS, THE SPECIAL PROVISIONS, AND STATE AND LOCAL LAWS AND REGULATIONS, ALL COSTS FOR BONDS, PERMITS AND ANY REQUIRED INSURANCE, AND ANY OTHER PRECONSTRUCTION EXPENSE NECESSARY FOR THE START OF THE WORK, AS WELL THE COST OF THE REMOVAL OF THE ABOVE ITEMS, SHALL ALSO BE INCLUDED IN THIS SECTION.
2. CONSTRUCTION SURVEYING: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS AT THE LOCATIONS SHOWN ON THE PLANS. AS OUTLINED IN THE "SUPPLEMENTAL CONDITIONS," THE OWNER SHALL PROVIDE BASIC REFERENCE POINTS FOR HORIZONTAL CONTROL AND BENCHMARKS IN THE VICINITY OF THE WORK. ALL OTHER CONSTRUCTION STAKING FOR BOTH HORIZONTAL AND VERTICAL CONTROL NEEDED BY THE CONTRACTOR FOR CONTROL OF HIS WORK SHALL BE PERFORMED BY THE CONTRACTOR.
3. DRAINAGE IMPROVEMENTS: THE CONTRACTOR SHALL PROVIDE ALL THE MATERIALS AND LABOR NECESSARY TO COMPLETE THE PROJECT WORK FOR THE DRAINAGE IMPROVEMENTS AT THE LOCATION, SIZE AND TYPE SHOWN ON THE PLANS FOR THE FOLLOWING ITEMS IN ACCORDANCE WITH FDOT SPECIFICATIONS. INCLUDED IN THE UNIT COSTS FOR EACH ITEM SHALL BE THE COSTS ASSOCIATED WITH THE DESIGN AND CONSTRUCTION, BY THE CONTRACTOR, TO COMPLY WITH THE TRENCH SAFETY ACT, LAWS OF FLORIDA, CHAPTER 90-96.

   BACKFILL AND COMPACTION OF TRENCHING FOR CULVERT INSTALLATION UNDER THIS SECTION SHALL BE IN ACCORDANCE WITH SECTION 125-8.3, FDOT SPECIFICATIONS. DENSITY TESTS SHALL BE PROVIDED AT THE FOLLOWING VERTICAL LOCATIONS:

   - TWO TESTS* AT SPRINGLINE (ONE EACH SIDE OF THE PIPE);
   - ONE TEST* AT ONE-FOOT ABOVE PIPE; AND
   - ONE TEST* AT ONE-FOOT BELOW SUBGRADE OR FINISH GRADE.
   - *DENSITY OF AT LEAST 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T -99, METHOD C.

   THE MINIMUM NUMBER OF HORIZONTAL TEST LOCATIONS IS TWO PER CULVERT INSTALLATION, ONE PER 100 LINEAL FEET OF PIPE AND/OR ONE PER 20 FEET OF PAVEMENT CROSSING WHICHEVER IS GREATER. ADDITIONAL TESTS MAY BE REQUIRED AT MORE FREQUENT INTERVALS IF DEEMED NECESSARY BY THE ENGINEER.

   A. CULVERTS: CONSTRUCTION METHODS FOR DRAINAGE CULVERTS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 125 AND 430, FDOT SPECIFICATIONS. PIPE MATERIAL AS SPECIFIED ON THE PLANS.

   B. DRAINAGE STRUCTURES: PRE-CAST CONCRETE CATCH BASINS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS C-478 AND FOOT STANDARD SPECIFICATION 425. CONCRETE FOR PRE-CAST BASINS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. SHOP DRAWINGS ARE REQUIRED.
6. FENCING AND GATES: THE CONTRACTOR SHALL FURNISH AND CONSTRUCT CHAIN-LINK FENCE AND GATES IN ACCORDANCE WITH FPL CHAIN LINK FENCE SPECIFICATIONS AND DETAILS. MATERIALS AND LOCATION OF FENCE ARE INDICATED ON THE PLANS.
7. EROSION AND POLLUTION CONTROL: THE CONTRACTOR SHALL TAKE SUFFICIENT PRECAUTIONS TO PREVENT WATER POLLUTION WITH AQUATIC WEEDS, FUELS, OILS, BITUMINOUS, CALCIUM CHLORIDE OR OTHER HARMFUL MATERIALS. ALSO, THEY SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID POLLUTION OR SILTATION OF WATER BODIES OR TO INTERFERE WITH INDIGENOUS WILDLIFE. THE INSTALLATION OF TEMPORARY EROSION AND POLLUTION CONTROL FEATURES SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONTRACT. ANY EROSION OR SHOALING SHALL BE CORRECTED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE. DUE TO UNANTICIPATED CONDITIONS, THE ENGINEER MAY DIRECT THE USE OF CONTROL FEATURES OR METHODS OTHER THAN THOSE INCLUDED IN THE ORIGINAL CONTRACT. IN SUCH EVENT THIS ADDITIONAL WORK WILL BE PAID FOR AS UNFORESEEABLE WORK.

   1) SEDIMENT BARRIERS SHALL BE PLACED PRIOR TO ANY WORK ON THE SITE. SEDIMENT BARRIERS SHALL BE PLACED AS DEPICTED AS SHOWN ON THE CONSTRUCTION PLANS.
   2) WETLAND AND WETLAND BUFFER AREAS ARE TO REMAIN UNDISTURBED. VEHICLE AND CONSTRUCTION EQUIPMENT TRAFFIC IS PROHIBITED WITHIN THESE AREAS.
   3) DAMAGED TURBIDITY CONTROLS SHALL BE REPAIRED PROMPTLY AND BEFORE ANY SUBSEQUENT RAINFALL.
   4) TURBIDITY CONTROLS SHALL REMAIN IN PLACE AND MAINTAINED AND REMOVED ONLY AFTER UPLAND CONSTRUCTION AREAS HAVE BEEN STABILIZED AS APPROVED BY THE ENGINEER OF RECORD
   5) CONTRACTOR SHALL COMPLY WITH NPDES AND EPA DISCHARGE ELIMINATION PERMIT, IN PARTICULAR SEDIMENT AND EROSION CONTROLS AND STORM WATER MANAGEMENT MEASURES SHALL BE STRICTLY FOLLOWED.
   6) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE NPDES AND RELATED STORM WATER PLAN FOR THE DURATION OF THE PROJECT. UPON COMPLETION THE CONTRACTOR SHALL REMOVE ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM AS REQUIRED.
   7) DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED & MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THOSE AREAS. THE SEEDING SHALL FOLLOWING TYPICAL CONSTRUCTION PRACTICES TO INSURE A YEAR ROUND STABILIZED AREA.
   8) CONTRACTOR SHALL COMPLY WITH SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPEC) REQUIREMENTS PURSUANT TO EPA RULES AND REGULATIONS.
   9) ALL CONSTRUCTION WASTE MATERIAL, INCLUDING BUT NOT LIMITED TO THE EXISTING BARB WIRE FENCING AND POSTS, SHALL BE COLLECTED AND STORED IN A SECURED METAL DUMPSTER RENTED / LEASED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER / CONSTRUCTION TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
   10) ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS AT A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
   11) TRUCKS / EQUIPMENT IMPORTING OR EXPORTING FILL SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
   12) ALL HAZARDOUS WATER MATERIAL SHALL BE DISPOSED OF AS PER LOCAL / STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THESE PRACTICES.
   13) DRIVEWAY ACCESS SHALL BE CONSTRUCTED PER FDOT INDEX 106 TO MINIMIZE THE VEHICLES TRACKED SEDIMENTS TRANSPORTED OFFSITE.
   14) THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT INDIVIDUALS, TYPICALLY THREE, WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT OF INSPECTION REPORTS. PERSONNEL SELECTED SHALL RECEIVE PROPER TRAINING, AT THE CONTRACTORS EXPENSE, PRIOR TO SITE CONSTRUCTION COMMENCEMENT.
   15) ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN RAINFALL. ALL CONTROLS MUST BE IN PROPER ORDER AS REQUIRED UNTIL SITE COMPLETION.
   16) SILT FENCE SHALL BE INSPECTED FOR TEARS, DEPTH OF SEDIMENT, AND TO INSURE THE FENCE IS SECURELY FASTENED TO THE POSTS AND ALSO THAT POSTS ARE FIRMLY IN PLACE. SEDIMENT SHALL BE REMOVED IF THE DEPTH OF SEDIMENT IS GREATER THAN ONE-THIRD THE HEIGHT OF THE SILT FENCE.
   17) THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE TURBIDITY CONTROLS IN THE REPORT FORM FOR THIS PURPOSE. A COPY OF ALL RECORDING AND REPORTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.

   GENERAL SEQUENCE OF MAJOR EROSION AND POLLUTION CONTROL EVENTS:

   1) INSTALL EROSION CONTROL AT LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
   2) COMMENCE SITE CONSTRUCTION ACTIVITIES.
   3) AS PROPOSED DRAINAGE IS CONSTRUCTED, INSTALL SILT FENCE AND/OR TURBIDITY CONTROL MEASURES AT EACH.
   4) INSTALL TEMPORARY SEED AND MULCH IN AREAS WHERE CONSTRUCTION TEMPORARILY CEASES FOR AT LEAST 21 DAYS, NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES IN THAT AREA.
   5) INSTALL PERMANENT SEED/MULCH OR APPROVED STABILIZATION METHOD AND/OR PLANTING IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES.
   6) REMOVE ACCUMULATED SEDIMENT.
   7) REMOVED TEMPORARY POLLUTION PREVENTION MEASURES AFTER ALL CONSTRUCTION ON SITE HAS BEEN COMPLETED AND DISPOSED OF MATERIALS ACCORDING TO APPLICABLE FDEP REGULATIONS AND/OR LOCAL GOVERNMENTAL CODES, ETC.
9. RECORD DRAWINGS: AFTER COMPLETION OF THE CONTRACT WORK, BUT PRIOR TO SUBMITTAL OF THE REQUEST FOR FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE FINAL RECORD DRAWINGS TO THE OWNER OF THE IMPROVEMENTS. THE RECORD DRAWINGS SHALL ALSO BE SUBMITTED DIGITALLY IN AUTOCAD / *.DWG FORMAT. THE RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, AND FDEP, AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

   THE FINAL LOCATION, BY REFERENCE TO AT LEAST TWO COMPLETED VISIBLE IMPROVEMENTS OR OTHER PERMANENT POINTS, OF ALL PAVING AND DRAINAGE ELEMENTS, AND SHALL INCLUDE ELEVATIONS OF PERTINENT POINTS IN THE PAVEMENT AND DRAINAGE IMPROVEMENTS, ALL REVISIONS TO THE ORIGINAL PLANS, VERIFICATION OF ALL DESIGN DIMENSIONS, ELEVATIONS, PIPE SLOPES, PIPE LENGTHS, INLETS AND CONTROL STRUCTURES LOCATION AND ELEVATIONS AND ALL OTHER INFORMATION NECESSARY TO HORIZONTALLY AND VERTICALLY LOCATE AND OPERATE THE IMPROVEMENTS CONSTRUCTED UNDER THIS CONTRACT.

   DRAWINGS SHALL INCLUDE:

   A. INDICATION OF ANY CHANGES OR VERIFICATIONS GET MARKED
   B. INDICATION OF ALL "PROPOSED" OR "CONSTRUCTS"
   C. CHANGES TO LOCATIONS OF PIPE, VALVES, FITTINGS OR MANHOLES, ETC.
   D. DETAIL BOX OF ANY SUBSTANTIAL CHANGES
   E. ALL ELEVATIONS FOR MANHOLES AND LIFT STATIONS
   F. ALL GRADES AND FOOTAGE ON SANITARY RUNS

   THE CONTRACTOR SHALL PROVIDE RECORD DRAWING PRINTS AND ONE COPY OF CERTIFIED FIELD NOTES TO THE OWNER THAT ARE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. PAYMENT FOR THE RECORD DRAWINGS SHALL BE ON A LUMP SUM BASIS.

DEWATERING:
CONSTRUCTION DEWATERING MAY REQUIRE A PERMIT FROM SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD). IF DEWATERING IS TO TAKE PLACE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DEWATERING PERMIT FOR HIS WORK.

LEGAL DESCRIPTION SOURCE (ORB 4843, PG 2274)

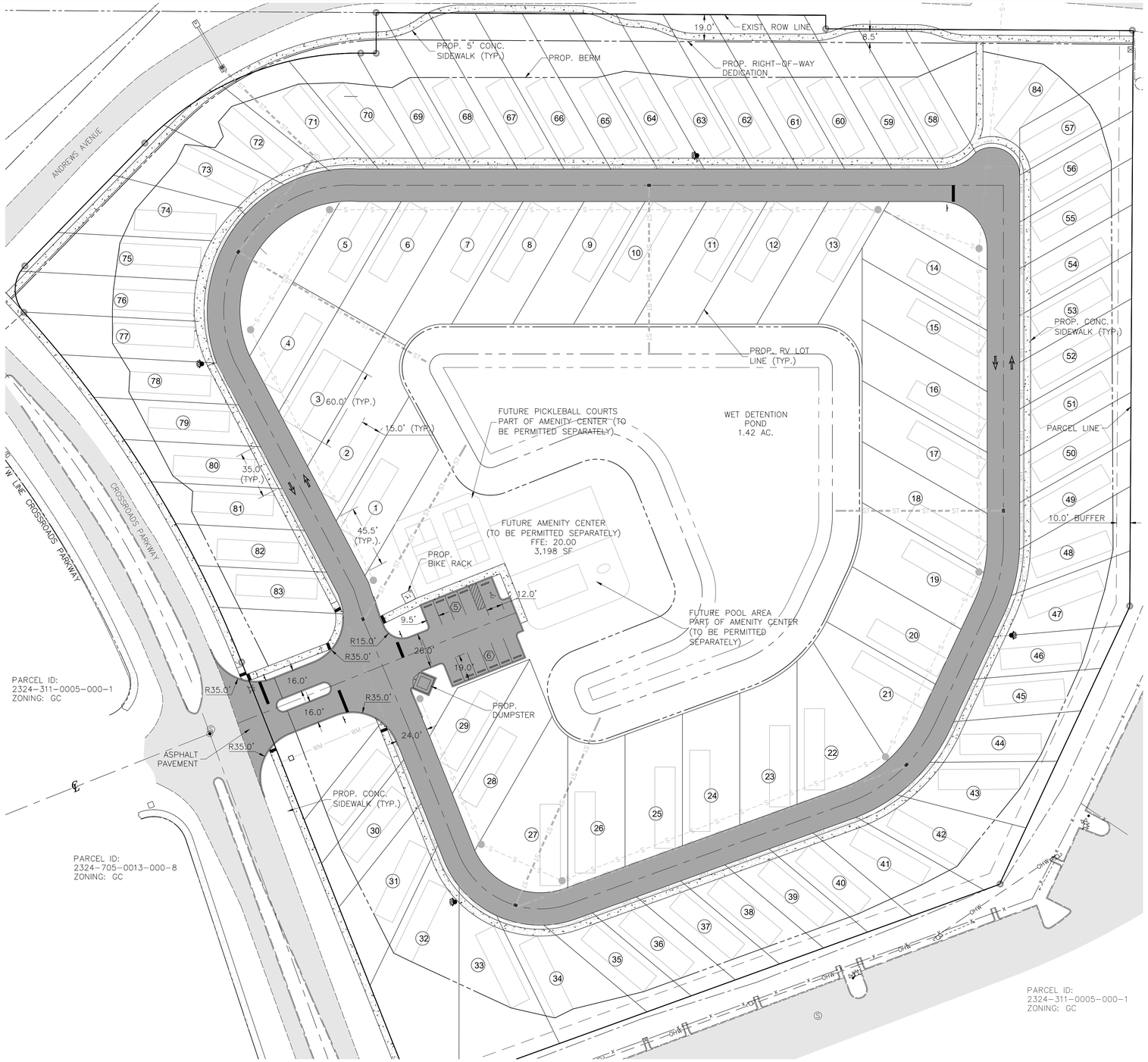
THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, AND A PORTION OF LOTS 3 AND 6 OF BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION OF SECTION 24, AS RECORDED IN PLAT BOOK 3 AT PAGE 32 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 24 AND RUN SOUTH 00°07'26" EAST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, FOR 15.00 FEET; THENCE RUN SOUTH 89°41'32" EAST 15.00 FEET SOUTH OF AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, ALONG THE SOUTH RIGHT OF WAY LINE OF ANDREWS AVENUE (A 30 FOOT WIDE RIGHT OF WAY) FOR 739.44 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°41'32" E ALONG SAID RIGHT OF WAY FOR 919.16 FEET; THENCE RUN SOUTH 00°06'01" EAST FOR 10.00 FEET; THENCE RUN SOUTH 89°41'29" EAST FOR 226.79 FEET; THENCE RUN SOUTH 00°18'28" WEST FOR 425.04 FEET; THENCE RUN SOUTH 25°04'02" WEST FOR 226.43 FEET; THENCE RUN SOUTH 70°04'02" WEST FOR 459.41 FEET; THENCE RUN NORTH 21°40'15" WEST FOR 344.63 FEET TO A POINT OF CURVETURE OF A CIRCULAR CURVE TO THE LEFT, CONCAVE SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 855.00 FEET THROUGH A CENTRAL ANGLE OF 47°21'31" FOR 706.71 FEET TO THE POINT OF BEGINNING, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THEREFROM THE FOLLOWING DESCRIBED REAL PROPERTY CONVEYED TO SUNDIAL HOMES, INC BY DEED RECORDED IN OR BOOK 1150, PAGE 2226, OF THE PUBLIC RECORDS OF ST, LUCIE COUNTY, FLORIDA:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT LYING ON THE CENTERLINE OF ANDREWS AVENUE, A 30 WIDE ROAD RIGHT OF WAY, THENCE RUN SOUTH 00°06'16" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 24, A DISTANCE OF 15.00 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THENCE CONTINUE SOUTH 00°06'16" EAST A DISTANCE OF 30 FEET; THENCE RUN NORTH 89°41'32" WEST, PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 11.88 FEET TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 220.00 FEET AND A CENTRAL ANGLE OF 46°02'51



0 40' 80'

SCALE: 1" = 40'

SITE PLAN SUMMARY

1. PROJECT NAME: CROSSROADS RV PARK
2. PARCEL ID: 2324-312-0005-000-4
3. LOCATION: INTERSECTION OF CROSSROADS PKWY, & ANDREWS AVE.
4. SECTION/TOWNSHIP/RANGE: 24 35S 39E

OWNER: LO QUE SEA LLC
2001 SE SAILFISH POINT BLVD
STUART, FL 34996

5. TYPE OF PROJECT: SITE PLAN (DEVELOPMENT REVIEW)
6. ZONING: GC
7. FUTURE LAND USE: GC
8. FLOOD ZONE: X
9. TOTAL PROJECT AREA: 474,804 S.F. (10.90 AC.)
10. LOT COVERAGE OF STRUCTURES: 3,198 S.F.
    NO. OF LOTS: 84
    MIN. LOT AREA: 2,764 SF./0.63 AC.
    RV PAD DIMENSIONS: 15'x60'
    FRONT OF LOT SIZE:
    INTERIOR LOTS: 29 LOTS – 45.5'
    EXTERIOR LOTS: 55 LOTS – 35'
11. IMPERVIOUS/PERVIOUS:
    SURFACE COVERAGE
    PERVIOUS:
    OPEN SPACE: 269,007 S.F./6.18 AC./57.3%
    IMPERVIOUS:
    RV PADS: 74,700 S.F./1.71 AC./15.7%
    ROADWAY: 57,874/1.33 AC./12.2%
    AMENITY CENTER/POOL/PICKLEBALL AREA: 11,368 S.F./0.26 AC./1.8%
    WET POND: 61,855 S.F./1.42 AC./13.0%
    TOTAL AREA: 474,804 S.F. (10.90 AC.)
12. MINIMUM BUILDING SETBACKS

LOT LINES	REQUIRED	PROVIDED
FRONT	25'	47'
REAR	20'	22'
SIDE	10'	23'

13. PARKING SUMMARY
    10 REGULAR SPACES
    1 ACCESSIBILITY SPACE
    TOTAL: 11 SPACES

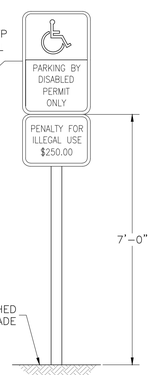


LOCATION MAP

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- OHU EX. OVERHEAD ELECTRIC
- ST PROP. STORMWATER PIPE
- WM PROP. WATER MAIN
- FM PROP. FORCEMAIN
- S PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.

HANDICAP SIGN FDOT INDEX 700-102 FTP 21-06 AND FTP 22-06 (AS MODIFIED) TYPICAL EACH ACCESSIBLE SPACE



NOTES:
1. REFER TO GENERAL NOTES FOR LEGAL DESCRIPTION.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF FT PIERCE CODE OF ORDINANCE SECTION 119 AND 125.

HANDICAP PARKING DETAIL

N.T.S

DATE	BY	REVISIONS
7/16/2024	DC	CITY OF FORT PIERCE COMMENT
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

SITE PLAN

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

S-1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads rbd plan\design\22-024 Site Plan.dwg - Layout Name: P-1 - Plotted by: Daniel - Date: 10/26/2024 - 3:30 PM - Giangrande Engineering & Planning

DE ASPHALT)

EXISTING DRAINAGE CULVERT

REPLACEMENT OF EXIST. MF WITH TYPE C INLET

PROP. 92 LF 18" RCP

TYPICAL RV PAD, SEE DETAIL THIS SHEET.

EXIST. TREE TO REMAIN (TYP.)

PROP. 86 LF 18" RCP

PROP. 103 LF 18" RCP

PROP. 142 LF 18" RCP

CONFLICT
BOP: 13.98
TOP: 11.45

PROP. 17 LF 18" HDPE

CONTROL ELEVATION
ELEV. 14.50

CONFLICT
BOP: 12.76
TOP: 10.20

PROP. 20 LF 18" HDPE

TOP OF BANK

PROP. GRADEBREAK ELEV = 12.50

PROP. TOE ELEV = 7.50

PROP. 21 LF 18" HDPE

PROP. WET DETENTION AREA

CONFLICT
BOP: 12.44
TOP: 9.90

PROP. 128 LF 18" RCP

FUTURE AMENITY BUILDING, NOT PART OF THIS SUBMITTAL. FFE: 19.00

PROP. 18 LF 18" HDPE

PROP. 105 LF 18" RCP

PROP. 5' WIDE CONC. SIDEWALK

PERIMETER BERM MIN. ELEV. 17.40

PROP. 19 LF 18" HDPE

PROP. 131 LF 18" RCP

PROP. 303 LF 18" RCP

PROP. 6" THICK ASPHALT DRIVEWAY APRON

TYPE D CURB

PROP. DETECTABLE WARNING (TYP.)

OPEN LOT FOR STAGING

PROP. 5' WIDE CONC. SIDEWALK

CONFLICT
BOP: 14.94
TOP: 11.00

INVERTED CROWN (TYP)

PARCEL ID:
2324-311-0005-000-1
ZONING: GC

PARCEL ID:
2324-705-0013-000-8
ZONING: GC

ANDREWS AVENUE

S S I R O A D S P A R K W A Y
(80.00' PUBLIC RIGHT-OF-WAY)
(P.B. 30, Pg. 8)

CROSSROADS PARKWAY

WEST R/W LINE CROSSROADS PARKWAY

S T R E E T N A M E
(XX.XX' PUBLIC RIGHT-OF-WAY)
(XX' WIDE ASPHALT)

MATCHLINE – SEE RIGHT

MATCHLINE – SEE LEFT

D-1
N: 1121539.06
E: 852317.77
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=16.75'
SE INVERT EL=9.95'
NE INVERT EL=10.05'
STRUCT. BOTT. EL=9.50'

D-2
N: 1121583.21
E: 852628.20
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=16.75'
S INVERT EL=8.70'
STRUCT. BOTT. EL=8.20'

D-3
N: 1121342.97
E: 852889.61
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=16.75'
W INVERT EL=8.40'
STRUCT. BOTT. EL=7.90'

D-4
N: 1121155.47
E: 852818.07
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=16.75'
W INVERT EL=10.00'
STRUCT. BOTT. EL=10.50'

D-5
N: 1121051.84
E: 852529.74
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=16.75'
NE INVERT EL=9.50'
E INVERT EL=9.60'
STRUCT. BOTT. EL=9.00'

D-6
N: 1121262.98
E: 852417.13
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=17.12'
NE INVERT EL=9.50'
STRUCT. BOTT. EL=9.00'

D-7
N: 1121670.32
E: 852313.21
TYPE C INLET (NONTRAVERSABLE)
FDOT INDEX 425-052
GRATE EL=16.91'
N/S SLOT INV EL=15.00'
SE INVERT EL=10.50'
NW INVERT EL=14.50'
STRUCT. BOTT. EL=10.00'

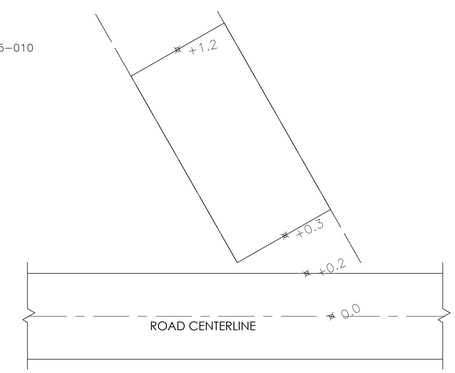
D-8
N: 1121603.60
E: 852382.20
STORM MANHOLE
FDOT INDEX 425-001 & 425-010
RIM EL=17.60'
SW INVERT EL=10.05'
NW INVERT EL=10.15'
STRUCT. BOTT. EL=9.55'

0 40' 80'
SCALE: 1" = 40'

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- EX. OVERHEAD ELECTRIC
- PROP. STORMWATER PIPE
- PROP. WATER MAIN
- PROP. FORCEMAIN
- PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.

NOTES:
1. ELEVATIONS REFERENCE NAVD88.
2. SEE LANDSCAPE PLANS FOR PLANTING SPECIFICATIONS IN OPEN SPACE AREAS.
3. CONTRACTOR SHALL SOD AREAS OF DISTURBANCE WITH BAHIA GRASS IF NOT OTHERWISE SPECIFIED WITHIN LANDSCAPE PLANS.



TYPICAL EXTERIOR RV PADS
N.T.S.

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

PAVING, GRADING, & DRAINAGE PLAN

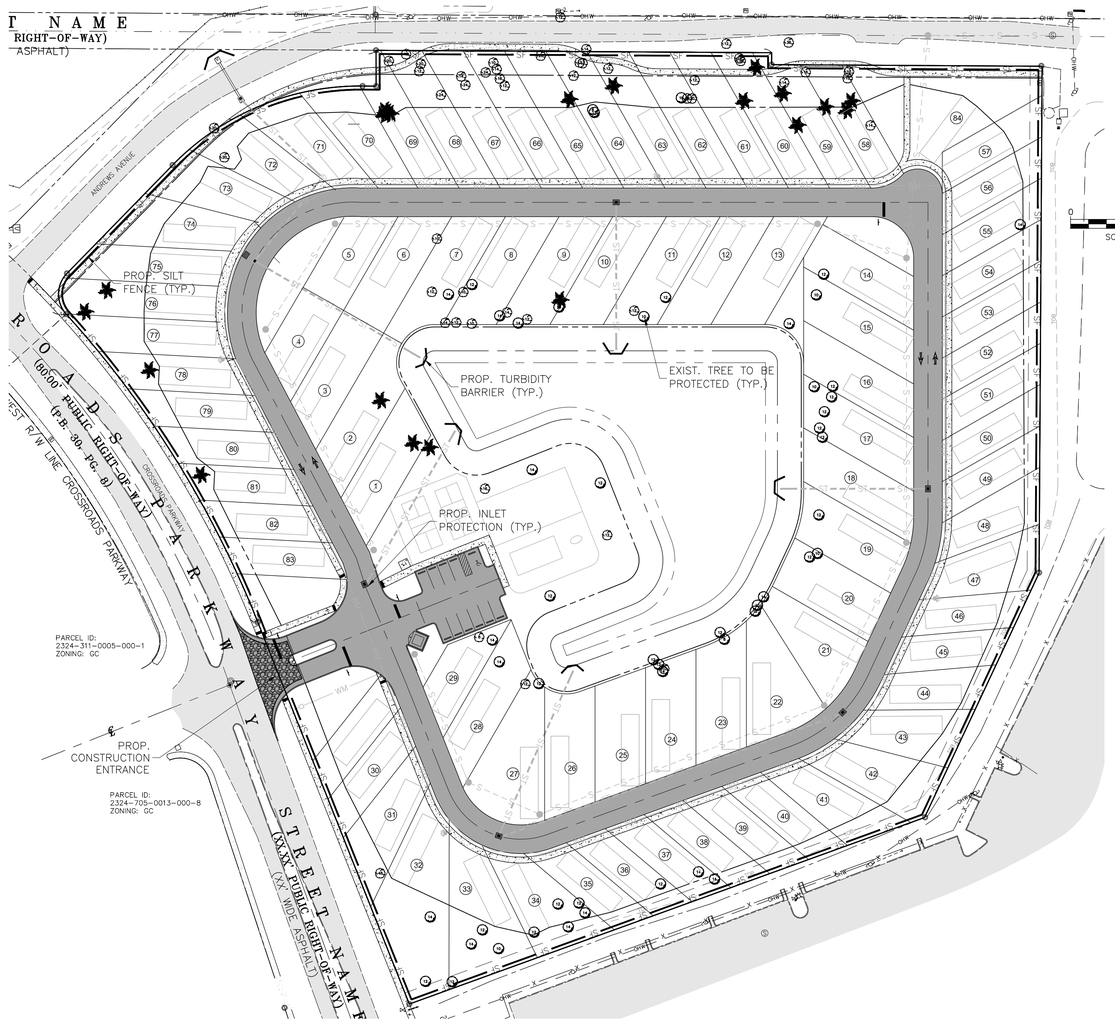
GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

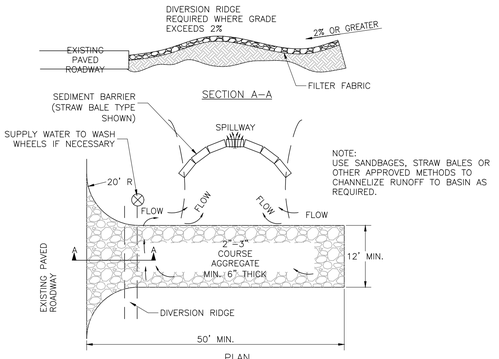
P-1

Drawing Name: S:\Shared Folders\gep projects\2022\22-024 crossroads rsk plan\design\22-024 PG&D Plan.dwg Layout Name: P-1 – Plotted by: Daniel – Date: 12/26/2024 – 3:35 PM – Giangrande Engineering & Planning



EROSION CONTROL NOTES:

1. THIS PROJECT IS SUBJECT TO ALL RELATED ENVIRONMENTAL REQUIREMENTS WHICH INCLUDE A "CONTROL OF EROSION AND SEDIMENTATION PLAN". THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION DUE TO SEDIMENTATION RUNOFF FROM THE SITE PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE DIRECTED BY THE ENGINEER AS REQUIRED.
2. EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAIN EVENT FOR DAMAGE AND GENERAL EFFECTIVENESS. ANY DAMAGED OR INEFFECTIVE CONTROLS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.
3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED, IF DEEMED NECESSARY, BY THE ON-SITE INSPECTOR.
4. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. TEMPORARY AND PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL THE AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
6. ALL CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ON TO ANY PUBLIC RIGHT-OF-WAY. THIS SHALL REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS REQUIRE. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHT-OF-WAY OR INTO STORM DRAINS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
7. TURBIDITY SCREENS OR EQUIVALENT SHALL BE PROPERLY EMPLOYED AND MAINTAINED AS NECESSARY DURING CONSTRUCTION ACTIVITIES SO THAT TURBIDITY LEVELS DO NOT EXCEED 29 NTU'S ABOVE NATURAL BACKGROUND 50 FEET DOWNSTREAM OF POINT OF DISCHARGE. IF TURBIDITY LEVELS EXCEED THESE LIMITS, PROJECT ACTIVITIES SHALL IMMEDIATELY CEASE, AND WORK SHALL NOT RESUME UNTIL TURBIDITY LEVELS DROP TO WITHIN THESE LIMITS.
8. CONTRACTOR SHALL SOD GRASS AREAS DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
9. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).
11. SEDIMENT BARRIERS SHALL BE PLACED PRIOR TO ANY WORK ON THE SITE. SEDIMENT BARRIERS SHALL PLACED AS DEPICTED AS SHOWN ON THESE CONSTRUCTION PLANS.
12. PRESERVE AREAS ARE TO REMAIN UNDISTURBED. VEHICLE AND CONSTRUCTION EQUIPMENT TRAFFIC IS PROHIBITED WITHIN THESE AREAS.
13. DAMAGED TURBIDITY CONTROLS SHALL BE REPAIRED PROMPTLY AND BEFORE ANY SUBSEQUENT RAINFALL.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE NPDES AND RELATED STORM WATER PLAN FOR THE DURATION OF THE PROJECT. UPON COMPLETION THE CONTRACTOR SHALL REMOVED ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM AS REQUIRED.
15. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED & MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREAS. THE SEEDING SHALL FOLLOWING TYPICAL CONSTRUCTION PRACTICES TO INSURE A YEAR ROUND STABILIZED AREA.
16. CONTRACTOR SHALL COMPLY WITH SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPEC) REQUIREMENTS PURSUANT TO EPA RULES AND REGULATIONS.
17. ALL CONSTRUCTION WASTE MATERIAL SHALL BE COLLECTED AND STORED IN A SECURED METAL DUMPSTER RENTED / LEASED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER / CONSTRUCTION TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
18. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS AT A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
19. TRUCKS / EQUIPMENT IMPORTING OR EXPORTING FILL SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
20. ALL HAZARDOUS WATER MATERIAL SHALL BE DISPOSED OF AS PER LOCAL / STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THESE PRACTICES.
21. THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT INDIVIDUALS, TYPICALLY THREE, WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT OF INSPECTION REPORTS. PERSONNEL SELECTED SHALL BE RECEIVE PROPER TRAINING, AT THE CONTRACTORS EXPENSE, PRIOR TO SITE CONSTRUCTION COMMENCEMENT.
22. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN RAINFALL. ALL CONTROLS MUST BE IN PROPER ORDER AS REQUIRED UNTIL SITE COMPLETION.
23. SILT FENCE SHALL BE INSPECTED FOR TEARS, DEPTH OF SEDIMENT, AND TO INSURE THE FENCE IS SECURELY FASTENED TO THE POSTS AND ALSO THAT POSTS ARE FIRMLY IN PLACE. SEDIMENT SHALL BE REMOVED IF THE DEPTH OF SEDIMENT IS GREATER THAN ONE-THIRD THE HEIGHT OF THE SILT FENCE.
24. THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE TURBIDITY CONTROLS IN THE REPORT FORM FOR THIS PURPOSE. A COPY OF ALL RECORDING AND REPORTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.
25. THE REQUIREMENTS LISTED ABOVE AND DETAILS PRESENTED ON THIS SHEET SHALL BE CONSIDERED MINIMUM REQUIREMENTS AND THE CONTRACTOR SHALL USE WHATEVER METHODS THE CONTRACTOR DEEMS NECESSARY TO PREVENT EROSION AND SILTATION AS MAY BE REQUIRED FOR THE PROJECT.
26. LOCATIONS OF ANY MATERIALS TO BE TEMPORARILY STOCKPILED TO INCLUDE LAND CLEARING DEBRIS OR EXCAVATED MATERIALS SHALL BE PER THE DIRECTION OF THE MARTIN COUNTY PROJECT MANAGER.
27. PROPERTY CORNERS SHALL BE LOCATED BY A LICENSED LAND SURVEYOR AND CLEARLY MARKED IN THE FIELD PRIOR TO THE ENGINEERING DEPARTMENT'S PRE-CONSTRUCTION MEETING FOR SITE DEVELOPMENT.
28. AUTHORIZATION TO INSTALL EROSION CONTROL DEVICES AND PRESERVE BARRICADES WILL BE GRANTED AT THE PRE-CONSTRUCTION MEETING. THIS AUTHORIZATION SHALL BE POSTED ON THE SITE, IN THE PERMIT BOX, ITS LOCATION SHOWN ELSEWHERE ON THIS PAGE.
29. NO ADDITIONAL LAND CLEARING SHALL COMMENCE UNTIL A SATISFACTORY INSPECTION OF THE REQUIRED EROSION CONTROL BARRICADES HAS BEEN OBTAINED.
30. ALL CONSTRUCTION BARRICADES AND SILT FENCES WILL REMAIN IN PLACE AND BE MONITORED FOR COMPLIANCE BY THE PERMIT HOLDER DURING THE PERMITTED DEVELOPMENT ACTIVITIES.
31. PRIOR TO SCHEDULING A FINAL ENVIRONMENTAL INSPECTION FOR THE INFRASTRUCTURE, ALL BARRICADES AND EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

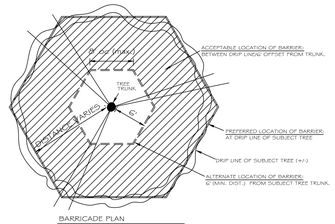


NOTE:
1. USE SANDBAGES, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

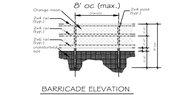
NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING. REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

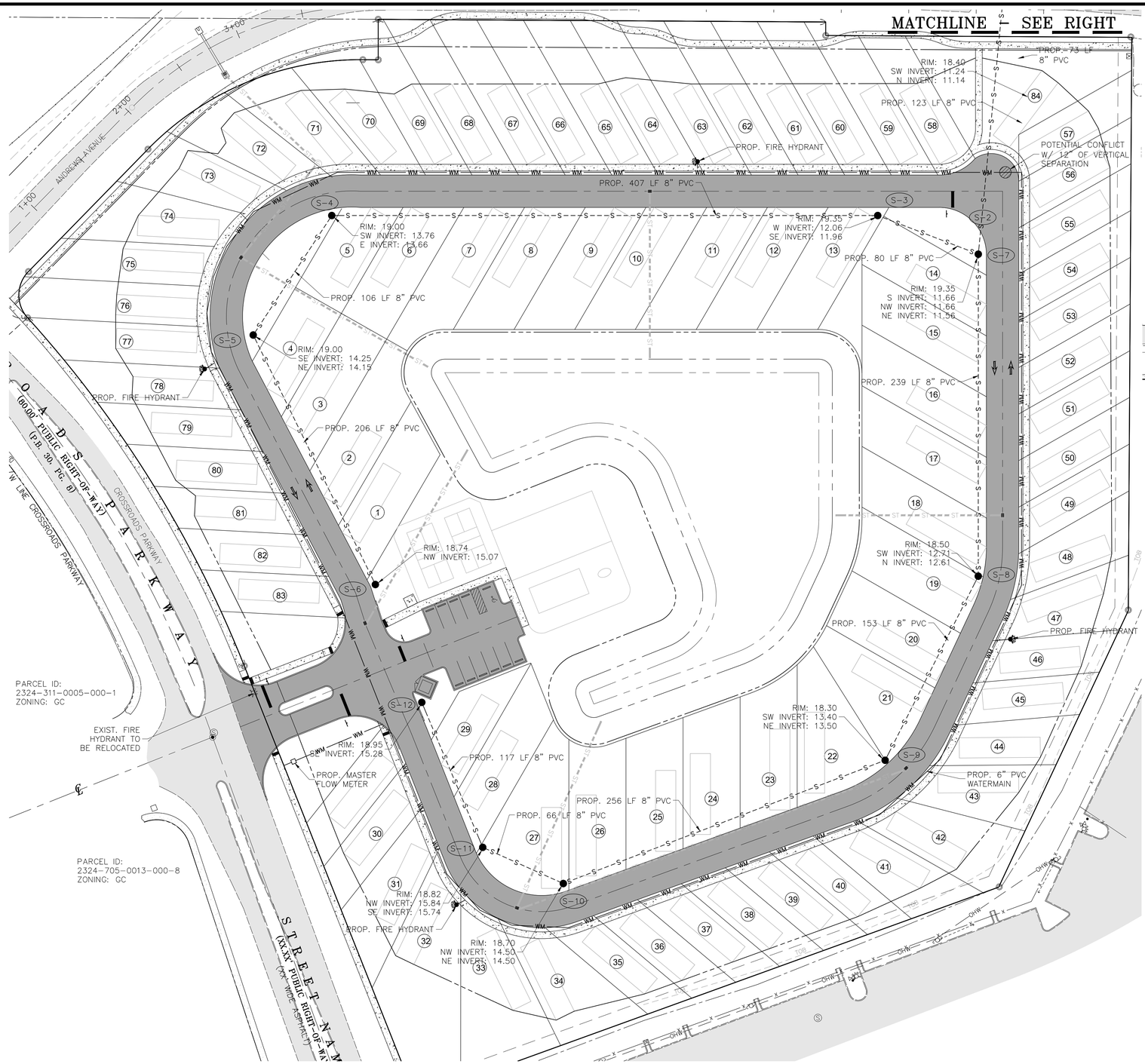
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

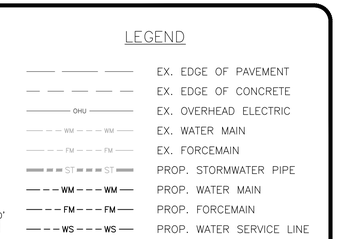
N.T.S



BARRICADE PLAN
N.T.S.

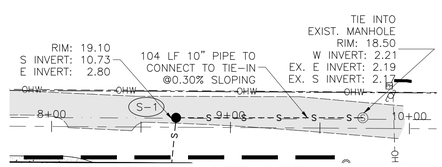

8' oc (max.)
Orange mesh
Bolt (or Rivet) Typ.
Bolt (or Rivet) Typ.
Bolt (or Rivet) Typ.



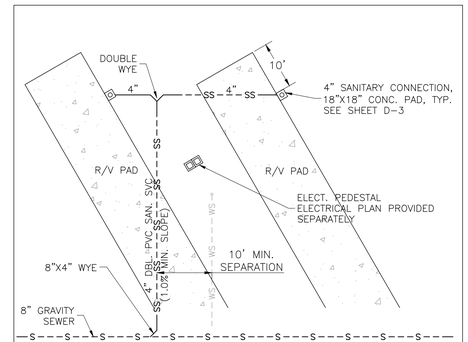


LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- EX. OVERHEAD ELECTRIC
- EX. WATER MAIN
- EX. FORCEMAIN
- PROP. STORMWATER PIPE
- PROP. WATER MAIN
- PROP. FORCEMAIN
- PROP. WATER SERVICE LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SERVICE LINE
- PROP. SANITARY CLEAN OUT
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT
- PROP. CONCRETE
- PROP. BUILDING

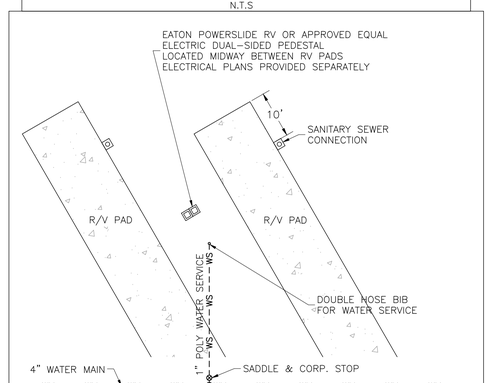


MATCHLINE – SEE LEFT



TYPICAL R/V PAD DOUBLE SANITARY SERVICE DETAIL

N.T.S



TYPICAL R/V PAD DOUBLE WATER SERVICE DETAIL

N.T.S

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

WATER & WASTEWATER PLAN

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
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leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

W-1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads plat plan\design\22-024 W&S Plan.dwg Layout Name: W-1 – Plotted by Daniel – Date: 12/26/2024 – 3:31 PM – Giangrande Engineering & Planning



SECTION A–A

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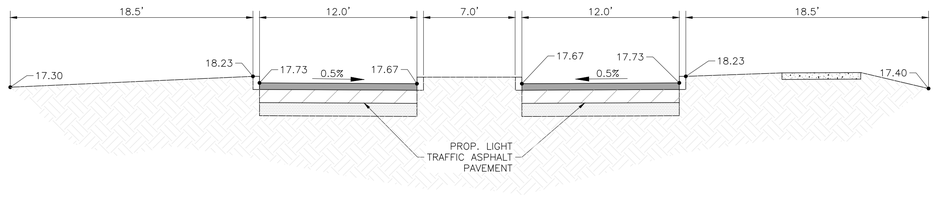

SECTION B–B

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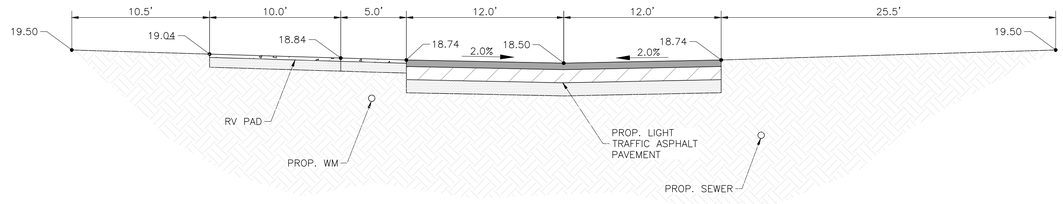

SECTION D–D

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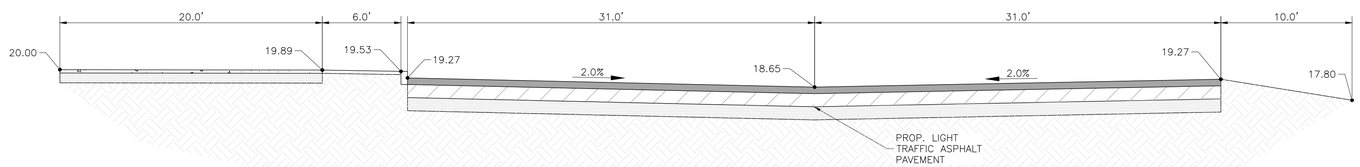

SECTION C–C

SCALE: 1"=5'

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=5'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

TYPICAL SECTIONS

GIANGRANDE ENGINEERING AND PLANNING
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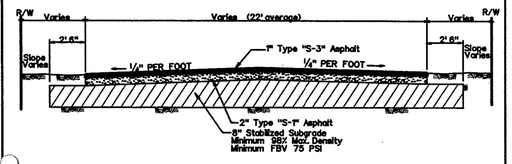
License No: 66387

PROJECT #: 23-007

CS-1

Drawing Name: S:\Shared Folders\gep projects\2023\23-024 crossroads site plan\design\23-024 Cross Sections.dwg Layout Name: CS-1 - Plotted by: Daniel - Date: 12/26/2024 - 3:51 PM - Giangrande Engineering & Planning



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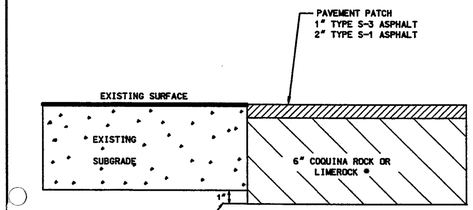
TECHNICAL SPECIFICATIONS AND DETAILS

PAVING DETAIL WITHOUT CURB AND GUTTER

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. PV1

REVISIONS



* 6" LIMEROCK OR CRUSHED COQUINA COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO METHOD T-180

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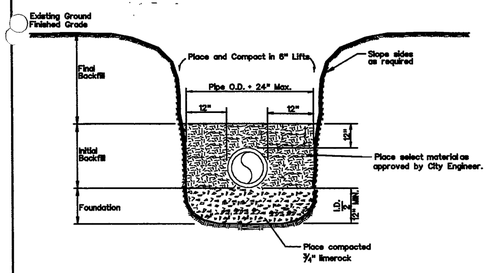
PAVEMENT PATCHING

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. PV4

REVISIONS



General Construction Notes:
1. All trenching shall comply with the requirements of the Florida Trench Safety Act.
2. Foundation -¾" LIMEROCK a minimum of 12" in depth.
3. Initial backfill - The material placed to 12" above the pipe shall be placed in six inch layers and compacted with mechanical tampers to at least 95% maximum density as determined by AASHTO T-99.
4. Final Backfill - To be placed in layers not to exceed one foot in thickness and compacted with appropriate equipment to at least 95% maximum density as determined by AASHTO T-99

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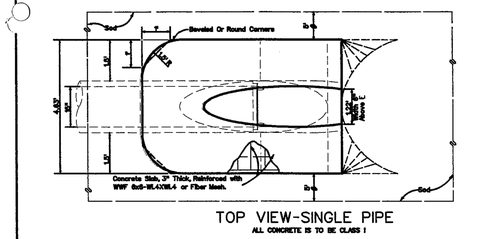
TRENCH DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. DRA 4

REVISIONS

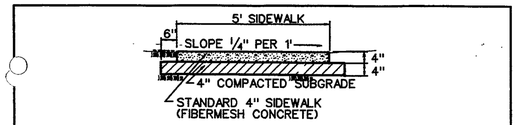


CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

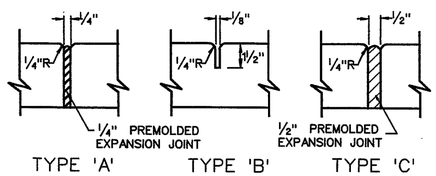
MITERED END DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. DRA 5

REVISIONS



General Construction Notes:
1. Concrete strength to be 2500 P.S.I. at 28 days.
2. Tooled dummy contraction joints every 5' (Type 'B' Joints)
3. Expansion joints w/premolded filler at 100' o/c (Type 'C' Joints)
4. Subbase to be 98% Density F.B.V. 75 P.S.I.
5. The concrete shall be given a broom finish and the edges of the sidewalk shall be finished with an edging tool having a radius of ½ inch



'A' At P.C. & P.T. of curves and at junction of existing and new sidewalks.
'B' 5' center to center on new sidewalks and 10' center to center on new curb and gutter
'C' Where new sidewalk abuts concrete curbs, driveway and similar structures.

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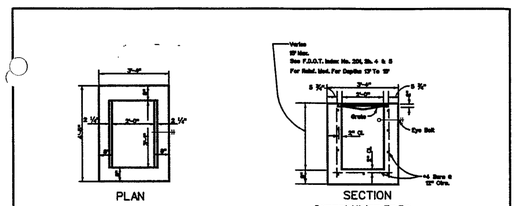
TYPICAL 4" SIDEWALK DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. SW2

REVISIONS



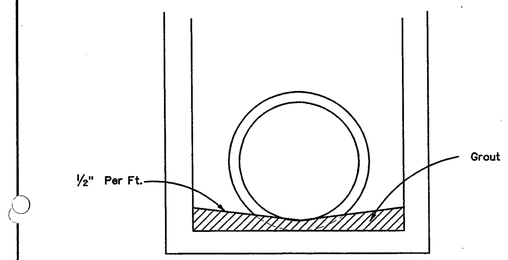
GENERAL NOTES
1. These inlets are suitable for bicycle and pedestrian areas and are to be used in ditches, medians and other areas subject to infrequent traffic loadings but are not to be placed in areas subject to any heavy wheel loads.
2. Inlets subject to ribbed debris should be constructed without slots. Where debris is a problem inlets should be constructed with slots. Skirted inlets located within roadway clear zones and in areas accessible to pedestrians shall have traversable slots. The traversable slot modification is not adaptable to Inlet Type H. Slots may be constructed at either or both ends as shown on plans.
3. Steel grates are to be used on all inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with traversable slots. Either cast iron or steel grates may be used on inlets without slots where bicycle traffic is not anticipated. Either cast iron or steel grates may be used on all inlets with non-traversable slots. Subject to the selection described above, when Alternate G grate is specified in the plans, either the steel grate, hot dipped, galvanized after fabrication, or the cast iron grate may be used, unless the plans stipulate the particular type.
4. Recommended maximum pipe sizes shown are for concrete pipe. Pipe sizes larger than those recommended must be checked for fit.
5. All exposed corners and edges of concrete are to be chamfered ¾".
6. Pavement to be used on inlets without slots and inlets with non-traversable slots only when called for in the plans but required on all traversable slot inlets. Cost to be included in contract unit price for inlets. Quantities shown are for information only.
7. Traversable slots constructed in existing inlets shall be paid for on inlets partial, and shall include the cost for slot openings, paving and any required replacement grates.
8. Sodding to be used on all inlets not located in paved areas and paid for under contract unit price for Sodding SY.
9. For supplementary details see F.D.O.T. Specifications Index No. 201.

CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

TYPE "C" INLET

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. DRA 6

REVISIONS



Note: Grout to consist of 3:1 Sand-Cement Mixture or any Class Concrete.

FOR ALL STRUCTURES UNLESS EXCLUDED BY SPECIAL DETAIL

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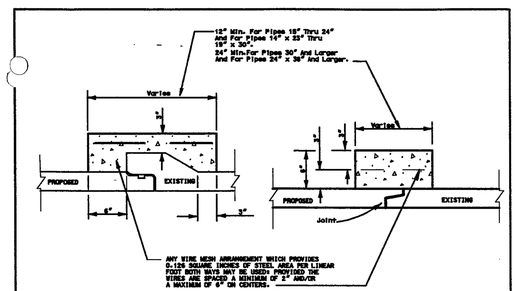
TECHNICAL SPECIFICATIONS AND DETAILS

DRAINAGE STRUCTURE INVERT

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. DRA 20

REVISIONS



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TECHNICAL SPECIFICATIONS AND DETAILS

CONCRETE COLLAR JOINT DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998 | SHEET No. DRA 3

REVISIONS

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

GIANGRANDE ENGINEERING AND PLANNING
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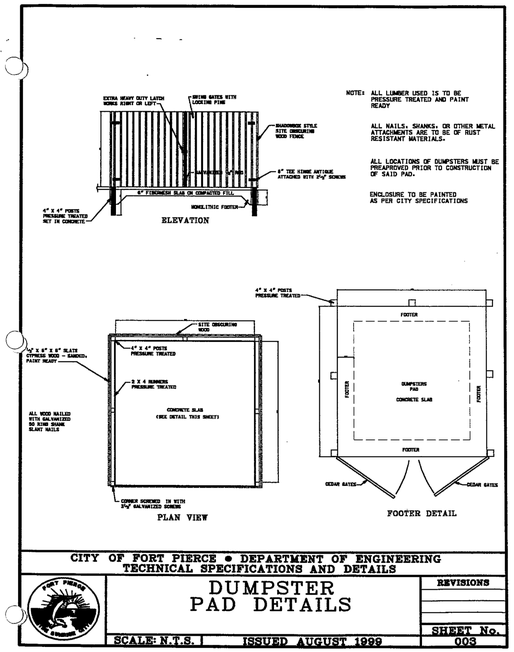
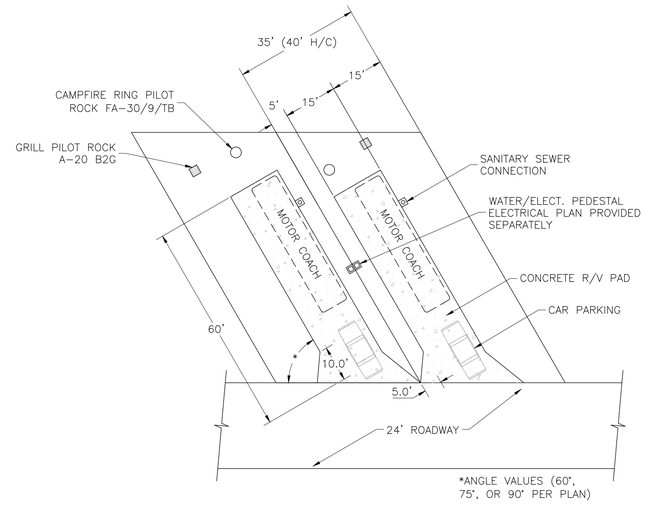
License No: 66387

PROJECT #: 22-024

D-1

Drawing Name: S:\Shared folders\gep projects\2022\22-024 crossroads rte psan\design\22-024 Details.dwg Layout Name: D-1 -- Plotted by: Daniel -- Date: 10/30/2024 - 3:33 PM -- Giangrande Engineering & Planning





TYPICAL RV PAD DETAIL

SCALE: 1"=20'

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads fce psm\design\22-024 Details.dwg Layout Name: D-2 – Plotted by: Daniel – Date: 12/20/2024 – 3:33 PM – Giangrande Engineering & Planning

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
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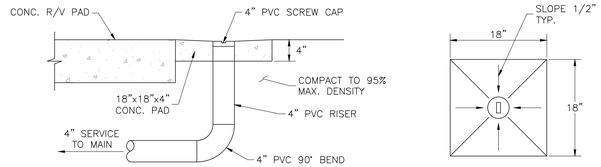
PROJECT #: 22-024

D-2

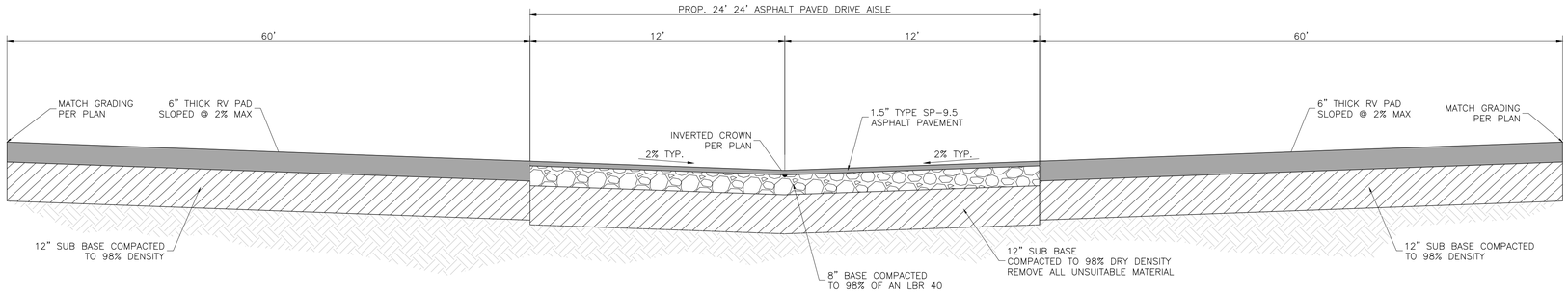


SECTION

PLAN VIEW

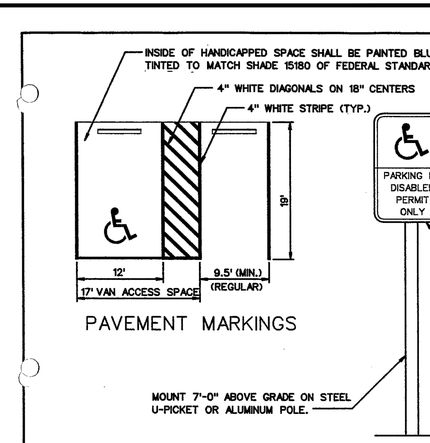
R/V PAD SANITARY CONNECTION DETAIL

N.T.S



TYPICAL DRIVE AISLE AT R/V PAD DETAIL

SCALE: NTS



PAVEMENT MARKINGS

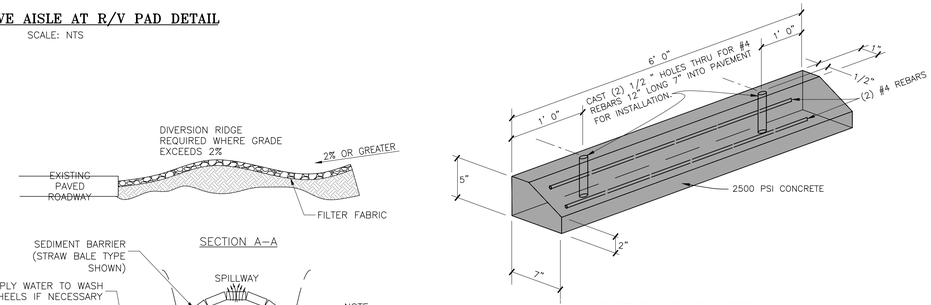
HANDICAPPED PARKING SIGN

NOTE:

FOR PARKING REQUIREMENTS SEE FORT PIERCE CODE.

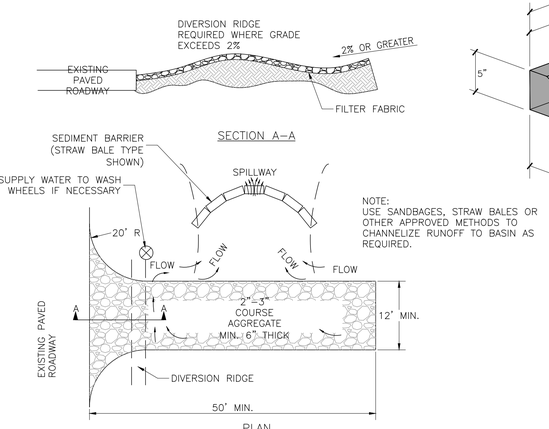
CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

HANDICAPPED AND REGULAR PARKING DETAIL	REVISIONS
SCALE: N.T.S. / ISSUED AUGUST 1998	SHEET No. PL2



WHEEL STOP DETAIL

N.T.S.

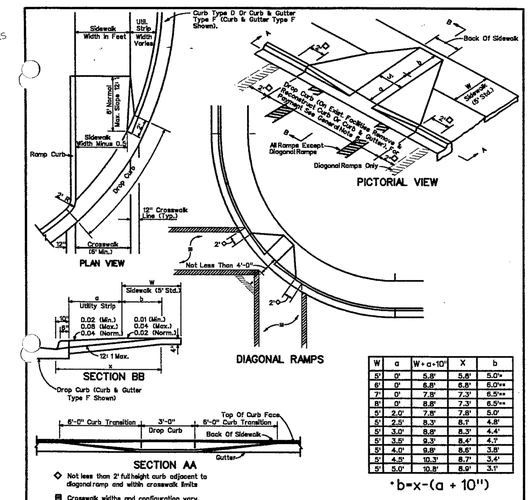


NOTE:
USE SANDBAGES, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING. REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S



W	a	W+a+10"	X	b
5'	0"	5.8'	5.8'	5.0'**
6'	0"	6.8'	6.8'	6.0'**
7'	0"	7.8'	7.3'	6.5'**
8'	0"	8.8'	7.3'	6.5'**
5'	2.0"	7.1'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.6'
5'	3.5'	9.3'	8.4'	4.7'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.6'
5'	5.0'	10.8'	8.9'	3.1'

◇ Not less than 2' full height curb adjacent to diagonal ramp and within crosswalk limits

■ Crosswalk widths and configuration vary.

•b=x-(a + 10")

b=Distance from front edge of sidewalk to back point of 12:1 slope.
*Back of sidewalk drop required for all sidewalk slopes.
**Back of sidewalk drop required for sidewalk slopes 0.04 and part 0.02.

CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

HANDICAP RAMPS	REVISIONS
SCALE: N.T.S. / ISSUED AUGUST 1998	BAR 4/10/01 / SHEET No. SW5

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
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ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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License No: 66387

PROJECT #: 22-024

D-3

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads rv\plan\design\22-024 Details.dwg Layout Name: D-3 - Plotted by: Daniel - Date: 10/26/2024 - 3:33 PM - Giangrande Engineering & Planning

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. WATER MAINS WHERE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL CONFORM TO AWWA C-900 OR C-905, PRESSURE CLASS 150, DR (18). WATER MAINS WHERE SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM TO AWWA C-901 OR C-906, STANDARD CODE DESIGNATION PE3408, PIPE CLASS 200, DIMENSION RATIO (DR) 17 FOR DIRECT BURY, (DR) 11 FOR DIRECTIONAL BORING, AND (DR) 9 FOR 2 INCH AND SMALLER PIPELINES.
3. WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE , SHALL CONFORM TO ANSI/AWWA C151/A21.51 AND SHALL BE PRESSURE CLASS 250 (MINIMUM).
4. POLYVINYL CHLORIDE WATER MAIN SHALL BE BLUE IN COLOR OR WHITE IN COLOR WITH BLUE STRIPES. THE USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE, ALSO DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THHN WIRE.
5. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C-110/A21.10, CLASS 250 MIN., CEMENT LINED AND FACTORY COATED
6. GATE VALVES SHALL BE MUELLER RESILIENT SEAT, KENNDY KEN-SEAL, AMERICAN OR APPROVED EQUAL. VALVES SHALL CONFORM TO AWWA C-509.
7. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY, COUNTY, FDOT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPUA ENGINEER AND CITY/COUNTY/FDOT ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY FPUA ENGINEERING AND CITY/COUNTY/FDOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
10. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, FPUA, AND CITY/ COUNTY/FDOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY ENGINEER.
12. MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE UTILITIES ENGINEER AND CITY/ COUNTY/FDOT ENGINEER. PIPES WITH COVER LESS THAN 30 INCHES SHALL BE CONSTRUCTED OF DUCTILE IRON OR IN PVC CASING.
13. DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.
14. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
15. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AWWA C-651 FOR DISINFECTION.

FORT PIERCE UTILITIES AUTHORITY — WATER DISTRIBUTION — G-1 NOTES — 02-06 — WATER/WASTEWATER ENGINEERING — DESIGNED: JJM — DRAWN BY: JJM — APPROVED: JLC — COMPUTER FILE # DETAIL NOTES 200602.DWG — SCALE: N.T.S. — DATE: 2010 — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 2

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES
CONTINUED

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES AND DRAINAGE.
17. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER INCLUDING LOCATIONS OF VALVES, FITTINGS, SERVICE CONNECTIONS, BLOWOFFS, AIR RELEASE VALVES, AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.
18. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE FORT PIERCE UTILITIES AUTHORITY ONLY AFTER TESTING AND DISINFECTION HAS BEEN COMPLETED AND APPROVED ON THE TAPPING VALVE AND SLEEVE.
19. WATER MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN MULTI STRANDED WIRE (BLUE IN COLOR) AND IDENTIFCATION TAPE WITH "WATER" MARKED ON TAPE, PERMANENTLY ATTACHED TO THE TOP OF THE WATER MAIN IN ACCORDANCE WITH THE FORT PIERCE UTILITES AUTHORITY SPECIFICATIONS.
20. SERVICE TAPS SHALL BE PLACED APPROXIMATELY TEN FEET AWAY FROM GATE VALVES, AS SHOWN, FOR TESTING. FOLLOWING TESTING AND STERILIZATION OF WATER LINE. CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CURB STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.
21. MECHANICAL RESTRAINTS TO BE USED ON ALL FITTINGS AND PLACED IN ACCORDANCE WITH MANUFACTURER'S OR ENGINEER'S RECOMMENDATIONS (WHICHEVER IS MORE STRINGENT) AND FPUA REQUIREMENTS.
22. ALL MAINS SHALL BE TESTED AT A MINIMUM OF 150 PSI. TESTING METHODS SHALL CONFORM TO AWWA C-600. – 2 HR MINIMUM TEST

$$L = \frac{SD(P)^{1/2}}{148{,}000}$$

L= LEAKAGE IN GPH
S= LENGTH OF PIPE IN FEET
D= PIPE DIAMETER IN INCHES
P= TESTING PRESSURE IN PSI

23. PRIOR TO ANY TESTING, ALL MAINS 6" IN DIA. AND LARGER SHALL HAVE A SWAB PASSED THRU THE ENTIRE LENGTH OF THE LINE. NOTE: SWAB SHOULD BE PLACED IN 1st. JOINT OF NEW LINE. END OF MAIN SHOULD BE "TURNED UP" AT 45% AND EXTENDED SO THAT SWABBING AND A FULL BORE FLUSH CAN BE ACCOMPLISHED. BLOW-OFF ASSY CAN THEN BE PLACED. WHERE LINES BRANCH, SWABS WILL BE PLACED IN BRANCH LINES AND SEQUENTIALLY SWABBED AND FLUSHED.
24. A MINIMUM SIX FEET AND PREFERABLY TEN FEET HORIZONTAL SEPARATION SHALL BE MAIINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES. 6 INCHES MINIMUM VERTICAL SEPARATION IF WATER MAIN IS OVER WASTEWATER AND 12 INCHES IF WATER MAIN IS UNDER SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTWATER LINES. THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE OR STRUCTURE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGHTS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
25. WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 6 INCHES OF VERTICAL CLEARANCE BETWEEN PIPES SHALL BE CONSTRUCTED OF DIP AT THE CROSSING, AND SHALL BE MECHANICALLY RESTRAINED WITHIN 20 FEET OF THE CROSSING.
26. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

FORT PIERCE UTILITIES AUTHORITY — WATER DISTRIBUTION — G-1 NOTES — 02-06 — WATER/WASTEWATER ENGINEERING — DESIGNED: JJM — DRAWN BY: JJM — APPROVED: JLC — COMPUTER FILE # DETAIL NOTES 200602.DWG — SCALE: N.T.S. — DATE: 2010 — FT. PIERCE UTILITIES AUTHORITY — SHEET 2 OF 2

FORT PIERCE UTILITIES AUTHORITY WASTEWATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE SDR-26, GREEN OR WHITE IN COLOR, GRAVITY SEWER MAIN SHALL HAVE LOCATOR TAPE WITH "SEWER" MARKED ON TAPE AND SHALL CONFORM TO ASTM D-3034.
3. THE MANHOLE BASE SHALL BE SET ON A FIRM, DRY AND STABLE OR COMPACTED BASE FOUNDATION. IF NECESSARY, THE CONTRACTOR SHALL UTILIZE ROCK TO PROVIDE A FIRM AND SUITABLE MANHOLE BASE FOUNDATION.
4. WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY ENGINEERING DEPARTMENT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIRE- MENTS SHALL NOT BE LESS THEN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
5. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
6. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISITING OF PIPE SIZES, LOCATION OF SERVICE TEE WYES, DIAMETER OF SERVICES, LOCATION OF ANY FITTINGS, FINAL RIM AND INVERT ELEVATION OF ALL MANHOLES AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.
7. MAINTAIN SIX FEET AND PREFERABLY 10 FEET HORIZONTAL DISTANCE BETWEEN WATER MAINS AND SEWER MAINS AS A MINIMUM.
8. WASTEWATER FORCE MAINS, WASTEWATER COLLECTION LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE SHALL BE PROVIDED WHENEVER POSSIBLE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANCE FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
9. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, AND FPUA/CITY COUNTY/FDOT SHALL BE MANDATORY PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
10. NO FIELD CHANGES OR DEVIATIONS FORM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FPUA/CITY/COUNTY/FDOT ENGINEER,
11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
12. CONTRACTOR SHALL NOTIFY FORT PIERCE UTILITIES AUTHORITY 48 HOURS PRIOR TO COMMMENCING CONSTRUCTION.
13. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO AWWA C-900, AND SHALL BE CLASS 150, DR-18.
14. WASTEWATER FORCE MAIN SHALL BE GREEN IN COLOR.
15. FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO ANSI/AWWA C-110/A21.10 CLASS 250 MIN. AND INTERIOR EPOXY COATED.
16. WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN WIRE (GREEN IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.
17. MINIMUM COVER SHALL BE 36 INCHES, PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
18. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY 3M CORPORATION, OR APPROVED EQUAL AS REQUIRED BY FPUA ENGINEER.
19. ALL MANHOLES SHALL HAVE SEWER RAIN GUARDS INSTALLED AS REQUIRED BY FPUA ENGINEER.
20. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

FORT PIERCE UTILITIES AUTHORITY — WASTEWATER CONSTRUCTION NOTES FPUA REQUIREMENTS — G-2 CONSTRUCTION NOTES — 02-06 — WATER/WASTEWATER ENGINEERING — DESIGNED: JJM — DRAWN BY: JJM — APPROVED: JLC — COMPUTER FILE # DETAIL NOTES 200602.DWG — SCALE: N.T.S. — DATE: 2010 — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

STANDARD SEPARATION STATEMENT FOR
WATER / SEWER CONFLICTS

1. SANITARY SEWER, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 6 INCHES, PREFERABLY 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHEN ABOVE, AND AT LEAST 12 INCHES OF SEPARATION WHEN THE WATER MAIN IS BELOW.

WHERE SANITARY SEWER, FORCE MAINS, STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 6 INCHES VERTICAL SEPARATION, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) CENTERED ON THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). AT SUCH CROSSINGS PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 6 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) AND NEW PIPES SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

2. A MINIMUM 3-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF STORM SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 3-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN VACUUM TYPE SANITARY SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN "ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

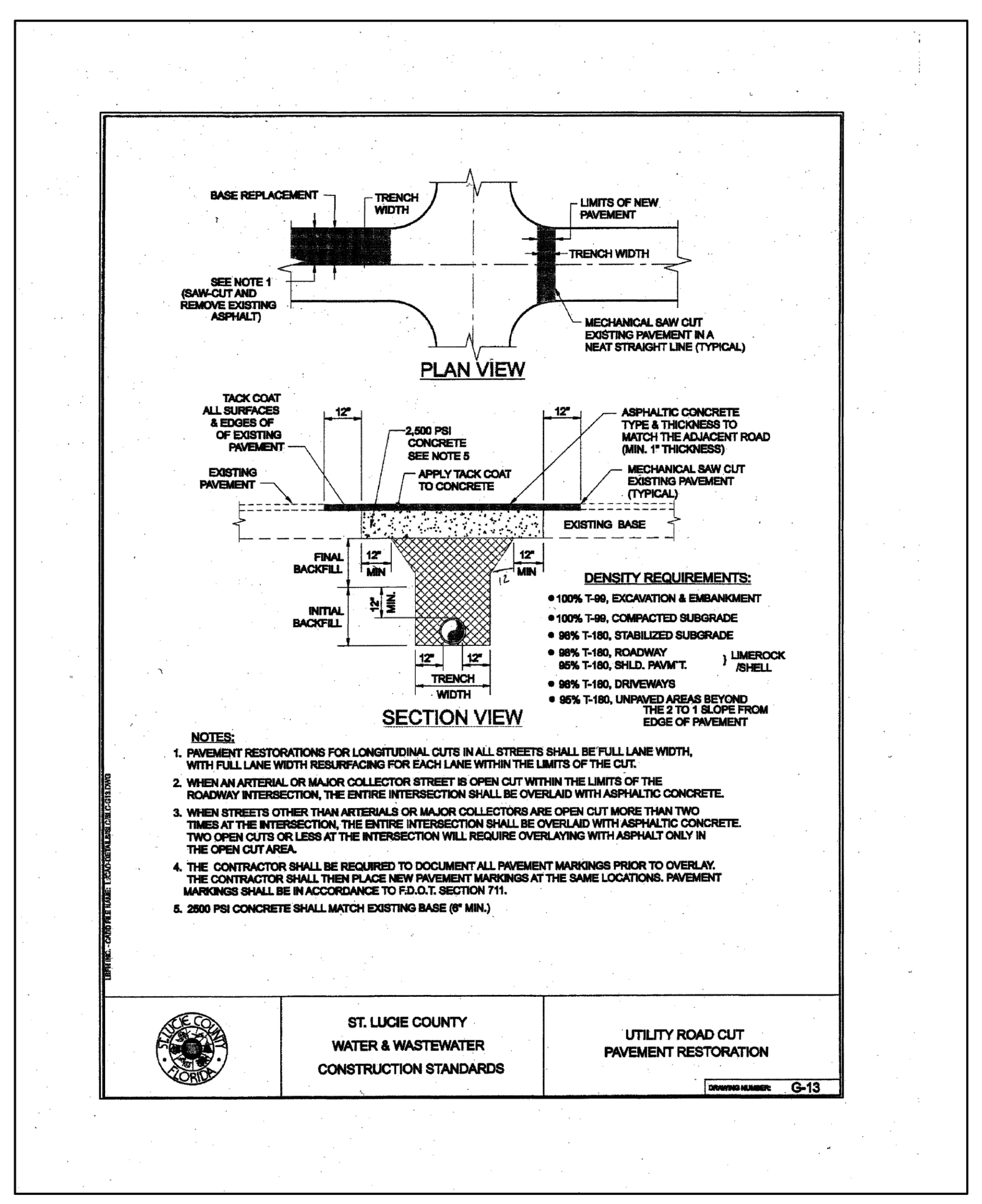
A MINIMUM 6-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3 FOOT WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER.

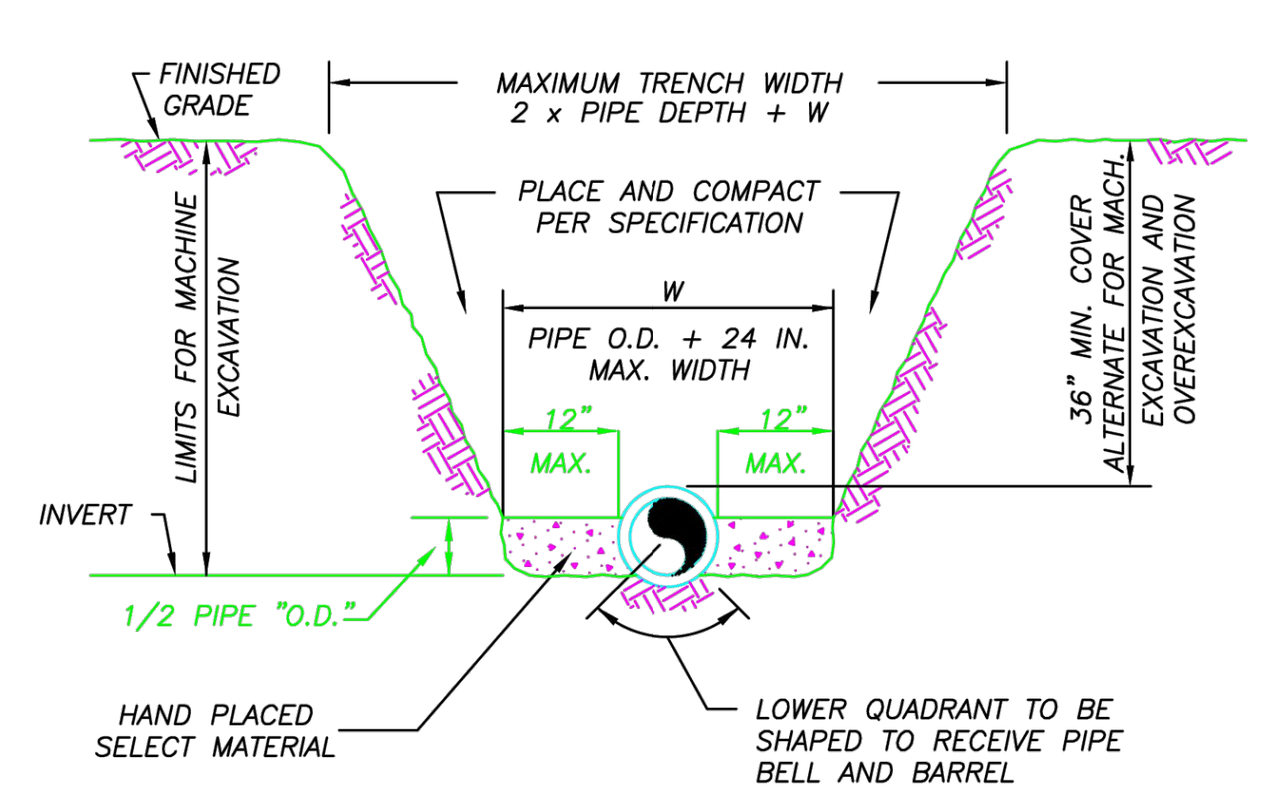
WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 6 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWER) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

3. ALL DIP SHALL BE PRESSURE CLASS 250 MIN.. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

FORT PIERCE UTILITIES AUTHORITY — STANDARD SEPARATION STATEMENT FOR WATER/SEWER CONFLICT — G-3 WATER/SEWER CONFLICT — 02-06 — WATER/WASTEWATER ENGINEERING — DESIGNED: JJM — DRAWN BY: JJM — APPROVED: JLC — COMPUTER FILE # DETAIL NOTES 200602.DWG — SCALE: N.T.S. — DATE: 2010 — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1



FORT PIERCE UTILITIES AUTHORITY — PAVEMENT RESTORATION (COUNTY) — R-2 — WATER/WASTEWATER ENGINEERING — DESIGNED: JJM — DRAWN BY: JJM — APPROVED: JLC — COMPUTER FILE # MISC DETAILS 200602.DWG — SCALE: N.T.S. — DATE: 2010 — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

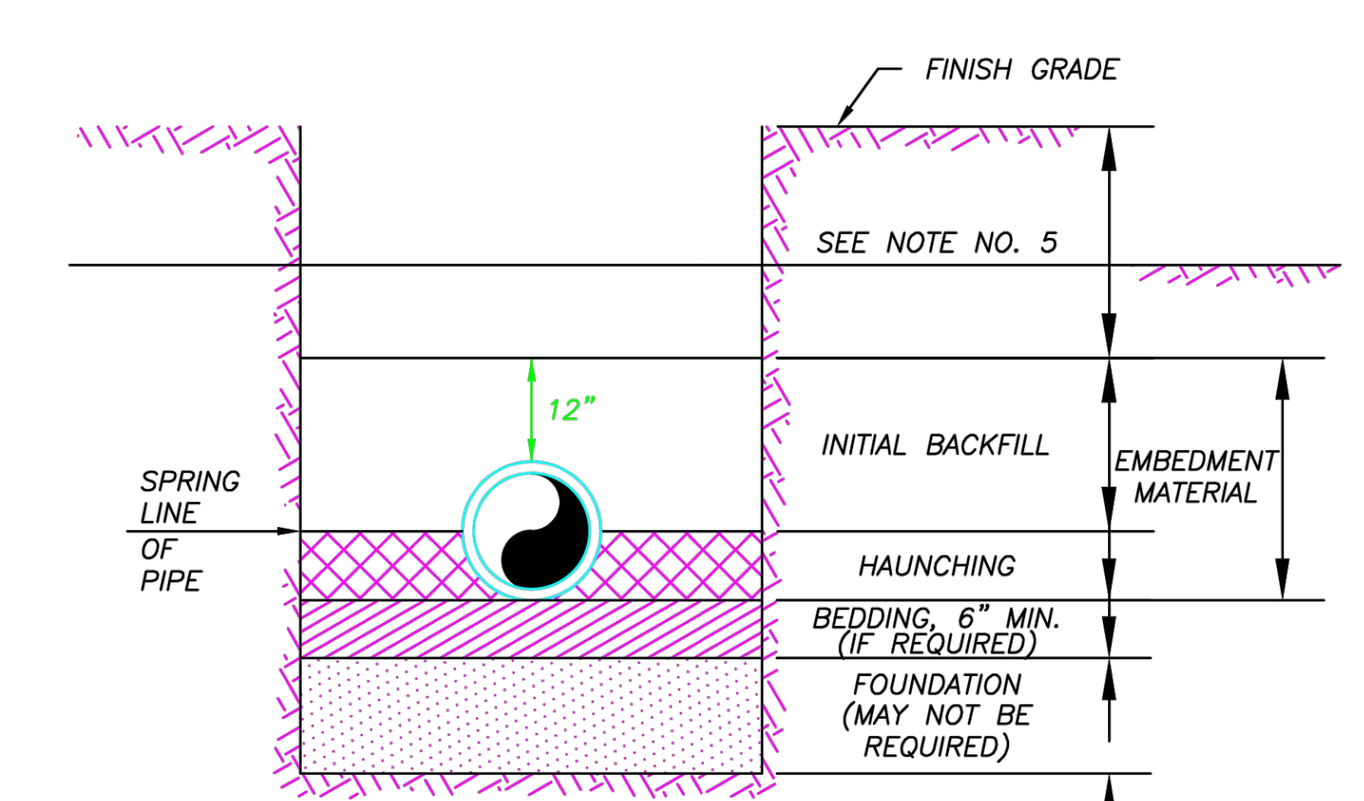


NOTES:

1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
2) INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE PIPE. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 100% OF MAX. DENSITY AS DETERMINED BY AASHTO METHOD T-99.

TYPICAL TRENCH DETAIL
N.T.S.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 37TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600 — TYPICAL TRENCH DETAIL — M-1 — 03-09 CONCRETE SLAB SLL JLC — WATER/WASTEWATER ENGINEERING — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE # MISC DETAILS 200602.DWG — DATE: 2015 — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

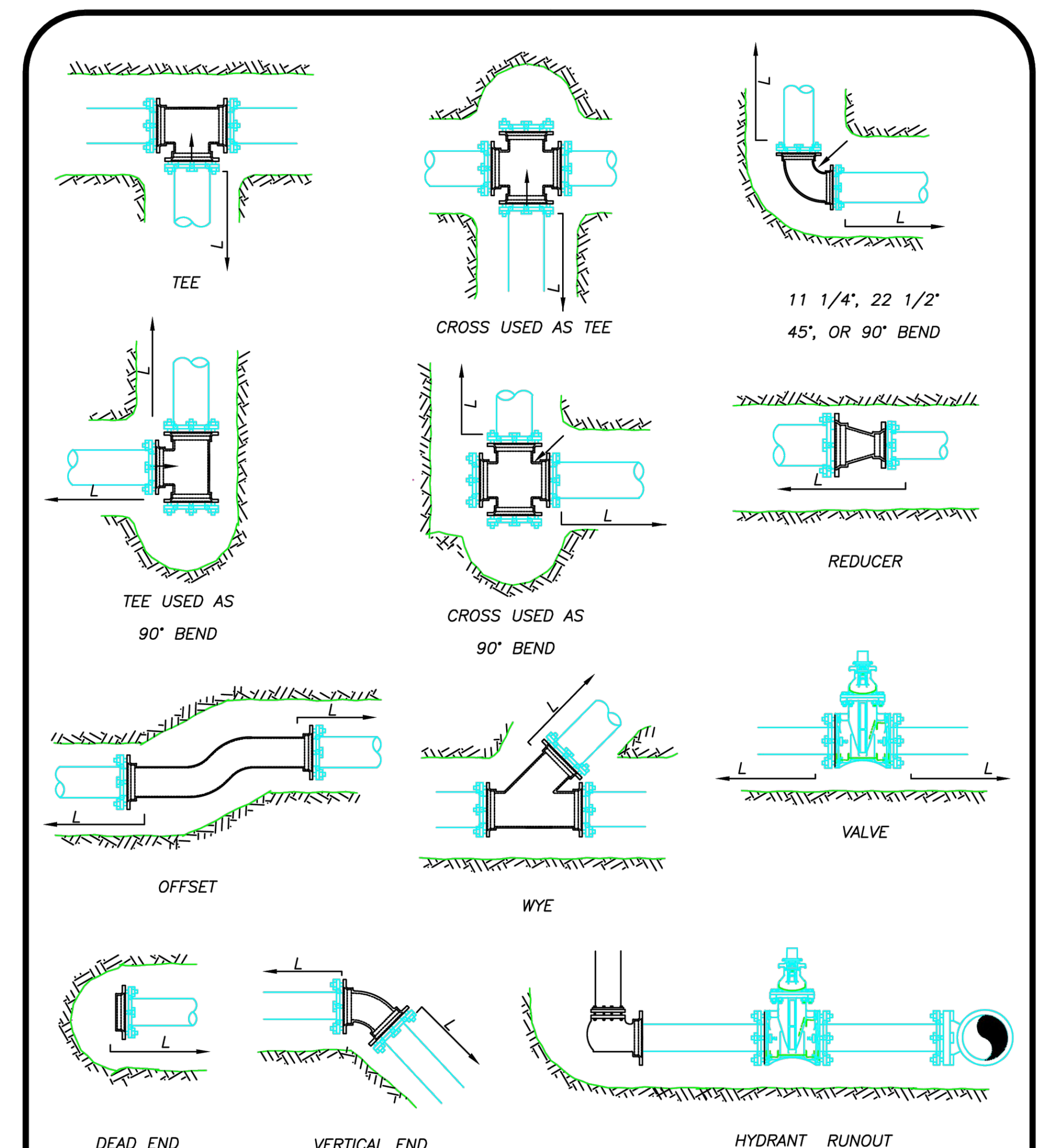


BACKFILLING REQUIREMENTS
N.T.S.

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 — 03-09 CONCRETE SLAB SLL JLC — WATER/WASTEWATER ENGINEERING — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE # MISC DETAILS 200602.DWG — DATE: 2015 — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1



MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

FPUA COMMUNITY PROUD — MECHANICAL JOINT ANCHORING REQUIREMENTS — M-3 — 03-09 CONCRETE SLAB SLL JLC — WATER/WASTEWATER ENGINEERING — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE # MISC DETAILS 200602.DWG — DATE: 2015 — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
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LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

D-4

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-4 – Plotted by: Daniel – Date: 12/26/2024 – 3:33 PM – Giangrande Engineering & Planning

MECHANICAL JOINT RESTRAINT NOTES

NOTES:

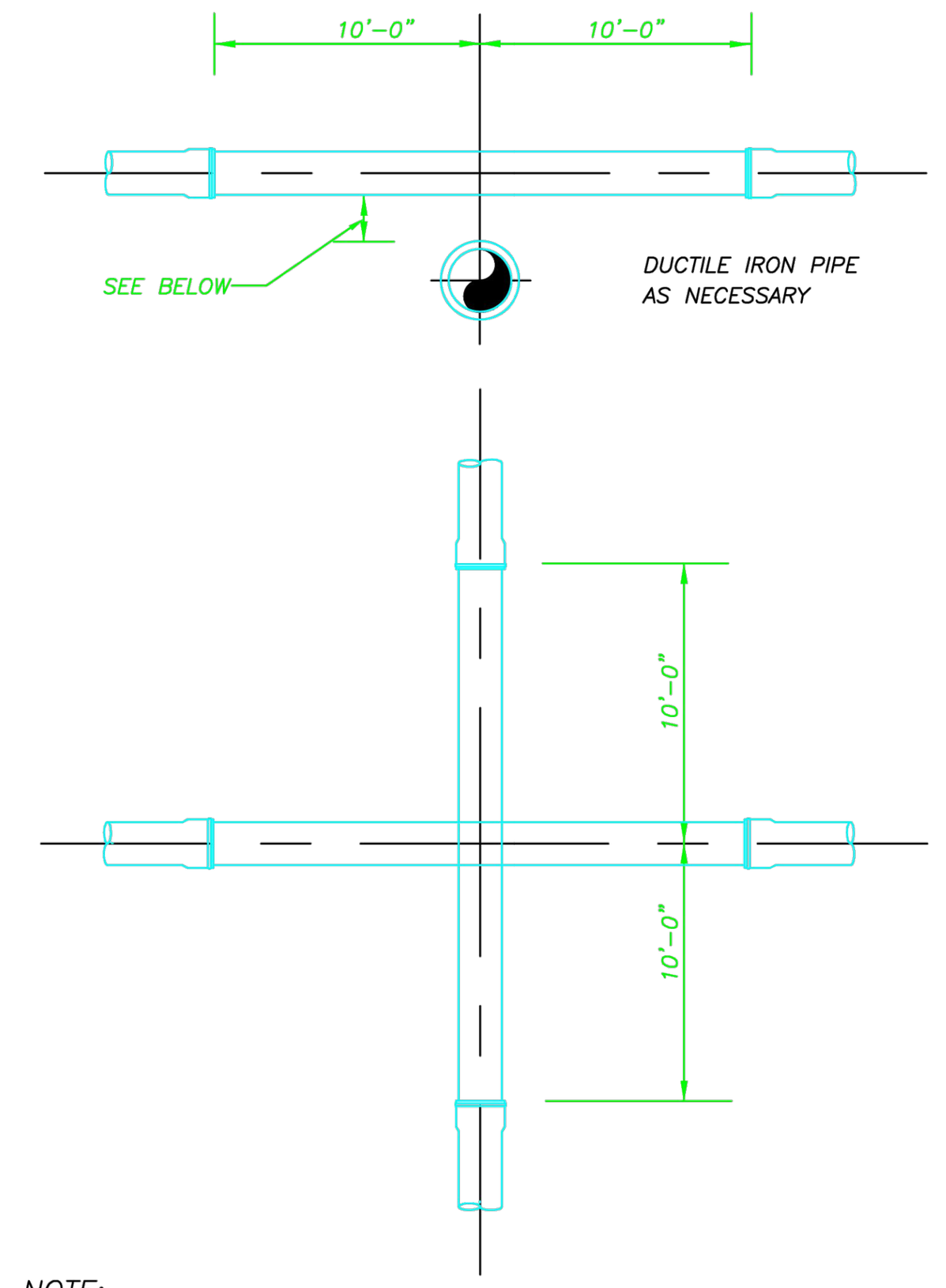
1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED WHICH REFLECTS THE RESTRAINT DETAIL PROPOSED FOR USE, INCLUDING LENGTH OF PIPE RESTRAINT.

2) REQUIRED RESTRAINED LENGTH CALCULATIONS SHALL ALSO CONSIDER THE CONDITIONS OF OTHER BENDS OR FITTINGS THAT WILL BE LOCATED WITHIN THE CALCULATED RESTRAINED LENGTH (L) OF THE BEND OR FITTING IN QUESTION.

3) EVERY JOINT OR FITTING MUST BE RESTRAINED ON BOTH SIDES OF THE BEND AND FOR TEES ALONG THE BEND ALSO.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600

MECHANICAL JOINT RESTRAINT NOTES — M-4 — 03-09 CONCRETE SLAB SLL JLC — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: MISC DETAILS 200602.DWG — DATE: 2015 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

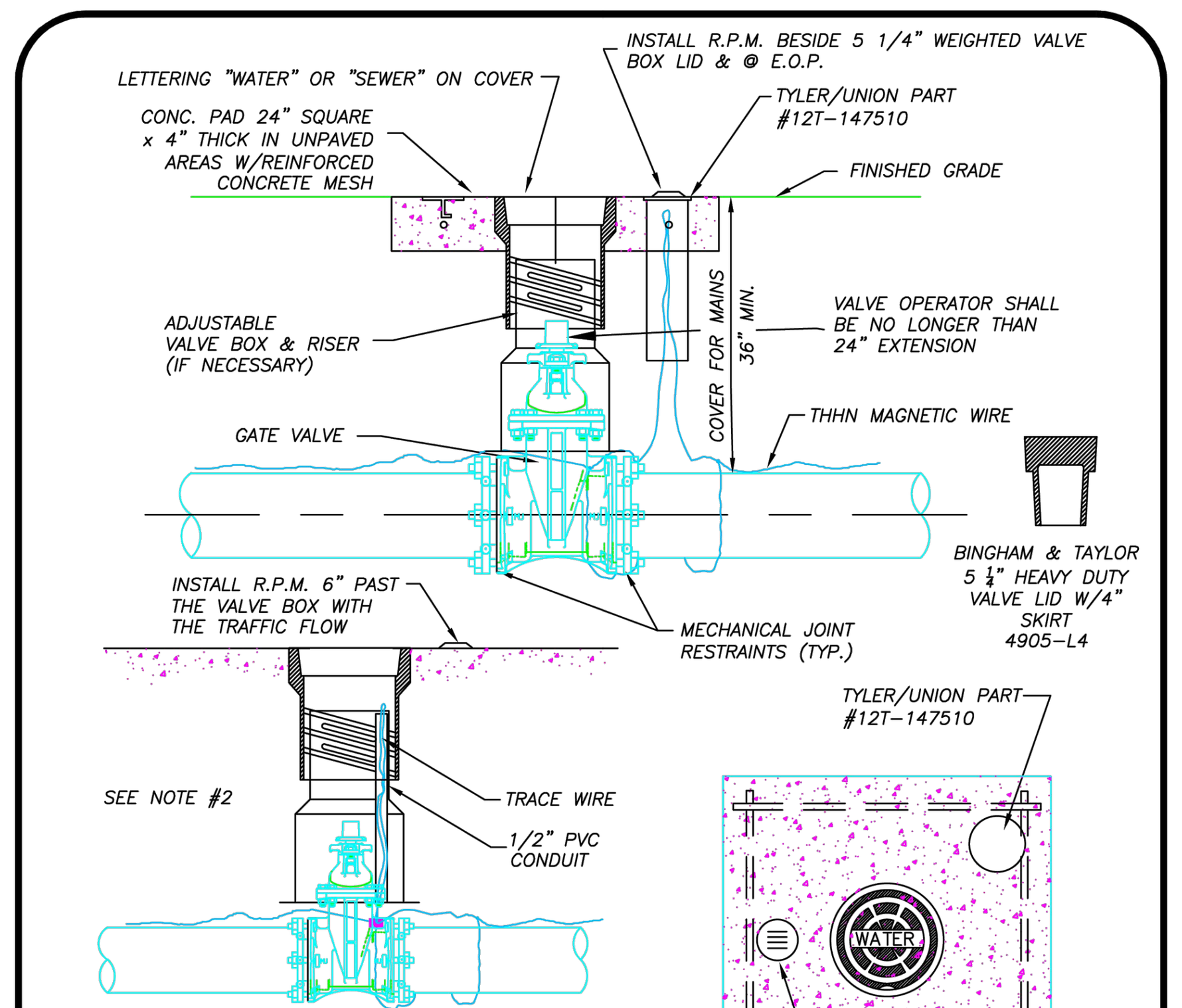


NOTE:

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

UTILITY CROSSING DETAIL
N.T.S.

UTILITY CROSSING DETAIL — M-5 — 03-09 CONCRETE SLAB SLL JLC — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: MISC DETAILS 200602.DWG — DATE: 2015 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

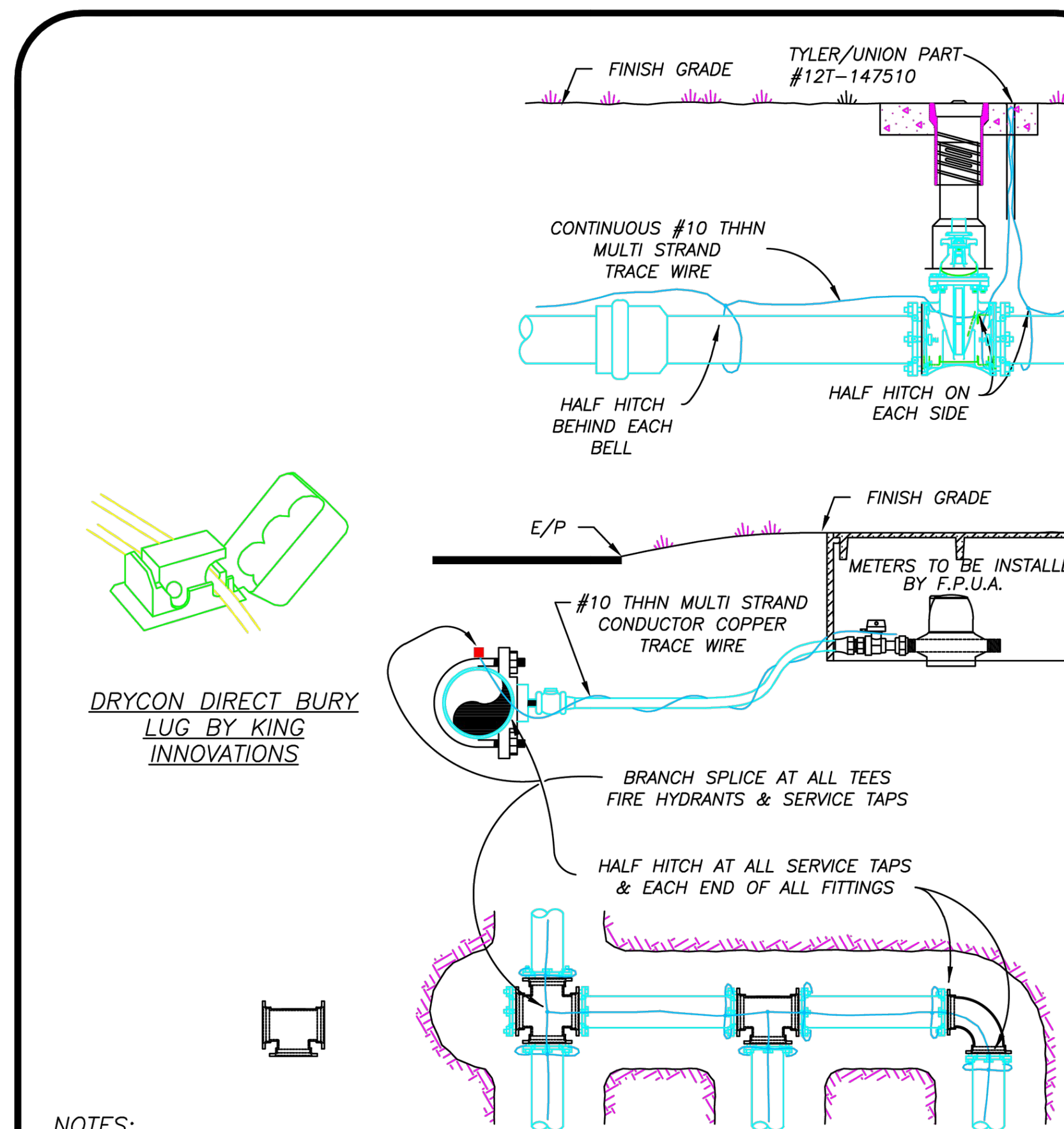


NOTES:

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.

TYPICAL GATE VALVE & VALVE BOX DETAIL — M-6 — 03-09 CONCRETE SLAB SLL JLC — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: MISC DETAILS 200602.DWG — DATE: 2015 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1



NOTES:

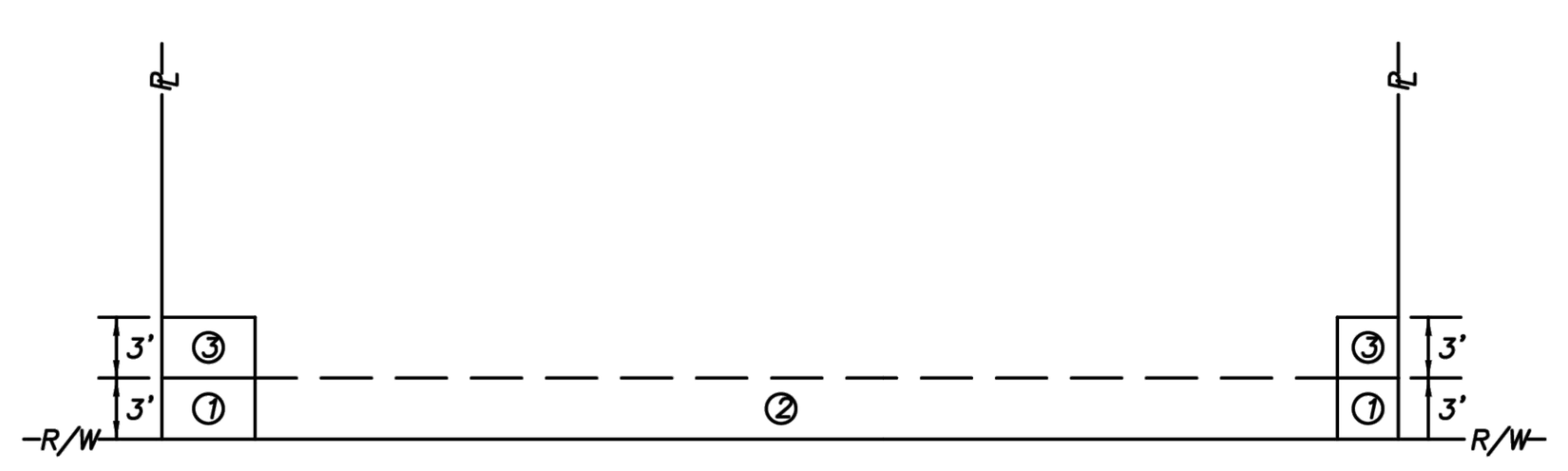
1) TRACE WIRE IS REQUIRED ON ALL PIPE AS NOTED BY UTILITIES ENGINEER AND SHOWN IN STANDARD DETAILS.
2) INCLUDE ALL COST OF MATERIAL & LABOR IN PRICE OF PIPE.
3) CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.

TRACE WIRE
(N.T.S.)

TRACE WIRE DETAIL — M-11 — 03-09 CONCRETE SLAB SLL JLC — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: MISC DETAILS 200602.DWG — DATE: 2015 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.

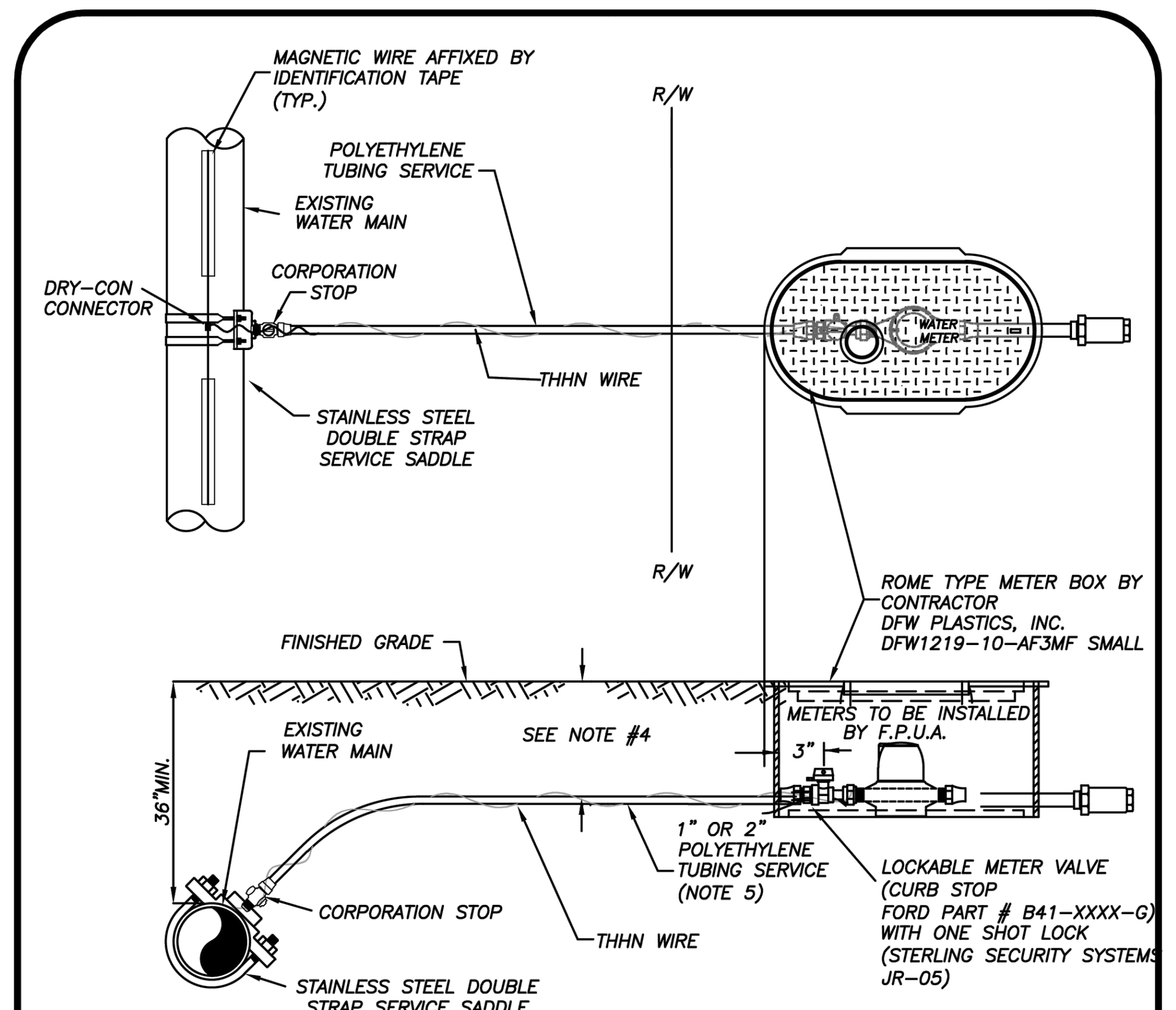


NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. WATER METER, AREA ① SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE WATER METER. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO WATER SERVICES AND METERS CAN BE CONNECTED.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. WATER SERVICE, WITHIN AREA ① , THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ② , OR ALONG THE PROPERTY LINES MARKED AREA ③.
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF 6 FEET AND PREFERABLY 10 FEET.
4. ALL METERS SHALL BE INSTALLED IN AN UNRESTRICTED AREA FOLLOWING EASE OF ACCESS AND PROVIDING ADEQUATE PROTECTION.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WATER METER PLACEMENT
(N.T.S.)

WATER METER PLACEMENT POLICY — W-1 — 03-09 02-15 SLL — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: WATER DETAILS 200602.DWG — SCALE: N.T.S. — DATE: 2010 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

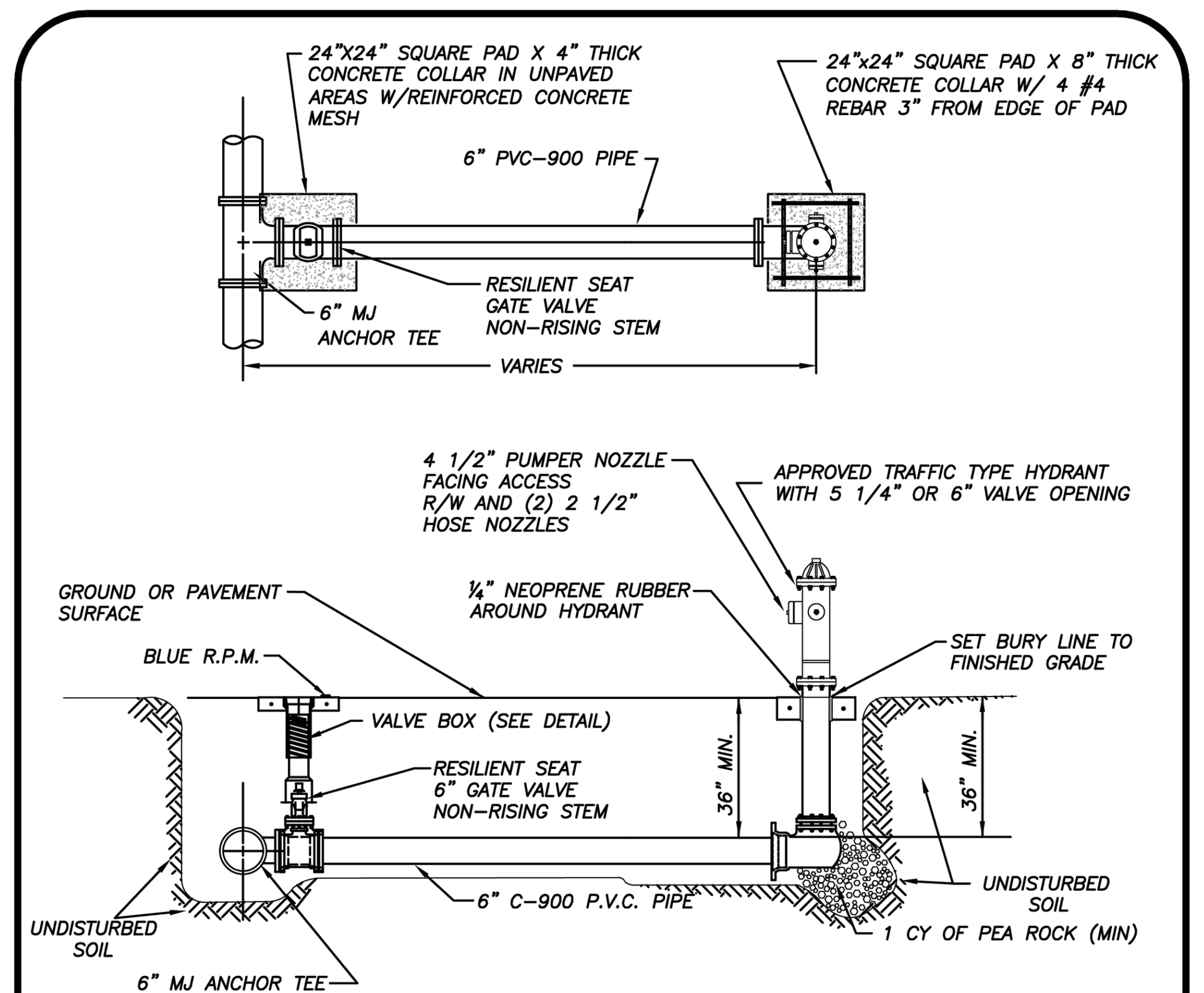


NOTES:

1. BLUE 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".
5. FOR 2" COMMERCIAL SERVICE INSTALLATIONS, FPUA WILL INSTALL ABOVE GROUND METER PER DETAIL W-8.

TYPICAL SINGLE WATER SERVICE CONNECTION
(N.T.S.)

TYPICAL SINGLE WATER SERVICE CONNECTION — W-2 — 03-09 DESIGN SLL JLC — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: WATER DETAILS 200602.DWG — SCALE: N.T.S. — DATE: 2020 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

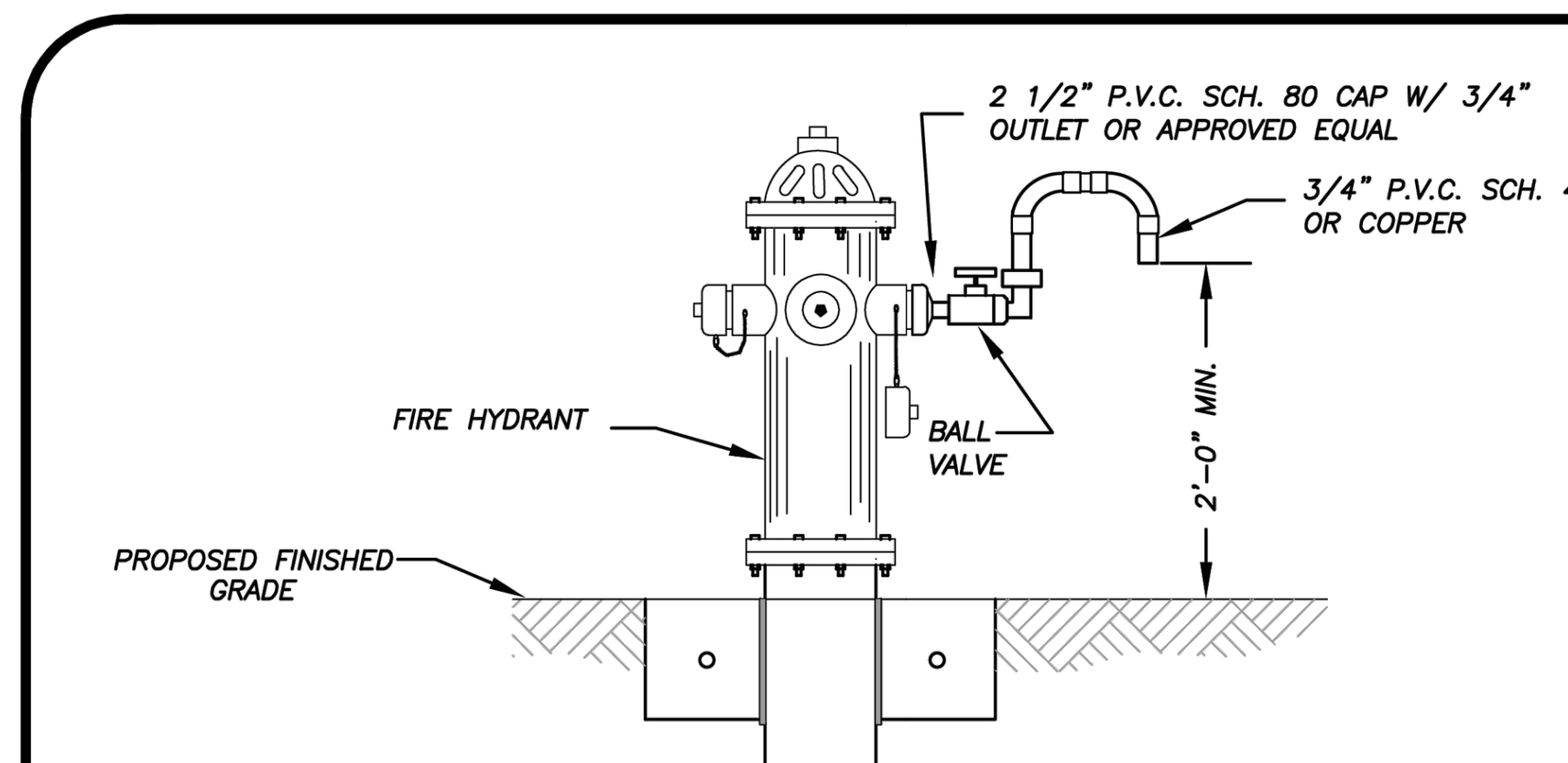


NOTES:

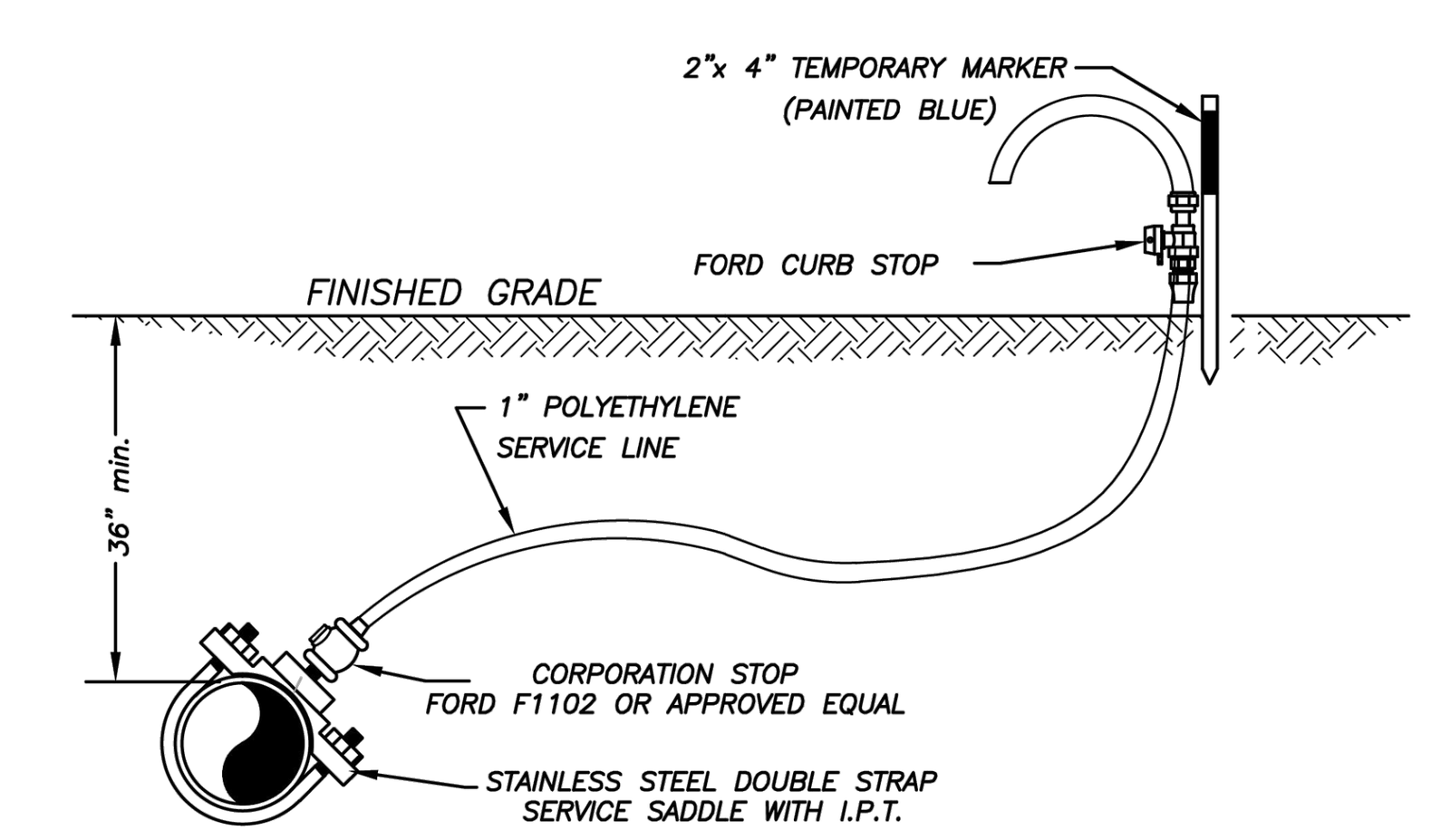
1. HYDRANT SHALL BE INSTALLED PLUMB & TRUE.
2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
3. HEEL TO REST IN UNDISTURBED SOIL.
4. THE ONLY HYDRANTS ACCEPTABLE ARE: MUELLER SUPER CENTURION 250 OR AMERICAN DARLING B-84-B-5.
5. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
6. ALL FITTINGS SHALL BE MECHANICAL JOINT.
7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
8. BLUE LOCATOR SHALL BE PLACED IN CENTER OF TRAVEL LANE CLOSEST TO HYDRANT.
9. ALL HYDRANT VALVE BOX COVERS SHALL BE PAINTED CARNIVAL RED.
10. LOCATE WIRE SHALL TERMINATE AT HYDRANT ISOLATION VALVE
11. HYDRANTS SHALL BE NO MORE THAN FIFTEEN FEET (15 FT.) FROM THE CURB OF ROADWAYS OR FROM THE EDGE OF PAVEMENT. CLEARANCES OF SEVEN AND ONE HALF FEET (7FT-6IN.) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANTS, WITH FOUR FOOT (4 FT.) CLEARANCE TO THE REAR OF HYDRANTS SHALL BE MAINTAINED.

TYPICAL FIRE HYDRANT ASSEMBLY
(N.T.S.)

TYPICAL FIRE HYDRANT ASSEMBLY — W-5 — 03-09 DESIGN SLL JLC — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: WATERDETAIL.DWG — SCALE: N.T.S. — DATE: 2010 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — 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.

BACTERIOLOGICAL SAMPLING PONIT DETAIL — W-6 — 03-09 02-15 SLL JLC — DESIGNED: JLC — DRAWN BY: SLL — APPROVED: JLC — COMPUTER FILE #: WATERDETAIL.DWG — SCALE: N.T.S. — DATE: 2010 — WATER/WASTEWATER ENGINEERING — FT. PIERCE UTILITIES AUTHORITY — SHEET 1 OF 1

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DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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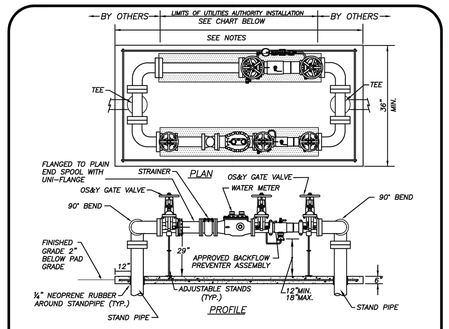
License No: 66387

PROJECT #: 22-024

D-5



NOTES:

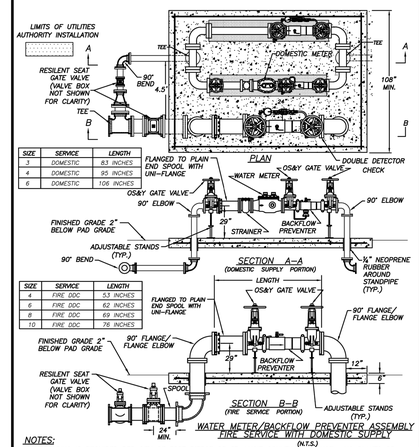
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. CONTRACTOR TO INSTALL APPROPRIATE SIZED SPOOL PIECES TO FIT BETWEEN 90° BENDS UNTIL METERS ARE APPROVED FOR INSTALLATION. ALL SPOOL PIECES SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE IN ACCORDANCE WITH THE CHART BELOW.
3. PRIOR TO POURING CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND ARE INSTALLED AT THE SAME ELEVATION IN THE PRESENCE OF THE FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
3	COMPOUND	83 INCHES
4	COMPOUND	95 INCHES
6	COMPOUND	106 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
COMMERCIAL WATER METER SERVICES (METER SIZE > 3")

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING & PLANNING DEPARTMENTS, 1701 SOUTH 25TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600

WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 3")		W-9
03-09 CONCRETE SLAB — REVISION: — BY: SLL — APPD: JLC		WATER/WASTEWATER ENGINEERING
DESIGNED: JLC — COMPUTER FILE # WATER DETAILS 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	



SIZE	SERVICE	LENGTH
3	DOMESTIC	83 INCHES
4	DOMESTIC	95 INCHES
6	DOMESTIC	106 INCHES

SIZE	SERVICE	LENGTH
4	FIRE DDC	53 INCHES
6	FIRE DDC	62 INCHES
8	FIRE DDC	69 INCHES
10	FIRE DDC	76 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
FIRE SERVICE WITH DOMESTIC SUPPLY
(N.T.S.)

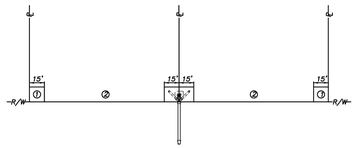
NOTES:

1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. NO SOLDER JOINTS.
3. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
4. DOMESTIC SERVICE 2" OR LESS, USE 2" POLY STUBBED 12" ABOVE GRADE.
5. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER

WATER METER/BACKFLOW PREVENTER FIRE SERVICE WITH DOMESTIC SUPPLY		W-11
03-09 CONCRETE PAD — REVISION: — BY: SLL — APPD: JLC		WATER/WASTEWATER ENGINEERING
DESIGNED: JLC — COMPUTER FILE # WATER DETAILS 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.

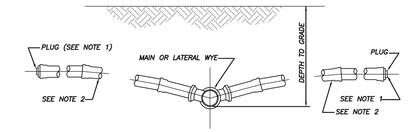


NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. SEWER LATERAL, AREA ① , SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE LATERAL. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO LATERALS CAN BE CONNECTED IN A "Y" CONFIGURATION AS SHOWN.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. SEWER LATERAL, WITHIN AREA ① , THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ② .
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF SIX FEET AND PREFERABLY 10 FEET.
4. THE WASTEWATER LATERAL SHALL BE LOCATED WITHIN RIGHT-OF-WAY AND TERMINATE AT THE PROPERTY LINE.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WASTEWATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WASTEWATER SERVICE PLACEMENT
(N.T.S.)

WASTEWATER SERVICE PLACEMENT POLICY		S-1
02-08 02-15 — REVISION: — BY: SLL — APPD: JLC		WATER/WASTEWATER ENGINEERING
DESIGNED: JLC — COMPUTER FILE # SEWER DETAIL 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	

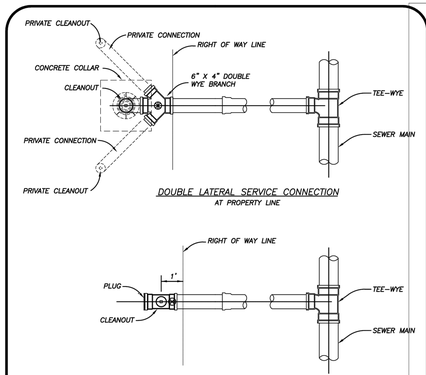


NOTES:

1) BALL TYPE WASTEWATER LOCATOR BY 3M CORP. OR APPROVED EQUAL.
2) MINIMUM SLOPE OF 1/8" PER FOOT, USE GREATER SLOPE WHERE POSSIBLE.
3) SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT.
4) INSTALL CLEANOUT AT THE PROPERTY LINE. REFER TO DETAIL S-1 FOR SPECIFIC PROPERTY LAYOUT.

SERVICE CONNECTION
(N.T.S.)

SERVICE CONNECTION WASTEWATER		S-2
02-08 — REVISION: — BY: — APPD:		WATER/WASTEWATER ENGINEERING
DESIGNED: — COMPUTER FILE # SEWER DETAIL 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2015	SHEET 1 OF 1	



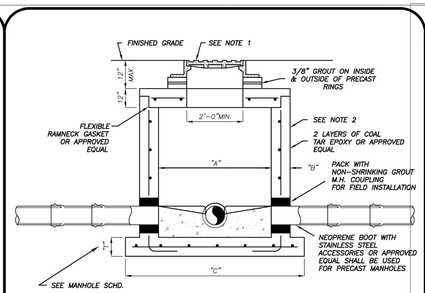
DOUBLE LATERAL SERVICE CONNECTION
AT PROPERTY LINE

SINGLE SERVICE LATERAL CONNECTION

Ⓑ = BALL TYPE WASTEWATER LOCATOR INSTALLED ABOVE THIS POINT
BALL BY 3M CORP. OR APPROVED EQUAL
SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT

SERVICE CONNECTION
(N.T.S.)

SERVICE CONNECTION WASTEWATER		S-3
02-08 — REVISION: — BY: — APPD:		WATER/WASTEWATER ENGINEERING
DESIGNED: — COMPUTER FILE # SEWER DETAIL 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	



PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"–24"	4'–0"	8"	76"	8"
30"–36"	5'–0"	8"	88"	10"
42"–48"	6'–0"	8"	100"	12"

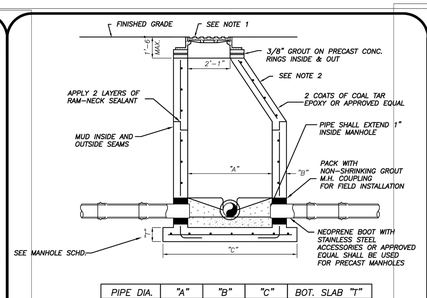
TYPICAL MANHOLE DIMENSIONS

NOTES:

1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.
2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.
3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.
4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

SHALLOW MANHOLE
DEPTH OF LESS THAN 5'–0"
(N.T.S.)

PRECAST MANHOLE DEPTH OF LESS THAN 5'– 0"		S-6
02-08 — REVISION: — BY: — APPD:		WATER/WASTEWATER ENGINEERING
DESIGNED: — COMPUTER FILE # SEWER DETAIL 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	



PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"–24"	4'–0"	8"	78"	8"
30"–36"	5'–0"	8"	88"	10"
42"–48"	6'–0"	8"	100"	12"

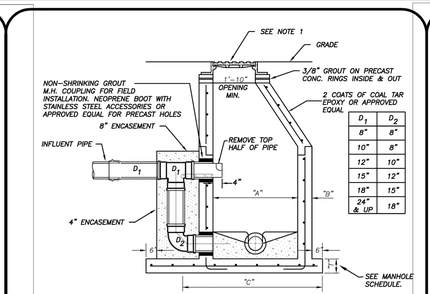
TYPICAL MANHOLE DIMENSIONS

NOTES:

1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.
2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.
3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.
4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

STANDARD MANHOLE
DEPTH 5'–0" AND GREATER
(N.T.S.)

PRECAST MANHOLE DEPTH 5'– 0" & GREATER		S-7
02-08 — REVISION: — BY: — APPD:		WATER/WASTEWATER ENGINEERING
DESIGNED: — COMPUTER FILE # SEWER DETAIL 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	



D_1	D_2
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
24" & UP	18"

PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"–24"	4'–0"	8"	70"	8"
30"–36"	5'–0"	8"	84"	10"
42"–48"	6'–0"	8"	96"	12"

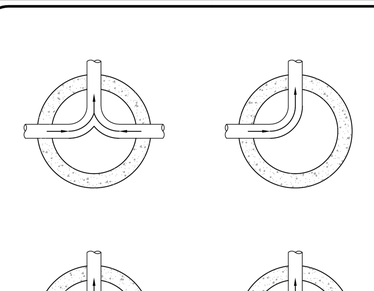
TYPICAL MANHOLE DIMENSIONS

NOTES:

1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.
2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.
3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.
4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

OUTSIDE DROP MANHOLE
(N.T.S.)

PRECAST MANHOLE WITH OUTSIDE DROP		S-8
02-08 — REVISION: — BY: — APPD:		WATER/WASTEWATER ENGINEERING
DESIGNED: — COMPUTER FILE # SEWER DETAIL 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	



NOTES:

1) INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2) SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.

FLOW PATTERNS FOR INVERT CHANNELS		S-12
DATE — REVISION: — BY: — APPD:		WATER/WASTEWATER ENGINEERING
DESIGNED: — COMPUTER FILE # SEWER DETAIL 2020\D2.DWG		FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: — SCALE: N.T.S.		
APPROVED: JLC — DATE: 2010	SHEET 1 OF 1	

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

D-6

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads rsk plan\design\22-024 Details.dwg — Layout Name: D-6 — Plotted by: Daniel — Date: 12/26/2024 - 3:54 PM — Giangrande Engineering & Planning

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Leo Giangrande, Principle, GEP
710 SE Ocean Blvd.
Stuart, FL 34994

Subject: Site Plan – One parcel located at or near Intersection of Crossroads Pkwy. & Andrews Ave.; Parcel ID: 2324-312-0005-000-4– Technical Review Committee Comments for February 15, 2024, TRC Meeting

July 11, 2024,
Updated Comments from May 13, 2024 Resubmittal

City of Fort Pierce Planning Department

1. Update Amenities Memo to reflect 84 lots instead of 83
2. Provide details of what is being offered withing the Amenities Center
3. Provide at least the minimum lot size, in square footage

Thoroughly reviewed during Permitting stage:

4. Sec. 125-247(3) Recreational Vehicle Parks
    a. There shall be one lavatory and one shower or bathtub for each sex for each five recreational vehicle parks or fraction thereof; one toile for females for each five recreational vehicles or fraction thereof; and one toilet for males for each ten recreational vehicles or fraction thereof, not more than one-third of which shall be urinals
    b. No recreational vehicle space shall be more than 200 ft. from a service building with a lavatory, toilet and a shower or bathtub for each sex.

Fort Pierce Engineering Department

Site Plan: Do Not Recommend

1. Provide a full sized original signed and sealed Boundary and Topography survey in accordance with the City of Fort Pierce Code of Ordinance Section 125-314(c)(1)(a).
2. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR>
3. Update the site plan to reflect the installation of sidewalks along Andrews Road adjacent to the property in accordance with the City of Fort Pierce Code of Ordinance Section 125-317.
4.

5. Access drives shall be paved, and surface material must be in accordance with the City of Fort Pierce Code of Ordinance Section 125-315(c)(6). Asphalt millings shall be removed from the plan's legend.
6. Update the site plan to reflect 20-foot Right-of-Way dedication along Andrews Avenue as required by Saint Lucie County.
7. The Landscape and Lighting Plan shall be updated to reflect the eliminated Andrews Avenue access.

ADVISORY COMMENTS:

1. A South Florida Water Management District (SFWMD) ERP shall be required prior to DPCR approval.
2. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
3. The tree mitigation plan and associated mitigation fees will be reviewed in depth at the time of DPCR submittal.
4. At time of DPCR submittal update the engineering plans to reflect the attached City of Fort Pierce Standard Details.

St. Lucie County PW/Engineering

1. **Condition:** Crossroads parkway and Andrews Avenue are County roads in this location. Site Development Permits will be required for driveway connections and Right-of-Way work within these sections of roadway.
2. Andrews Avenue is a substandard Right-of-Way. A Right-of-way dedication will be required along Andrews Avenue. The response indicates dedication; however, it is not shown on the plan.
3. A 5-foot sidewalk is required along Andrews Avenue.
4. The comment response indicates elimination of the driveway along Andrews Avenue; however, the traffic statement indicates 2 driveways. Update the traffic statement and provide an evaluation on whether turn lanes are required.

St. Lucie County Fire District

Application and payment are still required to be submitted. Please contact Captain Andres Elizondo at 772-621-3379 for more information.

Florida Department of Transportation

Sidewalks/Bicycle-Pedestrian Connectivity: There are no designated areas for bicycle travel, parking, or storage on the site. The proposed development does not appear to include sidewalks on either side of the internal drive aisles. No sidewalks are provided along Crossroads parkway or Andrews Avenue in the Conceptual Site Plan. Additionally, no sidewalk connections are provided along either of the proposed driveway entrances. As it is

understood that many RV owners' bicycle or walk for local trips because they do not have a smaller vehicle for these trips, 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 RV Park. Sidewalks and bicycle facilities should be provided both within the RV Park and along Crossroads Parkway and Andrews Avenue for pedestrian and bicyclist safety as part of the proposed development.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

DEVELOPMENT REVIEW

Property Information

Property address or Location: Intersection of Crossroads Pkwy. & Andrews Ave. 27.417365, -80.39479

Parcel ID #(s): 2324-312-0005-000-4

Project description: Transforming the land into an 83 lot RV park with amenity center

Application Type

☒ Site Plan ☐ Minor Site Plan ☐ Innovative Residential Development

☐ Minor Amendment ☐ Major Amendment ☐ Conditional Use w/New Construction

Site Information

Non-Residential: Proposed Sq. Ft.: 74,700 Site Acreage: 10.9

Residential: Proposed Units: _____ Proposed Sq. Ft.: _____ Site Acreage: _____

Alexander George & Company Corp.	Leo Giangrande, Principle, GEP
Property Owner(s)	**Applicant/Representative, Title, Company**
14800 Indrio Rd.	710 SE Ocean Blvd.
Street Address	Street Address
Fort Pierce FL 34945	Stuart FL 34994
City State Zip	City State Zip
	772-888-9076
Phone Number	Phone Number
alexandergeorgeandcompany@gmail.	leo@gep-llc.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.*

Alex George — 4/30/2024

Property Owner(s) Signature(s) *Date*

APPOINTMENTS ARE REQUIRED FOR APPLICATION SUBMITTALS

CALL 772.467.3737 OR E-MAIL PLANNING@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.**
- Appointments are required for application hard copy 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, one (1) hard copy and one (1) Flash Drive of the following. Additional copies will be required of subsequent submittals.

- ■ Complete application
- ❑ Warranty Deed
- ❑ SLC Property Record Card
- ■ Detailed project description
- ■ 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)
- ■ Lighting Plan (see Section 125-313)
- ■ Design Review submittals (see Design Review application)
- ■ Traffic Impact Report
- ■ Concurrency Review submittals (see Concurrency Review application)

MICHELLE R. MILLER, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 5330877 OR BOOK 5141 PAGE 1537, Recorded 04/29/2024 09:36:19 AM Doc Tax: $0.70

THIS INSTRUMENT PREPARED BY
AND IS TO BE RETURNED TO:

Michael L. Dale, Esq.
2616 SE Willoughby Blvd.
Stuart, Florida 34994

Parcel Identification No.
2324-312-0005-000/4

WARRANTY DEED

(STATUTORY FORM - SECTION 689.02 F.S.)

THIS INDENTURE, made this 22nd day of April, 2024, between, **ALEXANDER GEORGE & COMPANY CORP, a Florida Corporation**, whose post office address is 14800 Indrio Road, Fort Pierce, Florida 34945, **Grantor,** and, **LO QUE SEA LLC, a Florida Limited Liability Company**, whose post office address is 2001 SE Sailfish Point Blvd. Stuart, Florida 34996, **Grantee;**

WITNESSETH, that said **Grantor,** for and in consideration of the sum of TEN XX/100 ($10.00) DOLLARS 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:

SEE EXHIBIT "A" ATTACHED HERETO

SUBJECT TO: Taxes for the year in which this deed is given, zoning regulations in force and effect, restrictions, reservations, easements and road rights-of-way of public record; provided, however, that nothing herein shall act to reimpose or reinstate any restrictions or reservations of record.

and said **Grantor** does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

To have and to hold the same together with all and singular the appurtenances thereto belonging or in anywise appertaining, and all the estate, right, title, interest, lien equity and claim whatsoever of the said **Grantor,** either in law or equity, to the only proper use, benefit and profit of the said **Grantee,** forever.

("GRANTOR" and "GRANTEE" are used for singular or plural, as context requires.)

IN WITNESS WHEREOF, Grantor has hereunto set **Grantor's** hand and seal the day and year first written above.

Signed, sealed and delivered
in the presence of:

ALEXANDER GEORGE & COMPANY CORP,
a Florida Corporation

By: _____ Pres.
ALEXANDER GEORGE, President

Witness #1 Printed Name: Michael L Dale
Address: 2176 SW Danforth Cir
City, State and Zip code: Palm City FL

Witness #2 Printed Name: MARY CLINGAN
Address: 6060 SW All American Blvd
City, State and Zip code: Palm City, FL 34990

STATE OF FLORIDA

COUNTY OF Martin

The foregoing instrument was acknowledged before me by means of ✓ physical presence or _____ online notarization on this 22 day of April, 2024 by, **ALEXANDER GEORGE, President of ALEXANDER GEORGE & COMPANY CORP, a Florida Corporation,** who { } is personally known to me or { ✓ } has produced Florida Drivers License as identification.

NOTARY PUBLIC:
Sign _____

MICHAEL L. DALE
Commission # HH 090943
Expires March 26, 2025
Bonded Thru Budget Notary Services

Print _____
State of Florida at Large (Seal)
My commission expires:

EXHIBIT 1- LEGAL DESCRIPTION

That portion of the Southwest Quarter of Section 24, Township 35 South, Range 39 East, and a portion of Lots 3 and 6 of BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION of Section 24, as recorded in Plat Book 3 at page 32 of the public records of St. Lucie County, Florida, described as follows:

Commence at the Northwest corner of the Southwest Quarter of said Section 24 and run South 00°07'24" East, along the West line of the Southwest Quarter of said Section 24, for 15.00 feet;

thence run South 89°41'32" East 15.00 feet South of and parallel to the North line of the Southwest Quarter of said Section 24, along the South right of way line of Andrews Avenue (a 30 foot wide right of way) for 739.44 feet to the Point of Beginning);

thence continue South 89°41'32" E along said right of way for 919.16 feet;

thence run South 00°06'01" East for 10.00 feet;

thence run South 89°41'29" East for 226.79 feet;

thence run South 00°18'28" West for 425.04 feet;

thence run South 26°04'02" West for 226.43 feet;

thence run South 70°04'02" West for 459.41 feet;

thence run North 21°40'15" West for 344.63 feet to a point of curvature of a circular curve to the left, concave Southwesterly;

thence run Northwesterly along the arc of said curve having a radius of 855.00 feet-through a central angle of 47°21'31" for 706.71 feet to the Point of beginning, lying and being in St. Lucie County, Florida.

LESS AND EXCEPTING THEREFROM the following described real property conveyed to Sundial Homes, Inc. by deed recorded in OR Book 1150, page 2226, of the public records of St. Lucie County, Florida:

Commence at the Southeast corner of the Southwest Quarter of the Northwest Quarter of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida, said point lying on the centerline of Andrews Avenue, a 30 foot wide road right of way;

thence run South 00°06'16" East along the East line of the Northwest Quarter of the Southwest Quarter of Section 24, a distance of 15.00 feet to a point on the Southerly right of way line of Andrews Avenue and the Point of Beginning.

From the Point of Beginning thence continue South 00°06'16" East a distance of 30 feet;

thence run North 89°41'32" West, parallel to the South line of the Northwest Quarter of said Section 24, a distance of 11.88 feet to a point of curvature;

thence run along the arc of a curve concave to the South, having a radius of 220.00 feet and a central angle of 46°02'51" an arc distance of 176.81 feet to a point of tangency;

thence run South 44°15'37" West, a distance of 126.72 feet to a point of curvature;

thence run along the arc of a curve concave to the East, having a radius of 25.00 feet and a central angle of 86°25'00" an arc distance of 37.71 feet to a point on a curve on the Northerly right of way line of Crossroads Parkway as shown on the plat entitled ST. LUCIE CROSSROADS as recorded in Plat Book 30 at Pages 8 and 8A of the Public Records of St. Lucie County, Florida;

thence with a radial bearing from said point of South 47°50'37" West, run Northwesterly along the arc of a curve and the Northerly right of way line of Crossroads Parkway having a radius of 855.00 feet and a central angle of 26°52'23" an arc distance of 401.01 feet to a point of intersection with the Southerly right of way line of Andrews Avenue, being a 30 foot wide right of way and said Southerly right of way line of Andrews Avenue lying 15 feet South of the South line of the Northwest Quarter of said Section 24;

thence run South 89°41'32" East along the Southerly right of way line of Andrews Avenue and parallel to the South line of the Northwest Quarter of said Section 24, a distance of 587.48 feet to the Point of Beginning.

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

Property Identification

Site Address: CROSSROADS PKWY
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-312-0005-000-4
Jurisdiction: Fort Pierce

Use Type: 1000
Account #: 129733
Map ID: 23/24S
Zoning: General Co

Ownership

Alexander George & Company Corp

14800 Indrio RD
Fort Pierce, FL 34945



Legal Description

24 35 39 FROM INT OF SE COR OF SW 1/4 OF NW 1/4 AND CL OF ANDREWS AVE RUN S 00 06 16 E ALG E LI OF NW 1/4 OF SW 1/4 OF SEC 15 FT TO SLY R/W LI OF ANDREWS AVE AND POB, TH S 89 41 32 E ALG S R/W LI 331.68 FT, TH S 00 03 55 E 10 FT, TH S 89 41 29 E 226.79, TH S 00 18 28 W 420.04FT, TH S 25 04 02 W 226.43 FT, TH S 70 04 02 W 459.41 FT TO NELY R/W LI OF CROSSROADS PKWY, TH N 21 40 15 W ALG NELY R/W LI 344.63 FT TO CURVE CONCAVE SW, R OF 855 FT, TH NWLY ALG ARC 305.70FT TO CURVE CONCAVE E, R OF 25 FT, TH NLY ALG ARC 37.71 FT, TH N 44 15 37 E 126.72 FT TO CURVE CONCAVE SE, R OF 220 FT, TH NELY ALG ARC 176.81 FT, TH S 89 41 32 E 11.88 FT, TH N 00 06 16 W 30 FT TO SLY R/W LI OF ANDREWS AV AND POB (10.904 AC - 474,978 SF)

Current Values

Just/Market Value:	$585,300
Assessed Value:	$585,300
Exemptions:	$0
Taxable Value:	$585,300

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	10.9
Land Size (SF):	474,978

Building Design Wind Speed

Occupancy Category	I	II	III
Speed	140	150	160

Sources/links:

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
Jun 3, 2022	4843 / 2274	0111	SPWD	Alexander George & Company Corp	$0
Apr 13, 2021	4595 / 0411	0001	SPWD	Russo Albert	$525,000
Feb 23, 2018	4100 / 2383	0111	WD	ALRU Holdings LLC	$100
Feb 14, 2018	4097 / 1883	0130	WD	Russo Albert	$100
Oct 28, 2011	3337 / 1026	0111	CT	Adnan Investment and Dev Inc	$100
Sep 27, 1999	1252 / 0530	XX01	WD	Harbor Federal Savings Bank	$265,700
Aug 22, 1994	0916 / 1044	XX01	CT	COMMERCE SQUARE DEV CORP	$495,000
Sep 28, 1989	0657 / 1612	XX00	WD		$1,000,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Sketch Area Legend

Sub Area	Description	Area	Fin. Area	Perimeter

Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$585,300
Just/Market:	$585,300
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$585,300
Exemption(s):	$0
Taxable:	$585,300

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
1999	0041	28.8	Fort Pierce Stormwater Charge	$1,987.20

Start Year	AssessCode	Units	Description	Amount
2013	0054	10.57	North St. Lucie Water Management District	$219.33

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
2022	$585,300	$585,300	$0	$585,300
2021	$598,600	$598,600	$0	$598,600
2020	$598,600	$598,600	$0	$598,600
2019	$598,600	$598,600	$0	$598,600

Permits

Number	Issue Date	Description	Amount	Fee
C52693	Jun 26, 1990	Slab	$2,500	$2,500
C53031	Jun 26, 1990	Commercial New Construction	$55,000	$55,000

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

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



2/14/2023

1:4,514

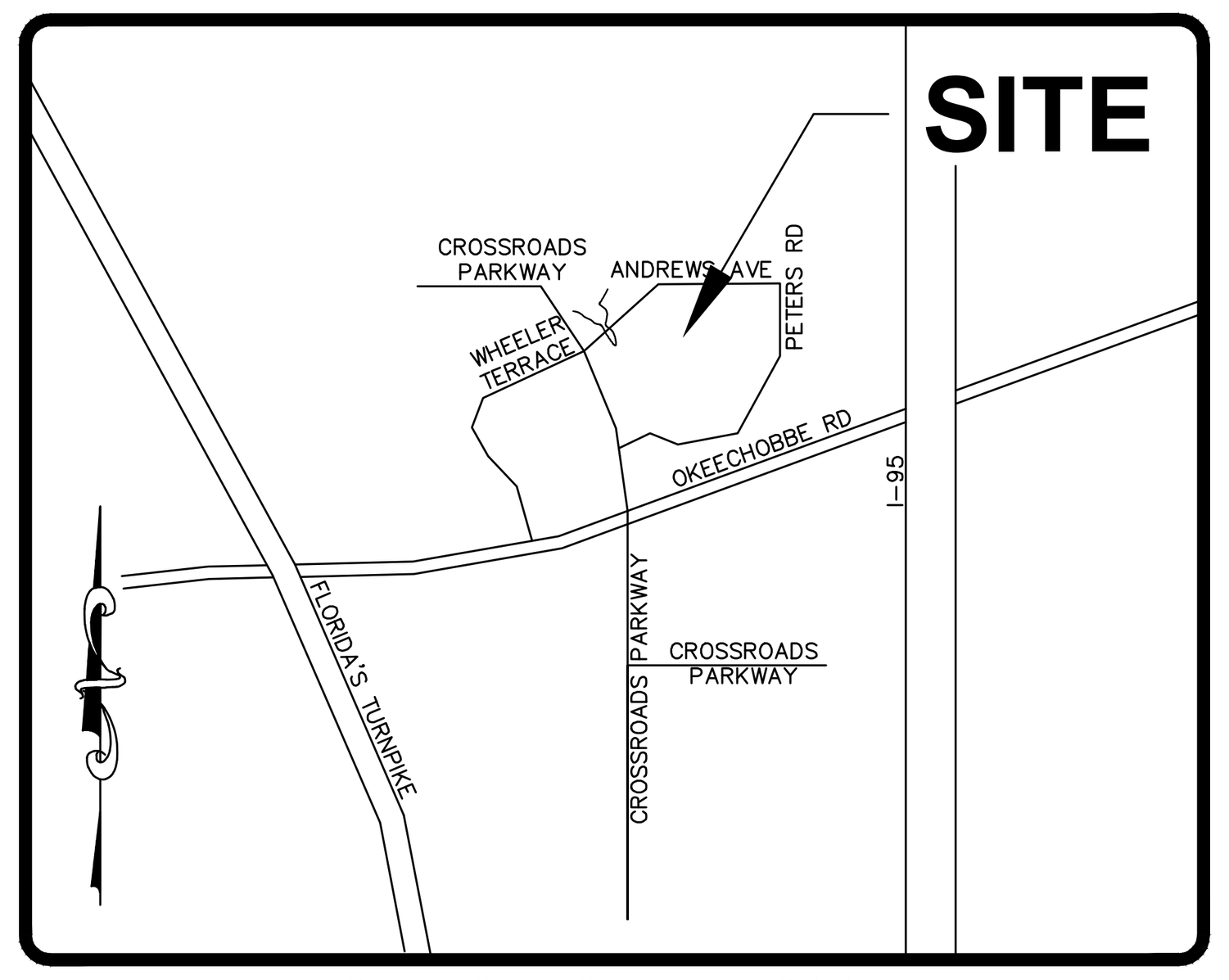
0 187.5 375 750 ft

0 55 110 220 m

Sanborn, FDOR

BOUNDARY & TOPOGRAPHY

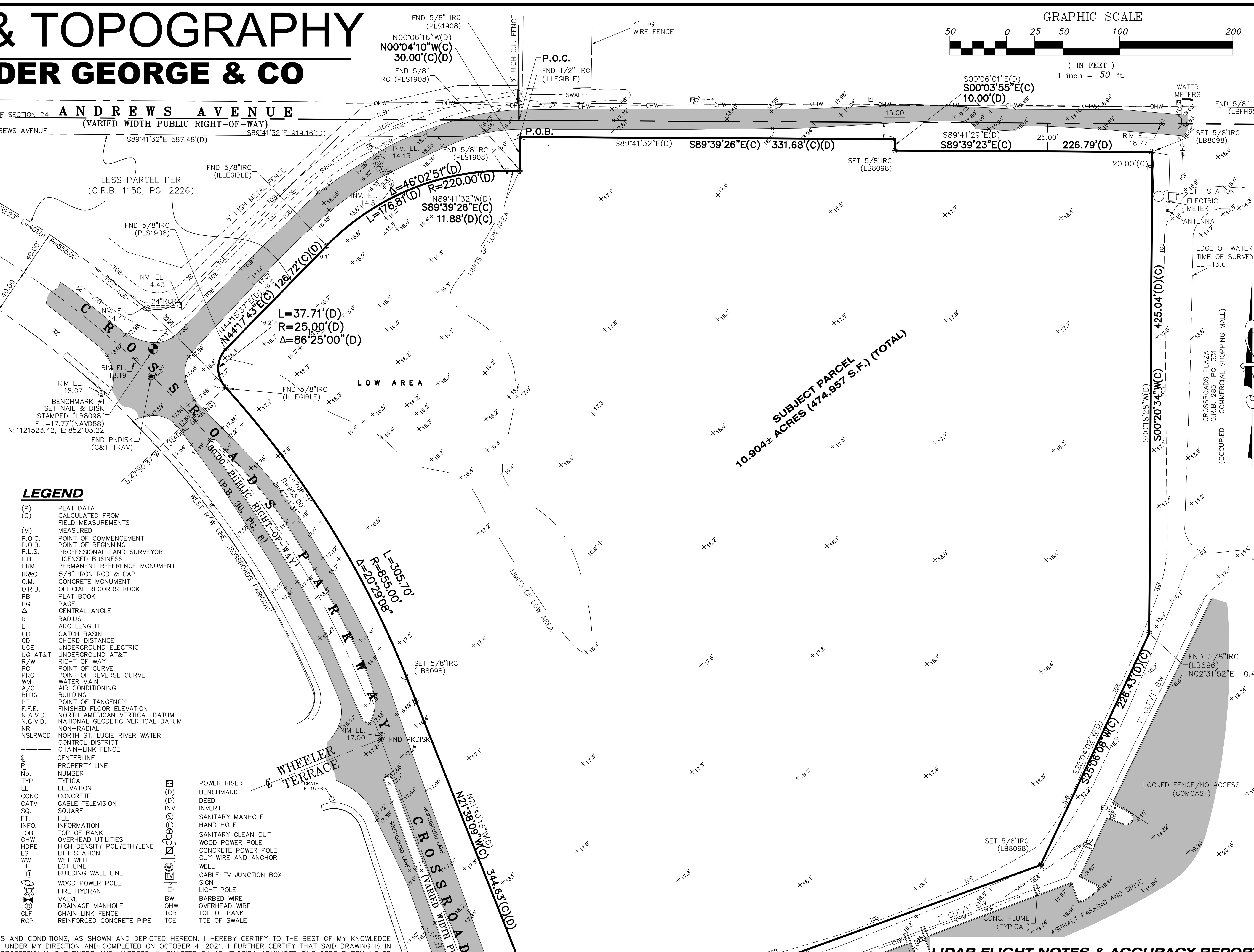
FOR: ALEXANDER GEORGE & CO



ST. LUCIE COUNTY, FLORIDA

VICINITY MAP

NO SCALE



LEGAL DESCRIPTION
SOURCE (ORB 4843, PG 2274)

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, AND A PORTION OF LOTS 3 AND 6 OF BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION OF SECTION 24, AS RECORDED IN PLAT BOOK 3 AT PAGE 32 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 24 AND RUN SOUTH 00°07'24" EAST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, FOR 15.00 FEET; THENCE RUN SOUTH 89°41'32" EAST 15.00 FEET SOUTH OF AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, ALONG THE SOUTH RIGHT OF WAY LINE OF ANDREWS AVENUE (A 30 FOOT WIDE RIGHT OF WAY) FOR 739.44 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°41'32" E ALONG SAID RIGHT OF WAY FOR 919.16 FEET; THENCE RUN SOUTH 00°06'01" EAST FOR 10.00 FEET; THENCE RUN SOUTH 89°41'29" EAST FOR 226.79 FEET; THENCE RUN SOUTH 00°18'28" WEST FOR 425.04 FEET; THENCE RUN SOUTH 25°04'02" WEST FOR 226.43 FEET; THENCE RUN SOUTH 70°04'02" WEST FOR 459.41 FEET; THENCE RUN NORTH 21°40'15" WEST FOR 344.63 FEET TO A POINT OF CURVETURE OF A CIRCULAR CURVE TO THE LEFT, CONCAVE SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 855.00 FEET THROUGH A CENTRAL ANGLE OF 47°21'31" FOR 706.71 FEET TO THE POINT OF BEGINNING, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THEREFROM THE FOLLOWING DESCRIBED REAL PROPERTY CONVEYED TO SUNDIAL HOMES, INC BY DEED RECORDED IN OR BOOK 1150, PAGE 2226, OF THE PUBLIC RECORDS OF ST, LUCIE COUNTY, FLORIDA:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT LYING ON THE CENTERLINE OF ANDREWS AVENUE, A 30 WIDE ROAD RIGHT OF WAY, THENCE RUN SOUTH 00°06'16" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 24, A DISTANCE OF 15.00 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THENCE CONTINUE SOUTH 00°06'16" EAST A DISTANCE OF 30 FEET; THENCE RUN NORTH 89°41'32" WEST, PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 11.88 FEET TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 220.00 FEET AND A CENTRAL ANGLE OF 46°02'51" AN ARC DISTANCE OF 176.81 FEET TO A POINT OF TANGENCY; THENCE RUN SOUTH 44°15'37" WEST, A DISTANCE OF 126.72 FEEL TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 25.00 FEET AND A CENTRAL ANGLE OF 86°25'00" AN ARC DISTANCE OF 37.71 FEET TO A POINT ON A CURVE ON THE NORTHERLY RIGHT OF WAY LINE OF CROSSROADS PARKWAY AS SHOWN ON THE PLAT ENTITLED ST. LUCIE CROSSROADS AS RECORDED IN PLAT BOOK 30 AT PAGES 8 AND 8A OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE WITH A RADIAL BEARING FROM SAID POINT OF SOUTH 47°50'37" WEST, RUN NORTHWESTERLY ALONG THE ARC OF A CURVE AND THE NORTHERLY RIGHT OF WAY LINE OF CROSSROADS PARKWAY HAVING A RADIUS OF 855.00 FEET AND A CENTRAL ANGLE OF 26°52'23" AN ARC DISTANCE OF 401.01 FEET TO A POINT OF INTERSECTION WITH THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE, BEING A 30 FOOT WIDE RIGHT OF WAY AND SAID SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE LYING 15 FEET SOUTH OF THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24; THENCE RUN SOUTH 89°41'32" EAST ALONG THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 587.48 FEET TO THE POINT OF BEGINNING.

LEGEND

(P)	PLAT DATA
(C)	CALCULATED FROM FIELD MEASUREMENTS
(M)	MEASURED
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
P.L.S.	PROFESSIONAL LAND SURVEYOR
L.B.	LICENSED BUSINESS
PRM	PERMANENT REFERENCE MONUMENT
IR&C	5/8" IRON ROD & CAP
C.M.	CONCRETE MONUMENT
O.R.B.	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PG	PAGE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CATCH BASIN
CD	CHORD DISTANCE
UGE	UNDERGROUND ELECTRIC
UG AT&T	UNDERGROUND AT&T
R/W	RIGHT OF WAY
PC	POINT OF CURVE
PRC	POINT OF REVERSE CURVE
WM	WATER MAIN
A/C	AIR CONDITIONING
BLDG	BUILDING
PT	POINT OF TANGENCY
F.F.E.	FINISHED FLOOR ELEVATION
N.A.V.D.	NORTH AMERICAN VERTICAL DATUM
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
NR	NON-RADIAL
NSLRWCD	NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT
———	CHAIN-LINK FENCE
℄	CENTERLINE
℘	PROPERTY LINE
No.	NUMBER
TYP	TYPICAL
EL	ELEVATION
CONC	CONCRETE
CATV	CABLE TELEVISION
SQ.	SQUARE
FT.	FEET
INFO.	INFORMATION
TOB	TOP OF BANK
OHW	OVERHEAD UTILITIES
HDPE	HIGH DENSITY POLYETHYLENE
LS	LIFT STATION
WW	WET WELL
LL	LOT LINE
BL	BUILDING WALL LINE
	WOOD POWER POLE
	FIRE HYDRANT
	VALVE
Ⓓ	DRAINAGE MANHOLE
CLF	CHAIN LINK FENCE
RCP	REINFORCED CONCRETE PIPE
PH	POWER RISER
(D)	BENCHMARK
(D)	DEED
INV	INVERT
Ⓢ	SANITARY MANHOLE
Ⓗ	HAND HOLE
	SANITARY CLEAN OUT
	WOOD POWER POLE
	CONCRETE POWER POLE
	GUY WIRE AND ANCHOR
Ⓦ	WELL
TV	CABLE TV JUNCTION BOX
	SIGN
	LIGHT POLE
BW	BARBED WIRE
OHW	OVERHEAD WIRE
TOB	TOP OF BANK
TOE	TOE OF SWALE

SURVEYORS NOTES AND REPORT:

1. THIS BOUNDARY SURVEY WAS PERFORMED FOR THE PURPOSE OF MAPPING EXISTING FEATURES AND CONDITIONS, AS SHOWN AND DEPICTED HEREON. I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS IS A TRUE AND ACCURATE DEPICTION OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON OCTOBER 4, 2021. I FURTHER CERTIFY THAT SAID DRAWING IS IN COMPLIANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.
2. THIS SURVEY MAP AND REPRODUCTIONS THEREOF ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. THIS SURVEY CANNOT BE TRANSFERRED OR ASSIGNED WITHOUT THE SPECIFIC WRITTEN PERMISSION OF ENGINEERING, DESIGN AND CONSTRUCTION, INC. IT IS A VIOLATION OF CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, TO ALTER THIS SURVEY WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF THE SURVEYOR. ADDITIONS AND/OR DELETIONS MADE TO THE FACE OF THIS SURVEY WILL MAKE THIS SURVEY INVALID.
3. THE LAST DATE OF FIELD WORK (AND DATA ACQUISITION) WAS OCTOBER 18, 2021.
4. CURRENT DESCRIPTION(S) SHOWN HEREON PROVIDED BY: THE CLIENT. A TITLE SEARCH FOR THIS PROPERTY HAS NOT BEEN ABSTRACTED TO SHOW MATTERS OF RECORD SUCH AS EASEMENTS OR OTHER ENCUMBRANCES OR RESTRICTIONS.
5. PARCELS CONTAIN A TOTAL OF 10.904 ACRES, MORE OR LESS.
6. THIS BOUNDARY SURVEY HAS BEEN REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM-EAST ZONE, NAD 83 (1990).
7. SUB-SURFACE IMPROVEMENTS INCLUDING UNDERGROUND UTILITIES, UTILITY SERVICES, WERE NOT LOCATED AS PART OF THIS SURVEY.
8. REVISIONS SHOWN HEREON DO NOT REPRESENT A "FIELD SURVEY UPDATE" UNLESS OTHERWISE NOTED.
9. BEARINGS SHOWN HERON ARE BASED UPON GRID BEARINGS AND REFERENCE TO THE LINE LABELED HERON AS (BEARING BASIS) AND ALL OTHER BEARINGS ARE RELATIVE THERETO. DISTANCES ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
10. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON THE FLORIDA PERMANENT REFERENCE NETWORKS (FPRN) USING GPS REAL TIME KINEMATIC (RTK) OBSERVATION WITH AND ACCURACY OF ±0.06'-0.10'. SITE BENCHMARKS UTILIZED ARE SHOWN HEREON.
11. THIS SITE WAS SURVEYED UTILIZING TRIMBLE/SPRECTRA HARDWARE TOGETHER WITH SPECTRA SURVEY PRO REALTIME PROCESSING AND WAS BASED ON TRIMBLES "VRS NOW" NETWORK AND/OR THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN). THE PROCEDURES AND NETWORK DESIGN MEETS THE GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATED POSITIONING AS SET FORTH BY THE FEDERAL GEODETIC CONTROL COMMITTEE IN THE MOST CURRENT PUBLICATION FOR 3RD ORDER CLASS ONE FOR HORIZONTAL CONTROL SURVEYS.
12. IN SOME INSTANCES, GRAPHIC REPRESENTATIONS AND SYMBOLS SHOWN HAVE BEEN EXAGGERATED TO MORE CLEARLY ILLUSTRATE THE RELATIONSHIP BETWEEN PHYSICAL IMPROVEMENTS AND/OR LOT LINES. THE DIMENSIONS SHOWN SHALL CONTROL THE LOCATION, OF THE IMPROVEMENTS, OVER THE SCALED POSITIONS.
13. THE OWNERSHIP OF PERIMETER FENCES, WALLS, HEDGES AND LANDSCAPING, IF ANY, SHOWN HEREON ARE NOT KNOWN AND ARE NOT LISTED AS ENCROACHMENTS. THEIR RELATIVE LOCATION IS SHOWN IN RELATION TO THE BOUNDARY LINES SHOWN.
14. THE SURVEY MAP SHOWN HEREON DOES NOT NECESSARILY CONTAIN ALL OF THE INFORMATION OBTAINED OR DEVELOPED BY THE UNDERSIGNED SURVEYOR IN HIS FIELD WORK, OFFICE WORK OR RESEARCH.
15. THE PROPERTY WHICH IS THE SUBJECT OF THIS SURVEY APPEARS TO BE SITUATE IN AN AREA OF MINIMAL FLOOD HAZARD AT THIS TIME PURSUANT TO F.E.M.A. FIRM NUMBER 12111C0167F, HAVING AN EFFECTIVE DATE OF FEBRUARY 16, 2012. FOR APPROXIMATE DELINEATION OF THE FLOOD ZONE LIMITS, REFER TO AFOREMENTIONED FIRM PANELS.

LIDAR FLIGHT NOTES & ACCURACY REPORT:

1. THIS SITE WAS FLOWN DURING OCTOBER 7, 2021 UTILIZING A DJI MATRICE 300 UAV.
2. FLIGHT PLANNING WAS PERFORMED WITH DJI PILOT FOR FLIGHT PLANNING AND POST-PROCESSED USING TRIMBLE BUSINESS CENTER AND/OR PIX4D SURVEY.
3. THE FLIGHT WAS OBSERVED BY CERTIFIED REMOTE PILOT NO. 4064815.
4. GROUND ELEVATIONS WHERE SPOT CHECKED WITH GPS REAL TIME KINEMATIC (RTK) OBSERVATION.
5. MEASUREMENTS OF DISTANCE, AREA AND VOLUME WITHIN THE MAP ARE ACCURATE TO WITHIN 1-3 TIMES THE GROUND SAMPLING DISTANCE. MAP MEASUREMENTS ARE WITHIN 1-3% OF GROUND-BASED MEASUREMENTS.
6. FEATURES ARE LIMITED TO THOSE VISIBLE AT TIME OF THE FLIGHT AND ARE SUBJECT TO FIELD VERIFICATION BY THE END USER. AREAS DESIGNATED AS "OBSCURED" INDICATE THE GROUND IS OBSCURED BY VEGETATION AND/OR SHADOWS. MAPPING WITHIN THESE AREAS MAY NOT MEET STANDARD ACCURACY.
7. RELATIVE ACCURACY:
   - VERTICAL ACCURACY IS ± 0.25' FOR OPEN AREAS
   - VERTICAL ACCURACY IS ± 0.50' AREAS OF DENSE VEGETATION.

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

SIGNATURE DATE:

ENGINEERS SURVEYORS ENVIRONMENTAL

10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DRAWN BY	CHECKED BY	FIELD CREW	FILENAME	SCALE	DATE
AV	MTO	JW	21-456_SURV REV1.dwg	AS-SHOWN	October 4, 2021

DATE	REVISION COMMENTS
08/11/22	REVISE LEGAL DESCRIPTION & SKETCH - AV

BOUNDARY AND TOPOGRAPHIC SURVEY
FOR: ALEXANDER GEORGE AND CO.

PORTION OF
SEC. 24, TWNSHP. 34 SOUTH, RGE. 35 EAST
ST. LUCIE COUNTY, FLORIDA

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

21-456

1 OF 1

Z:\EDC-2021\21-456 - George - Crossroads Parkway FP\SURVEY\Dwg - PDF\Survey\21-456_SURV REV1.dwg, 8/11/2022 1:44 PM
COPYRIGHT: 2020 BY EDC-INC: THIS FIRM EXPRESSLY RESERVES THEIR EXCLUSIVE COMMON LAW COPYRIGHT AND INTELLECTUAL PROPERTY RIGHTS TO THESE DRAWINGS WHICH MAY NOT BE DISPERSED, REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER, NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT THE WRITTEN CONSENT OF THIS FIRM.
THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY EDC, INC. SHALL BE WITHOUT LIABILITY TO EDC, INC.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

DESIGN REVIEW

Property Information

Property address or Location: Intersection of Crossroads Pkwy. & Andrews Ave. 27.417365, -80.394795

Parcel ID #(s): 2324-312-0005-000-4

Project description: Transforming the land into an 83 lot RV park with amenity center

Alexander George & Company Corp.	Leo Giangrande, Principle, GEP
Property Owner(s)	**Applicant/Representative, Title, Company**
14800 Indrio Rd.	710 SE Ocean Blvd.
Street Address	Street Address
Fort Pierce FL 34945	Stuart FL 34994
City State Zip	City State Zip
	772-888-9076
Phone Number	Phone Number
alexandergeorgeandcompany@gmail.com	leo@gep-llc.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.*

Alex George

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

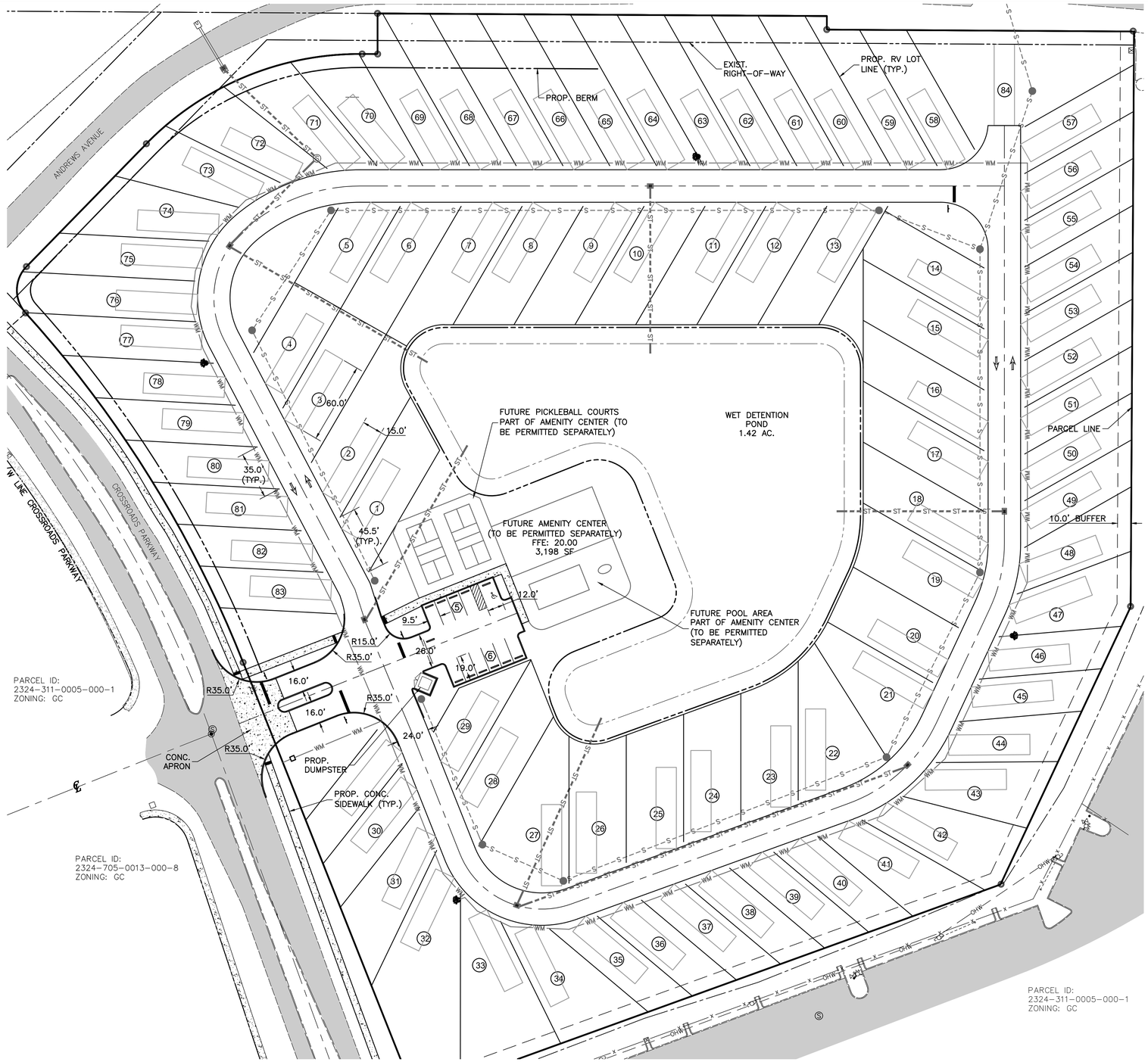
Design Review Application Checklist
(City Code of Ordinances 125-314)

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.



0 40' 80'
SCALE: 1" = 40'



SITE PLAN SUMMARY

1. PROJECT NAME: CROSSROADS RV PARK
2. PARCEL ID: 2324-312-0005-000-4
3. LOCATION: INTERSECTION OF CROSSROADS PKWY, & ANDREWS AVE.
4. SECTION/TOWNSHIP/RANGE: 24 35S 39E
5. OWNER: ALEXANDER GEORGE & COMPANY
   14800 INDRIO RD.
   FORT PIERCE, FL 34945
6. TYPE OF PROJECT: SITE PLAN (DEVELOPMENT REVIEW)
7. ZONING: GC
8. FUTURE LAND USE: GC
9. FLOOD ZONE: X
10. TOTAL PROJECT AREA: 474,804 S.F. (10.90 AC.)
11. LOT COVERAGE OF STRUCTURES: 3,198 S.F.
    NO. OF LOTS: 84
    RV PAD DIMENSIONS: 15'x60'
    FRONT OF LOT SIZE:
    INTERIOR LOTS: 29 LOTS – 45.5'
    EXTERIOR LOTS: 55 LOTS – 35'
12. IMPERVIOUS/PERVIOUS:
    SURFACE COVERAGE
    PERVIOUS:
    OPEN SPACE: 269,007 S.F./6.18 AC./57.3%
    IMPERVIOUS:
    RV PADS: 74,700 S.F./1.71 AC./15.7%
    ROADWAY: 57,874/1.33 AC./12.2%
    AMENITY CENTER/POOL/PICKLEBALL AREA: 11,368 S.F./0.26 AC./1.8%
    WET POND: 61,855 S.F./1.42 AC./13.0%
    TOTAL AREA: 474.804 S.F. (10.90 AC.)
13. MINIMUM BUILDING SETBACKS

LOT LINES	REQUIRED	PROVIDED
FRONT	25'	47'
REAR	20'	22'
SIDE	10'	23'

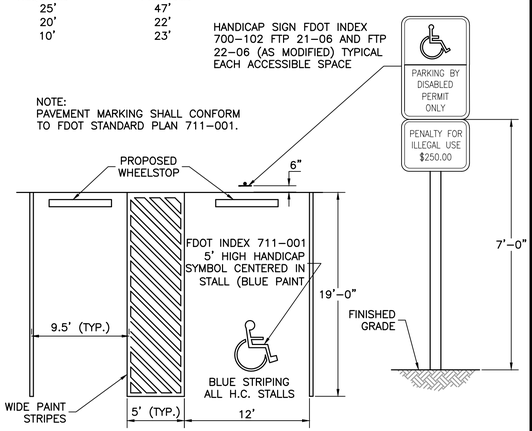
LOCATION MAP

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- OHU — EX. OVERHEAD ELECTRIC
- ST — PROP. STORMWATER PIPE
- WM — PROP. WATER MAIN
- FM — PROP. FORCEMAIN
- S — PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.

14. PARKING SUMMARY
    TOTAL 11 SPACES
    10 REGULAR SPACE
    1 ACCESSIBILITY S

HANDICAP SIGN FDOT INDEX 700-102 FTP 21-06 AND FTP 22-06 (AS MODIFIED) TYPICAL EACH ACCESSIBLE SPACE



NOTE:
PAVEMENT MARKING SHALL CONFORM TO FDOT STANDARD PLAN 711-001.

NOTES:
1. REFER TO GENERAL NOTES FOR LEGAL DESCRIPTION.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF FT PIERCE CODE OF ORDINANCE SECTION 119 AND 125.

HANDICAP PARKING DETAIL

N.T.S

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

SITE PLAN

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901
LEO D. GIANGRANDE, P.E.
License No: 66387

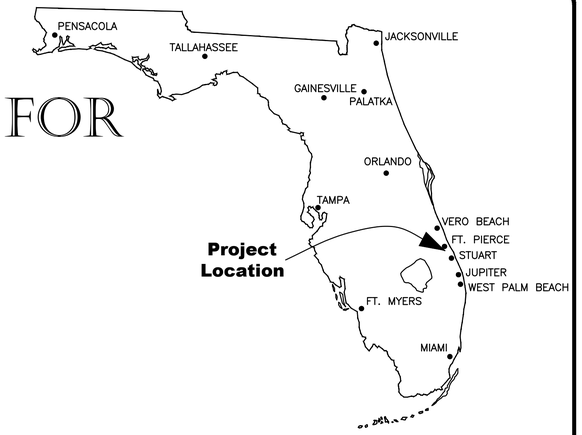
PROJECT #: 22-024

S-1

Drawing Name: S:\Shared Folders\GEP projects\2022\22-024 Crossroads Site Plan\Design\22-024 Site Plan.dwg Layout Name: P-1 — Plotted by: Devin Curran — Date: 5/7/2024 - 2:55 PM

CONSTRUCTION PLANS & SPECIFICATIONS FOR CROSSROADS RV ST. LUCIE COUNTY, FLORIDA

SECTION 24, TOWNSHIP 35S, RANGE 39E



THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS, LATEST EDITION.

GOVERNING SPECIFICATIONS:
FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION

THE FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.

THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS (GREENBOOK), LATEST EDITION.

THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), LATEST EDITION.

AND THE ST. LUCIE COUNTY LAND DEVELOPMENT REGULATIONS, LATEST EDITIONS AND STANDARDS SET FORTH BY THE CITY OF FORT PIERCE

CLIENT AND PROPERTY OWNER:
ALEXANDER GEORGE AND COMPANY
14800 INDRIO RD
FORT PIERCE, FL 34945

DESIGN TEAM:
SITE PLANNER AND CIVIL ENGINEER
GIANGRANDE ENGINEERING & PLANNING
2081 SE OCEAN BLVD, SUITE 1A
STUART, FL 34996
(772) 888-9076

SURVEYOR:
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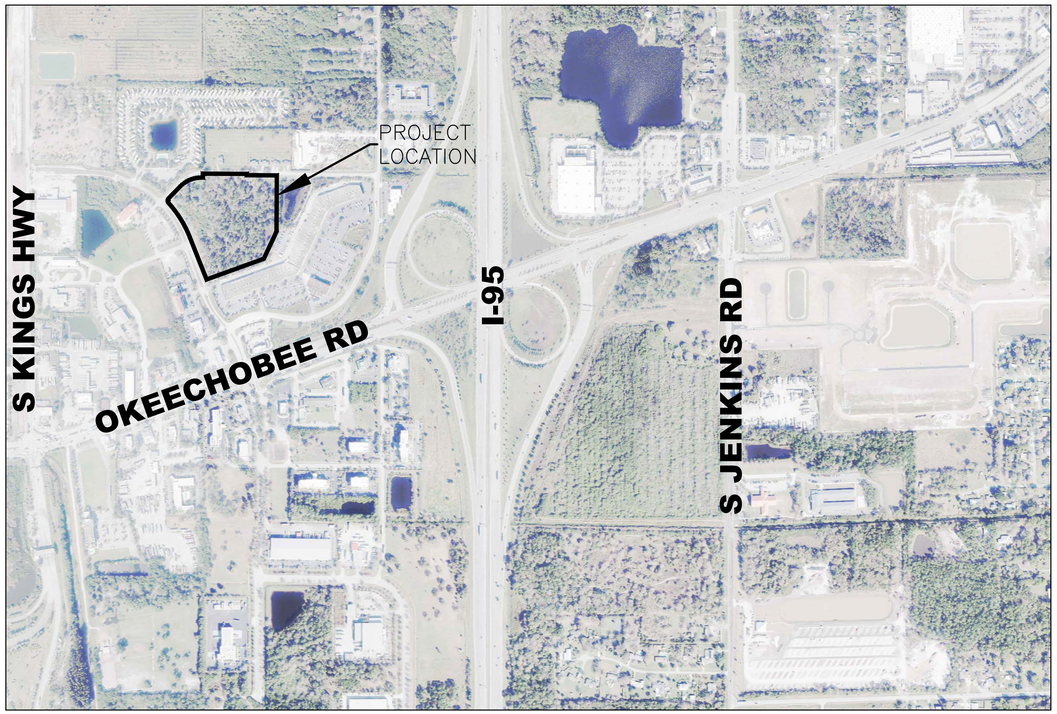

VICINITY MAP
NOT TO SCALE

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

APRIL 2024
DEVELOPMENT REVIEW PLANS

FOR PERMITTING AND REVIEW PURPOSES

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SHEET C-1

SUPPLEMENTAL CONDITIONS

SCOPE OF WORK: THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, SUPERVISION, TRANSPORTATION AND INCIDENTALS NECESSARY TO CONSTRUCT THE PAVING, DRAINAGE, UTILITIES AND ASSOCIATED IMPROVEMENTS, IN ACCORDANCE WITH THE PROVISIONS OF THESE SUPPLEMENTAL CONDITIONS, SPECIFICATIONS AND THE DRAWINGS, ENTITLED, "CONSTRUCTION PLANS & SPECIFICATIONS FOR "CROSSROADS RV", PREPARED BY GIANGRANDE ENGINEERING AND PLANNING, LLC, 710 SE OCEAN BLVD., STUART, FLORIDA 34994, (772) 888-9076. IT IS THE OBJECTIVE OF THESE DOCUMENTS TO ASSURE THE TOTAL COMPLETION OF THE WORK REQUIRED TO PROVIDE PAVING, GRADING, AND DRAINAGE IMPROVEMENTS FOR THE "CROSSROADS RV"

PERMITS AND LICENSES: CONSTRUCTION PERMITS FOR CERTAIN ELEMENTS OF THE PROJECT WORK ARE REQUIRED, AND THE DESIGN AND CONSTRUCTION REQUIREMENTS OF THE PROJECT REFLECT CONSTRAINTS AND CONDITIONS IMPOSED BY THESE PERMITS. THESE INCLUDE CONSTRUCTION PERMITS FROM THE CITY OF FORT PIERCE, AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

THE CONTRACTOR SHALL PERFORM HIS WORK AND SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THESE "DESIGN" PERMITS AND APPROVALS, COPIES OF WHICH ARE AVAILABLE FOR REVIEW AND USE FROM THE ENGINEER, UPON REQUEST. THE CONTRACTOR SHALL SECURE ALL WORK PERMITS, APPROVALS AND LICENSES REQUIRED TO PERFORM THE WORK, AND HE SHALL PERFORM THE WORK IN STRICT ACCORDANCE WITH THOSE PERMITS, APPROVALS AND LICENSES.

REFERENCE TO OTHER DOCUMENTS: FOR BREVITY, REFERENCE MAY BE MADE TO OTHER SPECIFICATIONS OR DOCUMENTS WHICH WILL BE USED TO SPECIFY OR CONTROL THE MATERIALS PLACED IN THE WORK, THE CONSTRUCTION METHODS TO BE USED, THE TOLERANCES THAT WILL BE ACCEPTABLE, AND CONTRACTUAL OR LEGAL OBLIGATIONS. THE SPECIFICATIONS OR DOCUMENTS SHALL INCLUDE:

1. "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT." THE LATEST EDITION, PREPARED BY THE ENGINEER'S JOINT CONTRACT DOCUMENTS COMMITTEE AND PUBLISHED BY THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS. REFERENCE SHALL BE MADE: "GENERAL CONDITIONS."
2. "FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2023-2024," PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE: "FDOT SPECIFICATIONS."
3. "STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2023-2024" PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE "FDOT INDEX" OR "FDOT STANDARDS."
4. "AMERICAN SOCIETY FOR TESTING AND MATERIALS SPECIFICATIONS", LATEST EDITION REFERENCE SHALL BE MADE: "ASTM."
5. "ST LUCIE COUNTY MINIMUM CONSTRUCTION STANDARDS", LATEST EDITION. REFERENCE SHALL BE MADE AS "COUNTY CODE" OR "COUNTY STANDARDS" OR "COUNTY SPECIFICATIONS."

BY REFERENCE, THE DOCUMENTS CITED ABOVE ARE MADE PART OF THESE SUPPLEMENTAL CONDITIONS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE COPIES OF EACH IN HIS POSSESSION FOR USE THROUGHOUT THE BIDDING AND CONSTRUCTION OF THIS PROJECT WORK AND/OR BE FAMILIAR WITH THE APPLICABLE SECTIONS OF EACH DOCUMENT AND BE ABLE TO VERITY THAT ALL MATERIALS AND CONSTRUCTION METHODS ARE CONFORMANCE WITH THESE DOCUMENTS AND SPECIFICATIONS.

ADDITIONALLY, THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL OTHER APPLICABLE LOCAL, REGIONAL, STATE AND FEDERAL LAWS, REGULATIONS ANO CODES, ESPECIALLY OSHA STANDARD 29 CFR, SECTION 1926.650 SUBPART P, WHICH IS PART OF THE TRENCH SAFETY ACT AS PART OF LAWS OF FLORIDA, CHAPTER 90-96.

CONTRACT ISSUES

GENERAL CONDITIONS: UNLESS OTHERWISE STATED IN THESE SUPPLEMENTAL CONDITIONS, THE PROVISIONS OF THE "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT," REFERENCED ABOVE, SHALL BE USED TO GOVERN ALL ISSUES ADDRESSED IN THOSE GENERAL CONDITIONS FOR THIS PROJECT.

OWNER-ENGINEER RELATIONSHIP: ANY AGREEMENT BETWEEN OWNER AND ENGINEER SHALL NOT BE CONSTRUED TO PROVIDE ANY OBLIGATION FROM THE ENGINEER TO ANY THIRD PARTIES INCLUDING, BUT NOT LIMITED TO, ARCHITECTS, OTHER ENGINEERS, ANY CONTRACTORS (GENERAL OR SUB), NOR TO ANY SUCCESSORS TO THE OWNER. THE RIGHTS UNDER ANY AGREEMENT BETWEEN OWNER AND ENGINEER INURE ONLY TO THOSE TWO PARTIES.

ERRORS OR OMISSIONS IN THE DRAWINGS OR SPECIFICATIONS: PRIOR TO INITIATION OF THE WORK, THE CONTRACTOR SHALL CHECK DIMENSIONS, GRADES, ELEVATIONS AND THE SUMMARY OF ESTIMATED QUANTITIES SHOWN ON THE DRAWINGS TO ASSURE HIMSELF THAT THEY ARE CORRECT AND THAT THE WORK CAN BE ACCOMPLISHED AS INTENDED. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY APPARENT ERROR OR OMISSION WHICH HE MIGHT DISCOVER, BUT SHALL IMMEDIATELY NOTIFY THE ENGINEER OF SUCH DISCOVERY, WHO WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS HE DEEMS NECESSARY FOR REFLECTING THE ACTUAL SPIRIT AND INTENT OF THE DRAWINGS AND SPECIFICATIONS.

BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION WAS PROVIDED BY EDC INC. (772) 462-2455.

HORIZONTAL AND VERTICAL CONTROL: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS IN THE LOCATIONS SHOWN ON THE DRAWINGS, AND SHALL USE AS HORIZONTAL CONTROL POINTS THE EXISTING PROPERTY CORNERS AS SHOWN ON THE PLAN SHEET. THE HORIZONTAL CONTROL POINTS WERE PROVIDED BY EDC INC. (772) 462-2455. AS VERTICAL CONTROL, BENCHMARKS SHALL BE PROVIDED AT THE SITE, FOR USE IN ESTABLISHING THE NECESSARY ELEVATIONS AND GRADES AT THE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL CONTROL POINTS AND TO RE-ESTABLISH SAID POINTS AS NECESSARY. REMAINING HORIZONTAL AND VERTICAL CONTROL WORK SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS AND DETAILS.

WRITTEN DIMENSIONS ARE PROVIDED FOR CLARITY. WHERE WRITTEN AND SCALED DIMENSIONS CONFLICT, WRITTEN DIMENSIONS SHALL GOVERN.

COORDINATION OF WORK WITH OTHERS: THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OR IMPROVEMENTS OF OTHERS WITH REGARD TO NEW CONSTRUCTION, OR FOR THE NEED OF REMOVAL, RELOCATION OR ALTERATION OF EXISTING IRRIGATION AND DRAINAGE FACILITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE OWNER, HIS CONTRACTORS, SUBCONTRACTORS OR AGENTS.

THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PUBLIC AGENCIES PRIOR TO COMMENCING THE WORK WITHIN THEIR JURISDICTION.

SHOP DRAWINGS: ONE DIGITAL COPY OF SIGNED SHOP DRAWINGS AND SIGNED AND SEALED DESIGN DATA SHALL BE SUBMITTED PRIOR TO ORDERING MATERIALS. ALLOW 10 WORK DAYS TURNAROUND FOR SUBMITTALS.

STANDARDS FOR QUALITY AND WORKMANSHIP: ALL MATERIALS, EQUIPMENT AND SUPPLIES FURNISHED BY THE CONTRACTOR FOR PERMANENT INCORPORATION IN THE WORK SHALL BE NEW AND OF THE QUALITY STANDARDS SPECIFIED. WORKMANSHIP SHALL BE FIRST-CLASS AND THE FINISHED PRODUCT EQUAL TO THE BEST ACCEPTED STANDARDS OF THE TRADE FOR THE CATEGORY OF WORK PERFORMED.

TEMPORARY UTILITIES: ALL ARRANGEMENTS AND COSTS FOR TEMPORARY POWER, WATER AND WASTEWATER FACILITIES DURING CONSTRUCTION SHALL BE RESPONSIBILITY OF THE CONTRACTOR.

OBSERVING THE WORK: THE PROGRESS AND QUALITY OF THE WORK WILL BE OBSERVED BY THE OWNER'S ENGINEER OR ENGINEER'S APPOINTED EMPLOYEE. NO OBSERVER IS AUTHORIZED TO CHANGE ANY PROVISIONS OF THE SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION OF THE OWNER'S ENGINEER, NOR SHALL THE PRESENCE NOR THE ABSENCE OF AN OBSERVER RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 48 HOURS NOTICE PRIOR TO REQUIRED INSPECTIONS, AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

IN ADDITION TO THE REQUIREMENTS PREVIOUSLY REFERENCED, THE FOLLOWING MINIMUM CONSTRUCTION CONTROL CHECKPOINTS SHALL BE ADHERED TO, AND THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE FOR OBSERVATION:

1. PRIOR TO ANY DEVIATION FROM THE DRAWINGS;
2. PRIOR TO ANY BACKFILLING TRENCHES CONTAINING HYDRAULIC CONDUITS, SO THAT JOINTING MAY BE INSPECTED;
3. PRIOR TO TESTING OF ALL HYDRAULIC CONDUITS.
4. PRIOR TO PLACEMENT OF ROADWAY BASE MATERIAL, CONCRETE OR ASPHALTIC CONCRETE.
5. UPON COMPLETION OF CONSTRUCTION FOR FINAL INSPECTION WITH THE CONTRACTOR OR HIS REPRESENTATIVE.

TESTING: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE INDEPENDENT TESTING LABORATORY DESIGNATED BY THE OWNER, THE TESTING AND RETESTING NECESSARY TO ASSURE THAT THE WORK HAS BEEN PERFORMED IN STRICT COMPLIANCE WITH THE SPECIFICATIONS. COST FOR THE INITIAL TESTING SHALL BE BORNE BY THE OWNER. ANY RETESTS REQUIRED DUE TO FAILURE TO MEET THE MINIMUM REQUIREMENTS SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR. THE NAME OF OWNER'S TESTING LABORATORY SHALL BE SUPPLIED AT THE PRECONSTRUCTION MEETING.

EXISTING UTILITIES AND STRUCTURES: EXISTING UTILITIES, STRUCTURES AND FACILITIES SHOWN ON THE DRAWINGS WERE LOCATED AS ACCURATELY AS POSSIBLE FROM THE RECORDS EXAMINED. NO GUARANTEE IS MADE THAT ALL EXISTING FACILITIES ARE SHOWN OR THAT THOSE SHOWN ARE ENTIRELY ACCURATE. THE CONTRACTOR SHALL ASSURE HIMSELF OF THE ACTUAL LOCATION OF THE UTILITIES, STRUCTURES OR FACILITIES PRIOR TO PERFORMANCE OF ANY WORK IN THE VICINITY. THE UTILITY COMPANIES OR UTILITY AGENCIES WILL CO-OPERATE WITH THE CONTRACTOR IN LOCATING UNDERGROUND UTILITIES THAT MAY BE SUBJECT TO DAMAGE OR INTERRUPTION OF SERVICES DURING THE CONTRACTOR'S OPERATIONS. PRIOR TO START OF THE WORK, THE CONTRACTOR SHALL REQUEST THAT EACH UTILITY AGENCY ADVISE HIM OF THE LOCATION OF THEIR FACILITIES IN THE VICINITY. THE OWNER WILL ASSUME NO LIABILITY FOR DAMAGES SUSTAINED OR COSTS INCURRED BECAUSE OF THE CONTRACTOR'S OPERATION IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, OR TO THE TEMPORARY BRACING AND SHORING OF SAME. IN THE EVENT THAT IT IS NECESSARY TO SHORE, BRACE OR SWING A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION SECURED AS TO THE METHOD USED FOR ANY SUCH WORK.

THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL NOTIFY UTILITY OWNER THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (800-432-4770) AND UTILITY OWNERS LISTED BELOW AT LEAST TWO BUSINESS DAYS (OR 10 DAYS IF ON THE JOB SITE).

RESTORATION OF DAMAGED STRUCTURES OR UTILITIES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING UTILITIES, STRUCTURES, EQUIPMENT, APPURTENANCES OR FACILITIES. OTHER THAN THOSE TO BE PAID FOR UNDER THIS CONTRACT, WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION, AT NO COST TO THE OWNER.

FINAL CLEANUP: UPON COMPLETION OF THE WORK BUT BEFORE FINAL PAYMENT WILL BE MADE, THE CONTRACTOR SHALL CLEAR AND REMOVE FROM THE PROJECT AREA, ALL FALSE WORK, EQUIPMENT, SURPLUS AND DISCARDED MATERIALS, RUBBISH AND TEMPORARY STRUCTURES WHICH RESULT FROM THE WORK UNDER THIS AGREEMENT, AND SHALL RESTORE IN AN ACCEPTABLE MANNER ALL PROPERTY WHICH HAS BEEN DAMAGED DURING THE EXECUTION OF THE WORK.

TECHNICAL SPECIFICATIONS

MATERIALS, CONSTRUCTION METHODS, TESTING AND TOLERANCES FOR ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, AND WITH THE SPECIFICATIONS REFERENCED UNDER THE "SUPPLEMENTAL CONDITIONS." IN THE EVENT OF CONFLICT, THE MORE STRINGENT PROVISION SHALL APPLY.

1. MOBILIZATION/DEMOBILIZATION: THE WORK SPECIFIED IN THIS SECTION CONSISTS OF THE PREPARATORY WORK AND OPERATIONS IN MOBILIZING FOR BEGINNING WORK ON THE PROJECT, INCLUDING, BUT NOT LIMITED TO, THOSE OPERATIONS NECESSARY FOR THE MOVEMENT OF PERSONNEL, EQUIPMENT, SUPPLIES, AND INCIDENTALS TO THE PROJECT SITE, AND FOR THE ESTABLISHMENT OF TEMPORARY OFFICES, BUILDINGS, SAFETY EQUIPMENT AND FIRST AID SUPPLIES, SANITARY AND OTHER FACILITIES, AS REQUIRED BY THESE SPECIFICATIONS, THE SPECIAL PROVISIONS, AND STATE AND LOCAL LAWS AND REGULATIONS, ALL COSTS FOR BONDS, PERMITS AND ANY REQUIRED INSURANCE, AND ANY OTHER PRECONSTRUCTION EXPENSE NECESSARY FOR THE START OF THE WORK, AS WELL THE COST OF THE REMOVAL OF THE ABOVE ITEMS, SHALL ALSO BE INCLUDED IN THIS SECTION.
2. CONSTRUCTION SURVEYING: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS AT THE LOCATIONS SHOWN ON THE PLANS. AS OUTLINED IN THE "SUPPLEMENTAL CONDITIONS," THE OWNER SHALL PROVIDE BASIC REFERENCE POINTS FOR HORIZONTAL CONTROL AND BENCHMARKS IN THE VICINITY OF THE WORK. ALL OTHER CONSTRUCTION STAKING FOR BOTH HORIZONTAL AND VERTICAL CONTROL NEEDED BY THE CONTRACTOR FOR CONTROL OF HIS WORK SHALL BE PERFORMED BY THE CONTRACTOR.
3. DRAINAGE IMPROVEMENTS: THE CONTRACTOR SHALL PROVIDE ALL THE MATERIALS AND LABOR NECESSARY TO COMPLETE THE PROJECT WORK FOR THE DRAINAGE IMPROVEMENTS AT THE LOCATION, SIZE AND TYPE SHOWN ON THE PLANS FOR THE FOLLOWING ITEMS IN ACCORDANCE WITH FDOT SPECIFICATIONS. INCLUDED IN THE UNIT COSTS FOR EACH ITEM SHALL BE THE COSTS ASSOCIATED WITH THE DESIGN AND CONSTRUCTION, BY THE CONTRACTOR, TO COMPLY WITH THE TRENCH SAFETY ACT, LAWS OF FLORIDA, CHAPTER 90-96.

   BACKFILL AND COMPACTION OF TRENCHING FOR CULVERT INSTALLATION UNDER THIS SECTION SHALL BE IN ACCORDANCE WITH SECTION 125-8.3, FDOT SPECIFICATIONS. DENSITY TESTS SHALL BE PROVIDED AT THE FOLLOWING VERTICAL LOCATIONS:

   - TWO TESTS* AT SPRINGLINE (ONE EACH SIDE OF THE PIPE);
   - ONE TEST* AT ONE-FOOT ABOVE PIPE; AND
   - ONE TEST* AT ONE-FOOT BELOW SUBGRADE OR FINISH GRADE.
   - *DENSITY OF AT LEAST 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T -99, METHOD C.

   THE MINIMUM NUMBER OF HORIZONTAL TEST LOCATIONS IS TWO PER CULVERT INSTALLATION, ONE PER 100 LINEAL FEET OF PIPE AND/OR ONE PER 20 FEET OF PAVEMENT CROSSING WHICHEVER IS GREATER. ADDITIONAL TESTS MAY BE REQUIRED AT MORE FREQUENT INTERVALS IF DEEMED NECESSARY BY THE ENGINEER.

   A. CULVERTS: CONSTRUCTION METHODS FOR DRAINAGE CULVERTS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 125 AND 430, FDOT SPECIFICATIONS. PIPE MATERIAL AS SPECIFIED ON THE PLANS.

   B. DRAINAGE STRUCTURES: PRE-CAST CONCRETE CATCH BASINS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS C-478 AND FOOT STANDARD SPECIFICATION 425. CONCRETE FOR PRE-CAST BASINS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. SHOP DRAWINGS ARE REQUIRED.
6. FENCING AND GATES: THE CONTRACTOR SHALL FURNISH AND CONSTRUCT CHAIN-LINK FENCE AND GATES IN ACCORDANCE WITH FPL CHAIN LINK FENCE SPECIFICATIONS AND DETAILS. MATERIALS AND LOCATION OF FENCE ARE INDICATED ON THE PLANS.
7. EROSION AND POLLUTION CONTROL: THE CONTRACTOR SHALL TAKE SUFFICIENT PRECAUTIONS TO PREVENT WATER POLLUTION WITH AQUATIC WEEDS, FUELS, OILS, BITUMINOUS, CALCIUM CHLORIDE OR OTHER HARMFUL MATERIALS. ALSO, THEY SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID POLLUTION OR SILTATION OF WATER BODIES OR TO INTERFERE WITH INDIGENOUS WILDLIFE. THE INSTALLATION OF TEMPORARY EROSION AND POLLUTION CONTROL FEATURES SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONTRACT. ANY EROSION OR SHOALING SHALL BE CORRECTED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE. DUE TO UNANTICIPATED CONDITIONS, THE ENGINEER MAY DIRECT THE USE OF CONTROL FEATURES OR METHODS OTHER THAN THOSE INCLUDED IN THE ORIGINAL CONTRACT. IN SUCH EVENT THIS ADDITIONAL WORK WILL BE PAID FOR AS UNFORESEEABLE WORK.

   1) SEDIMENT BARRIERS SHALL BE PLACED PRIOR TO ANY WORK ON THE SITE. SEDIMENT BARRIERS SHALL BE PLACED AS DEPICTED AS SHOWN ON THE CONSTRUCTION PLANS.
   2) WETLAND AND WETLAND BUFFER AREAS ARE TO REMAIN UNDISTURBED. VEHICLE AND CONSTRUCTION EQUIPMENT TRAFFIC IS PROHIBITED WITHIN THESE AREAS.
   3) DAMAGED TURBIDITY CONTROLS SHALL BE REPAIRED PROMPTLY AND BEFORE ANY SUBSEQUENT RAINFALL.
   4) TURBIDITY CONTROLS SHALL REMAIN IN PLACE AND MAINTAINED AND REMOVED ONLY AFTER UPLAND CONSTRUCTION AREAS HAVE BEEN STABILIZED AS APPROVED BY THE ENGINEER OF RECORD
   5) CONTRACTOR SHALL COMPLY WITH NPDES AND EPA DISCHARGE ELIMINATION PERMIT, IN PARTICULAR SEDIMENT AND EROSION CONTROLS AND STORM WATER MANAGEMENT MEASURES SHALL BE STRICTLY FOLLOWED.
   6) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE NPDES AND RELATED STORM WATER PLAN FOR THE DURATION OF THE PROJECT. UPON COMPLETION THE CONTRACTOR SHALL REMOVE ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM AS REQUIRED.
   7) DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED & MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THOSE AREAS. THE SEEDING SHALL FOLLOWING TYPICAL CONSTRUCTION PRACTICES TO INSURE A YEAR ROUND STABILIZED AREA.
   8) CONTRACTOR SHALL COMPLY WITH SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPEC) REQUIREMENTS PURSUANT TO EPA RULES AND REGULATIONS.
   9) ALL CONSTRUCTION WASTE MATERIAL, INCLUDING BUT NOT LIMITED TO THE EXISTING BARB WIRE FENCING AND POSTS, SHALL BE COLLECTED AND STORED IN A SECURED METAL DUMPSTER RENTED / LEASED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER / CONSTRUCTION TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
   10) ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS AT A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
   11) TRUCKS / EQUIPMENT IMPORTING OR EXPORTING FILL SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
   12) ALL HAZARDOUS WATER MATERIAL SHALL BE DISPOSED OF AS PER LOCAL / STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THESE PRACTICES.
   13) DRIVEWAY ACCESS SHALL BE CONSTRUCTED PER FDOT INDEX 106 TO MINIMIZE THE VEHICLES TRACKED SEDIMENTS TRANSPORTED OFFSITE.
   14) THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT INDIVIDUALS, TYPICALLY THREE, WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT OF INSPECTION REPORTS. PERSONNEL SELECTED SHALL RECEIVE PROPER TRAINING, AT THE CONTRACTORS EXPENSE, PRIOR TO SITE CONSTRUCTION COMMENCEMENT.
   15) ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN RAINFALL. ALL CONTROLS MUST BE IN PROPER ORDER AS REQUIRED UNTIL SITE COMPLETION.
   16) SILT FENCE SHALL BE INSPECTED FOR TEARS, DEPTH OF SEDIMENT, AND TO INSURE THE FENCE IS SECURELY FASTENED TO THE POSTS AND ALSO THAT POSTS ARE FIRMLY IN PLACE. SEDIMENT SHALL BE REMOVED IF THE DEPTH OF SEDIMENT IS GREATER THAN ONE-THIRD THE HEIGHT OF THE SILT FENCE.
   17) THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE TURBIDITY CONTROLS IN THE REPORT FORM FOR THIS PURPOSE. A COPY OF ALL RECORDING AND REPORTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.

   GENERAL SEQUENCE OF MAJOR EROSION AND POLLUTION CONTROL EVENTS:

   1) INSTALL EROSION CONTROL AT LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
   2) COMMENCE SITE CONSTRUCTION ACTIVITIES.
   3) AS PROPOSED DRAINAGE IS CONSTRUCTED, INSTALL SILT FENCE AND/OR TURBIDITY CONTROL MEASURES AT EACH.
   4) INSTALL TEMPORARY SEED AND MULCH IN AREAS WHERE CONSTRUCTION TEMPORARILY CEASES FOR AT LEAST 21 DAYS, NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES IN THAT AREA.
   5) INSTALL PERMANENT SEED/MULCH OR APPROVED STABILIZATION METHOD AND/OR PLANTING IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES.
   6) REMOVE ACCUMULATED SEDIMENT.
   7) REMOVED TEMPORARY POLLUTION PREVENTION MEASURES AFTER ALL CONSTRUCTION ON SITE HAS BEEN COMPLETED AND DISPOSED OF MATERIALS ACCORDING TO APPLICABLE FDEP REGULATIONS AND/OR LOCAL GOVERNMENTAL CODES, ETC.
9. RECORD DRAWINGS: AFTER COMPLETION OF THE CONTRACT WORK, BUT PRIOR TO SUBMITTAL OF THE REQUEST FOR FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE FINAL RECORD DRAWINGS TO THE OWNER OF THE IMPROVEMENTS. THE RECORD DRAWINGS SHALL ALSO BE SUBMITTED DIGITALLY IN AUTOCAD / *.DWG FORMAT. THE RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, AND FDEP, AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

   THE FINAL LOCATION, BY REFERENCE TO AT LEAST TWO COMPLETED VISIBLE IMPROVEMENTS OR OTHER PERMANENT POINTS, OF ALL PAVING AND DRAINAGE ELEMENTS, AND SHALL INCLUDE ELEVATIONS OF PERTINENT POINTS IN THE PAVEMENT AND DRAINAGE IMPROVEMENTS, ALL REVISIONS TO THE ORIGINAL PLANS, VERIFICATION OF ALL DESIGN DIMENSIONS, ELEVATIONS, PIPE SLOPES, PIPE LENGTHS, INLETS AND CONTROL STRUCTURES LOCATION AND ELEVATIONS AND ALL OTHER INFORMATION NECESSARY TO HORIZONTALLY AND VERTICALLY LOCATE AND OPERATE THE IMPROVEMENTS CONSTRUCTED UNDER THIS CONTRACT.

   DRAWINGS SHALL INCLUDE:

   A. INDICATION OF ANY CHANGES OR VERIFICATIONS GET MARKED
   B. INDICATION OF ALL "PROPOSED" OR "CONSTRUCTS"
   C. CHANGES TO LOCATIONS OF PIPE, VALVES, FITTINGS OR MANHOLES, ETC.
   D. DETAIL BOX OF ANY SUBSTANTIAL CHANGES
   E. ALL ELEVATIONS FOR MANHOLES AND LIFT STATIONS
   F. ALL GRADES AND FOOTAGE ON SANITARY RUNS

   THE CONTRACTOR SHALL PROVIDE RECORD DRAWING PRINTS AND ONE COPY OF CERTIFIED FIELD NOTES TO THE OWNER THAT ARE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. PAYMENT FOR THE RECORD DRAWINGS SHALL BE ON A LUMP SUM BASIS.

DEWATERING:
CONSTRUCTION DEWATERING MAY REQUIRE A PERMIT FROM SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD). IF DEWATERING IS TO TAKE PLACE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DEWATERING PERMIT FOR HIS WORK.

LEGAL DESCRIPTION SOURCE (ORB 4843, PG 2274)

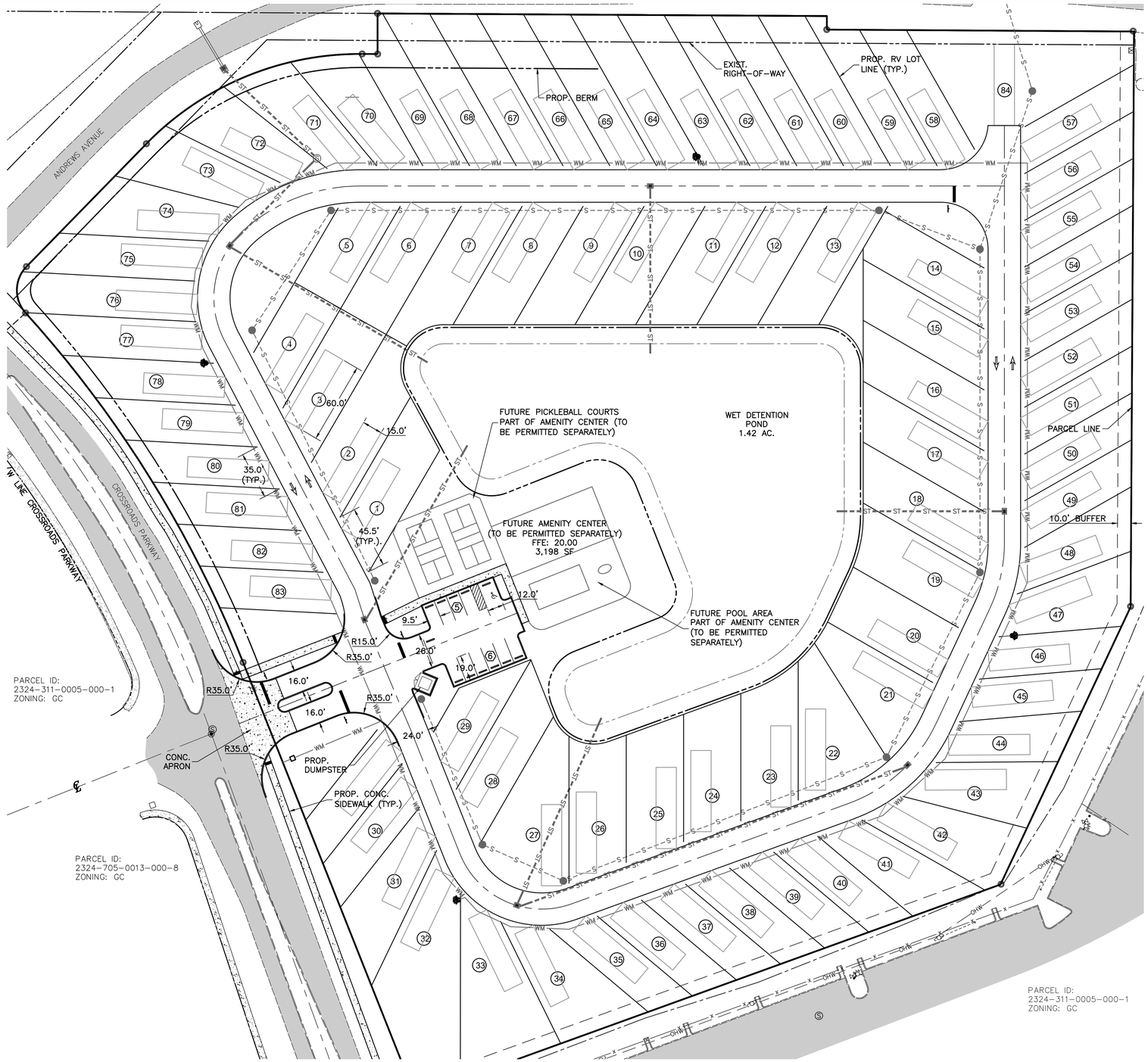
THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, AND A PORTION OF LOTS 3 AND 6 OF BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION OF SECTION 24, AS RECORDED IN PLAT BOOK 3 AT PAGE 32 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 24 AND RUN SOUTH 00°07'16" EAST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, FOR 15.00 FEET; THENCE RUN SOUTH 89°41'32" EAST 15.00 FEET SOUTH OF AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, ALONG THE SOUTH RIGHT OF WAY LINE OF ANDREWS AVENUE (A 30 FOOT WIDE RIGHT OF WAY) FOR 739.44 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°41'32" E ALONG SAID RIGHT OF WAY FOR 919.16 FEET; THENCE RUN SOUTH 00°06'01" EAST FOR 10.00 FEET; THENCE RUN SOUTH 89°41'29" EAST FOR 226.79 FEET; THENCE RUN SOUTH 00°18'28" WEST FOR 425.04 FEET; THENCE RUN SOUTH 25°04'02" WEST FOR 226.43 FEET; THENCE RUN SOUTH 70°04'02" WEST FOR 459.41 FEET; THENCE RUN NORTH 21°40'15" WEST FOR 344.63 FEET TO A POINT OF CURVETURE OF A CIRCULAR CURVE TO THE LEFT, CONCAVE SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 855.00 FEET THROUGH A CENTRAL ANGLE OF 47°21'31" FOR 706.71 FEET TO THE POINT OF BEGINNING, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THEREFROM THE FOLLOWING DESCRIBED REAL PROPERTY CONVEYED TO SUNDIAL HOMES, INC BY DEED RECORDED IN OR BOOK 1150, PAGE 2226, OF THE PUBLIC RECORDS OF ST, LUCIE COUNTY, FLORIDA:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT LYING ON THE CENTERLINE OF ANDREWS AVENUE, A 30 WIDE ROAD RIGHT OF WAY, THENCE RUN SOUTH 00°06'16" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 24, A DISTANCE OF 15.00 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THENCE CONTINUE SOUTH 00°06'16" EAST A DISTANCE OF 30 FEET; THENCE RUN NORTH 89°41'32" WEST, PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 11.88 FEET TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 220.00 FEET AND A CENTRAL ANGLE OF 46°02'51



0 40' 80'
SCALE: 1" = 40'



SITE PLAN SUMMARY

1. PROJECT NAME: CROSSROADS RV PARK
2. PARCEL ID: 2324-312-0005-000-4
3. LOCATION: INTERSECTION OF CROSSROADS PKWY, & ANDREWS AVE.
4. SECTION/TOWNSHIP/RANGE: 24 35S 39E
5. OWNER: ALEXANDER GEORGE & COMPANY
   14800 INDRIO RD.
   FORT PIERCE, FL 34945
6. TYPE OF PROJECT: SITE PLAN (DEVELOPMENT REVIEW)
7. ZONING: GC
8. FUTURE LAND USE: GC
9. FLOOD ZONE: X
10. TOTAL PROJECT AREA: 474,804 S.F. (10.90 AC.)
11. LOT COVERAGE OF STRUCTURES: 3,198 S.F.
    NO. OF LOTS: 84
    RV PAD DIMENSIONS: 15'x60'
    FRONT OF LOT SIZE:
    INTERIOR LOTS: 29 LOTS – 45.5'
    EXTERIOR LOTS: 55 LOTS – 35'
12. IMPERVIOUS/PERVIOUS:
    SURFACE COVERAGE
    PERVIOUS:
    OPEN SPACE: 269,007 S.F./6.18 AC./57.3%
    IMPERVIOUS:
    RV PADS: 74,700 S.F./1.71 AC./15.7%
    ROADWAY: 57,874/1.33 AC./12.2%
    AMENITY CENTER/POOL/PICKLEBALL AREA: 11,368 S.F./0.26 AC./1.8%
    WET POND: 61,855 S.F./1.42 AC./13.0%
    TOTAL AREA: 474.804 S.F. (10.90 AC.)
13. MINIMUM BUILDING SETBACKS

LOT LINES	REQUIRED	PROVIDED
FRONT	25'	47'
REAR	20'	22'
SIDE	10'	23'

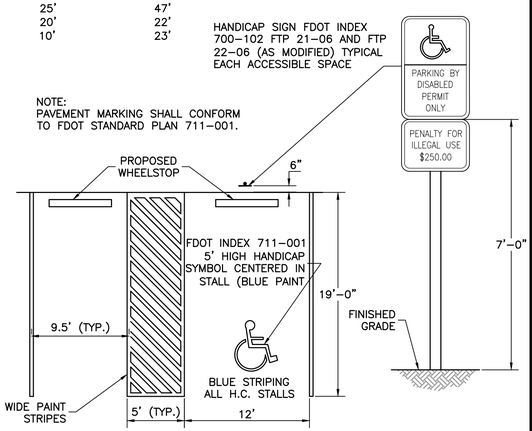
LOCATION MAP

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- OHU — EX. OVERHEAD ELECTRIC
- ST — PROP. STORMWATER PIPE
- WM — PROP. WATER MAIN
- FM — PROP. FORCEMAIN
- S — PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.

14. PARKING SUMMARY
    TOTAL 11 SPACES
    10 REGULAR SPACE
    1 ACCESSIBILITY S

HANDICAP SIGN FDOT INDEX 700-102 FTP 21-06 AND FTP 22-06 (AS MODIFIED) TYPICAL EACH ACCESSIBLE SPACE



NOTE:
PAVEMENT MARKING SHALL CONFORM TO FDOT STANDARD PLAN 711-001.

NOTES:
1. REFER TO GENERAL NOTES FOR LEGAL DESCRIPTION.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF FT PIERCE CODE OF ORDINANCE SECTION 119 AND 125.

HANDICAP PARKING DETAIL

N.T.S

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

SITE PLAN

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901
LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

S-1

Drawing Name: S:\Shared Folders\GEP projects\2022\22-024 Crossroads Site Plan\Design\22-024 Site Plan.dwg Layout Name: P-1 — Plotted by: Devin Curran — Date: 5/7/2024 - 2:55 PM

DE ASPHALT)

EXISTING DRAINAGE CULVERT

REPLACEMENT OF EXIST. ME WITH TYPE C INLET

PROP. 92 LF 18" HDPE

TYPICAL RV PAD. SEE DETAIL THIS SHEET.

EXIST. TREE TO REMAIN (TYP.)

4" PVC W.M. (TYP)

PROP. 86 LF 18" HDPE

PROP. 122 LF 18" HDPE

PROP. 168 LF 18" HDPE

CONFLICT BOP: 13.98 TOP: 11.45

CONFLICT BOP: 12.76 TOP: 10.20

INVERTED CROWN (TYP)

CONTROL ELEVATION ELEV. 14.0

TOP OF BANK ELEV. 17.0

FUTURE PICKLEBALL COURTS. NOT PART OF THIS SUBMITTAL

PROP. 148 LF 18" HDPE

PROP. WET DETENTION AREA

CONFLICT BOP: 12.44 TOP: 9.90

PROP. 122 LF 18" HDPE

FUTURE AMENITY BUILDING. NOT PART OF THIS SUBMITTAL. FFE: 20.00

PROP. 5' WIDE CONC. SIDEWALK

PERIMETER BERM ELEV. 17.65

FUTURE POOL AREA. NOT PART OF THIS SUBMITTAL

PROP. 6" THICK CONC. DRIVEWAY APRON

TYPE D CURB

PROP. DETECTABLE WARNING (TYP.)

OPEN LOT FOR STAGING

PROP. 150 LF 18" HDPE

PROP. 303 LF 18" HDPE

PROP. 5' WIDE CONC. SIDEWALK

CONFLICT BOP: 14.94 TOP: 11.00

PROP. 122 LF 18" HDPE

PARCEL ID: 2324-311-0005-000-1
ZONING: GC

PARCEL ID: 2324-705-0013-000-8
ZONING: GC

ANDREWS AVENUE

CROSSROADS PARKWAY

WEST R/W LINE CROSSROADS PARKWAY

S R O A D S P A R K W A Y (80.00' PUBLIC RIGHT-OF-WAY) (P.B. 30, PG. 8)

S T R E E T N A M E (MIX PUBLIC RIGHT-OF-WAY) (24' WIDE ASPHALT)

MATCHLINE – SEE RIGHT

MATCHLINE – SEE LEFT

D-1
N: 1121539.06
E: 852317.77
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.40'
SE INVERT EL=9.95'
NE INVERT EL=10.05'
STRUCT. BOTT. EL=9.50'

D-2
N: 1121583.21
E: 852628.20
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.26'
S INVERT EL=8.70'
STRUCT. BOTT. EL=8.20'

D-3
N: 1121342.97
E: 852889.61
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.18'
W INVERT EL=8.40'
STRUCT. BOTT. EL=7.90'

D-4
N: 1121155.47
E: 852818.07
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.12'
W INVERT EL=10.00'
STRUCT. BOTT. EL=10.50'

D-5
N: 1121051.84
E: 852529.74
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.10'
NE INVERT EL=9.50'
E INVERT EL=9.60'
STRUCT. BOTT. EL=9.00'

D-6
N: 1121262.98
E: 852417.13
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.12'
NE INVERT EL=9.50'
STRUCT. BOTT. EL=9.00'

D-7
N: 1121670.32
E: 852313.21
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=15.00'
SE INVERT EL=10.50'
NW INVERT EL=14.50'
STRUCT. BOTT. EL=10.00'

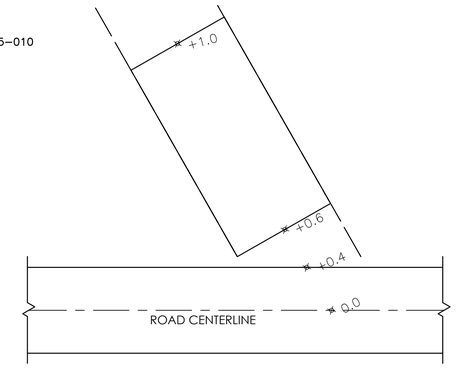
D-8
N: 1121603.60
E: 852382.20
STORM MANHOLE
FDOT INDEX 425-001 & 425-010
RIM EL=18.75'
SW INVERT EL=10.05'
NW INVERT EL=10.15'
STRUCT. BOTT. EL=9.55'

0 40' 80'
SCALE: 1" = 40'

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- EX. OVERHEAD ELECTRIC
- PROP. STORMWATER PIPE
- PROP. WATER MAIN
- PROP. FORCEMAIN
- PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.

NOTES:
1. ELEVATIONS REFERENCE NAVD88.
2. SEE LANDSCAPE PLANS FOR PLANTING SPECIFICATIONS IN OPEN SPACE AREAS.
3. CONTRACTOR SHALL SOD AREAS OF DISTURBANCE WITH BAHIA GRASS IF NOT OTHERWISE SPECIFIED WITHIN LANDSCAPE PLANS.



TYPICAL EXTERIOR RV PADS
N.T.S.

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

PAVING, GRADING, & DRAINAGE PLAN

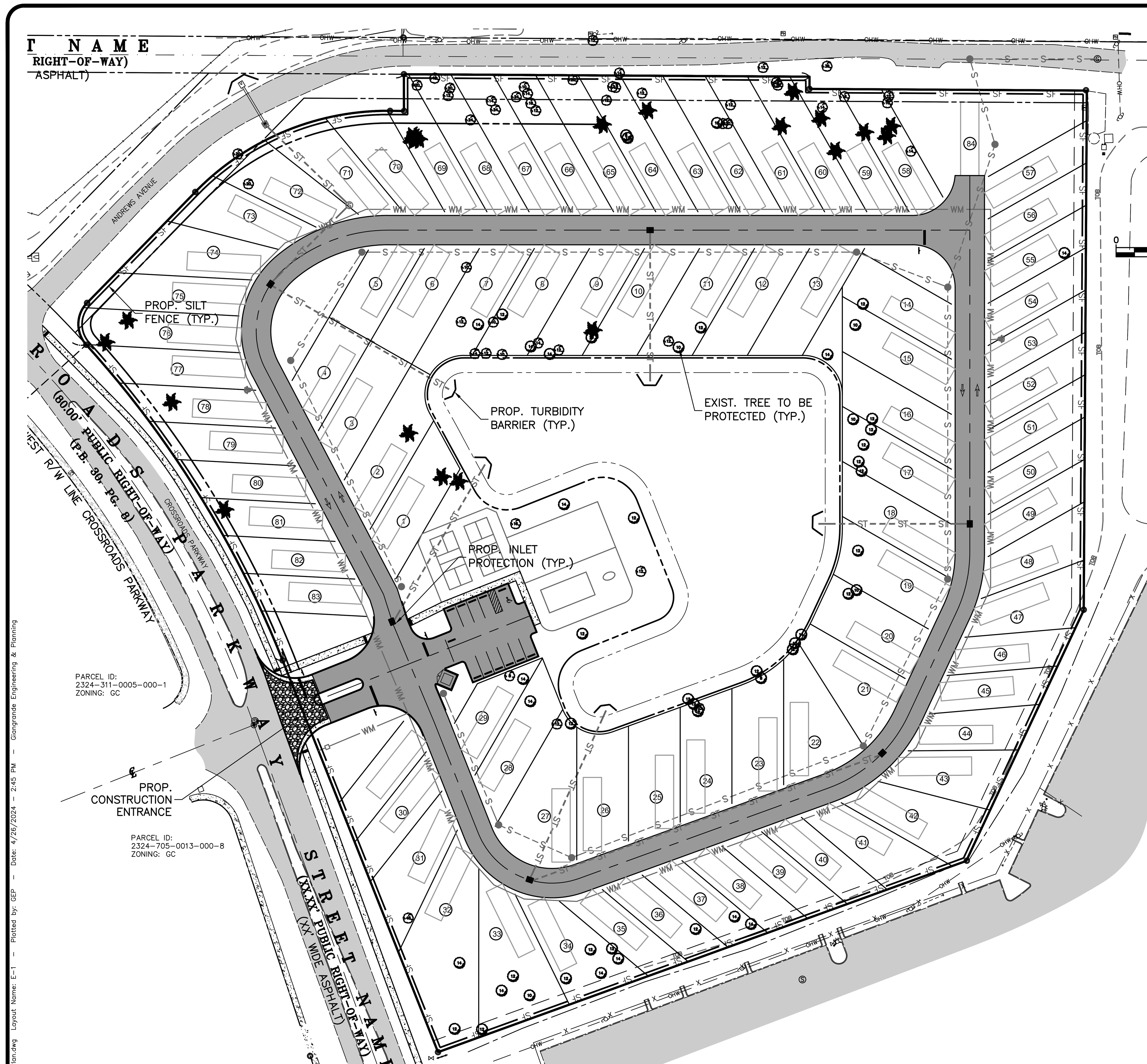
GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

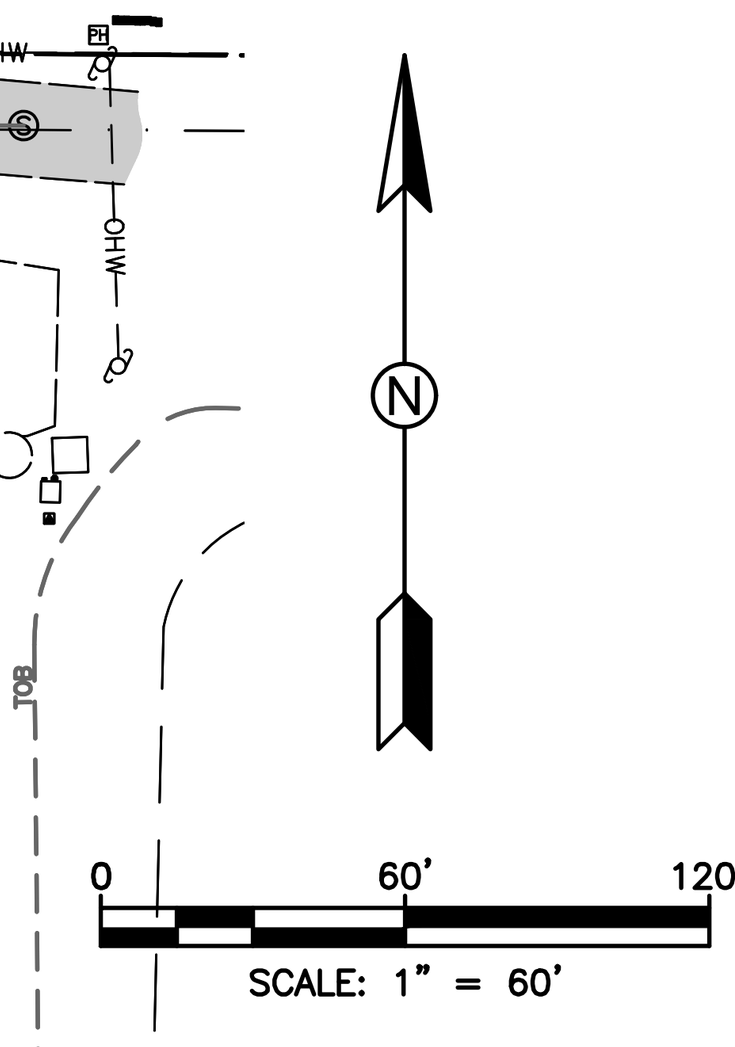
LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

P-1

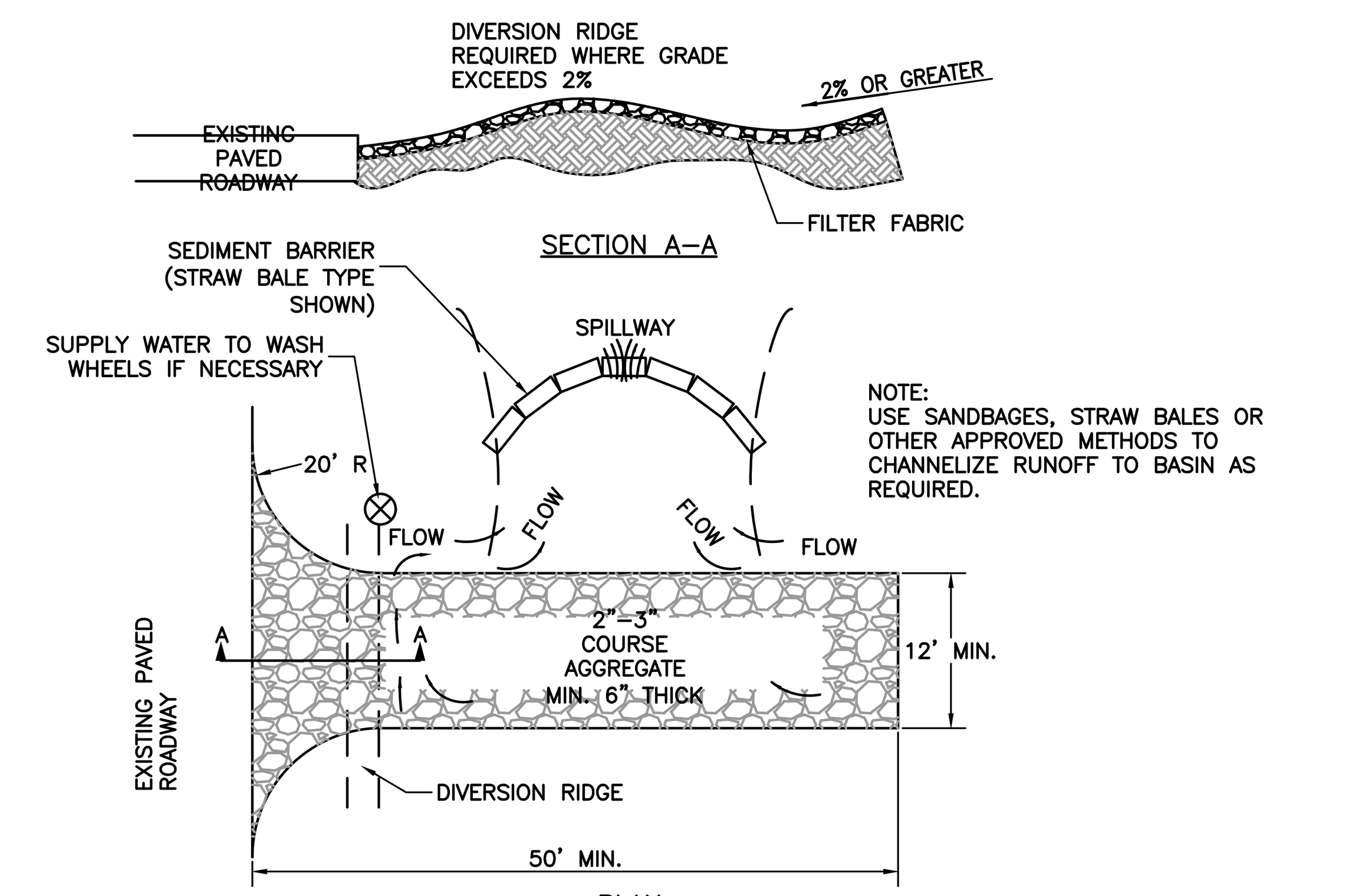
Drawing Name: S:\Active\Active Projects\2022\22-024 crossroads site plan\design\22-024 P&GD Plan.dwg Layout Name: P-1 - Plotted by: GEP - Date: 4/30/2024 - 2:44 PM - Giangrande Engineering & Planning





EROSION CONTROL NOTES:

1. THIS PROJECT IS SUBJECT TO ALL RELATED ENVIRONMENTAL REQUIREMENTS WHICH INCLUDE A "CONTROL OF EROSION AND SEDIMENTATION PLAN". THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION DUE TO SEDIMENTATION RUNOFF FROM THE SITE PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE DIRECTED BY THE ENGINEER AS REQUIRED.
2. EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAIN EVENT FOR DAMAGE AND GENERAL EFFECTIVENESS. ANY DAMAGED OR INEFFECTIVE CONTROLS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.
3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED, IF DEEMED NECESSARY, BY THE ON-SITE INSPECTOR.
4. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. TEMPORARY AND PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL THE AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
6. ALL CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ON TO ANY PUBLIC RIGHT-OF-WAY. THIS SHALL REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS REQUIRE. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHT-OF-WAY OR INTO STORM DRAINS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
7. TURBIDITY SCREENS OR EQUIVALENT SHALL BE PROPERLY EMPLOYED AND MAINTAINED AS NECESSARY DURING CONSTRUCTION ACTIVITIES SO THAT TURBIDITY LEVELS DO NOT EXCEED 29 NTU'S ABOVE NATURAL BACKGROUND 50 FEET DOWNSTREAM OF POINT OF DISCHARGE. IF TURBIDITY LEVELS EXCEED THESE LIMITS, PROJECT ACTIVITIES SHALL IMMEDIATELY CEASE, AND WORK SHALL NOT RESUME UNTIL TURBIDITY LEVELS DROP TO WITHIN THESE LIMITS.
8. CONTRACTOR SHALL SOD GRASS AREAS DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
9. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).
11. SEDIMENT BARRIERS SHALL BE PLACED PRIOR TO ANY WORK ON THE SITE. SEDIMENT BARRIERS SHALL PLACED AS DEPICTED AS SHOWN ON THESE CONSTRUCTION PLANS.
12. PRESERVE AREAS ARE TO REMAIN UNDISTURBED. VEHICLE AND CONSTRUCTION EQUIPMENT TRAFFIC IS PROHIBITED WITHIN THESE AREAS.
13. DAMAGED TURBIDITY CONTROLS SHALL BE REPAIRED PROMPTLY AND BEFORE ANY SUBSEQUENT RAINFALL.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE NPDES AND RELATED STORM WATER PLAN FOR THE DURATION OF THE PROJECT. UPON COMPLETION THE CONTRACTOR SHALL REMOVED ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM AS REQUIRED.
15. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED & MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREAS. THE SEEDING SHALL FOLLOWING TYPICAL CONSTRUCTION PRACTICES TO INSURE A YEAR ROUND STABILIZED AREA.
16. CONTRACTOR SHALL COMPLY WITH SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPEC) REQUIREMENTS PURSUANT TO EPA RULES AND REGULATIONS.
17. ALL CONSTRUCTION WASTE MATERIAL SHALL BE COLLECTED AND STORED IN A SECURED METAL DUMPSTER RENTED / LEASED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER / CONSTRUCTION TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
18. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS AT A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
19. TRUCKS / EQUIPMENT IMPORTING OR EXPORTING FILL SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
20. ALL HAZARDOUS WATER MATERIAL SHALL BE DISPOSED OF AS PER LOCAL / STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THESE PRACTICES.
21. THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT INDIVIDUALS, TYPICALLY THREE, WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT OF INSPECTION REPORTS. PERSONNEL SELECTED SHALL BE RECEIVE PROPER TRAINING, AT THE CONTRACTORS EXPENSE, PRIOR TO SITE CONSTRUCTION COMMENCEMENT.
22. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN RAINFALL. ALL CONTROLS MUST BE IN PROPER ORDER AS REQUIRED UNTIL SITE COMPLETION.
23. SILT FENCE SHALL BE INSPECTED FOR TEARS, DEPTH OF SEDIMENT, AND TO INSURE THE FENCE IS SECURELY FASTENED TO THE POSTS AND ALSO THAT POSTS ARE FIRMLY IN PLACE. SEDIMENT SHALL BE REMOVED IF THE DEPTH OF SEDIMENT IS GREATER THAN ONE-THIRD THE HEIGHT OF THE SILT FENCE.
24. THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE TURBIDITY CONTROLS IN THE REPORT FORM FOR THIS PURPOSE. A COPY OF ALL RECORDING AND REPORTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.
25. THE REQUIREMENTS LISTED ABOVE AND DETAILS PRESENTED ON THIS SHEET SHALL BE CONSIDERED MINIMUM REQUIREMENTS AND THE CONTRACTOR SHALL USE WHATEVER METHODS THE CONTRACTOR DEEMS NECESSARY TO PREVENT EROSION AND SILTATION AS MAY BE REQUIRED FOR THE PROJECT.
26. LOCATIONS OF ANY MATERIALS TO BE TEMPORARILY STOCKPILED TO INCLUDE LAND CLEARING DEBRIS OR EXCAVATED MATERIALS SHALL BE PER THE DIRECTION OF THE MARTIN COUNTY PROJECT MANAGER.
27. PROPERTY CORNERS SHALL BE LOCATED BY A LICENSED LAND SURVEYOR AND CLEARLY MARKED IN THE FIELD PRIOR TO THE ENGINEERING DEPARTMENT'S PRE-CONSTRUCTION MEETING FOR SITE DEVELOPMENT.
28. AUTHORIZATION TO INSTALL EROSION CONTROL DEVICES AND PRESERVE BARRICADES WILL BE GRANTED AT THE PRE-CONSTRUCTION MEETING. THIS AUTHORIZATION SHALL BE POSTED ON THE SITE, IN THE PERMIT BOX, ITS LOCATION SHOWN ELSEWHERE ON THIS PAGE.
29. NO ADDITIONAL LAND CLEARING SHALL COMMENCE UNTIL A SATISFACTORY INSPECTION OF THE REQUIRED EROSION CONTROL BARRICADES HAS BEEN OBTAINED.
30. ALL CONSTRUCTION BARRICADES AND SILT FENCES WILL REMAIN IN PLACE AND BE MONITORED FOR COMPLIANCE BY THE PERMIT HOLDER DURING THE PERMITTED DEVELOPMENT ACTIVITIES.
31. PRIOR TO SCHEDULING A FINAL ENVIRONMENTAL INSPECTION FOR THE INFRASTRUCTURE, ALL BARRICADES AND EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

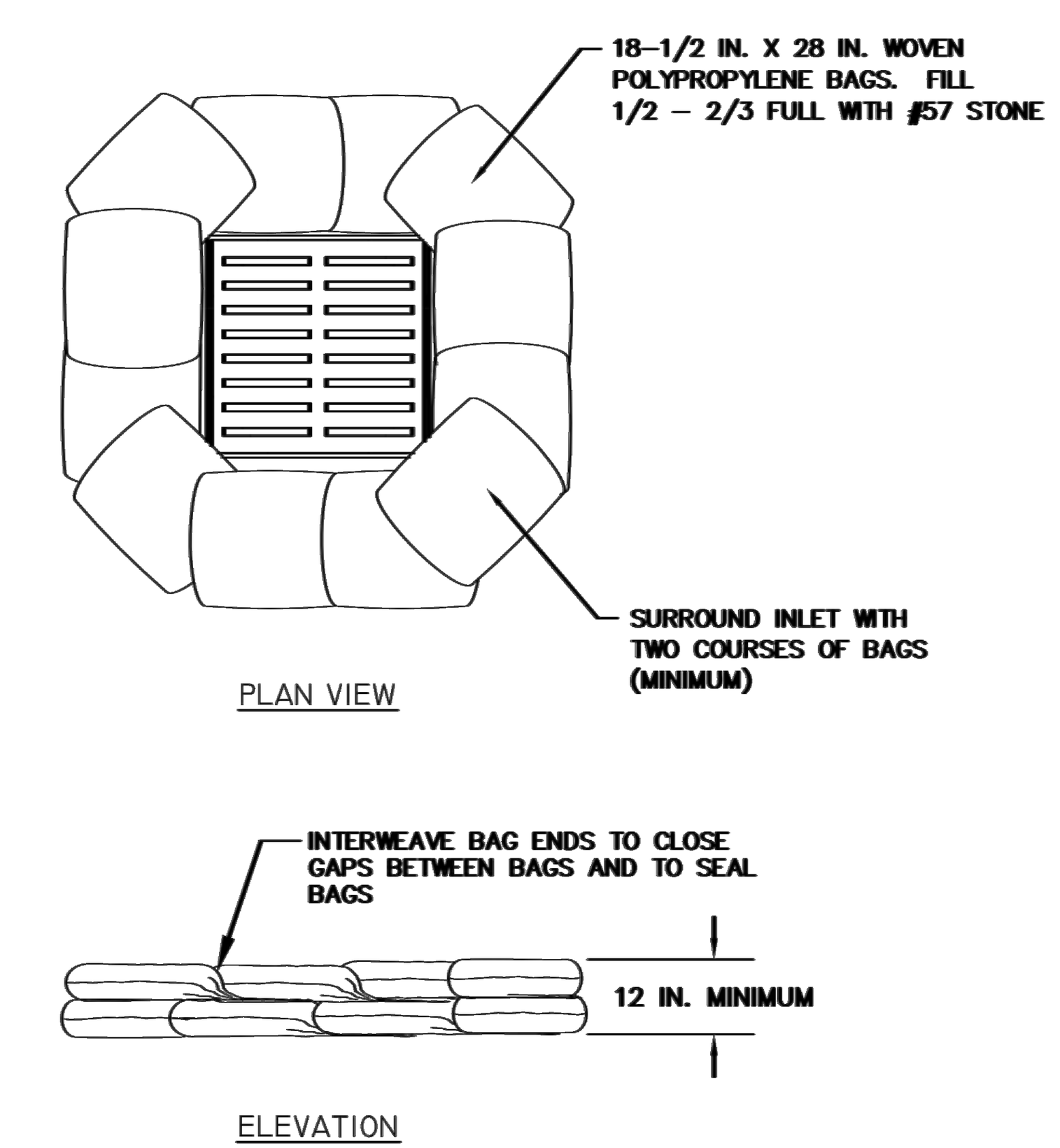


NOTE:
USE SANDBAGES, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

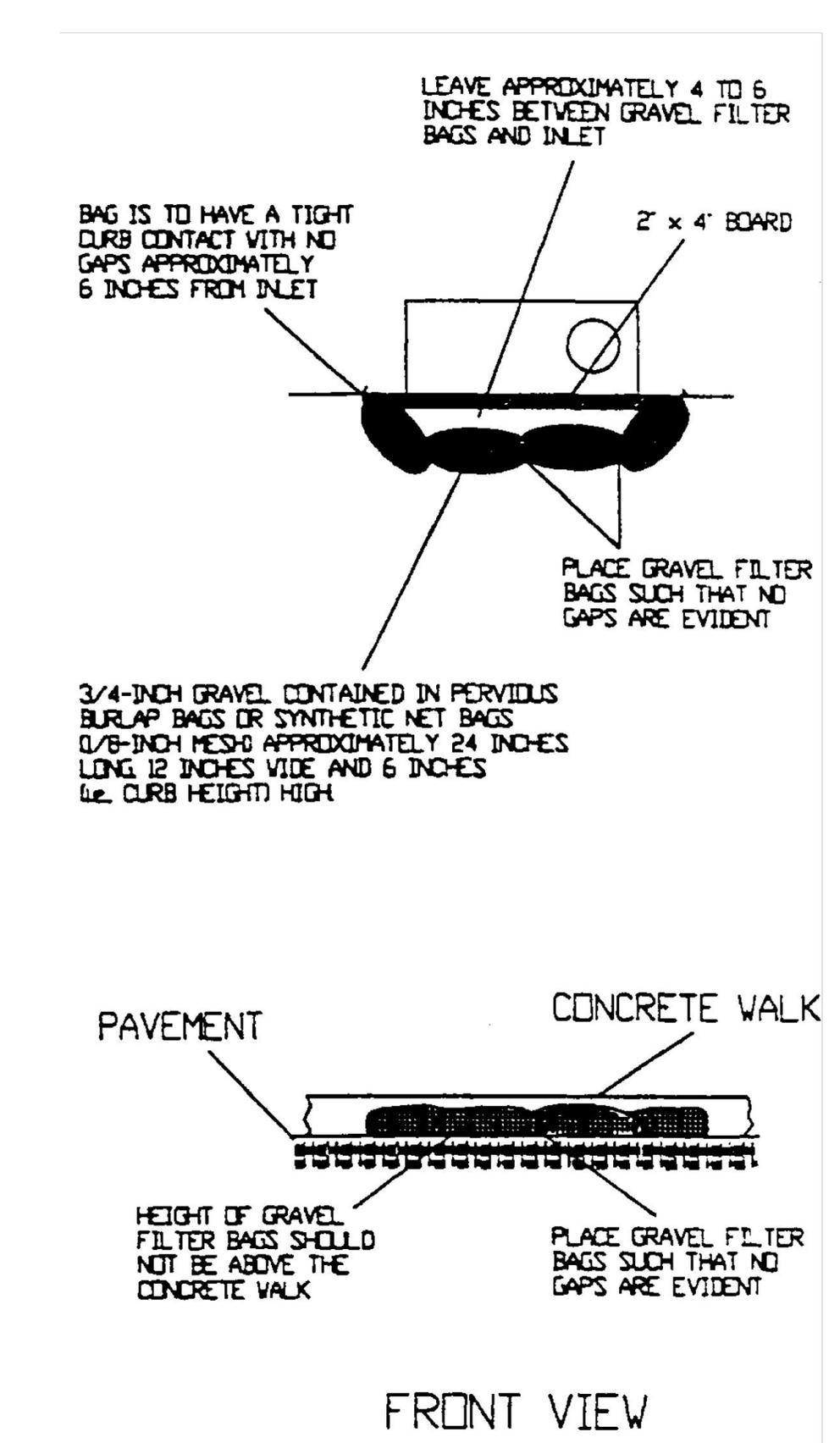
NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING. REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S



DROP INLETS

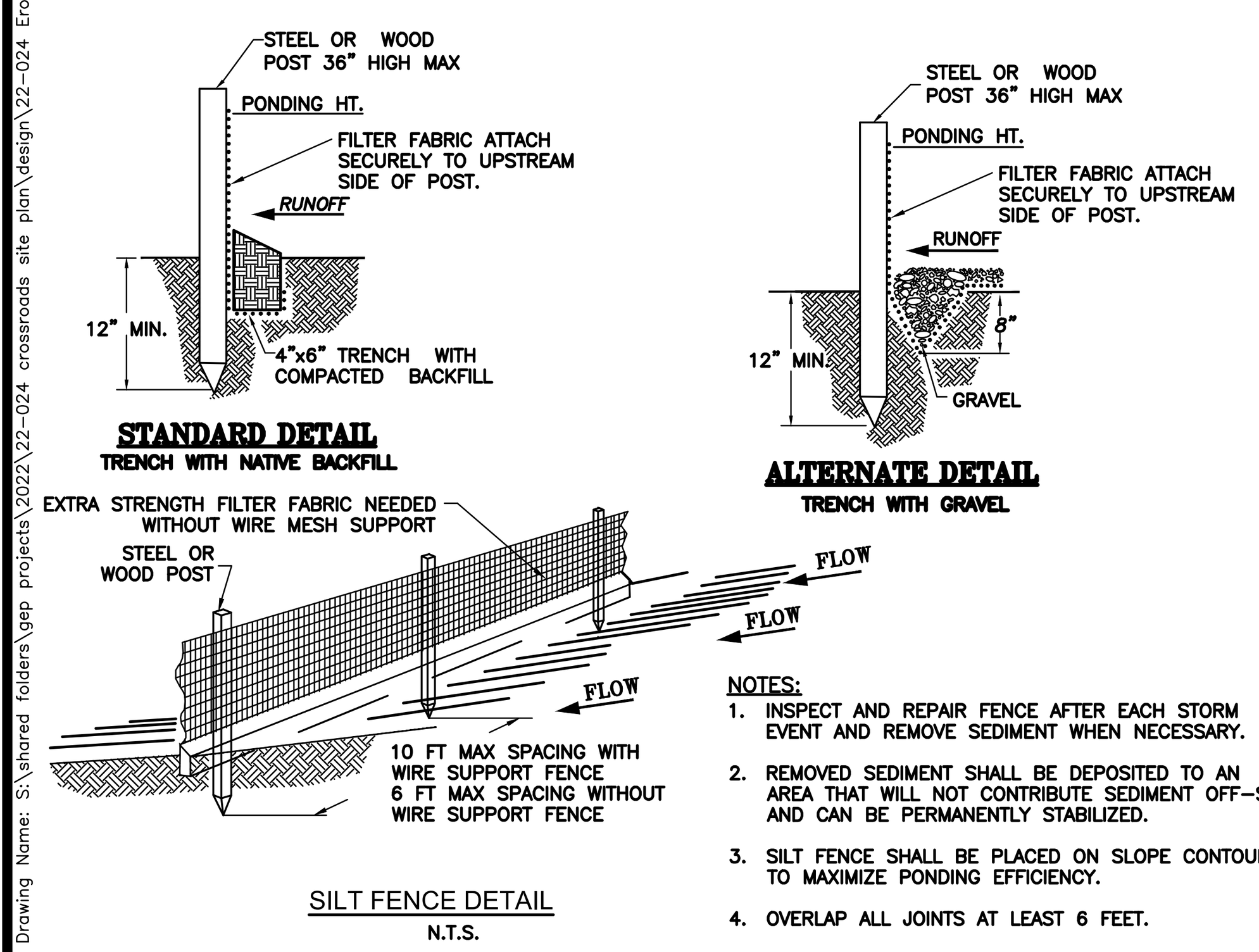


CURB INLETS

NOTES:
1. STONE FILL BAGS SHALL BE WOVEN POLYPROPYLENE BAGS WITH APPROXIMATE DIMENSIONS OF 18-1/2 INCHES BY 28 INCHES.
2. THE BAGS SHALL BE FILLED 1/2 TO 2/3 FULL WITH FDOT NO. 57 STONE. TIE THE ENDS OF FILLED BAGS USING EITHER DRAW STRINGS OR WIRE TIES.
3. INTERWEAVE THE LOOSE ENDS OF THE BAGS SO THAT THE GAPS BETWEEN BAGS ARE FILLED AND THE ENDS OF THE BAGS ARE SEALED.
4. COMPLETELY SURROUND THE INLET WITH A MINIMUM OF TWO (2) ROWS OF BAGS TO A MINIMUM OF 12 INCHES IN HEIGHT.

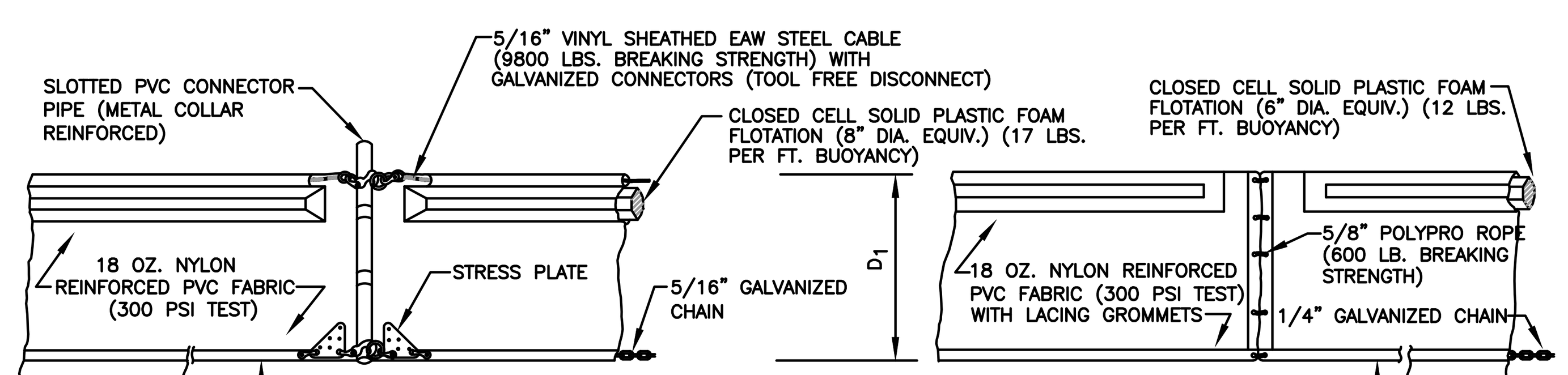
GRAVEL FILTER BAGS INLET PROTECTION DETAIL

NTS



NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOUR TO MAXIMIZE PONDING EFFICIENCY.
4. OVERLAP ALL JOINTS AT LEAST 6 FEET.

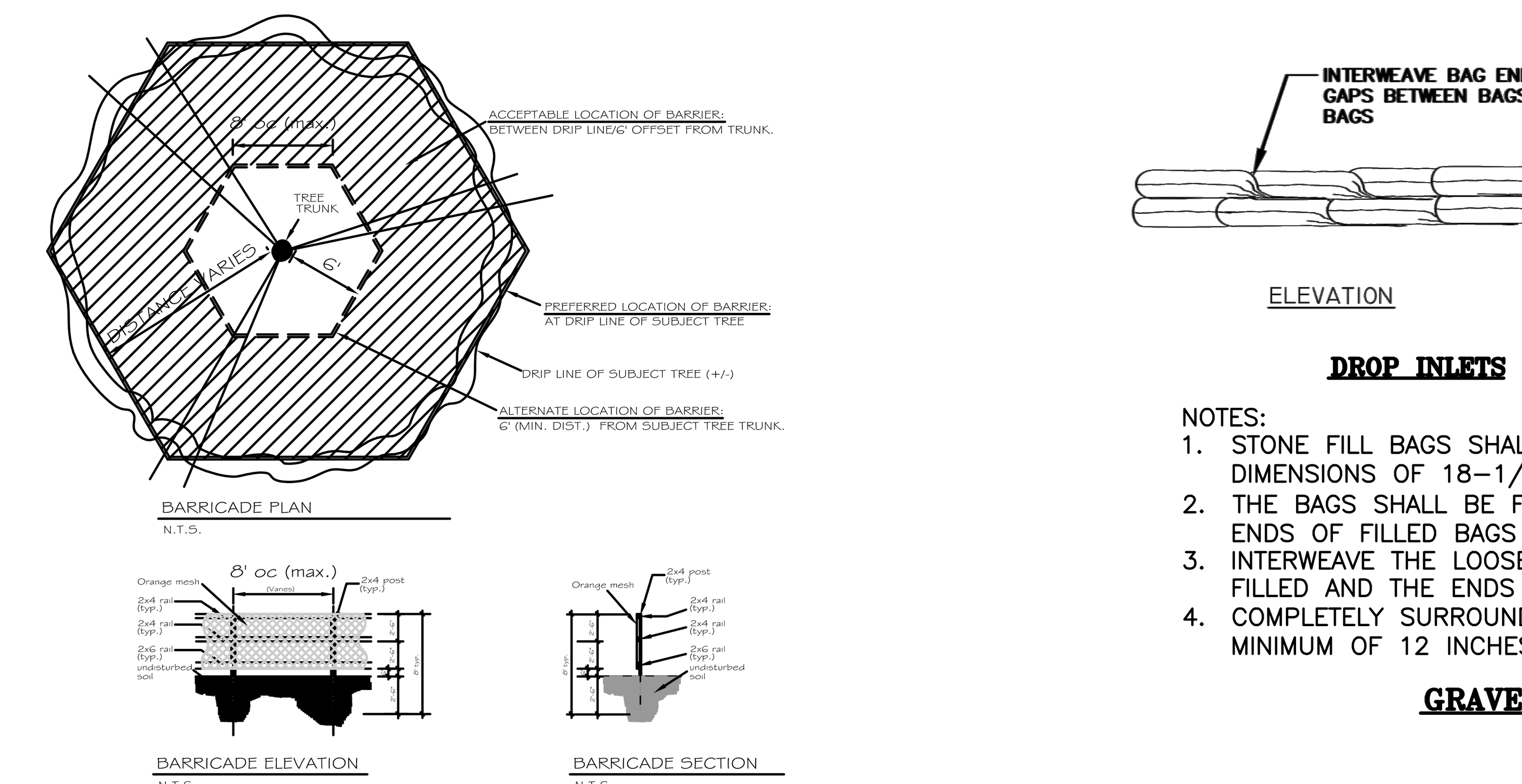
SILT FENCE DETAIL
N.T.S.



D_1=5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).
D_2=5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5').
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIER
N.T.S.



BARRICADE NOTES:
1. TREE PROTECTION BARRICADE TO BE ERECTED PRIOR TO COMMENCEMENT OF ANY WORK.
2. NO CONSTRUCTION WITHIN BARRICADE WITHOUT OWNER APPROVAL
3. EXCAVATION (IF APPROVED BY OWNER) WITHIN TREE PROTECTION AREAS IS LIMITED TO HAND TOOLS (NO MACHINERY)

TREE PROTECTION DETAIL

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

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Erosion Plan.dwg Layout Name: E-1 – Plotted by: GEP – Date: 4/26/2024 – 2:45 PM – Giangrande Engineering & Planning

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=60'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

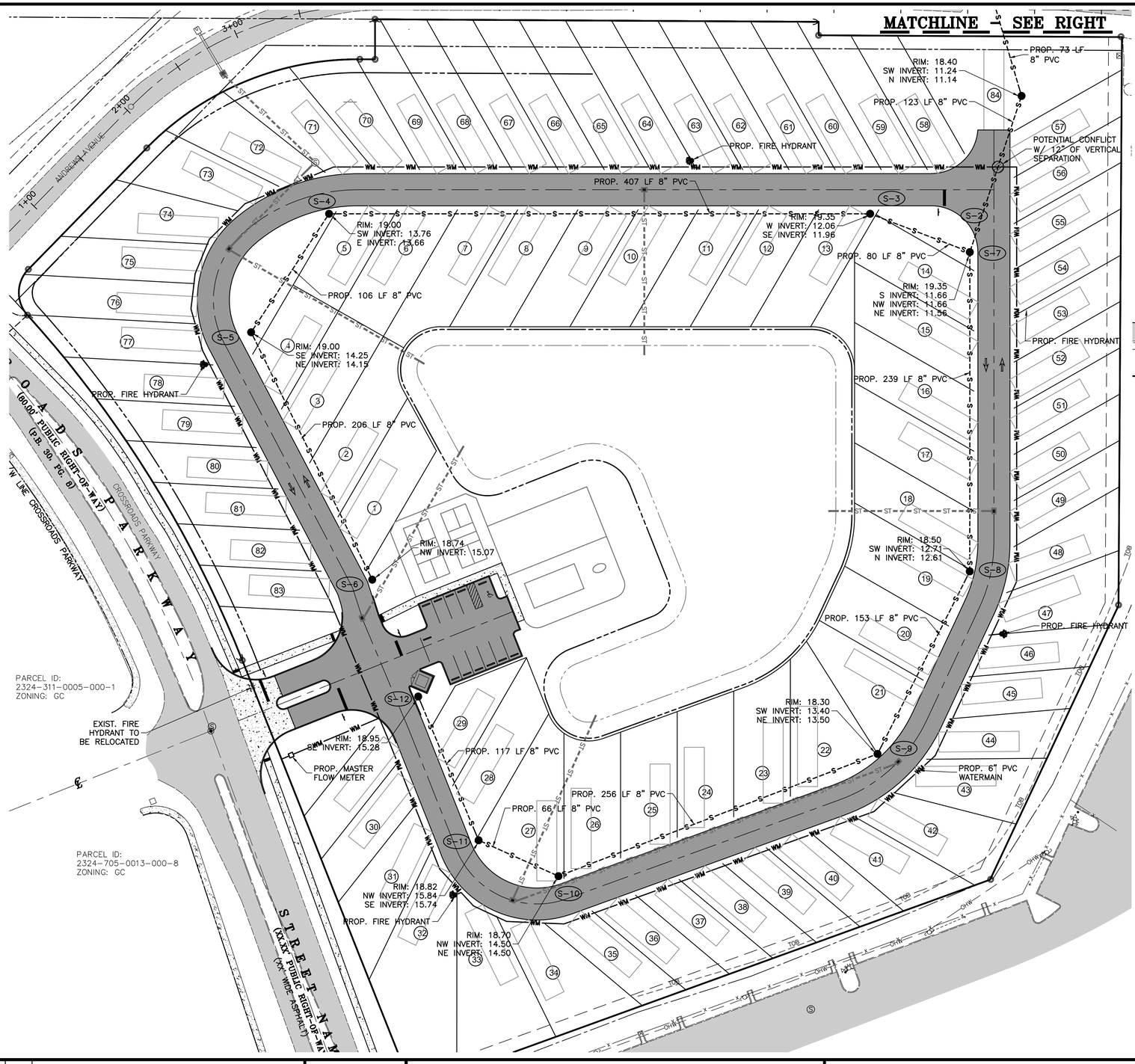
EROSION PLAN

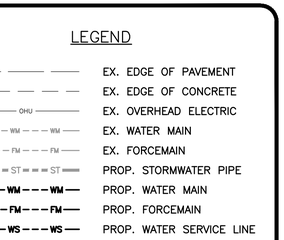
GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

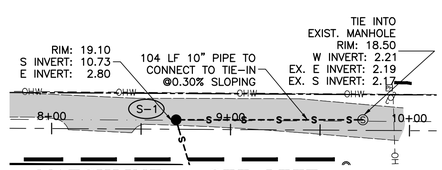
E-1



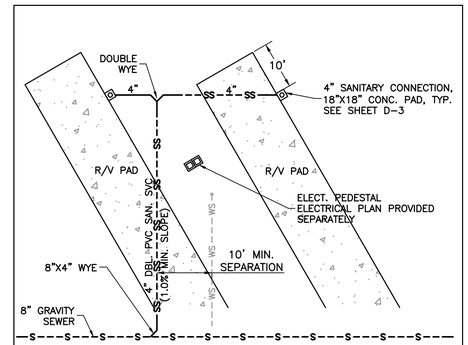


LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- EX. OVERHEAD ELECTRIC
- EX. WATER MAIN
- EX. FORCEMAIN
- PROP. STORMWATER PIPE
- PROP. WATER MAIN
- PROP. FORCEMAIN
- PROP. WATER SERVICE LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SERVICE LINE
- PROP. SANITARY CLEAN OUT
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- PROP. BUILDING

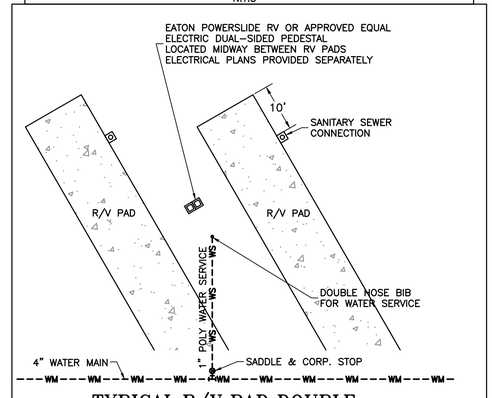


MATCHLINE - SEE LEFT



TYPICAL R/V PAD DOUBLE SANITARY SERVICE DETAIL

N.T.S



TYPICAL R/V PAD DOUBLE WATER SERVICE DETAIL

N.T.S

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

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CITY OF FORT PIERCE

WATER & WASTEWATER PLAN

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710 SE OCEAN BLVD.
STUART, FLORIDA 34994
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Cert. No. 30901

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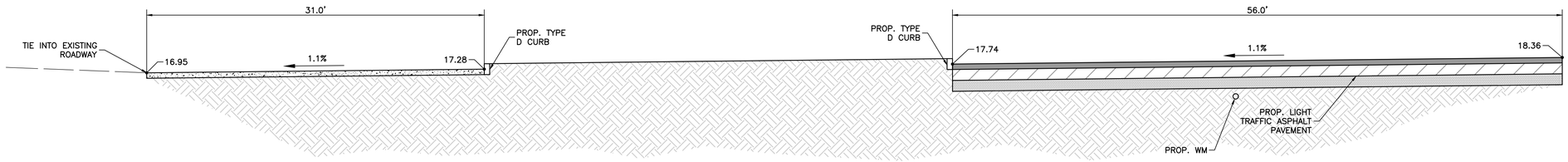
License No: 66387

PROJECT #: 22-024

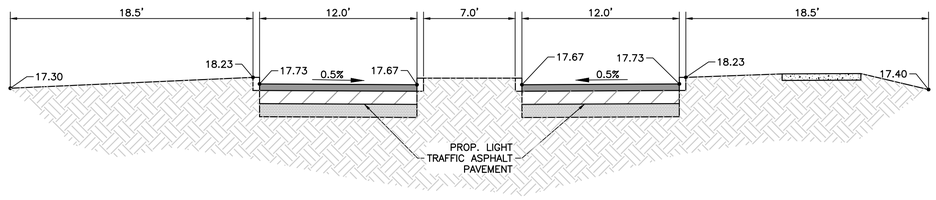
W-1

Drawing Name: S:\Shared Folders\GEP projects\2022\22-024 Crossroads Site Plan\Design\22-024 W&S Plan.dwg Layout Name: W-1 — Plotted by: Devin Curran — Date: 5/7/2024 - 2:56 PM — Giangrande Engineering & Planning



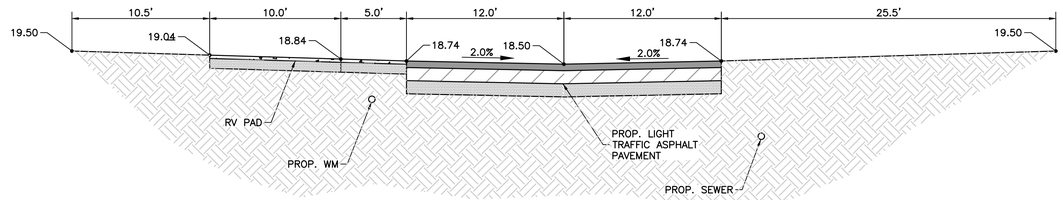
SECTION A–A

SCALE: 1"=5'



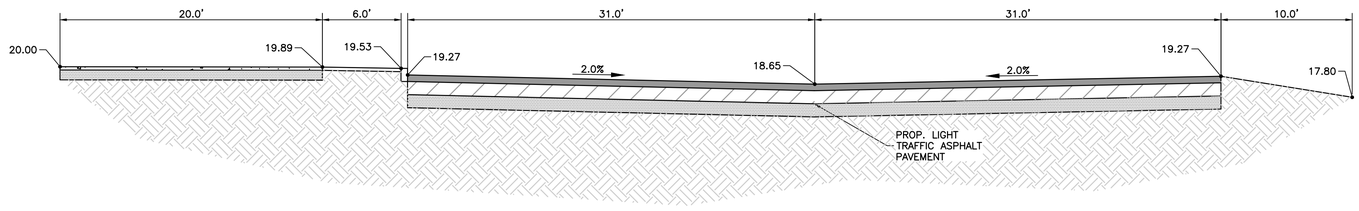
SECTION B–B

SCALE: 1"=5'



SECTION D–D

SCALE: 1"=5'



SECTION C–C

SCALE: 1"=5'

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: 1"=5'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

TYPICAL SECTIONS

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710 SE OCEAN BLVD.
STUART, FLORIDA 34994
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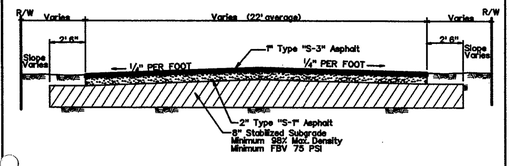
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 23–007

CS-1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Cross Sections.dwg Layout Name: CS-1 Plotted by: GEP Date: 4/26/2024 - 2:45 PM Giangrande Engineering & Planning



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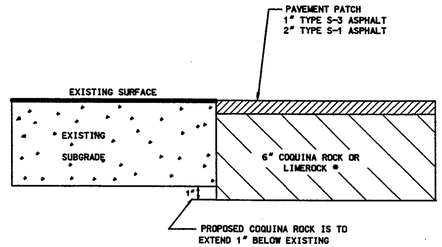
TECHNICAL SPECIFICATIONS AND DETAILS

PAVING DETAIL WITHOUT CURB AND GUTTER

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. PV1



* 6" LIMEROCK OR CRUSHED COQUINA COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO METHOD T-180

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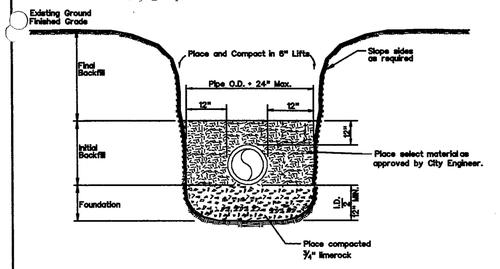
TECHNICAL SPECIFICATIONS AND DETAILS

PAVEMENT PATCHING

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. PV4



General Construction Notes:
1. All trenching shall comply with the requirements of the Florida Trench Safety Act.
2. Foundation -¾" LIMEROCK a minimum of 12" in depth.
3. Initial backfill - The material placed to 12" above the pipe shall be placed in six inch layers and compacted with mechanical tampers to at least 95% maximum density as determined by AASHTO T-99.
4. Final Backfill - To be placed in layers not to exceed one foot in thickness and compacted with appropriate equipment to at least 95% maximum density as determined by AASHTO T-99

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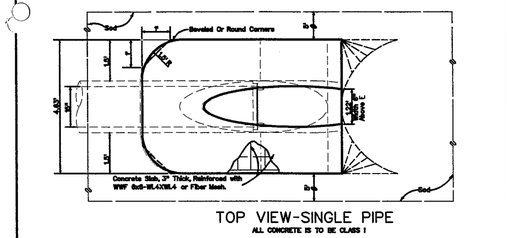
TRENCH DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 4



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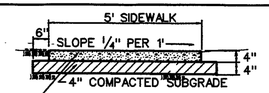
TECHNICAL SPECIFICATIONS AND DETAILS

MITERED END DETAIL

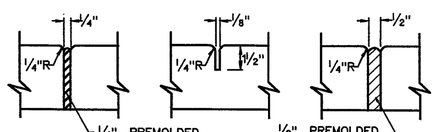
SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 5



General Construction Notes:
1. Concrete strength to be 2500 P.S.I. at 28 days.
2. Tooled dummy contraction joints every 5' (Type 'B' Joints)
3. Expansion joints w/premolded filler at 100' o/c (Type 'C' Joints)
4. Subbase to be 98% Density F.B.V. 75 P.S.I.
5. The concrete shall be given a broom finish and the edges of the sidewalk shall be finished with an edging tool having a radius of ½ inch



'A' At P.C. & P.T. of curves and at junction of existing and new sidewalks.

'B' 5' center to center on new sidewalks and 10' center to center on new curb and gutter

'C' Where new sidewalk abuts concrete curbs, driveway and similar structures.

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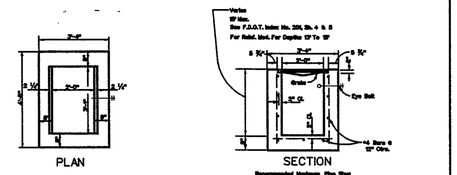
TECHNICAL SPECIFICATIONS AND DETAILS

TYPICAL 4" SIDEWALK DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. SW2



GENERAL NOTES
1. These inlets are suitable for bicycle and pedestrian areas and are to be used in ditches, medians and other areas not to infrequent traffic loadings but are not to be placed in areas subject to any heavy wheel loads.
2. Inlets subject to inlated debris should be constructed without slots. Where debris is a problem inlets should be constructed with slots. Slotted inlets located within roadway clear zones and in areas accessible to pedestrians shall have traversable slots. The traversable slot modification is not adaptable to Inlet Type H. Slots may be constructed at either or both ends as shown on plans.
3. Steel grates are to be used on inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with traversable slots. Either cast iron or steel grates may be used on inlets without slots where bicycle traffic is not anticipated. Either cast iron or steel grates may be used on all inlets with non-traversable slots. Subject to the selection described above, when Alternate G grate is specified in the plans, either the steel grate, hot dipped galvanized after fabrication, or the cast iron grate may be used, unless the plans stipulate the particular type.
4. Recommended maximum pipe sizes shown are for concrete pipe. Pipe sizes larger than those recommended must be checked for fit.
5. All exposed corners and edges of concrete are to be chamfered ¾".
6. Pavement to be used on inlets without slots and inlets with non-traversable slots only when called for in the plans but required on all traversable slot inlets. Cost to be included in contract unit price for inlets. Quantities shown are for information only.
7. Traversable slots constructed in existing inlets shall be paid for on inlets partial, and shall include the cost for slot openings, paving and any required replacement grates.
8. Sodding to be used on all inlets not located in paved areas and paid for under contract unit price for Sodding SY.
9. For supplementary details see F.D.O.T. Specifications Index No. 201.

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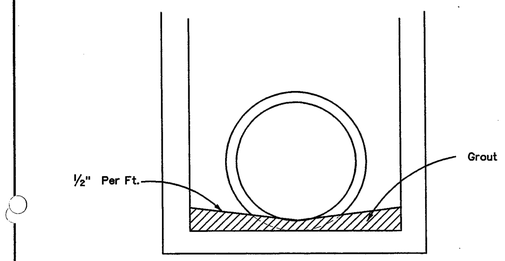
TECHNICAL SPECIFICATIONS AND DETAILS

TYPE "C" INLET

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 6



Note: Grout to consist of 3:1 Sand-Cement Mixture or any Class Concrete.

FOR ALL STRUCTURES UNLESS EXCLUDED BY SPECIAL DETAIL

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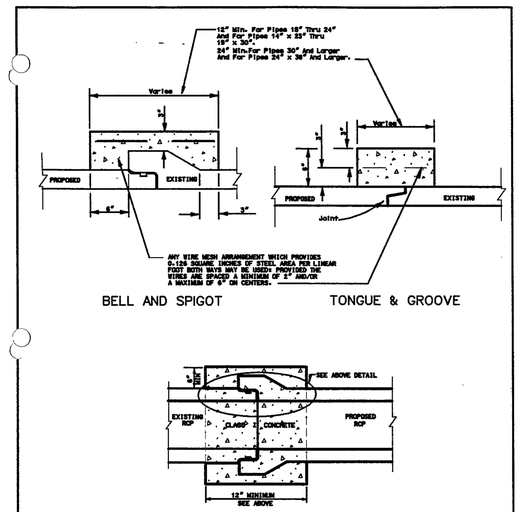
TECHNICAL SPECIFICATIONS AND DETAILS

DRAINAGE STRUCTURE INVERT

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 20



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TECHNICAL SPECIFICATIONS AND DETAILS

CONCRETE COLLAR JOINT DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 3

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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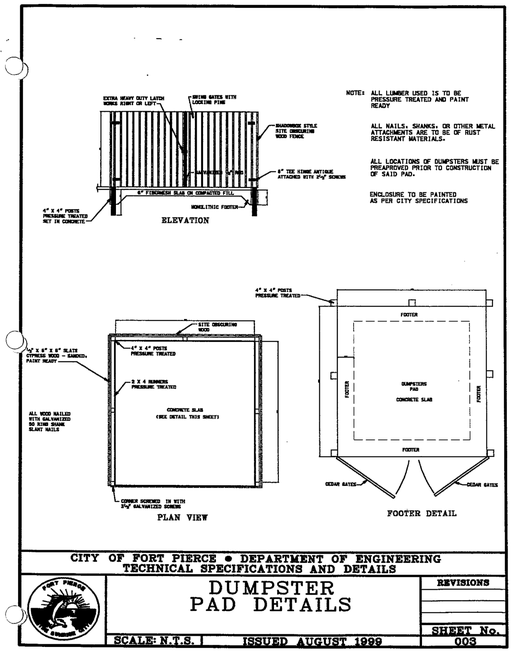
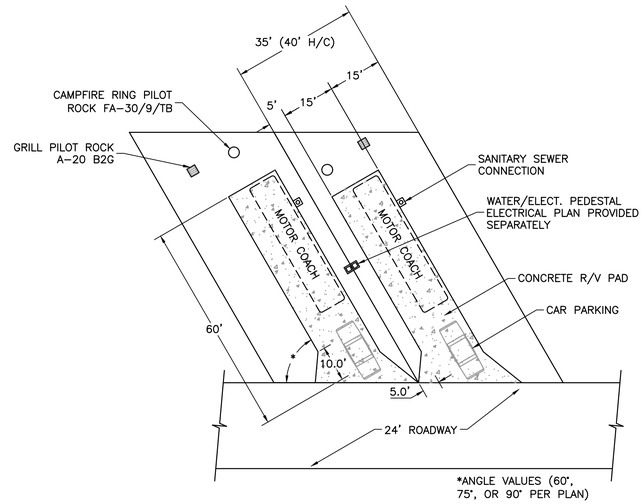
LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

D-1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads ste plan\design\22-024 Details.dwg Layout Name: D-1 — Plotted by: GEP — Date: 4/26/2024 — 2:48 PM — Giangrande Engineering & Planning





TYPICAL RV PAD DETAIL

SCALE: 1"=20'

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

GIANGRANDE ENGINEERING AND PLANNING
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STUART, FLORIDA 34994
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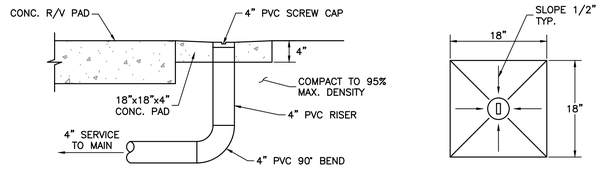
LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

D-2

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-2 - Plotted by: GEP - Date: 4/26/2024 - 2:46 PM - Giangrande Engineering & Planning

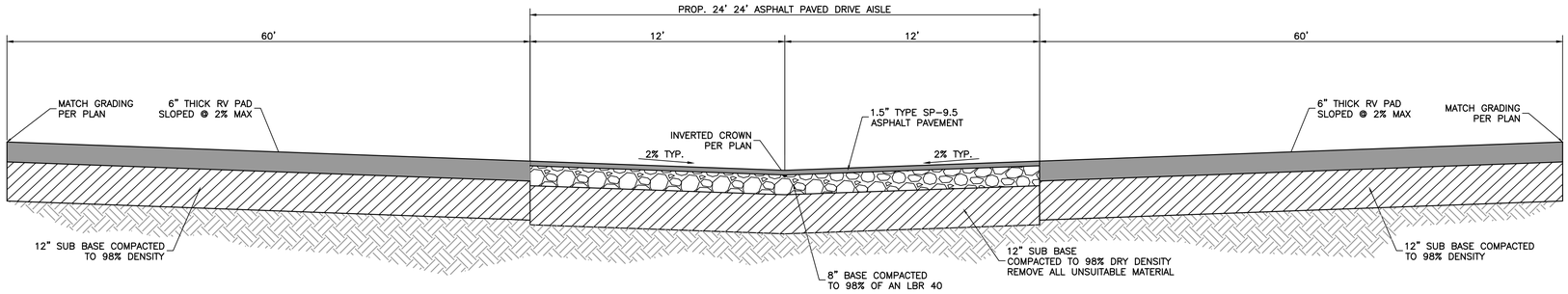


SECTION

PLAN VIEW

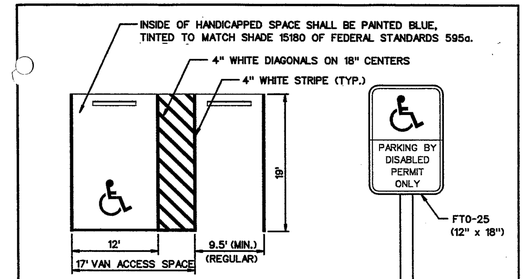
R/V PAD SANITARY CONNECTION DETAIL

N.T.S



TYPICAL DRIVE AISLE AT R/V PAD DETAIL

SCALE: NTS



PAVEMENT MARKINGS

HANDICAPPED PARKING SIGN

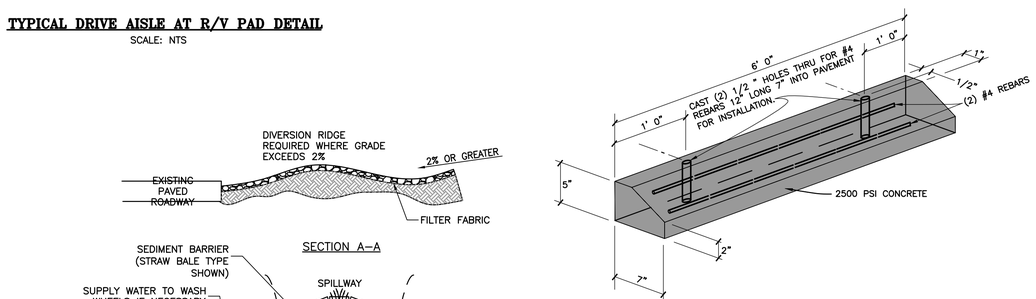
NOTE:

FOR PARKING REQUIREMENTS SEE FORT PIERCE CODE.

CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

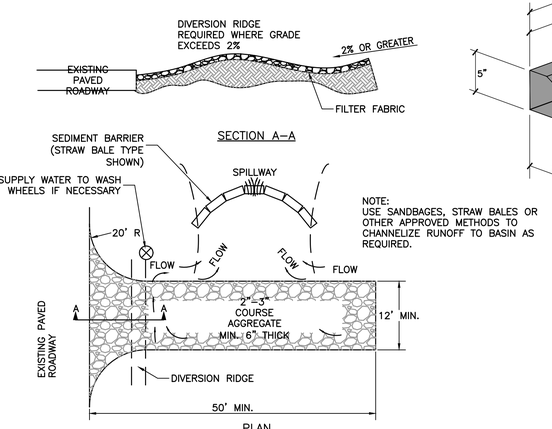
HANDICAPPED AND REGULAR PARKING DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998 | REVISIONS | SHEET No. PL2



WHEEL STOP DETAIL

N.T.S.

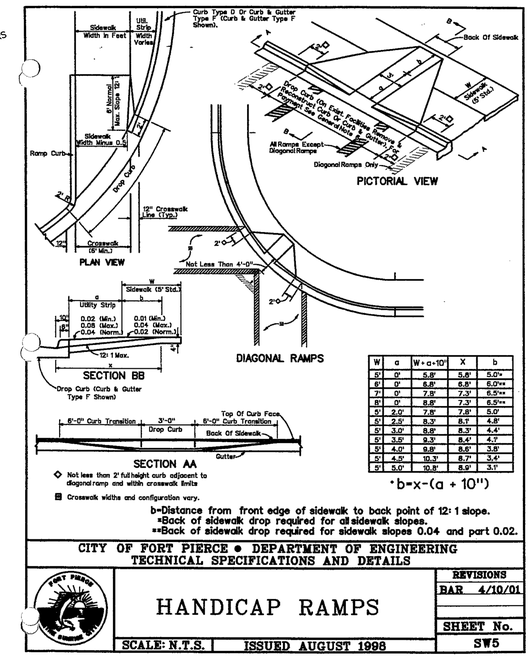


NOTE:
USE SANDBAGES, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING. REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S



W	a	W+a+10"	X	b
5'	0"	5.8'	5.8'	5.0'*
6'	0"	6.8'	6.8'	6.0'**
7'	0"	7.8'	7.3'	6.5'**
8'	0"	8.8'	7.3'	6.5'**
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.4'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.6'
5'	5.0'	10.8'	8.9'	3.1'

*b=x-(a + 10")

◇ Not less than 2' full height curb adjacent to diagonal ramp and within crosswalk limits

▣ Crosswalk widths and configuration vary.

b=Distance from front edge of sidewalk to back point of 12:1 slope.
*Back of sidewalk drop required for all sidewalk slopes.
**Back of sidewalk drop required for sidewalk slopes 0.04 and part 0.02.

CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

HANDICAP RAMPS

REVISIONS: BAR 4/10/01 | SHEET No. SW5 | SCALE: N.T.S. | ISSUED AUGUST 1998

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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PROJECT #: 22-024

D-3

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads rte psbh\design\22-024 Details.dwg Layout Name: D-3 – Plotted by: GEP – Date: 4/26/2024 – 2:40 PM – Giangrande Engineering & Planning

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-4 – Plotted by: GEP – Date: 4/26/2024 – 2:46 PM – Giangrande Engineering & Planning

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. WATER MAINS WHERE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL CONFORM TO AWWA C-900 OR C-905, PRESSURE CLASS 150, DR (18). WATER MAINS WHERE SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM TO AWWA C-901 OR C-906, STANDARD CODE DESIGNATION PE3408, PIPE CLASS 200, DIMENSION RATIO (DR) 17 FOR DIRECT BURY, (DR) 11 FOR DIRECTIONAL BORING, AND (DR) 9 FOR 2 INCH AND SMALLER PIPELINES.
3. WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE , SHALL CONFORM TO ANSI/AWWA C151/A21.51 AND SHALL BE PRESSURE CLASS 250 (MINIMUM).
4. POLYVINYL CHLORIDE WATER MAIN SHALL BE BLUE IN COLOR OR WHITE IN COLOR WITH BLUE STRIPES. THE USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE, ALSO DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THHN WIRE.
5. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C-110/A21.10, CLASS 250 MIN., CEMENT LINED AND FACTORY COATED
6. GATE VALVES SHALL BE MUELLER RESILIENT SEAT, KENNDY KEN-SEAL, AMERICAN OR APPROVED EQUAL. VALVES SHALL CONFORM TO AWWA C-509.
7. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY, COUNTY, FDOT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPUA ENGINEER AND CITY/COUNTY/FDOT ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY FPUA ENGINEERING AND CITY/COUNTY/FDOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
10. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, FPUA, AND CITY/ COUNTY/FDOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY ENGINEER.
12. MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE UTILITIES ENGINEER AND CITY/ COUNTY/FDOT ENGINEER. PIPES WITH COVER LESS THAN 30 INCHES SHALL BE CONSTRUCTED OF DUCTILE IRON OR IN PVC CASING.
13. DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.
14. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
15. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AWWA C-651 FOR DISINFECTION.

FORT PIERCE UTILITIES AUTHORITY | WATER DISTRIBUTION | G-1 NOTES | 02-06 | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG | DRAWN BY: JJM | SCALE: N.T.S. | APPROVED: JLC | DATE: 2010 | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 2

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES
CONTINUED

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES AND DRAINAGE.
17. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER INCLUDING LOCATIONS OF VALVES, FITTINGS, SERVICE CONNECTIONS, BLOWOFFS, AIR RELEASE VALVES, AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.
18. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE FORT PIERCE UTILITIES AUTHORITY ONLY AFTER TESTING AND DISINFECTION HAS BEEN COMPLETED AND APPROVED ON THE TAPPING VALVE AND SLEEVE.
19. WATER MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN MULTI STRANDED WIRE (BLUE IN COLOR) AND IDENTIFCATION TAPE WITH "WATER" MARKED ON TAPE, PERMANENTLY ATTACHED TO THE TOP OF THE WATER MAIN IN ACCORDANCE WITH THE FORT PIERCE UTILITES AUTHORITY SPECIFICATIONS.
20. SERVICE TAPS SHALL BE PLACED APPROXIMATELY TEN FEET AWAY FROM GATE VALVES, AS SHOWN, FOR TESTING. FOLLOWING TESTING AND STERILIZATION OF WATER LINE. CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CURB STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.
21. MECHANICAL RESTRAINTS TO BE USED ON ALL FITTINGS AND PLACED IN ACCORDANCE WITH MANUFACTURER'S OR ENGINEER'S RECOMMENDATIONS (WHICHEVER IS MORE STRINGENT) AND FPUA REQUIREMENTS.
22. ALL MAINS SHALL BE TESTED AT A MINIMUM OF 150 PSI. TESTING METHODS SHALL CONFORM TO AWWA C-600. – 2 HR MINIMUM TEST

$$L = \frac{SD(P)^{1/2}}{148,000}$$

L= LEAKAGE IN GPH
S= LENGTH OF PIPE IN FEET
D= PIPE DIAMETER IN INCHES
P= TESTING PRESSURE IN PSI

23. PRIOR TO ANY TESTING, ALL MAINS 6" IN DIA. AND LARGER SHALL HAVE A SWAB PASSED THRU THE ENTIRE LENGTH OF THE LINE. NOTE: SWAB SHOULD BE PLACED IN 1st. JOINT OF NEW LINE. END OF MAIN SHOULD BE "TURNED UP" AT 45% AND EXTENDED SO THAT SWABBING AND A FULL BORE FLUSH CAN BE ACCOMPLISHED. BLOW-OFF ASSY CAN THEN BE PLACED. WHERE LINES BRANCH, SWABS WILL BE PLACED IN BRANCH LINES AND SEQUENTIALLY SWABBED AND FLUSHED.
24. A MINIMUM SIX FEET AND PREFERABLY TEN FEET HORIZONTAL SEPARATION SHALL BE MAIINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES. 6 INCHES MINIMUM VERTICAL SEPARATION IF WATER MAIN IS OVER WASTEWATER AND 12 INCHES IF WATER MAIN IS UNDER SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTWATER LINES. THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE OR STRUCTURE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGHTS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
25. WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 6 INCHES OF VERTICAL CLEARANCE BETWEEN PIPES SHALL BE CONSTRUCTED OF DIP AT THE CROSSING, AND SHALL BE MECHANICALLY RESTRAINED WITHIN 20 FEET OF THE CROSSING.
26. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

FORT PIERCE UTILITIES AUTHORITY | WATER DISTRIBUTION | G-1 NOTES | 02-06 | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG | DRAWN BY: JJM | SCALE: N.T.S. | APPROVED: JLC | DATE: 2010 | FT. PIERCE UTILITIES AUTHORITY | SHEET 2 OF 2

FORT PIERCE UTILITIES AUTHORITY WASTEWATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE SDR-26, GREEN OR WHITE IN COLOR, GRAVITY SEWER MAIN SHALL HAVE LOCATOR TAPE WITH "SEWER" MARKED ON TAPE AND SHALL CONFORM TO ASTM D-3034.
3. THE MANHOLE BASE SHALL BE SET ON A FIRM, DRY AND STABLE OR COMPACTED BASE FOUNDATION. IF NECESSARY, THE CONTRACTOR SHALL UTILIZE ROCK TO PROVIDE A FIRM AND SUITABLE MANHOLE BASE FOUNDATION.
4. WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY ENGINEERING DEPARTMENT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIRE-MENTS SHALL NOT BE LESS THEN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
5. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
6. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISITING OF PIPE SIZES, LOCATION OF SERVICE TEE WYES, DIAMETER OF SERVICES, LOCATION OF ANY FITTINGS, FINAL RIM AND INVERT ELEVATION OF ALL MANHOLES AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.
7. MAINTAIN SIX FEET AND PREFERABLY 10 FEET HORIZONTAL DISTANCE BETWEEN WATER MAINS AND SEWER MAINS AS A MINIMUM.
8. WASTEWATER FORCE MAINS, WASTEWATER COLLECTION LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE SHALL BE PROVIDED WHENEVER POSSIBLE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANCE FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
9. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, AND FPUA/CITY COUNTY/FDOT SHALL BE MANDATORY PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
10. NO FIELD CHANGES OR DEVIATIONS FORM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FPUA/CITY/COUNTY/FDOT ENGINEER,
11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
12. CONTRACTOR SHALL NOTIFY FORT PIERCE UTILITIES AUTHORITY 48 HOURS PRIOR TO COMMMENCING CONSTRUCTION.
13. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO AWWA C-900, AND SHALL BE CLASS 150, DR-18.
14. WASTEWATER FORCE MAIN SHALL BE GREEN IN COLOR.
15. FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO ANSI/AWWA C-110/A21.10 CLASS 250 MIN. AND INTERIOR EPOXY COATED.
16. WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN WIRE (GREEN IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.
17. MINIMUM COVER SHALL BE 36 INCHES, PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
18. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY 3M CORPORATION, OR APPROVED EQUAL AS REQUIRED BY FPUA ENGINEER.
19. ALL MANHOLES SHALL HAVE SEWER RAIN GUARDS INSTALLED AS REQUIRED BY FPUA ENGINEER.
20. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

FORT PIERCE UTILITIES AUTHORITY | WASTEWATER CONSTRUCTION NOTES FPUA REQUIREMENTS | G-2 CONSTRUCTION NOTES | 02-06 | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG | DRAWN BY: JJM | SCALE: N.T.S. | APPROVED: JLC | DATE: 2010 | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

STANDARD SEPARATION STATEMENT FOR
WATER / SEWER CONFLICTS

1. SANITARY SEWER, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 6 INCHES, PREFERABLY 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHEN ABOVE, AND AT LEAST 12 INCHES OF SEPARATION WHEN THE WATER MAIN IS BELOW.

WHERE SANITARY SEWER, FORCE MAINS, STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 6 INCHES VERTICAL SEPARATION, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) CENTERED ON THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). AT SUCH CROSSINGS PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 6 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) AND NEW PIPES SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

2. A MINIMUM 3-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF STORM SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 3-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN VACUUM TYPE SANITARY SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN "ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

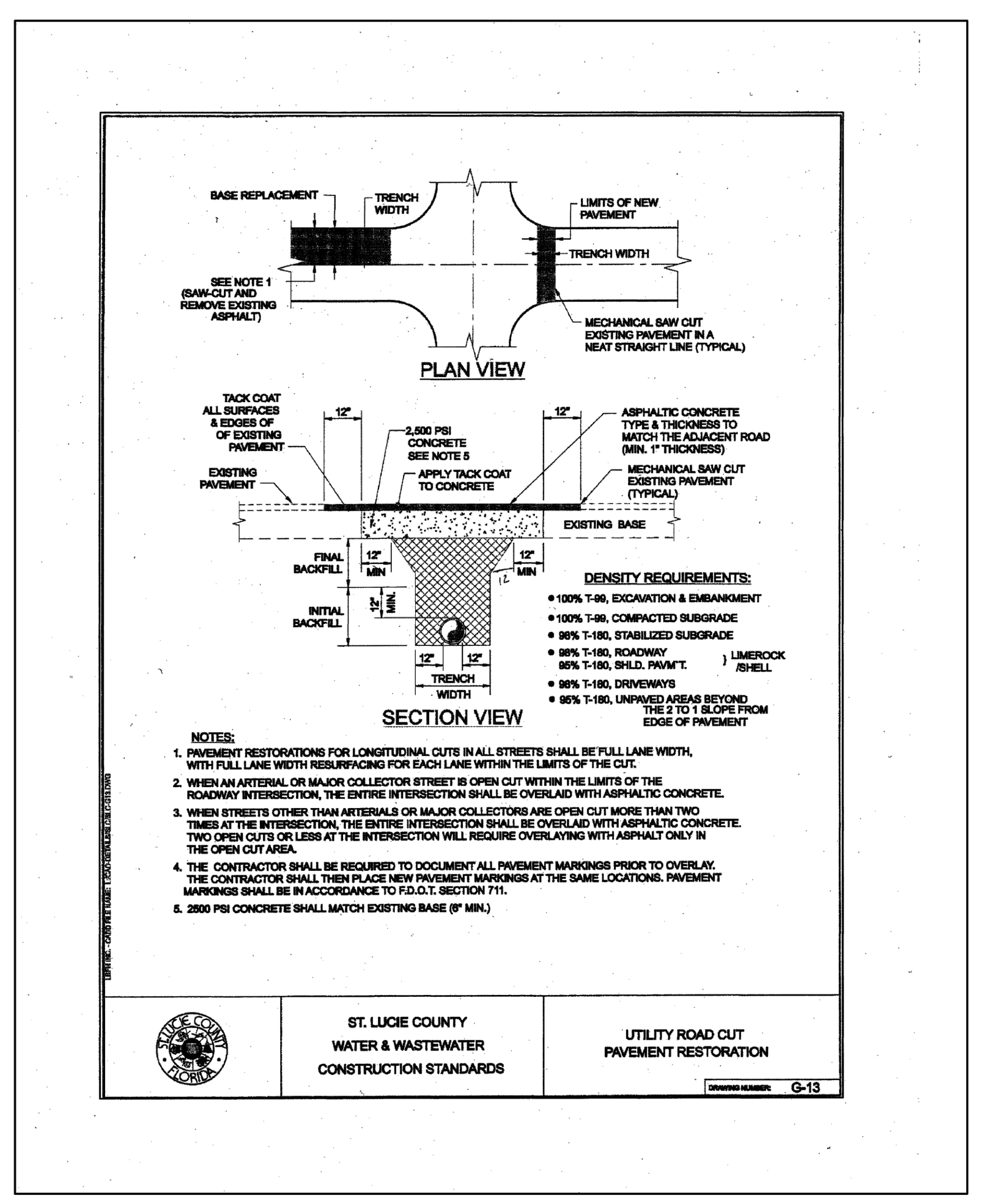
A MINIMUM 6-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3 FOOT WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER.

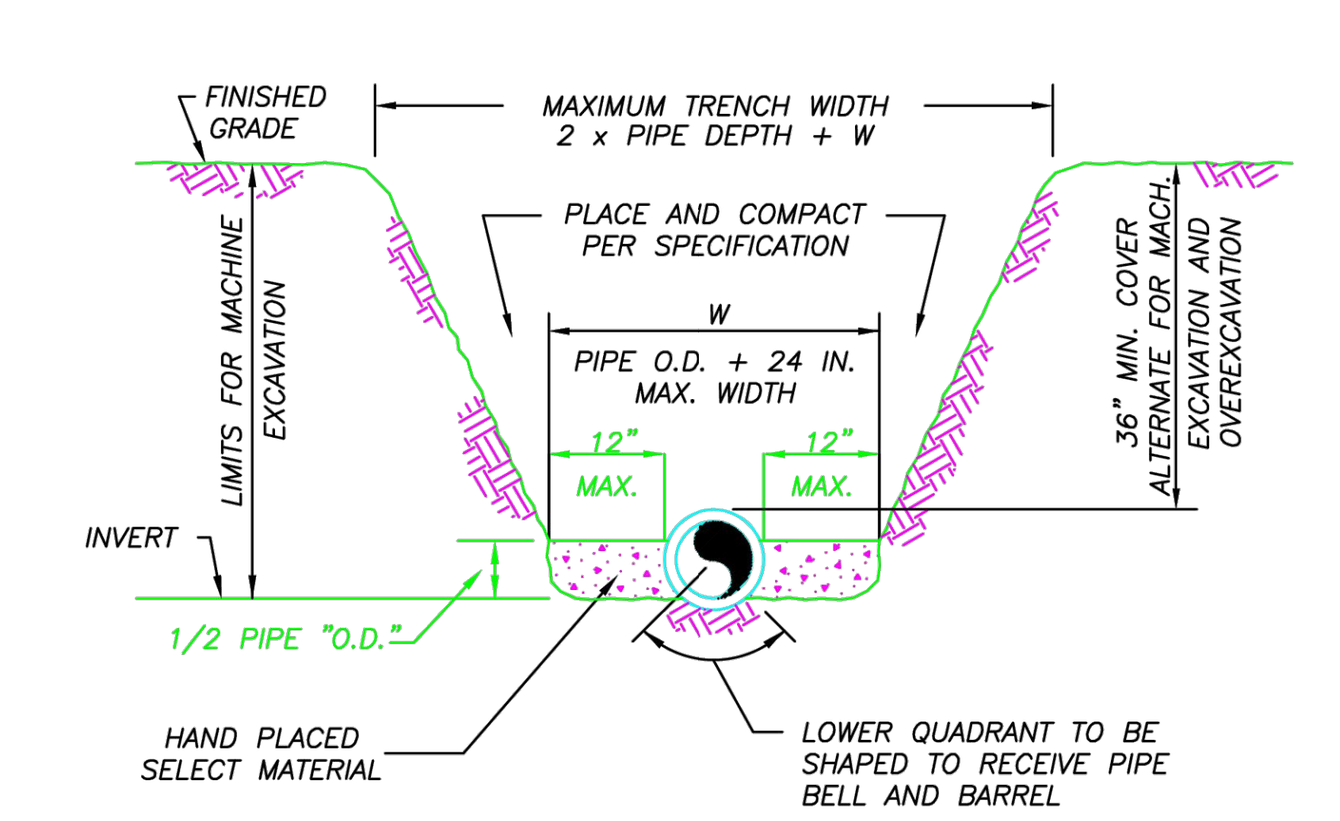
WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 6 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWER) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

3. ALL DIP SHALL BE PRESSURE CLASS 250 MIN.. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

FORT PIERCE UTILITIES AUTHORITY | STANDARD SEPARATION STATEMENT FOR WATER/SEWER CONFLICT | G-3 WATER/SEWER CONFLICT | 02-06 | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG | DRAWN BY: JJM | SCALE: N.T.S. | APPROVED: JLC | DATE: 2010 | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



FORT PIERCE UTILITIES AUTHORITY | PAVEMENT RESTORATION (COUNTY) | R-2 | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JJM | COMPUTER FILE # MISC DETAILS 200602.DWG | DRAWN BY: JJM | SCALE: N.T.S. | APPROVED: JLC | DATE: 2010 | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

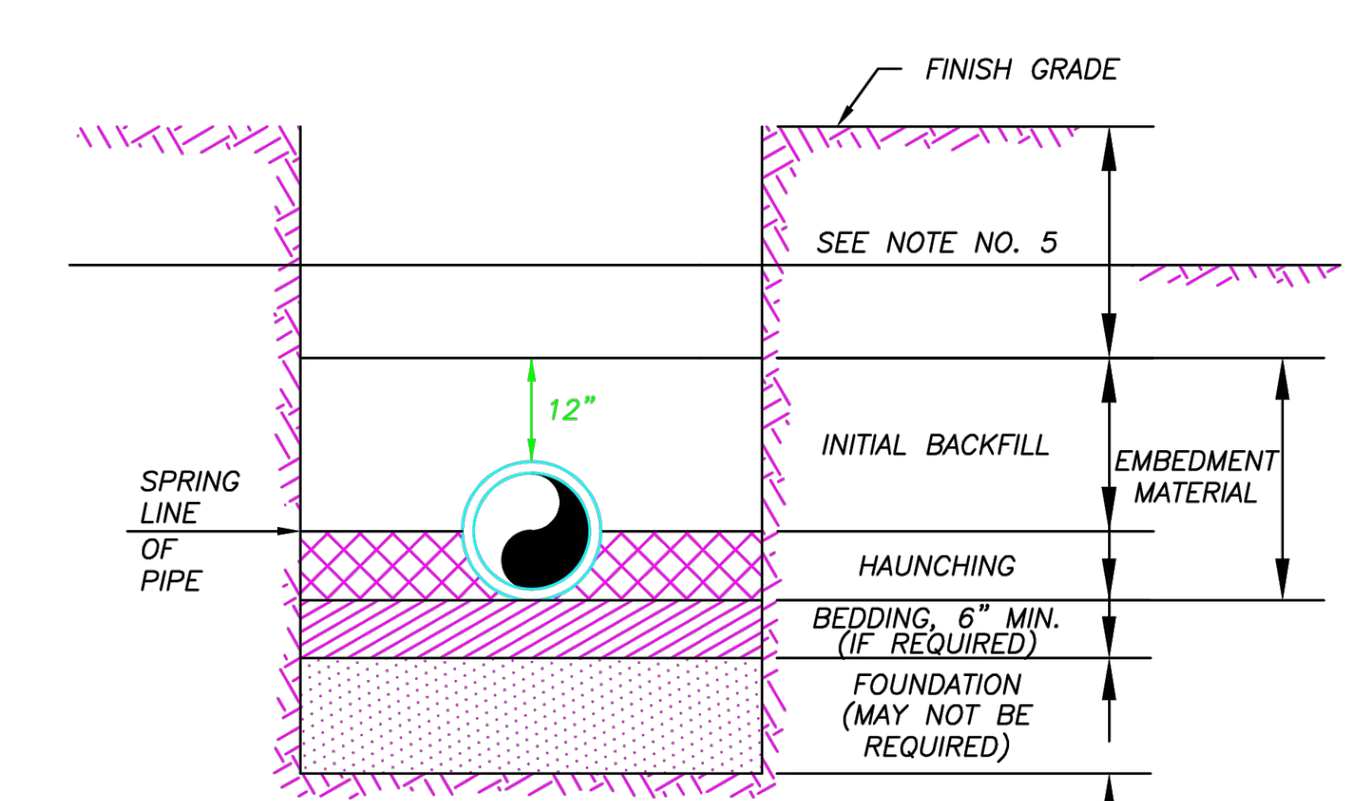


NOTES:

1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
2) INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE PIPE. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 100% OF MAX. DENSITY AS DETERMINED BY AASHTO METHOD T-99.

TYPICAL TRENCH DETAIL
N.T.S.

FPUA COMMUNITY PROUD | FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 37TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600 | TYPICAL TRENCH DETAIL | M-1 | 03-09 | CONCRETE SLAB | SLL | JLC | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG | DRAWN BY: SLL | SCALE: | APPROVED: JLC | DATE: 2015 | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

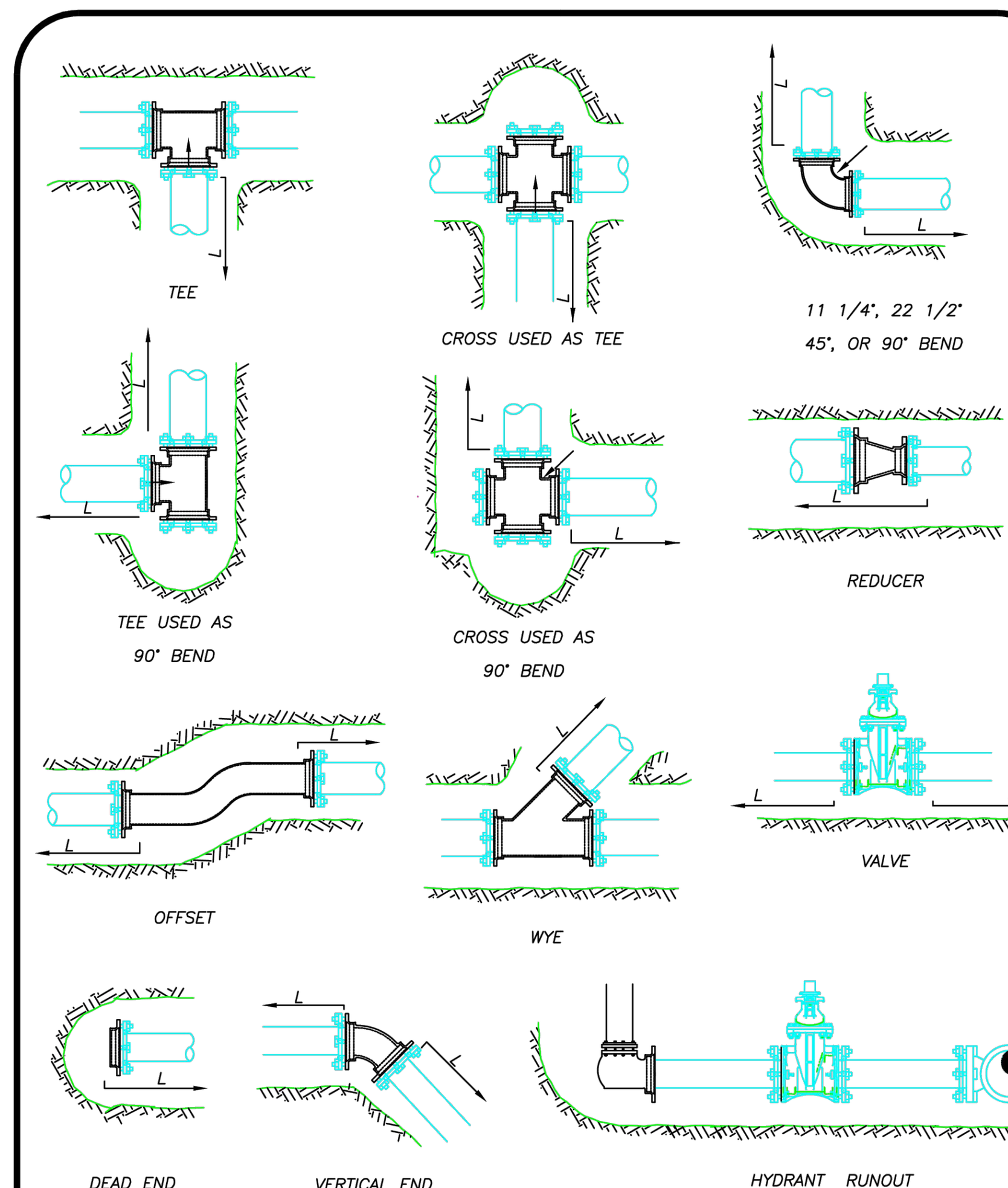


BACKFILLING REQUIREMENTS
N.T.S.

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 | 03-09 | CONCRETE SLAB | SLL | JLC | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG | DRAWN BY: SLL | SCALE: | APPROVED: JLC | DATE: 2015 | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

FPUA COMMUNITY PROUD | MECHANICAL JOINT ANCHORING REQUIREMENTS | M-3 | 03-09 | CONCRETE SLAB | SLL | JLC | DATE: | REVISION: | BY: | APPD: | WATER/WASTEWATER ENGINEERING | DESIGNED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG | DRAWN BY: SLL | SCALE: | APPROVED: JLC | DATE: 2015 | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

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PROJECT #: 22-024

D-4

MECHANICAL JOINT RESTRAINT NOTES

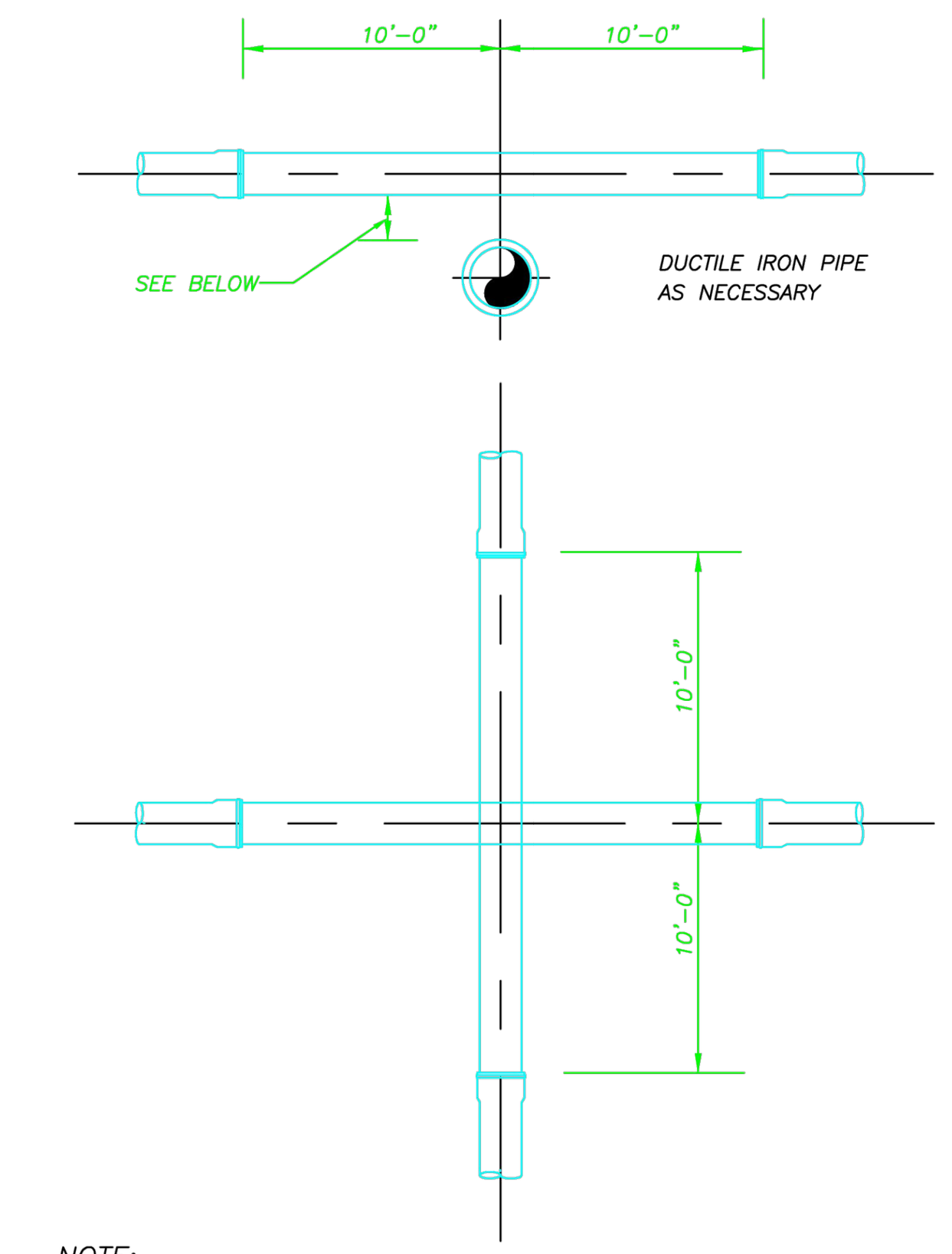
NOTES:

1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED WHICH REFLECTS THE RESTRAINT DETAIL PROPOSED FOR USE, INCLUDING LENGTH OF PIPE RESTRAINT.

2) REQUIRED RESTRAINED LENGTH CALCULATIONS SHALL ALSO CONSIDER THE CONDITIONS OF OTHER BENDS OR FITTINGS THAT WILL BE LOCATED WITHIN THE CALCULATED RESTRAINED LENGTH (L) OF THE BEND OR FITTING IN QUESTION.

3) EVERY JOINT OR FITTING MUST BE RESTRAINED ON BOTH SIDES OF THE BEND AND FOR TEES ALONG THE BEND ALSO.

MECHANICAL JOINT RESTRAINT NOTES | M-4 | 03-09 CONCRETE SLAB SLL JLC | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG | DATE: 2015 | SHEET 1 OF 1

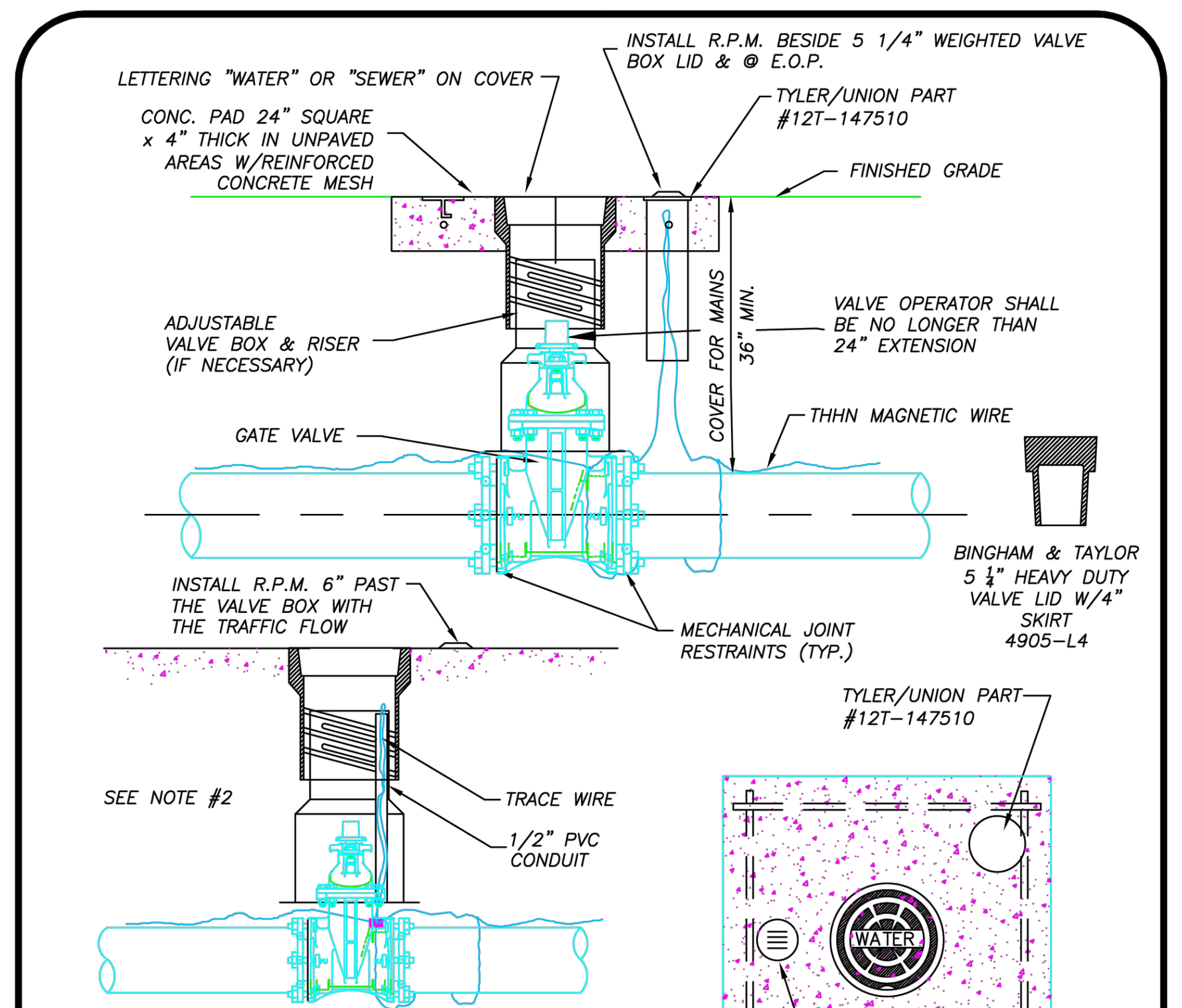


NOTE:

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

UTILITY CROSSING DETAIL
N.T.S.

UTILITY CROSSING DETAIL | M-5 | 03-09 CONCRETE SLAB SLL JLC | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG | DATE: 2015 | SHEET 1 OF 1

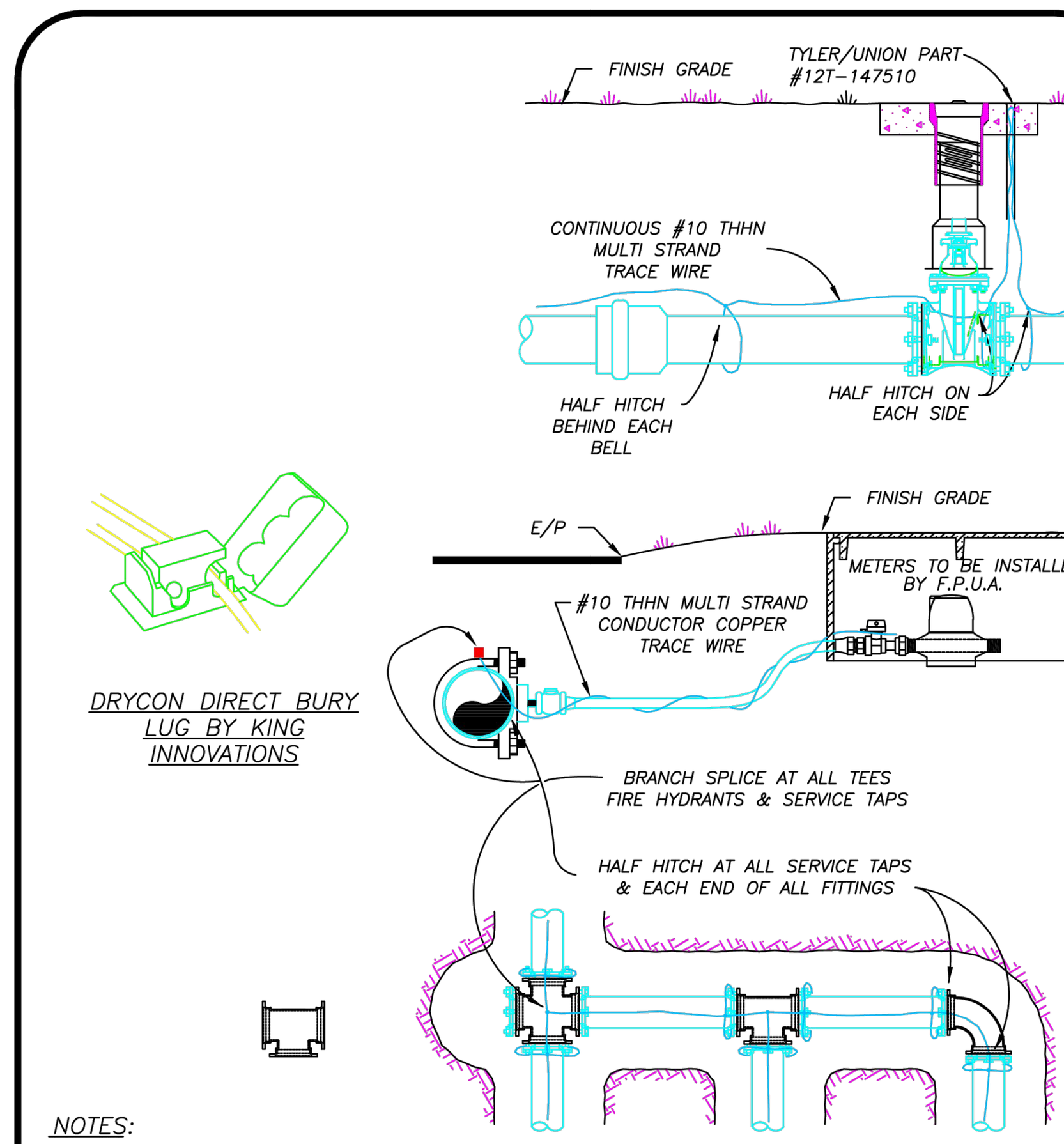


NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKER (RPM) FOR WATER VALVES AND GREEN RPM FOR WASTEWATER VALVES PAVEMENT EDGE.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SEVEN INCHES BELOW GRADE.
3. DIP MAY BE USED AS RISERS ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & VALVE BOX DETAIL
N.T.S.

TYPICAL GATE VALVE & VALVE BOX DETAIL | M-6 | 03-09 CONCRETE SLAB SLL JLC | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG | DATE: 2015 | SHEET 1 OF 1



NOTES:

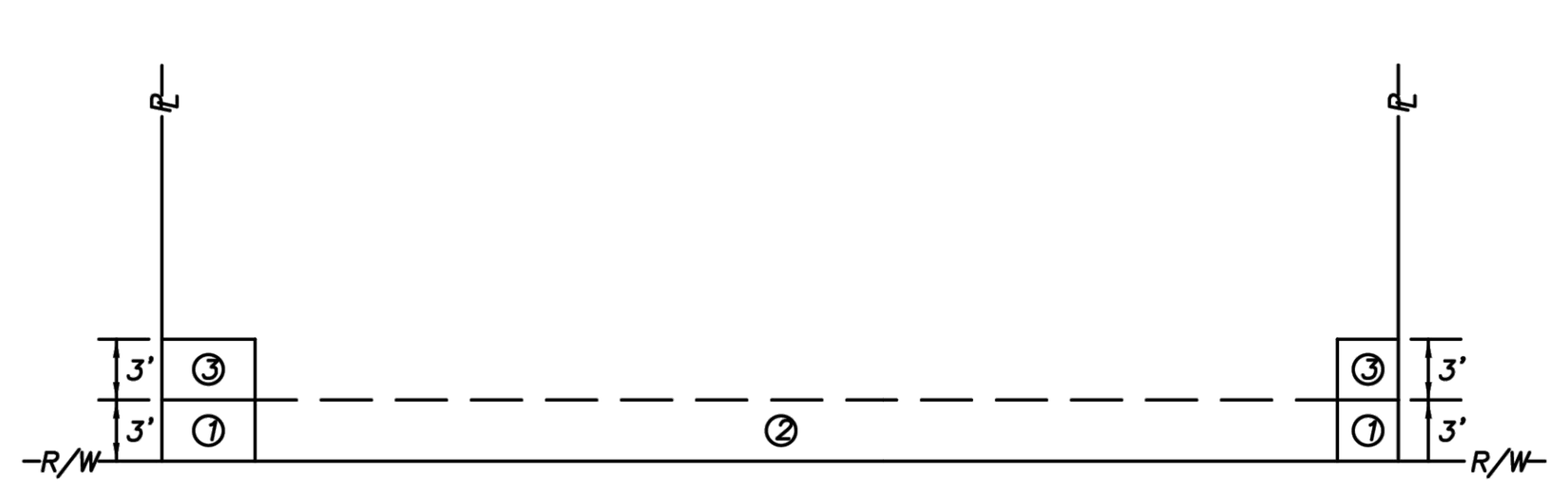
1) TRACE WIRE IS REQUIRED ON ALL PIPE AS NOTED BY UTILITIES ENGINEER AND SHOWN IN STANDARD DETAILS.
2) INCLUDE ALL COST OF MATERIAL & LABOR IN PRICE OF PIPE.
3) CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.

TRACE WIRE
(N.T.S.)

TRACE WIRE DETAIL | M-11 | 03-09 CONCRETE SLAB SLL JLC | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG | DATE: 2015 | SHEET 1 OF 1

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.

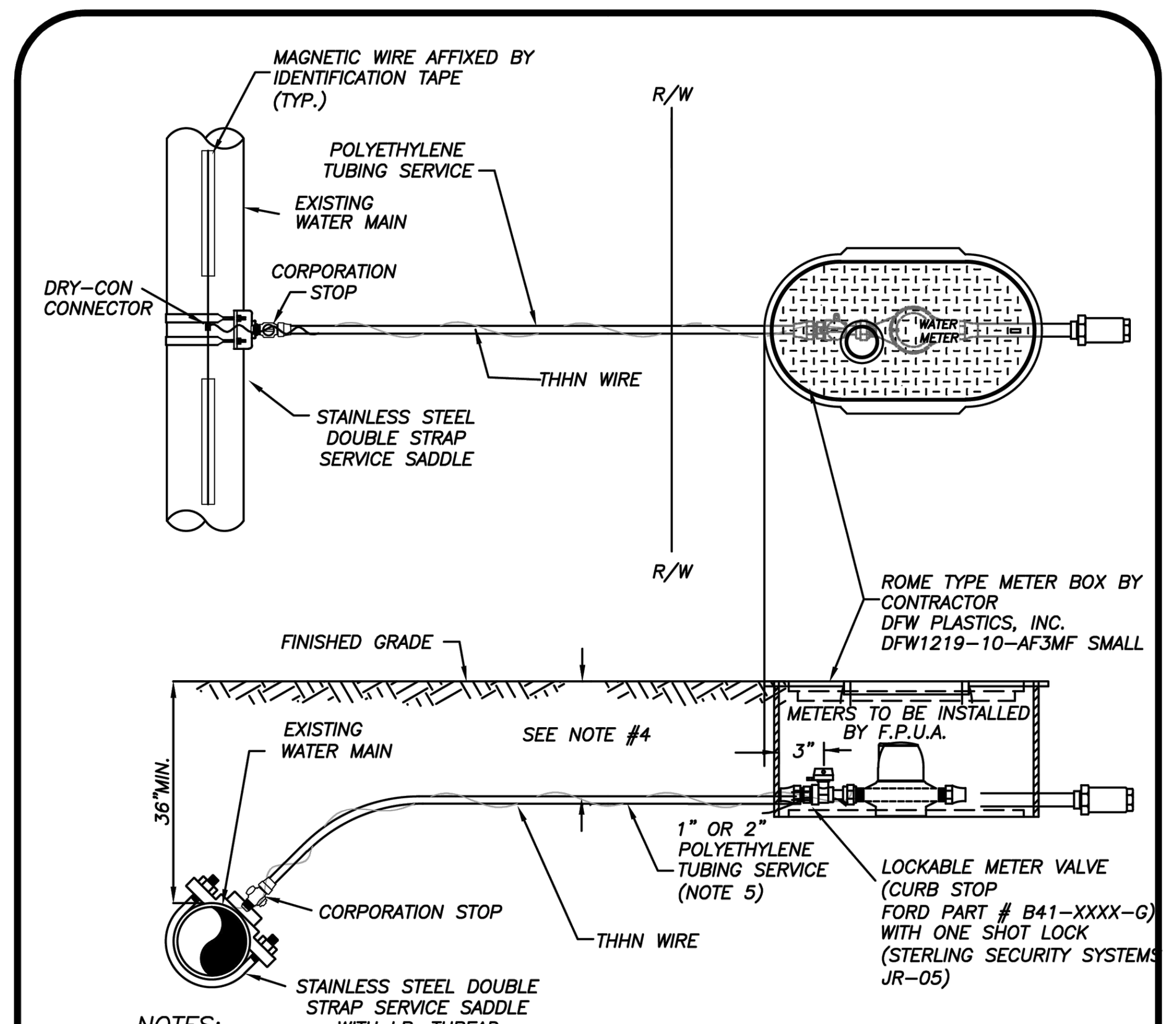


NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. WATER METER, AREA ① SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE WATER METER. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO WATER SERVICES AND METERS CAN BE CONNECTED.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. WATER SERVICE, WITHIN AREA ①, THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ②, OR ALONG THE PROPERTY LINES MARKED AREA ③.
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF 6 FEET AND PREFERABLY 10 FEET.
4. ALL METERS SHALL BE INSTALLED IN AN UNRESTRICTED AREA FOLLOWING EASE OF ACCESS AND PROVIDING ADEQUATE PROTECTION.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WATER METER PLACEMENT
(N.T.S.)

WATER METER PLACEMENT POLICY | W-1 | 03-09 02-15 SLL | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATER DETAILS 200602.DWG | SCALE: N.T.S. | DATE: 2010 | SHEET 1 OF 1

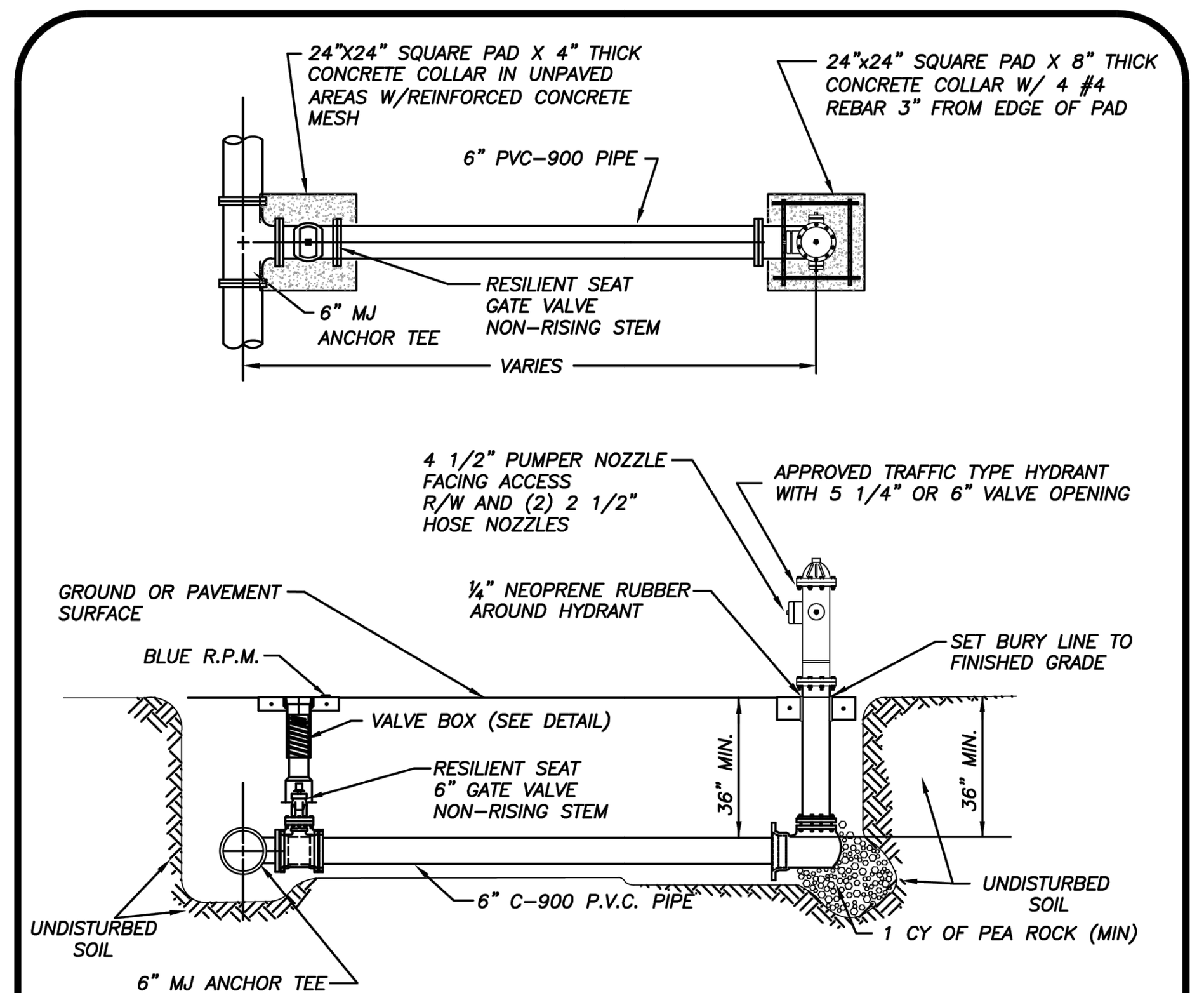


NOTES:

1. BLUE 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".
5. FOR 2" COMMERCIAL SERVICE INSTALLATIONS, FPUA WILL INSTALL ABOVE GROUND METER PER DETAIL W-8.

TYPICAL SINGLE WATER SERVICE CONNECTION
(N.T.S.)

TYPICAL SINGLE WATER SERVICE CONNECTION | W-2 | 03-09 DESIGN SLL JLC | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATER DETAILS 200602.DWG | SCALE: N.T.S. | DATE: 2020 | SHEET 1 OF 1

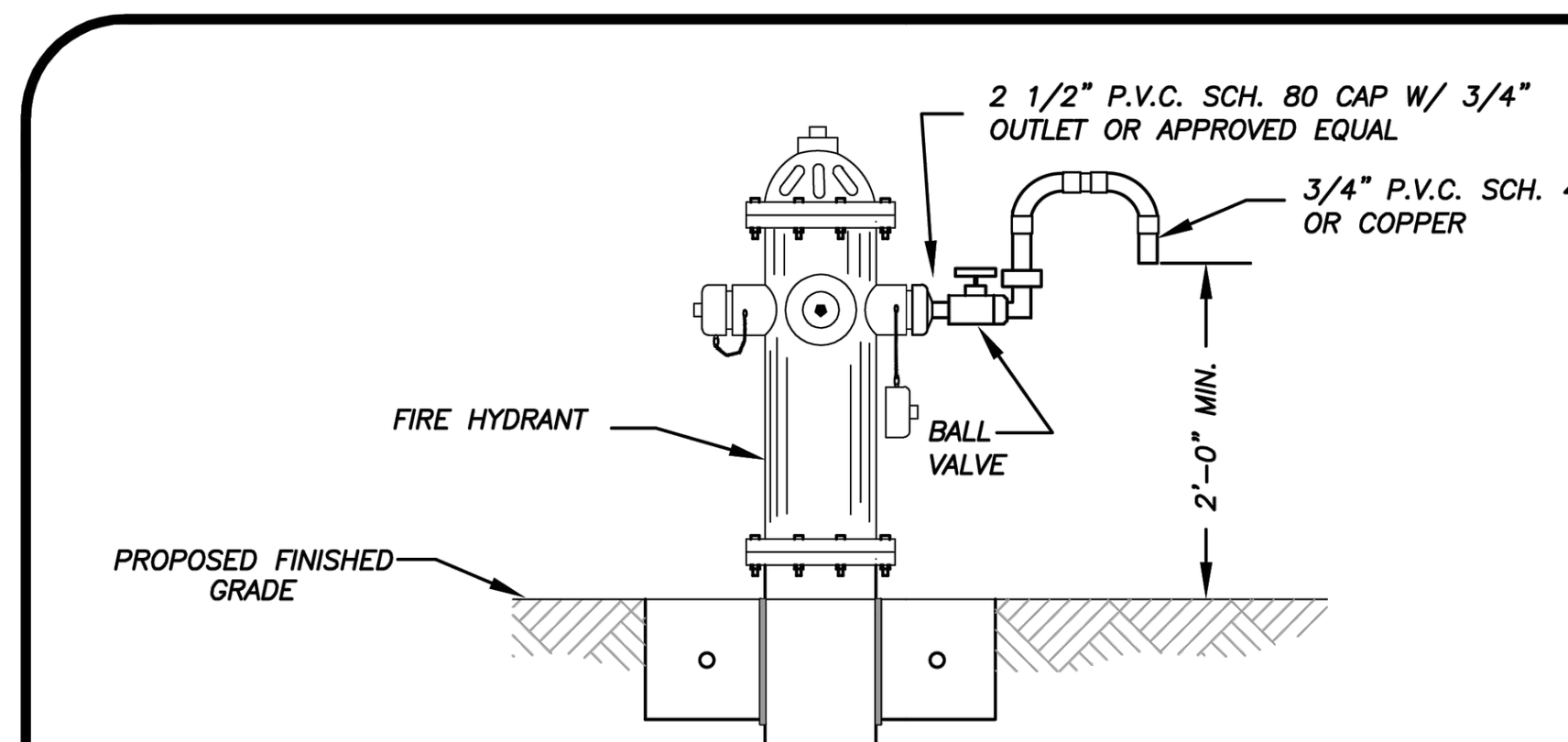


NOTES:

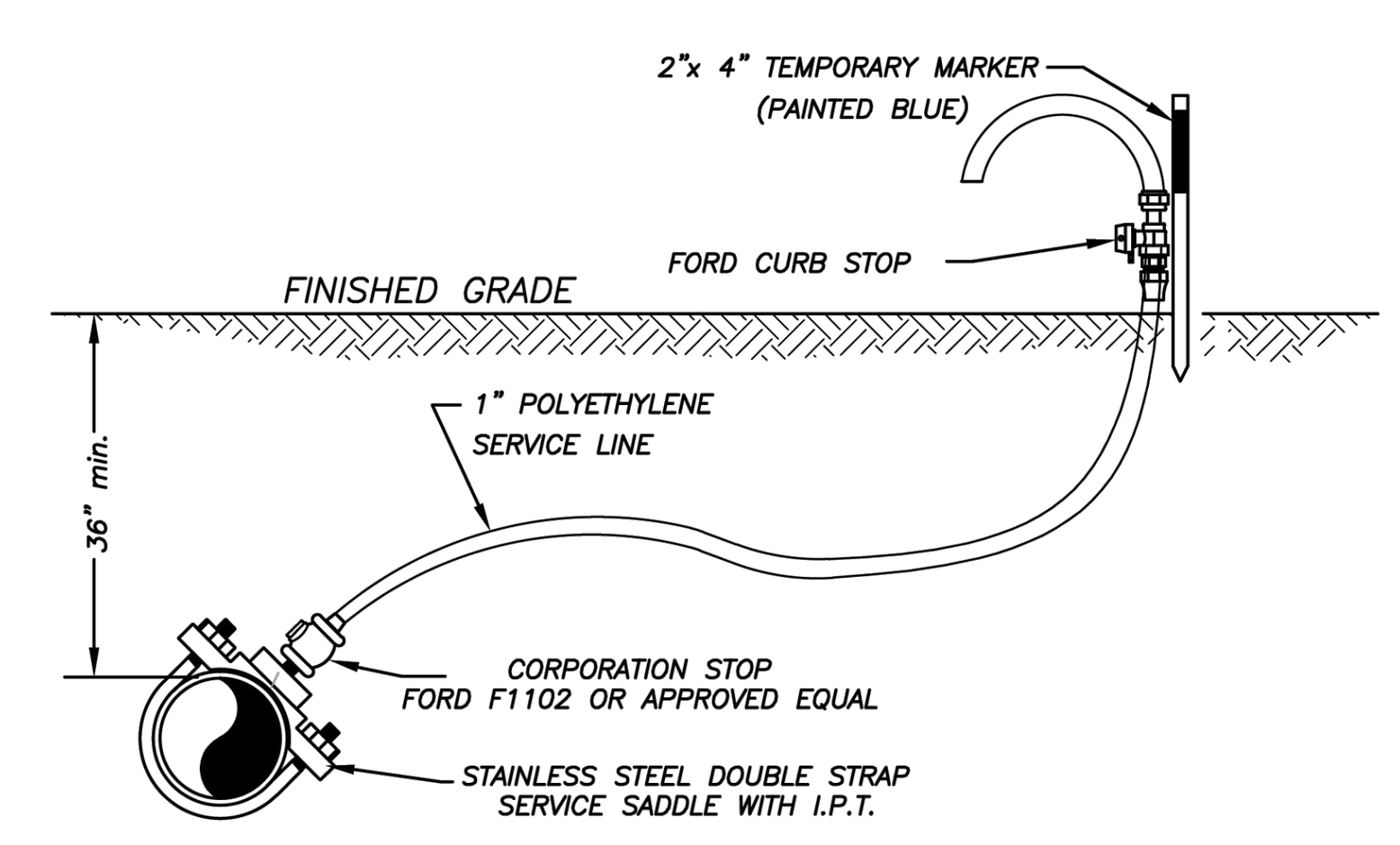
1. HYDRANT SHALL BE INSTALLED PLUMB & TRUE.
2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
3. HEEL TO REST IN UNDISTURBED SOIL.
4. THE ONLY HYDRANTS ACCEPTABLE ARE: MUELLER SUPER CENTURION 250 OR AMERICAN DARLING B-84-B-5.
5. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
6. ALL FITTINGS SHALL BE MECHANICAL JOINT.
7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
8. BLUE LOCATOR SHALL BE PLACED IN CENTER OF TRAVEL LANE CLOSEST TO HYDRANT.
9. ALL HYDRANT VALVE BOX COVERS SHALL BE PAINTED CARNIVAL RED.
10. LOCATE WIRE SHALL TERMINATE AT HYDRANT ISOLATION VALVE
11. HYDRANTS SHALL BE NO MORE THAN FIFTEEN FEET (15 FT.) FROM THE CURB OF ROADWAYS OR FROM THE EDGE OF PAVEMENT. CLEARANCES OF SEVEN AND ONE HALF FEET (7FT-6IN.) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANTS, WITH FOUR FOOT (4 FT.) CLEARANCE TO THE REAR OF HYDRANTS SHALL BE MAINTAINED.

TYPICAL FIRE HYDRANT ASSEMBLY
(N.T.S.)

TYPICAL FIRE HYDRANT ASSEMBLY | W-5 | 03-09 DESIGN SLL JLC | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATERDETAIL.DWG | SCALE: N.T.S. | DATE: 2010 | 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.

BACTERIOLOGICAL SAMPLING PONIT DETAIL | W-6 | 03-09 02-15 SLL JLC | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATERDETAIL.DWG | SCALE: N.T.S. | DATE: 2010 | SHEET 1 OF 1

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 37TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-5 - Plotted by: GEP - Date: 4/26/2024 - 2:46 PM - Giangrande Engineering & Planning

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

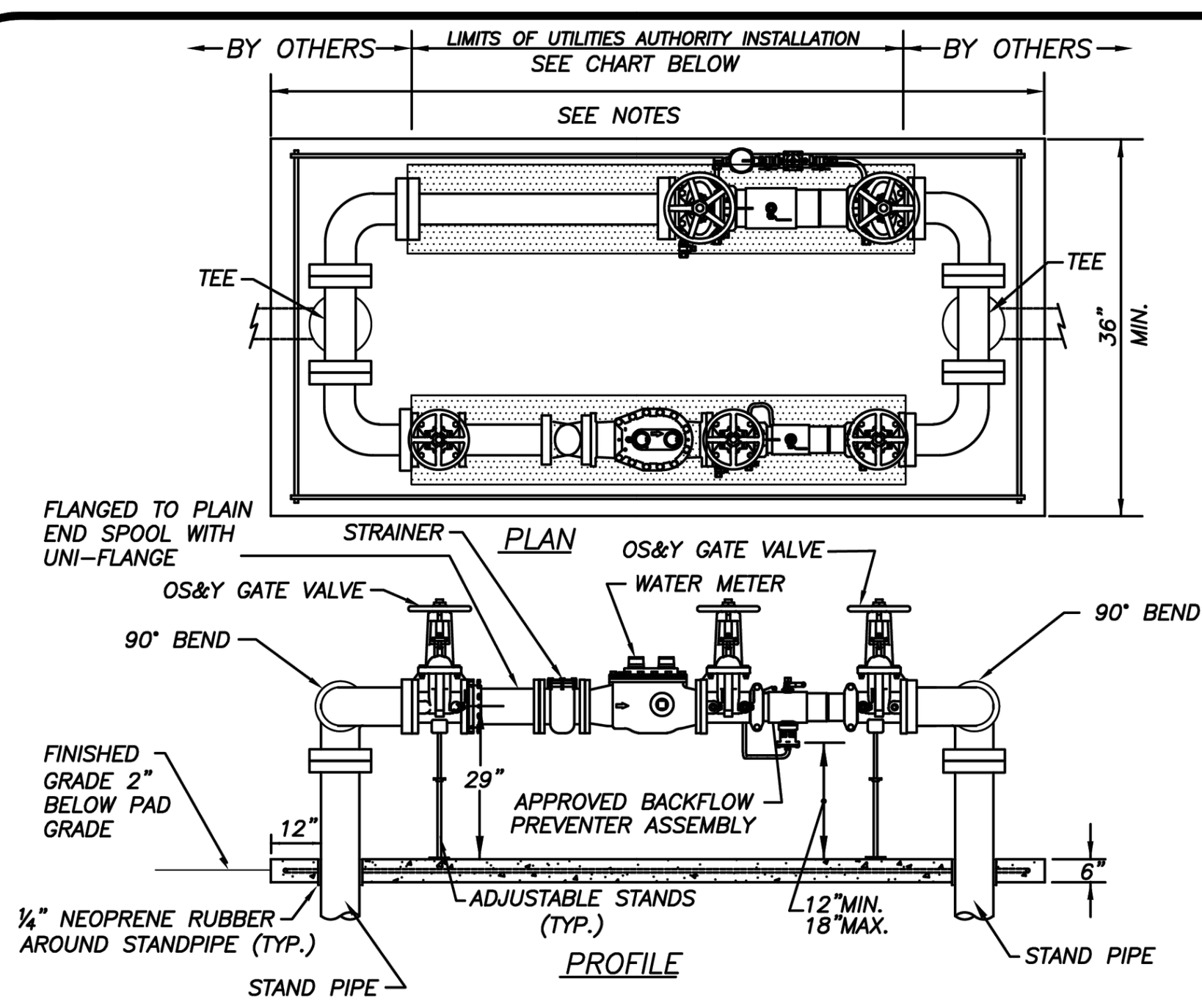
ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901
LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

D-5

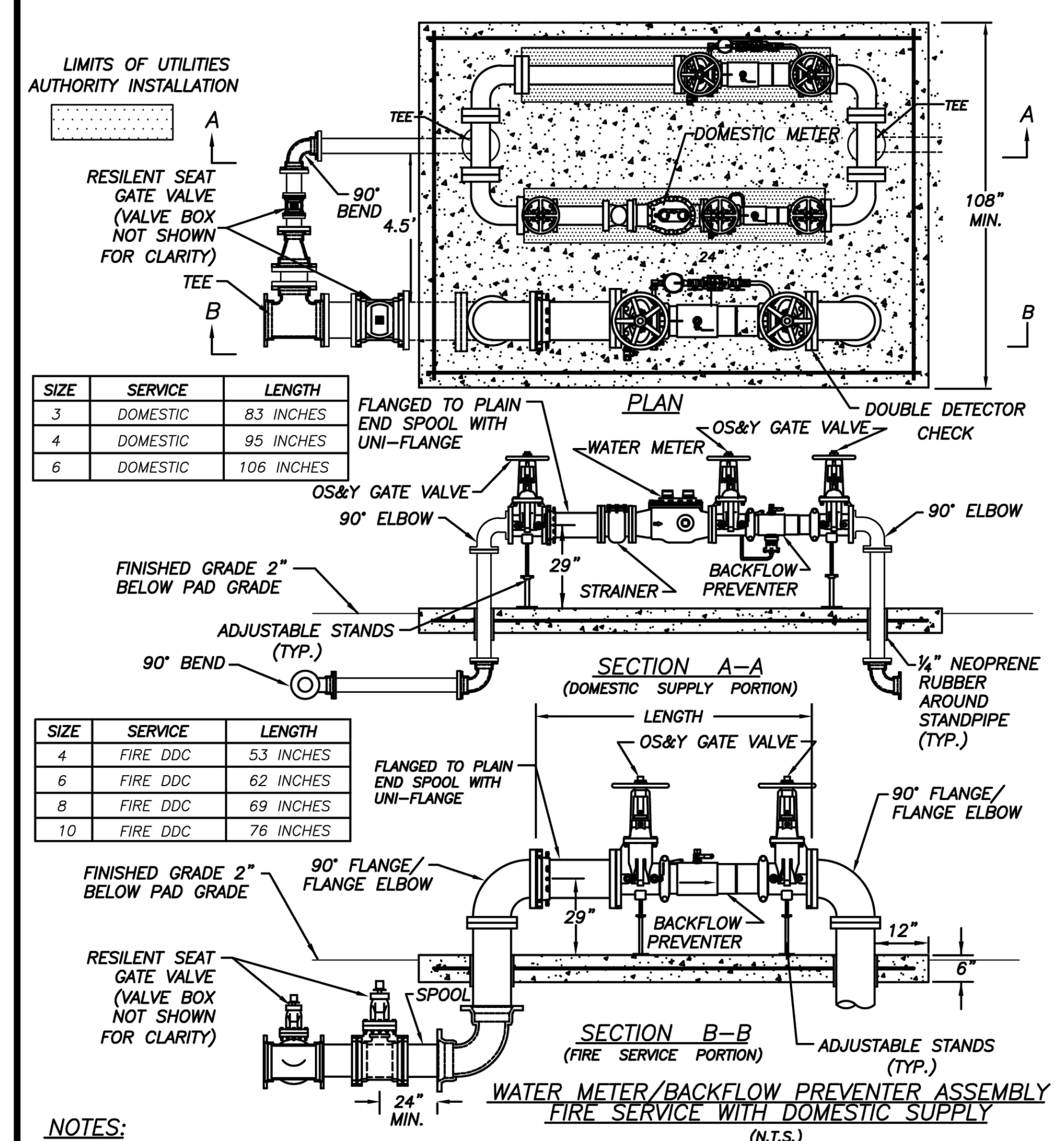


NOTES:
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. CONTRACTOR TO INSTALL APPROPRIATE SIZED SPOOL PIECES TO FIT BETWEEN 90° BENDS UNTIL METERS ARE APPROVED FOR INSTALLATION. ALL SPOOL PIECES SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE IN ACCORDANCE WITH THE CHART BELOW.
3. PRIOR TO POURING CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND ARE INSTALLED AT THE SAME ELEVATION IN THE PRESENCE OF THE FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
3	COMPOUND	83 INCHES
4	COMPOUND	95 INCHES
6	COMPOUND	106 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
COMMERCIAL WATER METER SERVICES (METER SIZE > 3")

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
WATER METER/BACKFLOW PREVENTER — DOMESTIC SERVICE (METER SIZE ≥ 3") — W-9
03-09 CONCRETE SLAB SLL JLC | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATER DETAILS 200602.DWG | SCALE: | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



SIZE	SERVICE	LENGTH
3	DOMESTIC	83 INCHES
4	DOMESTIC	95 INCHES
6	DOMESTIC	106 INCHES

SIZE	SERVICE	LENGTH
4	FIRE DDC	53 INCHES
6	FIRE DDC	62 INCHES
8	FIRE DDC	69 INCHES
10	FIRE DDC	76 INCHES

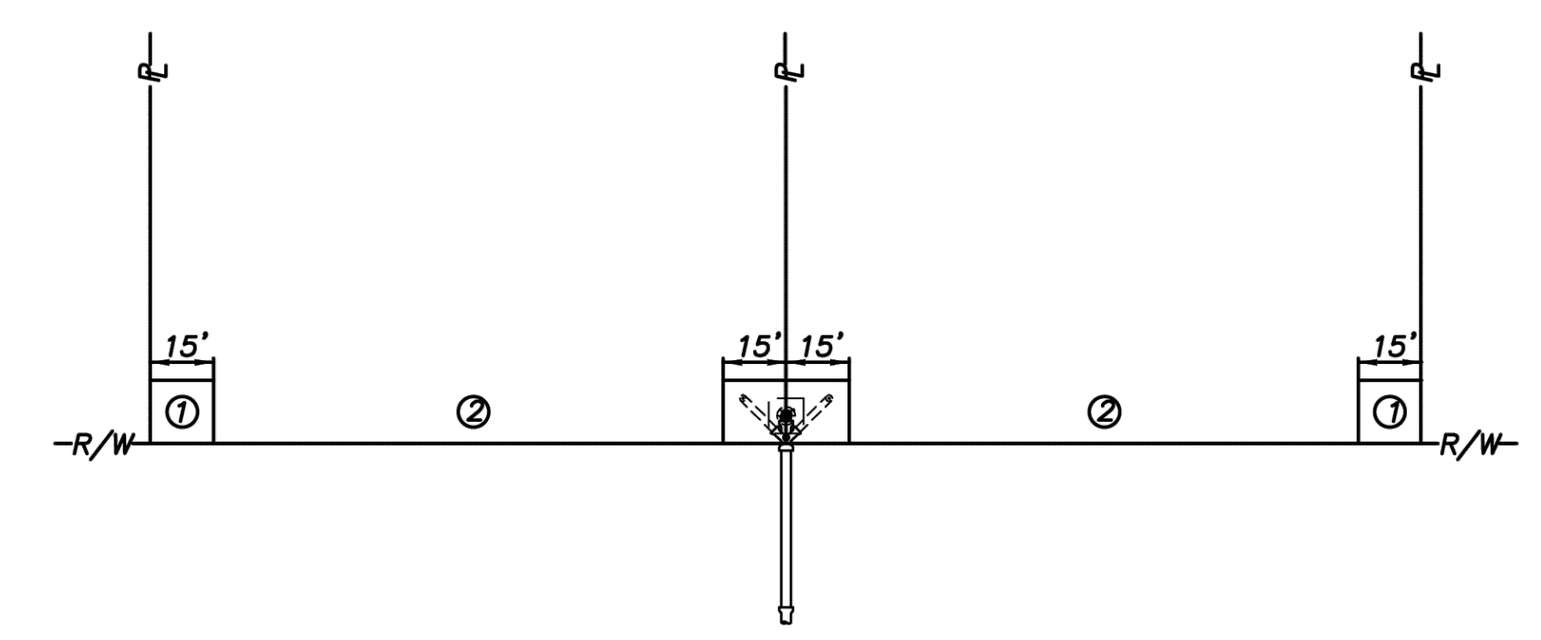
WATER METER/BACKFLOW PREVENTER ASSEMBLY
FIRE SERVICE WITH DOMESTIC SUPPLY
(N.T.S.)

NOTES:
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. NO SOLDER JOINTS.
3. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
4. DOMESTIC SERVICE 2" OR LESS, USE 2" POLY STUBBED 12" ABOVE GRADE.
5. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
WATER METER/BACKFLOW PREVENTER — FIRE SERVICE WITH DOMESTIC SUPPLY — W-11
03-09 CONCRETE PAD SLL JLC | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATER DETAILS 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

GENERAL POLICY

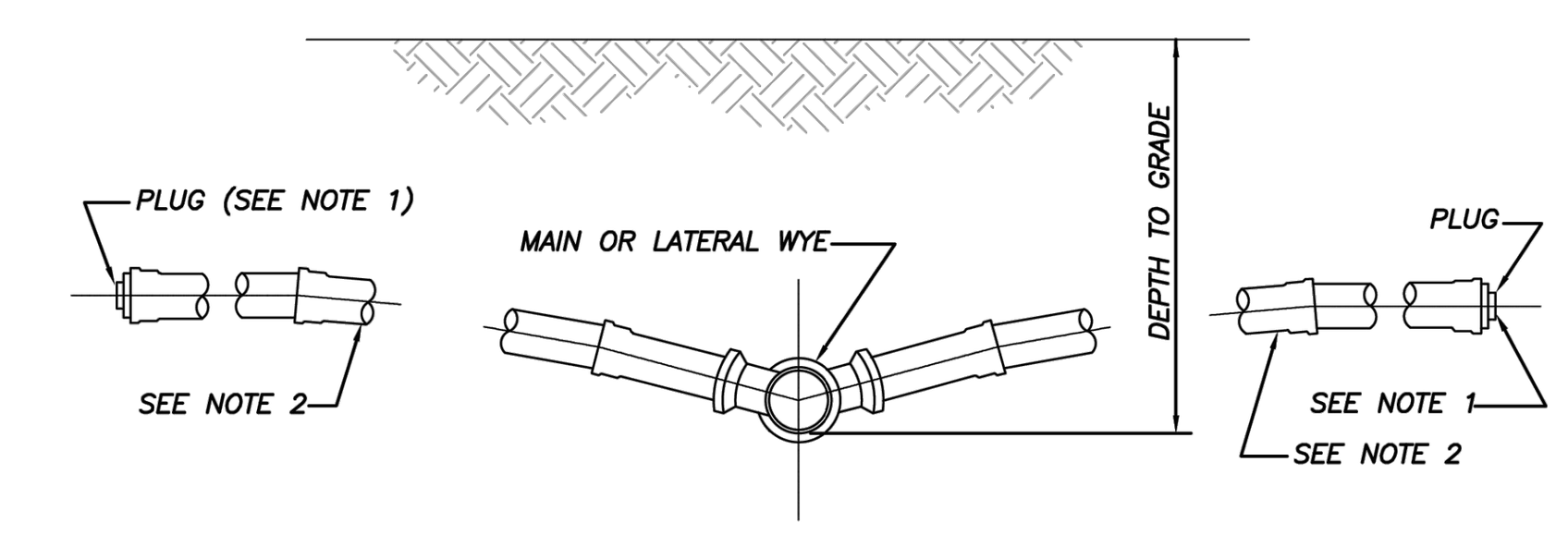
WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.



NOTES:
1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. SEWER LATERAL, AREA ①, SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE LATERAL. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO LATERALS CAN BE CONNECTED IN A "Y" CONFIGURATION AS SHOWN.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. SEWER LATERAL, WITHIN AREA ①, THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ②.
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF SIX FEET AND PREFERABLY 10 FEET.
4. THE WASTEWATER LATERAL SHALL BE LOCATED WITHIN RIGHT-OF-WAY AND TERMINATE AT THE PROPERTY LINE.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WASTEWATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WASTEWATER SERVICE PLACEMENT
(N.T.S.)

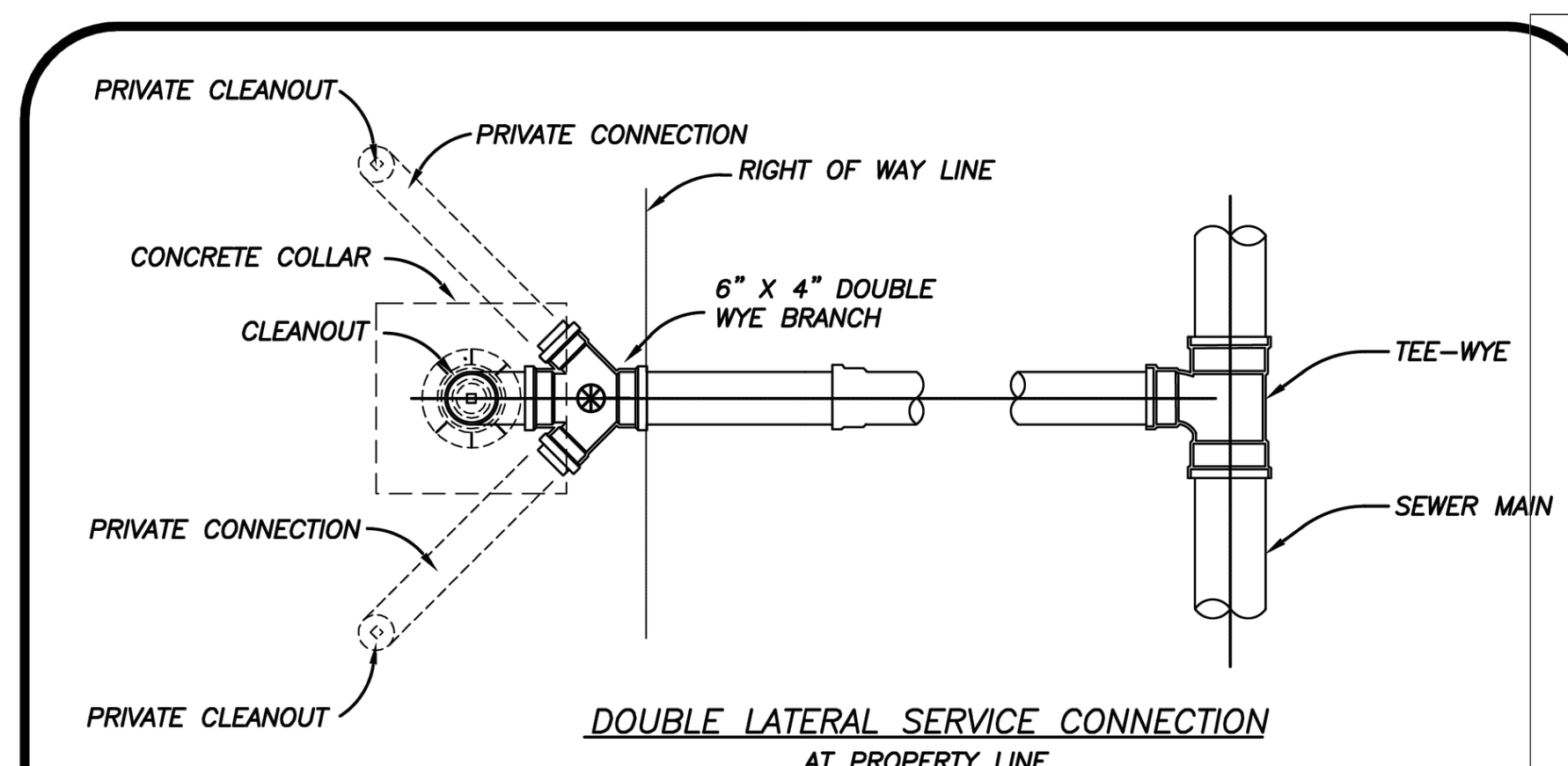
FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
WASTEWATER SERVICE — PLACEMENT POLICY — S-1
02-06 02-15 SLL | DATE: REVISION: BY: APPD: | DESIGNED: JJM | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



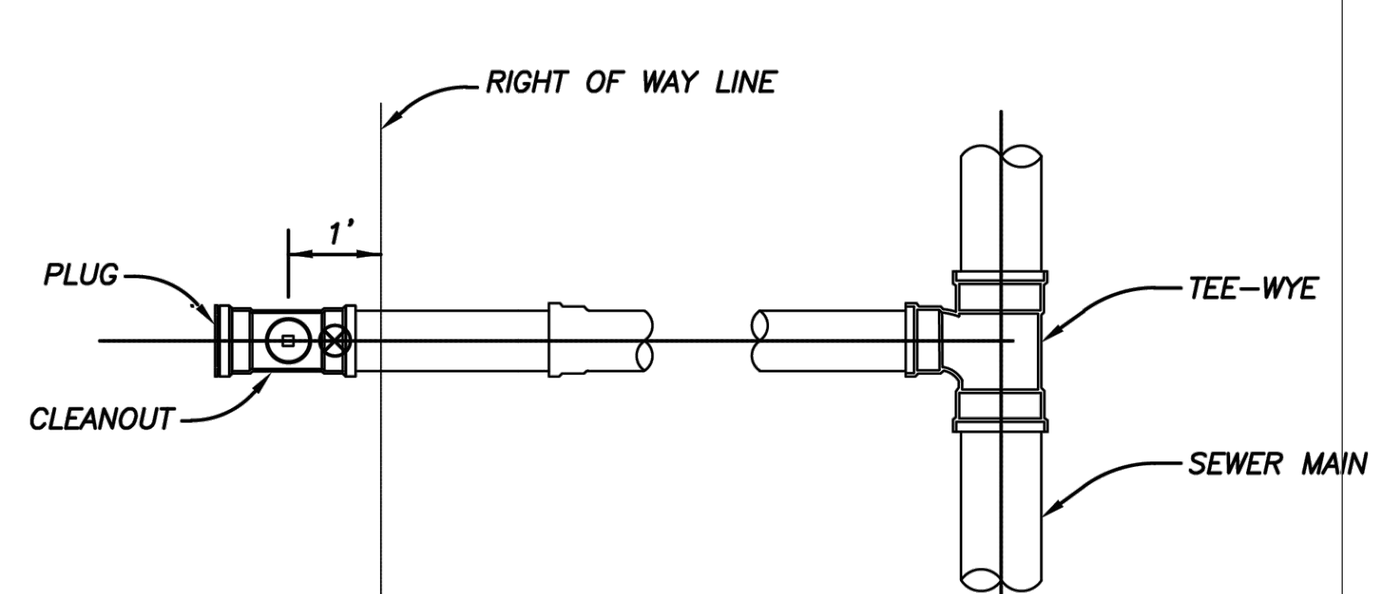
NOTES:
1) BALL TYPE WASTEWATER LOCATOR BY 3M CORP. OR APPROVED EQUAL.
2) MINIMUM SLOPE OF 1/8" PER FOOT, USE GREATER SLOPE WHERE POSSIBLE.
3) SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT.
4) INSTALL CLEANOUT AT THE PROPERTY LINE. REFER TO DETAIL S-1 FOR SPECIFIC PROPERTY LAYOUT.

SERVICE CONNECTION
(N.T.S.)

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
SERVICE CONNECTION — WASTEWATER — S-2
02-06 | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2015 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



DOUBLE LATERAL SERVICE CONNECTION
AT PROPERTY LINE

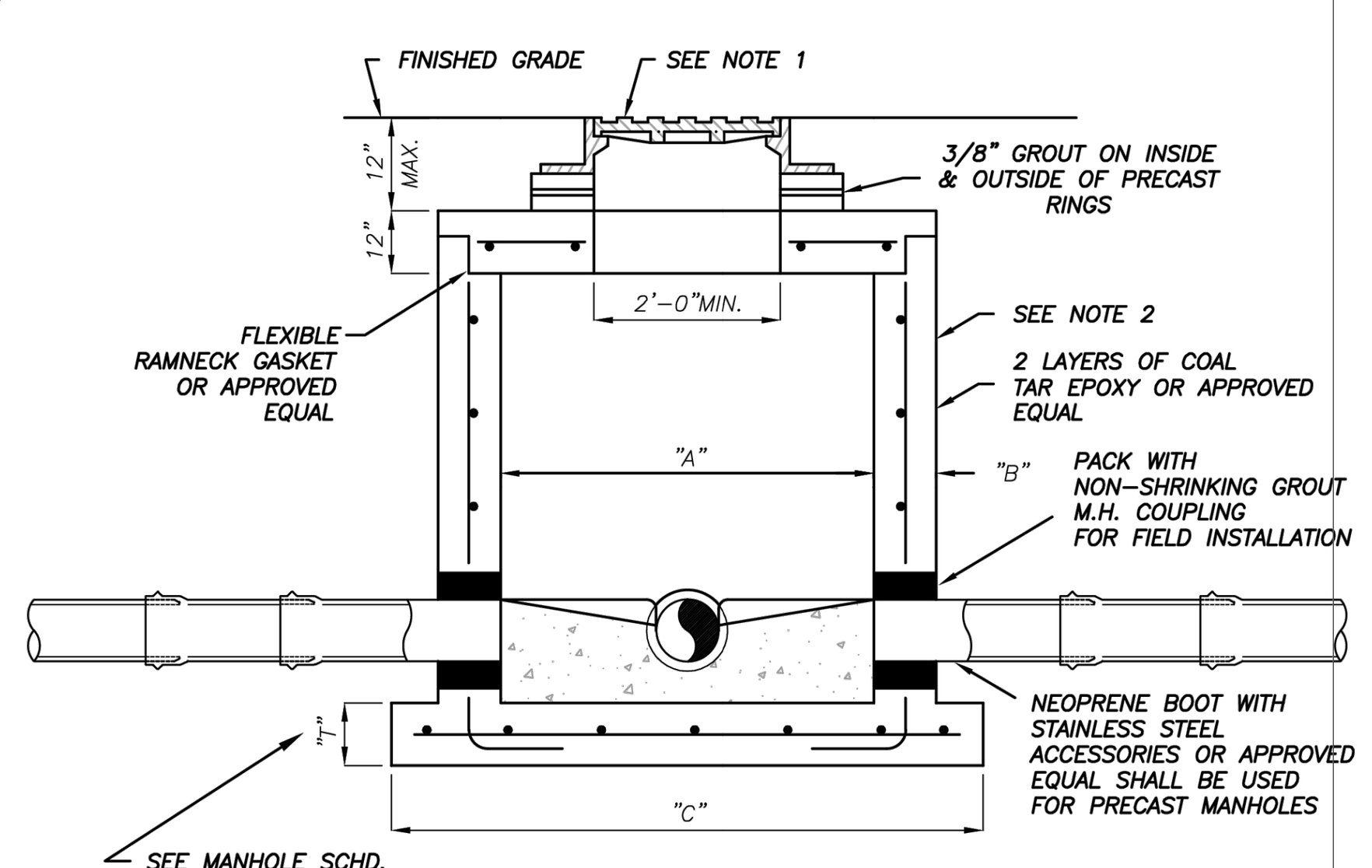


SINGLE SERVICE LATERAL CONNECTION

⊛ = BALL TYPE WASTEWATER LOCATOR INSTALLED ABOVE THIS POINT
BALL BY 3M CORP. OR APPROVED EQUAL
SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT

SERVICE CONNECTION
(N.T.S.)

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
SERVICE CONNECTION — WASTEWATER — S-3
02-06 | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



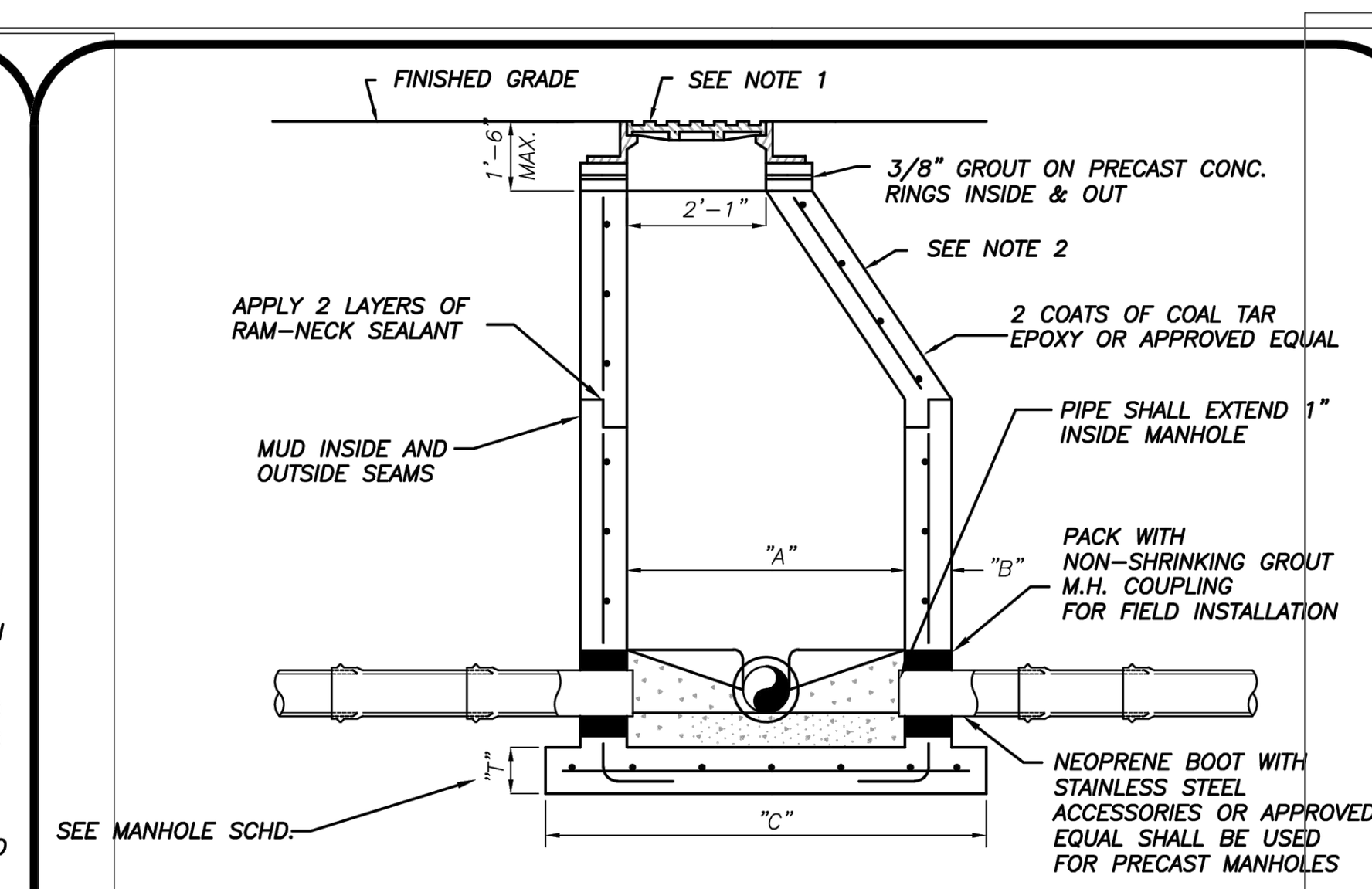
PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"-24"	4'-0"	"8"	76"	8"
30"-36"	5'-0"	"8"	88"	10"
42"-48"	6'-0"	"8"	100"	12"

TYPICAL MANHOLE DIMENSIONS

NOTES:
1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.
2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.
3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.
4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

SHALLOW MANHOLE
DEPTH OF LESS THAN 5'-0"
(N.T.S.)

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
PRECAST MANHOLE DEPTH OF — LESS THAN 5'- 0" — S-6
02-06 | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



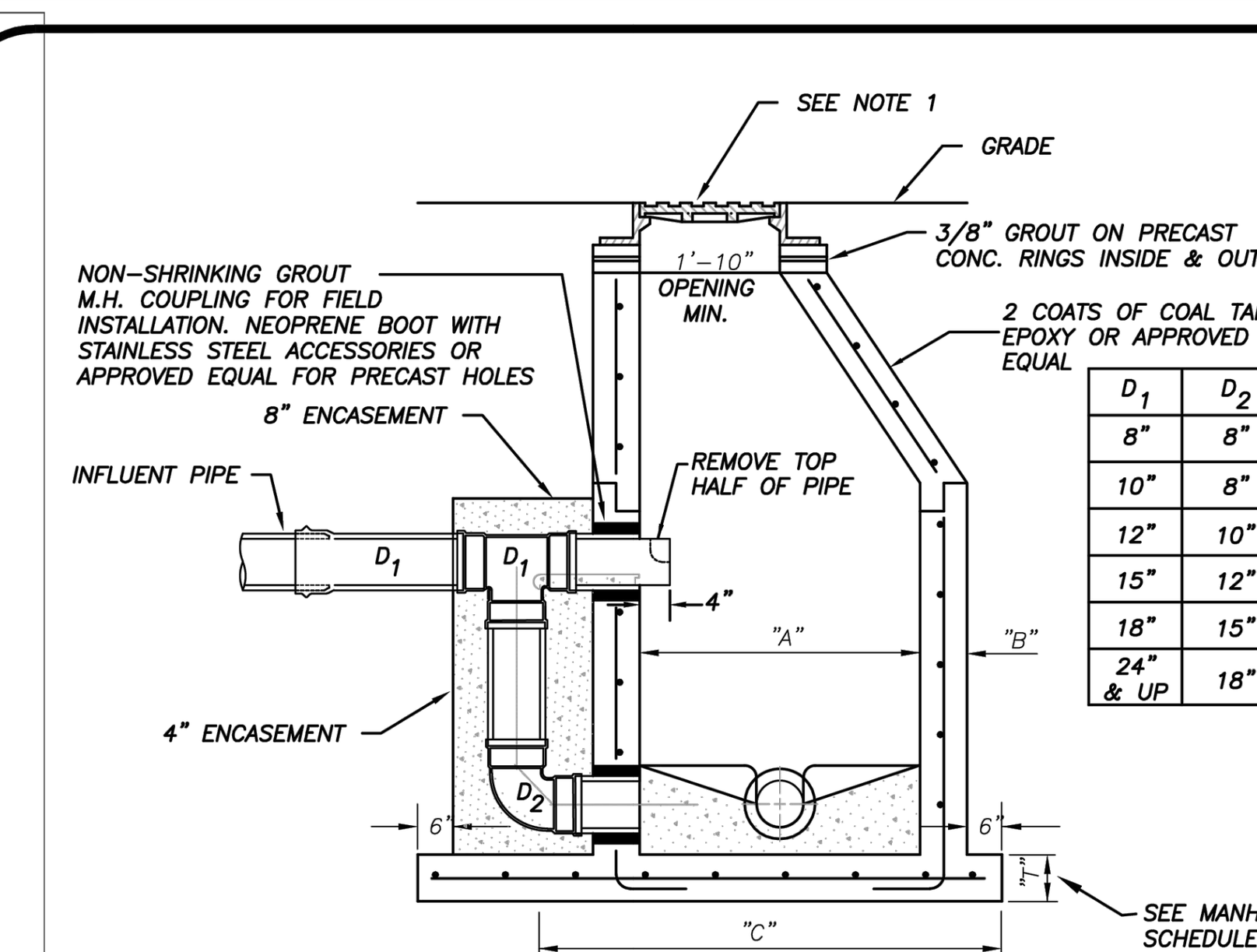
PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"-24"	4'-0"	"8"	76"	8"
30"-36"	5'-0"	"8"	88"	10"
42"-48"	6'-0"	"8"	100"	12"

TYPICAL MANHOLE DIMENSIONS

NOTES:
1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.
2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.
3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.
4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

STANDARD MANHOLE
DEPTH 5'-0" AND GREATER
(N.T.S.)

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
PRECAST MANHOLE DEPTH — 5'- 0" & GREATER — S-7
02-06 | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



D_1	D_2
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
24" & UP	18"

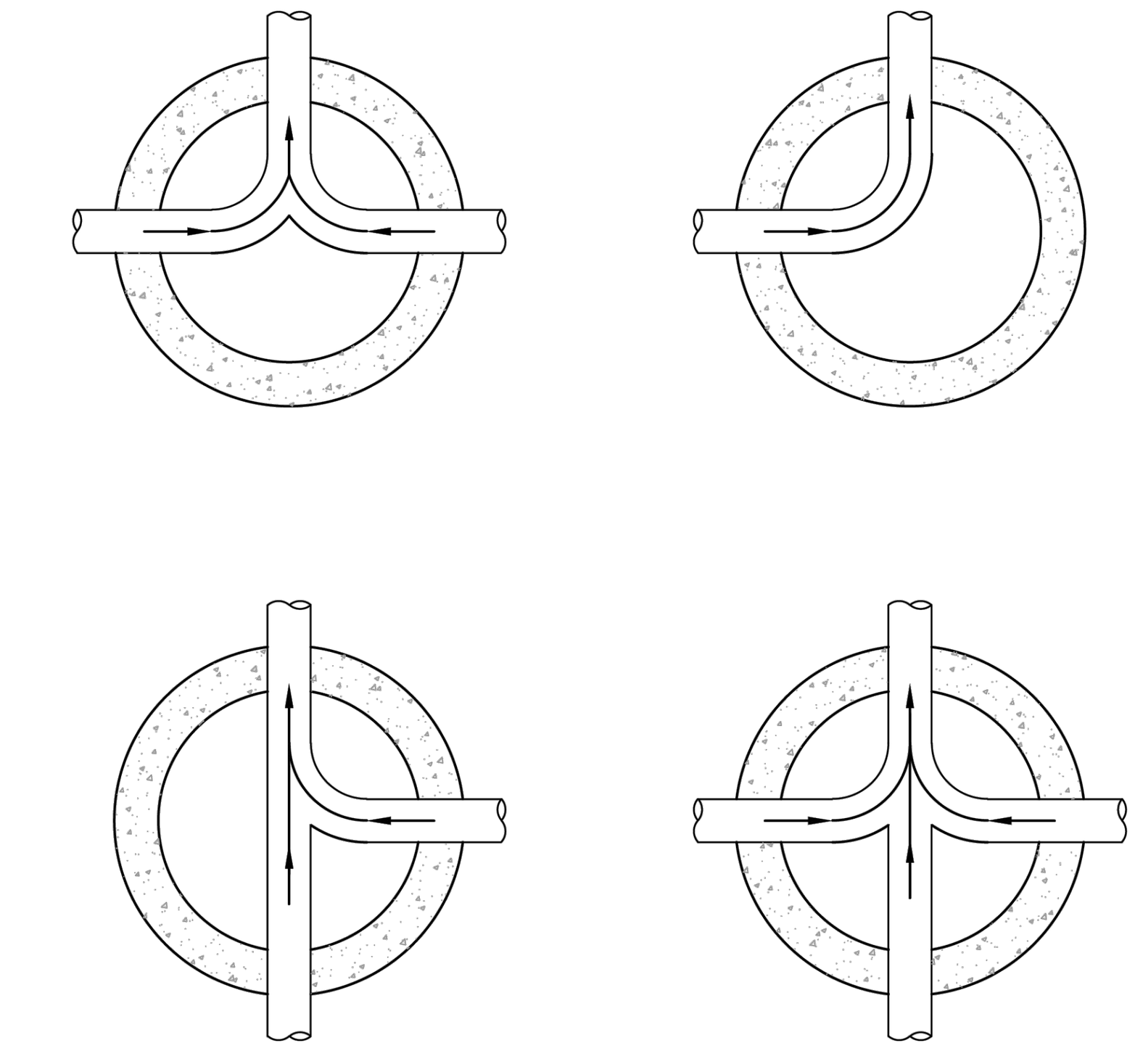
PIPE DIA.	"A"	"B"	"C"	BOT. SLAB "T"
8"-24"	4'-0"	8"	70"	8"
30"-36"	5'-0"	8"	84"	10"
42"-48"	6'-0"	8"	96"	12"

TYPICAL MANHOLE DIMENSIONS

NOTES:
1) MANHOLE FRAME & COVER WITH THE WORDS " SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDRY 170 OR APPROVED EQUAL.
2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE II ACID RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.
3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.
4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.

OUTSIDE DROP MANHOLE
(N.T.S.)

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
PRECAST MANHOLE WITH — OUTSIDE DROP — S-8
02-06 | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



NOTES:
1) INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2) SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600
FLOW PATTERNS — FOR INVERT CHANNELS — S-12
DATE: REVISION: BY: APPD: | DESIGNED: JJM | DRAWN BY: JJM | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-6 – Plotted by: GEP – Date: 4/26/2024 – 2:46 PM – Giangrande Engineering & Planning

DATE	BY	REVISIONS
04/12/2024	DC	CITY OF FORT PIERCE COMMENTS FROM TRC MEETING

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024
D-6

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers

710 SE Ocean Blvd.
Stuart, FL 34996
772.888.9076

Memorandum

Date:	December 28, 2023
To:	City of Fort Pierce Development Review
From:	Leo Giangrande, PE
Subject:	Crossroads RV Park GEP Project No.: 22-024
Distribution:	Development team, file

Giangrande Engineering & Planning, LLC has prepared this memorandum to assist in the development review application for the Crossroads RV Park. The project is an 83 lot RV park located at the intersection of Crossroads Pwky. And Andrews Ave. on a 10.9 acre parcel of land. The site plan will have references to a future amenity center with a pool and pickleball courts, this will be a future project, permitted separately. The building area for these future permitted projects will be as follows.

- Amenity center building foot print: 3,200 sf
- Pool area: 3,600 sf
- Pickleball courts: 4,000 sf

Should you have any questions, please contact Leo Giangrande at (772) 888 9076 or e-mail at Leo@GEP-LLC.com

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComfort™ Technology – Version C

Rev. Date: V7 11/01/2023

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. Medium is suitable upgrade for HID applications up to 400 Watts. Large is suitable upgrade for HID applications up to 1000 Watts. Extra Large is suitable upgrade for HID applications up to multiple 1000 Watts.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, pickleball courts, high-mast and internal roadways

Performance Summary

Utilizes Patented NanoComfort™ Technology

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: 4,000 - 85,000

Efficacy: Up to 171 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

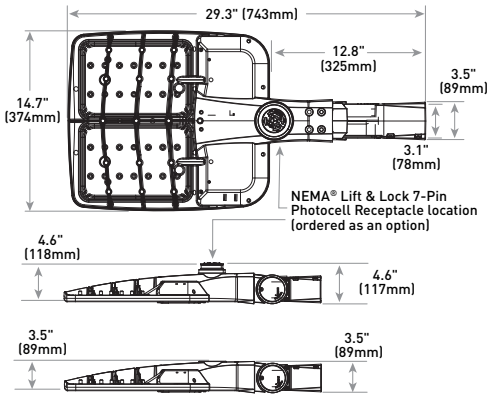
CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty†: 10 years for luminaire; 10 years for Colorfast DeltaGuard® finish; 5 years for BML sensor; up to 5 years for Synapse® accessories; 1 year for luminaire accessories

† See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

OSQM - AA Mount





Luminaire	Weight
OSQM	19.3 lbs. (8.8kg)

Note: For OSQL, OSQX and additional mounts, refer to drawings on page 27.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-C-AA-BK + **Luminaire:** OSQM-C-4L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*

OSQ-

Medium/Large Mounts
OSQ-ML-C-AA Adjustable Arm
OSQ-ML-C-DA Direct Arm
OSQ-ML-C-TM Trunnion Mount

Extra Large Mounts
OSQ-X-C-AA Adjustable Arm
OSQ-X-C-DA Direct Arm

Color Options: **SV** Silver **BK** Black **BZ** Bronze **WH** White

* Reference fixture mounting drill pattern, EPA, and pole configuration suitability data beginning on page 14.

Luminaire (Mount must be ordered separately)

OSQ **C**

Family	Size	Series	Lumen Package†	CCT/ CRI	Optic	Voltage	Mount	Color Options	Controls*	Options
OSQ	**M** Medium **L** Large **X** Extra Large	**C**	**Medium** **4L** 4,000 Lumens **6L** 6,000 Lumens **9L** 9,000 Lumens **11L** 11,000 Lumens **16L** 16,000 Lumens **Large** **22L** 22,000 Lumens **30L** 30,000 Lumens **40L** 40,000 Lumens **Extra Large** **50L** 50,000 Lumens **65L** 65,000 Lumens **75L** 75,000 Lumens **85L** 85,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**Asymmetric** **2M** Type II Mid **2B**** Type II Mid w/ Factory-Installed Backlight Shield - Available with all lumen packages except 85L **3M** Type III Mid **3B**** Type III Mid w/ Factory-Installed Backlight Shield - Available with all lumen packages except 85L **4M** Type IV Mid **4B**** Type IV Mid w/Factory-Installed Backlight Shield - Available with all lumen packages except 85L **AF** Automotive FrontlineOptic™ **AB**** Automotive Frontline Optic™ w/Factory-Installed Backlight Shield - Available with all lumen packages except 85L **Symmetric** **5M** Type V Mid **5N** Type V Narrow **33** NEMA® 3x3 **44** NEMA® 4x4 **55** NEMA® 5x5 **66** NEMA® 6x6 **75** NEMA® 7x5	**UL** Universal 120-277V **UH** Universal 347-480V - Not available with 4L, 40L, 75L or 85L lumen packages **UE** Universal 277-480V - Available only with 40L, 75L and 85L lumen packages	**NM** No Mount - Must specify mount from table above - Mount ships separately	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**BML** **Bluetooth® Technology Enabled Multi-Level Sensor** - Utilizes a multifunction sensor - Refer to BML spec sheet for details - 20-40' sensor lens installed on luminaire; 8-20' sensor lens and aisle shroud included - Intended for downlight applications at 0° tilt - Not available with Q or X options or Synapse TL7-HVG accessory **Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1** **Field Adjustable Output** - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 15-26 for power and lumen values - Not available with BML or X options or Synapse TL7-HVG accessory **X8/X7/X6/X5/X4/X3/X2/X1** **Locked Lumen Output** - Must select X8, X7, X6, X5, X4, X3, X2, or X1 - Not available with BML or Q options - X1 option not available with the following lumen package/voltage offerings: 9L/UL, 16L/UL, 16L/UH, 30L/UL, 30L/UH, 65L/UL, 65L/UH - X2 option not available 9L/UL lumen package/voltage - Lumen output is permanently locked to the setting selected - Refer to pages 15-26 for power and lumen values	**20KV** **20kV/10kA Surge Suppression** - Replaces standard 10kV/5kA surge protection **F** **Fuse** - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - When code dictates fusing, use time delay fuse **N** **Utility Label and NEMA® Lift & Lock 7-Pin Photocell Receptacle** - External utility label per ANSI C136.15-2020 - 7-pin receptacle per ANSI C136.41 - Available only with OSQM & OSQL luminaires - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others **R** **NEMA® Lift & Lock 7-Pin Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others - Refer to page 2 for compatible Synapse control offerings **RL** **Rotate Left** - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics **RR** **Rotate Right** - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics

† Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.
* Luminaire comes standard with 0-10V dimming.
** Factory-installed backlight shields are integral to luminaire optic and may not be removed in the field. For field-install backlight control, please refer to the External Backlight Shields in the accessory table on page 2.

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING®

Product Specifications

CREE LIGHTING NANOCOMFORT™ TECHNOLOGY

Cree Lighting's NanoComfort™ Technology ends the trade-offs in outdoor lighting by providing superior glare reduction and visual comfort in high-efficiency illumination delivered precisely where it is needed. The basic building block of NanoComfort™Technology is a compact 4x4 array of LEDs. Each of the 16 LEDs in a module is in contact with its own acrylic polymer lens to capture and precisely direct light. With NanoComfort™ Technology, the acrylic optics are cut and sculpted into facets that relieve the glare and harshness while improving visual comfort – all while retaining superb efficacy and control.

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Acrylic optic w/clear tempered glass lens
- Some versions are provided with full circuit board, but not fully populated with LEDs or optics to scale back lumen package
- Convenient interlocking mounting method on direct arm. Mounting adaptor is rugged die cast aluminum and mounts to 3" (76mm) or larger square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers. Refer to page 14 for fixture mounting drill patterns
- Adjustable arm mount adapters are rugged die cast aluminum
- OSQ-ML-C-AA mounts to a horizontal or vertical 2" (51mm) IP, 2.375" (60mm) O.D. tenon and can be adjusted 180° in 2.5° increments
- OSQ-X-C-AA mounts to a horizontal or vertical 2" (51mm) IP, 2.375-2.50" (60-64mm) O.D. steel tenon and can be adjusted 180° in 5.0° increments. **NOTE: Tenon length must be a minimum of 3.75" (95mm), and tenon must be steel**
- Trunnion mount is constructed of A500 and A1011 steel and is adjustable from 0-180° in 15° degree increments. Trunnion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Luminaires include 15" (381mm) 18/5 cord exiting the luminaire
- Designed for uplight and downlight applications. Uplight orientation not suitable for use with N or R options
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available

Weight

Mount	Housing Size		
	Medium	Large	Extra Large
Direct Arm	19.7 lbs. (8.9kg)	28.8 lbs. (13.1kg)	45.8 lbs. (20.8kg)
Adjustable Arm	19.3 lbs. (8.8kg)	28.4 lbs. (12.9kg)	48.6 lbs. (22.0kg)
Trunnion	23.2 lbs. (10.5kg)	32.3 lbs. (14.7kg)	N/A

For BML sensor add 0.1 lbs. (45g), and for NEMA receptacle, add 0.3 lbs. (136g).

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V, 277-480V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV/5kA surge suppression protection standard; 20kV/10kA surge suppression protection optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Dims to 10%. Controls by others
- 0-10V dimming per ANSI C137.1-2019 (8-Volt or 9-Volt per power level/options selected)
- Refer to Dimming spec sheet for details
- **Maximum 10V Source Current:** 1.8mA
- **Operating Temperature Range:** -40°C - +40°C (-40°F - +104°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed (UL1598)
- Suitable for wet locations
- Meets NEMA C82.77 standards
- Drivers and LEDs are UL certified in accordance with UL8750
- Meets requirements of IP66 per IEC 60529 when ordered without N or R options
- Certified to ANSI C136.31-2018, 3G bridge and overpass vibration standards
- ANSI C136.2 10kV/5kA (standard) and 20kV/10kA (optional) surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Lens meets IK07 requirements per IEC 60068-2
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and direct arm mount only. Please refer to https://darksky.org/what-we-do/darksky-approved/products-companies/#!/~/search/keyword=cree for most current information
- DLC and DLC Premium qualified SKUs available. Exceptions apply when 2B, 3B, 4B & AB optics are selected. Please refer to https://qpl.designlights.org/solid-state-lighting for most current information
- DLC Luna qualified when ordered with direct arm mount and 30K7 CCT. Please refer to https://qpl.designlights.org/solid-state-lighting for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL

The Synapse SimplySNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 1000 nodes per gateway. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. The Twist-Lock Lighting Controller (TL7-HVG) and Site Controller (SS450-002) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Synapse Wireless Control Accessories

Twist-Lock Lighting Controller
TL7-HVG
- Suitable for 120-480V (UL, UE and UH) voltages
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Not for use with BML or Q options
- Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaire
- Refer to TL7-HVG spec sheet for details

SimplySNAP Central Base Station
CBSSW-450-002
- Includes On-Site Controller (SS450-002) and 5-button switch
- Indoor and Outdoor rated
- Refer to CBSSW-450-002 spec sheet for details

Synapse Wireless Sensor
WSN-DPM
- Motion and light sensor
- Control multiple zones
- Refer to WSN-DPM spec sheet for details

SimplySNAP On-Site Controller
SS450-002
- Verizon® LTE-enabled
- Designed for indoor applications
- Refer to SS450-002 spec sheet for details

Building Management System (BMS) Gateway
BMS-GW-002
- Required for BACnet integration
- Refer to BMS-GW-002 spec sheet for details

Outdoor Antennas
(Optional, for increased range, 8dB gain)
KIT-ANT420SM
- Kit includes antenna, 20' cable and bracket

KIT-ANT360
- Kit includes antenna, 30' cable and bracket

KIT-ANT600
- Kit includes antenna, 50' cable and bracket
- Refer to Outdoor antenna spec sheet for details

Electrical Data*

Lumen Package	System Watts 120-480V	Utility Label Wattage	Total Current (A)					
			120V	208V	240V	277V	347V	480V
4L**	26	30	0.21	0.12	0.11	0.09	N/A	N/A
6L	37	40	0.31	0.18	0.15	0.13	0.11	0.08
9L	55	60	0.46	0.27	0.23	0.20	0.16	0.12
11L	68	70	0.57	0.33	0.28	0.25	0.20	0.14
16L	97	100	0.81	0.47	0.40	0.35	0.28	0.20
22L	131	130	1.09	0.63	0.55	0.47	0.38	0.27
30L	175	180	1.46	0.84	0.73	0.63	0.50	0.36
40L	236	240	1.96	1.13	0.98	0.85	0.68	0.49
50L	297	N/A	2.48	1.43	1.24	1.07	0.86	0.62
65L	384	N/A	3.20	1.85	1.60	1.39	1.11	0.80
75L	447	N/A	3.73	2.15	1.86	1.61	1.29	0.93
85L	520	N/A	4.34	2.50	2.17	1.88	1.50	0.93

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V, 277-480V or 347-480V+/-10%.
** Available with UL voltage only.

OSQ-C Series Ambient Adjusted Lumen Maintenance[1]

Ambient	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Reported[2] LMF	100K hr Reported[2] LMF
5°C (41°F)	1.02	0.99	0.93	0.88	0.83
10°C (50°F)	1.02	0.98	0.93	0.87	0.82
15°C (59°F)	1.01	0.98	0.92	0.87	0.82
20°C (68°F)	1.01	0.97	0.92	0.86	0.81
25°C (77°F)	1.00	0.97	0.91	0.86	0.81

[1] Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

Accessories

Field-Installed

External Backlight Shield
OSQ-M-C-BLSF (Medium)
OSQ-L-C-BLSF (Large)
OSQ-X-C-BLSF (Extra Large)
- Not for use with rotated optics

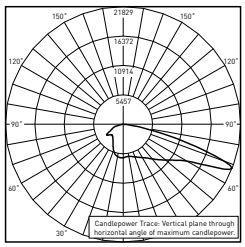
Bird Spikes
OSQ-M-C-BRDSPK
OSQ-L-C-BRDSPK
OSQ-X-C-BRDSPK

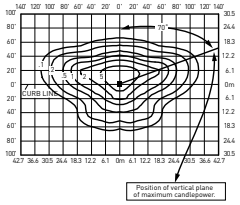
Shorting Cap
XA-XSLSHRT

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

2M





RESTL Test Report #: PL17910-001A
Configured
OSQL-C-30L-30K7-2M-UL-xx-xx-xx
Initial Delivered Lumens: 27,400

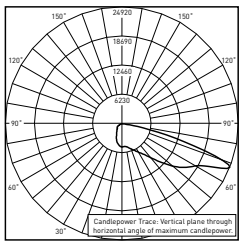
OSQL-C-30L-30K7-2M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 27,400
Initial FC at grade

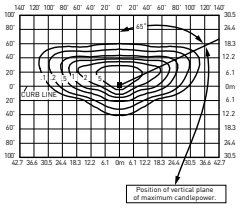
Type II Mid Distribution

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G2	8,550	B2 U0 G2	6,325	B2 U0 G2	8,550	B2 U0 G2
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G2	10,450	B2 U0 G2
16L	14,650	B3 U0 G3	15,200	B3 U0 G3	11,275	B2 U0 G2	15,200	B3 U0 G3
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B3 U0 G3	20,900	B3 U0 G3
30L	27,400	B3 U0 G3	28,500	B3 U0 G3	21,100	B3 U0 G3	28,500	B3 U0 G3
40L	36,500	B4 U0 G4	38,000	B4 U0 G4	28,100	B3 U0 G3	38,000	B4 U0 G4
50L	45,600	B4 U0 G4	47,500	B4 U0 G4	35,200	B3 U0 G3	47,500	B4 U0 G4
65L	59,300	B4 U0 G5	61,800	B4 U0 G5	45,700	B4 U0 G4	61,800	B4 U0 G5
75L	68,400	B5 U0 G5	71,300	B5 U0 G5	52,800	B4 U0 G4	71,300	B5 U0 G5
85L	77,600	B5 U0 G5	80,800	B5 U0 G5	59,800	B4 U0 G5	80,800	B5 U0 G5

* Initial delivered lumens at 25˚C (77˚F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

2B





RESTL Test Report #: PL17977-001A
OSQL-C-40L-30K7-2B-UL-xx-xx-xx
Initial Delivered Lumens: 25,560

OSQL-C-40L-30K7-2B-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 25,100
Initial FC at grade

Type II Mid w/BLS Distribution (factory-installed)

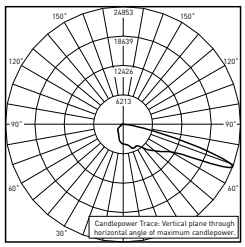
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,510	B1 U0 G1	2,620	B1 U0 G1	1,940	B0 U0 G1	2,620	B1 U0 G1
6L	3,760	B1 U0 G1	3,920	B1 U0 G1	2,900	B1 U0 G1	3,920	B1 U0 G1
9L	5,650	B1 U0 G1	5,875	B1 U0 G1	4,350	B1 U0 G1	5,875	B1 U0 G1
11L	6,900	B1 U0 G1	7,200	B1 U0 G2	5,325	B1 U0 G1	7,200	B1 U0 G2
16L	10,075	B1 U0 G2	10,450	B2 U0 G2	7,750	B1 U0 G2	10,450	B2 U0 G2
22L	13,800	B2 U0 G2	14,375	B2 U0 G2	10,650	B2 U0 G2	14,375	B2 U0 G2
30L	18,800	B2 U0 G2	19,600	B2 U0 G3	14,525	B2 U0 G2	19,600	B2 U0 G3
40L	25,100	B3 U0 G3	26,200	B3 U0 G3	19,400	B2 U0 G2	26,200	B3 U0 G3
50L	31,400	B3 U0 G4	32,700	B3 U0 G4	24,200	B3 U0 G3	32,700	B3 U0 G4
65L	40,800	B3 U0 G4	42,500	B3 U0 G4	31,500	B3 U0 G4	42,500	B3 U0 G4
75L	47,100	B3 U0 G5	49,000	B3 U0 G5	36,300	B3 U0 G4	49,000	B3 U0 G5

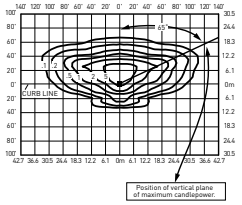
* Initial delivered lumens at 25˚C (77˚F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

2M W/OSQ-*-C-BLSF





RESTL Test Report#: PL17978-001B
OSQL-C-40L-30K7-2M-UL-xx-xx-xx w/ OSQ-L-C-BLSF
Initial Delivered Lumens: 21,978

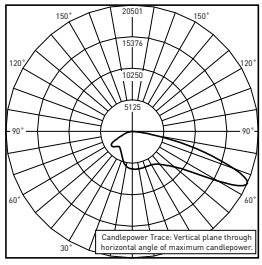
OSQL-C-40L-30K7-2M-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 21,000
Initial FC at grade

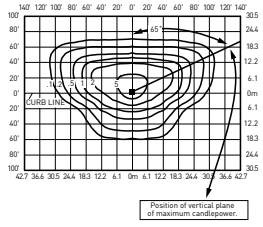
Type II Mid Distribution w/OSQ-*-C-BLSF (field-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B0 U0 G1	2,180	B0 U0 G1	1,610	B0 U0 G1	2,180	B0 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G1	6,000	B1 U0 G1	4,450	B1 U0 G1	6,000	B1 U0 G1
16L	8,400	B1 U0 G2	8,725	B1 U0 G2	6,475	B1 U0 G2	8,725	B1 U0 G2
22L	11,550	B2 U0 G2	12,000	B2 U0 G2	8,900	B1 U0 G2	12,000	B2 U0 G2
30L	15,700	B2 U0 G3	16,400	B2 U0 G3	12,100	B2 U0 G2	16,400	B2 U0 G3
40L	21,000	B3 U0 G3	21,800	B3 U0 G3	16,100	B2 U0 G3	21,800	B3 U0 G3
50L	26,200	B3 U0 G4	27,300	B3 U0 G4	20,200	B3 U0 G3	27,300	B3 U0 G4
65L	34,000	B3 U0 G4	35,500	B3 U0 G4	26,200	B3 U0 G4	35,500	B3 U0 G4
75L	39,300	B3 U0 G4	40,900	B3 U0 G4	30,300	B3 U0 G4	40,900	B3 U0 G4
85L	44,500	B3 U0 G5	46,400	B4 U0 G4	34,300	B3 U0 G5	46,400	B3 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

3M





RESTL Test Report #: PL17882-001A
Configured
OSQL-C-30L-30K7-3M-UL-xx-xx-xx
Initial Delivered Lumens: 27,400

OSQL-C-30L-30K7-3M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 27,400
Initial FC at grade

Type III Mid Distribution

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G2	8,550	B2 U0 G2	6,325	B1 U0 G1	8,550	B2 U0 G2
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G2	10,450	B2 U0 G2
16L	14,650	B3 U0 G3	15,200	B3 U0 G3	11,275	B2 U0 G2	15,200	B3 U0 G3
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B3 U0 G3	20,900	B3 U0 G3
30L	27,400	B3 U0 G4	28,500	B3 U0 G4	21,100	B3 U0 G3	28,500	B3 U0 G4
40L	36,500	B4 U0 G4	38,000	B4 U0 G4	28,100	B3 U0 G4	38,000	B4 U0 G4
50L	45,600	B4 U0 G5	47,500	B4 U0 G5	35,200	B3 U0 G4	47,500	B4 U0 G5
65L	59,300	B4 U0 G5	61,800	B4 U0 G5	45,700	B4 U0 G5	61,800	B4 U0 G5
75L	68,400	B4 U0 G5	71,300	B5 U0 G5	52,800	B4 U0 G5	71,300	B5 U0 G5
85L	77,600	B5 U0 G5	80,800	B5 U0 G5	59,800	B4 U0 G5	80,800	B5 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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Photometry

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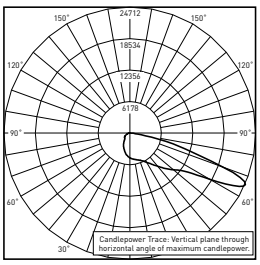
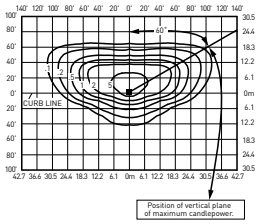
3B





RESTL Test Report #: PL17975-001A
OSQL-C-40L-30K7-3B-UL-xx-xx-xx
Initial Delivered Lumens: 25,199

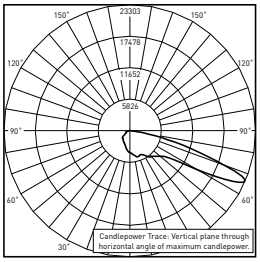
OSQL-C-40L-30K7-3B-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 25,100
Initial FC at grade

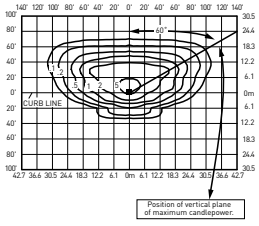
Type III Mid w/BLS Distribution (factory-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,510	B1 U0 G1	2,620	B1 U0 G1	1,940	B0 U0 G1	2,620	B1 U0 G1
6L	3,760	B1 U0 G1	3,920	B1 U0 G1	2,900	B1 U0 G1	3,920	B1 U0 G1
9L	5,650	B1 U0 G1	5,875	B1 U0 G2	4,350	B1 U0 G1	5,875	B1 U0 G2
11L	6,900	B1 U0 G2	7,200	B1 U0 G2	5,325	B1 U0 G1	7,200	B1 U0 G2
16L	10,075	B1 U0 G2	10,450	B2 U0 G2	7,750	B1 U0 G2	10,450	B2 U0 G2
22L	13,800	B2 U0 G2	14,375	B2 U0 G2	10,650	B2 U0 G2	14,375	B2 U0 G2
30L	18,800	B2 U0 G3	19,600	B2 U0 G3	14,525	B2 U0 G2	19,600	B2 U0 G3
40L	25,100	B3 U0 G4	26,200	B3 U0 G4	19,400	B2 U0 G3	26,200	B3 U0 G4
50L	31,400	B3 U0 G4	32,700	B3 U0 G4	24,200	B3 U0 G3	32,700	B3 U0 G4
65L	40,800	B3 U0 G5	42,500	B3 U0 G5	31,500	B3 U0 G4	42,500	B3 U0 G5
75L	47,100	B3 U0 G5	49,000	B3 U0 G5	36,300	B3 U0 G4	49,000	B3 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

3M W/OSQ-*-C-BLSF





RESTL Test Report#: PL17976-001A
OSQL-C-40L-30K7-3M-UL-xx-xx-xx w/ OSQ-L-C-BLSF
Initial Delivered Lumens: 22,081

OSQL-C-40L-30K7-3M-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 21,000
Initial FC at grade

Type III Mid Distribution w/OSQ-*-C-BLSF (field-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B0 U0 G1	2,180	B0 U0 G1	1,610	B0 U0 G1	2,180	B0 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G2	6,000	B1 U0 G2	4,450	B1 U0 G1	6,000	B1 U0 G2
16L	8,400	B1 U0 G2	8,725	B1 U0 G2	6,475	B1 U0 G2	8,725	B1 U0 G2
22L	11,550	B2 U0 G2	12,000	B2 U0 G2	8,900	B1 U0 G2	12,000	B2 U0 G2
30L	15,700	B2 U0 G3	16,400	B2 U0 G3	12,100	B2 U0 G2	16,400	B2 U0 G3
40L	21,000	B2 U0 G3	21,800	B3 U0 G3	16,100	B2 U0 G3	21,800	B3 U0 G3
50L	26,200	B3 U0 G4	27,300	B3 U0 G4	20,200	B2 U0 G3	27,300	B3 U0 G4
65L	34,000	B3 U0 G4	35,500	B3 U0 G5	26,200	B3 U0 G4	35,500	B3 U0 G5
75L	39,300	B3 U0 G5	40,900	B3 U0 G5	30,300	B3 U0 G4	40,900	B3 U0 G5
85L	44,500	B3 U0 G5	46,400	B3 U0 G5	34,300	B3 U0 G4	46,400	B3 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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Photometry

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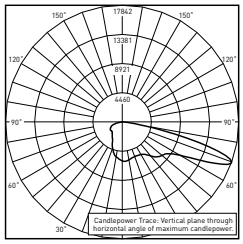
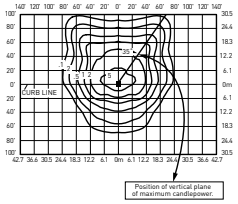
4M





RESTL Test Report #: PL17908-001A
Configured
OSQL-C-30L-30K7-4M-UL-xx-xx-xx
Initial Delivered Lumens: 27,400

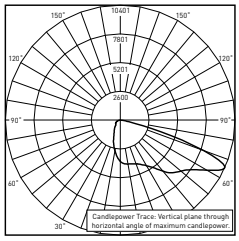
OSQL-C-30L-30K7-4M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 27,400
Initial FC at grade

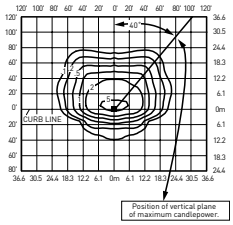
Type IV Mid Distribution

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G2	8,550	B2 U0 G2	6,325	B1 U0 G1	8,550	B2 U0 G2
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G2	10,450	B2 U0 G2
16L	14,650	B3 U0 G2	15,200	B3 U0 G2	11,275	B2 U0 G2	15,200	B3 U0 G2
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B3 U0 G2	20,900	B3 U0 G3
30L	27,400	B3 U0 G3	28,500	B3 U0 G4	21,100	B3 U0 G3	28,500	B3 U0 G4
40L	36,500	B4 U0 G4	38,000	B4 U0 G4	28,100	B3 U0 G4	38,000	B4 U0 G4
50L	45,600	B4 U0 G5	47,500	B4 U0 G5	35,200	B4 U0 G4	47,500	B4 U0 G5
65L	59,300	B5 U0 G5	61,800	B5 U0 G5	45,700	B4 U0 G5	61,800	B5 U0 G5
75L	68,400	B5 U0 G5	71,300	B5 U0 G5	52,800	B4 U0 G5	71,300	B5 U0 G5
85L	77,600	B5 U0 G5	80,800	B5 U0 G5	59,800	B5 U0 G5	80,800	B5 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

4B





RESTL Test Report #: PL17930-001A
Configured
OSQL-C-30L-30K7-4B-UL-xx-xx-xx
Initial Delivered Lumens: 17,200

OSQL-C-30L-30K7-4B-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 17,200
Initial FC at grade

Type IV Mid w/BLS Distribution (factory-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,300	B1 U0 G0	2,400	B1 U0 G0	1,770	B0 U0 G0	2,400	B1 U0 G0
6L	3,440	B1 U0 G1	3,590	B1 U0 G1	2,660	B1 U0 G0	3,590	B1 U0 G1
9L	5,175	B1 U0 G1	5,400	B1 U0 G1	3,980	B1 U0 G1	5,400	B1 U0 G1
11L	6,325	B1 U0 G1	6,600	B1 U0 G1	4,880	B1 U0 G1	6,600	B1 U0 G1
16L	9,225	B2 U0 G2	9,575	B2 U0 G2	7,100	B1 U0 G1	9,575	B2 U0 G2
22L	12,625	B2 U0 G2	13,175	B2 U0 G2	9,750	B2 U0 G2	13,175	B2 U0 G2
30L	17,200	B2 U0 G2	18,000	B2 U0 G2	13,300	B2 U0 G2	18,000	B2 U0 G2
40L	23,000	B3 U0 G3	24,000	B3 U0 G3	17,700	B2 U0 G2	24,000	B3 U0 G3
50L	28,700	B3 U0 G3	29,900	B3 U0 G3	22,200	B3 U0 G3	29,900	B3 U0 G3
65L	37,400	B3 U0 G4	38,900	B3 U0 G4	28,800	B3 U0 G3	38,900	B3 U0 G4
75L	43,100	B3 U0 G4	44,900	B4 U0 G4	33,200	B3 U0 G4	44,900	B4 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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Photometry

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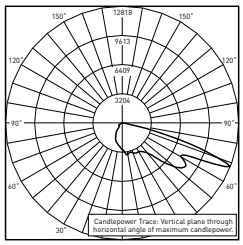
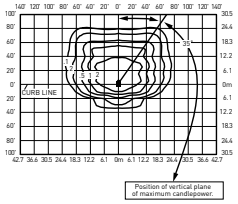
https://creelighting.com/products/outdoor/area/osq-series

4M W/OSQ-*-C-BLSF





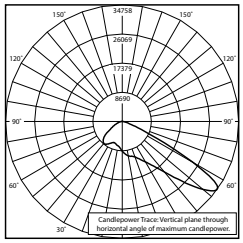
RESTL Test Report #: PL17929-001A Configured
OSQL-C-30L-30K7-4M-UL-xx-xx-xx w/OSQ-L-C-BLSF
Initial Delivered Lumens: 15,400

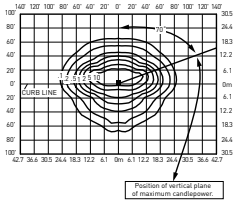
OSQL-C-30L-30K7-4M-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 15,700
Initial FC at grade

Type IV Mid Distribution w/OSQ-*-C-BLSF (field-installed)								
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B1 U0 G1	2,180	B1 U0 G1	1,610	B0 U0 G1	2,180	B1 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G1	6,000	B1 U0 G2	4,450	B1 U0 G1	6,000	B1 U0 G2
16L	8,400	B1 U0 G2	8,725	B2 U0 G2	6,475	B1 U0 G2	8,725	B2 U0 G2
22L	11,550	B2 U0 G2	12,000	B2 U0 G2	8,900	B2 U0 G2	12,000	B2 U0 G2
30L	15,700	B2 U0 G2	16,400	B2 U0 G2	12,100	B2 U0 G2	16,400	B2 U0 G2
40L	21,000	B3 U0 G3	21,800	B3 U0 G3	16,100	B2 U0 G2	21,800	B3 U0 G3
50L	26,200	B3 U0 G4	27,300	B3 U0 G4	20,200	B3 U0 G3	27,300	B3 U0 G4
65L	34,000	B3 U0 G4	35,500	B3 U0 G4	26,200	B3 U0 G4	35,500	B3 U0 G4
75L	39,300	B3 U0 G4	40,900	B3 U0 G5	30,300	B3 U0 G4	40,900	B3 U0 G5
85L	44,500	B4 U0 G5	46,400	B4 U0 G5	34,300	B3 U0 G4	46,400	B4 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

AF





RESTL Test Report #: PL17447-001A
OSQL-C-40L-30K7-AF-UL-xx-xx-xx
Initial Delivered Lumens: 35,801

OSQL-C-40L-40K7-AF-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 38,000
Initial FC at grade

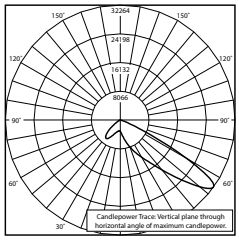
Automotive FrontLineOptic™ Distribution								
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G1	8,550	B2 U0 G1	6,325	B1 U0 G1	8,550	B2 U0 G1
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G1	10,450	B2 U0 G2
16L	14,650	B2 U0 G2	15,200	B2 U0 G2	11,275	B2 U0 G2	15,200	B2 U0 G2
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B2 U0 G2	20,900	B3 U0 G3
30L	27,400	B3 U0 G3	28,500	B3 U0 G3	21,100	B3 U0 G3	28,500	B3 U0 G3
40L	36,500	B4 U0 G3	38,000	B4 U0 G3	28,100	B3 U0 G3	38,000	B4 U0 G3
50L	45,600	B4 U0 G3	47,500	B4 U0 G3	35,200	B4 U0 G3	47,500	B4 U0 G3
65L	59,300	B5 U0 G4	61,800	B5 U0 G4	45,700	B4 U0 G3	61,800	B5 U0 G4
75L	68,400	B5 U0 G4	71,300	B5 U0 G4	52,800	B4 U0 G4	71,300	B5 U0 G4
85L	77,600	B5 U0 G4	80,800	B5 U0 G4	59,800	B5 U0 G4	80,800	B5 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

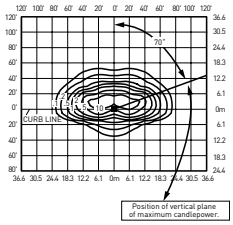
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

AB



RESTL Test Report #: PL17448-001A
OSQL-C-40L-30K7-AB-UL-xx-xx-xx
Initial Delivered Lumens: 26,118



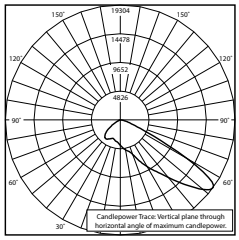
OSQL-C-40L-40K7-AB-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 26,200
Initial FC at grade

Automotive FrontLineOptic™ w/BLS Distribution (factory-installed)

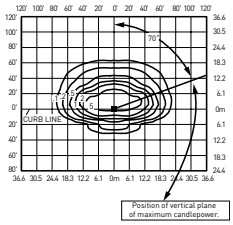
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,510	B1 U0 G0	2,620	B1 U0 G0	1,940	B1 U0 G0	2,620	B1 U0 G0
6L	3,760	B1 U0 G0	3,920	B1 U0 G0	2,900	B1 U0 G0	3,920	B1 U0 G0
9L	5,650	B1 U0 G1	5,875	B1 U0 G1	4,350	B1 U0 G0	5,875	B1 U0 G1
11L	6,900	B1 U0 G1	7,200	B1 U0 G1	5,325	B1 U0 G1	7,200	B1 U0 G1
16L	10,075	B2 U0 G1	10,450	B2 U0 G1	7,750	B1 U0 G1	10,450	B2 U0 G1
22L	13,800	B2 U0 G1	14,375	B2 U0 G1	10,650	B2 U0 G1	14,375	B2 U0 G1
30L	18,800	B2 U0 G1	19,600	B2 U0 G1	14,525	B2 U0 G1	19,600	B2 U0 G1
40L	25,100	B3 U0 G2	26,200	B3 U0 G2	19,400	B2 U0 G1	26,200	B3 U0 G2
50L	31,400	B3 U0 G2	32,700	B3 U0 G2	24,200	B3 U0 G2	32,700	B3 U0 G2
65L	40,800	B3 U0 G2	42,500	B4 U0 G2	31,500	B3 U0 G2	42,500	B4 U0 G2
75L	47,100	B4 U0 G3	49,000	B4 U0 G3	36,300	B3 U0 G2	49,000	B4 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

AF W/OSQ-*-C-BLSF



RESTL Test Report #: PL17533-001A
OSQL-C-40L-30K7-AF-UL-xx-xx-xx w/OSQ-L-C-BLSF
Initial Delivered Lumens: 19,828



OSQL-C-40L-40K7-AF-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 26,200
Initial FC at grade

Automotive FrontLineOptic™ w/OSQ-*-C-BLSF (field-installed)

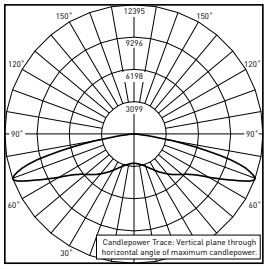
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B1 U0 G1	2,180	B1 U0 G1	1,610	B0 U0 G1	2,180	B1 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G1	6,000	B1 U0 G1	4,450	B1 U0 G1	6,000	B1 U0 G1
16L	8,400	B1 U0 G1	8,725	B1 U0 G1	6,475	B1 U0 G1	8,725	B1 U0 G1
22L	11,550	B2 U0 G1	12,000	B2 U0 G1	8,900	B1 U0 G1	12,000	B2 U0 G1
30L	15,700	B2 U0 G2	16,400	B2 U0 G2	12,100	B2 U0 G1	16,400	B2 U0 G2
40L	21,000	B3 U0 G2	21,800	B3 U0 G2	16,100	B2 U0 G2	21,800	B3 U0 G2
50L	26,200	B3 U0 G2	27,300	B3 U0 G2	20,200	B3 U0 G2	27,300	B3 U0 G2
65L	34,000	B3 U0 G2	35,500	B3 U0 G2	26,200	B3 U0 G2	35,500	B3 U0 G2
75L	39,300	B3 U0 G3	40,900	B3 U0 G3	30,300	B3 U0 G2	40,900	B3 U0 G3
85L	44,500	B3 U0 G3	46,400	B4 U0 G3	34,300	B3 U0 G3	46,400	B4 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

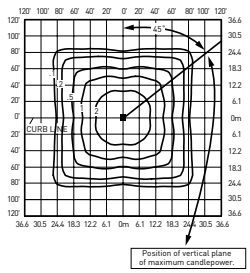
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

5M



RESTL Test Report #: PL17909-001A
Configured
OSQL-C-30L-30K7-5M-UL-xx-xx-xx
Initial Delivered Lumens: 28,800



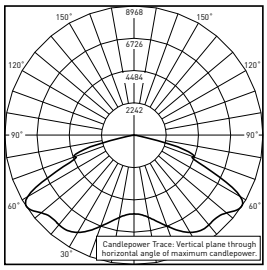
OSQL-C-30L-30K7-5M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 28,800
Initial FC at grade

Type V Mid Distribution

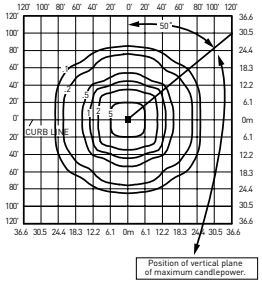
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,840	B2 U0 G1	4,000	B2 U0 G1	2,960	B2 U0 G1	4,000	B2 U0 G1
6L	5,750	B3 U0 G1	6,000	B3 U0 G1	4,440	B2 U0 G1	6,000	B3 U0 G1
9L	8,650	B3 U0 G2	9,000	B3 U0 G2	6,650	B3 U0 G1	9,000	B3 U0 G2
11L	10,550	B3 U0 G2	11,000	B3 U0 G2	8,150	B3 U0 G1	11,000	B3 U0 G2
16L	15,400	B4 U0 G2	16,000	B4 U0 G2	11,850	B4 U0 G2	16,000	B4 U0 G2
22L	21,100	B4 U0 G2	22,000	B4 U0 G2	16,300	B4 U0 G2	22,000	B4 U0 G2
30L	28,800	B5 U0 G3	30,000	B5 U0 G3	22,200	B4 U0 G2	30,000	B5 U0 G3
40L	38,400	B5 U0 G4	40,000	B5 U0 G4	29,600	B5 U0 G3	40,000	B5 U0 G4
50L	48,000	B5 U0 G4	50,000	B5 U0 G4	37,000	B5 U0 G4	50,000	B5 U0 G4
65L	62,400	B5 U0 G5	65,000	B5 U0 G5	48,100	B5 U0 G4	65,000	B5 U0 G5
75L	72,000	B5 U0 G5	75,000	B5 U0 G5	55,500	B5 U0 G4	75,000	B5 U0 G5
85L	81,600	B5 U0 G5	85,000	B5 U0 G5	62,900	B5 U0 G5	85,000	B5 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

5N



RESTL Test Report #: PL17911-001A
Configured
OSQL-C-30L-30K7-5N-UL-xx-xx-xx
Initial Delivered Lumens: 28,800



OSQL-C-30L-30K7-5N-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 28,800
Initial FC at grade

Type V Narrow Distribution

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,840	B2 U0 G0	4,000	B2 U0 G0	2,960	B1 U0 G0	4,000	B2 U0 G0
6L	5,750	B2 U0 G1	6,000	B2 U0 G1	4,440	B2 U0 G0	6,000	B2 U0 G1
9L	8,650	B3 U0 G1	9,000	B3 U0 G1	6,650	B2 U0 G1	9,000	B3 U0 G1
11L	10,550	B3 U0 G1	11,000	B3 U0 G1	8,150	B2 U0 G1	11,000	B3 U0 G1
16L	15,400	B3 U0 G2	16,000	B3 U0 G2	11,850	B3 U0 G1	16,000	B3 U0 G2
22L	21,100	B4 U0 G2	22,000	B4 U0 G2	16,300	B3 U0 G2	22,000	B4 U0 G2
30L	28,800	B4 U0 G2	30,000	B4 U0 G2	22,200	B4 U0 G2	30,000	B4 U0 G2
40L	38,400	B5 U0 G2	40,000	B5 U0 G2	29,600	B4 U0 G2	40,000	B5 U0 G2
50L	48,000	B5 U0 G3	50,000	B5 U0 G3	37,000	B5 U0 G2	50,000	B5 U0 G3
65L	62,400	B5 U0 G4	65,000	B5 U0 G4	48,100	B5 U0 G3	65,000	B5 U0 G4
75L	72,000	B5 U0 G4	75,000	B5 U0 G4	55,500	B5 U0 G3	75,000	B5 U0 G4
85L	81,600	B5 U0 G4	85,000	B5 U0 G4	62,900	B5 U0 G4	85,000	B5 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:
https://creelighting.com/products/outdoor/area/osq-series

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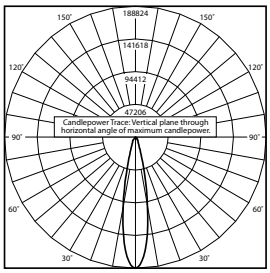
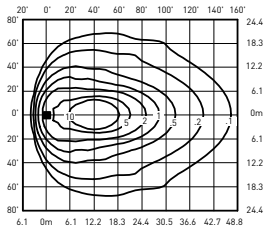


RESTL Test Report #: PL17450-001A
OSQL-C-40L-30K7-33-UL-xx-xx-xx
Initial Delivered Lumens: 36,102

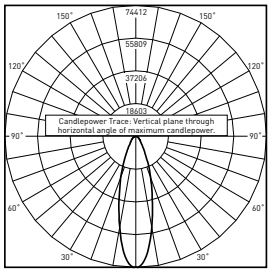


OSQL-C-40L-40K7-33-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

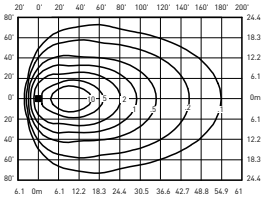
NEMA® 3x3 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

44



RESTL Test Report #: PL17748-001A
OSQL-C-40L-30K7-44-UL-xx-xx-xx
Initial Delivered Lumens: 35,349



OSQL-C-40L-40K7-44-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

NEMA® 4x4 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:
https://creelighting.com/products/outdoor/area/osq-series

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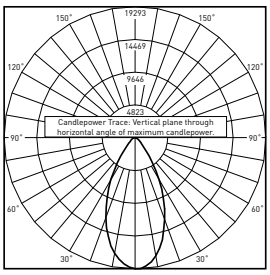
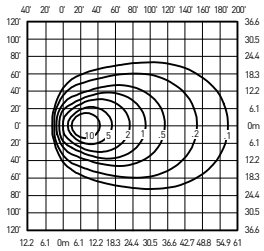


RESTL Test Report #: PL17771-001A
OSQL-C-40L-30K7-55-UL-xx-xx-xx
Initial Delivered Lumens: 37,424



OSQL-C-40L-40K7-55-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

NEMA® 5x5 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

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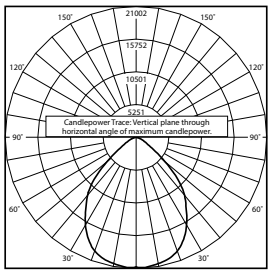
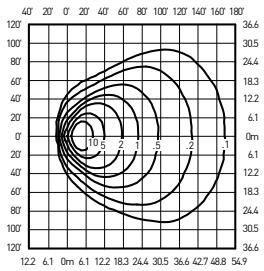


RESTL Test Report #: PL17439-001A
OSQL-C-40L-30K7-66-UL-xx-xx-xx
Initial Delivered Lumens: 37,525



OSQL-C-40L-40K7-66-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

NEMA® 6x6 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:
https://creelighting.com/products/outdoor/area/osq-series

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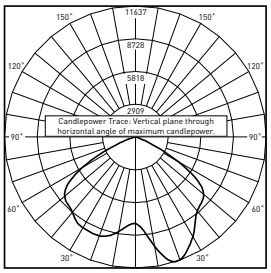
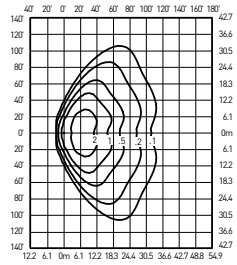


RESTL Test Report #: PL17921-001A
OSQM-C-16L-40K7-75-UL-xx-xx-xx
Initial Delivered Lumens: 16,933



OSQL-C-16L-40K7-75-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 16,000
Initial FC at grade

NEMA® 7x5 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

Luminaire EPA

Adjustable Arm Mount – OSQ-ML-C-AA Weight: Medium - 19.3 lbs. (8.8kg); Large - 28.4 lbs. (12.9kg); **OSQ-X-C-DA** Weight: Extra Large - 48.6 lbs. (22kg)								
Luminaire	Single	2 @ 180˚	2 @ 90˚	3 @ 90˚	3 @ 120˚	3 @ 180˚	4 @ 180˚	4 @ 90˚
	Tenon Configuration (0˚-90˚ Tilt); If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
	 PB-1A*; PT-1+; PW-1A3**	 PB-2A*; PB-2R2.375; PD-2A4(180)+; PT-2(180)+; PW-2A3**	 PB-2A*; PB-2R2.375; PD-2A4(90)+; PT-2(90)+; PW-2A3**	 PB-3A*; PB-3R2.375; PD-3A4(90)+; PT-3(90)+	 PB-3A*; PB-3R2.375; PT-3(120)+	 PB-3A*; PB-3R2.375	 PB-4A*(180); PB-4R2.375	 PB-4A*(90); PB-4R2.375; PD-4A4(90)+; PT-4(90)+
	0˚ Tilt							
OSQM	0.69	1.38	1.11	1.80	2.01	1.38	1.73	2.22
OSQL	0.78	1.55	1.30	2.07	2.33	1.55	1.94	2.60
OSQX	0.98	1.95	1.65	2.63	2.97	1.95	2.44	3.31
	45˚ Tilt							
OSQM	1.41	2.81	2.10	3.50	4.23	4.22	5.63	4.19
OSQL	2.62	5.23	3.39	6.01	6.91	7.85	10.46	6.79
OSQX	4.35	8.70	5.33	9.68	9.65	13.05	17.40	10.66
	90˚ Tilt* **							
OSQM	1.89	3.79	2.58	4.48	5.56	5.68	7.57	5.17
OSQL	3.52	7.03	4.29	7.81	9.14	10.55	14.07	8.59
OSQX	5.84	11.68	6.82	12.66	12.78	17.52	23.36	13.63

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")
*** PD-2A4(90), PT-2(90), PD-3A4(90), PT-3(90), PD-4A4(90), PT-4(90) are not compatible with 90 degree tilt
+ PT & PD aluminum tenons are not suitable for use with OSQX luminaires.

Tenon EPA

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*(180)	2.22
PB-4A*(90)	1.11
PB-2R2.375	0.92
PB-3R2.375	1.62
PB-4R2.375	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3**	0.47
PW-2A3**	0.94
WM-2	0.08
WM-4	0.25
WM-DM	None

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

Tenons and Brackets‡ (must specify color)

Square Internal Mount Vertical Tenons (Steel)
- Mounts to 3-6" (76-152mm) square aluminum or steel poles

PB-1A* – Single
PB-2A* – 180˚ Twin
PB-3A* – 180˚ Triple
PB-4A*(90) – 90˚ Quad
PB-4A*(180) – 180˚ Quad

Square Internal Mount Horizontal Tenons (Aluminum)
- Mounts to 4" (102mm) square aluminum or steel poles
- Not for use with OSQX luminaires

PD-2A4(90) – 90˚ Twin
PD-2A4(180) – 180˚ Twin
PD-3A4(90) – 90˚ Triple
PD-4A4(90) – 90˚ Quad

Wall Mount Brackets
- Mounts to wall or roof

WM-2 – Horizontal for OSQ-ML-C-AA or OSQ-X-C-AA mounts
WM-4 – L-Shape for OSQ-ML-C-AA or OSQ-X-C-AA mounts
WM-DM – Plate for OSQ-ML-C-DA mount

Round External Mount Vertical Tenons (Steel)
- Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons

PB-2R2.375 – Twin
PB-3R2.375 – Triple
PB-4R2.375 – Quad

Round External Mount Horizontal Tenons (Aluminum)
- Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons
- Mounts to square pole with PB-1A* tenon
- Not for use with OSQX luminaires

PT-1 – Single (Vertical)
PT-2(90) – 90˚ Twin
PT-2(180) – 180˚ Twin
PT-3(90) – 90˚ Triple
PT-3(120) – 120˚ Triple
PT-4(90) – 90˚ Quad

Mid-Pole Bracket
- Mounts to square pole

PW-1A3** – Single
PW-2A3** – Double

Ground Mount Post
- For ground-mounted flood luminaires

PGM-1 - for OSQ-ML-C-AA or OSQ-X-C-AA mounts

‡ Refer to the Bracket and Tenons spec sheet for more details

Luminaire EPA

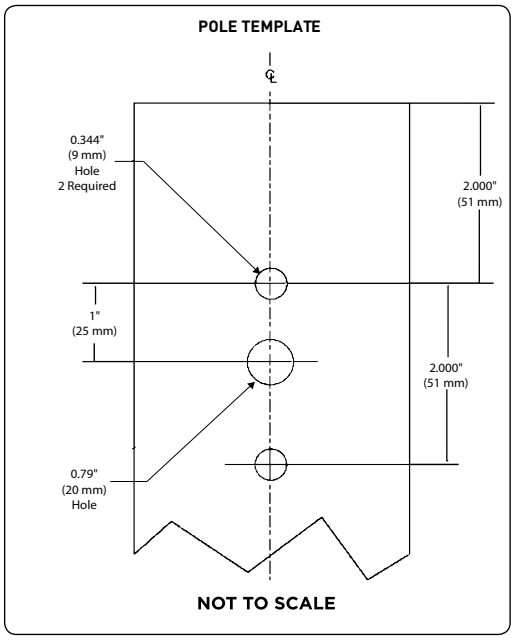
Direct Arm Mount – OSQ-ML-C-DA Weight: Medium - 19.7 lbs. (8.9kg); Large - 28.8 lbs. (13.1kg); **OSQ-X-C-DA** Weight: Extra Large - 45.8 lbs. (20.8kg)						
Luminaire	Single	2 @ 180˚	2 @ 90˚	3 @ 90˚	3 @ 120˚	4 @ 90˚
						
OSQM	0.63	1.26	0.98	1.61	1.79	1.97
OSQL	0.72	1.45	1.24	1.97	2.23	2.49
OSQX	0.91	1.83	1.52	2.43	2.74	3.04

Direct Mount Configurations

Compatibility with Direct Mount Brackets					
Size	2 @ 90˚	2 @ 180˚	3 @ 90˚	3 @ 120˚	4 @ 90˚
3" Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	N/A	✓	N/A	N/A	N/A
3" Round					
Medium/Large	N/A	✓	N/A	✓	N/A
Extra Large	N/A	N/A	N/A	N/A	N/A
4" Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	✓	✓	✓	N/A	✓
4" Round					
Medium/Large	✓	✓	✓	✓	✓
Extra Large	✓	✓	✓	✓	✓
5" Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	✓	✓	✓	N/A	✓
5" Round					
Medium/Large	✓	✓	✓	✓	✓
Extra Large	✓	✓	✓	✓	✓
6" + Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	✓	✓	✓	N/A	✓
6" + Round					
Medium/Large	✓	✓	✓	✓	✓
Extra Large	✓	✓	✓	✓	✓

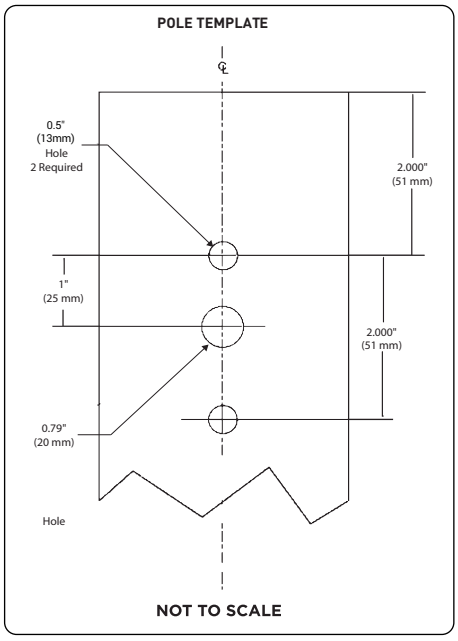
Fixture Mounting Drill Pattern for OSQ-ML-C-DA Mount

Note: When using with Cree Lighting poles, order the BLANK Fixture Mounting Drill Pattern.



Fixture Mounting Drill Pattern for OSQ-X-C-DA

Note: When using with Cree Lighting poles, order the Q Fixture Mounting Drill Pattern.



Luminaire EPA

Trunnion Mount – OSQ-ML-C-TM Weight: Medium - 23.2 lbs. (10.5kg); Large - 32.3 lbs. (14.7kg)	
Single	
Medium	**Large**
0˚ Tilt	
0.69	0.78
45˚ Tilt	
1.41	2.62
90˚ Tilt	
1.89	3.52

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 4L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-in-stalled BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	26	3,650	3,840	2,510	2,300	2,100	30	4000 L	4000 L	3000 L	2000 L
	40K (70 CRI)		3,800	4,000	2,620	2,400	2,180		4000 L	4000 L	3000 L	2000 L
	50K (90 CRI)		2,810	2,960	1,940	1,770	1,610		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,800	4,000	2,620	2,400	2,180		4000 L	4000 L	3000 L	2000 L
Q8/X8	30K (70 CRI)	24	3,480	3,660	2,390	2,190	2,000	20	3000 L	4000 L	2000 L	2000 L
	40K (70 CRI)		3,630	3,820	2,500	2,290	2,080		4000 L	4000 L	3000 L	2000 L
	50K (90 CRI)		2,680	2,820	1,840	1,690	1,540		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,630	3,820	2,500	2,290	2,080		4000 L	4000 L	3000 L	2000 L
Q7/X7	30K (70 CRI)	23	3,340	3,510	2,300	2,100	1,920	20	3000 L	4000 L	2000 L	2000 L
	40K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
	50K (90 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
Q6/X6	30K (70 CRI)	22	3,220	3,390	2,220	2,030	1,850	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		3,360	3,540	2,310	2,120	1,930		3000 L	4000 L	2000 L	2000 L
	50K (90 CRI)		2,490	2,620	1,710	1,570	1,430		2000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,360	3,540	2,310	2,120	1,930		3000 L	4000 L	2000 L	2000 L
Q5/X5	30K (70 CRI)	20	2,950	3,100	2,030	1,860	1,690	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		2,270	2,390	1,560	1,430	1,300		2000 L	2000 L	2000 L	1000 L
	57K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L
Q4/X4	30K (70 CRI)	18	2,680	2,820	1,840	1,690	1,540	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		2,790	2,940	1,920	1,760	1,600		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		2,060	2,170	1,420	1,300	1,180		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,790	2,940	1,920	1,760	1,600		3000 L	3000 L	2000 L	2000 L
Q3/X3	30K (70 CRI)	16	2,470	2,600	1,700	1,560	1,420	20	2000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		1,910	2,010	1,310	1,200	1,100		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
Q2/X2	30K (70 CRI)	15	2,220	2,340	1,530	1,400	1,270	20	2000 L	2000 L	2000 L	1000 L
	40K (70 CRI)		2,320	2,440	1,600	1,460	1,330		2000 L	2000 L	2000 L	1000 L
	50K (90 CRI)		1,720	1,810	1,180	1,080	990		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,320	2,440	1,600	1,460	1,330		2000 L	2000 L	2000 L	1000 L
Q1/X1	30K (70 CRI)	13	1,970	2,070	1,350	1,240	1,130	10	2000 L	2000 L	1000 L	1000 L
	40K (70 CRI)		2,050	2,160	1,410	1,290	1,180		2000 L	2000 L	1000 L	1000 L
	50K (90 CRI)		1,520	1,600	1,050	960	870		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,050	2,160	1,410	1,290	1,180		2000 L	2000 L	1000 L	1000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 6L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	37	5,475	5,750	3,760	3,440	3,140	40	5000 L	6000 L	4000 L	3000 L
	40K (70 CRI)		5,700	6,000	3,920	3,590	3,270		6000 L	6000 L	4000 L	4000 L
	50K (90 CRI)		4,220	4,440	2,900	2,660	2,420		4000 L	4000 L	3000 L	3000 L
	57K (70 CRI)		5,700	6,000	3,920	3,590	3,270		6000 L	6000 L	4000 L	4000 L
Q8/X8	30K (70 CRI)	36	5,200	5,475	3,580	3,280	2,980	40	5000 L	5000 L	4000 L	3000 L
	40K (70 CRI)		5,450	5,725	3,740	3,430	3,130		5000 L	6000 L	4000 L	3000 L
	50K (90 CRI)		4,030	4,240	2,770	2,540	2,310		4000 L	4000 L	3000 L	3000 L
	57K (70 CRI)		5,450	5,725	3,740	3,430	3,130		5000 L	6000 L	4000 L	3000 L
Q7/X7	30K (70 CRI)	34	4,990	5,250	3,430	3,140	2,860	30	5000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		5,200	5,475	3,580	3,280	2,980		5000 L	5000 L	4000 L	3000 L
	50K (90 CRI)		3,860	4,060	2,650	2,430	2,220		4000 L	4000 L	3000 L	2000 L
	57K (70 CRI)		5,200	5,475	3,580	3,280	2,980		5000 L	5000 L	4000 L	3000 L
Q6/X6	30K (70 CRI)	32	4,820	5,075	3,320	3,040	2,770	30	5000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		5,050	5,300	3,470	3,170	2,900		5000 L	5000 L	3000 L	3000 L
	50K (90 CRI)		3,730	3,920	2,560	2,350	2,140		4000 L	4000 L	3000 L	2000 L
	57K (70 CRI)		5,050	5,300	3,470	3,170	2,900		5000 L	5000 L	3000 L	3000 L
Q5/X5	30K (70 CRI)	29	4,420	4,650	3,040	2,780	2,540	30	4000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L
	50K (90 CRI)		3,410	3,590	2,350	2,150	1,960		3000 L	4000 L	2000 L	2000 L
	57K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L
Q4/X4	30K (70 CRI)	27	4,010	4,220	2,760	2,530	2,300	30	4000 L	4000 L	3000 L	3000 L
	40K (70 CRI)		4,180	4,400	2,880	2,640	2,400		4000 L	4000 L	3000 L	3000 L
	50K (90 CRI)		3,100	3,260	2,130	1,950	1,780		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		4,180	4,400	2,880	2,640	2,400		4000 L	4000 L	3000 L	3000 L
Q3/X3	30K (70 CRI)	24	3,710	3,900	2,550	2,340	2,130	20	4000 L	4000 L	3000 L	2000 L
	40K (70 CRI)		3,870	4,070	2,660	2,440	2,220		4000 L	4000 L	3000 L	2000 L
	50K (90 CRI)		2,860	3,010	1,970	1,800	1,640		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,870	4,070	2,660	2,440	2,220		4000 L	4000 L	3000 L	2000 L
Q2/X2	30K (70 CRI)	21	3,340	3,510	2,300	2,100	1,920	20	3000 L	4000 L	2000 L	2000 L
	40K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
	50K (90 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
Q1/X1	30K (70 CRI)	19	2,950	3,100	2,030	1,860	1,690	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		2,270	2,390	1,560	1,430	1,300		2000 L	2000 L	2000 L	1000 L
	57K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 9L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	55	8,225	8,650	5,650	5,175	4,720	60	8000 L	9000 L	6000 L	5000 L
	40K (70 CRI)		8,550	9,000	5,875	5,400	4,910		9000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,325	6,650	4,350	3,980	3,630		6000 L	7000 L	4000 L	4000 L
	57K (70 CRI)		8,550	9,000	5,875	5,400	4,910		9000 L	9000 L	6000 L	5000 L
Q8/X8	30K (70 CRI)	53	7,850	8,250	5,400	4,940	4,510	50	8000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		8,150	8,575	5,600	5,125	4,680		8000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,025	6,350	4,150	3,800	3,460		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		8,150	8,575	5,600	5,125	4,680		8000 L	9000 L	6000 L	5000 L
Q7/X7	30K (70 CRI)	50	7,500	7,900	5,175	4,730	4,310	50	8000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		7,825	8,225	5,375	4,930	4,490		8000 L	8000 L	5000 L	5000 L
	50K (90 CRI)		5,775	6,075	3,970	3,640	3,310		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		7,825	8,225	5,375	4,930	4,490		8000 L	8000 L	5000 L	5000 L
Q6/X6	30K (70 CRI)	48	7,275	7,650	5,000	4,580	4,180	50	7000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		7,550	7,950	5,200	4,760	4,330		8000 L	8000 L	5000 L	5000 L
	50K (90 CRI)		5,575	5,875	3,840	3,520	3,200		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		7,550	7,950	5,200	4,760	4,330		8000 L	8000 L	5000 L	5000 L
Q5/X5	30K (70 CRI)	43	6,650	7,000	4,580	4,190	3,820	40	7000 L	7000 L	5000 L	4000 L
	40K (70 CRI)		6,925	7,275	4,760	4,360	3,980		7000 L	7000 L	5000 L	4000 L
	50K (90 CRI)		5,100	5,375	3,510	3,220	2,930		5000 L	5000 L	4000 L	3000 L
	57K (70 CRI)		6,925	7,275	4,760	4,360	3,980		7000 L	7000 L	5000 L	4000 L
Q4/X4	30K (70 CRI)	40	6,025	6,350	4,150	3,800	3,460	40	6000 L	6000 L	4000 L	4000 L
	40K (70 CRI)		6,275	6,600	4,320	3,950	3,600		6000 L	7000 L	4000 L	4000 L
	50K (90 CRI)		4,640	4,880	3,190	2,920	2,660		5000 L	5000 L	3000 L	3000 L
	57K (70 CRI)		6,275	6,600	4,320	3,950	3,600		6000 L	7000 L	4000 L	4000 L
Q3/X3	30K (70 CRI)	36	5,575	5,875	3,840	3,520	3,200	40	6000 L	6000 L	4000 L	4000 L
	40K (70 CRI)		5,800	6,100	3,990	3,650	3,330		6000 L	6000 L	4000 L	4000 L
	50K (90 CRI)		4,290	4,510	2,950	2,700	2,460		4000 L	5000 L	3000 L	3000 L
	57K (70 CRI)		5,800	6,100	3,990	3,650	3,330		6000 L	6000 L	4000 L	4000 L
Q2/X2*	30K (70 CRI)	32	5,025	5,275	3,450	3,160	2,880	30	5000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		5,225	5,500	3,600	3,290	3,000		5000 L	6000 L	4000 L	3000 L
	50K (90 CRI)		3,860	4,060	2,650	2,430	2,220		4000 L	4000 L	3000 L	2000 L
	57K (70 CRI)		5,225	5,500	3,600	3,290	3,000		5000 L	6000 L	4000 L	3000 L
Q1/X1*	30K (70 CRI)	29	4,430	4,660	3,050	2,790	2,540	30	4000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L
	50K (90 CRI)		3,400	3,580	2,340	2,140	1,950		3000 L	4000 L	2000 L	2000 L
	57K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L

* X2 and X1 options not available with 9L lumen package with UL voltage.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 11L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	68	10,025	10,550	6,900	6,325	5,750	70	10000 L	11000 L	7000 L	6000 L
	40K (70 CRI)		10,450	11,000	7,200	6,600	6,000		10000 L	11000 L	7000 L	7000 L
	50K (90 CRI)		7,750	8,150	5,325	4,880	4,450		8000 L	8000 L	5000 L	5000 L
	57K (70 CRI)		10,450	11,000	7,200	6,600	5,750		10000 L	11000 L	7000 L	7000 L
Q8/X8	30K (70 CRI)	65	9,575	10,075	6,600	6,025	5,500	70	10000 L	10000 L	7000 L	6000 L
	40K (70 CRI)		9,975	10,500	6,875	6,300	5,725		10000 L	11000 L	7000 L	6000 L
	50K (90 CRI)		7,400	7,775	5,075	4,660	4,250		7000 L	8000 L	5000 L	5000 L
	57K (70 CRI)		9,975	10,500	6,875	6,300	5,725		10000 L	11000 L	7000 L	6000 L
Q7/X7	30K (70 CRI)	62	9,175	9,650	6,300	5,775	5,275	60	9000 L	10000 L	6000 L	6000 L
	40K (70 CRI)		9,550	10,050	6,575	6,025	5,475		10000 L	10000 L	7000 L	6000 L
	50K (90 CRI)		7,075	7,450	4,870	4,460	4,060		7000 L	7000 L	5000 L	4000 L
	57K (70 CRI)		9,550	10,050	6,575	6,025	5,475		10000 L	10000 L	7000 L	6000 L
Q6/X6	30K (70 CRI)	59	8,875	9,325	6,100	5,575	5,100	60	9000 L	9000 L	6000 L	6000 L
	40K (70 CRI)		9,250	9,725	6,350	5,825	5,300		9000 L	10000 L	6000 L	6000 L
	50K (90 CRI)		6,850	7,200	4,710	4,310	3,930		7000 L	7000 L	5000 L	4000 L
	57K (70 CRI)		9,250	9,725	6,350	5,825	5,300		9000 L	10000 L	6000 L	6000 L
Q5/X5	30K (70 CRI)	53	8,100	8,525	5,575	5,100	4,650	50	8000 L	9000 L	6000 L	5000 L
	40K (70 CRI)		8,450	8,900	5,825	5,325	4,850		8000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,250	6,575	4,300	3,940	3,590		6000 L	7000 L	4000 L	4000 L
	57K (70 CRI)		8,450	8,900	5,825	5,325	4,850		8000 L	9000 L	6000 L	5000 L
Q4/X4	30K (70 CRI)	49	7,375	7,750	5,075	4,640	4,230	50	7000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		7,675	8,075	5,275	4,840	4,410		8000 L	8000 L	5000 L	5000 L
	50K (90 CRI)		5,675	5,975	3,910	3,580	3,260		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		7,675	8,075	5,275	4,840	4,410		8000 L	8000 L	5000 L	5000 L
Q3/X3	30K (70 CRI)	44	6,800	7,150	4,680	4,280	3,900	40	7000 L	7000 L	5000 L	4000 L
	40K (70 CRI)		7,075	7,450	4,870	4,460	4,060		7000 L	7000 L	5000 L	4000 L
	50K (90 CRI)		5,250	5,525	3,610	3,310	3,010		5000 L	6000 L	4000 L	3000 L
	57K (70 CRI)		7,075	7,450	4,870	4,460	4,060		7000 L	7000 L	5000 L	4000 L
Q2/X2	30K (70 CRI)	39	6,100	6,425	4,200	3,850	3,500	40	6000 L	6000 L	4000 L	4000 L
	40K (70 CRI)		6,375	6,700	4,380	4,010	3,660		6000 L	7000 L	4000 L	4000 L
	50K (90 CRI)		4,720	4,970	3,250	2,980	2,710		5000 L	5000 L	3000 L	3000 L
	57K (70 CRI)		6,375	6,700	4,380	4,010	3,660		6000 L	7000 L	4000 L	4000 L
Q1/X1	30K (70 CRI)	35	5,400	5,675	3,710	3,400	3,100	40	5000 L	6000 L	4000 L	3000 L
	40K (70 CRI)		5,625	5,925	3,870	3,550	3,230		6000 L	6000 L	4000 L	4000 L
	50K (90 CRI)		4,170	4,390	2,870	2,630	2,390		4000 L	4000 L	3000 L	3000 L
	57K (70 CRI)		5,625	5,925	3,870	3,550	3,230		6000 L	6000 L	4000 L	4000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 16L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	97	14,650	15,400	10,075	9,225	8,400	100	15000 L	15000 L	10000 L	9000 L
	40K (70 CRI)		15,200	16,000	10,450	9,575	8,725		15000 L	16000 L	10000 L	10000 L
	50K (90 CRI)		11,275	11,850	7,750	7,100	6,475		11000 L	12000 L	8000 L	7000 L
	57K (70 CRI)		15,200	16,000	10,450	9,575	8,725		15000 L	16000 L	10000 L	10000 L
Q8/X8	30K (70 CRI)	93	13,975	14,700	9,600	8,800	8,025	90	14000 L	15000 L	10000 L	9000 L
	40K (70 CRI)		14,550	15,300	10,000	9,175	8,350		15000 L	15000 L	10000 L	9000 L
	50K (90 CRI)		10,750	11,300	7,400	6,775	6,175		11000 L	11000 L	7000 L	7000 L
	57K (70 CRI)		14,550	15,300	10,000	9,175	8,350		15000 L	15000 L	10000 L	9000 L
Q7/X7	30K (70 CRI)	87	13,375	14,075	9,200	8,425	7,675	90	13000 L	14000 L	9000 L	8000 L
	40K (70 CRI)		13,900	14,625	9,575	8,750	7,975		14000 L	15000 L	10000 L	9000 L
	50K (90 CRI)		10,300	10,825	7,075	6,475	5,900		10000 L	11000 L	7000 L	6000 L
	57K (70 CRI)		13,900	14,625	9,575	8,750	7,975		14000 L	15000 L	10000 L	9000 L
Q6/X6	30K (70 CRI)	84	12,950	13,625	8,900	8,150	7,425	80	13000 L	14000 L	9000 L	8000 L
	40K (70 CRI)		13,450	14,150	9,250	8,475	7,725		13000 L	14000 L	9000 L	8000 L
	50K (90 CRI)		9,950	10,475	6,850	6,275	5,700		10000 L	10000 L	7000 L	6000 L
	57K (70 CRI)		13,450	14,150	9,250	8,475	7,725		13000 L	14000 L	9000 L	8000 L
Q5/X5	30K (70 CRI)	76	11,825	12,450	8,150	7,450	6,800	80	12000 L	12000 L	8000 L	7000 L
	40K (70 CRI)		12,275	12,925	8,450	7,750	7,050		12000 L	13000 L	8000 L	8000 L
	50K (90 CRI)		9,100	9,575	6,250	5,725	5,225		9000 L	10000 L	6000 L	6000 L
	57K (70 CRI)		12,275	12,925	8,450	7,750	7,050		12000 L	13000 L	8000 L	8000 L
Q4/X4	30K (70 CRI)	70	10,750	11,300	7,400	6,775	6,175	70	11000 L	11000 L	7000 L	7000 L
	40K (70 CRI)		11,175	11,750	7,675	7,025	6,425		11000 L	12000 L	8000 L	7000 L
	50K (90 CRI)		8,275	8,700	5,700	5,200	4,750		8000 L	9000 L	6000 L	5000 L
	57K (70 CRI)		11,175	11,750	7,675	7,025	6,425		11000 L	12000 L	8000 L	7000 L
Q3/X3	30K (70 CRI)	62	9,925	10,450	6,825	6,250	5,700	60	10000 L	10000 L	7000 L	6000 L
	40K (70 CRI)		10,325	10,850	7,100	6,500	5,925		10000 L	11000 L	7000 L	7000 L
	50K (90 CRI)		7,625	8,025	5,250	4,810	4,380		8000 L	8000 L	5000 L	5000 L
	57K (70 CRI)		10,325	10,850	7,100	6,500	5,925		10000 L	11000 L	7000 L	7000 L
Q2/X2	30K (70 CRI)	55	8,925	9,400	6,150	5,625	5,125	60	9000 L	9000 L	6000 L	6000 L
	40K (70 CRI)		9,275	9,750	6,375	5,850	5,325		9000 L	10000 L	6000 L	6000 L
	50K (90 CRI)		6,875	7,225	4,720	4,330	3,950		7000 L	7000 L	5000 L	4000 L
	57K (70 CRI)		9,275	9,750	6,375	5,850	5,325		9000 L	10000 L	6000 L	6000 L
Q1*	30K (70 CRI)	50	7,900	8,300	5,425	4,970	4,530	50	8000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		8,200	8,625	5,650	5,175	4,710		8000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,050	6,375	4,170	3,820	3,470		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		8,200	8,625	5,650	5,175	4,710		8000 L	9000 L	6000 L	5000 L

* X1 option not available with 16L lumen package.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 22L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	131	20,100	21,100	13,800	12,625	11,550	130	20000 L	21000 L	14000 L	13000 L
	40K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
	50K (90 CRI)		15,500	16,300	10,650	9,750	8,900		16000 L	16000 L	11000 L	10000 L
	57K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
Q8/X8	30K (70 CRI)	126	19,100	20,100	13,150	12,050	10,975	130	19000 L	20000 L	13000 L	12000 L
	40K (70 CRI)		20,000	21,000	13,725	12,575	11,475		20000 L	21000 L	14000 L	13000 L
	50K (90 CRI)		14,825	15,600	10,200	9,350	8,500		15000 L	16000 L	10000 L	9000 L
	57K (70 CRI)		20,000	21,000	13,725	12,575	11,475		20000 L	21000 L	14000 L	13000 L
Q7/X7	30K (70 CRI)	119	18,300	19,300	12,625	11,550	10,500	120	18000 L	19000 L	13000 L	12000 L
	40K (70 CRI)		19,100	20,100	13,150	12,050	10,975		19000 L	20000 L	13000 L	12000 L
	50K (90 CRI)		14,175	14,900	9,750	8,925	8,125		14000 L	15000 L	10000 L	9000 L
	57K (70 CRI)		19,100	20,100	13,150	12,050	10,975		19000 L	20000 L	13000 L	12000 L
Q6/X6	30K (70 CRI)	114	17,800	18,700	12,225	11,200	10,225	110	18000 L	19000 L	12000 L	11000 L
	40K (70 CRI)		18,400	19,400	12,675	11,625	10,550		18000 L	19000 L	13000 L	12000 L
	50K (90 CRI)		13,700	14,400	9,425	8,625	7,875		14000 L	14000 L	9000 L	9000 L
	57K (70 CRI)		18,400	19,400	12,675	11,625	10,550		18000 L	19000 L	13000 L	12000 L
Q5/X5	30K (70 CRI)	103	16,200	17,000	11,125	10,175	9,300	100	16000 L	17000 L	11000 L	10000 L
	40K (70 CRI)		16,900	17,800	11,650	10,650	9,700		17000 L	18000 L	12000 L	11000 L
	50K (90 CRI)		12,525	13,175	8,625	7,900	7,200		13000 L	13000 L	9000 L	8000 L
	57K (70 CRI)		16,900	17,800	11,650	10,650	9,700		17000 L	18000 L	12000 L	11000 L
Q4/X4	30K (70 CRI)	95	14,725	15,500	10,125	9,275	8,450	100	15000 L	16000 L	10000 L	9000 L
	40K (70 CRI)		15,300	16,100	10,525	9,650	8,775		15000 L	16000 L	11000 L	10000 L
	50K (90 CRI)		11,375	11,975	7,825	7,175	6,525		11000 L	12000 L	8000 L	7000 L
	57K (70 CRI)		15,300	16,100	10,525	9,650	8,775		15000 L	16000 L	11000 L	10000 L
Q3/X3	30K (70 CRI)	84	13,600	14,300	9,350	8,575	7,800	80	14000 L	14000 L	9000 L	9000 L
	40K (70 CRI)		14,175	14,925	9,750	8,950	8,125		14000 L	15000 L	10000 L	9000 L
	50K (90 CRI)		10,500	11,050	7,225	6,625	6,025		11000 L	11000 L	7000 L	7000 L
	57K (70 CRI)		14,175	14,925	9,750	8,950	8,125		14000 L	15000 L	10000 L	9000 L
Q2/X2	30K (70 CRI)	75	12,250	12,875	8,425	7,700	7,025	80	12000 L	13000 L	8000 L	8000 L
	40K (70 CRI)		12,750	13,425	8,775	8,050	7,325		13000 L	13000 L	9000 L	8000 L
	50K (90 CRI)		9,450	9,950	6,500	5,950	5,425		9000 L	10000 L	7000 L	6000 L
	57K (70 CRI)		12,750	13,425	8,775	8,050	7,325		13000 L	13000 L	9000 L	8000 L
Q1/X1	30K (70 CRI)	68	10,825	11,375	7,450	6,825	6,225	70	11000 L	11000 L	7000 L	7000 L
	40K (70 CRI)		11,275	11,850	7,750	7,100	6,475		11000 L	12000 L	8000 L	7000 L
	50K (90 CRI)		8,350	8,775	5,750	5,250	4,790		8000 L	9000 L	6000 L	5000 L
	57K (70 CRI)		11,275	11,850	7,750	7,100	6,475		11000 L	12000 L	8000 L	7000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (</= 24,000 lumens rounded to nearest 1000 lumens, > 24,001 lumens rounded to the nearest 2000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 30L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	175	27,400	28,800	18,800	17,200	15,700	180	28000 L	28000 L	19000 L	17000 L
	40K (70 CRI)		28,500	30,000	19,600	18,000	16,400		28000 L	30000 L	20000 L	18000 L
	50K (90 CRI)		21,100	22,200	14,525	13,300	12,100		21000 L	22000 L	15000 L	13000 L
	57K (70 CRI)		28,500	30,000	19,600	18,000	16,400		28000 L	30000 L	20000 L	18000 L
Q8/X8	30K (70 CRI)	168	26,100	27,500	18,000	16,500	14,975	170	26000 L	28000 L	18000 L	17000 L
	40K (70 CRI)		27,200	28,600	18,700	17,100	15,600		28000 L	28000 L	19000 L	17000 L
	50K (90 CRI)		20,200	21,200	13,850	12,700	11,600		20000 L	21000 L	14000 L	13000 L
	57K (70 CRI)		27,200	28,600	18,700	17,100	15,600		28000 L	28000 L	19000 L	17000 L
Q7/X7	30K (70 CRI)	158	25,000	26,300	17,200	15,800	14,350	160	26000 L	26000 L	17000 L	16000 L
	40K (70 CRI)		26,000	27,400	17,900	16,400	14,925		26000 L	28000 L	18000 L	16000 L
	50K (90 CRI)		19,300	20,300	13,275	12,150	11,075		19000 L	20000 L	13000 L	12000 L
	57K (70 CRI)		26,000	27,400	17,900	16,400	14,925		26000 L	28000 L	18000 L	16000 L
Q6/X6	30K (70 CRI)	152	24,200	25,500	16,700	15,300	13,900	150	24000 L	26000 L	17000 L	15000 L
	40K (70 CRI)		25,200	26,500	17,300	15,900	14,475		26000 L	26000 L	17000 L	16000 L
	50K (90 CRI)		18,600	19,600	12,825	11,750	10,675		19000 L	20000 L	13000 L	12000 L
	57K (70 CRI)		25,200	26,500	17,300	15,900	14,475		26000 L	26000 L	17000 L	16000 L
Q5/X5	30K (70 CRI)	137	22,100	23,300	15,200	13,950	12,675	140	22000 L	23000 L	15000 L	14000 L
	40K (70 CRI)		23,000	24,200	15,800	14,500	13,200		23000 L	24000 L	16000 L	15000 L
	50K (90 CRI)		17,000	17,900	11,700	10,725	9,750		17000 L	18000 L	12000 L	11000 L
	57K (70 CRI)		23,000	24,200	15,800	14,500	13,200		23000 L	24000 L	16000 L	15000 L
Q4/X4	30K (70 CRI)	126	20,100	21,100	13,800	12,625	11,550	130	20000 L	21000 L	14000 L	13000 L
	40K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
	50K (90 CRI)		15,500	16,300	10,650	9,750	8,900		16000 L	16000 L	11000 L	10000 L
	57K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
Q3/X3	30K (70 CRI)	113	18,500	19,500	12,750	11,675	10,625	110	19000 L	20000 L	13000 L	12000 L
	40K (70 CRI)		19,300	20,300	13,275	12,150	11,075		19000 L	20000 L	13000 L	12000 L
	50K (90 CRI)		14,350	15,100	9,875	9,050	8,225		14000 L	15000 L	10000 L	9000 L
	57K (70 CRI)		19,300	20,300	13,275	12,150	11,075		19000 L	20000 L	13000 L	12000 L
Q2/X2	30K (70 CRI)	100	16,700	17,600	11,500	10,550	9,575	100	17000 L	18000 L	12000 L	11000 L
	40K (70 CRI)		17,400	18,300	11,975	10,950	10,000		17000 L	18000 L	12000 L	11000 L
	50K (90 CRI)		12,875	13,550	8,850	8,125	7,400		13000 L	14000 L	9000 L	8000 L
	57K (70 CRI)		17,400	18,300	11,975	10,950	10,000		17000 L	18000 L	12000 L	11000 L
Q1*	30K (70 CRI)	90	14,725	15,500	10,125	9,275	8,450	90	15000 L	16000 L	10000 L	9000 L
	40K (70 CRI)		15,400	16,200	10,600	9,700	8,850		15000 L	16000 L	11000 L	10000 L
	50K (90 CRI)		11,375	11,975	7,825	7,175	6,525		11000 L	12000 L	8000 L	7000 L
	57K (70 CRI)		15,400	16,200	10,600	9,700	8,850		15000 L	16000 L	11000 L	10000 L

* X1 option not available with 30L lumen package.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (</= 24,000 lumens rounded to nearest 1000 lumens, > 24,001 lumens rounded to the nearest 2000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 40L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	236	36,500	38,400	25,100	23,000	21,000	240	36000 L	38000 L	26000 L	23000 L
	40K (70 CRI)		38,000	40,000	26,200	24,000	21,800		38000 L	40000 L	26000 L	24000 L
	50K (90 CRI)		28,100	29,600	19,400	17,700	16,100		28000 L	30000 L	19000 L	18000 L
	57K (70 CRI)		38,000	40,000	26,200	24,000	21,800		38000 L	40000 L	26000 L	24000 L
Q8/X8	30K (70 CRI)	221	34,800	36,600	23,900	21,900	20,000	220	34000 L	36000 L	24000 L	22000 L
	40K (70 CRI)		36,300	38,200	25,000	22,900	20,800		36000 L	38000 L	26000 L	23000 L
	50K (90 CRI)		26,800	28,200	18,400	16,900	15,400		26000 L	28000 L	18000 L	17000 L
	57K (70 CRI)		36,300	38,200	25,000	22,900	20,800		36000 L	38000 L	26000 L	23000 L
Q7/X7	30K (70 CRI)	212	33,400	35,100	23,000	21,000	19,200	210	34000 L	36000 L	23000 L	21000 L
	40K (70 CRI)		34,800	36,600	23,900	21,900	20,000		34000 L	36000 L	24000 L	22000 L
	50K (90 CRI)		25,800	27,100	17,700	16,200	14,800		26000 L	28000 L	18000 L	16000 L
	57K (70 CRI)		34,800	36,600	23,900	21,900	20,000		34000 L	36000 L	24000 L	22000 L
Q6/X6	30K (70 CRI)	203	32,200	33,900	22,200	20,300	18,500	200	32000 L	34000 L	22000 L	20000 L
	40K (70 CRI)		33,600	35,400	23,100	21,200	19,300		34000 L	36000 L	23000 L	21000 L
	50K (90 CRI)		24,900	26,200	17,100	15,700	14,300		24000 L	26000 L	17000 L	16000 L
	57K (70 CRI)		33,600	35,400	23,100	21,200	19,300		34000 L	36000 L	23000 L	21000 L
Q5/X5	30K (70 CRI)	184	29,500	31,000	20,300	18,600	16,900	180	30000 L	32000 L	20000 L	19000 L
	40K (70 CRI)		30,700	32,300	21,100	19,300	17,600		30000 L	32000 L	21000 L	19000 L
	50K (90 CRI)		22,700	23,900	15,600	14,325	13,025		23000 L	24000 L	16000 L	14000 L
	57K (70 CRI)		30,700	32,300	21,100	19,300	17,600		30000 L	32000 L	21000 L	19000 L
Q4/X4	30K (70 CRI)	167	26,800	28,200	18,400	16,900	15,400	170	26000 L	28000 L	18000 L	17000 L
	40K (70 CRI)		27,900	29,400	19,200	17,600	16,000		28000 L	30000 L	19000 L	18000 L
	50K (90 CRI)		20,600	21,700	14,200	13,000	11,825		21000 L	22000 L	14000 L	13000 L
	57K (70 CRI)		27,900	29,400	19,200	17,600	16,000		28000 L	30000 L	19000 L	18000 L
Q3/X3	30K (70 CRI)	151	24,700	26,000	17,000	15,600	14,175	150	24000 L	26000 L	17000 L	16000 L
	40K (70 CRI)		25,800	27,100	17,700	16,200	14,800		26000 L	28000 L	18000 L	16000 L
	50K (90 CRI)		19,100	20,100	13,150	12,050	10,975		19000 L	20000 L	13000 L	12000 L
	57K (70 CRI)		25,800	27,100	17,700	16,200	14,800		26000 L	28000 L	18000 L	16000 L
Q2/X2	30K (70 CRI)	135	22,200	23,400	15,300	14,025	12,750	140	22000 L	23000 L	15000 L	14000 L
	40K (70 CRI)		23,200	24,400	16,000	14,625	13,325		23000 L	24000 L	16000 L	15000 L
	50K (90 CRI)		17,200	18,100	11,825	10,850	9,875		17000 L	18000 L	12000 L	11000 L
	57K (70 CRI)		23,200	24,400	16,000	14,625	13,325		23000 L	24000 L	16000 L	15000 L
Q1/X1	30K (70 CRI)	116	19,700	20,700	13,525	12,400	11,300	120	20000 L	21000 L	14000 L	12000 L
	40K (70 CRI)		20,500	21,600	14,125	12,925	11,775		21000 L	22000 L	14000 L	13000 L
	50K (90 CRI)		15,200	16,000	10,450	9,575	8,725		15000 L	16000 L	10000 L	10000 L
	57K (70 CRI)		20,500	21,600	14,125	12,925	11,775		21000 L	22000 L	14000 L	13000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 50L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	297	45,600	48,000	31,400	28,700	26,200
	40K (70 CRI)		47,500	50,000	32,700	29,900	27,300
	50K (90 CRI)		35,200	37,000	24,200	22,200	20,200
	57K (70 CRI)		47,500	50,000	32,700	29,900	27,300
Q8/X8	30K (70 CRI)	285	43,500	45,800	29,900	27,400	25,000
	40K (70 CRI)		45,300	47,700	31,200	28,600	26,000
	50K (90 CRI)		33,600	35,300	23,100	21,100	19,300
	57K (70 CRI)		45,300	47,700	31,200	28,600	26,000
Q7/X7	30K (70 CRI)	269	41,700	43,900	28,700	26,300	23,900
	40K (70 CRI)		43,400	45,700	29,900	27,400	24,900
	50K (90 CRI)		32,100	33,800	22,100	20,200	18,400
	57K (70 CRI)		43,400	45,700	29,900	27,400	24,900
Q6/X6	30K (70 CRI)	258	40,300	42,400	27,700	25,400	23,100
	40K (70 CRI)		42,000	44,200	28,900	26,500	24,100
	50K (90 CRI)		31,100	32,700	21,400	19,600	17,900
	57K (70 CRI)		42,000	44,200	28,900	26,500	24,100
Q5/X5	30K (70 CRI)	233	36,900	38,800	25,400	23,200	21,200
	40K (70 CRI)		38,400	40,400	26,400	24,200	22,000
	50K (90 CRI)		28,400	29,900	19,600	17,900	16,300
	57K (70 CRI)		38,400	40,400	26,400	24,200	22,000
Q4/X4	30K (70 CRI)	215	33,500	35,200	23,000	21,100	19,200
	40K (70 CRI)		34,900	36,700	24,000	22,000	20,000
	50K (90 CRI)		25,900	27,200	17,800	16,300	14,875
	57K (70 CRI)		34,900	36,700	24,000	22,000	20,000
Q3/X3	30K (70 CRI)	191	30,900	32,500	21,300	19,500	17,700
	40K (70 CRI)		32,200	33,900	22,200	20,300	18,500
	50K (90 CRI)		23,900	25,100	16,400	15,000	13,725
	57K (70 CRI)		32,200	33,900	22,200	20,300	18,500
Q2/X2	30K (70 CRI)	170	27,900	29,300	19,200	17,500	16,000
	40K (70 CRI)		29,000	30,500	19,900	18,300	16,600
	50K (90 CRI)		21,500	22,600	14,775	13,525	12,350
	57K (70 CRI)		29,000	30,500	19,900	18,300	16,600
Q1/X1	30K (70 CRI)	153	24,600	25,900	16,900	15,500	14,125
	40K (70 CRI)		25,700	27,000	17,700	16,200	14,750
	50K (90 CRI)		18,900	19,900	13,000	11,925	10,850
	57K (70 CRI)		25,700	27,000	17,700	16,200	14,750

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 65L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	384	59,300	62,400	40,800	37,400	34,000
	40K (70 CRI)		61,800	65,000	42,500	38,900	35,500
	50K (90 CRI)		45,700	48,100	31,500	28,800	26,200
	57K (70 CRI)		61,800	65,000	42,500	38,900	35,500
Q8/X8	30K (70 CRI)	365	56,600	59,500	38,900	35,600	32,500
	40K (70 CRI)		58,900	62,000	40,500	37,100	33,800
	50K (90 CRI)		43,600	45,900	30,000	27,500	25,000
	57K (70 CRI)		58,900	62,000	40,500	37,100	33,800
Q7/X7	30K (70 CRI)	347	54,200	57,000	37,300	34,100	31,100
	40K (70 CRI)		56,500	59,400	38,800	35,600	32,400
	50K (90 CRI)		41,800	44,000	28,800	26,400	24,000
	57K (70 CRI)		56,500	59,400	38,800	35,600	32,400
Q6/X6	30K (70 CRI)	332	52,500	55,200	36,100	33,100	30,100
	40K (70 CRI)		54,700	57,500	37,600	34,400	31,400
	50K (90 CRI)		40,400	42,500	27,800	25,500	23,200
	57K (70 CRI)		54,700	57,500	37,600	34,400	31,400
Q5/X5	30K (70 CRI)	301	47,900	50,400	33,000	30,200	27,500
	40K (70 CRI)		49,900	52,500	34,300	31,400	28,600
	50K (90 CRI)		37,000	38,900	25,400	23,300	21,200
	57K (70 CRI)		49,900	52,500	34,300	31,400	28,600
Q4/X4	30K (70 CRI)	276	43,500	45,800	29,900	27,400	25,000
	40K (70 CRI)		45,300	47,700	31,200	28,600	26,000
	50K (90 CRI)		33,600	35,300	23,100	21,100	19,300
	57K (70 CRI)		45,300	47,700	31,200	28,600	26,000
Q3/X3	30K (70 CRI)	247	40,200	42,300	27,700	25,300	23,100
	40K (70 CRI)		41,900	44,100	28,800	26,400	24,100
	50K (90 CRI)		31,000	32,600	21,300	19,500	17,800
	57K (70 CRI)		41,900	44,100	28,800	26,400	24,100
Q2/X2	30K (70 CRI)	220	36,200	38,100	24,900	22,800	20,800
	40K (70 CRI)		37,700	39,700	26,000	23,800	21,600
	50K (90 CRI)		27,900	29,300	19,200	17,500	16,000
	57K (70 CRI)		37,700	39,700	26,000	23,800	21,600
Q1*	30K (70 CRI)	195	31,900	33,600	22,000	20,100	18,300
	40K (70 CRI)		33,300	35,000	22,900	21,000	19,100
	50K (90 CRI)		24,600	25,900	16,900	15,500	14,125
	57K (70 CRI)		33,300	35,000	22,900	21,000	19,100

* X1 option not available with 65L lumen package.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 75L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	447	68,400	72,000	47,100	43,100	39,300
	40K (70 CRI)		71,300	75,000	49,000	44,900	40,900
	50K (90 CRI)		52,800	55,500	36,300	33,200	30,300
	57K (70 CRI)		71,300	75,000	49,000	44,900	40,900
Q8/X8	30K (70 CRI)	426	65,300	68,700	44,900	41,100	37,500
	40K (70 CRI)		68,100	71,600	46,800	42,900	39,100
	50K (90 CRI)		50,300	52,900	34,600	31,700	28,900
	57K (70 CRI)		68,100	71,600	46,800	42,900	39,100
Q7/X7	30K (70 CRI)	404	62,500	65,800	43,000	39,400	35,900
	40K (70 CRI)		65,200	68,600	44,900	41,100	37,400
	50K (90 CRI)		48,200	50,700	33,200	30,400	27,700
	57K (70 CRI)		65,200	68,600	44,900	41,100	37,400
Q6/X6	30K (70 CRI)	387	60,500	63,600	41,600	38,100	34,700
	40K (70 CRI)		63,000	66,300	43,400	39,700	36,200
	50K (90 CRI)		46,700	49,100	32,100	29,400	26,800
	57K (70 CRI)		63,000	66,300	43,400	39,700	36,200
Q5/X5	30K (70 CRI)	350	55,300	58,200	38,100	34,900	31,700
	40K (70 CRI)		57,600	60,600	39,600	36,300	33,100
	50K (90 CRI)		42,600	44,800	29,300	26,800	24,500
	57K (70 CRI)		57,600	60,600	39,600	36,300	33,100
Q4/X4	30K (70 CRI)	321	50,200	52,800	34,500	31,600	28,800
	40K (70 CRI)		52,400	55,100	36,000	33,000	30,100
	50K (90 CRI)		38,700	40,700	26,600	24,400	22,200
	57K (70 CRI)		52,400	55,100	36,000	33,000	30,100
Q3/X3	30K (70 CRI)	287	46,400	48,800	31,900	29,200	26,600
	40K (70 CRI)		48,400	50,900	33,300	30,500	27,800
	50K (90 CRI)		35,700	37,600	24,600	22,500	20,500
	57K (70 CRI)		48,400	50,900	33,300	30,500	27,800
Q2/X2	30K (70 CRI)	256	41,700	43,900	28,700	26,300	23,900
	40K (70 CRI)		43,500	45,800	29,900	27,400	25,000
	50K (90 CRI)		32,200	33,900	22,200	20,300	18,500
	57K (70 CRI)		43,500	45,800	29,900	27,400	25,000
Q1/X1	30K (70 CRI)	227	36,900	38,800	25,400	23,200	21,200
	40K (70 CRI)		38,400	40,400	26,400	24,200	22,000
	50K (90 CRI)		28,400	29,900	19,600	17,900	16,300
	57K (70 CRI)		38,400	40,400	26,400	24,200	22,000

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

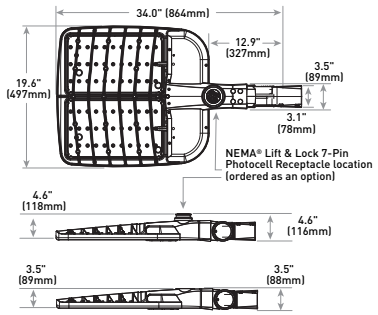
Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 85L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	520	77,600	81,600	N/A	N/A	44,500
	40K (70 CRI)		80,800	85,000	N/A	N/A	46,400
	50K (90 CRI)		59,800	62,900	N/A	N/A	34,300
	57K (70 CRI)		80,800	85,000	N/A	N/A	46,400
Q8/X8	30K (70 CRI)	494	74,000	77,800	N/A	N/A	42,500
	40K (70 CRI)		77,100	81,100	N/A	N/A	44,300
	50K (90 CRI)		57,000	60,000	N/A	N/A	32,700
	57K (70 CRI)		77,100	81,100	N/A	N/A	44,300
Q7/X7	30K (70 CRI)	469	70,900	74,600	N/A	N/A	40,700
	40K (70 CRI)		73,900	77,700	N/A	N/A	42,400
	50K (90 CRI)		54,700	57,500	N/A	N/A	31,400
	57K (70 CRI)		73,900	77,700	N/A	N/A	42,400
Q6/X6	30K (70 CRI)	450	68,500	72,100	N/A	N/A	39,300
	40K (70 CRI)		71,400	75,100	N/A	N/A	41,000
	50K (90 CRI)		52,900	55,600	N/A	N/A	30,400
	57K (70 CRI)		71,400	75,100	N/A	N/A	41,000
Q5/X5	30K (70 CRI)	407	62,600	65,900	N/A	N/A	35,900
	40K (70 CRI)		65,300	68,700	N/A	N/A	37,500
	50K (90 CRI)		48,300	50,800	N/A	N/A	27,700
	57K (70 CRI)		65,300	68,700	N/A	N/A	37,500
Q4/X4	30K (70 CRI)	373	56,900	59,900	N/A	N/A	32,700
	40K (70 CRI)		59,300	62,400	N/A	N/A	34,000
	50K (90 CRI)		43,900	46,200	N/A	N/A	25,200
	57K (70 CRI)		59,300	62,400	N/A	N/A	34,000
Q3/X3	30K (70 CRI)	334	52,600	55,300	N/A	N/A	30,200
	40K (70 CRI)		54,800	57,600	N/A	N/A	31,500
	50K (90 CRI)		40,500	42,600	N/A	N/A	23,200
	57K (70 CRI)		54,800	57,600	N/A	N/A	31,500
Q2/X2	30K (70 CRI)	298	47,300	49,800	N/A	N/A	27,200
	40K (70 CRI)		49,300	51,900	N/A	N/A	28,300
	50K (90 CRI)		36,500	38,400	N/A	N/A	21,000
	57K (70 CRI)		49,300	51,900	N/A	N/A	28,300
Q1/X1	30K (70 CRI)	263	41,800	44,000	N/A	N/A	24,000
	40K (70 CRI)		43,500	45,800	N/A	N/A	25,000
	50K (90 CRI)		32,200	33,900	N/A	N/A	18,500
	57K (70 CRI)		43,500	45,800	N/A	N/A	25,000

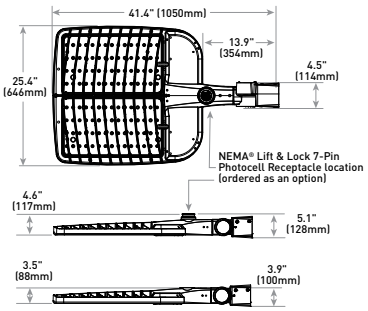
OSQL - AA Mount



Luminaire	Weight
OSQL	28.4 lbs. (12.9kg)

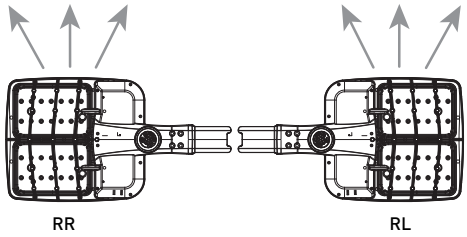
Note: For OSQM w/AA mount, refer to drawing on page 1.

OSQX - AA Mount



Luminaire	Weight
OSQX	48.6 lbs. (22.0kg)

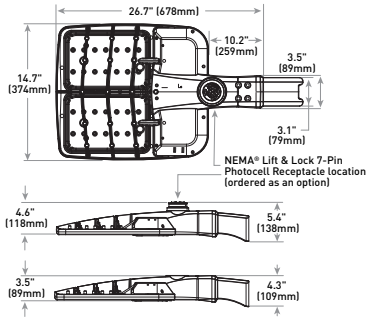
RR/RL Configuration



OSQM - DA Mount



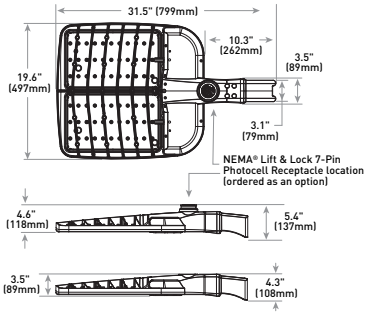
OSQM - DA Mount



Luminaire	Weight
OSQM	19.7 lbs. (8.9kg)

Note: Refer to page 14 for fixture mounting drill pattern.

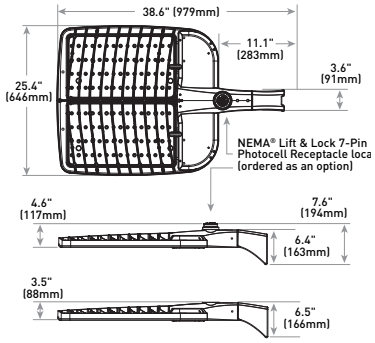
OSQL - DA Mount



Luminaire	Weight
OSQL	28.8 lbs. (13.1kg)

Note: Refer to page 14 for fixture mounting drill pattern.

OSQX-DA Mount



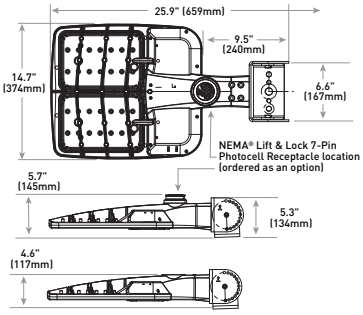
Luminaire	Weight
OSQX	45.8 lbs. (20.8kg)

Note: Refer to page 14 for fixture mounting drill pattern.

OSQM - Trunnion Mount

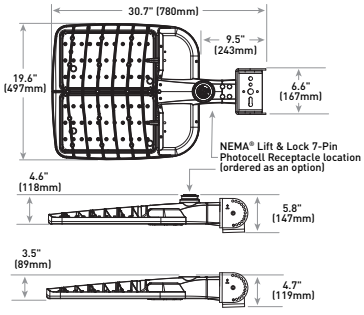


OSQM - Trunnion Mount



Luminaire	Weight
OSQM	23.2 lbs. (10.5kg)

OSQL - Trunnion Mount



Luminaire	Weight
OSQL	32.3 lbs. (14.7kg)

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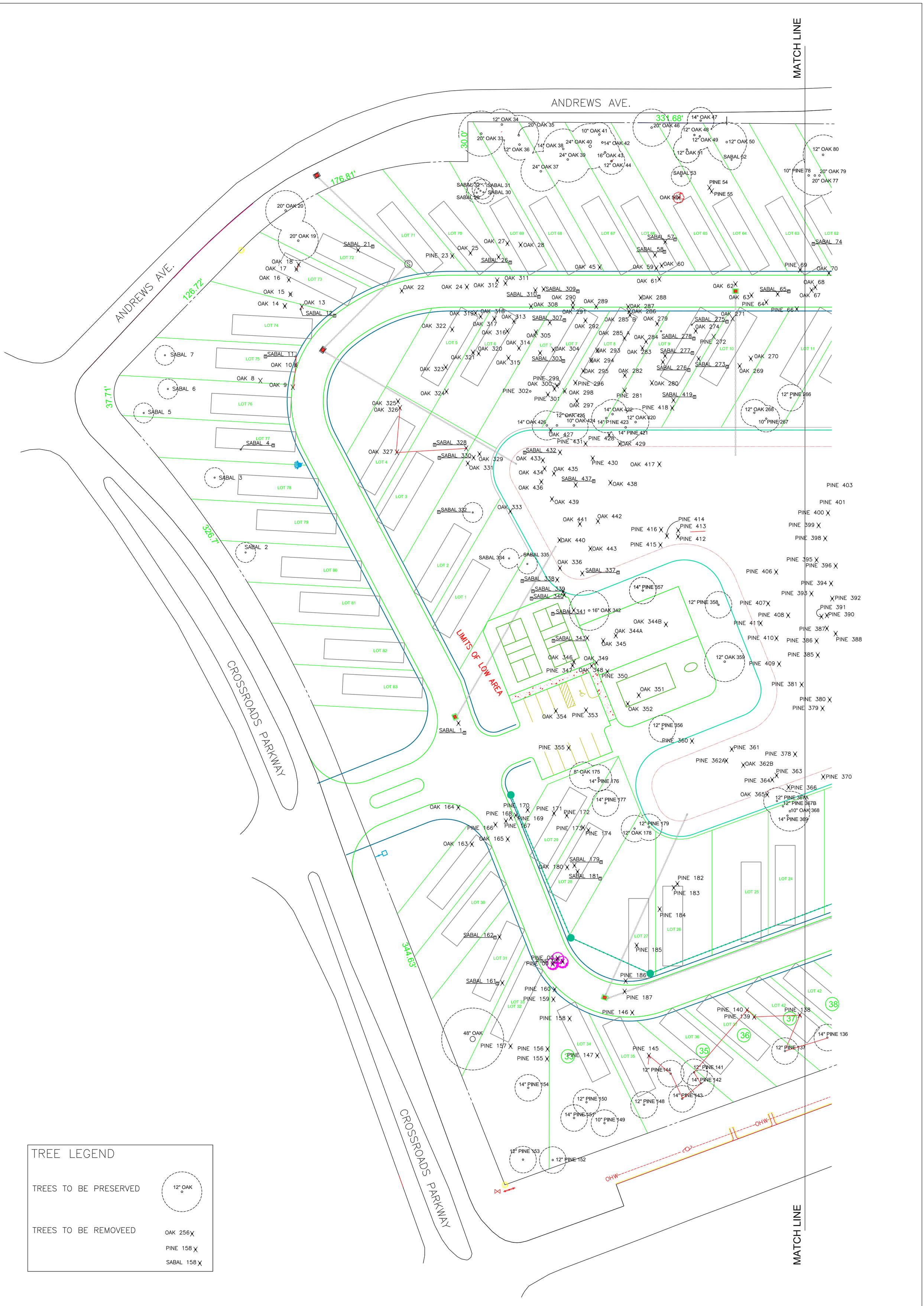


TREE LEGEND

TREES TO BE PRESERVED — 12" OAK

TREES TO BE REMOVEED — OAK 256X, PINE 158X, SABAL 158X

SHEET TM – 1 OF TWO

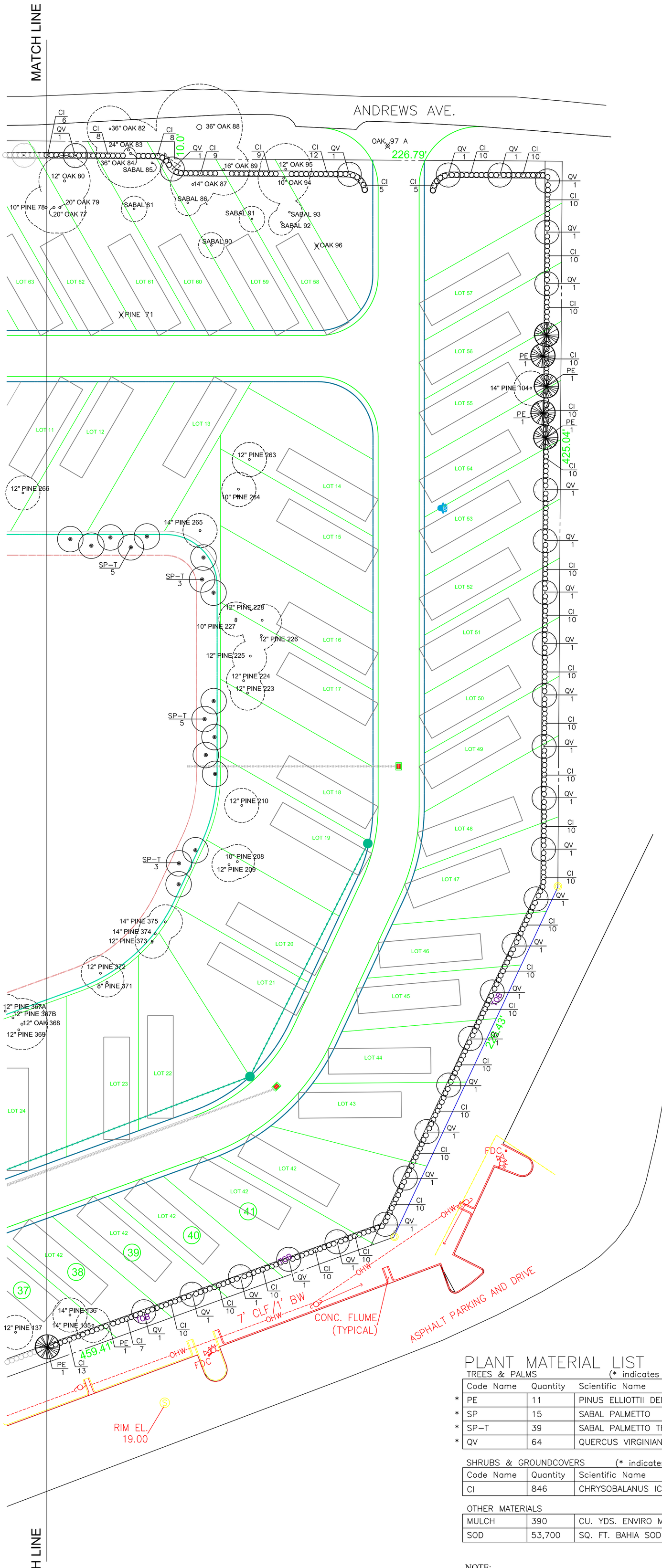
CROSSROADS RV PARK

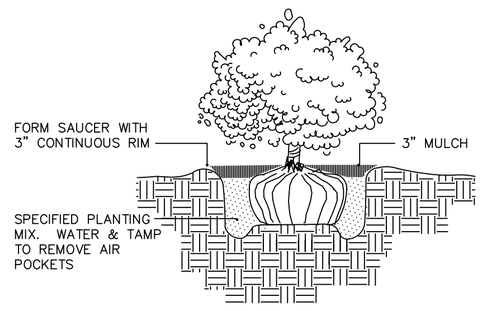
TREE MITIGATION

DANIEL J. SUGG
LANDSCAPE ARCHITECT / SITE PLANNER
POST OFFICE BOX 335, JENSEN BEACH, FL 34958
PHONE: (772) 485–1776 danlandarch@gmail.com

SCALE: 1" = 30"

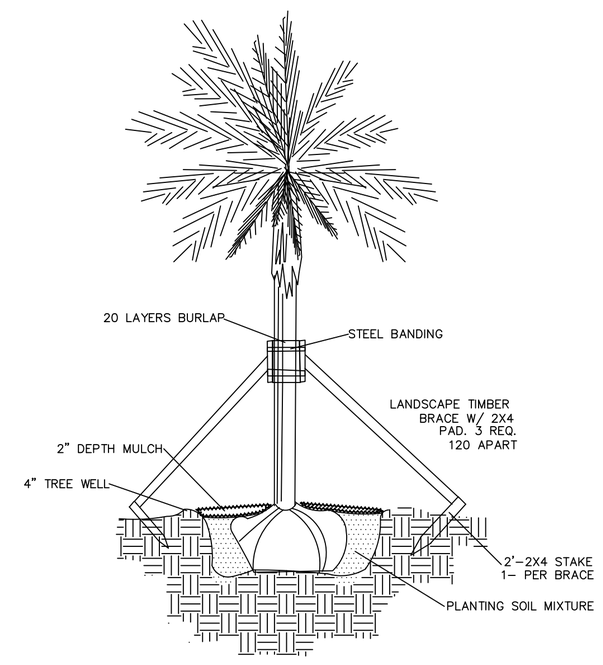
DATE: 10/7/23





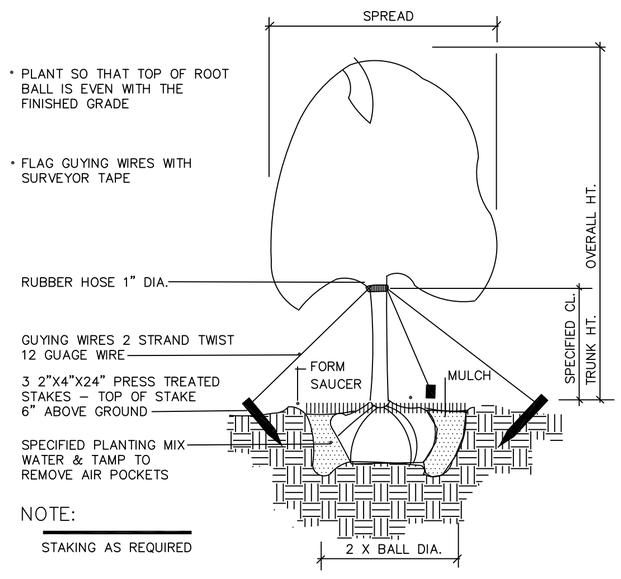
SHRUB PLANTING

SCALE: NOT TO SCALE



PALM PLANTING

SCALE: NOT TO SCALE



TREE PLANTING – GUY WIRES

SCALE: NOT TO SCALE

REQUIRED TREE DATA

PERIMETER LANDSCAPE BUFFER 2,721.92 L. FT.–41' ACCESS WAY=2,680.92 L. FT. DIVIDED BY 30 L. FT. – 89.36 TREES = 90 TREES REQUIRED

PERIMETER TREES

PROPOSED		EXISTING		TOTAL	
PINES	13	PINES	1	PINES	14
SABAL PALMS	2	SABAL PALMS	1	SABAL PALMS	3 = 1
LIVE OAKS	64	LIVE OAKS	12	LIVE OAKS	75
				TOTAL PERIMETER TREES	90

PLANT MATERIAL LIST

TREES & PALMS (* indicates native tree)

	Code Name	Quantity	Scientific Name	Common Name	Planting Size
*	PE	11	PINUS ELLIOTTII DENSA	SOUTH FLORIDA SLASH PINE	12' X 5', 4' CT 2 1/2"DBH
*	SP	15	SABAL PALMETTO	CABBAGE PALM	10'–15' OF CLEAR TRUMK
*	SP–T	39	SABAL PALMETTO TRANSPLANTS	CABBAGE PALM TRANSPLANTS	TRANSPLANTS FROM ON SITE
*	QV	64	QUERCUS VIRGINIANA	LIVE OAK	12' X 6', 4' CT 2 1/2"DBH

SHRUBS & GROUNDCOVERS (* indicates native shrub or ground cover)

Code Name	Quantity	Scientific Name	Common Name	Planting Size
CI	846	CHRYSOBALANUS ICACO	COCCOPLUM	12" X 12" #3, 18" OC

OTHER MATERIALS

MULCH	390	CU. YDS. ENVIRO MULCH (EST.)
SOD	53,700	SQ. FT. BAHIA SOD (EST.)

NOTE:

1. LANDSCAPED AREAS SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM OF SUFFICIENT CAPACITY TO MAINTAIN THE LANDSCAPING IN A HEALTHY GROWING CONDITION. THE IRRIGATION SYSTEM SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN SUCH A MANNER AS NOT TO BE A PROBLEM OR NUISANCE TO ADJACENT PROPERTIES AND T0 THE GENERAL PUBLIC.
2. DESIGN PLANS FOR THE IRRIGATION SYSTEN MUST BE SUBMITTED WITH THE REQUIRED LANDSCAPE PLAN FOR THE REVIEW AND APPROVAL BY THE DEVELOPMENT DEPARTMENT.
3. THE IRRIGATION SYSTEM MUST INCLUDE A RAIN SWITCH TO MONITOR RAIN LEVELS AND IRRIGATION NEEDS.

SHEET L–2 OF TOW

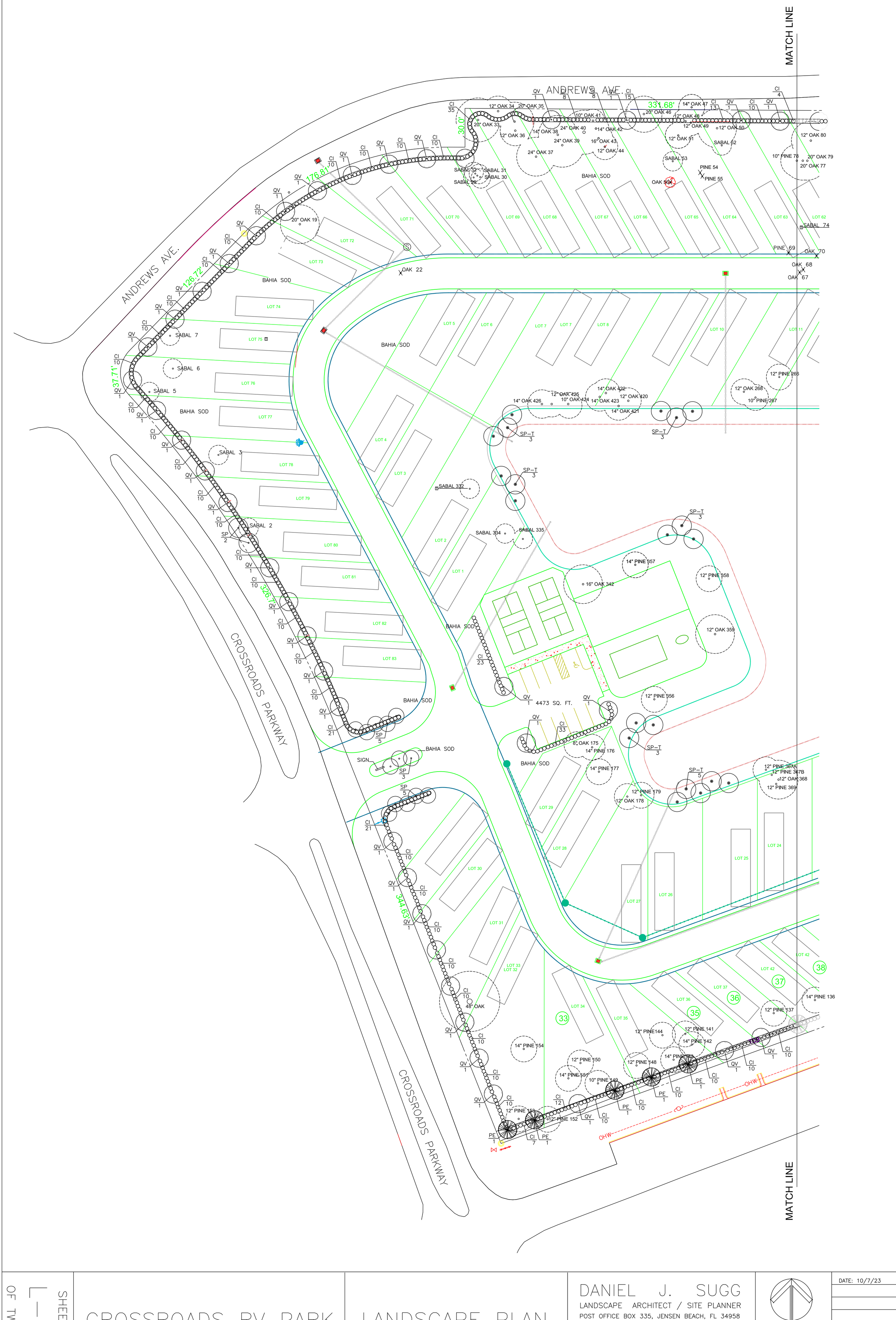
CROSSROADS RV PARK

LANDSCAPE PLAN

DANIEL J. SUGG
LANDSCAPE ARCHITECT / SITE PLANNER
POST OFFICE BOX 335, JENSEN BEACH, FL 34958
PHONE: (772) 485–1776 danlandarch@gmail.com

SCALE: 1" = 30"

DATE: 10/7/23



SHEET L—1 OF TWO

CROSSROADS RV PARK

LANDSCAPE PLAN

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POST OFFICE BOX 335, JENSEN BEACH, FL 34958
PHONE: (772) 485–1776 danlandarch@gmail.com

SCALE: 1" = 30"

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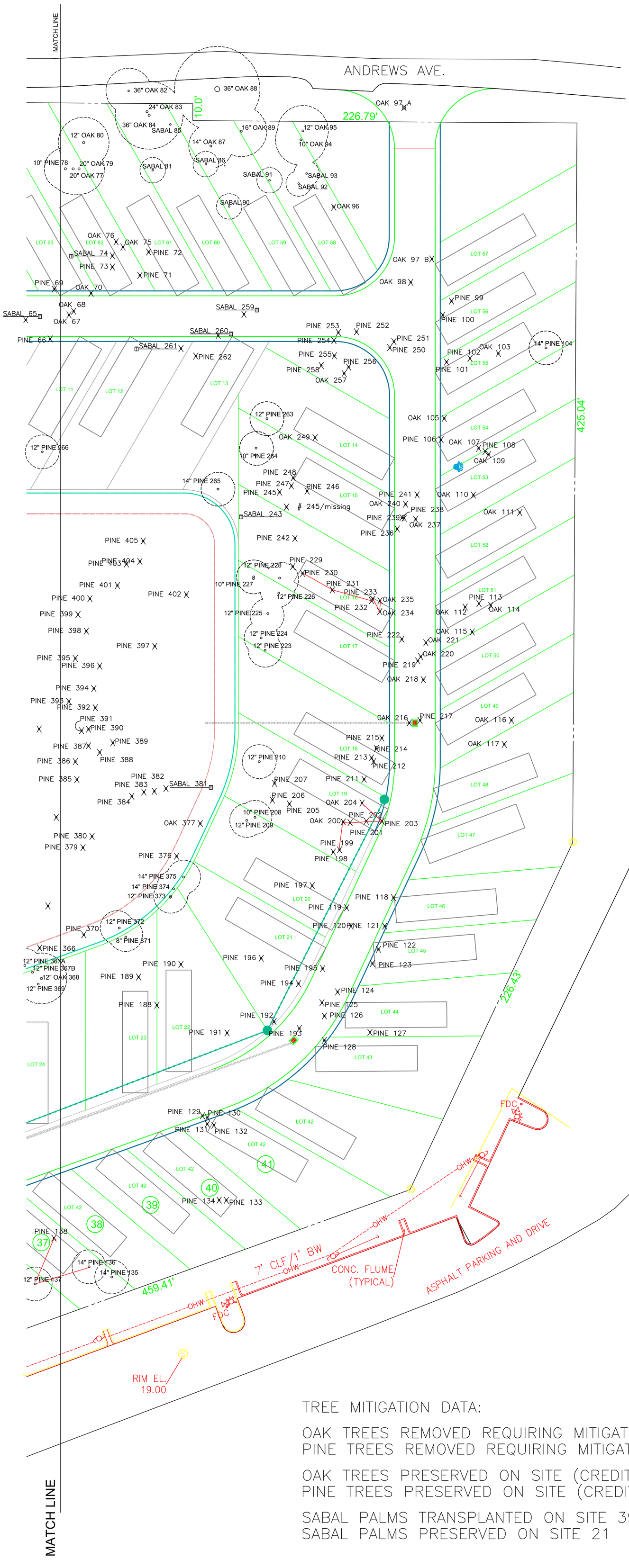

TREE LEGEND

TREES TO BE PRESERVED

12" OAK

12" PINE 263

SABAL 53

TREES TO BE REMOVED

OAK 256

PINE 158

SABAL 158

TREE MITIGATION DATA:

OAK TREES REMOVED REQUIRING MITIGATION	1006 INCHES
PINE TREES REMOVED REQUIRING MITIGATION	448 INCHES
OAK TREES PRESERVED ON SITE (CREDIT)	722 INCHES
PINE TREES PRESERVED ON SITE (CREDIT)	520 INCHES

SABAL PALMS TRANSPLANTED ON SITE 39
SABAL PALMS PRESERVED ON SITE 21

NOTE: A TEN PAGE TREE MITIGATION SUMMARY ACCOMPANIES THESE TWQ SHEETS

SHEET TM – 2 OF TOW

CROSSROADS RV PARK

TREE MITIGATION

DANIEL J. SUGG
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POST OFFICE BOX 335, JENSEN BEACH, FL 34958
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SCALE: 1" = 30"

DATE: 10/7/23

March 7, 2022

Alex George
Alexander George & Co.
14800 Indrio Road
Fort Pierce, FL 34945
(772) 940-1723

Via email: alexgeorge5845@gmail.com

Reference: Phase I Environmental Site Assessment
Crossroads Parkway – 10.57 acres
Fort Pierce, Florida

EDC, Inc. has completed this Phase I Environmental Site Assessment (ESA) Report in compliance with the American Society for Testing and Materials (ASTM) format E 1527-13 for the above-referenced property. The purpose of this evaluation was to identify recognized environmental conditions as defined in ASTM E 1527-13.

Based on the results of the Phase I ESA conducted at the subject property, no unresolved recognized environmental conditions have been identified on the subject property. Known contamination does exist within the search radius, but was not identified on the subject property.

Further, please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E 1527-13, it is the responsibility of the User of this report to undertake a review of reasonable ascertainable recorded land title records and lien records for environmental liens or activity and use limitations recorded against or relating to the subject property. In the event that any are identified, please contact EDC, Inc. immediately for further evaluation.

EDC, Inc. appreciates this opportunity to provide environmental services to you. Please contact me if you have any questions regarding this report.

Respectfully submitted,
EDC Inc.



Anthony A. Adams, BS
Sr. Biologist | Certified Arborist

ENGINEERS ◆ SURVEYORS ◆ ENVIRONMENTAL

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Date: March 7, 2022
Project #: 21-456

Prepared For:
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Reviewed By:

Tobin R. Overdorf, MS, MBA
Vice President

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1.0 SUMMARY

The subject property evaluated as part of this Environmental Assessment consists of one (1) tax parcels (Parcel ID #2324-312-0005-000-4) totaling an approximate 10.57 acres. The subject parcel is classified by the St. Lucie County Property Appraiser with a current Land Use Designation of 1000 – Vacant Commercial. The parcel is located just east of the FL Turnpike and just west of Interstate 95 in the City of Fort Pierce, Florida. The subject property is further located within Section 24, Township 35 South, and Range 39 East, St. Lucie County, Florida. Please refer to the Site Location Map presented in **Appendix A** for a visual explanation of the subject property**.**

[NOTE: Please review this report in its entirety for a full description of our evaluation, procedures, and findings.]

Based on the findings of this Phase I ESA conducted in accordance with American Society for Testing and Materials (ASTM) format E1527-13, we conclude the following:

1. We found no evidence of unresolved recognized environmental conditions with respect to past uses of the subject property based on our field observations, historical research, and public records review.

2. We found no indications of hazardous waste dumping or disposal, underground storage tanks (USTs), septic systems, seeps, unusual odors, stressed vegetation, or roads/paths with no outlet likely to have been used for disposal of hazardous wastes or petroleum products at the subject property.

3. We found three (3) Underground Storage Tank (UST) facilities within the minimum search distance as specified by ASTM-E standards. All facilities were found to be in compliance. Please refer to **Table 3** for further details.

4. We found four (4) Aboveground Storage Tank (AST) facilities within the minimum search distance as specified by ASTM-E standards. Two of the facilities were found to be in compliance and one was found to be in minor out of compliance. Please refer to **Table 3** for further details.

5. We found four (4) Leaking Underground Storage Tank (LUST) facilities within the minimum search distance as specified by ASTM-E standards. Please refer to **Table 3** for further details.

6. We found one SWF/LF withing the minimum search distance as specified by ASTM-E standards. Please refer to **Table 3** for further details.

Based on the conclusions of the Phase I ESA conducted at the referenced site, EDC, Inc. did find evidence of unresolved recognized environmental conditions and further assessment is warranted at this time.

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E 1527-13, it is the responsibility of the User of this report to undertake a review of reasonable ascertainable recorded land title records and lien records for environmental liens or activity and use limitations recorded against or relating to

the subject property. In the event that any are identified, please contact EDC, Inc immediately for further evaluation and we will run the environmental liens search.

It is important to note that in order to remain eligible for CERCLA liability protections, continuing obligations will need to be followed at the subject property. The User has the continuing obligation not to impede the integrity and effectiveness of activity and land use limitations, the duty to take reasonable steps to prevent releases, and the duty to comply with legally required release reporting obligations.

2.0 INTRODUCTION

2.1 PURPOSE

The purpose of this assessment is to conduct an evaluation of the past and current uses of the subject property and surrounding properties to identify recognized environmental conditions in connection with the subject property.

The term “recognized environmental conditions” means the presence of likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the subject property or into the ground, groundwater, or surface water of the subject property. This environmental assessment was conducted in accordance with the guidelines of the ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. This assessment was also intended to identify potential off-site contaminant sources within the search distances set forth in ASTM E 1527-13.

2.2 DETAILED SCOPE OF SERVICES

The contracted scope of services consists of the preparation of a Phase I ESA of the subject property in accordance with the guidelines set forth in ASTM E 1527-13. The purpose of the ASTM E 1527-13 Standard Practice for Environmental Site Assessments is to define good commercial and customary practice in the United States of America for conducting an environmental site assessment with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and petroleum products.

The scope of work does not include soil or groundwater sampling; contamination assessment/delineation; an evaluation of asbestos, lead-based paint, radon, wetlands, lead in drinking water, environmental compliance, threatened & endangered species, cultural resources, industrial hygiene, health and safety, ecological resources, indoor air quality; site geotechnics (soils, foundations, site retention, etc.) or construction materials testing. If necessary, EDC, Inc. can provide these additional services.

2.3 SIGNIFICANT ASSUMPTIONS

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of a Phase I ESA in conformance with ASTM E 1527-13 is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property.

This assessment is site-specific, and all appropriate inquiry does not mean an exhaustive assessment of a clean property.

2.4 LIMITATIONS AND EXCEPTIONS

The findings of this report represent our professional judgment. These findings are relevant to the dates of our site work and the information cited herein. This report should not be relied upon to represent property conditions on other dates or at locations other than those specifically cited within this report.

The following limitations were encountered during completion of this Phase I ESA:

- Data gaps were encountered in the historical aerial photograph review due to the lack of available photographs in five-year intervals as preferred by ASTM-E standards. Based on our review of the available aerial photographs (1944) along with additional historical information found during review of other sources, the data gap does not appear to be significant to the findings of this report and does not appear to constitute as a data failure.

- The chain-of-title documentation or recorded land title records for environmental liens or activity and use limitations currently recorded against or relating to the subject property were not provided to EDC, Inc. during completion of this Phase I ESA.

2.5 SPECIAL TERMS AND CONDITIONS

Any special terms and conditions associated with this Phase I ESA are included in the Environmental Consulting Services Agreement and the Addendum to Contractual Agreements between EDC, Inc. and Alex George.

In addition, EDC shall not be held liable for any incorrect advice, judgment or decision based on any inaccurate information supplied by the user, current owner, or their designees.

2.6 USER RELIANCE

This report is intended for the sole use of EDC Inc. and Alex George. Its contents may not be relied upon by other parties without the explicit written consent of EDC, Inc.

In accepting this report, all parties herein mentioned agree to the Environmental Consulting Services Agreement and the Addendum to Contractual Agreements between EDC, Inc. and Alex George.

3.0 SITE DESCRIPTION

3.1 LOCATION AND LEGAL DESCRIPTION

The subject property is located within Section 24, Township 35 South and Range 39 East, St. Lucie County Florida. It can also be described as one (1) tax parcel located east of the FL Turnpike and just west of Interstate 95 in Fort Pierce, St. Lucie County, Florida. More specifically, the subject property consists of 10.57 acres of vacant commercial property. Legal descriptions for the tax parcels are as follows;

2324-312-0005-000-4: 24 35 39 FROM INT OF SE COR OF SW 1/4 OF NW 1/4 AND CL OF ANDREWS AVE RUN S 00 06 16 E ALG E LI OF NW 1/4 OF SW 1/4 OF SEC 45 FT TO SLY R/W LI OF ANDREWS AVE AND POB, TH S 89 41 32 E ALG S R/W LI 558.38 FT, TH S 00 18 28 W 420.04FT, TH S 25 04 02 W 226.43 FT, TH S 70 04 02 W 459.41 FT TO NELY R/W LI OF CROSSROADS PKWY, TH N 21 40 15 W ALG NELY R/W LI 344.63 FT TO CURVE CONCAVE SW, R OF 855 FT, TH NWLY ALG ARC 305.70FT TO CURVE CONCAVE E, R OF 25 FT, TH NLY ALG ARC 37.71 FT, TH N 44 15 37 E 126.72 FT TO CURVE CONCAVE SE, R OF 220 FT, TH NELY ALG ARC 176.81 FT, TH S 89 41 32 E 11.88 FT, TH N 00 06 16 W 30 FT TO SLY R/W LI OF ANDREWS AV AND POB (10.57 AC)

Visual representation of the property boundary, aerial photographs, and property appraiser cards are presented in **Appendix A**.

3.2 PROPERTY AND VICINITY CHARACTERISTICS

At the time of this assessment, the subject property consisted of 10.57 acres of vacant commercial land. The property vicinity is characterized primarily by various commercial properties. Please refer to the Site Location Map in **Appendix A**.

3.3 CURRENT USE OF THE PROPERTY

At the time of the site reconnaissance, the subject property consisted of 10.57 acres of vacant, yet maintained commercial property.

3.4 STRUCTURES, ROADS, AND/OR OTHER IMPROVEMENTS WITHIN THE PROPERTY

Structures, roads, and improvements were not observed on the subject property at the time of the site visit. Pine trees were the most prevalent.

3.5 CURRENT USE OF ADJOINING PARCELS

Currently, the parcels adjoining the site are used as follows:

TABLE 1
Description of Adjoining Parcels

Direction From Site	Description of Current Use
North	R.O.W. – Andrews Ave.
East	Crossroads Plaza – Commercial Retail
South	Crossroads Plaza – Commercial Retail.....
West	R.O.W. – Crossroads Parkway

None of the current uses of the adjoining properties appear likely to indicate the presence of recognized environmental conditions in connection with the subject property.

4.0 USER PROVIDED INFORMATION

The User did not provide EDC with information pertaining to the following sections. This information was collected by EDC, Inc.

4.1 TITLE RECORDS

According to the St. Lucie County Property Appraiser's Report, the current owner of the subject property is Alexander George and Company Group.

The User did not contract EDC, Inc. to acquire a chain-of-title for the parcels comprising the subject property, which typically contains information regarding historical site ownership.

The last known sale of the subject property occurred on April 13, 2021 and can be found in Appendix A.

4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

The User did not provide information on any environmental liens or activity and use limitations on the subject property that are filed or recorded under federal, tribal, state, or local laws.

Please note that an environmental liens or activity and use limitations search report was not acquired by EDC, Inc. for the parcel comprising the subject property. In order to qualify for due diligence, the User of this report may be required to contact a title company to confirm that there are no environmental liens or activity and use limitations filed for the parcel comprising the subject property. In the event that any are identified, please contact EDC, Inc. immediately for further evaluation.

4.3 SPECIALIZED KNOWLEDGE

The User did not provide any specialized knowledge or experience that may pertain to recognized environmental conditions in connection with the subject property.

4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The User did not provide any information on the purchase price being paid for the subject property. Information pertaining to the assessed value of the subject property is included in the Saint County Property Appraiser's Report presented in **Appendix A**.

4.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

According to the St. Lucie County Property Appraiser's Report, the current owners of the subject property are Alexander George and Company Corporation. Please refer to the St. Lucie County Property Appraiser's Report included in **Appendix A**.

4.6 REASON FOR PERFORMING PHASE I ESA

The User stated the reason for requesting this Phase I ESA was for Due Diligence associated with development of the property. Therefore, the User contracted EDC, Inc. to perform this Phase I ESA in conjunction with a real estate transaction for the prospective owner to satisfy one of the requirements to qualify for the innocent purchaser defense, contiguous property owner or bona fide prospective purchaser limitations on CERCLA liability.

4.7 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION ABOUT THE PROPERTY

The User did not provide any information regarding any specific chemicals that are present or were once present at the subject property, spills or other chemical releases that have taken place at the subject property, or any environmental cleanups that have taken place at the subject property.

5.0 RECORDS REVIEW

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the site. Accuracy and completeness of record information varies among information sources, including government sources. Record information is often inaccurate or incomplete. Standard sources that are reasonably ascertainable were reviewed by EDC, Inc. for this Phase I ESA.

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

As part of this assessment, we reviewed information sources to obtain existing information pertaining to a release of hazardous substances or petroleum products on or near the site. EDC, Inc. obtained an ASTM radius map report through Environmental Data Resources, Inc. (EDR). A copy of the EDR report is contained in **Appendix B**. EDC, Inc. also reviewed other available standard environmental record sources at the Florida Department of Environmental Protection (FDEP), as needed. The following state, county, and federal sources were consulted during this record review:

State, County, and Tribal Database Review (FDEP and MCHD)

- FDEP, Leaking Underground Storage Tanks (LUST)
- FDEP, Leaking Aboveground Storage Tanks (LAST)
- FDEP, Registered Underground Storage Tanks (UST)
- FDEP, Registered Aboveground Storage Tanks (AST)
- FDEP, State Hazardous Waste Sites (SHWS)
- FDEP, Solid Waste Facility/Landfill Sites (SWL/LF)
- FDEP, State Brownfield Areas (BROWNFIELDS)
- FDEP, Voluntary Cleanup Sites (VCP)
- FDEP, Institutional Controls & Engineering Controls Registry (IC & EC)

Federal Database Review [United States Environmental Protection Agency (EPA)

- EPA, National Priorities List (NPL), including Delisted and Proposed NPL Sites and Federal Superfund Liens
- EPA, Comprehensive Environmental Response Compensation and Liability Act Information System (CERCLIS)
- EPA, CERCLIS No Further Remedial Action Planned (CERCLIS-NFRAP)
- EPA, RCRA Treatment, Storage, and Disposal Facilities (RCRA-TSDF)
- EPA, RCRA Corrective Action Report Facilities (CORRACTS)
- EPA, RCRA Generators List (RCRA), including Large Quantity Generators (LQG), Small Quantity Generators (SQG) and Conditionally Exempt Small Quantity Generators (CESQG)

- EPA, Institutional Controls & Engineering Controls Registry (US IC & US EC)
- EPA, Emergency Response Notification System List (ERNS)

Table 2 lists the approximate minimum search distances used during this assessment as set forth in ASTM E 1527-05.

TABLE 2 **Approximate Minimum Search Distances – ASTM E 1527-05**	
Source	**Search Distance**
Federal NPL Site List	1.0 mile
Federal Delisted NPL Site List	0.5 mile
Federal CERCLIS List	0.5 mile
Federal CERCLIS NFRAP Site List	0.5 mile
Federal RCRA CORRACTS Facilities List	1.0 mile
Federal RCRA non-CORRACRS TSD Facilities List	0.5 mile
Federal RCRA Generators List	Site and adjoining properties
Federal Institutional Control/Engineering Control Registries	Site only
Federal ERNS List	Site Only
State and Tribal Lists of Hazardous Waste Sites identified for investigation or remediation: State- and Tribal- equivalent NPL State- and Tribal- equivalent CERCLIS	1.0 mile 0.5 mile
State and Tribal Landfill and/or Solid Waste Disposal Site Lists	0.5 mile
State and Tribal Leaking Storage Tank Lists	0.5 mile
State and Tribal Registered Storage Tank Lists	Site and adjoining properties
State and Tribal Institutional Control/Engineering Control Registries	Site only
State and Tribal Voluntary Cleanup Sites	0.5 mile
State and Tribal Brownfield Sites	0.5 mile

5.1.1 FEDERAL, FLORIDA STATE, AND ST. LUCIE COUNTY RECORDS REVIEW

According to information provided by EDR and/or the FDEP Web-Based Map Application for Waste Management Division Facilities, the subject property is not listed in the federal, state or county databases. Please refer to **Table 3** for a summary of information regarding these facilities. Please refer to the FDEP and groundwater flow maps in **Appendix A**, EDR report in **Appendix B**, and supplemental documents in **Appendix C** for supporting documentation.

State/Federal Database Descriptions for Table 3	
Database Abbreviation	**Description**
AIRS	
AST	Registered aboveground storage tank locations.
CLEANUP SITE	This listing includes the locations of waste cleanup sites from various programs. The source of the cleanup site data includes Hazardous Waste programs, Site Investigation Section, Compliance and Enforcement Tracking, Drycleaning State Funded Cleanup Program (possibly other state

	funded cleanup), Storage Tank Contamination Monitoring.
DWM CONTAM	A listing of active or known sites. The listing includes sites that need cleanup but are not actively being working on because the agency currently does not have funding (primarily petroleum and drycleaning).
ECHO	ECHO (Enforcement & Compliance History Information) provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.
FDEP	Florida Department of Environmental Protection is the state's lead agency for environmental management and stewardship, protecting our air, water and land.
FINDS	Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).
FINANCIAL ASSURANCE	A list of hazardous waste facilities required to provide financial assurance under RCRA.
LUST	Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.
Nexus	Nexus is a user-friendly search interface to retrieve documents from DEP's OCULUS archival database which houses permits and other publicly available documents.
NPDES	General information regarding NPDES (National Pollutant Discharge Elimination System) permits.
RCRA-VSQG	RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

SWF/LF	Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.
TIER 2	A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.
UST	Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.
SPILLS	Incidents involving spills of oil and hazardous materials.

TABLE 3
State/Federal Database Facility Identified Within Minimum Search Distance

Facility	Location	Database	File Review Summary
Crossroads USA Inc. 1001 Wheeler Ter Fort Pierce, FL 34945 EDR ID: A100229386	Approximately 0.022mi WSW of the subject property	AST	According to the EDR report and Oculus documents, the DEP issued a Return to Compliance letter on March 31, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Chevron Products Company #200765 6900 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000702861	Approximately 0.134mi S of the subject property	RCRA NONGEN / NLR FINDS ECHO	According to the EDR report and Oculus documents, this facility was verified as a non-generator of waste. The FINDS report is attached in **Appendix C**. Due to this, the likelihood of the subject property being adversely affected by the facility appears low.
Citgo Quick Mart MacMillan 6900 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000737807	Approximately 0.134mi S of the subject property	UST FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued a Return to Compliance letter on January 29, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.

Hilliard Groves Inc. 2650 S Kings Hwy Fort Pierce, FL 34945 EDR ID: 1000698915	Approximately 0.164mi W of the subject property	LUST UST RCRA NONGEN / NLR FINDS ECHO CLEANUP SITES DWM CONTAM	According to the EDR report and Oculus documents, the DEP issued a letter inviting the owners of this facility to participate in the LSSI Program in 2017. This program assists owners of contaminated properties return to compliance. In 2013, efforts were being put forth to clean up the site from a discharge that occurred on December 22, 1992. The work order was being followed up until this time. This facility is not in compliance at the time of this investigation. Due to this, further investigation may be required via soil boring and samplings as the groundwater flow does traverse the subject property from this facility.
Denny's Restaurant 6501 Darter Court Fort Pierce, FL 34945 EDR ID: U000130116	Approximately 0.202mi SE of the subject property	LUST UST	According to the EDR report and Oculus documents, the current owner in 1993 had no knowledge of the tank removal prior to their time of ownership. The tank was removed in 1991, no violations were identified. Due to this, the likelihood of the subject property being adversely affected by the facility appears low.
Falcon Oil Citgo 7045 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000886575	Approximately 0.220mi SSW of the subject property	LUST UST SPILLS RCRA NONGEN / NLR FINDS ECHO CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According the EDR report and Oculus documents, the DEP issued an In Compliance letter on March 30, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Sunshine Food Mart 7049 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U001373010	Approximately 0.222mi SSW of the subject property	LUST UST CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued a No Cleanup Required letter on August 4, 1992 for a discharge that occurred on November 1, 1990. Due to this, the likelihood of the subject property being adversely affected by the facility appears low. Please refer to **Appendix C** for supporting documentation.

Pilot Travel Center #327 7150 Okeechobee Road Fort Pierce, FL 34945 EDR ID: S117360787 Love's Travel Stop #415 7150 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U003343094	Approximately 0.228mi SW of the subject property	DWM CONTAM RESP PARTY LUST UST SPILLS CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued an In Compliance letter on April 15, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Chevron #47314 7100 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U001372909	Approximately 0.231mi SSW of the subject property	LUST UST	According to the EDR report and Oculus documents, the DEP issued a Site Rehabilitation Completion Order on November 6, 1991, which addressed two discharges that occurred on September 15, 1989 and March 26, 1991. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
BP Oil Co #24539 7131 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000703120 BP Fort Pierce 7131 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U001372930	Approximately 0.248mi SSW of the subject property	RCRA NONGEN / NLR FINDS ECHO LUST UST FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued an In Compliance letter on January 25, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Boudrias Groves 2898 S Kings Highway Fort Pierce, FL 34945 EDR ID: U001372802	Approximately 0.305mi SW of the subject property	LUST UST CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, on August 18, 2022 the DEP issued communication offering assistance to the facility manager on joining the Petroleum Cleanup Participation Program (PCPP). The northwest portion of this facility was identified as the area with the highest concentration of contaminants. Any construction conducted within this area must be done according to DEP rules. In addition, the groundwater flow from this facility does travel across the subject property. Further action is recommended via soil testing and monitoring on the subject property. Please refer to **Appendix C** for supporting documentation.

Pilot Travel Center #090 7300 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U003699251	Approximately 0.339mi WSW of the subject property	LUST UST CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued a Return to Compliance letter on November 13, 2020. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
John Mart Truck Accident State Rd 70 at Turnpike Entry Fort Pierce, FL 34945 EDR ID: S117360380	Approximately 0.341mi SW of the subject property	DWM CONTAM RESP PARTY	According to the EDR report and Oculus documents, an Interim Remedial Action Report was submitted post-incident that occurred on October 5, 1994. The saddle tank ruptured, and absorbents were used. Soil was excavated under direction of FDOT. This case was closed. In addition, the incident took place outside of groundwater flow that may affect the subject property. Due to this, the likelihood of the subject property being adversely affected by this incident appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
FL Dept of Transportation Hwy 70 & Kings Hwy Fort Pierce, FL 34945	Approximately 0.391mi SW of the subject property	LUST UST CLEANUP SITES DWM CONTAM	According to the EDR report and Oculus documents, cleanup was required for a discharge that occurred on July 22, 1991. 160 gallons of diesel product were removed along with contaminated soils. No further work has occurred at this site. Due to this, the likelihood of the subject property being adversely affected by this incident appears low. Please refer to **Appendix C** for supporting documentation.

In addition to reviewing the EDR report, EDC, Inc. performed reconnaissance of the property vicinity to identify any sites not mapped by EDR due to inadequate or inaccurate address information and to look for unregistered facilities. No facilities of concern were observed within the vicinity of the subject property during field reconnaissance performed by EDC, Inc.

5.2 ADDITIONAL ENVIRONMENTAL RECORDS

The following is a list of some of the additional environmental records that were searched as part of the EDR Radius Map Report: Priority Ranking List (PRIORITYCLEANERS), Formerly Used Defense Sites (FUDS), Records of Decision (ROD), Mines Master Index File (US MINES), Toxic Chemical Release Inventory System (TRIS), Risk Management Plans (RMP), Underground Injection Wells Database Listing (UIC), Drycleaning Facilities (DRYCLEANERS), and PCB Transformer Registration Database (PCB TRANSFORMER).

EDC searched the FDEP Consolidated Web-Based Map Application for Waste Management Division facilities (e.g., solid waste facilities, storage tanks, dry cleaning sites, hazardous waste generators, etc.) located on the subject property and adjoining properties. The map is available

for review in **Appendix A**. The search included the Storage Tank Regulation, Solid Waste, Site investigation, Hazardous Waste Program, and the Waste Cleanup database, among others. Any new findings revealed on the database are included in **Table 3**.

EDC reviewed the Florida Department of Community Affairs (DCA) Florida Radon Protection Map for Large Buildings and New Single Family Homes and Duplexes. More than 5% of new large buildings in St. Lucie County are expected to have annual average radon levels above the EPA action level and fewer than 5% new homes are expected to have elevated radon levels. The map indicated that the general area where the site is located (St. Lucie County) is designated as Federal EPA Radon Zone 3. This criteria states that the counties within this zone are those with a predicted radon level less than 2 pCi/L or otherwise known as low risk.

5.3 PHYSICAL SETTING SOURCES

According to the EDR report, USGS topographic quadrangle map, soil survey, and regulatory files available regarding properties of environmental concern in the property vicinity were reviewed as sources for obtaining information regarding the physical setting of the subject property and surrounding vicinity.

Based on our site reconnaissance, review of USGS maps, aerial photographs, the location of the subject property, and the present environmental related conditions of adjacent and nearby properties, there is little to no potential for migration of petroleum product or hazardous waste contamination from off-site sources.

5.3.1 TOPOGRAPHY

The USGS topographic quadrangle map set titled “Fort Pierce”, and “Fort Pierce NW’ was referenced as a source for obtaining information regarding the physical setting of the subject property and surrounding vicinity. The subject property is located at an elevation of approximately 25 feet above sea level.

According to the EDR Report, the groundwater within the minimum search distances is flowing southeast towards Tenmile Creek. A copy of the USGS Quadrangle Map is provided as **Appendix B**.

5.3.2 SOILS/GEOLOGY

The general geology of St. Lucie County is characterized by the Caloosahatchee Marl which underlies the entire area, is of Pliocene age, and consists mainly of sand and varying amounts of shell. The Fort Thompson Formation rests uncomfortably on the Caloosahatchee Marl; dips from west to east; is of Pleistocene age; and consists of a series of alternating beds of limestone, shells, sand, and marl. The Anastasia Formation which is of Pleistocene age and rests uncomfortably on the Fort Thompson Formation forms the backbone of the coastal ridge, is exposed in several places along the ocean shoreline, and consists of sand and shell beds and thin, discontinuous layers of sandy limestone and sandstone. Pamlico Sand of the late Pleistocene age mantles the entire area and is the basic material in which most of the mineral soils have formed.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, surficial soils at the subject property are classified as the following:

Nettles sand- is a poorly drained, nearly level soil found in areas of broad flatwoods. Typically, the surface layer is 11 inches thick. Black sand comprises the upper 5 inches, very dark gray sand in the next three inches and dark gray sand in the lower 3 inches. Subsurface layer is light gray sand 22 inches thick. The water table is typically at a depth of 10 inches for 2 to 4 months during wet seasons, and at a depth of 10 to 40 inches for 6 months of longer in most years. Natural vegetation includes slash pine, cabbage palm, saw palmetto, wax myrtle, inkberry, fetterbush, creeping bluestem, chalky bluestem, Florida threeawn, and pineland threeawn. This soil has severe limitations for cultivated crops unless water control and other food management practices are provided. This soil has potential for improved pasture grasses and high potential for dwellings without basements, small commercial buildings, and roads.

Oldsmar fine sand- This poorly drained soil is found typically in broad areas in the flatwoods. Typically, the surface layer is black fine sand about 5 inches thick. The water table is at a depth of less than 10 inches for 2 to 4 months during the wet season and within a depth of 40 inches for more than 6 months. Natural vegetation consists of slash pine, saw palmetto, inkberry, rusty lyonia, black root, penny royal, pineland threeawn, chalky bluestem, panicum and various grasses. The soil is well suited for pasture and hay crops.

Wabasso sand- This soil is a nearly level, poorly drained soil in broad open areas of the flatwoods. The surface layer is sand about 8 inches thick. The upper 4 inches is black and the lower 4 inches is dark grey. The water table is typically at a depth of less than 10 inches for 1 to 4 months during the wet season, and at a depth of 10 to 40 inches for 6 to 9 months in most years. Natural vegetation is slash pine, cabbage palm, saw palmetto, running oak, inkberry and fetterbush. Common grasses are threeawn and bluestem. The soil has severe limitations for cultivated crops and citrus due to wetness. The soil has high potential for dwellings without basements, small commercial buildings, local roads and streets.

5.3.3 HYDROGEOLOGY

The general hydrogeology of St. Lucie County includes two aquifer systems, the surficial and the Floridan aquifer systems. Both aquifer systems are multilayered and are variable in physical and chemical properties. The surficial aquifer system is the most widely used source of drinking water in St. Lucie County. In most parts of the county, the aquifer system contains freshwater that is easily obtainable for low-cost domestic supply. The surficial aquifer system within St. Lucie County consists of undifferentiated sediments that overlie the greenish-gray clayey sands of the intermediate confining unit (Hawthorn Formation). The surficial aquifer system consists of a relatively thin unit of undifferentiated sand, silt, and shell of Pleistocene to Holocene age overlying more permeable zones composed of thin layers of sand, silt, and clay inter-bedded with layers of limestone, coarse sand, and shell of Pliocene age. In some places, the permeable beds are absent and wells are drilled into the deeper sand, shell, and silt layers of Late Miocene age. These deeper wells also are classified as surficial aquifer system wells.

According to the Hydrological Gradient map in the EDR report, the direction of groundwater flow in the vicinity of the subject property appears to flow northeast toward the St. Lucie River.

5.4 HISTORICAL USE INFORMATION ON THE PROPERTY

According to the earliest available aerial photograph (1944), the subject property and general vicinity are undeveloped. There are wetlands directly to the southeast of the subject property as well as within the general vicinity of the subject property. There appears to be agriculture

operations surrounding the subject property. Kings Highway and Okeechobee Road can be observed. In the 1958 aerial image, a portion of the subject property is used for agricultural purposes, a citrus grove can be observed. Residential development can be seen to the south of the subject property, Wetlands in the vicinity remain the same. In 1969, fuel stations can be observed at the intersection of Kings Hwy and Hwy 70. In 1980, Interstate 95 can be observed to the east of the subject property. The surrounding vicinity still remains utilized for Citrus growing operations. The 1992 historical aerial image shows the construction of the commercial retail and hotels in the surrounding vicinity. In 2007, a large trailer park can be observed directly north of the subject property. From 2007 to 2021, the aerials do not show any significant changes.

Reasonably ascertainable aerial photographs are available for the time period back to 1944 until the present, but not necessarily or consistently in five-year intervals as preferred by ASTM E standards, or as early as 1940 as preferred by ASTM-E standards. The lack of aerial photographs in consistent five-year intervals is noted as a data gap. Based on the review of available aerial photographs and other standard historical sources, the use of the subject property during the timeframe of the data gap has been adequately ascertained. Therefore, the data gap does not materially impact the performance of this Phase I ESA and is not regarded as a data failure.

5.4.1 AERIAL PHOTOGRAPHY REVIEW

In order to evaluate the previous land uses of the subject property and surrounding area, reasonably ascertainable aerial photographs were reviewed. The aerial photographs provide a progressive overview of the subject property and surrounding properties. We reviewed the 1940 to 2021 aerial photographs obtained from the Florida Department of Transportation, the State University System of Florida, EDR aerial report, the St. Lucie County Property Appraiser's Website, and Google Earth. Please note that copies of the aerial photographs reviewed during completion of this Phase I ESA are included within this report and can be found in **Appendix A and B**. Descriptions of EDC, Inc. observations are outlined in **Table 4**.

TABLE 4
Summary of Aerial Photograph Observations

Photograph Date	Photograph Quality	Remarks
1944	Fair (EDR)	The subject property is undeveloped at this time. Kings Highway and Okeechobee Road can be observed, along with surrounding citrus agricultural operations.
1950	Very Poor (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
1958	Fair (EDR)	A portion of the subject property is used for agricultural purposes, a citrus grove can be observed. Residential development can be seen to the south of the subject property, Wetlands in the vicinity remain the same.
1969	Fair (EDR)	The subject property remains vacant. Fuel stations can be observed at the intersection of Hwy 70 and Kings Hwy. No other significant changes are observed at this time.
1970	Very Poor (EDR)	No other significant changes to the subject property or its vicinity were observed since the previous aerial photograph.

1980	Fair (EDR)	Interstate 95 can be observed directly to the east of the subject property. No additional significant changes since the previous aerial photograph.
1992	Fair (EDR)	Significant development of hotels, commercial retail, and trailer parks can be seen in the vicinity of the subject property.
1994	Poor (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
1999	Poor (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2007	Good (EDR)	A trailer park can be observed directly north of the subject property. No other significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2010	Good (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2013	Good (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2017	Good (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2021	Very Good (Google Earth)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.

5.4.2 PROPERTY OWNERSHIP RECORDS

The current owner of the subject property is Alexander George and Company Corporation. This is confirmed by the St. Lucie County Property Appraiser's Report, which is presented in **Appendix A**.

The User did not contract EDC, Inc. to acquire a chain-of-title for the parcel comprising the subject property, which typically contains information regarding historical site ownership.

5.4.3 SANBORN FIRE INSURANCE MAP REVIEW

According to information provided by EDR, fire insurance maps generated by the Sanborn Map Company are not available for review for the subject property. The Certified Sanborn Map Report is provided in **Appendix B** following the EDR database report.

5.4.4 CITY DIRECTORY REVIEW

Historical street directories listing the former businesses at the street addresses of the subject property and adjoining properties were reviewed by EDC, Inc. during completion of this Phase I ESA. Business names listed in the directories were reviewed to try to determine if businesses generated, used, stored, or disposed of hazardous waste materials. The review did not produce any properties that represented an environmental concern.

5.4.5 LAND USE RECORDS

According to the St. Lucie County Property Appraiser's Report, the Future Land Use for the subject property is New Community Development (NCD). The subject property is located within a Master Planned Unit Development. The table below (**Table 5**) details the structures that are located on the adjoining parcels that surround the subject property according to the St. Lucie County Property Appraiser's Report:

TABLE 5
Description of Adjoining Parcels

Parcel ID #	No. of Structures	Type of Structure	Size (Sq. Ft)	Year Built
2324-311-0005-000-1	2	Commercial Retail Commercial Retail	146,954 11,346	1988 1989

5.4.6 OTHER HISTORICAL SOURCES

A Historical Topographic Map Report was obtained from EDR during completion of this Phase I ESA. The USGS topographic quadrangle map titled "Fort Pierce" and "Fort Pierce NW", which includes the subject property, was available for the following years: 1948, 1950, 1970, 1972, 1983, and 2012 descriptions of our review of the historical topographic maps are outlined in **Table 6**. The Historical Topographic Map Report is provided in **Appendix B** following the EDR database report.

TABLE 6
Summary of Historical Topographic Map Observations

Map Date	Remarks
1950	Kings Highway and Highway 70 can be observed.
1970	The subject property and general vicinity are undeveloped. The FL Turnpike can be observed.
1983	The subject property shows signs of agriculture use on the topographical map. In addition, Interstate 95 can be observed.
2012	No significant changes to the subject property, areas to the west and southeast are unmapped.
2015	No significant changes to the subject property. In the vicinity of the subject property, an increase in residences can be observed since the previous topographic map, as well as residential roads.
2018	An increase in residential and public roads can be observed connecting development in the area. No significant changes to the subject parcel.

No other historical sources were reviewed during this assessment.

5.5 HISTORICAL USE INFORMATION ON ADJOINING PARCELS

None of the past uses of the parcels adjoining the subject property appear likely to indicate recognized environmental conditions in connection with the subject property.

6.0 INFORMATION FROM SITE RECONNAISSANCE

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the subject property. On a visit to the subject property, the property shall be visually and/or physically observed, and any

structure(s) located on the subject property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles shall be observed.

On Feb,1 2022, a site reconnaissance of the subject property was completed by a representative of EDC, Inc. The purpose was to evaluate the current conditions of the subject property and to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the subject property.

6.1 METHODOLOGY AND LIMITING CONDITIONS

The site reconnaissance included visually and/or physically observing the periphery of the subject property and the periphery of the structures located on the subject property. Aerial photographs are included in **Appendix A and B**. Site photographs are included in **Appendix D**.

6.2 GENERAL SITE SETTING

The subject property consists of one (1) tax parcels (Parcel ID #2324-312-0005-000-4) totaling an approximate 10.57 acres. The subject parcel is classified by the St. Lucie County Property Appraiser with a current Land Use Designation of 1000 – Vacant Commercial. The parcel is located just east of the FL Turnpike and just west of Interstate 95 in the City of Fort Pierce, Florida. The subject property is further located within Section 24, Township 35 South, and Range 39 East, St. Lucie County, Florida.

6.3 EXTERIOR OBSERVATIONS

During our site reconnaissance, the subject property consisted of 10.57 acres of vacant commercial property. The parcel is vacant of operations, but it maintained, which is mentioned in the interview provided in **Appendix E.**

We found no evidence of obvious surface discharges such as stained soil or pavement, no indication of solid or liquid waste dumping or disposal, no evidence of USTs, unusual odors, pits, stressed vegetation, or roads/paths with no outlet likely to have been used for disposal of hazardous wastes or petroleum products on the subject property. Please refer to **Appendix D** to review the site photographs.

6.4 INTERIOR OBSERVATIONS

During our site reconnaissance, there were no formal structures located on the subject property.

7 INTERVIEWS

7.1 INTERVIEW WITH SITE OWNER

EDC, Inc. provided Alex George with the Owner/User Questionnaire, to obtain information regarding their knowledge of recognized environmental conditions in connection with the subject property. A copy of the interview document has been provided in **Appendix E**.

7.2 INTERVIEW WITH SITE MANAGER

Please refer to Section 7.1 for information regarding the Owner/User Interview. Interview documentation is included in **Appendix E.**

7.3 INTERVIEW WITH OCCUPANTS

Please refer to Section 7.1 for information regarding the Owner/User Interview.

7.4 INTERVIEW WITH LOCAL GOVERNMENT OFFICIALS

City of Fort Pierce was contacted for information regarding previous spills occurring near the subject property.

7.5 INTERVIEW WITH USER

Please refer to Section 7.1 for information regarding the Owner/User Interview.

7.6 INTERVIEW WITH OTHERS

No other interviews were conducted during the completion of this Phase I ESA.

8 FINDINGS

Based on our field observations, historical research, public records review, and interviews conducted in accordance with ASTM-E, the findings of this Phase I ESA are as follows:

We found eight (8) Underground Storage Tank (UST) facilities within the minimum search distance as specified by ASTM-E standards. All facilities were found to be in compliance. Please refer to **Table 3** for further details.

We found one (1) Aboveground Storage Tank (AST) facilities within the minimum search distance as specified by ASTM-E standards. Two of the facilities were found to be in compliance and one was found to be in minor out of compliance. Please refer to **Table 3** for further details.

We found eleven (11) Leaking Underground Storage Tank (LUST) facilities within the minimum search distance as specified by ASTM-E standards. Please refer to **Table 3** for further details.

We found evidence of unresolved environmental conditions that may require further testing.

9 OPINION

The following is our opinion pertaining to the findings referenced above:

- We found evidence indicating the subject property may be adversely affected by facilities in the vicinity of the subject property.

- Further action and testing is recommended.

10 CONCLUSIONS

We have performed this Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13. The subject property consists of one (1) tax parcels (Parcel ID #2324-312-0005-000-4) totaling an approximate 10.57 acres. The subject parcel is classified by the St. Lucie County Property Appraiser with a current Land Use Designation of 1000 – Vacant

Commercial. The parcel is located just east of the FL Turnpike and just west of Interstate 95 in the City of Fort Pierce, Florida. The subject property is further located within Section 24, Township 35 South, and Range 39 East, St. Lucie County, Florida. The subject property is located between the FL Turnpike and Interstate 95. Any exception to or deletions from this practice are described in Sections 2.2, 2.3, and 2.4 of this report. This assessment has revealed evidence of unresolved recognized environmental conditions in connection with the subject property and further assessment is warranted at this time.

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E 1527-13, it is the responsibility of the User of this report to undertake a review of reasonable ascertainable recorded land title records and lien records for environmental liens or activity and use limitations recorded against or relating to the subject property. In the event that any are identified, please contact EDC, Inc. immediately for further evaluation.

In order to remain eligible for CERCLA liability protections, continuing obligations will need to be followed at the subject property. The User has the continuing obligation not to impede the integrity and effectiveness of activity and land use limitations, the duty to take reasonable steps to prevent releases, and the duty to comply with legally required release reporting obligations.

11 DEVIATIONS

EDC, Inc. prepared this Phase I ESA in compliance with ASTM E 1527-13.

The following data gaps were encountered during completion of this Phase I ESA:

- Data gaps were encountered in the historical aerial photograph review due to the lack of available photographs in five-year intervals as preferred by ASTM-E standards. Based on our review of the available aerial photographs along with additional historical information found during review of other sources, the data gap does not appear to be significant to the findings of this report and does not appear to constitute as a data failure.

- The chain-of-title documentation or recorded land title records for environmental liens or activity and use limitations currently recorded against or relating to the subject property were not provided to EDC, Inc. during completion of this Phase I ESA.

12 ADDITIONAL SERVICES

Under the terms of the agreement between EDC, Inc. and Alexander George, no additional services are being provided in association with this Phase I ESA.

13 REFERENCES

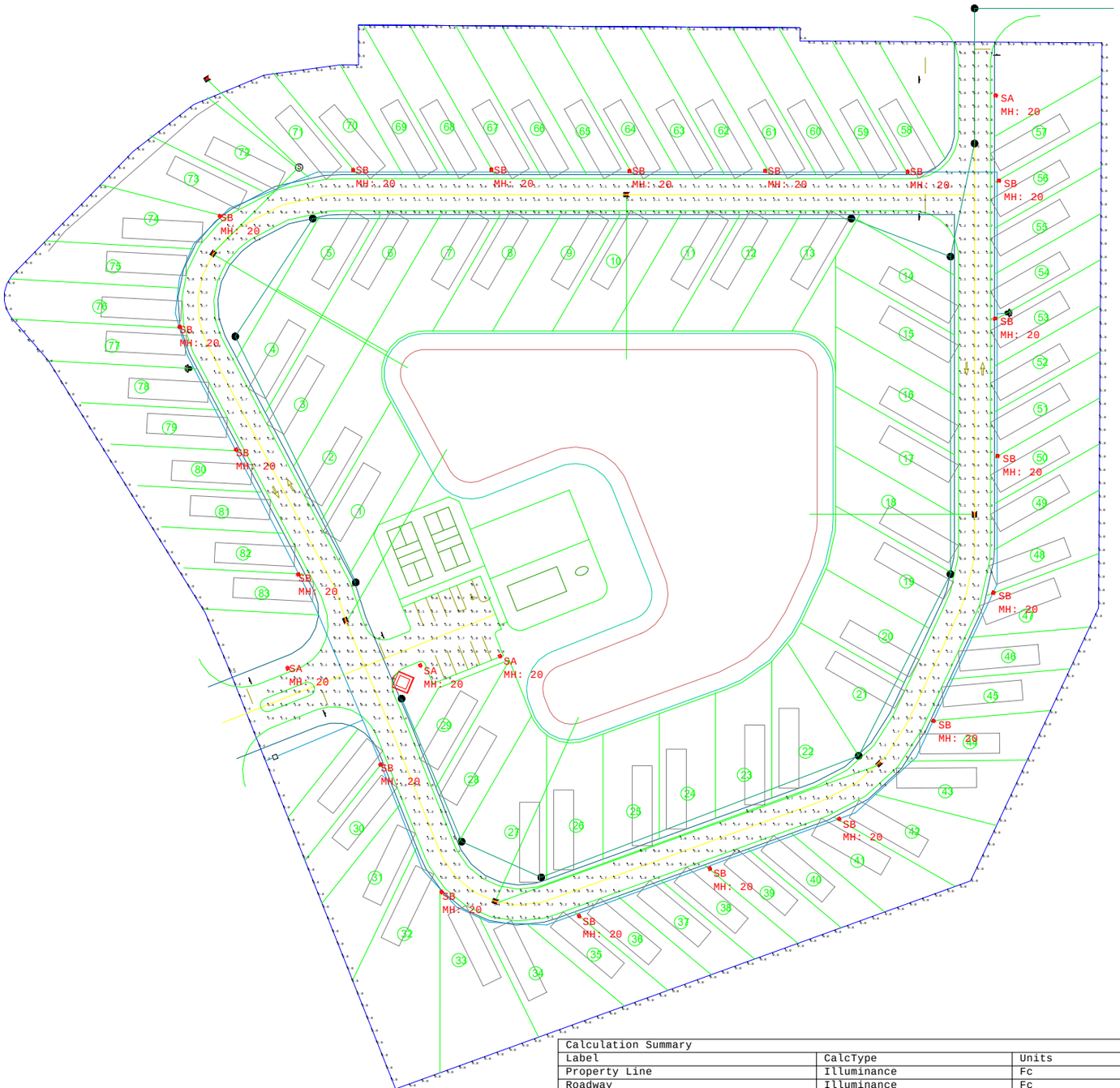
References reviewed during the Phase I ESA are documented in **Appendix F**.

14 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Please refer to the title page for signatures of the environmental professionals who prepared and reviewed this Phase I ESA.

15 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

This assessment was completed by Anthony A. Adams, BS, Project Scientist, and reviewed by Tobin R. Overdorf, MS, MBA, Vice President, both employees of EDC, Inc. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and we have specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. We have developed and performed the all-appropriate inquiries in conformance with the standards and practices outlined in 40 CFR Part 312. Qualifications of personnel participating in this assessment are provided in **Appendix G**.



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Property Line	Illuminance	Fc	0.02	0.4	0.0	N.A.	N.A.
Roadway	Illuminance	Fc	1.83	4.8	0.5	3.66	9.60
Small Parking Lot	Illuminance	Fc	1.80	4.9	0.5	3.60	9.80

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	4	SA	Single	Cree Lighting OSQM-C-11L-40K7-4M-XX-NM-XX, Single Head	0.900	10450	68	272
	19	SB	Single	Cree Lighting OSQM-C-11L-40K7-3M-XX-NM-XX, Single Head	0.900	10450	68	1292

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	General Commercial	General Commercial	R-4
South	General Commercial	General Commercial	C-3
East	General Commercial	General Commercial	C-3
West	General Commercial	General Commercial	C-3

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	GC	C-3	0.0	10.91	N/A
****Proposed**	GC	C-3	7.6 rv pads/ac	10.91	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum: 21,580
Current Zoning/FLU	Total gallons per day 0.0
**Proposed Zoning/FLU	Total gallons per day 21,580
**Change in Demand	Total gallons per day: 21,580

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum : 21,580
Current Zoning/FLU	Total gallons per day :0.0
**Proposed Zoning/FLU	Total gallons per day :21,580
**Change in Demand	Total gallons per day : 21,580

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

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

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

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

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	
****Proposed Zoning/FLU**	
***Change in Demand**	

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

Impact	The site is deisnged to the LOS of the 25-yr 3-day storm event Pre: 5.74 ac-ft Post: 6.67 ac-ft Diff: 0.93 ac-ft

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

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	2142	108
****Proposed Zoning/FLU**		
***Change in Demand**	Trips	Trips: 12
Impact to Capacity	10% increase in volume on Crossroads Pkwy.	

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: 83 rv lot	Single Family:		Multifamily:		
Non-residential (square footage): 3,200 sq amenity center					
Mixed-use (describe use):					
(If this is a single phase project, name it Phase I – Total) Phase I - Total					

RESIDENTIAL DATA					
Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family					
Other (specify)					

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

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☑ No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☐ Yes ☑ No
If yes, what is the size of the structure(s) to be demolished or re-used? _____
2. What is the current use of the structure to be demolished or re-used? _____
3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☑ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers

710 SE Ocean Blvd
Stuart, FL 34994
772.888.9076

Memorandum

Date: December 4, 2023

To: City of Fort Pierce Planning Department

From: Leo Giangrande, PE

Subject: Traffic Statement – Crossroads RV Park
GEP Project No. 22-024

Distribution: File

This traffic statement is being prepared as part of the site plan application to Saint Lucie County Growth Management.

The proposed project is a 10.90 -acre RV Park with 83 spaces located at the Intersection of Crossroads Pkwy and Andrews Ave with two driveway. Please refer to the provided site plan.

The project trips have been calculated to determine the percent impact upon the adjacent roadway Crossroads Parkway. The daily, AM, and PM peak hour trips were estimated using the ITE Trip Generation 11th Edition with an ITE Land Use Code No. 416 – Recreational Vehicle Park. ITE Trip Gen does not provide an ADT for the LU – 416. It was estimated to be 4 trips per space per day.

RV Park								
ITE Trip Generation 11th Edition - Peak Hour of Adjacent Street - Average Rate								
AM			PM			Daily		
In	Out	Total	In	Out	Total	In	Out	Total
6	10	16	14	8	22	148	148	296

The greatest peak hour peak directional impact upon the adjacent roadway is 14 entering trips during the PM peak hour. The ADT is estimated at 296 trips.

When distributed upon the roadway network, the project trips are expected to generate a de minimis impact of less than 1.0% upon the existing roadway level of service as defined in the Saint Lucie County Land Development Code Section 5.01.00. The existing roadway data was obtained from the Saint Lucie TPO Roadway Report Fall 2023.

Segment Number	Road Name	From	To	Type	2023 AADT	2023 PH (dir) Existing
1	Crossroads Pkwy	Okeechobee Rd	Kings Hwy	2	2,142	970

Annual Growth	2028 PH (dir) Growth	Project Assign.	Project Trips	2028 PH (dir) Build-out	Service Volume	Project % of Service	Concurrency Test
2.0%	1,071	100%	14	1,085	2,100	0.7%	OK

The project's first driveway is (right-in, left-in, right-out, left-out) at a median opening for the intersection of Crossroads Pkwy and Wheeler Terrace. The second driveway is (right-in, left-in, right-out, left-out) servicing access from Andrews Ave. No additional off-site improvements for capacity are found to be necessary since the existing level of service on the segment of roadway reveals that there is sufficient capacity for the de minimis project trips.

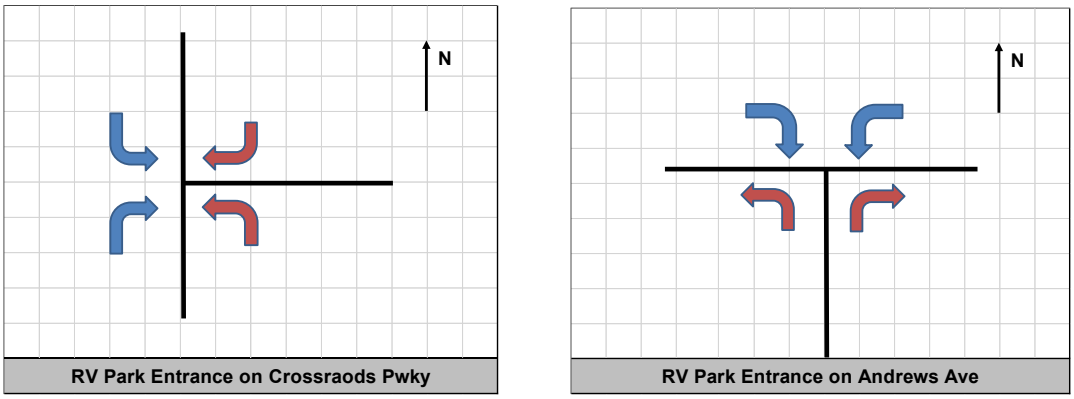


Figure 1: Driveway Movements for Crossroads Pkwy. & Andrews Ave.

In accordance with the Saint Lucie County Land Development Code Section 11.02.09 concurrency is requested for this project based upon the de minimis traffic analysis presented.

The following pages include the ITE Trip Generation 11th Edition and the Saint Lucie Roadway Report.

Should you have any questions, please contact Leo Giangrande at (772) 888-9076 or e-mail at Leo@GEP-LLC.com

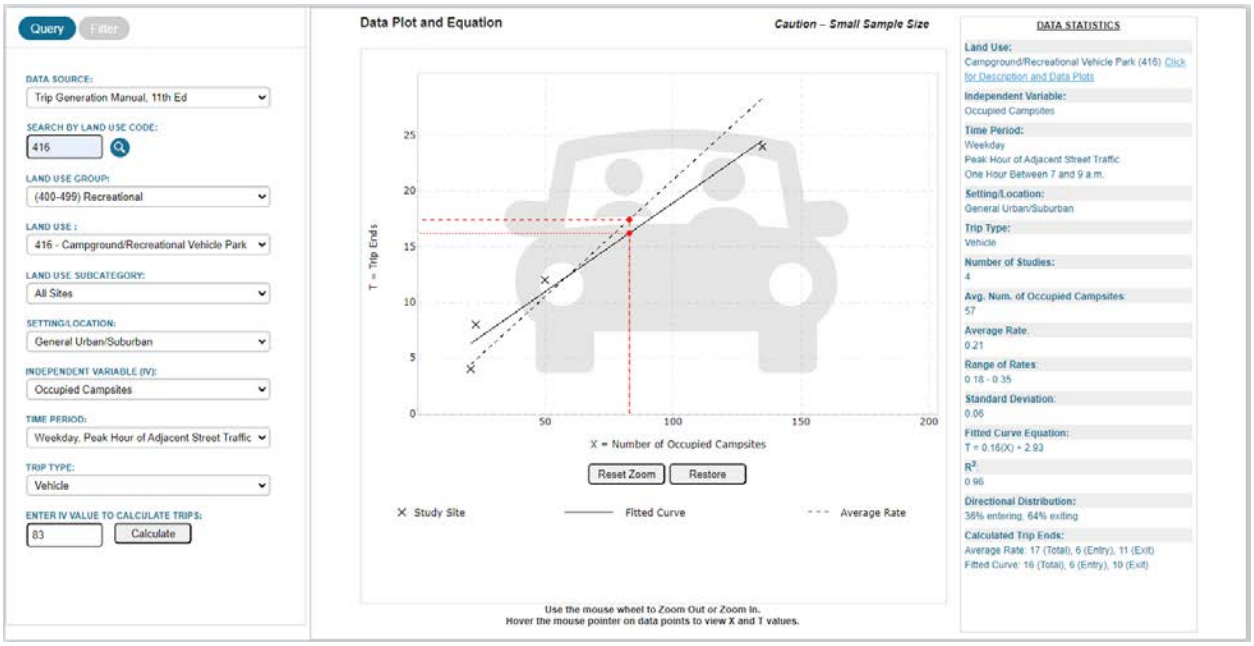


Figure 2: ITE Trip-Gen AM Peak-Hour Data

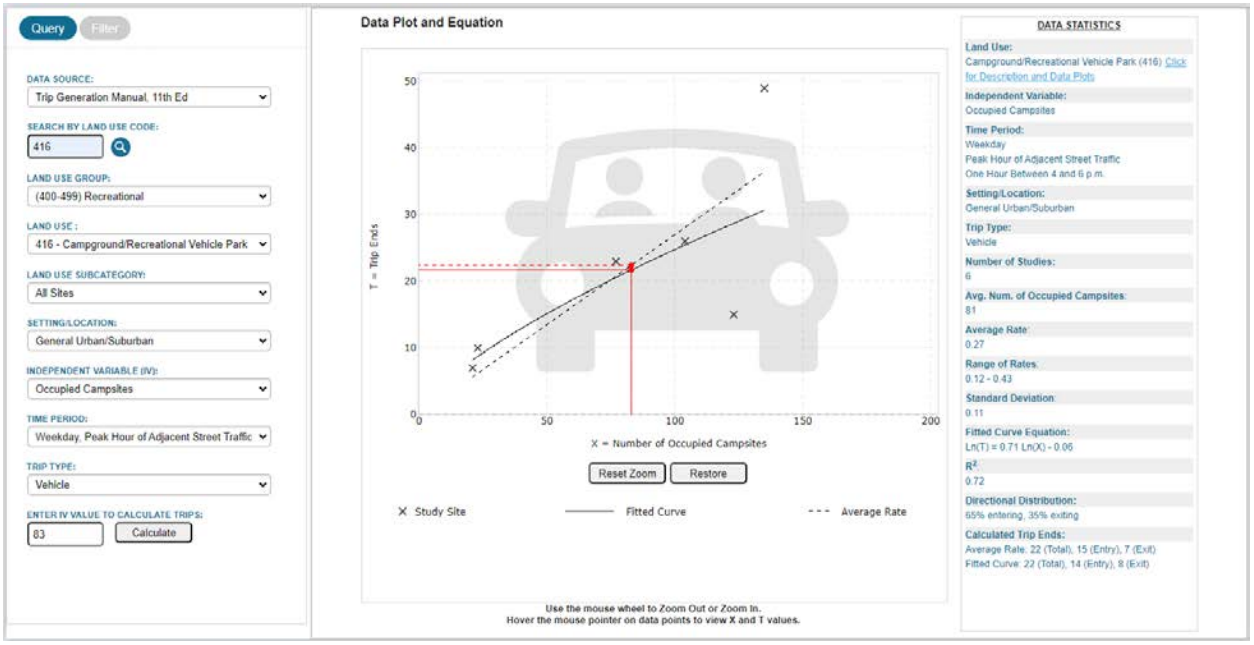


Figure 3: ITE Trip-Gen PM Peak-Hour Data

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

DEVELOPMENT REVIEW

Property Information

Property address or Location: Intersection of Crossroads Pkwy. & Andrews Ave. 27.417365, -80.394795

Parcel ID #(s): 2324-312-0005-000-4

Project description: Transforming the land into an 83 lot RV park with amenity center

Application Type

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

☐ Minor Amendment ☐ Major Amendment

Site Information

Non-Residential: Proposed Sq. Ft.: 74,700 Site Acreage: 10.9

Residential: Proposed Units: _____ Proposed Sq. Ft.: _____ Site Acreage: _____

Alexander George & Company Corp.	Leo Giangrande, Principle, GEP
Property Owner(s)	**Applicant/Representative, Title, Company**
14800 Indrio Rd.	710 SE Ocean Blvd.
Street Address	Street Address
Fort Pierce FL 34945	Stuart FL 34994
City State Zip	City State Zip
	772-888-9076
Phone Number	Phone Number
alexandergeorgeandcompany@gmail.c	leo@gep-llc.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.*

Alex George

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.

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

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

DESIGN REVIEW

Property Information

Property address or Location: Intersection of Crossroads Pkwy & Andrews Ave. 27.4173627,-80.394795

Parcel ID #(s): 2324331200050000-4

Project description: **Transforming the land into an 83 lot RV park with amenity center**

Alexander George & Company Corp.	Leo Giangrande, Principle, PEPGEP
Property Owner(s)	**Applicant/Representative, Title, Company**
14800 Indrio Rd.	710 SE Ocean Blvd.
Street Address	Street Address
Fort Pierce FL 34945	Stuart FL 34994
City State Zip	City State Zip
	772-888-9076
Phone Number	Phone Number
alexandergeorgeandcompany@gmail.c	leo@gepllc.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.*

Alex George

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	General Commercial	General Commercial	R-4
South	General Commercial	General Commercial	C-3
East	General Commercial	General Commercial	C-3
West	General Commercial	General Commercial	C-3

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	GC	C-3	0.0	10.91	N/A
****Proposed**	GC	C-3	7.6 rv pads/ac	10.91	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum: 21,580
Current Zoning/FLU	Total gallons per day 0.0
**Proposed Zoning/FLU	Total gallons per day 21,580
**Change in Demand	Total gallons per day: 21,580

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum: 21,580
Current Zoning/FLU	Total gallons per day:0.0
**Proposed Zoning/FLU	Total gallons per day:21,580
**Change in Demand	Total gallons per day: 21,580

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

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

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

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

E. Solid Waste: Residential (2 yard serves 15 units, 4 yard serves 30 units, 6 yard serves 45 units, 8 yard serves 60 units)	
Demand Analysis	Maximum
Current Zoning/FLU	
****Proposed Zoning/FLU**	
***Change in Demand**	

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

Impact	The site is deisnged to the LOS of the 25-yr 3-day storm event Pre: 5.74 ac-ft Post: 6.67 ac-ft Diff: 0.93 ac-ft

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

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	2142	108
****Proposed Zoning/FLU**		
***Change in Demand**	Trips	Trips: 12
Impact to Capacity	10% increase in volume on Crossroads Pkwy.	

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: 83 rv lots Single Family: Multifamily:
Non-residential (square footage): 3,200 sq amenity center
Mixed-use (describe use):
(If this is a single phase project, name it Phase I – Total) Phase I - Total

RESIDENTIAL DATA

Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached					
Single-family, attached					
Multi-family					
Other (specify)					

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

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☑ No

B. 1. Does this application involve demolition or re-use of any structure(s)? ☐ Yes ☑ No
If yes, what is the size of the structure(s) to be demolished or re-used? _____

2. What is the current use of the structure to be demolished or re-used? _____

3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☑ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested:

** Complete section if requesting a change in zoning, future land use, or expanding

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers

701 SE Ocean Blvd.
Stuart, FL 34996
(Ph.) 772 888 9076

October 19, 2023

City of Fort Pierce Planning Department
100 N. U.S. Highway 1
Fort Pierce, FL 34950

Re: **Development Review Application**
Crossroads RV Park
Parcel ID: 2324-312-0005-000-4

To whom it may concern,

Giangrande Engineering & Planning (GEP) is providing this package as a request for the development review submittal of the above referenced project. This project proposes a RV park with 83 lots that will be short to long term rentals with an amenity center. The rental period will range from one night to six months, to accommodate guest passing through to longer-term needs. The site is located at the intersection of Crossroads Parkway and Andrews Avenue and the project will be constructed on the 10.91-acre lot (Parcel ID 2324-312-0005-000-4). The purpose is to gain approval of the proposed site plan and cover the required documentation. The following items are to be provided with the submittal of this document:

- Development Review Form
- Warranty Deed
- Property Appraisers Card
- General Location Map
- Drainage Report
- Survey
- Site Plan
- Plan Set
- Landscape Plan
- $3,775 Development Review fee

Should you have any questions or need additional information, please do not hesitate to contact me at 772.888.9076.

We look forward to delivering a successful project with you.

Best regards,

Leo Giangrande, P.E.
Principal

MICHELLE R. MILLER, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 5056435 OR BOOK 4843 PAGE 2274, Recorded 06/15/2022 04:14:41 PM

Prepared by:
Robert A. Burson
Attorney at Law
Robert A. Burson, P.A.
Post Office Box 1620
Stuart, FL 34995
772-286-1616
File Number: **22-044**
MIN-O

[Space Above This Line For Recording Data]

Corrective Special Warranty Deed

This Special Warranty Deed made this 3rd day of **June, 2022** between **ALBERT RUSSO, a single man,** whose post office address is **P.O. Box 1002, Palm City, FL 34990,** grantor, and **ALEXANDER GEORGE& COMPANY CORP, a Florida corporation,** whose post office address is 14800 Indrio Rd., Fort Pierce, FL 34945, grantee:

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

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

See Exhibit 1 attached hereto and made a part hereof for the legal description.

Parcel Identification Number: 2324-312-0005-000/4

This deed is recorded to correct an error in the original legal description in that deed recorded in ORB 4595, page 411, St. Lucie County, Florida, public records.

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

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under grantors.

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

DoubleTime®

Signed, sealed and delivered in our presence:

Witness Name: Audrey Perry

Witness Name: Michael Dale

Albert Russo

State of Florida
County of Martin

The foregoing instrument was acknowledged before me by means of [X] physical presence or [ ] online notarization, this 2nd day of June, 2022 by Albert Russo, a single man. He [ ] is personally known to me or [X] has produced a driver's license as identification.

[Notary Seal]

Notary Public

Printed Name: MICHAEL L. DALE

My Commission Expires: 3-26-2025

MICHAEL L. DALE
Commission # HH 090943
Expires March 26, 2025
Bonded Thru Budget Notary Services

DoubleTime®

EXHIBIT 1- LEGAL DESCRIPTION

That portion of the Southwest Quarter of Section 24, Township 35 South, Range 39 East, and a portion of Lots 3 and 6 of BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION of Section 24, as recorded in Plat Book 3 at page 32 of the public records of St. Lucie County, Florida, described as follows:

Commence at the Northwest corner of the Southwest Quarter of said Section 24 and run South 00°07'24" East, along the West line of the Southwest Quarter of said Section 24, for 15.00 feet;

thence run South 89°41'32" East 15.00 feet South of and parallel to the North line of the Southwest Quarter of said Section 24, along the South right of way line of Andrews Avenue (a 30 foot wide right of way) for 739.44 feet to the Point of Beginning);

thence continue South 89°41'32" E along said right of way for 919.16 feet;

thence run South 00°06'01" East for 10.00 feet;

thence run South 89°41'29" East for 226.79 feet;

thence run South 00°18'28" West for 425.04 feet;

thence run South 25°04'02" West for 226.43 feet;

thence run South 70°04'02" West for 459.41 feet;

thence run North 21°40'15" West for 344.63 feet to a point of curvature of a circular curve to the left, concave Southwesterly;

thence run Northwesterly along the arc of said curve having a radius of 855.00 feet-through a central angle of 47°21'31" for 706.71 feet to the Point of beginning, lying and being in St. Lucie County, Florida.

LESS AND EXCEPTING THEREFROM the following described real property conveyed to Sundial Homes, Inc. by deed recorded in OR Book 1150, page 2226, of the public records of St. Lucie County, Florida:

Commence at the Southeast corner of the Southwest Quarter of the Northwest Quarter of Section 24, Township 35 South, Range 39 East, St. Lucie County, Florida, said point lying on the centerline of Andrews Avenue, a 30 foot wide road right of way;

thence run South 00°06'16" East along the East line of the Northwest Quarter of the Southwest Quarter of Section 24, a distance of 15.00 feet to a point on the Southerly right of way line of Andrews Avenue and the Point of Beginning.

From the Point of Beginning thence continue South 00°06'16" East a distance of 30 feet;

thence run North 89°41'32" West, parallel to the South line of the Northwest Quarter of said Section 24, a distance of 11.88 feet to a point of curvature;

thence run along the arc of a curve concave to the South, having a radius of 220.00 feet and a central angle of 46°02'51" an arc distance of 176.81 feet to a point of tangency;

thence run South 44°15'37" West, a distance of 126.72 feet to a point of curvature;

thence run along the arc of a curve concave to the East, having a radius of 25.00 feet and a central angle of 86°25'00" an arc distance of 37.71 feet to a point on a curve on the Northerly right of way line of Crossroads Parkway as shown on the plat entitled ST. LUCIE CROSSROADS as recorded in Plat Book 30 at Pages 8 and 8A of the Public Records of St. Lucie County, Florida;

thence with a radial bearing from said point of South 47°50'37" West, run Northwesterly along the arc of a curve and the Northerly right of way line of Crossroads Parkway having a radius of 855.00 feet and a central angle of 26°52'23" an arc distance of 401.01 feet to a point of intersection with the Southerly right of way line of Andrews Avenue, being a 30 foot wide right of way and said Southerly right of way line of Andrews Avenue lying 15 feet South of the South line of the Northwest Quarter of said Section 24;

thence run South 89°41'32" East along the Southerly right of way line of Andrews Avenue and parallel to the South line of the Northwest Quarter of said Section 24, a distance of 587.48 feet to the Point of Beginning.

F:\E\REAL-EST\ALEXANDER GEORGE\22-044\LEGAL DESCRIPTION REVISED BY RAB-01

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

Property Identification

Site Address: CROSSROADS PKWY
Sec/Town/Range: 24/35S/39E
Parcel ID: 2324-312-0005-000-4
Jurisdiction: Fort Pierce

Use Type: 1000
Account #: 129733
Map ID: 23/24S
Zoning: General Co

Ownership

Alexander George & Company Corp

14800 Indrio RD
Fort Pierce, FL 34945



Legal Description

24 35 39 FROM INT OF SE COR OF SW 1/4 OF NW 1/4 AND CL OF ANDREWS AVE RUN S 00 06 16 E ALG E LI OF NW 1/4 OF SW 1/4 OF SEC 15 FT TO SLY R/W LI OF ANDREWS AVE AND POB, TH S 89 41 32 E ALG S R/W LI 331.68 FT, TH S 00 03 55 E 10 FT, TH S 89 41 29 E 226.79, TH S 00 18 28 W 420.04FT, TH S 25 04 02 W 226.43 FT, TH S 70 04 02 W 459.41 FT TO NELY R/W LI OF CROSSROADS PKWY, TH N 21 40 15 W ALG NELY R/W LI 344.63 FT TO CURVE CONCAVE SW, R OF 855 FT, TH NWLY ALG ARC 305.70FT TO CURVE CONCAVE E, R OF 25 FT, TH NLY ALG ARC 37.71 FT, TH N 44 15 37 E 126.72 FT TO CURVE CONCAVE SE, R OF 220 FT, TH NELY ALG ARC 176.81 FT, TH S 89 41 32 E 11.88 FT, TH N 00 06 16 W 30 FT TO SLY R/W LI OF ANDREWS AV AND POB (10.904 AC - 474,978 SF)

Current Values

Just/Market Value:	$585,300
Assessed Value:	$585,300
Exemptions:	$0
Taxable Value:	$585,300

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	10.9
Land Size (SF):	474,978

Building Design Wind Speed

Occupancy Category	I	II	III
Speed	140	150	160

Sources/links:

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
Jun 3, 2022	4843 / 2274	0111	SPWD	Alexander George & Company Corp	$0
Apr 13, 2021	4595 / 0411	0001	SPWD	Russo Albert	$525,000
Feb 23, 2018	4100 / 2383	0111	WD	ALRU Holdings LLC	$100
Feb 14, 2018	4097 / 1883	0130	WD	Russo Albert	$100
Oct 28, 2011	3337 / 1026	0111	CT	Adnan Investment and Dev Inc	$100
Sep 27, 1999	1252 / 0530	XX01	WD	Harbor Federal Savings Bank	$265,700
Aug 22, 1994	0916 / 1044	XX01	CT	COMMERCE SQUARE DEV CORP	$495,000
Sep 28, 1989	0657 / 1612	XX00	WD		$1,000,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Sketch Area Legend

Sub Area	Description	Area	Fin. Area	Perimeter

Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$585,300
Just/Market:	$585,300
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$585,300
Exemption(s):	$0
Taxable:	$585,300

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
1999	0041	28.8	Fort Pierce Stormwater Charge	$1,987.20

Start Year	AssessCode	Units	Description	Amount
2013	0054	10.57	North St. Lucie Water Management District	$219.33

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
2022	$585,300	$585,300	$0	$585,300
2021	$598,600	$598,600	$0	$598,600
2020	$598,600	$598,600	$0	$598,600
2019	$598,600	$598,600	$0	$598,600

Permits

Number	Issue Date	Description	Amount	Fee
C52693	Jun 26, 1990	Slab	$2,500	$2,500
C53031	Jun 26, 1990	Commercial New Construction	$55,000	$55,000

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

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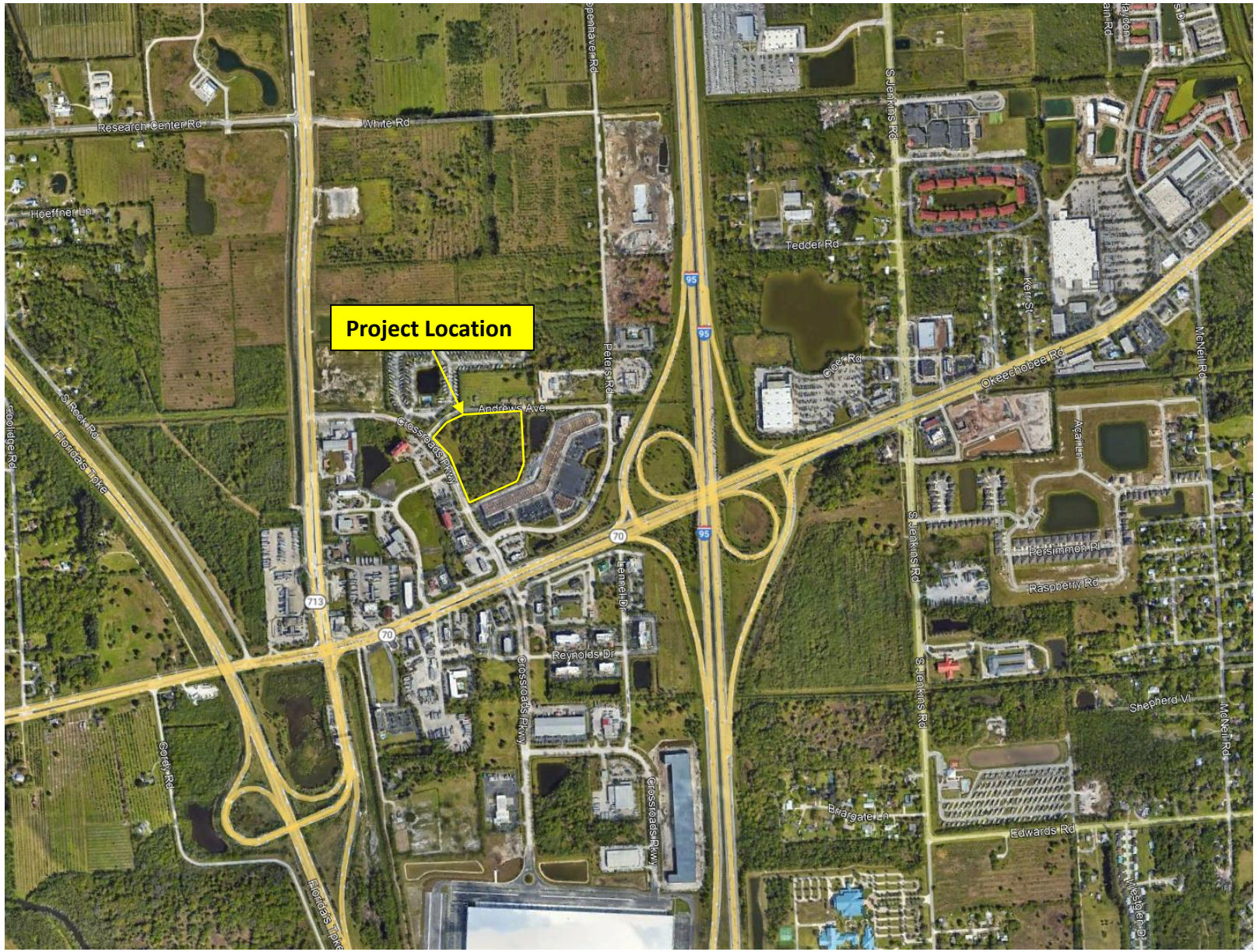
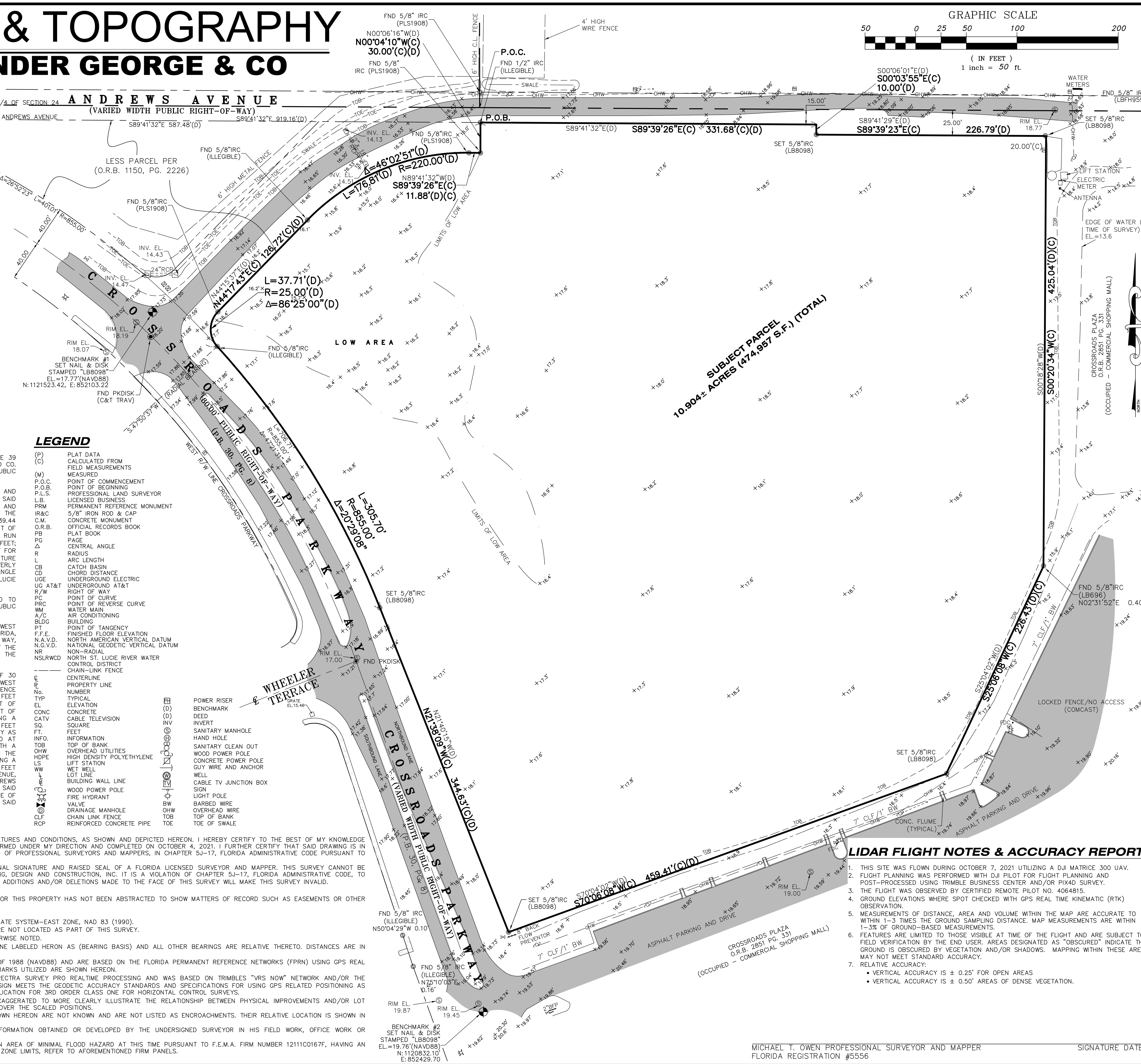

Project Location
Research Center Rd
White Rd
Hoeffner Ln
Tedder Rd
Okeechobee Rd
Andrews Ave
Crossroads Pkwy
Peters Rd
S Rock Rd
Florida's Turnpike
Goolsbee Rd
Gordy Rd
Reynolds Dr
Kennel Dr
Crossroads Pkwy
S Jenkins Rd
Raspberry Rd
Persimmon Pl
Shepherd Vl
Edwards Rd
Briargate Ln
McNeil Rd
Acari Ln
Kerr St
Good Rd
95
70
713

BOUNDARY & TOPOGRAPHY

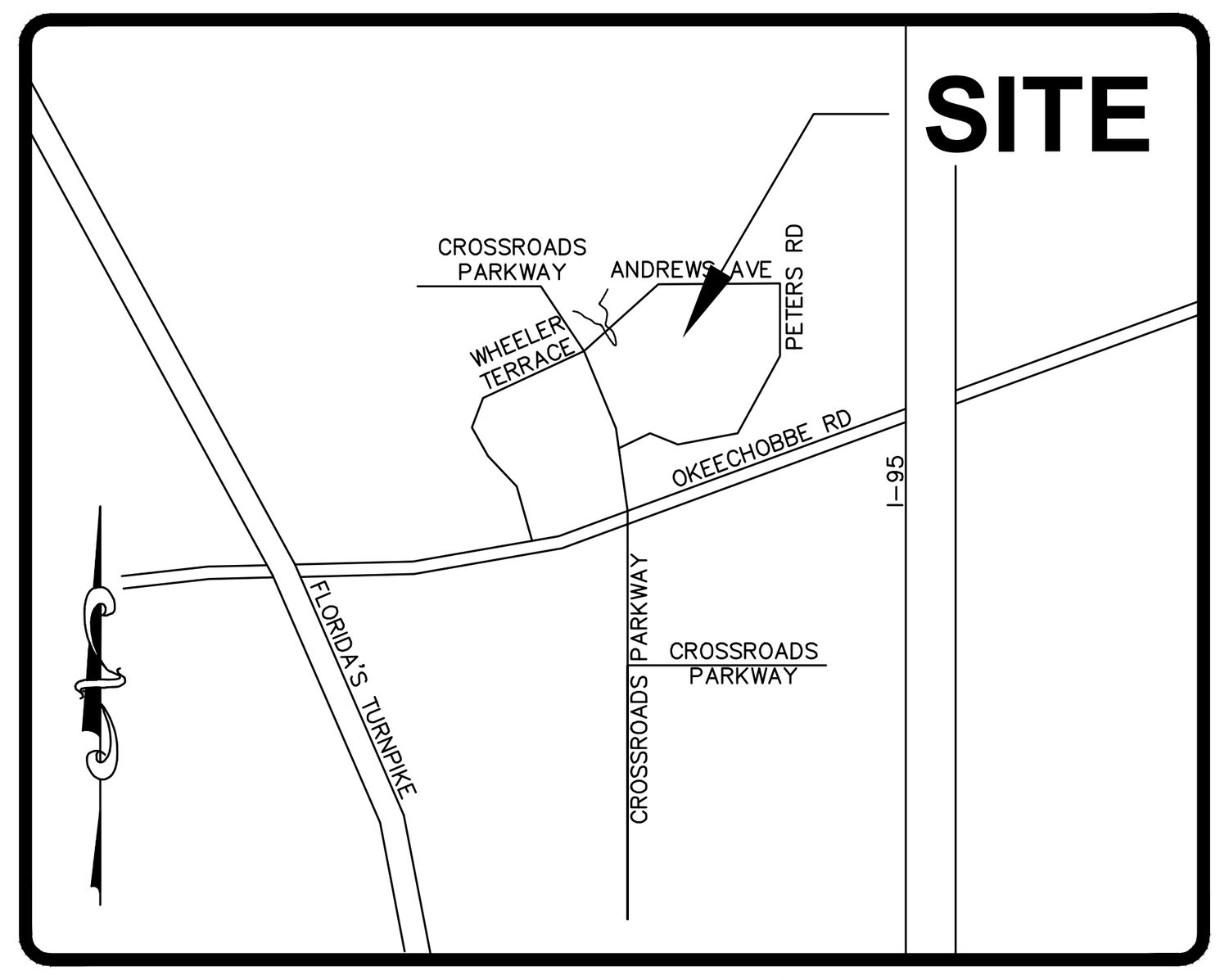
FOR: ALEXANDER GEORGE & CO



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



ST. LUCIE COUNTY, FLORIDA

VICINITY MAP

NO SCALE

LEGAL DESCRIPTION
SOURCE (ORB 4843, PG 2274)

THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, AND A PORTION OF LOTS 3 AND 6 OF BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION OF SECTION 24, AS RECORDED IN PLAT BOOK 3 AT PAGE 32 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 24 AND RUN SOUTH 00°07'24" EAST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, FOR 15.00 FEET; THENCE RUN SOUTH 89°41'32" EAST 15.00 FEET SOUTH OF AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, ALONG THE SOUTH RIGHT OF WAY LINE OF ANDREWS AVENUE (A 30 FOOT WIDE RIGHT OF WAY) FOR 739.44 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°41'32" E ALONG SAID RIGHT OF WAY FOR 919.16 FEET; THENCE RUN SOUTH 00°06'01" EAST FOR 10.00 FEET; THENCE RUN SOUTH 89°41'29" EAST FOR 226.79 FEET; THENCE RUN SOUTH 00°18'28" WEST FOR 425.04 FEET; THENCE RUN SOUTH 25°04'02" WEST FOR 226.43 FEET; THENCE RUN SOUTH 70°04'02" WEST FOR 459.41 FEET; THENCE RUN NORTH 21°40'15" WEST FOR 344.63 FEET TO A POINT OF CURVETURE OF A CIRCULAR CURVE TO THE LEFT, CONCAVE SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 855.00 FEET THROUGH A CENTRAL ANGLE OF 47°21'31" FOR 706.71 FEET TO THE POINT OF BEGINNING, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THEREFROM THE FOLLOWING DESCRIBED REAL PROPERTY CONVEYED TO SUNDIAL HOMES, INC BY DEED RECORDED IN OR BOOK 1150, PAGE 2226, OF THE PUBLIC RECORDS OF ST, LUCIE COUNTY, FLORIDA:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT LYING ON THE CENTERLINE OF ANDREWS AVENUE, A 30 WIDE ROAD RIGHT OF WAY, THENCE RUN SOUTH 00°06'16" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 24, A DISTANCE OF 15.00 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THENCE CONTINUE SOUTH 00°06'16" EAST A DISTANCE OF 30 FEET; THENCE RUN NORTH 89°41'32" WEST, PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 11.88 FEET TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE SOUTH, HAVING A RADIUS OF 220.00 FEET AND A CENTRAL ANGLE OF 46°02'51" AN ARC DISTANCE OF 176.81 FEET TO A POINT OF TANGENCY; THENCE RUN SOUTH 44°15'37" WEST, A DISTANCE OF 126.72 FEEL TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE CONCAVE TO THE EAST, HAVING A RADIUS OF 25.00 FEET AND A CENTRAL ANGLE OF 86°25'00" AN ARC DISTANCE OF 37.71 FEET TO A POINT ON A CURVE ON THE NORTHERLY RIGHT OF WAY LINE OF CROSSROADS PARKWAY AS SHOWN ON THE PLAT ENTITLED ST. LUCIE CROSSROADS AS RECORDED IN PLAT BOOK 30 AT PAGES 8 AND 8A OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE WITH A RADIAL BEARING FROM SAID POINT OF SOUTH 47°50'37" WEST, RUN NORTHWESTERLY ALONG THE ARC OF A CURVE AND THE NORTHERLY RIGHT OF WAY LINE OF CROSSROADS PARKWAY HAVING A RADIUS OF 855.00 FEET AND A CENTRAL ANGLE OF 26°52'23" AN ARC DISTANCE OF 401.01 FEET TO A POINT OF INTERSECTION WITH THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE, BEING A 30 FOOT WIDE RIGHT OF WAY AND SAID SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE LYING 15 FEET SOUTH OF THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24; THENCE RUN SOUTH 89°41'32" EAST ALONG THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 587.48 FEET TO THE POINT OF BEGINNING.

LEGEND

(P)	PLAT DATA
(C)	CALCULATED FROM FIELD MEASUREMENTS
(M)	MEASURED
P.O.C.	POINT OF COMMENCEMENT
P.O.B.	POINT OF BEGINNING
P.L.S.	PROFESSIONAL LAND SURVEYOR
L.B.	LICENSED BUSINESS
PRM	PERMANENT REFERENCE MONUMENT
IR&C	5/8" IRON ROD & CAP
C.M.	CONCRETE MONUMENT
O.R.B.	OFFICIAL RECORDS BOOK
PB	PLAT BOOK
PG	PAGE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CATCH BASIN
CD	CHORD DISTANCE
UGE	UNDERGROUND ELECTRIC
UG AT&T	UNDERGROUND AT&T
R/W	RIGHT OF WAY
PC	POINT OF CURVE
PRC	POINT OF REVERSE CURVE
WM	WATER MAIN
A/C	AIR CONDITIONING
BLDG	BUILDING
PT	POINT OF TANGENCY
F.F.E.	FINISHED FLOOR ELEVATION
N.A.V.D.	NORTH AMERICAN VERTICAL DATUM
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
NR	NON-RADIAL
NSLRWCD	NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT
———	CHAIN-LINK FENCE
℄	CENTERLINE
℞	PROPERTY LINE
No.	NUMBER
TYP	TYPICAL
EL	ELEVATION
CONC	CONCRETE
CATV	CABLE TELEVISION
SQ.	SQUARE
FT.	FEET
INFO.	INFORMATION
TOB	TOP OF BANK
OHW	OVERHEAD UTILITIES
HDPE	HIGH DENSITY POLYETHYLENE
LS	LIFT STATION
WW	WET WELL
LL	LOT LINE
BL	BUILDING WALL LINE
(symbol)	WOOD POWER POLE
(symbol)	FIRE HYDRANT
(symbol)	VALVE
Ⓓ	DRAINAGE MANHOLE
CLF	CHAIN LINK FENCE
RCP	REINFORCED CONCRETE PIPE
PH	POWER RISER
(D)	BENCHMARK
(D)	DEED
INV	INVERT
Ⓢ	SANITARY MANHOLE
Ⓗ	HAND HOLE
(symbol)	SANITARY CLEAN OUT
(symbol)	WOOD POWER POLE
(symbol)	CONCRETE POWER POLE
(symbol)	GUY WIRE AND ANCHOR
Ⓦ	WELL
TV	CABLE TV JUNCTION BOX
(symbol)	SIGN
(symbol)	LIGHT POLE
BW	BARBED WIRE
OHW	OVERHEAD WIRE
TOB	TOP OF BANK
TOE	TOE OF SWALE

SURVEYORS NOTES AND REPORT:

1. THIS BOUNDARY SURVEY WAS PERFORMED FOR THE PURPOSE OF MAPPING EXISTING FEATURES AND CONDITIONS, AS SHOWN AND DEPICTED HEREON. I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS IS A TRUE AND ACCURATE DEPICTION OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON OCTOBER 4, 2021. I FURTHER CERTIFY THAT SAID DRAWING IS IN COMPLIANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS, IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.
2. THIS SURVEY MAP AND REPRODUCTIONS THEREOF ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. THIS SURVEY CANNOT BE TRANSFERRED OR ASSIGNED WITHOUT THE SPECIFIC WRITTEN PERMISSION OF ENGINEERING, DESIGN AND CONSTRUCTION, INC. IT IS A VIOLATION OF CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, TO ALTER THIS SURVEY WITHOUT THE EXPRESS PRIOR WRITTEN CONSENT OF THE SURVEYOR. ADDITIONS AND/OR DELETIONS MADE TO THE FACE OF THIS SURVEY WILL MAKE THIS SURVEY INVALID.
3. THE LAST DATE OF FIELD WORK (AND DATA ACQUISITION) WAS OCTOBER 18, 2021.
4. CURRENT DESCRIPTION(S) SHOWN HEREON PROVIDED BY: THE CLIENT. A TITLE SEARCH FOR THIS PROPERTY HAS NOT BEEN ABSTRACTED TO SHOW MATTERS OF RECORD SUCH AS EASEMENTS OR OTHER ENCUMBRANCES OR RESTRICTIONS.
5. PARCELS CONTAIN A TOTAL OF 10.904 ACRES, MORE OR LESS.
6. THIS BOUNDARY SURVEY HAS BEEN REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM-EAST ZONE, NAD 83 (1990).
7. SUB-SURFACE IMPROVEMENTS INCLUDING UNDERGROUND UTILITIES, UTILITY SERVICES, WERE NOT LOCATED AS PART OF THIS SURVEY.
8. REVISIONS SHOWN HEREON DO NOT REPRESENT A "FIELD SURVEY UPDATE" UNLESS OTHERWISE NOTED.
9. BEARINGS SHOWN HERON ARE BASED UPON GRID BEARINGS AND REFERENCE TO THE LINE LABELED HERON AS (BEARING BASIS) AND ALL OTHER BEARINGS ARE RELATIVE THERETO. DISTANCES ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
10. ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON THE FLORIDA PERMANENT REFERENCE NETWORKS (FPRN) USING GPS REAL TIME KINEMATIC (RTK) OBSERVATION WITH AND ACCURACY OF ±0.06'-0.10'. SITE BENCHMARKS UTILIZED ARE SHOWN HEREON.
11. THIS SITE WAS SURVEYED UTILIZING TRIMBLE/SPRECTRA HARDWARE TOGETHER WITH SPECTRA SURVEY PRO REALTIME PROCESSING AND WAS BASED ON TRIMBLES "VRS NOW" NETWORK AND/OR THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN). THE PROCEDURES AND NETWORK DESIGN MEETS THE GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATED POSITIONING AS SET FORTH BY THE FEDERAL GEODETIC CONTROL COMMITTEE IN THE MOST CURRENT PUBLICATION FOR 3RD ORDER CLASS ONE FOR HORIZONTAL CONTROL SURVEYS.
12. IN SOME INSTANCES, GRAPHIC REPRESENTATIONS AND SYMBOLS SHOWN HAVE BEEN EXAGGERATED TO MORE CLEARLY ILLUSTRATE THE RELATIONSHIP BETWEEN PHYSICAL IMPROVEMENTS AND/OR LOT LINES. THE DIMENSIONS SHOWN SHALL CONTROL THE LOCATION, OF THE IMPROVEMENTS, OVER THE SCALED POSITIONS.
13. THE OWNERSHIP OF PERIMETER FENCES, WALLS, HEDGES AND LANDSCAPING, IF ANY, SHOWN HEREON ARE NOT KNOWN AND ARE NOT LISTED AS ENCROACHMENTS. THEIR RELATIVE LOCATION IS SHOWN IN RELATION TO THE BOUNDARY LINES SHOWN.
14. THE SURVEY MAP SHOWN HEREON DOES NOT NECESSARILY CONTAIN ALL OF THE INFORMATION OBTAINED OR DEVELOPED BY THE UNDERSIGNED SURVEYOR IN HIS FIELD WORK, OFFICE WORK OR RESEARCH.
15. THE PROPERTY WHICH IS THE SUBJECT OF THIS SURVEY APPEARS TO BE SITUATE IN AN AREA OF MINIMAL FLOOD HAZARD AT THIS TIME PURSUANT TO F.E.M.A. FIRM NUMBER 12111C0167F, HAVING AN EFFECTIVE DATE OF FEBRUARY 16, 2012. FOR APPROXIMATE DELINEATION OF THE FLOOD ZONE LIMITS, REFER TO AFOREMENTIONED FIRM PANELS.

LIDAR FLIGHT NOTES & ACCURACY REPORT:

1. THIS SITE WAS FLOWN DURING OCTOBER 7, 2021 UTILIZING A DJI MATRICE 300 UAV.
2. FLIGHT PLANNING WAS PERFORMED WITH DJI PILOT FOR FLIGHT PLANNING AND POST-PROCESSED USING TRIMBLE BUSINESS CENTER AND/OR PIX4D SURVEY.
3. THE FLIGHT WAS OBSERVED BY CERTIFIED REMOTE PILOT NO. 4064815.
4. GROUND ELEVATIONS WHERE SPOT CHECKED WITH GPS REAL TIME KINEMATIC (RTK) OBSERVATION.
5. MEASUREMENTS OF DISTANCE, AREA AND VOLUME WITHIN THE MAP ARE ACCURATE TO WITHIN 1-3 TIMES THE GROUND SAMPLING DISTANCE. MAP MEASUREMENTS ARE WITHIN 1-3% OF GROUND-BASED MEASUREMENTS.
6. FEATURES ARE LIMITED TO THOSE VISIBLE AT TIME OF THE FLIGHT AND ARE SUBJECT TO FIELD VERIFICATION BY THE END USER. AREAS DESIGNATED AS "OBSCURED" INDICATE THE GROUND IS OBSCURED BY VEGETATION AND/OR SHADOWS. MAPPING WITHIN THESE AREAS MAY NOT MEET STANDARD ACCURACY.
7. RELATIVE ACCURACY:
   - VERTICAL ACCURACY IS ± 0.25' FOR OPEN AREAS
   - VERTICAL ACCURACY IS ± 0.50' AREAS OF DENSE VEGETATION.

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

SIGNATURE DATE:

EDC
ENGINEERS SURVEYORS ENVIRONMENTAL
10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
☎ 772-462-2455
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DRAWN BY	CHECKED BY	FIELD CREW	FILENAME	SCALE	DATE
AV	MTO	JW	21-456_SURV REV1.dwg	AS-SHOWN	October 4, 2021

DATE	REVISION COMMENTS
08/11/22	REVISE LEGAL DESCRIPTION & SKETCH - AV

BOUNDARY AND TOPOGRAPHIC SURVEY
FOR: ALEXANDER GEORGE AND CO.

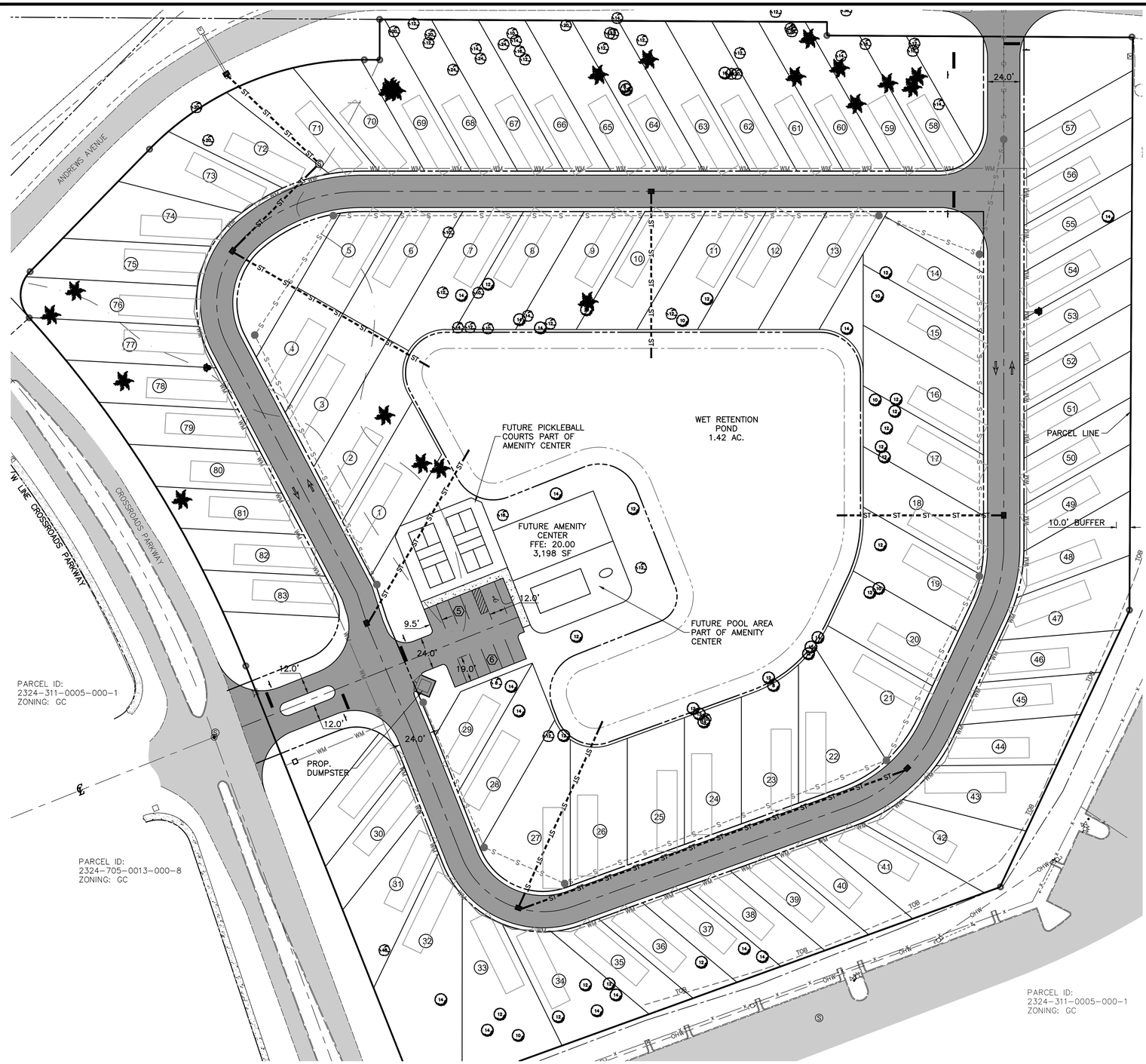
PORTION OF
SEC. 24, TWNSHP. 34 SOUTH, RGE. 35 EAST
ST. LUCIE COUNTY, FLORIDA

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

21-456

1 OF 1

Z:\EDC-2021\21-456 - George - Crossroads Parkway FP\SURVEY\Dwg - PDF\Survey\21-456_SURV REV1.dwg, 8/11/2022 1:44 PM
COPYRIGHT: 2020 BY EDC-INC: THIS FIRM EXPRESSLY RESERVES THEIR EXCLUSIVE COMMON LAW COPYRIGHT AND INTELLECTUAL PROPERTY RIGHTS TO THESE DRAWINGS WHICH MAY NOT BE DISPERSED, REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER, NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT THE WRITTEN CONSENT OF THIS FIRM.
THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY EDC, INC. SHALL BE WITHOUT LIABILITY TO EDC, INC.



0 40' 80'

SCALE: 1" = 40'



LOCATION MAP

SITE PLAN SUMMARY

1. PROJECT NAME: CROSSROADS RV PARK
2. PARCEL ID: 2324-312-0005-000-4
3. LOCATION: INTERSECTION OF CROSSROADS PKWY, & ANDREWS AVE.
4. SECTION/TOWNSHIP/RANGE: 24 35S 39E
5. OWNER: ALEXANDER GEORGE & COMPANY
   14800 INDRIO RD.
   FORT PIERCE, FL 34945
6. TYPE OF PROJECT: SITE PLAN (DEVELOPMENT REVIEW)
7. ZONING: GC
8. FUTURE LAND USE: GC
9. FLOOD ZONE:
10. TOTAL PROJECT AREA: 474,804 S.F. (10.90 AC.)
11. LOT COVERAGE OF STRUCTURES: 3,198 S.F.
12. IMPERVIOUS/PERVIOUS:
    SURFACE COVERAGE
    PERVIOUS:
    OPEN SPACE: 269,007 S.F./6.18 AC./57.3%
    IMPERVIOUS:
    RV PADS: 74,700 S.F./1.71 AC./15.7%
    ROADWAY: 57,874/1.33 AC./12.2%
    AMENITY CENTER/POOL/PICKLEBALL AREA: 11,368 S.F./0.26 AC./1.8%
    WET POND: 61,855 S.F./1.42 AC./13.0%
    TOTAL AREA: 474,804 S.F. (10.90 AC.)
13. MINIMUM BUILDING SETBACKS

LOT LINES	REQUIRED	PROVIDED
FRONT	25'	47'
REAR	20'	22'
SIDE	10'	23'

14. PARKING SUMMARY
    10 REGULAR SPACES
    1 ACCESSIBILITY SPACE
    TOTAL: 11 SPACES

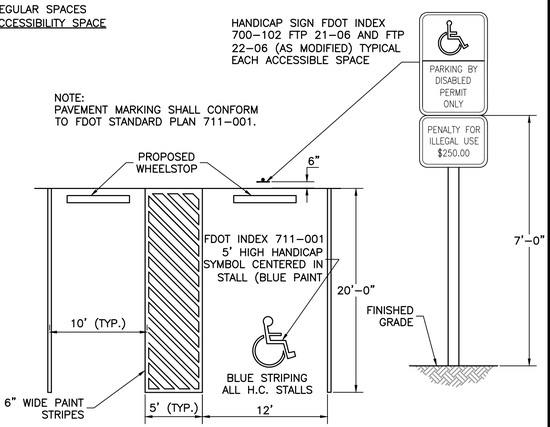
NOTE: REFER TO GENERAL NOTES FOR LEGAL DESCRIPTION

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- EX. OVERHEAD ELECTRIC
- PROP. STORMWATER PIPE
- PROP. WATER MAIN
- PROP. FORCEMAIN
- PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.

HANDICAP SIGN FDOT INDEX 700-102 FTP 21-06 AND FTP 22-06 (AS MODIFIED) TYPICAL EACH ACCESSIBLE SPACE

NOTE:
PAVEMENT MARKING SHALL CONFORM TO FDOT STANDARD PLAN 711-001.



HANDICAP PARKING DETAIL

N.T.S

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

SITE PLAN

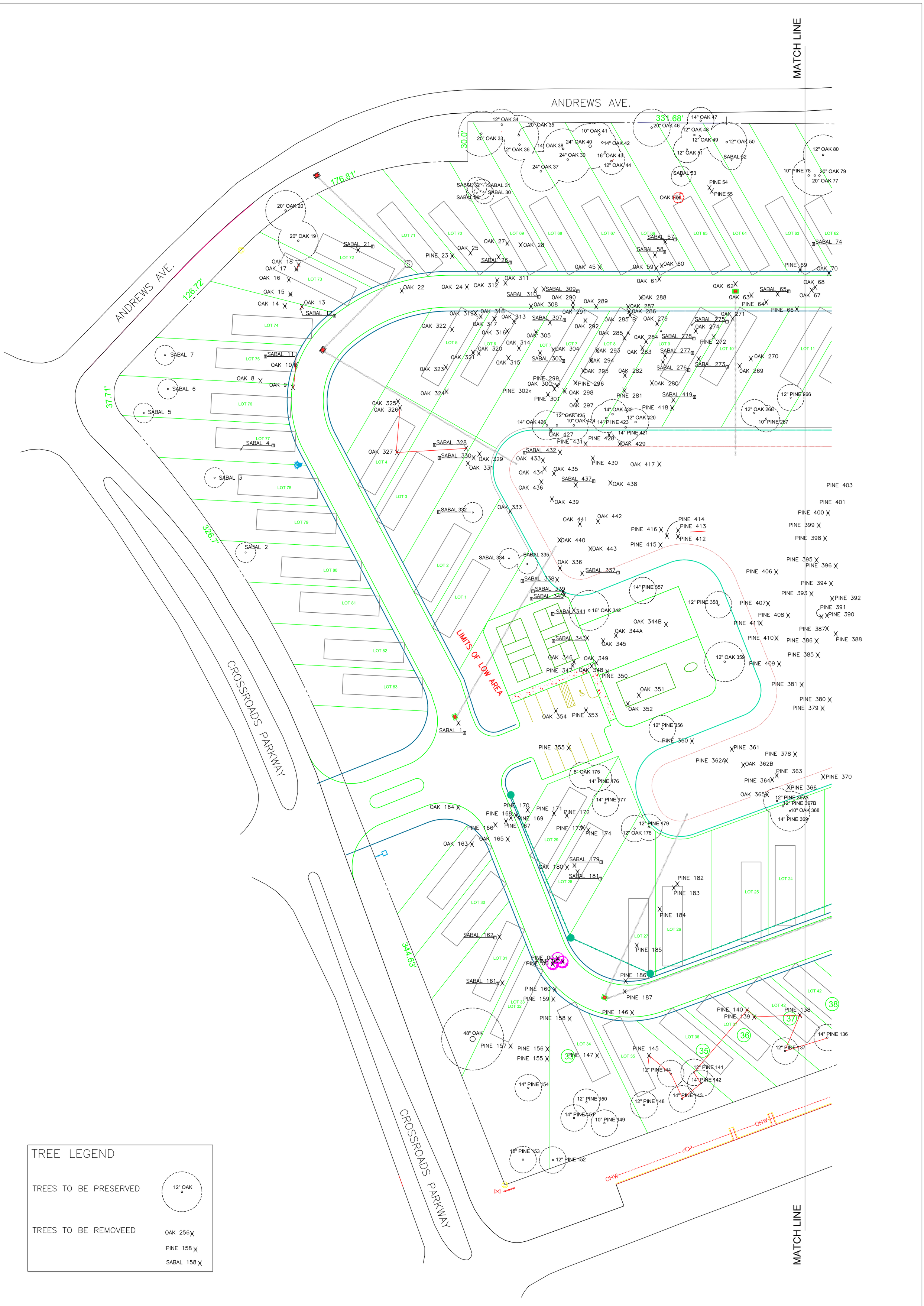
GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

S-1

Drawing Name: S:\Shared Folders\GEP projects\2022\22-024 Crossroads Site Plan\Design\22-024 Site Plan.dwg Layout Name: P-1 - Plotted by: Devin Curran - Date: 1/3/2024 - 10:33 AM - Giangrande Engineering & Planning

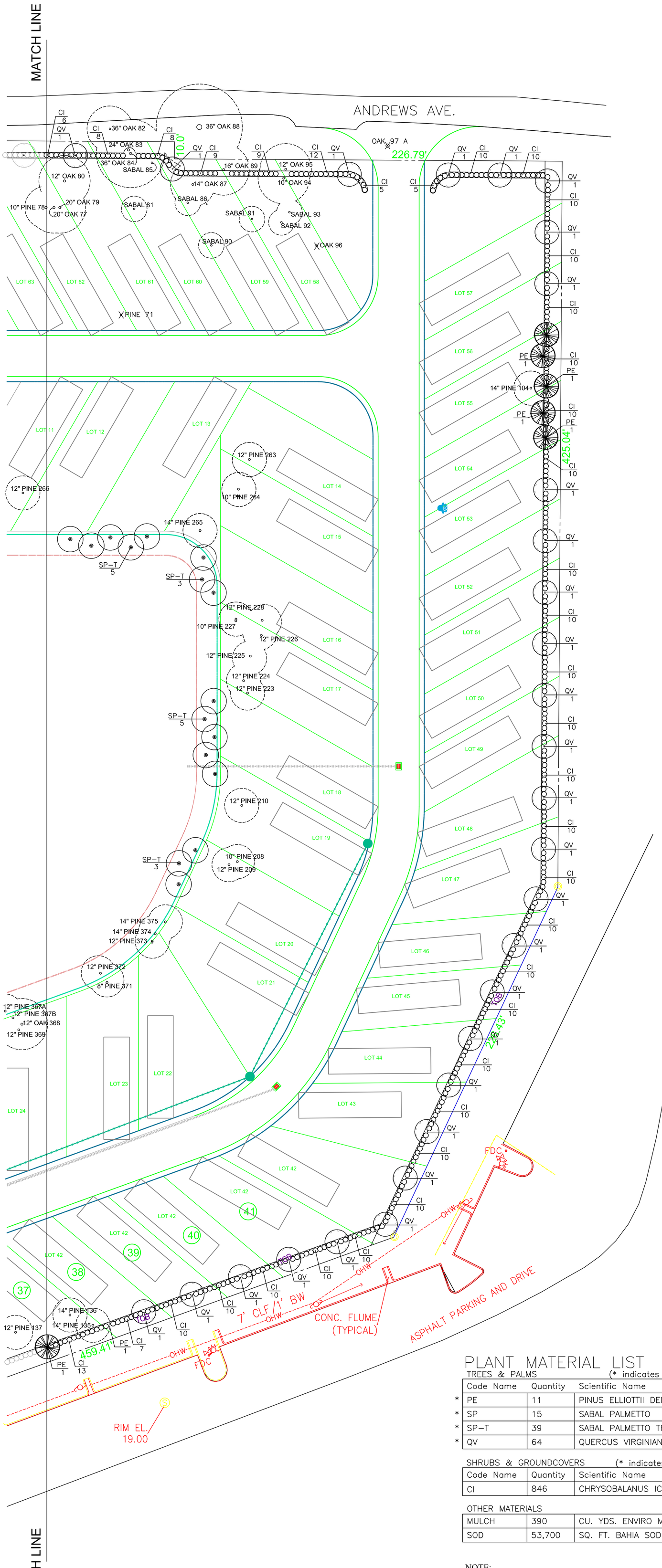


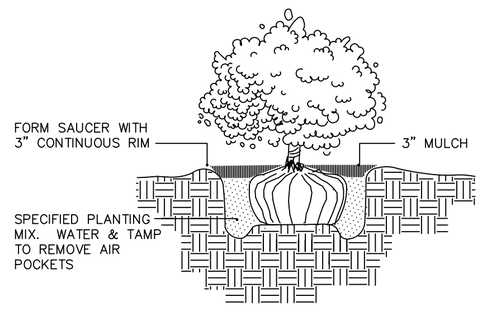
TREE LEGEND

TREES TO BE PRESERVED — 12" OAK

TREES TO BE REMOVEED — OAK 256X, PINE 158X, SABAL 158X

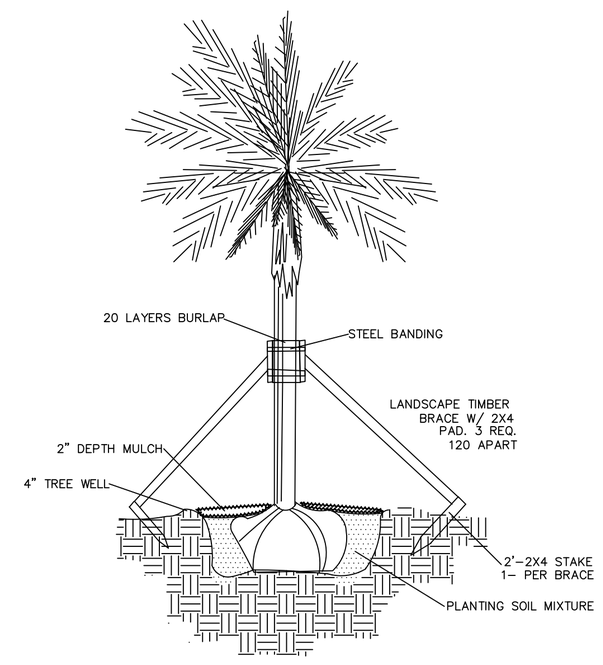
SHEET TM – 1 OF TWO	CROSSROADS RV PARK	TREE MITIGATION	DANIEL J. SUGG LANDSCAPE ARCHITECT / SITE PLANNER POST OFFICE BOX 335, JENSEN BEACH, FL 34958 PHONE: (772) 485–1776 danlandarch@gmail.com	SCALE: 1" = 30" DATE: 10/7/23





SHRUB PLANTING

SCALE: NOT TO SCALE



PALM PLANTING

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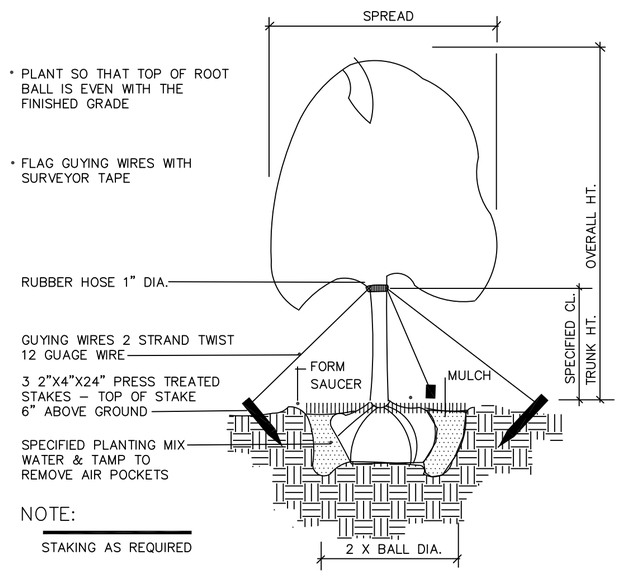


TREE PLANTING – GUY WIRES

SCALE: NOT TO SCALE

REQUIRED TREE DATA

PERIMETER LANDSCAPE BUFFER 2,721.92 L. FT.–41' ACCESS WAY=2,680.92 L. FT. DIVIDED BY 30 L. FT. – 89.36 TREES = 90 TREES REQUIRED

PERIMETER TREES

PROPOSED		EXISTING		TOTAL	
PINES	13	PINES	1	PINES	14
SABAL PALMS	2	SABAL PALMS	1	SABAL PALMS	3 = 1
LIVE OAKS	64	LIVE OAKS	12	LIVE OAKS	75
				TOTAL PERIMETER TREES	90

PLANT MATERIAL LIST

TREES & PALMS (* indicates native tree)

	Code Name	Quantity	Scientific Name	Common Name	Planting Size
*	PE	11	PINUS ELLIOTTII DENSA	SOUTH FLORIDA SLASH PINE	12' X 5', 4' CT 2 1/2"DBH
*	SP	15	SABAL PALMETTO	CABBAGE PALM	10'–15' OF CLEAR TRUMK
*	SP–T	39	SABAL PALMETTO TRANSPLANTS	CABBAGE PALM TRANSPLANTS	TRANSPLANTS FROM ON SITE
*	QV	64	QUERCUS VIRGINIANA	LIVE OAK	12' X 6', 4' CT 2 1/2"DBH

SHRUBS & GROUNDCOVERS (* indicates native shrub or ground cover)

Code Name	Quantity	Scientific Name	Common Name	Planting Size
CI	846	CHRYSOBALANUS ICACO	COCCOPLUM	12" X 12" #3, 18" OC

OTHER MATERIALS

MULCH	390	CU. YDS. ENVIRO MULCH (EST.)
SOD	53,700	SQ. FT. BAHIA SOD (EST.)

NOTE:

1. LANDSCAPED AREAS SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM OF SUFFICIENT CAPACITY TO MAINTAIN THE LANDSCAPING IN A HEALTHY GROWING CONDITION. THE IRRIGATION SYSTEM SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN SUCH A MANNER AS NOT TO BE A PROBLEM OR NUISANCE TO ADJACENT PROPERTIES AND T0 THE GENERAL PUBLIC.
2. DESIGN PLANS FOR THE IRRIGATION SYSTEN MUST BE SUBMITTED WITH THE REQUIRED LANDSCAPE PLAN FOR THE REVIEW AND APPROVAL BY THE DEVELOPMENT DEPARTMENT.
3. THE IRRIGATION SYSTEM MUST INCLUDE A RAIN SWITCH TO MONITOR RAIN LEVELS AND IRRIGATION NEEDS.

SHEET L–2 OF TOW

CROSSROADS RV PARK

LANDSCAPE PLAN

DANIEL J. SUGG
LANDSCAPE ARCHITECT / SITE PLANNER
POST OFFICE BOX 335, JENSEN BEACH, FL 34958
PHONE: (772) 485–1776 danlandarch@gmail.com

SCALE: 1" = 30"

DATE: 10/7/23

MATCH LINE

ANDREWS AVE.

ANDREWS AVE.

CROSSROADS PARKWAY

CROSSROADS PARKWAY

MATCH LINE

331.68'

176.81'

126.72'

37.71'

326.7'

344.63'

30.0'

BAHIA SOD

4473 SQ. FT.

OHW

OHW

CROSSROADS RV PARK

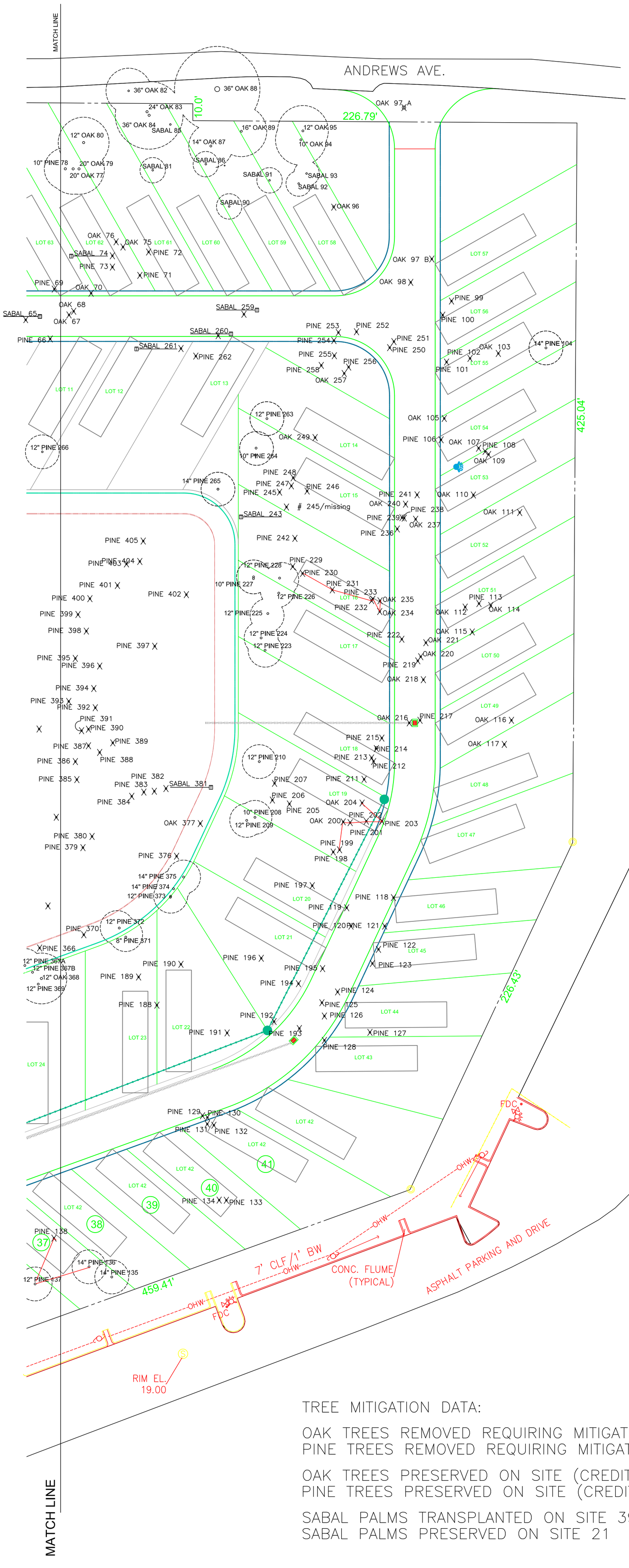
LANDSCAPE PLAN

DANIEL J. SUGG
LANDSCAPE ARCHITECT / SITE PLANNER
POST OFFICE BOX 335, JENSEN BEACH, FL 34958
PHONE: (772) 485-1776 danlandarch@gmail.com

SCALE: 1" = 30"

DATE: 10/7/23

SHEET L-1 OF TWO



TREE MITIGATION DATA:

OAK TREES REMOVED REQUIRING MITIGATION	1006 INCHES
PINE TREES REMOVED REQUIRING MITIGATION	448 INCHES
OAK TREES PRESERVED ON SITE (CREDIT)	722 INCHES
PINE TREES PRESERVED ON SITE (CREDIT)	520 INCHES

SABAL PALMS TRANSPLANTED ON SITE 39
SABAL PALMS PRESERVED ON SITE 21

TREE LEGEND

TREES TO BE PRESERVED — 12" OAK; 12" PINE 263; SABAL 53

TREES TO BE REMOVED — OAK 256; PINE 158; SABAL 158

NOTE: A TEN PAGE TREE MITIGATION SUMMARY ACCOMPANIES THESE TWQ SHEETS

SHEET TM-2 OF TOW

CROSSROADS RV PARK

TREE MITIGATION

DANIEL J. SUGG
LANDSCAPE ARCHITECT / SITE PLANNER
POST OFFICE BOX 335, JENSEN BEACH, FL 34958
PHONE: (772) 485-1776 danlandarch@gmail.com

SCALE: 1" = 30"

DATE: 10/7/23

March 7, 2022

Alex George
Alexander George & Co.
14800 Indrio Road
Fort Pierce, FL 34945
(772) 940-1723

Via email: alexgeorge5845@gmail.com

Reference: Phase I Environmental Site Assessment
Crossroads Parkway – 10.57 acres
Fort Pierce, Florida

EDC, Inc. has completed this Phase I Environmental Site Assessment (ESA) Report in compliance with the American Society for Testing and Materials (ASTM) format E 1527-13 for the above-referenced property. The purpose of this evaluation was to identify recognized environmental conditions as defined in ASTM E 1527-13.

Based on the results of the Phase I ESA conducted at the subject property, no unresolved recognized environmental conditions have been identified on the subject property. Known contamination does exist within the search radius, but was not identified on the subject property.

Further, please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E 1527-13, it is the responsibility of the User of this report to undertake a review of reasonable ascertainable recorded land title records and lien records for environmental liens or activity and use limitations recorded against or relating to the subject property. In the event that any are identified, please contact EDC, Inc. immediately for further evaluation.

EDC, Inc. appreciates this opportunity to provide environmental services to you. Please contact me if you have any questions regarding this report.

Respectfully submitted,
EDC Inc.



Anthony A. Adams, BS
Sr. Biologist | Certified Arborist

ENGINEERS ◆ SURVEYORS ◆ ENVIRONMENTAL

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Date: March 7, 2022
Project #: 21-456

Prepared For:
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Alexander George & Co.
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Prepared By:
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Prepared By:

Anthony A. Adams, BS
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Reviewed By:

Tobin R. Overdorf, MS, MBA
Vice President

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1.0 SUMMARY

The subject property evaluated as part of this Environmental Assessment consists of one (1) tax parcels (Parcel ID #2324-312-0005-000-4) totaling an approximate 10.57 acres. The subject parcel is classified by the St. Lucie County Property Appraiser with a current Land Use Designation of 1000 – Vacant Commercial. The parcel is located just east of the FL Turnpike and just west of Interstate 95 in the City of Fort Pierce, Florida. The subject property is further located within Section 24, Township 35 South, and Range 39 East, St. Lucie County, Florida. Please refer to the Site Location Map presented in **Appendix A** for a visual explanation of the subject property**.**

[NOTE: Please review this report in its entirety for a full description of our evaluation, procedures, and findings.]

Based on the findings of this Phase I ESA conducted in accordance with American Society for Testing and Materials (ASTM) format E1527-13, we conclude the following:

1. We found no evidence of unresolved recognized environmental conditions with respect to past uses of the subject property based on our field observations, historical research, and public records review.

2. We found no indications of hazardous waste dumping or disposal, underground storage tanks (USTs), septic systems, seeps, unusual odors, stressed vegetation, or roads/paths with no outlet likely to have been used for disposal of hazardous wastes or petroleum products at the subject property.

3. We found three (3) Underground Storage Tank (UST) facilities within the minimum search distance as specified by ASTM-E standards. All facilities were found to be in compliance. Please refer to **Table 3** for further details.

4. We found four (4) Aboveground Storage Tank (AST) facilities within the minimum search distance as specified by ASTM-E standards. Two of the facilities were found to be in compliance and one was found to be in minor out of compliance. Please refer to **Table 3** for further details.

5. We found four (4) Leaking Underground Storage Tank (LUST) facilities within the minimum search distance as specified by ASTM-E standards. Please refer to **Table 3** for further details.

6. We found one SWF/LF withing the minimum search distance as specified by ASTM-E standards. Please refer to **Table 3** for further details.

Based on the conclusions of the Phase I ESA conducted at the referenced site, EDC, Inc. did find evidence of unresolved recognized environmental conditions and further assessment is warranted at this time.

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E 1527-13, it is the responsibility of the User of this report to undertake a review of reasonable ascertainable recorded land title records and lien records for environmental liens or activity and use limitations recorded against or relating to

the subject property. In the event that any are identified, please contact EDC, Inc immediately for further evaluation and we will run the environmental liens search.

It is important to note that in order to remain eligible for CERCLA liability protections, continuing obligations will need to be followed at the subject property. The User has the continuing obligation not to impede the integrity and effectiveness of activity and land use limitations, the duty to take reasonable steps to prevent releases, and the duty to comply with legally required release reporting obligations.

2.0 INTRODUCTION

2.1 PURPOSE

The purpose of this assessment is to conduct an evaluation of the past and current uses of the subject property and surrounding properties to identify recognized environmental conditions in connection with the subject property.

The term “recognized environmental conditions” means the presence of likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the subject property or into the ground, groundwater, or surface water of the subject property. This environmental assessment was conducted in accordance with the guidelines of the ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. This assessment was also intended to identify potential off-site contaminant sources within the search distances set forth in ASTM E 1527-13.

2.2 DETAILED SCOPE OF SERVICES

The contracted scope of services consists of the preparation of a Phase I ESA of the subject property in accordance with the guidelines set forth in ASTM E 1527-13. The purpose of the ASTM E 1527-13 Standard Practice for Environmental Site Assessments is to define good commercial and customary practice in the United States of America for conducting an environmental site assessment with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and petroleum products.

The scope of work does not include soil or groundwater sampling; contamination assessment/delineation; an evaluation of asbestos, lead-based paint, radon, wetlands, lead in drinking water, environmental compliance, threatened & endangered species, cultural resources, industrial hygiene, health and safety, ecological resources, indoor air quality; site geotechnics (soils, foundations, site retention, etc.) or construction materials testing. If necessary, EDC, Inc. can provide these additional services.

2.3 SIGNIFICANT ASSUMPTIONS

No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of a Phase I ESA in conformance with ASTM E 1527-13 is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property.

This assessment is site-specific, and all appropriate inquiry does not mean an exhaustive assessment of a clean property.

2.4 LIMITATIONS AND EXCEPTIONS

The findings of this report represent our professional judgment. These findings are relevant to the dates of our site work and the information cited herein. This report should not be relied upon to represent property conditions on other dates or at locations other than those specifically cited within this report.

The following limitations were encountered during completion of this Phase I ESA:

- Data gaps were encountered in the historical aerial photograph review due to the lack of available photographs in five-year intervals as preferred by ASTM-E standards. Based on our review of the available aerial photographs (1944) along with additional historical information found during review of other sources, the data gap does not appear to be significant to the findings of this report and does not appear to constitute as a data failure.

- The chain-of-title documentation or recorded land title records for environmental liens or activity and use limitations currently recorded against or relating to the subject property were not provided to EDC, Inc. during completion of this Phase I ESA.

2.5 SPECIAL TERMS AND CONDITIONS

Any special terms and conditions associated with this Phase I ESA are included in the Environmental Consulting Services Agreement and the Addendum to Contractual Agreements between EDC, Inc. and Alex George.

In addition, EDC shall not be held liable for any incorrect advice, judgment or decision based on any inaccurate information supplied by the user, current owner, or their designees.

2.6 USER RELIANCE

This report is intended for the sole use of EDC Inc. and Alex George. Its contents may not be relied upon by other parties without the explicit written consent of EDC, Inc.

In accepting this report, all parties herein mentioned agree to the Environmental Consulting Services Agreement and the Addendum to Contractual Agreements between EDC, Inc. and Alex George.

3.0 SITE DESCRIPTION

3.1 LOCATION AND LEGAL DESCRIPTION

The subject property is located within Section 24, Township 35 South and Range 39 East, St. Lucie County Florida. It can also be described as one (1) tax parcel located east of the FL Turnpike and just west of Interstate 95 in Fort Pierce, St. Lucie County, Florida. More specifically, the subject property consists of 10.57 acres of vacant commercial property. Legal descriptions for the tax parcels are as follows;

2324-312-0005-000-4: 24 35 39 FROM INT OF SE COR OF SW 1/4 OF NW 1/4 AND CL OF ANDREWS AVE RUN S 00 06 16 E ALG E LI OF NW 1/4 OF SW 1/4 OF SEC 45 FT TO SLY R/W LI OF ANDREWS AVE AND POB, TH S 89 41 32 E ALG S R/W LI 558.38 FT, TH S 00 18 28 W 420.04FT, TH S 25 04 02 W 226.43 FT, TH S 70 04 02 W 459.41 FT TO NELY R/W LI OF CROSSROADS PKWY, TH N 21 40 15 W ALG NELY R/W LI 344.63 FT TO CURVE CONCAVE SW, R OF 855 FT, TH NWLY ALG ARC 305.70FT TO CURVE CONCAVE E, R OF 25 FT, TH NLY ALG ARC 37.71 FT, TH N 44 15 37 E 126.72 FT TO CURVE CONCAVE SE, R OF 220 FT, TH NELY ALG ARC 176.81 FT, TH S 89 41 32 E 11.88 FT, TH N 00 06 16 W 30 FT TO SLY R/W LI OF ANDREWS AV AND POB (10.57 AC)

Visual representation of the property boundary, aerial photographs, and property appraiser cards are presented in **Appendix A**.

3.2 PROPERTY AND VICINITY CHARACTERISTICS

At the time of this assessment, the subject property consisted of 10.57 acres of vacant commercial land. The property vicinity is characterized primarily by various commercial properties. Please refer to the Site Location Map in **Appendix A**.

3.3 CURRENT USE OF THE PROPERTY

At the time of the site reconnaissance, the subject property consisted of 10.57 acres of vacant, yet maintained commercial property.

3.4 STRUCTURES, ROADS, AND/OR OTHER IMPROVEMENTS WITHIN THE PROPERTY

Structures, roads, and improvements were not observed on the subject property at the time of the site visit. Pine trees were the most prevalent.

3.5 CURRENT USE OF ADJOINING PARCELS

Currently, the parcels adjoining the site are used as follows:

TABLE 1
Description of Adjoining Parcels

Direction From Site	Description of Current Use
North	R.O.W. – Andrews Ave.
East	Crossroads Plaza – Commercial Retail
South	Crossroads Plaza – Commercial Retail.....
West	R.O.W. – Crossroads Parkway

None of the current uses of the adjoining properties appear likely to indicate the presence of recognized environmental conditions in connection with the subject property.

4.0 USER PROVIDED INFORMATION

The User did not provide EDC with information pertaining to the following sections. This information was collected by EDC, Inc.

4.1 TITLE RECORDS

According to the St. Lucie County Property Appraiser's Report, the current owner of the subject property is Alexander George and Company Group.

The User did not contract EDC, Inc. to acquire a chain-of-title for the parcels comprising the subject property, which typically contains information regarding historical site ownership.

The last known sale of the subject property occurred on April 13, 2021 and can be found in Appendix A.

4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

The User did not provide information on any environmental liens or activity and use limitations on the subject property that are filed or recorded under federal, tribal, state, or local laws.

Please note that an environmental liens or activity and use limitations search report was not acquired by EDC, Inc. for the parcel comprising the subject property. In order to qualify for due diligence, the User of this report may be required to contact a title company to confirm that there are no environmental liens or activity and use limitations filed for the parcel comprising the subject property. In the event that any are identified, please contact EDC, Inc. immediately for further evaluation.

4.3 SPECIALIZED KNOWLEDGE

The User did not provide any specialized knowledge or experience that may pertain to recognized environmental conditions in connection with the subject property.

4.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The User did not provide any information on the purchase price being paid for the subject property. Information pertaining to the assessed value of the subject property is included in the Saint County Property Appraiser's Report presented in **Appendix A**.

4.5 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

According to the St. Lucie County Property Appraiser's Report, the current owners of the subject property are Alexander George and Company Corporation. Please refer to the St. Lucie County Property Appraiser's Report included in **Appendix A**.

4.6 REASON FOR PERFORMING PHASE I ESA

The User stated the reason for requesting this Phase I ESA was for Due Diligence associated with development of the property. Therefore, the User contracted EDC, Inc. to perform this Phase I ESA in conjunction with a real estate transaction for the prospective owner to satisfy one of the requirements to qualify for the innocent purchaser defense, contiguous property owner or bona fide prospective purchaser limitations on CERCLA liability.

4.7 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION ABOUT THE PROPERTY

The User did not provide any information regarding any specific chemicals that are present or were once present at the subject property, spills or other chemical releases that have taken place at the subject property, or any environmental cleanups that have taken place at the subject property.

5.0 RECORDS REVIEW

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the site. Accuracy and completeness of record information varies among information sources, including government sources. Record information is often inaccurate or incomplete. Standard sources that are reasonably ascertainable were reviewed by EDC, Inc. for this Phase I ESA.

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

As part of this assessment, we reviewed information sources to obtain existing information pertaining to a release of hazardous substances or petroleum products on or near the site. EDC, Inc. obtained an ASTM radius map report through Environmental Data Resources, Inc. (EDR). A copy of the EDR report is contained in **Appendix B**. EDC, Inc. also reviewed other available standard environmental record sources at the Florida Department of Environmental Protection (FDEP), as needed. The following state, county, and federal sources were consulted during this record review:

State, County, and Tribal Database Review (FDEP and MCHD)

- FDEP, Leaking Underground Storage Tanks (LUST)
- FDEP, Leaking Aboveground Storage Tanks (LAST)
- FDEP, Registered Underground Storage Tanks (UST)
- FDEP, Registered Aboveground Storage Tanks (AST)
- FDEP, State Hazardous Waste Sites (SHWS)
- FDEP, Solid Waste Facility/Landfill Sites (SWL/LF)
- FDEP, State Brownfield Areas (BROWNFIELDS)
- FDEP, Voluntary Cleanup Sites (VCP)
- FDEP, Institutional Controls & Engineering Controls Registry (IC & EC)

Federal Database Review [United States Environmental Protection Agency (EPA)

- EPA, National Priorities List (NPL), including Delisted and Proposed NPL Sites and Federal Superfund Liens
- EPA, Comprehensive Environmental Response Compensation and Liability Act Information System (CERCLIS)
- EPA, CERCLIS No Further Remedial Action Planned (CERCLIS-NFRAP)
- EPA, RCRA Treatment, Storage, and Disposal Facilities (RCRA-TSDF)
- EPA, RCRA Corrective Action Report Facilities (CORRACTS)
- EPA, RCRA Generators List (RCRA), including Large Quantity Generators (LQG), Small Quantity Generators (SQG) and Conditionally Exempt Small Quantity Generators (CESQG)

- EPA, Institutional Controls & Engineering Controls Registry (US IC & US EC)
- EPA, Emergency Response Notification System List (ERNS)

Table 2 lists the approximate minimum search distances used during this assessment as set forth in ASTM E 1527-05.

TABLE 2 **Approximate Minimum Search Distances – ASTM E 1527-05**	
Source	**Search Distance**
Federal NPL Site List	1.0 mile
Federal Delisted NPL Site List	0.5 mile
Federal CERCLIS List	0.5 mile
Federal CERCLIS NFRAP Site List	0.5 mile
Federal RCRA CORRACTS Facilities List	1.0 mile
Federal RCRA non-CORRACRS TSD Facilities List	0.5 mile
Federal RCRA Generators List	Site and adjoining properties
Federal Institutional Control/Engineering Control Registries	Site only
Federal ERNS List	Site Only
State and Tribal Lists of Hazardous Waste Sites identified for investigation or remediation: State- and Tribal- equivalent NPL State- and Tribal- equivalent CERCLIS	1.0 mile 0.5 mile
State and Tribal Landfill and/or Solid Waste Disposal Site Lists	0.5 mile
State and Tribal Leaking Storage Tank Lists	0.5 mile
State and Tribal Registered Storage Tank Lists	Site and adjoining properties
State and Tribal Institutional Control/Engineering Control Registries	Site only
State and Tribal Voluntary Cleanup Sites	0.5 mile
State and Tribal Brownfield Sites	0.5 mile

5.1.1 FEDERAL, FLORIDA STATE, AND ST. LUCIE COUNTY RECORDS REVIEW

According to information provided by EDR and/or the FDEP Web-Based Map Application for Waste Management Division Facilities, the subject property is not listed in the federal, state or county databases. Please refer to **Table 3** for a summary of information regarding these facilities. Please refer to the FDEP and groundwater flow maps in **Appendix A**, EDR report in **Appendix B**, and supplemental documents in **Appendix C** for supporting documentation.

State/Federal Database Descriptions for Table 3	
Database Abbreviation	**Description**
AIRS	
AST	Registered aboveground storage tank locations.
CLEANUP SITE	This listing includes the locations of waste cleanup sites from various programs. The source of the cleanup site data includes Hazardous Waste programs, Site Investigation Section, Compliance and Enforcement Tracking, Drycleaning State Funded Cleanup Program (possibly other state

	funded cleanup), Storage Tank Contamination Monitoring.
DWM CONTAM	A listing of active or known sites. The listing includes sites that need cleanup but are not actively being working on because the agency currently does not have funding (primarily petroleum and drycleaning).
ECHO	ECHO (Enforcement & Compliance History Information) provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.
FDEP	Florida Department of Environmental Protection is the state's lead agency for environmental management and stewardship, protecting our air, water and land.
FINDS	Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).
FINANCIAL ASSURANCE	A list of hazardous waste facilities required to provide financial assurance under RCRA.
LUST	Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.
Nexus	Nexus is a user-friendly search interface to retrieve documents from DEP's OCULUS archival database which houses permits and other publicly available documents.
NPDES	General information regarding NPDES (National Pollutant Discharge Elimination System) permits.
RCRA-VSQG	RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

SWF/LF	Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.
TIER 2	A listing of facilities which store or manufacture hazardous materials and submit a chemical inventory report.
UST	Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.
SPILLS	Incidents involving spills of oil and hazardous materials.

TABLE 3
State/Federal Database Facility Identified Within Minimum Search Distance

Facility	Location	Database	File Review Summary
Crossroads USA Inc. 1001 Wheeler Ter Fort Pierce, FL 34945 EDR ID: A100229386	Approximately 0.022mi WSW of the subject property	AST	According to the EDR report and Oculus documents, the DEP issued a Return to Compliance letter on March 31, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Chevron Products Company #200765 6900 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000702861	Approximately 0.134mi S of the subject property	RCRA NONGEN / NLR FINDS ECHO	According to the EDR report and Oculus documents, this facility was verified as a non-generator of waste. The FINDS report is attached in **Appendix C**. Due to this, the likelihood of the subject property being adversely affected by the facility appears low.
Citgo Quick Mart MacMillan 6900 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000737807	Approximately 0.134mi S of the subject property	UST FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued a Return to Compliance letter on January 29, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.

Hilliard Groves Inc. 2650 S Kings Hwy Fort Pierce, FL 34945 EDR ID: 1000698915	Approximately 0.164mi W of the subject property	LUST UST RCRA NONGEN / NLR FINDS ECHO CLEANUP SITES DWM CONTAM	According to the EDR report and Oculus documents, the DEP issued a letter inviting the owners of this facility to participate in the LSSI Program in 2017. This program assists owners of contaminated properties return to compliance. In 2013, efforts were being put forth to clean up the site from a discharge that occurred on December 22, 1992. The work order was being followed up until this time. This facility is not in compliance at the time of this investigation. Due to this, further investigation may be required via soil boring and samplings as the groundwater flow does traverse the subject property from this facility.
Denny's Restaurant 6501 Darter Court Fort Pierce, FL 34945 EDR ID: U000130116	Approximately 0.202mi SE of the subject property	LUST UST	According to the EDR report and Oculus documents, the current owner in 1993 had no knowledge of the tank removal prior to their time of ownership. The tank was removed in 1991, no violations were identified. Due to this, the likelihood of the subject property being adversely affected by the facility appears low.
Falcon Oil Citgo 7045 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000886575	Approximately 0.220mi SSW of the subject property	LUST UST SPILLS RCRA NONGEN / NLR FINDS ECHO CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According the EDR report and Oculus documents, the DEP issued an In Compliance letter on March 30, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Sunshine Food Mart 7049 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U001373010	Approximately 0.222mi SSW of the subject property	LUST UST CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued a No Cleanup Required letter on August 4, 1992 for a discharge that occurred on November 1, 1990. Due to this, the likelihood of the subject property being adversely affected by the facility appears low. Please refer to **Appendix C** for supporting documentation.

Pilot Travel Center #327 7150 Okeechobee Road Fort Pierce, FL 34945 EDR ID: S117360787 Love's Travel Stop #415 7150 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U003343094	Approximately 0.228mi SW of the subject property	DWM CONTAM RESP PARTY LUST UST SPILLS CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued an In Compliance letter on April 15, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Chevron #47314 7100 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U001372909	Approximately 0.231mi SSW of the subject property	LUST UST	According to the EDR report and Oculus documents, the DEP issued a Site Rehabilitation Completion Order on November 6, 1991, which addressed two discharges that occurred on September 15, 1989 and March 26, 1991. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
BP Oil Co #24539 7131 Okeechobee Road Fort Pierce, FL 34945 EDR ID: 1000703120 BP Fort Pierce 7131 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U001372930	Approximately 0.248mi SSW of the subject property	RCRA NONGEN / NLR FINDS ECHO LUST UST FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued an In Compliance letter on January 25, 2021. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
Boudrias Groves 2898 S Kings Highway Fort Pierce, FL 34945 EDR ID: U001372802	Approximately 0.305mi SW of the subject property	LUST UST CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, on August 18, 2022 the DEP issued communication offering assistance to the facility manager on joining the Petroleum Cleanup Participation Program (PCPP). The northwest portion of this facility was identified as the area with the highest concentration of contaminants. Any construction conducted within this area must be done according to DEP rules. In addition, the groundwater flow from this facility does travel across the subject property. Further action is recommended via soil testing and monitoring on the subject property. Please refer to **Appendix C** for supporting documentation.

Pilot Travel Center #090 7300 Okeechobee Road Fort Pierce, FL 34945 EDR ID: U003699251	Approximately 0.339mi WSW of the subject property	LUST UST CLEANUP SITES DWM CONTAM FINANCIAL ASSURANCE	According to the EDR report and Oculus documents, the DEP issued a Return to Compliance letter on November 13, 2020. Due to this, the likelihood of the subject property being adversely affected by the facility appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
John Mart Truck Accident State Rd 70 at Turnpike Entry Fort Pierce, FL 34945 EDR ID: S117360380	Approximately 0.341mi SW of the subject property	DWM CONTAM RESP PARTY	According to the EDR report and Oculus documents, an Interim Remedial Action Report was submitted post-incident that occurred on October 5, 1994. The saddle tank ruptured, and absorbents were used. Soil was excavated under direction of FDOT. This case was closed. In addition, the incident took place outside of groundwater flow that may affect the subject property. Due to this, the likelihood of the subject property being adversely affected by this incident appears low due to the facility being in compliance. Please refer to **Appendix C** for supporting documentation.
FL Dept of Transportation Hwy 70 & Kings Hwy Fort Pierce, FL 34945	Approximately 0.391mi SW of the subject property	LUST UST CLEANUP SITES DWM CONTAM	According to the EDR report and Oculus documents, cleanup was required for a discharge that occurred on July 22, 1991. 160 gallons of diesel product were removed along with contaminated soils. No further work has occurred at this site. Due to this, the likelihood of the subject property being adversely affected by this incident appears low. Please refer to **Appendix C** for supporting documentation.

In addition to reviewing the EDR report, EDC, Inc. performed reconnaissance of the property vicinity to identify any sites not mapped by EDR due to inadequate or inaccurate address information and to look for unregistered facilities. No facilities of concern were observed within the vicinity of the subject property during field reconnaissance performed by EDC, Inc.

5.2 ADDITIONAL ENVIRONMENTAL RECORDS

The following is a list of some of the additional environmental records that were searched as part of the EDR Radius Map Report: Priority Ranking List (PRIORITYCLEANERS), Formerly Used Defense Sites (FUDS), Records of Decision (ROD), Mines Master Index File (US MINES), Toxic Chemical Release Inventory System (TRIS), Risk Management Plans (RMP), Underground Injection Wells Database Listing (UIC), Drycleaning Facilities (DRYCLEANERS), and PCB Transformer Registration Database (PCB TRANSFORMER).

EDC searched the FDEP Consolidated Web-Based Map Application for Waste Management Division facilities (e.g., solid waste facilities, storage tanks, dry cleaning sites, hazardous waste generators, etc.) located on the subject property and adjoining properties. The map is available

for review in **Appendix A**. The search included the Storage Tank Regulation, Solid Waste, Site investigation, Hazardous Waste Program, and the Waste Cleanup database, among others. Any new findings revealed on the database are included in **Table 3**.

EDC reviewed the Florida Department of Community Affairs (DCA) Florida Radon Protection Map for Large Buildings and New Single Family Homes and Duplexes. More than 5% of new large buildings in St. Lucie County are expected to have annual average radon levels above the EPA action level and fewer than 5% new homes are expected to have elevated radon levels. The map indicated that the general area where the site is located (St. Lucie County) is designated as Federal EPA Radon Zone 3. This criteria states that the counties within this zone are those with a predicted radon level less than 2 pCi/L or otherwise known as low risk.

5.3 PHYSICAL SETTING SOURCES

According to the EDR report, USGS topographic quadrangle map, soil survey, and regulatory files available regarding properties of environmental concern in the property vicinity were reviewed as sources for obtaining information regarding the physical setting of the subject property and surrounding vicinity.

Based on our site reconnaissance, review of USGS maps, aerial photographs, the location of the subject property, and the present environmental related conditions of adjacent and nearby properties, there is little to no potential for migration of petroleum product or hazardous waste contamination from off-site sources.

5.3.1 TOPOGRAPHY

The USGS topographic quadrangle map set titled “Fort Pierce”, and “Fort Pierce NW’ was referenced as a source for obtaining information regarding the physical setting of the subject property and surrounding vicinity. The subject property is located at an elevation of approximately 25 feet above sea level.

According to the EDR Report, the groundwater within the minimum search distances is flowing southeast towards Tenmile Creek. A copy of the USGS Quadrangle Map is provided as **Appendix B**.

5.3.2 SOILS/GEOLOGY

The general geology of St. Lucie County is characterized by the Caloosahatchee Marl which underlies the entire area, is of Pliocene age, and consists mainly of sand and varying amounts of shell. The Fort Thompson Formation rests uncomfortably on the Caloosahatchee Marl; dips from west to east; is of Pleistocene age; and consists of a series of alternating beds of limestone, shells, sand, and marl. The Anastasia Formation which is of Pleistocene age and rests uncomfortably on the Fort Thompson Formation forms the backbone of the coastal ridge, is exposed in several places along the ocean shoreline, and consists of sand and shell beds and thin, discontinuous layers of sandy limestone and sandstone. Pamlico Sand of the late Pleistocene age mantles the entire area and is the basic material in which most of the mineral soils have formed.

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, surficial soils at the subject property are classified as the following:

Nettles sand- is a poorly drained, nearly level soil found in areas of broad flatwoods. Typically, the surface layer is 11 inches thick. Black sand comprises the upper 5 inches, very dark gray sand in the next three inches and dark gray sand in the lower 3 inches. Subsurface layer is light gray sand 22 inches thick. The water table is typically at a depth of 10 inches for 2 to 4 months during wet seasons, and at a depth of 10 to 40 inches for 6 months of longer in most years. Natural vegetation includes slash pine, cabbage palm, saw palmetto, wax myrtle, inkberry, fetterbush, creeping bluestem, chalky bluestem, Florida threeawn, and pineland threeawn. This soil has severe limitations for cultivated crops unless water control and other food management practices are provided. This soil has potential for improved pasture grasses and high potential for dwellings without basements, small commercial buildings, and roads.

Oldsmar fine sand- This poorly drained soil is found typically in broad areas in the flatwoods. Typically, the surface layer is black fine sand about 5 inches thick. The water table is at a depth of less than 10 inches for 2 to 4 months during the wet season and within a depth of 40 inches for more than 6 months. Natural vegetation consists of slash pine, saw palmetto, inkberry, rusty lyonia, black root, penny royal, pineland threeawn, chalky bluestem, panicum and various grasses. The soil is well suited for pasture and hay crops.

Wabasso sand- This soil is a nearly level, poorly drained soil in broad open areas of the flatwoods. The surface layer is sand about 8 inches thick. The upper 4 inches is black and the lower 4 inches is dark grey. The water table is typically at a depth of less than 10 inches for 1 to 4 months during the wet season, and at a depth of 10 to 40 inches for 6 to 9 months in most years. Natural vegetation is slash pine, cabbage palm, saw palmetto, running oak, inkberry and fetterbush. Common grasses are threeawn and bluestem. The soil has severe limitations for cultivated crops and citrus due to wetness. The soil has high potential for dwellings without basements, small commercial buildings, local roads and streets.

5.3.3 HYDROGEOLOGY

The general hydrogeology of St. Lucie County includes two aquifer systems, the surficial and the Floridan aquifer systems. Both aquifer systems are multilayered and are variable in physical and chemical properties. The surficial aquifer system is the most widely used source of drinking water in St. Lucie County. In most parts of the county, the aquifer system contains freshwater that is easily obtainable for low-cost domestic supply. The surficial aquifer system within St. Lucie County consists of undifferentiated sediments that overlie the greenish-gray clayey sands of the intermediate confining unit (Hawthorn Formation). The surficial aquifer system consists of a relatively thin unit of undifferentiated sand, silt, and shell of Pleistocene to Holocene age overlying more permeable zones composed of thin layers of sand, silt, and clay inter-bedded with layers of limestone, coarse sand, and shell of Pliocene age. In some places, the permeable beds are absent and wells are drilled into the deeper sand, shell, and silt layers of Late Miocene age. These deeper wells also are classified as surficial aquifer system wells.

According to the Hydrological Gradient map in the EDR report, the direction of groundwater flow in the vicinity of the subject property appears to flow northeast toward the St. Lucie River.

5.4 HISTORICAL USE INFORMATION ON THE PROPERTY

According to the earliest available aerial photograph (1944), the subject property and general vicinity are undeveloped. There are wetlands directly to the southeast of the subject property as well as within the general vicinity of the subject property. There appears to be agriculture

operations surrounding the subject property. Kings Highway and Okeechobee Road can be observed. In the 1958 aerial image, a portion of the subject property is used for agricultural purposes, a citrus grove can be observed. Residential development can be seen to the south of the subject property, Wetlands in the vicinity remain the same. In 1969, fuel stations can be observed at the intersection of Kings Hwy and Hwy 70. In 1980, Interstate 95 can be observed to the east of the subject property. The surrounding vicinity still remains utilized for Citrus growing operations. The 1992 historical aerial image shows the construction of the commercial retail and hotels in the surrounding vicinity. In 2007, a large trailer park can be observed directly north of the subject property. From 2007 to 2021, the aerials do not show any significant changes.

Reasonably ascertainable aerial photographs are available for the time period back to 1944 until the present, but not necessarily or consistently in five-year intervals as preferred by ASTM E standards, or as early as 1940 as preferred by ASTM-E standards. The lack of aerial photographs in consistent five-year intervals is noted as a data gap. Based on the review of available aerial photographs and other standard historical sources, the use of the subject property during the timeframe of the data gap has been adequately ascertained. Therefore, the data gap does not materially impact the performance of this Phase I ESA and is not regarded as a data failure.

5.4.1 AERIAL PHOTOGRAPHY REVIEW

In order to evaluate the previous land uses of the subject property and surrounding area, reasonably ascertainable aerial photographs were reviewed. The aerial photographs provide a progressive overview of the subject property and surrounding properties. We reviewed the 1940 to 2021 aerial photographs obtained from the Florida Department of Transportation, the State University System of Florida, EDR aerial report, the St. Lucie County Property Appraiser's Website, and Google Earth. Please note that copies of the aerial photographs reviewed during completion of this Phase I ESA are included within this report and can be found in **Appendix A and B**. Descriptions of EDC, Inc. observations are outlined in **Table 4**.

TABLE 4
Summary of Aerial Photograph Observations

Photograph Date	Photograph Quality	Remarks
1944	Fair (EDR)	The subject property is undeveloped at this time. Kings Highway and Okeechobee Road can be observed, along with surrounding citrus agricultural operations.
1950	Very Poor (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
1958	Fair (EDR)	A portion of the subject property is used for agricultural purposes, a citrus grove can be observed. Residential development can be seen to the south of the subject property, Wetlands in the vicinity remain the same.
1969	Fair (EDR)	The subject property remains vacant. Fuel stations can be observed at the intersection of Hwy 70 and Kings Hwy. No other significant changes are observed at this time.
1970	Very Poor (EDR)	No other significant changes to the subject property or its vicinity were observed since the previous aerial photograph.

1980	Fair (EDR)	Interstate 95 can be observed directly to the east of the subject property. No additional significant changes since the previous aerial photograph.
1992	Fair (EDR)	Significant development of hotels, commercial retail, and trailer parks can be seen in the vicinity of the subject property.
1994	Poor (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
1999	Poor (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2007	Good (EDR)	A trailer park can be observed directly north of the subject property. No other significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2010	Good (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2013	Good (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2017	Good (EDR)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.
2021	Very Good (Google Earth)	No significant changes to the subject property, adjoining properties, or the vicinity of the subject property were observed since the previous aerial.

5.4.2 PROPERTY OWNERSHIP RECORDS

The current owner of the subject property is Alexander George and Company Corporation. This is confirmed by the St. Lucie County Property Appraiser's Report, which is presented in **Appendix A**.

The User did not contract EDC, Inc. to acquire a chain-of-title for the parcel comprising the subject property, which typically contains information regarding historical site ownership.

5.4.3 SANBORN FIRE INSURANCE MAP REVIEW

According to information provided by EDR, fire insurance maps generated by the Sanborn Map Company are not available for review for the subject property. The Certified Sanborn Map Report is provided in **Appendix B** following the EDR database report.

5.4.4 CITY DIRECTORY REVIEW

Historical street directories listing the former businesses at the street addresses of the subject property and adjoining properties were reviewed by EDC, Inc. during completion of this Phase I ESA. Business names listed in the directories were reviewed to try to determine if businesses generated, used, stored, or disposed of hazardous waste materials. The review did not produce any properties that represented an environmental concern.

5.4.5 LAND USE RECORDS

According to the St. Lucie County Property Appraiser's Report, the Future Land Use for the subject property is New Community Development (NCD). The subject property is located within a Master Planned Unit Development. The table below (**Table 5**) details the structures that are located on the adjoining parcels that surround the subject property according to the St. Lucie County Property Appraiser's Report:

TABLE 5
Description of Adjoining Parcels

Parcel ID #	No. of Structures	Type of Structure	Size (Sq. Ft)	Year Built
2324-311-0005-000-1	2	Commercial Retail Commercial Retail	146,954 11,346	1988 1989

5.4.6 OTHER HISTORICAL SOURCES

A Historical Topographic Map Report was obtained from EDR during completion of this Phase I ESA. The USGS topographic quadrangle map titled "Fort Pierce" and "Fort Pierce NW", which includes the subject property, was available for the following years: 1948, 1950, 1970, 1972, 1983, and 2012 descriptions of our review of the historical topographic maps are outlined in **Table 6**. The Historical Topographic Map Report is provided in **Appendix B** following the EDR database report.

TABLE 6
Summary of Historical Topographic Map Observations

Map Date	Remarks
1950	Kings Highway and Highway 70 can be observed.
1970	The subject property and general vicinity are undeveloped. The FL Turnpike can be observed.
1983	The subject property shows signs of agriculture use on the topographical map. In addition, Interstate 95 can be observed.
2012	No significant changes to the subject property, areas to the west and southeast are unmapped.
2015	No significant changes to the subject property. In the vicinity of the subject property, an increase in residences can be observed since the previous topographic map, as well as residential roads.
2018	An increase in residential and public roads can be observed connecting development in the area. No significant changes to the subject parcel.

No other historical sources were reviewed during this assessment.

5.5 HISTORICAL USE INFORMATION ON ADJOINING PARCELS

None of the past uses of the parcels adjoining the subject property appear likely to indicate recognized environmental conditions in connection with the subject property.

6.0 INFORMATION FROM SITE RECONNAISSANCE

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the subject property. On a visit to the subject property, the property shall be visually and/or physically observed, and any

structure(s) located on the subject property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles shall be observed.

On Feb,1 2022, a site reconnaissance of the subject property was completed by a representative of EDC, Inc. The purpose was to evaluate the current conditions of the subject property and to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the subject property.

6.1 METHODOLOGY AND LIMITING CONDITIONS

The site reconnaissance included visually and/or physically observing the periphery of the subject property and the periphery of the structures located on the subject property. Aerial photographs are included in **Appendix A and B**. Site photographs are included in **Appendix D**.

6.2 GENERAL SITE SETTING

The subject property consists of one (1) tax parcels (Parcel ID #2324-312-0005-000-4) totaling an approximate 10.57 acres. The subject parcel is classified by the St. Lucie County Property Appraiser with a current Land Use Designation of 1000 – Vacant Commercial. The parcel is located just east of the FL Turnpike and just west of Interstate 95 in the City of Fort Pierce, Florida. The subject property is further located within Section 24, Township 35 South, and Range 39 East, St. Lucie County, Florida.

6.3 EXTERIOR OBSERVATIONS

During our site reconnaissance, the subject property consisted of 10.57 acres of vacant commercial property. The parcel is vacant of operations, but it maintained, which is mentioned in the interview provided in **Appendix E.**

We found no evidence of obvious surface discharges such as stained soil or pavement, no indication of solid or liquid waste dumping or disposal, no evidence of USTs, unusual odors, pits, stressed vegetation, or roads/paths with no outlet likely to have been used for disposal of hazardous wastes or petroleum products on the subject property. Please refer to **Appendix D** to review the site photographs.

6.4 INTERIOR OBSERVATIONS

During our site reconnaissance, there were no formal structures located on the subject property.

7 INTERVIEWS

7.1 INTERVIEW WITH SITE OWNER

EDC, Inc. provided Alex George with the Owner/User Questionnaire, to obtain information regarding their knowledge of recognized environmental conditions in connection with the subject property. A copy of the interview document has been provided in **Appendix E**.

7.2 INTERVIEW WITH SITE MANAGER

Please refer to Section 7.1 for information regarding the Owner/User Interview. Interview documentation is included in **Appendix E.**

7.3 INTERVIEW WITH OCCUPANTS

Please refer to Section 7.1 for information regarding the Owner/User Interview.

7.4 INTERVIEW WITH LOCAL GOVERNMENT OFFICIALS

City of Fort Pierce was contacted for information regarding previous spills occurring near the subject property.

7.5 INTERVIEW WITH USER

Please refer to Section 7.1 for information regarding the Owner/User Interview.

7.6 INTERVIEW WITH OTHERS

No other interviews were conducted during the completion of this Phase I ESA.

8 FINDINGS

Based on our field observations, historical research, public records review, and interviews conducted in accordance with ASTM-E, the findings of this Phase I ESA are as follows:

We found eight (8) Underground Storage Tank (UST) facilities within the minimum search distance as specified by ASTM-E standards. All facilities were found to be in compliance. Please refer to **Table 3** for further details.

We found one (1) Aboveground Storage Tank (AST) facilities within the minimum search distance as specified by ASTM-E standards. Two of the facilities were found to be in compliance and one was found to be in minor out of compliance. Please refer to **Table 3** for further details.

We found eleven (11) Leaking Underground Storage Tank (LUST) facilities within the minimum search distance as specified by ASTM-E standards. Please refer to **Table 3** for further details.

We found evidence of unresolved environmental conditions that may require further testing.

9 OPINION

The following is our opinion pertaining to the findings referenced above:

- We found evidence indicating the subject property may be adversely affected by facilities in the vicinity of the subject property.

- Further action and testing is recommended.

10 CONCLUSIONS

We have performed this Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13. The subject property consists of one (1) tax parcels (Parcel ID #2324-312-0005-000-4) totaling an approximate 10.57 acres. The subject parcel is classified by the St. Lucie County Property Appraiser with a current Land Use Designation of 1000 – Vacant

Commercial. The parcel is located just east of the FL Turnpike and just west of Interstate 95 in the City of Fort Pierce, Florida. The subject property is further located within Section 24, Township 35 South, and Range 39 East, St. Lucie County, Florida. The subject property is located between the FL Turnpike and Interstate 95. Any exception to or deletions from this practice are described in Sections 2.2, 2.3, and 2.4 of this report. This assessment has revealed evidence of unresolved recognized environmental conditions in connection with the subject property and further assessment is warranted at this time.

Please note that an environmental liens or activity and use limitations search was not performed for the subject property. In accordance with ASTM E 1527-13, it is the responsibility of the User of this report to undertake a review of reasonable ascertainable recorded land title records and lien records for environmental liens or activity and use limitations recorded against or relating to the subject property. In the event that any are identified, please contact EDC, Inc. immediately for further evaluation.

In order to remain eligible for CERCLA liability protections, continuing obligations will need to be followed at the subject property. The User has the continuing obligation not to impede the integrity and effectiveness of activity and land use limitations, the duty to take reasonable steps to prevent releases, and the duty to comply with legally required release reporting obligations.

11 DEVIATIONS

EDC, Inc. prepared this Phase I ESA in compliance with ASTM E 1527-13.

The following data gaps were encountered during completion of this Phase I ESA:

- Data gaps were encountered in the historical aerial photograph review due to the lack of available photographs in five-year intervals as preferred by ASTM-E standards. Based on our review of the available aerial photographs along with additional historical information found during review of other sources, the data gap does not appear to be significant to the findings of this report and does not appear to constitute as a data failure.

- The chain-of-title documentation or recorded land title records for environmental liens or activity and use limitations currently recorded against or relating to the subject property were not provided to EDC, Inc. during completion of this Phase I ESA.

12 ADDITIONAL SERVICES

Under the terms of the agreement between EDC, Inc. and Alexander George, no additional services are being provided in association with this Phase I ESA.

13 REFERENCES

References reviewed during the Phase I ESA are documented in **Appendix F**.

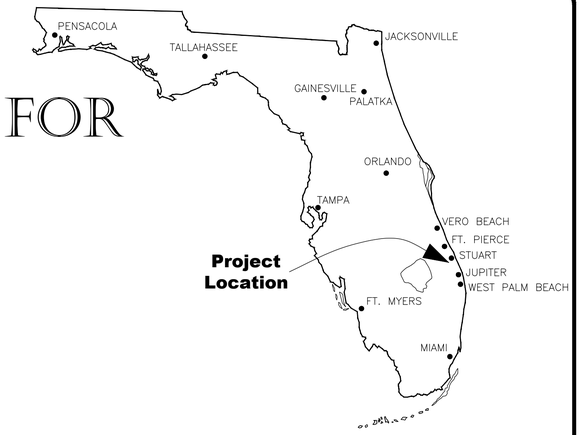
14 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Please refer to the title page for signatures of the environmental professionals who prepared and reviewed this Phase I ESA.

15 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

This assessment was completed by Anthony A. Adams, BS, Project Scientist, and reviewed by Tobin R. Overdorf, MS, MBA, Vice President, both employees of EDC, Inc. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and we have specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. We have developed and performed the all-appropriate inquiries in conformance with the standards and practices outlined in 40 CFR Part 312. Qualifications of personnel participating in this assessment are provided in **Appendix G**.

CONSTRUCTION PLANS & SPECIFICATIONS FOR CROSSROADS ST. LUCIE COUNTY, FLORIDA



THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS, LATEST EDITION.

GOVERNING SPECIFICATIONS:
FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION

THE FLORIDA DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION.

THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS (GREENBOOK), LATEST EDITION.

THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), LATEST EDITION.

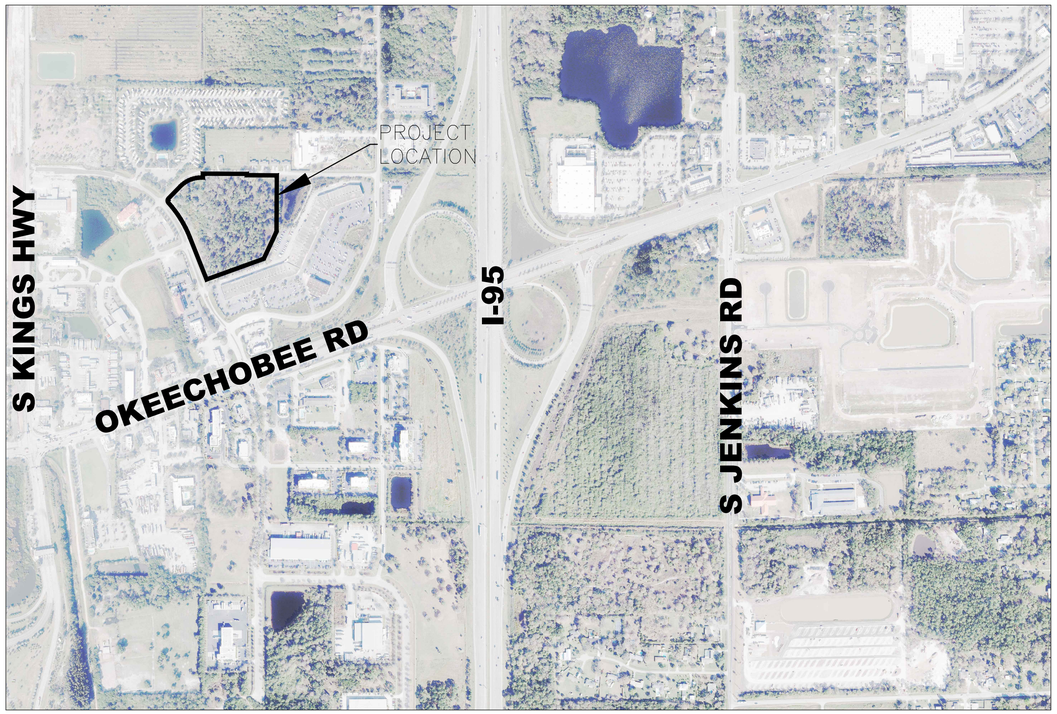
AND THE ST. LUCIE COUNTY LAND DEVELOPMENT REGULATIONS, LATEST EDITIONS AND STANDARDS SET FORTH BY THE CITY OF FORT PIERCE

CLIENT AND PROPERTY OWNER:
ALEXANDER GEORGE AND COMPANY
14800 INDRIO RD
FORT PIERCE, FL 34945

DESIGN TEAM:
SITE PLANNER AND CIVIL ENGINEER
GIANGRANDE ENGINEERING & PLANNING
2081 SE OCEAN BLVD, SUITE 1A
STUART, FL 34996
(772) 888-9076

SURVEYOR:
EDC, INC.
10250 VILLAGE PARKWAY
UNIT 201
PORT ST. LUCIE, FL 34987
(772) 462-2455

LANDSCAPE ARCHITECT:
SUGG DESIGN STUDIO
2336 SE OCEAN BLVD
STUART, FL 34996
(772) 979-5696



VICINITY MAP
NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
G-1	COVER SHEET
G-2	GENERAL NOTES
S-1	SITE PLAN
P-1	PAVING, GRADING, & DRAINAGE PLAN
E-1	EROSION CONTROL PLAN
W-1	WATER & WASTEWATER PLAN
CS-1	TYPICAL SECTIONS
D-1	DETAILS
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D-3	DETAILS
D-4	DETAILS
D-5	DETAILS
D-6	DETAILS

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

OCTOBER 2023
DEVELOPMENT REVIEW PLANS

FOR PERMITTING AND REVIEW PURPOSES

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD
STUART, FLORIDA 34994
PH. (772) 888-9076
Cert. No. 30901

LEO GIANGRANDE No. 68387 STATE OF FLORIDA PROFESSIONAL ENGINEER

SHEET C-1

SUPPLEMENTAL CONDITIONS

SCOPE OF WORK: THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, SUPERVISION, TRANSPORTATION AND INCIDENTALS NECESSARY TO CONSTRUCT THE PAVING, DRAINAGE, UTILITIES AND ASSOCIATED IMPROVEMENTS, IN ACCORDANCE WITH THE PROVISIONS OF THESE SUPPLEMENTAL CONDITIONS, SPECIFICATIONS AND THE DRAWINGS, ENTITILED, "CONSTRUCTION PLANS & SPECIFICATIONS FOR "DERECKTOR FT. PIERCE SITE DEVELOPMENT", PREPARED BY GIANGRANDE ENGINEERING AND PLANNING, LLC, 2081 SE OCEAN BLVD., STUART, FLORIDA 34996, (772) 888-9076. IT IS THE OBJECTIVE OF THESE DOCUMENTS TO ASSURE THE TOTAL COMPLETION OF THE WORK REQUIRED TO PROVIDE PAVING, GRADING, AND DRAINAGE IMPROVEMENTS FOR THE "ST LUCIE COUNTY SITE DEVELOPMENT."

PERMITS AND LICENSES: CONSTRUCTION PERMITS FOR CERTAIN ELEMENTS OF THE PROJECT WORK ARE REQUIRED, AND THE DESIGN AND CONSTRUCTION REQUIREMENTS OF THE PROJECT REFLECT CONSTRAINTS AND CONDITIONS IMPOSED BY THESE PERMITS. THESE INCLUDE CONSTRUCTION PERMITS FROM THE CITY OF FORT PIERCE, AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

THE CONTRACTOR SHALL PERFORM HIS WORK AND SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THESE "DESIGN" PERMITS AND APPROVALS, COPIES OF WHICH ARE AVAILABLE FOR REVIEW AND USE FROM THE ENGINEER, UPON REQUEST. THE CONTRACTOR SHALL SECURE ALL WORK PERMITS, APPROVALS AND LICENSES REQUIRED TO PERFORM THE WORK, AND HE SHALL PERFORM THE WORK IN STRICT ACCORDANCE WITH THOSE PERMITS, APPROVALS AND LICENSES.

REFERENCE TO OTHER DOCUMENTS: FOR BREVITY, REFERENCE MAY BE MADE TO OTHER SPECIFICATIONS OR DOCUMENTS WHICH WILL BE USED TO SPECIFY OR CONTROL THE MATERIALS PLACED IN THE WORK, THE CONSTRUCTION METHODS TO BE USED, THE TOLERANCES THAT WILL BE ACCEPTABLE, AND CONTRACTUAL OR LEGAL OBLIGATIONS. THE SPECIFICATIONS OR DOCUMENTS SHALL INCLUDE:

1. "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT." THE LATEST EDITION, PREPARED BY THE ENGINEER'S JOINT CONTRACT DOCUMENTS COMMITTEE AND PUBLISHED BY THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS. REFERENCE SHALL BE MADE: "GENERAL CONDITIONS."
2. "FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2023-2024," PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE: "FDOT SPECIFICATIONS."
3. "STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2023-2024" PUBLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION. REFERENCE SHALL BE MADE "FDOT INDEX" OR "FDOT STANDARDS."
4. "AMERICAN SOCIETY FOR TESTING AND MATERIALS SPECIFICATIONS", LATEST EDITION REFERENCE SHALL BE MADE: "ASTM."
5. "ST LUCIE COUNTY MINIMUM CONSTRUCTION STANDARDS", LATEST EDITION. REFERENCE SHALL BE MADE AS "COUNTY CODE" OR "COUNTY STANDARDS" OR "COUNTY SPECIFICATIONS."

BY REFERENCE, THE DOCUMENTS CITED ABOVE ARE MADE PART OF THESE SUPPLEMENTAL CONDITIONS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE COPIES OF EACH IN HIS POSSESSION FOR USE THROUGHOUT THE BIDDING AND CONSTRUCTION OF THIS PROJECT WORK AND/OR BE FAMILIAR WITH THE APPLICABLE SECTIONS OF EACH DOCUMENT AND BE ABLE TO VERITY THAT ALL MATERIALS AND CONSTRUCTION METHODS ARE CONFORMANCE WITH THESE DOCUMENTS AND SPECIFICATIONS.

ADDITIONALLY, THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL OTHER APPLICABLE LOCAL, REGIONAL, STATE AND FEDERAL LAWS, REGULATIONS ANO CODES, ESPECIALLY OSHA STANDARD 29 CFR, SECTION 1926.650 SUBPART P, WHICH IS PART OF THE TRENCH SAFETY ACT AS PART OF LAWS OF FLORIDA, CHAPTER 90-96.

CONTRACT ISSUES

GENERAL CONDITIONS: UNLESS OTHERWISE STATED IN THESE SUPPLEMENTAL CONDITIONS, THE PROVISIONS OF THE "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT," REFERENCED ABOVE, SHALL BE USED TO GOVERN ALL ISSUES ADDRESSED IN THOSE GENERAL CONDITIONS FOR THIS PROJECT.

OWNER-ENGINEER RELATIONSHIP: ANY AGREEMENT BETWEEN OWNER AND ENGINEER SHALL NOT BE CONSTRUED TO PROVIDE ANY OBLIGATION FROM THE ENGINEER TO ANY THIRD PARTIES INCLUDING, BUT NOT LIMITED TO, ARCHITECTS, OTHER ENGINEERS, ANY CONTRACTORS (GENERAL OR SUB), NOR TO ANY SUCCESSORS TO THE OWNER. THE RIGHTS UNDER ANY AGREEMENT BETWEEN OWNER AND ENGINEER INURE ONLY TO THOSE TWO PARTIES.

ERRORS OR OMISSIONS IN THE DRAWINGS OR SPECIFICATIONS: PRIOR TO INITIATION OF THE WORK, THE CONTRACTOR SHALL CHECK DIMENSIONS, GRADES, ELEVATIONS AND THE SUMMARY OF ESTIMATED QUANTITIES SHOWN ON THE DRAWINGS TO ASSURE HIMSELF THAT THEY ARE CORRECT AND THAT THE WORK CAN BE ACCOMPLISHED AS INTENDED. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY APPARENT ERROR OR OMISSION WHICH HE MIGHT DISCOVER, BUT SHALL IMMEDIATELY NOTIFY THE ENGINEER OF SUCH DISCOVERY, WHO WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS HE DEEMS NECESSARY FOR REFLECTING THE ACTUAL SPIRIT AND INTENT OF THE DRAWINGS AND SPECIFICATIONS.

BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION WAS PROVIDED BY CULPEPPER & TERPENING, INC. , (772) 464-3537.

HORIZONTAL AND VERTICAL CONTROL: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS IN THE LOCATIONS SHOWN ON THE DRAWINGS, AND SHALL USE AS HORIZONTAL CONTROL POINTS THE EXISTING PROPERTY CORNERS AS SHOWN ON THE PLAN SHEET. THE HORIZONTAL CONTROL POINTS WERE PROVIDED BY CULPEPPER & TERPENING, INC. , (772) 464-3537. AS VERTICAL CONTROL, BENCHMARKS SHALL BE PROVIDED AT THE SITE, FOR USE IN ESTABLISHING THE NECESSARY ELEVATIONS AND GRADES AT THE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL CONTROL POINTS AND TO RE-ESTABLISH SAID POINTS AS NECESSARY. REMAINING HORIZONTAL AND VERTICAL CONTROL WORK SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS AND DETAILS.

WRITTEN DIMENSIONS ARE PROVIDED FOR CLARITY. WHERE WRITTEN AND SCALED DIMENSIONS CONFLICT, WRITTEN DIMENSIONS SHALL GOVERN.

COORDINATION OF WORK WITH OTHERS: THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OR IMPROVEMENTS OF OTHERS WITH REGARD TO NEW CONSTRUCTION, OR FOR THE NEED OF REMOVAL, RELOCATION OR ALTERATION OF EXISTING IRRIGATION AND DRAINAGE FACILITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE OWNER, HIS CONTRACTORS, SUBCONTRACTORS OR AGENTS.

THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PUBLIC AGENCIES PRIOR TO COMMENCING THE WORK WITHIN THEIR JURISDICTION.

SHOP DRAWINGS: ONE DIGITAL COPY OF SIGNED SHOP DRAWINGS AND SIGNED AND SEALED DESIGN DATA SHALL BE SUBMITTED PRIOR TO ORDERING MATERIALS. ALLOW 10 WORK DAYS TURNAROUND FOR SUBMITTALS.

STANDARDS FOR QUALITY AND WORKMANSHIP: ALL MATERIALS, EQUIPMENT AND SUPPLIES FURNISHED BY THE CONTRACTOR FOR PERMANENT INCORPORATION IN THE WORK SHALL BE NEW AND OF THE QUALITY STANDARDS SPECIFIED. WORKMANSHIP SHALL BE FIRST-CLASS AND THE FINISHED PRODUCT EQUAL TO THE BEST ACCEPTED STANDARDS OF THE TRADE FOR THE CATEGORY OF WORK PERFORMED.

TEMPORARY UTILITIES: ALL ARRANGEMENTS AND COSTS FOR TEMPORARY POWER, WATER AND WASTEWATER FACILITIES DURING CONSTRUCTION SHALL BE RESPONSIBILITY OF THE CONTRACTOR.

OBSERVING THE WORK: THE PROGRESS AND QUALITY OF THE WORK WILL BE OBSERVED BY THE OWNER'S ENGINEER OR ENGINEER'S APPOINTED EMPLOYEE. NO OBSERVER IS AUTHORIZED TO CHANGE ANY PROVISIONS OF THE SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION OF THE OWNER'S ENGINEER, NOR SHALL THE PRESENCE NOR THE ABSENCE OF AN OBSERVER RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 48 HOURS NOTICE PRIOR TO REQUIRED INSPECTIONS, AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

IN ADDITION TO THE REQUIREMENTS PREVIOUSLY REFERENCED, THE FOLLOWING MINIMUM CONSTRUCTION CONTROL CHECKPOINTS SHALL BE ADHERED TO, AND THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE FOR OBSERVATION:

1. PRIOR TO ANY DEVIATION FROM THE DRAWINGS;
2. PRIOR TO ANY BACKFILLING TRENCHES CONTAINING HYDRAULIC CONDUITS, SO THAT JOINTING MAY BE INSPECTED;
3. PRIOR TO TESTING OF ALL HYDRAULIC CONDUITS.
4. PRIOR TO PLACEMENT OF ROADWAY BASE MATERIAL, CONCRETE OR ASPHALTIC CONCRETE.
5. UPON COMPLETION OF CONSTRUCTION FOR FINAL INSPECTION WITH THE CONTRACTOR OR HIS REPRESENTATIVE.

TESTING: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE INDEPENDENT TESTING LABORATORY DESIGNATED BY THE OWNER, THE TESTING AND RETESTING NECESSARY TO ASSURE THAT THE WORK HAS BEEN PERFORMED IN STRICT COMPLIANCE WITH THE SPECIFICATIONS. COST FOR THE INITIAL TESTING SHALL BE BORNE BY THE OWNER. ANY RETESTS REQUIRED DUE TO FAILURE TO MEET THE MINIMUM REQUIREMENTS SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR. THE NAME OF OWNER'S TESTING LABORATORY SHALL BE SUPPLIED AT THE PRECONSTRUCTION MEETING.

EXISTING UTILITIES AND STRUCTURES: EXISTING UTILITIES, STRUCTURES AND FACILITIES SHOWN ON THE DRAWINGS WERE LOCATED AS ACCURATELY AS POSSIBLE FROM THE RECORDS EXAMINED. NO GUARANTEE IS MADE THAT ALL EXISTING FACILITIES ARE SHOWN OR THAT THOSE SHOWN ARE ENTIRELY ACCURATE. THE CONTRACTOR SHALL ASSURE HIMSELF OF THE ACTUAL LOCATION OF THE UTILITIES, STRUCTURES OR FACILITIES PRIOR TO PERFORMANCE OF ANY WORK IN THE VICINITY. THE UTILITY COMPANIES OR UTILITY AGENCIES WILL CO-OPERATE WITH THE CONTRACTOR IN LOCATING UNDERGROUND UTILITIES THAT MAY BE SUBJECT TO DAMAGE OR INTERRUPTION OF SERVICES DURING THE CONTRACTOR'S OPERATIONS. PRIOR TO START OF THE WORK, THE CONTRACTOR SHALL REQUEST THAT EACH UTILITY AGENCY ADVISE HIM OF THE LOCATION OF THEIR FACILITIES IN THE VICINITY. THE OWNER WILL ASSUME NO LIABILITY FOR DAMAGES SUSTAINED OR COSTS INCURRED BECAUSE OF THE CONTRACTOR'S OPERATION IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, OR TO THE TEMPORARY BRACING AND SHORING OF SAME. IN THE EVENT THAT IT IS NECESSARY TO SHORE, BRACE OR SWING A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION SECURED AS TO THE METHOD USED FOR ANY SUCH WORK.

THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL NOTIFY UTILITY OWNER THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (800-432-4770) AND UTILITY OWNERS LISTED BELOW AT LEAST TWO BUSINESS DAYS (OR 10 DAYS IF ON THE JOB SITE).

RESTORATION OF DAMAGED STRUCTURES OR UTILITIES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING UTILITIES, STRUCTURES, EQUIPMENT, APPURTENANCES OR FACILITIES. OTHER THAN THOSE TO BE PAID FOR UNDER THIS CONTRACT, WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION, AT NO COST TO THE OWNER.

FINAL CLEANUP: UPON COMPLETION OF THE WORK BUT BEFORE FINAL PAYMENT WILL BE MADE, THE CONTRACTOR SHALL CLEAR AND REMOVE FROM THE PROJECT AREA, ALL FALSE WORK, EQUIPMENT, SURPLUS AND DISCARDED MATERIALS, RUBBISH AND TEMPORARY STRUCTURES WHICH RESULT FROM THE WORK UNDER THIS AGREEMENT, AND SHALL RESTORE IN AN ACCEPTABLE MANNER ALL PROPERTY WHICH HAS BEEN DAMAGED DURING THE EXECUTION OF THE WORK.

TECHNICAL SPECIFICATIONS

MATERIALS, CONSTRUCTION METHODS, TESTING AND TOLERANCES FOR ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, AND WITH THE SPECIFICATIONS REFERENCED UNDER THE "SUPPLEMENTAL CONDITIONS." IN THE EVENT OF CONFLICT, THE MORE STRINGENT PROVISION SHALL APPLY.

1. MOBILIZATION/DEMOBILIZATION: THE WORK SPECIFIED IN THIS SECTION CONSISTS OF THE PREPARATORY WORK AND OPERATIONS IN MOBILIZING FOR BEGINNING WORK ON THE PROJECT, INCLUDING, BUT NOT LIMITED TO, THOSE OPERATIONS NECESSARY FOR THE MOVEMENT OF PERSONNEL, EQUIPMENT, SUPPLIES, AND INCIDENTALS TO THE PROJECT SITE, AND FOR THE ESTABLISHMENT OF TEMPORARY OFFICES, BUILDINGS, SAFETY EQUIPMENT AND FIRST AID SUPPLIES, SANITARY AND OTHER FACILITIES, AS REQUIRED BY THESE SPECIFICATIONS, THE SPECIAL PROVISIONS, AND STATE AND LOCAL LAWS AND REGULATIONS. ALL COSTS FOR BONDS, PERMITS AND ANY REQUIRED INSURANCE, AND ANY OTHER PRECONSTRUCTION EXPENSE NECESSARY FOR THE START OF THE WORK, AS WELL THE COST OF THE REMOVAL OF THE ABOVE ITEMS, SHALL ALSO BE INCLUDED IN THIS SECTION.
2. CONSTRUCTION SURVEYING: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS AT THE LOCATIONS SHOWN ON THE PLANS, AS OUTLINED IN THE "SUPPLEMENTAL CONDITIONS," THE OWNER SHALL PROVIDE BASIC REFERENCE POINTS FOR HORIZONTAL CONTROL AND BENCHMARKS IN THE VICINITY OF THE WORK. ALL OTHER CONSTRUCTION STAKING FOR BOTH HORIZONTAL AND VERTICAL CONTROL NEEDED BY THE CONTRACTOR FOR CONTROL OF HIS WORK SHALL BE PERFORMED BY THE CONTRACTOR.
3. DRAINAGE IMPROVEMENTS: THE CONTRACTOR SHALL PROVIDE ALL THE MATERIALS AND LABOR NECESSARY TO COMPLETE THE PROJECT WORK OF THE DRAINAGE IMPROVEMENTS AT THE LOCATION, SIZE AND TYPE SHOWN ON THE PLANS FOR THE FOLLOWING ITEMS IN ACCORDANCE WITH FDOT SPECIFICATIONS. INCLUDED IN THE UNIT COSTS FOR EACH ITEM SHALL BE THE COSTS ASSOCIATED WITH THE DESIGN AND CONSTRUCTION, BY THE CONTRACTOR, TO COMPLY WITH THE TRENCH SAFETY ACT, LAWS OF FLORIDA, CHAPTER 90-96.

   BACKFILL AND COMPACTION OF TRENCHING FOR CULVERT INSTALLATION UNDER THIS SECTION SHALL BE IN ACCORDANCE WITH SECTION 125-8.3, FDOT SPECIFICATIONS. DENSITY TESTS SHALL BE PROVIDED AT THE FOLLOWING VERTICAL LOCATIONS:

   - TWO TESTS* AT SPRINGLINE (ONE EACH SIDE OF THE PIPE);
   - ONE TEST* AT ONE-FOOT ABOVE PIPE; AND
   - ONE TEST* AT ONE-FOOT BELOW SUBGRADE OR FINISH GRADE.
   - *DENSITY OF AT LEAST 100% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T -99, METHOD C.

   THE MINIMUM NUMBER OF HORIZONTAL TEST LOCATIONS IS TWO PER CULVERT INSTALLATION, ONE PER 100 LINEAL FEET OF PIPE AND/OR ONE PER 20 FEET OF PAVEMENT CROSSING WHICHEVER IS GREATER. ADDITIONAL TESTS MAY BE REQUIRED AT MORE FREQUENT INTERVALS IF DEEMED NECESSARY BY THE ENGINEER.

   A. CULVERTS: CONSTRUCTION METHODS FOR DRAINAGE CULVERTS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 125 AND 430, FDOT SPECIFICATIONS. PIPE MATERIAL AS SPECIFIED ON THE PLANS.

   B. DRAINAGE STRUCTURES: PRE-CAST CONCRETE CATCH BASINS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATIONS C-478 AND FOOT STANDARD SPECIFICATION 425. CONCRETE FOR PRE-CAST BASINS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. SHOP DRAWINGS ARE REQUIRED.
6. FENCING AND GATES: THE CONTRACTOR SHALL FURNISH AND CONSTRUCT CHAIN-LINK FENCE AND GATES IN ACCORDANCE WITH FPL CHAIN LINK FENCE SPECIFICATIONS AND DETAILS. MATERIALS AND LOCATION OF FENCE ARE INDICATED ON THE PLANS.
7. EROSION AND POLLUTION CONTROL: THE CONTRACTOR SHALL TAKE SUFFICIENT PRECAUTIONS TO PREVENT WATER POLLUTION WITH AQUATIC WEEDS, FUELS, OILS, BITUMINOUS, CALCIUM CHLORIDE OR OTHER HARMFUL MATERIALS. ALSO, THEY SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID POLLUTION OR SILTATION OF WATER BODIES OR TO INTERFERE WITH INDIGENOUS WILDLIFE. THE INSTALLATION OF TEMPORARY EROSION AND POLLUTION CONTROL FEATURES SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONTRACT. ANY EROSION OR SHOALING SHALL BE CORRECTED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE. DUE TO UNANTICIPATED CONDITIONS, THE ENGINEER MAY DIRECT THE USE OF CONTROL FEATURES OR METHODS OTHER THAN THOSE INCLUDED IN THE ORIGINAL CONTRACT. IN SUCH EVENT THIS ADDITIONAL WORK WILL BE PAID FOR AS UNFORESEEABLE WORK.

   1) SEDIMENT BARRIERS SHALL BE PLACED PRIOR TO ANY WORK ON THE SITE. SEDIMENT BARRIERS SHALL BE PLACED AS DEPICTED AS SHOWN ON THE CONSTRUCTION PLANS.
   2) WETLAND AND WETLAND BUFFER AREAS ARE TO REMAIN UNDISTURBED. VEHICLE AND CONSTRUCTION EQUIPMENT TRAFFIC IS PROHIBITED WITHIN THESE AREAS.
   3) DAMAGED TURBIDITY CONTROLS SHALL BE REPAIRED PROMPTLY AND BEFORE ANY SUBSEQUENT RAINFALL.
   4) TURBIDITY CONTROLS SHALL REMAIN IN PLACE AND MAINTAINED AND REMOVED ONLY AFTER UPLAND CONSTRUCTION AREAS HAVE BEEN STABILIZED AS APPROVED BY THE ENGINEER OF RECORD
   5) CONTRACTOR SHALL COMPLY WITH NPDES AND EPA DISCHARGE ELIMINATION PERMIT, IN PARTICULAR SEDIMENT AND EROSION CONTROLS AND STORM WATER MANAGEMENT MEASURES SHALL BE STRICTLY FOLLOWED.
   6) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE NPDES AND RELATED STORM WATER PLAN FOR THE DURATION OF THE PROJECT. UPON COMPLETION THE CONTRACTOR SHALL REMOVE ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM AS REQUIRED.
   7) DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED & MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THOSE AREAS. THE SEEDING SHALL FOLLOWING TYPICAL CONSTRUCTION PRACTICES TO INSURE A YEAR ROUND STABILIZED AREA.
   8) CONTRACTOR SHALL COMPLY WITH SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPEC) REQUIREMENTS PURSUANT TO EPA RULES AND REGULATIONS.
   9) ALL CONSTRUCTION WASTE MATERIAL, INCLUDING BUT NOT LIMITED TO THE EXISTING BARB WIRE FENCING AND POSTS, SHALL BE COLLECTED AND STORED IN A SECURED METAL DUMPSTER RENTED / LEASED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER / CONSTRUCTION TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
   10) ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS AT A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
   11) TRUCKS / EQUIPMENT IMPORTING OR EXPORTING FILL SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
   12) ALL HAZARDOUS WATER MATERIAL SHALL BE DISPOSED OF AS PER LOCAL / STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THESE PRACTICES.
   13) DRIVEWAY ACCESS SHALL BE CONSTRUCTED PER FDOT INDEX 106 TO MINIMIZE THE VEHICLES TRACKED SEDIMENTS TRANSPORTED OFFSITE.
   14) THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT INDIVIDUALS, TYPICALLY THREE, WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT OF INSPECTION REPORTS. PERSONNEL SELECTED SHALL RECEIVE PROPER TRAINING, AT THE CONTRACTORS EXPENSE, PRIOR TO SITE CONSTRUCTION COMMENCEMENT.
   15) ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN RAINFALL. ALL CONTROLS MUST BE IN PROPER ORDER AS REQUIRED UNTIL SITE COMPLETION.
   16) SILT FENCE SHALL BE INSPECTED FOR TEARS, DEPTH OF SEDIMENT, AND TO INSURE THE FENCE IS SECURELY FASTENED TO THE POSTS AND ALSO THAT POSTS ARE FIRMLY IN PLACE. SEDIMENT SHALL BE REMOVED IF THE DEPTH OF SEDIMENT IS GREATER THAN ONE-THIRD THE HEIGHT OF THE SILT FENCE.
   17) THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE TURBIDITY CONTROLS IN THE REPORT FORM FOR THIS PURPOSE. A COPY OF ALL RECORDING AND REPORTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.

   GENERAL SEQUENCE OF MAJOR EROSION AND POLLUTION CONTROL EVENTS:

   1) INSTALL EROSION CONTROL AT LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
   2) COMMENCE SITE CONSTRUCTION ACTIVITIES.
   3) AS PROPOSED DRAINAGE IS CONSTRUCTED, INSTALL SILT FENCE AND/OR TURBIDITY CONTROL MEASURES AT EACH.
   4) INSTALL TEMPORARY SEED AND MULCH IN AREAS WHERE CONSTRUCTION TEMPORARILY CEASES FOR AT LEAST 21 DAYS, NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES IN THAT AREA.
   5) INSTALL PERMANENT SEED/MULCH OR APPROVED STABILIZATION METHOD AND/OR PLANTING IN AREAS WHERE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITIES.
   6) REMOVE ACCUMULATED SEDIMENT.
   7) REMOVED TEMPORARY POLLUTION PREVENTION MEASURES AFTER ALL CONSTRUCTION ON SITE HAS BEEN COMPLETED AND DISPOSED OF MATERIALS ACCORDING TO APPLICABLE FDEP REGULATIONS AND/OR LOCAL GOVERNMENTAL CODES, ETC.
9. RECORD DRAWINGS: AFTER COMPLETION OF THE CONTRACT WORK, BUT PRIOR TO SUBMITTAL OF THE REQUEST FOR FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE FINAL RECORD DRAWINGS TO THE OWNER OF THE IMPROVEMENTS. THE RECORD DRAWINGS SHALL ALSO BE SUBMITTED DIGITALLY IN AUTOCAD / *.DWG FORMAT. THE RECORD DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FORT PIERCE, ST. LUCIE COUNTY, AND FDEP, AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

   THE FINAL LOCATION, BY REFERENCE TO AT LEAST TWO COMPLETED VISIBLE IMPROVEMENTS OR OTHER PERMANENT POINTS, OF ALL PAVING AND DRAINAGE ELEMENTS, AND SHALL INCLUDE ELEVATIONS OF PERTINENT POINTS IN THE PAVEMENT AND DRAINAGE IMPROVEMENTS, ALL REVISIONS TO THE ORIGINAL PLANS, VERIFICATION OF ALL DESIGN DIMENSIONS, ELEVATIONS, PIPE SLOPES, PIPE LENGTHS, INLETS AND CONTROL STRUCTURES LOCATION AND ELEVATIONS AND ALL OTHER INFORMATION NECESSARY TO HORIZONTALLY AND VERTICALLY LOCATE AND OPERATE THE IMPROVEMENTS CONSTRUCTED UNDER THIS CONTRACT.

   DRAWINGS SHALL INCLUDE:

   A. INDICATION OF ANY CHANGES OR VERIFICATIONS GET MARKED
   B. INDICATION OF ALL "PROPOSED" OR "CONSTRUCTS"
   C. CHANGES TO LOCATIONS OF PIPE, VALVES, FITTINGS OR MANHOLES, ETC.
   D. DETAIL BOX OF ANY SUBSTANTIAL CHANGES
   E. ALL ELEVATIONS FOR MANHOLES AND LIFT STATIONS
   F. ALL GRADES AND FOOTAGE ON SANITARY RUNS

   THE CONTRACTOR SHALL PROVIDE RECORD DRAWING PRINTS AND ONE COPY OF CERTIFIED FIELD NOTES TO THE OWNER THAT ARE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. PAYMENT FOR THE RECORD DRAWINGS SHALL BE ON A LUMP SUM BASIS.

DEWATERING:
CONSTRUCTION DEWATERING MAY REQUIRE A PERMIT FROM SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD). IF DEWATERING IS TO TAKE PLACE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DEWATERING PERMIT FOR HIS WORK.

LEGAL DESCRIPTION SOURCE (ORB 4843, PG 2274)

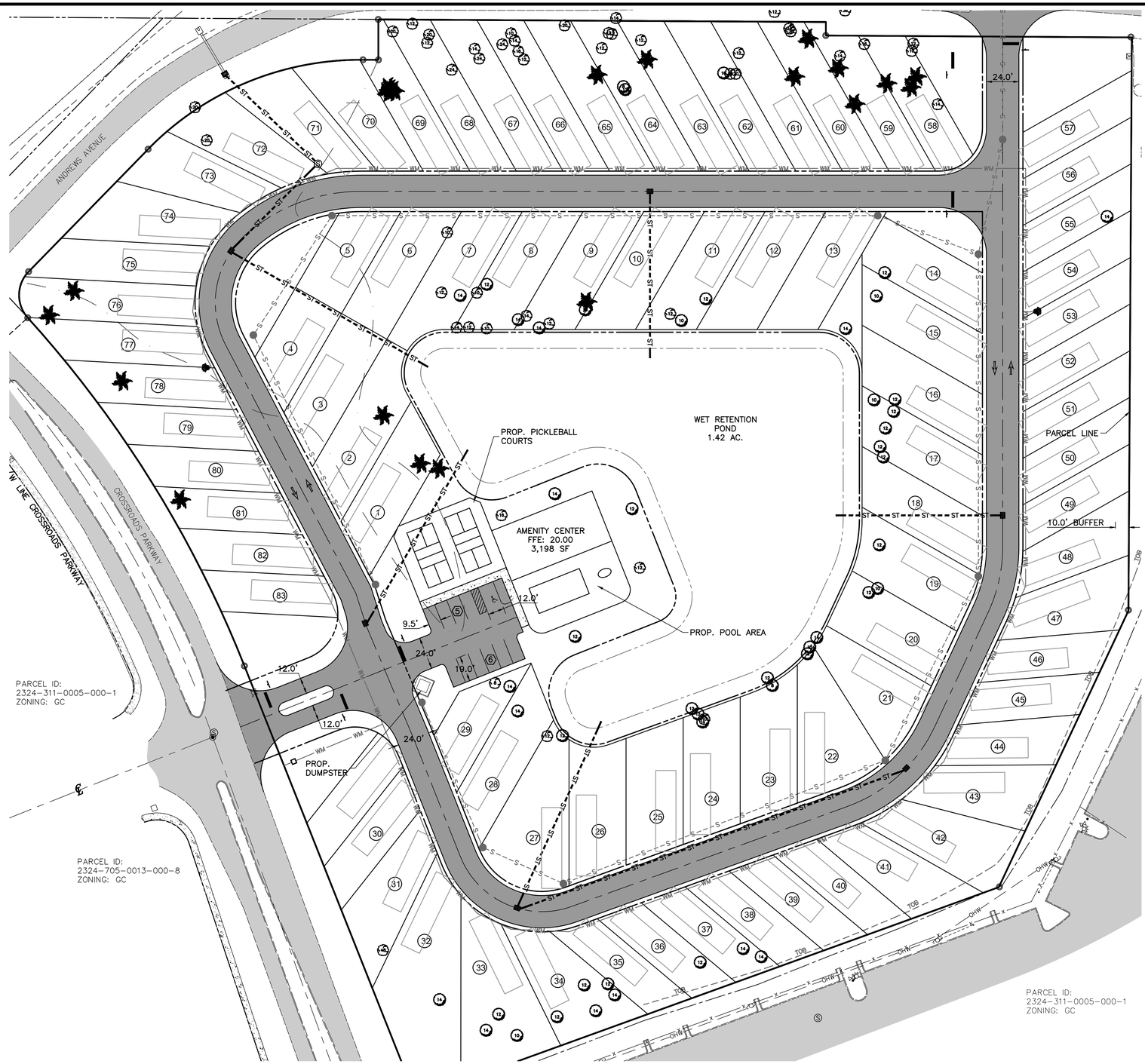
THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, AND A PORTION OF LOTS 3 AND 6 OF BOSTON AND FLORIDA ATLANTIC COAST LAND CO. SUBDIVISION OF SECTION 24, AS RECORDED IN PLAT BOOK 3 AT PAGE 32 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 24 AND RUN SOUTH 00°07'24" EAST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, FOR 15.00 FEET; THENCE RUN SOUTH 89°41'32" EAST 15.00 FEET SOUTH OF AND PARALLEL TO THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 24, ALONG THE SOUTH RIGHT OF WAY LINE OF ANDREWS AVENUE (A 30 FOOT WIDE RIGHT OF WAY) FOR 739.44 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89°41'32" E ALONG SAID RIGHT OF WAY FOR 919.16 FEET; THENCE RUN SOUTH 00°06'01" EAST FOR 10.00 FEET; THENCE RUN SOUTH 89°41'29" EAST FOR 226.79 FEET; THENCE RUN SOUTH 00°18'28" WEST FOR 425.04 FEET; THENCE RUN SOUTH 25°04'02" WEST FOR 226.43 FEET; THENCE RUN SOUTH 70°04'02" WEST FOR 459.41 FEET; THENCE RUN NORTH 21°40'15" WEST FOR 344.63 FEET TO A POINT OF CURVETURE OF A CIRCULAR CURVE TO THE LEFT, CONCAVE SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 855.00 FEET THROUGH A CENTRAL ANGLE OF 47°21'31" FOR 706.71 FEET TO THE POINT OF BEGINNING, LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA.

LESS AND EXCEPTING THEREFROM THE FOLLOWING DESCRIBED REAL PROPERTY CONVEYED TO SUNDIAL HOMES, INC BY DEED RECORDED IN OR BOOK 1150, PAGE 2226, OF THE PUBLIC RECORDS OF ST, LUCIE COUNTY, FLORIDA:

COMMENCE AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 35 SOUTH, RANGE 39 EAST, ST. LUCIE COUNTY, FLORIDA, SAID POINT LYING ON THE CENTERLINE OF ANDREWS AVENUE, A 30 WIDE ROAD RIGHT OF WAY, THENCE RUN SOUTH 00°06'16" EAST ALONG THE EAST LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 24, A DISTANCE OF 15.00 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF ANDREWS AVENUE AND THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THENCE CONTINUE SOUTH 00°06'16" EAST A DISTANCE OF 30 FEET; THENCE RUN NORTH 89°41'32" WEST, PARALLEL TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 24, A DISTANCE OF 11.88 FEET TO A POINT OF CURVATURE; THENCE RUN ALONG THE ARC OF A CURVE C



0 40' 80'
SCALE: 1" = 40'



LOCATION MAP

SITE PLAN SUMMARY

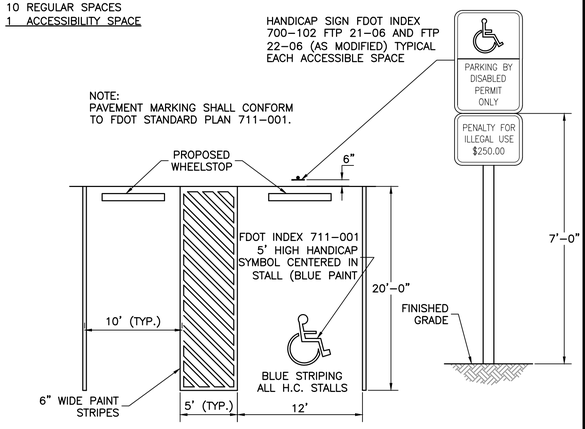
1. PROJECT NAME: CROSSROADS RV PARK
2. PARCEL ID: 2324-312-0005-000-4
3. LOCATION: INTERSECTION OF CROSSROADS PKWY, & ANDREWS AVE.
4. SECTION/TOWNSHIP/RANGE: 24 35S 39E
5. OWNER: ALEXANDER GEORGE & COMPANY
   14800 INDRIO RD.
   FORT PIERCE, FL 34945
6. TYPE OF PROJECT: SITE PLAN (DEVELOPMENT REVIEW)
7. ZONING: GC
8. FUTURE LAND USE: GC
9. FLOOD ZONE:
10. TOTAL PROJECT AREA: 474,804 S.F. (10.90 AC.)
11. LOT COVERAGE OF STRUCTURES: 3,198 S.F.
12. IMPERVIOUS/PERVIOUS:
    SURFACE COVERAGE
    PERVIOUS:
    OPEN SPACE: 269,007 S.F./6.18 AC./57.3%
    IMPERVIOUS:
    RV PADS: 74,700 S.F./1.71 AC./15.7%
    ROADWAY: 57,874/1.33 AC./12.2%
    AMENITY CENTER/POOL/PICKLEBALL AREA: 11,368 S.F./0.26 AC./1.8%
    WET POND: 61,855 S.F./1.42 AC./13.0%
    TOTAL AREA: 474.804 S.F. (10.90 AC.)
13. MINIMUM BUILDING SETBACKS

LOT LINES	REQUIRED	PROVIDED
FRONT	25'	47'
REAR	20'	22'
SIDE	10'	23'

14. PARKING SUMMARY
    10 REGULAR SPACES
    1 ACCESSIBILITY SPACE
    TOTAL: 11 SPACES

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- EX. OVERHEAD ELECTRIC
- PROP. STORMWATER PIPE
- PROP. WATER MAIN
- PROP. FORCEMAIN
- PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.



NOTE: REFER TO GENERAL NOTES FOR LEGAL DESCRIPTION

HANDICAP PARKING DETAIL

N.T.S.

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

SITE PLAN

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO GIANGRANDE LICENSE No. 66387 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROJECT #: 22-024

S-1

Storm MH
Rim:18.75
NW: 10.15
SW: 10.05
Bottom: 9.55

EXISTING DRAINAGE CULVERT

REPLACEMENT OF EXIST. MES WITH TYPE C INLET

PROP. 92 LF 18" RCP

PROP. SWALE

ANDREWS AVENUE

PROP. 86 LF 18" RCP

TYPICAL RV PAD, SEE DETAIL THIS SHEET

4" PVC W.M. (TYP)

INVERTED CROWN (TYP)

4" PVC W.M (TYP)

PROP. 122 LF 18" RCP

PROP. 168 LF 18" RCP

CONFLICT
BOP: 13.98
TOP: 11.45

CONFLICT
BOP: 12.76
TOP: 10.20

CONTROL ELEVATION
ELEV. 14.0

TOP OF BANK
ELEV. 17.0

PROP. 148 LF 18" RCP

PROP. DRY DETENTION AREA

CONFLICT
BOP: 12.44
TOP: 9.90

FFE: 20.00

PROP. 122 LF 18" RCP

PROP. 150 LF 18" RCP

PROP. 303 LF 18" RCP

OPEN LOT FOR STAGING

CONFLICT
BOP: 14.94
TOP: 11.00

CROSSROADS PARKWAY
(90.00' PUBLIC RIGHT-OF-WAY)
(P.B. 30, PG. 8)

CROSSROADS PARKWAY

W LINE CROSSROADS PARKWAY

PARCEL ID:
2324-311-0005-000-1
ZONING: GC

PARCEL ID:
2324-705-0013-000-8
ZONING: GC

STREET NAME
(XX.X' PUBLIC RIGHT-OF-WAY)
(XX' WIDE ASPHALT)

D-1
N: 1121539.06
E: 852317.77
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.40'
SE INVERT EL=9.95'
NE INVERT EL=10.05'
STRUCT. BOTT. EL=9.50'

D-2
N: 1121583.21
E: 852628.20
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.26'
S INVERT EL=8.70'
STRUCT. BOTT. EL=8.20'

D-3
N: 1121342.97
E: 852889.61
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.18'
W INVERT EL=8.40'
STRUCT. BOTT. EL=7.90'

D-4
N: 1121155.47
E: 852818.07
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.12'
W INVERT EL=10.00'
STRUCT. BOTT. EL=10.50'

D-5
N: 1121051.84
E: 852529.74
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.10'
NE INVERT EL=9.50'
E INVERT EL=9.60'
STRUCT. BOTT. EL=9.00'

D-6
N: 1121262.98
E: 852417.13
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.12'
NE INVERT EL=9.50'
NE INVERT EL=9.50'
STRUCT. BOTT. EL=9.00'

D-7
N: 1121670.32
E: 852313.21
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=15.00'
SE INVERT EL=10.50'
NW INVERT EL=14.50'
STRUCT. BOTT. EL=10.00'

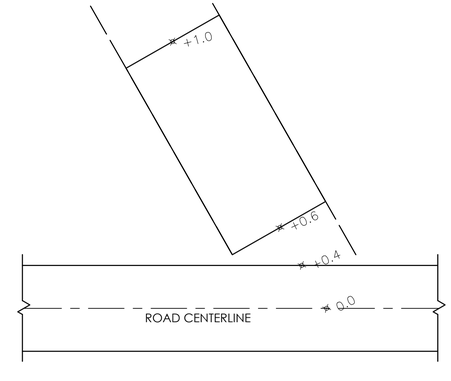
HW-1
N: 1011017.13
E: 889993.30
MITERED END SECTION (4:1)
FDOT INDEX 430-021
18" RCP FL EL = 12.00'

N

0 40' 80'
SCALE: 1" = 40'

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- OHU — EX. OVERHEAD ELECTRIC
- ST — PROP. STORMWATER PIPE
- WM — PROP. WATER MAIN
- FM — PROP. FORCEMAIN
- S — PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.



TYPICAL EXTERIOR RV PADS
N.T.S.

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

PAVING, GRADING, & DRAINAGE PLAN

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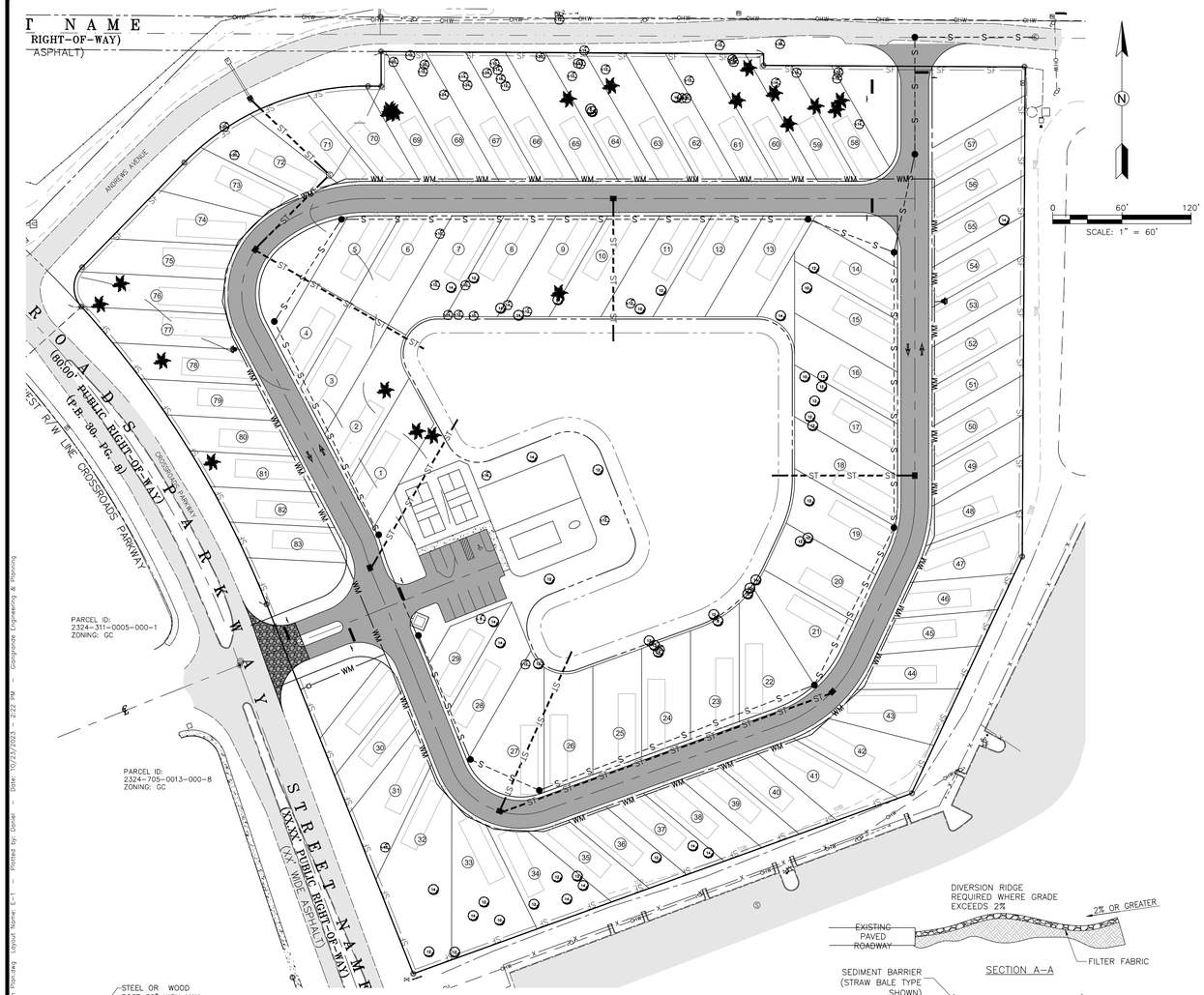
leo@gep.llc
Cert. No. 30901

LEO GIANGRANDE
No. 65382
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PROJECT #: 22-024

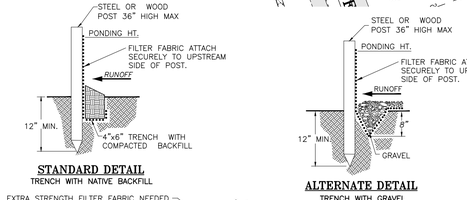
P-1

Drawing Name: S:\Shared Folders\GEP projects\2022\22-024 Crossroads Site Plan\Design\22-024 PG&D Plan.dwg Layout Name: P-1 - Plotted by: Devin Curran - Date: 10/23/2023 - 3:38 PM - Giangrande Engineering & Planning



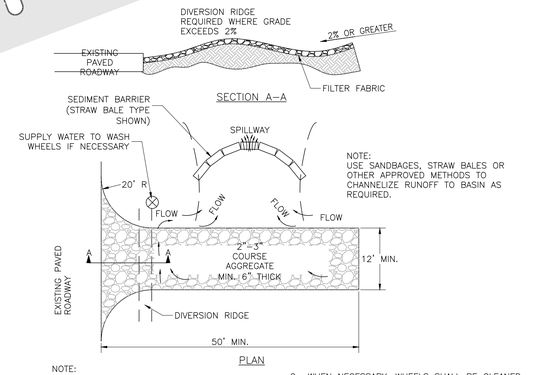
EROSION CONTROL NOTES:

1. THIS PROJECT IS SUBJECT TO ALL RELATED ENVIRONMENTAL REQUIREMENTS WHICH INCLUDE A "CONTROL OF EROSION AND SEDIMENTATION PLAN". THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION DUE TO SEDIMENTATION RUNOFF FROM THE SITE PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE DIRECTED BY THE ENGINEER AS REQUIRED.
2. EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAIN EVENT FOR DAMAGE AND GENERAL EFFECTIVENESS. ANY DAMAGED OR INEFFECTIVE CONTROLS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.
3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED, IF DEEMED NECESSARY, BY THE ON-SITE INSPECTOR.
4. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. TEMPORARY AND PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL THE AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
6. ALL CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ON TO ANY PUBLIC RIGHT-OF-WAY. THIS SHALL REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS REQUIRE. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHT-OF-WAY OR INTO STORM DRAINS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
7. TURBIDITY SCREENS OR EQUIVALENT SHALL BE PROPERLY EMPLOYED AND MAINTAINED AS NECESSARY DURING CONSTRUCTION ACTIVITIES SO THAT TURBIDITY LEVELS DO NOT EXCEED 29 NTU'S ABOVE NATURAL BACKGROUND 50 FEET DOWNSTREAM OF POINT OF DISCHARGE. IF TURBIDITY LEVELS EXCEED THESE LIMITS, PROJECT ACTIVITIES SHALL IMMEDIATELY CEASE, AND WORK SHALL NOT RESUME UNTIL TURBIDITY LEVELS DROP TO WITHIN THESE LIMITS.
8. CONTRACTOR SHALL SOD GRASS AREAS DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
9. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).
11. SEDIMENT BARRIERS SHALL BE PLACED PRIOR TO ANY WORK ON THE SITE. SEDIMENT BARRIERS SHALL PLACED AS DEPICTED AS SHOWN ON THESE CONSTRUCTION PLANS.
12. PRESERVE AREAS ARE TO REMAIN UNDISTURBED. VEHICLE AND CONSTRUCTION EQUIPMENT TRAFFIC IS PROHIBITED WITHIN THESE AREAS.
13. DAMAGED TURBIDITY CONTROLS SHALL BE REPAIRED PROMPTLY AND BEFORE ANY SUBSEQUENT RAINFALL.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE NPDES AND RELATED STORM WATER PLAN FOR THE DURATION OF THE PROJECT. UPON COMPLETION THE CONTRACTOR SHALL REMOVED ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM AS REQUIRED.
15. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED & MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREAS. THE SEEDING SHALL FOLLOWING TYPICAL CONSTRUCTION PRACTICES TO INSURE A YEAR ROUND STABILIZED AREA.
16. CONTRACTOR SHALL COMPLY WITH SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPEC) REQUIREMENTS PURSUANT TO EPA RULES AND REGULATIONS.
17. ALL CONSTRUCTION WASTE MATERIAL SHALL BE COLLECTED AND STORED IN A SECURED METAL DUMPSTER RENTED / LEASED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER / CONSTRUCTION TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
18. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS AT A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
19. TRUCKS / EQUIPMENT IMPORTING OR EXPORTING FILL SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
20. ALL HAZARDOUS WATER MATERIAL SHALL BE DISPOSED OF AS PER LOCAL / STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THESE PRACTICES.
21. THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT INDIVIDUALS, TYPICALLY THREE, WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT OF INSPECTION REPORTS. PERSONNEL SELECTED SHALL BE RECEIVE PROPER TRAINING, AT THE CONTRACTORS EXPENSE, PRIOR TO SITE CONSTRUCTION COMMENCEMENT.
22. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN RAINFALL. ALL CONTROLS MUST BE IN PROPER ORDER AS REQUIRED UNTIL SITE COMPLETION.
23. SILT FENCE SHALL BE INSPECTED FOR TEARS, DEPTH OF SEDIMENT, AND TO INSURE THE FENCE IS SECURELY FASTENED TO THE POSTS AND ALSO THAT POSTS ARE FIRMLY IN PLACE. SEDIMENT SHALL BE REMOVED IF THE DEPTH OF SEDIMENT IS GREATER THAN ONE-THIRD THE HEIGHT OF THE SILT FENCE.
24. THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE TURBIDITY CONTROLS IN THE REPORT FORM FOR THIS PURPOSE. A COPY OF ALL RECORDING AND REPORTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.
25. THE REQUIREMENTS LISTED ABOVE AND DETAILS PRESENTED ON THIS SHEET SHALL BE CONSIDERED MINIMUM REQUIREMENTS AND THE CONTRACTOR SHALL USE WHATEVER METHODS THE CONTRACTOR DEEMS NECESSARY TO PREVENT EROSION AND SILTATION AS MAY BE REQUIRED FOR THE PROJECT.
26. LOCATIONS OF ANY MATERIALS TO BE TEMPORARILY STOCKPILED TO INCLUDE LAND CLEARING DEBRIS OR EXCAVATED MATERIALS SHALL BE PER THE DIRECTION OF THE MARTIN COUNTY PROJECT MANAGER.
27. PROPERTY CORNERS SHALL BE LOCATED BY A LICENSED LAND SURVEYOR AND CLEARLY MARKED IN THE FIELD PRIOR TO THE ENGINEERING DEPARTMENT'S PRE-CONSTRUCTION MEETING FOR SITE DEVELOPMENT.
28. AUTHORIZATION TO INSTALL EROSION CONTROL DEVICES AND PRESERVE BARRICADES WILL BE GRANTED AT THE PRE-CONSTRUCTION MEETING. THIS AUTHORIZATION SHALL BE POSTED ON THE SITE, IN THE PERMIT BOX, ITS LOCATION SHOWN ELSEWHERE ON THIS PAGE.
29. NO ADDITIONAL LAND CLEARING SHALL COMMENCE UNTIL A SATISFACTORY INSPECTION OF THE REQUIRED EROSION CONTROL BARRICADES HAS BEEN OBTAINED.
30. ALL CONSTRUCTION BARRICADES AND SILT FENCES WILL REMAIN IN PLACE AND BE MONITORED FOR COMPLIANCE BY THE PERMIT HOLDER DURING THE PERMITTED DEVELOPMENT ACTIVITIES.
31. PRIOR TO SCHEDULING A FINAL ENVIRONMENTAL INSPECTION FOR THE INFRASTRUCTURE, ALL BARRICADES AND EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.



NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOUR TO MAXIMIZE PONDING EFFICIENCY.
4. OVERLAP ALL JOINTS AT LEAST 6 FEET.

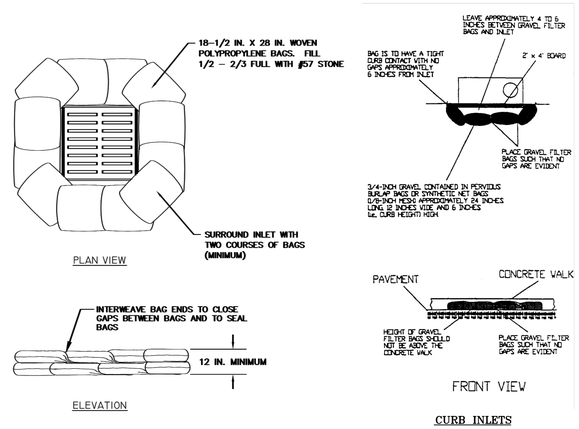
SILT FENCE DETAIL
N.T.S.



NOTE:
USE SANDBAGES, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
N.T.S



NOTES:
1. STONE FILL BAGS SHALL BE WOVEN POLYPROPYLENE BAGS WITH APPROXIMATE DIMENSIONS OF 18-1/2 INCHES BY 28 INCHES.
2. THE BAGS SHALL BE FILLED 1/2 TO 2/3 FULL WITH FDOT NO. 57 STONE. TIE THE ENDS OF FILLED BAGS USING EITHER DRAW STRINGS OR WIRE TIES.
3. INTERWEAVE THE LOOSE ENDS OF THE BAGS SO THAT THE GAPS BETWEEN BAGS ARE FILLED AND THE ENDS OF THE BAGS ARE SEALED.
4. COMPLETELY SURROUND THE INLET WITH A MINIMUM OF TWO (2) ROWS OF BAGS TO A MINIMUM OF 12 INCHES IN HEIGHT.

GRAVEL FILTER BAGS INLET PROTECTION DETAIL
NTS

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

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: 1"=60'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

EROSION PLAN

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STUART, FLORIDA 34994
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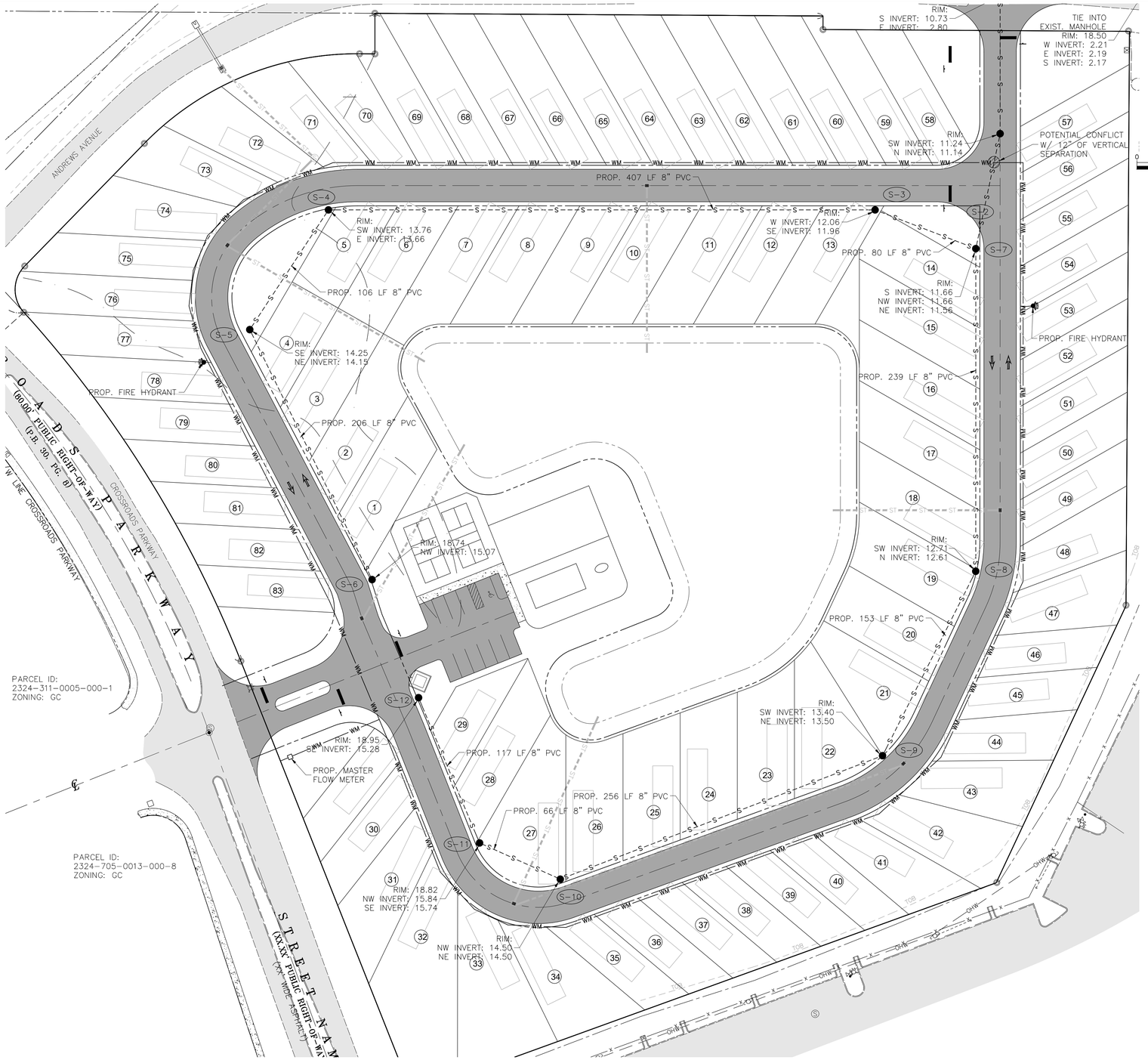
LEO GIANGRANDE LICENSE NO. 66387 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROJECT #: 22-024

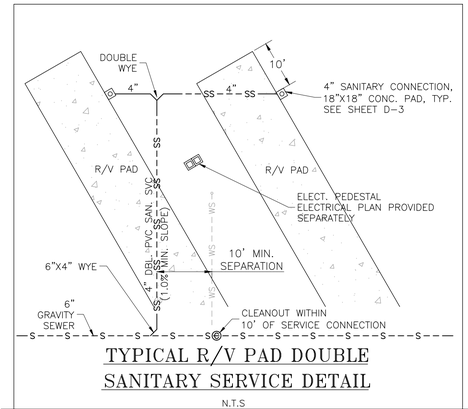
E-1

Drawing Name: S:\Shared Folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Erosion Plan.dwg Layout Name: E-1 - Plotted by: Daniel - Date: 10/03/2023 - 2:22 PM - Giangrande Engineering & Planning



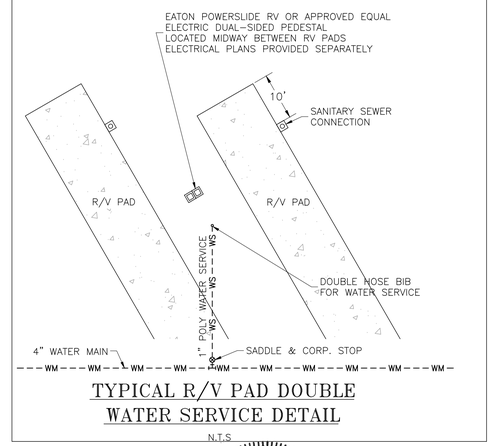
LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- EX. OVERHEAD ELECTRIC
- EX. WATER MAIN
- EX. FORCEMAIN
- PROP. STORMWATER PIPE
- PROP. WATER MAIN
- PROP. FORCEMAIN
- PROP. WATER SERVICE LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SERVICE LINE
- PROP. SANITARY CLEAN OUT
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- PROP. BUILDING



TYPICAL R/V PAD DOUBLE SANITARY SERVICE DETAIL

N.T.S



TYPICAL R/V PAD DOUBLE WATER SERVICE DETAIL

N.T.S

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

WATER & WASTEWATER PLAN

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO GIANGRANDE LICENSE No. 66387 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROJECT #: 22-024

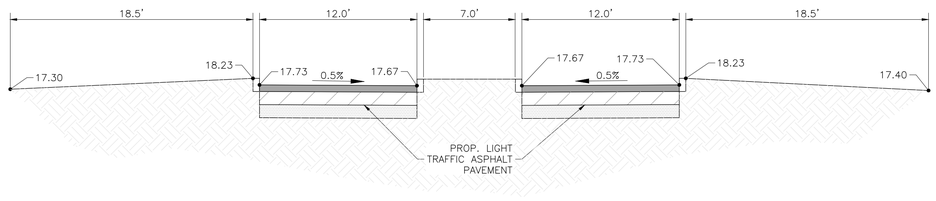
W-1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads ave psd\design\22-024 W&S Plan.dwg Layout Name: W-1 Plotted By: Daniel Date: 10/03/2023 2:22 PM Giangrande Engineering & Planning



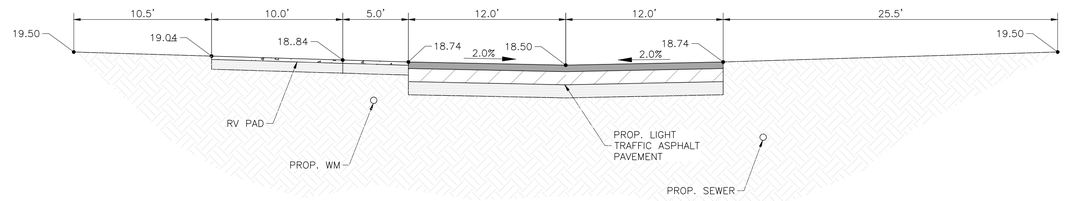
SECTION A–A

SCALE: 1"=5'



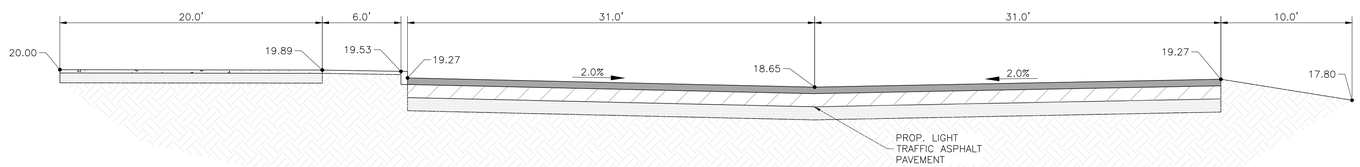
SECTION B–B

SCALE: 1"=5'



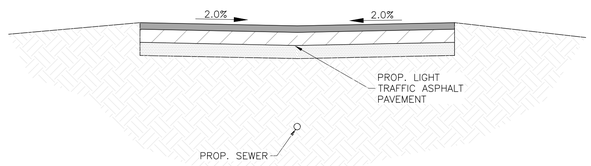
SECTION D–D

SCALE: 1"=5'



SECTION C–C

SCALE: 1"=5'



SECTION E–E

SCALE: 1"=5'

Drawing Name: S:\Shared Folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Cross Sections.dwg Layout Name: CS-1 – Plotted by: Daniel – Date: 10/23/2023

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: 1"=5'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

TYPICAL SECTIONS

GIANGRANDE ENGINEERING AND PLANNING
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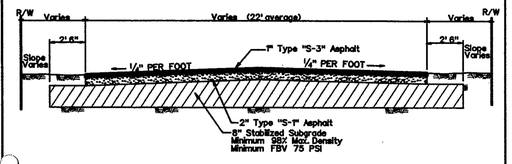
Cert. No. 30901

LEO GIANGRANDE
No. 66382
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PROJECT #: 23-007

CS-1



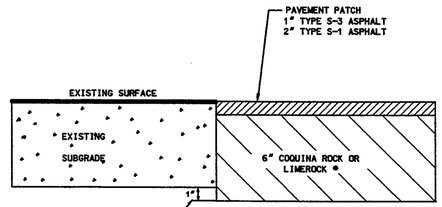
CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

PAVING DETAIL WITHOUT CURB AND GUTTER

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. PV1



* 6" LIMEROCK OR CRUSHED COQUINA COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO METHOD T-180

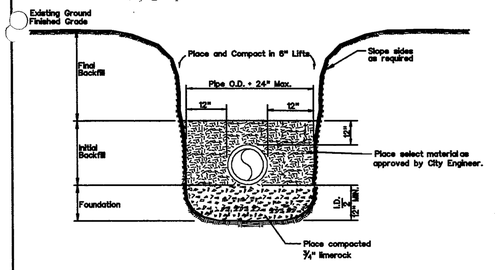
CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

PAVEMENT PATCHING

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. PV4



General Construction Notes:
1. All trenching shall comply with the requirements of the Florida Trench Safety Act.
2. Foundation -¾" LIMEROCK a minimum of 12" in depth.
3. Initial backfill - The material placed to 12" above the pipe shall be placed in six inch layers and compacted with mechanical tampers to at least 95% maximum density as determined by AASHTO T-99.
4. Final Backfill - To be placed in layers not to exceed one foot in thickness and compacted with appropriate equipment to at least 95% maximum density as determined by AASHTO T-99

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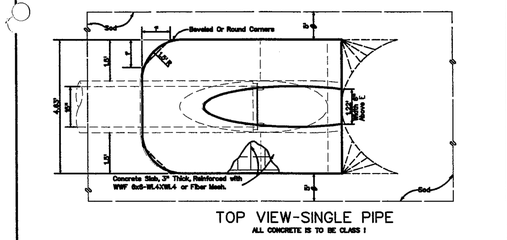
TECHNICAL SPECIFICATIONS AND DETAILS

TRENCH DETAIL

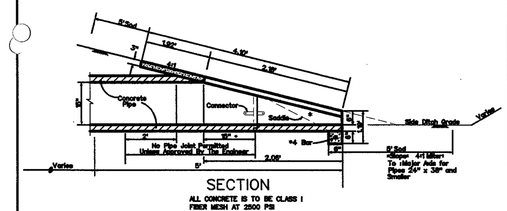
SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 4



TOP VIEW-SINGLE PIPE
ALL CONCRETE IS TO BE CLASS I



SECTION
ALL CONCRETE IS TO BE CLASS I
FIBER MESH AT 2500 PSI

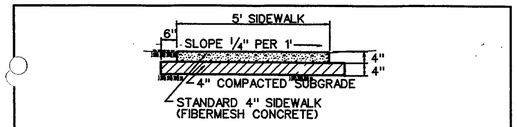
CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

MITERED END DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998

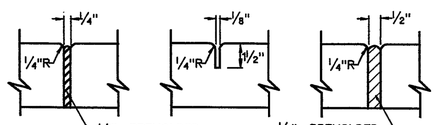
REVISIONS

SHEET No. DRA 5



STANDARD 4" SIDEWALK
(FIBERMESH CONCRETE)

General Construction Notes:
1. Concrete strength to be 2500 P.S.I. at 28 days.
2. Tooled dummy contraction joints every 5' (Type 'B' Joints)
3. Expansion joints w/premolded filler at 100' o/c (Type 'C' Joints)
4. Subbase to be 98% Density F.B.V. 75 P.S.I.
5. The concrete shall be given a broom finish and the edges of the sidewalk shall be finished with an edging tool having a radius of ½ inch



'A' At P.C. & P.T. of curves and at junction of existing and new sidewalks.
'B' 5' center to center on new sidewalks and 10' center to center on new curb and gutter
'C' Where new sidewalk abuts concrete curbs, driveway and similar structures.

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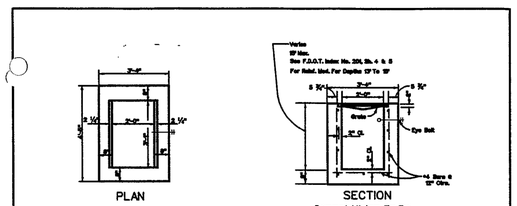
TECHNICAL SPECIFICATIONS AND DETAILS

TYPICAL 4" SIDEWALK DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. SW2



GENERAL NOTES
1. These inlets are suitable for bicycle and pedestrian areas and are to be used in ditches, medians and other areas not subject to frequent traffic loadings but are not to be placed in areas subject to any heavy wheel loads.
2. Inlets subject to ribbed debris should be constructed without slots. Where debris is a problem inlets should be constructed with slots. Skirted inlets located within roadway clear zones and in areas accessible to pedestrians shall have traversable slots. The traversable slot modification is not adaptable to Inlet Type H. Slots may be constructed at either or both ends as shown on plans.
3. Steel grates are to be used on all inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with traversable slots. Either cast iron or steel grates may be used on inlets without slots where bicycle traffic is not anticipated. Either cast iron or steel grates may be used on all inlets with non-traversable slots. Subject to the selection described above, when Alternate G grate is specified in the plans, either the steel grate, hot dipped galvanized after fabrication, or the cast iron grate may be used, unless the plans stipulate the particular type.
4. Recommended minimum pipe sizes shown are for concrete pipe. Pipe sizes larger than those recommended must be checked for fit.
5. All exposed corners and edges of concrete are to be chamfered ¾".
6. Pavement to be used on inlets without slots and inlets with non-traversable slots only when called for in the plans but required on all traversable slot inlets. Cost to be included in contract unit price for inlets. Quantities shown are for information only.
7. Traversable slots constructed in existing inlets shall be paid for on inlets partial, and shall include the cost for slot openings, paving and any required replacement grates.
8. Sodding to be used on all inlets not located in paved areas and paid for under contract unit price for Sodding SY.
9. For supplementary details see F.D.O.T. Specifications Index No. 201.

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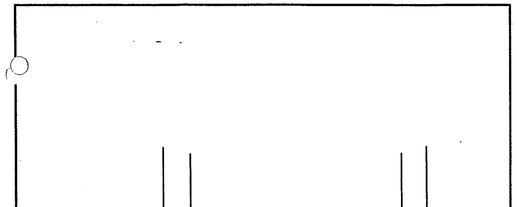
TECHNICAL SPECIFICATIONS AND DETAILS

TYPE "C" INLET

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 6



Note: Grout to consist of 3:1 Sand-Cement Mixture or any Class Concrete.

FOR ALL STRUCTURES UNLESS EXCLUDED BY SPECIAL DETAIL

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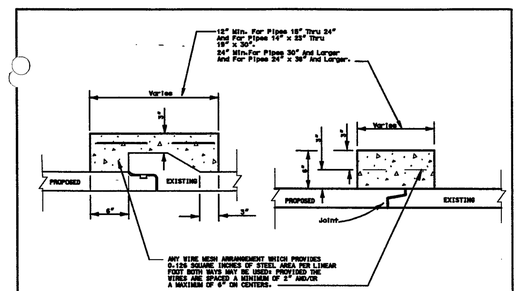
TECHNICAL SPECIFICATIONS AND DETAILS

DRAINAGE STRUCTURE INVERT

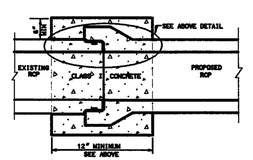
SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 20



BELL AND SPIGOT TONGUE & GROOVE



CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

CONCRETE COLLAR JOINT DETAIL

SCALE: N.T.S. | ISSUED AUGUST 1998

REVISIONS

SHEET No. DRA 3

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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710 SE OCEAN BLVD.
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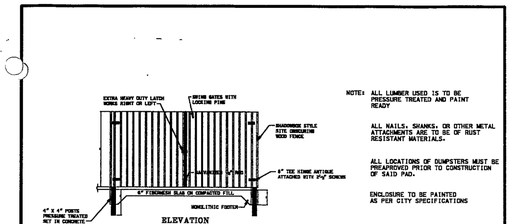
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO GIANGRANDE No. 66387 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROJECT #: 22-024

D-1

Drawing Name: S:\Shared folders\gep projects\2022\22-024 crossroads rv park\design\22-024 Details.dwg Layout Name: D-1 -- Plotted by: Daniel -- Date: 10/03/2023 -- 2:23 PM -- Giangrande Engineering & Planning

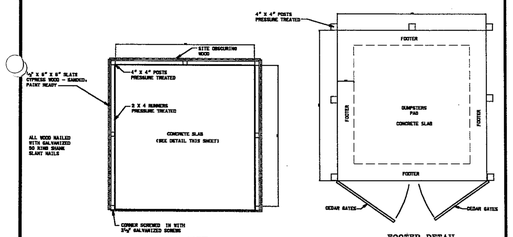


NOTE: ALL LUMBER USED IS TO BE PRESSURE TREATED AND PAINT READY

ALL NAILS, SHANKS, OR OTHER METAL ATTACHMENTS ARE TO BE OF RUST RESISTANT MATERIALS.

ALL LOCATIONS OF DUMPSTERS MUST BE PREAPPROVED PRIOR TO CONSTRUCTION OF SAID PAD.

ENCLOSURE TO BE PAINTED AS PER CITY SPECIFICATIONS



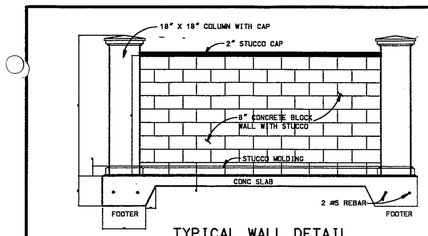
CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

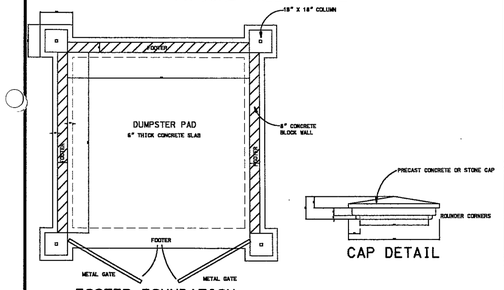
DUMPSTER PAD DETAILS

REVISIONS

SHEET No. 003

SCALE: N.T.S. | ISSUED AUGUST 1999





CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING
TECHNICAL SPECIFICATIONS AND DETAILS

DUMPSTER PAD DETAILS

REVISIONS

SHEET No. 003

SCALE: N.T.S. | ISSUED AUGUST 1999

Drawing Name: S:\Shared Folders\gep projects\2022\22-024 crossroads fpin\design\22-024 Details.dwg Layout Name: D-2 — Plotted by: Daniel — Date: 10/23/2023 — 2:23 PM — Gia

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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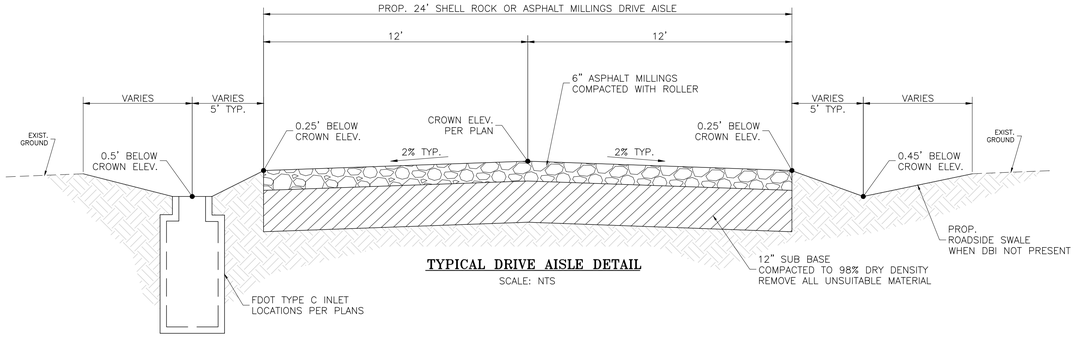
LEO GIANGRANDE LICENSE No. 66387 STATE OF FLORIDA PROFESSIONAL ENGINEER

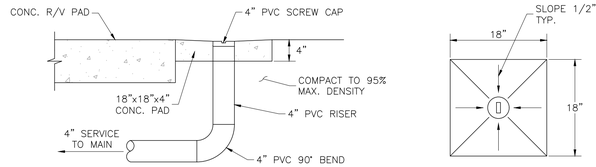
PROJECT #: 22-024

D-2



TYPICAL DRIVE AISLE DETAIL

SCALE: NTS

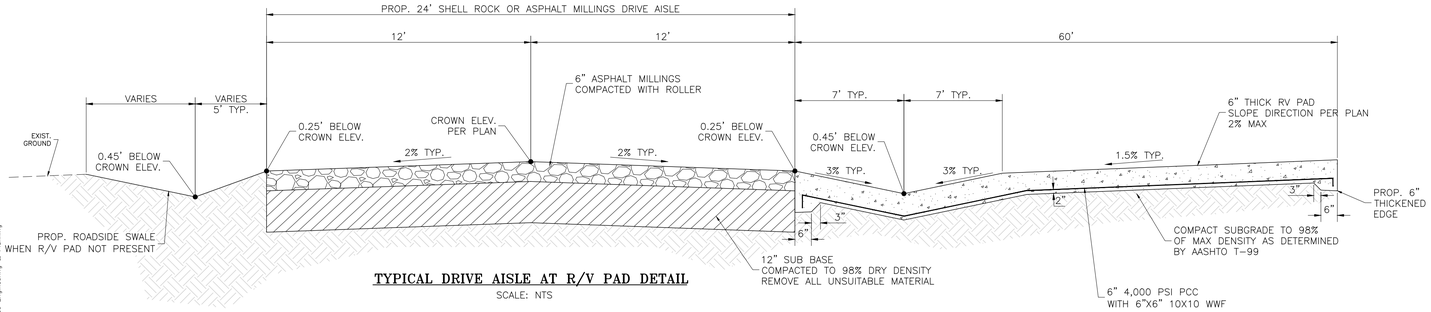


SECTION

PLAN VIEW

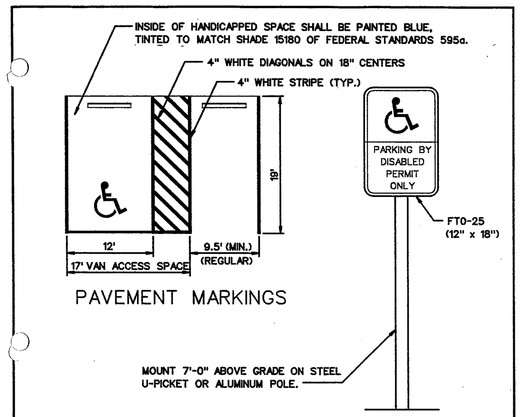
R/V PAD SANITARY CONNECTION DETAIL

N.T.S



TYPICAL DRIVE AISLE AT R/V PAD DETAIL

SCALE: NTS



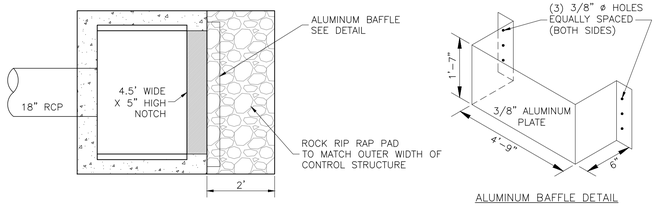
PAVEMENT MARKINGS

HANDICAPPED PARKING SIGN

NOTE:

FOR PARKING REQUIREMENTS SEE FORT PIERCE CODE.

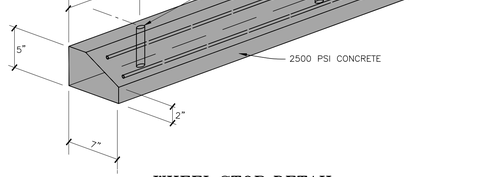
CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING TECHNICAL SPECIFICATIONS AND DETAILS		
HANDICAPPED AND REGULAR PARKING DETAIL		REVISIONS
		SHEET No.
SCALE: N.T.S.	ISSUED AUGUST 1998	PL2



PLAN VIEW

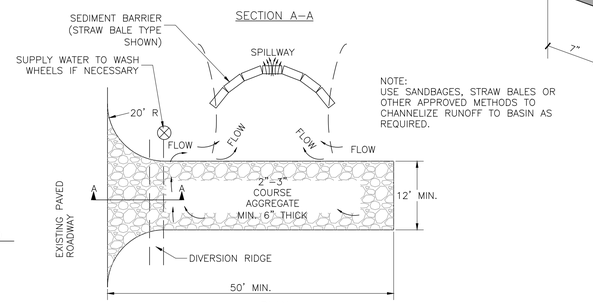
ALUMINUM BAFFLE DETAIL





WHEEL STOP DETAIL

N.T.S.

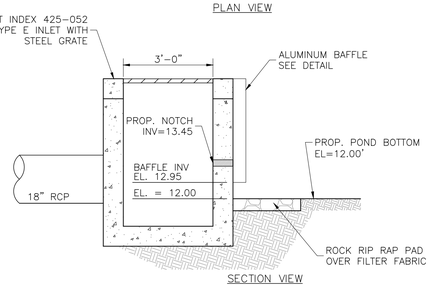


NOTE:
USE SANDBAGES, STRAW BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

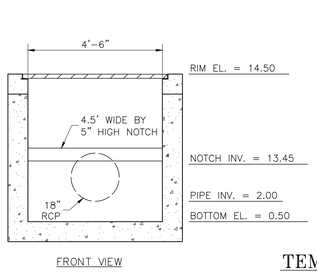
NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING. REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S



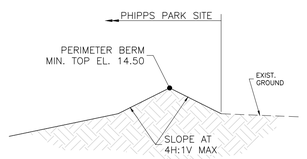
SECTION VIEW



FRONT VIEW

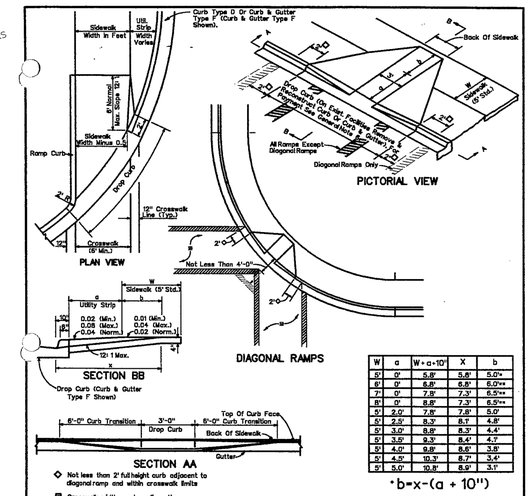
CS-1 CONTROL STRUCTURE DETAIL

N.T.S.



SECTION A
TYPICAL PERIMETER BERM DETAIL

SCALE: NTS



◇ Not less than 2' full height curb adjacent to diagonal ramp and within crosswalk limits

■ Crosswalk widths and configuration vary.

b=Distance from front edge of sidewalk to back point of 12:1 slope.
=Back of sidewalk drop required for all sidewalk slopes.
=Back of sidewalk drop required for sidewalk slopes 0.04 and part 0.02.

W	a	W+a+10'	X	b
5'	0"	5.8'	5.8'	5.0'*
6'	0"	6.8'	6.8'	6.0'**
7'	0"	7.8'	7.3'	6.5'**
8'	0"	8.8'	7.3'	6.5'**
5'	2.0"	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.6'
5'	3.5'	9.3'	8.4'	4.7'
5'	4.0"	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

*b=x-(a + 10")

CITY OF FORT PIERCE • DEPARTMENT OF ENGINEERING TECHNICAL SPECIFICATIONS AND DETAILS		
HANDICAP RAMPS		REVISIONS
		BAR 4/10/01
		SHEET No.
SCALE: N.T.S.	ISSUED AUGUST 1998	SW5

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
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PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901
LEO GIANGRANDE — LIC. NO. 66387 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

PROJECT #: 22-024

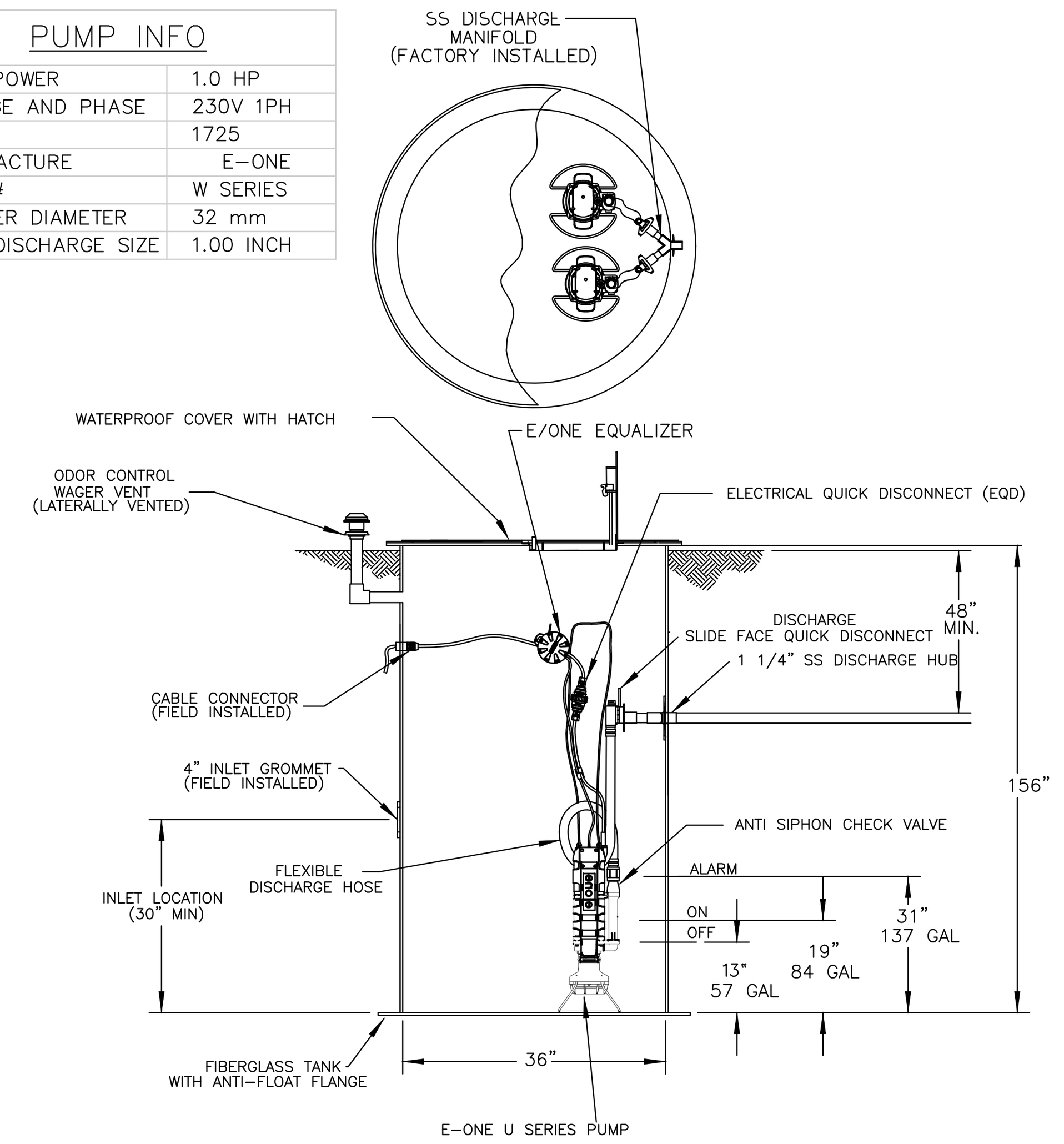
D-3

Drawing Name: S:\Shared folders\GEP projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-3 Plotted By: Daniel Date: 10/03/2023 2:23 PM Giangrande Engineering & Planning

36"X156" FIBERGLASS DUPLEX

WITH WATERPROOF HATCH COVER

PUMP INFO	
HORSEPOWER	1.0 HP
VOLTAGE AND PHASE	230V 1PH
RPM	1725
MANUFACTURE	E-ONE
MODEL#	W SERIES
IMPELLER DIAMETER	32 mm
PUMP DISCHARGE SIZE	1.00 INCH



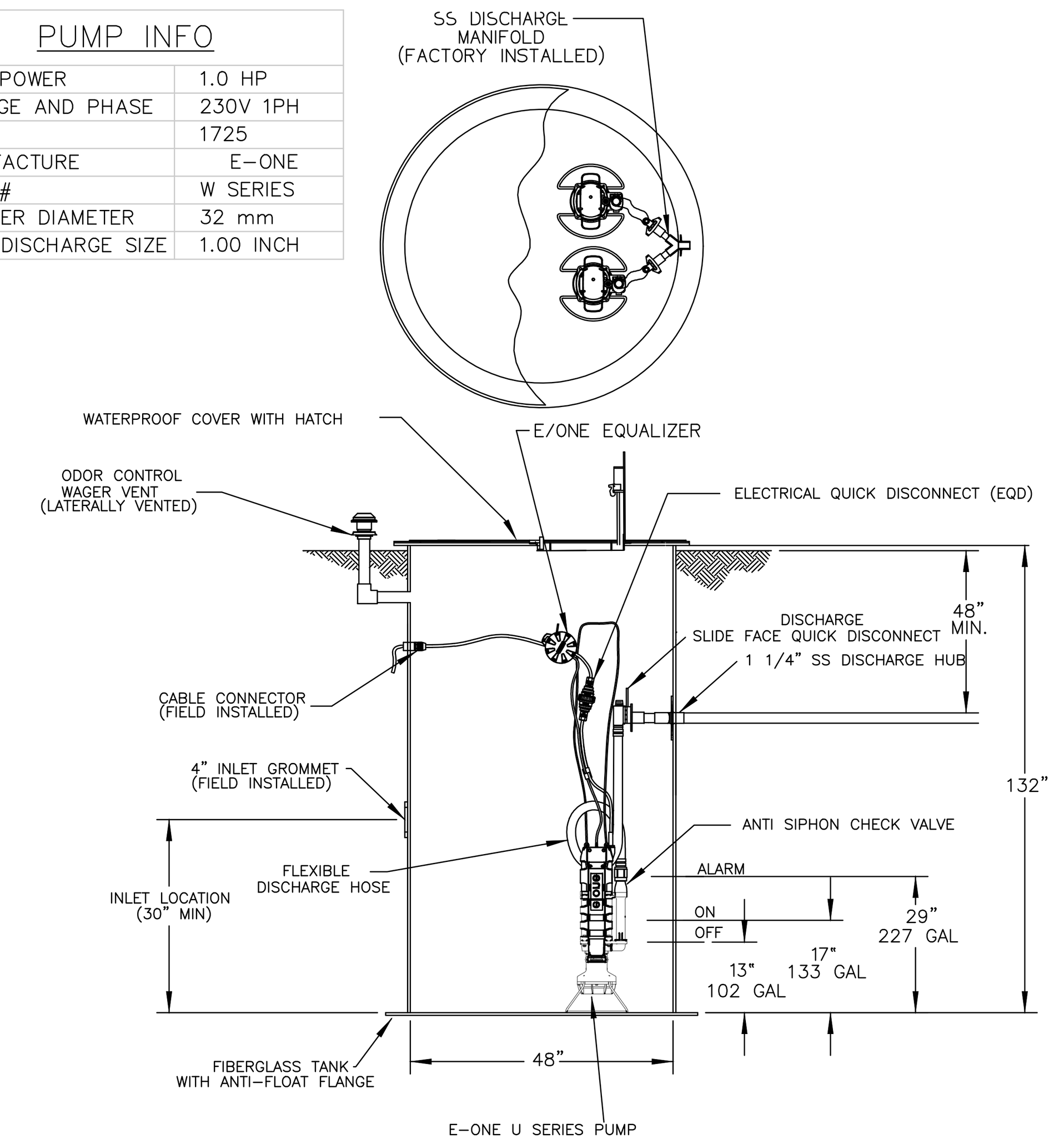
FJ NUGENT & ASSOCIATES, INC.
411 WYLLY AVENUE
SANFORD, FL 32773
PHONE: 407-474-7800

36" X 156" FIBERGLASS DUPLEX DETAIL
DRAWN BY: EDS
DATE: 03/12/2018
REVISION: 01
SCALE: NTS

48"X132" FIBERGLASS DUPLEX

WITH WATERPROOF HATCH COVER

PUMP INFO	
HORSEPOWER	1.0 HP
VOLTAGE AND PHASE	230V 1PH
RPM	1725
MANUFACTURE	E-ONE
MODEL#	W SERIES
IMPELLER DIAMETER	32 mm
PUMP DISCHARGE SIZE	1.00 INCH



FJ NUGENT & ASSOCIATES, INC.
411 WYLLY AVENUE
SANFORD, FL 32773
PHONE: 407-474-7800

48" X 132" FIBERGLASS DUPLEX DETAIL
DRAWN BY: EDS
DATE: 03/12/2018
REVISION: 01
SCALE: NTS

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. WATER MAINS WHERE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL CONFORM TO AWWA C-900 OR C-905, PRESSURE CLASS 150, DR (18). WATER MAINS WHERE SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM TO AWWA C-901 OR C-906, STANDARD CODE DESIGNATION PE3408, PIPE CLASS 200, DIMENSION RATIO (DR) 17 FOR DIRECT BURY, (DR) 11 FOR DIRECTIONAL BORING, AND (DR) 9 FOR 2 INCH AND SMALLER PIPELINES.
3. WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE , SHALL CONFORM TO ANSI/AWWA C151/A21.51 AND SHALL BE PRESSURE CLASS 250 (MINIMUM).
4. POLYVINYL CHLORIDE WATER MAIN SHALL BE BLUE IN COLOR OR WHITE IN COLOR WITH BLUE STRIPES. THE USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE, ALSO DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THHN WIRE.
5. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C-110/A21.10, CLASS 250 MIN., CEMENT LINED AND FACTORY COATED
6. GATE VALVES SHALL BE MUELLER RESILIENT SEAT, KENNDY KEN-SEAL, AMERICAN OR APPROVED EQUAL. VALVES SHALL CONFORM TO AWWA C-509.
7. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY, COUNTY, FDOT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPUA ENGINEER AND CITY/COUNTY/FDOT ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY FPUA ENGINEERING AND CITY/COUNTY/FDOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
10. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, FPUA, AND CITY/ COUNTY/FDOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY ENGINEER.
12. MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE UTILITIES ENGINEER AND CITY/ COUNTY/FDOT ENGINEER. PIPES WITH COVER LESS THAN 30 INCHES SHALL BE CONSTRUCTED OF DUCTILE IRON OR IN PVC CASING.
13. DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.
14. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
15. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AWWA C-651 FOR DISINFECTION.

WATER DISTRIBUTION | G-1 NOTES | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY
02-06 DATE: REVISION: BY: APPD:
DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG
DRAWN BY: JJM | SCALE: N.T.S.
APPROVED: JLC | DATE: 2010 | SHEET 1 OF 2

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES
CONTINUED

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES AND DRAINAGE.
17. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER INCLUDING LOCATIONS OF VALVES, FITTINGS, SERVICE CONNECTIONS, BLOWOFFS, AIR RELEASE VALVES, AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.
18. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE FORT PIERCE UTILITIES AUTHORITY ONLY AFTER TESTING AND DISINFECTION HAS BEEN COMPLETED AND APPROVED ON THE TAPPING VALVE AND SLEEVE.
19. WATER MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN MULTI STRANDED WIRE (BLUE IN COLOR) AND IDENTIFCATION TAPE WITH "WATER" MARKED ON TAPE, PERMANENTLY ATTACHED TO THE TOP OF THE WATER MAIN IN ACCORDANCE WITH THE FORT PIERCE UTILITES AUTHORITY SPECIFICATIONS.
20. SERVICE TAPS SHALL BE PLACED APPROXIMATELY TEN FEET AWAY FROM GATE VALVES, AS SHOWN, FOR TESTING. FOLLOWING TESTING AND STERILIZATION OF WATER LINE. CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CURB STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.
21. MECHANICAL RESTRAINTS TO BE USED ON ALL FITTINGS AND PLACED IN ACCORDANCE WITH MANUFACTURER'S OR ENGINEER'S RECOMMENDATIONS (WHICHEVER IS MORE STRINGENT) AND FPUA REQUIREMENTS.
22. ALL MAINS SHALL BE TESTED AT A MINIMUM OF 150 PSI. TESTING METHODS SHALL CONFORM TO AWWA C-600. – 2 HR MINIMUM TEST

$$L = \frac{SD(P)^{1/2}}{148,000}$$

L= LEAKAGE IN GPH
S= LENGTH OF PIPE IN FEET
D= PIPE DIAMETER IN INCHES
P= TESTING PRESSURE IN PSI

23. PRIOR TO ANY TESTING, ALL MAINS 6" IN DIA. AND LARGER SHALL HAVE A SWAB PASSED THRU THE ENTIRE LENGTH OF THE LINE. NOTE: SWAB SHOULD BE PLACED IN 1st. JOINT OF NEW LINE. END OF MAIN SHOULD BE "TURNED UP" AT 45% AND EXTENDED SO THAT SWABBING AND A FULL BORE FLUSH CAN BE ACCOMPLISHED. BLOW-OFF ASSY CAN THEN BE PLACED. WHERE LINES BRANCH, SWABS WILL BE PLACED IN BRANCH LINES AND SEQUENTIALLY SWABBED AND FLUSHED.
24. A MINIMUM SIX FEET AND PREFERABLY TEN FEET HORIZONTAL SEPARATION SHALL BE MAIINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES. 6 INCHES MINIMUM VERTICAL SEPARATION IF WATER MAIN IS OVER WASTEWATER AND 12 INCHES IF WATER MAIN IS UNDER SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTWATER LINES. THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE OR STRUCTURE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGHTS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
25. WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 6 INCHES OF VERTICAL CLEARANCE BETWEEN PIPES SHALL BE CONSTRUCTED OF DIP AT THE CROSSING, AND SHALL BE MECHANICALLY RESTRAINED WITHIN 20 FEET OF THE CROSSING.
26. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

WATER DISTRIBUTION | G-1 NOTES | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY
02-06 DATE: REVISION: BY: APPD:
DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG
DRAWN BY: JJM | SCALE: N.T.S.
APPROVED: JLC | DATE: 2010 | SHEET 2 OF 2

FORT PIERCE UTILITIES AUTHORITY WASTEWATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE SDR-26, GREEN OR WHITE IN COLOR, GRAVITY SEWER MAIN SHALL HAVE LOCATOR TAPE WITH "SEWER" MARKED ON TAPE AND SHALL CONFORM TO ASTM D-3034.
3. THE MANHOLE BASE SHALL BE SET ON A FIRM, DRY AND STABLE OR COMPACTED BASE FOUNDATION. IF NECESSARY, THE CONTRACTOR SHALL UTILIZE ROCK TO PROVIDE A FIRM AND SUITABLE MANHOLE BASE FOUNDATION.
4. WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY ENGINEERING DEPARTMENT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIRE-MENTS SHALL NOT BE LESS THEN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
5. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
6. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISITING OF PIPE SIZES, LOCATION OF SERVICE TEE WYES, DIAMETER OF SERVICES, LOCATION OF ANY FITTINGS, FINAL RIM AND INVERT ELEVATION OF ALL MANHOLES AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.
7. MAINTAIN SIX FEET AND PREFERABLY 10 FEET HORIZONTAL DISTANCE BETWEEN WATER MAINS AND SEWER MAINS AS A MINIMUM.
8. WASTEWATER FORCE MAINS, WASTEWATER COLLECTION LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE SHALL BE PROVIDED WHENEVER POSSIBLE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANCE FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
9. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, AND FPUA/CITY COUNTY/FDOT SHALL BE MANDATORY PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
10. NO FIELD CHANGES OR DEVIATIONS FORM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FPUA/CITY/COUNTY/FDOT ENGINEER,
11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
12. CONTRACTOR SHALL NOTIFY FORT PIERCE UTILITIES AUTHORITY 48 HOURS PRIOR TO COMMMENCING CONSTRUCTION.
13. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO AWWA C-900, AND SHALL BE CLASS 150, DR-18.
14. WASTEWATER FORCE MAIN SHALL BE GREEN IN COLOR.
15. FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO ANSI/AWWA C-110/A21.10 CLASS 250 MIN. AND INTERIOR EPOXY COATED.
16. WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN WIRE (GREEN IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.
17. MINIMUM COVER SHALL BE 36 INCHES, PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
18. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY 3M CORPORATION, OR APPROVED EQUAL AS REQUIRED BY FPUA ENGINEER.
19. ALL MANHOLES SHALL HAVE SEWER RAIN GUARDS INSTALLED AS REQUIRED BY FPUA ENGINEER.
20. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

WASTEWATER CONSTRUCTION NOTES FPUA REQUIREMENTS | G-2 CONSTRUCTION NOTES | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY
02-06 DATE: REVISION: BY: APPD:
DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG
DRAWN BY: JJM | SCALE: N.T.S.
APPROVED: JLC | DATE: 2010 | SHEET 1 OF 1

STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS

1. SANITARY SEWER, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 6 INCHES, PREFERABLY 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHEN ABOVE, AND AT LEAST 12 INCHES OF SEPARATION WHEN THE WATER MAIN IS BELOW.

WHERE SANITARY SEWER, FORCE MAINS, STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 6 INCHES VERTICAL SEPARATION, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) CENTERED ON THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). AT SUCH CROSSINGS PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 6 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) AND NEW PIPES SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

2. A MINIMUM 3-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF STORM SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 3-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN VACUUM TYPE SANITARY SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN "ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

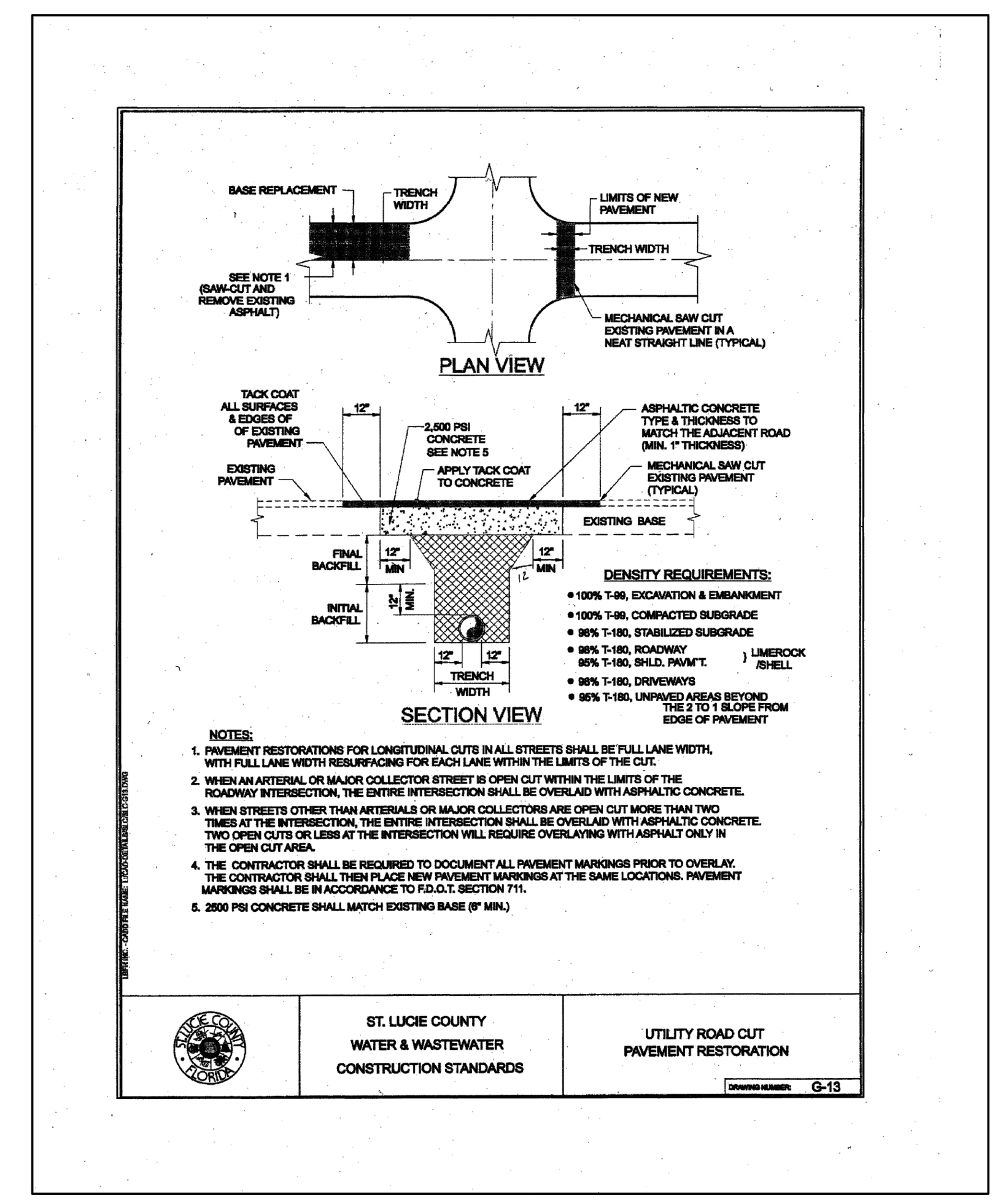
A MINIMUM 6-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3 FOOT WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER.

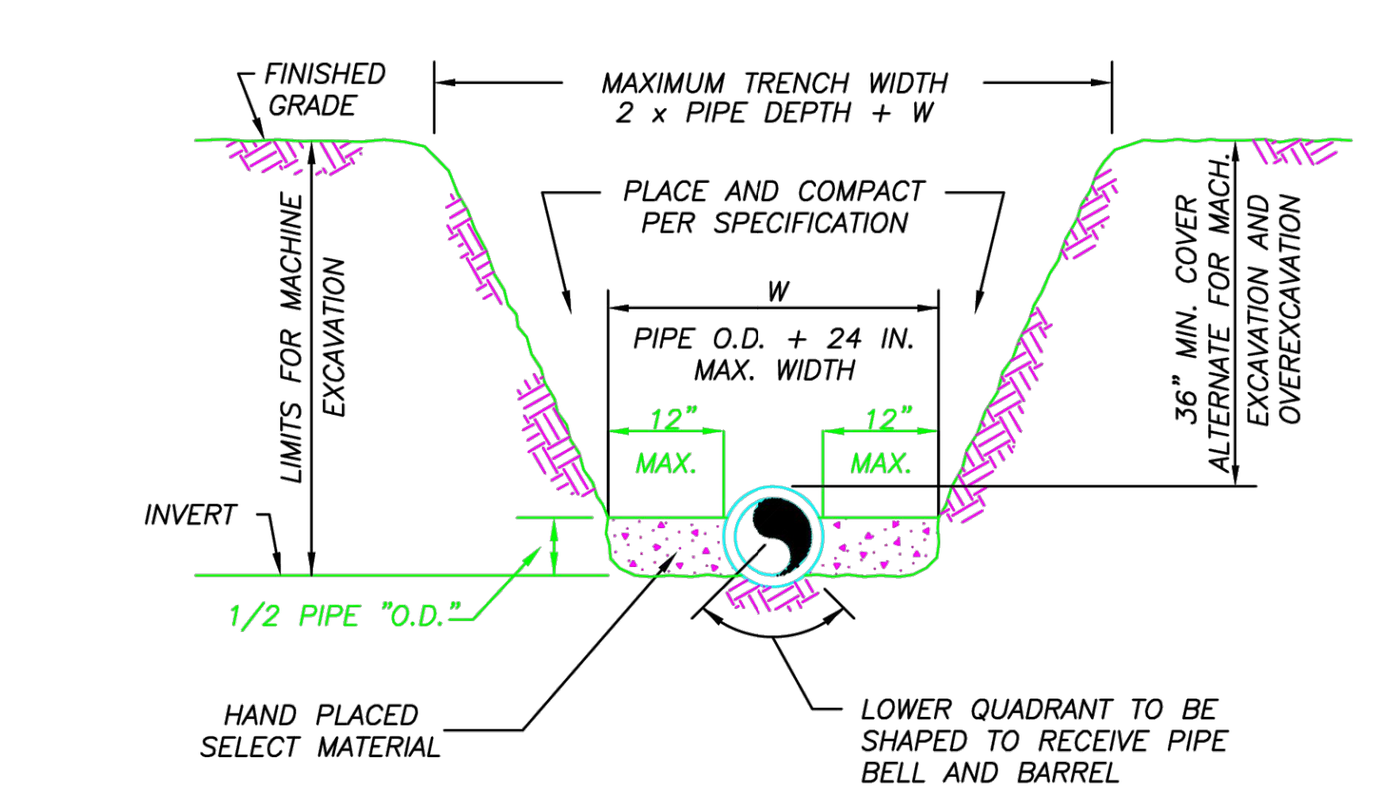
WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 6 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWER) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

3. ALL DIP SHALL BE PRESSURE CLASS 250 MIN.. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.

STANDARD SEPARATION STATEMENT FOR WATER/SEWER CONFLICT | G-3 WATER/SEWER CONFLICT | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY
02-06 DATE: REVISION: BY: APPD:
DESIGNED: JJM | COMPUTER FILE # DETAIL NOTES 200602.DWG
DRAWN BY: JJM | SCALE: N.T.S.
APPROVED: JLC | DATE: 2010 | SHEET 1 OF 1



PAVEMENT RESTORATION (COUNTY) | R-2 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY
DATE: REVISION: BY: APPD:
DESIGNED: JJM | COMPUTER FILE # MISC DETAILS 200602.DWG
DRAWN BY: JJM | SCALE: N.T.S.
APPROVED: JLC | DATE: 2010 | SHEET 1 OF 1



NOTES:

1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.

2) INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE PIPE. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 100% OF MAX. DENSITY AS DETERMINED BY AASHTO METHOD T-99.

TYPICAL TRENCH DETAIL
N.T.S.

FPUA COMMUNITY PROUD
FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 37TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600

TYPICAL TRENCH DETAIL | M-1 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY
03-09 CONCRETE SLAB SLL JLC
DATE: REVISION: BY: APPD:
DESIGNED: JLC | COMPUTER FILE # MISC DETAILS 200602.DWG
DRAWN BY: SLL | SCALE:
APPROVED: JLC | DATE: 2015 | SHEET 1 OF 1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-4 – Plotted by: Daniel – Date: 10/23/2023 – 2:23 PM – Giangrande Engineering & Planning

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

DETAILS

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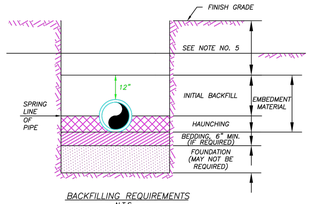
LEO D. GIANGRANDE, P.E.
LEO GIANGRANDE LICENSE No. 66387 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROJECT #: 22-024

D-4



BACKFILLING REQUIREMENTS
N.T.S.

NOTES:

1) IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED.

2) BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE.

3) HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.

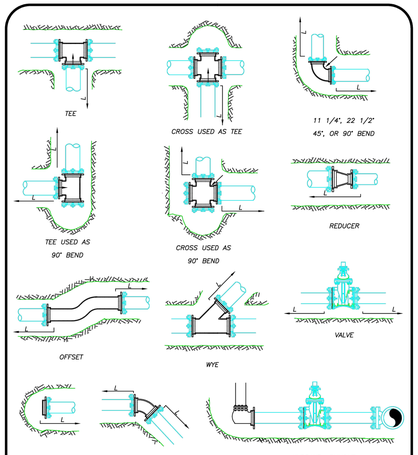
4) INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE. THE SOIL SHALL BE COMPACTED TO 100% MAX. DENSITY.(AASHTO T-99)

5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX. DENSITY AS PER AASHTO T-99, TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180.

6) DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE UTILITIES ENGINEER OR PERMIT AGENCY HAVING JURISDICTION, AT THE CONTRACTORS EXPENSE.

7) CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL TRENCH SAFETY REGULATIONS.

BACKFILLING REQUIREMENTS			M-2
03-09 CONCRETE SLAB	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: DATE: 2015	SHEET 1 OF 1	



MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

MECHANICAL JOINT ANCHORING REQUIREMENTS			M-3
03-09 CONCRETE SLAB	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: DATE: 2015	SHEET 1 OF 1	

MECHANICAL JOINT RESTRAINT NOTES

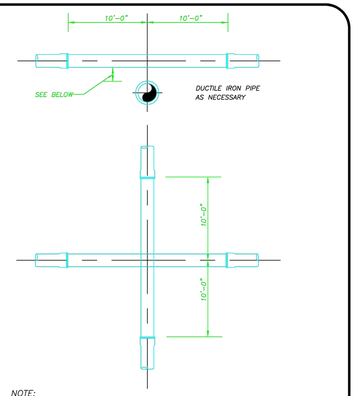
NOTES:

1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED WHICH REFLECTS THE RESTRAINT DETAIL PROPOSED FOR USE, INCLUDING LENGTH OF PIPE RESTRAINT.

2) REQUIRED RESTRAINED LENGTH CALCULATIONS SHALL ALSO CONSIDER THE CONDITIONS OF OTHER BENDS OR FITTINGS THAT WILL BE LOCATED WITHIN THE CALCULATED RESTRAINED LENGTH (L) OF THE BEND OR FITTING IN QUESTION.

3) EVERY JOINT OR FITTING MUST BE RESTRAINED ON BOTH SIDES OF THE BEND AND FOR TEES ALONG THE BEND ALSO.

MECHANICAL JOINT RESTRAINT NOTES			M-4
03-09 CONCRETE SLAB	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: DATE: 2015	SHEET 1 OF 1	

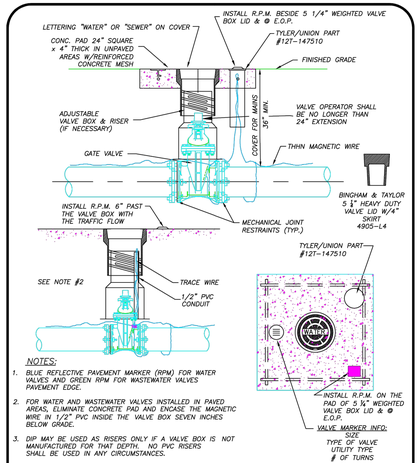


NOTE:

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

UTILITY CROSSING DETAIL
N.T.S.

UTILITY CROSSING DETAIL			M-5
03-09 CONCRETE SLAB	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: DATE: 2015	SHEET 1 OF 1	

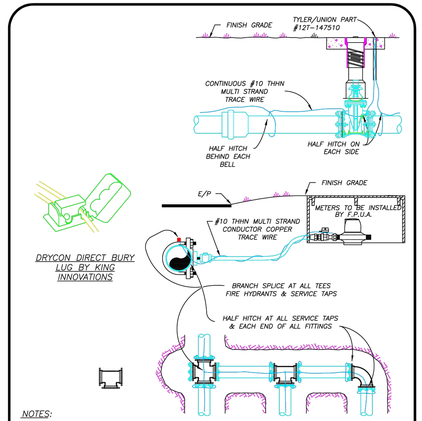


NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKER (RPM) FOR WATER VALVES AND GREEN RPM FOR WASTEWATER VALVES PAVEMENT EDGE.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SEVEN INCHES BELOW GRADE.
3. DIP MAY BE USED AS RISERS ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & VALVE BOX DETAIL
N.T.S.

TYPICAL GATE VALVE & VALVE BOX DETAIL			M-6
03-09 CONCRETE SLAB	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: DATE: 2015	SHEET 1 OF 1	

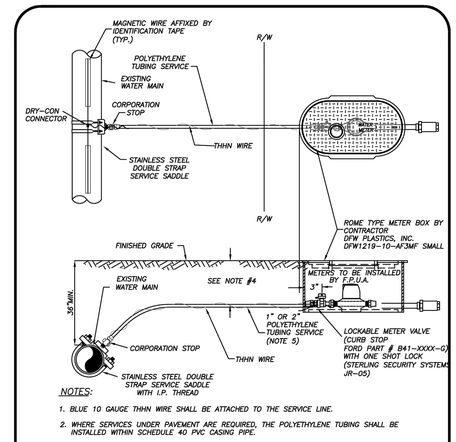


NOTES:

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.)

TRACE WIRE DETAIL			M-11
03-09 CONCRETE SLAB	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # MISC. DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: DATE: 2015	SHEET 1 OF 1	

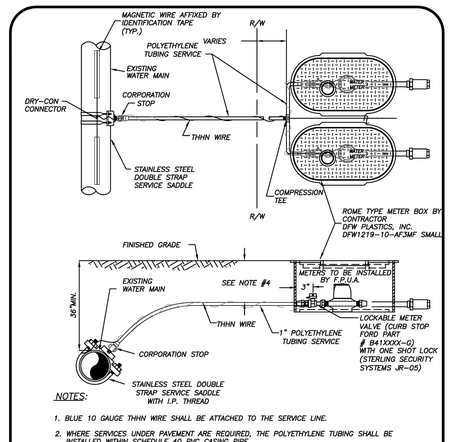


NOTES:

1. BLUE 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".
5. FOR 2" COMMERCIAL SERVICE INSTALLATIONS, FPUA WILL INSTALL ABOVE GROUND METER PER DETAIL W-8.

TYPICAL SINGLE WATER SERVICE CONNECTION
(N.T.S.)

TYPICAL SINGLE WATER SERVICE CONNECTION			W-2
03-09 DESIGN	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # WATER DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: N.T.S. DATE: 2020	SHEET 1 OF 1	



NOTES:

1. BLUE 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".

TYPICAL DOUBLE WATER SERVICE CONNECTION
(N.T.S.)

TYPICAL DOUBLE WATER SERVICE CONNECTION			W-3
03-09 DESIGN	SLL	JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC	DRAWN BY: SLL	COMPUTER FILE # WATER DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
APPROVED: JLC	SCALE: N.T.S. DATE: 2020	SHEET 1 OF 1	

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

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leo@gep.llc
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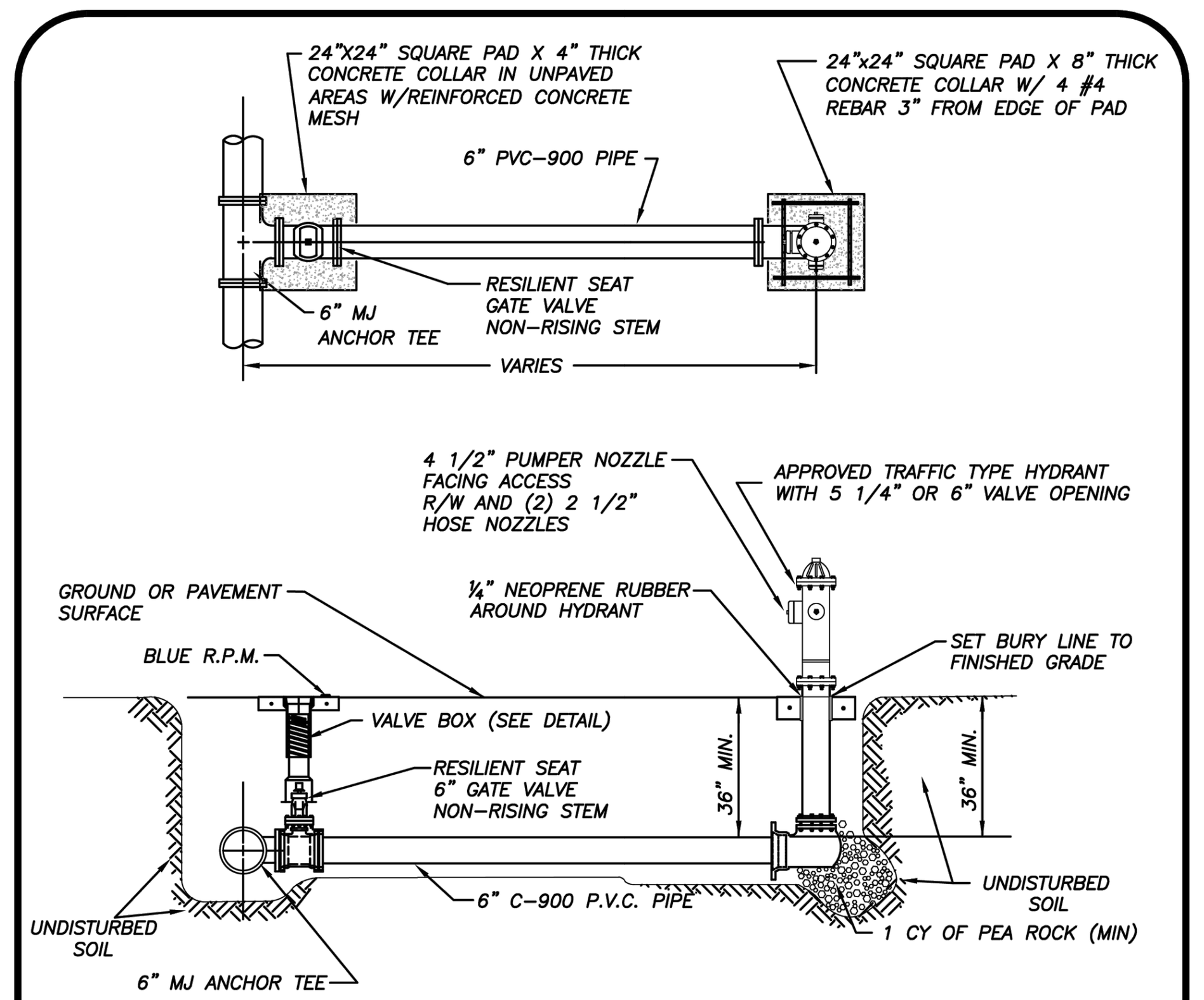
LEO GIANGRANDE License No. 68387 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROJECT #: 22-024

D-5

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads rv\plan\design\22-024 details.dwg Layout Name: D-5 — Plotted by: Daniel — Date: 10/27/2023 - 2:23 PM — Giangrande Engineering & Planning



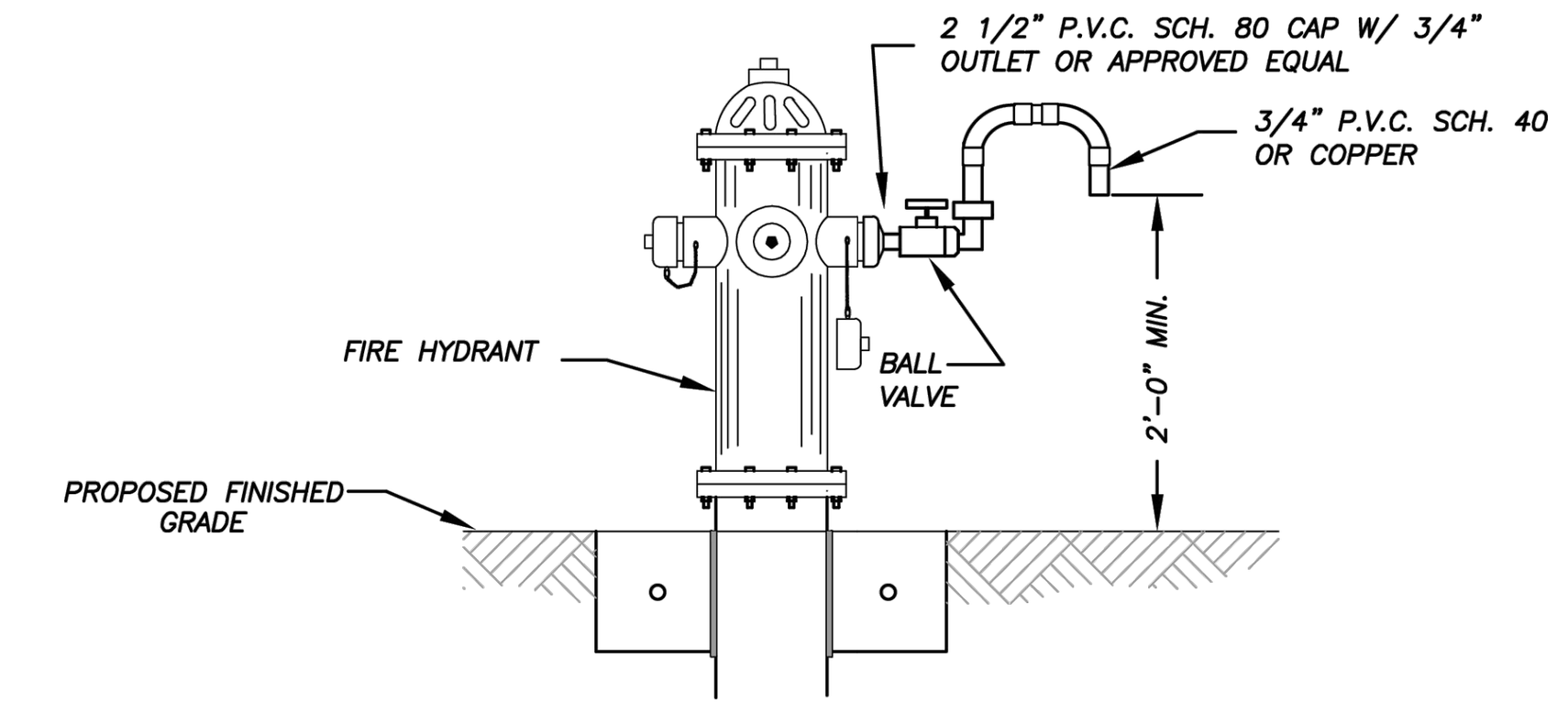
NOTES:

1. HYDRANT SHALL BE INSTALLED PLUMB & TRUE.
2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
3. HEEL TO REST IN UNDISTURBED SOIL.
4. THE ONLY HYDRANTS ACCEPTABLE ARE: MUELLER SUPER CENTURION 250 OR AMERICAN DARLING B-84-B-5.
5. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
6. ALL FITTINGS SHALL BE MECHANICAL JOINT.
7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
8. BLUE LOCATOR SHALL BE PLACED IN CENTER OF TRAVEL LANE CLOSEST TO HYDRANT.
9. ALL HYDRANT VALVE BOX COVERS SHALL BE PAINTED CARNIVAL RED.
10. LOCATE WIRE SHALL TERMINATE AT HYDRANT ISOLATION VALVE
11. HYDRANTS SHALL BE NO MORE THAN FIFTEEN FEET (15 FT.) FROM THE CURB OF ROADWAYS OR FROM THE EDGE OF PAVEMENT. CLEARANCES OF SEVEN AND ONE HALF FEET (7FT-6IN.) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANTS, WITH FOUR FOOT (4 FT.) CLEARANCE TO THE REAR OF HYDRANTS SHALL BE MAINTAINED.

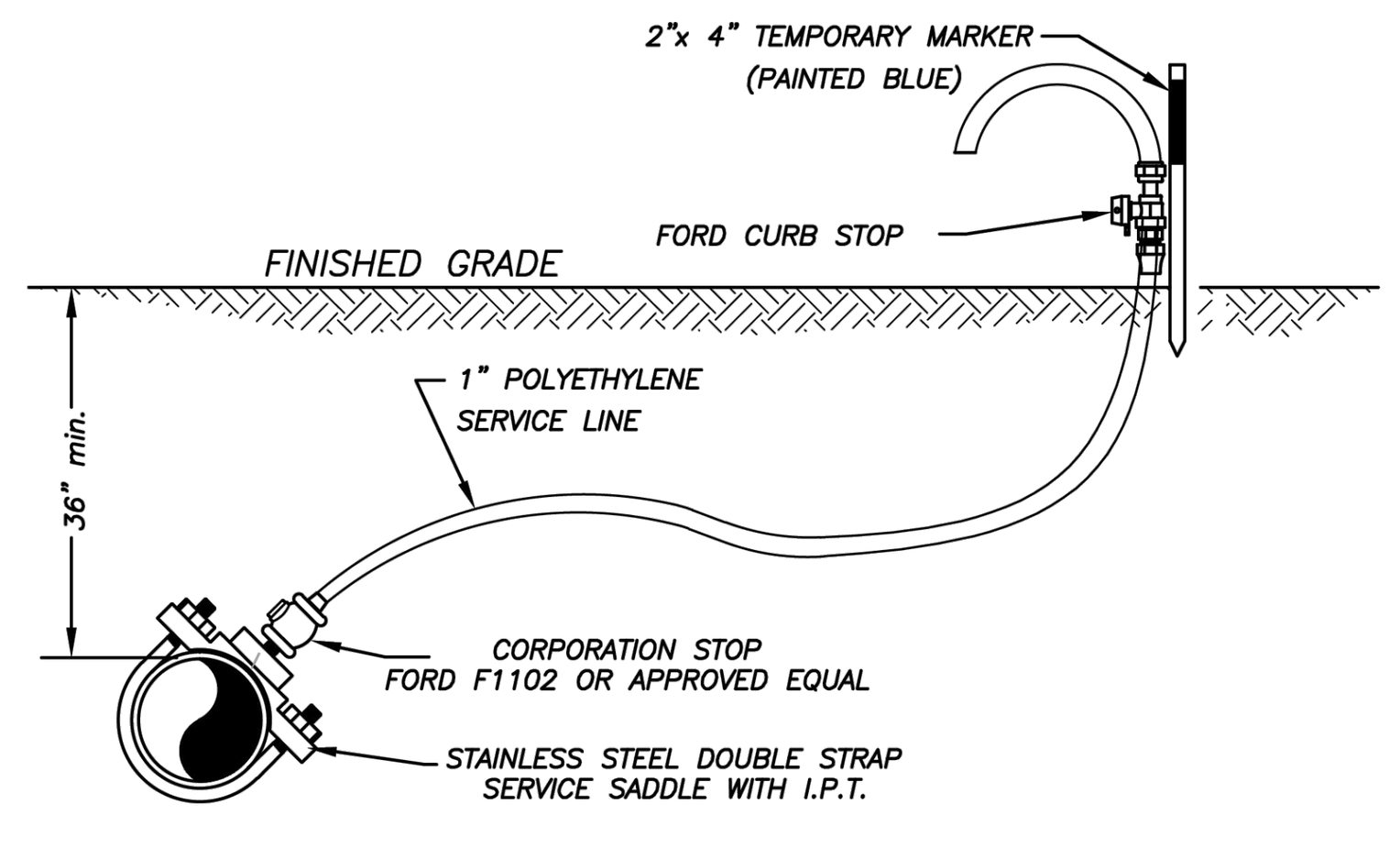
TYPICAL FIRE HYDRANT ASSEMBLY
(N.T.S.)

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY, WATER/WASTEWATER ENGINEERING, 1701 SOUTH 37TH STREET, FT. PIERCE, FLORIDA 34947, 772-466-1600

TYPICAL FIRE HYDRANT ASSEMBLY — W-5
03-09 DESIGN SLL JLC | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATERDETAIL.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



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

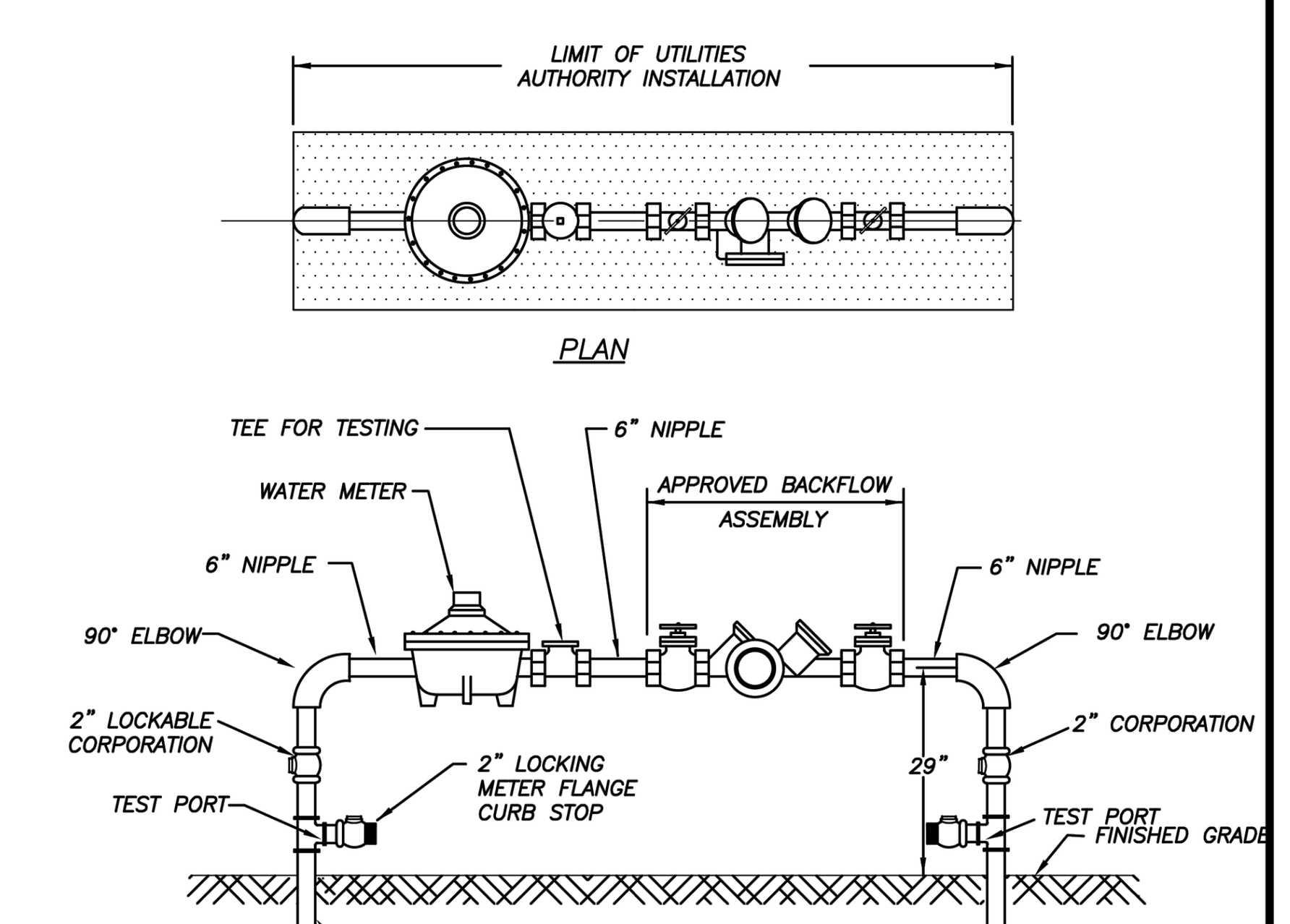


BACTERIOLOGICAL SAMPLING POINT @ WATER MAIN
(N.T.S.)

NOTE:

AFTER TESTING REMOVE 1" P.E. LINE AND CAP WITH BRASS PLUG AT CORPORATION STOP.

BACTERIOLOGICAL SAMPLING PONIT DETAIL — W-6
03-09 02-15 SLL JLC | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATERDETAIL.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

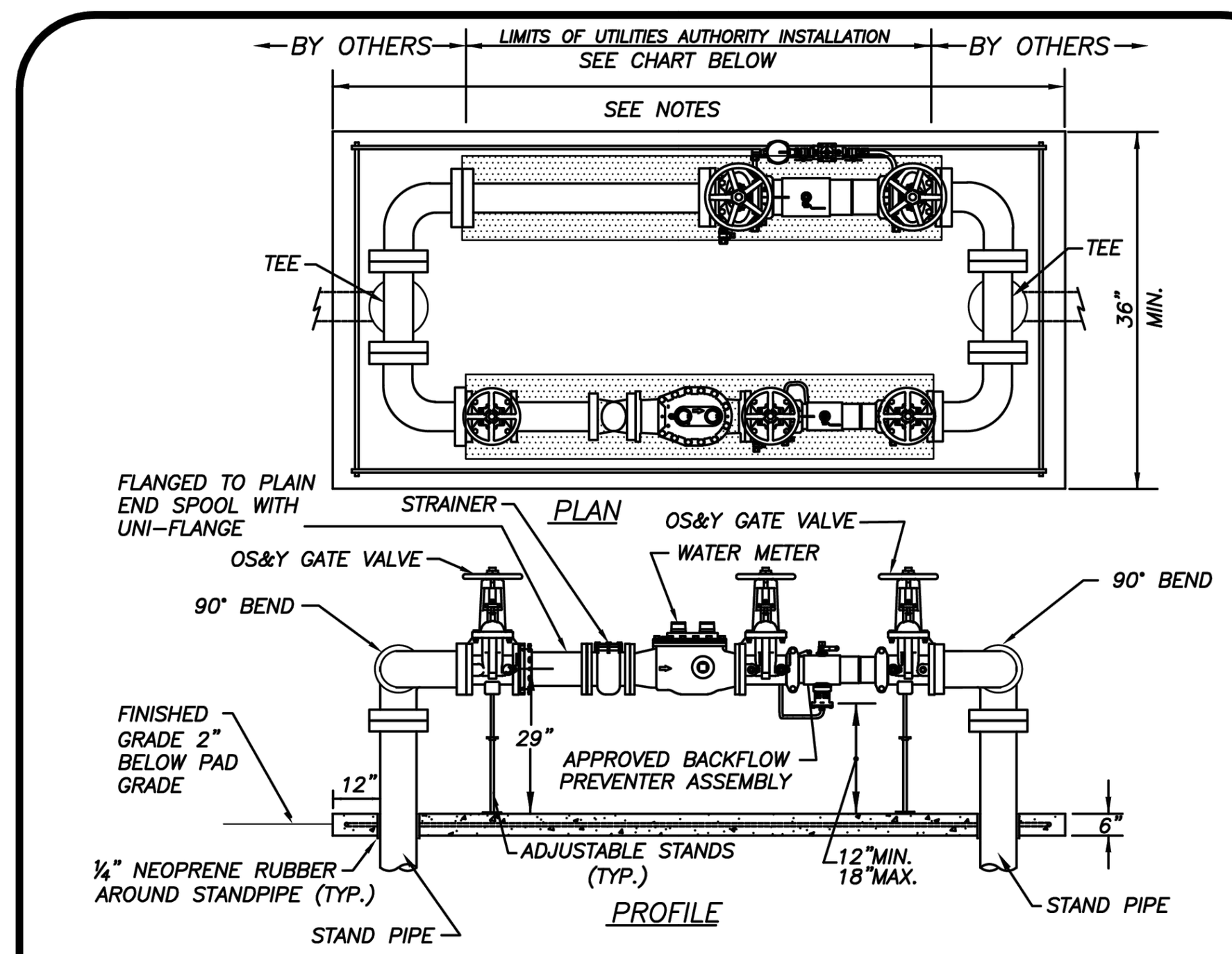


NOTES:

1. LANDSCAPING REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 18" AROUND METER OR BACKFLOW. NO SOLDER JOINTS.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.

WATER METER/BACKFLOW PREVENTER ASSEMBLY
DOMESTIC SERVICE (COMMERCIAL)
(N.T.S.)

WATER METER/BACKFLOW PREVENTER ASSEMBLY-DOMESTIC SERVICES (METER SIZE 2" OR LESS) — W-8
03-09 DESIGN SLL JLC | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATER DETAILS 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



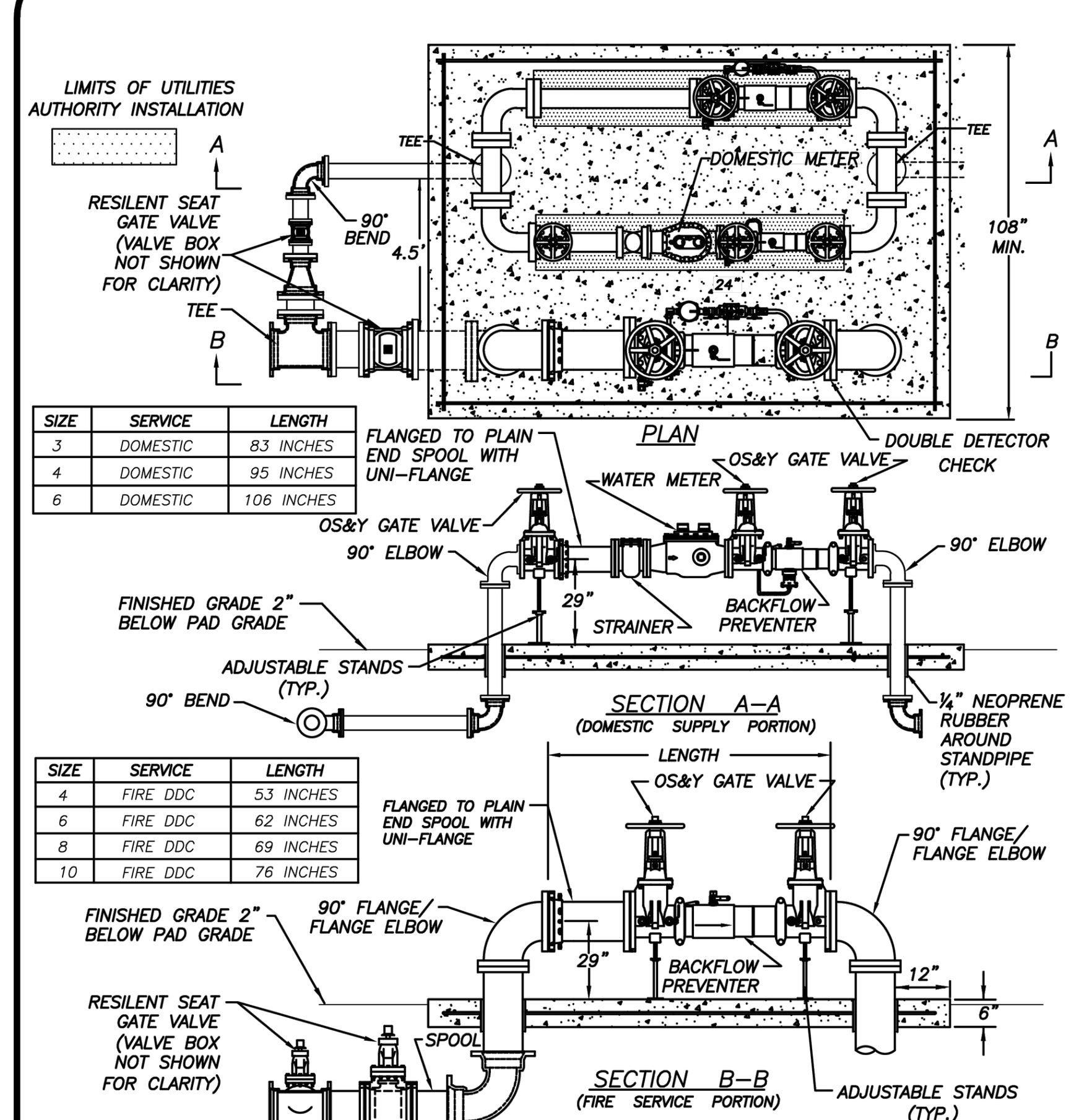
NOTES:

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 CONSTRUCTED OF DUCTILE IRON PIPE IN ACCORDANCE WITH THE CHART BELOW.
3. PRIOR TO POURING CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND ARE INSTALLED AT THE SAME ELEVATION IN THE PRESENCE OF THE FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
3	COMPOUND	83 INCHES
4	COMPOUND	95 INCHES
6	COMPOUND	106 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
COMMERCIAL WATER METER SERVICES (METER SIZE > 3")

WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 3") — W-9
03-09 CONCRETE SLAB SLL JLC | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATER DETAILS 200602.DWG | SCALE: | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



SIZE	SERVICE	LENGTH
3	DOMESTIC	83 INCHES
4	DOMESTIC	95 INCHES
6	DOMESTIC	106 INCHES

SIZE	SERVICE	LENGTH
4	FIRE DDC	53 INCHES
6	FIRE DDC	62 INCHES
8	FIRE DDC	69 INCHES
10	FIRE DDC	76 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
FIRE SERVICE WITH DOMESTIC SUPPLY
(N.T.S.)

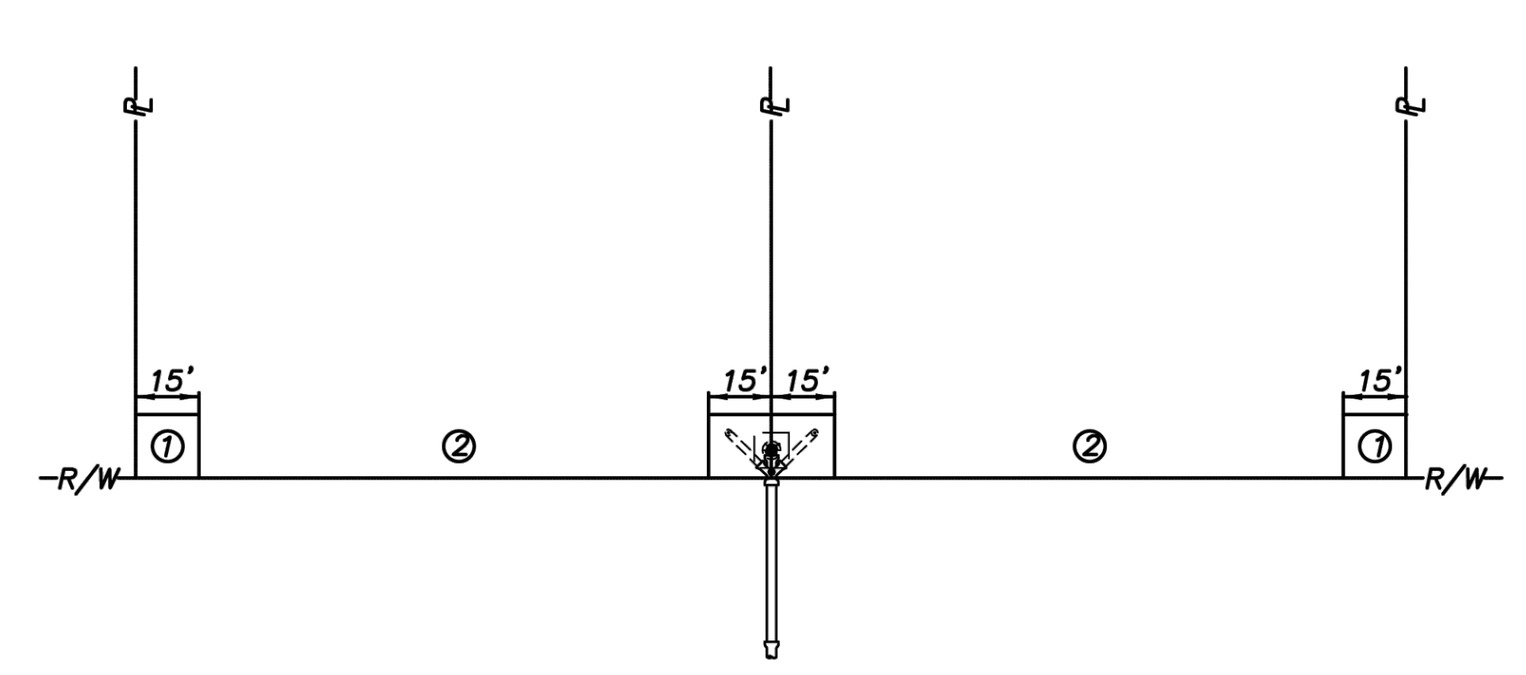
NOTES:

1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. NO SOLDER JOINTS.
3. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
4. DOMESTIC SERVICE 2" OR LESS, USE 2" POLY STUBBED 12" ABOVE GRADE.
5. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER

WATER METER/BACKFLOW PREVENTER FIRE SERVICE WITH DOMESTIC SUPPLY — W-11
03-09 CONCRETE PAD SLL JLC | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # WATER DETAILS 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

GENERAL POLICY

WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY. DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SOURCE FACILITIES, REAR OR SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.

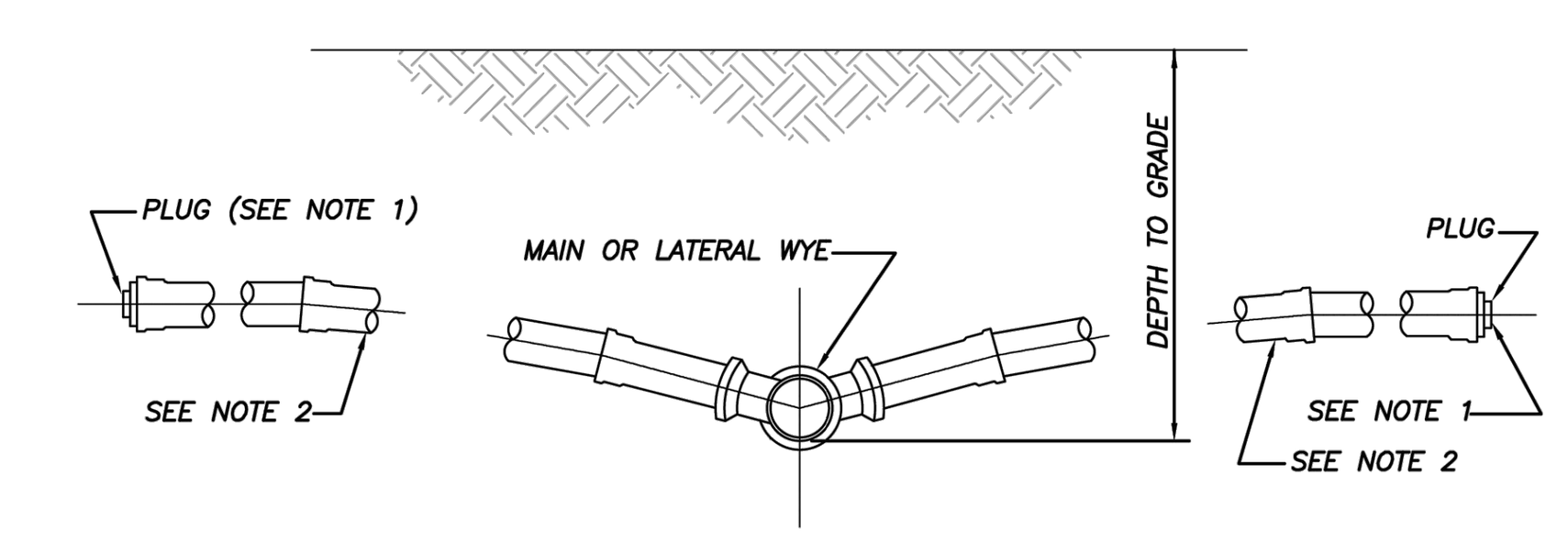


NOTES:

1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. SEWER LATERAL, AREA ①, SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE LATERAL. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO LATERALS CAN BE CONNECTED IN A "Y" CONFIGURATION AS SHOWN.
2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. SEWER LATERAL, WITHIN AREA ①, THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZE THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA ②.
3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF SIX FEET AND PREFERABLY 10 FEET.
4. THE WASTEWATER LATERAL SHALL BE LOCATED WITHIN RIGHT-OF-WAY AND TERMINATE AT THE PROPERTY LINE.
5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WASTEWATER LATERAL WITHIN THE EASEMENT OR RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WASTEWATER SERVICE PLACEMENT
(N.T.S.)

WASTEWATER SERVICE PLACEMENT POLICY — S-1
02-06 02-15 SLL | DATE: REVISION: BY: APPD: | DESIGNED: JJM | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

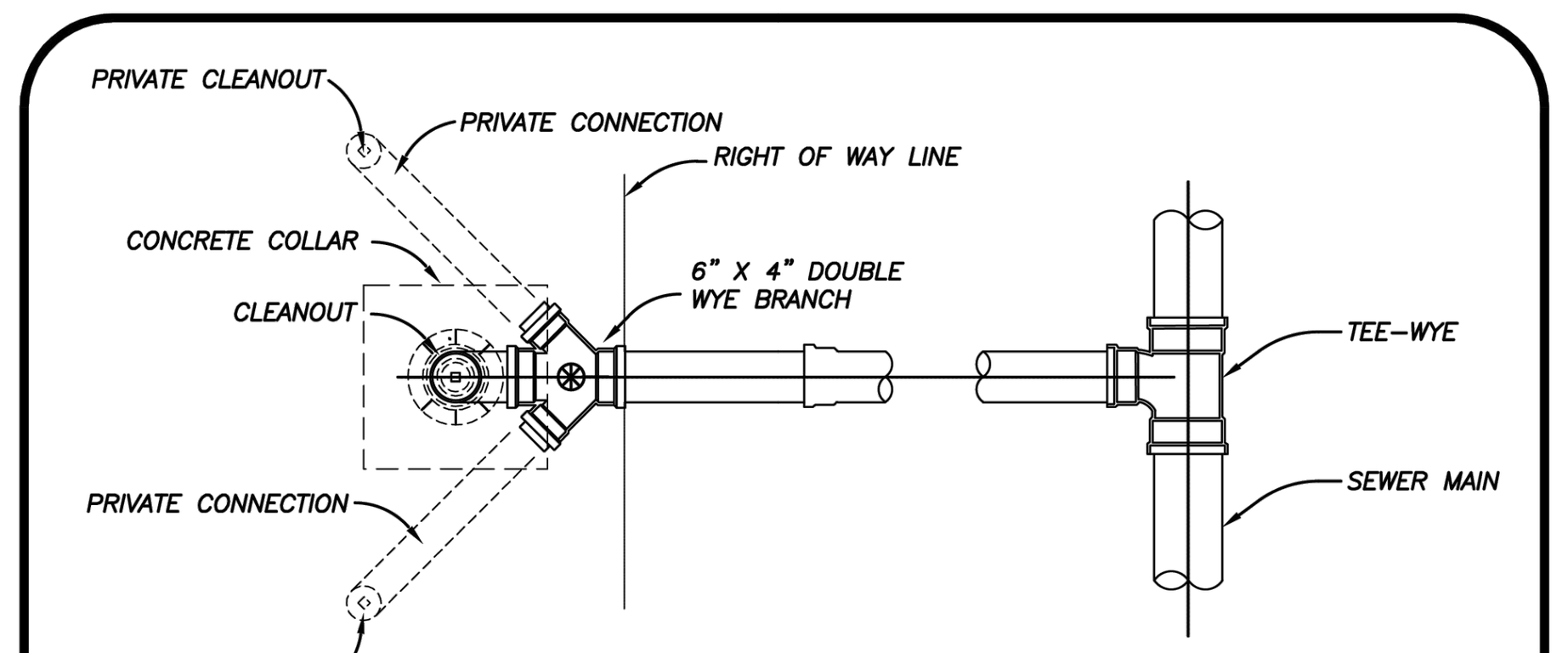


NOTES:

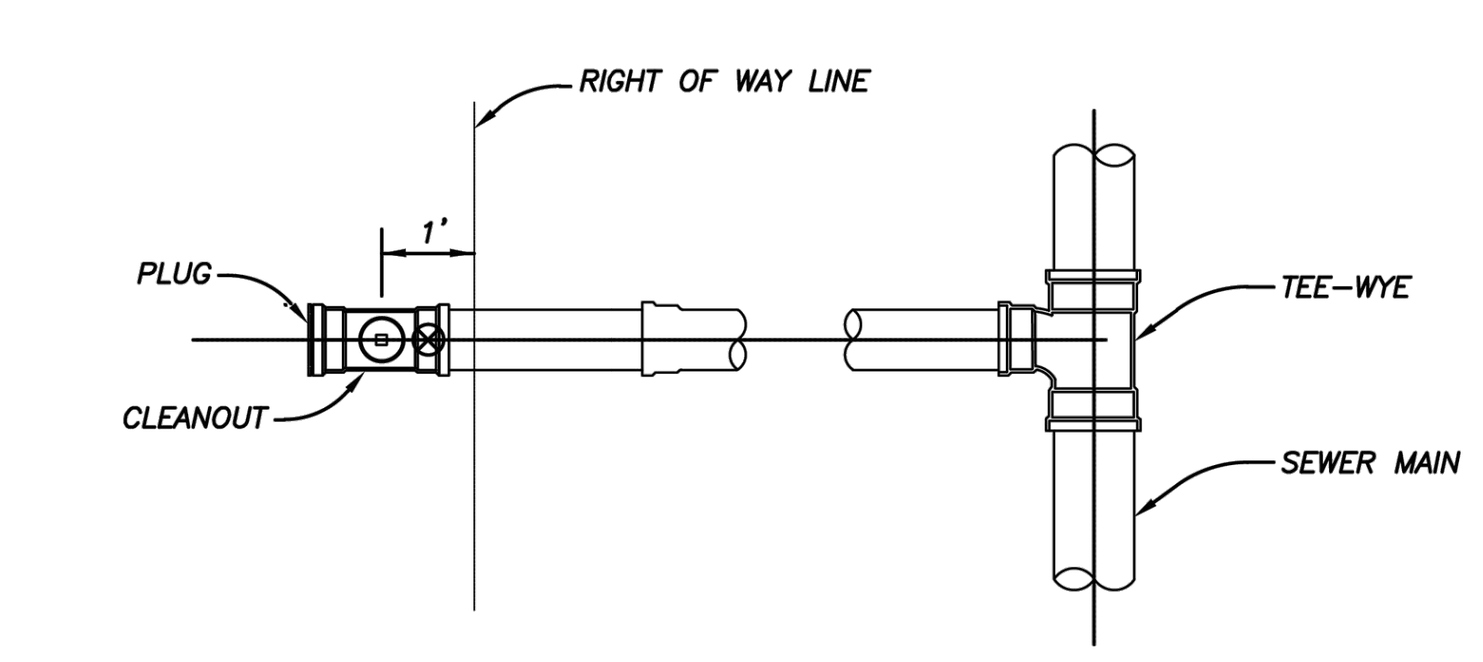
1) BALL TYPE WASTEWATER LOCATOR BY 3M CORP. OR APPROVED EQUAL.
2) MINIMUM SLOPE OF 1/8" PER FOOT, USE GREATER SLOPE WHERE POSSIBLE.
3) SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT.
4) INSTALL CLEANOUT AT THE PROPERTY LINE. REFER TO DETAIL S-1 FOR SPECIFIC PROPERTY LAYOUT.

SERVICE CONNECTION
(N.T.S.)

SERVICE CONNECTION WASTEWATER — S-2
02-06 | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2015 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1



DOUBLE LATERAL SERVICE CONNECTION
AT PROPERTY LINE



SINGLE SERVICE LATERAL CONNECTION

⊛ = BALL TYPE WASTEWATER LOCATOR INSTALLED ABOVE THIS POINT
BALL BY 3M CORP. OR APPROVED EQUAL
SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT

SERVICE CONNECTION
(N.T.S.)

SERVICE CONNECTION WASTEWATER — S-3
02-06 | DATE: REVISION: BY: APPD: | DESIGNED: JLC | DRAWN BY: SLL | APPROVED: JLC | COMPUTER FILE # SEWER DETAIL 200602.DWG | SCALE: N.T.S. | DATE: 2010 | WATER/WASTEWATER ENGINEERING | FT. PIERCE UTILITIES AUTHORITY | SHEET 1 OF 1

Drawing Name: S:\shared folders\gep projects\2022\22-024 crossroads site plan\design\22-024 Details.dwg Layout Name: D-6 - Plotted by: Daniel - Date: 10/23/2023 - 2:23 PM - Giangrande Engineering & Planning

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: AS NOTED
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

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PROJECT #: 22-024

D-6

GIANGRANDE
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Consulting Civil Engineers

710 SE Ocean Blvd
Stuart, FL 34994
772.888.9076

Memorandum

Date: December 4, 2023

To: City of Fort Pierce Planning Department

From: Leo Giangrande, PE

Subject: Traffic Statement – Crossroads RV Park
GEP Project No. 22-024

Distribution: File

This traffic statement is being prepared as part of the site plan application to Saint Lucie County Growth Management.

The proposed project is a 10.90 -acre RV Park with 83 spaces located at the Intersection of Crossroads Pkwy and Andrews Ave with two driveway. Please refer to the provided site plan.

The project trips have been calculated to determine the percent impact upon the adjacent roadway Crossroads Parkway. The daily, AM, and PM peak hour trips were estimated using the ITE Trip Generation 11th Edition with an ITE Land Use Code No. 416 – Recreational Vehicle Park. ITE Trip Gen does not provide an ADT for the LU – 416. It was estimated to be 4 trips per space per day.

RV Park								
ITE Trip Generation 11th Edition - Peak Hour of Adjacent Street - Average Rate								
AM			PM			Daily		
In	Out	Total	In	Out	Total	In	Out	Total
6	10	16	14	8	22	148	148	296

The greatest peak hour peak directional impact upon the adjacent roadway is 14 entering trips during the PM peak hour. The ADT is estimated at 296 trips.

When distributed upon the roadway network, the project trips are expected to generate a de minimis impact of less than 1.0% upon the existing roadway level of service as defined in the Saint Lucie County Land Development Code Section 5.01.00. The existing roadway data was obtained from the Saint Lucie TPO Roadway Report Fall 2023.

Segment Number	Road Name	From	To	Type	2023 AADT	2023 PH (dir) Existing
1	Crossroads Pkwy	Okeechobee Rd	Kings Hwy	2	2,142	970

Annual Growth	2028 PH (dir) Growth	Project Assign.	Project Trips	2028 PH (dir) Build-out	Service Volume	Project % of Service	Concurrency Test
2.0%	1,071	100%	14	1,085	2,100	0.7%	OK

The project's first driveway is (right-in, left-in, right-out, left-out) at a median opening for the intersection of Crossroads Pkwy and Wheeler Terrace. The second driveway is (right-in, left-in, right-out, left-out) servicing access from Andrews Ave. No additional off-site improvements for capacity are found to be necessary since the existing level of service on the segment of roadway reveals that there is sufficient capacity for the de minimis project trips.

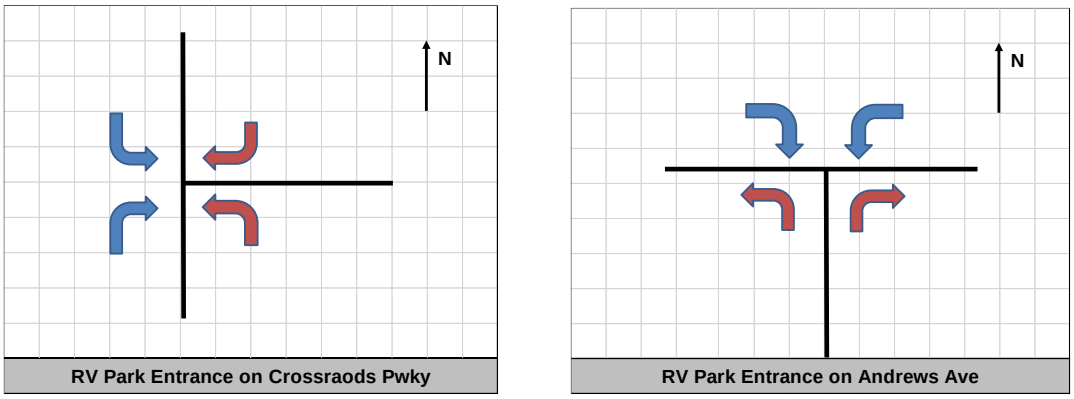


Figure 1: Driveway Movements for Crossroads Pkwy. & Andrews Ave.

In accordance with the Saint Lucie County Land Development Code Section 11.02.09 concurrency is requested for this project based upon the de minimis traffic analysis presented.

The following pages include the ITE Trip Generation 11th Edition and the Saint Lucie Roadway Report.

Should you have any questions, please contact Leo Giangrande at (772) 888-9076 or e-mail at Leo@GEP-LLC.com

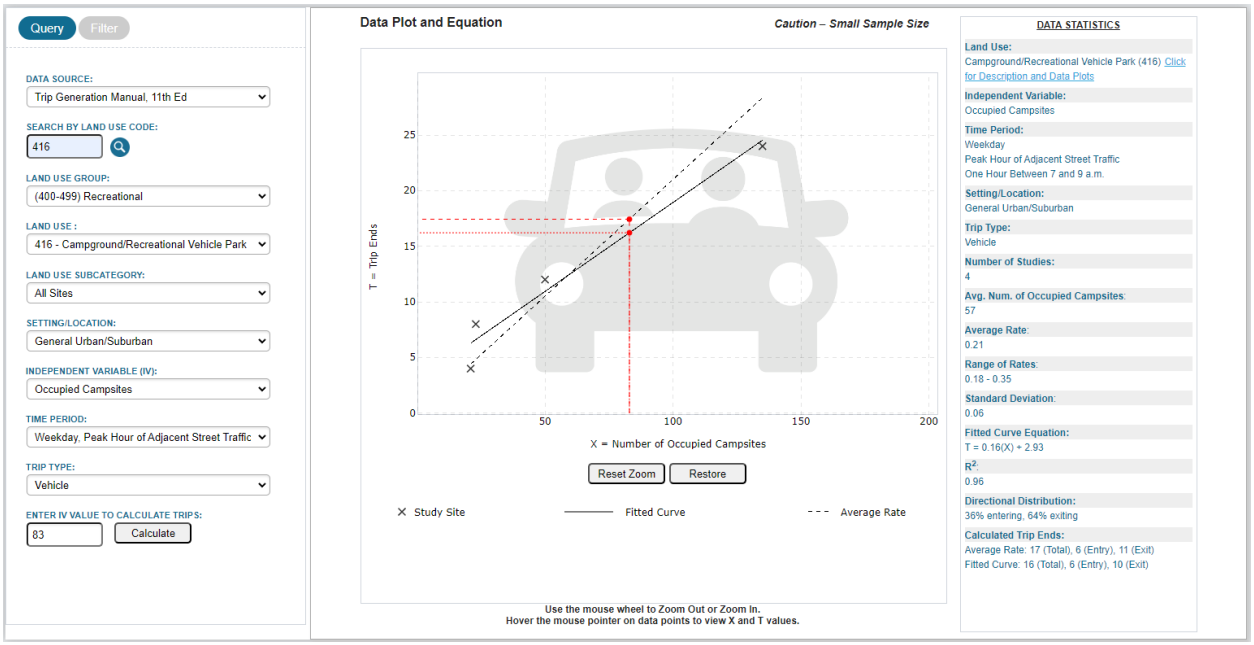


Figure 2: ITE Trip-Gen AM Peak-Hour Data

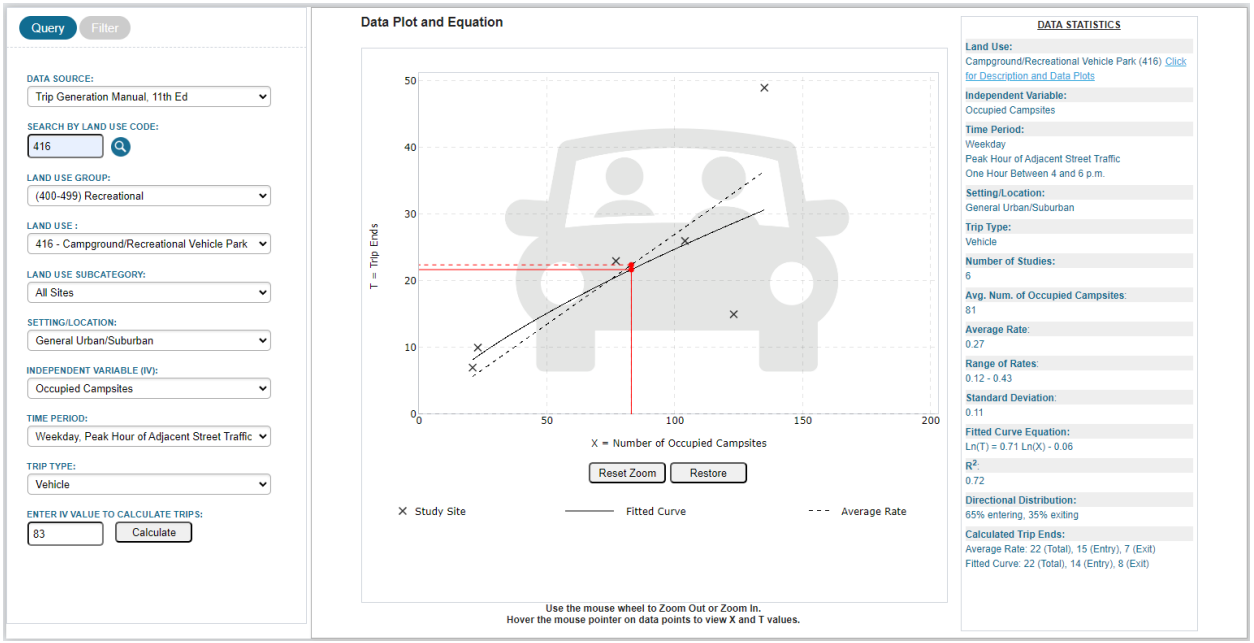


Figure 3: ITE Trip-Gen PM Peak-Hour Data

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers

710 SE Ocean Blvd.
Stuart, FL 34996
772.888.9076

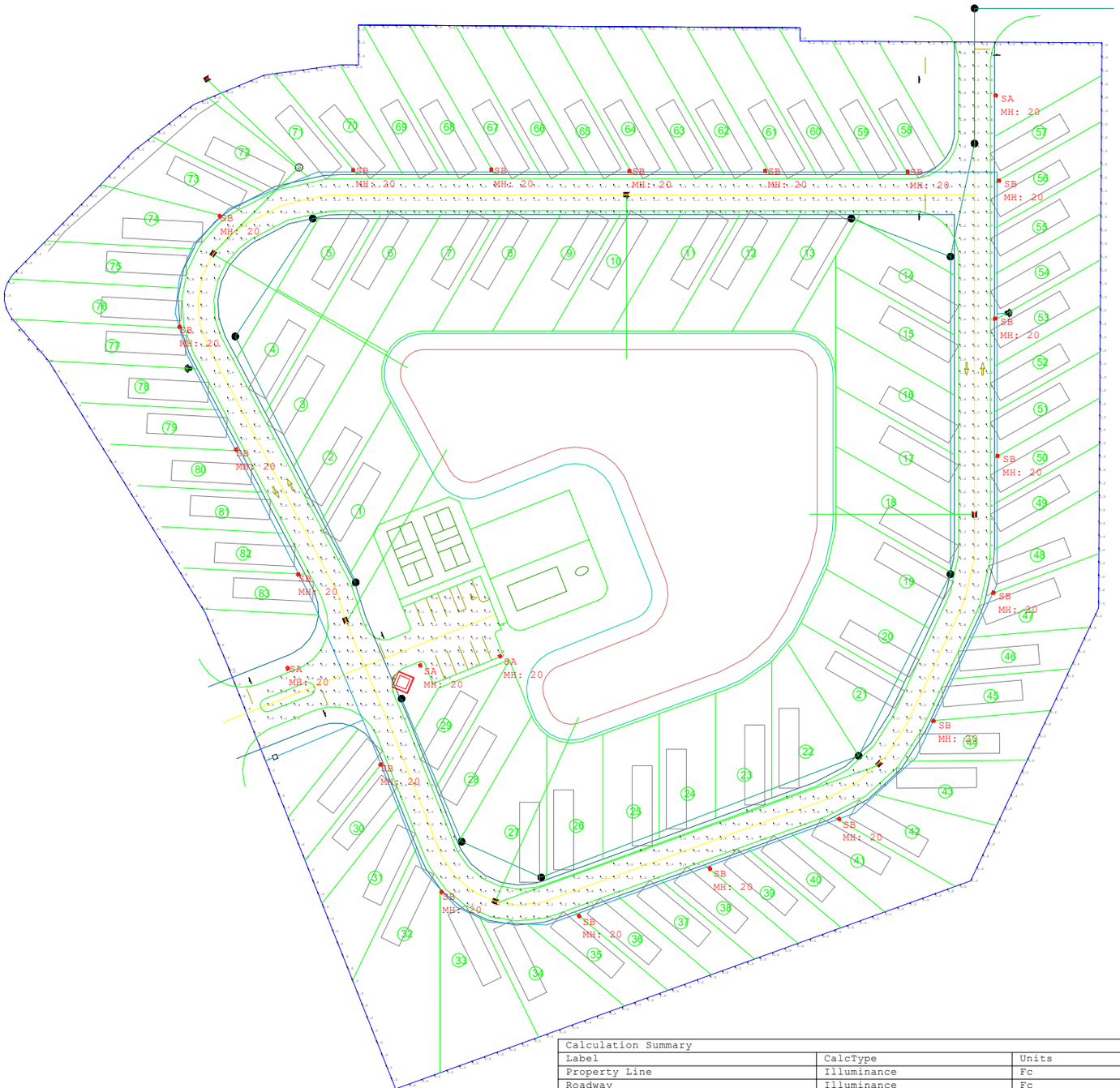
Memorandum

Date:	December 28, 2023
To:	City of Fort Pierce Development Review
From:	Leo Giangrande, PE
Subject:	Crossroads RV Park GEP Project No.: 22-024
Distribution:	Development team, file

Giangrande Engineering & Planning, LLC has prepared this memorandum to assist in the development review application for the Crossroads RV Park. The project is an 83 lot RV park located at the intersection of Crossroads Pwky. And Andrews Ave. on a 10.9 acre parcel of land. The site plan will have references to a future amenity center with a pool and pickleball courts, this will be a future project, permitted separately. The building area for these future permitted projects will be as follows.

- Amenity center building foot print: 3,200 sf
- Pool area: 3,600 sf
- Pickleball courts: 4,000 sf

Should you have any questions, please contact Leo Giangrande at (772) 888 9076 or e-mail at Leo@GEP-LLC.com



Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Property Line	Illuminance	Fc	0.02	0.4	0.0	N.A.	N.A.
Roadway	Illuminance	Fc	1.83	4.8	0.5	3.66	9.60
Small Parking Lot	Illuminance	Fc	1.80	4.9	0.5	3.60	9.80

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	4	SA	Single	Cree Lighting OSQM-C-11L-40K7-4M-XX-NM-XX, Single Head	0.900	10450	68	272
	19	SB	Single	Cree Lighting OSQM-C-11L-40K7-3M-XX-NM-XX, Single Head	0.900	10450	68	1292

Stormwater Management Report

Engineering Calculations & Supplementary Documents
Supporting a Surface Water Management System Serving

Crossroads RV Park Project

Location:
Fort Pierce, FL 34
Saint Lucie County
PCN: 2324-312-0005-000-4

Prepared by:

GIANGRANDE
Engineering & Planning
Consulting Civil Engineers
2081 SE Ocean Blvd., Suite 1A
Stuart, Florida 34996
772-888-9076
FL Certification: 30901

Prepared: October 2023

LEO GIANGRANDE LICENSE No. 66387 STATE OF FLORIDA PROFESSIONAL ENGINEER

Prepared by:
By: _____
Leo D. Giangrande, PE
PE Reg #66387
Date:

Table of Contents

1. Project Description 1
2. Existing Conditions 1
3. Proposed Conditions 2

Appendices

Appendix A ..... Site Plan
Appendix B..... Stormwater Calculations- Existing
Appendix C..... Stormwater Calculations- Proposed
Appendix D ..... 2003 SFWMD Permit

1. PROJECT DESCRIPTION

This project proposes an RV Park located on Crossroads Parkway North of Okeechobee Road (PCN: 2324-312-0005-000-4). The proposed site is 10.91 acres. It is also proposed that there will be 83 camper lots with pads, a clubhouse, and a pickleball court. A location map is provided in **Figure 1** below.



Figure 1 – Location Map

2. EXISTING CONDITIONS

2.1 Existing Site

The subjected site covers 10.91 acres of land, situated to the North of SR-70 (Okeechobee Rd.). A majority of the land on the site is covered in palm, pine, and oak trees along with cabbage palm and shrubs. Stormwater sheet flows toward the lowland area in Northwest which then connects to an existing culvert running underneath Andrews Avenue. Currently, the entirety of the site sits two feet above the wet season water table except. For a comprehensive understanding of the existing site conditions, please refer to the provided aerials and existing conditions maps on Sheet EX-1.

2.2 Control Elevation

The RV Park to the northwest of the site has a control elevation of 14' NGVD based upon reflecting the control elevation from the adjacent, Treasure Coast RV Park, dated December 1, 2003, SFWMD permit (56-01855-P). Excerpts from the existing permit is provided in Appendix D.

3. PROPOSED CONDITIONS

3.1 Project Description

The proposed improvements for the 10.91 acres site will include 83 RV pads as well as a clubhouse and a pickleball court. The parking lot outside of the clubhouse will include 10 parking spaces as well an individual handicap space. The runoff generated from the areas of proposed parking/driveway and buildings/RV pads will be captured by the multiple inlets and moved to a wet detention pond in the center of the site.

3.2 Land Use

Land Use Summary			
Land Use	**Pre-Dev (ac)**	**Post-Dev (ac)**	**Difference (ac)**
Roadway Asphalt	0.00	1.33	1.33
Concrete	0.00	0.19	0.19
Building	0.00	0.07	0.07
RV Pads	0.00	1.71	1.71
Lake at Control Elevation	0.00	1.08	1.08
Slope of Lake	0.00	0.34	0.34
Open Space	10.91	6.19	(-) 4.72
Parcel Total	**10.91**	**10.91**	

3.3 Water Quality

Water quality storage is provided for the site based on the greater of 1 inch of rainfall over the project area or the total runoff of 2.5 inches times the percent impervious. The required 0.83 ac-ft of storage will be provided in the proposed wet detention pond based on the 2.5-inch times the impervious area. Calculations are provided in Appendix C.

3.4 Stormwater Runoff Volume

The proposed site conditions increase the net impervious area which will result in an increase stormwater runoff generation. The following design storms were analyzed.

- The minimum road crown elevation will be above the 5-yr / 1-day.
- The 100-year / 1-day storm was used to review pre vs. post discharge and used for the retention recovery analysis.
- The 100-year / 3-day storm was used to assist in setting the minimum finished floor elevation for all building on site.

Runoff Volume			
Design Storm	**Pre-Dev (ac-ft)**	**Post-Dev (ac-ft)**	**Difference (ac-ft)**
5-yr / 1-day	**2.76**	**3.45**	**0.69**
25-yr / 3-day	**5.74**	**6.67**	**0.93**

3.5 Stormwater Design Elevation

The proposed dry retention area is sized to contain the required water quality volume for the site. The storage area will be set at or above the peak stage from the 100-year / 1-day storm event. The existing roadway/parking area are set above the 5-year / 1-day. Table 2 below provides a summary of the design stage for this project. Proposed stormwater calculations are provided in Appendix C.

Design Elevations			
Design Storm	**Post-Development (ft NAVD)**	**Design Elev (ft NAVD)**	**Category**
Water Quality	**15.19**	**17.00**	**WQ**
5-yr / 1-day	**16.15**	**18.12**	**Road**
100-yr / 1-day	**17.87**	**18.00**	**Stored Elevation**

Additional project design information is listed as follows:

- Rainfall: The design storm for this analysis was the 100-year, 24-hour and 5-year, 24-hour rainfall event was estimated to by 11.7 inches and 5.87 inches respectively per Appendix C of SFWMD's Environment Resource Permit Applicant's Handbook Volume II.

- Outfall: Discharge from the stormwater detention areas shall be controlled by a horizontal control structure located on the north end of the detention area. The structure overflows into the existing swale system located at the front of the site.

- Geotechnical Information: The soils onsite were determined by usings the USDA soil maps. The maps show that there is a split between Nettles and Oldsmar Sands, Wabasso Sand, and a small percentage of Riviera fine sand.

APPENDICES

Appendix A
Site Plan

Storm MH
Rim:18.75
NW: 10.15
SW: 10.05
Bottom: 9.55

EXISTING DRAINAGE CULVERT

REPLACEMENT OF EXIST. MES WITH TYPE C INLET

PROP. 92 LF 18" RCP

PROP. SWALE

ANDREWS AVENUE

PROP. 86 LF 18" RCP

TYPICAL RV PAD, SEE DETAIL THIS SHEET

4" PVC W.M. (TYP)

PROP. 122 LF 18" RCP

PROP. 168 LF 18" RCP

CONFLICT
BOP: 13.98
TOP: 11.45

CONFLICT
BOP: 12.76
TOP: 10.20

CONTROL ELEVATION
ELEV. 14.0

TOP OF BANK
ELEV. 17.0

PROP. 148 LF 18" RCP

PROP. DRY DETENTION AREA

CONFLICT
BOP: 12.44
TOP: 9.90

FFE: 20.00

PROP. 122 LF 18" RCP

INVERTED CROWN (TYP)

4" PVC W.M (TYP)

CROSSROADS PARKWAY
(90.00' PUBLIC RIGHT-OF-WAY)
(P.B. 30, PG. 8)

CROSSROADS PARKWAY

PARCEL ID:
2324-311-0005-000-1
ZONING: GC

OPEN LOT FOR STAGING

PROP. 150 LF 18" RCP

PROP. 303 LF 18" RCP

PARCEL ID:
2324-705-0013-000-8
ZONING: GC

CONFLICT
BOP: 14.94
TOP: 11.00

STREET NAME
(XX.XX' PUBLIC RIGHT-OF-WAY)
(XX' WIDE ASPHALT)

D-1
N: 1121539.06
E: 852317.77
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.40'
SE INVERT EL=9.95'
NE INVERT EL=10.05'
STRUCT. BOTT. EL=9.50'

D-2
N: 1121583.21
E: 852628.20
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.26'
S INVERT EL=8.70'
STRUCT. BOTT. EL=8.20'

D-3
N: 1121342.97
E: 852889.61
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.18'
W INVERT EL=8.40'
STRUCT. BOTT. EL=7.90'

D-4
N: 1121155.47
E: 852818.07
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.12'
W INVERT EL=10.00'
STRUCT. BOTT. EL=10.50'

D-5
N: 1121051.84
E: 852529.74
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.10'
NE INVERT EL=9.50'
E INVERT EL=9.60'
STRUCT. BOTT. EL=9.00'

D-6
N: 1121262.98
E: 852417.13
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=18.12'
NE INVERT EL=9.50'
STRUCT. BOTT. EL=9.00'

D-7
N: 1121670.32
E: 852313.21
TYPE C INLET
FDOT INDEX 425-052
GRATE EL=15.00'
SE INVERT EL=10.50'
NW INVERT EL=14.50'
STRUCT. BOTT. EL=10.00'

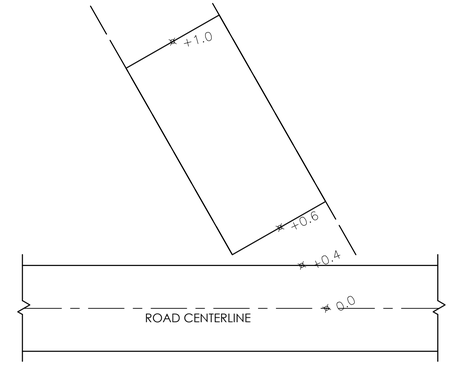
HW-1
N: 1011017.13
E: 889993.30
MITERED END SECTION (4:1)
FDOT INDEX 430-021
18" RCP FL EL = 12.00'

N

0 40' 80'
SCALE: 1" = 40'

LEGEND

- EX. EDGE OF PAVEMENT
- EX. EDGE OF CONCRETE
- OHU — EX. OVERHEAD ELECTRIC
- ST — PROP. STORMWATER PIPE
- WM — PROP. WATER MAIN
- FM — PROP. FORCEMAIN
- S — PROP. SANITARY SEWER
- PROP. TOP OF BANK
- PROP. TOE OF SLOPE
- PROP. ASPHALT MILLINGS
- PROP. CONCRETE
- EX. GUY WIRE
- EX. POWER POLE
- PROP. MITERED END SECT.



TYPICAL EXTERIOR RV PADS
N.T.S.

Drawing Name: S:\Shared Folders\GEP projects\2022\22-024 Crossroads Site Plan\Design\22-024 PG&D Plan.dwg Layout Name: P-1 – Plotted by: Devin Curran – Date: 10/23/2023 – 3:38 PM – Giangrande Engineering & Planning

DATE	BY	REVISIONS

Date: 10/03/2023
Scale: 1"=40'
Design By: DC
Drawn By: RF
Check By: LDG

ALEXANDER GEORGE AND COMPANY
CROSSROADS RV
CITY OF FORT PIERCE

PAVING, GRADING, & DRAINAGE PLAN

GIANGRANDE ENGINEERING AND PLANNING
710 SE OCEAN BLVD.
STUART, FLORIDA 34994
PH. (772) 888-9076
leo@gep.llc
Cert. No. 30901

LEO D. GIANGRANDE, P.E.
License No: 66387

PROJECT #: 22-024

P-1

Appendix B

Stormwater Calculations- Existing

Pre-Development Land Use Calculations

Project Explanation

Project Name:	**Crossroads RV Park**		
Project #:	**22-024**		
Engineer:	**DCC**	**Engineer:**	
Date:	**11/1/2022**	**Revision Date:**	

Computation Type: Land Use & Stage-Storage

Datum: NAVD

Average Ground Elevation (EL_{grnd}) = 17.05 ft-NAVD **Source:** Treasure Coast Motor Coach Resort

Control Elevation (CE) = 14.00 ft-NAVD **Source:** Permit No. 56-01855-P

Site Land Use

	Exist. Area 1	Exist. Area 2	Exist. Area 3	Exist. Area 4	Exist. Area 5	Exist. Area 6	Exist. Area 7	Exist. Area 8	Exist. Area 9	Total
	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)
Percentage of On-Site	100.0%	0.0%	0.0%	0.00%	0.00%	0.0%	0.0%	0.00%	0.00%	
Total Areas (SF)	475,100 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	475,100 SF
Total Areas (A_t)	10.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.91
Bldg. %	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
Bldg. Area (A_r)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pervious %	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	100.00%
Pervious Area (A_p)	10.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.91
Impervious %	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Impervious Area (A_i)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Open Water %	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%
Open Water Area (Ac.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pre-Development Stage-Storage Calculations
Project Explanation

Storage Type: Stage-Volume
Starting Stage = 15.00
Ending Stage = 20.00
Stage Increment = 0.10

Name	Exist. Area 1	Exist. Area 2	Exist. Area 3	Exist. Area 4	Exist. Area 5	Exist. Area 6	Exist. Area 7	Exist. Area 8	Exist. Area 9	
Area	**10.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Start Elev	**15.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
End Elev	**18.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.60	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
15.70	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
15.80	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
15.90	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
16.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
16.10	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63
16.20	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
16.30	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.13
16.40	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.42
16.50	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
16.60	2.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.13
16.70	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53
16.80	2.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.97
16.90	3.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45
17.00	3.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.96
17.10	4.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.50
17.20	5.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.08
17.30	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.70
17.40	6.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.35
17.50	7.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.04
17.60	7.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.76
17.70	8.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.51
17.80	9.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.31
17.90	10.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.13
18.00	10.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.99
18.10	11.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.89
18.20	12.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.82
18.30	13.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.79
18.40	14.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.79
18.50	15.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.83

Pre-Development Stage-Area Calculations
Project Explanation

Storage Type:	**Stage-Area**
Starting Stage =	**15.00**
Ending Stage =	**20.00**
Stage Increment =	**0.10**

Name	**Exist. Area 1**	**Exist. Area 2**	**Exist. Area 3**	**Exist. Area 4**	**Exist. Area 5**	**Exist. Area 6**	**Exist. Area 7**	**Exist. Area 8**	**Exist. Area 9**	
Area	**10.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Start Elev	**15.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
End Elev	**18.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac
15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.60	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
15.70	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
15.80	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06
15.90	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41
16.00	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76
16.10	2.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.11
16.20	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.46
16.30	2.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.81
16.40	3.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.17
16.50	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.52
16.60	3.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.87
16.70	4.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.22
16.80	4.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.57
16.90	4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.93
17.00	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28
17.10	5.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.63
17.20	5.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.98
17.30	6.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33
17.40	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.68
17.50	7.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.04
17.60	7.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.39
17.70	7.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.74
17.80	8.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.09
17.90	8.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.44
18.00	8.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.80
18.10	9.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.15
18.20	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.50
18.30	9.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.85
18.40	10.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.20
18.50	10.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.55

PRE-Development Stormwater Calculations

Project Explanation

Revised:

Project: Crossroads RV Park **Engineer:** DCC

Project #: 22-024 **Date:** 11/1/2022

Land Use Table

Use	Imp. (ac)	Bldg. (ac)	Pervious (ac)	Total (ac)
Basin =	0.00	0.00	10.91	10.91
TOTAL =	0.00	0.00	10.91	10.91

Find Curve Number:

Avg. Pervious Ground El. =	17.05
Control Elev. =	14.00
Distance to Water Table =	3.05

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
0.0	0.0	0.0	0.0
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

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

Soil Type =	Flatwoods		
Max. Available Soil Storage (S_{max}) =	5.58	inches	
Compaction Factor ($F_{compact}$) =	0%		(Use 25% for developed site)
Compacted Soil Storage ($S_{compact}$) =	5.58	inches	$(S_{max})(F_{compact})$
Available Soil Storage (S_{avail}) =	5.58	inches	$(A_p)(S_{compact})/(A_t)$
Curve Number (CN) =	**64**		$1000 / (S_{avail}+10)$

Notes:

1. Soil Storage Table taken from Section 5.7.4.2 of the SFWMD ERP Applicant's Handbook Volume II.
2. Curve Number determination based on method presented in USDA NRCS Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds".

Appendix C

Stormwater Calculations- Proposed

Post-Development Land Use Calculations
Project Explanation

Project Name: Crossroads RV Park
Project #: 22-024
Engineer: DCC
Engineer: BMS
Date: 11/1/2022
Revision Date: 3/22/2023

Computation Type: Land Use & Stage-Storage
Datum: NAVD

Average Ground Elevation (EL_{grnd}) = 17.96 ft-NAVD Source: Treasure Coast Motor Coach Resort
Control Elevation (CE) = 14.00 ft-NAVD Source: Permit No. 56-01855-P

Site Land Use

	Open Space	Lake	Asphalt	Concrete	Lake Slope	Building	RV Pads	Exist. Area 8	Exist. Area 9	Total
	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)
Percentage of On-Site	56.7%	9.9%	12.2%	1.72%	3.13%	0.7%	15.7%	0.00%	0.00%	
Total Areas (SF)	269,291 SF	47,013 SF	57,874 SF	8,168 SF	14,854 SF	3,200 SF	74,700 SF	0 SF	0 SF	475,100 SF
Total Areas (A_t)	6.18	1.08	1.33	0.19	0.34	0.07	1.71	0.00	0.00	10.91
Bldg. %	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.67%
Bldg. Area (A_r)	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.07
Pervious %	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	59.81%
Pervious Area (A_p)	6.18	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	6.52
Impervious %	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	29.62%
Impervious Area (A_i)	0.00	0.00	1.33	0.19	0.00	0.00	1.71	0.00	0.00	3.23
Open Water %	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	9.90%
Open Water Area (Ac.)	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08

Post-Development Stage-Storage Calculations
Project Explanation

Storage Type: Stage-Volume
Starting Stage = 14.00
Ending Stage = 22.00
Stage Increment = 0.10

Name	Open Space	Lake	Asphalt	Concrete	Lake Slope	Building	RV Pads	Exist. Area 8	Exist. Area 9	
Area	6.18	1.08	1.33	0.19	0.34	0.07	1.71	0.00	0.00	
Start Elev	16.20	14.00	18.12	18.80	14.00	20.00	18.70	0.00	0.00	
End Elev	20.00	0.00	19.57	20.00	17.00	0.00	19.10	0.00	0.00	
Stage	Linear	Vert	Linear	Linear	Linear	Vert	Linear	Vert	Vert	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.10	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11
14.20	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22
14.30	0.00	0.32	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.33
14.40	0.00	0.43	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.44
14.50	0.00	0.54	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.55
14.60	0.00	0.65	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.67
14.70	0.00	0.76	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.78
14.80	0.00	0.86	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.90
14.90	0.00	0.97	0.00	0.00	0.05	0.00	0.00	0.00	0.00	1.02
15.00	0.00	1.08	0.00	0.00	0.06	0.00	0.00	0.00	0.00	1.14
15.10	0.00	1.19	0.00	0.00	0.07	0.00	0.00	0.00	0.00	1.26
15.20	0.00	1.30	0.00	0.00	0.08	0.00	0.00	0.00	0.00	1.38
15.30	0.00	1.40	0.00	0.00	0.10	0.00	0.00	0.00	0.00	1.50
15.40	0.00	1.51	0.00	0.00	0.11	0.00	0.00	0.00	0.00	1.62
15.50	0.00	1.62	0.00	0.00	0.13	0.00	0.00	0.00	0.00	1.75
15.60	0.00	1.73	0.00	0.00	0.15	0.00	0.00	0.00	0.00	1.87
15.70	0.00	1.83	0.00	0.00	0.16	0.00	0.00	0.00	0.00	2.00
15.80	0.00	1.94	0.00	0.00	0.18	0.00	0.00	0.00	0.00	2.13
15.90	0.00	2.05	0.00	0.00	0.21	0.00	0.00	0.00	0.00	2.26
16.00	0.00	2.16	0.00	0.00	0.23	0.00	0.00	0.00	0.00	2.39
16.10	0.00	2.27	0.00	0.00	0.25	0.00	0.00	0.00	0.00	2.52
16.20	0.00	2.37	0.00	0.00	0.28	0.00	0.00	0.00	0.00	2.65
16.30	0.01	2.48	0.00	0.00	0.30	0.00	0.00	0.00	0.00	2.79
16.40	0.03	2.59	0.00	0.00	0.33	0.00	0.00	0.00	0.00	2.95
16.50	0.07	2.70	0.00	0.00	0.36	0.00	0.00	0.00	0.00	3.13
16.60	0.13	2.81	0.00	0.00	0.38	0.00	0.00	0.00	0.00	3.32
16.70	0.20	2.91	0.00	0.00	0.41	0.00	0.00	0.00	0.00	3.53
16.80	0.29	3.02	0.00	0.00	0.45	0.00	0.00	0.00	0.00	3.76
16.90	0.40	3.13	0.00	0.00	0.48	0.00	0.00	0.00	0.00	4.01
17.00	0.52	3.24	0.00	0.00	0.51	0.00	0.00	0.00	0.00	4.27
17.10	0.66	3.35	0.00	0.00	0.55	0.00	0.00	0.00	0.00	4.55
17.20	0.81	3.45	0.00	0.00	0.58	0.00	0.00	0.00	0.00	4.85
17.30	0.98	3.56	0.00	0.00	0.61	0.00	0.00	0.00	0.00	5.16
17.40	1.17	3.67	0.00	0.00	0.65	0.00	0.00	0.00	0.00	5.49
17.50	1.37	3.78	0.00	0.00	0.68	0.00	0.00	0.00	0.00	5.83

Post-Development Stage-Area Calculations
Project Explanation

Storage Type:	**Stage-Area**
Starting Stage =	**14.00**
Ending Stage =	**22.00**
Stage Increment =	**0.10**

Name	**Open Space**	**Lake**	**Asphalt**	**Concrete**	**Lake Slope**	**Building**	**RV Pads**	**Exist. Area 8**	**Exist. Area 9**	
Area	**6.18**	**1.08**	**1.33**	**0.19**	**0.34**	**0.07**	**1.71**	**0.00**	**0.00**	
Start Elev	**16.20**	**14.00**	**18.12**	**18.80**	**14.00**	**20.00**	**18.70**	**0.00**	**0.00**	
End Elev	**20.00**	**0.00**	**19.57**	**20.00**	**17.00**	**0.00**	**19.10**	**0.00**	**0.00**	
Stage	Linear	Vert	Linear	Linear	Linear	Vert	Linear	Vert	Vert	Total
Feet	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac
14.00	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08
14.10	0.00	1.08	0.00	0.00	0.01	0.00	0.00	0.00	0.00	1.09
14.20	0.00	1.08	0.00	0.00	0.02	0.00	0.00	0.00	0.00	1.10
14.30	0.00	1.08	0.00	0.00	0.03	0.00	0.00	0.00	0.00	1.11
14.40	0.00	1.08	0.00	0.00	0.05	0.00	0.00	0.00	0.00	1.12
14.50	0.00	1.08	0.00	0.00	0.06	0.00	0.00	0.00	0.00	1.14
14.60	0.00	1.08	0.00	0.00	0.07	0.00	0.00	0.00	0.00	1.15
14.70	0.00	1.08	0.00	0.00	0.08	0.00	0.00	0.00	0.00	1.16
14.80	0.00	1.08	0.00	0.00	0.09	0.00	0.00	0.00	0.00	1.17
14.90	0.00	1.08	0.00	0.00	0.10	0.00	0.00	0.00	0.00	1.18
15.00	0.00	1.08	0.00	0.00	0.11	0.00	0.00	0.00	0.00	1.19
15.10	0.00	1.08	0.00	0.00	0.13	0.00	0.00	0.00	0.00	1.20
15.20	0.00	1.08	0.00	0.00	0.14	0.00	0.00	0.00	0.00	1.22
15.30	0.00	1.08	0.00	0.00	0.15	0.00	0.00	0.00	0.00	1.23
15.40	0.00	1.08	0.00	0.00	0.16	0.00	0.00	0.00	0.00	1.24
15.50	0.00	1.08	0.00	0.00	0.17	0.00	0.00	0.00	0.00	1.25
15.60	0.00	1.08	0.00	0.00	0.18	0.00	0.00	0.00	0.00	1.26
15.70	0.00	1.08	0.00	0.00	0.19	0.00	0.00	0.00	0.00	1.27
15.80	0.00	1.08	0.00	0.00	0.20	0.00	0.00	0.00	0.00	1.28
15.90	0.00	1.08	0.00	0.00	0.22	0.00	0.00	0.00	0.00	1.30
16.00	0.00	1.08	0.00	0.00	0.23	0.00	0.00	0.00	0.00	1.31
16.10	0.00	1.08	0.00	0.00	0.24	0.00	0.00	0.00	0.00	1.32
16.20	0.00	1.08	0.00	0.00	0.25	0.00	0.00	0.00	0.00	1.33
16.30	0.16	1.08	0.00	0.00	0.26	0.00	0.00	0.00	0.00	1.50
16.40	0.33	1.08	0.00	0.00	0.27	0.00	0.00	0.00	0.00	1.68
16.50	0.49	1.08	0.00	0.00	0.28	0.00	0.00	0.00	0.00	1.85
16.60	0.65	1.08	0.00	0.00	0.30	0.00	0.00	0.00	0.00	2.03
16.70	0.81	1.08	0.00	0.00	0.31	0.00	0.00	0.00	0.00	2.20
16.80	0.98	1.08	0.00	0.00	0.32	0.00	0.00	0.00	0.00	2.37
16.90	1.14	1.08	0.00	0.00	0.33	0.00	0.00	0.00	0.00	2.55
17.00	1.30	1.08	0.00	0.00	0.34	0.00	0.00	0.00	0.00	2.72
17.10	1.46	1.08	0.00	0.00	0.34	0.00	0.00	0.00	0.00	2.88
17.20	1.63	1.08	0.00	0.00	0.34	0.00	0.00	0.00	0.00	3.05
17.30	1.79	1.08	0.00	0.00	0.34	0.00	0.00	0.00	0.00	3.21
17.40	1.95	1.08	0.00	0.00	0.34	0.00	0.00	0.00	0.00	3.37
17.50	2.11	1.08	0.00	0.00	0.34	0.00	0.00	0.00	0.00	3.54

Post-Development Stormwater Calculations

Project Explanation

Revised: 3/22/2023

Project: Crossroads RV Park
Engineer: DCC
Project #: 22-024
Date: 11/1/2022

Land Use Table

Use	Imp. (ac)	Bldg. (ac)	Pervious (ac)	Total (ac)
Basin =	4.31	0.07	6.52	10.91
TOTAL =	4.31	0.07	6.52	10.91

Find Curve Number:

Avg. Pervious Ground El. =	17.96
Control Elev. =	14.00
Distance to Water Table =	3.96

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
0.0	0.0	0.0	0.0
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

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

Soil Type =	Flatwoods		
Max. Available Soil Storage (S_{max}) =	8.87	inches	
Compaction Factor ($F_{compact}$) =	25%		(Use 25% for developed site)
Compacted Soil Storage ($S_{compact}$) =	6.65	inches	$(S_{max})(F_{compact})$
Available Soil Storage (S_{avail}) =	3.98	inches	$(A_p)(S_{compact})/(A_t)$
Curve Number (CN) =	**72**		$1000 / (S_{avail}+10)$

Notes:
1. Soil Storage Table taken from Section 5.7.4.2 of the SFWMD ERP Applicant's Handbook Volume II.
2. Curve Number determination based on method presented in USDA NRCS Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds".

Post-Development Water Quality Calculations

Revised: 3/22/2023

Project: Crossroads RV Park
Project #: 22-024
Engineer: DCC
Date: 01-Nov-22

1-inch Over the Project Area

(Treated Volume) 1-inch * 1-ft/12-in * 10.91 (PROJECT AREA) = 0.91 (TREATED VOLUME) ac-ft

2.5-inches Times the Percent Impervious

(Site Area) 10.91 (PROJECT AREA (AC)) - (1.08 (LAKES (AC)) + 0.07 (ROOFS (AC))) = 9.75 (SITE AREA) ac

(Impervious Area) 9.75 (SITE AREA (AC)) - 6.52 (PERVIOUS AREA (AC)) = 3.23 (IMPERVIOUS AREA) ac

(% Impervious) IMPERVIOUS AREA * 100% / SITE AREA (AC) = 33.12%

(2.5-in * % Imp.) 2.5-inches * 33.12% (PERCENT IMPERVIOUS) = 0.83 (INCHES TO BE TREATED) in

(Treated Volume) 0.83 (TREATED (IN)) * 1-ft/12-in * 9.83 (PROJECT AREA - LAKES (AC)) = 0.68 (TREATED VOLUME) ac-ft

Required Wet Detention = **0.91** ac-ft

Required Dry Detention (75% of Wet Detention) = **0.68** ac-ft

Required Retention (50% of Wet Detention) = **0.45** ac-ft

Treatment System Type Wet Detention
Treatment Volume Required = **0.91** ac-ft

Direct Discharge to OFW? Yes
Total Treatment Volume Required = **1.36** ac-ft

Water Quality Elevation (EL_{wq}) = **15.19** ft NAVD

Estimated Required Attenuation

Project Explanation

		Revised:	
Project:	Crossroads RV Park	**Engineer:**	DCC
Project #:	22-024	**Date:**	11/1/2022

Pre-Developed Runoff

5 Year - 1 Day

Area, A (ac) = 10.91
Soil Storage, S (inches) = 5.58
Curve Number, CN = 1000/(S+10)
= 64

5 Year - 1 Day Rainfall, P (inches) = 5.87 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 2.19

Volume, V (AC-FT) = A * Q
= 1.99

Post Developed Runoff

5 Year - 1 Day

Area, A (ac) = 10.91
Soil Storage, S (inches) = 3.98
Curve Number, CN = 1000/(S+10) =
72

5 Year - 1 Day Rainfall, P (inches) = 5.87 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 2.84

Volume, V (AC-FT) = A * Q
= 2.58

5Y-1D Elevation = **16.15** ft NAVD

Estimated Required Attenuation

Project Explanation

Revised:

Project: Crossroads RV Park **Engineer:** DCC

Project #: 22-024 **Date:** 11/1/2022

Pre-Developed Runoff

10 Year - 1 Day

Area, A (ac) = 10.91

Soil Storage, S (inches) = 5.58

Curve Number, CN = 1000/(S+10)

= 64

10 Year - 1 Day Rainfall, P (inches) = 7.02 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 3.04

Volume, V (AC-FT) = A * Q

= 2.76

Post Developed Runoff

10 Year - 1 Day

Area, A (ac) = 10.91

Soil Storage, S (inches) = 3.98

Curve Number, CN = 1000/(S+10) =

72

10 Year - 1 Day Rainfall, P (inches) = 7.02 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 3.80

Volume, V (AC-FT) = A * Q

= 3.45

10Y-1D Elevation = **16.66** ft NAVD

Estimated Required Attenuation

Project Explanation

Revised:

Project: Crossroads RV Park **Engineer:** DCC

Project #: 22-024 **Date:** 11/1/2022

Pre-Developed Runoff

25 Year - 3 Day

Area, A (ac) = 10.91

Soil Storage, S (inches) = 5.58

Curve Number, CN = 1000/(S+10)

= 64

25 Year - 3 Day Rainfall, P (inches) = 11 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 6.32

Volume, V (AC-FT) = A * Q

= 5.74

Post Developed Runoff

25 Year - 3 Day

Area, A (ac) = 10.91

Soil Storage, S (inches) = 3.98

Curve Number, CN = 1000/(S+10) =

72

25 Year - 3 Day Rainfall, P (inches) = 11 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 7.34

Volume, V (AC-FT) = A * Q

= 6.67

25Y-3D Elevation = **17.73** ft NAVD

Estimated Required Attenuation

Project Explanation

		Revised:	
Project:	Crossroads RV Park	**Engineer:**	DCC
Project #:	22-024	**Date:**	11/1/2022

Pre-Developed Runoff

100 Year - 1 Day

Area, A (ac) = 10.91

Soil Storage, S (inches) = 5.58

Curve Number, CN = 1000/(S+10)
= 64

100 Year - 1 Day Rainfall, P (inches) = 11.7 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 6.93

Volume, V (AC-FT) = A * Q
= 6.30

Post Developed Runoff

100 Year - 1 Day

Area, A (ac) = 10.91

Soil Storage, S (inches) = 3.98

Curve Number, CN = 1000/(S+10) =
72

100 Year - 1 Day Rainfall, P (inches) = 11.7 (From Figure C-8 SFWMD ERP Applicant's Handbook Volume II

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 7.99

Volume, V (AC-FT) = A * Q
= 7.26

100Y-1D Elevation = **17.87** ft NAVD

Appendix D
2003 SFWMD Permit

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

OKEECHOBEE SERVICE CENTER 205 North Parrott Avenue, Suite 201, Okeechobee, FL 34972-2916
(863) 462-5260 • FL WATS 1-800-250-4200 • Suncom 761-5260 • Fax (863) 462-5269
www.sfwmd.gov/org/exo/okeechobee/okindex1.html

56-01855-P

March 13, 2006

SUNDIAL HOMES INC
8000 SOUTH US 1 STE 402
PORT ST LUCIE, FL 34952

Dear Permittee :

Subject : Acceptance of Construction Completion Certification & Conversion to Operation Phase
TREASURE COAST MOTOR COACH RESORT
Permit No. 56-01855-P, Application No. 031229-20
Additional Application No(s). 050531-16
St Lucie County, S24/T35S/R39E

This letter is to acknowledge receipt of your consulting engineer's construction completion certification pertaining to the subject parcel's surface water management system. The submitted information has been accepted and incorporated into the permit file.

By accepting the engineer's certification, District staff considers the surface water management system permitted under the above listed application number(s) to be constructed in substantial conformance with the plans and specifications approved by the District. This satisfies your permit conditions regarding submittal of an engineer's certification for construction completion of the permitted drainage facilities and the above referenced permit is hereby converted from the construction phase to the operation phase.

Should you have any questions, please contact the undersigned at the Okeechobee Service Center at 863-462-5260 ext. 3033.

Sincerely,

Allison Murphy

Allison C. Murphy, Staff Regulatory Professional
Environmental Resource Compliance
Okeechobee Service Center
South Florida Water Management District
am

c: Adam Heltemes Pe, Lbfh Inc
Spanish Lakes Communities

GOVERNING BOARD

Kevin McCarty, *Chair*
Irela M. Bagué, *Vice-Chair*
Pamela Brooks-Thomas
Alice J. Carlson
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Nicolás J. Gutiérrez, Jr., Esq.
Lennart E. Lindahl, P.E.
Harkley R. Thornton
Malcolm S. Wade, Jr.

EXECUTIVE OFFICE

Carol Ann Wehle, *Executive Director*

SCANNED

bc: Vault File - Permit No. 56-01855-P / App. No. 031229-20 file
D. Loving 2280
Day File

LBFH INC.
CONSULTING CIVIL ENGINEERS,
SURVEYORS & MAPPERS

February 27, 2006
LBFH Project #03-0179

RECEIVED
FEB 28 2006
OKEECHOBEE
SERVICE CENTER

Allison Murphy, Staff Regulatory Professional
Environmental Resource Compliance
Okeechobee Service Center
South Florida Water Management District
205 North Parrott Avenue, Suite 201
Okeechobee, FL 34972-2916

CIVIL
AGRICULTURAL
WATER RESOURCES
WATER & WASTEWATER
TRANSPORTATION
SURVEYING & MAPPING
GIS

SUBJECT: CONSTRUCTION COMPLETION CERTIFICATION
PERMIT # 56-01855-P

Permittee: Sundial Homes, Inc.
Project: **Treasure Coast Motor Coach Resort**
Location: St. Lucie County, Section 24/Township 35S/Range 39E

Dear Ms. Murphy:

On behalf of LBFH Inc., please accept this application for Construction Completion Certification for the above mentioned project. Based upon the attached as-builts and inspections during construction, the Treasure Coast Motor Coach Resort project has been constructed in general accordance with the approved plans and specifications, and meets the applicable codes of SFWMD and the City of Fort Pierce.

The following items are enclosed for your review and approval:

- One originally signed and sealed certification application
- One originally signed and sealed as-built survey

If there is anything that we can do or provide to you to help expedite this approval, please do not hesitate to contact me. Thank you for your time and indulgence with this project.

Sincerely,
LBFH, Inc.

Kari Miller
Project Engineer

"Partners for Results
Value by Design"

2222 Colonial Road
Suite 201
Fort Pierce, FL 34950
Phone (772) 461-2450
Fax (772) 465-1225
www.lbfh.com

KM/km
cc: Harvey Newman, Sundial Homes w/attachments
P:\03-0179\Permit\CERTIFICATION\cover.doc

SCANNED

South Florida Water Management District

ENVIRONMENTAL RESOURCE / SURFACE WATER MANAGEMENT PERMIT
SURFACE WATER MANAGEMENT SYSTEM
CONSTRUCTION COMPLETION CERTIFICATION

ENVIRONMENTAL RESOURCE COMPLIANCE DIVISION

Permit No. 56-01855-P Application No(s). 031229-20, 050531-16

Project Name Treasure Coast Motor Coach Resort Park Phase N/A

The subject surface water management system has been designed, constructed and completed as follows (check all that apply):

DISCHARGE STRUCTURE(S) Please provide the requested information for all permitted discharge structures. Attach additional sheets if needed.

Structure Identification Number: WCS

☐ Weir: width 0.85' crest 17.02

☐ Bleeder: type Circle dimensions 3.6" invert 13.98

☐ Additional discharge structure information attached.

RETENTION/DETENTION AREA(S): Please provide the requested information for all permitted retention/detention areas. Attach additional sheets if needed.

Retention/Detention Area Identification Number: Wet Detention Pond Size (acres) 1.18

Side Slope (h:v) 4:1

☒ Additional retention/detention area information attached.

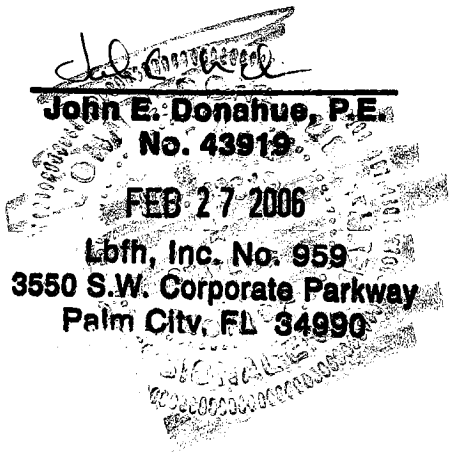
☐ **EXFILTRATION TRENCH** - Confirmation of cross-section with pipe size and invert, trench width, height and length is provided on the attached.

☒ **CONVEYANCE SYSTEM ONLY** - The components of the permitted surface water management consist of inlets, pipes or other form of conveyance system. Confirmation of ditches, canals, and/or swales with cross-sections, pipe diameters, inverts, and lengths is provided on the attached.

Please indicate the location of the benchmark(s) used to determine the above information on the record drawings (40E-4.381(1)(f), F.A.C. Code). All elevations should be according to National Geodetic Vertical Datum (NGVD).

I HEREBY NOTIFY THE DISTRICT OF THE COMPLETION OF CONSTRUCTION OF ALL THE COMPONENTS OF THE SURFACE WATER MANAGEMENT FACILITIES FOR THE ABOVE REFERENCED PROJECT AND CERTIFY THAT THEY HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS PERMITTED BY THE DISTRICT. [A COPY OF THE APPROVED PERMIT DRAWINGS IS ATTACHED WITH DEVIATIONS NOTED, IF APPLICABLE.]

Engineer's Signature, Seal and Date:



Please Print or Type

Engineer's Name John E.Donahue, P.E., V.P.

Company Name LBFH, Inc

Address 2222 Colonial Road, Suite 201

Fort Pierce, FL 34950

Authorization No. of Engineering Business (if applicable) 959

Telephone Number 772-461-2450

E-mail john-d@lbfh.com

sfwmd.gov SCANNED

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Environmental Resource/Surface Water Management Permit - Construction Commencement Notice

RECEIVED
MAR 29 2004
ERC 4230

FORM 0960
08/95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Environmental Resource Compliance Division - *Please see page 2 of 2

PROJECT NAME: Treasure Coast Motor Coach Resort

PHASE: N/A

I hereby notify the South Florida Water Management District Environmental Resource Compliance Division that construction of the surface water management system, authorized by Environmental Resource/Surface Water Management Permit No. 56 - 01855-P under Application No. 031229-20 has commenced/is expected to commence on March 30, 2004 ~~199~~ and will require a duration of approximately 6 /months 0 /weeks 0 /days to complete. Should the construction term extend beyond one year, I will submit Form No. 0961, Environmental Resource/Surface Water Management Permit Annual Status Report for Surface Water Management System Construction, to the District.

PLEASE NOTE: If the actual construction commencement date is not known, District staff should be so notified in writing. This will eliminate the necessity of further post permit compliance action concerning satisfaction of the Permit condition.

Permittee's or Authorized Agent's Signature

HARVEY NEWMAN
Vice President, Sundial Homes, Inc.
Title and Company

772-878-5513
Phone Number

03/26/04
Date

SCANNED

*Projects in the following counties should respond to the corresponding SFWMD Service Center

Broward, Dade, Martin, Monroe, Palm Beach, and St. Lucie Counties - Please respond to the West Palm Beach Service Center:

SFWMD
Environmental Resource Compliance Division
P.O. Box 24680
West Palm Beach, FL 33416-4680

Highlands and Okeechobee Counties - Please respond to the Okeechobee Service Center.

SFWMD
Environmental Resource Compliance Division
205 East North Park Street
Okeechobee, FL 34972

Charlotte, Collier, Glades, Hendry, and Lee Counties - Please respond to the Ft. Myers Service Center:

SFWMD
Environmental Resource Compliance Division
2301 McGregor Blvd.
Ft. Myers, FL 33901

Orange, Osceola and Polk Counties - Please respond to the Orlando Service Center:

SFWMD
Environmental Resource Compliance Division
7335 Lake Ellenor Drive
Orlando, FL 32809

SCANNED

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Environmental Resource/Surface Water Management Permit - Construction Commencement Notice

RECEIVED
MAR 29 2004
ERC 4230

FORM 0960
08/95

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Environmental Resource Compliance Division - *Please see page 2 of 2

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PHASE: N/A

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Environmental Resource Compliance Division
205 East North Park Street
Okeechobee, FL 34972

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Orange, Osceola and Polk Counties - Please respond to the Orlando Service Center:

SFWMD
Environmental Resource Compliance Division
7335 Lake Ellenor Drive
Orlando, FL 32809

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Storm Event Summary Table

56-01855-P

PROJECT DRAINAGE SUMMARY

Project: TC RV Park
Project #: 03-0179

Revised:
Engineer: AA
Date: 12/1/2003

	Post-Development	
	Maximum Discharge (cfs)	Maximum Stage NGVD
10 Year - 1 Day	0.8	17.6
10 Year - 3 Day	1.9	18.0
100 Year - 3 Day	3.5	18.5
100 Year - Zero Discharge **	N/A	18.8

Please file under App. 050531-16

Notes per City of Fort Pierce Land Use Code for Stormwater Design:

10 Year 1 Day = 6.00 in
10 Year 3 Day = 8.30 in
100 Year 3 Day = 12.23 in

(Receiving Body NSLRWCD Canal 40)

Allowable Discharge:

Pre-development = 2.61 Ac-Feet/Day
Post-development = 2.5 Ac-Feet/Day

	Time (Hours)	Cumulative Discharge (Ac-Feet)
At Peak	65	1.35
After 24 Hours	89	3.85

SCANNED



PRE-Development Stormwater Calculations

Project: TC RV Park
Project #: 03-0179

Revised:
Engineer: AA
Date: 12/1/2003

North St. Lucie River Water Control District

Discharge Criteria

* The allowable discharge within the North St. Lucie River Water Control District is limited to 2 Ac-In per day. Therefore, a pre-development calculation is not necessary given the maximum discharge criteria for the NSLRWCD.

	Project Acreage	=	**15.7** Acres	
	(2 Inches per Day) x (Project Acreage)	=	31.36	Ac-Inches / 12 = 2.61
31.36	Ac-Inches x (1 ft / 12 inches)	=	2.61	Ac-Feet
2.61	Ac-Feet x (43,560 SF / 1 Acre)	=	113,837	CF per day

Cumulative discharge - 24 hr period 64-84 hrs for example:

84 hrs - 3.56 ac-ft
64 hrs - 1.19 ac-ft
$\Delta Q_{vol.}$ = 2.37 ac-ft < 2.61 ac-ft

Plus, min bleeder proposed

SCANNED

POST-DEVELOPMENT LAND USE CALCULATIONS

Project: TC RV Park
Project #: 03-0179

Revised:
Engineer: AA
Date: 12/1/2003

Land Use Table

Use	Imp. (ac)	Pervious (ac)	Total (ac)
Buildings =	0.21	0.00	0.21
Pavement & Curb =	2.38	0.00	2.38
*Concrete Surfaces (Pads) =	6.59	0.00	6.59
SW =	0.19	0.00	0.19
W.T.A. =	0.98	0.00	0.98
W.T.A (Slopes) =	0.00	0.16	0.16
Landscape =	0.00	5.17	5.17
Remaining Pervious =	0.00	0.00	0.00
TOTAL =	10.35	5.33	15.68

*Concrete Surfaces (Pads) = Assumes 1750 s.f. for 164 pads

Find Curve Number:

Avg. Pervious Ground El. =	17.50
Control Elevation =	14.00
Distance to Water Table =	3.50

Soil Storage Table

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

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

Developed Pervious Area =	5.33	
Undeveloped Pervious Area =	0.00	
Soil Storage =	7.20	inches
Soil Moisture Storage (S) =	1.84	inches
Curve Number =	**84**	

SCANNED

POST-DEVELOPMENT WATER QUAL... CALCULATIONS

Project: TC RV Park
Project #: 03-0179

Revised:
Engineer: AA
Date: 12/1/2003

1-Inch Over the Project Area

(Treated Volume) 1-inch * 1-ft/12-in * 15.68 (PROJECT AREA) = 1.31 (TREATED VOLUME) ac-ft

2.5-Inches Times the Percent Impervious

(Site Area) 15.68 (PROJECT AREA (AC)) - (0.98 (Water Management(AC)) + 0.21 (ROOFS (AC))) = 14.49 (SITE AREA) ac

(Impervious Area) 14.49 (SITE AREA (AC)) - 5.33 (PERVIOUS AREA (AC)) = 9.15 (IMPERVIOUS AREA) ac

(% Impervious) IMPERVIOUS AREA * 100% / SITE AREA (AC) = 63.20%

(2.5-in * % Imp.) 2.5-inches * 63.20% (PERCENT IMPERVIOUS) = 1.58 (INCHES TO BE TREATED) in

(Treated Volume) 1.58 (TREATED (IN)) * 1-ft/12-in * 14.70 (PROJECT AREA - LAKES (AC)) = 1.93 (TREATED VOLUME) ac-ft

Required Wet Detention = 1.93 ac-ft

Required Dry Detention (0.75% of wet) = 1.45 ac-ft

Required Retention (50-% of wet) = 0.97 ac-ft

Dry Pre-Treatment (Commercial / Industial Only) = 0.65 ac-ft

* A minimum of 0.5-inch of pretreatment for industrial or commercial projects will be needed.

SCANNED

TC RV Park

Water Quality Control Structure Sizing, SFWMD BOR and NSLRWCD Criteria

Execution Date: 12/1/2003 **Engineer's Name:** AA
Project Name: TC RV Park **Job No:** 03-0179

Given:

Basin Area = 15.7 acres
Control Elevation = 14.0 FT. NGVD
Area of Storage at Control = 1.0 acres
Tailwater = 13.9 FT-NGVD
P, Design Rainfall (10-year 3-day)= 8.30 inches
CN for Basin = 84
S, Average Soil Storage for Basin = 1.84 inches

Determine Water Quality Volume and Stage:

Determine 1st Inch of Runoff: 1 Inch / 12 In/Ft * Basin Area = V_{DET} = *1.31 AC-FT*

Determine 0.5" Inch of Runoff: 0.5 Inch / 12 In/Ft * Basin Area = *0.65 AC-FT*

Determine 2.0" Inch of Runoff: 2.0 Inch / 12 In/Ft * Basin Area = *2.61 AC-FT*

Determine Weir Crest 1st inch of Runoff
From Stage-Storage Curve
Set WQ Weir Crest using Basin Area = 15.3 FT. NGVD

Determine Runoff Volume and Stage for 10-Year 3-Day Storm Event:

$$Q, \text{inches} = \frac{(P - 0.2\,S)^2}{(P + 0.8\,S)}$$

Q = 6.44 inches
V = 8.42 AC-FT

Corresponding Zero Discharge Stage = 18.20 FT. NGVD

Size the Water Quality Control Structure Discharge V-Notch Weir.

Size Circular Orifice

$$A = \frac{5.3 * V_{DET}}{C * (H^{0.5})}$$

A = cross-sectional area, in^2
C = 0.6

Based on SFWMD WQ Criteria

A = 9.60 in^2
H = 1.45 ft
D, diameter = 3.5 inches

Based on NSLRWCD Criteria

A = 11.06 in^2
H = 4.36 ft
D, diameter = 3.8 inches

Results: Use a D = 3.0 inches bleeder per SFWMD WQ Criteria

SCANNED

POST - 100 YEAR 3 DAY ZERO DISCHARGE STAGE CALCULATIONS

Project: TC RV Park
Project #: 03-0179

Revised:
Engineer: AA
Date: 12/1/2003

Area, A (ac) = 15.08
Curve Number, CN = 84
Soil Storage, S (inches) = 1000/CN - 10 = 1.84
100 Year - 3 Day Rainfall, P (inches) = 12.23

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 10.27

Volume, V (AC-FT) = A * Q
= 13.42

Occurs @ Stage, FT-NGVD = 18.8

Results:

SCANNED

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Patented NanoComfort™ Technology – Version C

Rev. Date: V7 11/01/2023

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. Medium is suitable upgrade for HID applications up to 400 Watts. Large is suitable upgrade for HID applications up to 1000 Watts. Extra Large is suitable upgrade for HID applications up to multiple 1000 Watts.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, pickleball courts, high-mast and internal roadways

Performance Summary

Utilizes Patented NanoComfort™ Technology

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: 4,000 - 85,000

Efficacy: Up to 171 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

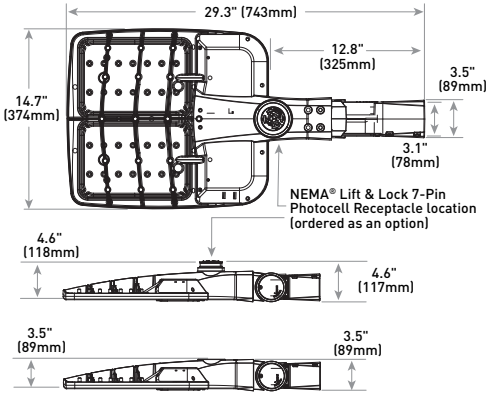
CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty†: 10 years for luminaire; 10 years for Colorfast DeltaGuard® finish; 5 years for BML sensor; up to 5 years for Synapse® accessories; 1 year for luminaire accessories

† See http://creelighting.com/warranty for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

OSQM - AA Mount





Luminaire	Weight
OSQM	19.3 lbs. (8.8kg)

Note: For OSQL, OSQX and additional mounts, refer to drawings on page 27.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Mount:** OSQ-ML-C-AA-BK + **Luminaire:** OSQM-C-4L-30K7-2M-UL-NM-BK

Mount (Luminaire must be ordered separately)*

OSQ-

Medium/Large Mounts
OSQ-ML-C-AA Adjustable Arm
OSQ-ML-C-DA Direct Arm
OSQ-ML-C-TM Trunnion Mount

Extra Large Mounts
OSQ-X-C-AA Adjustable Arm
OSQ-X-C-DA Direct Arm

Color Options: **SV** Silver **BK** Black **BZ** Bronze **WH** White

* Reference fixture mounting drill pattern, EPA, and pole configuration suitability data beginning on page 14.

Luminaire (Mount must be ordered separately)

OSQ **C**

Family	Size	Series	Lumen Package†	CCT/ CRI	Optic	Voltage	Mount	Color Options	Controls*	Options
OSQ	**M** Medium **L** Large **X** Extra Large	**C**	**Medium** **4L** 4,000 Lumens **6L** 6,000 Lumens **9L** 9,000 Lumens **11L** 11,000 Lumens **16L** 16,000 Lumens **Large** **22L** 22,000 Lumens **30L** 30,000 Lumens **40L** 40,000 Lumens **Extra Large** **50L** 50,000 Lumens **65L** 65,000 Lumens **75L** 75,000 Lumens **85L** 85,000 Lumens	**30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**Asymmetric** **2M** Type II Mid **2B**** Type II Mid w/ Factory-Installed Backlight Shield - Available with all lumen packages except 85L **3M** Type III Mid **3B**** Type III Mid w/ Factory-Installed Backlight Shield - Available with all lumen packages except 85L **4M** Type IV Mid **4B**** Type IV Mid w/Factory-Installed Backlight Shield - Available with all lumen packages except 85L **AF** Automotive FrontlineOptic™ **AB**** Automotive Frontline Optic™ w/Factory-Installed Backlight Shield - Available with all lumen packages except 85L **Symmetric** **5M** Type V Mid **5N** Type V Narrow **33** NEMA® 3x3 **44** NEMA® 4x4 **55** NEMA® 5x5 **66** NEMA® 6x6 **75** NEMA® 7x5	**UL** Universal 120-277V **UH** Universal 347-480V - Not available with 4L, 40L, 75L or 85L lumen packages **UE** Universal 277-480V - Available only with 40L, 75L and 85L lumen packages	**NM** No Mount - Must specify mount from table above - Mount ships separately	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**BML** **Bluetooth® Technology Enabled Multi-Level Sensor** - Utilizes a multifunction sensor - Refer to BML spec sheet for details - 20-40' sensor lens installed on luminaire; 8-20' sensor lens and aisle shroud included - Intended for downlight applications at 0° tilt - Not available with Q or X options or Synapse TL7-HVG accessory **Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1** **Field Adjustable Output** - Must select Q9, Q8, Q7, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 15-26 for power and lumen values - Not available with BML or X options or Synapse TL7-HVG accessory **X8/X7/X6/X5/X4/X3/X2/X1** **Locked Lumen Output** - Must select X8, X7, X6, X5, X4, X3, X2, or X1 - Not available with BML or Q options - X1 option not available with the following lumen package/voltage offerings: 9L/UL, 16L/UL, 16L/UH, 30L/UL, 30L/UH, 65L/UL, 65L/UH - X2 option not available 9L/UL lumen package/voltage - Lumen output is permanently locked to the setting selected - Refer to pages 15-26 for power and lumen values	**20KV** **20kV/10kA Surge Suppression** - Replaces standard 10kV/5kA surge protection **F** **Fuse** - Compatible with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - When code dictates fusing, use time delay fuse **N** **Utility Label and NEMA® Lift & Lock 7-Pin Photocell Receptacle** - External utility label per ANSI C136.15-2020 - 7-pin receptacle per ANSI C136.41 - Available only with OSQM & OSQL luminaires - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others **R** **NEMA® Lift & Lock 7-Pin Photocell Receptacle** - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - Requires photocell or shorting cap by others - Refer to page 2 for compatible Synapse control offerings **RL** **Rotate Left** - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics **RR** **Rotate Right** - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 27 for optic directionality - Not for use with symmetric optics

† Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.
* Luminaire comes standard with 0-10V dimming.
** Factory-installed backlight shields are integral to luminaire optic and may not be removed in the field. For field-install backlight control, please refer to the External Backlight Shields in the accessory table on page 2.

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING®

Product Specifications

CREE LIGHTING NANOCOMFORT™ TECHNOLOGY

Cree Lighting's NanoComfort™ Technology ends the trade-offs in outdoor lighting by providing superior glare reduction and visual comfort in high-efficiency illumination delivered precisely where it is needed. The basic building block of NanoComfort™Technology is a compact 4x4 array of LEDs. Each of the 16 LEDs in a module is in contact with its own acrylic polymer lens to capture and precisely direct light. With NanoComfort™ Technology, the acrylic optics are cut and sculpted into facets that relieve the glare and harshness while improving visual comfort – all while retaining superb efficacy and control.

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Acrylic optic w/clear tempered glass lens
- Some versions are provided with full circuit board, but not fully populated with LEDs or optics to scale back lumen package
- Convenient interlocking mounting method on direct arm. Mounting adaptor is rugged die cast aluminum and mounts to 3" (76mm) or larger square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers. Refer to page 14 for fixture mounting drill patterns
- Adjustable arm mount adapters are rugged die cast aluminum
- OSQ-ML-C-AA mounts to a horizontal or vertical 2" (51mm) IP, 2.375" (60mm) O.D. tenon and can be adjusted 180˚ in 2.5˚ increments
- OSQ-X-C-AA mounts to a horizontal or vertical 2" (51mm) IP, 2.375-2.50" (60-64mm) O.D. steel tenon and can be adjusted 180˚ in 5.0˚ increments. **NOTE: Tenon length must be a minimum of 3.75" (95mm), and tenon must be steel**
- Trunnion mount is constructed of A500 and A1011 steel and is adjustable from 0-180˚ in 15˚ degree increments. Trunnion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Luminaires include 15" (381mm) 18/5 cord exiting the luminaire
- Designed for uplight and downlight applications. Uplight orientation not suitable for use with N or R options
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available

Weight

Mount	Housing Size		
	Medium	Large	Extra Large
Direct Arm	19.7 lbs. (8.9kg)	28.8 lbs. (13.1kg)	45.8 lbs. (20.8kg)
Adjustable Arm	19.3 lbs. (8.8kg)	28.4 lbs. (12.9kg)	48.6 lbs. (22.0kg)
Trunnion	23.2 lbs. (10.5kg)	32.3 lbs. (14.7kg)	N/A

For BML sensor add 0.1 lbs. (45g), and for NEMA receptacle, add 0.3 lbs. (136g).

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V, 277-480V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV/5kA surge suppression protection standard; 20kV/10kA surge suppression protection optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Dims to 10%. Controls by others
- 0-10V dimming per ANSI C137.1-2019 (8-Volt or 9-Volt per power level/options selected)
- Refer to Dimming spec sheet for details
- **Maximum 10V Source Current:** 1.8mA
- **Operating Temperature Range:** -40˚C - +40˚C (-40˚F - +104˚F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed (UL1598)
- Suitable for wet locations
- Meets NEMA C82.77 standards
- Drivers and LEDs are UL certified in accordance with UL8750
- Meets requirements of IP66 per IEC 60529 when ordered without N or R options
- Certified to ANSI C136.31-2018, 3G bridge and overpass vibration standards
- ANSI C136.2 10kV/5kA (standard) and 20kV/10kA (optional) surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Lens meets IK07 requirements per IEC 60068-2
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and direct arm mount only. Please refer to https://darksky.org/what-we-do/darksky-approved/products-companies/#!/~/search/keyword=cree for most current information
- DLC and DLC Premium qualified SKUs available. Exceptions apply when 2B, 3B, 4B & AB optics are selected. Please refer to https://qpl.designlights.org/solid-state-lighting for most current information
- DLC Luna qualified when ordered with direct arm mount and 30K7 CCT. Please refer to https://qpl.designlights.org/solid-state-lighting for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL

The Synapse SimplySNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 1000 nodes per gateway. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. The Twist-Lock Lighting Controller (TL7-HVG) and Site Controller (SS450-002) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Synapse Wireless Control Accessories

Twist-Lock Lighting Controller
TL7-HVG
- Suitable for 120-480V (UL, UE and UH) voltages
- Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle
- Not for use with BML or Q options
- Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaire
- Refer to TL7-HVG spec sheet for details

SimplySNAP Central Base Station
CBSSW-450-002
- Includes On-Site Controller (SS450-002) and 5-button switch
- Indoor and Outdoor rated
- Refer to CBSSW-450-002 spec sheet for details

Synapse Wireless Sensor
WSN-DPM
- Motion and light sensor
- Control multiple zones
- Refer to WSN-DPM spec sheet for details

SimplySNAP On-Site Controller
SS450-002
- Verizon® LTE-enabled
- Designed for indoor applications
- Refer to SS450-002 spec sheet for details

Building Management System (BMS) Gateway
BMS-GW-002
- Required for BACnet integration
- Refer to BMS-GW-002 spec sheet for details

Outdoor Antennas
(Optional, for increased range, 8dB gain)
KIT-ANT420SM
- Kit includes antenna, 20' cable and bracket

KIT-ANT360
- Kit includes antenna, 30' cable and bracket

KIT-ANT600
- Kit includes antenna, 50' cable and bracket
- Refer to Outdoor antenna spec sheet for details

Electrical Data*

Lumen Package	System Watts 120-480V	Utility Label Wattage	Total Current (A)					
			120V	208V	240V	277V	347V	480V
4L**	26	30	0.21	0.12	0.11	0.09	N/A	N/A
6L	37	40	0.31	0.18	0.15	0.13	0.11	0.08
9L	55	60	0.46	0.27	0.23	0.20	0.16	0.12
11L	68	70	0.57	0.33	0.28	0.25	0.20	0.14
16L	97	100	0.81	0.47	0.40	0.35	0.28	0.20
22L	131	130	1.09	0.63	0.55	0.47	0.38	0.27
30L	175	180	1.46	0.84	0.73	0.63	0.50	0.36
40L	236	240	1.96	1.13	0.98	0.85	0.68	0.49
50L	297	N/A	2.48	1.43	1.24	1.07	0.86	0.62
65L	384	N/A	3.20	1.85	1.60	1.39	1.11	0.80
75L	447	N/A	3.73	2.15	1.86	1.61	1.29	0.93
85L	520	N/A	4.34	2.50	2.17	1.88	1.50	0.93

* Electrical data at 25˚C (77˚F). Actual wattage may differ by +/- 10% when operating between 120-277V, 277-480V or 347-480V+/-10%.
** Available with UL voltage only.

OSQ-C Series Ambient Adjusted Lumen Maintenance[1]

Ambient	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Reported[2] LMF	100K hr Reported[2] LMF
5˚C (41˚F)	1.02	0.99	0.93	0.88	0.83
10˚C (50˚F)	1.02	0.98	0.93	0.87	0.82
15˚C (59˚F)	1.01	0.98	0.92	0.87	0.82
20˚C (68˚F)	1.01	0.97	0.92	0.86	0.81
25˚C (77˚F)	1.00	0.97	0.91	0.86	0.81

[1] Lumen maintenance values at 25˚C (77˚F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions.
[2] In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

Accessories

Field-Installed

External Backlight Shield
OSQ-M-C-BLSF (Medium)
OSQ-L-C-BLSF (Large)
OSQ-X-C-BLSF (Extra Large)
- Not for use with rotated optics

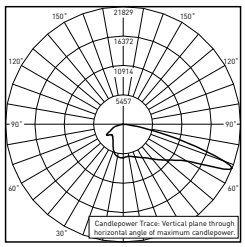
Bird Spikes
OSQ-M-C-BRDSPK
OSQ-L-C-BRDSPK
OSQ-X-C-BRDSPK

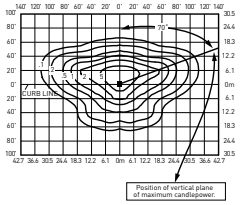
Shorting Cap
XA-XSLSHRT

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

2M





RESTL Test Report #: PL17910-001A
Configured
OSQL-C-30L-30K7-2M-UL-xx-xx-xx
Initial Delivered Lumens: 27,400

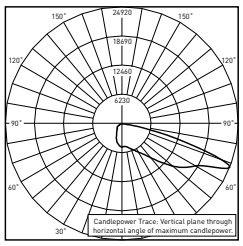
OSQL-C-30L-30K7-2M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 27,400
Initial FC at grade

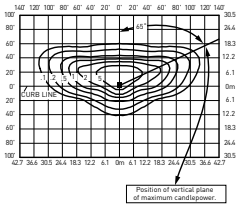
Type II Mid Distribution

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G2	8,550	B2 U0 G2	6,325	B2 U0 G2	8,550	B2 U0 G2
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G2	10,450	B2 U0 G2
16L	14,650	B3 U0 G3	15,200	B3 U0 G3	11,275	B2 U0 G2	15,200	B3 U0 G3
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B3 U0 G3	20,900	B3 U0 G3
30L	27,400	B3 U0 G3	28,500	B3 U0 G3	21,100	B3 U0 G3	28,500	B3 U0 G3
40L	36,500	B4 U0 G4	38,000	B4 U0 G4	28,100	B3 U0 G3	38,000	B4 U0 G4
50L	45,600	B4 U0 G4	47,500	B4 U0 G4	35,200	B3 U0 G3	47,500	B4 U0 G4
65L	59,300	B4 U0 G5	61,800	B4 U0 G5	45,700	B4 U0 G4	61,800	B4 U0 G5
75L	68,400	B5 U0 G5	71,300	B5 U0 G5	52,800	B4 U0 G4	71,300	B5 U0 G5
85L	77,600	B5 U0 G5	80,800	B5 U0 G5	59,800	B4 U0 G5	80,800	B5 U0 G5

* Initial delivered lumens at 25˚C (77˚F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

2B





RESTL Test Report #: PL17977-001A
OSQL-C-40L-30K7-2B-UL-xx-xx-xx
Initial Delivered Lumens: 25,560

OSQL-C-40L-30K7-2B-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 25,100
Initial FC at grade

Type II Mid w/BLS Distribution (factory-installed)

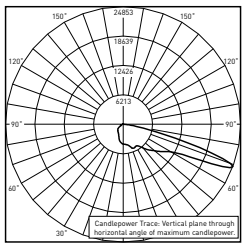
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,510	B1 U0 G1	2,620	B1 U0 G1	1,940	B0 U0 G1	2,620	B1 U0 G1
6L	3,760	B1 U0 G1	3,920	B1 U0 G1	2,900	B1 U0 G1	3,920	B1 U0 G1
9L	5,650	B1 U0 G1	5,875	B1 U0 G1	4,350	B1 U0 G1	5,875	B1 U0 G1
11L	6,900	B1 U0 G1	7,200	B1 U0 G2	5,325	B1 U0 G1	7,200	B1 U0 G2
16L	10,075	B1 U0 G2	10,450	B2 U0 G2	7,750	B1 U0 G2	10,450	B2 U0 G2
22L	13,800	B2 U0 G2	14,375	B2 U0 G2	10,650	B2 U0 G2	14,375	B2 U0 G2
30L	18,800	B2 U0 G2	19,600	B2 U0 G3	14,525	B2 U0 G2	19,600	B2 U0 G3
40L	25,100	B3 U0 G3	26,200	B3 U0 G3	19,400	B2 U0 G2	26,200	B3 U0 G3
50L	31,400	B3 U0 G4	32,700	B3 U0 G4	24,200	B3 U0 G3	32,700	B3 U0 G4
65L	40,800	B3 U0 G4	42,500	B3 U0 G4	31,500	B3 U0 G4	42,500	B3 U0 G4
75L	47,100	B3 U0 G5	49,000	B3 U0 G5	36,300	B3 U0 G4	49,000	B3 U0 G5

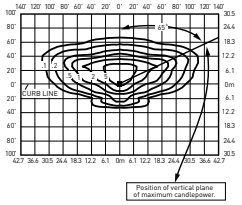
* Initial delivered lumens at 25˚C (77˚F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

2M W/OSQ-*-C-BLSF





RESTL Test Report#: PL17978-001B
OSQL-C-40L-30K7-2M-UL-xx-xx-xx w/ OSQ-L-C-BLSF
Initial Delivered Lumens: 21,978

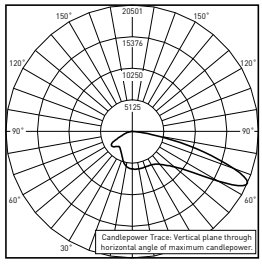
OSQL-C-40L-30K7-2M-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 21,000
Initial FC at grade

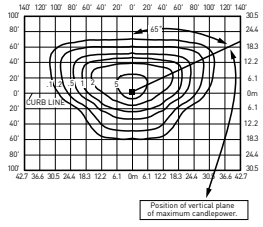
Type II Mid Distribution w/OSQ-*-C-BLSF (field-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B0 U0 G1	2,180	B0 U0 G1	1,610	B0 U0 G1	2,180	B0 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G1	6,000	B1 U0 G1	4,450	B1 U0 G1	6,000	B1 U0 G1
16L	8,400	B1 U0 G2	8,725	B1 U0 G2	6,475	B1 U0 G2	8,725	B1 U0 G2
22L	11,550	B2 U0 G2	12,000	B2 U0 G2	8,900	B1 U0 G2	12,000	B2 U0 G2
30L	15,700	B2 U0 G3	16,400	B2 U0 G3	12,100	B2 U0 G2	16,400	B2 U0 G3
40L	21,000	B3 U0 G3	21,800	B3 U0 G3	16,100	B2 U0 G3	21,800	B3 U0 G3
50L	26,200	B3 U0 G4	27,300	B3 U0 G4	20,200	B3 U0 G3	27,300	B3 U0 G4
65L	34,000	B3 U0 G4	35,500	B3 U0 G4	26,200	B3 U0 G4	35,500	B3 U0 G4
75L	39,300	B3 U0 G4	40,900	B3 U0 G4	30,300	B3 U0 G4	40,900	B3 U0 G4
85L	44,500	B3 U0 G5	46,400	B4 U0 G4	34,300	B3 U0 G5	46,400	B3 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

3M





RESTL Test Report #: PL17882-001A
Configured
OSQL-C-30L-30K7-3M-UL-xx-xx-xx
Initial Delivered Lumens: 27,400

OSQL-C-30L-30K7-3M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 27,400
Initial FC at grade

Type III Mid Distribution

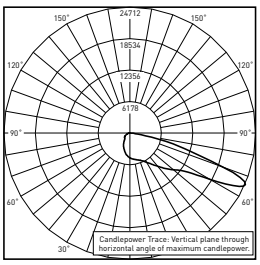
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G2	8,550	B2 U0 G2	6,325	B1 U0 G1	8,550	B2 U0 G2
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G2	10,450	B2 U0 G2
16L	14,650	B3 U0 G3	15,200	B3 U0 G3	11,275	B2 U0 G2	15,200	B3 U0 G3
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B3 U0 G3	20,900	B3 U0 G3
30L	27,400	B3 U0 G4	28,500	B3 U0 G4	21,100	B3 U0 G3	28,500	B3 U0 G4
40L	36,500	B4 U0 G4	38,000	B4 U0 G4	28,100	B3 U0 G4	38,000	B4 U0 G4
50L	45,600	B4 U0 G5	47,500	B4 U0 G5	35,200	B3 U0 G4	47,500	B4 U0 G5
65L	59,300	B4 U0 G5	61,800	B4 U0 G5	45,700	B4 U0 G5	61,800	B4 U0 G5
75L	68,400	B4 U0 G5	71,300	B5 U0 G5	52,800	B4 U0 G5	71,300	B5 U0 G5
85L	77,600	B5 U0 G5	80,800	B5 U0 G5	59,800	B4 U0 G5	80,800	B5 U0 G5

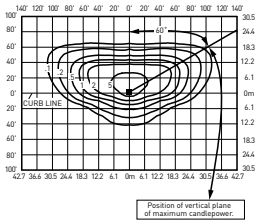
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

3B





RESTL Test Report #: PL17975-001A
OSQL-C-40L-30K7-3B-UL-xx-xx-xx
Initial Delivered Lumens: 25,199

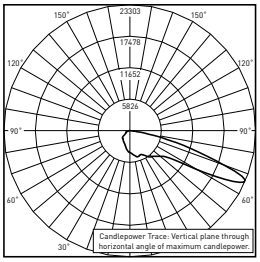
OSQL-C-40L-30K7-3B-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 25,100
Initial FC at grade

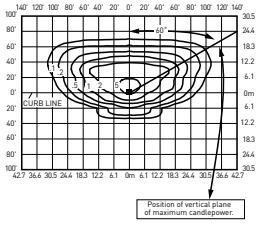
Type III Mid w/BLS Distribution (factory-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,510	B1 U0 G1	2,620	B1 U0 G1	1,940	B0 U0 G1	2,620	B1 U0 G1
6L	3,760	B1 U0 G1	3,920	B1 U0 G1	2,900	B1 U0 G1	3,920	B1 U0 G1
9L	5,650	B1 U0 G1	5,875	B1 U0 G2	4,350	B1 U0 G1	5,875	B1 U0 G2
11L	6,900	B1 U0 G2	7,200	B1 U0 G2	5,325	B1 U0 G1	7,200	B1 U0 G2
16L	10,075	B1 U0 G2	10,450	B2 U0 G2	7,750	B1 U0 G2	10,450	B2 U0 G2
22L	13,800	B2 U0 G2	14,375	B2 U0 G2	10,650	B2 U0 G2	14,375	B2 U0 G2
30L	18,800	B2 U0 G3	19,600	B2 U0 G3	14,525	B2 U0 G2	19,600	B2 U0 G3
40L	25,100	B3 U0 G4	26,200	B3 U0 G4	19,400	B2 U0 G3	26,200	B3 U0 G4
50L	31,400	B3 U0 G4	32,700	B3 U0 G4	24,200	B3 U0 G3	32,700	B3 U0 G4
65L	40,800	B3 U0 G5	42,500	B3 U0 G5	31,500	B3 U0 G4	42,500	B3 U0 G5
75L	47,100	B3 U0 G5	49,000	B3 U0 G5	36,300	B3 U0 G4	49,000	B3 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

3M W/OSQ-*-C-BLSF





RESTL Test Report#: PL17976-001A
OSQL-C-40L-30K7-3M-UL-xx-xx-xx w/ OSQ-L-C-BLSF
Initial Delivered Lumens: 22,081

OSQL-C-40L-30K7-3M-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 21,000
Initial FC at grade

Type III Mid Distribution w/OSQ-*-C-BLSF (field-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B0 U0 G1	2,180	B0 U0 G1	1,610	B0 U0 G1	2,180	B0 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G2	6,000	B1 U0 G2	4,450	B1 U0 G1	6,000	B1 U0 G2
16L	8,400	B1 U0 G2	8,725	B1 U0 G2	6,475	B1 U0 G2	8,725	B1 U0 G2
22L	11,550	B2 U0 G2	12,000	B2 U0 G2	8,900	B1 U0 G2	12,000	B2 U0 G2
30L	15,700	B2 U0 G3	16,400	B2 U0 G3	12,100	B2 U0 G2	16,400	B2 U0 G3
40L	21,000	B2 U0 G3	21,800	B3 U0 G3	16,100	B2 U0 G3	21,800	B3 U0 G3
50L	26,200	B3 U0 G4	27,300	B3 U0 G4	20,200	B2 U0 G3	27,300	B3 U0 G4
65L	34,000	B3 U0 G4	35,500	B3 U0 G5	26,200	B3 U0 G4	35,500	B3 U0 G5
75L	39,300	B3 U0 G5	40,900	B3 U0 G5	30,300	B3 U0 G4	40,900	B3 U0 G5
85L	44,500	B3 U0 G5	46,400	B3 U0 G5	34,300	B3 U0 G4	46,400	B3 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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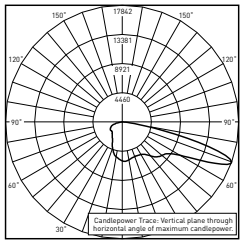
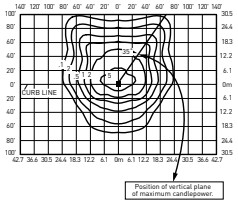
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

4M





RESTL Test Report #: PL17908-001A
Configured
OSQL-C-30L-30K7-4M-UL-xx-xx-xx
Initial Delivered Lumens: 27,400

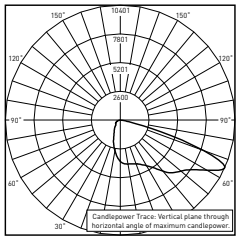
OSQL-C-30L-30K7-4M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 27,400
Initial FC at grade

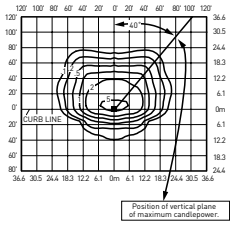
Type IV Mid Distribution

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G2	8,550	B2 U0 G2	6,325	B1 U0 G1	8,550	B2 U0 G2
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G2	10,450	B2 U0 G2
16L	14,650	B3 U0 G2	15,200	B3 U0 G2	11,275	B2 U0 G2	15,200	B3 U0 G2
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B3 U0 G2	20,900	B3 U0 G3
30L	27,400	B3 U0 G3	28,500	B3 U0 G4	21,100	B3 U0 G3	28,500	B3 U0 G4
40L	36,500	B4 U0 G4	38,000	B4 U0 G4	28,100	B3 U0 G4	38,000	B4 U0 G4
50L	45,600	B4 U0 G5	47,500	B4 U0 G5	35,200	B4 U0 G4	47,500	B4 U0 G5
65L	59,300	B5 U0 G5	61,800	B5 U0 G5	45,700	B4 U0 G5	61,800	B5 U0 G5
75L	68,400	B5 U0 G5	71,300	B5 U0 G5	52,800	B4 U0 G5	71,300	B5 U0 G5
85L	77,600	B5 U0 G5	80,800	B5 U0 G5	59,800	B5 U0 G5	80,800	B5 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

4B





RESTL Test Report #: PL17930-001A
Configured
OSQL-C-30L-30K7-4B-UL-xx-xx-xx
Initial Delivered Lumens: 17,200

OSQL-C-30L-30K7-4B-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 17,200
Initial FC at grade

Type IV Mid w/BLS Distribution (factory-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,300	B1 U0 G0	2,400	B1 U0 G0	1,770	B0 U0 G0	2,400	B1 U0 G0
6L	3,440	B1 U0 G1	3,590	B1 U0 G1	2,660	B1 U0 G0	3,590	B1 U0 G1
9L	5,175	B1 U0 G1	5,400	B1 U0 G1	3,980	B1 U0 G1	5,400	B1 U0 G1
11L	6,325	B1 U0 G1	6,600	B1 U0 G1	4,880	B1 U0 G1	6,600	B1 U0 G1
16L	9,225	B2 U0 G2	9,575	B2 U0 G2	7,100	B1 U0 G1	9,575	B2 U0 G2
22L	12,625	B2 U0 G2	13,175	B2 U0 G2	9,750	B2 U0 G2	13,175	B2 U0 G2
30L	17,200	B2 U0 G2	18,000	B2 U0 G2	13,300	B2 U0 G2	18,000	B2 U0 G2
40L	23,000	B3 U0 G3	24,000	B3 U0 G3	17,700	B2 U0 G2	24,000	B3 U0 G3
50L	28,700	B3 U0 G3	29,900	B3 U0 G3	22,200	B3 U0 G3	29,900	B3 U0 G3
65L	37,400	B3 U0 G4	38,900	B3 U0 G4	28,800	B3 U0 G3	38,900	B3 U0 G4
75L	43,100	B3 U0 G4	44,900	B4 U0 G4	33,200	B3 U0 G4	44,900	B4 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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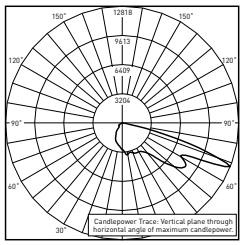
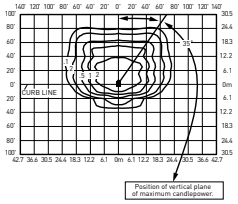
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:
https://creelighting.com/products/outdoor/area/osq-series

4M W/OSQ-*-C-BLSF





RESTL Test Report #: PL17929-001A Configured
OSQL-C-30L-30K7-4M-UL-xx-xx-xx w/OSQ-L-C-BLSF
Initial Delivered Lumens: 15,400

OSQL-C-30L-30K7-4M-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 15,700
Initial FC at grade

Type IV Mid Distribution w/OSQ-*-C-BLSF (field-installed)								
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B1 U0 G1	2,180	B1 U0 G1	1,610	B0 U0 G1	2,180	B1 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G1	6,000	B1 U0 G2	4,450	B1 U0 G1	6,000	B1 U0 G2
16L	8,400	B1 U0 G2	8,725	B2 U0 G2	6,475	B1 U0 G2	8,725	B2 U0 G2
22L	11,550	B2 U0 G2	12,000	B2 U0 G2	8,900	B2 U0 G2	12,000	B2 U0 G2
30L	15,700	B2 U0 G2	16,400	B2 U0 G2	12,100	B2 U0 G2	16,400	B2 U0 G2
40L	21,000	B3 U0 G3	21,800	B3 U0 G3	16,100	B2 U0 G2	21,800	B3 U0 G3
50L	26,200	B3 U0 G4	27,300	B3 U0 G4	20,200	B3 U0 G3	27,300	B3 U0 G4
65L	34,000	B3 U0 G4	35,500	B3 U0 G4	26,200	B3 U0 G4	35,500	B3 U0 G4
75L	39,300	B3 U0 G4	40,900	B3 U0 G5	30,300	B3 U0 G4	40,900	B3 U0 G5
85L	44,500	B4 U0 G5	46,400	B4 U0 G5	34,300	B3 U0 G4	46,400	B4 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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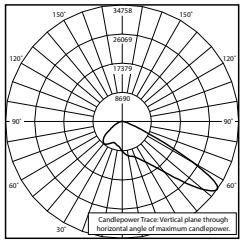
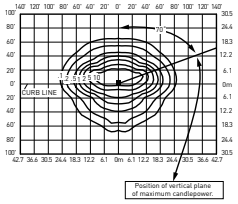




RESTL Test Report #: PL17447-001A
OSQL-C-40L-30K7-AF-UL-xx-xx-xx
Initial Delivered Lumens: 35,801

OSQL-C-40L-40K7-AF-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 38,000
Initial FC at grade

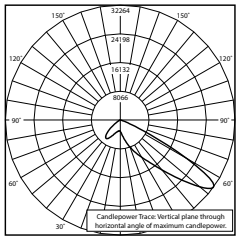
Automotive FrontLineOptic™ Distribution								
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,650	B1 U0 G1	3,800	B1 U0 G1	2,810	B1 U0 G1	3,800	B1 U0 G1
6L	5,475	B1 U0 G1	5,700	B1 U0 G1	4,220	B1 U0 G1	5,700	B1 U0 G1
9L	8,225	B2 U0 G1	8,550	B2 U0 G1	6,325	B1 U0 G1	8,550	B2 U0 G1
11L	10,025	B2 U0 G2	10,450	B2 U0 G2	7,750	B2 U0 G1	10,450	B2 U0 G2
16L	14,650	B2 U0 G2	15,200	B2 U0 G2	11,275	B2 U0 G2	15,200	B2 U0 G2
22L	20,100	B3 U0 G3	20,900	B3 U0 G3	15,500	B2 U0 G2	20,900	B3 U0 G3
30L	27,400	B3 U0 G3	28,500	B3 U0 G3	21,100	B3 U0 G3	28,500	B3 U0 G3
40L	36,500	B4 U0 G3	38,000	B4 U0 G3	28,100	B3 U0 G3	38,000	B4 U0 G3
50L	45,600	B4 U0 G3	47,500	B4 U0 G3	35,200	B4 U0 G3	47,500	B4 U0 G3
65L	59,300	B5 U0 G4	61,800	B5 U0 G4	45,700	B4 U0 G3	61,800	B5 U0 G4
75L	68,400	B5 U0 G4	71,300	B5 U0 G4	52,800	B4 U0 G4	71,300	B5 U0 G4
85L	77,600	B5 U0 G4	80,800	B5 U0 G4	59,800	B5 U0 G4	80,800	B5 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

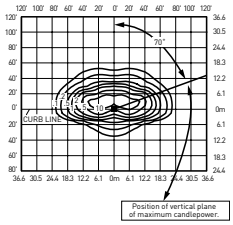
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: https://creelighting.com/products/outdoor/area/osq-series

AB



RESTL Test Report #: PL17448-001A
OSQL-C-40L-30K7-AB-UL-xx-xx-xx
Initial Delivered Lumens: 26,118



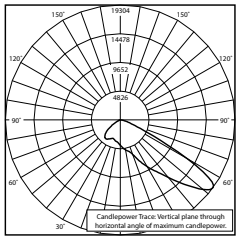
OSQL-C-40L-40K7-AB-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 26,200
Initial FC at grade

Automotive FrontLineOptic™ w/BLS Distribution (factory-installed)

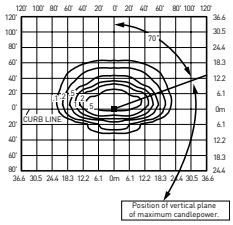
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,510	B1 U0 G0	2,620	B1 U0 G0	1,940	B1 U0 G0	2,620	B1 U0 G0
6L	3,760	B1 U0 G0	3,920	B1 U0 G0	2,900	B1 U0 G0	3,920	B1 U0 G0
9L	5,650	B1 U0 G1	5,875	B1 U0 G1	4,350	B1 U0 G0	5,875	B1 U0 G1
11L	6,900	B1 U0 G1	7,200	B1 U0 G1	5,325	B1 U0 G1	7,200	B1 U0 G1
16L	10,075	B2 U0 G1	10,450	B2 U0 G1	7,750	B1 U0 G1	10,450	B2 U0 G1
22L	13,800	B2 U0 G1	14,375	B2 U0 G1	10,650	B2 U0 G1	14,375	B2 U0 G1
30L	18,800	B2 U0 G1	19,600	B2 U0 G1	14,525	B2 U0 G1	19,600	B2 U0 G1
40L	25,100	B3 U0 G2	26,200	B3 U0 G2	19,400	B2 U0 G1	26,200	B3 U0 G2
50L	31,400	B3 U0 G2	32,700	B3 U0 G2	24,200	B3 U0 G2	32,700	B3 U0 G2
65L	40,800	B3 U0 G2	42,500	B4 U0 G2	31,500	B3 U0 G2	42,500	B4 U0 G2
75L	47,100	B4 U0 G3	49,000	B4 U0 G3	36,300	B3 U0 G2	49,000	B4 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

AF W/OSQ-*-C-BLSF



RESTL Test Report #: PL17533-001A
OSQL-C-40L-30K7-AF-UL-xx-xx-xx w/OSQ-L-C-BLSF
Initial Delivered Lumens: 19,828



OSQL-C-40L-40K7-AF-UL w/OSQ-L-C-BLSF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 26,200
Initial FC at grade

Automotive FrontLineOptic™ w/OSQ-*-C-BLSF (field-installed)

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	2,100	B1 U0 G1	2,180	B1 U0 G1	1,610	B0 U0 G1	2,180	B1 U0 G1
6L	3,140	B1 U0 G1	3,270	B1 U0 G1	2,420	B1 U0 G1	3,270	B1 U0 G1
9L	4,720	B1 U0 G1	4,910	B1 U0 G1	3,630	B1 U0 G1	4,910	B1 U0 G1
11L	5,750	B1 U0 G1	6,000	B1 U0 G1	4,450	B1 U0 G1	6,000	B1 U0 G1
16L	8,400	B1 U0 G1	8,725	B1 U0 G1	6,475	B1 U0 G1	8,725	B1 U0 G1
22L	11,550	B2 U0 G1	12,000	B2 U0 G1	8,900	B1 U0 G1	12,000	B2 U0 G1
30L	15,700	B2 U0 G2	16,400	B2 U0 G2	12,100	B2 U0 G1	16,400	B2 U0 G2
40L	21,000	B3 U0 G2	21,800	B3 U0 G2	16,100	B2 U0 G2	21,800	B3 U0 G2
50L	26,200	B3 U0 G2	27,300	B3 U0 G2	20,200	B3 U0 G2	27,300	B3 U0 G2
65L	34,000	B3 U0 G2	35,500	B3 U0 G2	26,200	B3 U0 G2	35,500	B3 U0 G2
75L	39,300	B3 U0 G3	40,900	B3 U0 G3	30,300	B3 U0 G2	40,900	B3 U0 G3
85L	44,500	B3 U0 G3	46,400	B4 U0 G3	34,300	B3 U0 G3	46,400	B4 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Photometry

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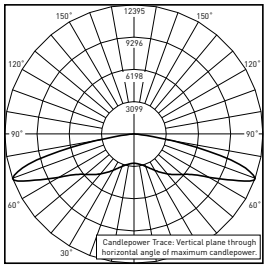
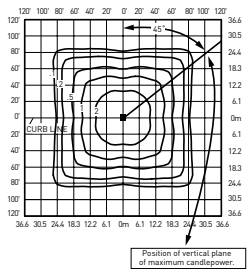
5M



RESTL Test Report #: PL17909-001A
Configured
OSQL-C-30L-30K7-5M-UL-xx-xx-xx
Initial Delivered Lumens: 28,800



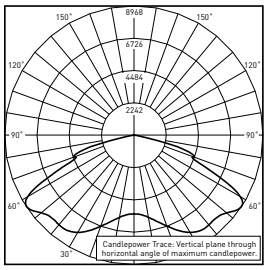
OSQL-C-30L-30K7-5M-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 28,800
Initial FC at grade

Type V Mid Distribution

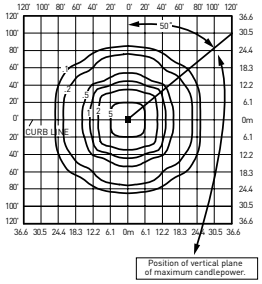
Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,840	B2 U0 G1	4,000	B2 U0 G1	2,960	B2 U0 G1	4,000	B2 U0 G1
6L	5,750	B3 U0 G1	6,000	B3 U0 G1	4,440	B2 U0 G1	6,000	B3 U0 G1
9L	8,650	B3 U0 G2	9,000	B3 U0 G2	6,650	B3 U0 G1	9,000	B3 U0 G2
11L	10,550	B3 U0 G2	11,000	B3 U0 G2	8,150	B3 U0 G1	11,000	B3 U0 G2
16L	15,400	B4 U0 G2	16,000	B4 U0 G2	11,850	B4 U0 G2	16,000	B4 U0 G2
22L	21,100	B4 U0 G2	22,000	B4 U0 G2	16,300	B4 U0 G2	22,000	B4 U0 G2
30L	28,800	B5 U0 G3	30,000	B5 U0 G3	22,200	B4 U0 G2	30,000	B5 U0 G3
40L	38,400	B5 U0 G4	40,000	B5 U0 G4	29,600	B5 U0 G3	40,000	B5 U0 G4
50L	48,000	B5 U0 G4	50,000	B5 U0 G4	37,000	B5 U0 G4	50,000	B5 U0 G4
65L	62,400	B5 U0 G5	65,000	B5 U0 G5	48,100	B5 U0 G4	65,000	B5 U0 G5
75L	72,000	B5 U0 G5	75,000	B5 U0 G5	55,500	B5 U0 G4	75,000	B5 U0 G5
85L	81,600	B5 U0 G5	85,000	B5 U0 G5	62,900	B5 U0 G5	85,000	B5 U0 G5

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

5N



RESTL Test Report #: PL17911-001A
Configured
OSQL-C-30L-30K7-5N-UL-xx-xx-xx
Initial Delivered Lumens: 28,800



OSQL-C-30L-30K7-5N-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 28,800
Initial FC at grade

Type V Narrow Distribution

Lumen Package	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
4L	3,840	B2 U0 G0	4,000	B2 U0 G0	2,960	B1 U0 G0	4,000	B2 U0 G0
6L	5,750	B2 U0 G1	6,000	B2 U0 G1	4,440	B2 U0 G0	6,000	B2 U0 G1
9L	8,650	B3 U0 G1	9,000	B3 U0 G1	6,650	B2 U0 G1	9,000	B3 U0 G1
11L	10,550	B3 U0 G1	11,000	B3 U0 G1	8,150	B2 U0 G1	11,000	B3 U0 G1
16L	15,400	B3 U0 G2	16,000	B3 U0 G2	11,850	B3 U0 G1	16,000	B3 U0 G2
22L	21,100	B4 U0 G2	22,000	B4 U0 G2	16,300	B3 U0 G2	22,000	B4 U0 G2
30L	28,800	B4 U0 G2	30,000	B4 U0 G2	22,200	B4 U0 G2	30,000	B4 U0 G2
40L	38,400	B5 U0 G2	40,000	B5 U0 G2	29,600	B4 U0 G2	40,000	B5 U0 G2
50L	48,000	B5 U0 G3	50,000	B5 U0 G3	37,000	B5 U0 G2	50,000	B5 U0 G3
65L	62,400	B5 U0 G4	65,000	B5 U0 G4	48,100	B5 U0 G3	65,000	B5 U0 G4
75L	72,000	B5 U0 G4	75,000	B5 U0 G4	55,500	B5 U0 G3	75,000	B5 U0 G4
85L	81,600	B5 U0 G4	85,000	B5 U0 G4	62,900	B5 U0 G4	85,000	B5 U0 G4

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf. Valid with no tilt

Photometry

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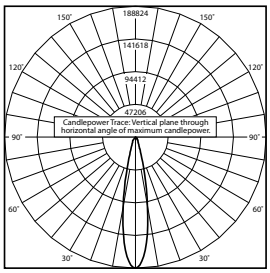
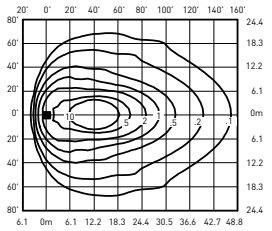
https://creelighting.com/products/outdoor/area/osq-series

33



RESTL Test Report #: PL17450-001A
OSQL-C-40L-30K7-33-UL-xx-xx-xx
Initial Delivered Lumens: 36,102

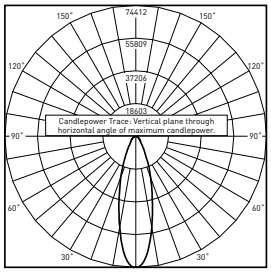


OSQL-C-40L-40K7-33-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

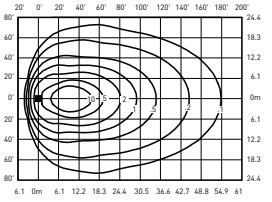
NEMA® 3x3 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

44



RESTL Test Report #: PL17748-001A
OSQL-C-40L-30K7-44-UL-xx-xx-xx
Initial Delivered Lumens: 35,349



OSQL-C-40L-40K7-44-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

NEMA® 4x4 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

Photometry

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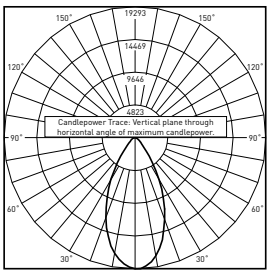
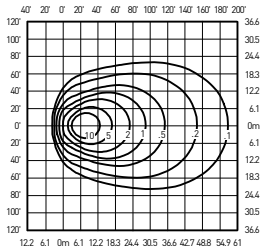
https://creelighting.com/products/outdoor/area/osq-series

55



RESTL Test Report #: PL17771-001A
OSQL-C-40L-30K7-55-UL-xx-xx-xx
Initial Delivered Lumens: 37,424

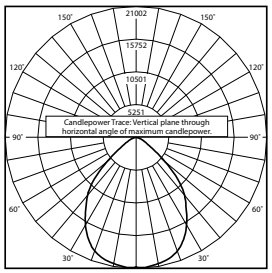


OSQL-C-40L-40K7-55-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

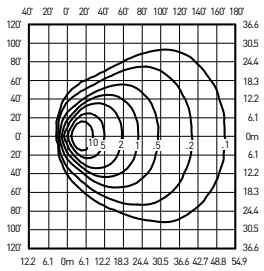
NEMA® 5x5 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

66



RESTL Test Report #: PL17439-001A
OSQL-C-40L-30K7-66-UL-xx-xx-xx
Initial Delivered Lumens: 37,525



OSQL-C-40L-40K7-66-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 40,000
Initial FC at grade

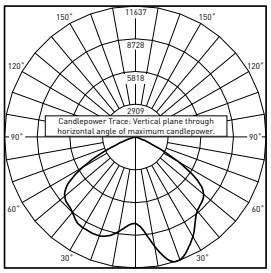
NEMA® 6x6 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

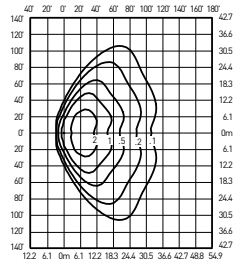
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:
https://creelighting.com/products/outdoor/area/osq-series

75



RESTL Test Report #: PL17921-001A
OSQM-C-16L-40K7-75-UL-xx-xx-xx
Initial Delivered Lumens: 16,933



OSQL-C-16L-40K7-75-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 16,000
Initial FC at grade

NEMA® 7x5 Distribution				
Lumen Package	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	3,840	4,000	2,960	4,000
6L	5,750	6,000	4,440	6,000
9L	8,650	9,000	6,650	9,000
11L	10,550	11,000	8,150	11,000
16L	15,400	16,000	11,850	16,000
22L	21,100	22,000	16,300	22,000
30L	28,800	30,000	22,200	30,000
40L	38,400	40,000	29,600	40,000
50L	48,000	50,000	37,000	50,000
65L	62,400	65,000	48,100	65,000
75L	72,000	75,000	55,500	75,000
85L	81,600	85,000	62,900	85,000

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

Luminaire EPA

Adjustable Arm Mount – OSQ-ML-C-AA Weight: Medium - 19.3 lbs. (8.8kg); Large - 28.4 lbs. (12.9kg); **OSQ-X-C-DA** Weight: Extra Large - 48.6 lbs. (22kg)								
Luminaire	Single	2 @ 180˚	2 @ 90˚	3 @ 90˚	3 @ 120˚	3 @ 180˚	4 @ 180˚	4 @ 90˚
	Tenon Configuration (0˚-90˚ Tilt); If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
	 PB-1A*; PT-1+; PW-1A3**	 PB-2A*; PB-2R2.375; PD-2A4(180)+; PT-2(180)+; PW-2A3**	 PB-2A*; PB-2R2.375; PD-2A4(90)+; PT-2(90)+; PW-2A3**	 PB-3A*; PB-3R2.375; PD-3A4(90)+; PT-3(90)+	 PB-3A*; PB-3R2.375; PT-3(120)+	 PB-3A*; PB-3R2.375	 PB-4A*(180); PB-4R2.375	 PB-4A*(90); PB-4R2.375; PD-4A4(90)+; PT-4(90)+
	0˚ Tilt							
OSQM	0.69	1.38	1.11	1.80	2.01	1.38	1.73	2.22
OSQL	0.78	1.55	1.30	2.07	2.33	1.55	1.94	2.60
OSQX	0.98	1.95	1.65	2.63	2.97	1.95	2.44	3.31
	45˚ Tilt							
OSQM	1.41	2.81	2.10	3.50	4.23	4.22	5.63	4.19
OSQL	2.62	5.23	3.39	6.01	6.91	7.85	10.46	6.79
OSQX	4.35	8.70	5.33	9.68	9.65	13.05	17.40	10.66
	90˚ Tilt* **							
OSQM	1.89	3.79	2.58	4.48	5.56	5.68	7.57	5.17
OSQL	3.52	7.03	4.29	7.81	9.14	10.55	14.07	8.59
OSQX	5.84	11.68	6.82	12.66	12.78	17.52	23.36	13.63

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")
*** PD-2A4(90), PT-2(90), PD-3A4(90), PT-3(90), PD-4A4(90), PT-4(90) are not compatible with 90 degree tilt
+ PT & PD aluminum tenons are not suitable for use with OSQX luminaires.

Tenon EPA

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*(180)	2.22
PB-4A*(90)	1.11
PB-2R2.375	0.92
PB-3R2.375	1.62
PB-4R2.375	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3**	0.47
PW-2A3**	0.94
WM-2	0.08
WM-4	0.25
WM-DM	None

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

Tenons and Brackets‡ (must specify color)

Square Internal Mount Vertical Tenons (Steel)
- Mounts to 3-6" (76-152mm) square aluminum or steel poles

PB-1A* – Single
PB-2A* – 180˚ Twin
PB-3A* – 180˚ Triple
PB-4A*(90) – 90˚ Quad
PB-4A*(180) – 180˚ Quad

Square Internal Mount Horizontal Tenons (Aluminum)
- Mounts to 4" (102mm) square aluminum or steel poles
- Not for use with OSQX luminaires

PD-2A4(90) – 90˚ Twin
PD-2A4(180) – 180˚ Twin
PD-3A4(90) – 90˚ Triple
PD-4A4(90) – 90˚ Quad

Wall Mount Brackets
- Mounts to wall or roof

WM-2 – Horizontal for OSQ-ML-C-AA or OSQ-X-C-AA mounts
WM-4 – L-Shape for OSQ-ML-C-AA or OSQ-X-C-AA mounts
WM-DM – Plate for OSQ-ML-C-DA mount

Round External Mount Vertical Tenons (Steel)
- Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons

PB-2R2.375 – Twin
PB-3R2.375 – Triple
PB-4R2.375 – Quad

Round External Mount Horizontal Tenons (Aluminum)
- Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons
- Mounts to square pole with PB-1A* tenon
- Not for use with OSQX luminaires

PT-1 – Single (Vertical)
PT-2(90) – 90˚ Twin
PT-2(180) – 180˚ Twin
PT-3(90) – 90˚ Triple
PT-3(120) – 120˚ Triple
PT-4(90) – 90˚ Quad

Mid-Pole Bracket
- Mounts to square pole

PW-1A3** – Single
PW-2A3** – Double

Ground Mount Post
- For ground-mounted flood luminaires

PGM-1 - for OSQ-ML-C-AA or OSQ-X-C-AA mounts

‡ Refer to the Bracket and Tenons spec sheet for more details

Luminaire EPA

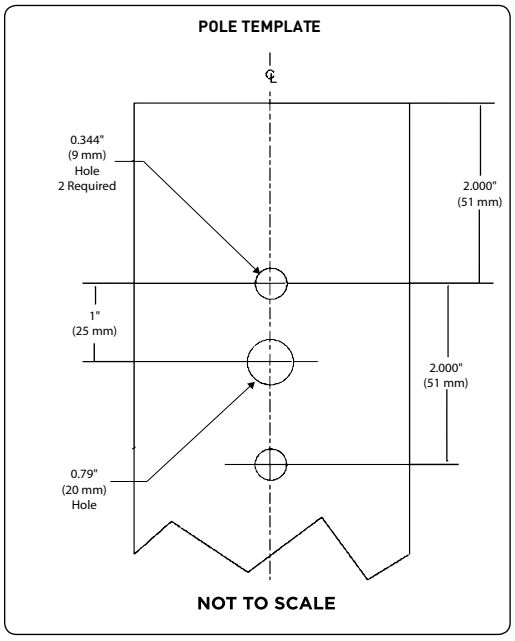
Direct Arm Mount – OSQ-ML-C-DA Weight: Medium - 19.7 lbs. (8.9kg); Large - 28.8 lbs. (13.1kg); **OSQ-X-C-DA** Weight: Extra Large - 45.8 lbs. (20.8kg)						
Luminaire	Single	2 @ 180˚	2 @ 90˚	3 @ 90˚	3 @ 120˚	4 @ 90˚
						
OSQM	0.63	1.26	0.98	1.61	1.79	1.97
OSQL	0.72	1.45	1.24	1.97	2.23	2.49
OSQX	0.91	1.83	1.52	2.43	2.74	3.04

Direct Mount Configurations

Compatibility with Direct Mount Brackets					
Size	2 @ 90˚	2 @ 180˚	3 @ 90˚	3 @ 120˚	4 @ 90˚
3" Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	N/A	✓	N/A	N/A	N/A
3" Round					
Medium/Large	N/A	✓	N/A	✓	N/A
Extra Large	N/A	N/A	N/A	N/A	N/A
4" Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	✓	✓	✓	N/A	✓
4" Round					
Medium/Large	✓	✓	✓	✓	✓
Extra Large	✓	✓	✓	✓	✓
5" Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	✓	✓	✓	N/A	✓
5" Round					
Medium/Large	✓	✓	✓	✓	✓
Extra Large	✓	✓	✓	✓	✓
6" + Square					
Medium/Large	✓	✓	✓	N/A	✓
Extra Large	✓	✓	✓	N/A	✓
6" + Round					
Medium/Large	✓	✓	✓	✓	✓
Extra Large	✓	✓	✓	✓	✓

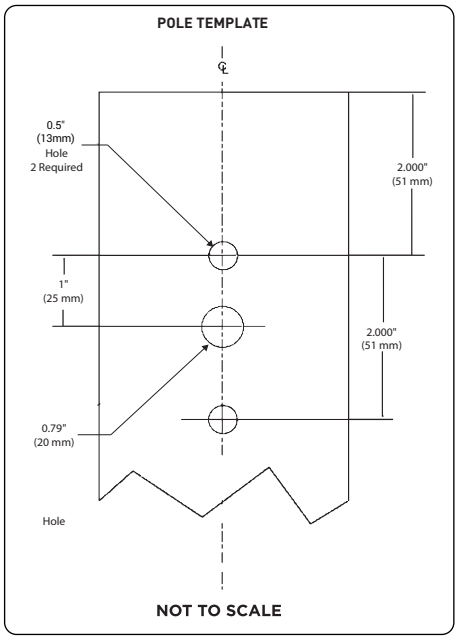
Fixture Mounting Drill Pattern for OSQ-ML-C-DA Mount

Note: When using with Cree Lighting poles, order the BLANK Fixture Mounting Drill Pattern.



Fixture Mounting Drill Pattern for OSQ-X-C-DA

Note: When using with Cree Lighting poles, order the Q Fixture Mounting Drill Pattern.



Luminaire EPA

Trunnion Mount – OSQ-ML-C-TM Weight: Medium - 23.2 lbs. (10.5kg); Large - 32.3 lbs. (14.7kg)	
Single	
Medium	**Large**
0˚ Tilt	
0.69	0.78
45˚ Tilt	
1.41	2.62
90˚ Tilt	
1.89	3.52

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 4L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-in-stalled BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	26	3,650	3,840	2,510	2,300	2,100	30	4000 L	4000 L	3000 L	2000 L
	40K (70 CRI)		3,800	4,000	2,620	2,400	2,180		4000 L	4000 L	3000 L	2000 L
	50K (90 CRI)		2,810	2,960	1,940	1,770	1,610		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,800	4,000	2,620	2,400	2,180		4000 L	4000 L	3000 L	2000 L
Q8/X8	30K (70 CRI)	24	3,480	3,660	2,390	2,190	2,000	20	3000 L	4000 L	2000 L	2000 L
	40K (70 CRI)		3,630	3,820	2,500	2,290	2,080		4000 L	4000 L	3000 L	2000 L
	50K (90 CRI)		2,680	2,820	1,840	1,690	1,540		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,630	3,820	2,500	2,290	2,080		4000 L	4000 L	3000 L	2000 L
Q7/X7	30K (70 CRI)	23	3,340	3,510	2,300	2,100	1,920	20	3000 L	4000 L	2000 L	2000 L
	40K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
	50K (90 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
Q6/X6	30K (70 CRI)	22	3,220	3,390	2,220	2,030	1,850	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		3,360	3,540	2,310	2,120	1,930		3000 L	4000 L	2000 L	2000 L
	50K (90 CRI)		2,490	2,620	1,710	1,570	1,430		2000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,360	3,540	2,310	2,120	1,930		3000 L	4000 L	2000 L	2000 L
Q5/X5	30K (70 CRI)	20	2,950	3,100	2,030	1,860	1,690	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		2,270	2,390	1,560	1,430	1,300		2000 L	2000 L	2000 L	1000 L
	57K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L
Q4/X4	30K (70 CRI)	18	2,680	2,820	1,840	1,690	1,540	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		2,790	2,940	1,920	1,760	1,600		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		2,060	2,170	1,420	1,300	1,180		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,790	2,940	1,920	1,760	1,600		3000 L	3000 L	2000 L	2000 L
Q3/X3	30K (70 CRI)	16	2,470	2,600	1,700	1,560	1,420	20	2000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		1,910	2,010	1,310	1,200	1,100		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
Q2/X2	30K (70 CRI)	15	2,220	2,340	1,530	1,400	1,270	20	2000 L	2000 L	2000 L	1000 L
	40K (70 CRI)		2,320	2,440	1,600	1,460	1,330		2000 L	2000 L	2000 L	1000 L
	50K (90 CRI)		1,720	1,810	1,180	1,080	990		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,320	2,440	1,600	1,460	1,330		2000 L	2000 L	2000 L	1000 L
Q1/X1	30K (70 CRI)	13	1,970	2,070	1,350	1,240	1,130	10	2000 L	2000 L	1000 L	1000 L
	40K (70 CRI)		2,050	2,160	1,410	1,290	1,180		2000 L	2000 L	1000 L	1000 L
	50K (90 CRI)		1,520	1,600	1,050	960	870		2000 L	2000 L	1000 L	1000 L
	57K (70 CRI)		2,050	2,160	1,410	1,290	1,180		2000 L	2000 L	1000 L	1000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 6L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	37	5,475	5,750	3,760	3,440	3,140	40	5000 L	6000 L	4000 L	3000 L
	40K (70 CRI)		5,700	6,000	3,920	3,590	3,270		6000 L	6000 L	4000 L	4000 L
	50K (90 CRI)		4,220	4,440	2,900	2,660	2,420		4000 L	4000 L	3000 L	3000 L
	57K (70 CRI)		5,700	6,000	3,920	3,590	3,270		6000 L	6000 L	4000 L	4000 L
Q8/X8	30K (70 CRI)	36	5,200	5,475	3,580	3,280	2,980	40	5000 L	5000 L	4000 L	3000 L
	40K (70 CRI)		5,450	5,725	3,740	3,430	3,130		5000 L	6000 L	4000 L	3000 L
	50K (90 CRI)		4,030	4,240	2,770	2,540	2,310		4000 L	4000 L	3000 L	3000 L
	57K (70 CRI)		5,450	5,725	3,740	3,430	3,130		5000 L	6000 L	4000 L	3000 L
Q7/X7	30K (70 CRI)	34	4,990	5,250	3,430	3,140	2,860	30	5000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		5,200	5,475	3,580	3,280	2,980		5000 L	5000 L	4000 L	3000 L
	50K (90 CRI)		3,860	4,060	2,650	2,430	2,220		4000 L	4000 L	3000 L	2000 L
	57K (70 CRI)		5,200	5,475	3,580	3,280	2,980		5000 L	5000 L	4000 L	3000 L
Q6/X6	30K (70 CRI)	32	4,820	5,075	3,320	3,040	2,770	30	5000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		5,050	5,300	3,470	3,170	2,900		5000 L	5000 L	3000 L	3000 L
	50K (90 CRI)		3,730	3,920	2,560	2,350	2,140		4000 L	4000 L	3000 L	2000 L
	57K (70 CRI)		5,050	5,300	3,470	3,170	2,900		5000 L	5000 L	3000 L	3000 L
Q5/X5	30K (70 CRI)	29	4,420	4,650	3,040	2,780	2,540	30	4000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L
	50K (90 CRI)		3,410	3,590	2,350	2,150	1,960		3000 L	4000 L	2000 L	2000 L
	57K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L
Q4/X4	30K (70 CRI)	27	4,010	4,220	2,760	2,530	2,300	30	4000 L	4000 L	3000 L	3000 L
	40K (70 CRI)		4,180	4,400	2,880	2,640	2,400		4000 L	4000 L	3000 L	3000 L
	50K (90 CRI)		3,100	3,260	2,130	1,950	1,780		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		4,180	4,400	2,880	2,640	2,400		4000 L	4000 L	3000 L	3000 L
Q3/X3	30K (70 CRI)	24	3,710	3,900	2,550	2,340	2,130	20	4000 L	4000 L	3000 L	2000 L
	40K (70 CRI)		3,870	4,070	2,660	2,440	2,220		4000 L	4000 L	3000 L	2000 L
	50K (90 CRI)		2,860	3,010	1,970	1,800	1,640		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,870	4,070	2,660	2,440	2,220		4000 L	4000 L	3000 L	2000 L
Q2/X2	30K (70 CRI)	21	3,340	3,510	2,300	2,100	1,920	20	3000 L	4000 L	2000 L	2000 L
	40K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
	50K (90 CRI)		2,580	2,710	1,770	1,620	1,480		3000 L	3000 L	2000 L	2000 L
	57K (70 CRI)		3,480	3,660	2,390	2,190	2,000		3000 L	4000 L	2000 L	2000 L
Q1/X1	30K (70 CRI)	19	2,950	3,100	2,030	1,860	1,690	20	3000 L	3000 L	2000 L	2000 L
	40K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L
	50K (90 CRI)		2,270	2,390	1,560	1,430	1,300		2000 L	2000 L	2000 L	1000 L
	57K (70 CRI)		3,070	3,230	2,110	1,930	1,760		3000 L	3000 L	2000 L	2000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 9L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	55	8,225	8,650	5,650	5,175	4,720	60	8000 L	9000 L	6000 L	5000 L
	40K (70 CRI)		8,550	9,000	5,875	5,400	4,910		9000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,325	6,650	4,350	3,980	3,630		6000 L	7000 L	4000 L	4000 L
	57K (70 CRI)		8,550	9,000	5,875	5,400	4,910		9000 L	9000 L	6000 L	5000 L
Q8/X8	30K (70 CRI)	53	7,850	8,250	5,400	4,940	4,510	50	8000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		8,150	8,575	5,600	5,125	4,680		8000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,025	6,350	4,150	3,800	3,460		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		8,150	8,575	5,600	5,125	4,680		8000 L	9000 L	6000 L	5000 L
Q7/X7	30K (70 CRI)	50	7,500	7,900	5,175	4,730	4,310	50	8000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		7,825	8,225	5,375	4,930	4,490		8000 L	8000 L	5000 L	5000 L
	50K (90 CRI)		5,775	6,075	3,970	3,640	3,310		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		7,825	8,225	5,375	4,930	4,490		8000 L	8000 L	5000 L	5000 L
Q6/X6	30K (70 CRI)	48	7,275	7,650	5,000	4,580	4,180	50	7000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		7,550	7,950	5,200	4,760	4,330		8000 L	8000 L	5000 L	5000 L
	50K (90 CRI)		5,575	5,875	3,840	3,520	3,200		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		7,550	7,950	5,200	4,760	4,330		8000 L	8000 L	5000 L	5000 L
Q5/X5	30K (70 CRI)	43	6,650	7,000	4,580	4,190	3,820	40	7000 L	7000 L	5000 L	4000 L
	40K (70 CRI)		6,925	7,275	4,760	4,360	3,980		7000 L	7000 L	5000 L	4000 L
	50K (90 CRI)		5,100	5,375	3,510	3,220	2,930		5000 L	5000 L	4000 L	3000 L
	57K (70 CRI)		6,925	7,275	4,760	4,360	3,980		7000 L	7000 L	5000 L	4000 L
Q4/X4	30K (70 CRI)	40	6,025	6,350	4,150	3,800	3,460	40	6000 L	6000 L	4000 L	4000 L
	40K (70 CRI)		6,275	6,600	4,320	3,950	3,600		6000 L	7000 L	4000 L	4000 L
	50K (90 CRI)		4,640	4,880	3,190	2,920	2,660		5000 L	5000 L	3000 L	3000 L
	57K (70 CRI)		6,275	6,600	4,320	3,950	3,600		6000 L	7000 L	4000 L	4000 L
Q3/X3	30K (70 CRI)	36	5,575	5,875	3,840	3,520	3,200	40	6000 L	6000 L	4000 L	4000 L
	40K (70 CRI)		5,800	6,100	3,990	3,650	3,330		6000 L	6000 L	4000 L	4000 L
	50K (90 CRI)		4,290	4,510	2,950	2,700	2,460		4000 L	5000 L	3000 L	3000 L
	57K (70 CRI)		5,800	6,100	3,990	3,650	3,330		6000 L	6000 L	4000 L	4000 L
Q2/X2*	30K (70 CRI)	32	5,025	5,275	3,450	3,160	2,880	30	5000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		5,225	5,500	3,600	3,290	3,000		5000 L	6000 L	4000 L	3000 L
	50K (90 CRI)		3,860	4,060	2,650	2,430	2,220		4000 L	4000 L	3000 L	2000 L
	57K (70 CRI)		5,225	5,500	3,600	3,290	3,000		5000 L	6000 L	4000 L	3000 L
Q1/X1*	30K (70 CRI)	29	4,430	4,660	3,050	2,790	2,540	30	4000 L	5000 L	3000 L	3000 L
	40K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L
	50K (90 CRI)		3,400	3,580	2,340	2,140	1,950		3000 L	4000 L	2000 L	2000 L
	57K (70 CRI)		4,610	4,850	3,170	2,900	2,650		5000 L	5000 L	3000 L	3000 L

* X2 and X1 options not available with 9L lumen package with UL voltage.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 11L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	68	10,025	10,550	6,900	6,325	5,750	70	10000 L	11000 L	7000 L	6000 L
	40K (70 CRI)		10,450	11,000	7,200	6,600	6,000		10000 L	11000 L	7000 L	7000 L
	50K (90 CRI)		7,750	8,150	5,325	4,880	4,450		8000 L	8000 L	5000 L	5000 L
	57K (70 CRI)		10,450	11,000	7,200	6,600	5,750		10000 L	11000 L	7000 L	7000 L
Q8/X8	30K (70 CRI)	65	9,575	10,075	6,600	6,025	5,500	70	10000 L	10000 L	7000 L	6000 L
	40K (70 CRI)		9,975	10,500	6,875	6,300	5,725		10000 L	11000 L	7000 L	6000 L
	50K (90 CRI)		7,400	7,775	5,075	4,660	4,250		7000 L	8000 L	5000 L	5000 L
	57K (70 CRI)		9,975	10,500	6,875	6,300	5,725		10000 L	11000 L	7000 L	6000 L
Q7/X7	30K (70 CRI)	62	9,175	9,650	6,300	5,775	5,275	60	9000 L	10000 L	6000 L	6000 L
	40K (70 CRI)		9,550	10,050	6,575	6,025	5,475		10000 L	10000 L	7000 L	6000 L
	50K (90 CRI)		7,075	7,450	4,870	4,460	4,060		7000 L	7000 L	5000 L	4000 L
	57K (70 CRI)		9,550	10,050	6,575	6,025	5,475		10000 L	10000 L	7000 L	6000 L
Q6/X6	30K (70 CRI)	59	8,875	9,325	6,100	5,575	5,100	60	9000 L	9000 L	6000 L	6000 L
	40K (70 CRI)		9,250	9,725	6,350	5,825	5,300		9000 L	10000 L	6000 L	6000 L
	50K (90 CRI)		6,850	7,200	4,710	4,310	3,930		7000 L	7000 L	5000 L	4000 L
	57K (70 CRI)		9,250	9,725	6,350	5,825	5,300		9000 L	10000 L	6000 L	6000 L
Q5/X5	30K (70 CRI)	53	8,100	8,525	5,575	5,100	4,650	50	8000 L	9000 L	6000 L	5000 L
	40K (70 CRI)		8,450	8,900	5,825	5,325	4,850		8000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,250	6,575	4,300	3,940	3,590		6000 L	7000 L	4000 L	4000 L
	57K (70 CRI)		8,450	8,900	5,825	5,325	4,850		8000 L	9000 L	6000 L	5000 L
Q4/X4	30K (70 CRI)	49	7,375	7,750	5,075	4,640	4,230	50	7000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		7,675	8,075	5,275	4,840	4,410		8000 L	8000 L	5000 L	5000 L
	50K (90 CRI)		5,675	5,975	3,910	3,580	3,260		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		7,675	8,075	5,275	4,840	4,410		8000 L	8000 L	5000 L	5000 L
Q3/X3	30K (70 CRI)	44	6,800	7,150	4,680	4,280	3,900	40	7000 L	7000 L	5000 L	4000 L
	40K (70 CRI)		7,075	7,450	4,870	4,460	4,060		7000 L	7000 L	5000 L	4000 L
	50K (90 CRI)		5,250	5,525	3,610	3,310	3,010		5000 L	6000 L	4000 L	3000 L
	57K (70 CRI)		7,075	7,450	4,870	4,460	4,060		7000 L	7000 L	5000 L	4000 L
Q2/X2	30K (70 CRI)	39	6,100	6,425	4,200	3,850	3,500	40	6000 L	6000 L	4000 L	4000 L
	40K (70 CRI)		6,375	6,700	4,380	4,010	3,660		6000 L	7000 L	4000 L	4000 L
	50K (90 CRI)		4,720	4,970	3,250	2,980	2,710		5000 L	5000 L	3000 L	3000 L
	57K (70 CRI)		6,375	6,700	4,380	4,010	3,660		6000 L	7000 L	4000 L	4000 L
Q1/X1	30K (70 CRI)	35	5,400	5,675	3,710	3,400	3,100	40	5000 L	6000 L	4000 L	3000 L
	40K (70 CRI)		5,625	5,925	3,870	3,550	3,230		6000 L	6000 L	4000 L	4000 L
	50K (90 CRI)		4,170	4,390	2,870	2,630	2,390		4000 L	4000 L	3000 L	3000 L
	57K (70 CRI)		5,625	5,925	3,870	3,550	3,230		6000 L	6000 L	4000 L	4000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 16L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	97	14,650	15,400	10,075	9,225	8,400	100	15000 L	15000 L	10000 L	9000 L
	40K (70 CRI)		15,200	16,000	10,450	9,575	8,725		15000 L	16000 L	10000 L	10000 L
	50K (90 CRI)		11,275	11,850	7,750	7,100	6,475		11000 L	12000 L	8000 L	7000 L
	57K (70 CRI)		15,200	16,000	10,450	9,575	8,725		15000 L	16000 L	10000 L	10000 L
Q8/X8	30K (70 CRI)	93	13,975	14,700	9,600	8,800	8,025	90	14000 L	15000 L	10000 L	9000 L
	40K (70 CRI)		14,550	15,300	10,000	9,175	8,350		15000 L	15000 L	10000 L	9000 L
	50K (90 CRI)		10,750	11,300	7,400	6,775	6,175		11000 L	11000 L	7000 L	7000 L
	57K (70 CRI)		14,550	15,300	10,000	9,175	8,350		15000 L	15000 L	10000 L	9000 L
Q7/X7	30K (70 CRI)	87	13,375	14,075	9,200	8,425	7,675	90	13000 L	14000 L	9000 L	8000 L
	40K (70 CRI)		13,900	14,625	9,575	8,750	7,975		14000 L	15000 L	10000 L	9000 L
	50K (90 CRI)		10,300	10,825	7,075	6,475	5,900		10000 L	11000 L	7000 L	6000 L
	57K (70 CRI)		13,900	14,625	9,575	8,750	7,975		14000 L	15000 L	10000 L	9000 L
Q6/X6	30K (70 CRI)	84	12,950	13,625	8,900	8,150	7,425	80	13000 L	14000 L	9000 L	8000 L
	40K (70 CRI)		13,450	14,150	9,250	8,475	7,725		13000 L	14000 L	9000 L	8000 L
	50K (90 CRI)		9,950	10,475	6,850	6,275	5,700		10000 L	10000 L	7000 L	6000 L
	57K (70 CRI)		13,450	14,150	9,250	8,475	7,725		13000 L	14000 L	9000 L	8000 L
Q5/X5	30K (70 CRI)	76	11,825	12,450	8,150	7,450	6,800	80	12000 L	12000 L	8000 L	7000 L
	40K (70 CRI)		12,275	12,925	8,450	7,750	7,050		12000 L	13000 L	8000 L	8000 L
	50K (90 CRI)		9,100	9,575	6,250	5,725	5,225		9000 L	10000 L	6000 L	6000 L
	57K (70 CRI)		12,275	12,925	8,450	7,750	7,050		12000 L	13000 L	8000 L	8000 L
Q4/X4	30K (70 CRI)	70	10,750	11,300	7,400	6,775	6,175	70	11000 L	11000 L	7000 L	7000 L
	40K (70 CRI)		11,175	11,750	7,675	7,025	6,425		11000 L	12000 L	8000 L	7000 L
	50K (90 CRI)		8,275	8,700	5,700	5,200	4,750		8000 L	9000 L	6000 L	5000 L
	57K (70 CRI)		11,175	11,750	7,675	7,025	6,425		11000 L	12000 L	8000 L	7000 L
Q3/X3	30K (70 CRI)	62	9,925	10,450	6,825	6,250	5,700	60	10000 L	10000 L	7000 L	6000 L
	40K (70 CRI)		10,325	10,850	7,100	6,500	5,925		10000 L	11000 L	7000 L	7000 L
	50K (90 CRI)		7,625	8,025	5,250	4,810	4,380		8000 L	8000 L	5000 L	5000 L
	57K (70 CRI)		10,325	10,850	7,100	6,500	5,925		10000 L	11000 L	7000 L	7000 L
Q2/X2	30K (70 CRI)	55	8,925	9,400	6,150	5,625	5,125	60	9000 L	9000 L	6000 L	6000 L
	40K (70 CRI)		9,275	9,750	6,375	5,850	5,325		9000 L	10000 L	6000 L	6000 L
	50K (90 CRI)		6,875	7,225	4,720	4,330	3,950		7000 L	7000 L	5000 L	4000 L
	57K (70 CRI)		9,275	9,750	6,375	5,850	5,325		9000 L	10000 L	6000 L	6000 L
Q1*	30K (70 CRI)	50	7,900	8,300	5,425	4,970	4,530	50	8000 L	8000 L	5000 L	5000 L
	40K (70 CRI)		8,200	8,625	5,650	5,175	4,710		8000 L	9000 L	6000 L	5000 L
	50K (90 CRI)		6,050	6,375	4,170	3,820	3,470		6000 L	6000 L	4000 L	4000 L
	57K (70 CRI)		8,200	8,625	5,650	5,175	4,710		8000 L	9000 L	6000 L	5000 L

* X1 option not available with 16L lumen package.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (rounded to nearest 1000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 22L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-in-stalled BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	131	20,100	21,100	13,800	12,625	11,550	130	20000 L	21000 L	14000 L	13000 L
	40K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
	50K (90 CRI)		15,500	16,300	10,650	9,750	8,900		16000 L	16000 L	11000 L	10000 L
	57K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
Q8/X8	30K (70 CRI)	126	19,100	20,100	13,150	12,050	10,975	130	19000 L	20000 L	13000 L	12000 L
	40K (70 CRI)		20,000	21,000	13,725	12,575	11,475		20000 L	21000 L	14000 L	13000 L
	50K (90 CRI)		14,825	15,600	10,200	9,350	8,500		15000 L	16000 L	10000 L	9000 L
	57K (70 CRI)		20,000	21,000	13,725	12,575	11,475		20000 L	21000 L	14000 L	13000 L
Q7/X7	30K (70 CRI)	119	18,300	19,300	12,625	11,550	10,500	120	18000 L	19000 L	13000 L	12000 L
	40K (70 CRI)		19,100	20,100	13,150	12,050	10,975		19000 L	20000 L	13000 L	12000 L
	50K (90 CRI)		14,175	14,900	9,750	8,925	8,125		14000 L	15000 L	10000 L	9000 L
	57K (70 CRI)		19,100	20,100	13,150	12,050	10,975		19000 L	20000 L	13000 L	12000 L
Q6/X6	30K (70 CRI)	114	17,800	18,700	12,225	11,200	10,225	110	18000 L	19000 L	12000 L	11000 L
	40K (70 CRI)		18,400	19,400	12,675	11,625	10,550		18000 L	19000 L	13000 L	12000 L
	50K (90 CRI)		13,700	14,400	9,425	8,625	7,875		14000 L	14000 L	9000 L	9000 L
	57K (70 CRI)		18,400	19,400	12,675	11,625	10,550		18000 L	19000 L	13000 L	12000 L
Q5/X5	30K (70 CRI)	103	16,200	17,000	11,125	10,175	9,300	100	16000 L	17000 L	11000 L	10000 L
	40K (70 CRI)		16,900	17,800	11,650	10,650	9,700		17000 L	18000 L	12000 L	11000 L
	50K (90 CRI)		12,525	13,175	8,625	7,900	7,200		13000 L	13000 L	9000 L	8000 L
	57K (70 CRI)		16,900	17,800	11,650	10,650	9,700		17000 L	18000 L	12000 L	11000 L
Q4/X4	30K (70 CRI)	95	14,725	15,500	10,125	9,275	8,450	100	15000 L	16000 L	10000 L	9000 L
	40K (70 CRI)		15,300	16,100	10,525	9,650	8,775		15000 L	16000 L	11000 L	10000 L
	50K (90 CRI)		11,375	11,975	7,825	7,175	6,525		11000 L	12000 L	8000 L	7000 L
	57K (70 CRI)		15,300	16,100	10,525	9,650	8,775		15000 L	16000 L	11000 L	10000 L
Q3/X3	30K (70 CRI)	84	13,600	14,300	9,350	8,575	7,800	80	14000 L	14000 L	9000 L	9000 L
	40K (70 CRI)		14,175	14,925	9,750	8,950	8,125		14000 L	15000 L	10000 L	9000 L
	50K (90 CRI)		10,500	11,050	7,225	6,625	6,025		11000 L	11000 L	7000 L	7000 L
	57K (70 CRI)		14,175	14,925	9,750	8,950	8,125		14000 L	15000 L	10000 L	9000 L
Q2/X2	30K (70 CRI)	75	12,250	12,875	8,425	7,700	7,025	80	12000 L	13000 L	8000 L	8000 L
	40K (70 CRI)		12,750	13,425	8,775	8,050	7,325		13000 L	13000 L	9000 L	8000 L
	50K (90 CRI)		9,450	9,950	6,500	5,950	5,425		9000 L	10000 L	7000 L	6000 L
	57K (70 CRI)		12,750	13,425	8,775	8,050	7,325		13000 L	13000 L	9000 L	8000 L
Q1/X1	30K (70 CRI)	68	10,825	11,375	7,450	6,825	6,225	70	11000 L	11000 L	7000 L	7000 L
	40K (70 CRI)		11,275	11,850	7,750	7,100	6,475		11000 L	12000 L	8000 L	7000 L
	50K (90 CRI)		8,350	8,775	5,750	5,250	4,790		8000 L	9000 L	6000 L	5000 L
	57K (70 CRI)		11,275	11,850	7,750	7,100	6,475		11000 L	12000 L	8000 L	7000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (</= 24,000 lumens rounded to nearest 1000 lumens, > 24,001 lumens rounded to the nearest 2000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 30L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/ External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	175	27,400	28,800	18,800	17,200	15,700	180	28000 L	28000 L	19000 L	17000 L
	40K (70 CRI)		28,500	30,000	19,600	18,000	16,400		28000 L	30000 L	20000 L	18000 L
	50K (90 CRI)		21,100	22,200	14,525	13,300	12,100		21000 L	22000 L	15000 L	13000 L
	57K (70 CRI)		28,500	30,000	19,600	18,000	16,400		28000 L	30000 L	20000 L	18000 L
Q8/X8	30K (70 CRI)	168	26,100	27,500	18,000	16,500	14,975	170	26000 L	28000 L	18000 L	17000 L
	40K (70 CRI)		27,200	28,600	18,700	17,100	15,600		28000 L	28000 L	19000 L	17000 L
	50K (90 CRI)		20,200	21,200	13,850	12,700	11,600		20000 L	21000 L	14000 L	13000 L
	57K (70 CRI)		27,200	28,600	18,700	17,100	15,600		28000 L	28000 L	19000 L	17000 L
Q7/X7	30K (70 CRI)	158	25,000	26,300	17,200	15,800	14,350	160	26000 L	26000 L	17000 L	16000 L
	40K (70 CRI)		26,000	27,400	17,900	16,400	14,925		26000 L	28000 L	18000 L	16000 L
	50K (90 CRI)		19,300	20,300	13,275	12,150	11,075		19000 L	20000 L	13000 L	12000 L
	57K (70 CRI)		26,000	27,400	17,900	16,400	14,925		26000 L	28000 L	18000 L	16000 L
Q6/X6	30K (70 CRI)	152	24,200	25,500	16,700	15,300	13,900	150	24000 L	26000 L	17000 L	15000 L
	40K (70 CRI)		25,200	26,500	17,300	15,900	14,475		26000 L	26000 L	17000 L	16000 L
	50K (90 CRI)		18,600	19,600	12,825	11,750	10,675		19000 L	20000 L	13000 L	12000 L
	57K (70 CRI)		25,200	26,500	17,300	15,900	14,475		26000 L	26000 L	17000 L	16000 L
Q5/X5	30K (70 CRI)	137	22,100	23,300	15,200	13,950	12,675	140	22000 L	23000 L	15000 L	14000 L
	40K (70 CRI)		23,000	24,200	15,800	14,500	13,200		23000 L	24000 L	16000 L	15000 L
	50K (90 CRI)		17,000	17,900	11,700	10,725	9,750		17000 L	18000 L	12000 L	11000 L
	57K (70 CRI)		23,000	24,200	15,800	14,500	13,200		23000 L	24000 L	16000 L	15000 L
Q4/X4	30K (70 CRI)	126	20,100	21,100	13,800	12,625	11,550	130	20000 L	21000 L	14000 L	13000 L
	40K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
	50K (90 CRI)		15,500	16,300	10,650	9,750	8,900		16000 L	16000 L	11000 L	10000 L
	57K (70 CRI)		20,900	22,000	14,375	13,175	12,000		21000 L	22000 L	14000 L	13000 L
Q3/X3	30K (70 CRI)	113	18,500	19,500	12,750	11,675	10,625	110	19000 L	20000 L	13000 L	12000 L
	40K (70 CRI)		19,300	20,300	13,275	12,150	11,075		19000 L	20000 L	13000 L	12000 L
	50K (90 CRI)		14,350	15,100	9,875	9,050	8,225		14000 L	15000 L	10000 L	9000 L
	57K (70 CRI)		19,300	20,300	13,275	12,150	11,075		19000 L	20000 L	13000 L	12000 L
Q2/X2	30K (70 CRI)	100	16,700	17,600	11,500	10,550	9,575	100	17000 L	18000 L	12000 L	11000 L
	40K (70 CRI)		17,400	18,300	11,975	10,950	10,000		17000 L	18000 L	12000 L	11000 L
	50K (90 CRI)		12,875	13,550	8,850	8,125	7,400		13000 L	14000 L	9000 L	8000 L
	57K (70 CRI)		17,400	18,300	11,975	10,950	10,000		17000 L	18000 L	12000 L	11000 L
Q1*	30K (70 CRI)	90	14,725	15,500	10,125	9,275	8,450	90	15000 L	16000 L	10000 L	9000 L
	40K (70 CRI)		15,400	16,200	10,600	9,700	8,850		15000 L	16000 L	11000 L	10000 L
	50K (90 CRI)		11,375	11,975	7,825	7,175	6,525		11000 L	12000 L	8000 L	7000 L
	57K (70 CRI)		15,400	16,200	10,600	9,700	8,850		15000 L	16000 L	11000 L	10000 L

* X1 option not available with 30L lumen package.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings. When ordered with the N option, the luminaire will include an ANSI C136.15-2020 utility label that indicates the wattage (rounded to nearest 10W), the lumen output (</= 24,000 lumens rounded to nearest 1000 lumens, > 24,001 lumens rounded to the nearest 2000 lumens), and the CCT of the luminaire at the selected lumen output. Additional dimming functionality is available when a dimming control (by others) is used in the 7-Pin receptacle.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others). When ordered with the N option, the luminaire will include a utility label that indicates the wattage, lumen output, and CCT of the setting selected.

Q & X Option Power & Lumen Data – 40L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-277V	Lumen Values					Utility Label Wattage	Utility Label Lumens			
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/ External BLS		Asymmetric / Asymmetric w/External BLS	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)
Q9 (Full Power)	30K (70 CRI)	236	36,500	38,400	25,100	23,000	21,000	240	36000 L	38000 L	26000 L	23000 L
	40K (70 CRI)		38,000	40,000	26,200	24,000	21,800		38000 L	40000 L	26000 L	24000 L
	50K (90 CRI)		28,100	29,600	19,400	17,700	16,100		28000 L	30000 L	19000 L	18000 L
	57K (70 CRI)		38,000	40,000	26,200	24,000	21,800		38000 L	40000 L	26000 L	24000 L
Q8/X8	30K (70 CRI)	221	34,800	36,600	23,900	21,900	20,000	220	34000 L	36000 L	24000 L	22000 L
	40K (70 CRI)		36,300	38,200	25,000	22,900	20,800		36000 L	38000 L	26000 L	23000 L
	50K (90 CRI)		26,800	28,200	18,400	16,900	15,400		26000 L	28000 L	18000 L	17000 L
	57K (70 CRI)		36,300	38,200	25,000	22,900	20,800		36000 L	38000 L	26000 L	23000 L
Q7/X7	30K (70 CRI)	212	33,400	35,100	23,000	21,000	19,200	210	34000 L	36000 L	23000 L	21000 L
	40K (70 CRI)		34,800	36,600	23,900	21,900	20,000		34000 L	36000 L	24000 L	22000 L
	50K (90 CRI)		25,800	27,100	17,700	16,200	14,800		26000 L	28000 L	18000 L	16000 L
	57K (70 CRI)		34,800	36,600	23,900	21,900	20,000		34000 L	36000 L	24000 L	22000 L
Q6/X6	30K (70 CRI)	203	32,200	33,900	22,200	20,300	18,500	200	32000 L	34000 L	22000 L	20000 L
	40K (70 CRI)		33,600	35,400	23,100	21,200	19,300		34000 L	36000 L	23000 L	21000 L
	50K (90 CRI)		24,900	26,200	17,100	15,700	14,300		24000 L	26000 L	17000 L	16000 L
	57K (70 CRI)		33,600	35,400	23,100	21,200	19,300		34000 L	36000 L	23000 L	21000 L
Q5/X5	30K (70 CRI)	184	29,500	31,000	20,300	18,600	16,900	180	30000 L	32000 L	20000 L	19000 L
	40K (70 CRI)		30,700	32,300	21,100	19,300	17,600		30000 L	32000 L	21000 L	19000 L
	50K (90 CRI)		22,700	23,900	15,600	14,325	13,025		23000 L	24000 L	16000 L	14000 L
	57K (70 CRI)		30,700	32,300	21,100	19,300	17,600		30000 L	32000 L	21000 L	19000 L
Q4/X4	30K (70 CRI)	167	26,800	28,200	18,400	16,900	15,400	170	26000 L	28000 L	18000 L	17000 L
	40K (70 CRI)		27,900	29,400	19,200	17,600	16,000		28000 L	30000 L	19000 L	18000 L
	50K (90 CRI)		20,600	21,700	14,200	13,000	11,825		21000 L	22000 L	14000 L	13000 L
	57K (70 CRI)		27,900	29,400	19,200	17,600	16,000		28000 L	30000 L	19000 L	18000 L
Q3/X3	30K (70 CRI)	151	24,700	26,000	17,000	15,600	14,175	150	24000 L	26000 L	17000 L	16000 L
	40K (70 CRI)		25,800	27,100	17,700	16,200	14,800		26000 L	28000 L	18000 L	16000 L
	50K (90 CRI)		19,100	20,100	13,150	12,050	10,975		19000 L	20000 L	13000 L	12000 L
	57K (70 CRI)		25,800	27,100	17,700	16,200	14,800		26000 L	28000 L	18000 L	16000 L
Q2/X2	30K (70 CRI)	135	22,200	23,400	15,300	14,025	12,750	140	22000 L	23000 L	15000 L	14000 L
	40K (70 CRI)		23,200	24,400	16,000	14,625	13,325		23000 L	24000 L	16000 L	15000 L
	50K (90 CRI)		17,200	18,100	11,825	10,850	9,875		17000 L	18000 L	12000 L	11000 L
	57K (70 CRI)		23,200	24,400	16,000	14,625	13,325		23000 L	24000 L	16000 L	15000 L
Q1/X1	30K (70 CRI)	116	19,700	20,700	13,525	12,400	11,300	120	20000 L	21000 L	14000 L	12000 L
	40K (70 CRI)		20,500	21,600	14,125	12,925	11,775		21000 L	22000 L	14000 L	13000 L
	50K (90 CRI)		15,200	16,000	10,450	9,575	8,725		15000 L	16000 L	10000 L	10000 L
	57K (70 CRI)		20,500	21,600	14,125	12,925	11,775		21000 L	22000 L	14000 L	13000 L

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 50L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	297	45,600	48,000	31,400	28,700	26,200
	40K (70 CRI)		47,500	50,000	32,700	29,900	27,300
	50K (90 CRI)		35,200	37,000	24,200	22,200	20,200
	57K (70 CRI)		47,500	50,000	32,700	29,900	27,300
Q8/X8	30K (70 CRI)	285	43,500	45,800	29,900	27,400	25,000
	40K (70 CRI)		45,300	47,700	31,200	28,600	26,000
	50K (90 CRI)		33,600	35,300	23,100	21,100	19,300
	57K (70 CRI)		45,300	47,700	31,200	28,600	26,000
Q7/X7	30K (70 CRI)	269	41,700	43,900	28,700	26,300	23,900
	40K (70 CRI)		43,400	45,700	29,900	27,400	24,900
	50K (90 CRI)		32,100	33,800	22,100	20,200	18,400
	57K (70 CRI)		43,400	45,700	29,900	27,400	24,900
Q6/X6	30K (70 CRI)	258	40,300	42,400	27,700	25,400	23,100
	40K (70 CRI)		42,000	44,200	28,900	26,500	24,100
	50K (90 CRI)		31,100	32,700	21,400	19,600	17,900
	57K (70 CRI)		42,000	44,200	28,900	26,500	24,100
Q5/X5	30K (70 CRI)	233	36,900	38,800	25,400	23,200	21,200
	40K (70 CRI)		38,400	40,400	26,400	24,200	22,000
	50K (90 CRI)		28,400	29,900	19,600	17,900	16,300
	57K (70 CRI)		38,400	40,400	26,400	24,200	22,000
Q4/X4	30K (70 CRI)	215	33,500	35,200	23,000	21,100	19,200
	40K (70 CRI)		34,900	36,700	24,000	22,000	20,000
	50K (90 CRI)		25,900	27,200	17,800	16,300	14,875
	57K (70 CRI)		34,900	36,700	24,000	22,000	20,000
Q3/X3	30K (70 CRI)	191	30,900	32,500	21,300	19,500	17,700
	40K (70 CRI)		32,200	33,900	22,200	20,300	18,500
	50K (90 CRI)		23,900	25,100	16,400	15,000	13,725
	57K (70 CRI)		32,200	33,900	22,200	20,300	18,500
Q2/X2	30K (70 CRI)	170	27,900	29,300	19,200	17,500	16,000
	40K (70 CRI)		29,000	30,500	19,900	18,300	16,600
	50K (90 CRI)		21,500	22,600	14,775	13,525	12,350
	57K (70 CRI)		29,000	30,500	19,900	18,300	16,600
Q1/X1	30K (70 CRI)	153	24,600	25,900	16,900	15,500	14,125
	40K (70 CRI)		25,700	27,000	17,700	16,200	14,750
	50K (90 CRI)		18,900	19,900	13,000	11,925	10,850
	57K (70 CRI)		25,700	27,000	17,700	16,200	14,750

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 65L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	384	59,300	62,400	40,800	37,400	34,000
	40K (70 CRI)		61,800	65,000	42,500	38,900	35,500
	50K (90 CRI)		45,700	48,100	31,500	28,800	26,200
	57K (70 CRI)		61,800	65,000	42,500	38,900	35,500
Q8/X8	30K (70 CRI)	365	56,600	59,500	38,900	35,600	32,500
	40K (70 CRI)		58,900	62,000	40,500	37,100	33,800
	50K (90 CRI)		43,600	45,900	30,000	27,500	25,000
	57K (70 CRI)		58,900	62,000	40,500	37,100	33,800
Q7/X7	30K (70 CRI)	347	54,200	57,000	37,300	34,100	31,100
	40K (70 CRI)		56,500	59,400	38,800	35,600	32,400
	50K (90 CRI)		41,800	44,000	28,800	26,400	24,000
	57K (70 CRI)		56,500	59,400	38,800	35,600	32,400
Q6/X6	30K (70 CRI)	332	52,500	55,200	36,100	33,100	30,100
	40K (70 CRI)		54,700	57,500	37,600	34,400	31,400
	50K (90 CRI)		40,400	42,500	27,800	25,500	23,200
	57K (70 CRI)		54,700	57,500	37,600	34,400	31,400
Q5/X5	30K (70 CRI)	301	47,900	50,400	33,000	30,200	27,500
	40K (70 CRI)		49,900	52,500	34,300	31,400	28,600
	50K (90 CRI)		37,000	38,900	25,400	23,300	21,200
	57K (70 CRI)		49,900	52,500	34,300	31,400	28,600
Q4/X4	30K (70 CRI)	276	43,500	45,800	29,900	27,400	25,000
	40K (70 CRI)		45,300	47,700	31,200	28,600	26,000
	50K (90 CRI)		33,600	35,300	23,100	21,100	19,300
	57K (70 CRI)		45,300	47,700	31,200	28,600	26,000
Q3/X3	30K (70 CRI)	247	40,200	42,300	27,700	25,300	23,100
	40K (70 CRI)		41,900	44,100	28,800	26,400	24,100
	50K (90 CRI)		31,000	32,600	21,300	19,500	17,800
	57K (70 CRI)		41,900	44,100	28,800	26,400	24,100
Q2/X2	30K (70 CRI)	220	36,200	38,100	24,900	22,800	20,800
	40K (70 CRI)		37,700	39,700	26,000	23,800	21,600
	50K (90 CRI)		27,900	29,300	19,200	17,500	16,000
	57K (70 CRI)		37,700	39,700	26,000	23,800	21,600
Q1*	30K (70 CRI)	195	31,900	33,600	22,000	20,100	18,300
	40K (70 CRI)		33,300	35,000	22,900	21,000	19,100
	50K (90 CRI)		24,600	25,900	16,900	15,500	14,125
	57K (70 CRI)		33,300	35,000	22,900	21,000	19,100

* X1 option not available with 65L lumen package.

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 75L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	447	68,400	72,000	47,100	43,100	39,300
	40K (70 CRI)		71,300	75,000	49,000	44,900	40,900
	50K (90 CRI)		52,800	55,500	36,300	33,200	30,300
	57K (70 CRI)		71,300	75,000	49,000	44,900	40,900
Q8/X8	30K (70 CRI)	426	65,300	68,700	44,900	41,100	37,500
	40K (70 CRI)		68,100	71,600	46,800	42,900	39,100
	50K (90 CRI)		50,300	52,900	34,600	31,700	28,900
	57K (70 CRI)		68,100	71,600	46,800	42,900	39,100
Q7/X7	30K (70 CRI)	404	62,500	65,800	43,000	39,400	35,900
	40K (70 CRI)		65,200	68,600	44,900	41,100	37,400
	50K (90 CRI)		48,200	50,700	33,200	30,400	27,700
	57K (70 CRI)		65,200	68,600	44,900	41,100	37,400
Q6/X6	30K (70 CRI)	387	60,500	63,600	41,600	38,100	34,700
	40K (70 CRI)		63,000	66,300	43,400	39,700	36,200
	50K (90 CRI)		46,700	49,100	32,100	29,400	26,800
	57K (70 CRI)		63,000	66,300	43,400	39,700	36,200
Q5/X5	30K (70 CRI)	350	55,300	58,200	38,100	34,900	31,700
	40K (70 CRI)		57,600	60,600	39,600	36,300	33,100
	50K (90 CRI)		42,600	44,800	29,300	26,800	24,500
	57K (70 CRI)		57,600	60,600	39,600	36,300	33,100
Q4/X4	30K (70 CRI)	321	50,200	52,800	34,500	31,600	28,800
	40K (70 CRI)		52,400	55,100	36,000	33,000	30,100
	50K (90 CRI)		38,700	40,700	26,600	24,400	22,200
	57K (70 CRI)		52,400	55,100	36,000	33,000	30,100
Q3/X3	30K (70 CRI)	287	46,400	48,800	31,900	29,200	26,600
	40K (70 CRI)		48,400	50,900	33,300	30,500	27,800
	50K (90 CRI)		35,700	37,600	24,600	22,500	20,500
	57K (70 CRI)		48,400	50,900	33,300	30,500	27,800
Q2/X2	30K (70 CRI)	256	41,700	43,900	28,700	26,300	23,900
	40K (70 CRI)		43,500	45,800	29,900	27,400	25,000
	50K (90 CRI)		32,200	33,900	22,200	20,300	18,500
	57K (70 CRI)		43,500	45,800	29,900	27,400	25,000
Q1/X1	30K (70 CRI)	227	36,900	38,800	25,400	23,200	21,200
	40K (70 CRI)		38,400	40,400	26,400	24,200	22,000
	50K (90 CRI)		28,400	29,900	19,600	17,900	16,300
	57K (70 CRI)		38,400	40,400	26,400	24,200	22,000

Field Adjustable Output (Q9/Q8/Q7/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

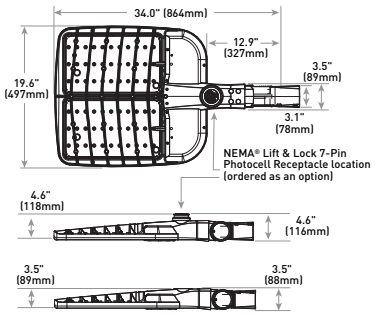
Locked Lumen Output (X8/X7/X6/X5/X4/X3/X2/X1) Option Description:

The Locked Lumen Output option on this page permanently locks the lumen output on the OSQ area luminaire to the setting selected. When ordered with the X option, the luminaire will be shipped from the factory at the lumen output setting selected and will only be able to be adjusted down in the field through a dimming control (by others).

Q & X Option Power & Lumen Data – 85L Lumen Package

Q/X Option Setting	CCT/CRI	System Watts 120-480V	Lumen Values				
			Asymmetric	Symmetric	2B, 3B, AB (factory-installed BLS)	4B (factory-installed BLS)	Asymmetric Lumens w/External BLS
Q9 (Full Power)	30K (70 CRI)	520	77,600	81,600	N/A	N/A	44,500
	40K (70 CRI)		80,800	85,000	N/A	N/A	46,400
	50K (90 CRI)		59,800	62,900	N/A	N/A	34,300
	57K (70 CRI)		80,800	85,000	N/A	N/A	46,400
Q8/X8	30K (70 CRI)	494	74,000	77,800	N/A	N/A	42,500
	40K (70 CRI)		77,100	81,100	N/A	N/A	44,300
	50K (90 CRI)		57,000	60,000	N/A	N/A	32,700
	57K (70 CRI)		77,100	81,100	N/A	N/A	44,300
Q7/X7	30K (70 CRI)	469	70,900	74,600	N/A	N/A	40,700
	40K (70 CRI)		73,900	77,700	N/A	N/A	42,400
	50K (90 CRI)		54,700	57,500	N/A	N/A	31,400
	57K (70 CRI)		73,900	77,700	N/A	N/A	42,400
Q6/X6	30K (70 CRI)	450	68,500	72,100	N/A	N/A	39,300
	40K (70 CRI)		71,400	75,100	N/A	N/A	41,000
	50K (90 CRI)		52,900	55,600	N/A	N/A	30,400
	57K (70 CRI)		71,400	75,100	N/A	N/A	41,000
Q5/X5	30K (70 CRI)	407	62,600	65,900	N/A	N/A	35,900
	40K (70 CRI)		65,300	68,700	N/A	N/A	37,500
	50K (90 CRI)		48,300	50,800	N/A	N/A	27,700
	57K (70 CRI)		65,300	68,700	N/A	N/A	37,500
Q4/X4	30K (70 CRI)	373	56,900	59,900	N/A	N/A	32,700
	40K (70 CRI)		59,300	62,400	N/A	N/A	34,000
	50K (90 CRI)		43,900	46,200	N/A	N/A	25,200
	57K (70 CRI)		59,300	62,400	N/A	N/A	34,000
Q3/X3	30K (70 CRI)	334	52,600	55,300	N/A	N/A	30,200
	40K (70 CRI)		54,800	57,600	N/A	N/A	31,500
	50K (90 CRI)		40,500	42,600	N/A	N/A	23,200
	57K (70 CRI)		54,800	57,600	N/A	N/A	31,500
Q2/X2	30K (70 CRI)	298	47,300	49,800	N/A	N/A	27,200
	40K (70 CRI)		49,300	51,900	N/A	N/A	28,300
	50K (90 CRI)		36,500	38,400	N/A	N/A	21,000
	57K (70 CRI)		49,300	51,900	N/A	N/A	28,300
Q1/X1	30K (70 CRI)	263	41,800	44,000	N/A	N/A	24,000
	40K (70 CRI)		43,500	45,800	N/A	N/A	25,000
	50K (90 CRI)		32,200	33,900	N/A	N/A	18,500
	57K (70 CRI)		43,500	45,800	N/A	N/A	25,000

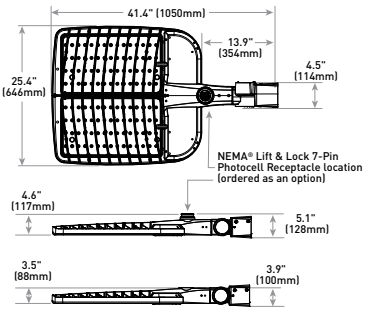
OSQL - AA Mount



Luminaire	Weight
OSQL	28.4 lbs. (12.9kg)

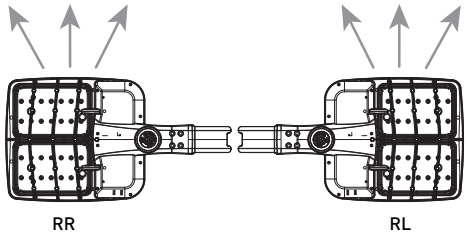
Note: For OSQM w/AA mount, refer to drawing on page 1.

OSQX - AA Mount



Luminaire	Weight
OSQX	48.6 lbs. (22.0kg)

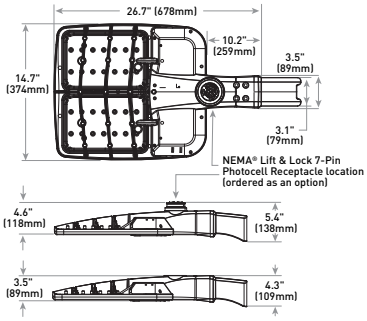
RR/RL Configuration



OSQM - DA Mount



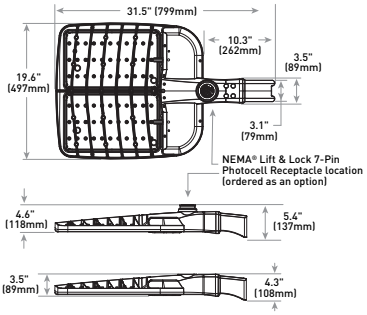
OSQM - DA Mount



Luminaire	Weight
OSQM	19.7 lbs. (8.9kg)

Note: Refer to page 14 for fixture mounting drill pattern.

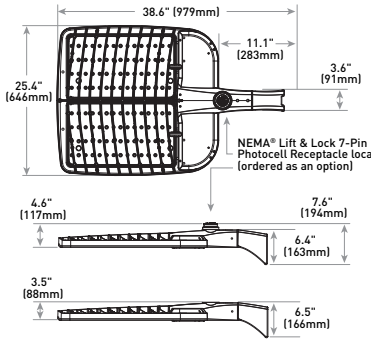
OSQL - DA Mount



Luminaire	Weight
OSQL	28.8 lbs. (13.1kg)

Note: Refer to page 14 for fixture mounting drill pattern.

OSQX-DA Mount



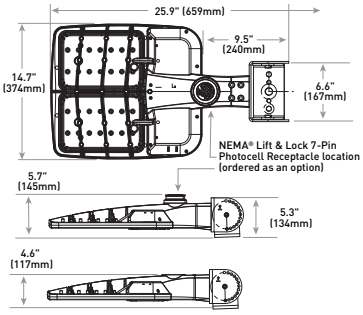
Luminaire	Weight
OSQX	45.8 lbs. (20.8kg)

Note: Refer to page 14 for fixture mounting drill pattern.

OSQM - Trunnion Mount

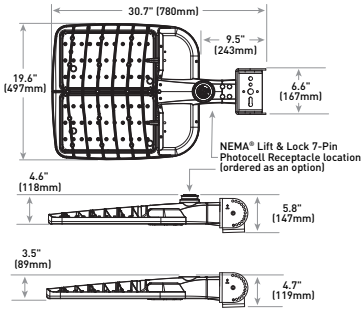


OSQM - Trunnion Mount



Luminaire	Weight
OSQM	23.2 lbs. (10.5kg)

OSQL - Trunnion Mount



Luminaire	Weight
OSQL	32.3 lbs. (14.7kg)

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CITY OF FORT PIERCE
*** CUSTOMER RECEIPT ***

Batch ID: DANA 1/08/24 01 Receipt no: 8449

Year	Number	Type	SvcCd	Description	Amount
2024	7000001	PL		PLANNING DEPARTMENT	$5875.00

CROSSROADS RV PARK
CK FR/ALEXANDER GEORGE & CO
ADVERTISING FEE & ETC

Tender detail

CH Ref#:	1453	$3775.00
SQ SQUARE TRANS		$2100.00
Total tendered:		$5875.00
Total payment:		$5875.00

Trans date: 1/08/24 Time: 16:31:13

082687

THANK YOU!

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

TO:	Technical Review Committee
THROUGH:	Kevin Freeman, Planning Director
FROM:	Kerry C. Driver, Planner
RE:	**Site Plan – 24-07000001** **2324-312-0005-000-4**
BOARD DATE:	February 15, 2024

Resubmittal of Site Plan at Parcel ID: 2324-312-0005-000-4
Resubmittal date: January 23, 2025

The above referenced project is being resubmitted for a third review and comments. The applicant is requesting a Development Review for a Site Plan at Parcel ID: 2324-312-0005-000-4.

Please send all comments to kdriver@cityoffortpierce.com, planning@cityoffortpierce.com and/or through interoffice mail to the Planning Department

Thank you,

Kerry

THE SUNRISE CITY
FORT PIERCE
Florida
ENGINEERING
DEPARTMENT

TO : Kerry Driver, Planner

FROM : Venetia Barnes, Stormwater Engineer VB

THRU : Tracy Telle, Engineering Manager TT

RE : Site Plan – Crossroads RV Park – 2324-312-0005-000-4
TRC No. 24-07000001

DATE : February 19, 2025

This is to advise you that we have completed the review of the following documents as received by this office on February 19, 2025:

- [x] Site Plan (Design & Development Review)
- [ ] P/D Drawings
- [ ] Test Reports & Related Documents
- [ ] Certificate of Completion
- [ ] Record Drawings
- [ ] Permits from applicable Local, State & Federal Agencies
- [ ] Clearances from all applicable Local, State and Federal Agencies

Based on our reviews and appropriate site final inspection, we

- [x] Recommend
- [ ] Do Not Recommend
- [x] Approval of Site Plan
- [ ] Site Plan
- [ ] C/O

Developer, Owner, Engineer, Contractor and other members of the Development Team must be aware, the above recommendation is based only on the construction requirements of the engineering plans and other engineering documentation approved by this department. The Development Team shall be responsible for the compliance with other City department requirements and all approved documents, as well as Local, State and Federal regulations. The development requirements for this project may necessitate additional construction requirements that are not subject to this department's review for approval.

- [x] See attached for engineering advisory comments

100 NORTH US 1, FORT PIERCE, FLORIDA 34950 • CITYOFFORTPIERCE.COM • TEL: 772.467.3000 • FAX: 772.460.6847

ADVISORY COMMENTS:

1. A South Florida Water Management District (SFWMD) ERP shall be required prior to DPCR approval.
2. An approved Saint Lucie County Development Permit shall be required prior to DPCR approval.
3. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
4. The tree mitigation plan and associated mitigation fees will be reviewed in depth at time of DPCR submittal.
5. At time of DPCR submittal update the engineering plans to reflect the attached City of Fort Pierce Standard Details.
6. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR.

TST/VB/vb

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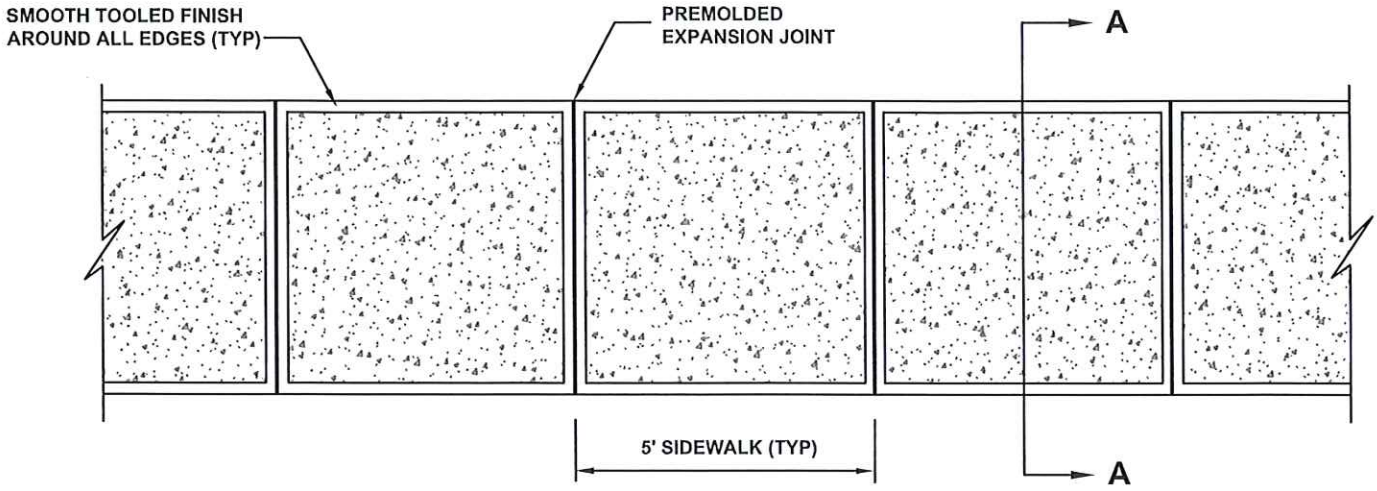
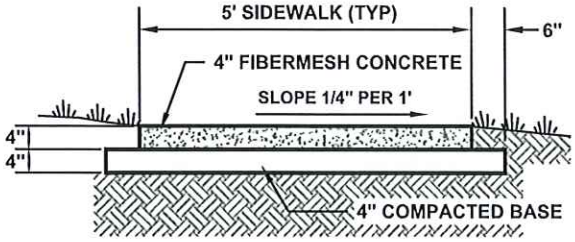
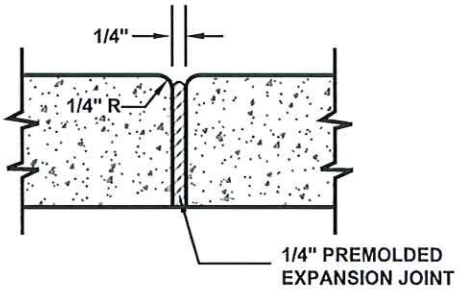


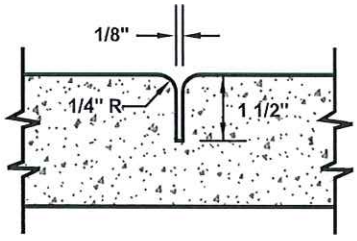


SECTION A-A

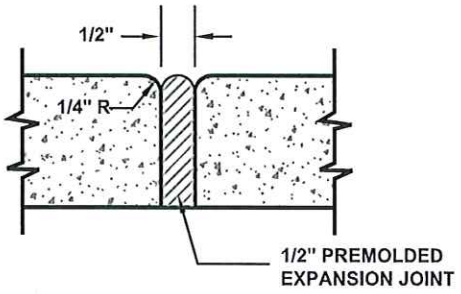
- CONCRETE STRENGTH TO BE 3000 P.S.I. AT 28 DAYS.
- TOOLED DUMMY CONTRACTION JOINTS EVERY 5' (TYPE 'B' JOINTS)
- EXPANSION JOINTS WITH PREMOLDED FILLER AT 100' O/C (TYPE 'C' JOINTS)
- BASE TO BE COMPACTED 98% MAXIMUM DRY DENSITY PER AASHTO T-180
- THE CONCRETE SHALL BE GIVEN A BROOM FINISH AND THE EDGE OF THE SIDEWALK SHALL BE FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2 INCH



TYPE "A"



TYPE "B"



TYPE "C"

GENERAL CONSTRUCTION NOTES

"A" AT P.C. & P.T. OF CURVES AND AT JUNCTION OF EXISTING AND NEW SIDEWALKS.

"B" 5' CENTER TO CENTER ON NEW SIDEWALKS AND 10' CENTER TO CENTER ON NEW CURB AND GUTTER.

"C" WHERE NEW SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAY AND SIMILAR STRUCTURES.

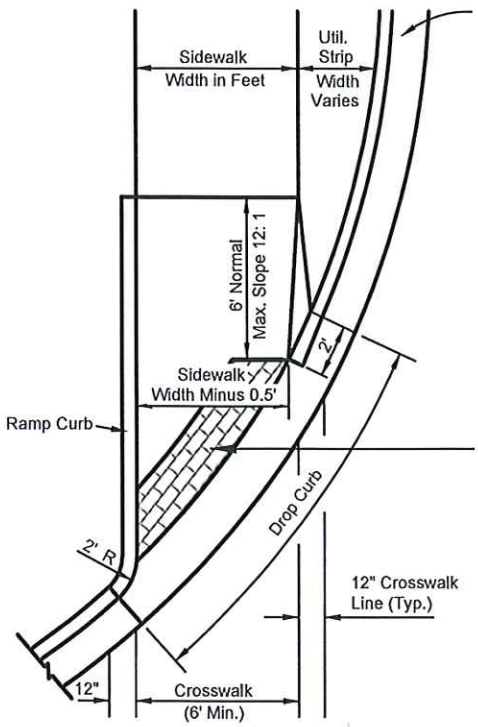
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\07 Standard Sidewalk Detail.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

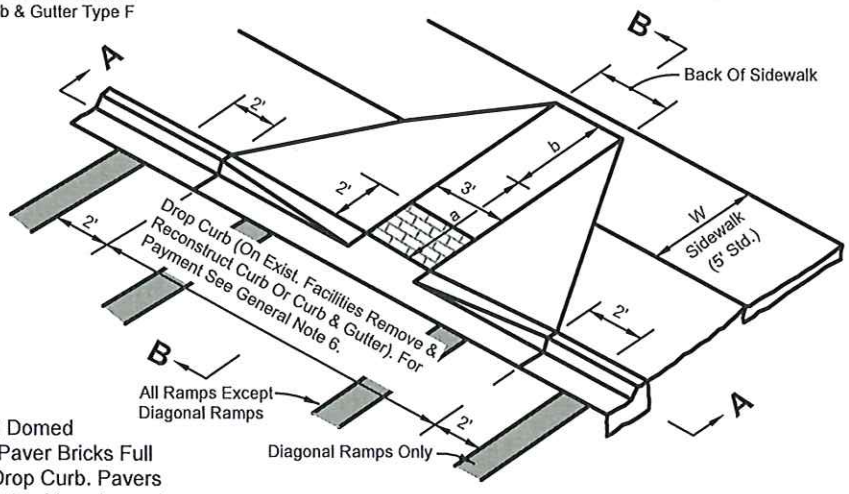
STANDARD SIDEWALK DETAIL

DATE:	FEBRUARY 2018
SCALE:	N.T.S.
DRAWN:	D.SUMNER

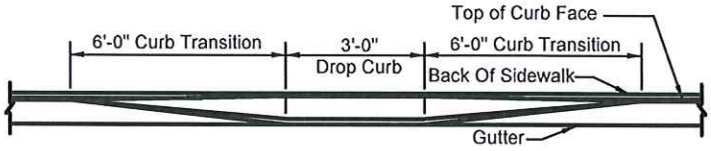
SHEET 7



PLAN VIEW



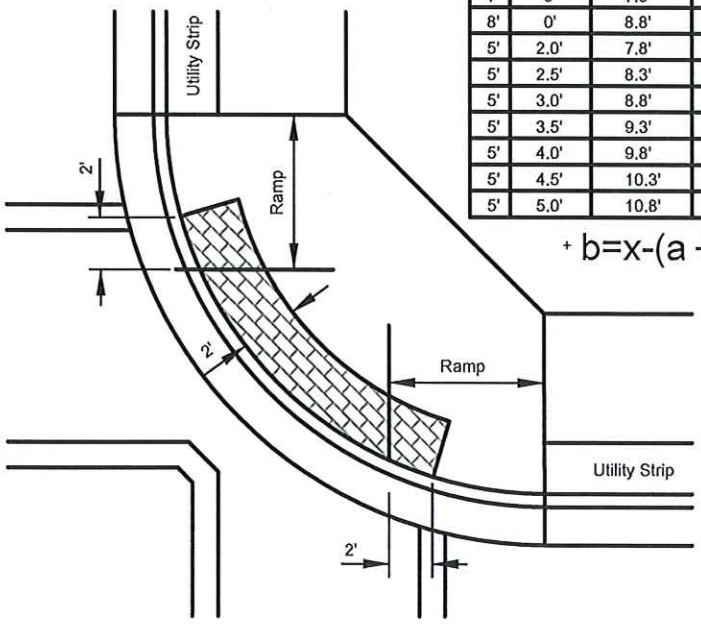
PICTORIAL VIEW



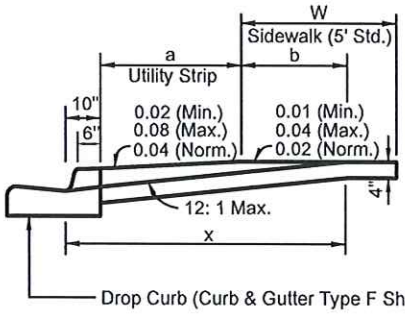
SECTION AA

W	a	W + a + 10"	X	b
5'	0'	5.8'	5.8'	5.0'*
6'	0'	6.8'	6.8'	6.0'**
7'	0'	7.8'	7.3'	6.5'**
8'	0'	8.8'	7.3'	6.5'**
5'	2.0'	7.8'	7.8'	5.0'
5'	2.5'	8.3'	8.1'	4.8'
5'	3.0'	8.8'	8.3'	4.4'
5'	3.5'	9.3'	8.4'	4.1'
5'	4.0'	9.8'	8.6'	3.8'
5'	4.5'	10.3'	8.7'	3.4'
5'	5.0'	10.8'	8.9'	3.1'

* b=x-(a +10")



DIAGONAL RAMPS



SECTION BB

CROSSWALK WIDTHS AND CONFIGURATION VARY.

b = DISTANCE FROM FRONT EDGE OF SIDEWALK TO BACK POINT OF 12:1 SLOPE.

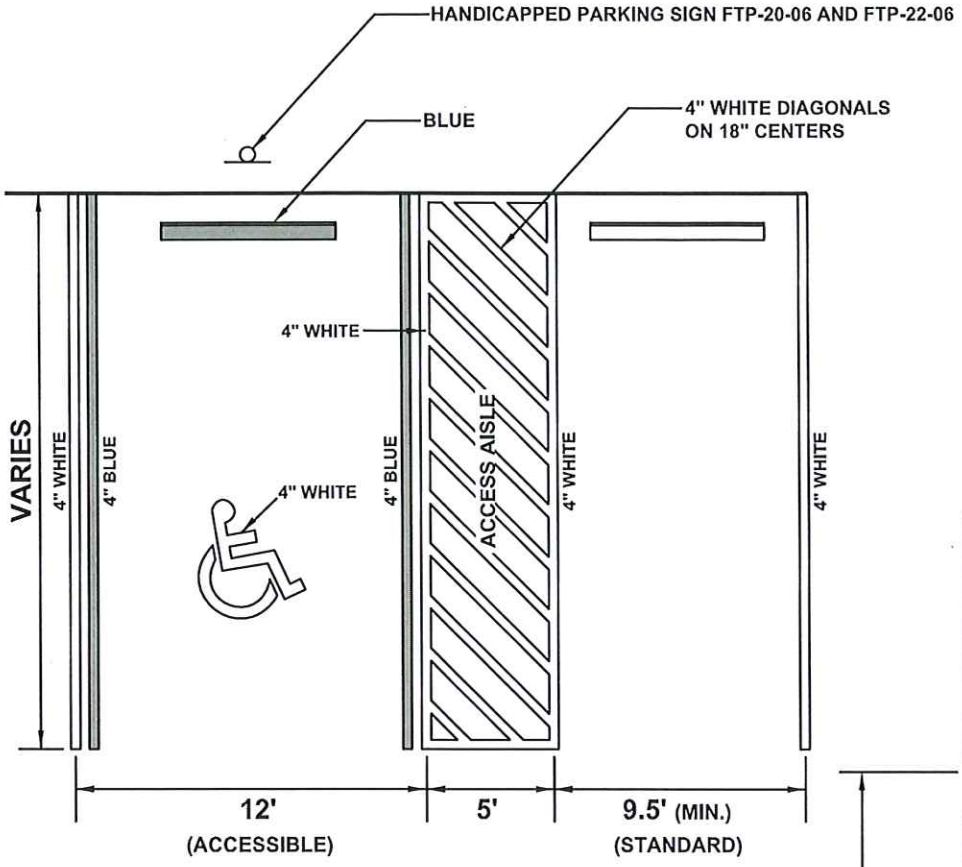
Z:\Shared\4400 Engineering\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\09 Curb Ramps Detail.dwg

THE SUNRISE CITY FORT PIERCE ENGINEERING DEPARTMENT Florida

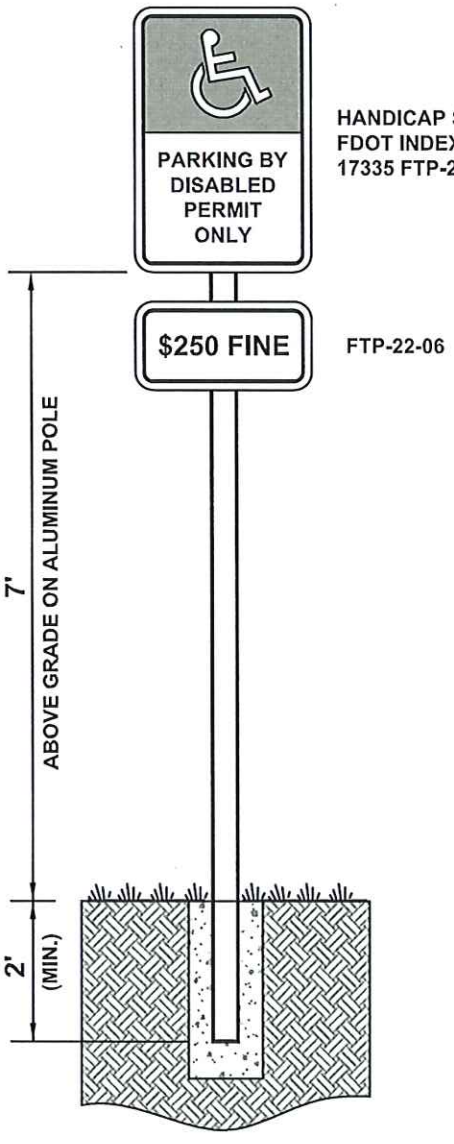
CURB RAMP DETAIL

DATE:	JUNE 2018
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET 9



PAVEMENT MARKINGS



HANDICAP SIGN
FDOT INDEX
17335 FTP-20-06

FTP-22-06

HANDICAPPED PARKING SIGN

GENERAL NOTES

- SIGN TO BE LOCATED BEHIND THE 1' OVERHANG.
- TOP PORTION OF THE FTP-20-06 SHALL HAVE A REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
- HEIGHT SHALL BE 7 FEET MEASURED FROM THE GROUND OR SIDEWALK TO THE BOTTOM OF "PERMIT ONLY" SIGN OF 6 FEET TO THE BOTTOM OF "$250 FINE" SIGN.

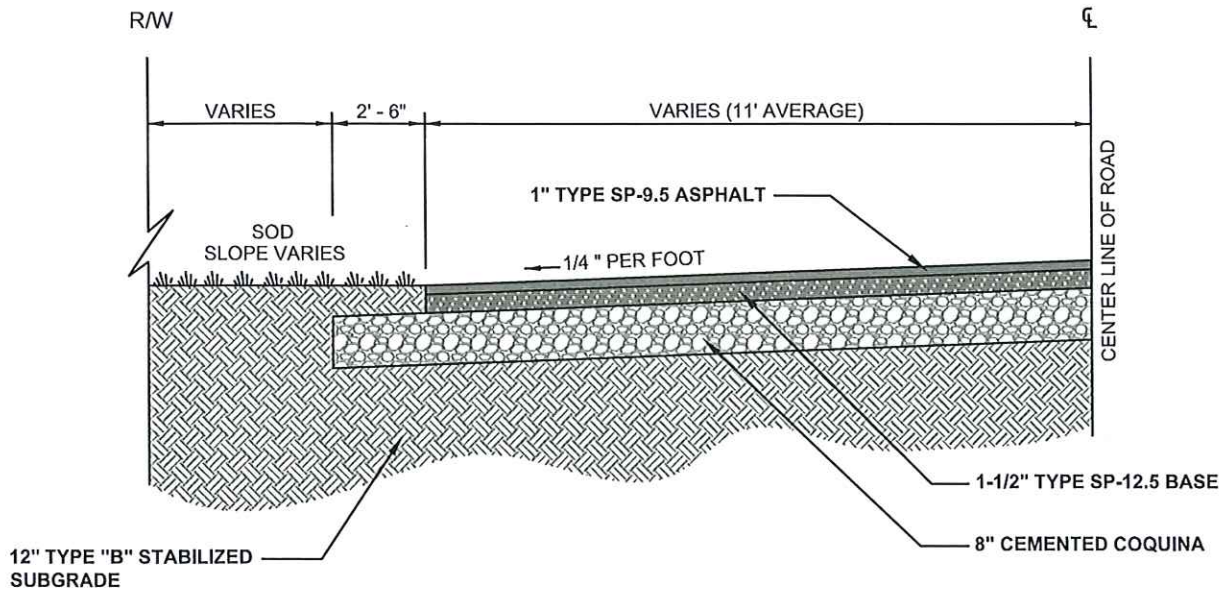
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\12 Handicapped and Regular Parking Detail.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

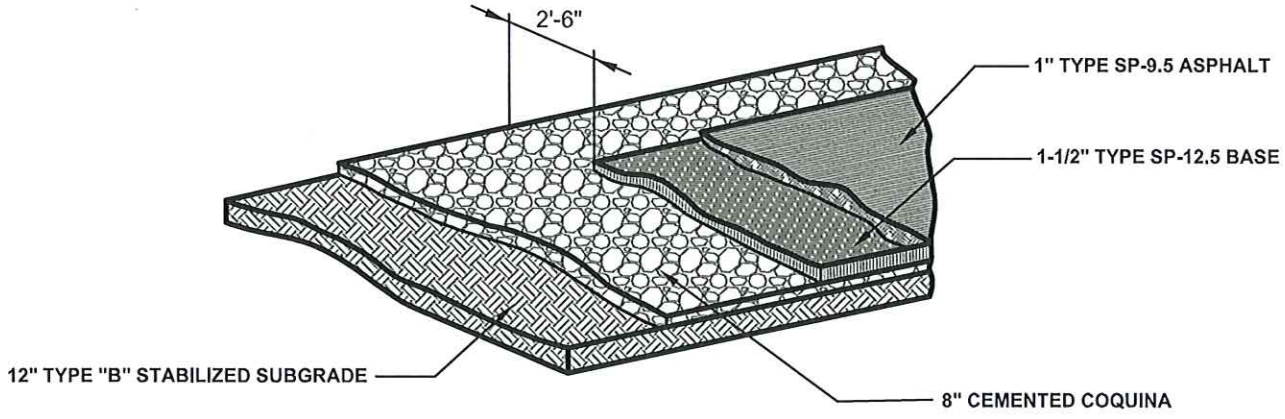
HANDICAPPED AND STANDARD PARKING DETAIL

DATE:	JANUARY 2024
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET 12



TYPICAL SECTION



ISOMETRIC VIEW

GENERAL CONSTRUCTION NOTES

- **SURFACE COURSE:** 1" TYPE SP - 9.5 STRUCTURAL COURSE
- **BASE COURSE:** 1-1/2" TYPE SP - 12.5 STRUCTURAL COURSE
- **GRANULAR COURSE:** 8" CEMENTED COQUINA (LBR-100)
- **SUBGRADE COURSE:** 12" TYPE "B" STABILIZATION SUBGRADE (LBR-40)

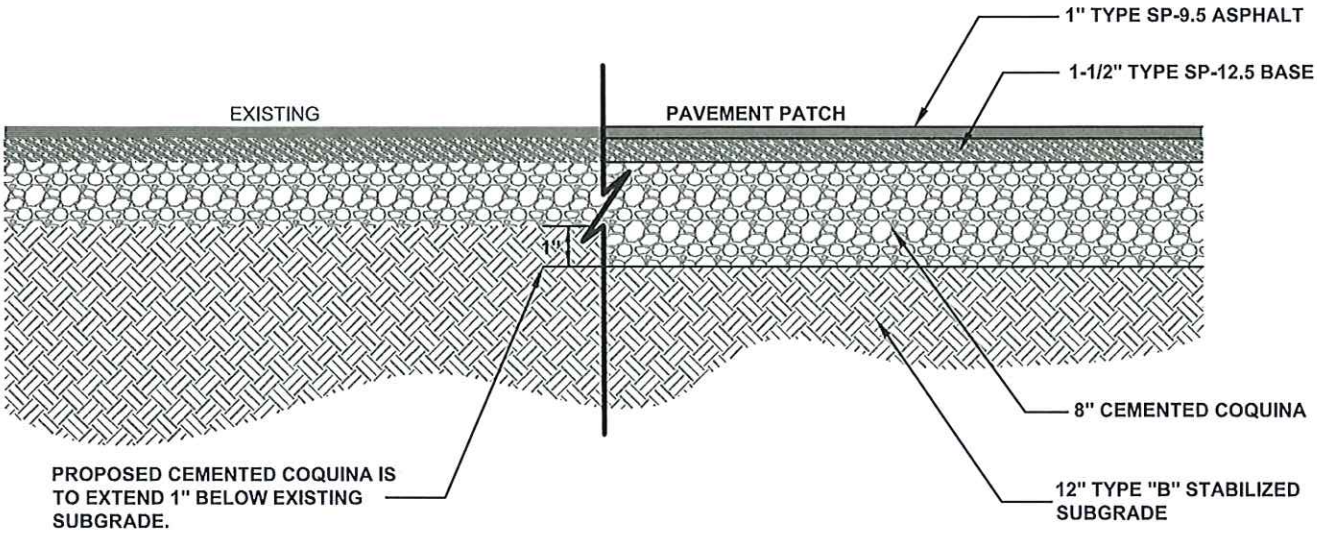
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\15 Paving Detail Without Curb and Gutter Detail.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

PAVING DETAIL WITHOUT CURB AND GUTTER

DATE:	JANUARY 2020
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET 15



GENERAL CONSTRUCTION NOTES

- **SURFACE COURSE:** 1" TYPE SP - 9.5 STRUCTURAL COURSE
- **BASE COURSE:** 1-1/2" TYPE SP - 12.5 STRUCTURAL COURSE
- **GRANULAR COURSE:** 8" CEMENTED COQUINA (LBR-100)
  BASE TO BE COMPACTED 98% MAXIMUM
  DRY DENSITY PER AASHTO T-180
- **SUBGRADE COURSE:** 12" TYPE "B" STABILIZATION SUBGRADE (LBR-40)

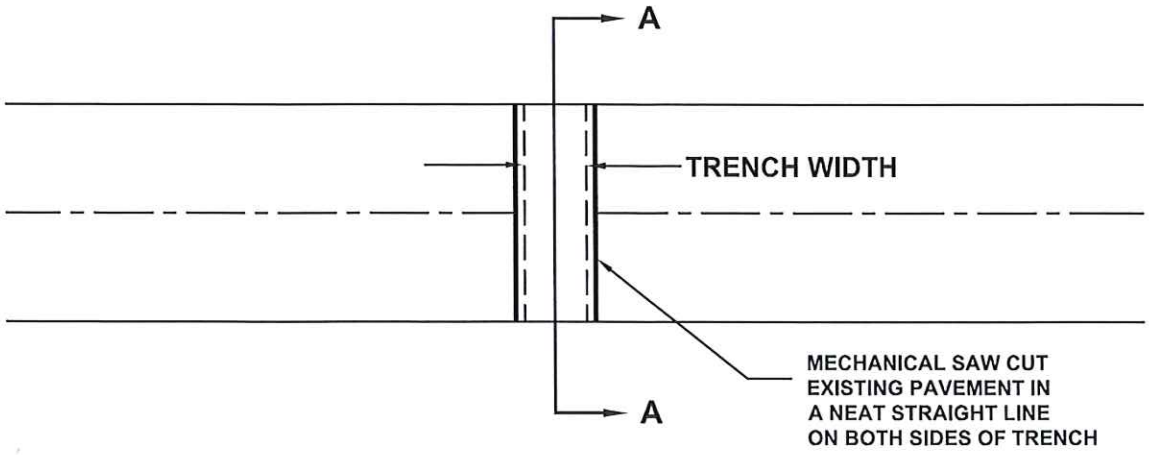
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\19 Pavement Patching Detail.dwg

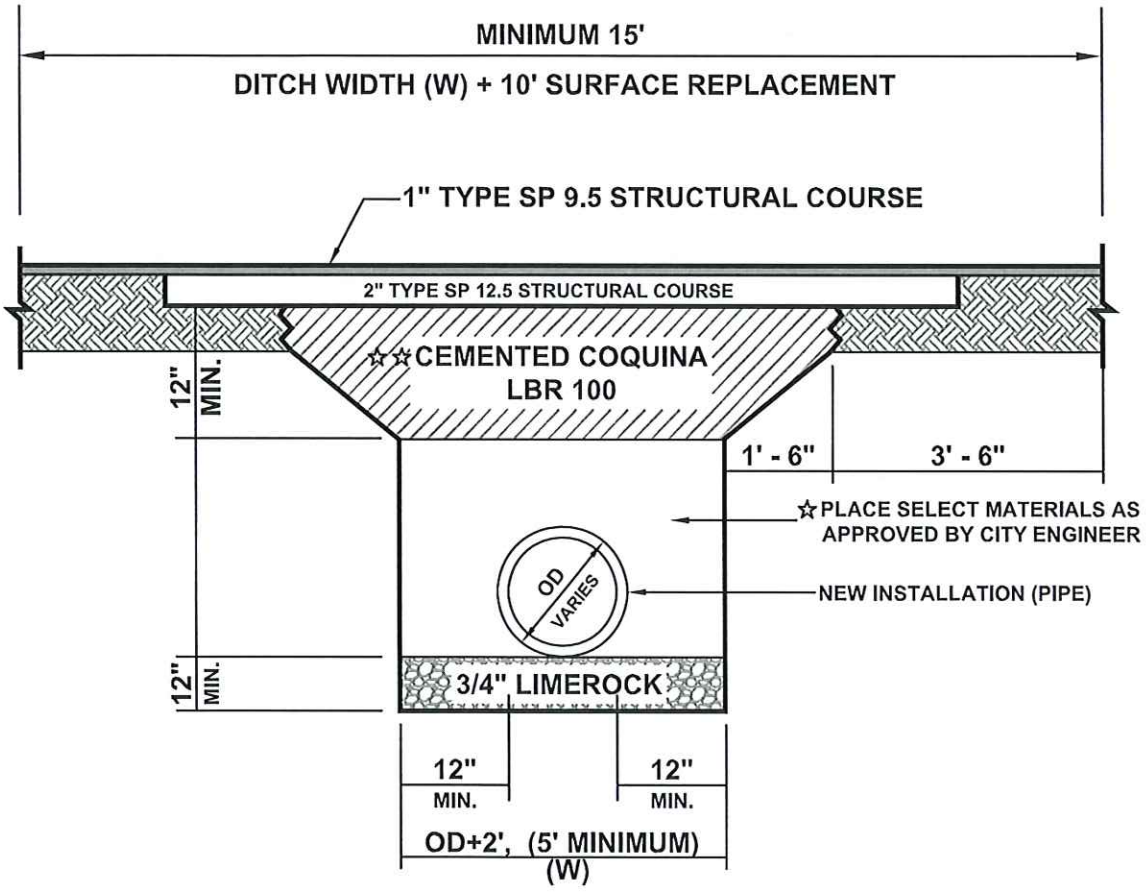
THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

PAVEMENT PATCHING DETAIL

DATE:	FEBRUARY 2020
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET 19





SECTION A-A

☆ INITIAL BACKFILL SHALL BE PLACED TO 12" ABOVE THE PIPE IN 6" LIFTS. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO METHOD T-99. UPPERMOST 12" TO BE COMPACTED TO 98% OF T-99.

☆☆ 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO METHOD T-180.

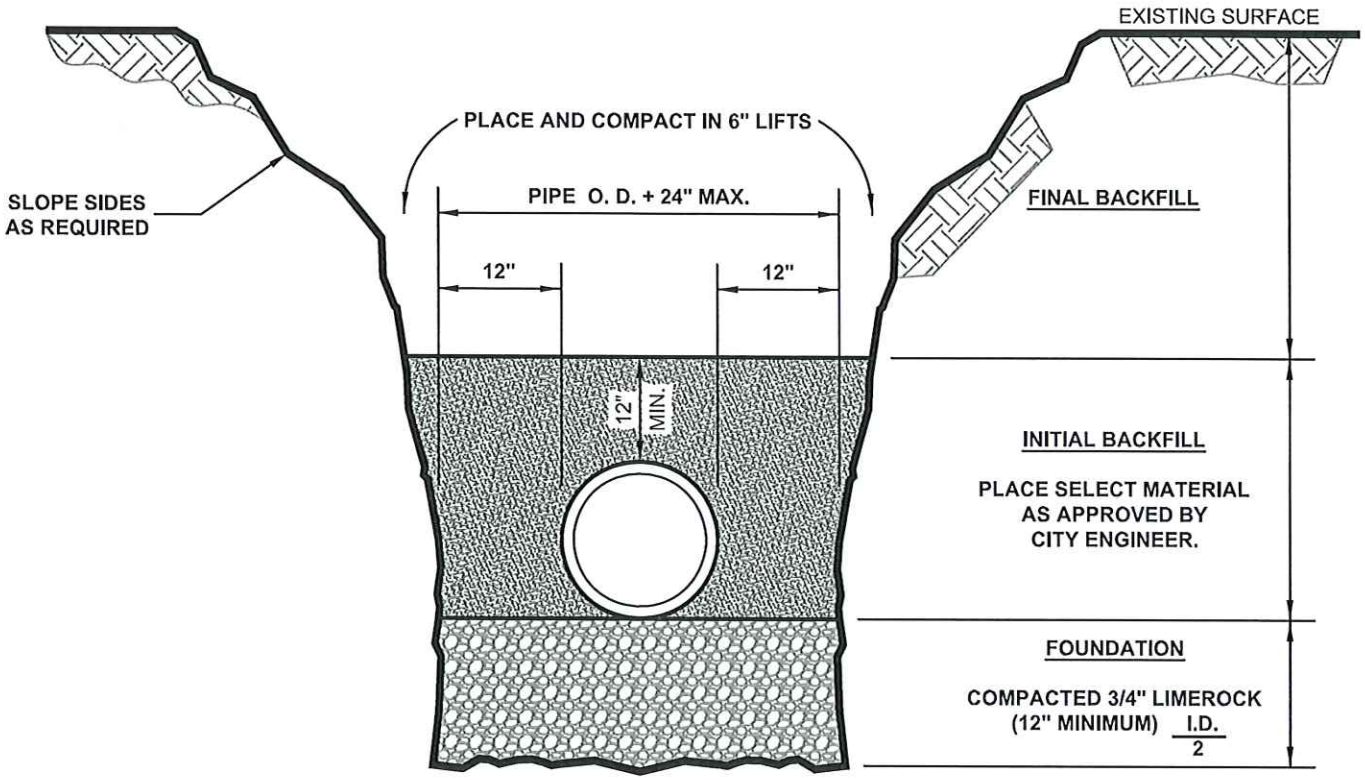
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\28 Pavement Restoration Detail With Trench.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

PAVEMENT RESTORATION DETAIL WITH TRENCH

DATE:	FEBRUARY 2019
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET 28



GENERAL CONSTRUCTION NOTES

- ALL TRENCHING SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
- FOUNDATION: 3/4" LIMEROCK A MINIMUM OF 12" IN DEPTH.
- INITIAL BACKFILL: THE MATERIAL PLACED TO 12" ABOVE THE PIPE SHALL BE PLACED IN SIX INCH LAYERS AND COMPACTED WITH MECHANICAL TAMPERS TO AT LEAST 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99
- FINAL BACKFILL: TO BE PLACED IN LAYERS NOT TO EXCEED ONE FOOT IN THICKNESS AND COMPACTED WITH APPROPRIATE EQUIPMENT TO AT LEAST 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99

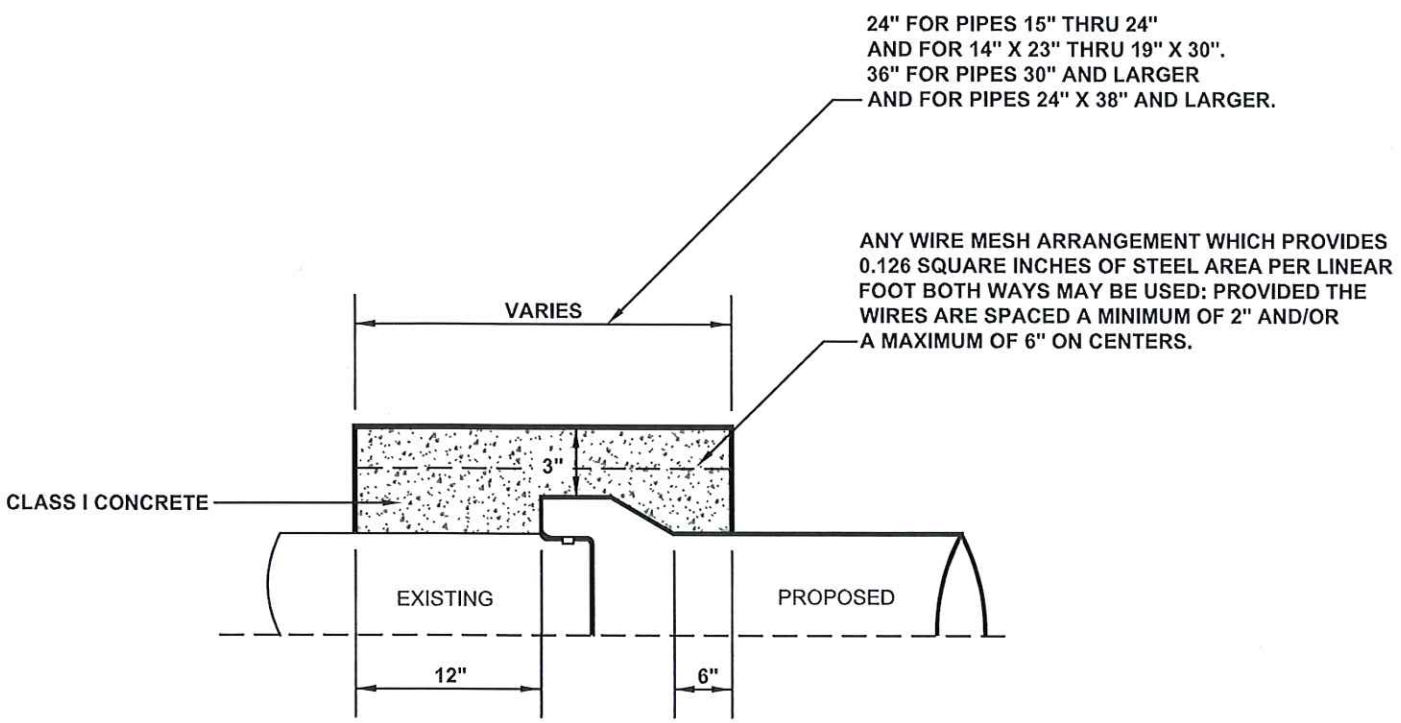
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\30 Trench Detail.dwg

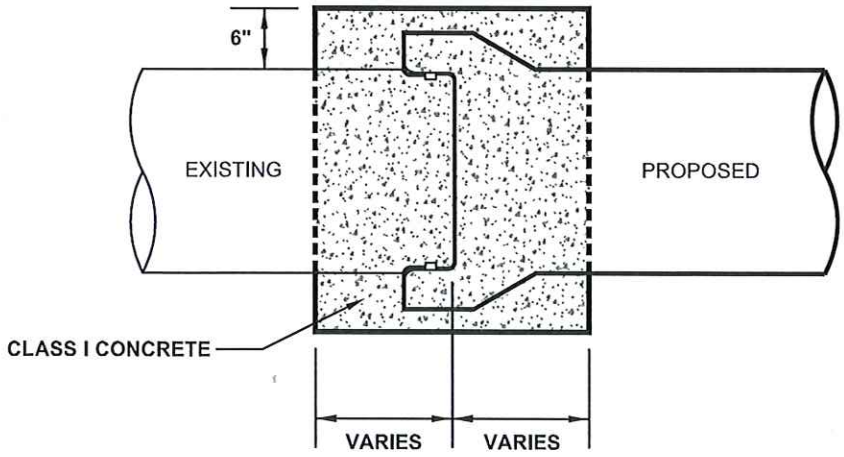
THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

TRENCH DETAIL

DATE:	FEBRUARY 2020
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET 30





ALL PIPE SIZES

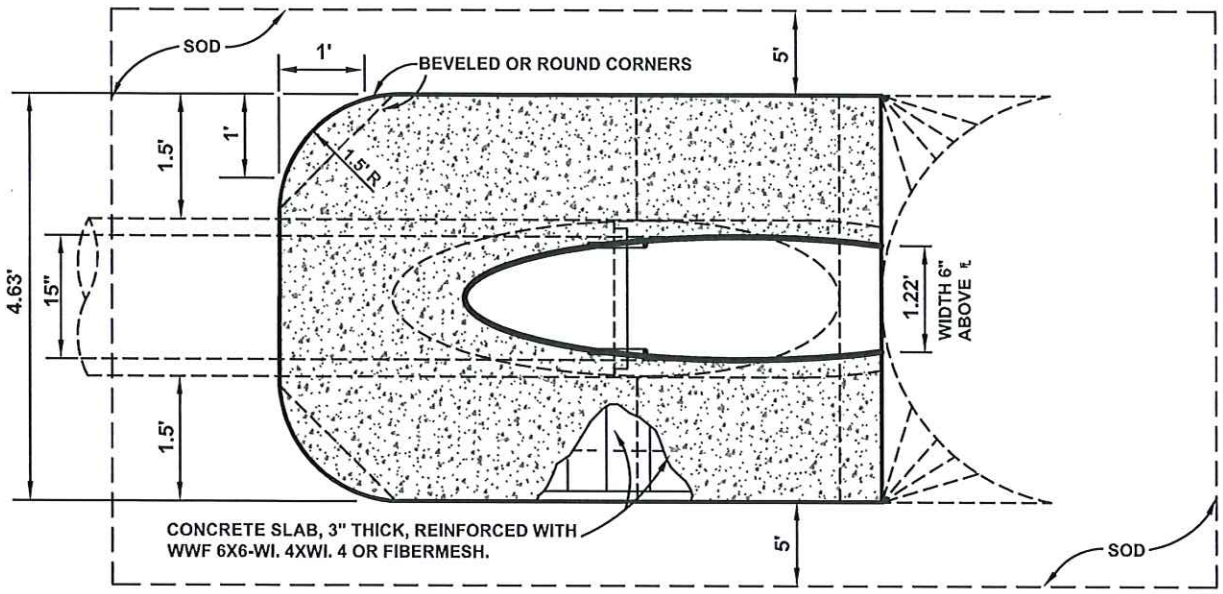
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\31 Concrete Collar Joint Detail.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

CONCRETE COLLAR JOINT DETAIL

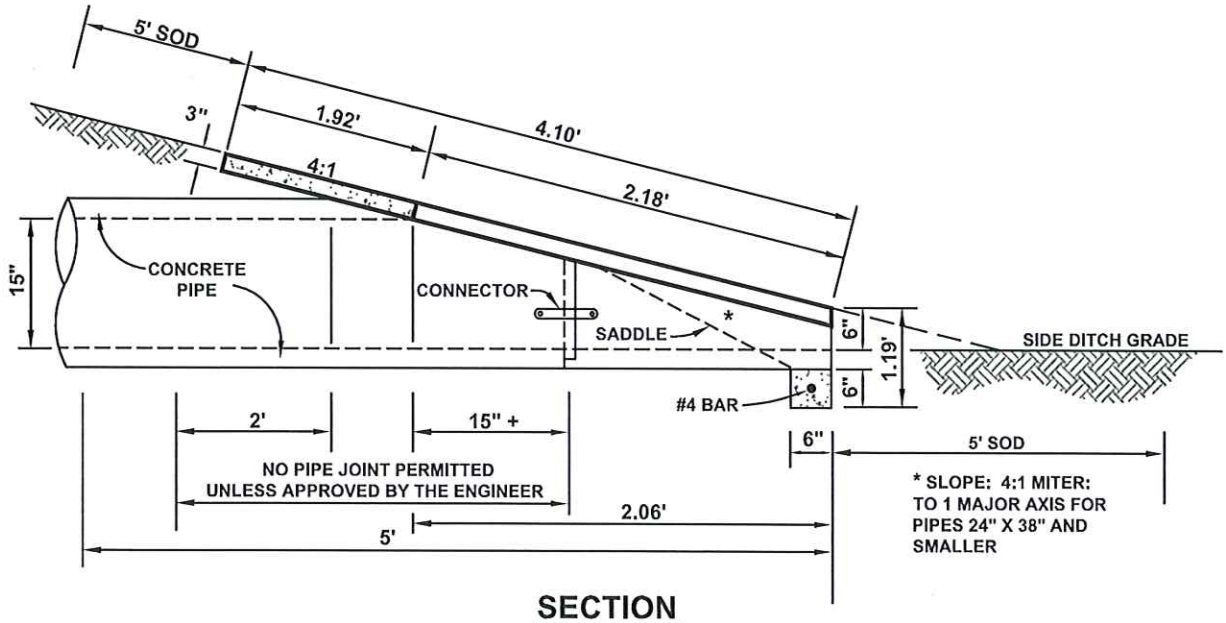
DATE:	MARCH 2020
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET 31



TOP VIEW - SINGLE PIPE

ALL CONCRETE IS TO BE CLASS I



SECTION

ALL CONCRETE IS TO BE CLASS I
FIBERMESH AT 3000 P.S.I.

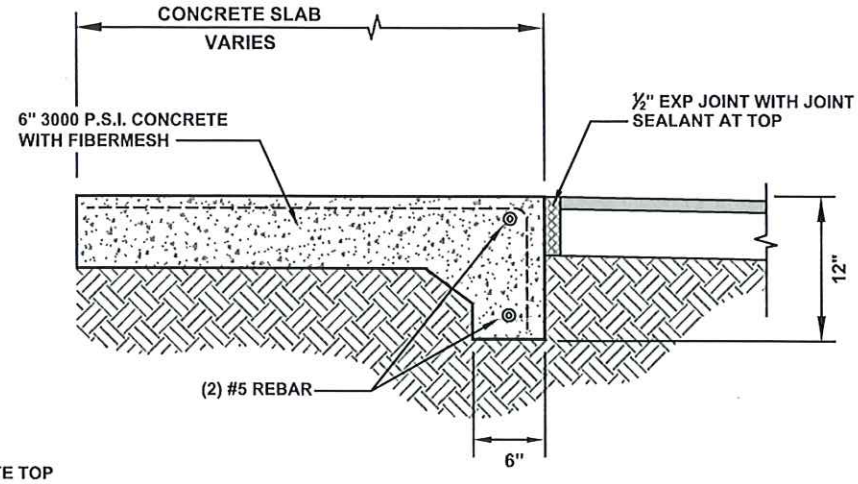
Q:\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\32 Mitered End Detail.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

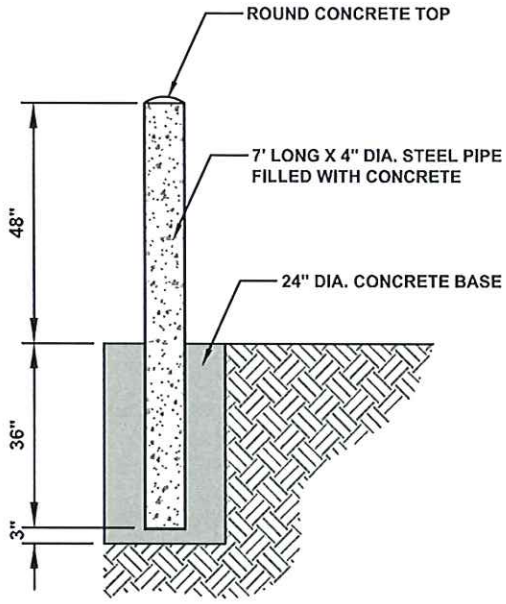
MITERED END DETAIL

DATE:	OCTOBER 2020
SCALE:	N.T.S.
DRAWN:	D.SUMNER

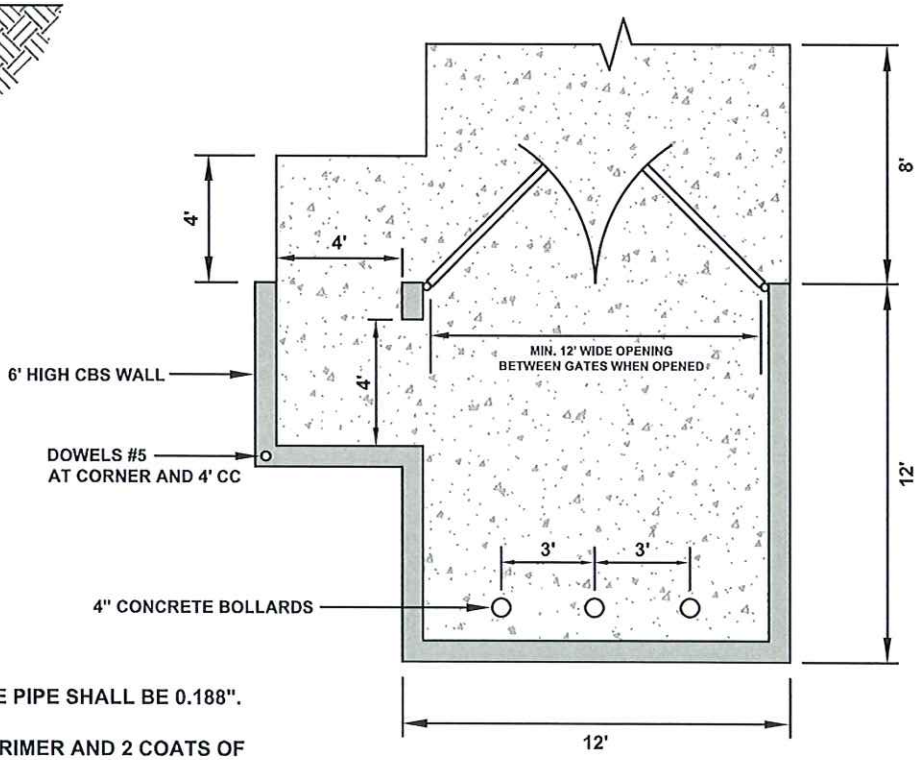
SHEET 32



FOOTER FOUNDATION



BOLLARD



GENERAL CONSTRUCTION NOTES

- THE MINIMUM WALL THICKNESS OF THE PIPE SHALL BE 0.188".
- ALL POSTS SHALL HAVE 2 COATS OF PRIMER AND 2 COATS OF YELLOW TOP COAT, UNLESS OTHERWISE NOTED.
- THE PRIMER COAT SHALL MEET THE REQUIREMENTS OF FDOT 971-5.
- ALL CONCRETE SHALL BE FDOT CLASS 1.

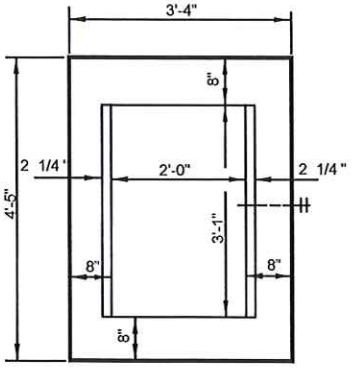
Z:\Shared\4400 Engineering\Engineering CADD Files\Drawings\Reference\City Details\City Details 2016\000 Dumpster Enclosure Detail.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

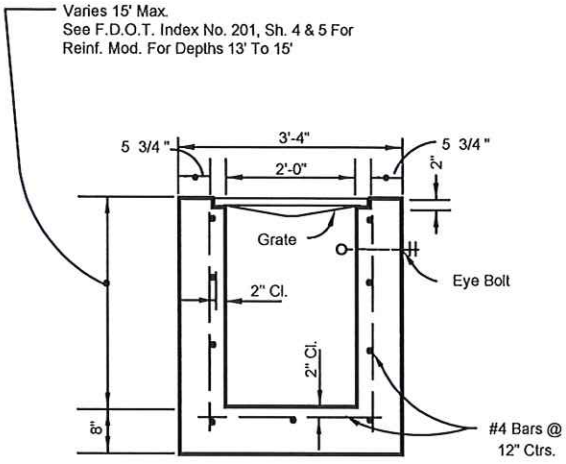
DUMPSTER ENCLOSURE DETAIL

DATE:	MAY 2022
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET

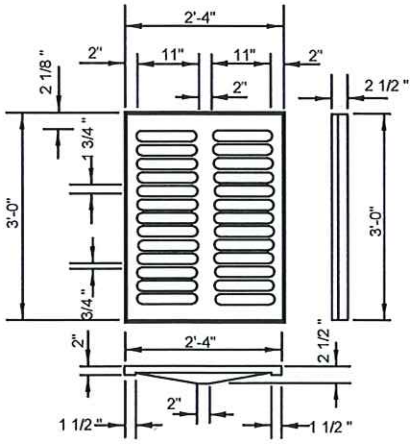


PLAN



SECTION

Recommended Maximum Pipe Size:
2'-0" Wall-18" Pipe



TYPE C GRATE

Approx. Weight 235 Lbs.

GENERAL NOTES

- THESE INLETS ARE SUITABLE FOR BICYCLE AND PEDESTRIAN AREAS AND ARE TO BE USED IN DITCHES, MEDIANS AND OTHER AREAS SUBJECT TO INFREQUENT TRAFFIC LOADINGS BUT ARE NOT TO BE PLACED IN AREAS SUBJECT TO ANY HEAVY WHEEL LOADS.
- INLETS SUBJECT TO MINIMAL DEBRIS SHOULD BE CONSTRUCTED WITHOUT SLOTS. WHERE DEBRIS IS A PROBLEM INLETS SHOULD BE CONSTRUCTED WITH SLOTS. SLOTTED INLETS LOCATED WITHIN ROADWAY CLEAR ZONES AND IN AREAS ACCESSIBLE TO PEDESTRIANS SHALL HAVE TRAVERSABLE SLOTS. THE TRAVERSABLE SLOT MODIFICATION IS NOT ADAPTABLE TO INLET TYPE H. SLOTS MAY BE CONSTRUCTED AT EITHER OR BOTH ENDS AS SHOWN ON PLANS.
- STEEL GRATES ARE TO BE USED ON ALL INLETS WHERE BICYCLE TRAFFIC IS ANTICIPATED. STEEL GRATES ARE TO BE USED ON ALL INLETS WITH TRAVERSABLE SLOTS. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON INLETS WITHOUT SLOTS WHERE BICYCLE TRAFFIC IS NOT ANTICIPATED. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON ALL INLETS WITH NON-TRAVERSABLE SLOTS. SUBJECT TO THE SELECTION DESCRIBED ABOVE, WHEN ALTERNATE G GRATE IS SPECIFIED IN THE PLANS, EITHER THE STEEL GRATE, HOT DIPPED GALVANIZED AFTER FABRICATION, OR THE CAST IRON GRATE MAY BE USED, UNLESS THE PLANS STIPULATE THE PARTICULAR TYPE.
- RECOMMENDED MAXIMUM PIPE SIZES SHOWN ARE FOR CONCRETE PIPE. PIPE SIZES LARGER THAN THOSE RECOMMENDED MUST BE CHECKED FOR FIT.
- ALL EXPOSED CORNERS AND EDGES OF CONCRETE ARE TO BE CHAMFERED 3/4 ".
- PAVEMENT TO BE USED ON INLETS WITHOUT SLOTS AND INLETS WITH NON-TRAVERSABLE SLOTS ONLY WHEN CALLED FOR IN THE PLANS; BUT REQUIRED ON ALL TRAVERSABLE SLOT INLETS. COST TO BE INCLUDED IN CONTRACT UNIT PRICE FOR INLETS. QUANTITIES SHOWN ARE FOR INFORMATION ONLY.
- TRAVERSABLE SLOTS CONSTRUCTED IN EXISTING INLETS SHALL BE PAID FOR AS INLETS PARTIAL, AND SHALL INCLUDE THE COST FOR SLOT OPENINGS, PAVING AND ANY REQUIRED REPLACEMENT GRATES.
- SODDING TO BE USED ON ALL INLETS NOT LOCATED IN PAVED AREAS AND PAID FOR UNDER CONTRACT UNIT PRICE FOR SODDING SY.
- FOR SUPPLEMENTARY DETAILS SEE F.D.O.T. SPECIFICATIONS INDEX NO. 201.

Z:\Shared\4400 Engineering\Engineering CADD Files\Drawings\Reference\City Details\City Details 2018\000 Type C Inlet Detail.dwg

THE SUNRISE CITY FORT PIERCE Florida ENGINEERING DEPARTMENT

TYPE C INLET DETAIL

DATE:	MAY 2023
SCALE:	N.T.S.
DRAWN:	D.SUMNER

SHEET

GC

Grant M. Chambers<Grant.M.Chambers@stlucieco.gov>

To: Jarrod Stern <jarrod@gep-llc.com>

Cc: Leo Giangrande <leo@gep-llc.com>

Good morning Jarrod,

This submittal appears to address the remaining comments. A Site Development Permit will be required as a condition of site plan approval.

Thank you,

Grant Chambers, P.E. | Senior Project Engineer | Engineering Division - PW

Ph: 772-462-1707 | Direct: 772-462-2741 | 2300 Virginia Ave. Fort Pierce 34982

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ST. LUCIE COUNTY FLORIDA

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THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

TO:	Technical Review Committee
THROUGH:	Kevin Freeman, Planning Director
FROM:	Kerry C. Driver, Planner
RE:	**Site Plan – 24-07000001** **2324-312-0005-000-4**
BOARD DATE:	February 15, 2024

Resubmittal of Site Plan at Parcel ID: 2324-312-0005-000-4
Resubmittal date: November 12, 2024

The above referenced project is being resubmitted for a third review and comments. The applicant is requesting a Development Review for a Site Plan at Parcel ID: 2324-312-0005-000-4.

Please send all comments to kdriver@cityoffortpierce.com, planning@cityoffortpierce.com and/or through interoffice mail to the Planning Department

Thank you,

Kerry

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

BUREAU OF FIRE PREVENTION

SITE PLAN REVIEW

TO: Site Plan Applicant

SITE PLAN: Crossroads RV Park

REVIEW DATE: 2/9/2024

PLANNER: KERRY DRIVER

REVIEWED BY: Captain Andres Elizondo

Site Plan Approved with conditions: ___X____

Site Plan Requires Re-submittal: _____

Site Plan Rejected: _____

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). This form is available on-line at https://www.slcfd.com.**~~ **Received 8/12/2024.**

2. ~~**Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.**~~ **Received 9/4/2024.**

3. ~~**Please provide an electronic revised copy of the site plan (pdf format).**~~ **Received 6/13/2024.**

4. ~~**Please provide written acknowledgement of the conditions/revisions provided.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

5. ~~**A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

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. (NFPA 1 16.1.4). 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. (NFPA 1.18.2.3.5.2).**~~ **Received Written Comment Acknowledgement 6/13/2024.**

7. ~~**Security gates must either be manned 24 hour/day or provide an access control key switch on the control panel to allow for Fire Department entry in an emergency. Security gates must maintain a clear width of 12 feet when open and provide a means to open the gates manually upon loss of power. The gate opening shall swing inward and shall provide a clear opening no less than 2 feet (0.61 m) wider than the gated road or driveway.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

8. ~~**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.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

9. ~~**The Fire District reserves the right for future comments at the site plan & building construction phase.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

10. ~~**FD access roads (shall be) are provided such that any portion of an unsprinklered facility or exterior wall is located not more than 150' from FD access roads as measured by an approved route around the exterior of the building or facility. (450' for NFPA 13, 13D, 13R sprinklered protected buildings).**~~ **Received Written Comment Acknowledgement 6/13/2024.**

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.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

12. ~~**Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

13. ~~**Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft.**~~ ~~———~~**Received Written Comment Acknowledgement 6/13/2024.**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

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".**~~ **Received Written Comment Acknowledgement 6/13/2024.**

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). NFPA 1141 Chapter 10.1.3.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

17. ~~**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. (SLCFD Fire Prevention Code Resolution 740-23).**~~ **Received Written Comment Acknowledgement 6/13/2024.**

18. ~~**Site Plans submitted in accordance with this Fire Prevention Code shall include the size, layout, and offsite connections for the water distribution system and the location of all existing and proposed fire hydrants within one thousand (1,000) feet of the proposed project.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

19. ~~**Separation. A stand or structure shall be located at least 10 ft (3.0 m) from any other stand or structure.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

20. ~~**Site Identification. Each camping unit site shall be marked for identification. Such markers shall be easily readable from the recreational park or campground street.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

21. ~~**Campfire Locations. Approved designated outdoor campfire locations, if provided, shall be in areas where they will not constitute fire hazards to vegetation, undergrowth, trees, recreational vehicles, park model RV, camping units, and structures.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

GC

Grant M. Chambers<Grant.M.Chambers@stlucieco.gov>

Reply | Reply all | Forward

To: Kerry Driver

Mon 12/16/2024 2:19 PM

Re: Crossroads RV park
Outlook Item

City of Fort Pierce

Warning: Sender Grant.M.Chambers@stlucieco.gov is not yet trusted by your organization.
Please be careful before replying or clicking/downloading the attachment and URLs.

This is UNSAFE: Report This is SPAM: Block This is SAFE

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You don't often get email from grant.m.chambers@stlucieco.gov. Learn why this is important

SECURITY WARNING: This email has been generated from external sources and is not affiliated with the City of Fort Pierce systems. Exercise caution while clicking on links or opening attachments. If you have any questions or concerns, please reach out to the IT department promptly.

Good afternoon Kerry,

Thank you for forwarding the files. I did not see a revised site plan in the documents. The main comment we have is regarding the Andrews Avenue ROW dedication which I have been coordinating with the applicant. The other comment is the sidewalk construction along Andrews Avenue. A Site Development Permit shall be a condition of approval.

Please note the County's email addresses have changed. My new email address is Grant.M.Chambers@stlucieco.gov

Grant Chambers, P.E. | Senior Project Engineer | Engineering Division - PW
Ph: 772-462-1707 | Direct: 772-462-2741 | 2300 Virginia Ave. Fort Pierce 34982

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ST. LUCIE COUNTY FLORIDA

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THE SUNRISE CITY
FORT PIERCE
Florida
ENGINEERING
DEPARTMENT

TO : Kerry Driver, Planner

FROM : Venetia Barnes, Stormwater Engineer VB

THRU : Tracy Telle, Engineering Manager TT

RE : Site Plan – Crossroads RV Park – 2324-312-0005-000-4
TRC No. 24-07000001

DATE : December 09, 2024

This is to advise you that we have completed the review of the following documents as received by this office on November 14, 2024:

- [x] Site Plan (Design & Development Review)
- [ ] P/D Drawings
- [ ] Test Reports & Related Documents
- [ ] Certificate of Completion
- [ ] Record Drawings
- [ ] Permits from applicable Local, State & Federal Agencies
- [ ] Clearances from all applicable Local, State and Federal Agencies

Based on our reviews and appropriate site final inspection, we

- [ ] Recommend
- [x] Do Not Recommend
- [x] Approval of Site Plan
- [ ] Site Plan
- [ ] C/O

Developer, Owner, Engineer, Contractor and other members of the Development Team must be aware, the above recommendation is based only on the construction requirements of the engineering plans and other engineering documentation approved by this department. The Development Team shall be responsible for the compliance with other City department requirements and all approved documents, as well as Local, State and Federal regulations. The development requirements for this project may necessitate additional construction requirements that are not subject to this department's review for approval.

- [x] See attached for engineering comments

Z:\Shared\4400 Engineering\ENGINEERING\Site Development Projects\C\Crossroads RV Park\TRC\Submittal No. 3 - 111424\SP Comments - 120924.docx

ENGINEERING COMMENTS:

1. The Boundary and Topography survey provided both electronically and hardcopy were neither signed nor sealed. A full sized original and electronic signed and sealed Boundary and Topography survey in accordance with the City of Fort Pierce Code of Ordinance Section 125-314(c)(1)(a) shall be required.
2. The resubmitted site plan still does not reflect the installation of sidewalks along Andrews Road adjacent to the property in accordance with the City of Fort Pierce Code of Ordinance Section 125-317 and as required by Saint Luce County.
3. Access drives shall be paved, and surface material must be in accordance with the City of Fort Pierce Code of Ordinance Section 125-315(c)(6). Asphalt millings still remain in the plan's legend and shall be removed from the plan's legend.
4. The resubmitted site plan does not denote the 20-foot Right-of-way dedication along Andrews Avenue as required by Saint Luce County.
5. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR.

ADVISORY COMMENTS:

1. A South Florida Water Management District (SFWMD) ERP shall be required prior to DPCR approval.
2. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
3. The tree mitigation plan and associated mitigation fees will be reviewed in depth at time of DPCR submittal.
4. At time of DPCR submittal update the engineering plans to reflect the attached City of Fort Pierce Standard Details.

TST/VB/vb

100 NORTH US 1, FORT PIERCE, FLORIDA 34950 • CITYOFFORTPIERCE.COM • TEL: 772.467.3000 • FAX: 772.460.6847

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

Leo Giangrande, Principle, GEP
710 SE Ocean Blvd.
Stuart, FL 34994

Subject: Site Plan – One parcel located at or near Intersection of Crossroads Pkwy. & Andrews Ave.; Parcel ID: 2324-312-0005-000-4– Technical Review Committee Comments for February 15, 2024, TRC Meeting

July 11, 2024,
Updated Comments from June 13, 20204 Resubmittal

City of Fort Pierce Planning Department

1. Update Amenities Memo to reflect 84 lots instead of 83
2. Provide details of what is being offered withing the Amenities Center
3. Provide at least the minimum lot size, in square footage

Thoroughly reviewed during Permitting stage:

4. Sec. 125-247(3) Recreational Vehicle Parks
    a. There shall be one lavatory and one shower or bathtub for each sex for each five recreational vehicle parks or fraction thereof; one toile for females for each five recreational vehicles or fraction thereof; and one toilet for males for each ten recreational vehicles or fraction thereof, not more than one-third of which shall be urinals
    b. No recreational vehicle space shall be more than 200 ft. from a service building with a lavatory, toilet and a shower or bathtub for each sex.

Fort Pierce Engineering Department

Site Plan: Do Not Recommend

1. Provide a full sized original signed and sealed Boundary and Topography survey in accordance with the City of Fort Pierce Code of Ordinance Section 125-314(c)(1)(a).
2. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR>
3. Update the site plan to reflect the installation of sidewalks along Andrews Road adjacent to the property in accordance with the City of Fort Pierce Code of Ordinance Section 125-317.
4.

5. Access drives shall be paved, and surface material must be in accordance with the City of Fort Pierce Code of Ordinance Section 125-315(c)(6). Asphalt millings shall be removed from the plan's legend.
6. Update the site plan to reflect 20-foot Right-of-Way dedication along Andrews Avenue as required by Saint Lucie County.
7. The Landscape and Lighting Plan shall be updated to reflect the eliminated Andrews Avenue access.

ADVISORY COMMENTS:

1. A South Florida Water Management District (SFWMD) ERP shall be required prior to DPCR approval.
2. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
3. The tree mitigation plan and associated mitigation fees will be reviewed in depth at the time of DPCR submittal.
4. At time of DPCR submittal update the engineering plans to reflect the attached City of Fort Pierce Standard Details.

St. Lucie County PW/Engineering

1. **Condition:** Crossroads parkway and Andrews Avenue are County roads in this location. Site Development Permits will be required for driveway connections and Right-of-Way work within these sections of roadway.
2. Andrews Avenue is a substandard Right-of-Way. A Right-of-way dedication will be required along Andrews Avenue. The response indicates dedication; however, it is not shown on the plan.
3. A 5-foot sidewalk is required along Andrews Avenue.
4. The comment response indicates elimination of the driveway along Andrews Avenue; however, the traffic statement indicates 2 driveways. Update the traffic statement and provide an evaluation on whether turn lanes are required.

St. Lucie County Fire District

Application and payment are still required to be submitted. Please contact Captain Andres Elizondo at 772-621-3379 for more information.

Florida Department of Transportation

Sidewalks/Bicycle-Pedestrian Connectivity: There are no designated areas for bicycle travel, parking, or storage on the site. The proposed development does not appear to include sidewalks on either side of the internal drive aisles. No sidewalks are provided along Crossroads parkway or Andrews Avenue in the Conceptual Site Plan. Additionally, no sidewalk connections are provided along either of the proposed driveway entrances. As it is

understood that many RV owners' bicycle or walk for local trips because they do not have a smaller vehicle for these trips, 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 RV Park. Sidewalks and bicycle facilities should be provided both within the RV Park and along Crossroads Parkway and Andrews Avenue for pedestrian and bicyclist safety as part of the proposed development.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

TO:	Technical Review Committee
THROUGH:	Kevin Freeman, Planning Director
FROM:	Kerry C. Driver, Planner
RE:	**Site Plan – 24-07000001** **2324-312-0005-000-4**
BOARD DATE:	February 15, 2024

Resubmittal of Site Plan at Parcel ID: 2324-312-0005-000-4

The above referenced project is being resubmitted for a second review and comments. The applicant is requesting a Development Review for a Site Plan at Parcel ID: 2324-312-0005-000-4.

Please send all comments to kdriver@cityoffortpierce.com, planning@cityoffortpierce.com and/or through interoffice mail to the Planning Department

Thank you,

Kerry

THE SUNRISE CITY
FORT PIERCE
Florida
ENGINEERING
DEPARTMENT

TO : Kerry Driver, Planner

FROM : Venetia Barnes, Stormwater Engineer

THRU : Tracy Telle, Assistant City Engineer

RE : Site Plan – Crossroads RV Park – 2324-312-0005-000-4
TRC No. 24-07000001

DATE : July 2, 2024

This is to advise you that we have completed the review of the following documents as received by this office on June 13, 2024:

- [x] Site Plan (Design & Development Review)
- [ ] Test Reports & Related Documents
- [ ] Record Drawings
- [ ] Clearances from all applicable Local, State and Federal Agencies
- [ ] P/D Drawings
- [ ] Certificate of Completion
- [ ] Permits from applicable Local, State & Federal Agencies

Based on our reviews and appropriate site final inspection, we

- [ ] Recommend
- [x] Do Not Recommend
- [ ] Approval of Site Plan
- [x] Site Plan
- [ ] C/O

Developer, Owner, Engineer, Contractor and other members of the Development Team must be aware, the above recommendation is based only on the construction requirements of the engineering plans and other engineering documentation approved by this department. The Development Team shall be responsible for the compliance with other City department requirements and all approved documents, as well as Local, State and Federal regulations. The development requirements for this project may necessitate additional construction requirements that are not subject to this department's review for approval.

- [x] See attached for engineering comments

100 NORTH US 1, FORT PIERCE, FLORIDA 34950 • CITYOFFORTPIERCE.COM • TEL: 772.467.3000 • FAX: 772.460.6847

ENGINEERING COMMENTS:

1. Provide a full sized original signed and sealed Boundary and Topography survey in accordance with the City of Fort Pierce Code of Ordinance Section 125-314(c)(1)(a).
2. The Environmental Assessment Report denotes unresolved environmental conditions that may require further testing and action. An updated environmental review shall be required at the time of DPCR.
3. Update the site plan to reflect the installation of sidewalks along Andrews Road adjacent to the property in accordance with the City of Fort Pierce Code of Ordinance Section 125-317.
4. Access drives shall be paved, and surface material must be in accordance with the City of Fort Pierce Code of Ordinance Section 125-315(c)(6). Asphalt millings shall be removed from the plan's legend.
5. Update the site plan to reflect the 20-foot Right-of-way dedication along Andrews Avenue as required by Saint Luce County.
6. The Landscape and Lighting Plans shall be updated to reflect the eliminated Andrews Avenue access.

ADVISORY COMMENTS:

1. A South Florida Water Management District (SFWMD) ERP shall be required prior to DPCR approval.
2. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
3. The tree mitigation plan and associated mitigation fees will be reviewed in depth at time of DPCR submittal.
4. At time of DPCR submittal update the engineering plans to reflect the attached City of Fort Pierce Standard Details.

TST/VB/vb

100 NORTH US 1, FORT PIERCE, FLORIDA 34950 • CITYOFFORTPIERCE.COM • TEL: 772.467.3000 • FAX: 772.460.6847

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

BUREAU OF FIRE PREVENTION

SITE PLAN REVIEW

TO: Site Plan Applicant

SITE PLAN: Crossroads RV Park

REVIEW DATE: 2/9/2024

PLANNER: KERRY DRIVER

REVIEWED BY: Captain Andres Elizondo

Site Plan Approved with conditions: _____

Site Plan Requires Re-submittal: ___X____

Site Plan Rejected: _____

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). This form is available on-line at https://www.slcfd.com.**

2. **Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.**

3. ~~**Please provide an electronic revised copy of the site plan (pdf format).**~~ **Received 6/13/2024.**

4. ~~**Please provide written acknowledgement of the conditions/revisions provided.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

5. ~~**A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

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. (NFPA 1 16.1.4). 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. (NFPA 1.18.2.3.5.2).**~~ **Received Written Comment Acknowledgement 6/13/2024.**

7. ~~**Security gates must either be manned 24 hour/day or provide an access control key switch on the control panel to allow for Fire Department entry in an emergency. Security gates must maintain a clear width of 12 feet when open and provide a means to open the gates manually upon loss of power. The gate opening shall swing inward and shall provide a clear opening no less than 2 feet (0.61 m) wider than the gated road or driveway.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

8. ~~**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.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

9. ~~**The Fire District reserves the right for future comments at the site plan & building construction phase.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

10. ~~**FD access roads (shall be) are provided such that any portion of an unsprinklered facility or exterior wall is located not more than 150' from FD access roads as measured by an approved route around the exterior of the building or facility. (450' for NFPA 13, 13D, 13R sprinklered protected buildings).**~~ **Received Written Comment Acknowledgement 6/13/2024.**

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.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

12. ~~**Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

13. ~~**Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft.**~~ ~~———~~**Received Written Comment Acknowledgement 6/13/2024.**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

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".**~~ **Received Written Comment Acknowledgement 6/13/2024.**

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). NFPA 1141 Chapter 10.1.3.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

17. ~~**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. (SLCFD Fire Prevention Code Resolution 740-23).**~~ **Received Written Comment Acknowledgement 6/13/2024.**

18. ~~**Site Plans submitted in accordance with this Fire Prevention Code shall include the size, layout, and offsite connections for the water distribution system and the location of all existing and proposed fire hydrants within one thousand (1,000) feet of the proposed project.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

19. ~~**Separation. A stand or structure shall be located at least 10 ft (3.0 m) from any other stand or structure.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

20. ~~**Site Identification. Each camping unit site shall be marked for identification. Such markers shall be easily readable from the recreational park or campground street.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

21. ~~**Campfire Locations. Approved designated outdoor campfire locations, if provided, shall be in areas where they will not constitute fire hazards to vegetation, undergrowth, trees, recreational vehicles, park model RV, camping units, and structures.**~~ **Received Written Comment Acknowledgement 6/13/2024.**

The Fire District has received the resubmittal for the project above. Attached is an updated comment letter that reflects receipt of written acknowledgement of comments and the electronic site plan. Please inform the applicant that application and payment are still required to be submitted.

ST. LUCIE COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
DEVELOPMENT REVIEW COMMITTEE

June 19, 2024

PROJECT: **Crossroads RV resubmittal**

REF: 24-07000001

TO: Kerry Driver

FROM: Grant Chambers

Corrections:

1. **Condition:** Crossroads parkway and Andrews Avenue are County roads in this location. Site Development Permits will be required for driveway connections and Right-of-Way work within these sections of roadway.
2. Andrews Avenue is a substandard Right-of-Way. A Right-of-way dedication will be required along Andrews Avenue. The response indicates a dedication, however it is not shown on the plan.
3. A 5 foot sidewalk is required along Andrews Avenue.
4. The comment response indicates elimination of the driveway along Andrews Avenue, however, the traffic statement indicates 2 driveways. Update the traffic statement and provide an evaluation on whether turn lanes are required.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Leo Giangrande, Principle, GEP
710 SE Ocean Blvd.
Stuart, FL 34994

Subject: Site Plan – One parcel located at or near Intersection of Crossroads Pkwy. & Andrews Ave.; Parcel ID: 2324-312-0005-000-4– Technical Review Committee Comments for February 15, 2024, TRC Meeting

City of Fort Pierce Planning Department

1. Per Section 125-315(j)(1), Provide the code required vs proposed specifications for the Lighting or Photometric plan
2. Clarify whether the proposed development will include an entry gate. If so, provide elevations and other gate details
3. Identify the designated parking spaces per modular structure as well as each lot's dimensions
4. Clarify whether the park is permanent residence usage or will this be a park for travelers
    a. If the park is for travelers, indicate
        i. length of stay
        ii. hours of operation for check-in
        iii. will there be an attendee
5. Adhere to Sec. 125-247 City of Fort Pierce Code of Ordinance on Recreational Vehicle Parks
6. Adhere to the sidewalk standards per Sec. 125-317 of the Fort Pierce City Code of Ordinance
7. Show plans (renderings) for the proposed amenity center. This is required before a final CO is issued
8. A conditional use application is required for Recreational Vehicle Parks

Fort Pierce Engineering Department

Site Plan: Do Not Recommend

1. Provide a full sized original signed and sealed Boundary and Topography survey in accordance with the City of Fort Pierce Code of Ordinance Section 125-314(c)(1)(a).
2. Provide a copy of the Environmental Assessment for the site in accordance with City of Fort Pierce Code of Ordinance Section 125-314(c)(1)(b).
3. Update the site plan to reflect the installation of sidewalks along Andrews Road and Crossroads Parkway adjacent to the property in accordance with the City of Fort Pierce Code of Ordinance Section 125-317.
4. All driveway aprons within the limits of the public rights-of-way shall be comprised of concrete.

5. Access drives shall be paved, and surface material must be in accordance with the City of Fort Pierce Code of Ordinance Section 125-315(c)(6).
6. Parking spaces shall have bumper rails and conform to the City of Fort Pierce Code of Ordinance Section 125-315(c)(7).
7. Andrews Road appears to be an unimproved Saint Lucie County (SLC) roadway which has a varying R/W width ranging from 35' to 65'. Please verify with St. Lucie County as to whether R/W donations and roadway improvements will be required as part of this development.
8. Update the site plan to reflect 26' wide access aisle directly adjacent to the proposed parking stalls.
9. Revise the plan to reflect 16' wide ingress and egress driveway widths for the Crossroads Parkway access in accordance with the City of Fort Pierce Code of Ordinance Section 121-12(c)(2)(g).
10. Provide the appropriate curbing at all required landscaped areas as per the City of Fort Pierce Code of Ordinances Section 123-37(11)(d).
11. Provide a note on the site plan that all construction shall comply with the City of Fort Pierce Code of Ordinances Section 119 and 125.

ADVISORY COMMENTS:

1. A South Florida Water Management District (SFWMD) ERP shall be required prior to DPCR approval.
2. Andrews Ave is an SLC owned and maintained roadway. A SLC driveway permit will be required for the proposed access driveway on Andrews Ave.
3. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
4. The tree mitigation plan and associated mitigation fees will be reviewed in depth at the time of DPCR application.
5. At time of DPCR submittal update the engineering plans to reflect the attached City of Fort Pierce Standard Details.

Fort Pierce 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.
2. Pre-construction meeting with the City's Building Department is requested.
3. All new construction or alterations shall meet the requirements of the Florida Building Code 8th Edition.
4. Building Permit required
5. Signed and sealed construction drawings required.
6. Must meet the following Accessibility requirements:
    a. Accessible route
    b. Handicapped parking spaces
    c. Means of egress

7. Shall meet the Fire Prevention Code

Fort Pierce Police Department

Please be cognizant of the sounds resulting from the use of the pickleball courts. The noise levels produced by the sport of pickleball can exceed noise levels permitted by city ordinance. Therefore, please ensure the anticipated sounds generated by the pickleball games are within permissible levels

St. Lucie County Planning Department

No comments at this time.

St. Lucie County PW/Engineering

1. Crossroads parkway and Andrews Avenue are County roads in this location. Site Development Permits will be required for driveway connections and Right-of-Way work within these sections of roadway.
2. Andrews Avenue is a substandard Right-of-Way. A Right-of-way dedication will be required along Andrews Avenue.
3. Andrews Avenue is a substandard roadway. The applicant will be required to pave Andrews Road from the project's access point to the nearest paved roadway.
4. Provide a traffic analysis for review by the County's third-party consultant.
   Provide all dimensions of the driveways including radius of return, width, and setbacks from the property lines.
5. A roadway improvement agreement and bond will be required for the paving of Andrews Avenue and any turn lanes if necessary.

City Clerk Office

No comments at this time.

Code Enforcement

No comments at this time.

Fort Pierce Utilities Authority

- FPUA W/WW Engineering: **Approved as noted,**
  -

- FPUA has both water and sewer available to serve this site. Please submit three complete sets of utility construction plans, along with a completed plan review application and a complete commercial service application, to the Water and Wastewater Engineering Department for review. The department is located at 1701 S 37th Street, Fort Pierce, Florida. For further information or inquiries, please contact John Biggs at 772-466-1600, extension 3474.

- FPUA Electric & Gas Engineering: FPUA Electric & Gas Engineering has reviewed the application. **Approved**.
  Please contact Sal Scimeca for electric customer requirements and project coordination.
  Sal Scimeca
  Engineering Technician III
  Electric & Gas Engineering
  Fort Pierce Utilities Authority
  sscimeca@fpua.com
  772.466.1600 ext. 6957
- FPUA Gas: Approved. Natural gas is readily available and we would love to provide gas service for this project.
- FPUA Fiber: FPUAnet Approves; Fiber Internet Service – **Is Available**. If the client would like Fiber Internet Service from FPUA Communications, please contact Eric Peters at (772) 468-1697 for Fiber Internet requirements if service is desired.

St. Lucie County Fire District

Site Plan Requires: Resubmittal

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). This form is available on-line at https://www.slcfd.com.
2. Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.
3. Please provide an electronic revised copy of the site plan (pdf format).
4. Please provide written acknowledgement of the conditions/revisions provided.
5. A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.
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. (NFPA 1 16.1.4). 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. (NFPA 1.18.2.3.5.2).

7. Security gates must either be manned 24 hour/day or provide an access control key switch on the control panel to allow for Fire Department entry in an emergency. Security gates must maintain a clear width of 12 feet when open and provide a means to open the gates manually
8. upon loss of power. The gate opening shall swing inward and shall provide a clear opening no less than 2 feet (0.61 m) wider than the gated road or driveway.
9. 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.
10. The Fire District reserves the right for future comments at the site plan & building construction phase.
11. FD access roads (shall be) are provided such that any portion of an unsprinklered facility or exterior wall is located not more than 150' from FD access roads as measured by an approved route around the exterior of the building or facility. (450' for NFPA 13, 13D, 13R sprinklered protected buildings).
12. 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.
13. Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft.
14. Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft.
15. 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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.
16. 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".
17. 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). NFPA 1141 Chapter 10.1.3.
18. 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. (SLCFD Fire Prevention Code Resolution 740-23).
19. Site Plans submitted in accordance with this Fire Prevention Code shall include the size, layout, and offsite connections for the water distribution system and the location of all existing and proposed fire hydrants within one thousand (1,000) feet of the proposed project.
20.

21. Separation. A stand or structure shall be located at least 10 ft (3.0 m) from any other stand or structure.
22. Site Identification. Each camping unit site shall be marked for identification. Such markers shall be easily readable from the recreational park or campground street.
23. Campfire Locations. Approved designated outdoor campfire locations, if provided, shall be in areas where they will not constitute fire hazards to vegetation, undergrowth, trees, recreational vehicles, park model RV, camping units, and structures.

Florida Department of Transportation

Sidewalks/Bicycle-Pedestrian Connectivity: There are no designated areas for bicycle travel, parking, or storage on the site. The proposed development does not appear to include sidewalks on either side of the internal drive aisles. No sidewalks are provided along Crossroads parkway or Andrews Avenue in the Conceptual Site Plan. Additionally, no sidewalk connections are provided along either of the proposed driveway entrances. As it is understood that many RV owners' bicycle or walk for local trips because they do not have a smaller vehicle for these trips, 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 RV Park. Sidewalks and bicycle facilities should be provided both within the RV Park and along Crossroads Parkway and Andrews Avenue for pedestrian and bicyclist safety as part of the proposed development.

St. Lucie County School Board

No comments at this time.

Wynne Building Corporation
8000 S US Highway 1, Unit Ste 4
Port Saint Lucie, FL 34952-2338

Wynne Building Corporation
8000 S US Highway 1, Unit Ste 4
Port Saint Lucie, FL 34952-2338

Maria A Luna
110 Sunrise Dr
Fort Pierce, FL 34945-4125

Maria A Luna
110 Sunrise Dr
Fort Pierce, FL 34945-4125

JPD Enterprises of FLorida LLC
2705 Peters RD
Fort Pierce, FL 34945-2613

JPD Enterprises of FLorida LLC
2705 Peters RD
Fort Pierce, FL 34945-2613

JPD Enterprises of FLorida LLC
2705 Peters RD
Fort Pierce, FL 34945-2613

Crossroads Plaza FP I LLC
5850 Atlantic AVE, Unit Ste 101
Delray Beach, FL 33484-8427

LO Que Sea LLC
2001 SE Sailfish Point BLVD
Stuart, FL 34996-1971

Fast Food Enterprises #2
PO Box 547158
Orlando, FL 32854-7158

Eye Tax Funding Inc
1305 Little Harbour LN
Vero Beach, FL 32963-2501

MacMillan Real Estate LLC
7950 NW 58th ST
Doral, FL 33166-3430

VINI HOSPITALITY GROUP LLC
10644 Versailles BLVD
Wellington, FL 33449-8085

ANO LLC
c/o Thomas Sullivan
844 Alton Rd Ste 3
Miami Beach, FL 33139-5510

VINI HOSPITALITY GROUP LLC
10644 Versailles BLVD
Wellington, FL 33449-8085

MKBN Hospitality LLC
2715 Crossroads PKWY
Fort Pierce, FL 34945-2626

VINI HOSPITALITY GROUP LLC
10644 Versailles BLVD
Wellington, FL 33449-8085

Deva Matha Investment Group
3224 S US Hwy 1 #200
Fort Pierce, FL 34982

TOTAL TRUCK REPAIR LLC
6465 183rd Trl N
Loxahatchee, FL 33470-2109

AATCFT LLC
3206 Chapel Hill BLVD
Boynton Beach, FL 33435-8156


PUBLIC HEARING
A CONDITIONAL USE application has been received for this property.
For more information:
(772) 467-3737

PRIVATE PROPERTY
NO TRESPASSING

PUBLIC HEARING

A CONDITIONAL USE application has been received for this property.

For more information:
(772) 467-3737

Planning Board **6. b.**

Meeting Date: 04/14/2025

Re: Site Plan (Innovative Development) - Margareta Villas - 4101 Oleander Avenue

Submitted For: Kev Freeman, Planning Director, Planning Department

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Information

SUBJECT:

Site Plan and Innovative Residential Development - Margareta Villas Apartments
4101 Oleander Avenue

SUMMARY:

The applicant is requesting the review and approval of an application for a Site Plan (Innovative Development Review) for apartments at 4101 Oleander Avenue. The 4 story multi-family 30-unit apartments proposes to offer community amenities such as a gazebo with picnic tables, gravel walkways, park benches, and passive recreational area spaces.

The proposed development is located on a parcel with approximately 2.58 acres. The future land use of the parcel is Medium Density Residential, RM, and the zoning is Medium Density Residential, R-4.

RECOMMENDATION:

Staff's recommendation is **Approval** of the site plan with the following seven (7) conditions:

1. Prior to the issuance of final certificate of occupancy, a Landscape Maintenance Agreement shall be approved and shall acknowledge the following:
    1. All approved 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, in conformity with the following requirements:
        1. Vegetation required by this article shall be replaced with the equivalent or better vegetation if it is not living. All trees for which credit is awarded, and which subsequently die shall be replaced by the same or greater number of living trees according to the standards established in this article
        2. Maintenances shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices to ensure that the landscaping continues to maintain a healthy, neat, and orderly appearance
2. An updated Environmental Assessment shall be required
3. The project shall have a Florida Fish and Wildlife Conservstion Commission (FFWCC) Gopher Tortoise Permit in place prior to conducting any land clearing operations as the submitted Environmental Assessment indicates that gopher tortoises are present on the site
4. Prior to development, SFWMD should be contacted for an Environmental Resource Permit is required
5. 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 for the required

mitigation of the City's regulated trees proposed to be removed as a result of its site development/construction activity
6. A 6-foot sidewalk is required along Oleander Ave
7. A Site Development Permit is required prior to performing site improvement activities

ALTERNATIVES:

1. Recommend approval with additional/modified conditions
2. Recommend disapproval

RESPONSIBLE STAFF:

Kerry C. Driver - Senior Planner

COORDINATED WITH:

1. Technical Review Committee

Fiscal Impact

OTHER INFORMATION:

N/A

Attachments

Staff Presentation
Applicant Supporting Documents
Staff Supporting Documents

Form Review

Form Started By: Kerry Driver Started On: 04/07/2025 10:27 AM
Final Approval Date: 04/08/2025

CITY OF FORT PIERCE

Planning Board

April 14th, 2025

Margareta Villa Apartments- Site Plan

4101 Oleander Ave.

APPLICANT

Geza Szini-Sebo

Abandel Group, LTD

PROPERTY OWNER(S)

4101 Oleander Group, LLC

PARCEL ID #(S):

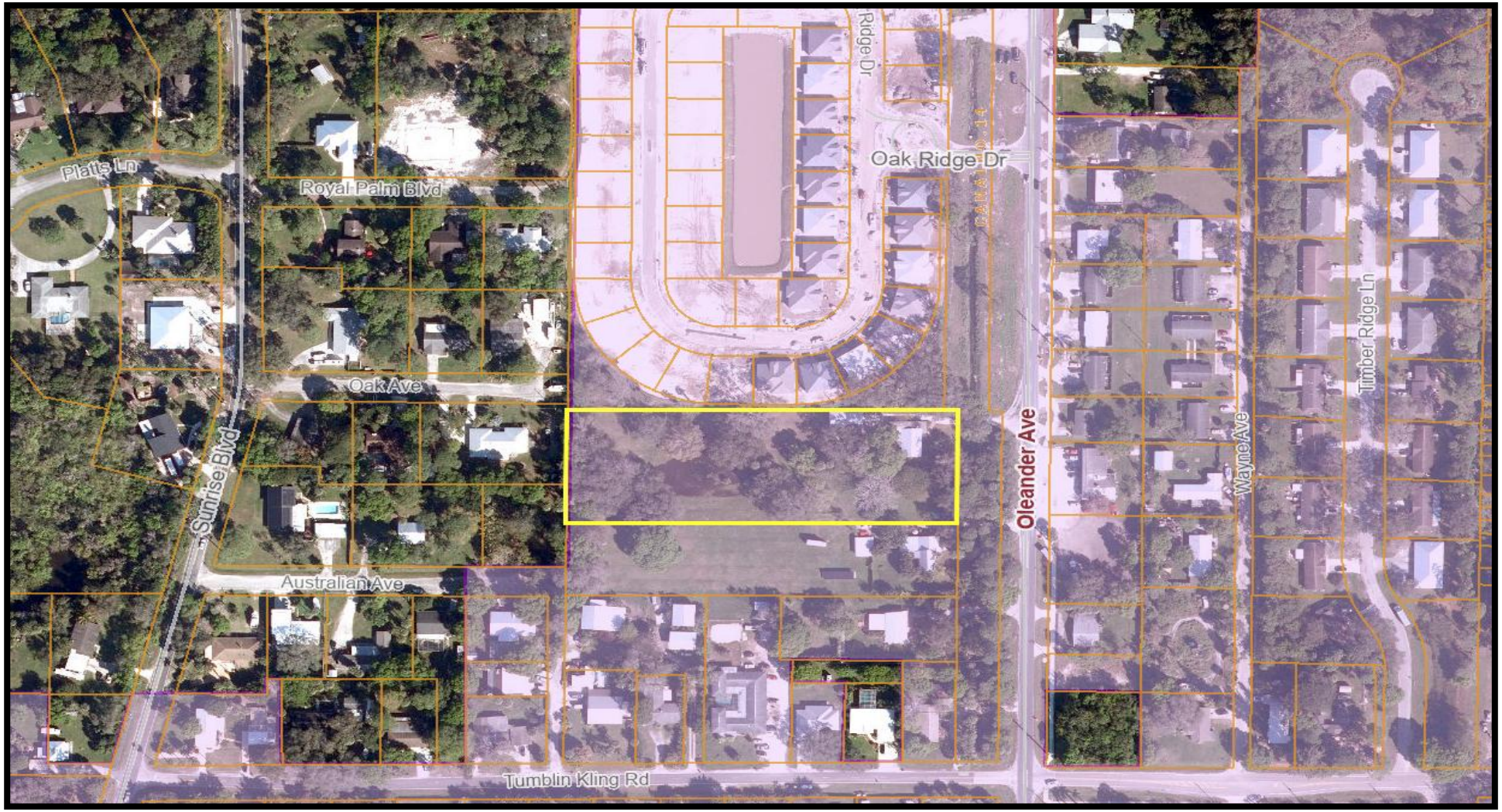
2433-414-0001-000-4

SUMMARY

The applicant is requesting the review and approval of an application for a Site Plan (Innovative Development Review) for apartments at 4101 Oleander Avenue. The 4 story multi-family 30-unit apartments proposes to offer community amenities such as a gazebo with picnic tables, gravel walkways, park benches, and passive recreational area spaces.

The proposed development is located on a parcel with approximately 2.58 acres. The future land use of the parcel is Medium Density Residential, RM, and the zoning is Medium Density Residential, R-4.

SITE LOCATION



City Limits

4101 Oleander Ave. – Margareta Villa Apartments– Site Plan

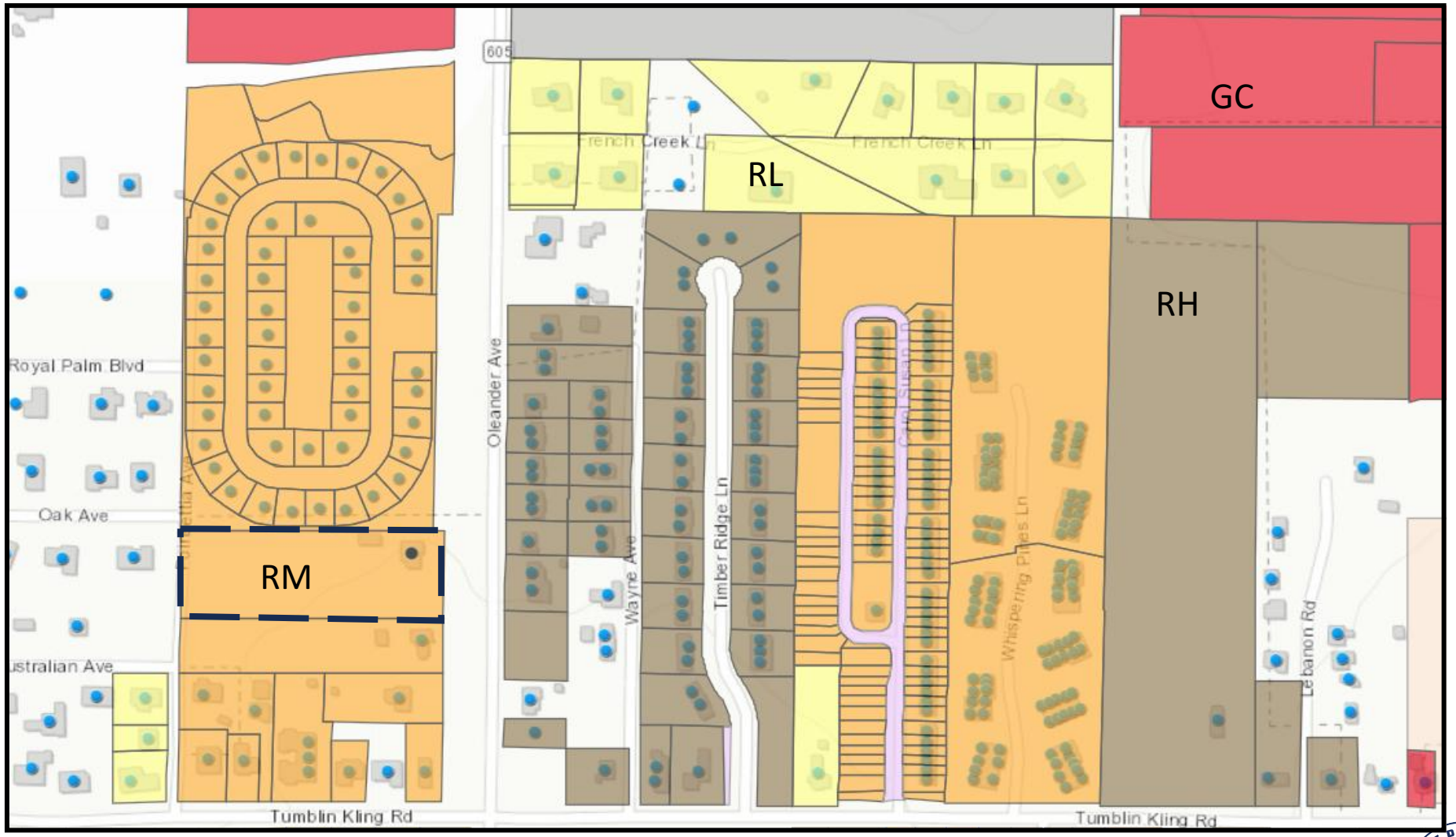
SITE LOCATION



SITE AREA= 2.58 +/- Acres

FUTURE LAND USE

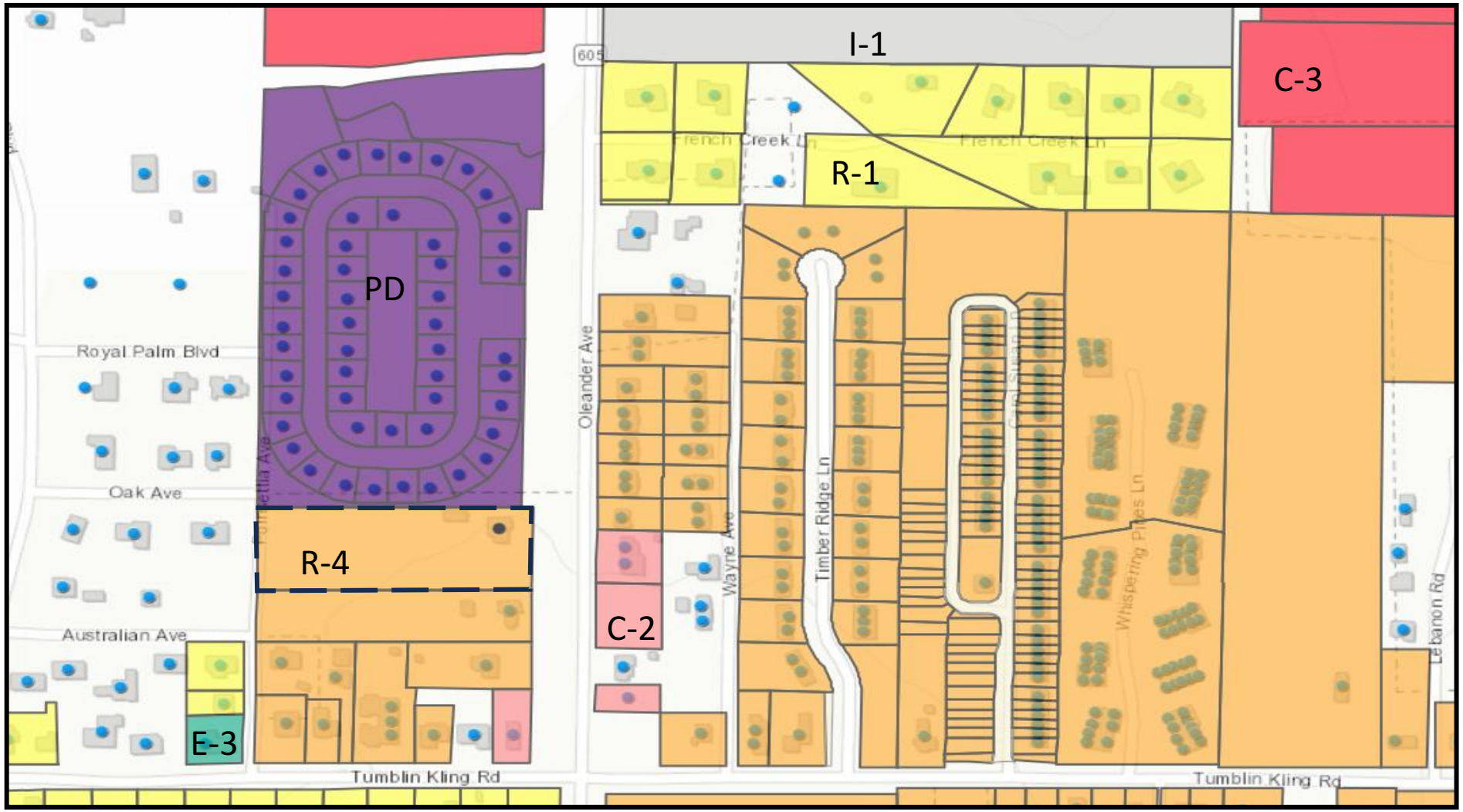
FLU: RM (Medium Density Residential



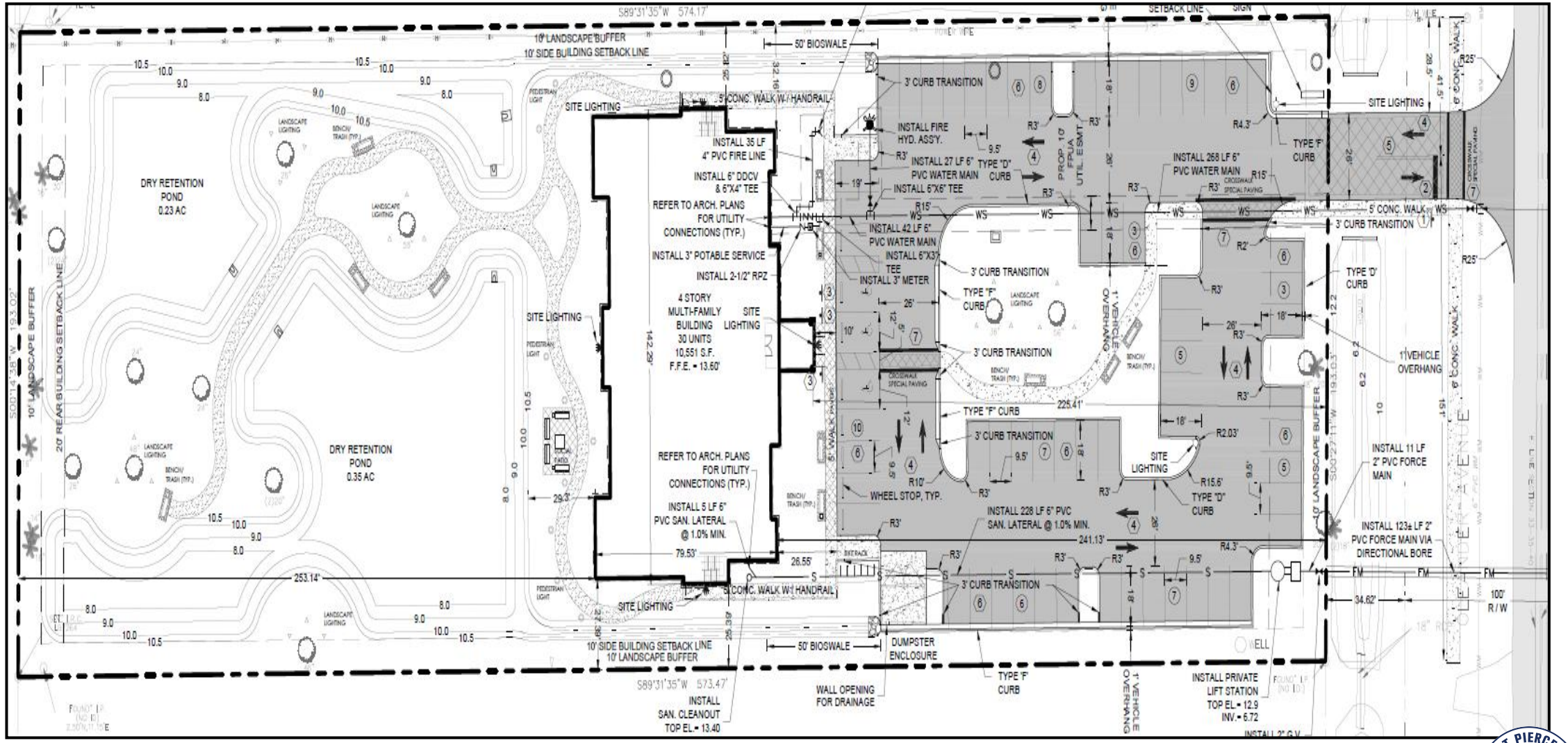
4101 Oleander Ave. – Margareta Villa Apartments– Site Plan

ZONING

Zoning: R-4, Medium Density Residential



SITE PLAN



4101 Oleander Ave. – Margareta Villa Apartments– Site Plan

SITE PLAN details

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
R-4

LAND USE
RM

LATITUDE
27°23'12.02" N

LONGITUDE
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

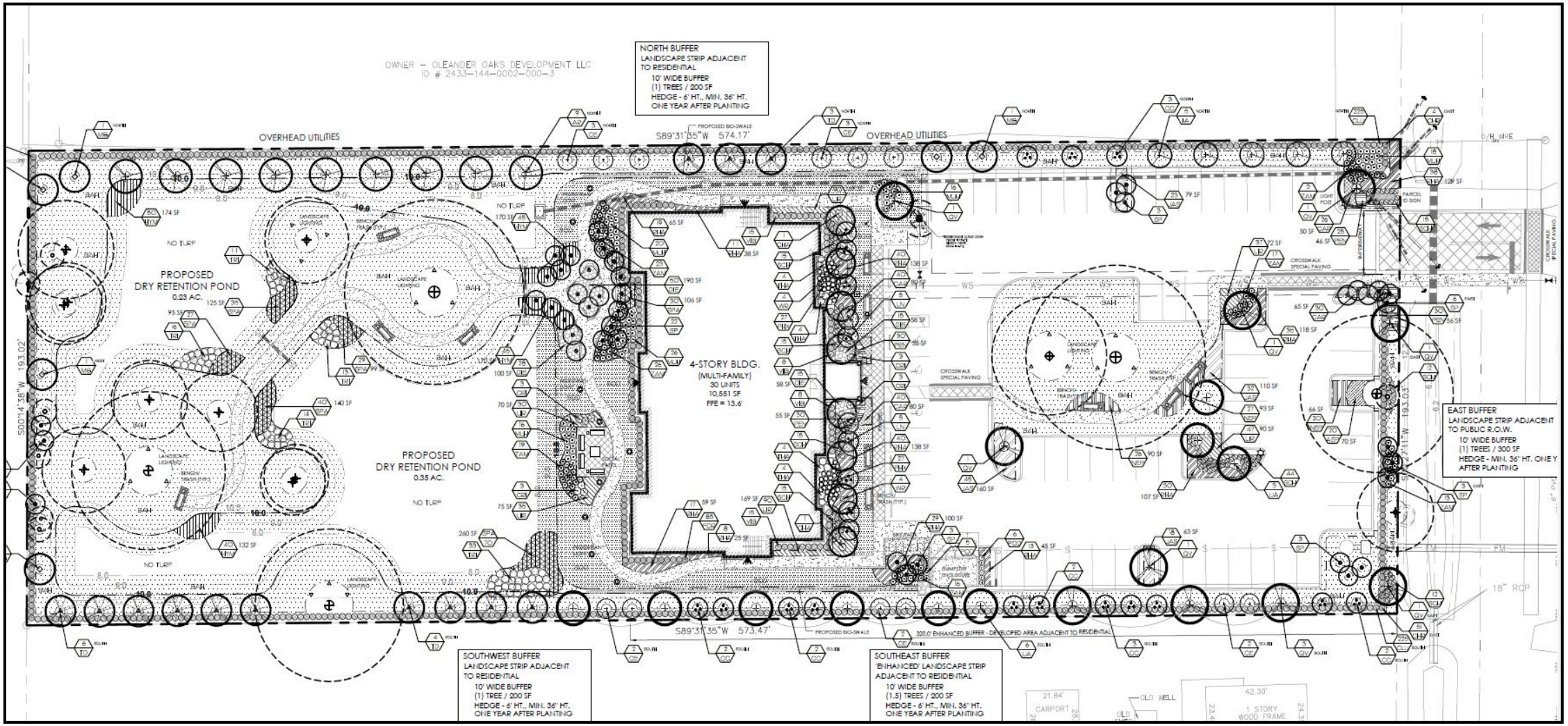
PARKING DATA

MULTIFAMILY HOUSING DEVELOPMENTS

2 SP/	1 UNIT	30 UNITS	=	60	SPACES REQUIRED
				63	SPACES PROVIDED
				3	ADA SPACES
				60	STANDARD SPACES

Proposed Units	25 (+5bd) = 30 units
Floors	4-story
Bedrooms	1–3-bedroom units
Community	Balconies, gazebo, cookout tables, park benches

LANDSCAPE PLAN



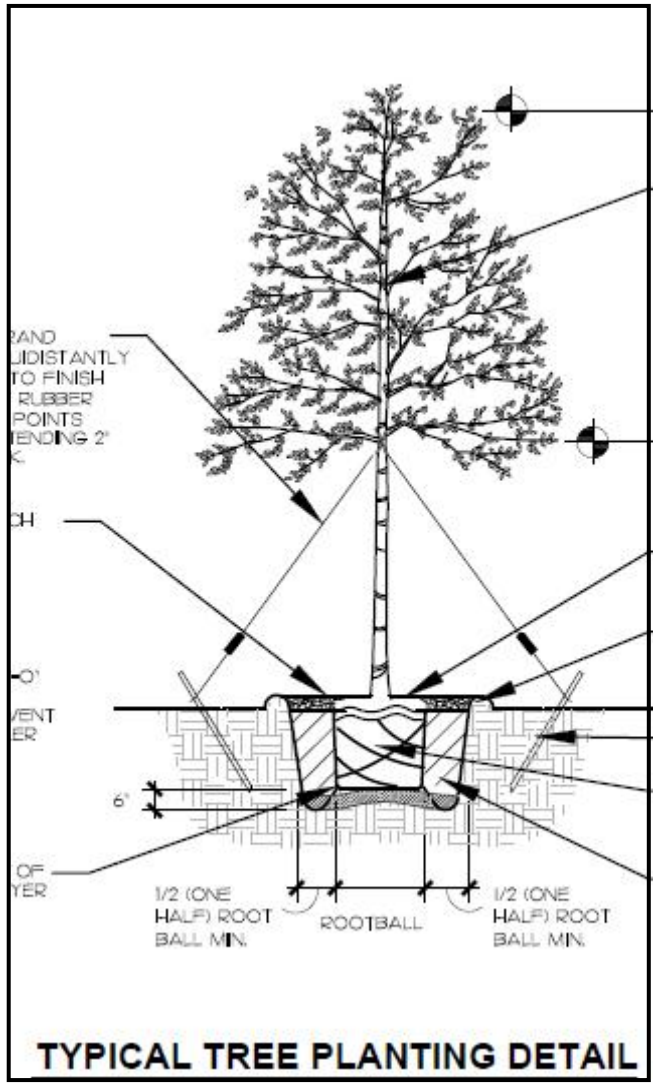
4101 Oleander Ave. – Margareta Villa Apartments– Site Plan

LANDSCAPE PLAN details

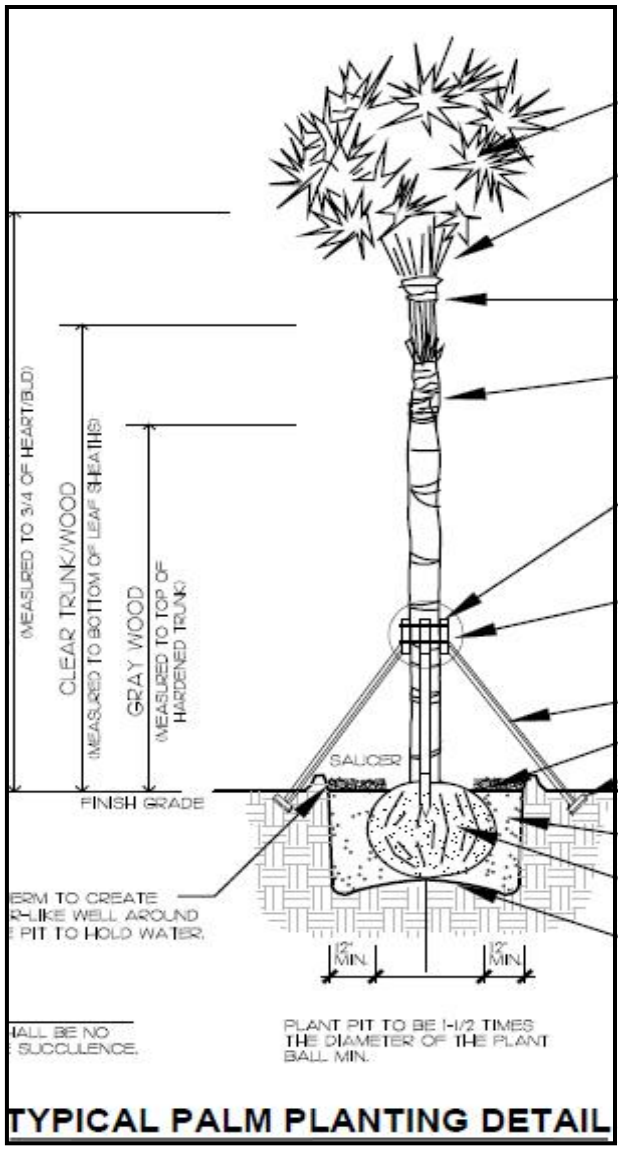
Landscape Calculations

	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 09.21.2024



TYPICAL TREE PLANTING DETAIL



TYPICAL PALM PLANTING DETAIL

ELEVATION DETAILS



NORTH ELEVATION

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



SOUTH ELEVATION



FRONT (EAST)ELEVATION

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



REAR ELEVATION (WEST)

ELEVATION DETAILS cont'd



4 STORIES 30 UNITS BUILDING

6 – ONE BEDROOM UNITS
22 – TWO BEDROOM UNITS
2 – THREE BEDROOM UNITS

FIRST FLOOR PLAN

6 – TWO BEDROOM UNITS
2 – ONE BEDROOM UNITS

8 UNITS TOTAL

SECOND FLOOR PLAN

6 – TWO BEDROOM UNITS
2 – ONE BEDROOM UNITS

8 UNITS TOTAL

THIRD FLOOR PLAN

6 – TWO BEDROOM UNITS
2 – ONE BEDROOM UNITS

8 – UNITS TOTAL

FOURTH FLOOR PLAN

4 – TWO BEDROOM UNITS
2 –THREE BEDROOM UNITS

6 – UNITS TOTAL

4101 Oleander Ave. – Margareta Villa Apartments– Site Plan

ELEVATION DETAILS cont'd



4101 Oleander Ave. – Margareta Villa Apartments– Site Plan

COLOR BOARD

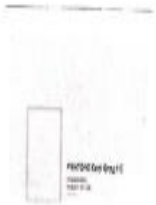
COLOR SCHEME
MARGERITA VILLAS

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











RECOMMENDATIONS

Staff's recommendation is **APPROVAL** of the site plan with the following seven (7) conditions:

1. Prior to issuance of final certificate of occupancy, a Landscape Maintenance Agreement shall be approved and shall acknowledge the following:
    a. All approved 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, in conformity with the following requirements:
        i. Vegetation required by this article shall be replaced with equivalent or better vegetation if it is not living. All trees for which credit is awarded, and which subsequently die shall be replaced by the same or greater number of living trees according to the standards established in this article
        ii. Maintenance shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices to ensure that the landscaping continues to maintain a healthy, neat, and orderly appearance
2. An updated Environmental Assessment shall be required
3. The project shall have a Florida Fish and Wildlife Conservation Commission (FFWCC) Gopher Tortoise Permit in place prior to conducting any land clearing operations as the submitted Environmental Assessment indicates that gopher tortoises are present on the site
4. Prior to development, SFWMD should be contacted for an Environmental Resource Permit is required

RECOMMENDATIONS cont'd

5. 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 for the required mitigation of the City's regulated trees proposed to be removed as a result of its site development/construction activity.
6. A 6-foot sidewalk is required along Oleander Ave.
7. A Site Development Permit is required prior to performing site improvement activities

ALTERNATIVE RECOMMENDATION

1. Recommend Approval with additional/modified conditions.

2. Recommend Disapproval.

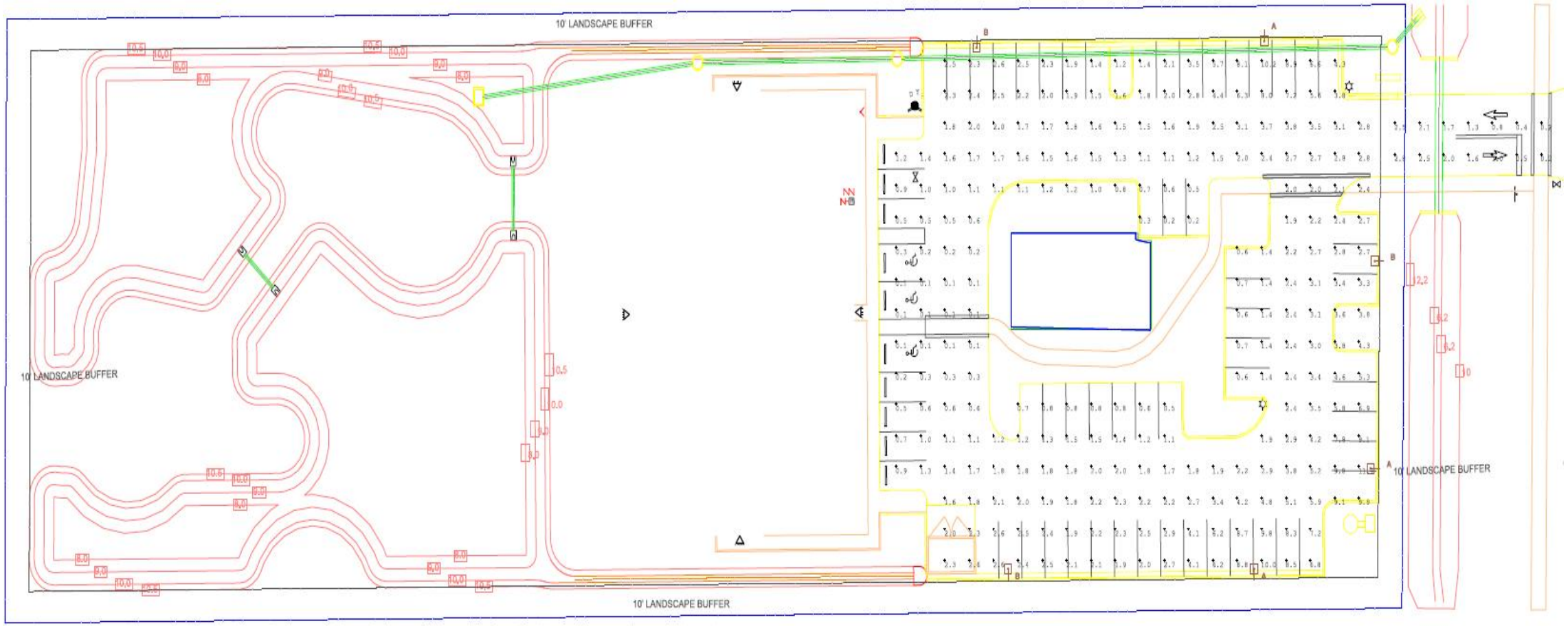
CITY OF FORT PIERCE

Planning Board

April 14th, 2025

Margareta Villa Apartments- Site Plan
4101 Oleander Ave.

LIGHTING PLAN



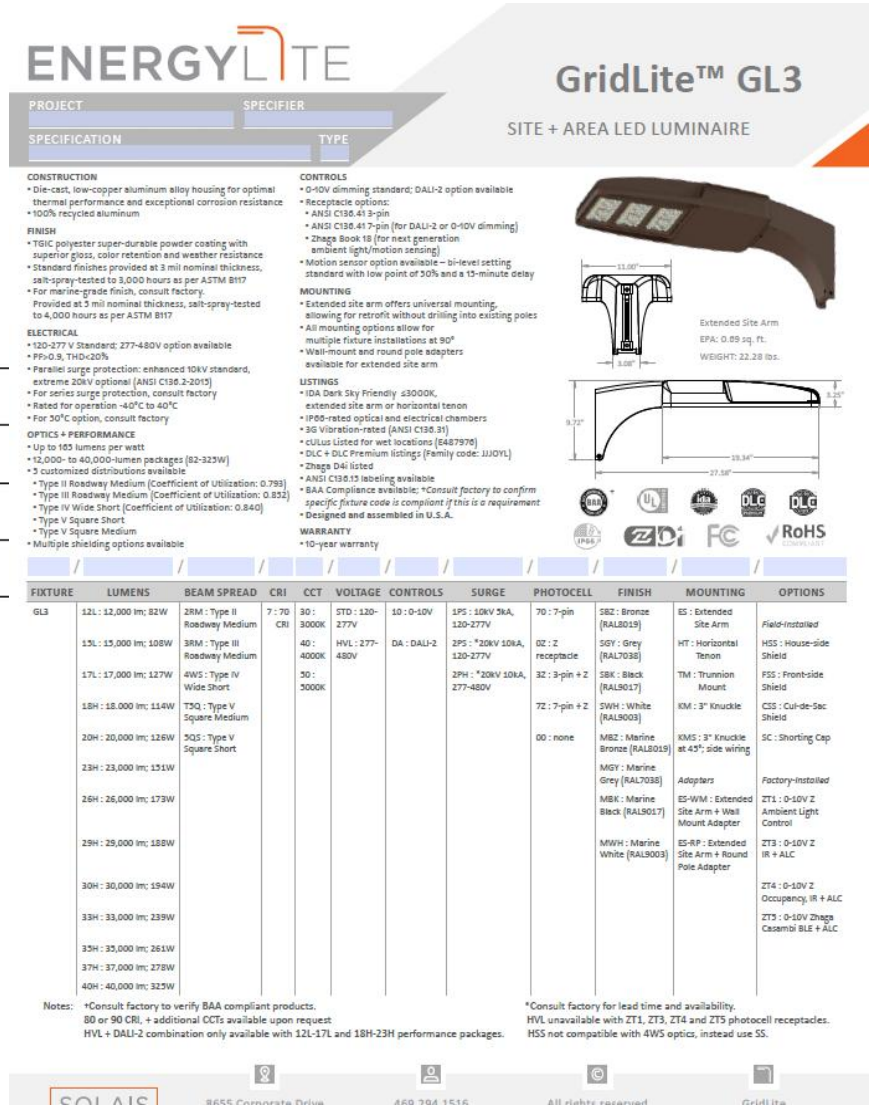
LIGHTING PLAN cont'd

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

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



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: 0.832)
  - 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: IJJOYL)
- 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: 0.89 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 #655 Corporate Drive 469.294.1516 All rights reserved GridLite

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 Residential: Dwelling Units per Acre 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) 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) 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 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

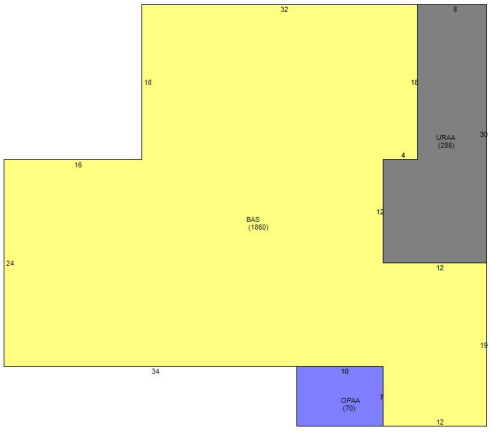
View:	Roof Cover: Metal	Roof Structure: Flat/Shed
Building Type: SFAV	Year Built: 1956	Frame:
Grade: SFAV-Avg	Effective Year: 1965	Primary Wall: Conc Block

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

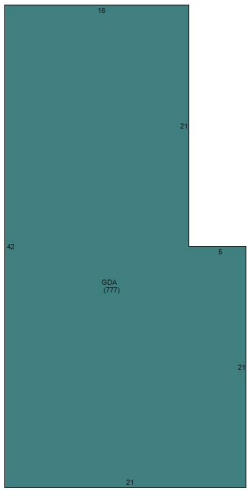
Exterior Data

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.
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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

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2.0 Environmental Impact Report

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2.6 Flora
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2.8 Wetlands
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2.10 Conclusion and Recommendations
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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.

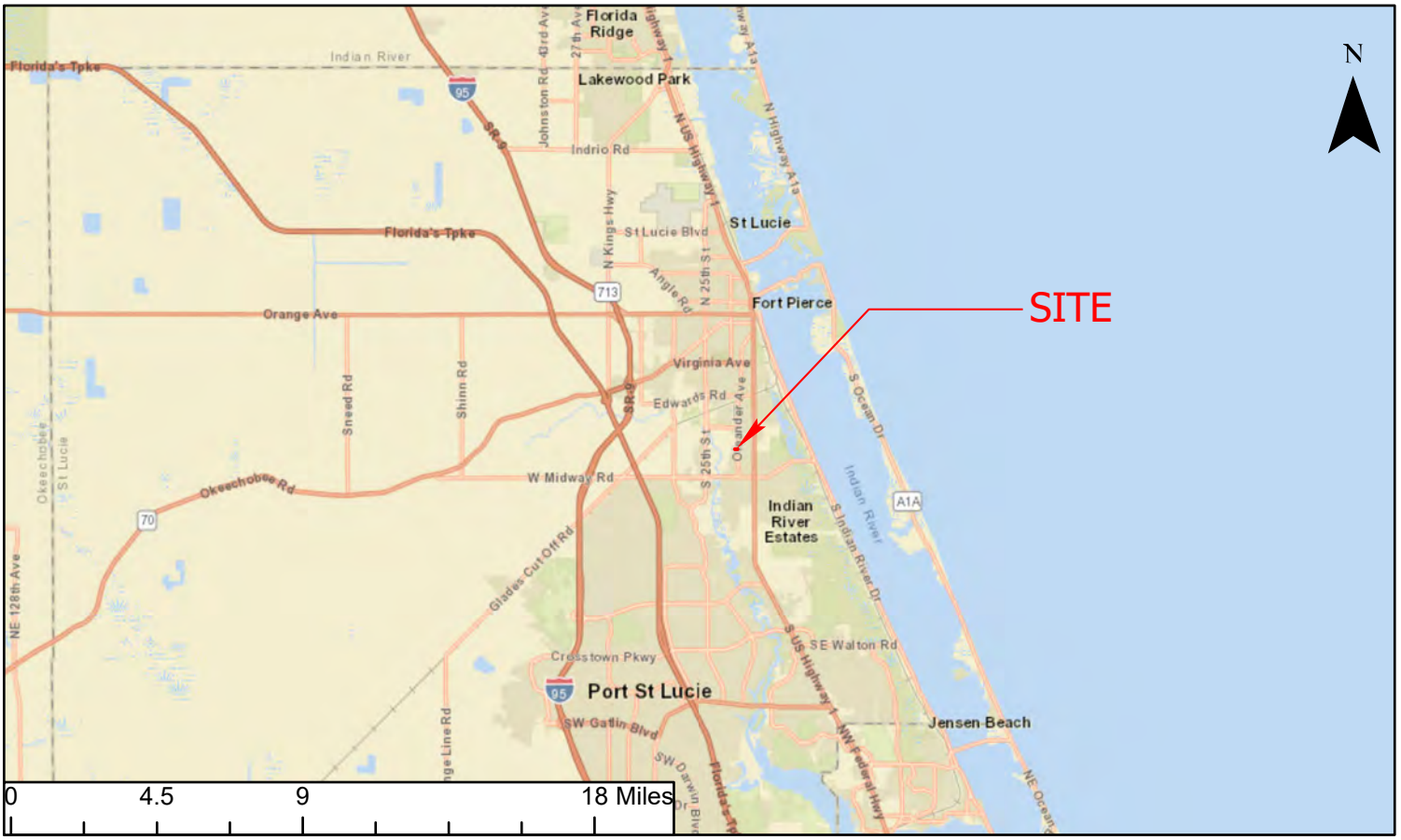
1.11 Qualifications of Individual Preparing Report

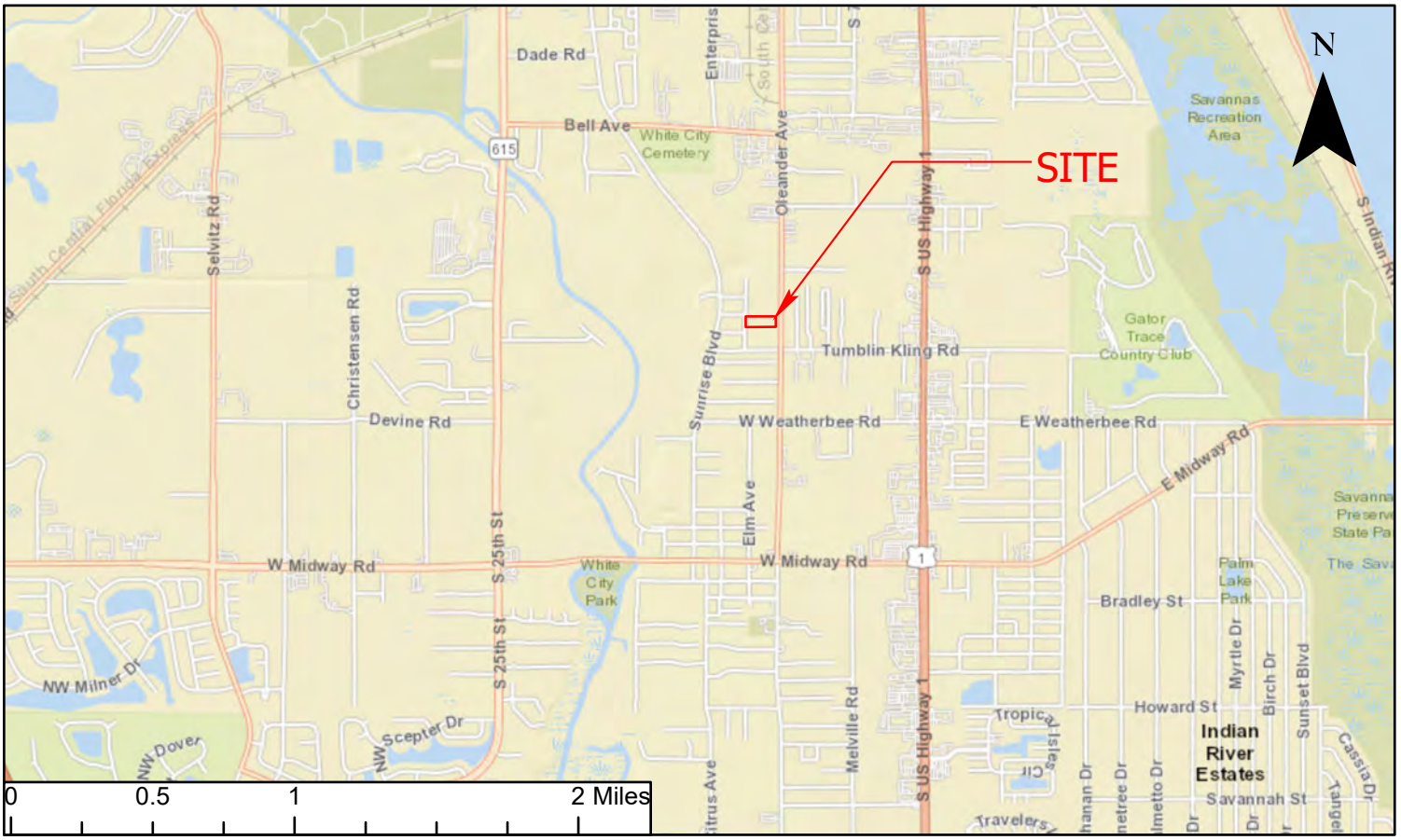
Florida Environmental Consulting is a Florida registered environmental consulting firm, the person who prepared this report is the president of the company, and his signature and seal on the cover of this document demonstrate that he is in responsible charge of the information provided. He is a Certified 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. 1835 20th Street• Vero Beach, Florida 32960 Phone: 772-299-4791 • E-mail: timm@fl-env.com	JOB NO. FEC-23-173 DESIGNED DRAWN CHECKED DATE SCALE	Revisions / Date



Legend

Subject Parcel 2.58 Acres

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



Legend

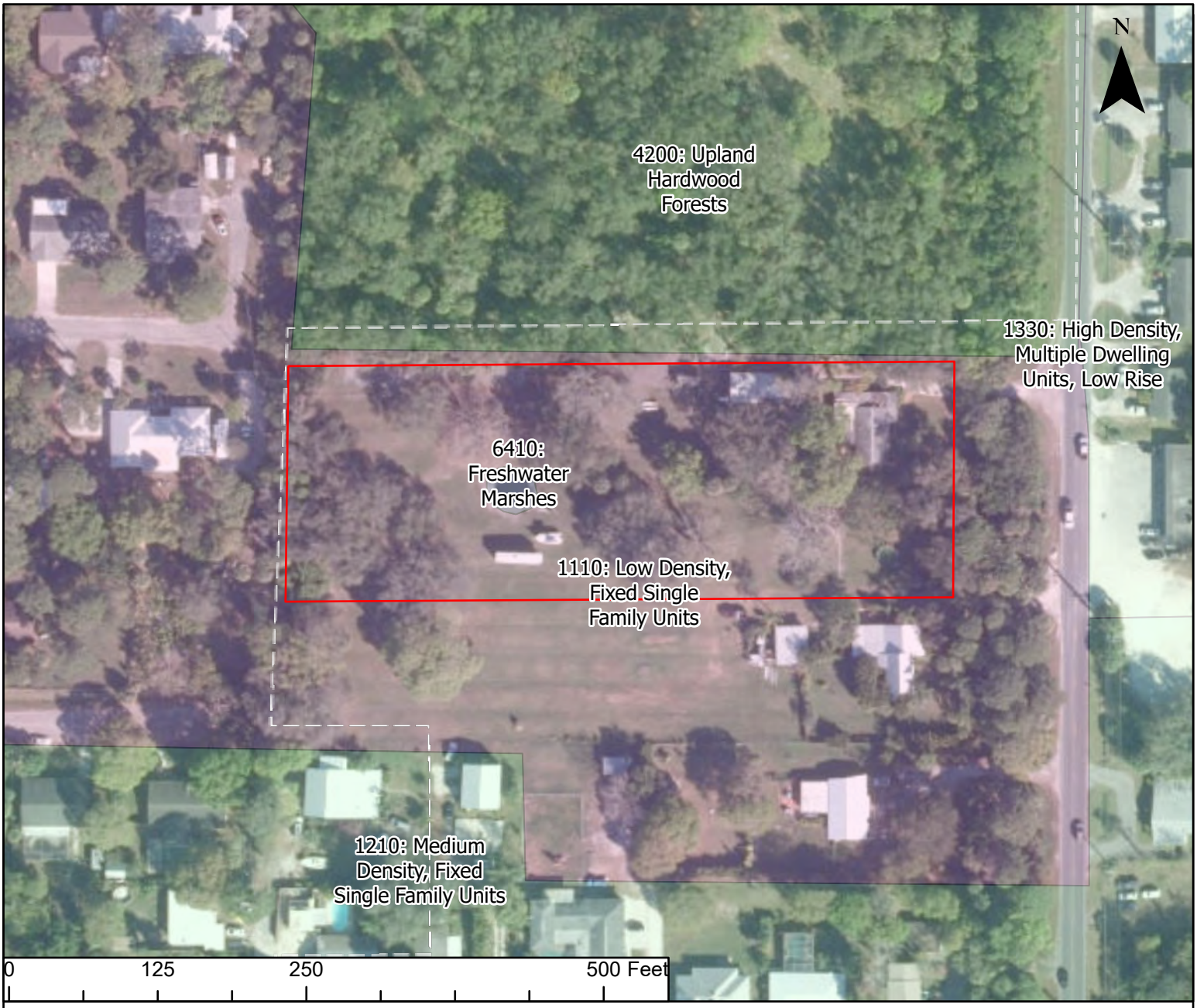
Subject Parcel 2.58 Acres

USA Flood Hazard

0.2% Annual Chance Flood Hazard

1% Annual Chance Flood Hazard

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



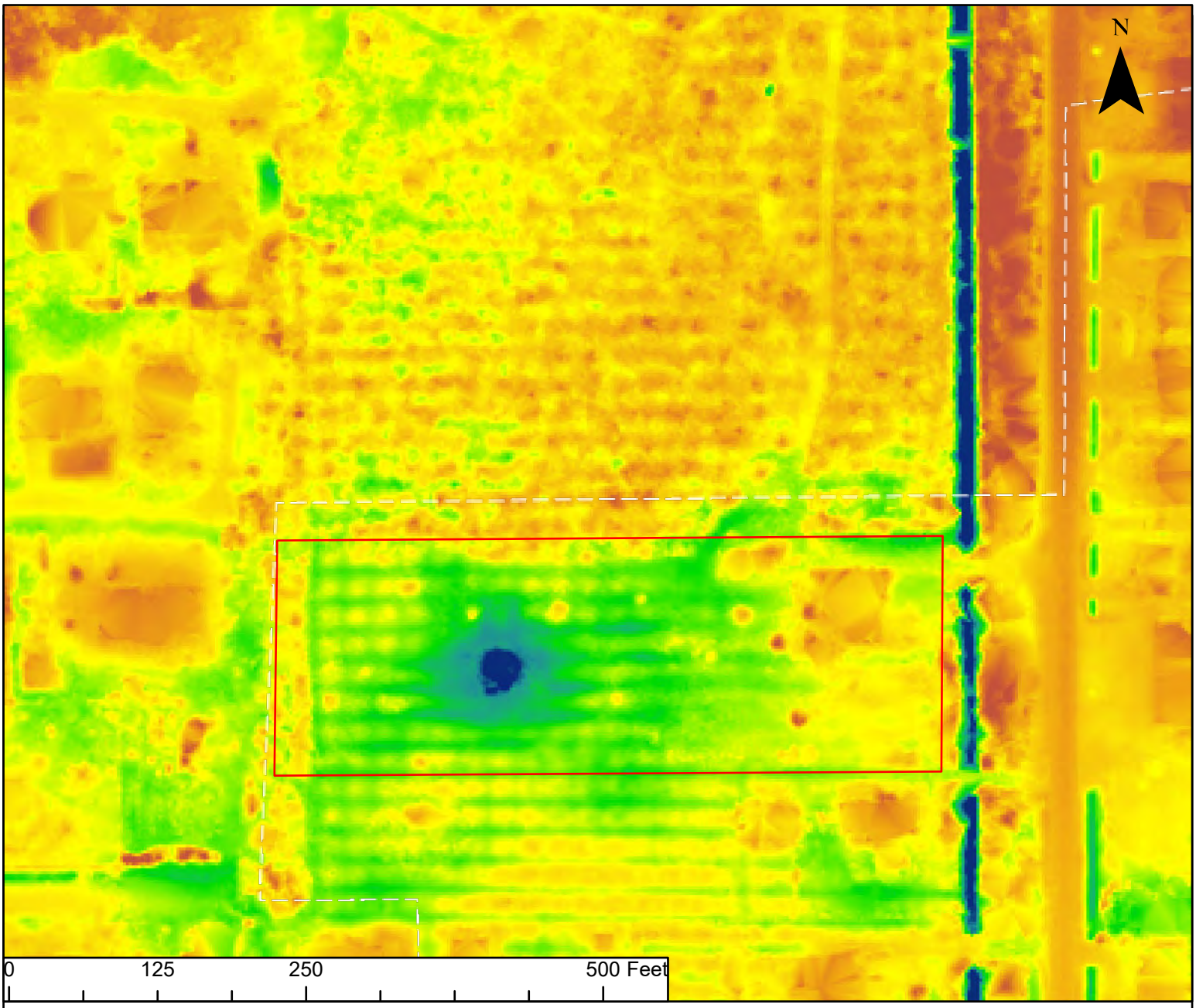
Legend

Subject Parcel 2.58 Acres

FL Wetlands

Freshwater Emergent Wetland

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



Legend

Subject Parcel 2.58 Acres

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



Legend

Subject Parcel 2.58 Acres

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



Legend

Subject Parcel 2.58 Acres

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



Legend

Subject Parcel 2.58 Acres

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



Legend

Subject Parcel 2.58 Acres

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



Legend

Subject Parcel 2.58 Acres

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



Legend

Subject Parcel 2.58 Acres

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































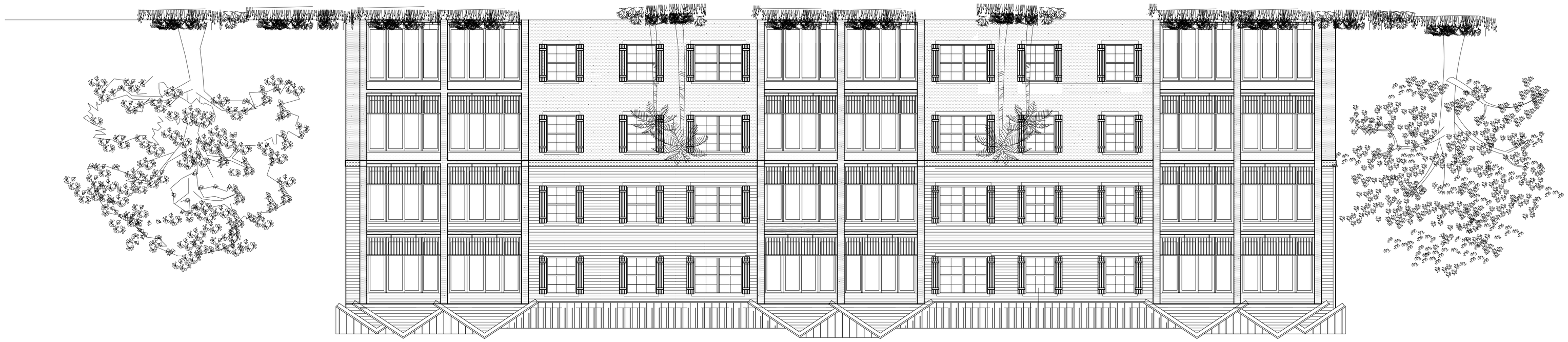
FRONT (EAST)ELEVATION

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



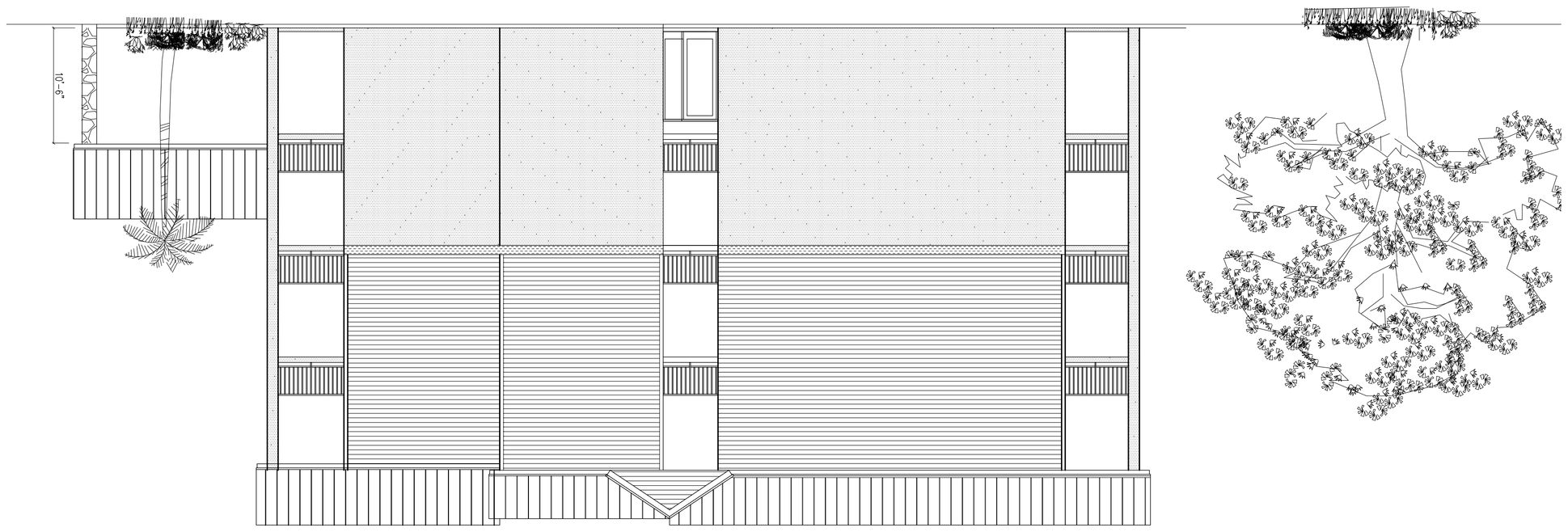
REAR ELEVATION (WEST)

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



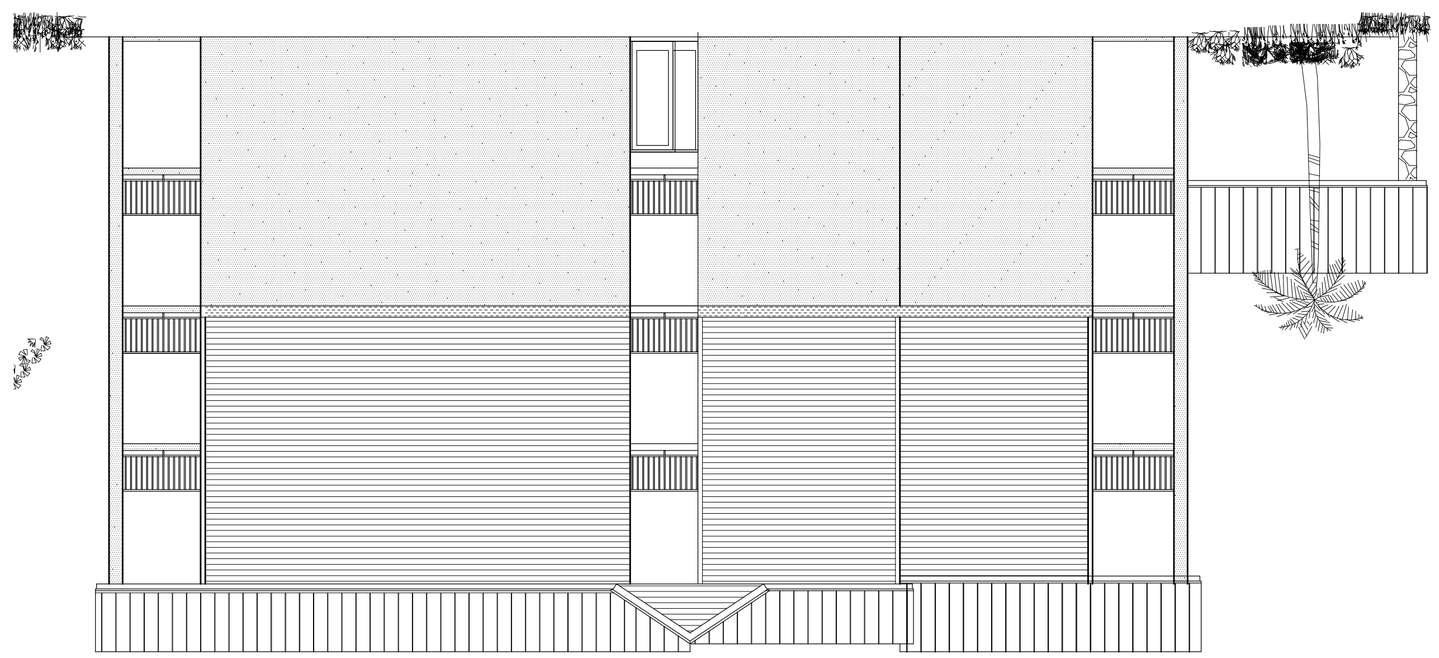
SOUTH ELEVATION

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"

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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

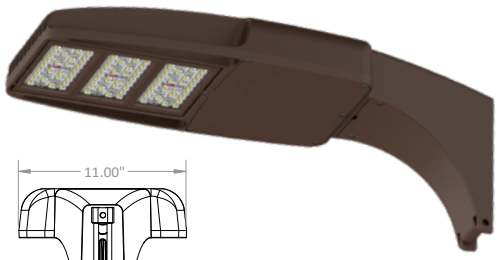
OPTICS + PERFORMANCE
- Up to 165 lumens per watt
- 12,000- to 40,000-lumen packages (82-325W)
- 5 customized distributions available
  - Type II Roadway Medium (Coefficient of Utilization: 0.793)
  - Type III Roadway Medium (Coefficient of Utilization: 0.852)
  - Type IV Wide Short (Coefficient of Utilization: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

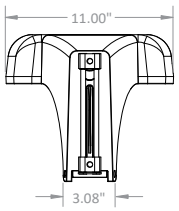
CONTROLS
- 0-10V dimming standard; DALI-2 option available
- Receptacle options:
  - ANSI C136.41 3-pin
  - ANSI C136.41 7-pin (for DALI-2 or 0-10V dimming)
  - Zhaga Book 18 (for next generation ambient light/motion sensing)
- Motion sensor option available – bi-level setting standard with low point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

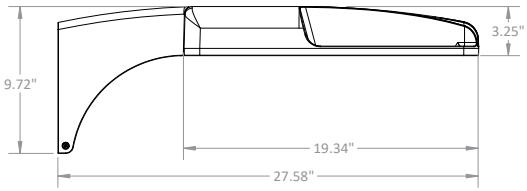
LISTINGS
- IDA Dark Sky Friendly ≤3000K, extended site arm or horizontal tenon
- IP66-rated optical and electrical chambers
- 3G Vibration-rated (ANSI C136.31)
- cULus Listed for wet locations (E487976)
- DLC + DLC Premium listings (Family code: JJJOYL)
- Zhaga D4i listed
- ANSI C136.15 labeling available
- 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.



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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
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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

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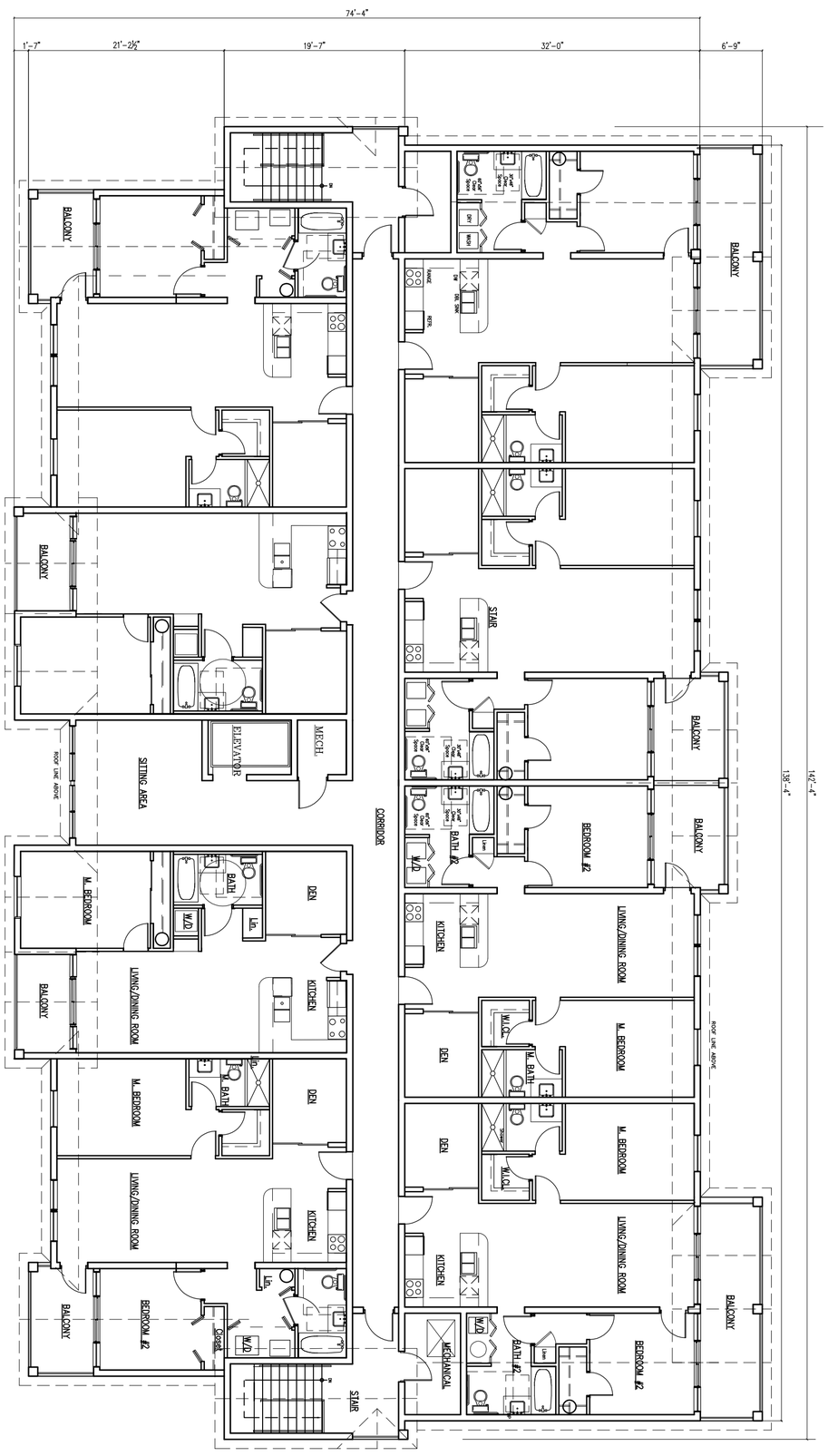
FLOOR PLANS
for
MARGARITTAVILLAS
4101 OLEANDER Avenue
FT. PIERCE, FLORIDA

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

NO.	REVISIONS	DATE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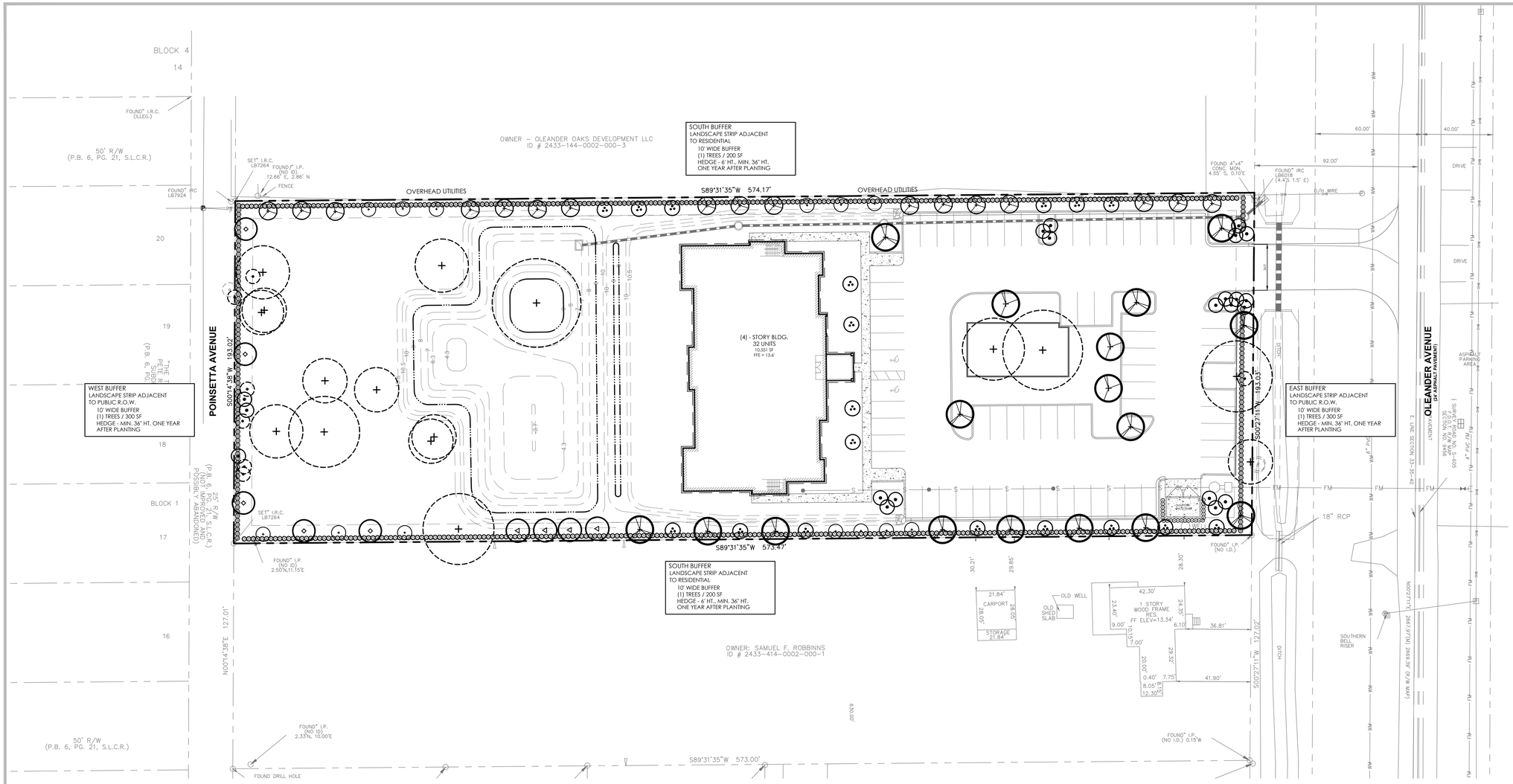
21'-2½"
19'-7"
32'-0"
6'-9"
BALCONY
BALCONY
BALCONY



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 8-1-1 SUNSHINE811.COM NOTIFICATION CENTER

plot date:
file name:

Patrick D. Cunningham, LLC
land planning
landscape architecture
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Sarasota, FL 34234
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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

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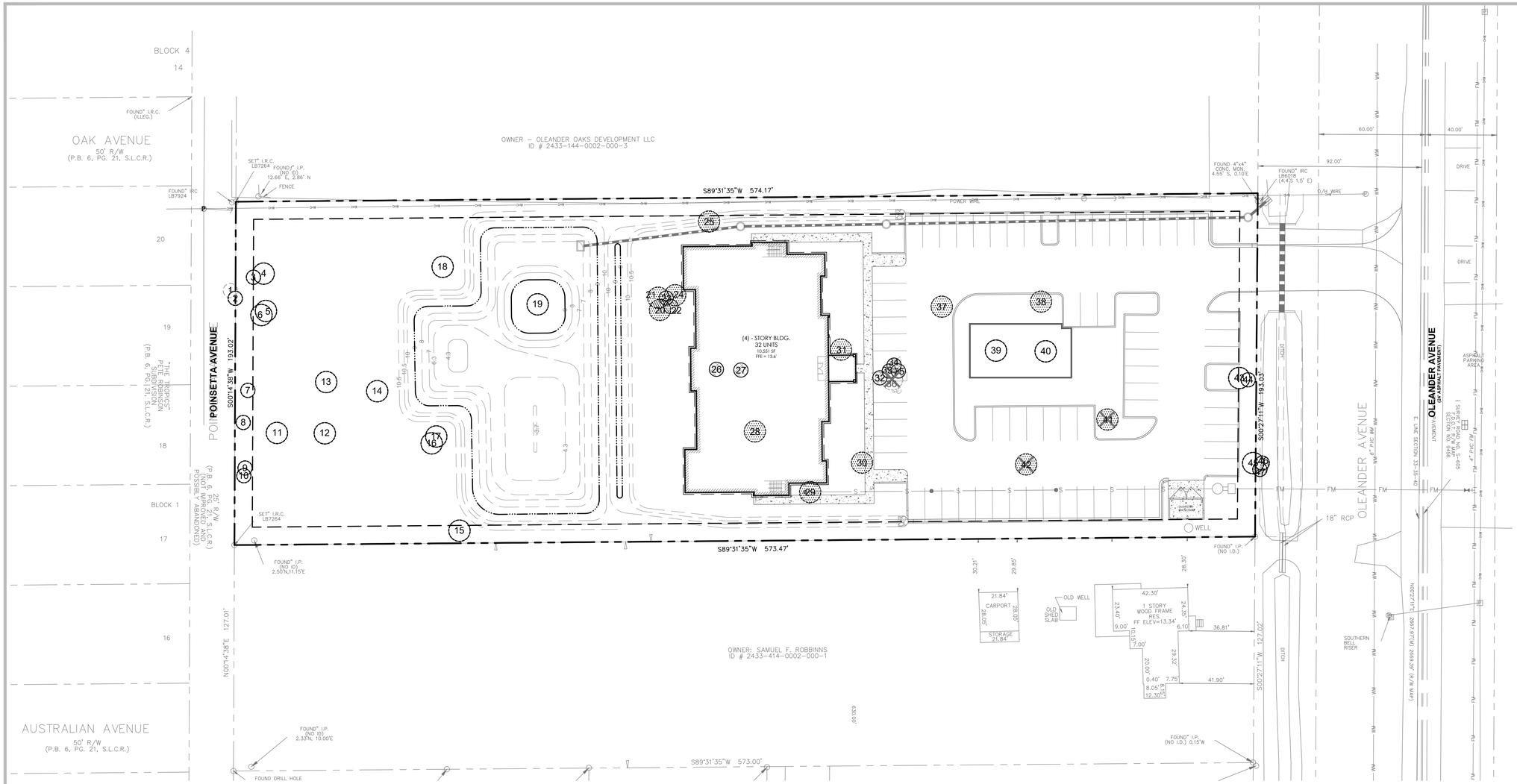

Existing Tree Inventory List

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 INCL. *(16) EXISTING NATIVE OAK*	396 "	508 " *(00" SHORTFALL)* *508"*
TOTAL PALM MITIGATION REQUIRED INCL. *(10) EXISTING SABAL PALMS @ 10' ct min.* *(1) SABAL PALM @ 10' ct min.*	8 PALMS	8 PALMS *7 PALMS* *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.

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EXISTING TREE INVENTORY PLAN

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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.

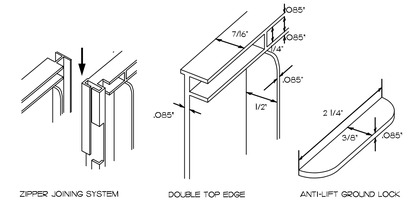
B. ALL NUISANCE EXOTIC VEGETATION EXISTING ON SITE SHALL BE REMOVED IN CONJUNCTION WITH ANY SITE DEVELOPMENT.

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

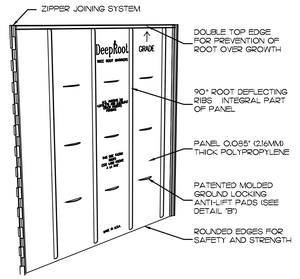
NOTES:
SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES AND LANDSCAPES. ASSEMBLED IN 2' LONG MODULES TO CREATE VARYING SIZES OF CYLINDERS FOR SURROUNDING ROOT BALLS (SURROUND PLANTING STYLE) OR FOR LINEAR APPLICATIONS DIRECTLY BESIDE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

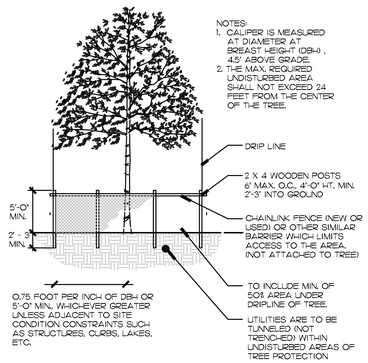
TREE PROTECTION SHALL COMPLY WITH THE JURISDICTIONS REGULATIONS.

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

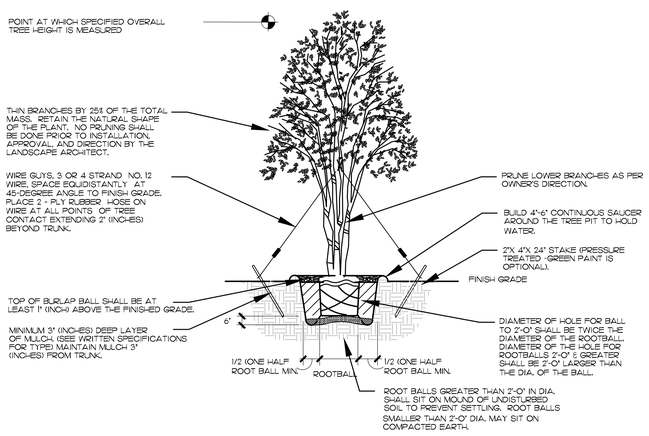
NO ATTACHMENT, WIRES (OTHER THAN PROTECTIVE GUY WIRES), SIGNS OR PERMITS SHALL BE ATTACHED TO A PROTECTED TREE.

(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.

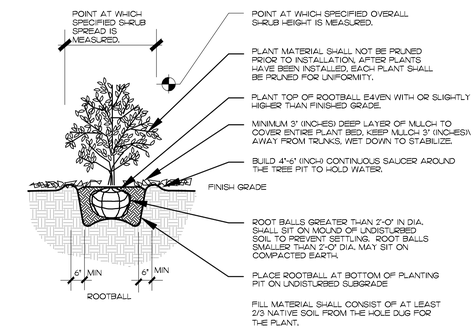
ANY DAMAGE TO TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AFTER DAMAGE OCCURS.



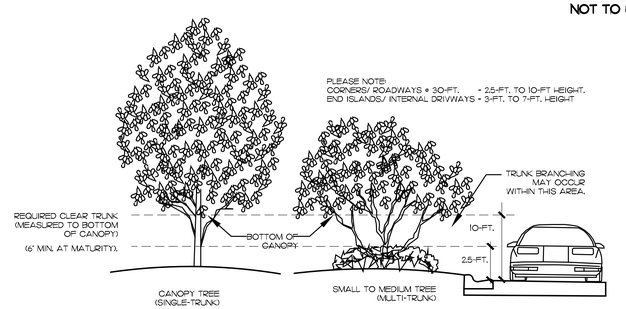
TYPICAL TREE PROTECTION DETAIL
NOT TO SCALE



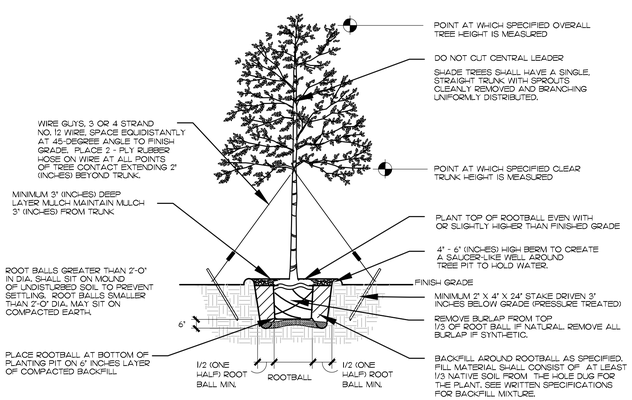
TYPICAL IRRIGULAR/MULTI-TRUNK TREE PLANTING DETAIL
NOT TO SCALE



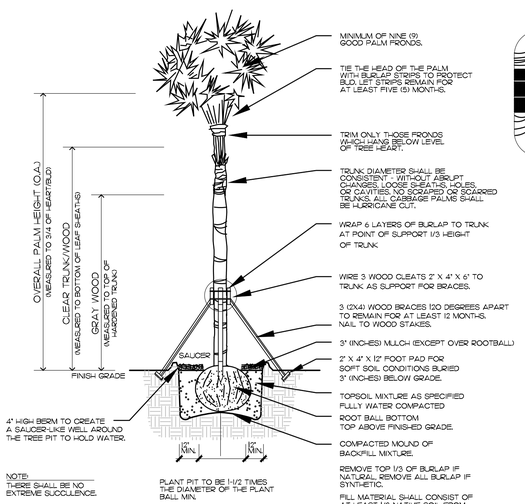
TYPICAL SHRUB/ GROUNDCOVER PLANTING DETAIL
NOT TO SCALE



CLEAR TRUNK WITHIN SIGHT TRIANGLE DETAIL
NOT TO SCALE

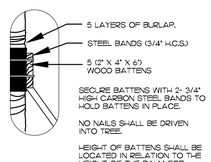


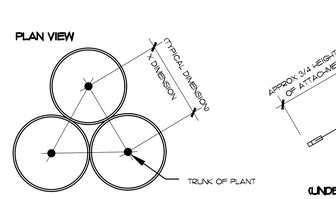
TYPICAL TREE PLANTING DETAIL
NOT TO SCALE



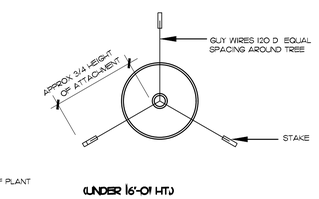
NOTE:
THERE SHALL BE NO EXTREME SUCCULENCE.

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:

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landscape architecture
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LANDSCAPE DETAILS

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5		
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1	SUBMITAL	12.08.2023

SCALE: N.T.S.

PATRICK D. CUNNINGHAM
FL REG #: LA0001669

SEAL

NORTH

SHEET
L-3

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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

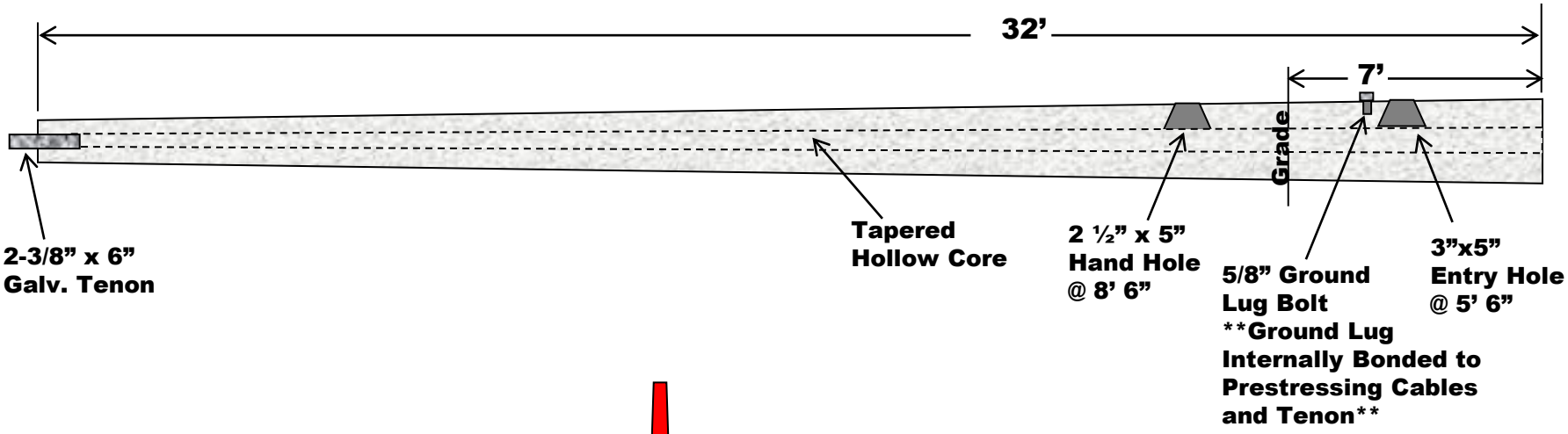
Wampler Lighting Group
83 High Avenue
Valley Head, Alabama 35989
Contact Brad @ 256.996.2560

PLAN DATE

DATE	DESCRIPTION	DRAWN BY
020524		JRC

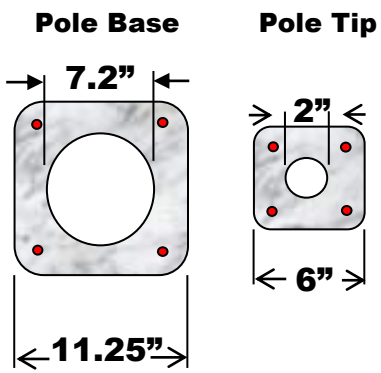
JOB #: 020524MV

Drawing Not to Scale

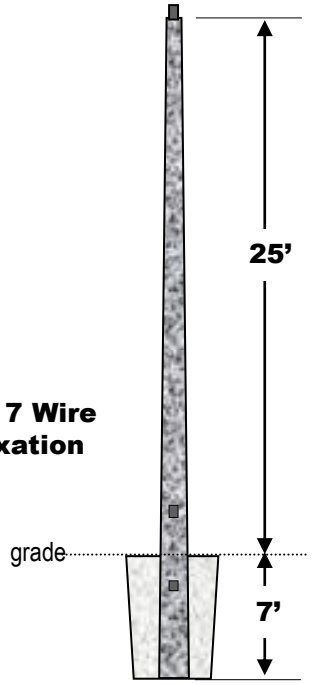


Seminole Pole incorporated

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

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

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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**

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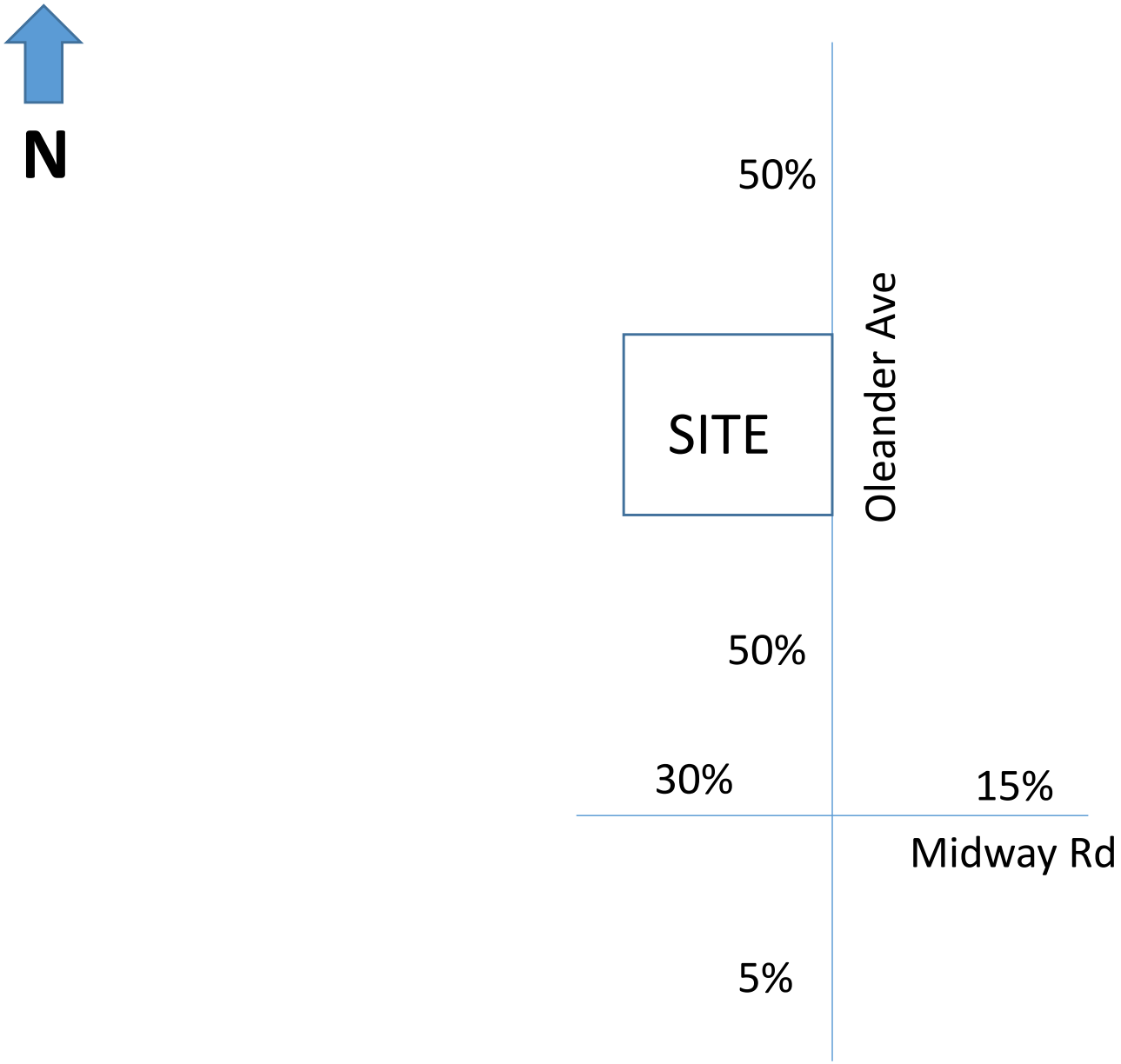

Figure 2 – Trip Distribution
4101 Oleander Avenue
Project # 23-103

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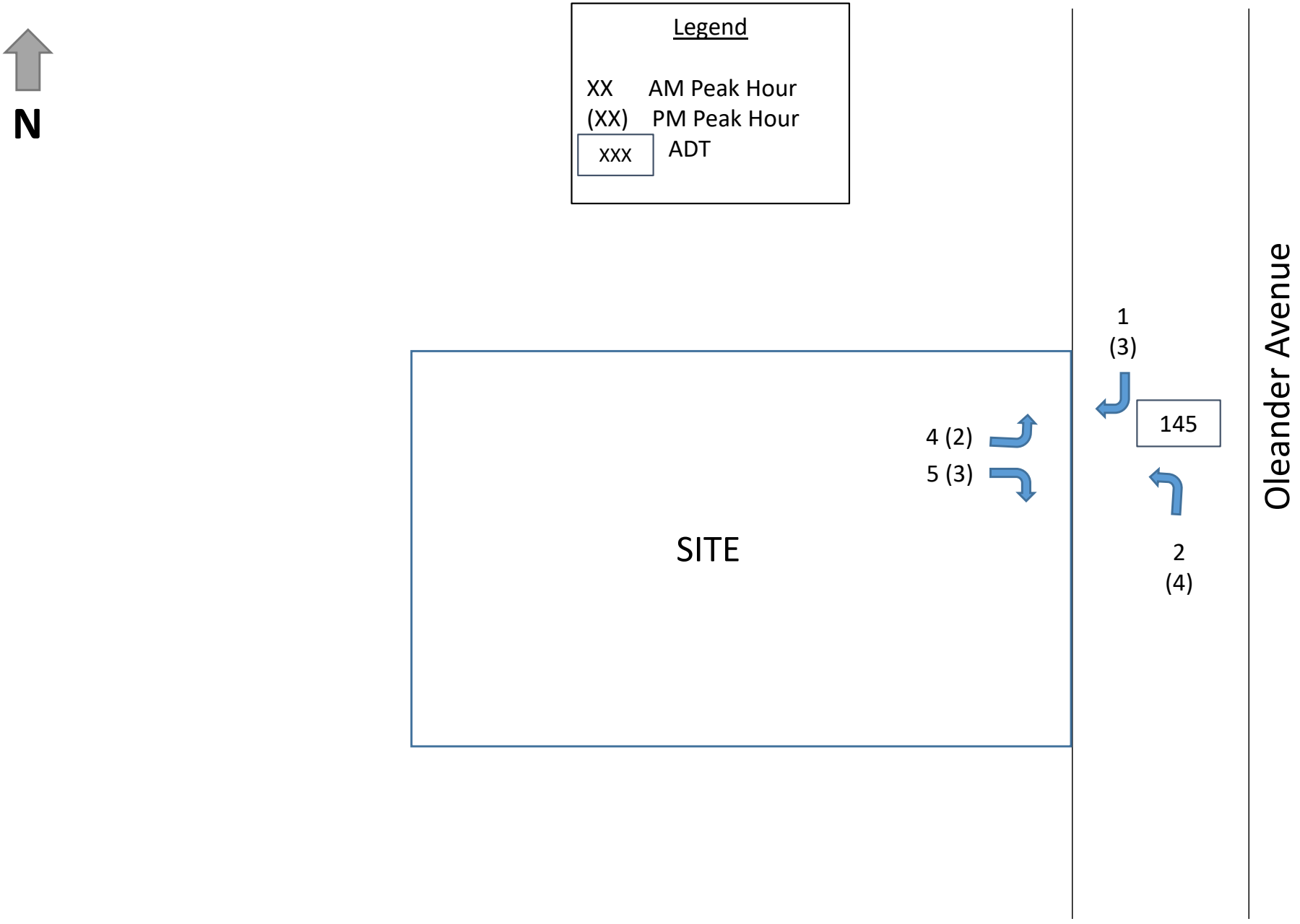

Figure 3 – Driveway Volumes
4101 Oleander Avenue
Project # 23-103

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

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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

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St. Lucie Transportation Planning Organization

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

Traffic Counts and Level of Service Report
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

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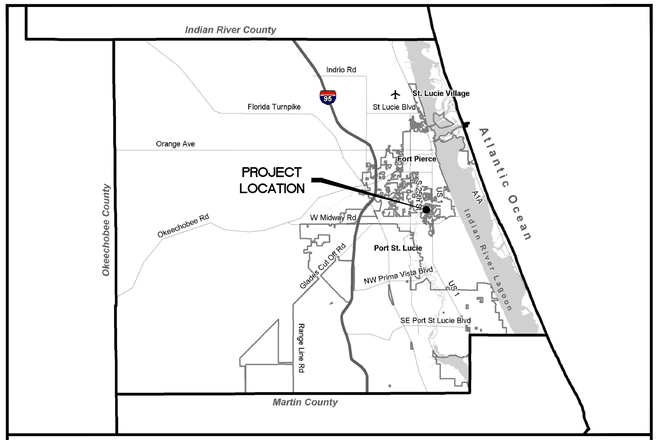
Roadway Name	Location	AADT	Pk Hr Service Capacity	AM Pk Hr Pk Dir			PM Pk Hr Pk Dir		
				Volume	LOS	V/C	Volume	LOS	V/C
MIDWAY RD	OKEECHOBEE RD to SHINN RD	6,581	760	331	C	0.44	331	C	0.44
MIDWAY RD	SHINN RD to MCCARTY RD	6,581	630	331	C	0.53	331	C	0.53
MIDWAY RD	MCCARTY RD to I-95	6,581	700	331	C	0.47	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

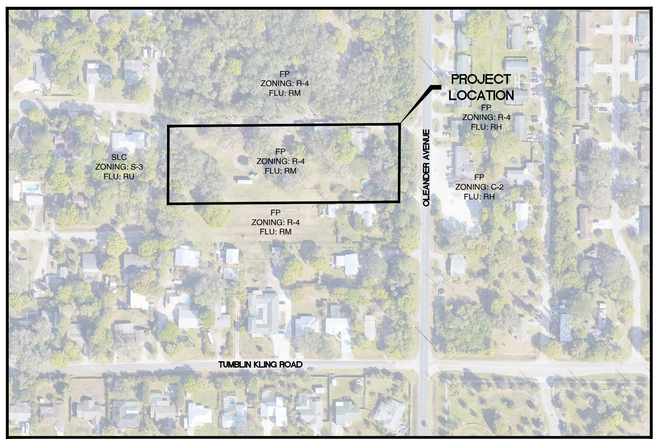
MARGARETA VILLAS
MULTI-FAMILY

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

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PH: (772) 569-0035
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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

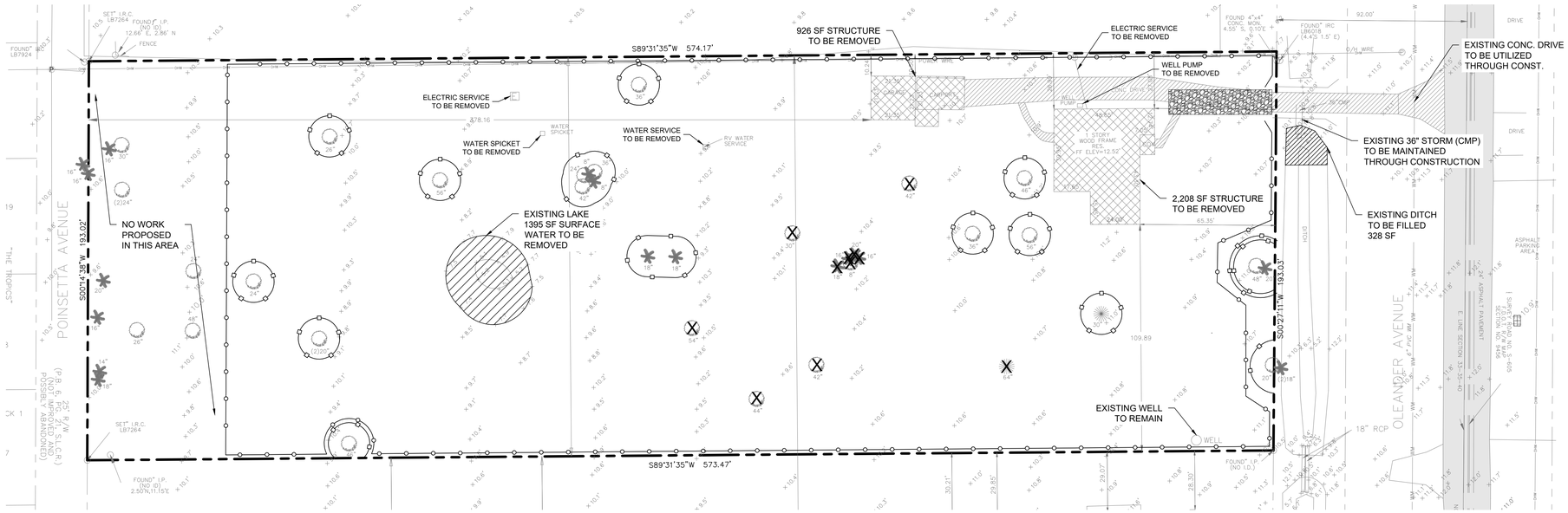
(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(B)EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(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:

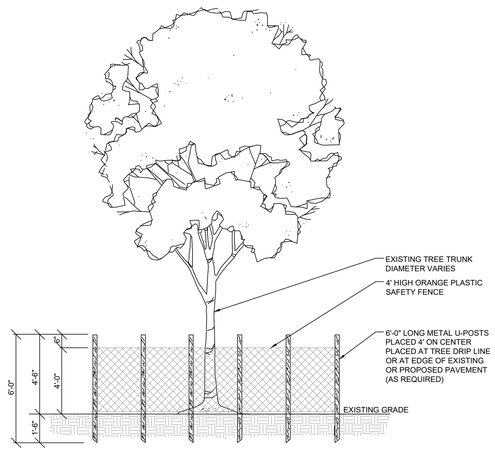
FLOOD INFORMATION

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	
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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

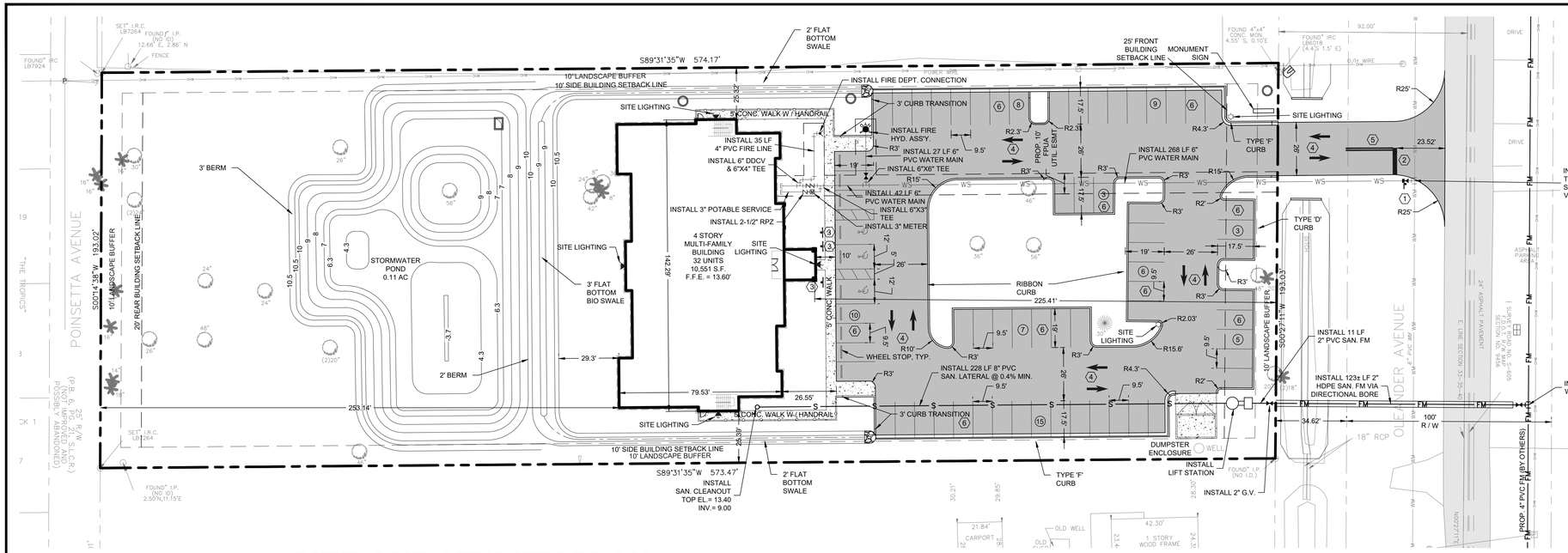
CITY OF FORT PIERCE FLORIDA

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)

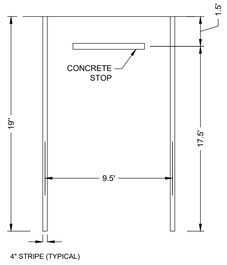
1 inch = 30 ft.

LEGEND

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

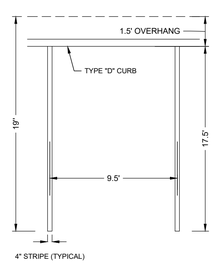
SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE

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



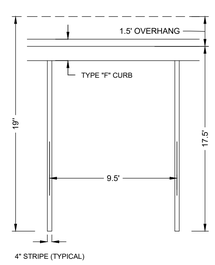
TYPICAL PARKING SPACE DETAIL

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

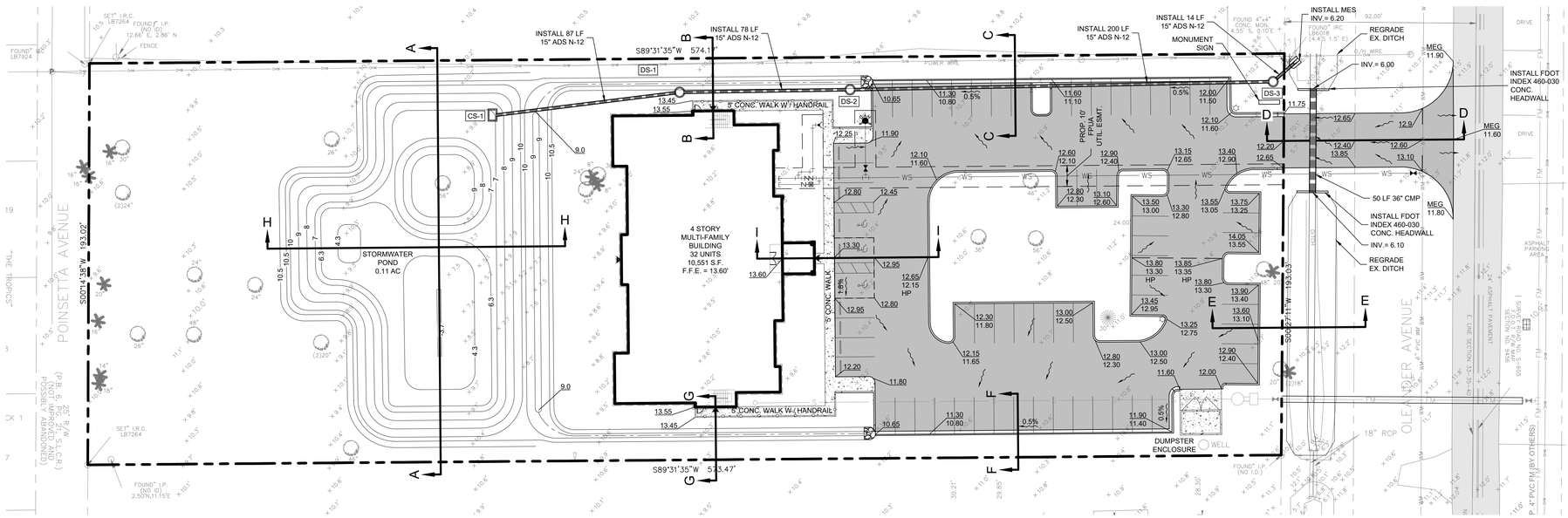
AARON J. BOWLES
FL. P.E. #55313 1/31/24

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
- 15.4 EXISTING ELEVATION
- 18.70 PROPOSED ELEVATION
- 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	-	-	-	-	INVERT ELEVATION N
INVERT ELEVATION S	-	-	-	-	INVERT ELEVATION S
INVERT ELEVATION E	7.40 E	7.05 E	6.75 E	5.20 E	INVERT ELEVATION E
INVERT ELEVATION W		7.05 W	6.75 W	6.20 W	INVERT ELEVATION 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.

REVISIONS	DATE
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
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FT. PIERCE, FL - PH (772) 468-9055

PAVING, GRADING AND DRAINAGE PLAN

MARGARETA VILLAS MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

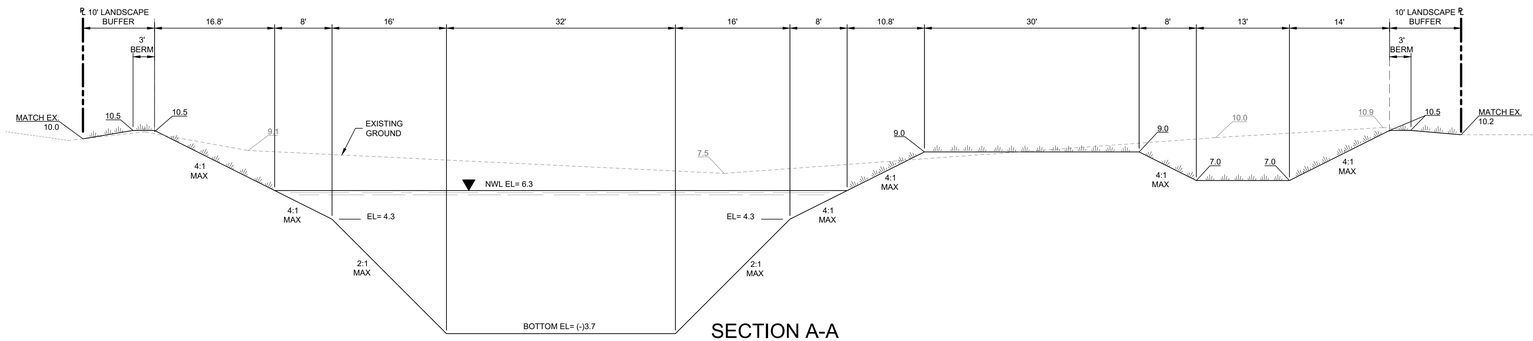
AARON J. BOWLES LICENSE No. 55313 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

SHEET

C5

23-0060



SECTION A-A
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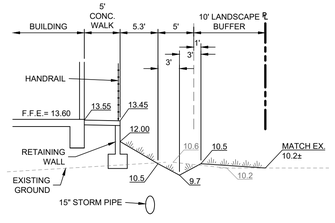

SECTION B-B
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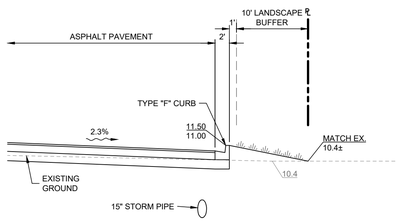

SECTION C-C
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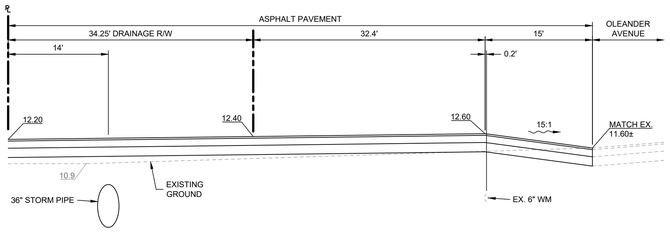

SECTION D-D
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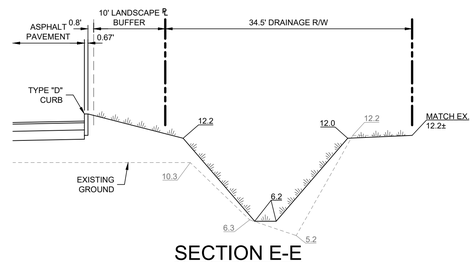

SECTION E-E
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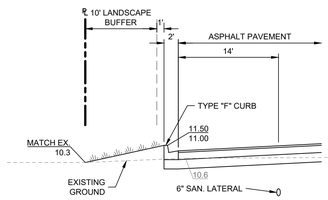

SECTION F-F
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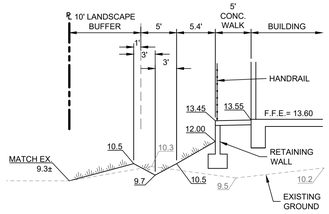
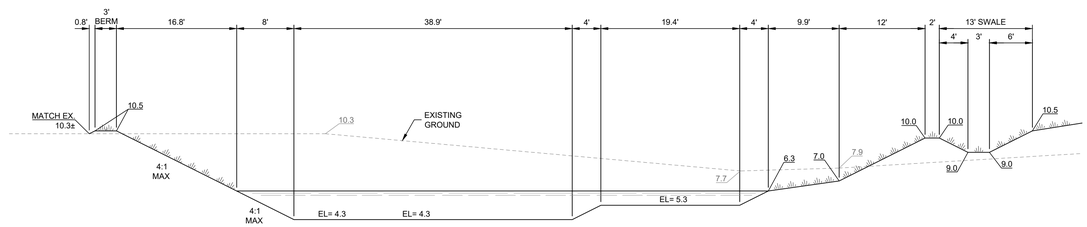
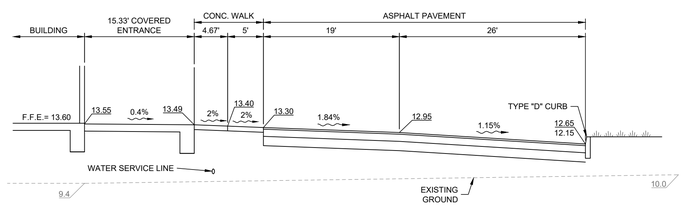


SECTION G-G
N.T.S.



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 multi family\DWG\23-0060 CS PUD PLAN.dwg 1/31/2024 10:12 AM

DATE	REVISIONS
8	
7	
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1	

JOB NO.	23-0060
DESIGNED	GWR
DRAWN	GWR
DATE	JANUARY 2024
CHECKED	AJB
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MBV ENGINEERING, INC.
MOJA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
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CROSS SECTIONS

MARGARETA VILLAS
MULTI-FAMILY

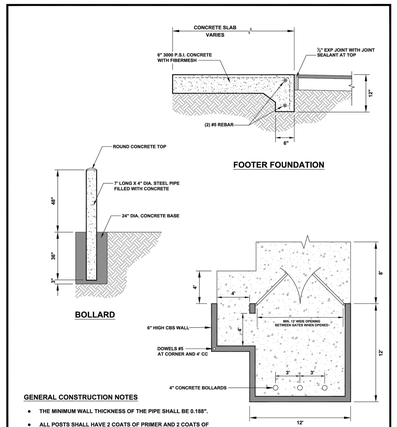
CITY OF FORT PIERCE, FLORIDA

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

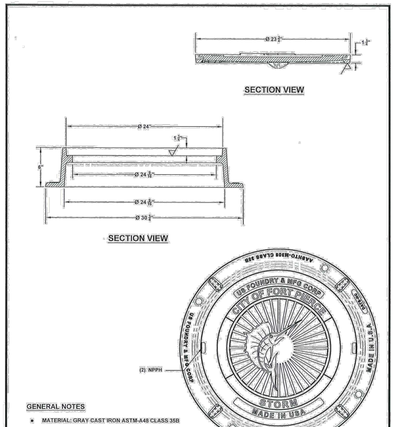
AARON J. BOWLES
FL. P.E. #55313 1/31/24

SHEET
C6

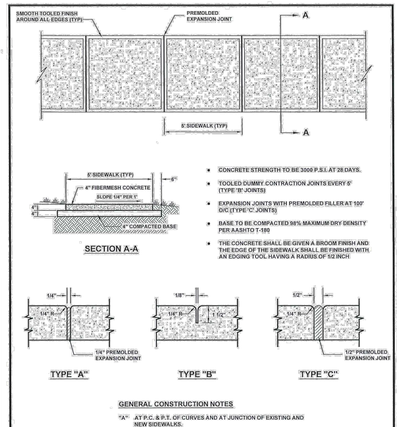
23-0060



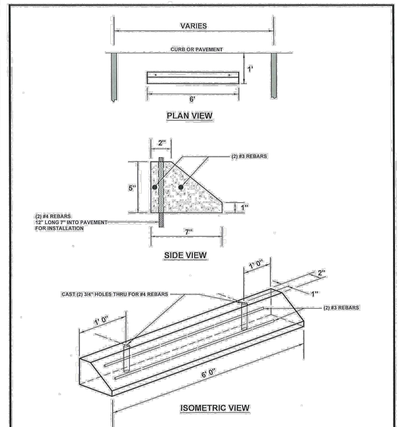
FORT PIERCE — DUMPSTER ENCLOSURE DETAIL — DATE: MAY, 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET: _



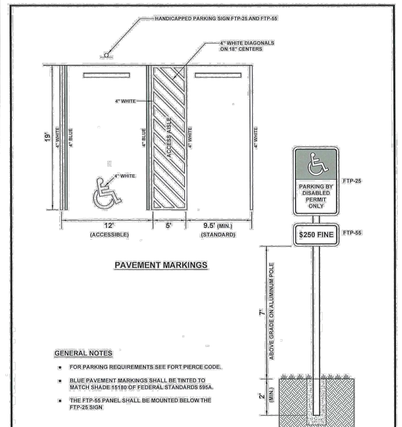
FORT PIERCE — MANHOLE COVER DETAIL — DATE: APRIL 2021 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET: ?



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

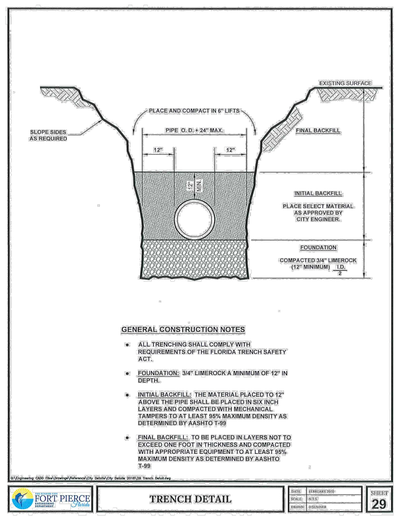
FORT PIERCE — PAVING DETAIL WITHOUT CURB AND GUTTER — DATE: SEPTEMBER 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 14

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

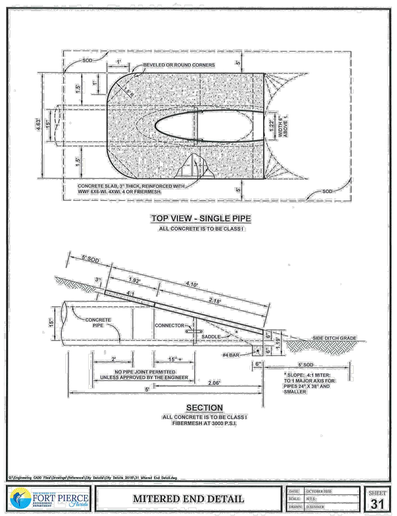
FORT PIERCE — TYPE "D" CURB AND GUTTER DETAILS — DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET: 22

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		
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2		
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JOB NO.	23-0060
DESIGNED	GWR
DRAWN	GWR
DATE	JANUARY 2024
CHECKED	AJB
DATE ISSUED	1/31/2024

MBV ENGINEERING, INC.
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GENERAL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE — FLORIDA

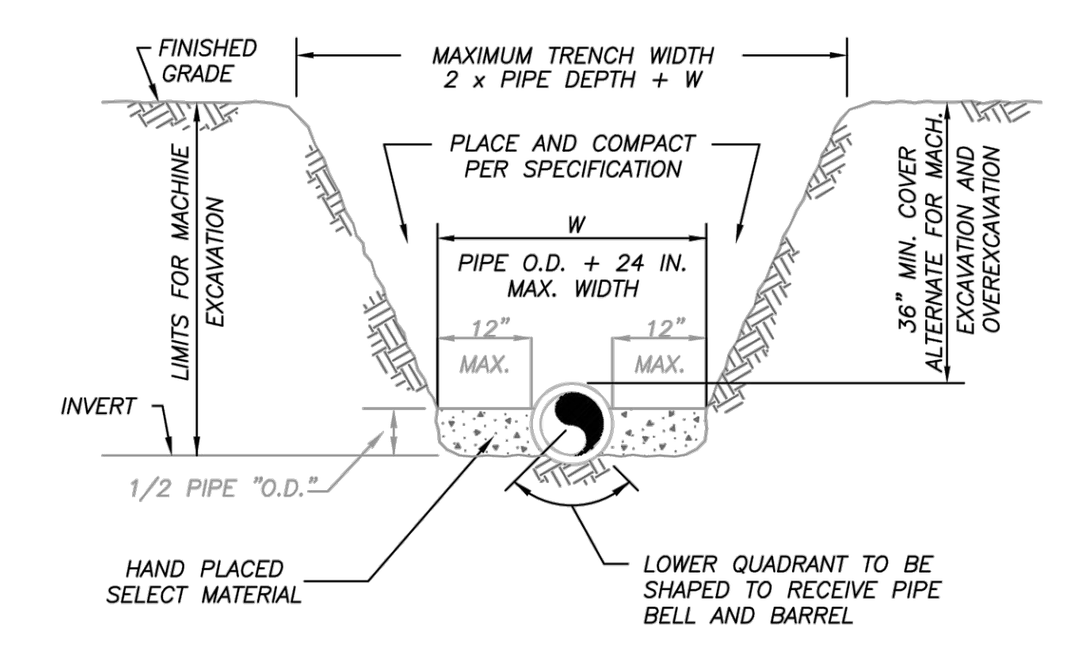
AARON J. BOWLES
LICENSE
No. 55313
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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



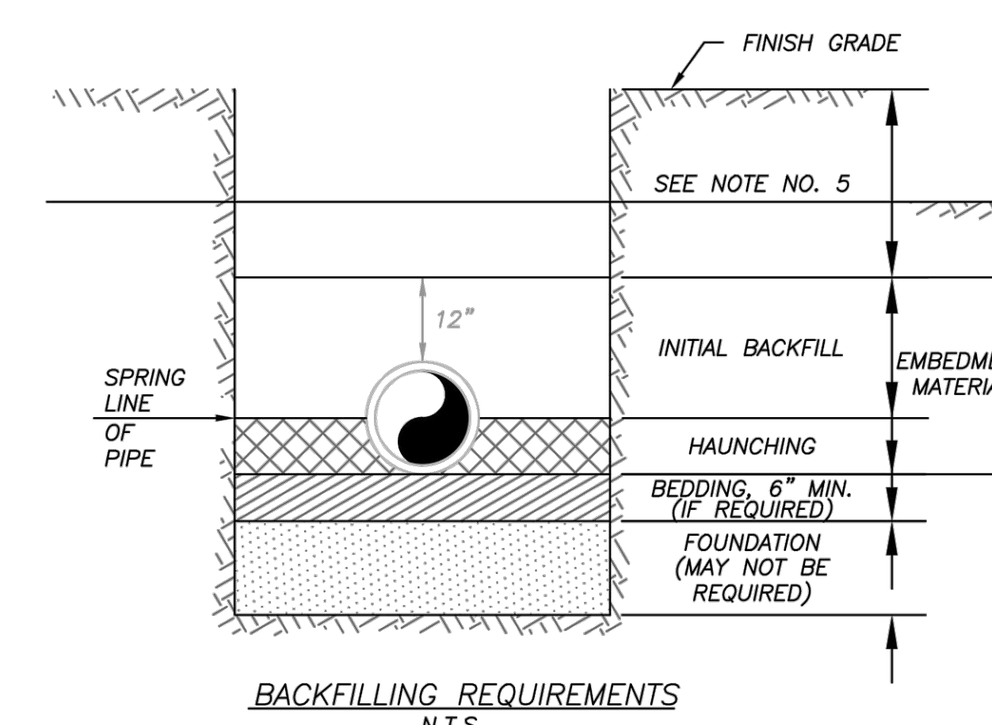
NOTES:

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.

TYPICAL TRENCH DETAIL	M-1
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2015	SHEET 1 OF 1



BACKFILLING REQUIREMENTS
N.T.S.

NOTES:

1) IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED.

2) BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE.

3) HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.

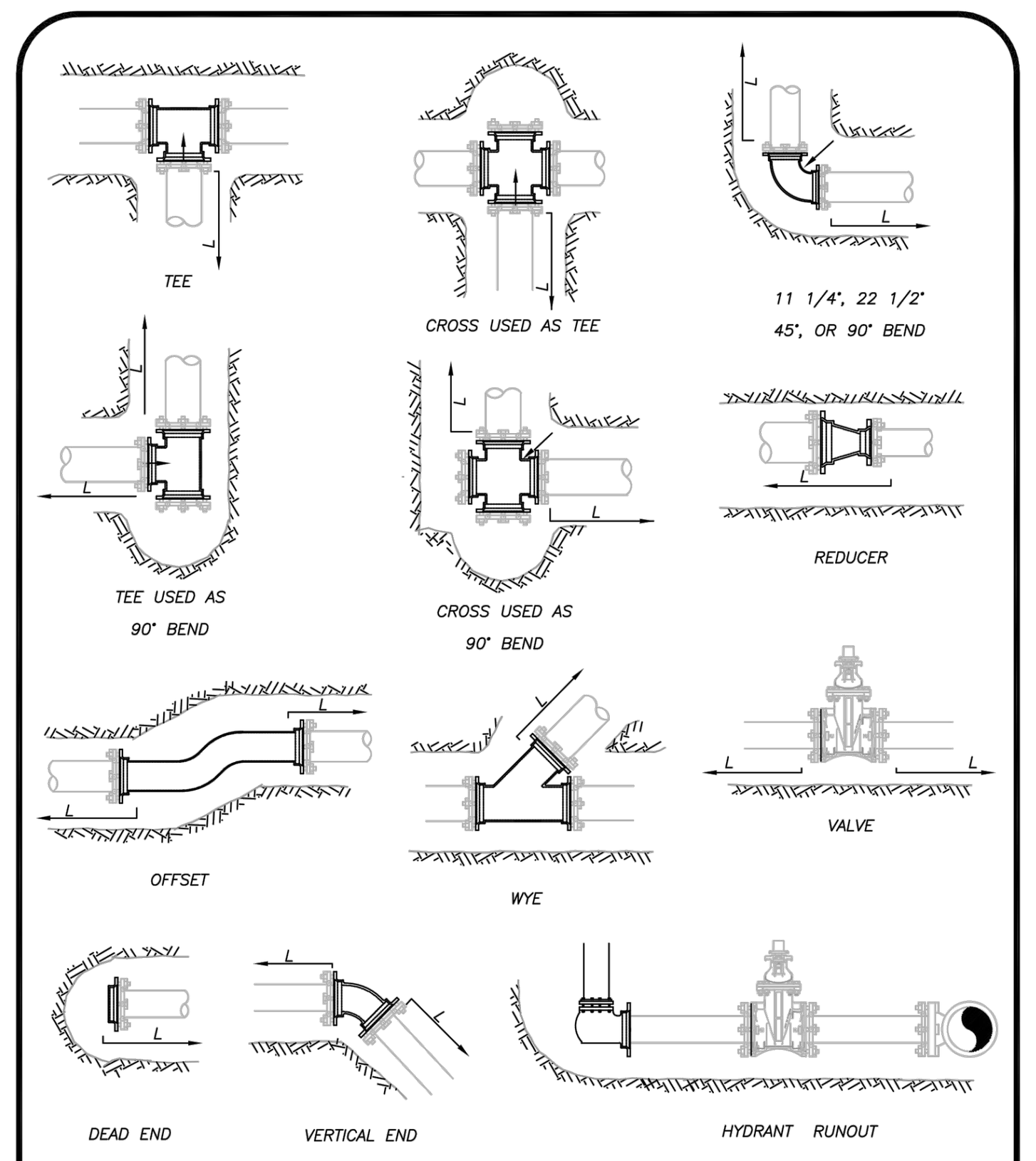
4) INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE. THE SOIL SHALL BE COMPACTED TO 100% MAX. DENSITY.(AASHTO T-99)

5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX. DENSITY AS PER AASHTO T-99, TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180.

6) DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE UTILITIES ENGINEER OR PERMIT AGENCY HAVING JURISDICTION, AT THE CONTRACTORS EXPENSE.

7) CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL TRENCH SAFETY REGULATIONS.

BACKFILLING REQUIREMENTS	M-2
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2015	SHEET 1 OF 1



MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

MECHANICAL JOINT ANCHORING REQUIREMENTS	M-3
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2015	SHEET 1 OF 1

MECHANICAL JOINT RESTRAINT NOTES

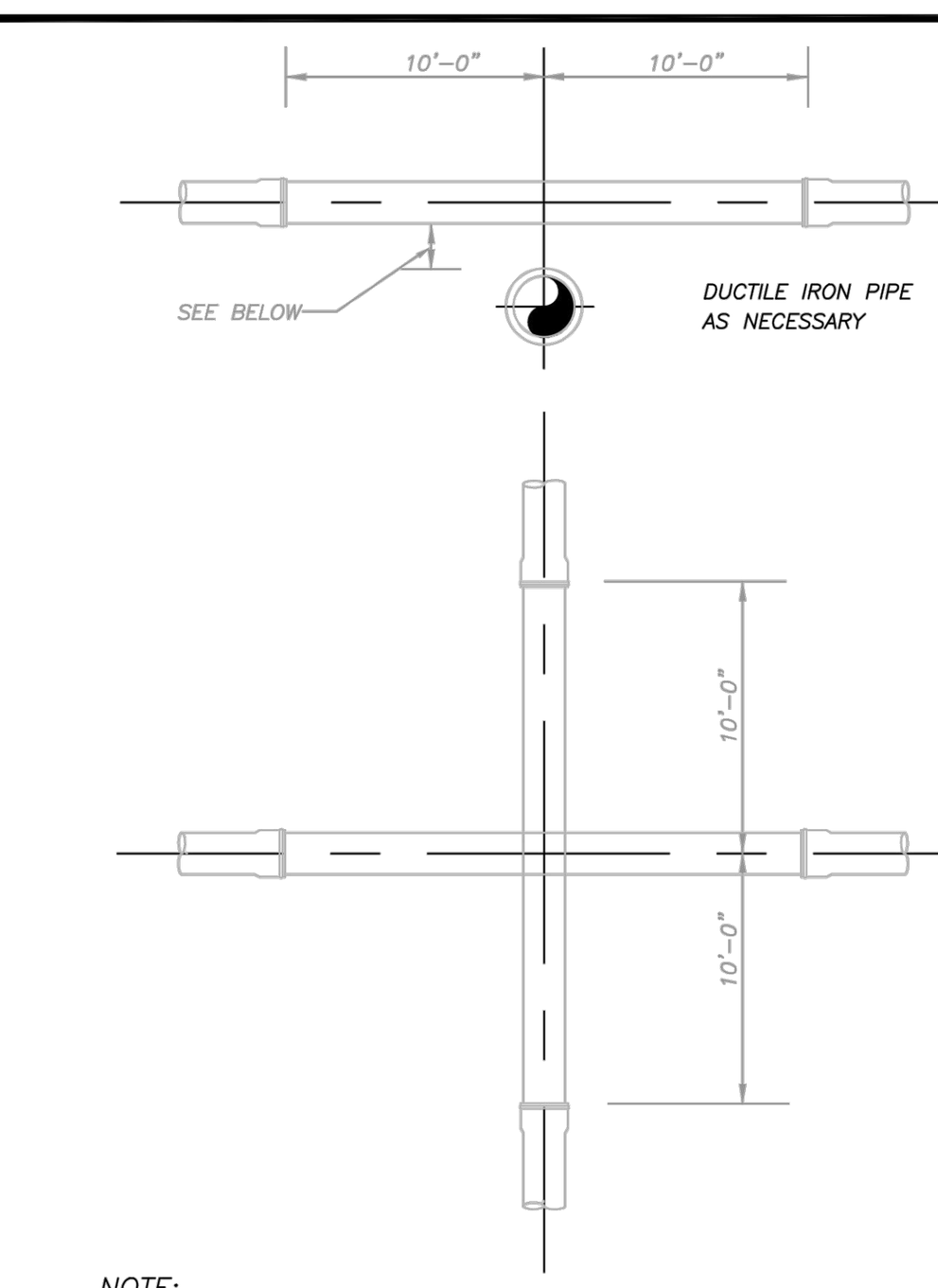
NOTES:

1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED WHICH REFLECTS THE RESTRAINT DETAIL PROPOSED FOR USE, INCLUDING LENGTH OF PIPE RESTRAINT.

2) REQUIRED RESTRAINED LENGTH CALCULATIONS SHALL ALSO CONSIDER THE CONDITIONS OF OTHER BENDS OR FITTINGS THAT WILL BE LOCATED WITHIN THE CALCULATED RESTRAINED LENGTH (L) OF THE BEND OR FITTING IN QUESTION.

3) EVERY JOINT OR FITTING MUST BE RESTRAINED ON BOTH SIDES OF THE BEND AND FOR TEES ALONG THE BEND ALSO.

MECHANICAL JOINT RESTRAINT NOTES	M-4
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2015	SHEET 1 OF 1

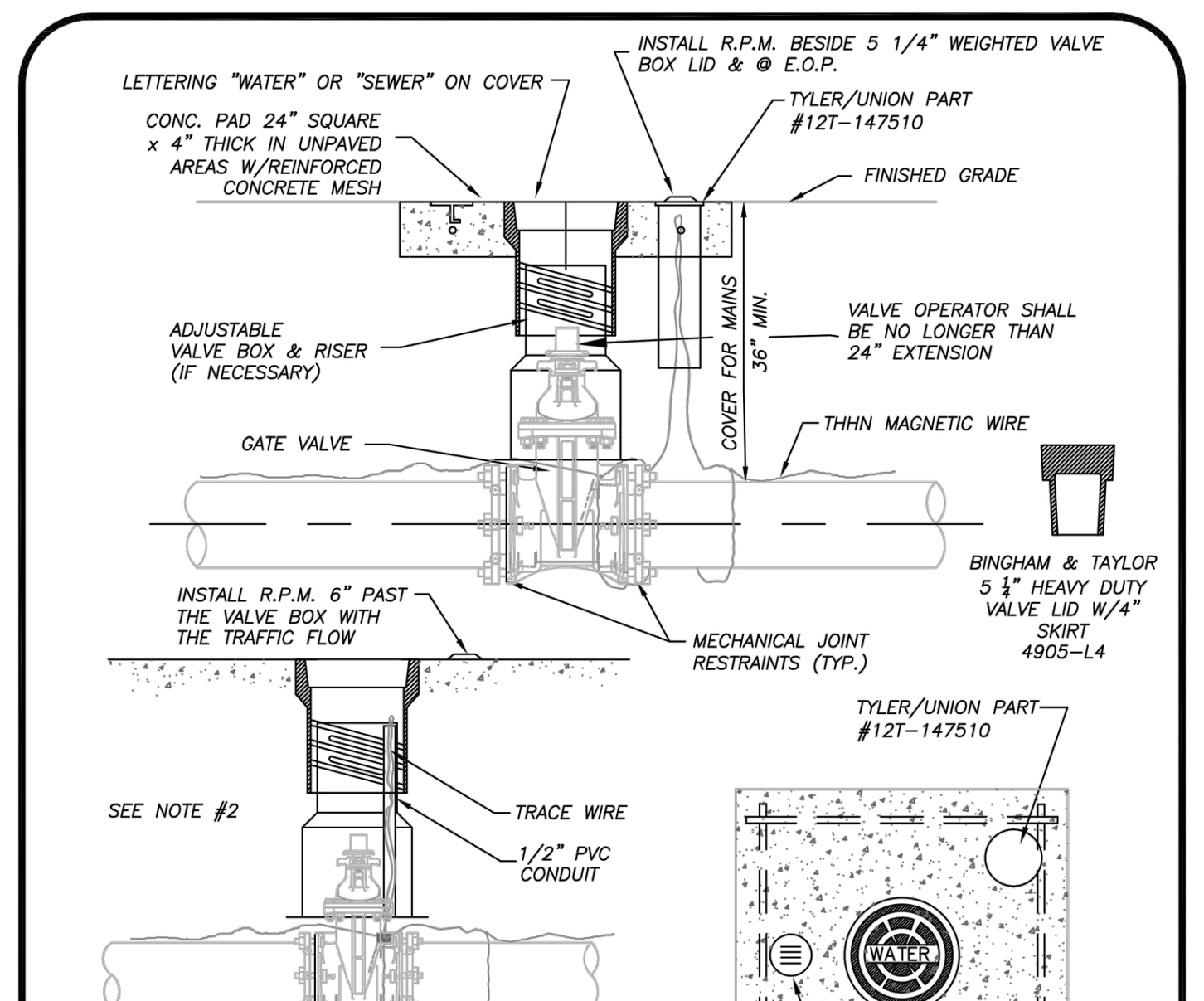


NOTE:

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

UTILITY CROSSING DETAIL
N.T.S.

UTILITY CROSSING DETAIL	M-5
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2015	SHEET 1 OF 1

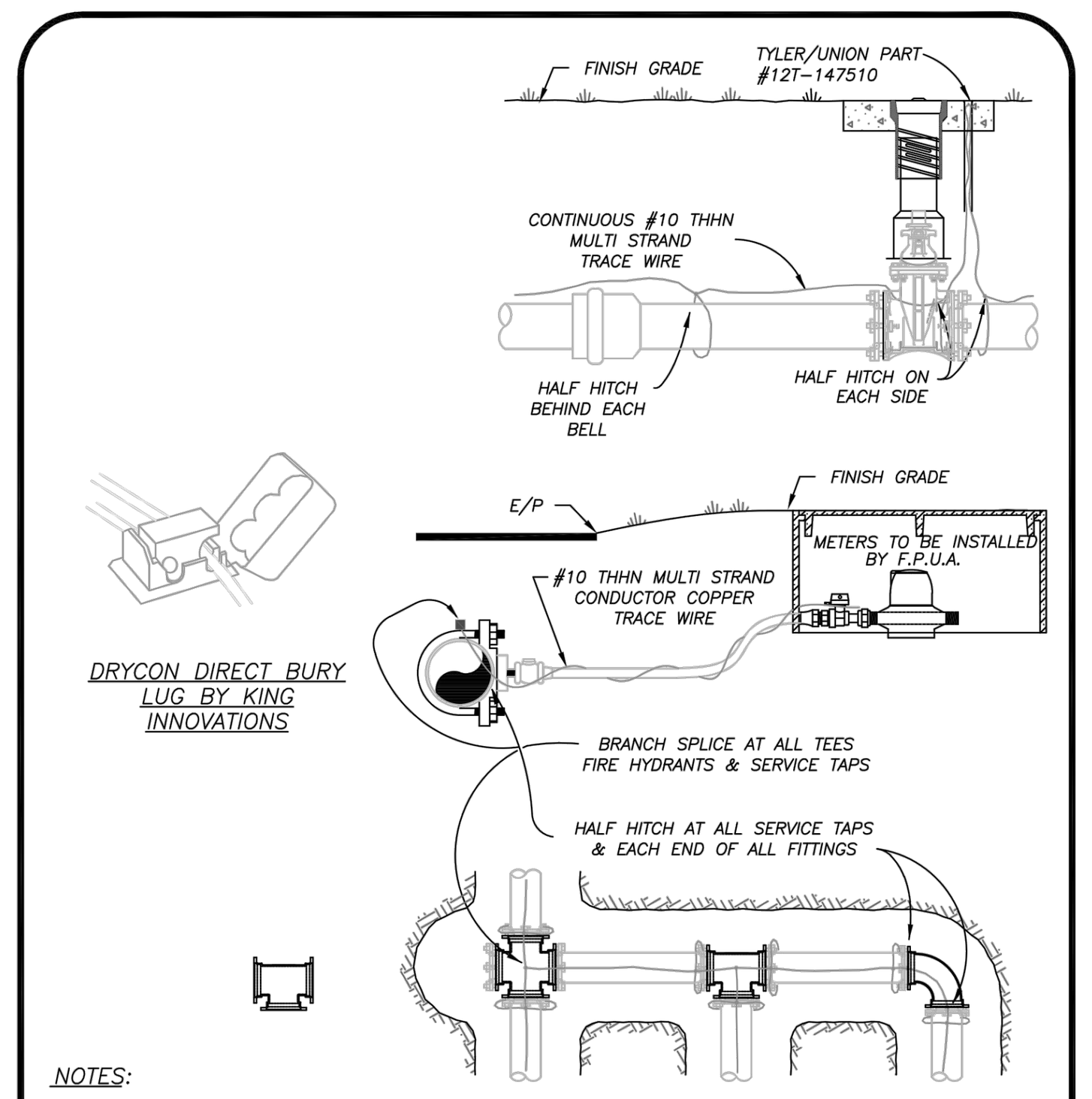


NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKER (RPM) FOR WATER VALVES AND GREEN RPM FOR WASTEWATER VALVES PAVEMENT EDGE.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SEVEN INCHES BELOW GRADE.
3. DIP MAY BE USED AS RISERS ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & VALVE BOX DETAIL
N.T.S.

TYPICAL GATE VALVE & VALVE BOX DETAIL	M-6
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2015	SHEET 1 OF 1

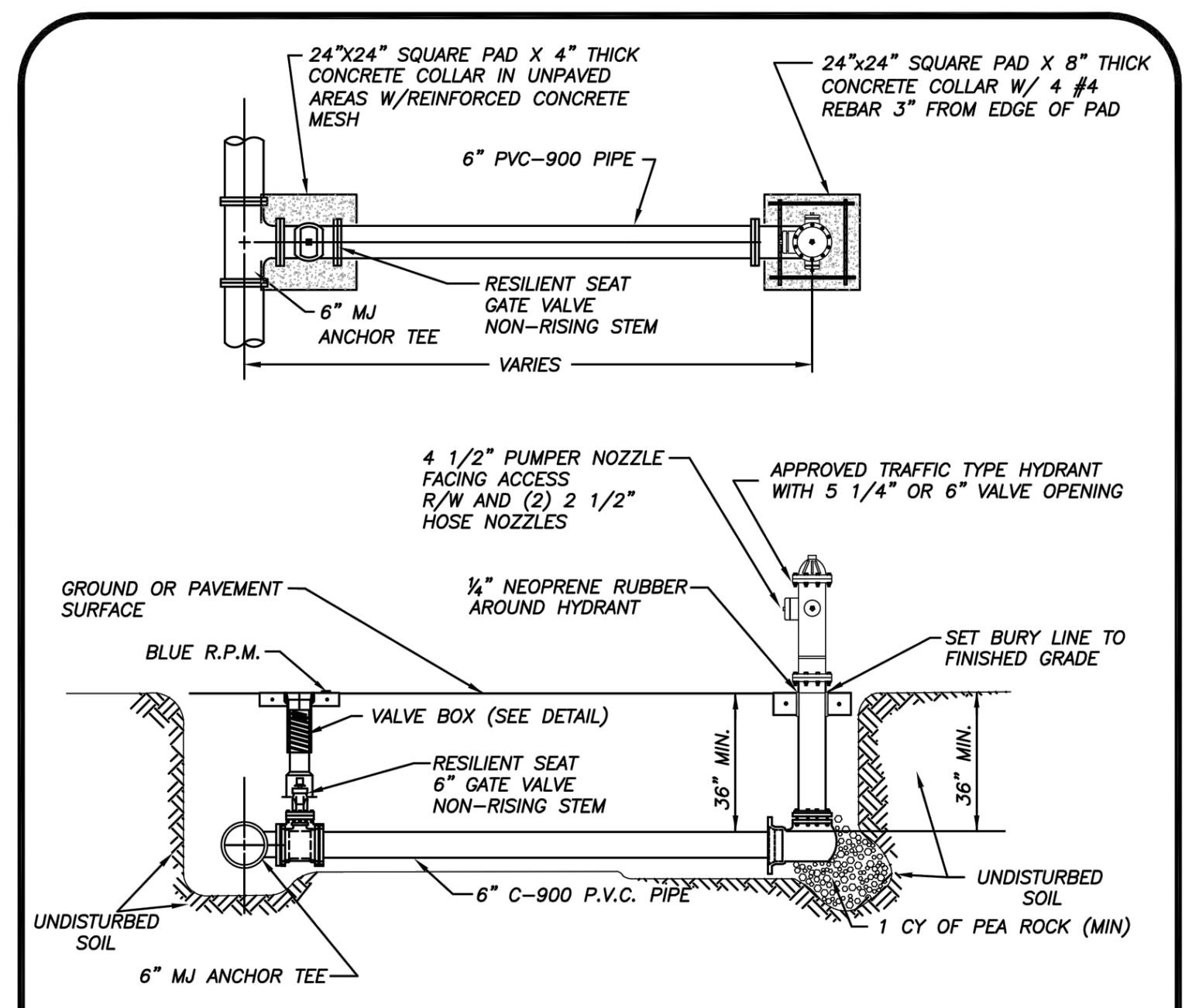


NOTES:

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.)

TRACE WIRE DETAIL	M-11
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2015	SHEET 1 OF 1

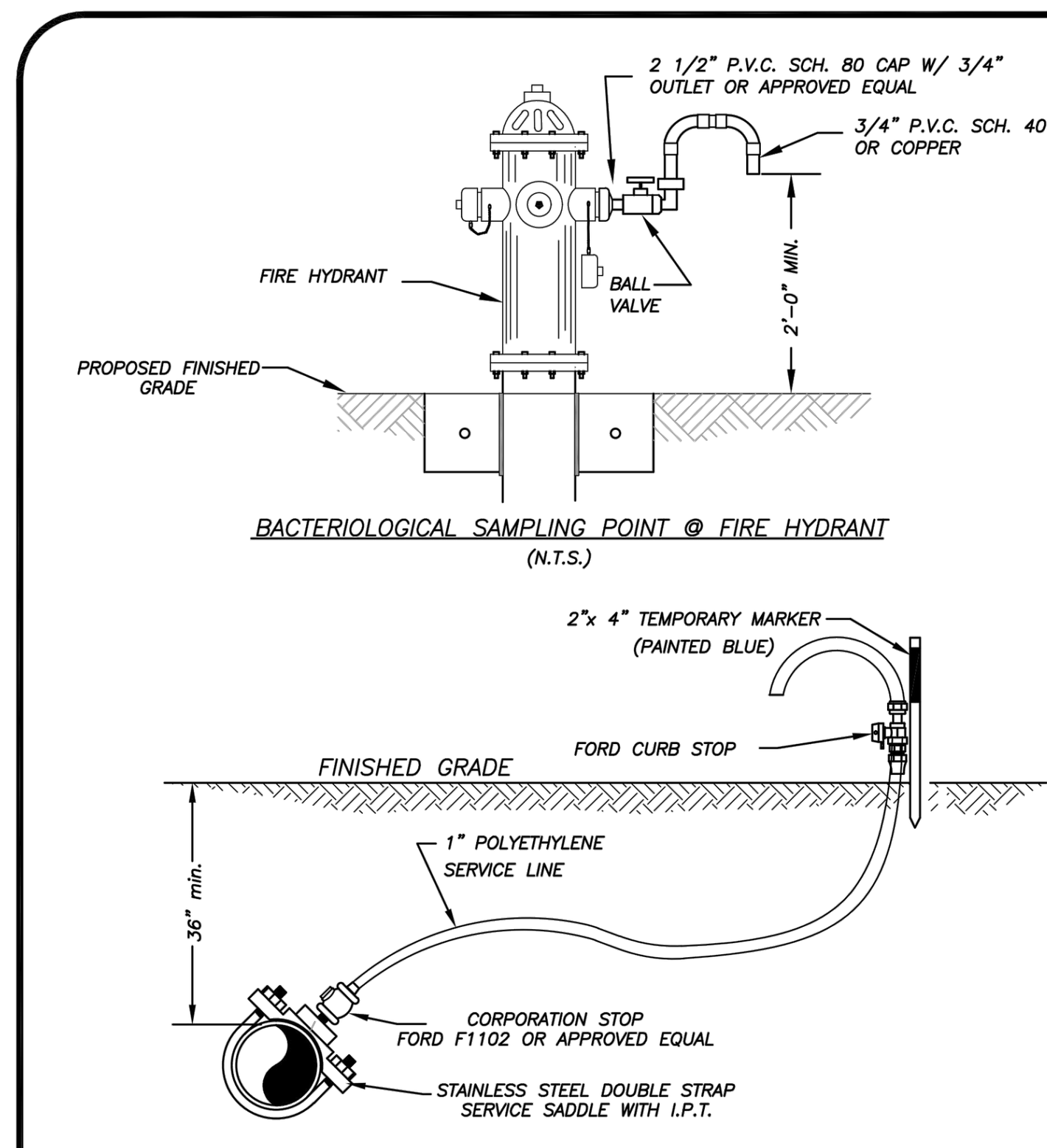


NOTES:

1. HYDRANT SHALL BE INSTALLED PLUMB & TRUE.
2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
3. HEEL TO REST IN UNDISTURBED SOIL.
4. THE ONLY HYDRANTS ACCEPTABLE ARE: MUELLER SUPER CENTURION 250 OR AMERICAN DARLING B-84-B-5.
5. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
6. ALL FITTINGS SHALL BE MECHANICAL JOINT.
7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
8. BLUE LOCATOR SHALL BE PLACED IN CENTER OF TRAVEL LANE CLOSEST TO HYDRANT.
9. ALL HYDRANT VALVE BOX COVERS SHALL BE PAINTED CARNIVAL RED.
10. LOCATE WIRE SHALL TERMINATE AT HYDRANT ISOLATION VALVE
11. HYDRANTS SHALL BE NO MORE THAN FIFTEEN FEET (15 FT.) FROM THE CURB OF ROADWAYS OR FROM THE EDGE OF PAVEMENT. CLEARANCES OF SEVEN AND ONE HALF FEET (7FT-6IN.) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANTS, WITH FOUR FOOT (4 FT.) CLEARANCE TO THE REAR OF HYDRANTS SHALL BE MAINTAINED.

TYPICAL FIRE HYDRANT ASSEMBLY
(N.T.S.)

TYPICAL FIRE HYDRANT ASSEMBLY	W-5
03-09 DESIGN SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # WATERDETAIL.DWG / SCALE: N.T.S.	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2010	SHEET 1 OF 1

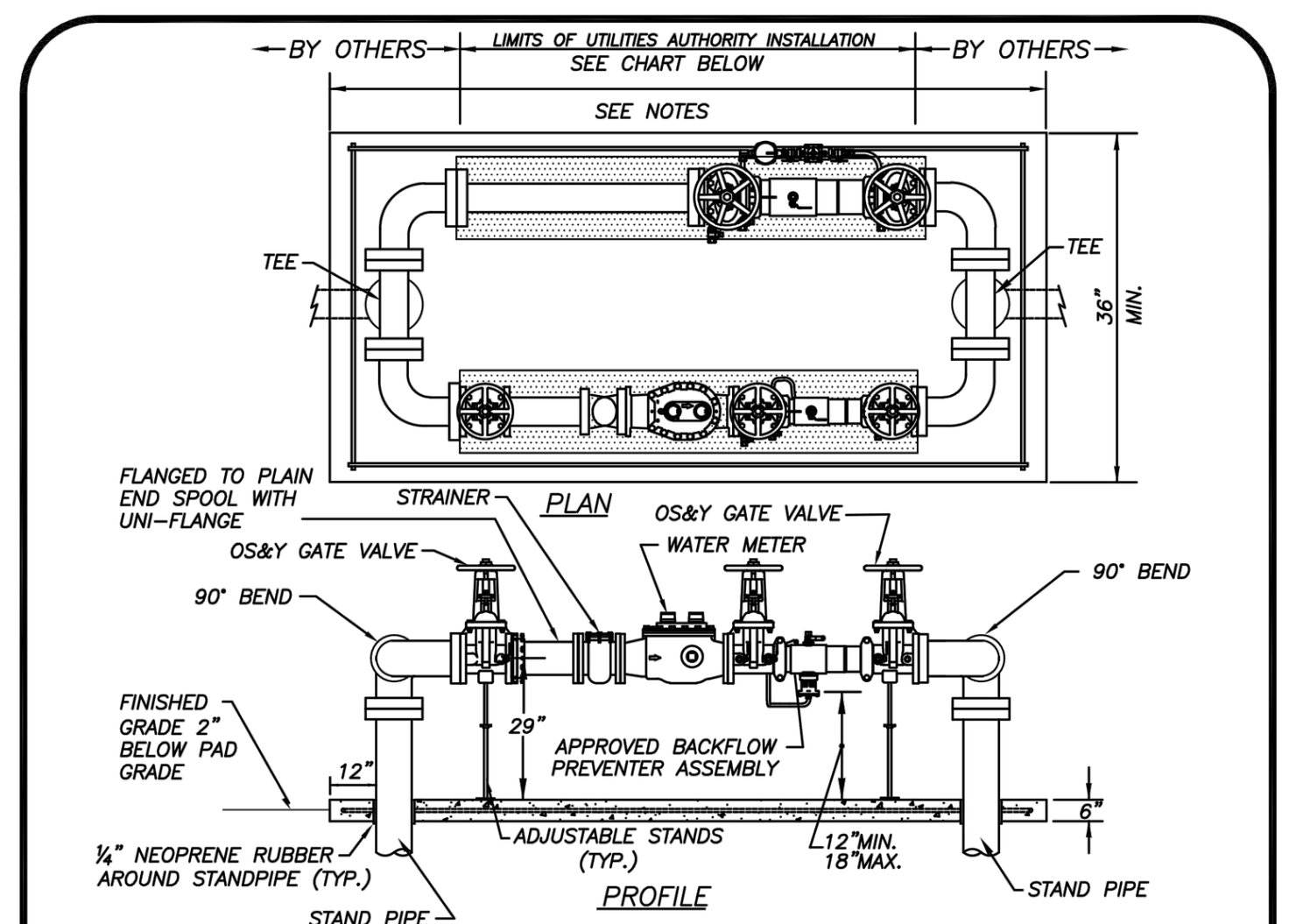


BACTERIOLOGICAL SAMPLING POINT @ WATER MAIN
(N.T.S.)

NOTE:

AFTER TESTING REMOVE 1" P.E. LINE AND CAP WITH BRASS PLUG AT CORPORATION STOP.

BACTERIOLOGICAL SAMPLING PONIT DETAIL	W-6
03-09 02-15 SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # WATERDETAIL.DWG / SCALE: N.T.S.	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2010	SHEET 1 OF 1

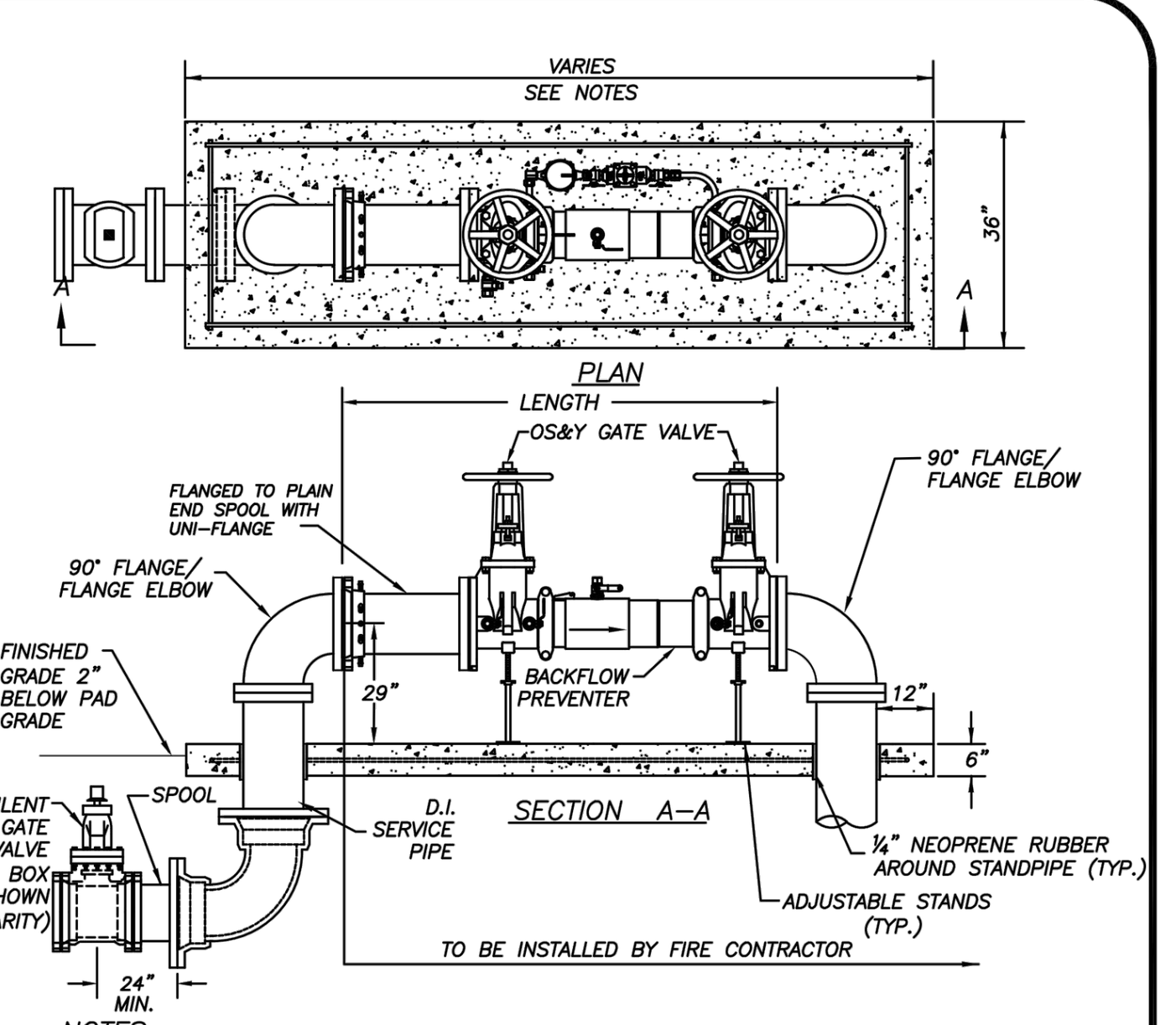


NOTES:
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. CONTRACTOR TO INSTALL APPROPRIATE SIZED SPOOL PIECES TO FIT BETWEEN 90° BENDS UNTIL METERS ARE APPROVED FOR INSTALLATION. ALL SPOOL PIECES SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE IN ACCORDANCE WITH THE CHART BELOW.
3. PRIOR TO POURING CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND ARE INSTALLED AT THE SAME ELEVATION IN THE PRESENCE OF THE FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
3	COMPOUND	83 INCHES
4	COMPOUND	95 INCHES
6	COMPOUND	106 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
COMMERCIAL WATER METER SERVICES (METER SIZE > 3")

WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 3")	W-9
03-09 CONCRETE SLAB SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # WATER DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2010	SHEET 1 OF 1



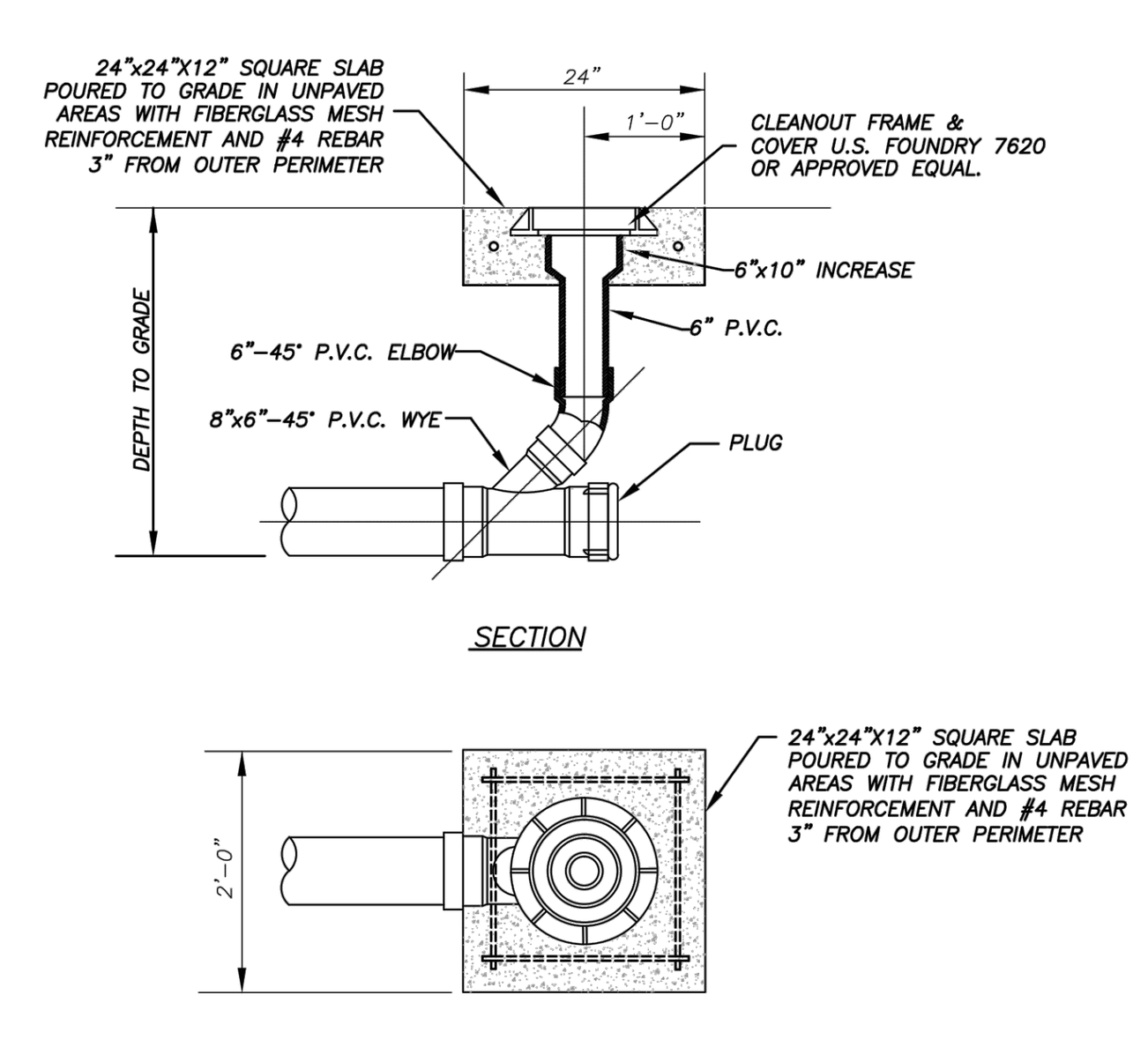
NOTES:

1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
3. PRIOR TO POURING THE CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND INSTALLED AT THE SAME ELEVATIONSIN THE PRESENCE OF AN FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
4	DOUBLE DETECTOR	53 INCHES
6	DOUBLE DETECTOR	62 INCHES
8	DOUBLE DETECTOR	69 INCHES
10	DOUBLE DETECTOR	76 INCHES

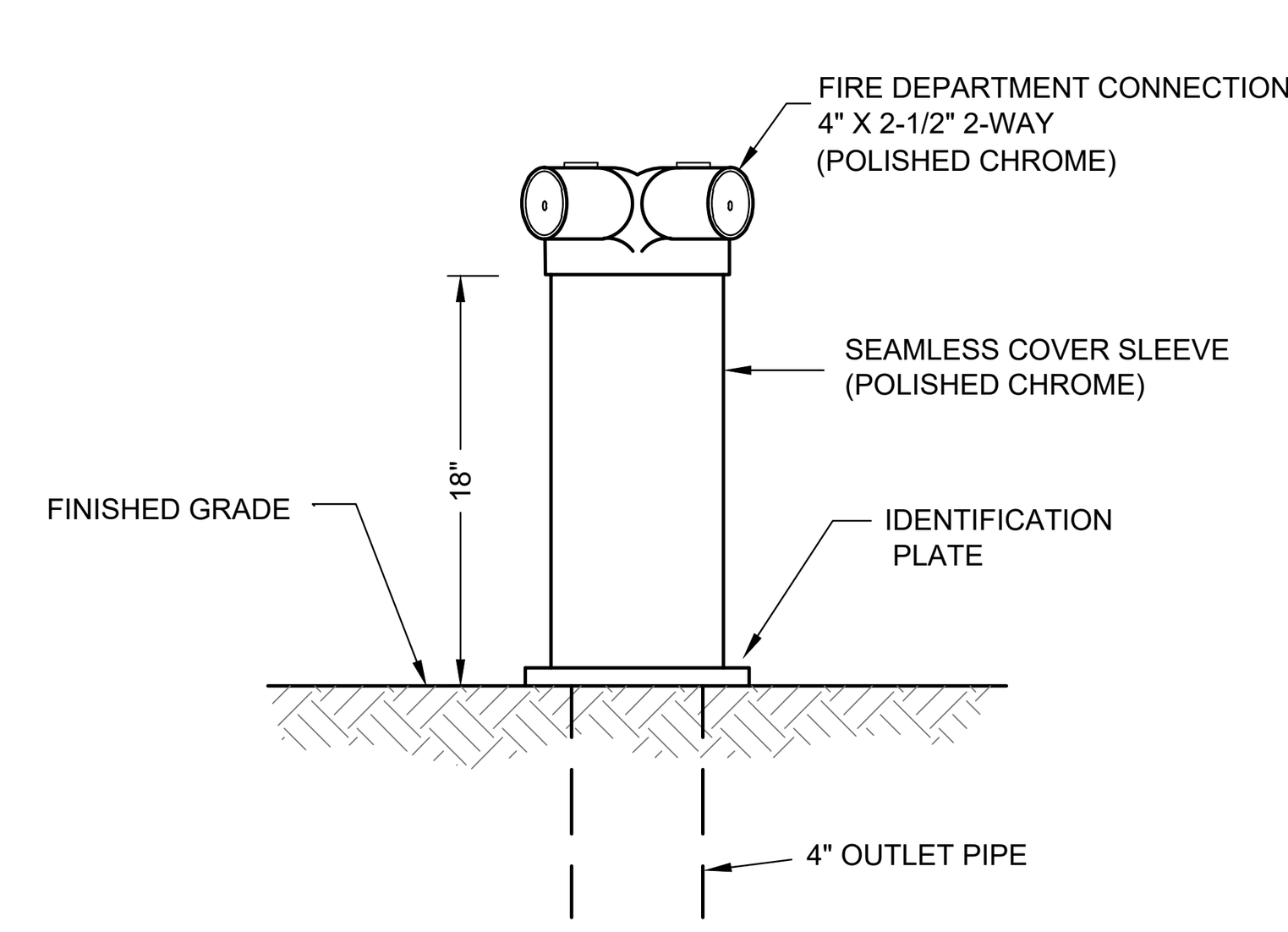
BACKFLOW PREVENTER ASSEMBLY-4"-10" FIRE SERVICE
(N.T.S.)

BACKFLOW PREVENTER ASSEMBLY 4"-10" FIRE SERVICE	W-10
03-09 CONCRETE PAD SLL JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # WATER DETAILS 200602.DWG / SCALE: N.T.S.	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2010	SHEET 1 OF 1



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

TERMINAL CLEANOUT DETAIL WASTEWATER	S-4B
10-06 RBE	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC / COMPUTER FILE # SEWER DETAIL 200602.DWG / SCALE: N.T.S.	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL / APPROVED: JLC / DATE: 2010	SHEET 2 OF 3



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

FPUA COMMUNITY PROUD — FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 37TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600

REVISIONS	DATE
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JOB NO.	23-0060
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MBV ENGINEERING, INC.
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MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

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
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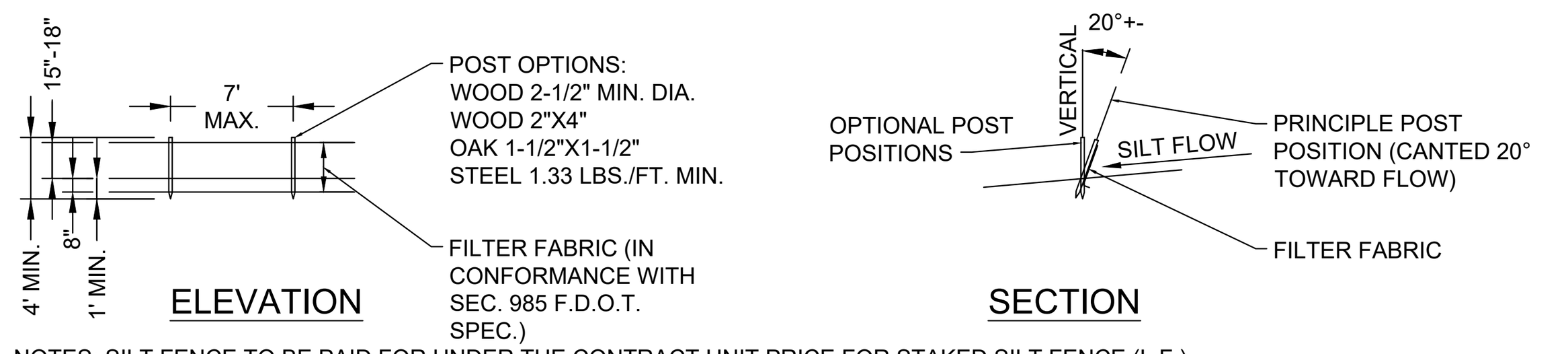
23-0060

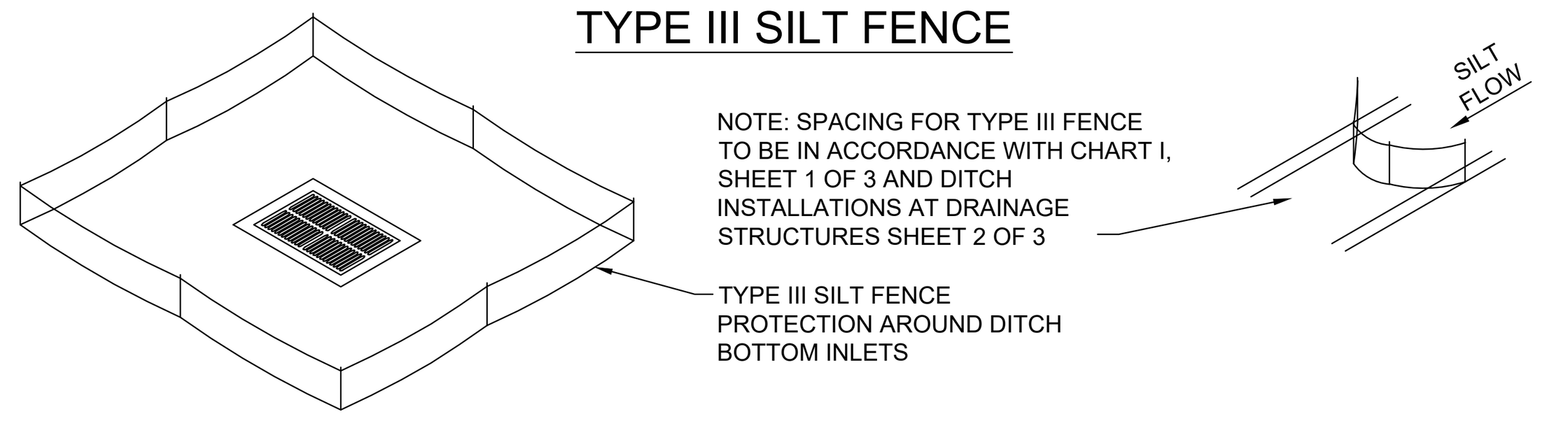
C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 COVER - DETAILS.dwg 1/31/2024 10:14 AM GREGG REED

TYPE III SILT FENCE



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

TYPE III SILT FENCE

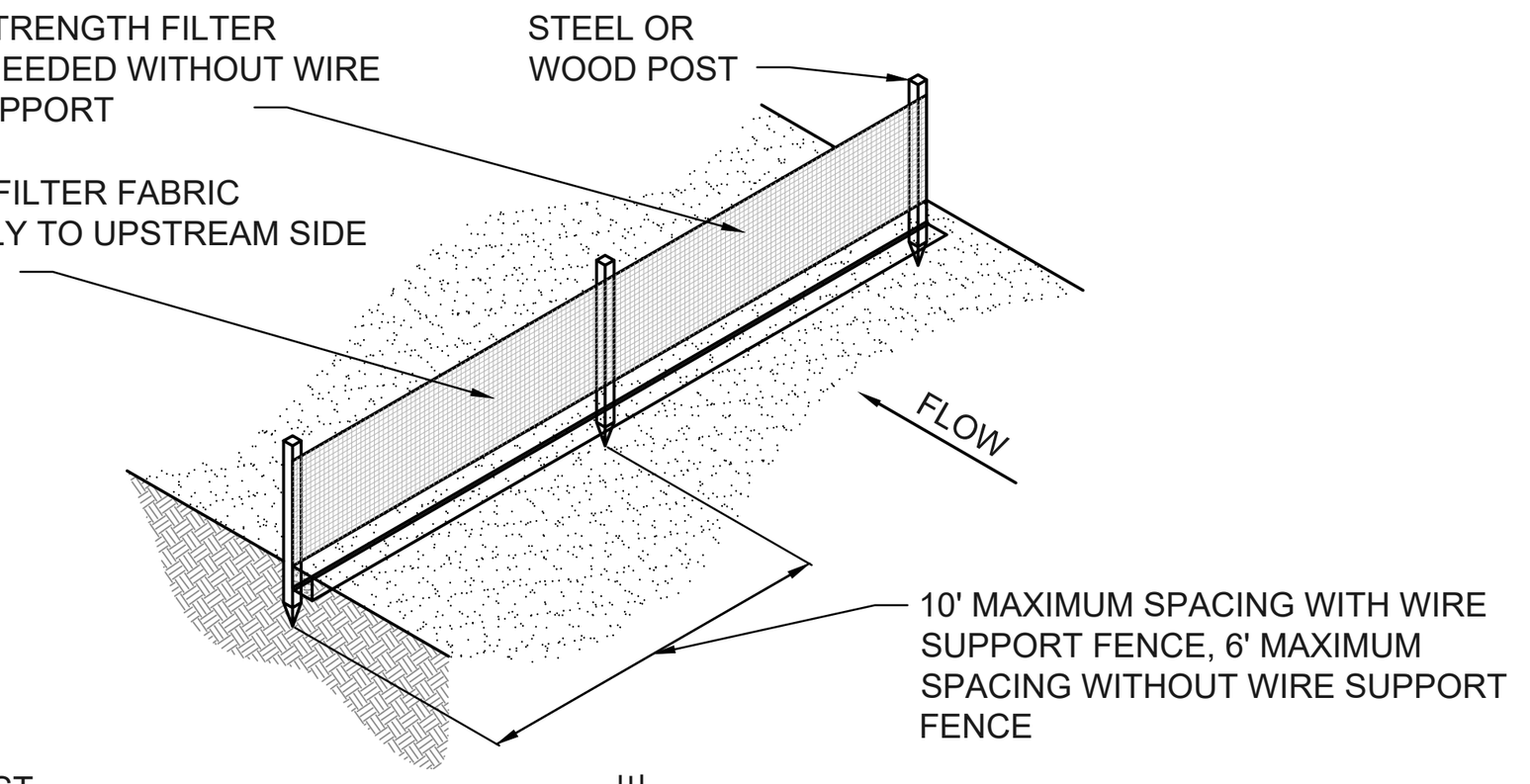


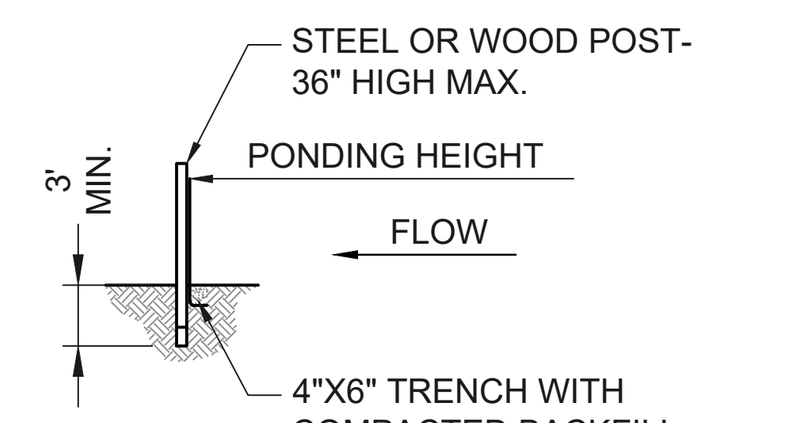
DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

SILT FENCE APPLICATIONS

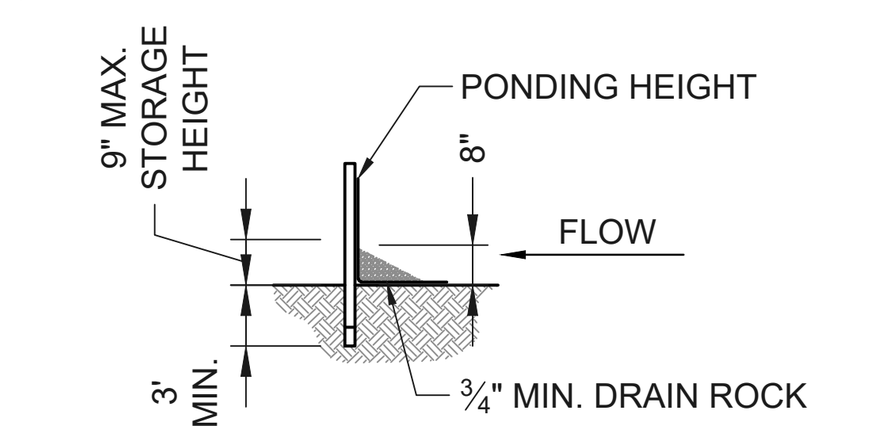
N.T.S.

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.





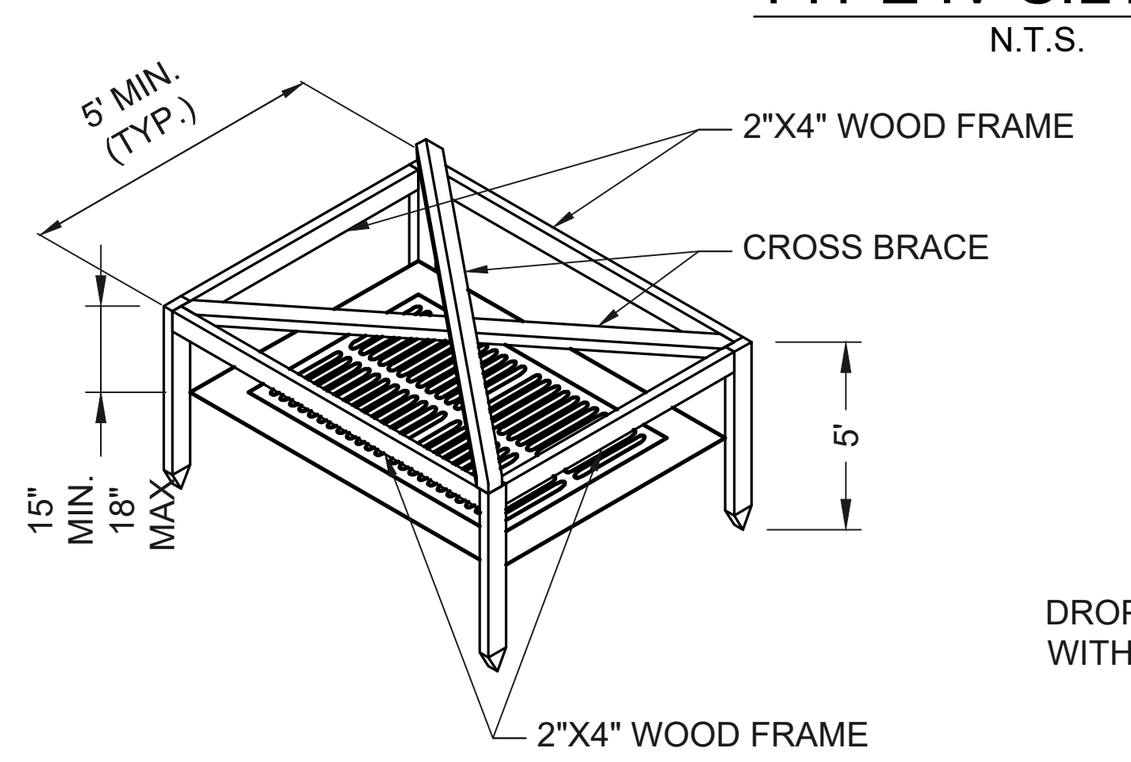
TRENCH DETAIL



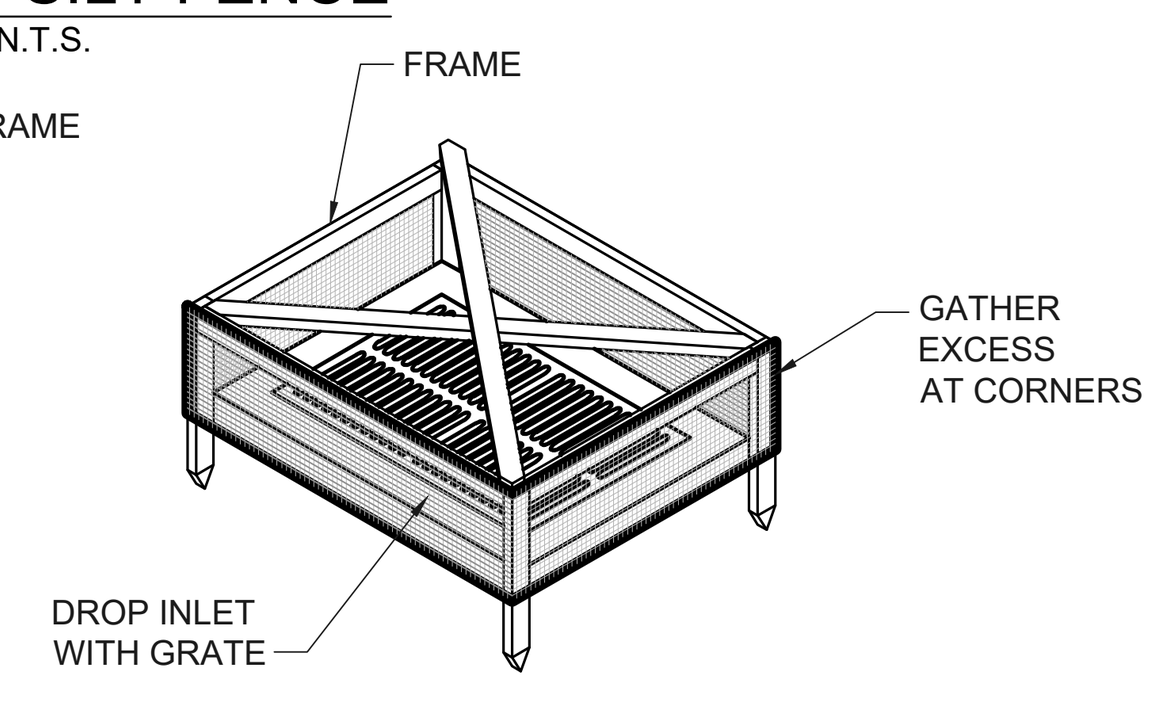
INSTALLATION WITHOUT TRENCHING

TYPE IV SILT FENCE

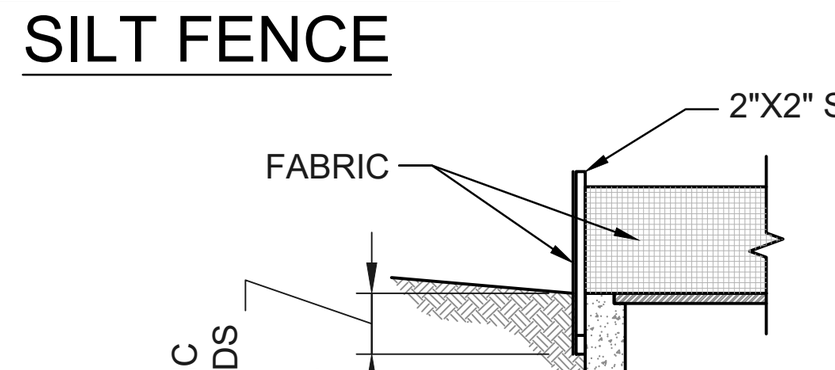
N.T.S.



VIEW OF FRAME WITHOUT SILT FENCE

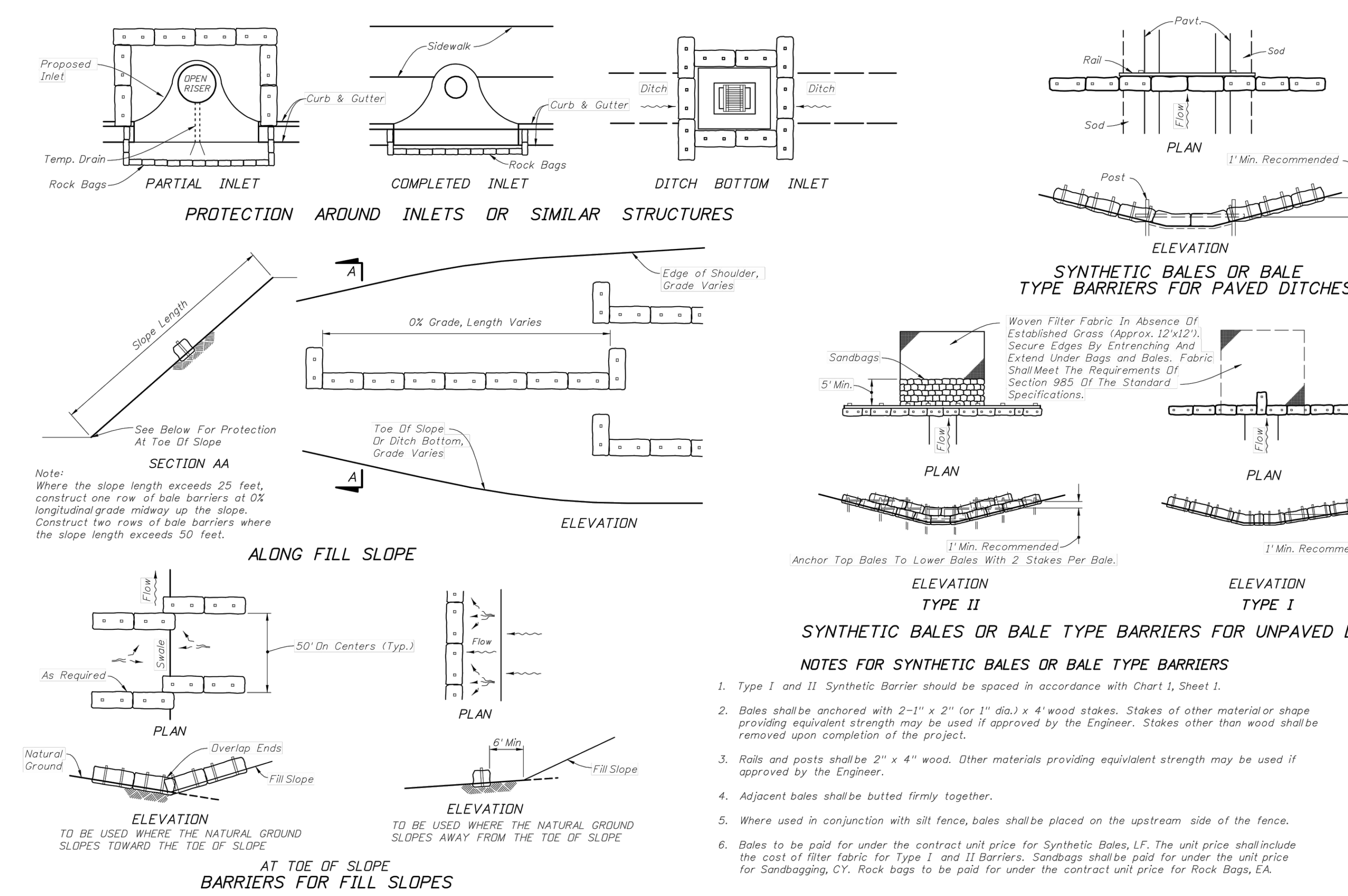


VIEW OF FRAME WITH SILT FENCE



SILT FENCE INLET PROTECTION

N.T.S.



NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

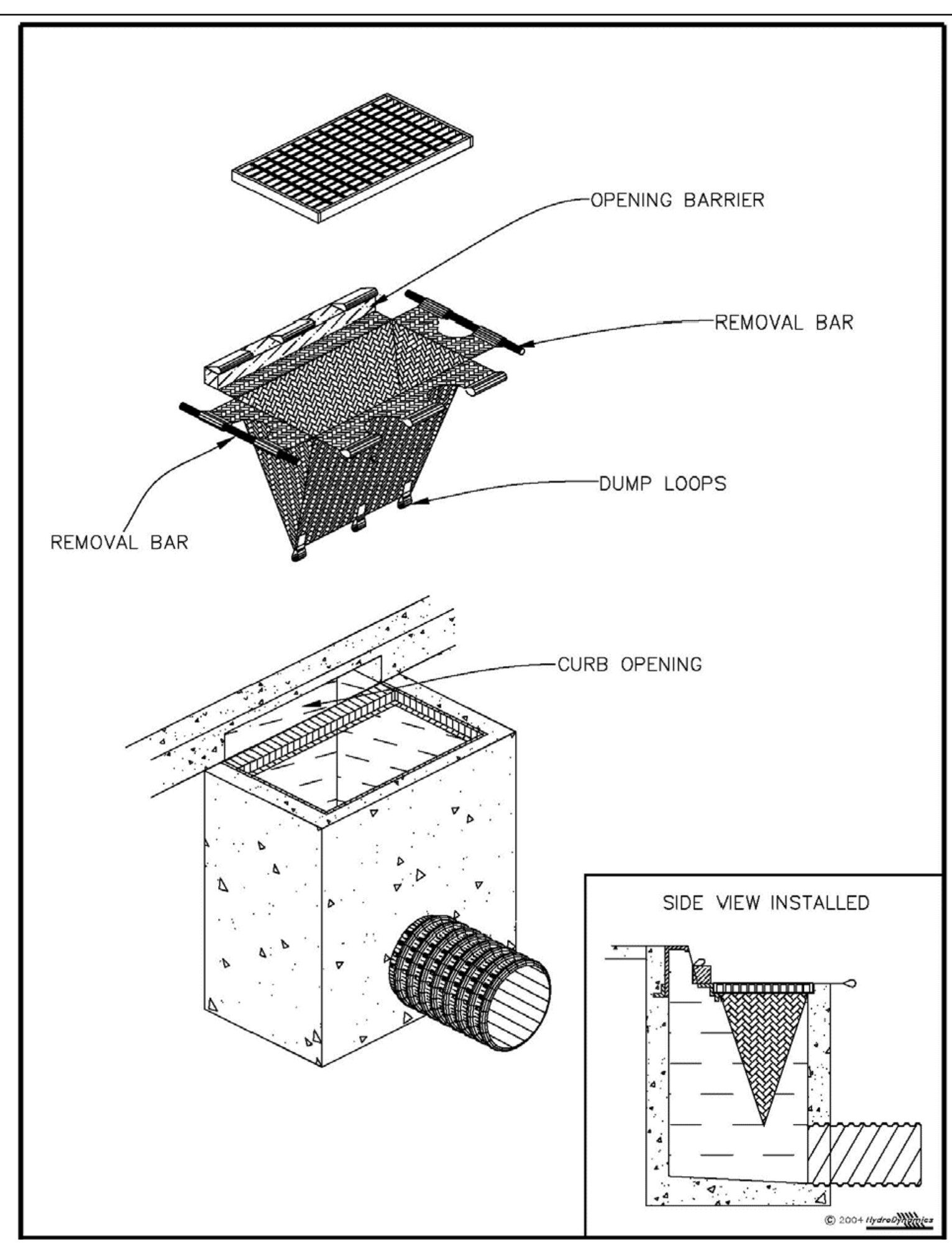
1. Type I and II Synthetic Barrier should be spaced in accordance with Chart I, Sheet 1.
2. Bales shall be anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivlalent 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.

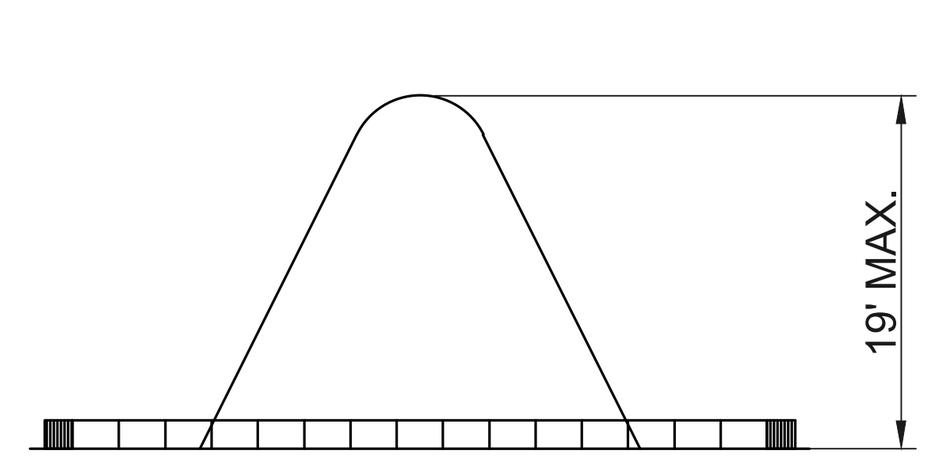
MINIMUM STANDARDS

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.



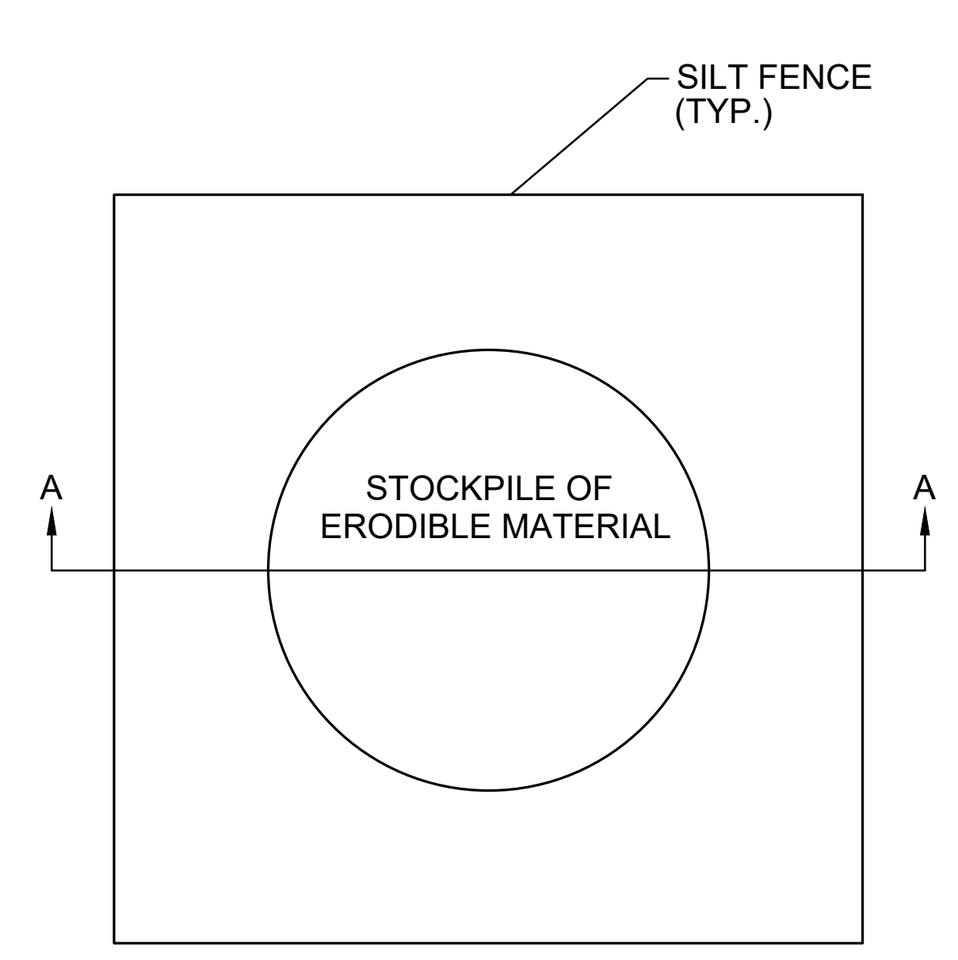
INLET INSERT SEDIMENT CONTAINMENT SYSTEM

N.T.S.



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

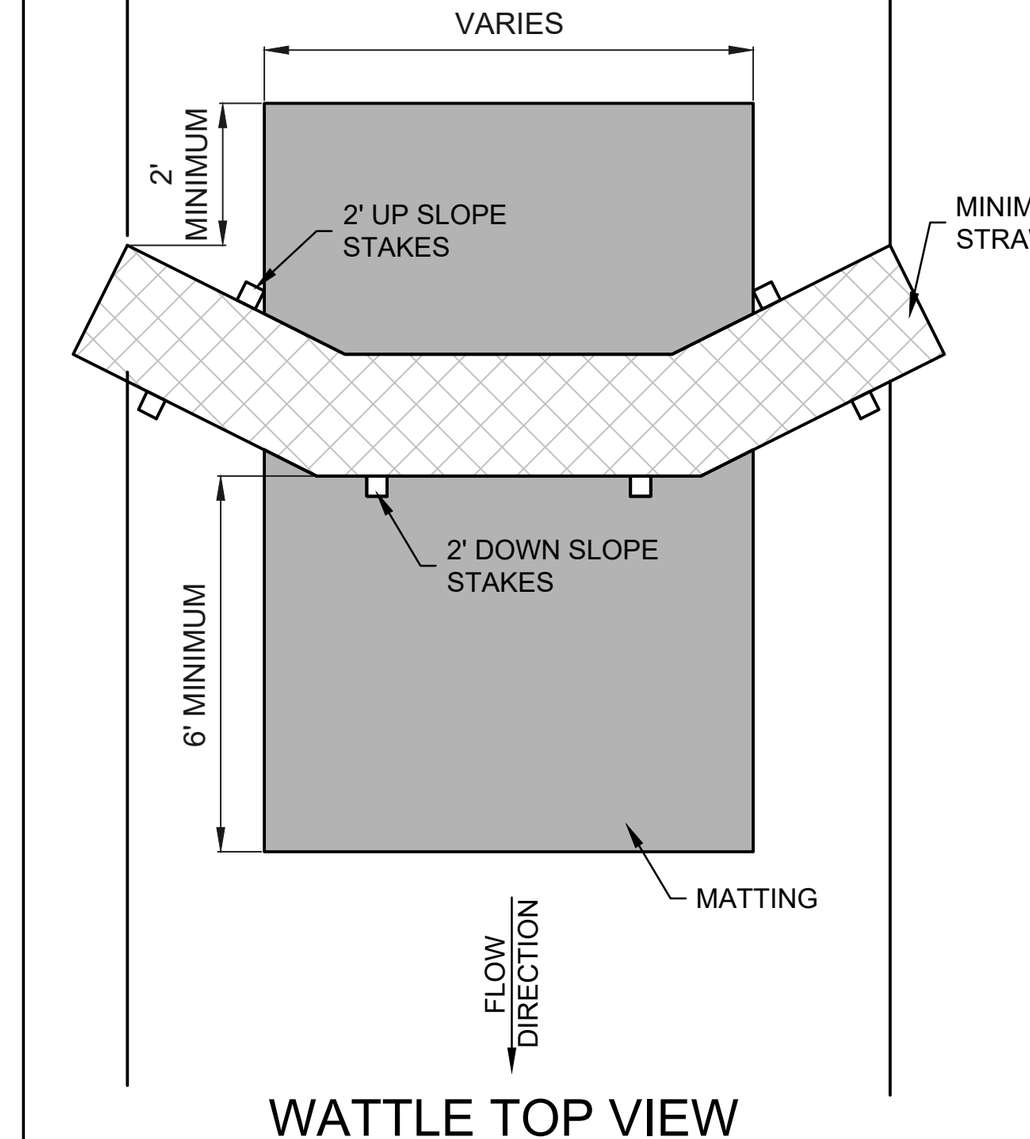
SECTION A-A



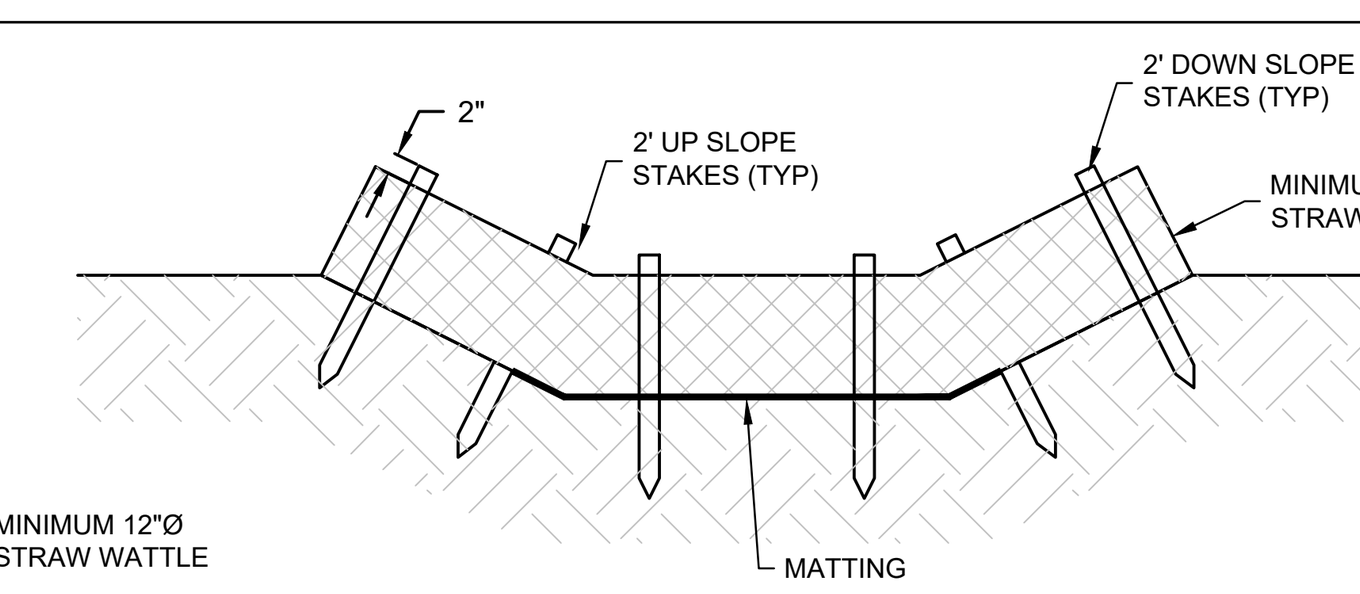
NOTE:
FOR STOCKPILING ERODIBLE MATERIAL FOR EXTENDED PERIODS, THE AREA SHALL BE SEEDED AND MULCHED.

SEDIMENT CONTROL DETAIL FOR STOCKPILING OF ERODIBLE MATERIAL

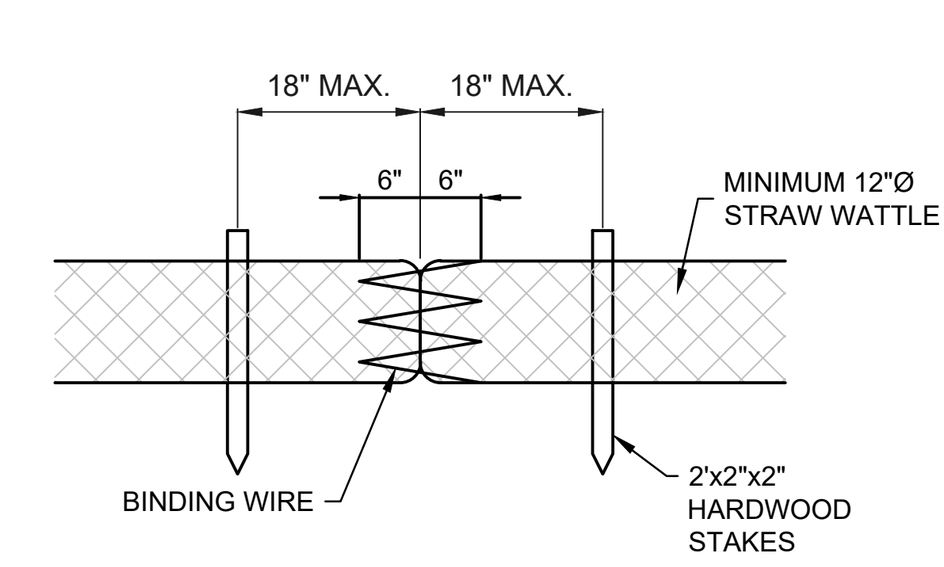
N.T.S.



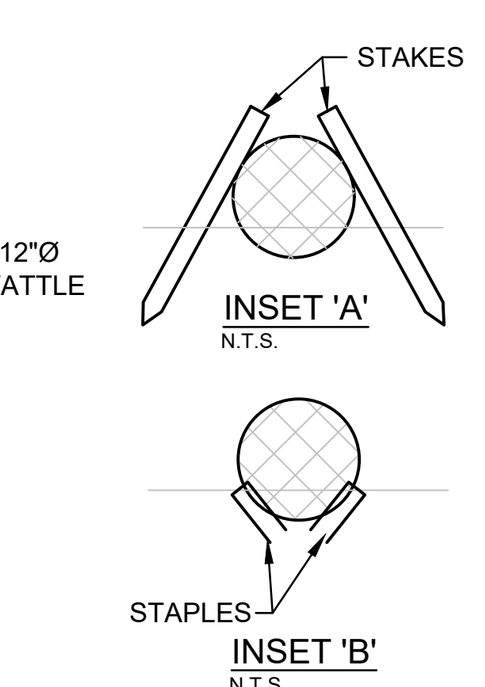
WATTLE TOP VIEW
N.T.S.



WATTLE CROSS SECTION
N.T.S.



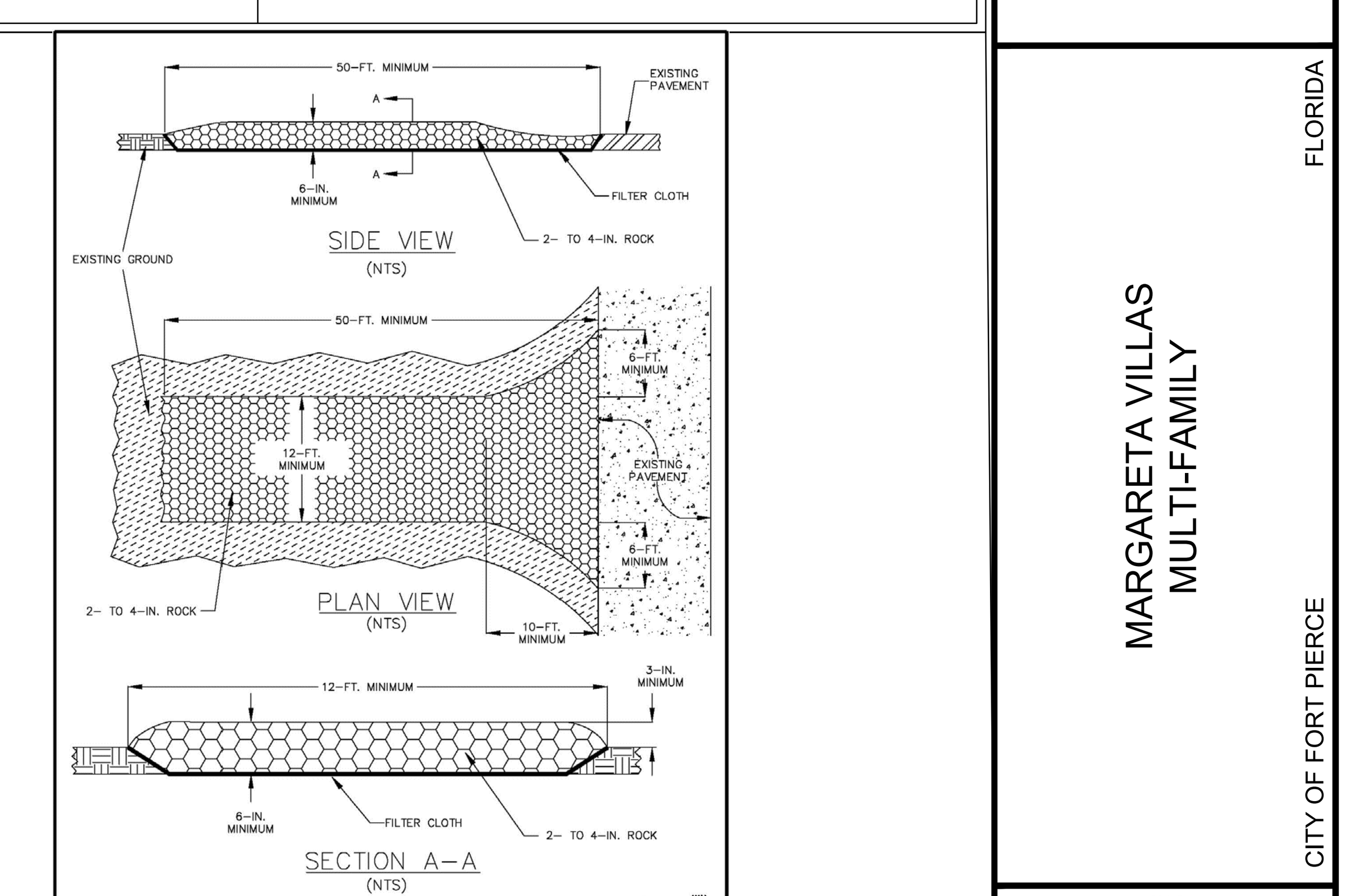
WATTLE JOINING DETAIL
N.T.S.



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.

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.

REVISIONS	DATE
8	-
7	-
6	-
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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
1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

EROSION CONTROL 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
C9

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 GREGG REED

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.

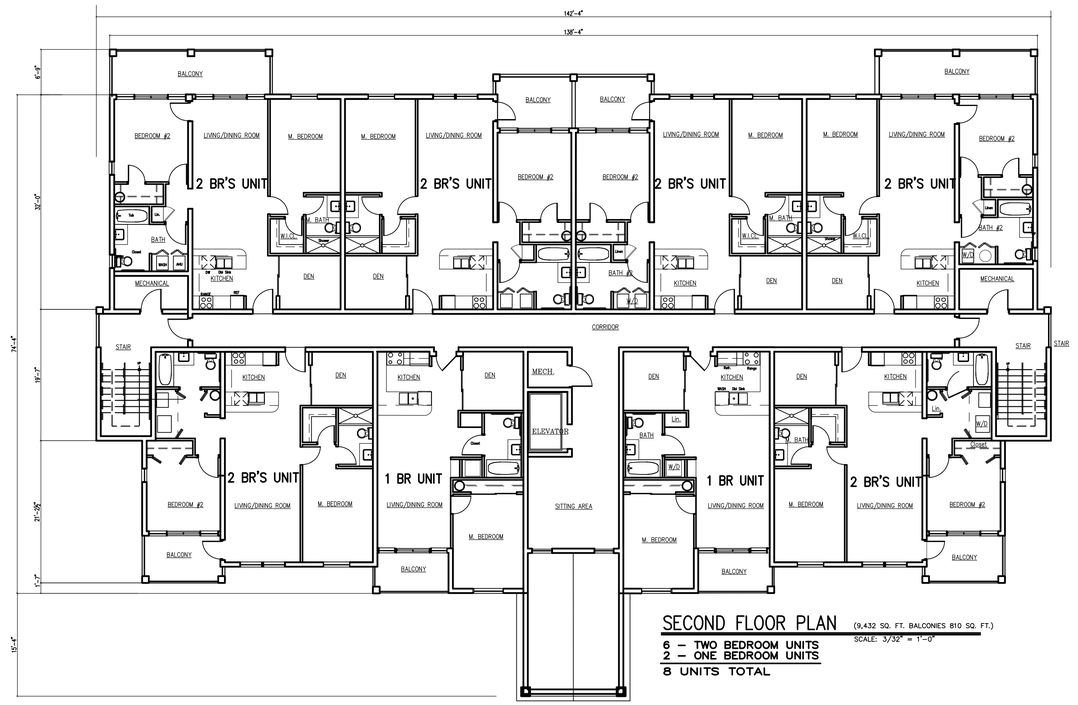
Sincerely,

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

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

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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

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for
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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

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

TITLE :

ELEVATIONS

DRAWING NO.

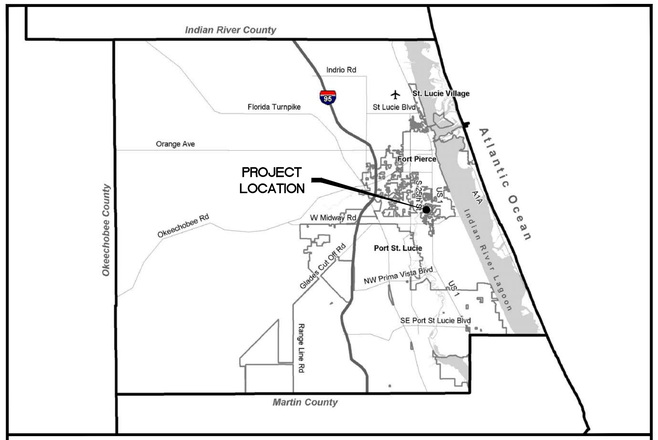
A3

MARGARETA VILLAS

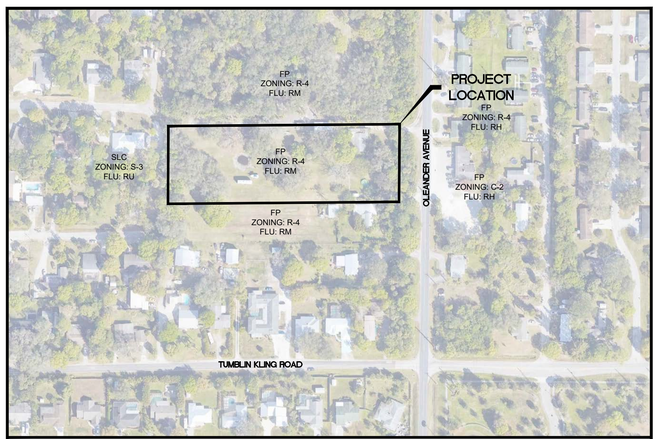
MARGARETA VILLAS
MULTI-FAMILY

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

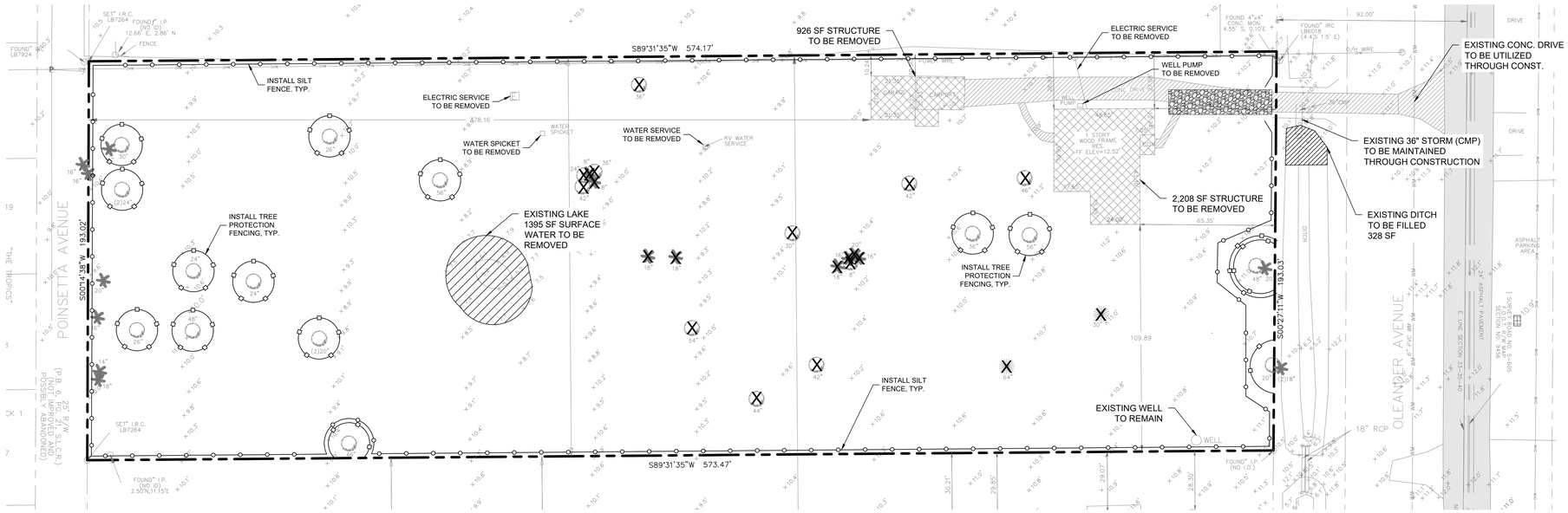
(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(B)EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

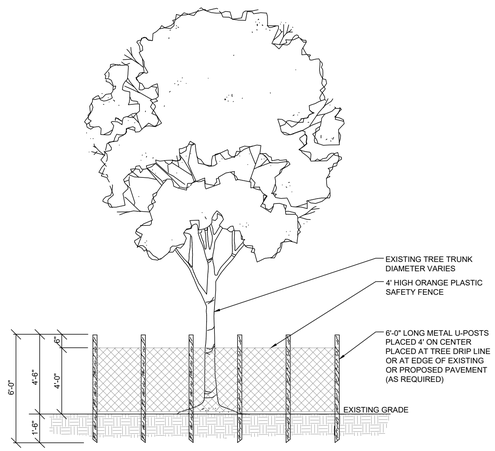
(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

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

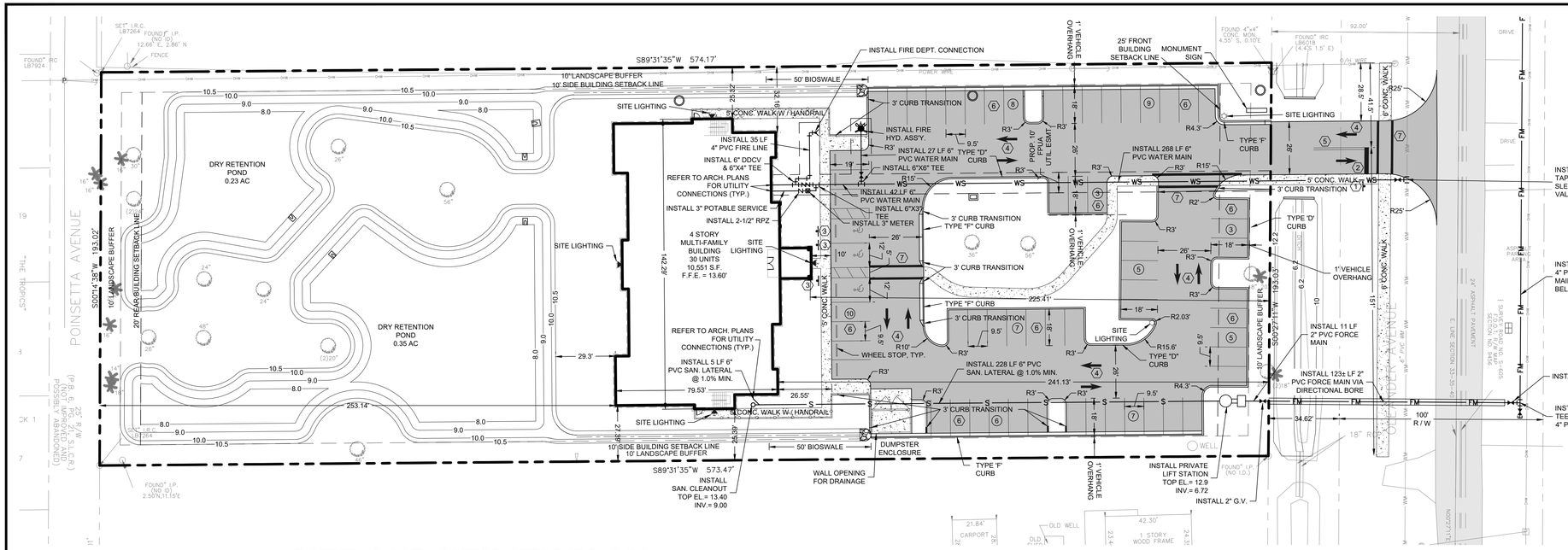
CITY OF FORT PIERCE FLORIDA

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)

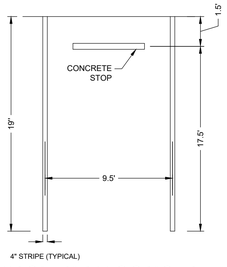
1 inch = 30 ft.

LEGEND

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

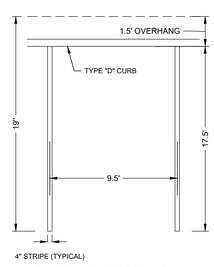
SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE

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



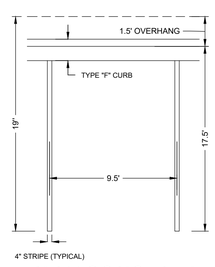
TYPICAL PARKING SPACE DETAIL

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
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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

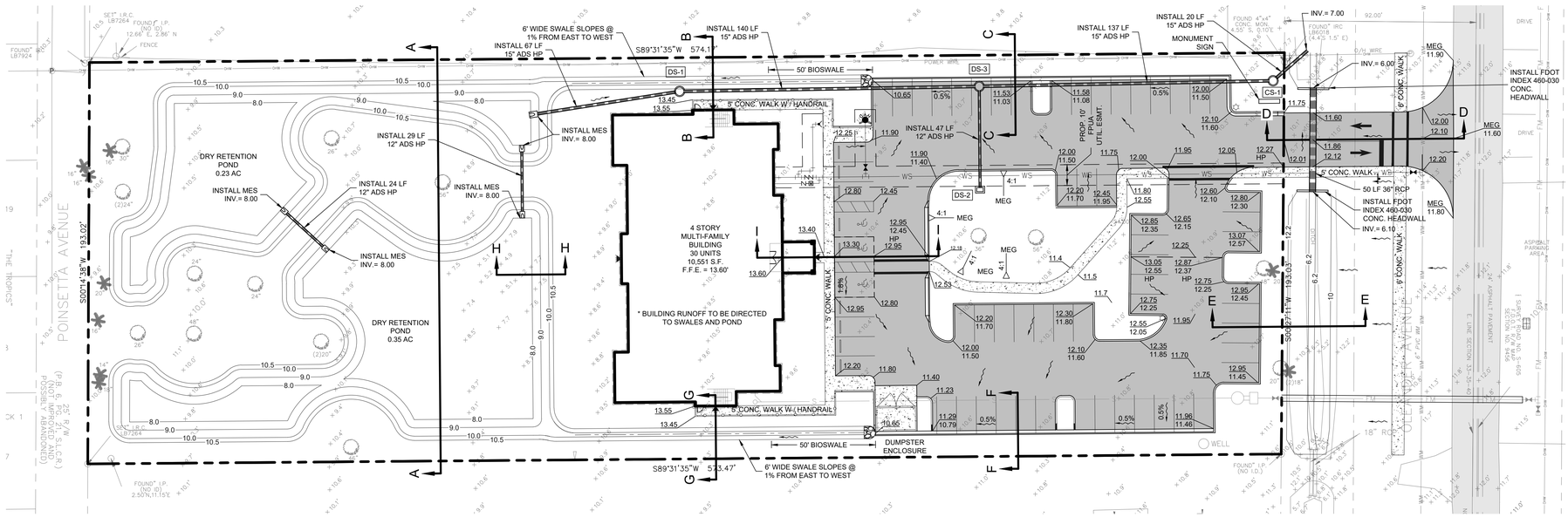
SHEET

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	–	–
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JOB NO.	23-0060
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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

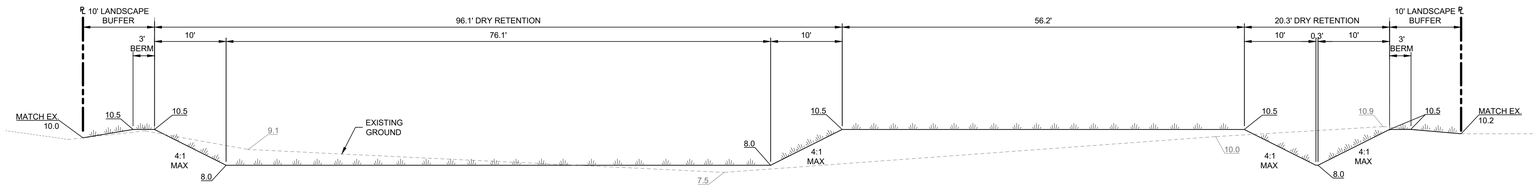
ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

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
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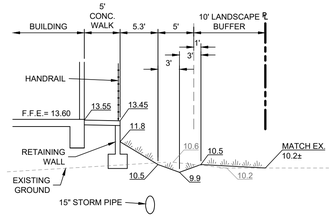

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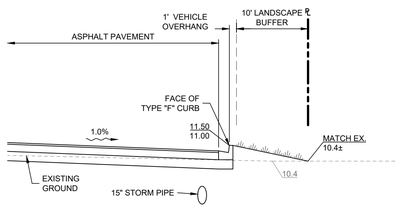

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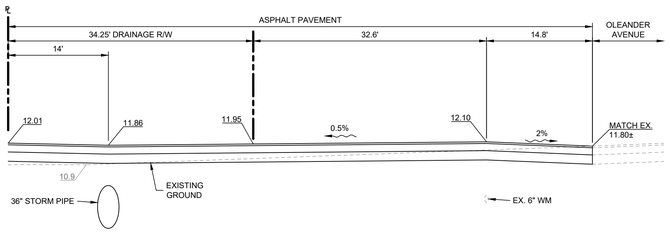

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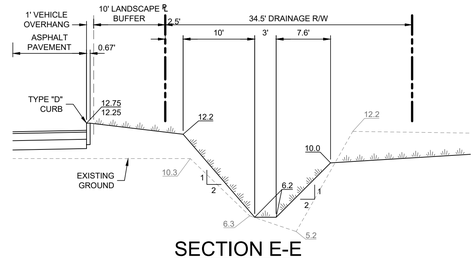

SECTION E-E
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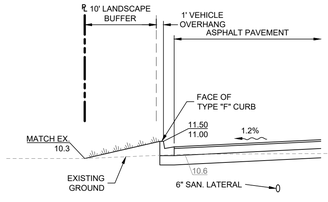

SECTION F-F
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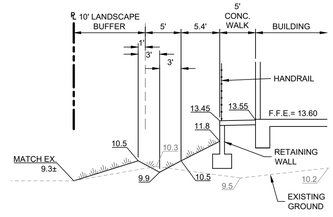

SECTION G-G
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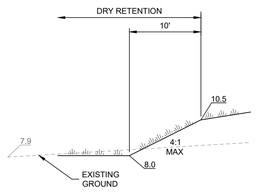

SECTION H-H
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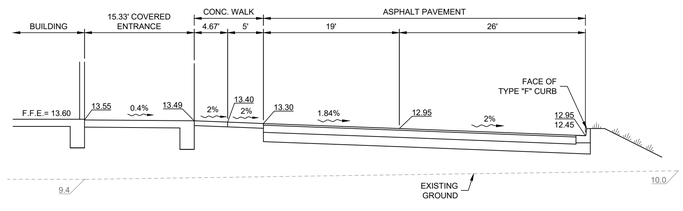

SECTION I-I
N.T.S.

72 HOURS BEFORE DIGGING
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Know what's below.
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C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 C5 PGD PLAN.dwg 9/23/2024 3:03 PM
Plotted by: Angelena Vitter

REVISIONS		DATE
1	PER CITY COMMENTS	9/20/24
2	–	–
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FT. PIERCE, FL - PH (772) 468-9055

CROSS SECTIONS

MARGARETA VILLAS
MULTI-FAMILY

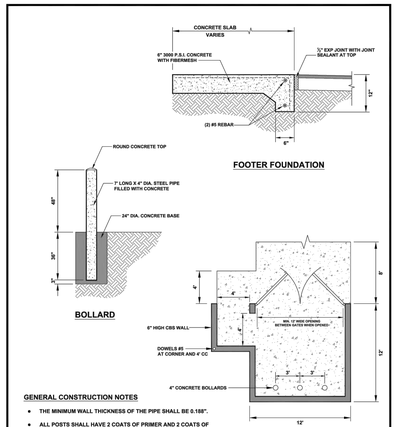
CITY OF FORT PIERCE FLORIDA

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

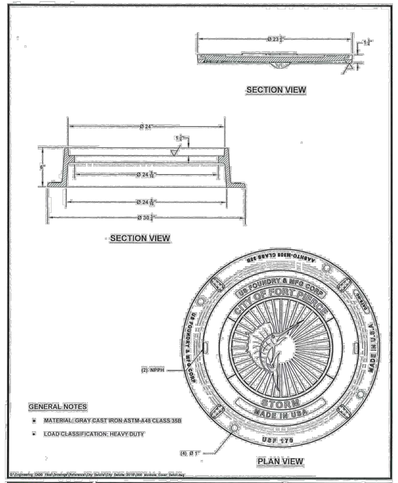
ANGELENA N. VITTER
F.L. P.E. #62950

SHEET
C6

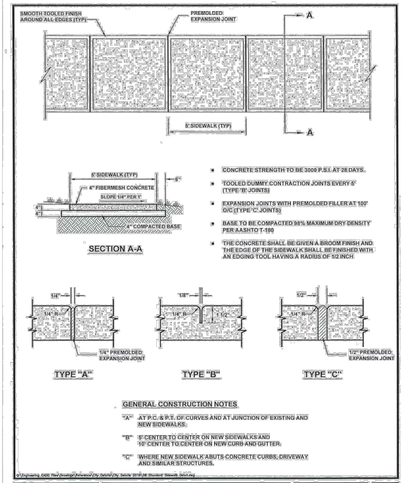
23-0060



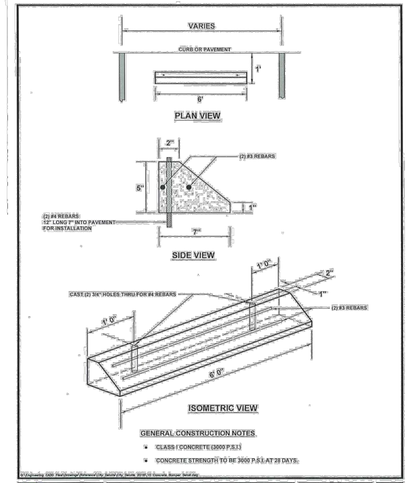
FORT PIERCE | DUMPSTER ENCLOSURE DETAIL | DATE: MAY, 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET _



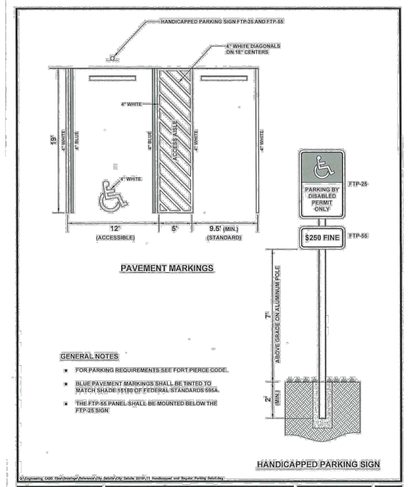
FORT PIERCE | MANHOLE COVER DETAIL | DATE: APRIL 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET ?



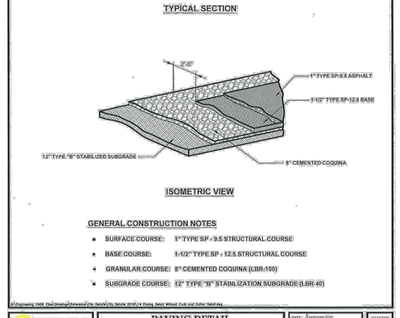
FORT PIERCE | STANDARD SIDEWALK DETAIL | DATE: 10/JANUARY/2024 | SCALE: NTS | DRAWN: KRS/AMS | SHEET 6



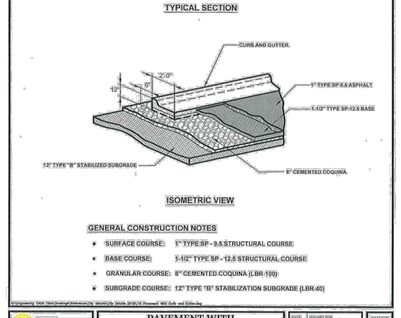
FORT PIERCE | CONCRETE BUMPER DETAIL | DATE: 10/JANUARY/2024 | SCALE: NTS | DRAWN: KRS/AMS | SHEET 10



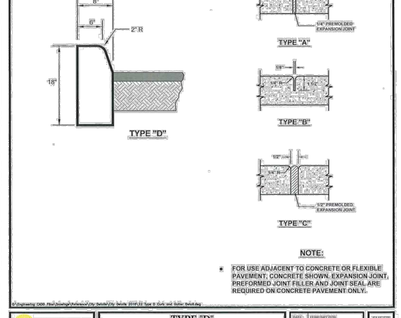
FORT PIERCE | HANDICAPPED AND STANDARD PARKING DETAIL | DATE: 10/JANUARY/2024 | SCALE: NTS | DRAWN: KRS/AMS | SHEET 11



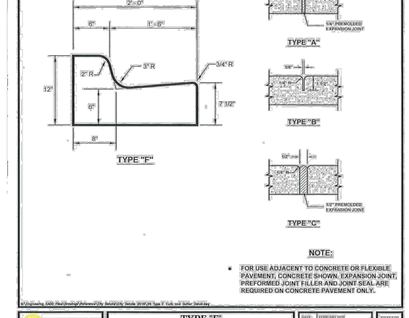
FORT PIERCE | PAVING DETAIL WITHOUT CURB AND GUTTER | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 14



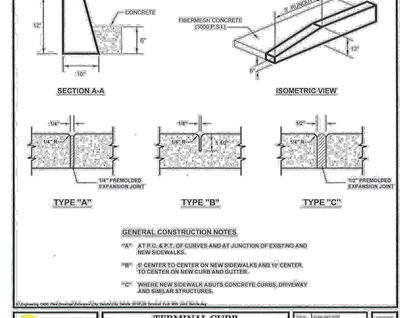
FORT PIERCE | PAVEMENT WITH CURB AND GUTTER | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 15



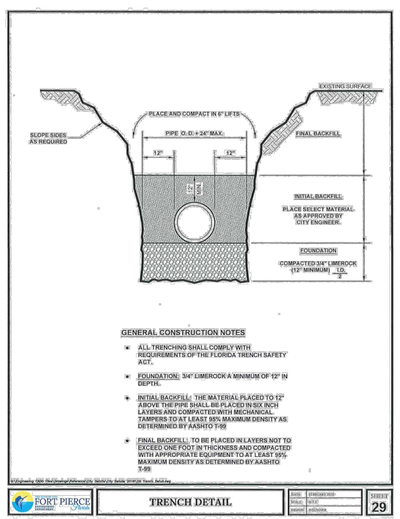
FORT PIERCE | TYPE "D" CURB AND GUTTER DETAILS | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 22



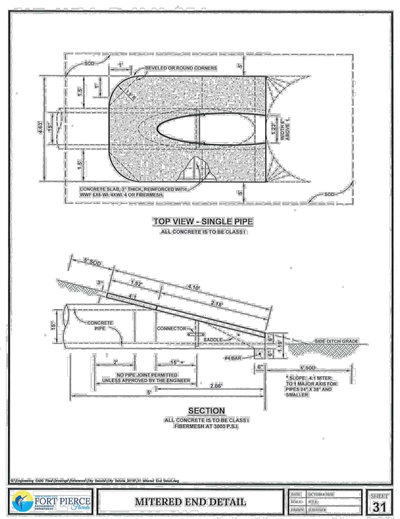
FORT PIERCE | TYPE "F" CURB AND GUTTER DETAILS | DATE: 03/MARCH/2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET 24



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
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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

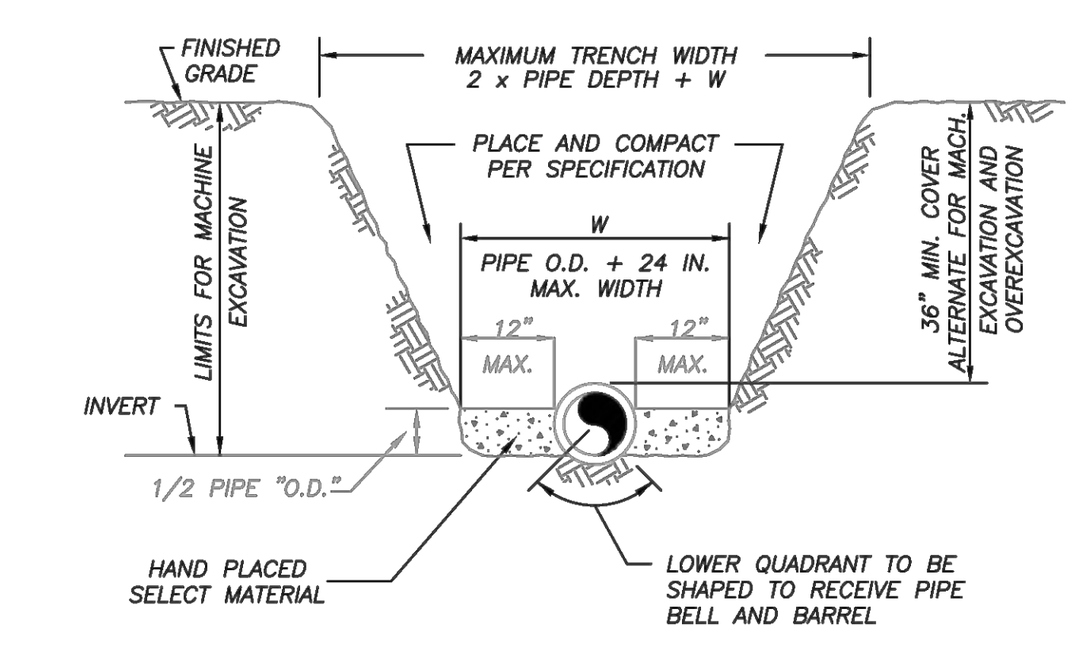
MARGARETA VILLAS
MULTI-FAMILY

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



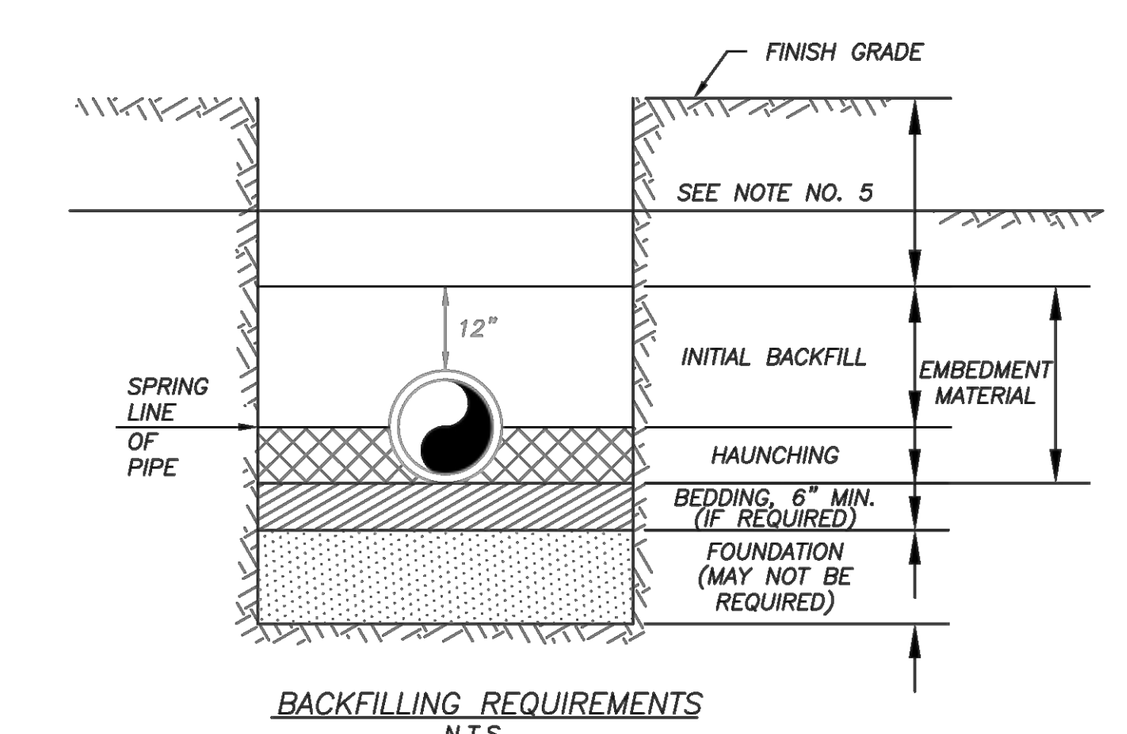
NOTES:

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.

TYPICAL TRENCH DETAIL	M-1
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	SHEET 1 OF 1



BACKFILLING REQUIREMENTS
N.T.S.

NOTES:

1) IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED.

2) BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE.

3) HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.

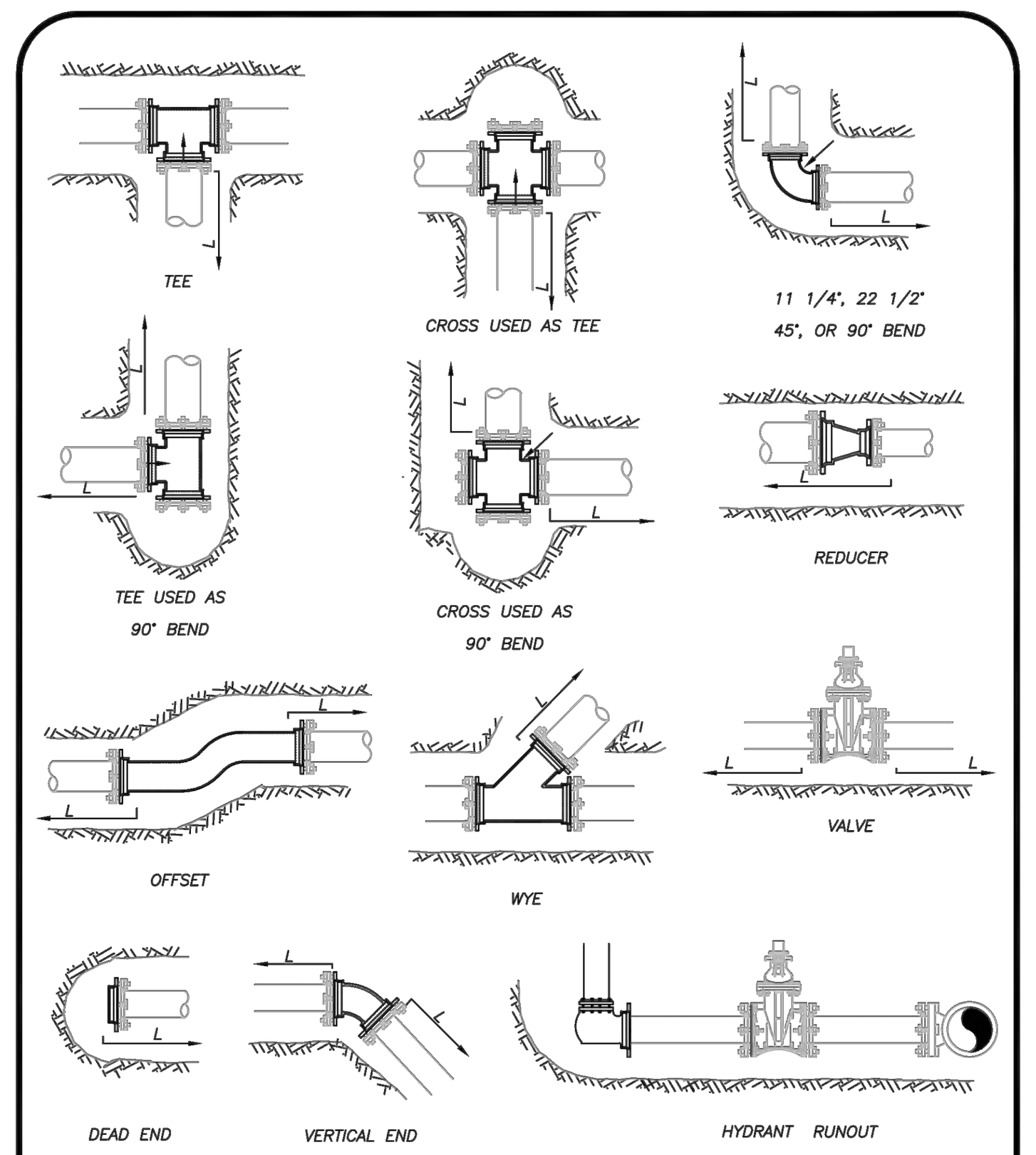
4) INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE. THE SOIL SHALL BE COMPACTED TO 100% MAX. DENSITY.(AASHTO T-99)

5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX. DENSITY AS PER AASHTO T-99, TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180.

6) DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE UTILITIES ENGINEER OR PERMIT AGENCY HAVING JURISDICTION, AT THE CONTRACTORS EXPENSE.

7) CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL TRENCH SAFETY REGULATIONS.

BACKFILLING REQUIREMENTS	M-2
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	SHEET 1 OF 1



MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

MECHANICAL JOINT ANCHORING REQUIREMENTS	M-3
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	SHEET 1 OF 1

MECHANICAL JOINT RESTRAINT NOTES

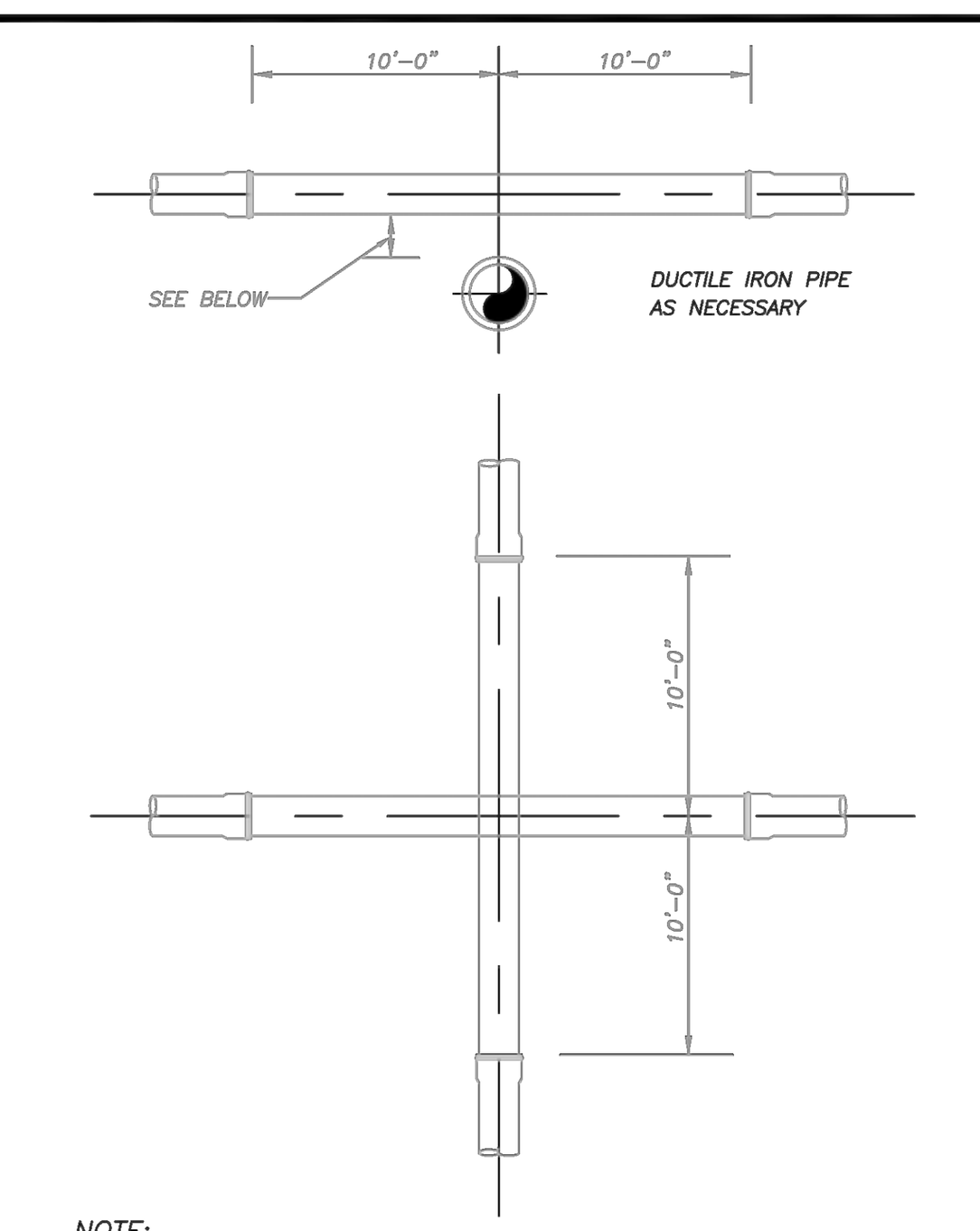
NOTES:

1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED WHICH REFLECTS THE RESTRAINT DETAIL PROPOSED FOR USE, INCLUDING LENGTH OF PIPE RESTRAINT.

2) REQUIRED RESTRAINED LENGTH CALCULATIONS SHALL ALSO CONSIDER THE CONDITIONS OF OTHER BENDS OR FITTINGS THAT WILL BE LOCATED WITHIN THE CALCULATED RESTRAINED LENGTH (L) OF THE BEND OR FITTING IN QUESTION.

3) EVERY JOINT OR FITTING MUST BE RESTRAINED ON BOTH SIDES OF THE BEND AND FOR TEES ALONG THE BEND ALSO.

MECHANICAL JOINT RESTRAINT NOTES	M-4
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	SHEET 1 OF 1

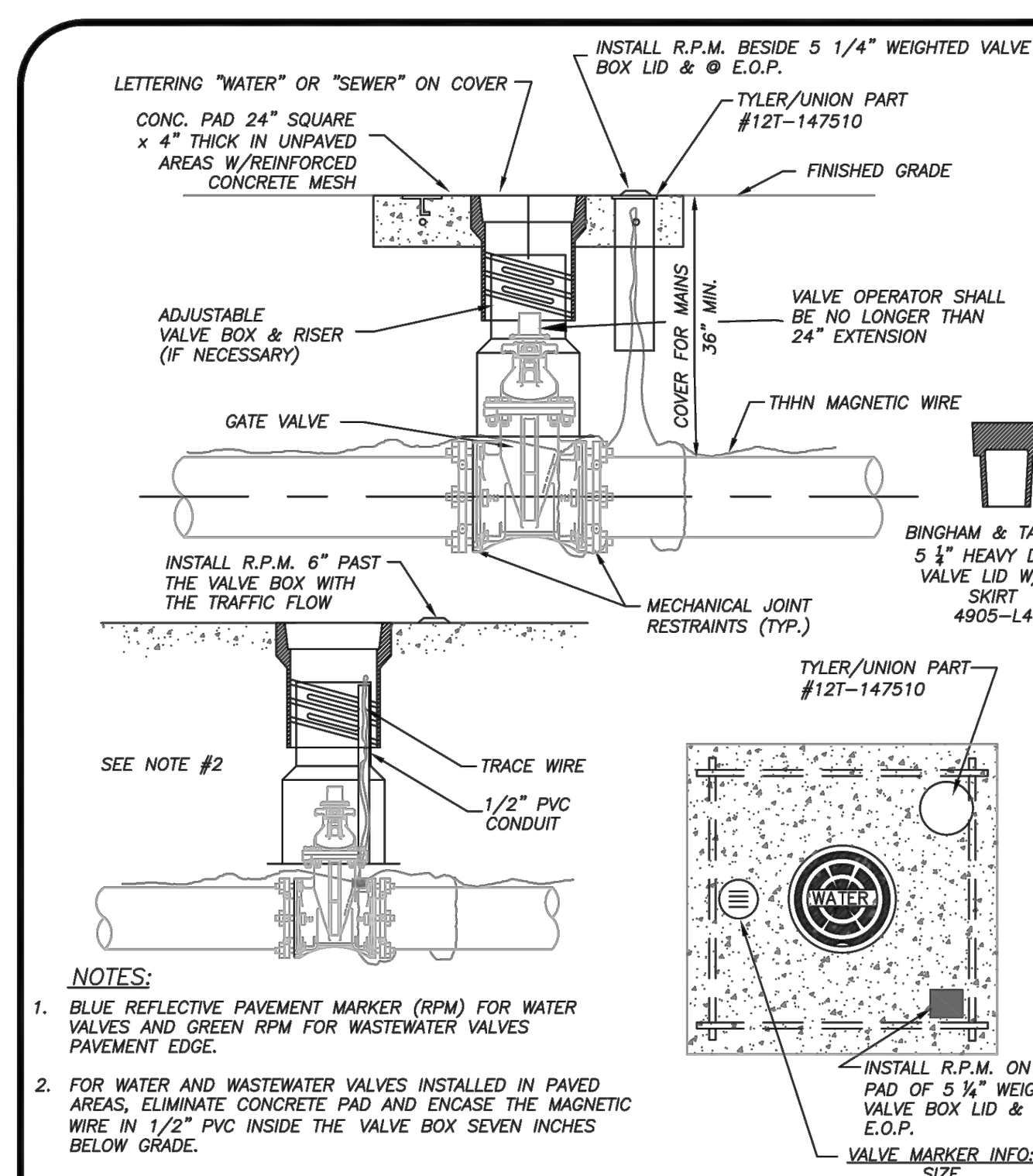


NOTE:

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

UTILITY CROSSING DETAIL
N.T.S.

UTILITY CROSSING DETAIL	M-5
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	SHEET 1 OF 1

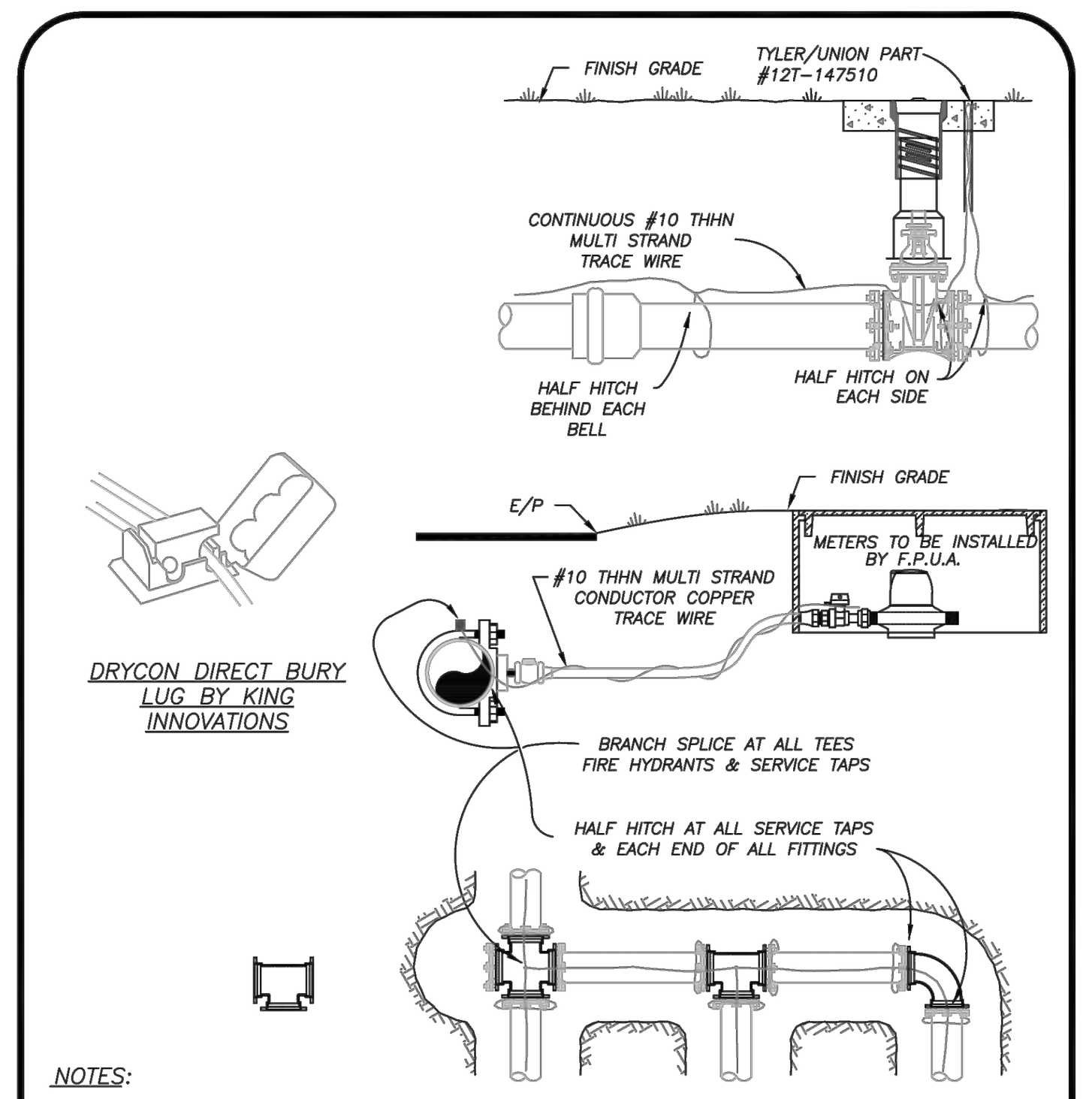


NOTES:

1. BLUE REFLECTIVE PAVEMENT MARKER (RPM) FOR WATER VALVES AND GREEN RPM FOR WASTEWATER VALVES PAVEMENT EDGE.
2. FOR WATER AND WASTEWATER VALVES INSTALLED IN PAVED AREAS, ELIMINATE CONCRETE PAD AND ENCASE THE MAGNETIC WIRE IN 1/2" PVC INSIDE THE VALVE BOX SEVEN INCHES BELOW GRADE.
3. DIP MAY BE USED AS RISERS ONLY IF A VALVE BOX IS NOT MANUFACTURED FOR THAT DEPTH. NO PVC RISERS SHALL BE USED IN ANY CIRCUMSTANCES.

TYPICAL GATE VALVE & VALVE BOX DETAIL
N.T.S.

TYPICAL GATE VALVE & VALVE BOX DETAIL	M-6
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	SHEET 1 OF 1

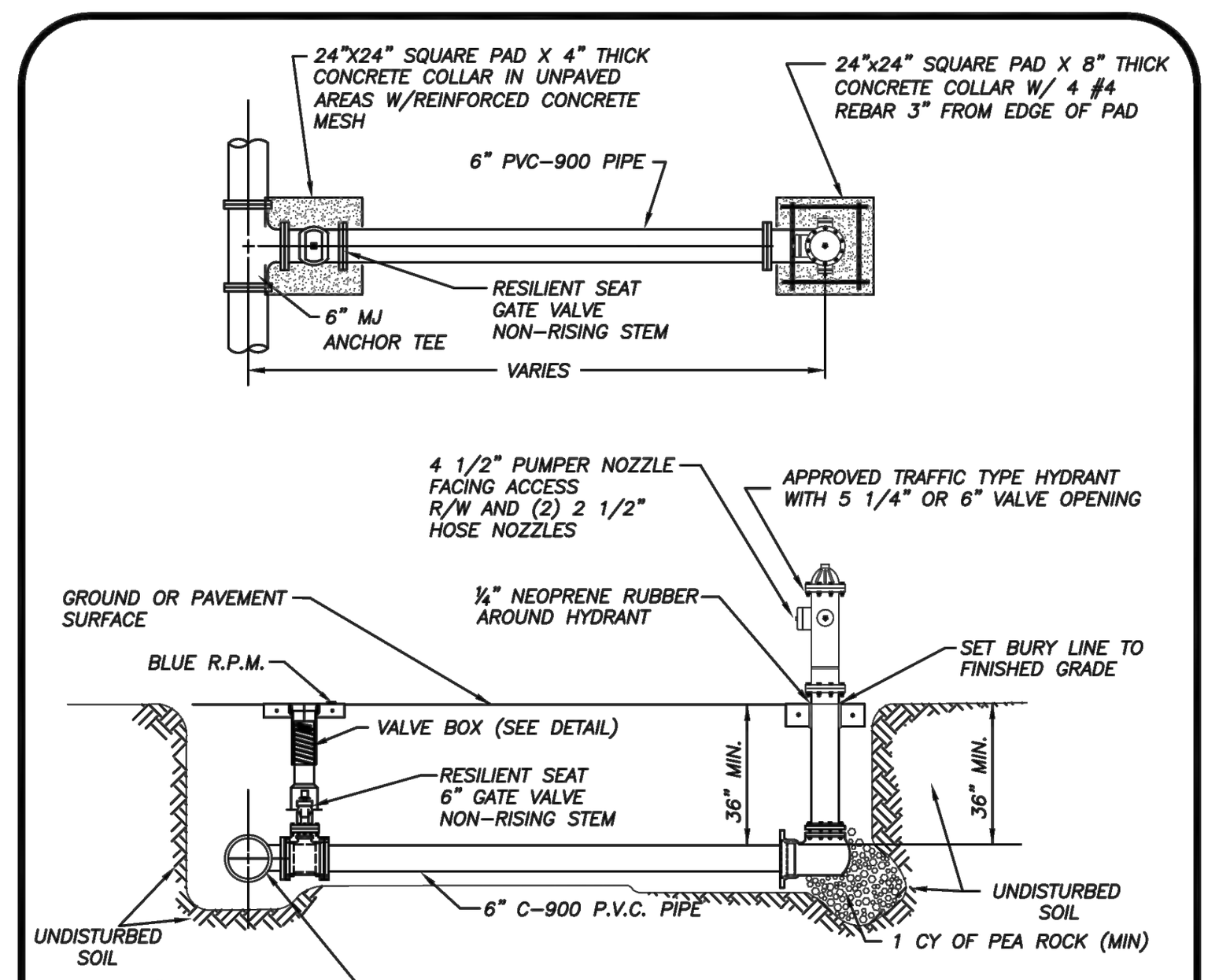


NOTES:

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.)

TRACE WIRE DETAIL	M-11
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: MISC DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	SHEET 1 OF 1

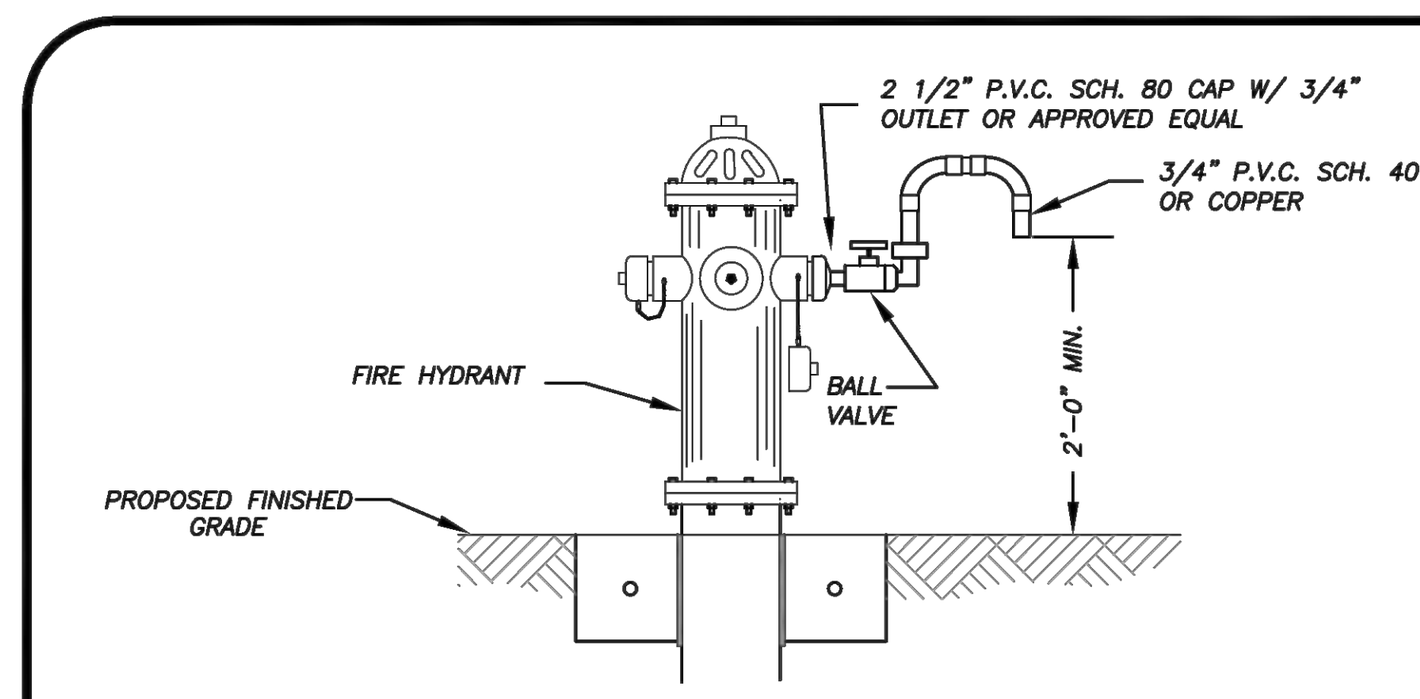


NOTES:

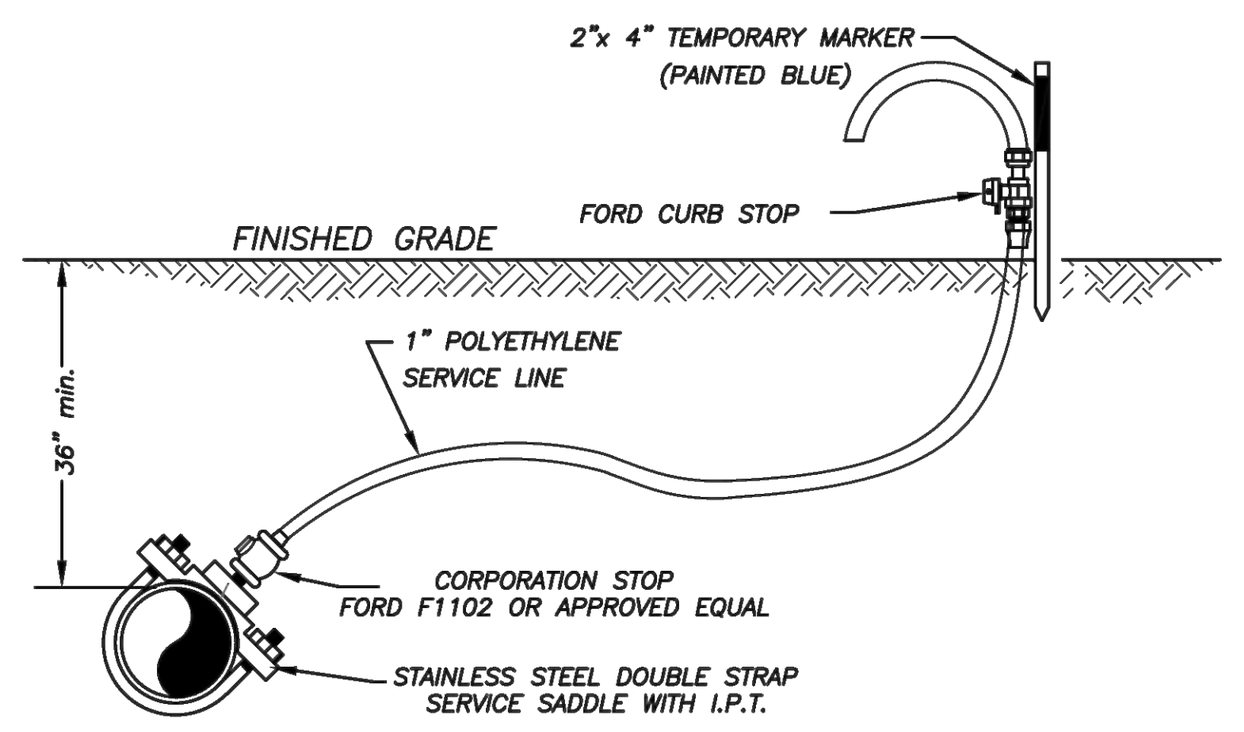
1. HYDRANT SHALL BE INSTALLED PLUMB & TRUE.
2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
3. HEEL TO REST IN UNDISTURBED SOIL.
4. THE ONLY HYDRANTS ACCEPTABLE ARE: MUELLER SUPER CENTURION 250 OR AMERICAN DARLING B-84-B-5.
5. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
6. ALL FITTINGS SHALL BE MECHANICAL JOINT.
7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
8. BLUE LOCATOR SHALL BE PLACED IN CENTER OF TRAVEL LANE CLOSEST TO HYDRANT.
9. ALL HYDRANT VALVE BOX COVERS SHALL BE PAINTED CARNIVAL RED.
10. LOCATE WIRE SHALL TERMINATE AT HYDRANT ISOLATION VALVE
11. HYDRANTS SHALL BE NO MORE THAN FIFTEEN FEET (15 FT.) FROM THE CURB OF ROADWAYS OR FROM THE EDGE OF PAVEMENT. CLEARANCES OF SEVEN AND ONE HALF FEET (7FT-6IN.) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANTS, WITH FOUR FOOT (4 FT.) CLEARANCE TO THE REAR OF HYDRANTS SHALL BE MAINTAINED.

TYPICAL FIRE HYDRANT ASSEMBLY
(N.T.S.)

TYPICAL FIRE HYDRANT ASSEMBLY	W-5
03-09 DESIGN, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: WATERDETAIL.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	SHEET 1 OF 1



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

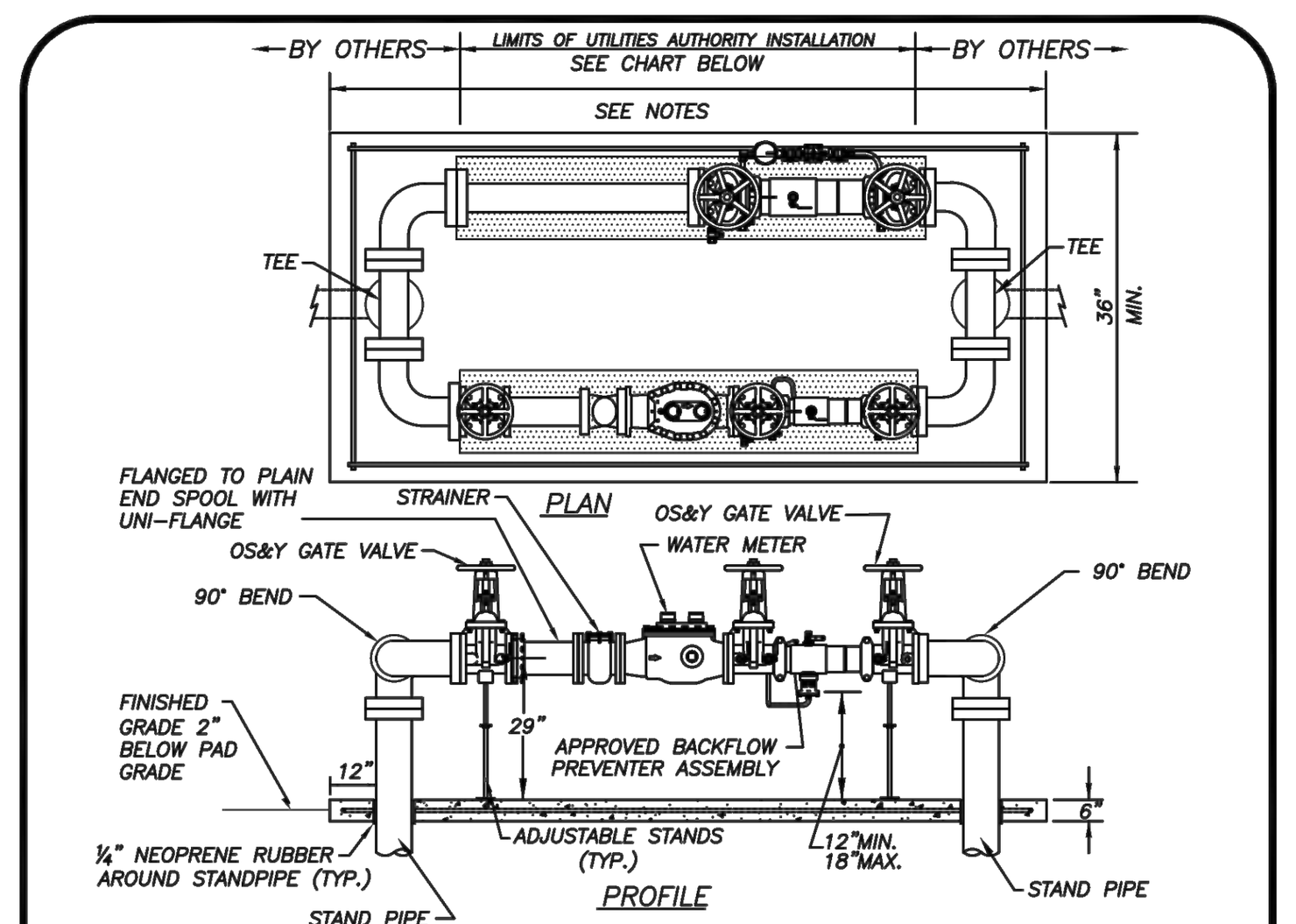


BACTERIOLOGICAL SAMPLING POINT @ WATER MAIN
(N.T.S.)

NOTE:

AFTER TESTING REMOVE 1" P.E. LINE AND CAP WITH BRASS PLUG AT CORPORATION STOP.

BACTERIOLOGICAL SAMPLING PONIT DETAIL	W-6
03-09 02-15, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: WATERDETAIL.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	SHEET 1 OF 1



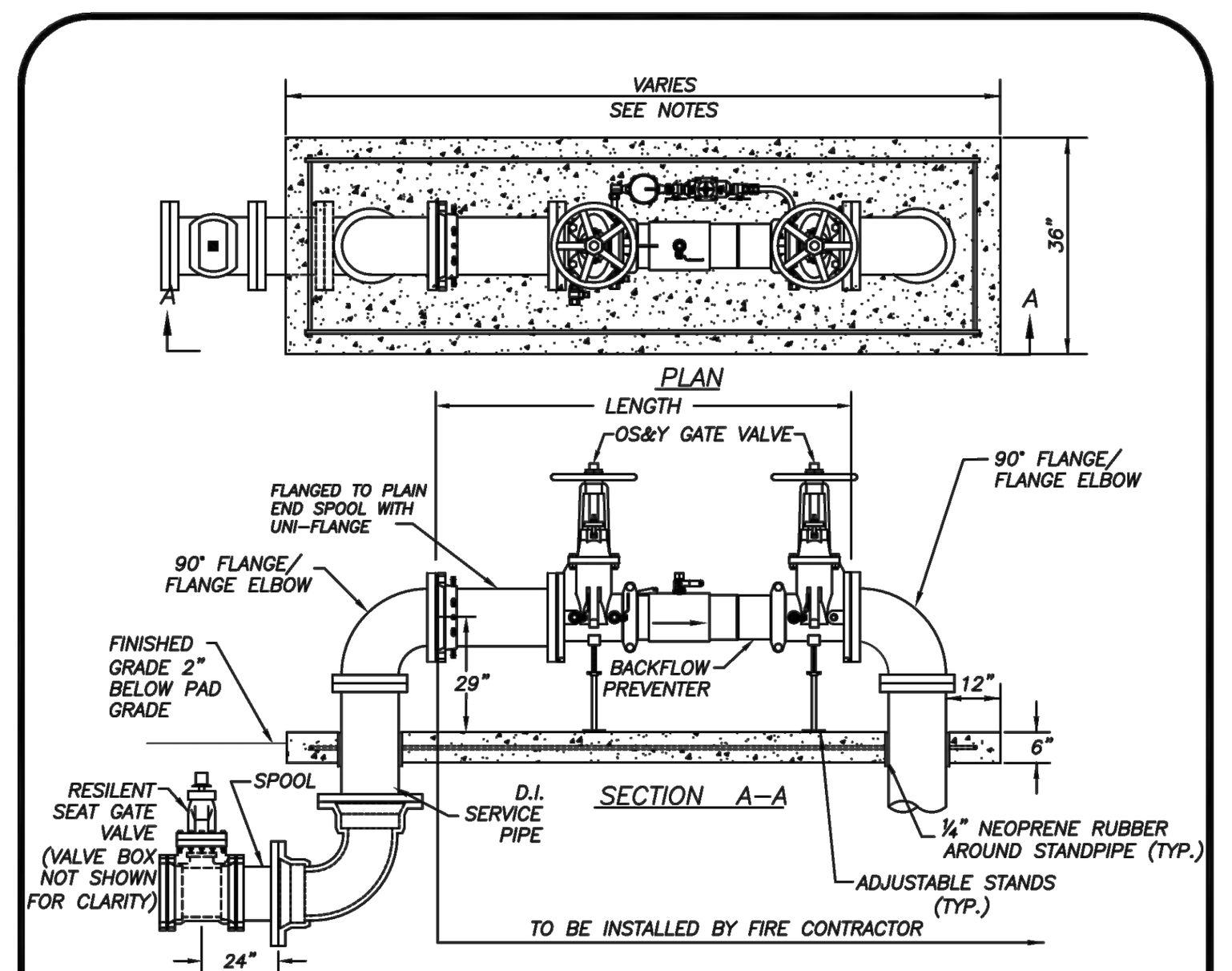
NOTES:

1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. CONTRACTOR TO INSTALL APPROPRIATE SIZED SPOOL PIECES TO FIT BETWEEN 90° BENDS UNTIL METERS ARE APPROVED FOR INSTALLATION. ALL SPOOL PIECES SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE IN ACCORDANCE WITH THE CHART BELOW.
3. PRIOR TO POURING CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND ARE INSTALLED AT THE SAME ELEVATION IN THE PRESENCE OF THE FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
3	COMPOUND	83 INCHES
4	COMPOUND	95 INCHES
6	COMPOUND	106 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
COMMERCIAL WATER METER SERVICES (METER SIZE > 3")

WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 3")	W-9
03-09 CONCRETE SLAB, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: WATER DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; APPROVED: JLC; DATE: 2010	SHEET 1 OF 1



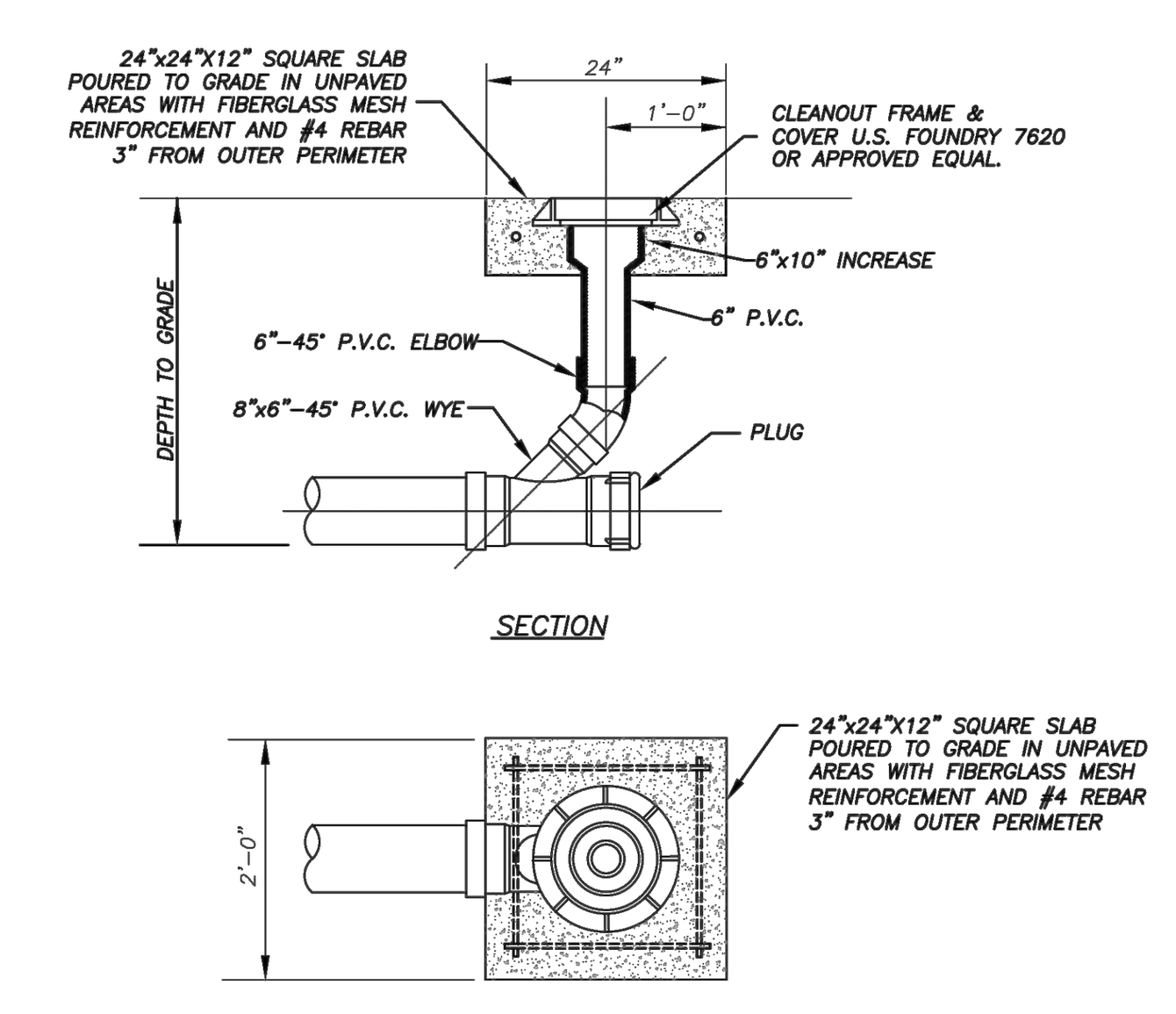
NOTES:

1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
3. PRIOR TO POURING THE CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND INSTALLED AT THE SAME ELEVATIONSIN THE PRESENCE OF AN FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
4	DOUBLE DETECTOR	53 INCHES
6	DOUBLE DETECTOR	62 INCHES
8	DOUBLE DETECTOR	69 INCHES
10	DOUBLE DETECTOR	76 INCHES

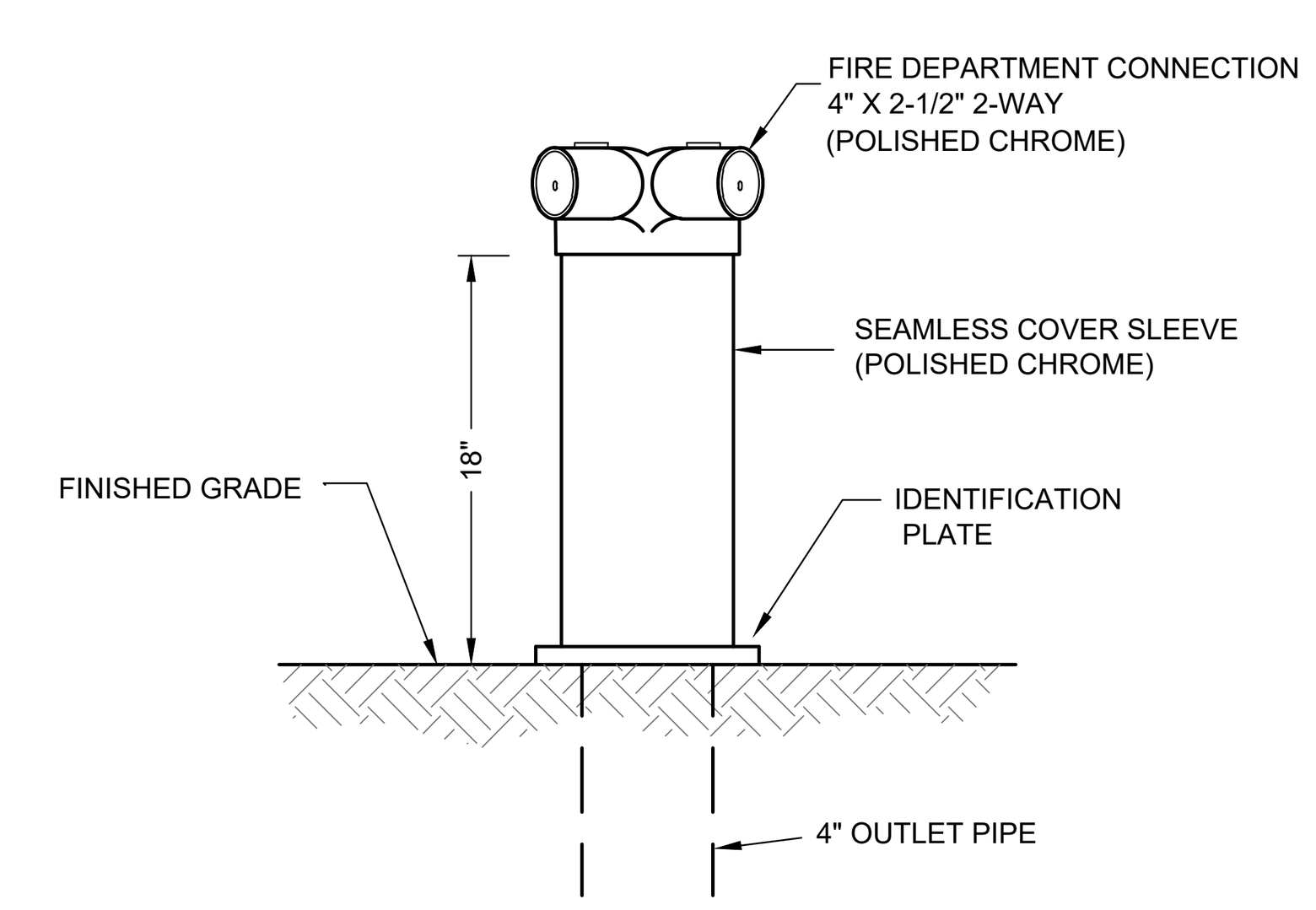
BACKFLOW PREVENTER ASSEMBLY-4"-10" FIRE SERVICE
(N.T.S.)

BACKFLOW PREVENTER ASSEMBLY 4"-10" FIRE SERVICE	W-10
03-09 CONCRETE PAD, SLL, JLC	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: WATER DETAILS 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	SHEET 1 OF 1



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

TERMINAL CLEANOUT DETAIL WASTEWATER	S-4B
10-06, RBE	WATER/WASTEWATER ENGINEERING
DESIGNED: JLC; COMPUTER FILE #: SEWER DETAIL 200602.DWG	FT. PIERCE UTILITIES AUTHORITY
DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	SHEET 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
1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

WATER AND SEWER DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE
FLORIDA

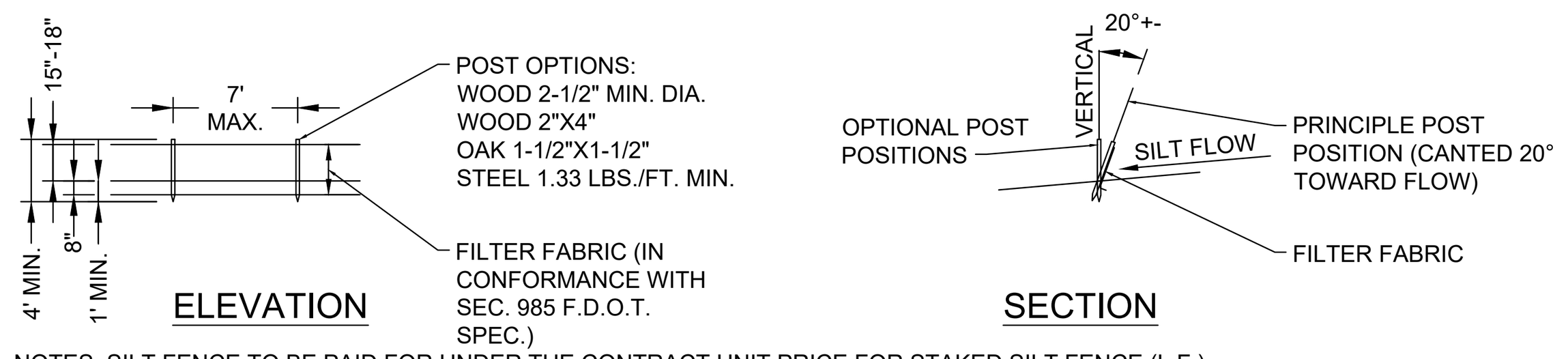
ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

SHEET
C8

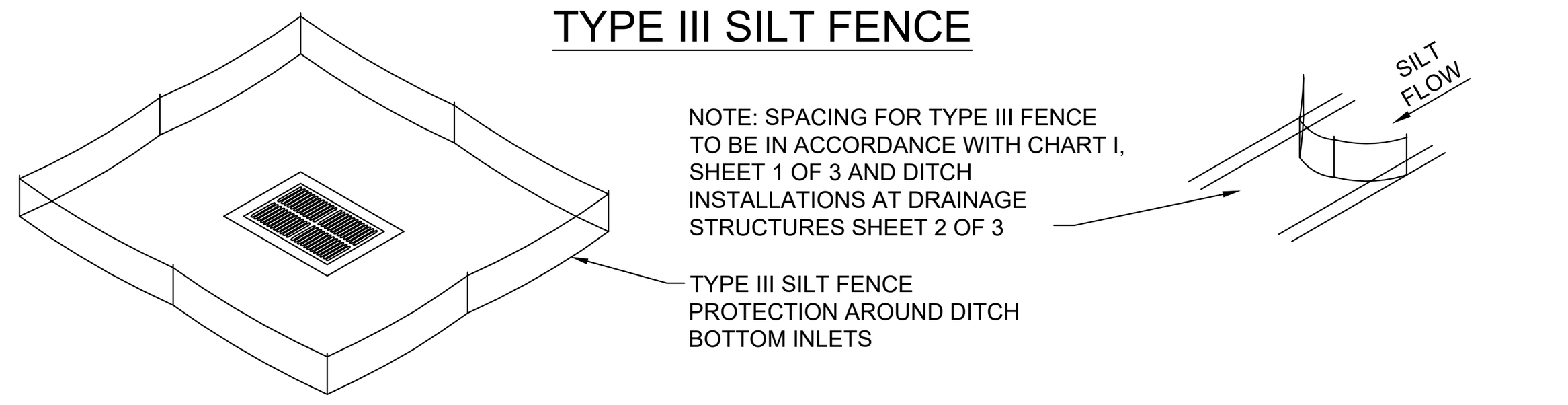
23-0060

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



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

TYPE III SILT FENCE

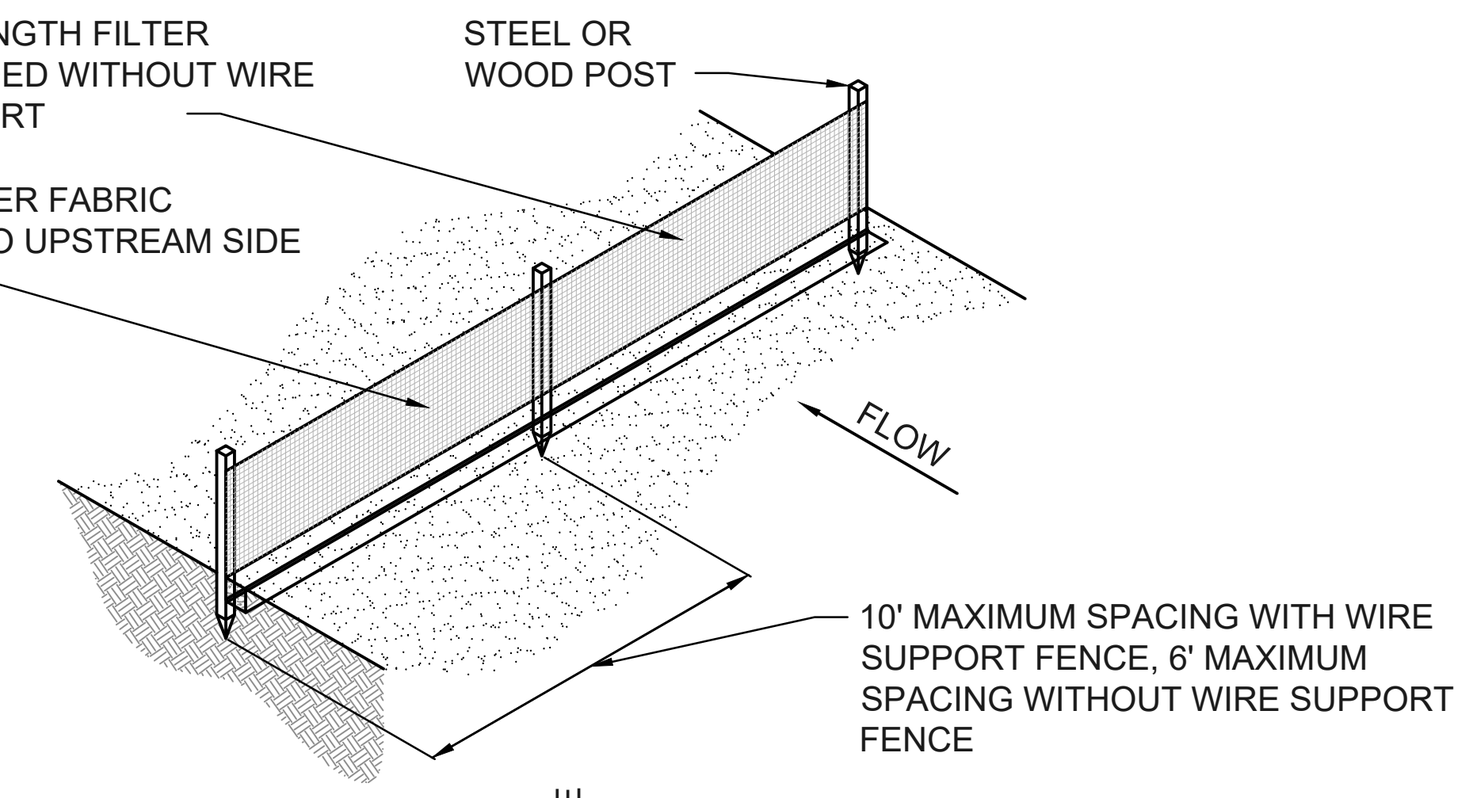


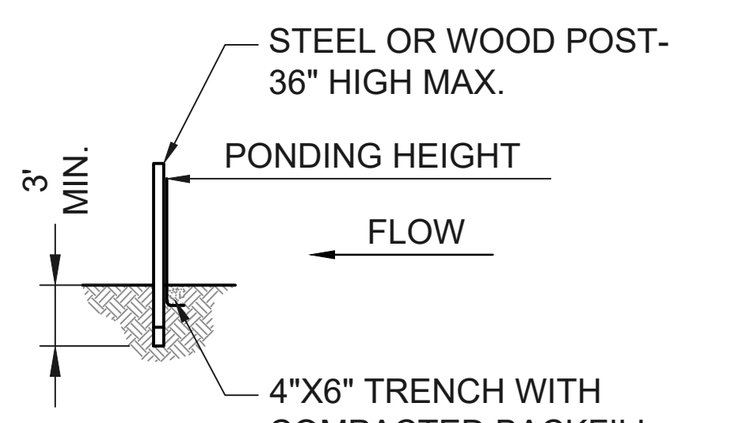
DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

SILT FENCE APPLICATIONS

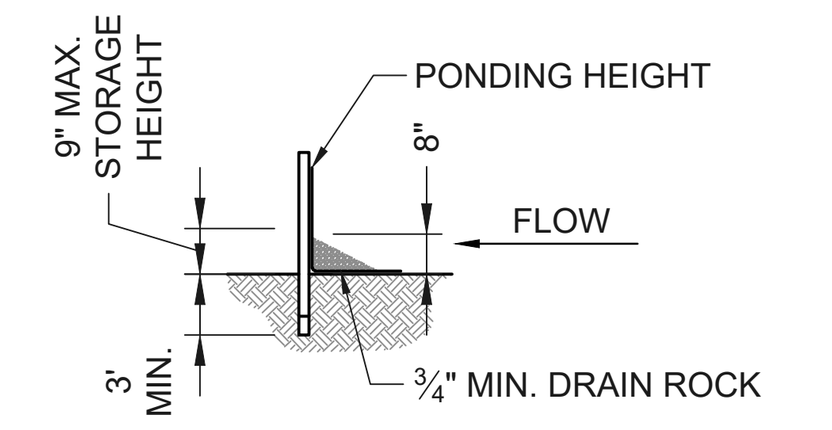
N.T.S.

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.





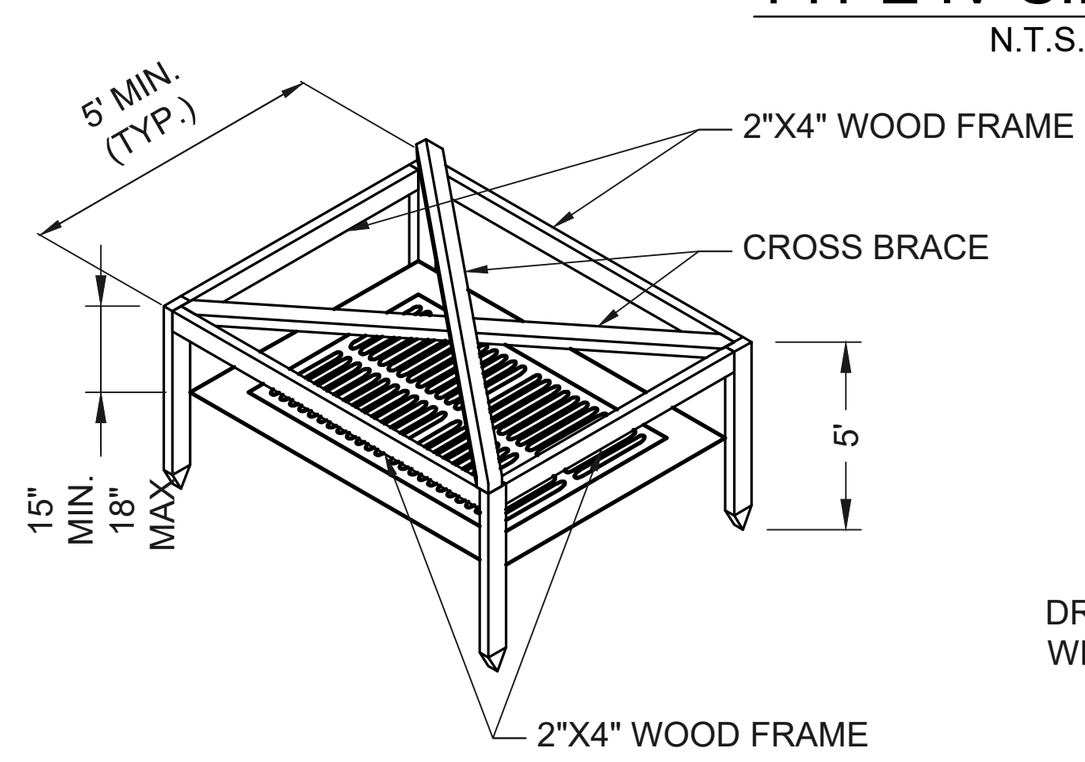
TRENCH DETAIL



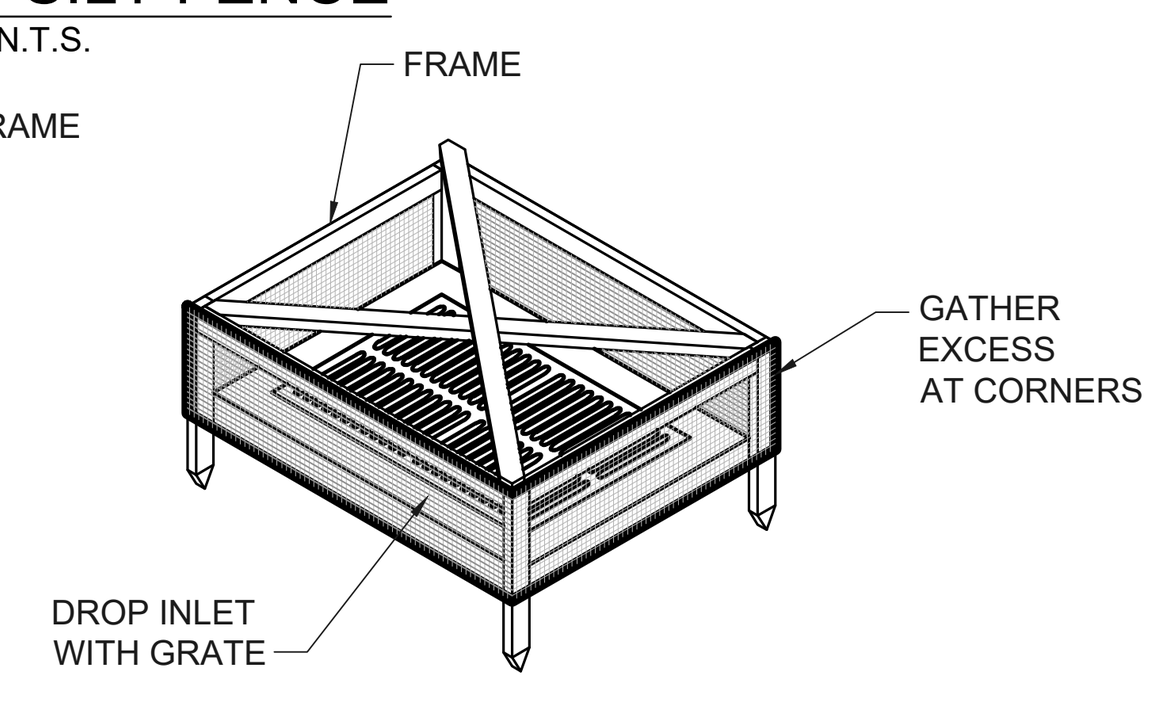
INSTALLATION WITHOUT TRENCHING

TYPE IV SILT FENCE

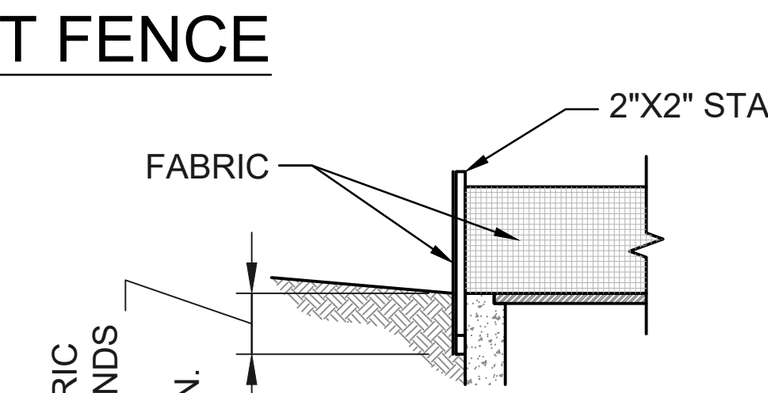
N.T.S.



VIEW OF FRAME WITHOUT SILT FENCE

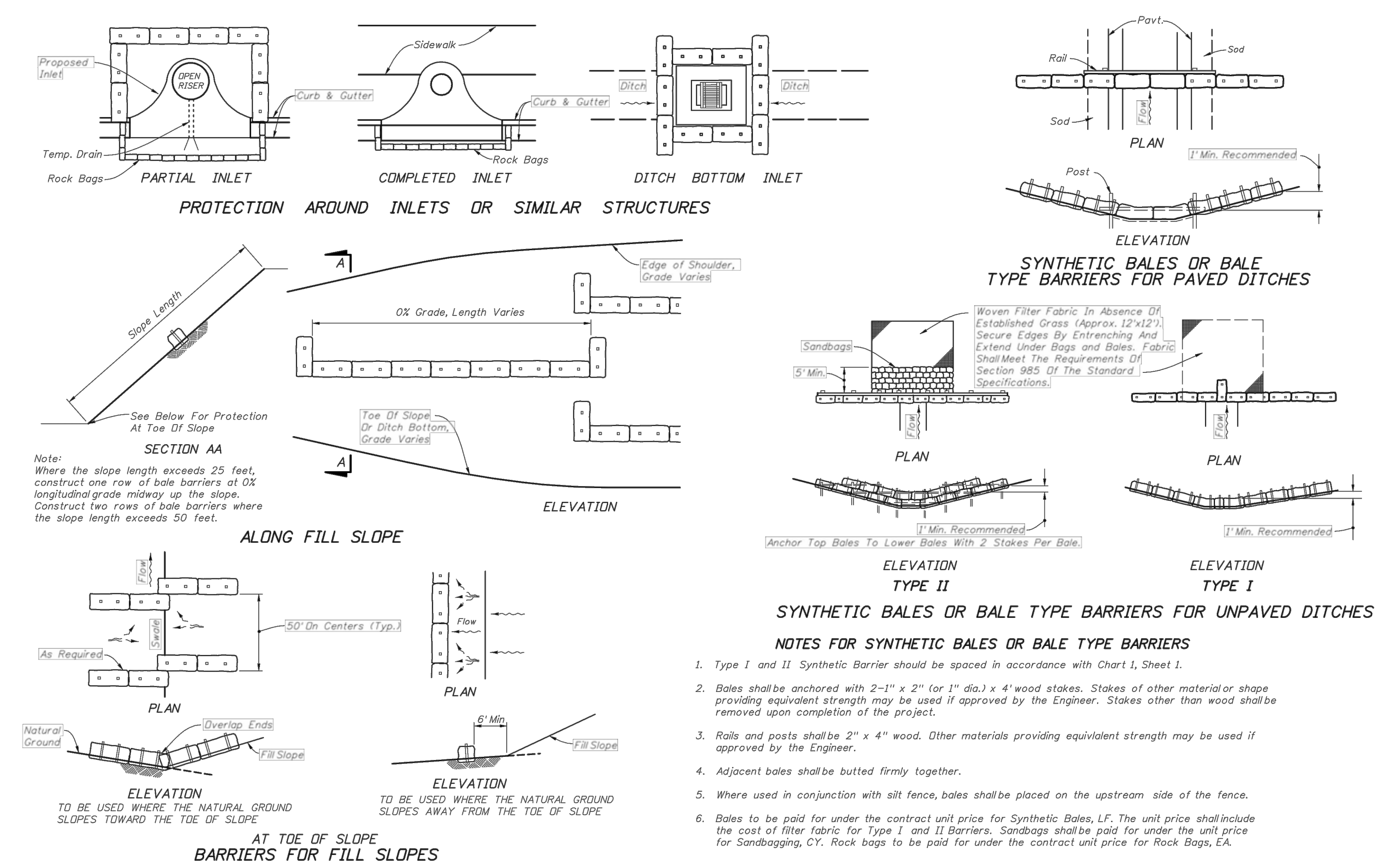


VIEW OF FRAME WITH SILT FENCE



SILT FENCE INLET PROTECTION

N.T.S.



NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

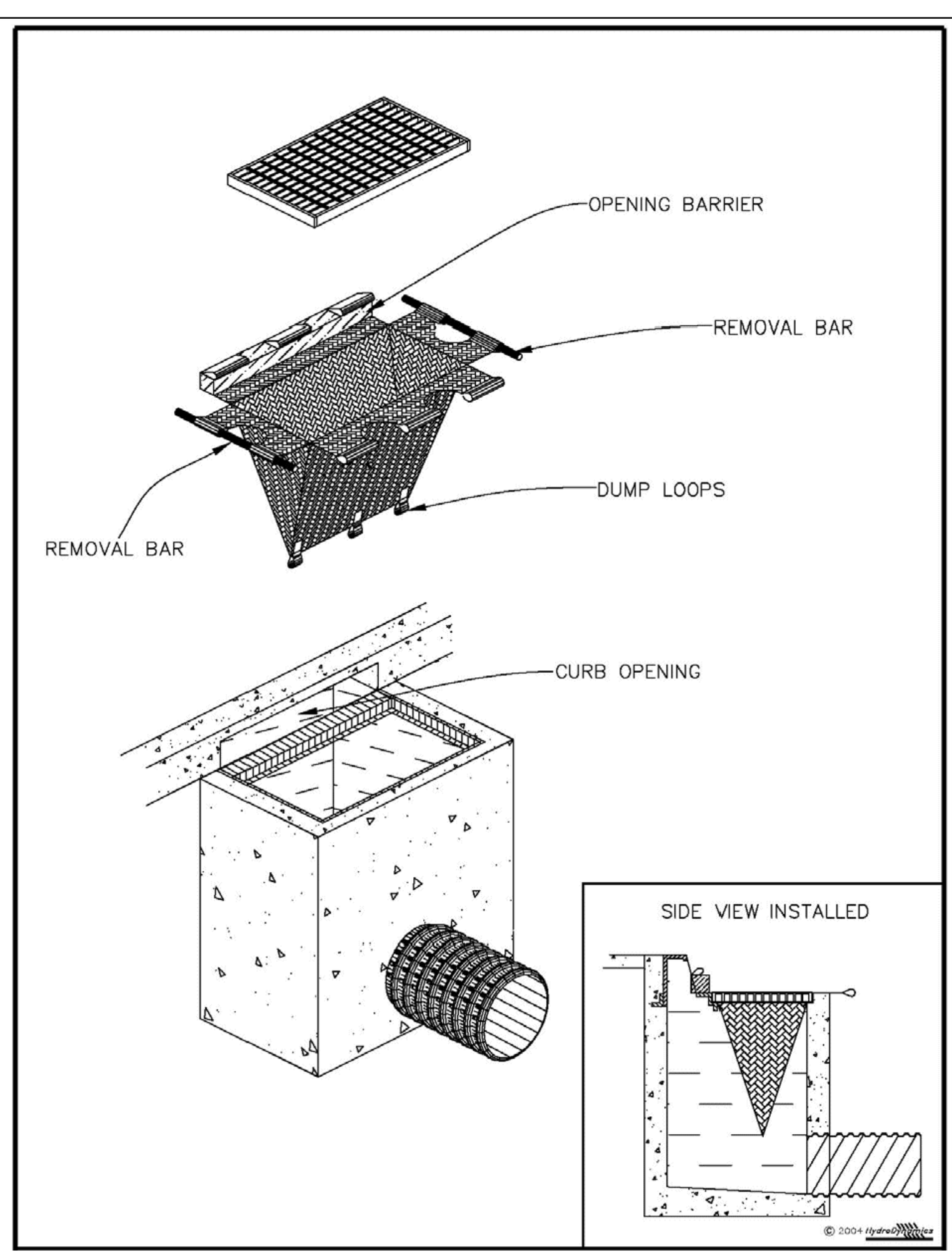
1. Type I and II Synthetic Barrier should be spaced in accordance with Chart I, Sheet 1.
2. Bales shall be anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivlalent 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.

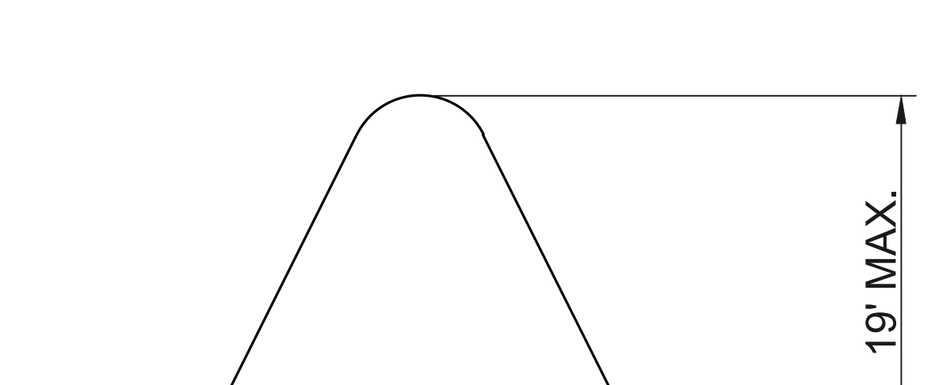
MINIMUM STANDARDS

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.



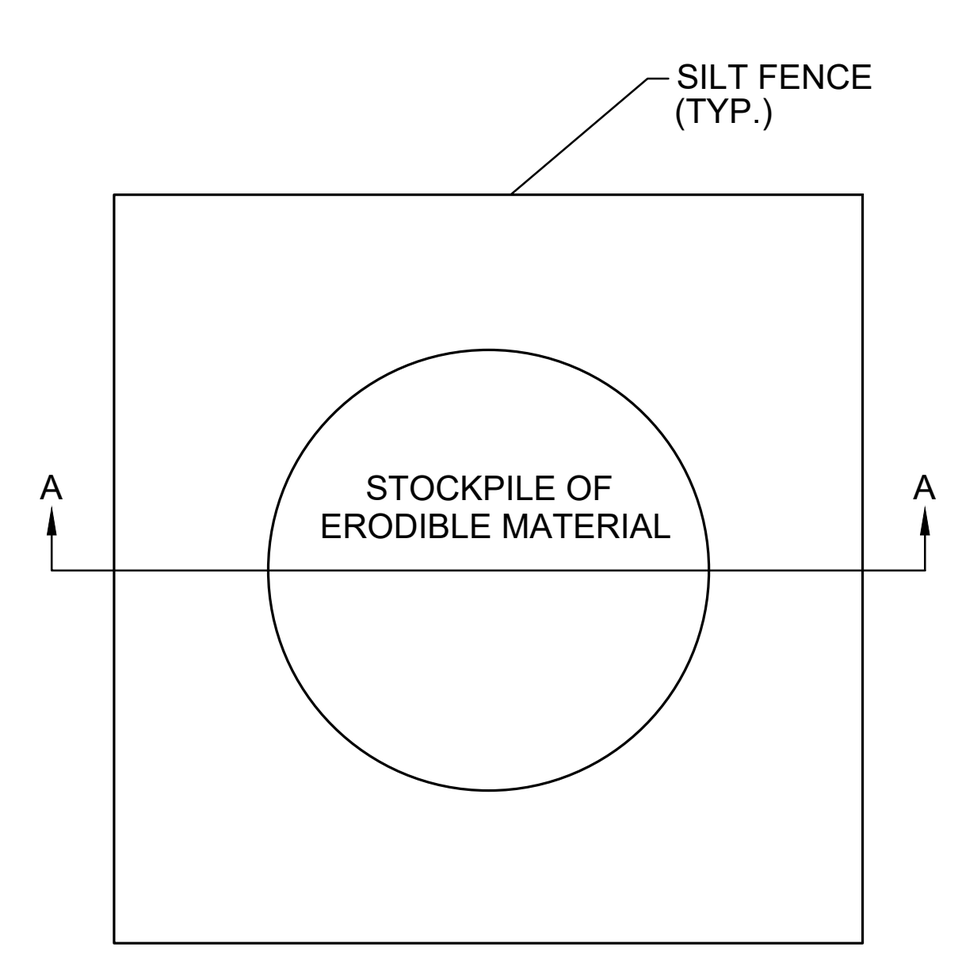
INLET INSERT SEDIMENT CONTAINMENT SYSTEM

N.T.S.



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

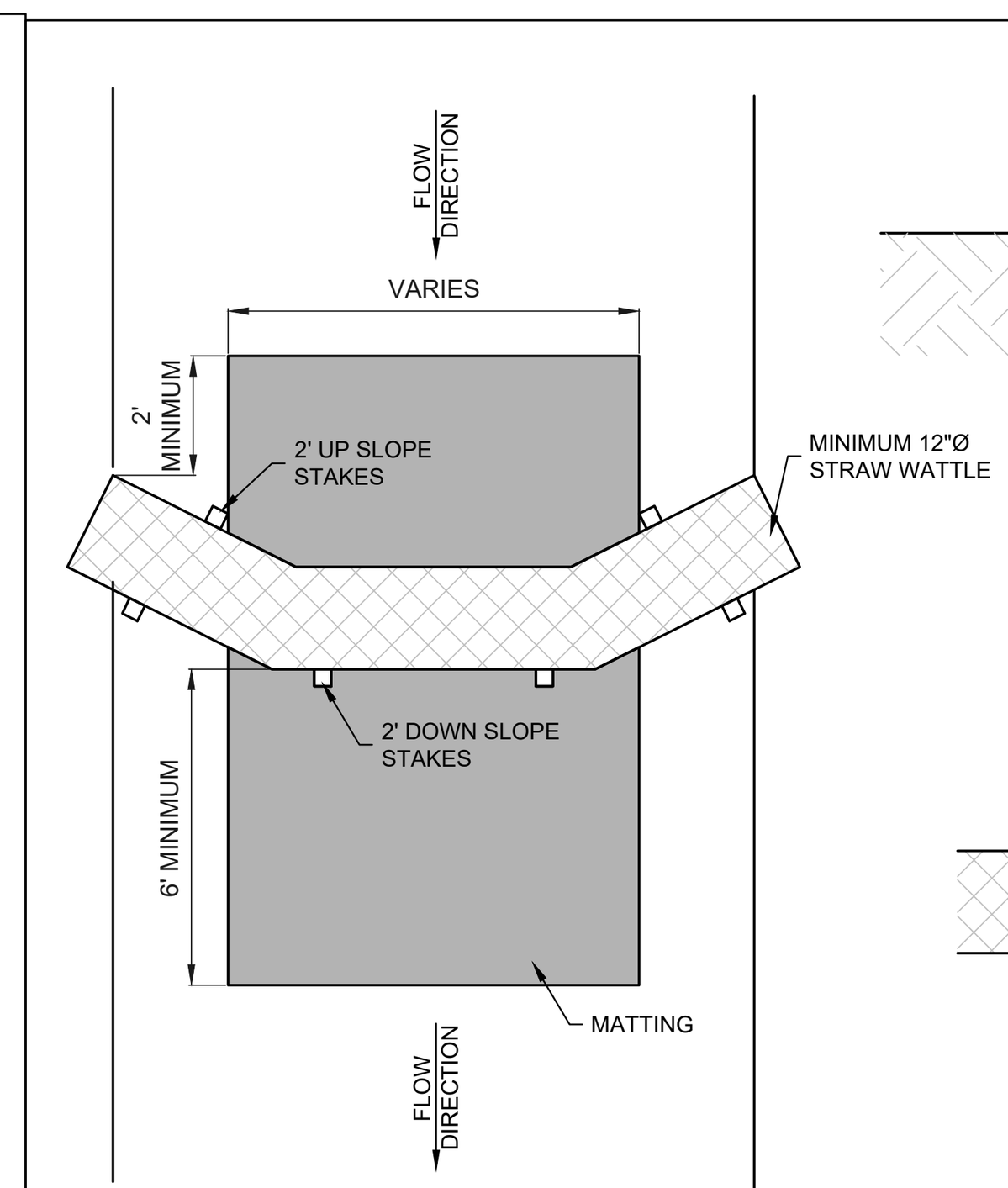
SECTION A-A



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

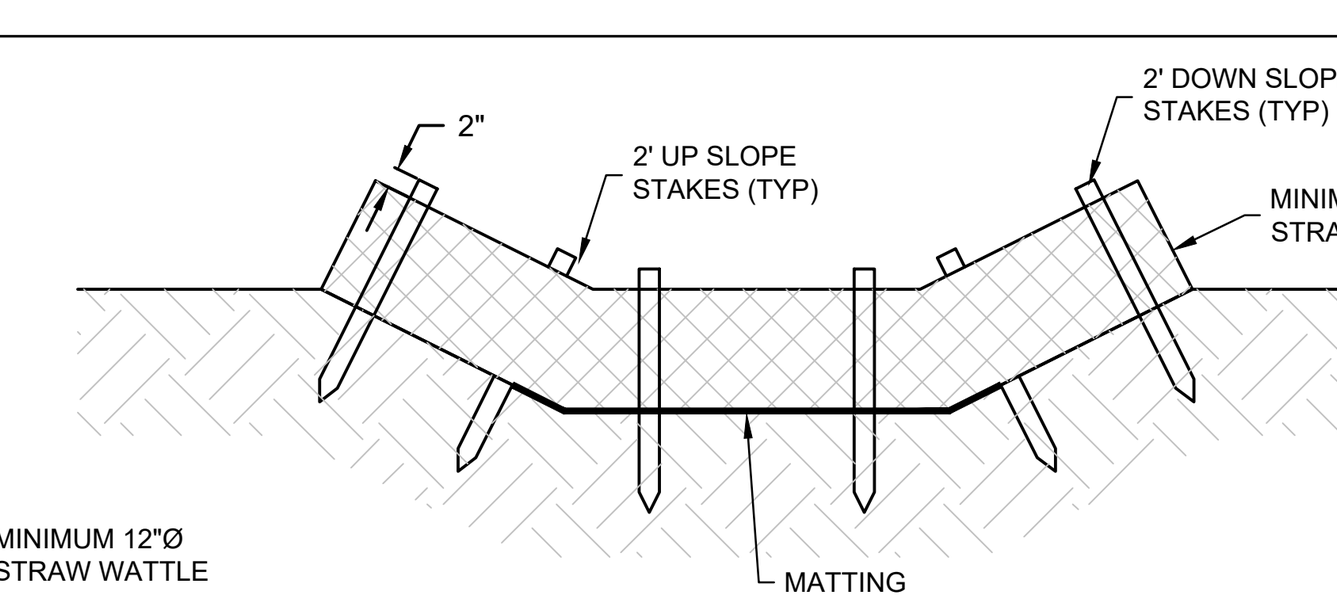
SEDIMENT CONTROL DETAIL FOR STOCKPILING OF ERODIBLE MATERIAL

N.T.S.



WATTLE TOP VIEW

N.T.S.



WATTLE CROSS SECTION

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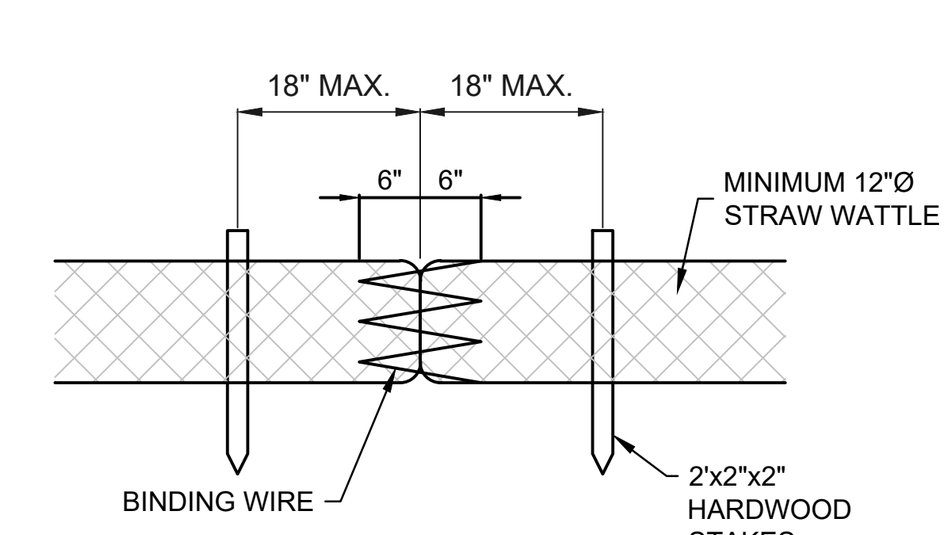
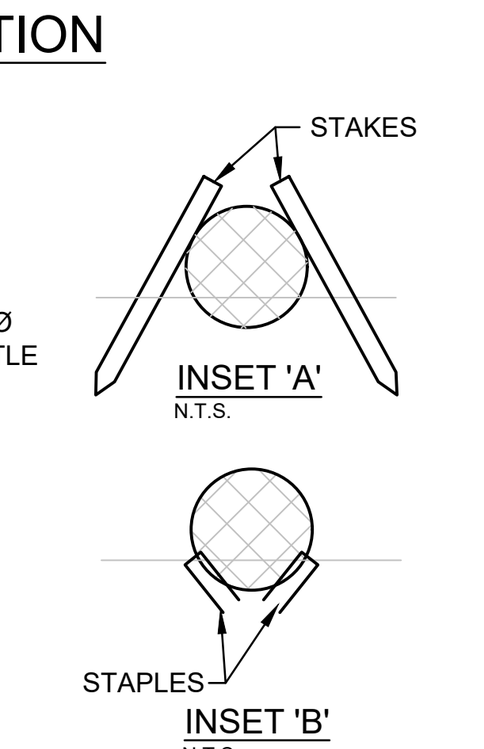


WATTLE JOINING DETAIL

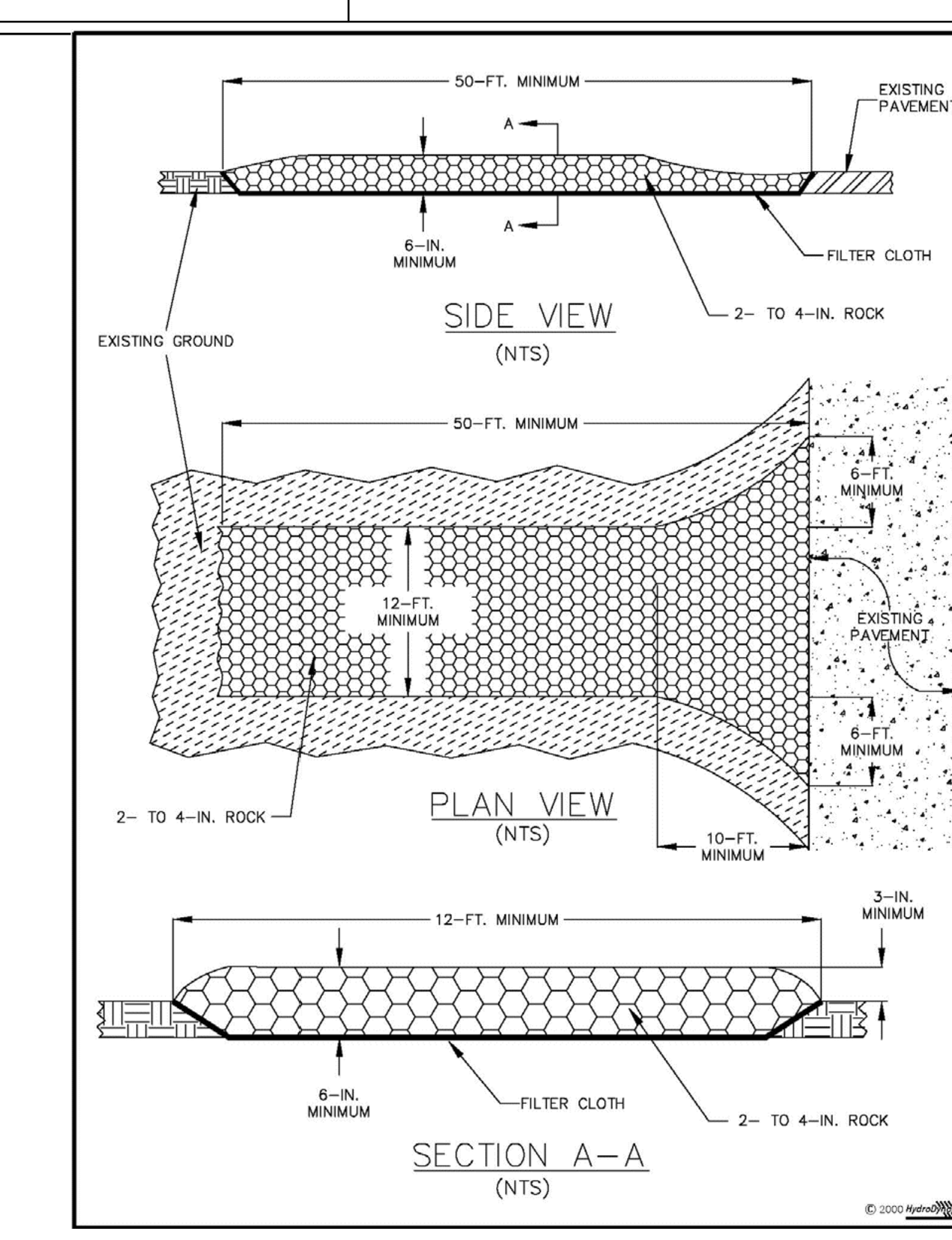
N.T.S.



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.

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.

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

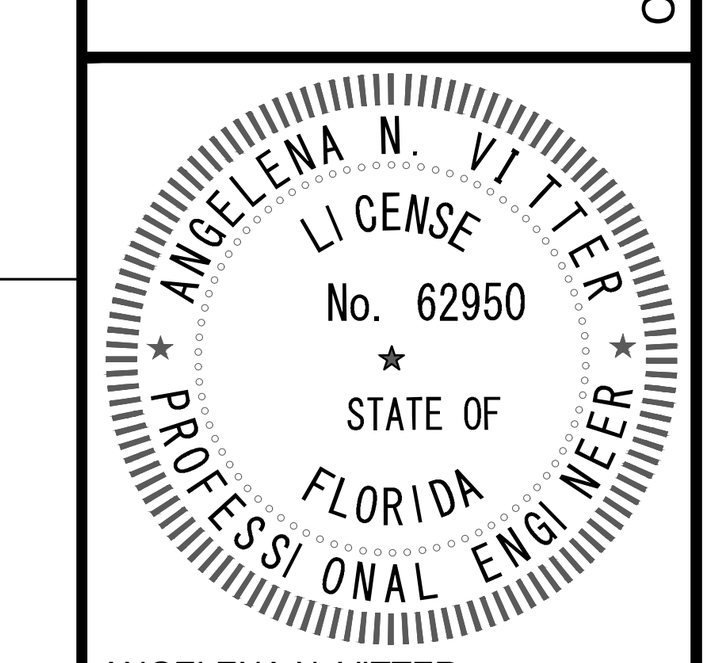
JOB NO.	23-0060
DESIGNED	GWR
DRAWN	GWR
DATE	JANUARY 2024
CHECKED	AJB
DATE ISSUED	9/23/2024

MBV ENGINEERING, INC.
MOIA BOWLES VILLAMIZAR & ASSOCIATES
CONSULTING ENGINEERING CA #3728
1835 - 20TH STREET
VERO BEACH, FL 32960
PH. (772) 569-0035
FX. (772) 778-3617
MELBOURNE, FL - PH (321) 253-1510
FT. PIERCE, FL - PH (772) 468-9055

EROSION CONTROL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA



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

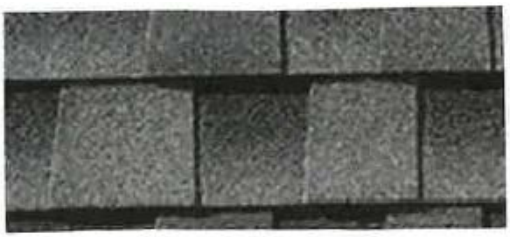
SHEET

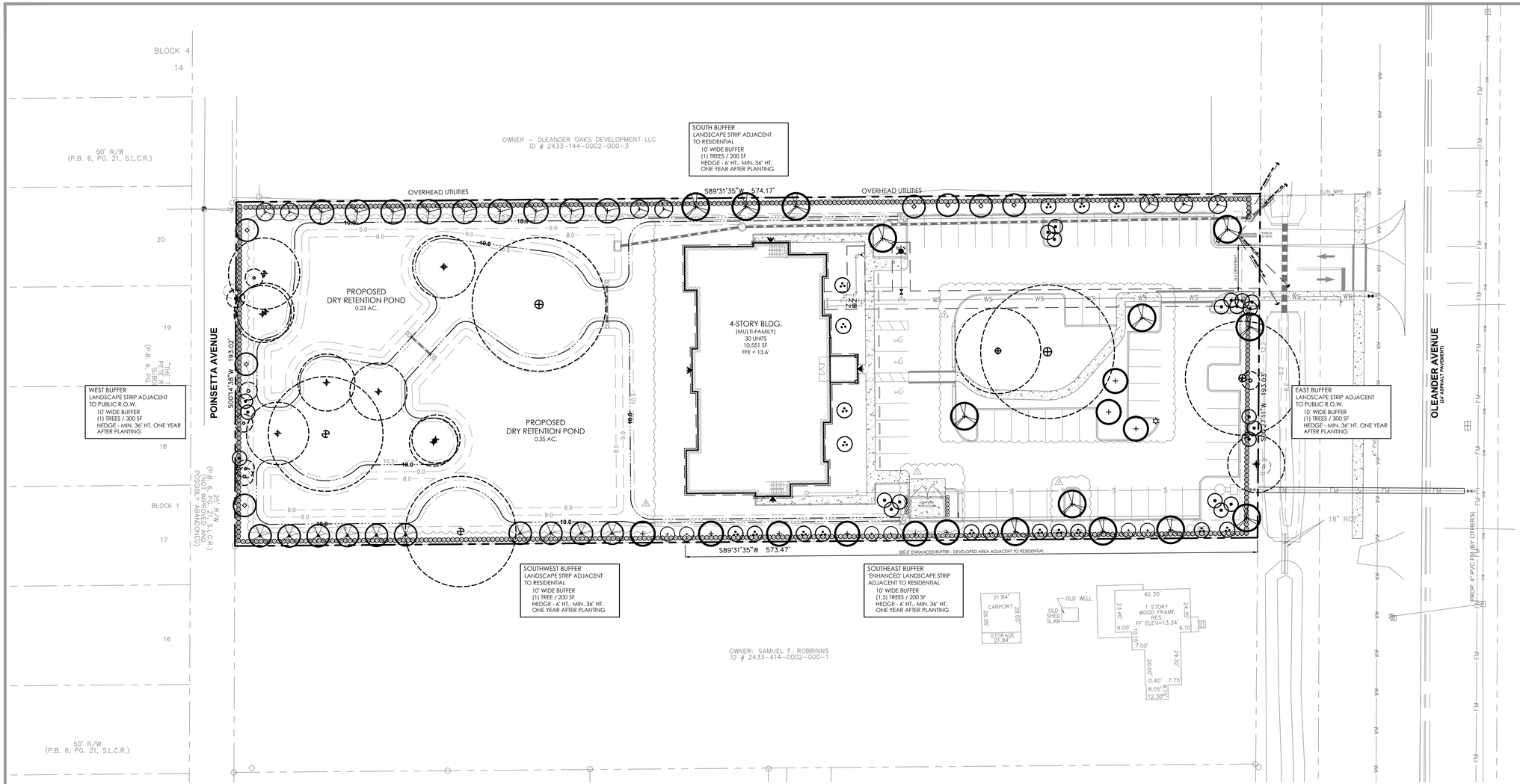
C9

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 GREGG REED

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 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	18
	CE	CONOCARPUS ERECTUS 'SERICEUS' SILVER BUTTONWOOD	12' HT., 4' SPR.	45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN.	Y	M	9 ⚠
	IA	ILEX X 'ATTENUATA' EAST PALATKA HOLLY	12' HT., 4' SPR.	45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN.	Y	M	7 ⚠
	MG	MAGNOLIA GRANDIFLORA SOUTHERN MAGNOLIA	14' HT., 4' SPR.	FIELD GROWN B&B 3" CAL., 5' C.T. MIN.	Y	H	7 ⚠
	QV	QUERCUS VIRGINIANA LIVE OAK	14' HT., 5' SPR.	FIELD GROWN, B&B 3" CAL. 5' CT. MIN.	Y	H	13 ⚠
	SP	SABAL PALMETTO SABAL PALM	10 - 14' CT.	AS SHOWN, SLICKS STAGGER HEIGHTS	Y	H	21 ⚠
	TD	TAXODIUM DISTICHUM BALD CYPRESS	12' HT., 4' SPR.	45 GAL. MIN. 2.5 CAL. TREE FORM, 5' CT. MIN.	Y	M	10 ⚠
	UA	ULMUS ALATA WINDGED ELM	14' HT., 6' SPR.	FIELD GROWN B&B. 3" CAL. 5' CT. MIN.	Y	M	9 ⚠
SHRUBS	⚠ CHR	CHRYSOBALANUS ICACO 'RED TIP' 'RED TIP' COCOPLUM	24" X 18"	24" O.C., FULL TO BASE	Y	H	132 ⚠
	⚠ CLU	CLUSIA GUTTIFERA SMALL LEAF CLUSIA	24" X 18"	24" O.C., FULL TO BASE	Y	H	450
	⚠ POD	PODOCARPUS MACROPHYLLUS PODOCARPUS	30" X 18"	24" O.C., FULL TO BASE	N	H	11 ⚠
	SOD	STENOTAPHRUM SECUNDATUM ST. AUGUSTINE SOD		DISEASE FREE, LAID 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:

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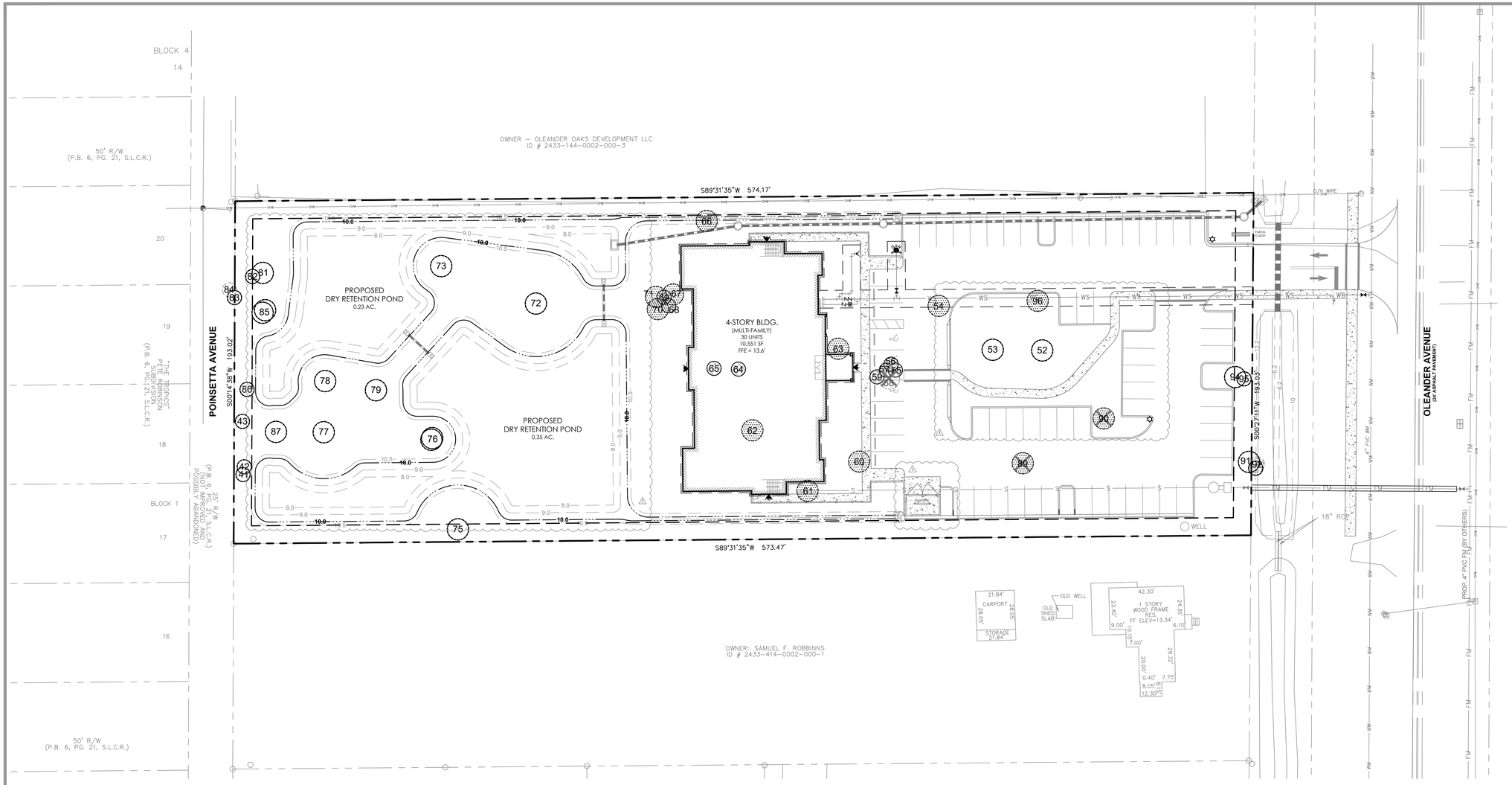

Existing Tree Inventory List

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

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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.

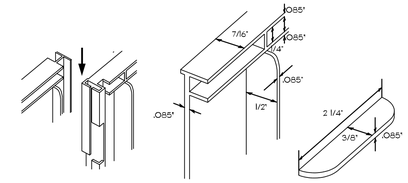
B. ALL NUISANCE EXOTIC VEGETATION EXISTING ON SITE SHALL BE REMOVED IN CONJUNCTION WITH ANY SITE DEVELOPMENT.

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

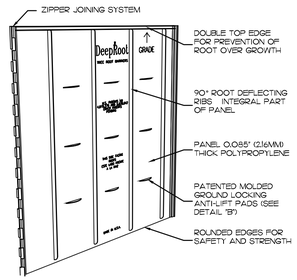
NOTES:
SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES AND LANDSCAPES. ASSEMBLED IN 2' LONG MODULES TO CREATE VARYING SIZES OF CYLINDERS FOR SURROUNDING ROOT BALLS (SURROUND PLANTING STYLE) OR FOR LINEAR APPLICATIONS DIRECTLY BESIDE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

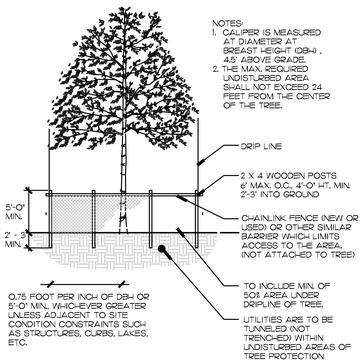
TREE PROTECTION SHALL COMPLY WITH THE JURISDICTIONS REGULATIONS.

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

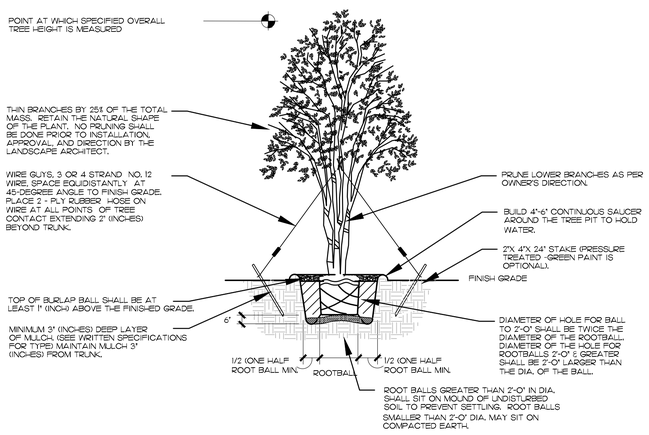
NO ATTACHMENT, WIRES (OTHER THAN PROTECTIVE GUY WIRES), SIGNS OR PERMITS SHALL BE ATTACHED TO A PROTECTED TREE.

(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.

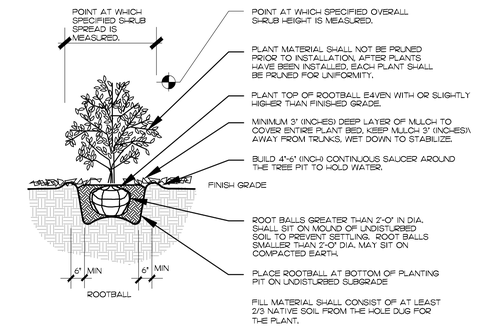
ANY DAMAGE TO TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AFTER DAMAGE OCCURS.



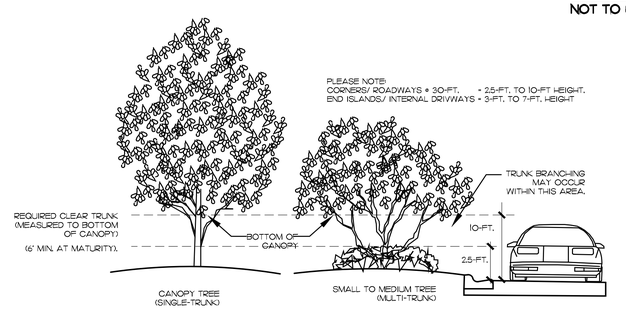
TYPICAL TREE PROTECTION DETAIL
NOT TO SCALE



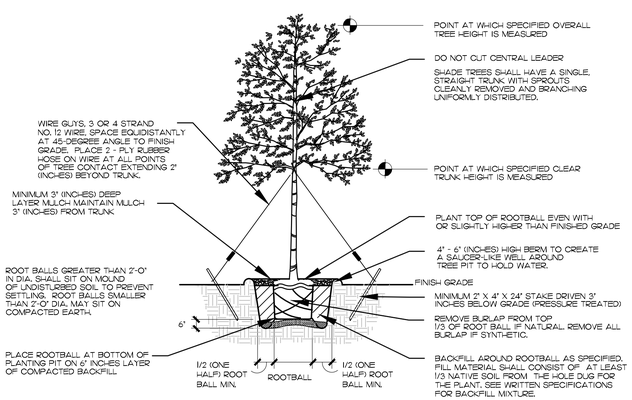
TYPICAL IRRIGULAR/MULTI-TRUNK TREE PLANTING DETAIL
NOT TO SCALE



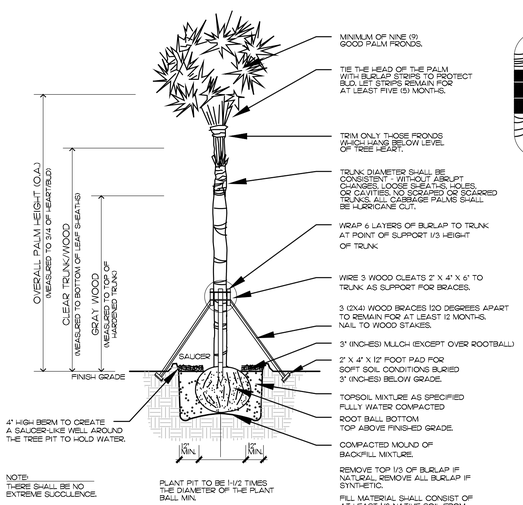
TYPICAL SHRUB/ GROUNDCOVER PLANTING DETAIL
NOT TO SCALE



CLEAR TRUNK WITHIN SIGHT TRIANGLE DETAIL
NOT TO SCALE

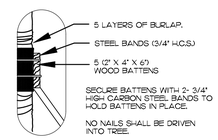


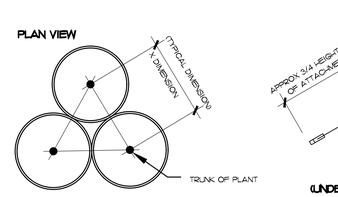
TYPICAL TREE PLANTING DETAIL
NOT TO SCALE



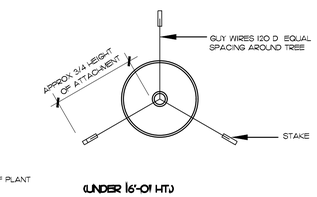
NOTE:
THERE SHALL BE NO EXTREME SUCCULENCE.

TYPICAL PALM PLANTING DETAIL
NOT TO SCALE





TYPICAL PLANT SPACING DETAIL
NOT TO SCALE



(UNDER 16'-0" HT.)

TYPICAL TREE GUYING DETAIL
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48 HOURS BEFORE DIGGING
CALL TOLL FREE
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NOTIFICATION CENTER

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Patrick D. Cunningham, LLC
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519 Sapphire Drive
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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

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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

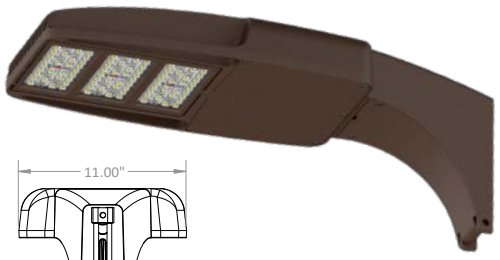
OPTICS + PERFORMANCE
- Up to 165 lumens per watt
- 12,000- to 40,000-lumen packages (82-325W)
- 5 customized distributions available
  - Type II Roadway Medium (Coefficient of Utilization: 0.793)
  - Type III Roadway Medium (Coefficient of Utilization: 0.852)
  - Type IV Wide Short (Coefficient of Utilization: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

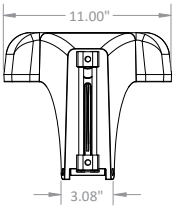
CONTROLS
- 0-10V dimming standard; DALI-2 option available
- Receptacle options:
  - ANSI C136.41 3-pin
  - ANSI C136.41 7-pin (for DALI-2 or 0-10V dimming)
  - Zhaga Book 18 (for next generation ambient light/motion sensing)
- Motion sensor option available – bi-level setting standard with low point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

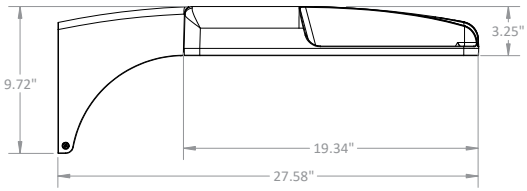
LISTINGS
- IDA Dark Sky Friendly ≤3000K, extended site arm or horizontal tenon
- IP66-rated optical and electrical chambers
- 3G Vibration-rated (ANSI C136.31)
- cULus Listed for wet locations (E487976)
- DLC + DLC Premium listings (Family code: JJJOYL)
- Zhaga D4i listed
- ANSI C136.15 labeling available
- 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.



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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
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Frisco, TX 75033
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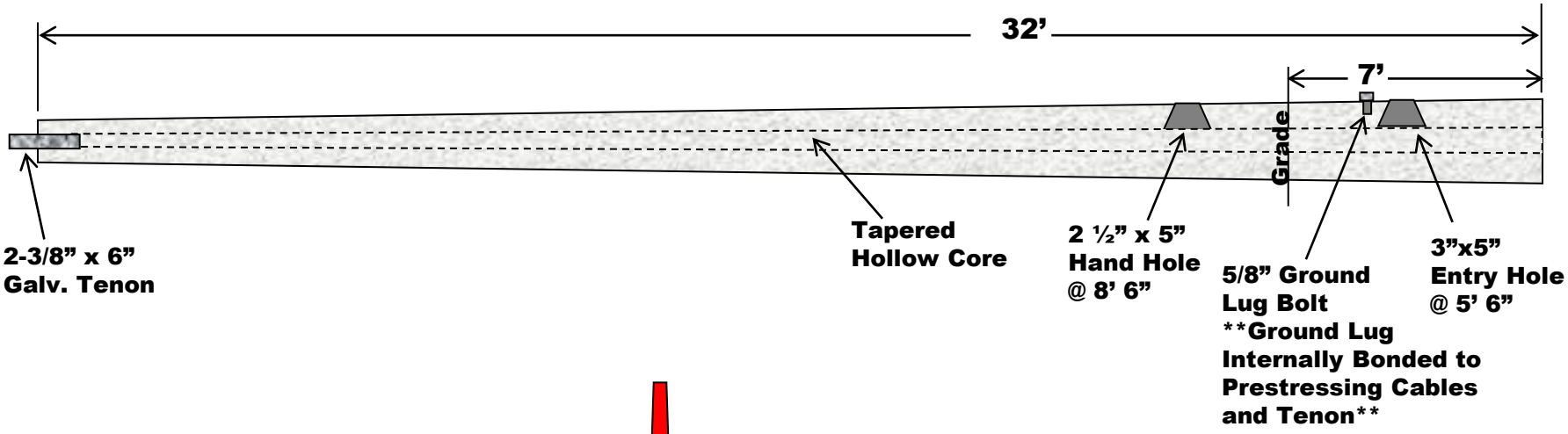
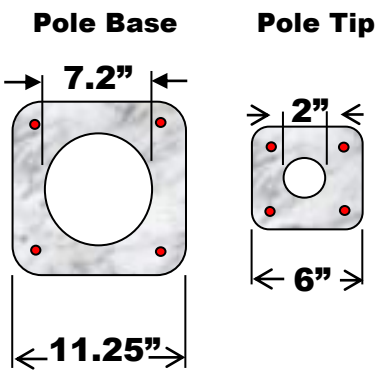
Drawing Not to Scale

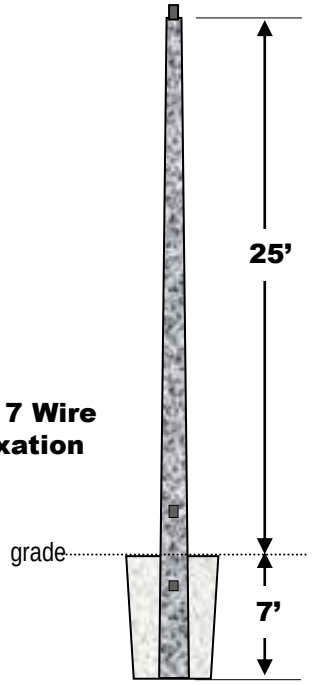


Seminole Pole incorporated

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



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

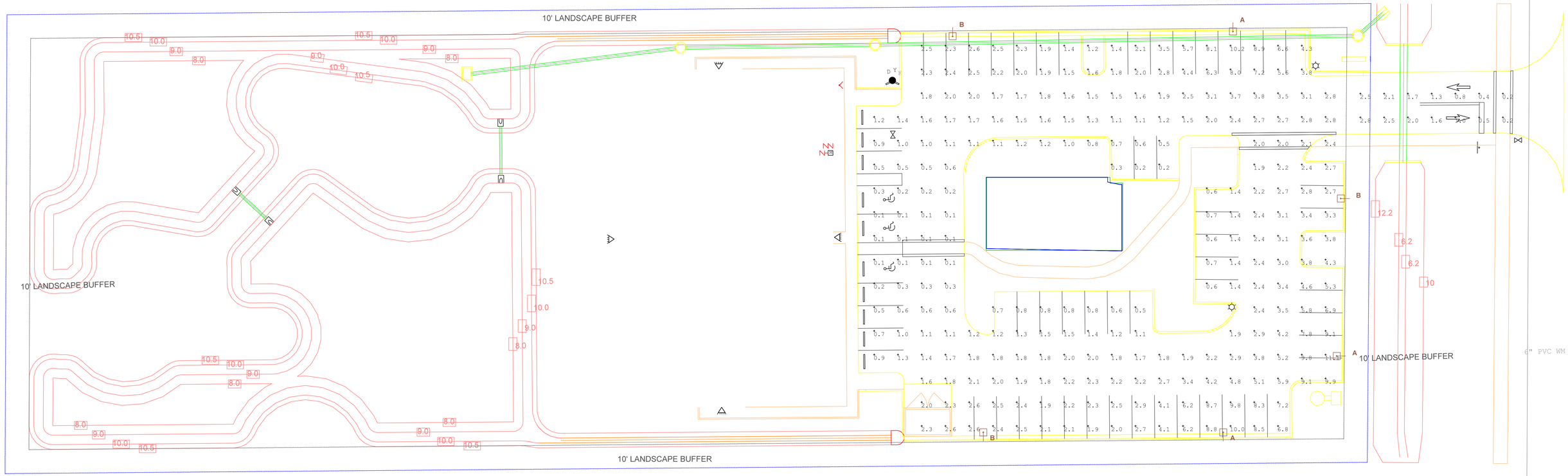


Part#: SP3225TII

Project:

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

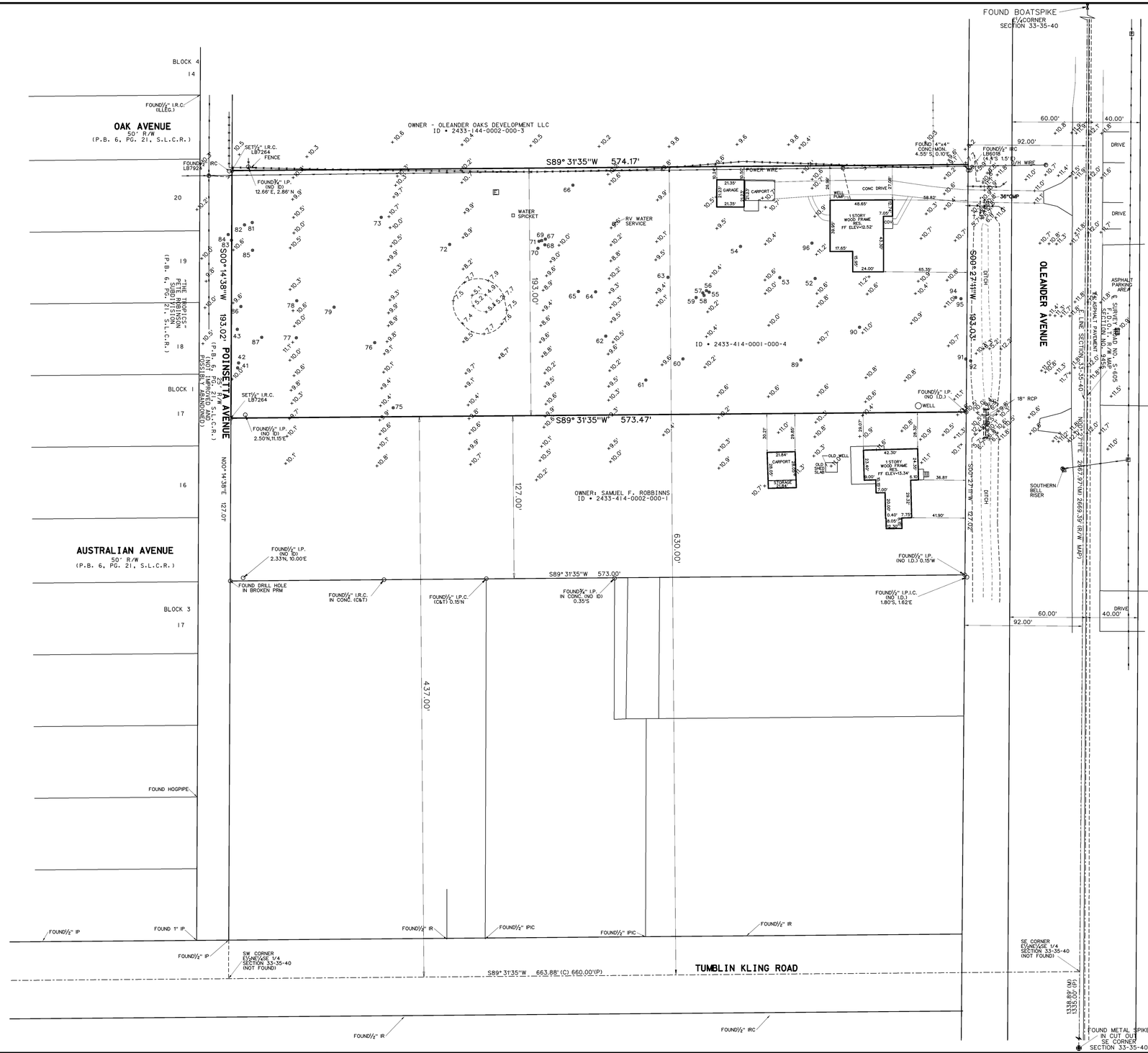
Min. Brk. Strength	Strand Info	Concrete	Pole Weight (lb)
3,500#	0.5" Diameter 270 ksi	6,500psi	1,900



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 This item has been digitally signed and sealed by Bryan G. Kelley, P.E., on 09/18/24. 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

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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**

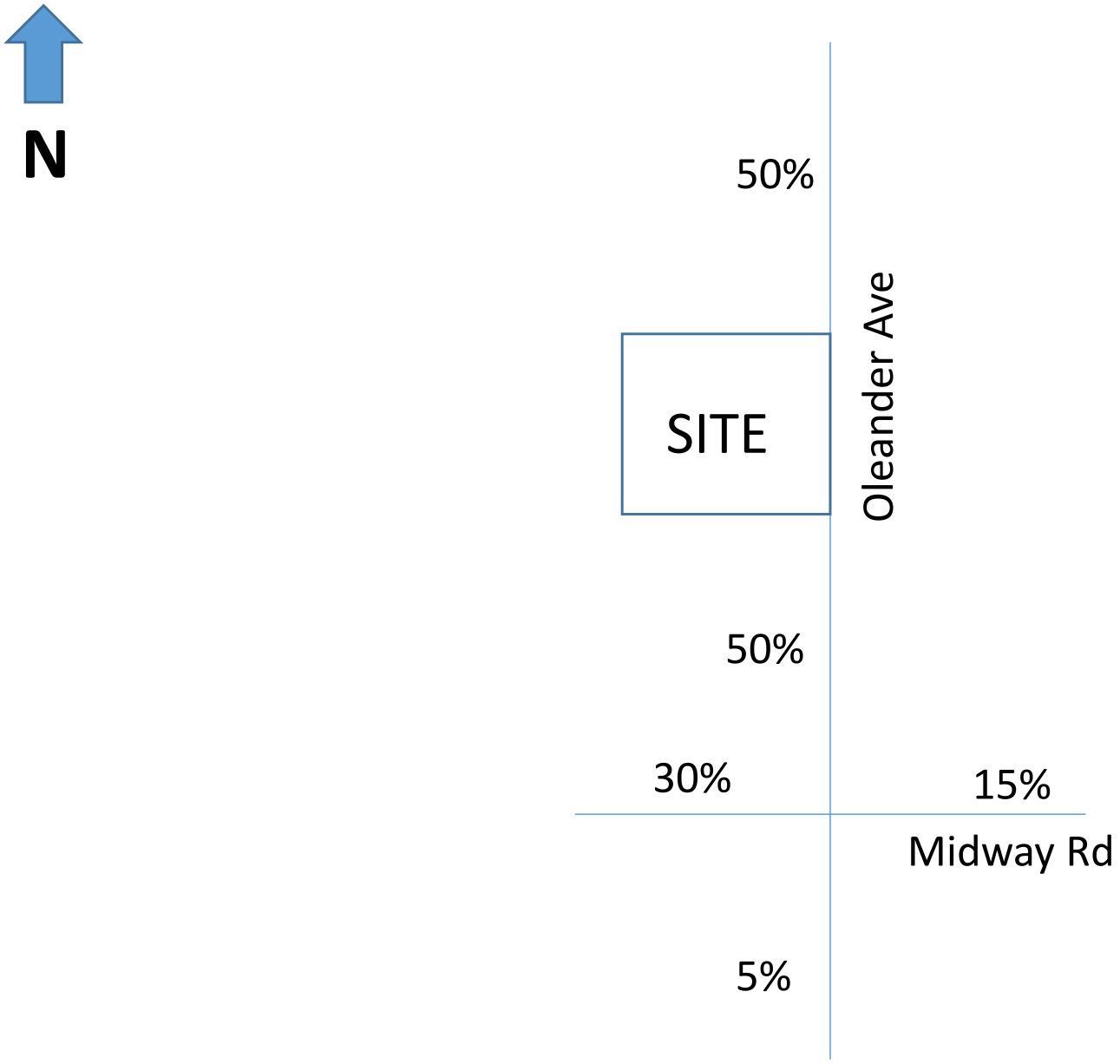

Figure 2 – Trip Distribution
4101 Oleander Avenue
Project # 23-103

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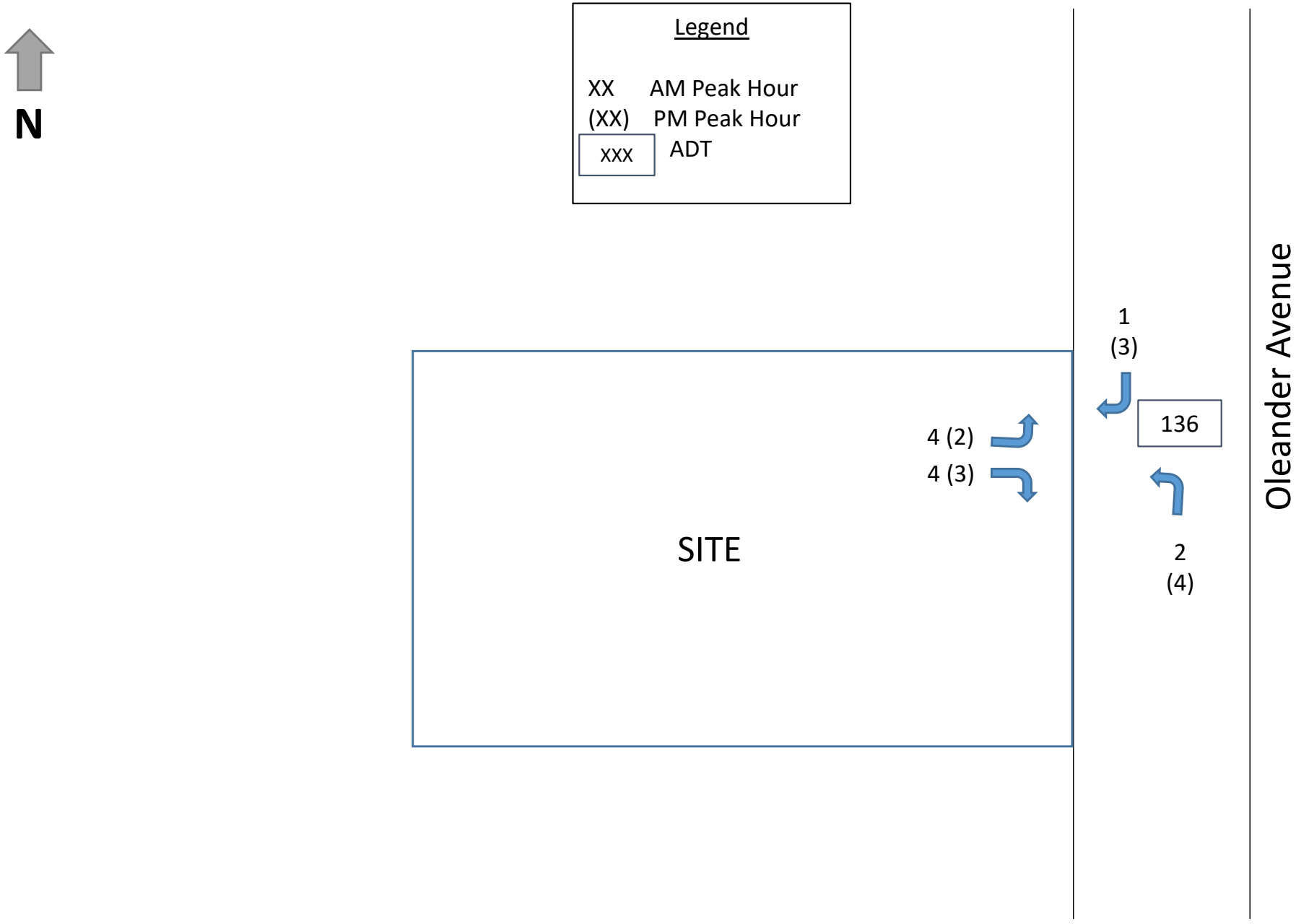
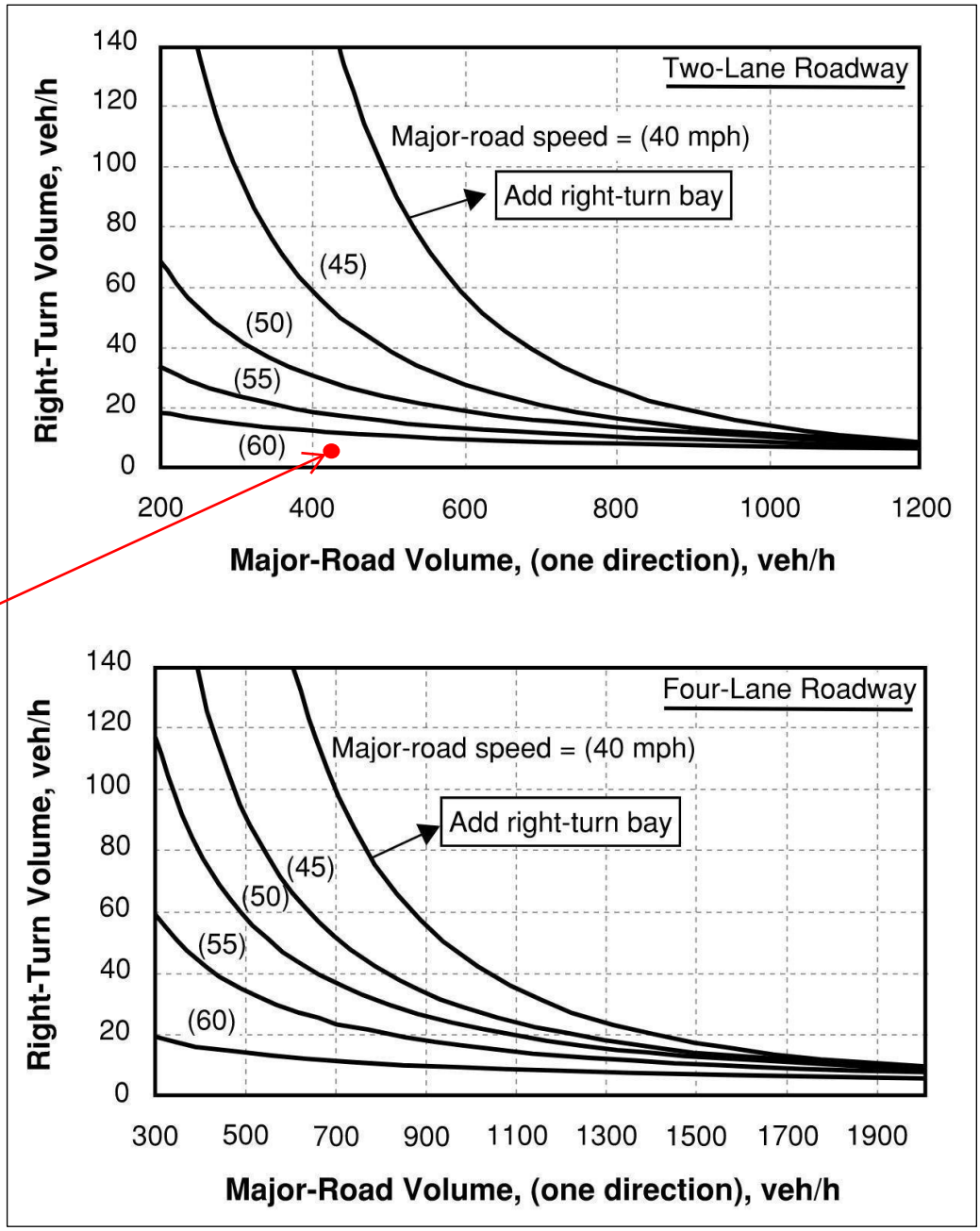


Figure 3 – Driveway Volumes
4101 Oleander Avenue
Project # 23-103

SIMMONS & WHITE
CIVIL & TRAFFIC ENGINEERING

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

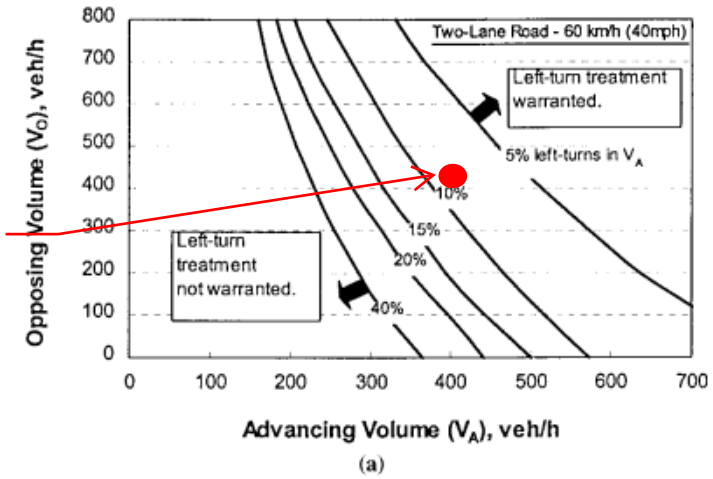


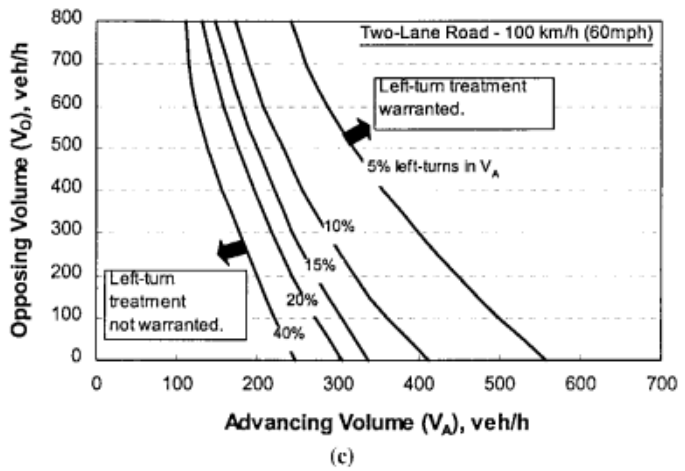
Right turns below threshold

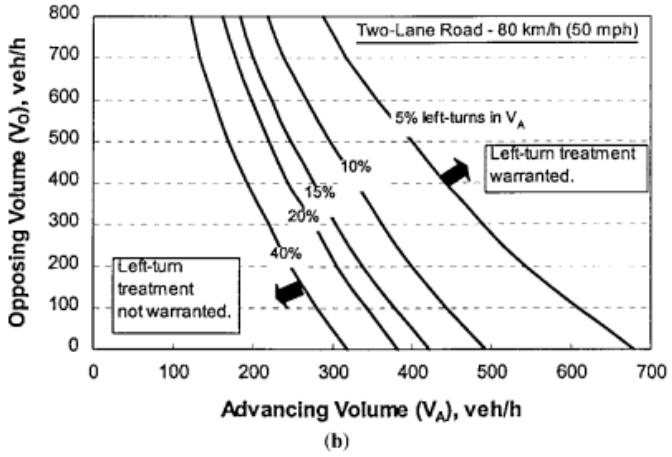
Source: NCHRP Report 457, TDOT Highway System Access Manual

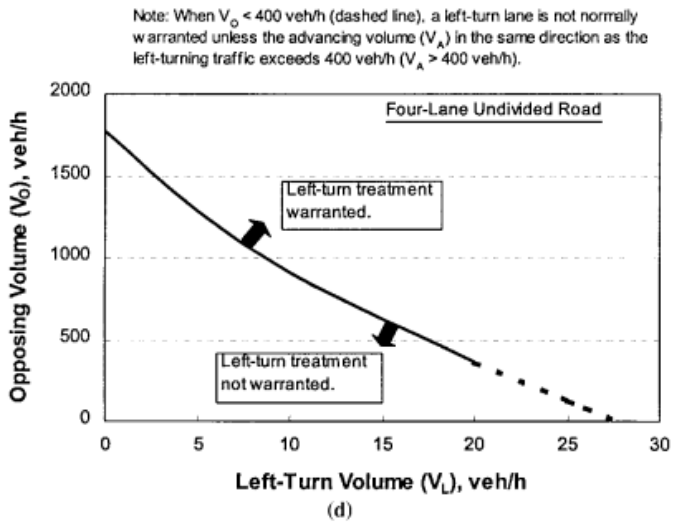
Figure 81 | Left-Turn Lane Warrants (Unsignalized Intersections) – Alternate Method

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

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				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.

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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.

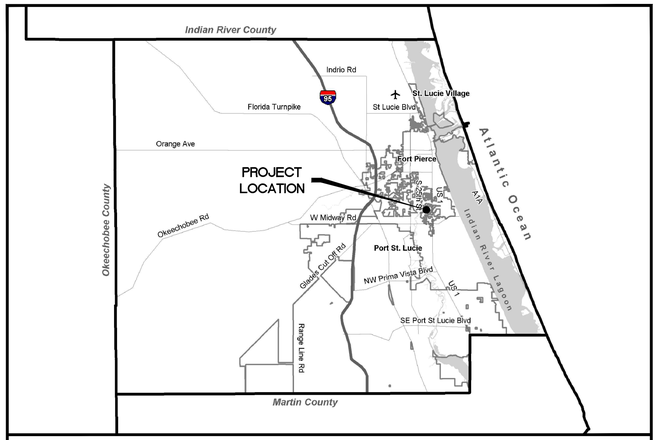
(5) *Agreements, provisions and covenants which govern the use, maintenance and continued protection of the innovative community development and any of its common open space or other shared areas. This material shall include material which binds successors in title to any commitments concerning completion 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.

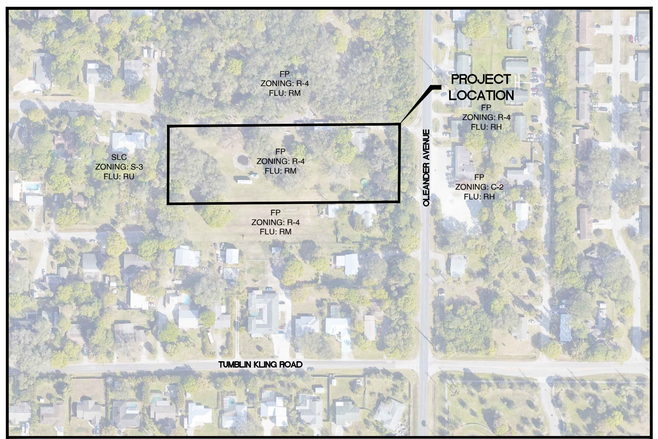
MARGARETA VILLAS
MULTI-FAMILY

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
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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

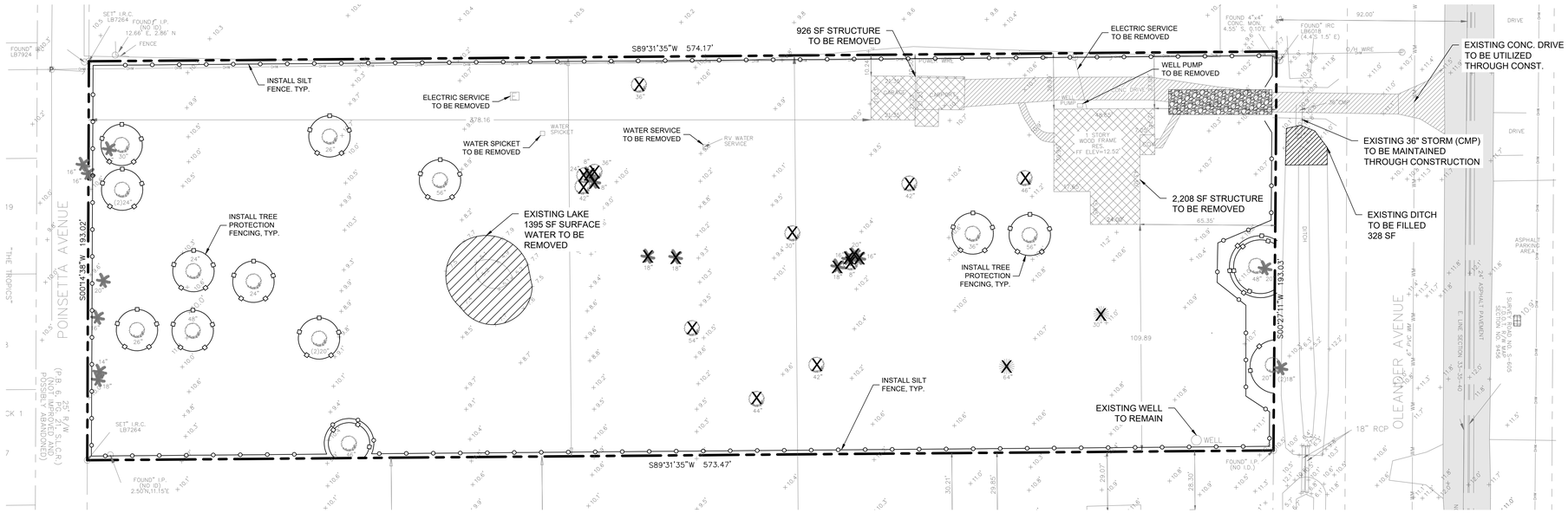
(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
(B)EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(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:

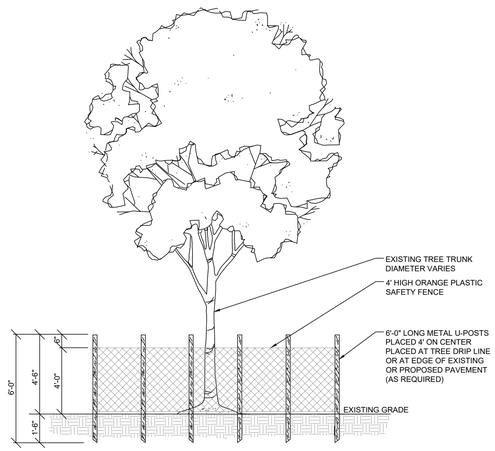
FLOOD INFORMATION

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

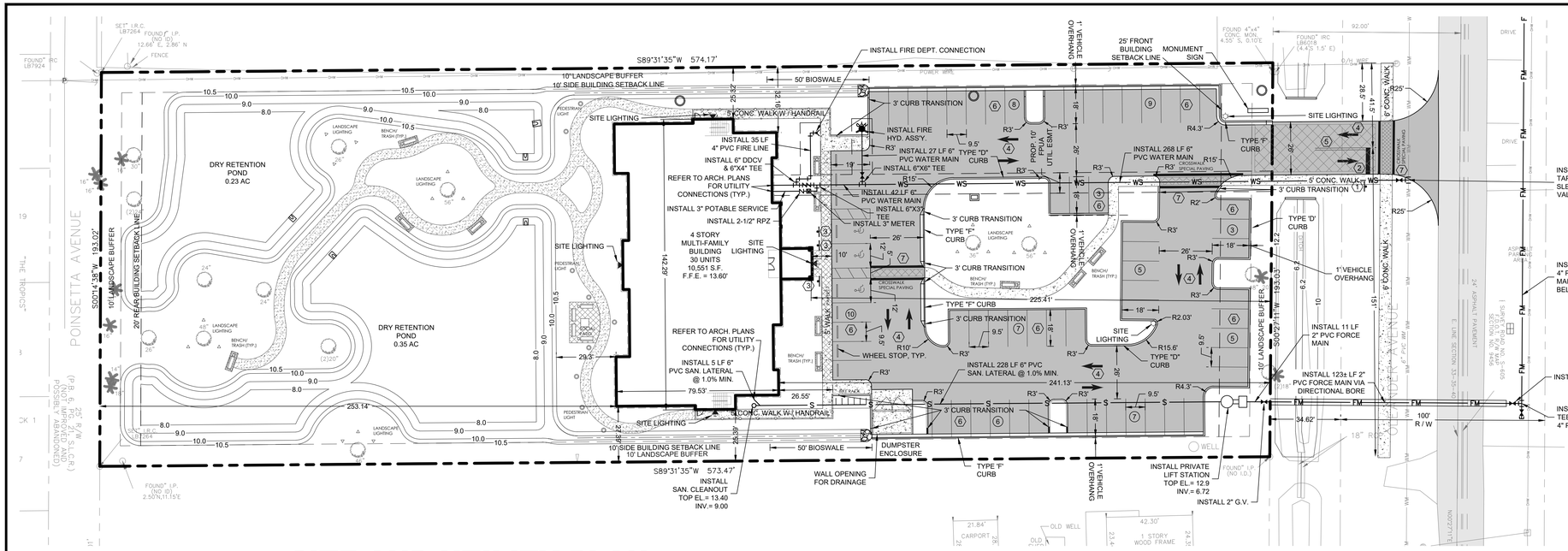
CITY OF FORT PIERCE FLORIDA

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)

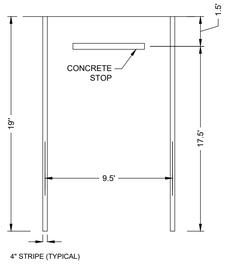
1 inch = 30 ft.

LEGEND

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

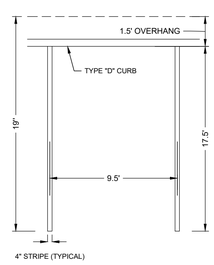
SITE, SIGNAGE & PAVEMENT MARKING SCHEDULE

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



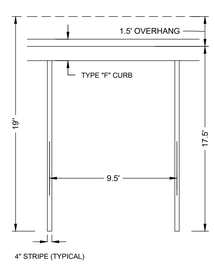
TYPICAL PARKING SPACE DETAIL

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
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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

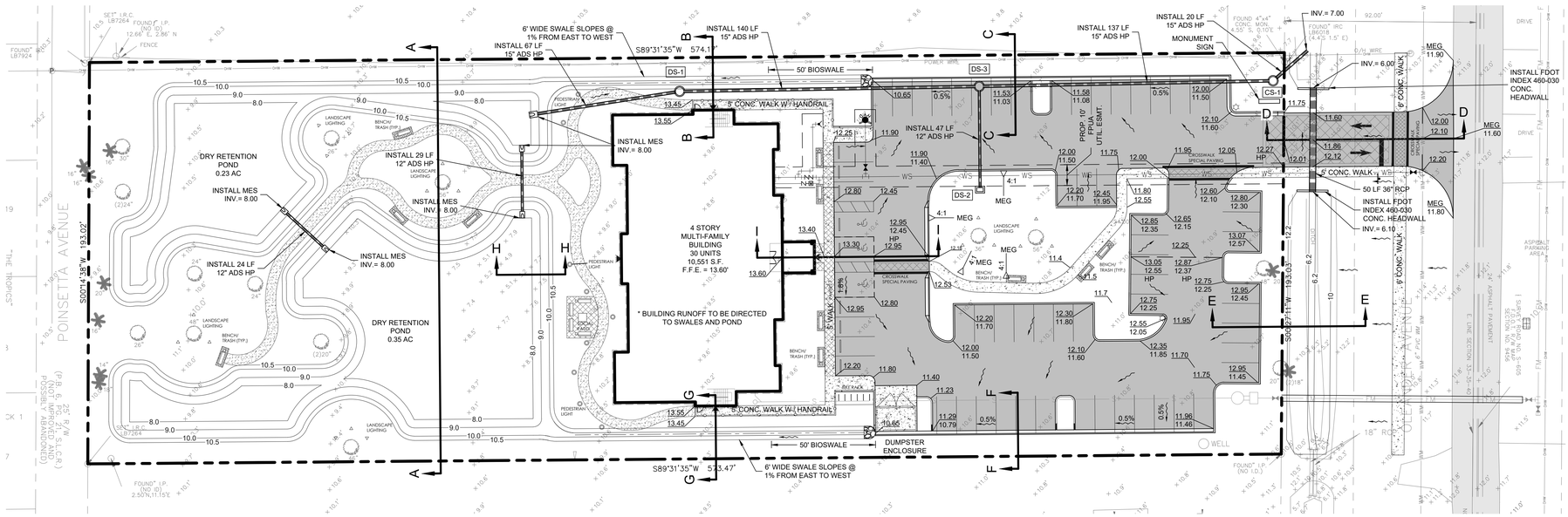
ANGELENA N. VITTER
F.L. P.E. #62950
2/18/2025

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
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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

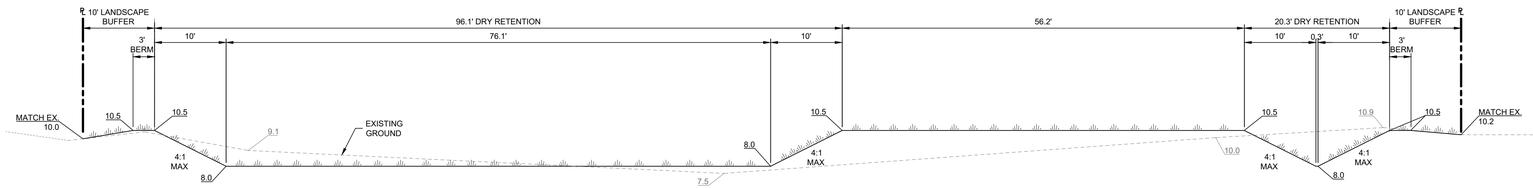
ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950 2/18/2025

SHEET

C5

23-0060



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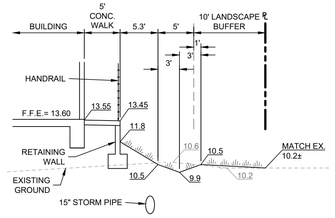

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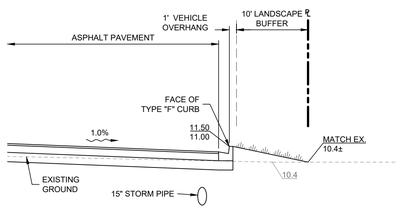

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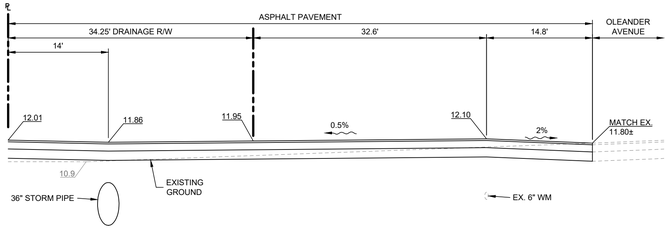

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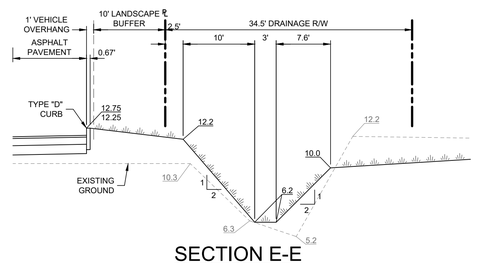

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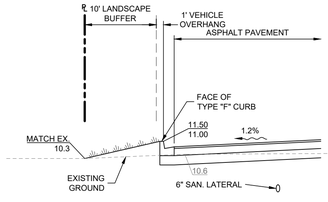

SECTION F-F
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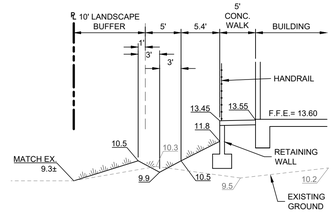

SECTION G-G
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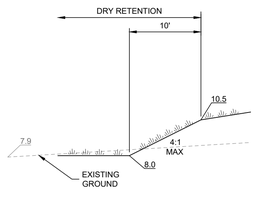

SECTION H-H
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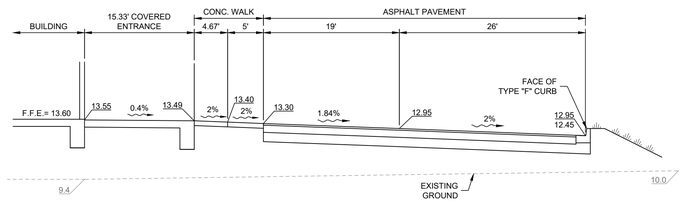

SECTION I-I
N.T.S.

72 HOURS BEFORE DIGGING
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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 =
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=	8 =

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MBV ENGINEERING, INC.
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CONSULTING ENGINEERING CA-#3728
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FT PIERCE FL: PH (772) 468-9055

CROSS SECTIONS

MARGARETA VILLAS
MULTI-FAMILY

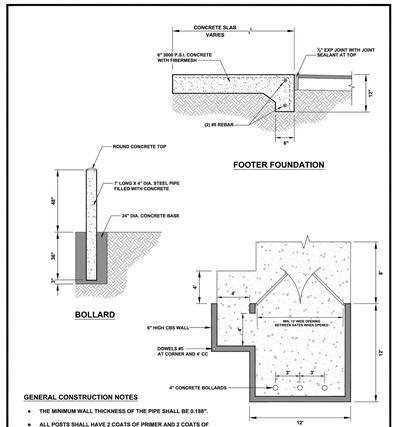
CITY OF FORT PIERCE FLORIDA

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

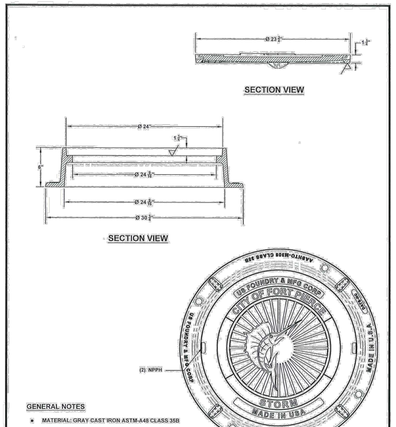
ANGELENA N. VITTER
F.L. P.E. #62950
2/18/2025

SHEET
C6

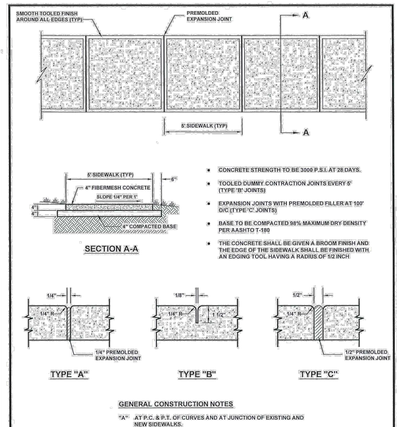
23-0060



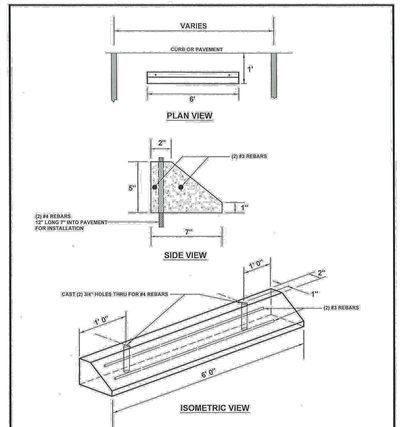
FORT PIERCE | DUMPSTER ENCLOSURE DETAIL | DATE: MAY, 2020 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET _



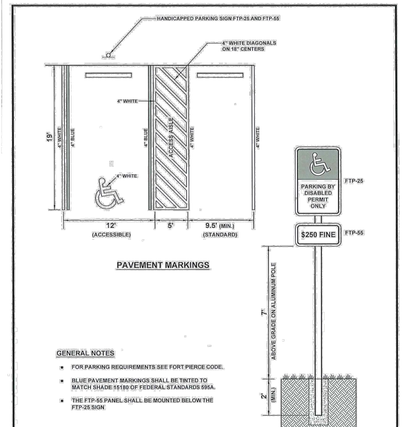
FORT PIERCE | MANHOLE COVER DETAIL | DATE: APRIL 2021 | SCALE: N.T.S. | DRAWN: S.SUNKER | SHEET ?



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

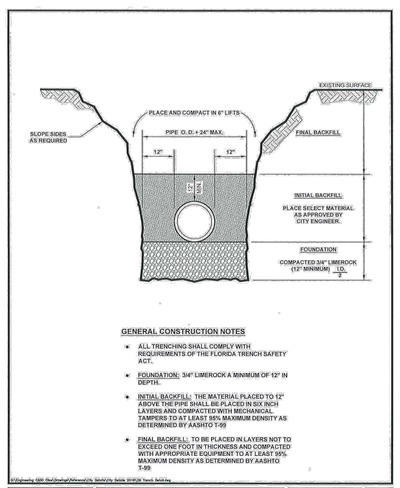
FORT PIERCE | PAVING DETAIL WITHOUT CURB AND GUTTER | DATE: MARCH 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 14

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

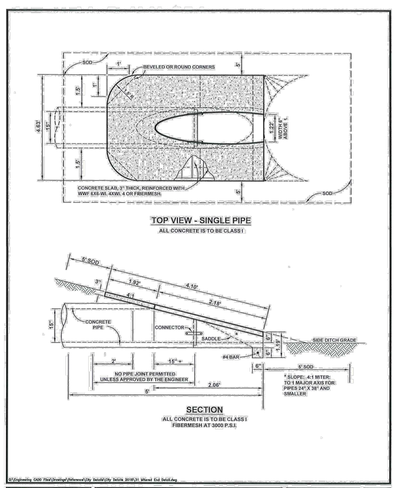
FORT PIERCE | TYPE "D" CURB AND GUTTER DETAILS | DATE: FEBRUARY 2020 | SCALE: NTS | DRAWN: S.SUNKER | SHEET 22

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'-0" | 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

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1	PER CITY COMMENTS	9/20/24	
△	REVISIONS	DATE	

JOB NO.	23-0060	
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DRAWN	GWR	
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CHECKED	AJB	
DATE ISSUED	2/4/2025	

MBV ENGINEERING, INC.
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GENERAL DETAILS

MARGARETA VILLAS
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ANGELENA N. VITTER
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No. 62950
STATE OF FLORIDA
PROFESSIONAL ENGINEER

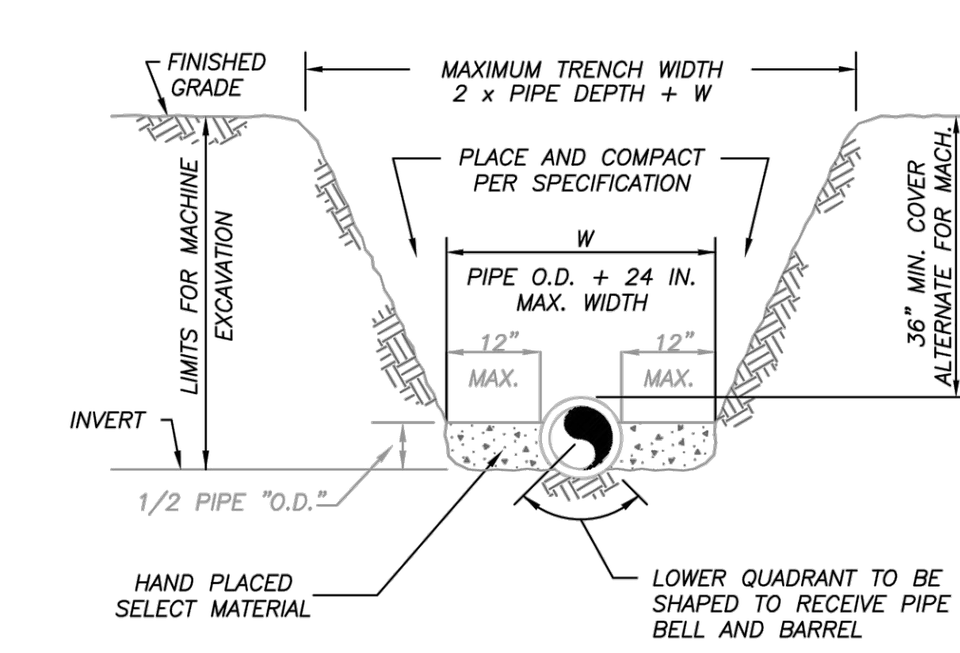
ANGELENA N. VITTER
F.L. P.E. #62950 2/18/2025

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

TYPICAL TRENCH DETAIL (M-1)



NOTES:

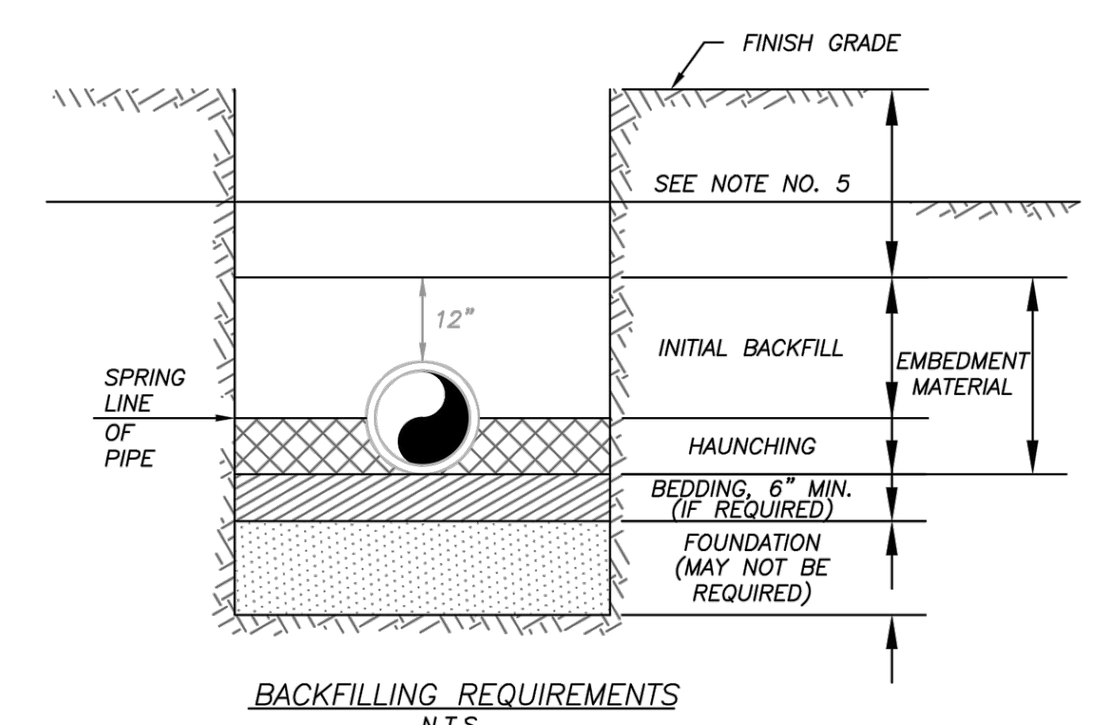
1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.

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
FT. PIERCE UTILITIES AUTHORITY WATER/WASTEWATER ENGINEERING 1701 SOUTH 37TH STREET FT. PIERCE, FLORIDA 34947 772-466-1600	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # MISC DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

BACKFILLING REQUIREMENTS (M-2)



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)

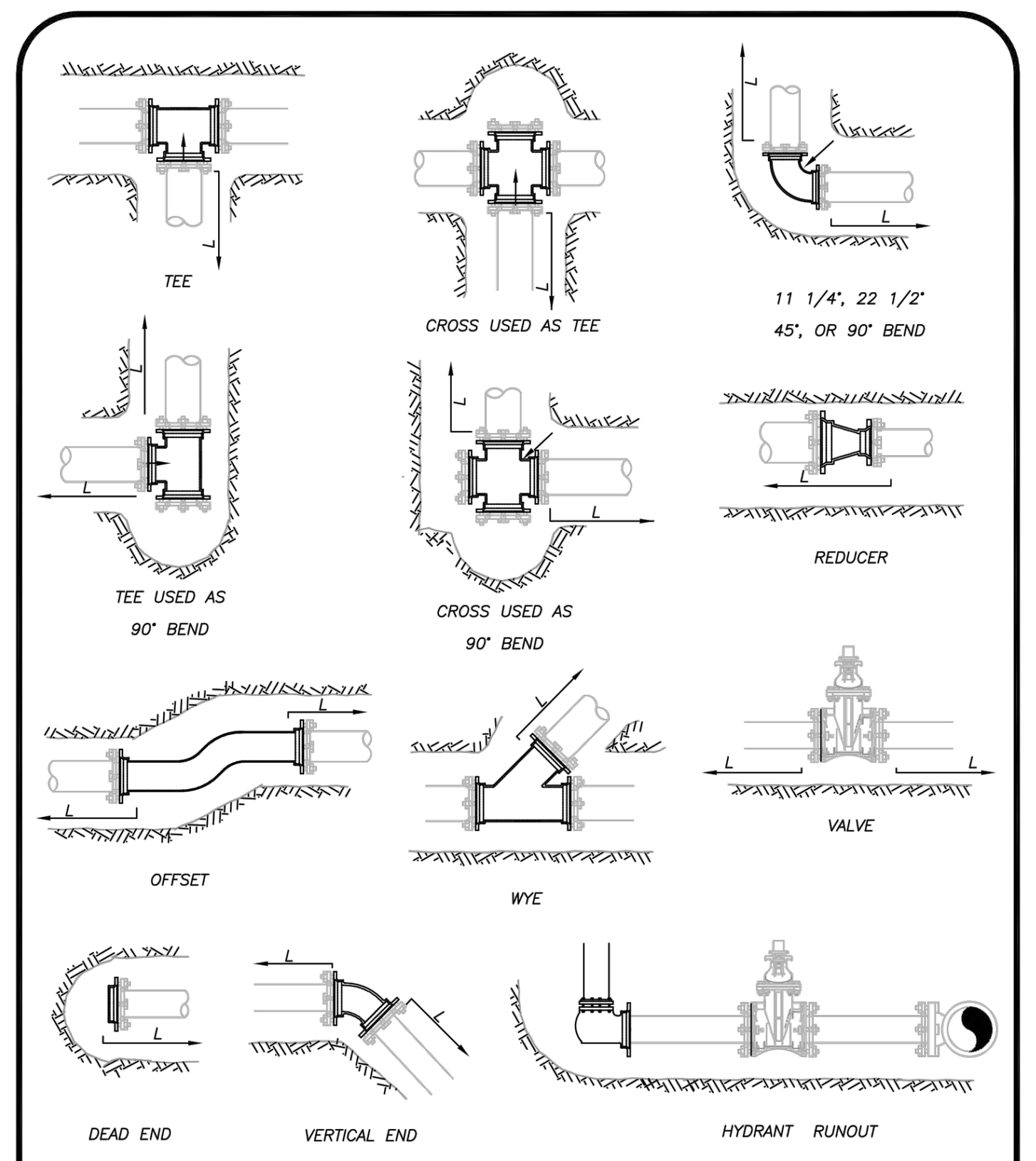
5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX. DENSITY AS PER AASHTO T-99, TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180.

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
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # MISC DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

MECHANICAL JOINT ANCHORING REQUIREMENTS (M-3)



MECHANICAL JOINT ANCHORING REQUIREMENTS
N.T.S.

FPUA COMMUNITY PROUD	MECHANICAL JOINT ANCHORING REQUIREMENTS	M-3
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # MISC DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

MECHANICAL JOINT RESTRAINT NOTES (M-4)

NOTES:

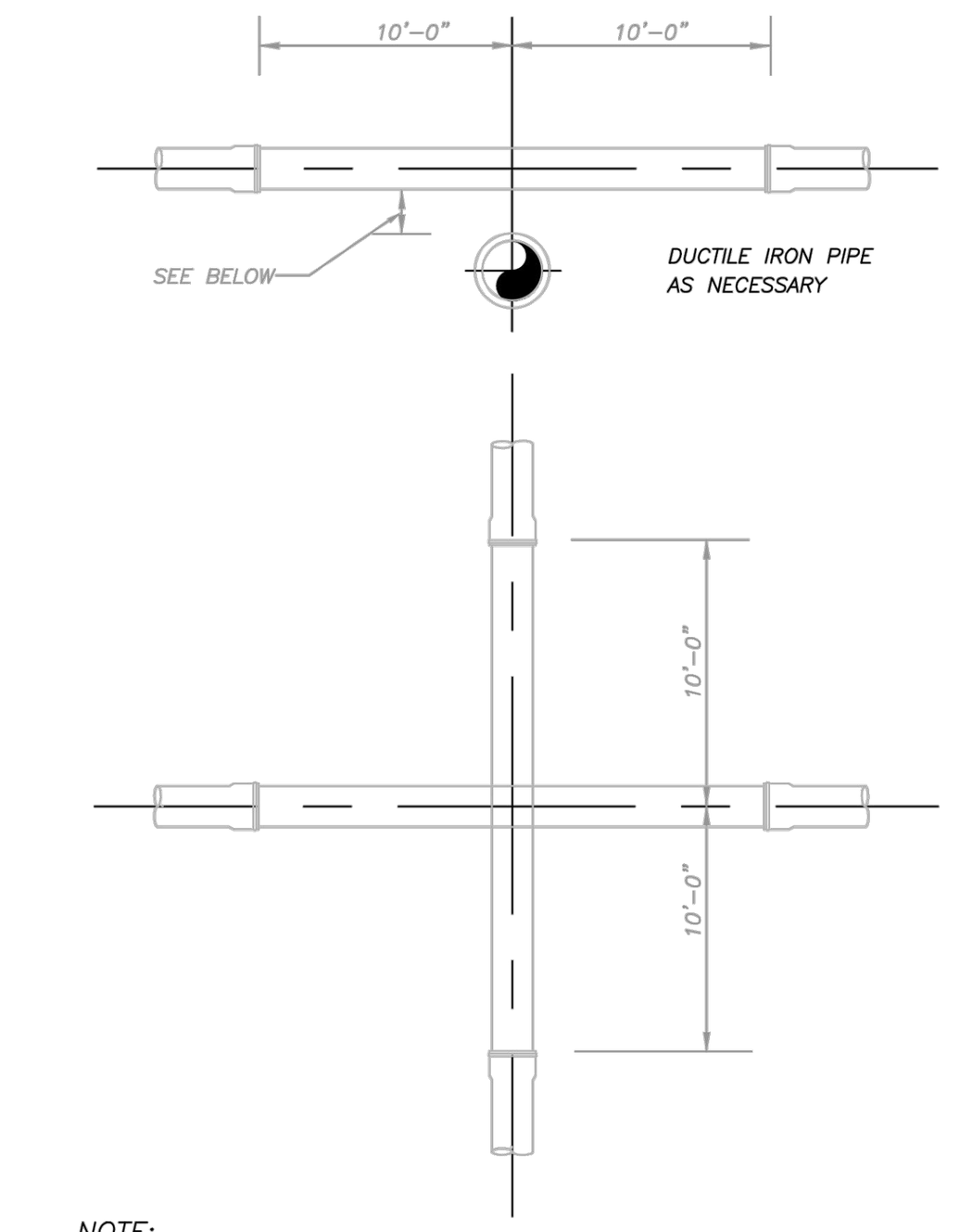
1) THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE REQUIRED LENGTH TO BE RESTRAINED BASED UPON THE PROJECT AREA SOIL TYPE, PROPOSED TRENCH CONDITIONS AND DEPTH, PRESSURE OF 150 PSI, AND A SAFETY FACTOR OF TWO (2). A DRAWING OF EVERY TYPICAL FITTING ASSEMBLY WITHIN THE PROJECT SHALL BE SUBMITTED 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
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # MISC DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

UTILITY CROSSING DETAIL (M-5)



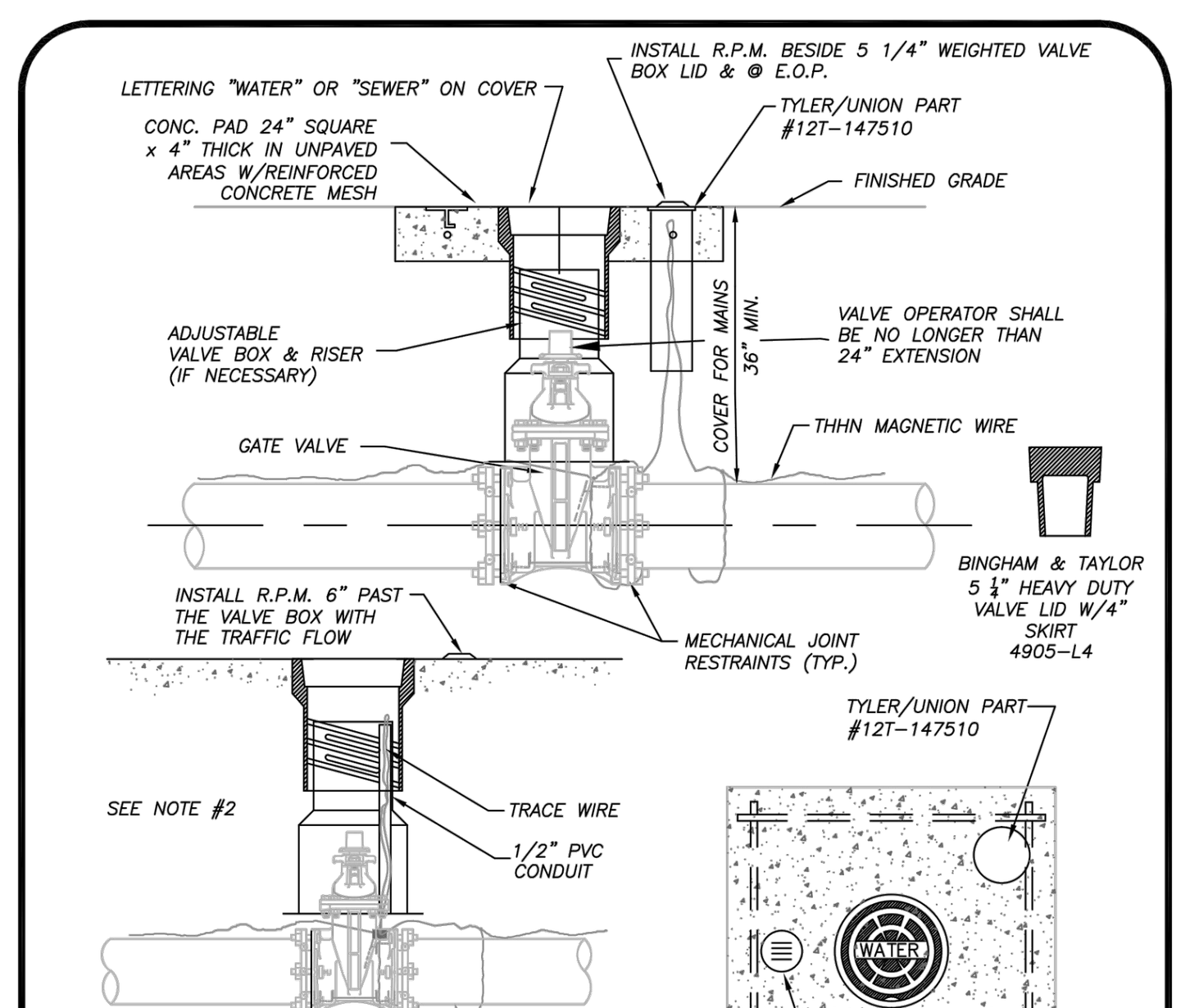
NOTE:

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

UTILITY CROSSING DETAIL
N.T.S.

FPUA COMMUNITY PROUD	UTILITY CROSSING DETAIL	M-5
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # MISC DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

TYPICAL GATE VALVE & VALVE BOX DETAIL (M-6)



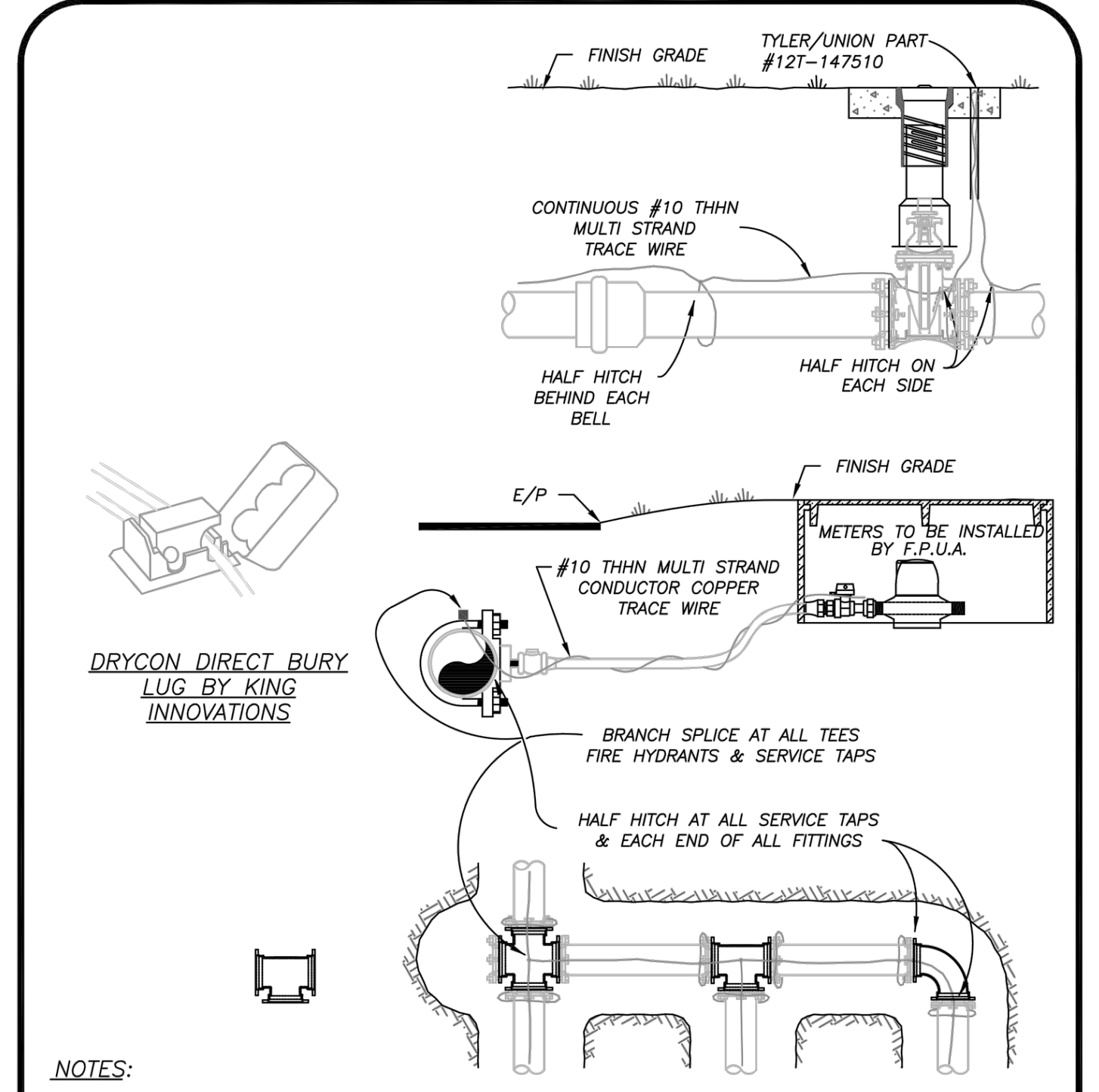
NOTES:

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
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # MISC DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

TRACE WIRE DETAIL (M-11)



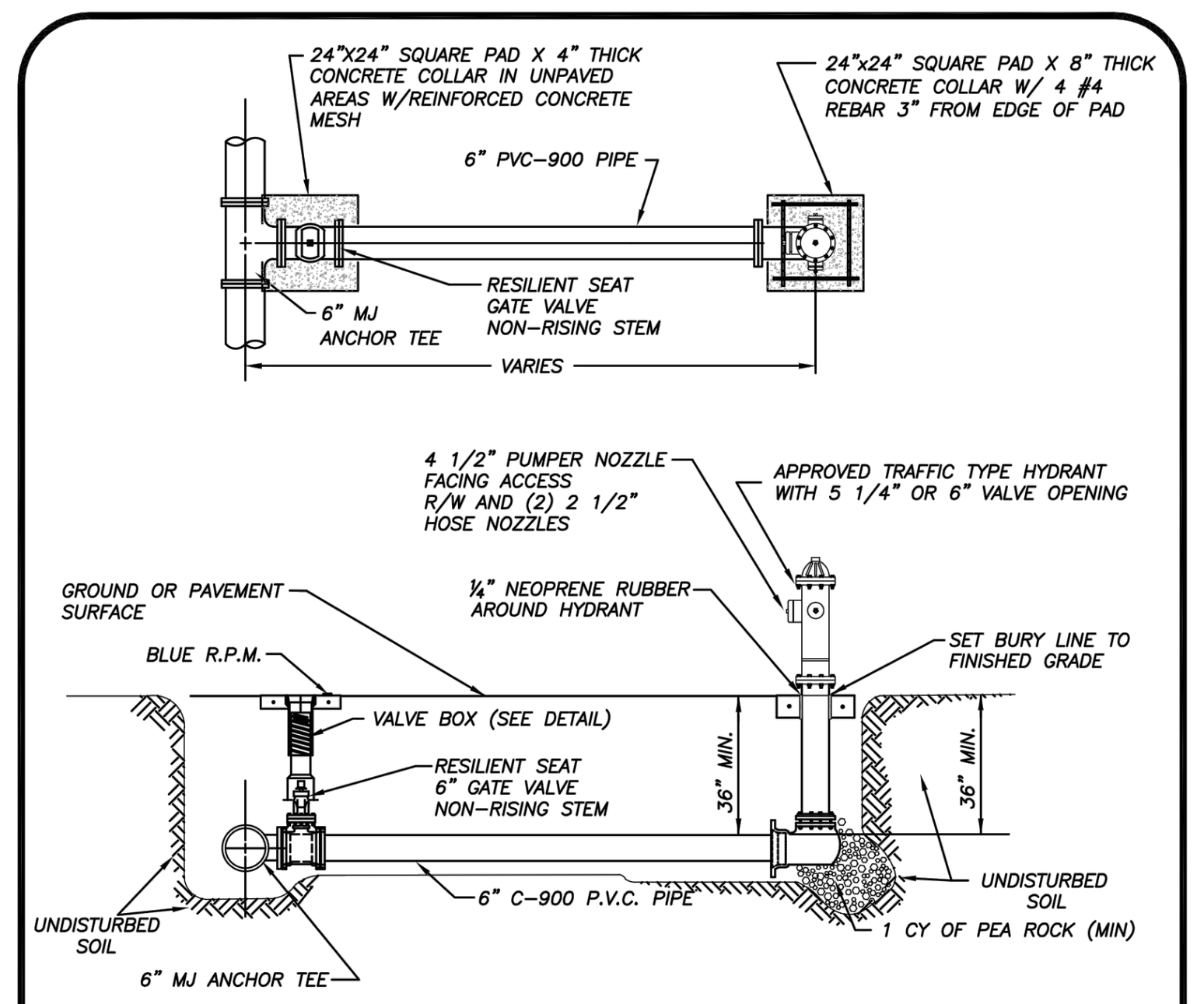
NOTES:

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
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # MISC DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2015	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

TYPICAL FIRE HYDRANT ASSEMBLY (W-5)



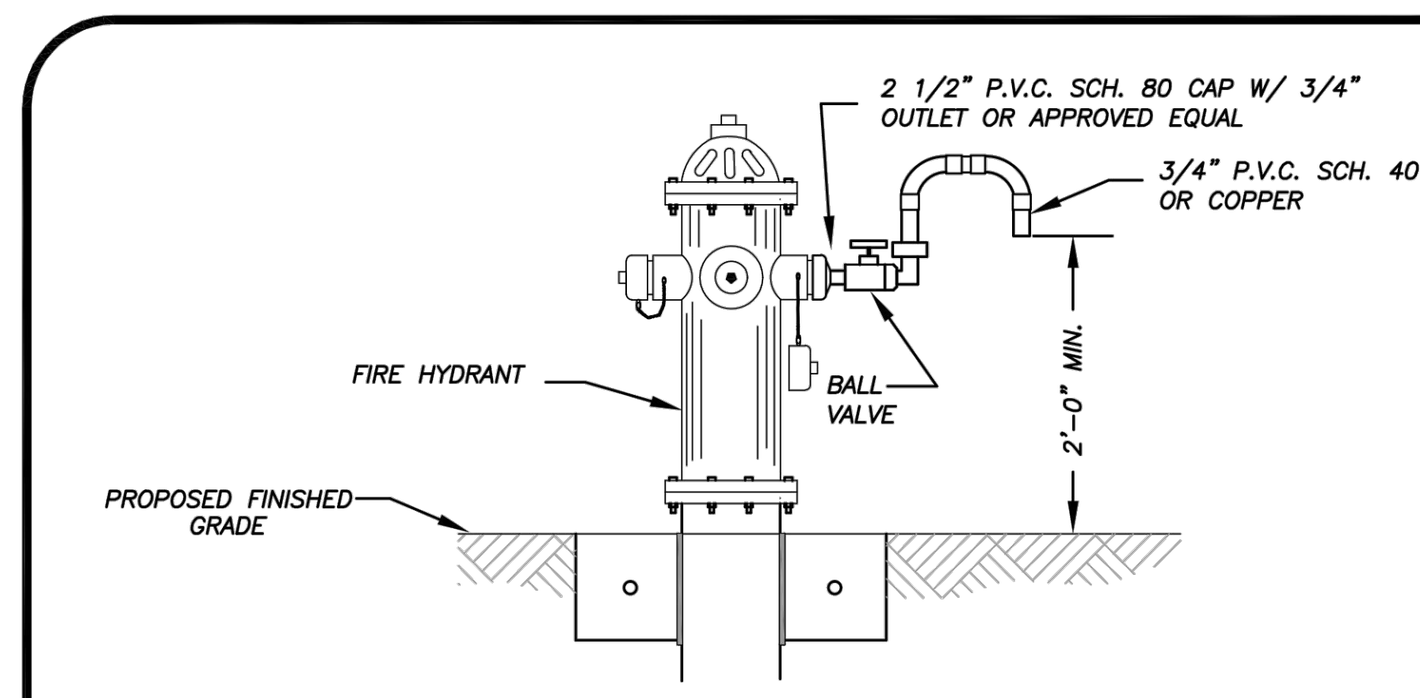
NOTES:

1. HYDRANT SHALL BE INSTALLED PLUMB & TRUE.
2. HYDRANT SHALL BE PAINTED CARNIVAL RED FROM FACTORY.
3. HEEL TO REST IN UNDISTURBED SOIL.
4. THE ONLY HYDRANTS ACCEPTABLE ARE: MUELLER SUPER CENTURION 250 OR AMERICAN DARLING B-84-B-5.
5. HYDRANT ASSEMBLY MUST BE RESTRAINED TO TEE.
6. ALL FITTINGS SHALL BE MECHANICAL JOINT.
7. ENTIRE ASSEMBLY TO BE MECHANICALLY RESTRAINED.
8. BLUE LOCATOR SHALL BE PLACED IN CENTER OF TRAVEL LANE CLOSEST TO HYDRANT.
9. ALL HYDRANT VALVE BOX COVERS SHALL BE PAINTED CARNIVAL RED.
10. LOCATE WIRE SHALL TERMINATE AT HYDRANT ISOLATION VALVE
11. HYDRANTS SHALL BE NO MORE THAN FIFTEEN FEET (15 FT.) FROM THE CURB OF ROADWAYS OR FROM THE EDGE OF PAVEMENT. CLEARANCES OF SEVEN AND ONE HALF FEET (7FT-6IN.) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANTS, WITH FOUR FOOT (4 FT.) CLEARANCE TO THE REAR OF HYDRANTS SHALL BE MAINTAINED.

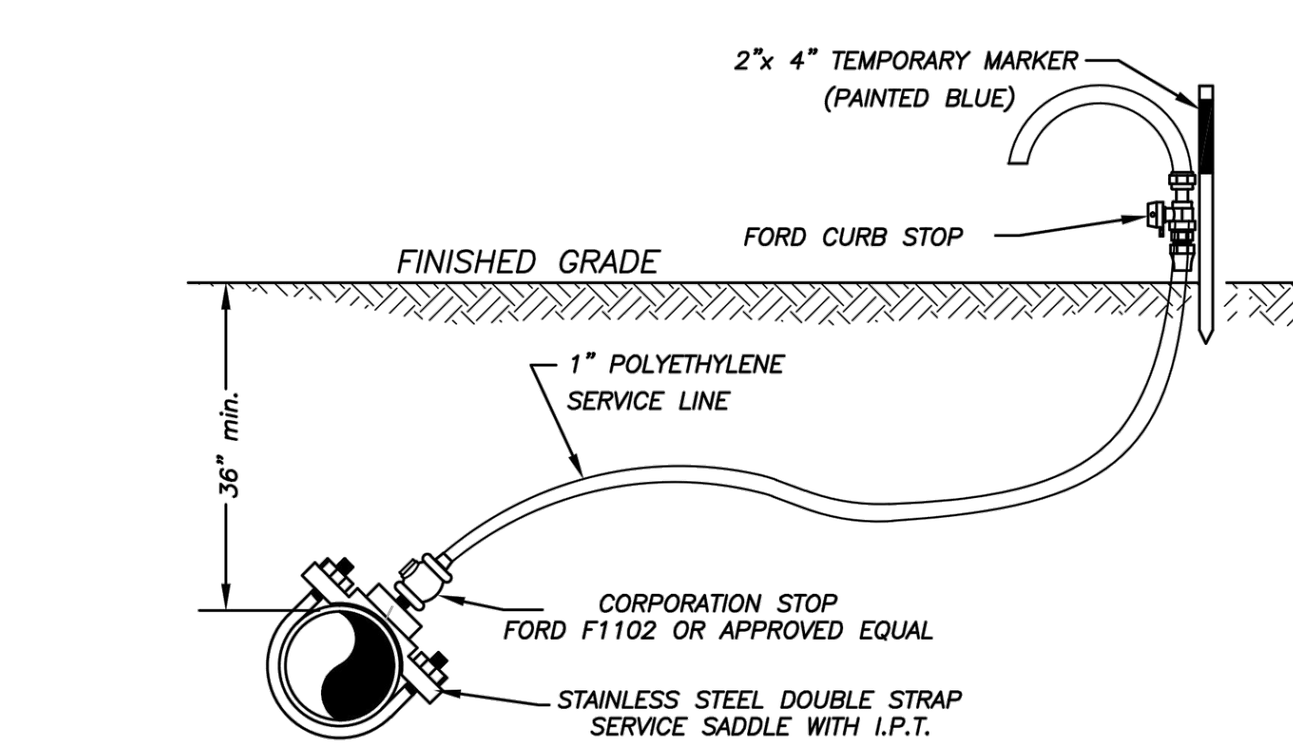
TYPICAL FIRE HYDRANT ASSEMBLY
(N.T.S.)

FPUA COMMUNITY PROUD	TYPICAL FIRE HYDRANT ASSEMBLY	W-5
FT. PIERCE UTILITIES AUTHORITY	03-09 DESIGN SLL JLC; DESIGNED: JLC; COMPUTER FILE # WATERDETAIL.DWG; DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

BACTERIOLOGICAL SAMPLING POINT DETAIL (W-6)



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



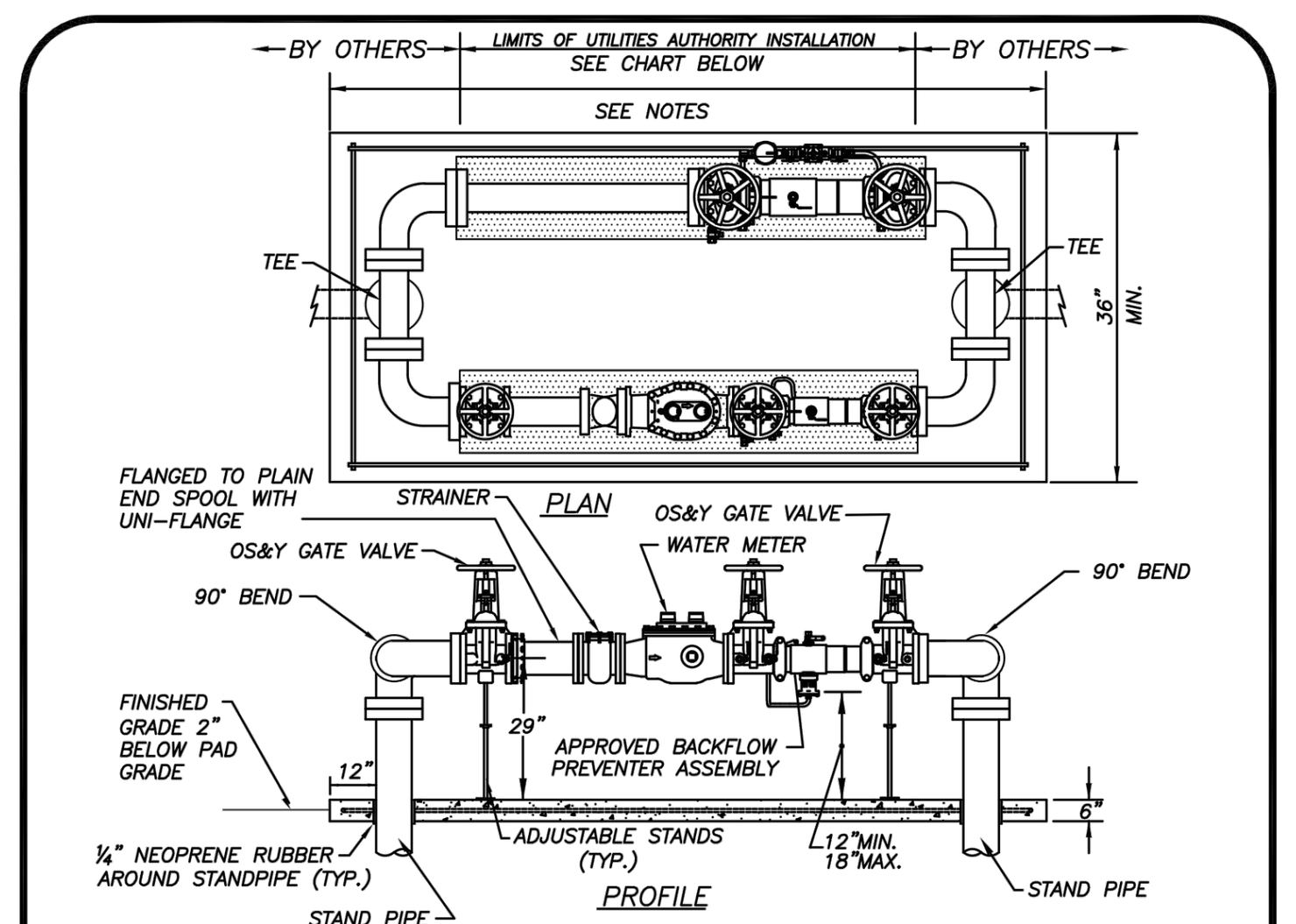
BACTERIOLOGICAL SAMPLING POINT @ WATER MAIN
(N.T.S.)

NOTE:

AFTER TESTING REMOVE 1" P.E. LINE AND CAP WITH BRASS PLUG AT CORPORATION STOP.

FPUA COMMUNITY PROUD	BACTERIOLOGICAL SAMPLING PONIT DETAIL	W-6
FT. PIERCE UTILITIES AUTHORITY	03-09 02-15 SLL JLC; DESIGNED: JLC; COMPUTER FILE # WATERDETAIL.DWG; DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

WATER METER/BACKFLOW PREVENTER (W-9)



NOTES:

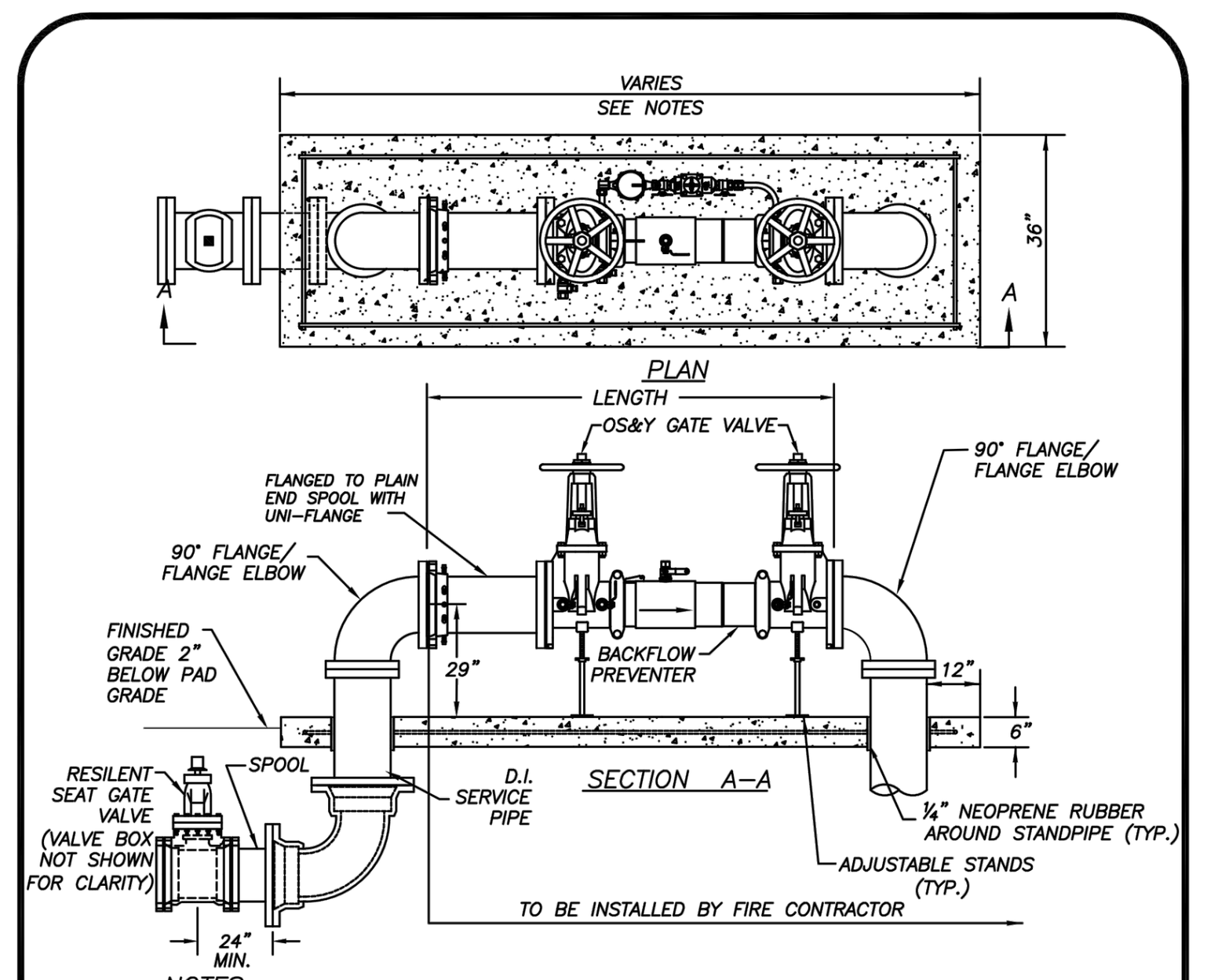
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 36" AROUND METER TO ALLOW MAINTENANCE WITHOUT DAMAGE TO PLANTS ETC.
2. CONTRACTOR TO INSTALL APPROPRIATE SIZED SPOOL PIECES TO FIT BETWEEN 90° BENDS UNTIL METERS ARE APPROVED FOR INSTALLATION. ALL SPOOL PIECES SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE IN ACCORDANCE WITH THE CHART BELOW.
3. PRIOR TO POURING CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND ARE INSTALLED AT THE SAME ELEVATION IN THE PRESENCE OF THE FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
3	COMPOUND	83 INCHES
4	COMPOUND	95 INCHES
6	COMPOUND	106 INCHES

WATER METER/BACKFLOW PREVENTER ASSEMBLY
COMMERCIAL WATER METER SERVICES (METER SIZE > 3")

FPUA COMMUNITY PROUD	WATER METER/BACKFLOW PREVENTER DOMESTIC SERVICE (METER SIZE ≥ 3")	W-9
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE SLAB SLL JLC; DESIGNED: JLC; COMPUTER FILE # WATER DETAILS 200602.DWG; DRAWN BY: SLL; APPROVED: JLC; DATE: 2010	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

BACKFLOW PREVENTER ASSEMBLY (W-10)



NOTES:

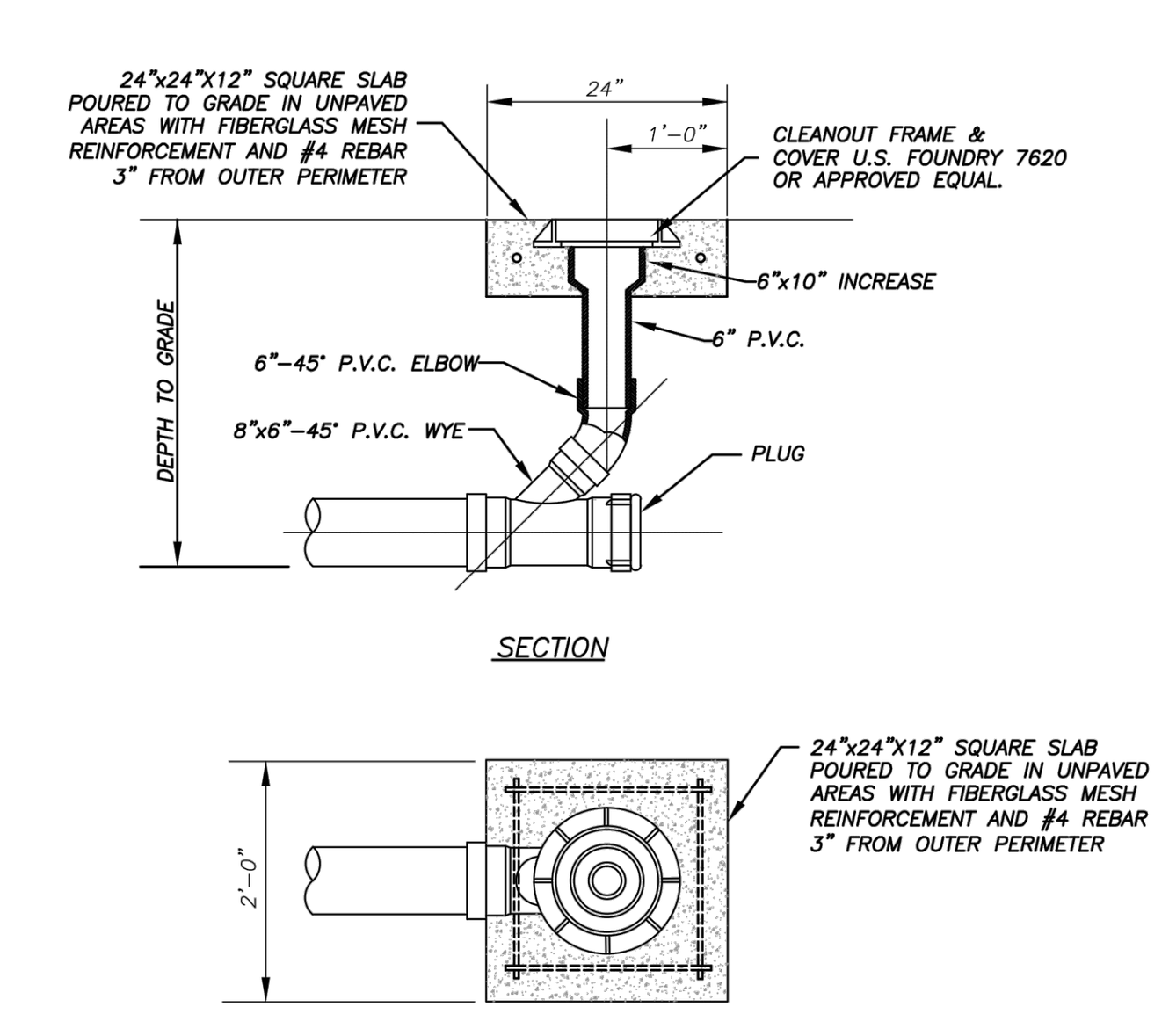
1. LANDSCAPING IS REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.
3. PRIOR TO POURING THE CONCRETE PAD, VERIFY THAT THE STANDPIPES ARE PLUMB, TRUE AND INSTALLED AT THE SAME ELEVATIONSIN THE PRESENCE OF AN FPUA INSPECTOR.
4. ALL CONCRETE SHALL HAVE FIBERGLASS MESH REINFORCEMENT WITH #4 REBAR 3" FROM THE OUTER PERIMETER.

SIZE	SERVICE	LENGTH
4	DOUBLE DETECTOR	53 INCHES
6	DOUBLE DETECTOR	62 INCHES
8	DOUBLE DETECTOR	69 INCHES
10	DOUBLE DETECTOR	76 INCHES

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

FPUA COMMUNITY PROUD	BACKFLOW PREVENTER ASSEMBLY 4"-10" FIRE SERVICE	W-10
FT. PIERCE UTILITIES AUTHORITY	03-09 CONCRETE PAD SLL JLC; DESIGNED: JLC; COMPUTER FILE # WATER DETAILS 200602.DWG; DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 1 OF 1

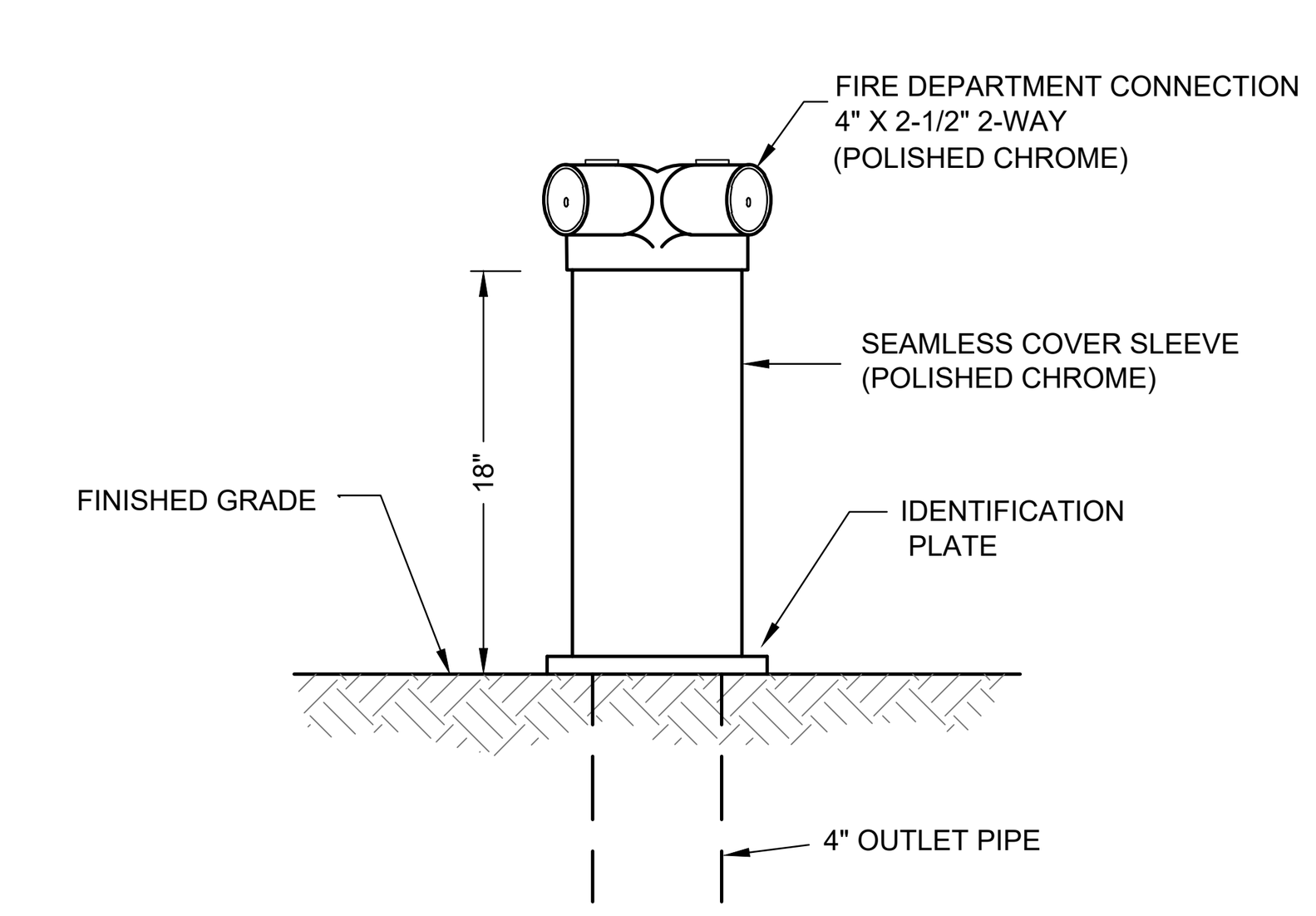
TERMINAL CLEANOUT DETAIL (S-4B)



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

FPUA COMMUNITY PROUD	TERMINAL CLEANOUT DETAIL WASTEWATER	S-4B
FT. PIERCE UTILITIES AUTHORITY	10-06 RBE; DESIGNED: JLC; COMPUTER FILE # SEWER DETAIL 200602.DWG; DRAWN BY: SLL; SCALE: N.T.S.; APPROVED: JLC; DATE: 2010	WATER/WASTEWATER ENGINEERING; FT. PIERCE UTILITIES AUTHORITY; SHEET 2 OF 3

FDC (FIRE DEPT. CONNECTION) DETAIL



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

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

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 - 20TH STREET
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FT. PIERCE, FL - PH (772) 468-9055

WATER AND SEWER DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA

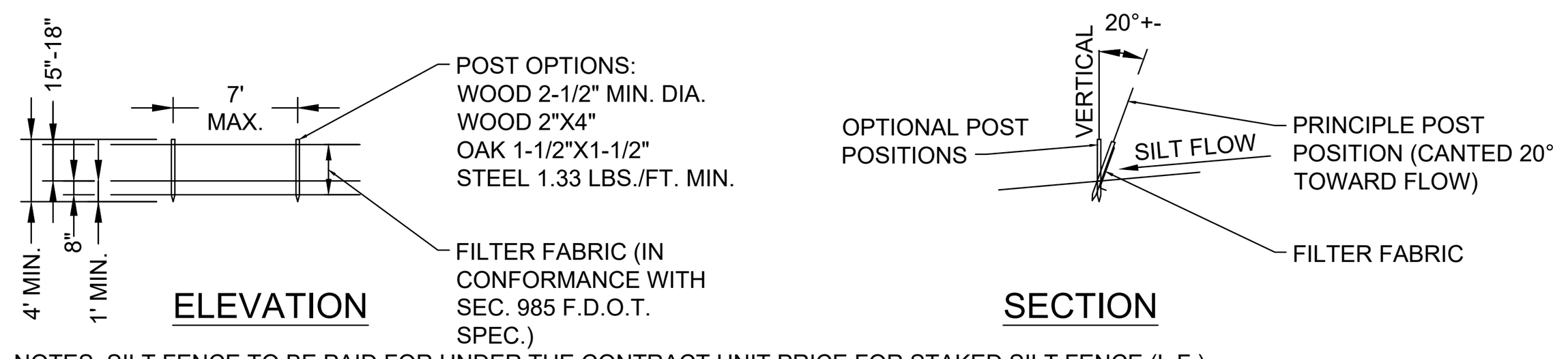
ANGELENA N. VITTER LICENSE No. 62950 STATE OF FLORIDA PROFESSIONAL ENGINEER

ANGELENA N. VITTER
F.L. P.E. #62950 2/18/2025

SHEET
C8

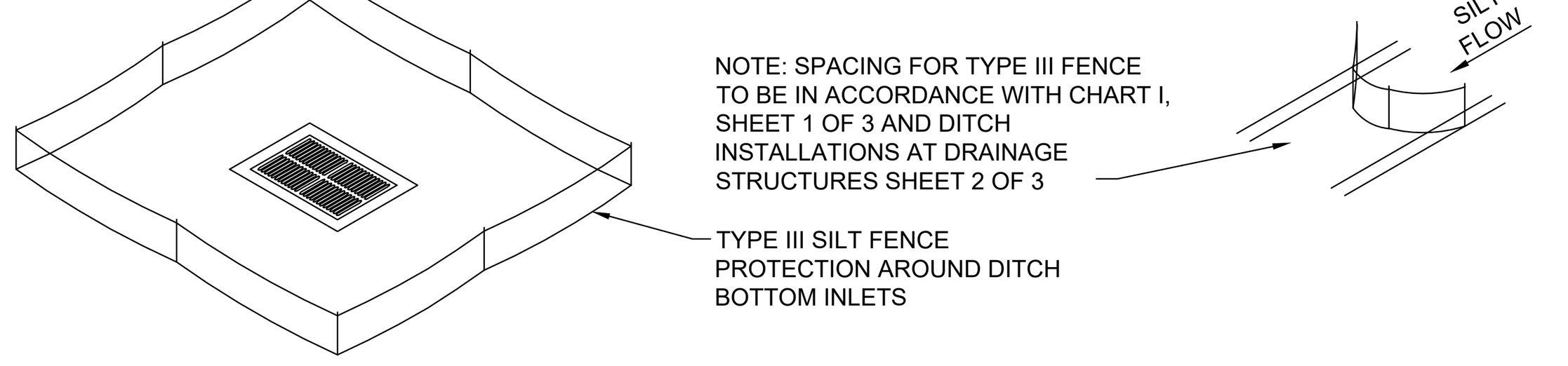
23-0060

C:\CIVIL ON HARD DRIVE\2023\23-0060 4101 Oleander multi family\DWG\23-0060 COVER - DETAILS.dwg 2/4/2025 3:56 PM GREGG REED



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

TYPE III SILT FENCE



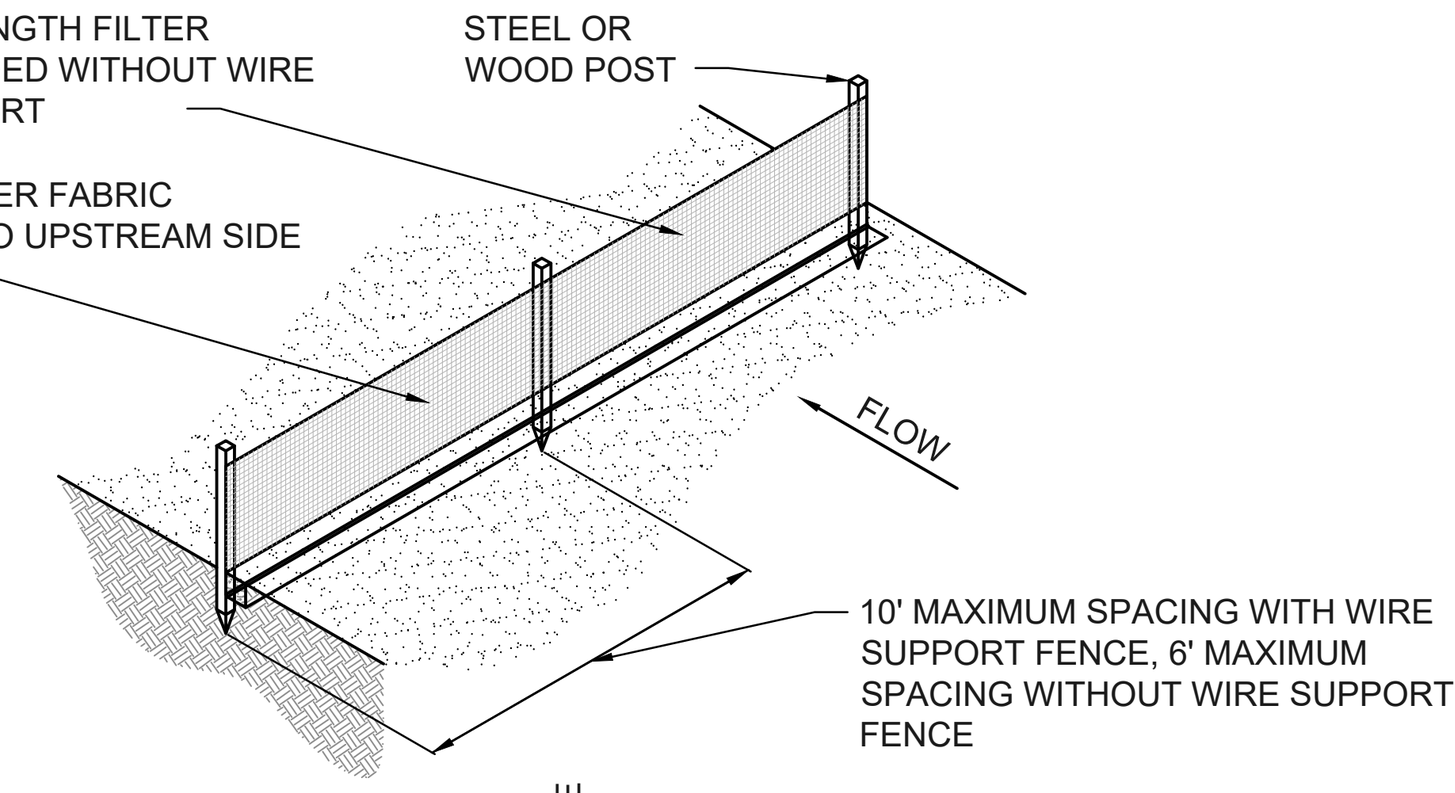
DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

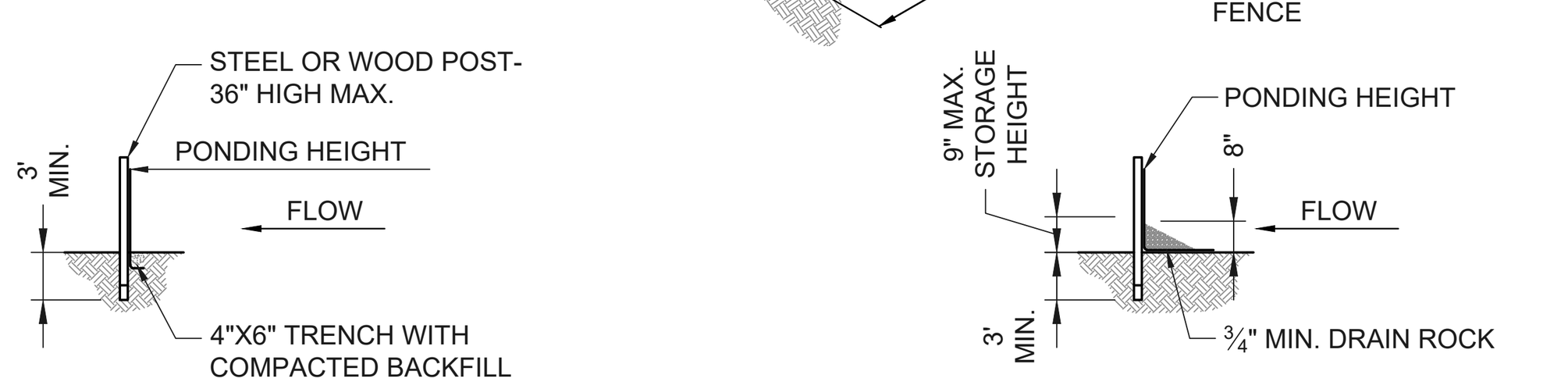
SILT FENCE APPLICATIONS

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.



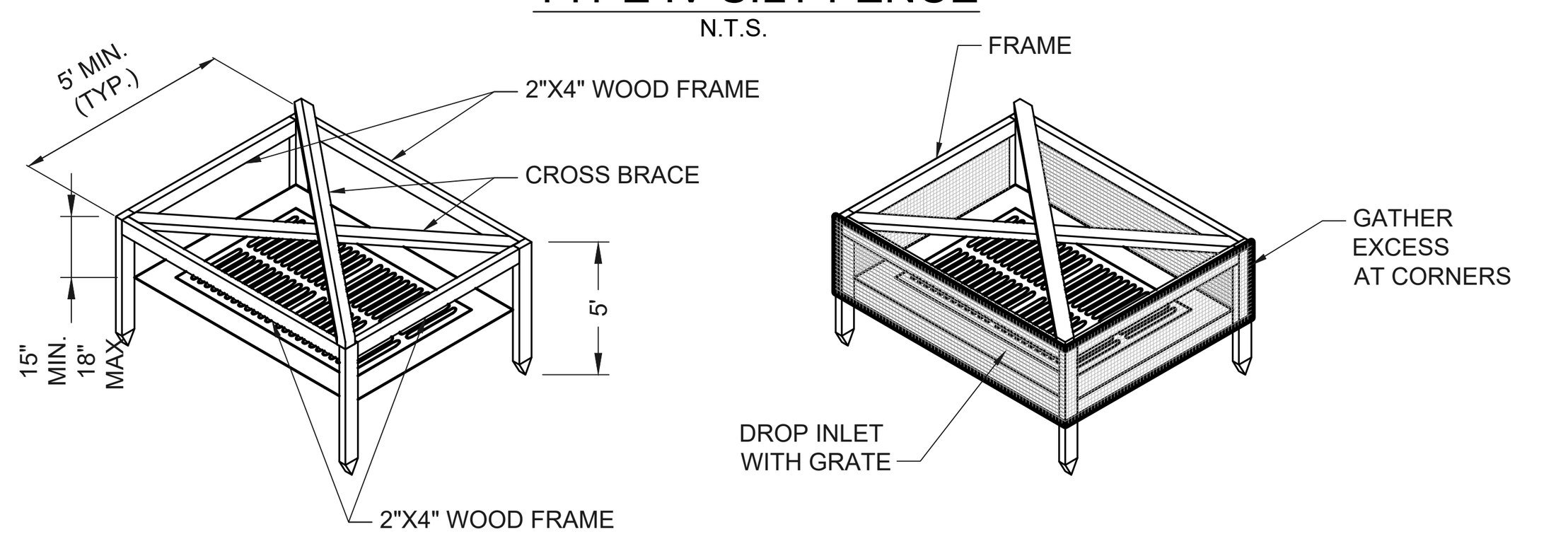


TRENCH DETAIL

INSTALLATION WITHOUT TRENCHING

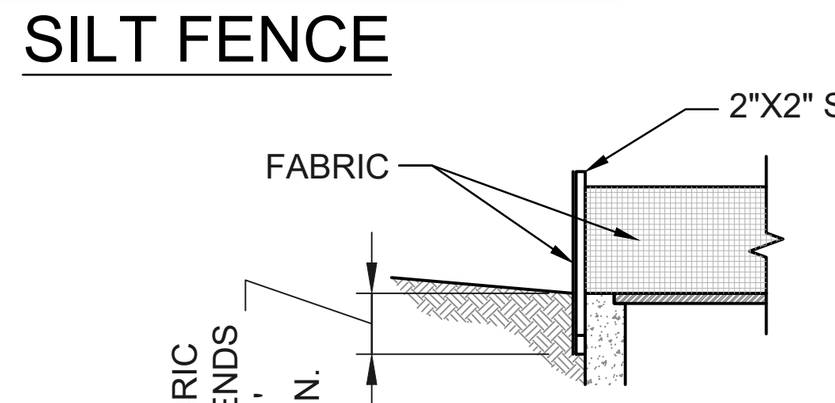
TYPE IV SILT FENCE

N.T.S.



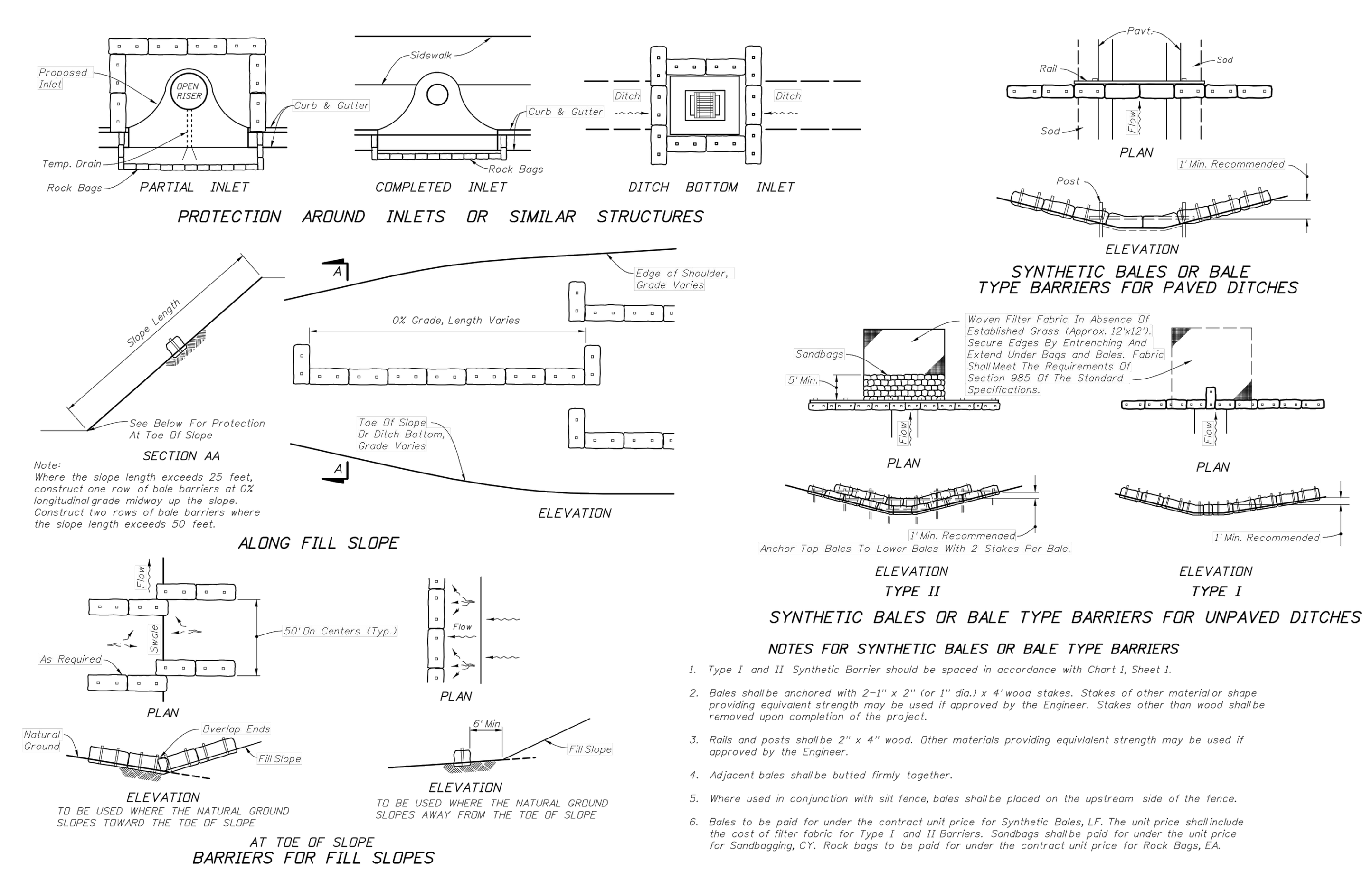
VIEW OF FRAME WITHOUT SILT FENCE

VIEW OF FRAME WITH SILT FENCE



SILT FENCE INLET PROTECTION

N.T.S.



NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

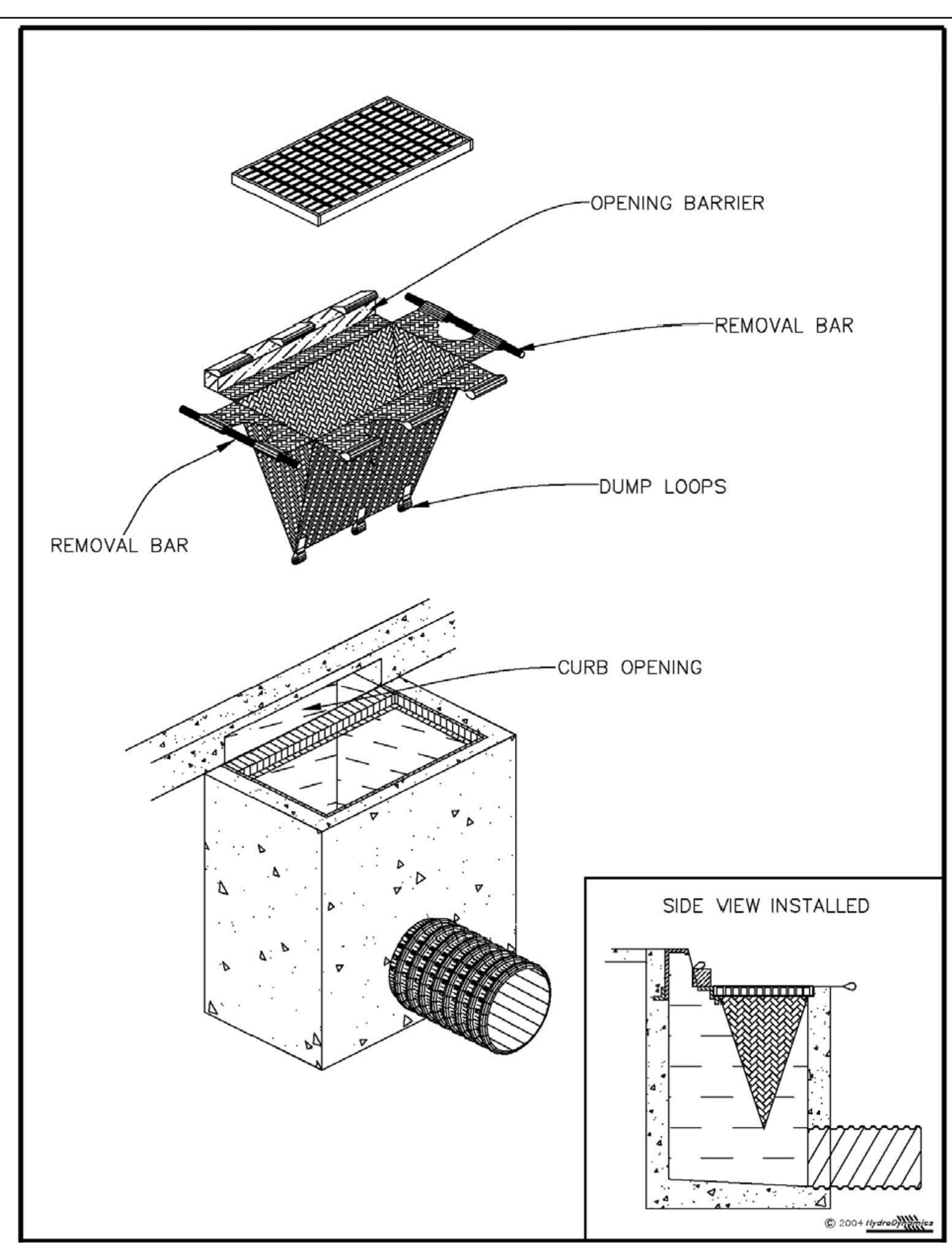
1. Type I and II Synthetic Barrier should be spaced in accordance with Chart I, Sheet 1.
2. Bales shall be anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivlalent 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.

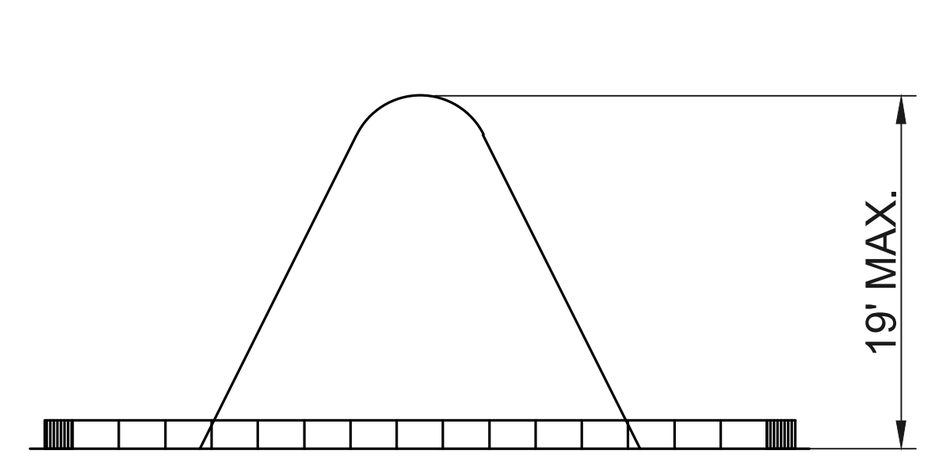
MINIMUM STANDARDS

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.



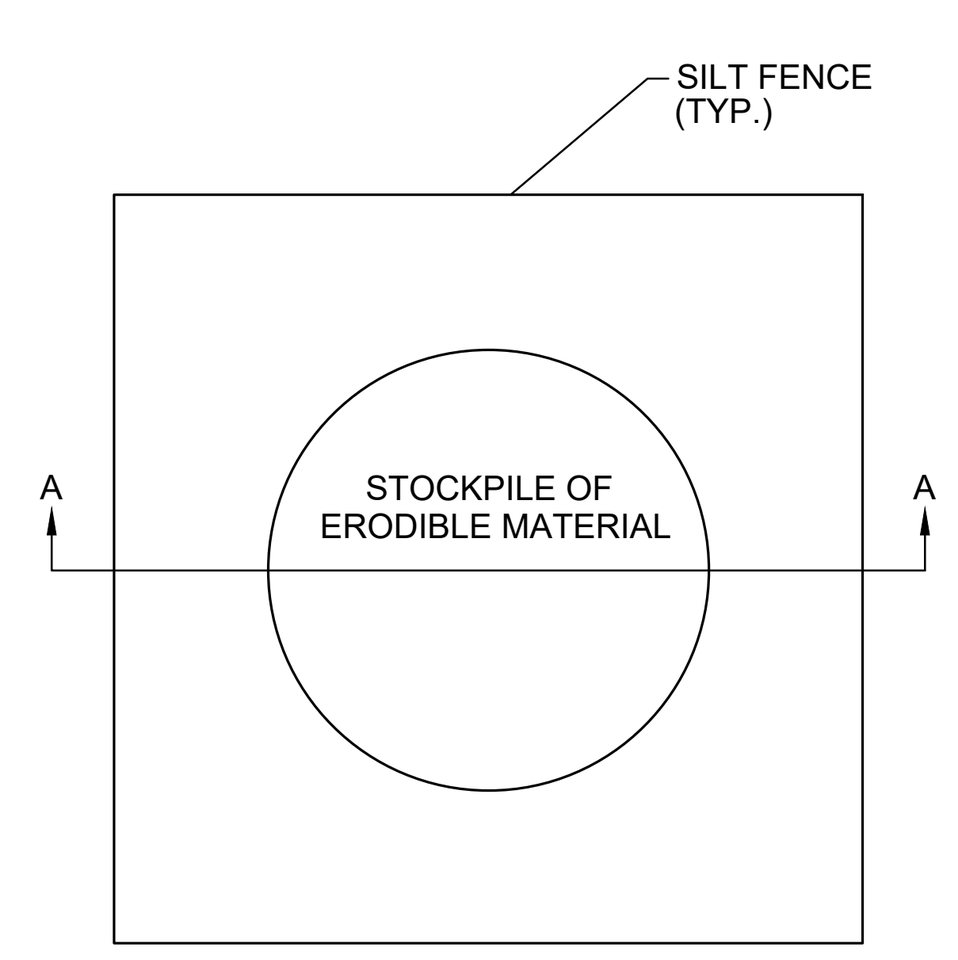
INLET INSERT SEDIMENT CONTAINMENT SYSTEM

N.T.S.



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

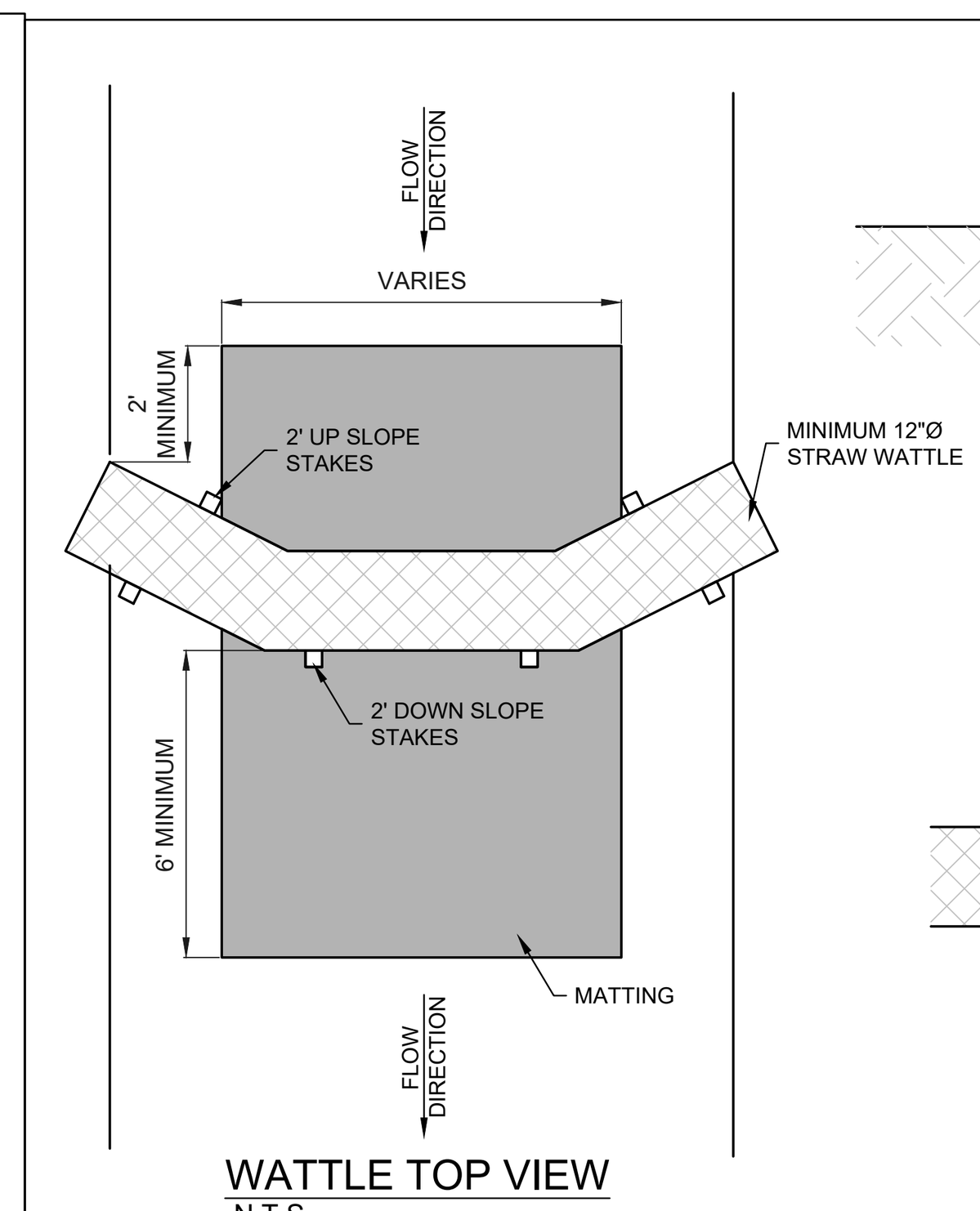
SECTION A-A



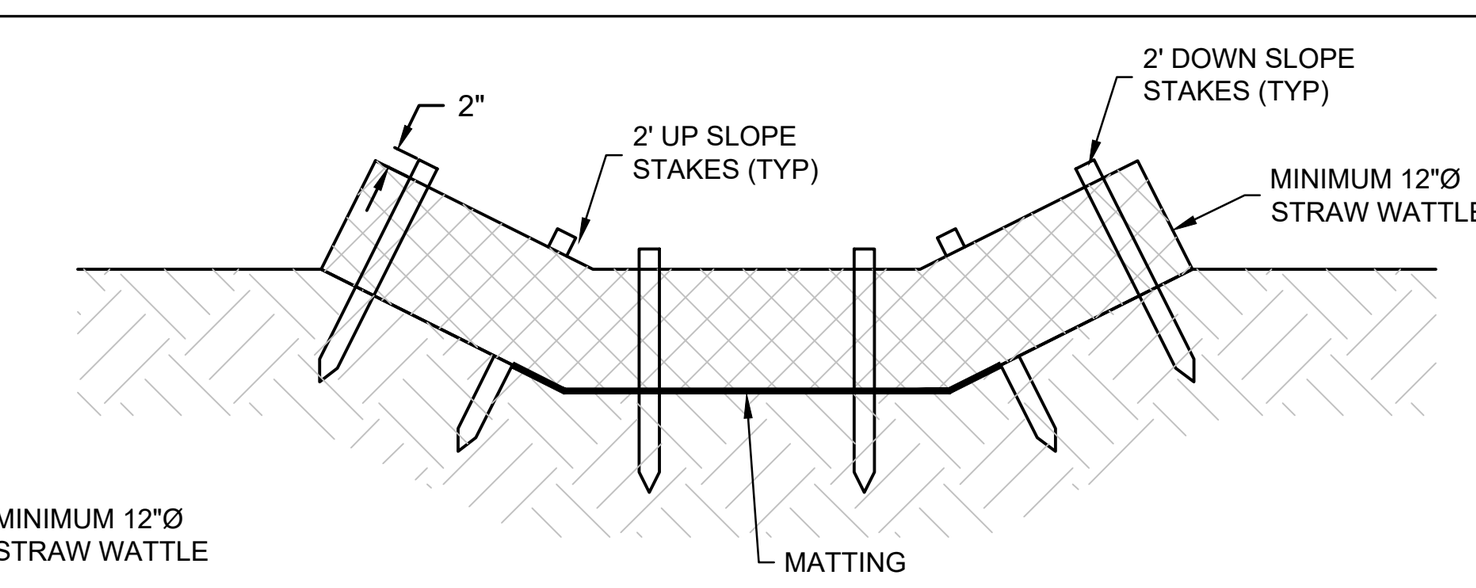
NOTE:
FOR STOCKPILING ERODIBLE MATERIAL FOR EXTENDED PERIODS, THE AREA SHALL BE SEEDED AND MULCHED.

SEDIMENT CONTROL DETAIL FOR STOCKPILING OF ERODIBLE MATERIAL

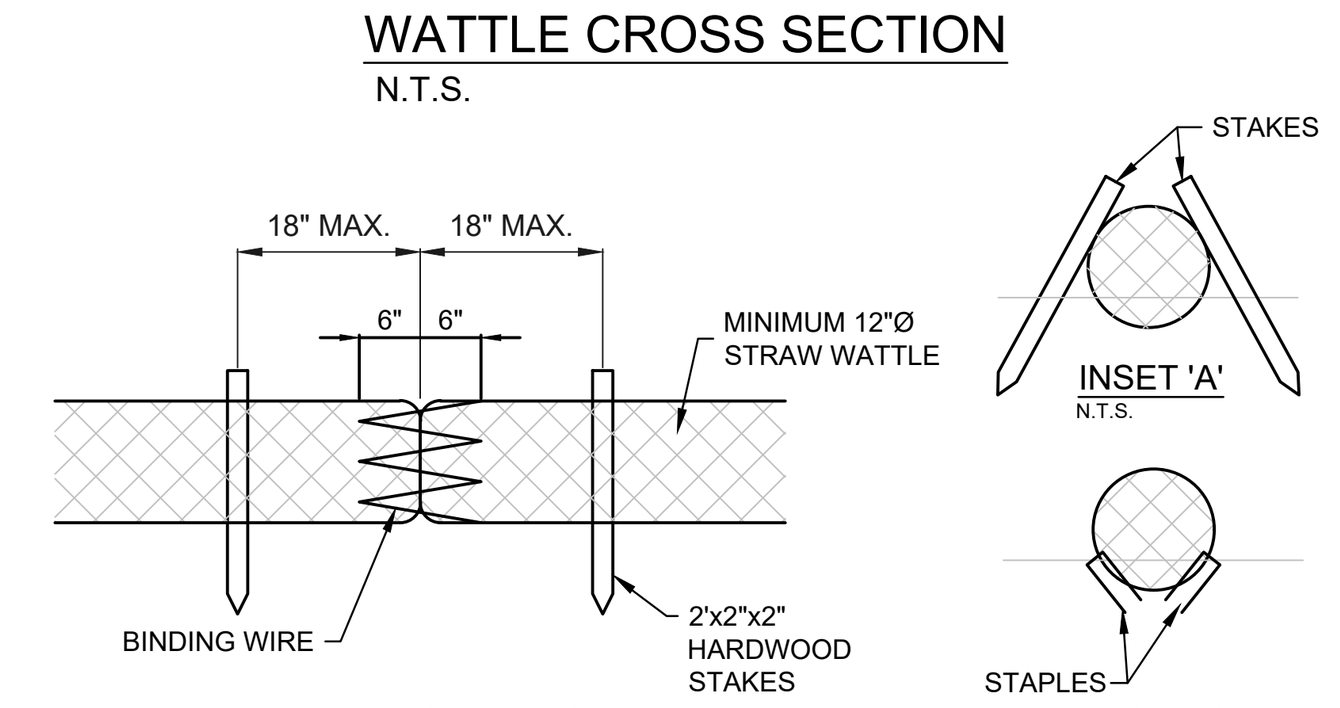
N.T.S.



WATTLE TOP VIEW
N.T.S.



WATTLE CROSS SECTION
N.T.S.



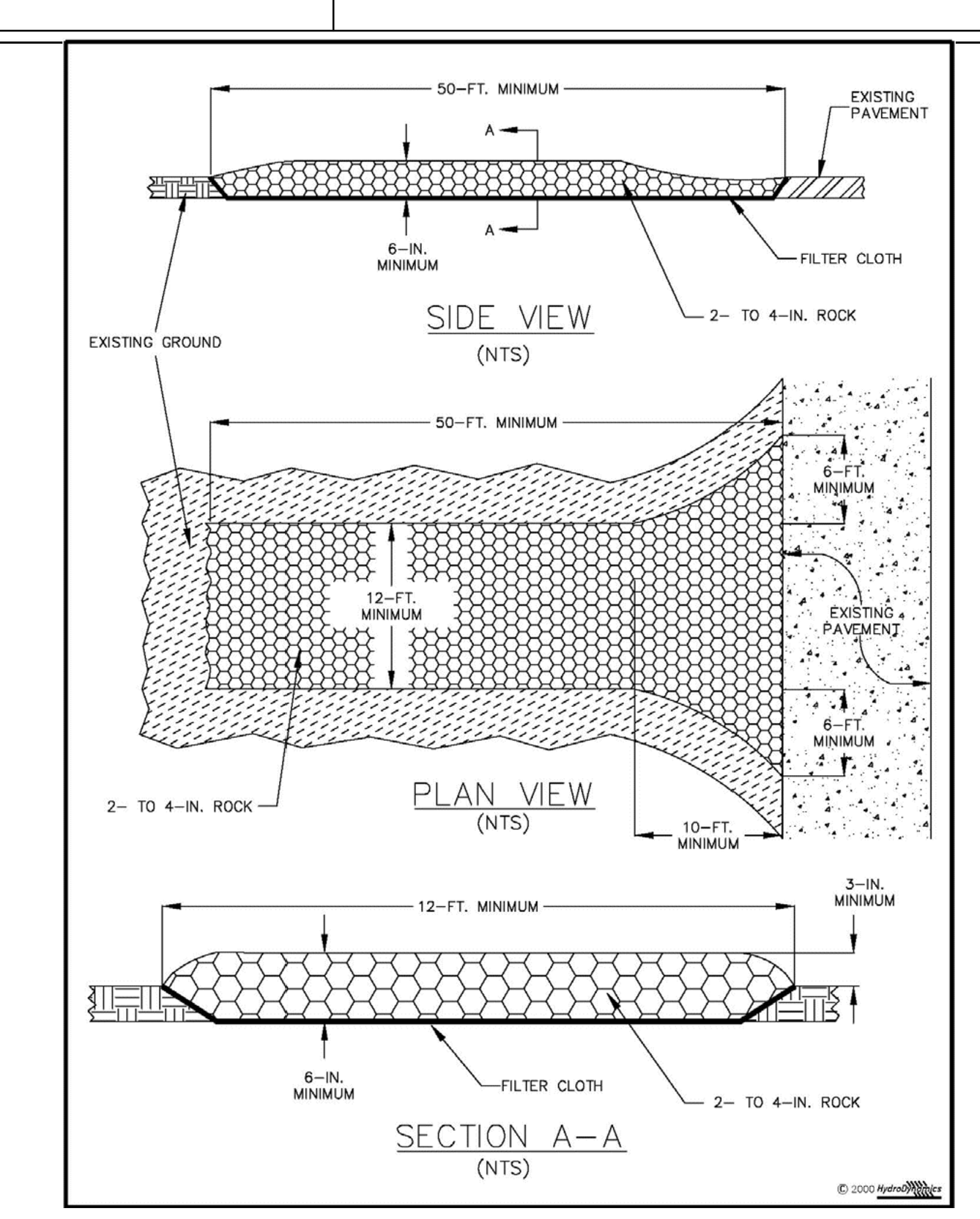
WATTLE JOINING DETAIL
N.T.S.

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.

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.

REVISIONS	DATE
1 PER CITY COMMENTS	9/20/24
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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 - 20TH STREET
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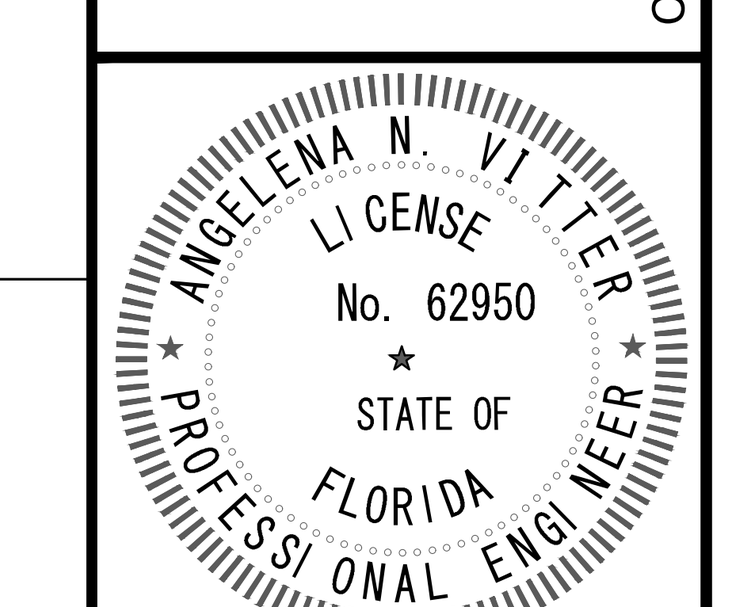
EROSION CONTROL DETAILS

MARGARETA VILLAS
MULTI-FAMILY

CITY OF FORT PIERCE FLORIDA



ANGELENA N. VITTER
F.L. P.E. #62950
2/18/2025

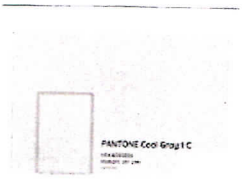
SHEET
C9

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
GREGG REED


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**
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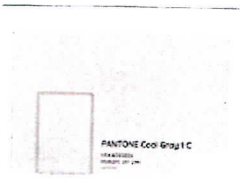
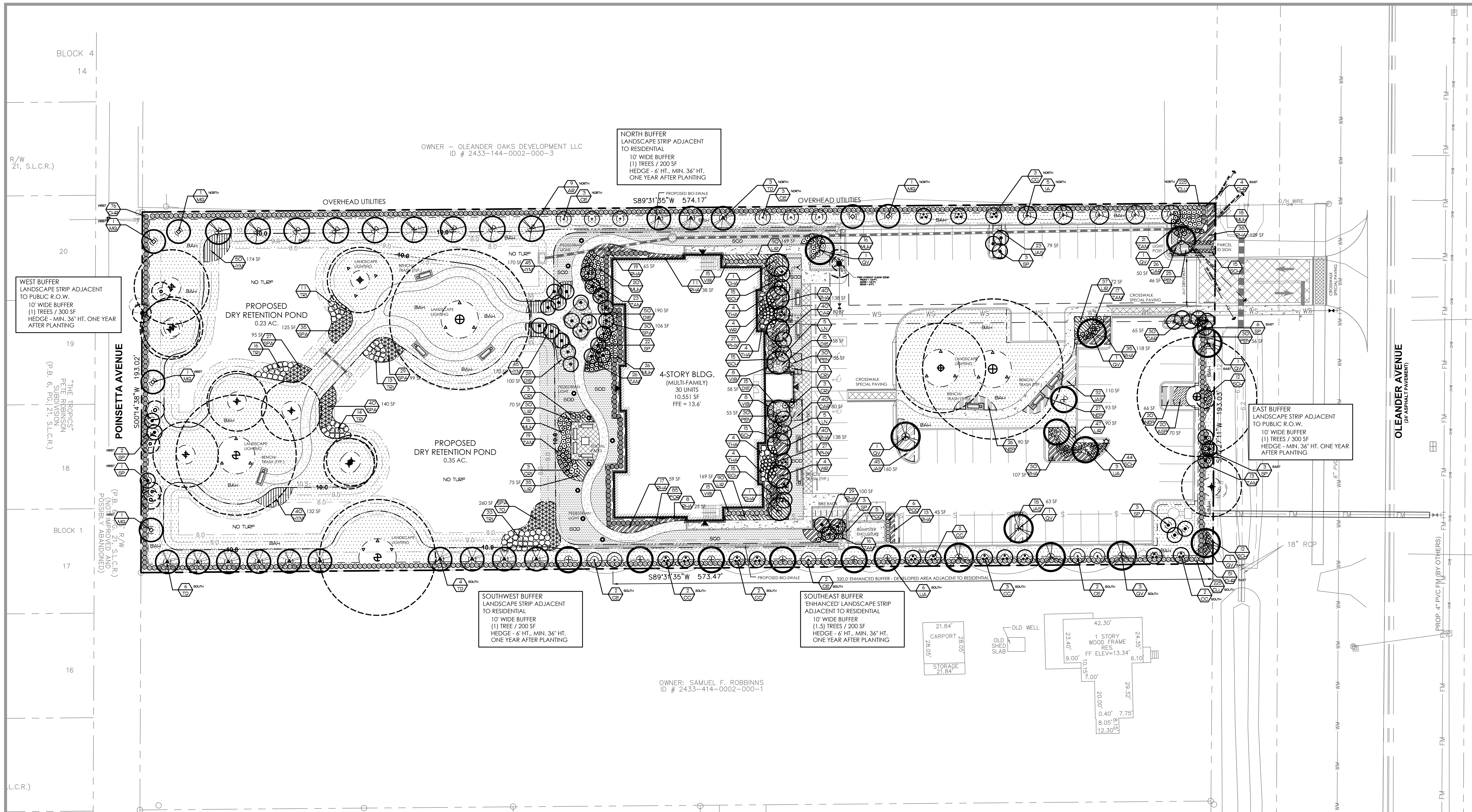
Pantone 7644 C




Pantone 290 C



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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. 1, 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 OVERHEAD 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 OVERHEAD 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 WITHT HE SITE DEVELOPMENT. (SECTION 929.08)
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 ALL CURVED CABBAGE, TALL ROYALS, 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 JURISDICTION'S REGULATIONS TO CONFORM TO THE LANDSCAPE DESIGN.

Key

PLANT QUANTITY → 11 ; PLANT SPECIES (REFER TO PLANT LIST) → VIB

MAINTAIN @36-IN. HT. ← SPECIAL INSTRUCTIONS / BED AREA

EAST ← 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 (C.T.) (AT INSTALL) → 12'

Plant List

	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

	KEY	BOTANICAL NAME/ COMMON NAME	HEIGHT/ SPREAD	SPECIFICATION	NATIVE	DROUGHT TOLERANT	TOTAL
SMALL SHRUBS & GROUNDCOVERS	ASP	ASPIDISTRA ELATIOR CAST-IRON PLANS	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	PHILDENDRON XANADU DWARF PHILODENDRON	14"X14"	24" O.C., FULL	N	H	54
	RHA	RHAPHIOLEPIS 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					

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pcunningham.LLC@gmail.com

LANDSCAPE PLAN

MARGARETA
4101 OLEANDER AVENUE
FT. PIERCE, FLORIDA

5		
4		
3		
2	INNOVATIVE DESIGN	02.13.2025
1	PER CITY COMMENTS	09.20.2024
	SUBMITTAL	12.08.2023

SCALE: 1"=30'-0"

SEAL
PATRICK D. CUNNINGHAM
FL REG #: LA0001669

0 30 60

NORTH

SHEET L-1

plot date:
file name:

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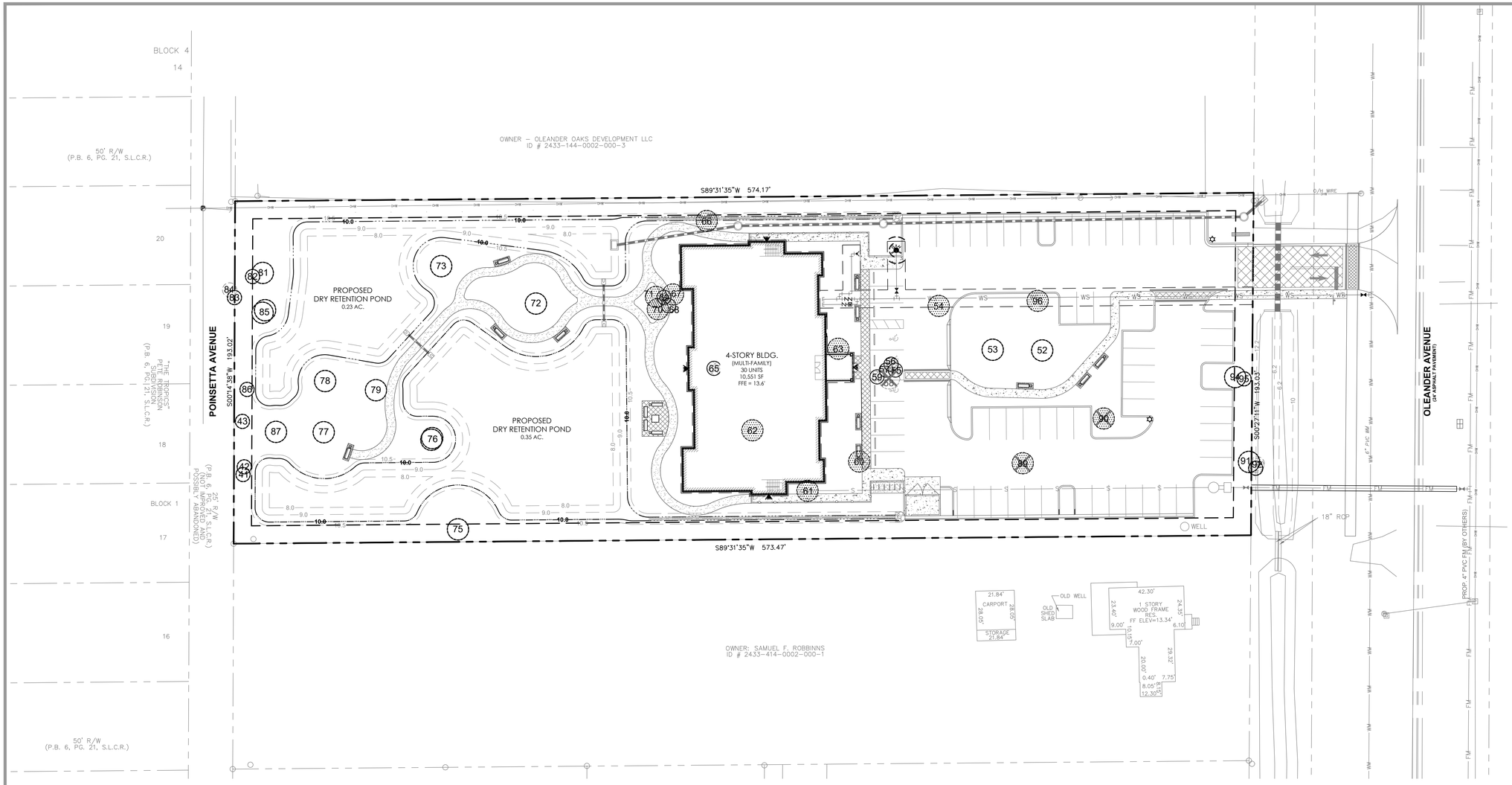

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EXISTING TREE INVENTORY PLAN

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:

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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.

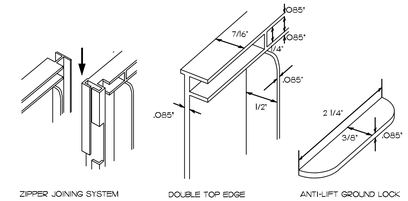
C. ANY ABANDONED FLOW WELLS EXISTING ON SITE SHALL BE PLUGGED IN CONJUNCTION WITH SITE DEVELOPMENT.

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

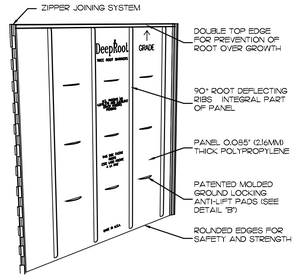
NOTES:
SPECIFIED TREE ROOT BARRIERS ARE A MECHANICAL BARRIER AND ROOT DEFLECTOR TO PREVENT TREE ROOTS FROM DAMAGING HARDSCAPES AND LANDSCAPES, ASSEMBLED IN 2' LONG MODULES TO CREATE VARYING SIZES OF CYLINDERS FOR SURROUNDING ROOT BALLS (SURROUND PLANTING STYLE) OR FOR LINEAR APPLICATIONS DIRECTLY BESIDE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

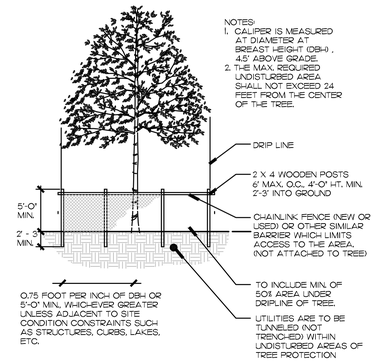
TREE PROTECTION SHALL COMPLY WITH THE JURISDICTIONS REGULATIONS.

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

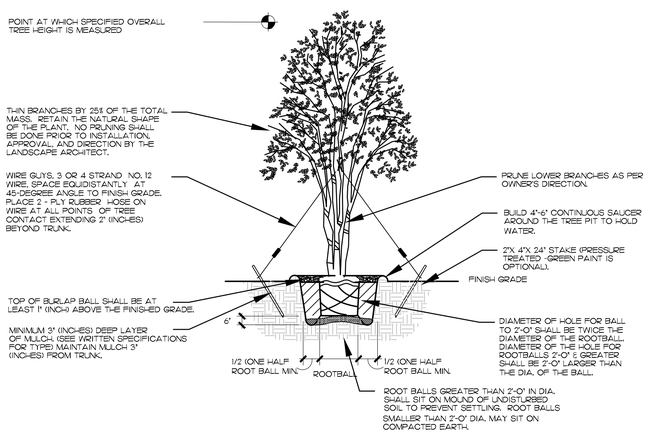
NO ATTACHMENT, WIRES (OTHER THAN PROTECTIVE GUY WIRES), SIGNS OR PERMITS SHALL BE ATTACHED TO A PROTECTED TREE.

(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.

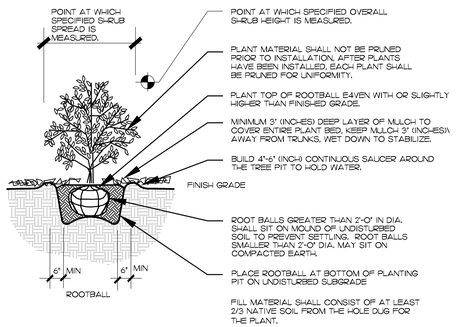
ANY DAMAGE TO TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY AFTER DAMAGE OCCURS.



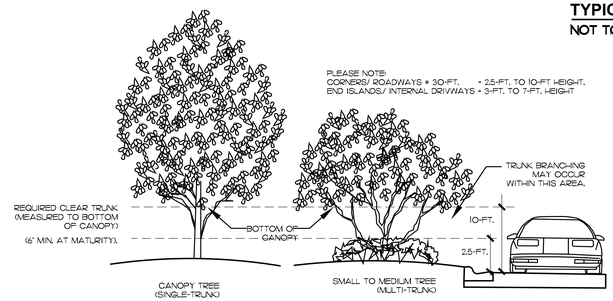
TYPICAL TREE PROTECTION DETAIL
NOT TO SCALE



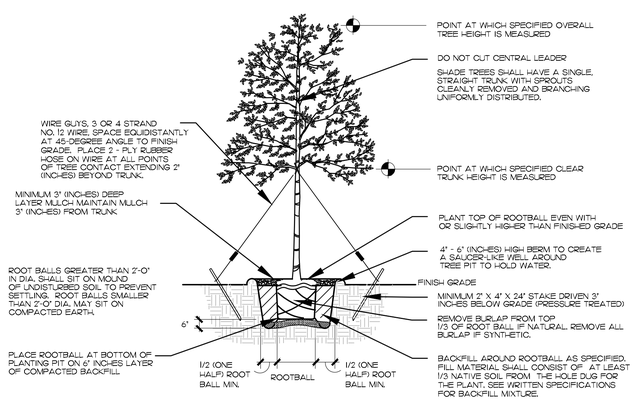
TYPICAL IRRIGULAR/MULTI-TRUNK TREE PLANTING DETAIL
NOT TO SCALE



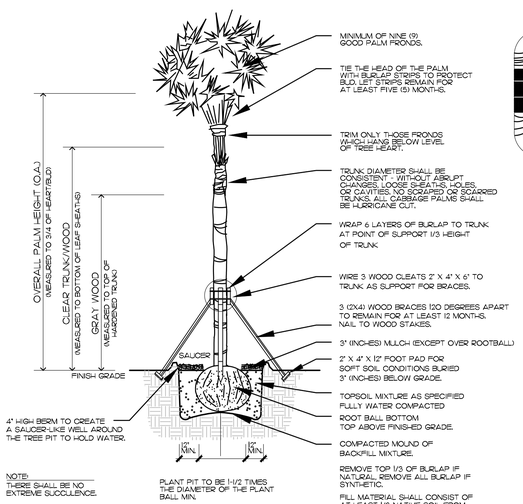
TYPICAL SHRUB/ GROUNDCOVER PLANTING DETAIL
NOT TO SCALE



CLEAR TRUNK WITHIN SIGHT TRIANGLE DETAIL
NOT TO SCALE

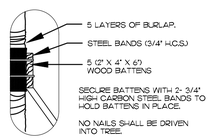


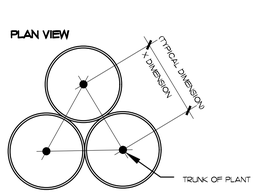
TYPICAL TREE PLANTING DETAIL
NOT TO SCALE



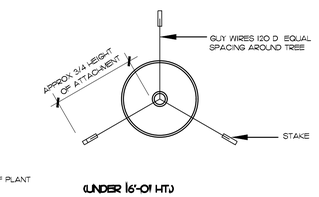
NOTE:
THERE SHALL BE NO EXTREME SUCCULENCE.

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:

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THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Mr. Geza Szini-Sebo & Jozsef Norbert Rau
45 Osceola Avenue
New York, NY 11729

Subject: Site Plan – One parcel at 4101 Oleander Avenue– Technical Review Committee Comments for March 21, 2024 TRC Meeting

City of Fort Pierce Planning Department

- The name of the project needs to be consistent in spelling on submitted documents/plans
- Design Review on side walls of building should meet code
- Color palette of drawing is needed
- 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.
- 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.
- 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 $35,000.00
    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.

- Delineate the wetland on the site plan and acknowledge that it meets State mitigation on wetland
- Adhere to and apply where applicable City Code, Sec. 105.5, Management and Monitoring Program
- Dumpster should be relocated from front of property***
- 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.

  Advisory Comments:
    - Considering Sec. 125-143, Innovative Residential developments, your density can be increased
    - 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;
        b) Meet the definition of affordable housing as defined by the median income of the City of Fort Pierce;
        c) Affordable housing developments shall include a variety of housing types
    - Lighting plan should ensure that the proposed lights on development does not impede on to the neighboring residential properties

Fort Pierce 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).
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.

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."
4. The electronic copy of the survey was not signed and sealed; please provide the required certified survey in electronic format.
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.
6. Update the survey to correctly identify Tublin Kling Road.
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.

Advisory Comments:

1. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
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.
3. Tree mitigation calculations will be reviewed at time of DPCR submittals and are not approved as part of this submittal.

Fort Pierce 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.
2. All new construction or alterations shall meet the requirements of the Florida Building Code 8th Edition
3. Building Permit required
4. Signed and sealed construction drawings required
5. Must meet the following Accessibility requirements:
    a. Accessible route
    b. Handicapped parking spaces
    c. Means of egress
6. Shall meet the Fire Prevention Code:

a. Sprinkler system is required

b. Smoke alarm system is required

Fort Pierce Police Department

No comments at this time.

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.
- Lighting – Please request additional photometric data, to verify adverse spillover to adjacent single-family homes will not occur.
- 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

St. Lucie County 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.
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.

Conditions:

3. A Site Development Permit is required prior to performing site improvement activities.
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.

City Clerk Office

No comments at this time.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Code Enforcement

No comments at this time.

Fort Pierce Utilities Authority

- FPUA W/WW Engineering: Concept approved.
    - Water and wastewater (via forceman) 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
- FPUA Electric & Gas Engineering: This submission is outside of the FPUA electric service area.
- FPUA Gas: **N/A**
- FPUA Fiber: FPUAnet **Approves.**

St. Lucie County 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.
2. Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.
3. Please provide an electronic revised copy of the site plan (pdf format).
4. Please provide written acknowledgement of the conditions/revisions provided.
5. A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.
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. (NFPA 1 16.1.4). 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. (NFPA 1.18.2.3.5.2)

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.)
8. The Fire District reserves the right for future comments at the site plan & building construction phase.
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.)*
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). (NFPA 1 18.2.3.2.2.1)
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. (SLCFD Resolution 740-23)
12. Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft. (SLCFD Resolution 740-23)
13. Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft. (SLCFD Resolution 740-23)
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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.
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”.
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). NFPA 1141 Chapter 10.1.3.
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.

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.

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.
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. (SLCFD Fire Prevention Code Resolution 740-23).

St. Lucie Transportation 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.
- **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.
- **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.
    - You can contact Stephanie M. Torres, CPM
      Bicycle Pedestrian Program Manager
      772-462-1593 www.stlucietpo.org

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Florida Department of Transportation

No comments at this time.

St. Lucie County School Board

No comments at this time.

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

THE SUNRISE CITY
FORT PIERCE
BUILDING DEPARTMENT Florida

BUILDING DEPARTMENT
TECHNICAL REVIEW COMMITTEE (TRC)
COMMENT FORM

Meeting Date: 3.21.24
Property Address: Site Plan - Margareta Apartment Complex - 4101 Oleander Avenue

Please be advised that the project may trigger the requirements indicated below:

☑ 1. Building Official or his representative has no comment at the time of this meeting, but reserves the submission of comments upon completion of the official plan review.

☐ 2. Pre-construction meeting with the City's Building Department is requested.

☑ 3. All new construction or alterations shall meet the requirements of the Florida Building Code 8th Edition.

☑ 4. Building Permit required.

☑ 5. Signed and sealed construction drawings required.

☑ 6. Must meet the following Accessibility requirements:

- ☑ Accessible route
- ☑ Handicapped parking spaces
- ☑ Means of egress

☐ 7. Change of Use required

- ☐ Shall include a signed and sealed Life Safety Plan
- ☐ Shall include a signed and sealed comprehensive drawing, detailing how the building and MEC elements will comply with the Florida Building Code requirements.

☐ 8. Property exists in Special Flood Hazard Area. All Federal and State requirements shall be addressed.

☐ 9. Flood Development Permit required.

☐ 10. Final plat and approved parcel ID's required to submit or DPCR and building permit review.

☐ 11. Open permits, requiring attention exist.

☑ 12. Shall meet the Fire Prevention Code:

- ☑ Sprinkler system is required.
- ☑ Smoke alarm system is required.

☐ 15. Other

Additional Comments/Requirements:

Building Official's or Representative's Signature _____ Date: 3/15/24

THE SUNRISE CITY
FORT PIERCE
Florida
ENGINEERING
DEPARTMENT

To : Kerry Driver, Planner

From : Venetia Barnes, Stormwater Engineer

Thru : Tracy Telle, Assistant City Engineer

Re : Site Plan and Design Review – Margareta Apartment Complex – 4101 Oleander Avenue – TRC No. 24-07000002

Date : March 19, 2024

This is to advise you that we have completed the review of the following documents as received by this office on March 7, 2024:

- [x] Site Plan & Design Review
- [ ] Test Reports & Related Documents
- [ ] Record Drawings
- [ ] Clearances from all applicable Local, State and Federal Agencies
- [ ] Building Construction Plans
- [ ] Certificate of Completion
- [ ] Permits from applicable Local, State & Federal Agencies

Based on our reviews and appropriate site final inspection, we

- [ ] Recommend
- [x] Do Not Recommend

- [x] Site Plan & Design Review
- [ ] DPCR
- [ ] C/O

Developer, Owner, Engineer, Contractor and other members of the Development Team must be aware, the above recommendation is based only on the construction requirements of the engineering plans and other engineering documentation approved by this department. The Development Team shall be responsible for the compliance with other City department requirements and all approved documents, as well as Local, State and Federal regulations. The development requirements for this project may necessitate additional construction requirements that are not subject to this department's review for approval.

- [x] See attached for comments

Z:\Shared\4400 Engineering\ENGINEERING\Site Development Projects\M\Margareta Apartment Complex\TRC\Submittal No. 1 - 030724\Site Plan Comments Revised - 031924.docx

ENGINEERING COMMENTS:

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).
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.
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."
4. The electronic copy of the survey was not signed and sealed; please provide the required certified survey in electronic format.
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.
6. Update the survey to correctly identify Tumblin Kling Road.
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 to the required sidewalk width of the sidewalk as Oleander is a County roadway.
8. Update the proposed dumpster enclosure to include the appropriate pedestrian access.

ADVISORY COMMENTS:

1. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
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.
3. Tree mitigation calculations will be reviewed at time of DPCR submittal and are not approved as part of this submittal.

THE SUNRISE CITY
FORT PIERCE
POLICE DEPARTMENT
"In Honor We Serve"
Florida

Technical Review Committee meeting

March 21, 2024

Case #: 24-07000002

Planner: City of Ft. Pierce Planning Department

Site Plan

4101 Oleander Avenue, Fort Pierce, FL (Margarita Apartments)

Comments:

No comments at this time.

.

Officer Damian Spotts

Crime Prevention Practitioner

Fort Pierce Police Department.

Fort Pierce Utilities Authority
Water/Wastewater Engineering
1701 South 37th Street
Fort Pierce, FL 34947
772.466.1600 x3402

Technical Review Committee Meeting

TECHNICAL REVIEW PROJECT: # 24- 07000002

Site Plan - Margareta Apartment Complex - 4101 Oleander Avenue

Comments

FPUA W/WW Engineering: Concept approved.

Water and wastewater (via forcemain) services are available to serve the subject property. Offsite force main will be required. To connect to these services please submit Utility Plan (2 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 Florida 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

https://fpua.com/water-and-wastewater-engineering-downloads/

FPUA Electric Engineering: This submission is outside of the FPUA electric service area.

FPUA Gas: N/A

FPUAnet Fiber: FPUAnet **Approves.**

FORT PIERCE UTILITIES AUTHORITY
"Community Proud"

Developer's Responsibilities for Utility Connection

The purpose of this document is to provide clear direction for connecting a project to the Fort Pierce Utilities Authority (FPUA) water and wastewater system.

Note that approval through the City of Fort Pierce or Saint Lucie County site plan approval process does not constitute approval of your detailed utility plans through FPUA. The steps required for FPUA approval are listed below. All Forms, Standards and Specifications, Standard Details, etc. can be downloaded from our website under the Doing Business with FPUA link then W/WW Engineering Downloads.

1. Visit www.FPUA.com and become familiar with our Standards and Specifications. Standard details are provided .pdf format for easy transfer onto your construction plans. These details are updated often and you are responsible for obtaining the most current specifications.

   (http://www.fpua.com/Business/StartStopNewServices/DevelopmentServicesWWWDownloads.aspx)

2. It is recommended at this time to contact schedule a pre-design conference with an FPUA Project Manager.

3. Submit payment for Engineering plan review and inspection services fee as per U.A. Resolution 2011-06. You may calculate this fee yourself or contact our office and we shall prepare and fax/e-mail an invoice to you. If you elect to calculate the fee yourself in an effort to expedite the submittal process, keep in mind that your calculations are subject to FPUA approval. This fee must be paid prior to the return of your first plan submittal, permits, etc. Review fees are based on:

   $500 Flat charge per development
   plus $20 per water equivalent residential connection (WERC) at 300 gallons per day
   plus $20 per sewer equivalent residential connection (SERC) at 240 gallons per day

   Note: For multi-family developments, (more than two units per building) each unit represents 70% of one WERC and 87.5% of one SERC.

4. Submit 2 initial sets of detailed utility drawings to 1701 S. 37th Street, Fort Pierce, FL 34947. Submit 3 sets of drawings.

   Note: Reference section 1.22 of the General Design & Construction Standards for Drawing/CAD requirements. Failure to adhere to requirements will result in utility plan denial. Allow 30-day response time. It may take several submittals to receive an approved design.

5. Submit any required permits (Draft) with your initial construction plans. Please use the Water and Wastewater FDEP Permit forms provided on the website as the pertinent information is always current.

6. Submit a Notice of Intent to Discharge Form with your initial construction plans. Should you need an Application for Wastewater Discharge Permit, you will be contacted by our Pretreatment Coordinator.

7. Upon plan approval, you will receive one set of the submitted plans stamped approved or approved as noted and any applicable permits executed.
8. Execute and submit a Water and Wastewater Supply Agreement at the time of final plan submittal. This is a three party document outlining the requirements of the project owner and project engineer.
9. If your property is outside the City Limits, the property owner will be required to sign an Annexation Agreement. Please utilize the following procedure to complete the agreement: provide your FPUA Project Manager with the following information for the property owner: Name, Contact Number, Site Address, Mailing Address, Parcel ID Number

   Our office will provide this information to our attorney, R.N. Koblegard, who will prepare an annexation agreement and their office will call the property owner to schedule an appointment to sign the agreement and will thereafter record the agreement. The service fees, which are subject to change and are payable to Mr. Koblegard at the time the agreement is signed, range from $50 - $400.

   Note that until the approval and acceptance of the Plans and Permits, the execution of the Annexation Agreement, Supply Agreement, and Payment of Capital Improvement Charges, Accrued Guaranteed Revenue Charges, and other associated fees, the project cannot move forward to the construction phase.

10. Submit five sets of shop drawings for all sanitary structures and manufacturer's cut sheets for all materials. These submittals will be reviewed and may be returned approved or revise and resubmit if major deficiencies are found.
11. Contact your FPUA Project Manager to schedule a pre-construction meeting.
12. When your project is getting about 90% complete, please contact your FPUA Project Manager to schedule a post-construction meeting. At that meeting, you will need to have your turnover package complete. All items in the turnover package must be complete prior to scheduling a walk-through. Listed below are the items in the turnover package:

    a. Bill of Sale/Cost and Quantities (utilize form on website)
    b. FDEP Water/Wastewater Certification
    c. DDC Data Sheet to include device number, manufacturer, installation date, test date and results, and device size
    d. Record Drawings – Need Two Sets of Paper Copy Drawings (As-Builts are not accepted)
    e. Gravity Sewer Inspection DVD
    f. Lift Station Start Up
    g. Lift Station O & M Manuals (FPUA Owned Only)
    h. Private Lift Station/Collection System Application (if applicable)

13. If your project requires an easement, the property owner will be required to sign an Easement Form. Please complete the attached form Request for Preparation of Easement and return to your FPUA Project Manager.

    Our office will provide this information to our attorney, who will prepare an easement and their office will call the property owner to schedule an appointment to sign it and will thereafter record the easement. The service fees, which are subject to change and are payable to Mr. Koblegard at the time the easement is signed, are $250 plus recording costs.

14. The following items need to be received prior to any meters being installed or chain being removed from DDC:

    a. All Fees Paid (meter, DDC, deposits, New Account Setup Fees, etc.)
    b. Final Inspection/Walk-Through
    c. Punch List Complete
    d. Contractor's Affidavit and Release of Lien (utilize form on website)
    e. Executed Easement
    f. Memorandum from Applicable Right-of-Way Agency (Agency Granting Permit) that Project is Acceptable to Them
    g. Record Drawings – After Review and Approval, Need Two Sets Paper Copy, One Set of Mylars and One CD in AutoCad Format.

DDC Installation Procedures

Below are the procedures for the installation of a DDC for unmetered fire

- Fire/Mechanical Plans (offsite to device only) approved by FPUA Project Manager (PM)
- Submittals approved by PM, with an approved set provided to Water Distribution (WD)
- PM will acquire DDC installer contact information at pre-construction meeting and provide to WD
- DDC contractor must be licensed with certification in backflow device installation and testing. Proof of certification must be provided to WD prior to pressure test
- Upon notification of the need for a DDC, Engineering Coordinator (EC) e-mails Key Accounts (KA) with device size and account information
- KA sets up account and creates service order which charges $40 Initiation of Service Charge and alerts WD, via service order, of the DDC being installed
- Contractor installs standpipes, concrete pad, and DDC under direct supervision of Water/Wastewater/Natural Gas Engineering Inspector to ensure compliance with clearances and adequate work space for future testing, maintenance, and repairs. Inspector locks device with chain after installation
- Prior to scheduling the backflow certification test through the inspector, all lines to and from the device must be chlorinated and pressure tested per their respective agencies
- WD Service Foreman must be notified (via Inspector) at least 24 hours prior to the test. Service Foreman must be present for the test and re-locks the OS&Y in the closed position after test. The test sheet must be given to WD either directly after the test or arrangements should be made to receive the test results. Engineering does not need a copy of the test results; WD will notify inspector of the test results
- If at any time after the DDC installation the lock or chain has been found cut, the Revenue Protection Officer will be notified immediately. **Tampering or removal of the lock and/or chain will result in a Tampering Fee of $200 and all associated fees according to the current FPUA Resolution. (WD will do a T-Tamper-Water service order; Revenue Protection Officer will go to site, take pictures, and bill tampering fee)**
- After final walk-thru, EC will send Meter Installation Authorization (MIA) Form to WD Administrative Coordinator authorizing removal of the chain and begin billing
- WD will remove the chain and add the DDC information to the account, including the device number and billing rate
- EC will send Cost and Quantities to Finance to record the asset

REQUEST FOR PREPARATION OF EASEMENT

1. CUSTOMER NAME AND ADDRESS

_____

_____

_____

_____

2. CUSTOMER CONTACT PERSON, ADDRESS AND PHONE NUMBER

_____

_____

_____

3. FPUA CONTACT PERSON AND CONTACT INFORMATION

_____

_____

4. SITE ADDRESS AND PARCEL ID

_____

_____

_____

_____

5. LEGAL DESCRIPTION AND EASEMENT DESCRIPTION

_____

_____

_____

_____

_____

_____

_____

_____

6. EASEMENT TO BE PREPARED AT THE COST OF

_____ PROPERTY/BUSINESS OWNER

_____ FPUA

7. PROJECT SCHEDULED COMMENCEMENT DATE _____

8. ATTACH SKETCH OF EASEMENT

SEQUENCE OF EVENTS IN PREPARATION OF EASEMENT

1. Complete Request for Preparation of Easement. When at all possible, all easements should be done on one form.

2. Forward completed Request form to FPUA Attorney.

3. FPUA Attorney will order title search.

4. Upon receipt of title search, FPUA Attorney will email identity of owner and any mortgagees to FPUA Contact Person.

5. FPUA Contact Person will contact Customer/Owner to determine willingness to sign an easement and inform the Owner of the need for the lender, if any, to join in easement.

6. If Customer/Owner is willing to sign an easement, FPUA Contact Person will so advise FPUA Attorney, and an easement will be prepared.

7. FPUA Attorney will call Customer/Owner to make arrangements to have the easement signed. In the alternative, if Contact Person wishes, the easement and other documents can be emailed to FPUA Contact Person to have signed. FPUA Contact Person will then return the signed easement/documents to FPUA Attorney.

8. FPUA Attorney will record the signed easement/documents and will return the recorded easement to Water/Wastewater Engineering to the Engineering Coordinator.

9. Engineering Coordinator assigns a Utilities Easement Number, scans and saves easement document, and records in the MS Access Easement Database.

10. Engineering Coordinator gives the easement to the technician assigned to put on GIS. Technician draws easement on GIS and gives to Project Manager for verification.

11. Upon verification, Project Manager gives Engineering Coordinator original recorded easement. Engineering Coordinator places in fireproof file cabinet.

St. Lucie Transportation Planning Organization

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

March 19, 2024 **VIA EMAIL**

Mrs. Kerry C. Driver, Planner
City of Fort Pierce
100 North U.S. Highway 1
Fort Pierce, Florida 34950

RE: Proposed Transportation Impact Review (PTIR)
Margareta Apartment Complex
4101 Oleander Avenue
Fort Pierce, Florida 34982

Dear Mrs. Driver:

As the Federal and State-designated agency responsible for transportation planning for the City of Fort Pierce, City of Port St. Lucie, St. Lucie Village, and St. Lucie County, the St. Lucie Transportation Planning Organization (St. Lucie TPO) has completed a PTIR regarding the above-referenced proposed development. The proposed project is a 2.54-acre, 32-unit apartment complex on currently partially improved land. Based on the review, the following comments are provided:

- **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.

- **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.

- **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.

Please contact me should any additional information or clarification be required.

Sincerely,

Stephanie M. Torres

Stephanie M. Torres, CPM
Bicycle Pedestrian Program Manager

cc: City of Fort Pierce Planning Department

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

BUREAU OF FIRE PREVENTION

SITE PLAN REVIEW

TO: Site Plan Applicant

SITE PLAN: Margareta Apartment Complex - 4101 Oleander Ave

REVIEW DATE: 3/20/2024

PLANNER: KERRY DRIVER

REVIEWED BY: Captain Andres Elizondo

Site Plan Approved with conditions: _____

Site Plan Requires Re-submittal: ___X____

Site Plan Rejected: _____

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). This form is available on-line at https://www.slcfd.com.**
2. **Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.**
3. **Please provide an electronic revised copy of the site plan (pdf format).**
4. **Please provide written acknowledgement of the conditions/revisions provided.**
5. **A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.**
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. (NFPA 1**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

16.1.4). 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. (NFPA 1.18.2.3.5.2)

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.)**

8. **The Fire District reserves the right for future comments at the site plan & building construction phase.**

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.)***

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). (NFPA 1 18.2.3.2.2.1)**

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. (SLCFD Resolution 740-23)**

12. **Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft. (SLCFD Resolution 740-23)**

13. **Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft. (SLCFD Resolution 740-23)**

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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

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".**

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). NFPA 1141 Chapter 10.1.3.**

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.**

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.**

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.**

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. (SLCFD Fire Prevention Code Resolution 740-23).**

ST. LUCIE COUNTY FLORIDA

PUBLIC WORKS DEPARTMENT
DEVELOPMENT REVIEW COMMITTEE

March 19, 2024

PROJECT: **Margareta Apartment Complex - 4101 Oleander Avenue**

REF: 24-07000002

TO: Kerry C. Driver

FROM: Grant Chambers

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.
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.

Conditions:

3. A Site Development Permit is required prior to performing site improvement activities.
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.

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

TO:	Technical Review Committee
THROUGH:	Kevin Freeman, Planning Director
FROM:	Kerry Driver, Planner
RE:	**Site Plan - 24-07000002** **4101 Oleander Avenue**
TRC DATE:	March 21, 2024

Resubmittal of Site Plan at 4101 Oleander Avenue
Resubmittal date: September 24, 2024

The above referenced project is being resubmitted for your review and comments. The applicant is requesting a Development Review for a Site Plan at 4101 Oleander Avenue.

Please send all comments to kdriver@cityoffortpierce.com, planning@cityoffortpierce.com and/or through interoffice mail to the Planning Department

Thank you,
Kerry

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Mr. Geza Szini-Sebo & Jozsef Norbert Rau
45 Osceola Avenue
New York, NY 11729

Subject: Site Plan – One parcel at 4101 Oleander Avenue– Resubmittal Comments for March 21, 2024 TRC Meeting
Project #: 24-07000002
Resubmittal Date: 11/14/2024
Resubmitted Comments Date: 12/13/2024

City of Fort Pierce 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
- 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)

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
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)

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

Fort Pierce 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.
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.
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's burrows are present on the site.
4. Tree mitigation calculations will be reviewed at the time of DPCR submittal and are not approved as part of this submittal.

St. Lucie County PW/Engineering

Advisory:

1. Additional comments may be provided during the site development permit review.

Conditions:

2. A Site Development Permit is required prior to performing site improvement activities.
3. A 6-foot sidewalk is required along Oleander Avenue.

Florida Department of Environmental Protection Southeast District – West Palm Beach

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). A contact with the SFWMD ERP team is:

Gregory Vazquez, PWS (Section Leader, Compliance and Enforcement Section,
Environmental Resource Bureau, South Florida Water Management District)
3301 Gun Club Road, MSC9210
West Palm Beach, Florida 33406
561-682-6053 gvazquez@sfwmd.gov

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

St. Lucie County 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.
2. **Fire District review fees are due at the time of submittal**. An abbreviated fee schedule is included on the application form.
3. Please provide an electronic revised copy of the site plan (pdf format).

October 8, 2024

PROJECT: **Margareta Apartment Complex - 4101 Oleander Avenue**

REF: 24-07000002

TO: Kerry C. Driver

FROM: Grant Chambers

Advisory:

1. Additional comments may be provided during the site development permit review.

Conditions:

2. A Site Development Permit is required prior to performing site improvement activities.
3. A 6-foot sidewalk is required along Oleander Avenue.

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

BUREAU OF FIRE PREVENTION

SITE PLAN REVIEW

TO: Site Plan Applicant

SITE PLAN: Margareta Apartment Complex - 4101 Oleander Ave

REVIEW DATE: 3/20/2024

PLANNER: KERRY DRIVER

REVIEWED BY: Captain Andres Elizondo

Site Plan Approved with conditions: _____

Site Plan Requires Re-submittal: ___X____

Site Plan Rejected: _____

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). This form is available on-line at https://www.slcfd.com.**
2. **Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.**
3. **Please provide an electronic revised copy of the site plan (pdf format).**
4. ~~**Please provide written acknowledgement of the conditions/revisions provided.**~~ **Received 10/9/2024**
5. ~~**A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.**~~ **Acknowledged 10/9/2024**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

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. (NFPA 1 16.1.4). 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. (NFPA 1.18.2.3.5.2)**~~ **Acknowledged 10/9/2024**

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 10/9/2024**

8. ~~**The Fire District reserves the right for future comments at the site plan & building construction phase.**~~ **Acknowledged 10/9/2024**

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 10/9/2024

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). (NFPA 1 18.2.3.2.2.1)**~~ **Acknowledged 10/9/2024**

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. (SLCFD Resolution 740-23)**~~ **Acknowledged 10/9/2024**

12. ~~**Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft. (SLCFD Resolution 740-23)**~~ **Acknowledged 10/9/2024**

13. ~~**Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft. (SLCFD Resolution 740-23)**~~ **Acknowledged 10/9/2024**

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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.**~~ **Acknowledged 10/9/2024**

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 10/9/2024**

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). NFPA 1141 Chapter 10.1.3.**~~ **Acknowledged 10/9/2024**

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 10/9/2024**

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 10/9/2024**

19. ~~**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 10/9/2024**

20. ~~**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**~~

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

~~**inches. The center of hose outlet shall be not less than 18 inches above final grade. (SLCFD Fire Prevention Code Resolution 740-23).**~~ **Acknowledged 10/9/2024**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
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BUREAU OF FIRE PREVENTION

SITE PLAN REVIEW

TO: Site Plan Applicant

SITE PLAN: Margareta Apartment Complex - 4101 Oleander Ave

REVIEW DATE: 3/20/2024

PLANNER: KERRY DRIVER

REVIEWED BY: Captain Andres Elizondo

Site Plan Approved with conditions: _____

Site Plan Requires Re-submittal: ___X____

Site Plan Rejected: _____

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). This form is available on-line at https://www.slcfd.com.**~~ **Received 11/25/2024**

2. ~~**Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.**~~ **Received 11/25/2024**

3. ~~**Please provide an electronic revised copy of the site plan (pdf format).**~~ **Received 11/25/2024**

4. ~~**Please provide written acknowledgement of the conditions/revisions provided.**~~ **Received 10/9/2024**

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ST. LUCIE COUNTY FIRE DISTRICT
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Telephone: **(772) 621-3322**
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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. (SLCFD Resolution 740-23)**~~ **Acknowledged 10/9/2024**

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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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.**~~ **Acknowledged 10/9/2024**

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 10/9/2024**

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ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

~~**inches. The center of hose outlet shall be not less than 18 inches above final grade. (SLCFD Fire Prevention Code Resolution 740-23).**~~ **Acknowledged 10/9/2024**

Good morning,

Thank you for your inquiry. 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 UIC will require to submit an application to Florida Department of Environmental Protection (FDEP). A contact with the SFWMD ERP team is:

Gregory Vazquez, PWS
Section Leader
Compliance and Enforcement Section
Environmental Resource Bureau
South Florida Water Management District

3301 Gun Club Road, MSC9210
West Palm Beach, Florida 33406
561-682-6053
gvazquez@sfwmd.gov

If you need additional information of how to submit a permit to the FDEP, please feel free to reach out.

Thank you,

Florida Department of Environmental Protection
Southeast District – West Palm Beach
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406
Office: (561) 681-6600

Please note: Florida has a very broad public records law. This communication may be subject to public disclosure if it regards state business and is not exempt under Chapter 119, Florida Statutes.

THE SUNRISE CITY
FORT PIERCE
ENGINEERING DEPARTMENT
Florida

TO : Kerry Driver, Planner

FROM : Venetia Barnes, Stormwater Engineer

THRU : Tracy Telle, Engineering Manager

RE : Site Plan and Design Review – Margareta Apartment Complex
4101 Oleander Avenue – TRC No. 24-07000002

DATE : November 5, 2024

This is to advise you that we have completed the review of the following documents as received by this office on October 7, 2024:

- [x] Site Plan & Design Review
- [ ] Building Construction Plans
- [ ] Test Reports & Related Documents
- [ ] Certificate of Completion
- [ ] Record Drawings
- [ ] Permits from applicable Local, State & Federal Agencies
- [ ] Clearances from all applicable Local, State and Federal Agencies

Based on our reviews and appropriate site final inspection, we

- [x] Recommend
- [ ] Do Not Recommend

- [x] Site Plan Approval
- [ ] DPCR
- [ ] C/O

Developer, Owner, Engineer, Contractor and other members of the Development Team must be aware, the above recommendation is based only on the construction requirements of the engineering plans and other engineering documentation approved by this department. The Development Team shall be responsible for the compliance with other City department requirements and all approved documents, as well as Local, State and Federal regulations. The development requirements for this project may necessitate additional construction requirements that are not subject to this department's review for approval.

- [x] See attached for advisory comments

Z:\Shared\4400 Engineering\ENGINEERING\Site Development Projects\M\Margareta Apartment Complex\TRC\Submittal No. 2 - 100424\Site Plan Approval w. Conditions - 110524.docx

ADVISORY COMMENTS:

1. The drainage plan was reviewed conceptually and will be reviewed in depth at the time of DPCR application.
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.
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's burrows are present on the site.
4. Tree mitigation calculations will be reviewed at time of DPCR submittal and are not approved as part of this submittal.

100 NORTH US 1, FORT PIERCE, FLORIDA 34950 • CITYOFFORTPIERCE.COM • TEL: 772.467.3000 • FAX: 772.460.6847

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

TO:	Technical Review Committee
THROUGH:	Kevin Freeman, Planning Director
FROM:	Kerry Driver, Planner
RE:	**Site Plan - 24-07000002** **4101 Oleander Avenue**
TRC DATE:	March 21, 2024

Resubmittal of Site Plan at 4101 Oleander Avenue
Resubmittal date: February 20, 2025

The above referenced project is being resubmitted for your review and comments. The applicant is requesting a Development Review for a Site Plan at 4101 Oleander Avenue.

Please send all comments to kdriver@cityoffortpierce.com, planning@cityoffortpierce.com and/or through interoffice mail to the Planning Department

Thank you,
Kerry


NO TRESPASSING
PUBLIC HEARING
A CONDITIONAL USE application has been received for this property.
For more information:
(772) 467-3737

PUBLIC HEARING

A CONDITIONAL USE application has been received for this property.

For more information:
(772) 467-3737

FORT PIERCE, FL
THE SUNRISE CITY


PUBLIC HEARING
A CONDITIONAL USE application
has been received for this property.
For more information:
(772) 467-3737
FORT PIERCE FL
THE SUNRISE CITY

Planning Board **6. c.**

Meeting Date: 04/14/2025

Re: PZSITE2024-00006 Site Plan – The District

Submitted For: Kev Freeman, Planning Director, Planning Department

---

Information

SUBJECT:

Site Plan – The District.- 2591 McNeil Road
Parcel ID(s): 2419-241-0001-010-7 and 2419-244-0035-000-6

SUMMARY:

Approval of a site plan application for a project known as THE DISTRICT for the development of 18,000 square feet of office / flex space. The subject properties are approximately 3.37 acres in size and are located south of Okeechobee Road and west of McNeil Road in Fort Pierce. The subject properties have a Future Land Use Designation of General Commercial (GC) and are located in the General Commercial (C-3) Zoning District.

RECOMMENDATION:

The proposed application meets the standards of the City's Code Section 125-194 and 125-313.

Therefore, Staff recommends that the Planning Board move the application to the City Commission with a recommendation of APPROVAL for the site plan subject to the following seven (7) Conditions.

1. A Unity of Title with the St. Lucie County Clerk of Courts and a Parcel Combination with the St. Lucie County Property Appraiser shall be undertaken before the issuance of a Building Permit.
2. A General Address Request for the newly created Parcel ID shall be submitted to the Planning Department after completion of the Unity of Title and lot combination.
3. A completion certification by a landscape architect and landscape maintenance agreement shall be submitted and approved by the Planning Department prior to final certificate of occupancy.
4. All signage shall require a sign permit.
5. All other applicable state or federal permits shall be obtained before commencement of the development.
6. Prior to commencement of work on site the applicant shall confirm with the City's arborist that the required vegetation removal permit and all tree mitigation has been satisfied.
7. A Sediment and Erosion Control Plan (including areas of sensitive habitat) shall be submitted and approved by the City Engineer prior to any land clearing activity.

ALTERNATIVES:

Approval with alternative/additional conditions.

or

Disapproval.

RESPONSIBLE STAFF:
Kev Freeman, Planning Director.

COORDINATED WITH:
Technical Review Committee

Fiscal Impact

Budgeted Y/N: N
OTHER INFORMATION:
N/A

Attachments

Staff Presentation
Staff Report
Site Plan
Landscape Plan
Environmental Assessment
Drainage Plan
Floor Plans
Lighting Plan
Traffic Report
Tree Mitigation
Fire Truck Turning
Refuse Truck Turning
Concurrency Review
Survey
Property Record Cards
Warranty Deed
Map
Easement
Design Narrative
Elevations
Color Board
Photos 1
Photos 2
Sign Rendering

Plan Rendering
TRC Reviews
TRC Response Letter

Form Review

Form Started By: Kev Freeman
Started On: 04/07/2025 12:31 PM
Final Approval Date: 04/08/2025

CITY OF FORT PIERCE

PLANNING BOARD

APRIL 14, 2025

THE DISTRICT SITE PLAN
PZSITE2024-00006

APPLICATION

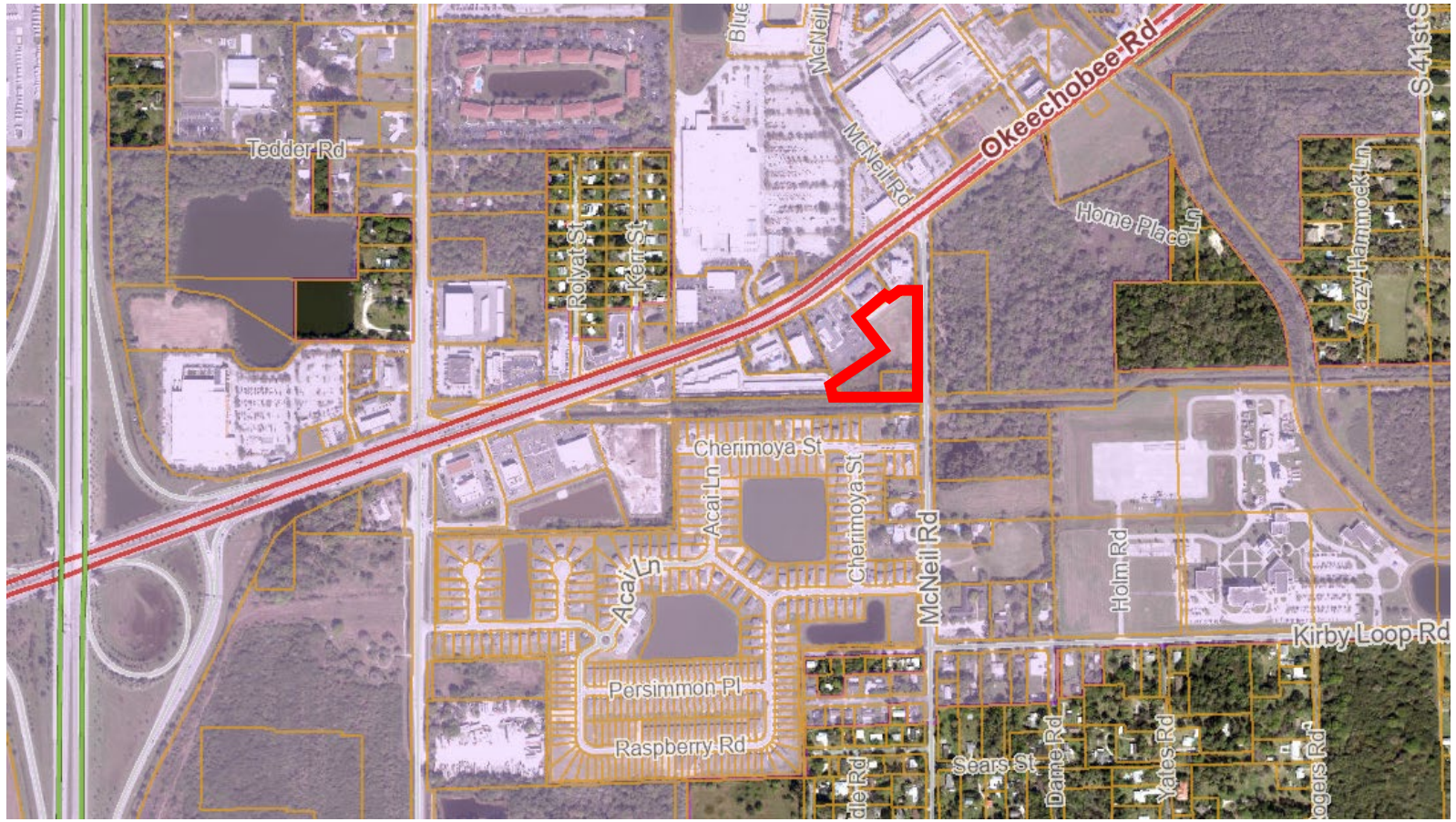
PZSITE2024-00006

The District

APPLICANT

HALEY WARD

Conner Kennedy



SUMMARY

The application for the District Site Plan proposes the development of 18,000 square feet of office / flex space, on 3.37 Acres. The site is located west of McNeill Road approximately 500 feet from its intersection with Okeechobee Rd to the north.

SITE LOCATION

SITE AREA +/- 3.37 Acres

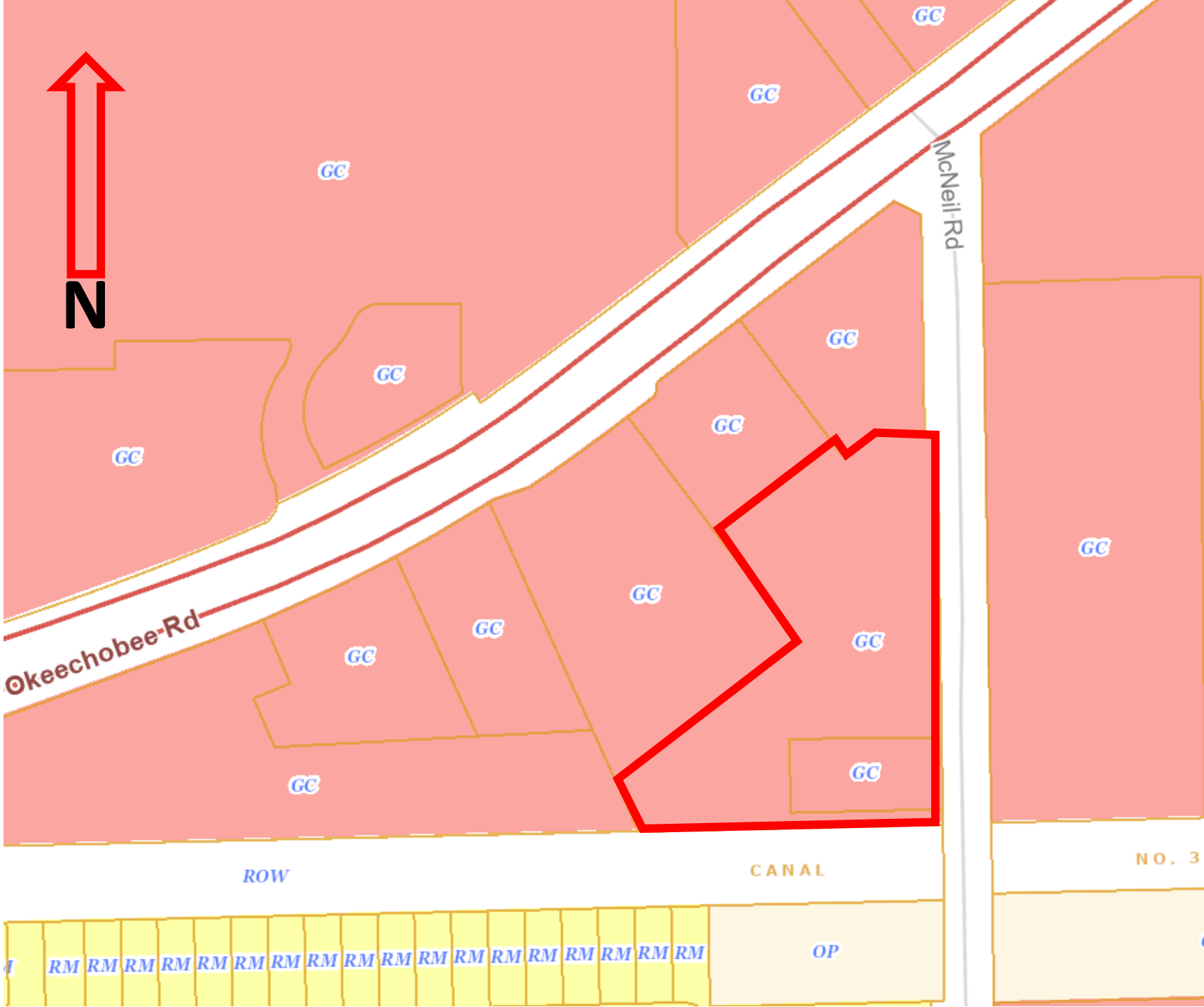


EXISTING ZONING

C-3

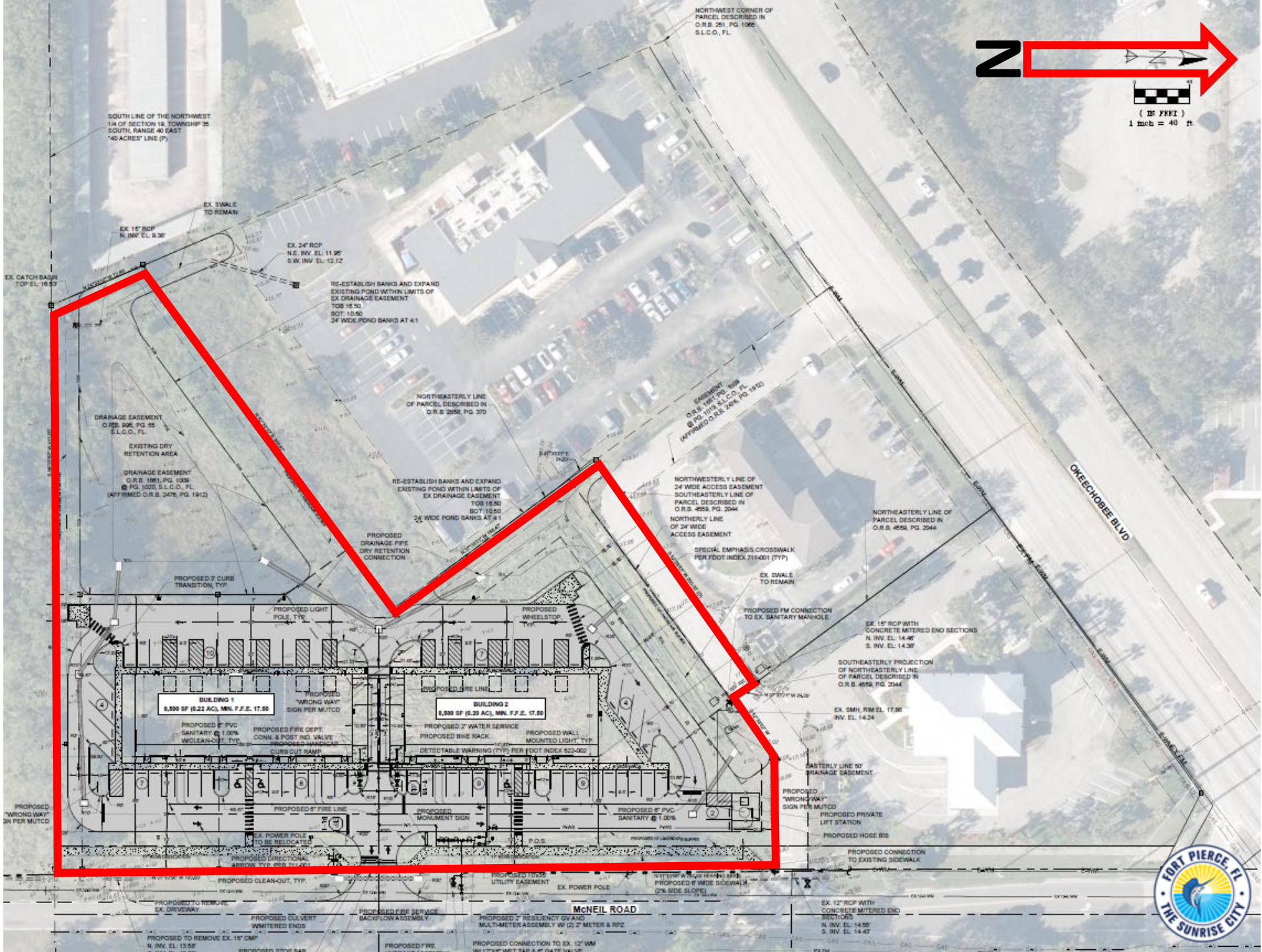


EXISTING FLU
GENERAL COMMERCIAL

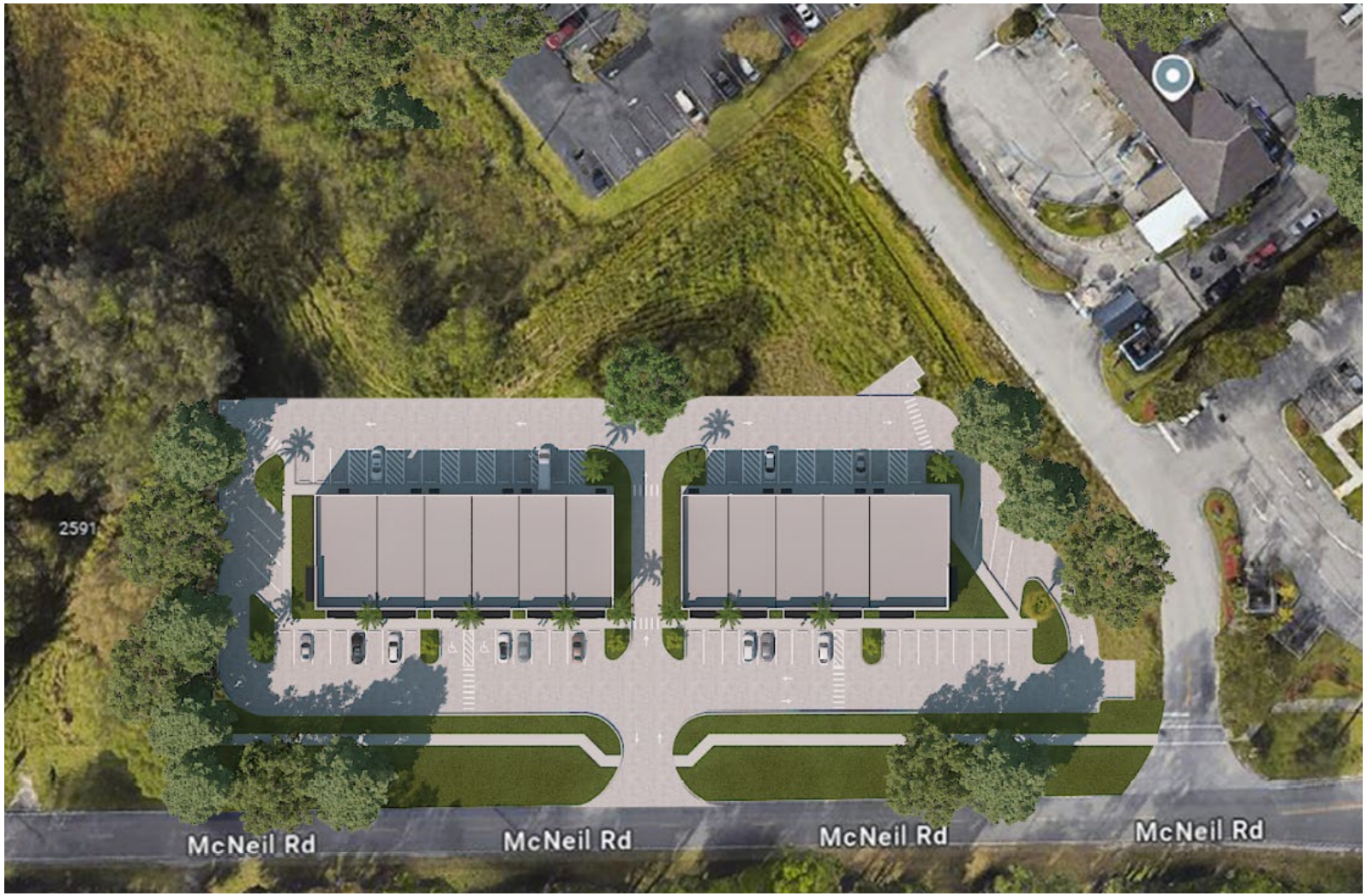


THE DISTRICT
SITE PLAN

DESCRIPTION	FOUND (YES/NO)
WETLANDS	NO
RARE HABITAT	NO
THREATENED SPECIES	NO
ENDANGERED SPECIES	NO
SPECIES OF SPECIAL CONCERN	NO
INVASIVE/EXOTIC VEGETATION	YES



THE DISTRICT
PLAN RENDERING



THE DISTRICT
LANDSCAPE PLAN

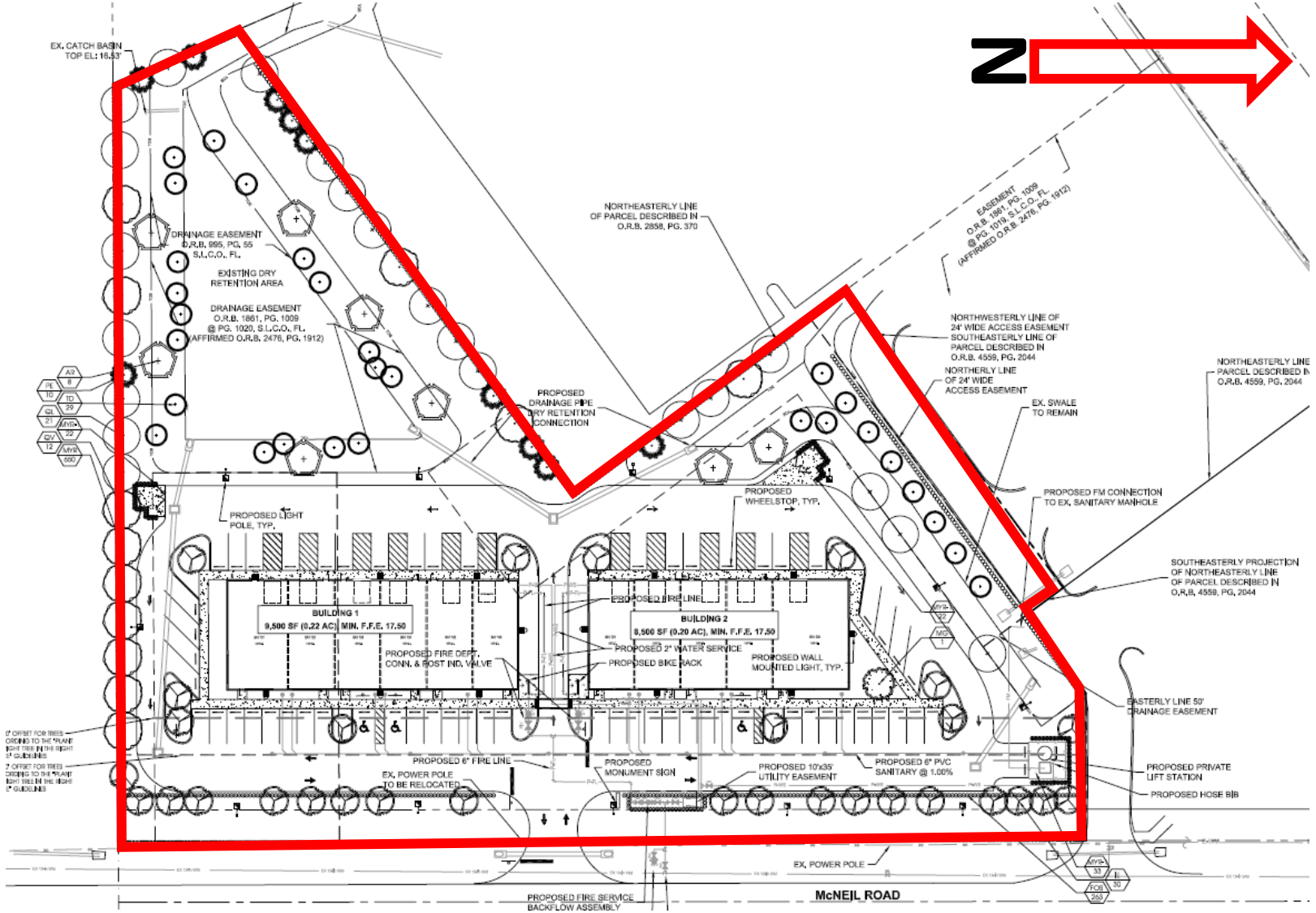
QTY	SYM	SPECIES	COMMON NAME/DESCRIPTION
CANOPY / ORNAMENTAL TREES			
8	AR*	ACER RUBRUM	RED MAPLE
30	IE*	ILEX x ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY
1	MG*	MAGNOLIA GRANDIFLORA	D D BLANCHARD MAGNOLIA
10	PE*	PINUS ELLIOTTI	SLASH PINE
21	QL*	QUERCUS LAURIFOLIA	LAUREL OAK
12	QV*	QUERCUS VIRGINIANA	LIVE OAK
29	TD*	TAXODIUM DISTICHUM	BALD CYPRESS
SHRUBS / GROUNDCOVERS			
263	FOS*	FORESTIERA SEGREGATA	FLORIDA PRIVET
650	MYR*	MYRICANTHES FRAGRANS	SIMPSON STOPPER
77	MYR-1*	MYRICANTHES FRAGRANS	SIMPSON STOPPER

Total Trees Required = 111 Trees
Total Trees Provided = 111 Trees

Total Trees Required = 111 Trees
Total Native Trees Provided = 111 (100%)

Total Palms Required = 0
Total Native Palms Provided = 0 (0%)

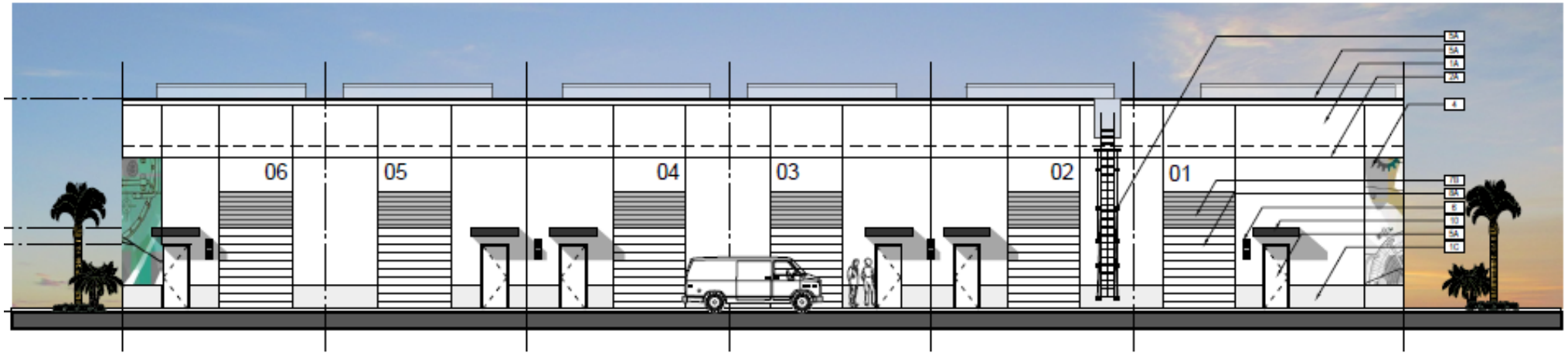
Total Shrubs Required = 990
Total Native Shrubs Provided = 990 (100%)



THE DISTRICT– ARCHITECTURALS



FRONT ELEVATION

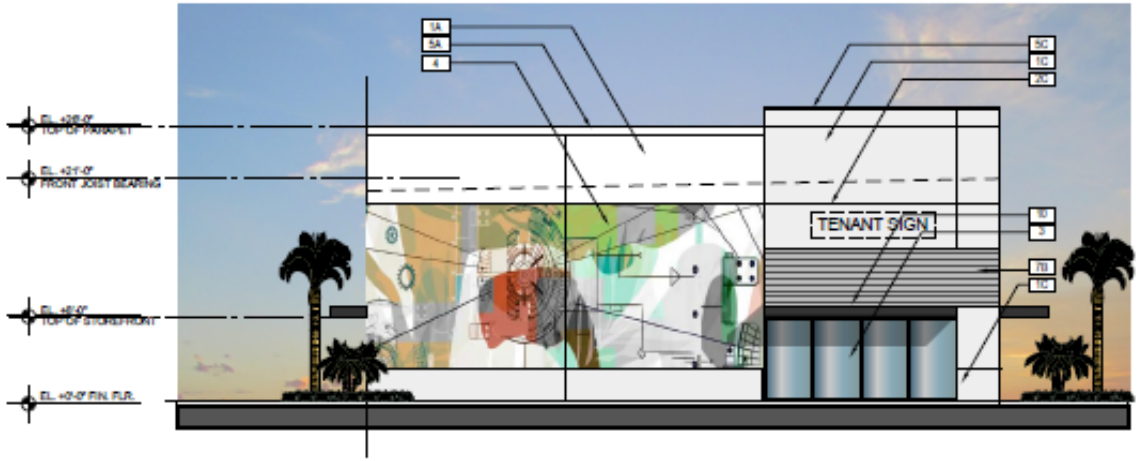


REAR ELEVATION

THE DISTRICT– ARCHITECTURALS



SIDE INTERIOR ELEVATION



SIDE ELEVATION

The District flex office / warehouse project has been designed with modern clean architectural elements, which incorporate vertical design articulation and relief.

The east facade of the buildings are predominantly storefront to complement the retail feel of the area. The storefront bays have raised elements and contrasting colored canopies to provide architectural relief.

Creative painted murals will be added on the side walls. All HVAC equipment will be located on the roof and screened by parapet walls on all four sides.

RECOMMENDATION

Staff recommend the Planning Board move the proposed District Site Plan to City Commission with a recommendation of **APPROVAL** subject to the seven (7) conditions of development.

1. A Unity of Title with the St. Lucie County Clerk of Courts and a Parcel Combination with the St. Lucie County Property Appraiser shall be undertaken before the issuance of a Building Permit.
2. A General Address Request for the newly created Parcel ID shall be submitted to the Planning Department after completion of the Unity of Title and lot combination.
3. A completion certification by a landscape architect and landscape maintenance agreement shall be submitted and approved by the Planning Department prior to final certificate of occupancy.

CONDITIONS (continued)

4. All signage shall require a sign permit.
5. All other applicable state or federal permits shall be obtained before commencement of the development.
6. Prior to commencement of work on site the applicant shall confirm with the City's arborist that the required vegetation removal permit and all tree mitigation has been satisfied.
7. A Sediment and Erosion Control Plan (including areas of sensitive habitat) shall be submitted and approved by the City Engineer prior to any land clearing activity.

ALTERNATIVE RECOMMENDATION

Approve with amended Conditions

Or

Disapprove

THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT Florida

TO:	Planning Board
FROM:	Kev Freeman, Planning Director
RE:	**PZSITE2024-00006 Site Plan – The District** **2591 McNeil Road** **Development & Design Review**
BOARD DATE:	April 14, 2025

STAFF REPORT

Agent (on behalf of Owner): Craig R. Mason

Applicant: Hayley Ward Engineering

Applicant's Request: Approval of a site plan application for a project known as THE DISTRICT for the development of 18,000 square feet of office / flex space. The subject properties are approximately 3.37 acres in size and are located are located south of Okeechobee Road and West of McNeil Road in Fort Pierce.

Location(s): 2591 McNeil Road.

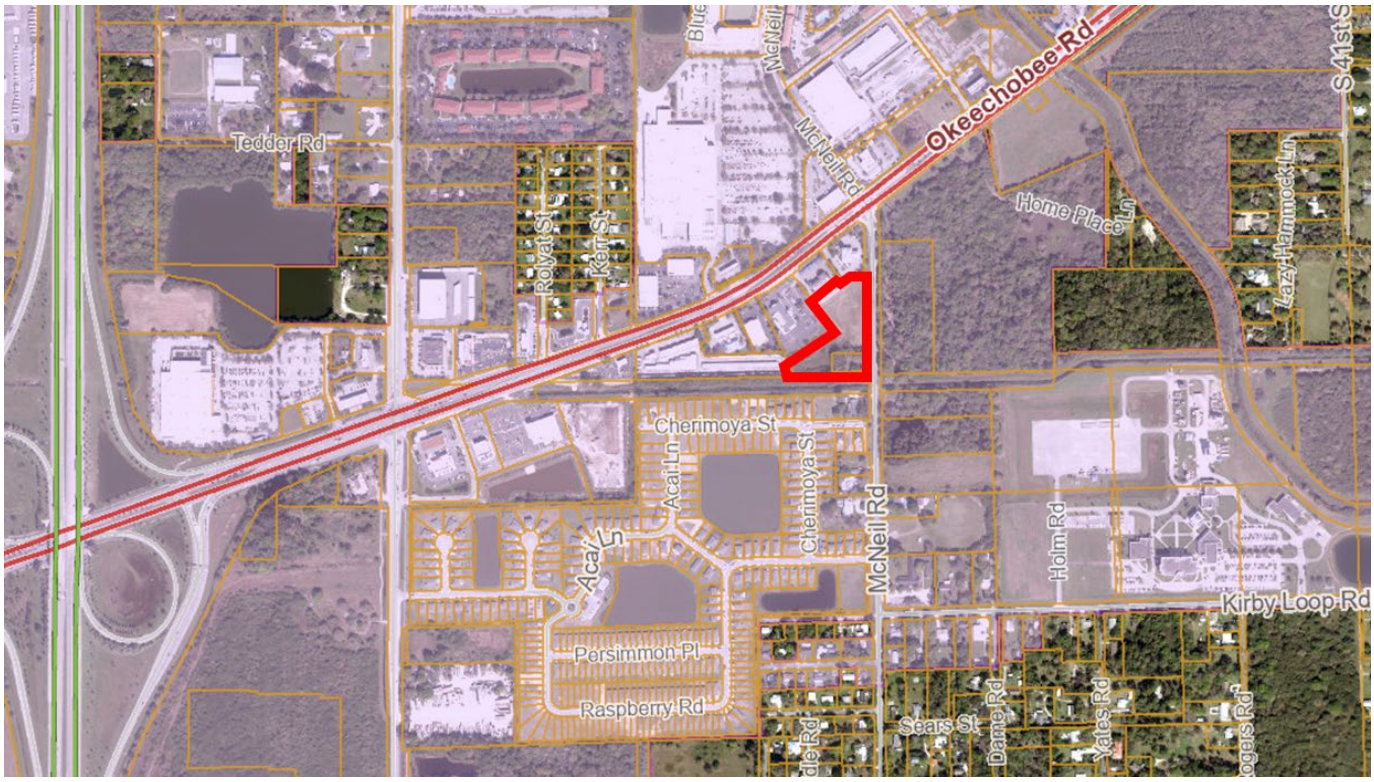
Parcel ID (s): 2419-241-0001-010-7 & 2419-244-0035-000-6.

Surrounding FLU and Zoning: North of this property are parcels occupied by a bank and car wash. These parcels are located in the General Commercial (GC) Future Land Use and General Commercial (C-3) Zoning Districts.

To the east of the properties lies the right-of-way of McNeil Road followed by vacant undeveloped land. The closest of these vacant parcels is approximately 4.88 acres and is located in the General Commercial (GC) Future Land Use and General Commercial (C-3) Zoning District.

To the south of the properties lies Canal No. 38 which is owned by North St. Lucie River Water Control District (NSLRWCD). Beyond this is a 1-acre parcel with a Future Land Use of Office (OP) and a Zoning Designation of Office Commercial (C-1). Additionally, this parcel is surrounded by undeveloped single-family lots.

Located to the west of the subject site are a number of commercial parcels which are occupied by a restaurant, doctor's office, and gas station. These parcels fall within the General Commercial (GC) Future Land Use and General Commercial (C-3) Zoning District.



Request

In accordance with Article V Sections 125-194 and 125-313 of the City Code, the applicant is requesting the review and approval of a site plan and design review to develop approximately 3.37 acres. The applicant is proposing approximately 18,000 square feet of office / flex space development. The subject properties have a Future Land Use Designation of General Commercial (GC) and are located in the General Commercial (C-3) Zoning District.

Future Land Use & Zoning

Sec. 125-200. - General Commercial Zone (C-3).

Purpose. The district is intended to provide for a broad variety of business activities including shoppers' goods stores, convenience goods and service establishments, offices and tourist/entertainment facilities. Many public and semi-public uses are also appropriate. Compared to the C-4 zone, this district is more suitable for uses requiring a high degree of accessibility to vehicular traffic, low intensity uses on large tracts of land, most repair services and small warehousing and wholesaling operations. Although this zone should be located along or near arterial or collector streets, it is not the intent of this district to encourage the extension of strip commercial areas. Instead, it should promote concentrations of commercial activities.

General Commercial Future Land Use

General Commercial (GC): The General Commercial designation provides for higher intensity commercial developments or horizontal and vertical mixed-use developments. Uses allowed within this designation include multifamily residential, intensive and general commercial, retail, service, offices, tourist/entertainment facilities, hotels/motels, parks and recreation, along with compatible public, quasi-public, and special uses. This land use designation allows for a maximum density of 15 dwelling units per acre and a maximum FAR of 1.0. Development shall include either commercial or mixed uses fronting major roadway corridors with higher intensity near major intersections. Residential uses may comprise up to 20 percent of the total floor area of the General Commercial future land use designation.

Design Review

The proposed flex office / warehouse project has been designed with modern clean architectural elements, which incorporate vertical design articulation and relief.

The east facade of the buildings is predominantly of storefront appearance in order to complement the retail feel of the area. The storefront bays have raised elements and contrasting colored canopies to provide architectural relief.

Creative painted murals will be added on the side walls. All HVAC equipment will be located on the roof and screened by parapet walls on all four sides

Parking

The project provides the required number of parking stalls (60).

Utilities

FPUA

Landscaping

The development complies with the city's landscaping requirements.

Traffic Impact Statement

The traffic analysis submitted by It is determined that the project meets the requirements for concurrency.

THE DISTRICT - FLEX SPACE

Institute of Transportation Engineers: Trip Generation, 11th Edition

WEEKDAY: DAILY AVERAGE

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Warehouse	150	14400	S.F.	T=1.58(X/1000)+38.29	50%	50%	31	31	61
Office	710	3600	S.F.	Ln(T)=0.87Ln(X)+3.05	50%	50%	32	32	64
						TOTAL:	63	63	125

WEEKDAY: A.M. PEAK HOUR TRIPS

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Warehouse	150	14400	S.F.	T=0.11(X/1000)+28.55	65%	35%	19	11	30
Office	710	3600	S.F.	Ln(T)=0.86Ln(X/1000)+1.16	88%	12%	8	2	10
						TOTAL:	27	13	40

WEEKDAY: P.M. PEAK HOUR TRIPS

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Warehouse	150	14400	S.F.	T=0.15(X/1000)+20.47	24%	76%	5	17	23
Office	710	3600	S.F.	Ln(T)=0.83Ln(X/1000)+1.29	18%	82%	2	9	11
						TOTAL:	7	26	33

Environmental

It should be noted that the applicant did observe trees that would fit the definition of "protected" by the City of Ft. Pierce land development code. Further, It is the opinion of the applicant that the subject property does contain native upland habitat.

The following FLUCCS codes were identified onsite; 7000 – Exotic Plants, 4220 – Ditch/Artificial Stream,

1112 – Mixed Hardwoods, 1810 Mowed Grass, and 3250 – Stormwater Treatment Areas. According to aerial photographs and site visit, it appears that there are no State jurisdictional wetlands on site.

One dry retention/detention area is located at the southwest corner of the larger subject property.

Per the South Florida water Management District Environmental Resource Standard Permit No. 56-02366-P02, there are four separate parcels that are part of the common surface water management system to serve the entire site. The smaller single-family site was not included in the design of the stormwater management system (See attached SFWMD ERP). It appears the parcel is currently in compliance with the permit, but a modification to the parcel will require a modification to the permit.

A Tree Inventory and/or survey will be required prior to obtaining a Vegetation Removal Permit. Trees with DBH of 14 inches or greater are protected and will require mitigation if the site plan requires for removal of all native trees. It is the professional opinion of EDC that approximately .50 acres of cropland/pasture are located onsite. In addition, trees meeting the "protected trees" criteria for the City of Fort Pierce were observed onsite.

No gopher tortoises, their burrows, or signs (tracks, feces, etc.) were observed onsite. No other state or federally listed plant/animal species or their critical habitat(s) were observed on site.

Lighting

The applicant provided a photometry lighting plan, which satisfies city standards.

Stormwater Drainage

The surface water management system for the project will collect site run-off in a series of inlets which will convey the runoff to an existing dry detention area through an existing easement agreement dated September 30th, 2003. (OR Book 1861 Page 1009).

Solid Waste

Based on the intended commercial/warehouse use of the building, this project will utilize a dumpster for solid waste and recyclable items. The enclosure meets the city's design requirements.

Technical Review Committee

Affected departments have reviewed the proposed site plan application with regard to the requirements

of the City Code. Findings from the review by corresponding departments and the associated responses by the applicant are provided with the staff's supporting documents.

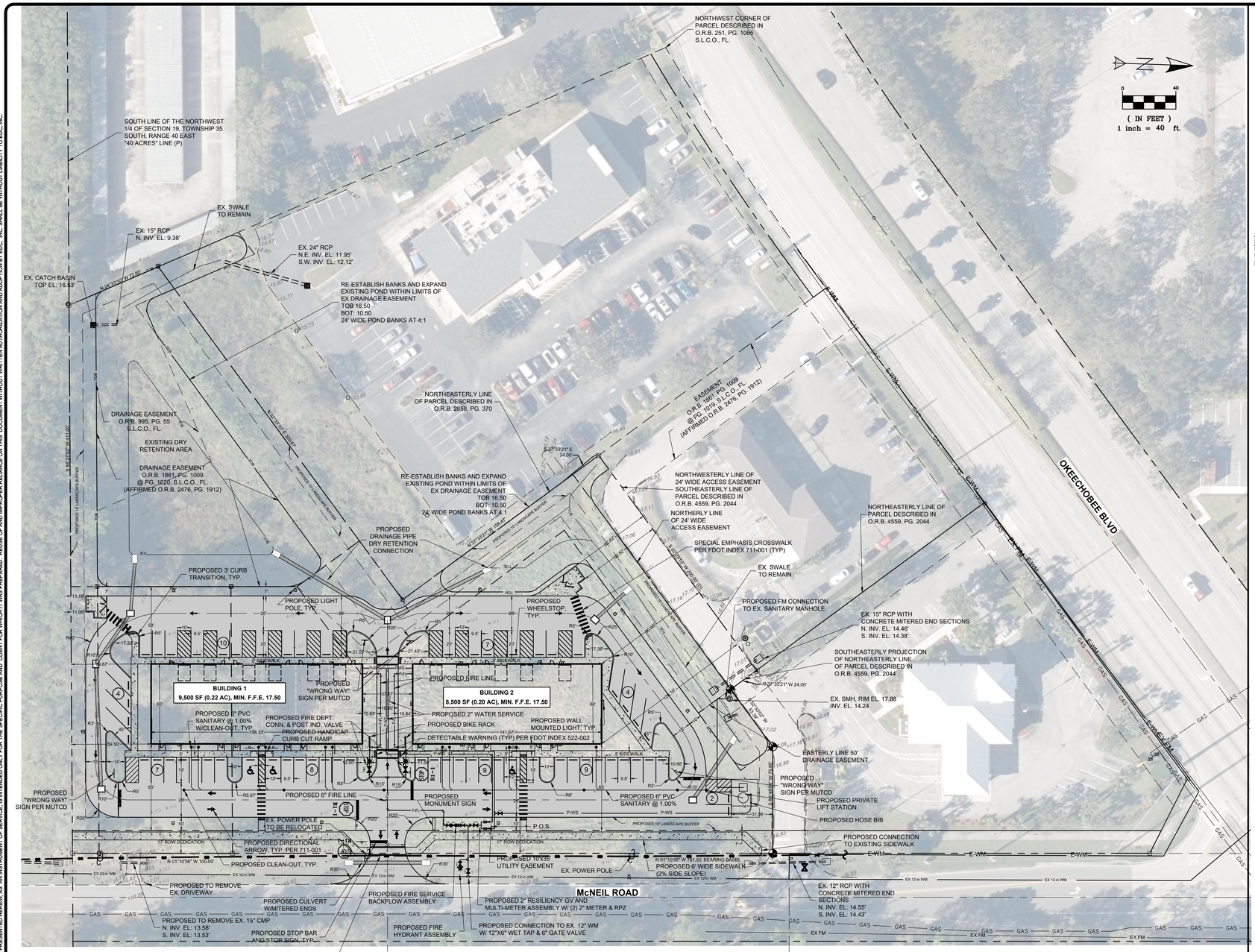
Recommended Conditions of Approval

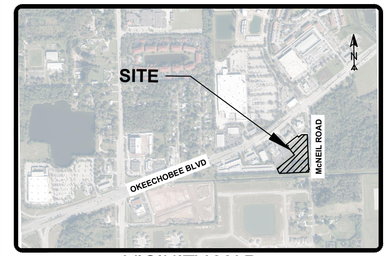
1. A Unity of Title with the St. Lucie County Clerk of Courts and a Parcel Combination with the St. Lucie County Property Appraiser shall be undertaken before the issuance of a Building Permit.
2. A General Address Request for the newly created Parcel ID shall be submitted to the Planning Department after completion of the Unity of Title and lot combination.
3. A completion certification by a landscape architect and landscape maintenance agreement shall be submitted and approved by the Planning Department prior to final certificate of occupancy.
4. All signage shall require a sign permit.
5. All other applicable state or federal permits shall be obtained before commencement of the development.
6. Prior to commencement of work on site the applicant shall confirm with the City's arborist that the required vegetation removal permit and all tree mitigation has been satisfied.
7. A Sediment and Erosion Control Plan (including areas of sensitive habitat) shall be submitted and approved by the City Engineer prior to any land clearing activity.

***Staff Recommendation**:*

The proposed application meets the standards of the City's Code Section 125-194 and 125-313.

Therefore, Staff recommends that the Planning Board move the application to the City Commission with a recommendation of **APPROVAL** for the site plan subject to the noted seven (7) Conditions.





VICINITY MAP

SCALE: 1:1,000

SITE DATA

LEGAL DESCRIPTION

PER TITLE COMMITMENT ISSUED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NUMBER 1466211

PARCEL 1:

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), RUN THENCE SOUTHWESTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 742.69 FEET; THENCE RUN SOUTHEASTERLY TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 19 WHICH IS 410.99 FEET WEST OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN EAST ALONG SAID QUARTER SECTION LINE TO THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN NORTH ALONG SAID WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE 100 FOOT X 200 FOOT PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 251, PAGE 1065. ALSO LESS AND EXCEPT THAT PART OF LOT 9, MODEL LAND COMPANY SUBDIVISION OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, AS PER PLAT THEREOF, RECORDED IN PLAT BOOK 3, PAGE 63 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED IN OFFICIAL RECORDS BOOK 691, PAGE 1174.

ALSO, LESS AND EXCEPT

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD (66 FOOT RIGHT-OF-WAY) AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD, 120 FOOT RIGHT-OF-WAY), THENCE SOUTH 52°29'53" WEST ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 326.24 FEET TO THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED; THENCE SOUTH 37°30'07" EAST FOR 212.00 FEET; THENCE SOUTH 52°29'53" WEST FOR 200.00 FEET; THENCE NORTH 37°30'07" WEST FOR 212.00 FEET (TO THE SOUTH RIGHT-OF-WAY LINE OF SAID STATE ROAD 70, 120 FOOT RIGHT-OF-WAY); THENCE NORTH 52°29'53" EAST (ALONG SAID RIGHT-OF-WAY LINE) FOR 200.00 FEET TO THE POINT OF BEGINNING.

ALSO, LESS AND EXCEPT

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD (66 FT. RIGHT-OF-WAY) AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD, 120 FOOT RIGHT-OF-WAY); THENCE SOUTH 52°29'53" WEST ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 526.24 FEET TO THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED; THENCE CONTINUE SOUTH 52°29'53" WEST FOR 20.99 FEET TO THE POINT OF A RADIUS OF 1970.08 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 5°41'38" FOR AN ARC DISTANCE OF 195.78 FEET TO THE NORTHWEST CORNER OF THE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 251, PAGE 1065; THENCE SOUTH 24°27'36" EAST ALONG THE WESTERLY LINE OF SAID LANDS, FOR 414.92 FEET; THENCE NORTH 52°29'53" EAST FOR 310.08 FEET; THENCE NORTH 37°30'07" WEST FOR 394.50 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PORTION OF THE LAND CONVEYED TO SAINT LUCIE COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA BY WARRANTY DEED OF DONATION RECORDED IN O.R. BOOK 3586, PAGE 2401.

LESS AND EXCEPT (SOUTH STATE BANK PARCEL) A PARCEL OF LAND BEING A PORTION OF ALL THAT CERTAIN LAND ACCORDING TO THE WARRANTY DEED DESCRIBED IN OFFICIAL RECORDS BOOK 2238, PAGE 213 THROUGH 216 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0001-000-0, LYING IN PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), THENCE RUN SOUTH 52°30'28" WEST ALONG THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 326.24 FEET TO THE NORTHERLY CORNER OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA (EXHIBIT 'B') AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7; THENCE RUN SOUTH 37°33'21" EAST ALONG THE EAST LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009, A DISTANCE OF 212.00 FEET TO THE SOUTHEASTERLY CORNER OF SAID PARCEL, SAID SOUTHEASTERLY CORNER ALSO LYING ON THE NORTHERLY LINE OF THAT CERTAIN 24.00 FEET WIDE EASEMENT DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE RUN SOUTH 52°33'02" WEST ALONG THE SOUTHEASTERLY LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7, AND ALONG SAID NORTHERLY EASEMENT LINE A DISTANCE OF 200.00 FEET TO THE SOUTHERLY CORNER OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009, SAID SOUTHERLY CORNER ALSO LYING ON THE NORTHEASTERLY LINE OF THAT CERTAIN PARCEL DESCRIBED IN AFORESAID OFFICIAL RECORDS BOOK 2238, PAGE 213 AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-244-0001-000-9; THENCE RUN SOUTH 37°33'21" EAST ALONG SAID NORTHEASTERLY LINE A DISTANCE OF 24.00 FEET; THENCE RUN NORTH 52°33'02" EAST PARALLEL WITH AND NORMAL TO THE AFOREMENTIONED SOUTHEASTERLY LINE OF THE PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7 AND ALONG THE SOUTHERLY LINE OF THE AFOREMENTIONED 24.00 FEET WIDE ACCESS EASEMENT A DISTANCE OF 253.39 FEET; THENCE RUN NORTH 88°49'04" EAST ALONG SAID SOUTHERLY EASEMENT LINE A DISTANCE OF 79.86 FEET TO THE AFOREMENTIONED WEST RIGHT OF WAY LINE OF MCNEIL ROAD (66.00 FEET WIDE RIGHT OF WAY); THENCE RUN NORTH 01°10'56" WEST ALONG SAID WEST RIGHT OF WAY LINE A DISTANCE OF 351.65 FEET TO THE POINT OF BEGINNING;

LESS AND EXCEPT THEREFROM THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION PARCEL NO. 106.1 ACCORDING TO DEED AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 691, PAGE 1174 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

AND,

LESS AND EXCEPT THE RIGHT OF WAY DONATION FOR MCNEIL ROAD DESCRIBED AND RECORDED IN OFFICIAL RECORD BOOK 3586, PAGE 2401 (RESOLUTION 2013-240).

TOGETHER WITH AND SUBJECT TO AND AGREEMENT FOR EASEMENTS OF ACCESS AND DRAINAGE AS DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 AT PAGE 1020 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

THE ABOVE-DESCRIBED PARCEL CONTAINING 123,157.87 SQ. FT OR 2.83 ACRES, MORE OR LESS.

SEE PAGE 2 FOR CONTINUATION

DESCRIPTION	FOUND (YES/NO)	AGENCY CONTACT INFORMATION	MANAGEMENT PLAN (YES/NO)	RELOCATION PLAN (YES/NO)
WETLANDS	NO			
RARE HABITAT	NO			
THREATENED SPECIES	NO			
ENDANGERED SPECIES	NO			
SPECIES OF SPECIAL CONCERN	NO			
INVASIVE/EXOTIC VEGETATION	YES			

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ENVIRONMENTAL NOTE:

REFER TO ENVIRONMENTAL ASSESSMENT COMPLETED BY EDC, INC. ON MARCH 26, 2024.

VERTICAL DATUM NOTE:

ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D.88) AND ARE GIVEN IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

*GENERAL ACCEPTED CONVERSION: NAVD + 1.475 = NGVD

NOTE:

THE PROPERTY OWNER, CONTRACTOR, AND AUTHORIZED REPRESENTATIVES SHALL PROVIDE PICKUP, REMOVAL, AND DISPOSAL OF LITTER WITHIN THE PROJECT LIMITS AND SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE AREA FROM THE EDGE OF PAVEMENT TO THE PROPERTY LINE WITHIN THE RIGHT-OF-WAY

CONSTRUCTION NOTE:

ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN THE CITY OF FORT PIERCE CODE OF ORDINANCES SECTIONS 107, 119, 123 AND 125.

LEGEND

	EXISTING METER		EXISTING UTILITY POLE
	PROPOSED SIGN		PROPOSED DRAINAGE INLET
	PROPOSED MITERED END SECTION		EXIST. DRAINAGE INLET
	HANDICAP PARKING SYMBOL		EXISTING STREET LIGHT
	EXISTING CONCRETE		PROPOSED LIGHT POLE (SINGLE)
	EXISTING PAVEMENT		DRAINAGE FLOW ARROW
	PROPOSED CONCRETE		PROPOSED LIGHT POLE (DOUBLE)
	PROPOSED PAVEMENT	#	PARKING STALL COUNT
			EXISTING DRAINAGE
			PROPOSED DRAINAGE PIPE

EDC
ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS
10250 VILLAGE PARKWAY
SUITE 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com
F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DESIGNED BY: DGB
DRAWN BY: RAH
FILENAME: 24-158 - site plan.dwg
LAYOUT: CSP
SCALE: AS SHOWN
DATE: 03/JUNE/2024

REVISION COMMENTS

DATE

THE DISTRICT
SITE PLAN
FORT PIERCE FLORIDA

EDC
ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS
10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455

24-158

1 OF 2

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY EDC, INC. SHALL BE WITHOUT LIABILITY TO EDC, INC.

Z:\EDC-2024\24-158 - Mason - 2591 McNeil Road Flex\ENGINEERING\AutoCAD\DWGs\24-158 - Site Plan.dwg, CSP, 11/26/2024 12:53:52 PM, Steven F. EDC, Inc., EDC, Inc.

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Z:\EDC-2024\24-158 - Mason - 2591 McNeil Road Fire\ENGINEERING\AutoCAD\DWG\24-158 - Site Plan.dwg CSP 02, 11/26/2024 12:53:59 PM, Steven F, EDC, Inc., EDC, Inc.

PARCEL 2:

A PARCEL DESCRIBED AS BEGINNING AT THE POINT OF INTERSECTION OF THE NORTH LINE OF THE BELOW DESCRIBED NON EXCLUSIVE PERPETUAL EASEMENT AND THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD, RUN NORTH ALONG WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD 100 FEET; THENCE RUN WEST, PARALLEL WITH THE SOUTH ONE-QUARTER SECTION LINE OF SAID SECTION 19 A DISTANCE OF 200 FEET; THENCE RUN SOUTH A DISTANCE OF 100 FEET TO A POINT ON THE NORTH LINE OF SAID PERPETUAL EASEMENT; THENCE RUN EAST 200 FEET TO POINT OF BEGINNING.

NON-EXCLUSIVE PERPETUAL EASEMENT BEING THE SOUTH 20 FEET, THE SAID 20 FEET BEING MEASURED AT RIGHT ANGLES AND PARALLEL TO THE ONE-QUARTER SECTION LINE, OF THE FOLLOWING DESCRIBED PROPERTY:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), RUN THENCE SOUTHWESTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 742.69 FEET; THENCE RUN SOUTHEASTERLY TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 19 WHICH IS 410.99 FEET WEST OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN EAST ALONG SAID QUARTER-SECTION LINE TO THE WEST RIGHT-OF-WAY-LINE OF MCNEIL ROAD; THENCE RUN NORTH ALONG SAID WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD TO THE POINT OF BEGINNING.

ALL OF THE ABOVE LANDS LYING AND BEING IN SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA.

THE ABOVE-DESCRIBED PARCEL CONTAINING 20,000.38 SQ. FT OR 0.46 ACRES, MORE OR LESS.

PARCEL 3 (24.00 FEET WIDE STRIP FROM CENTERSTATE BANK):

A 24.00 FEET WIDE STRIP OF LAND BEING A PORTION OF A PARCEL ACCORDING TO THE SPECIAL WARRANTY DEED DESCRIBED IN OFFICIAL RECORDS BOOK 3463, PAGE 1093 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0001-010-7, LYING IN PART OF THE SOUTHEAST ONE-QUARTER (1/4) OF THE NORTHWEST ONE-QUARTER (1/4) OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD (66 FEET WIDE RIGHT OF WAY) AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD - RIGHT OF WAY VARIES); RUN SOUTH 52°30'28" WEST ALONG THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 326.24 FEET TO THE NORTHERLY CORNER OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 4559, PAGE 2044 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA, AS PARCEL NO. 2419-241-0002-000-7; THENCE RUN SOUTH 37°33'21" EAST ALONG THE NORTHEASTERLY LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 4559, PAGE 2044, A DISTANCE OF 212.00 FEET TO THE SOUTHEASTERLY CORNER OF SAID PARCEL, SAID SOUTHEASTERLY CORNER ALSO LYING ON THE NORTHWESTERLY LINE OF THAT CERTAIN 24.00 FEET WIDE ACCESS EASEMENT DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND THE POINT OF BEGINNING; FROM SAID POINT OF BEGINNING THENCE RUN SOUTH 52°29'53" WEST ALONG SAID NORTHWESTERLY LINE OF THAT CERTAIN 24.00 FEET WIDE ACCESS EASEMENT, ALSO BEING THE SOUTHEASTERLY LINE THAT AFOREMENTIONED PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 4559, PAGE 2044, A DISTANCE OF 200.00 FEET TO THE NORTHEASTERLY LINE OF THAT CERTAIN PARCEL DESCRIBED ON OFFICIAL RECORD BOOK 2858, PAGE 370 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-244-0001-000-9; THENCE RUN SOUTH 37°33'21" EAST ALONG SAID NORTHEASTERLY LINE A DISTANCE OF 24.00 FEET; THENCE LEAVING SAID NORTHEASTERLY LINE RUN NORTH 52°33'02" EAST ALONG THE SOUTHEASTERLY LINE OF AFOREMENTIONED 24.00 FEET WIDE ACCESS EASEMENT A DISTANCE OF 200.00 FEET; THENCE LEAVING SAID SOUTHEASTERLY LINE RUN NORTH 37°33'21" WEST ALONG THE SOUTHEASTERLY PROJECTION OF THE AFOREMENTIONED NORTHEASTERLY LINE OF THAT PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 4559, PAGE 2044, A DISTANCE OF 24.00 FEET TO THE AFOREMENTIONED SOUTHEASTERLY CORNER OF SAID PARCEL AND THE POINT OF BEGINNING.

SAID 24.00 FEET WIDE STRIP PARCEL LYING AND BEING IN ST. LUCIE COUNTY, FLORIDA AND CONTAINING 4,800.01 SQUARE FEET OR 0.11 ACRES, MORE OR LESS.

ALL OF THE ABOVE LANDS (PARCELS 1, 2 AND 3) LYING AND BEING IN SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, CONTAINING 3.40 ACRES, MORE OR LESS.

PARCEL ID #: 2419-241-0001-010-7
2419-244-0035-000-6

PROJECT NAME: MASON MULTI-FAMILY
MCNEIL & ORANGE

OWNER: CENTERSTATE BANK OF FLORIDA NA
C/O CORPORATE REAL ESTATE
PO BOX 1287
ORANGEBURG, SC 29116

FUTURE LAND USE: GC
ZONING: C-3
LAND SIZE BEFORE ROW DEDICATION: 147,958 S.F. (3.39 AC)
LAND SIZE AFTER 17' ROW DEDICATION: 138,903 S.F. (3.19 AC)

BUILDING DATA

GROSS SQUARE FOOTAGE 18,000 S.F. (0.42 AC)
PROPOSED BUILDING 1 9,500 S.F. (0.22 AC)
PROPOSED BUILDING 2 8,500 S.F. (0.20 AC)

ZONING CODE FOR: GENERAL COMMERCIAL ZONE (C-3)						
	YARD SETBACKS				BUILDING COVERAGE	BUILDING HEIGHT
	FRONT	REAR	SIDE	CORNER		
PER CODE	25	15	15	15	60% MAX.	65' MAX.
PROPOSED	25	15	15	15	13%	26' MAX.

PROVIDER OF UTILITIES:

WATER: FPUA
WASTEWATER: FPUA
IRRIGATION: WELL

PARKING DATA

PARKING REQUIRED
PROFESSIONAL SERVICE ESTABLISHMENT, OTHER (1 SP / 300 GSF SPACES) @ 18,000 GSF
TOTAL REQUIRED PARKING SPACES 60 SPACES (3 HC)

STANDARD PARKING PROVIDED 60 SPACES (3 HC)

STORMWATER DRAINAGE:

THE SURFACE WATER MANAGEMENT SYSTEM FOR THE PROJECT WILL COLLECT SITE RUNOFF IN A SERIES OF INLETS WHICH WILL CONVEY THE RUNOFF TO EXISTING DRY DETENTION SYSTEM.

SOLID WASTE:

BASED ON THE INTENDED USE OF THE BUILDING, THIS PROJECT WILL UTILIZE A DUMPSTER AREA FOR SOLID WASTE AND RECYCLABLE ITEMS.

HAZARDOUS WASTE:

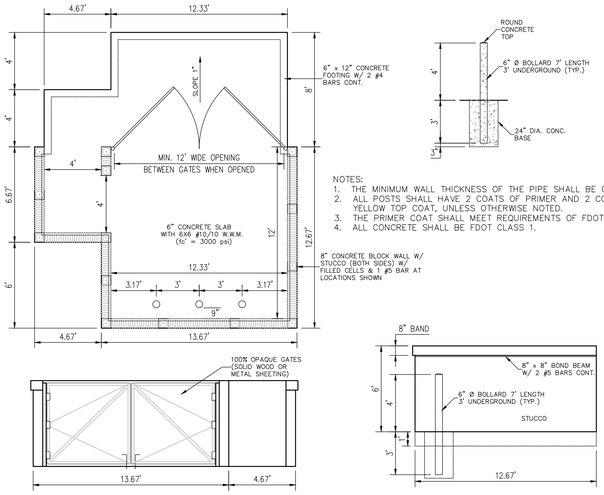
ANY AND ALL HAZARDOUS OR TOXIC MATERIALS GENERATED OR USED OR STORED ON SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LANDSCAPE:

REFER TO LANDSCAPE PLAN BY OTHERS.

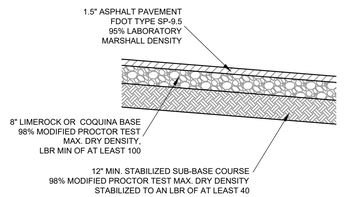
ACCESSIBILITY AND ADA COMPLIANCE:

ALL SIDEWALKS AND RAMPS WILL MEET FDOT AND ADA REQUIREMENTS.



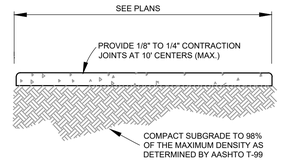
FORT PIERCE DUMPSTER DETAIL

N.T.S.



TYPICAL PAVEMENT SECTION

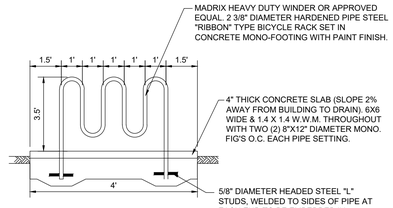
N.T.S



NOTES:
1. USE 3,000 P.S.I. CONCRETE AT 28 DAYS FOR SIDEWALK CONSTRUCTION.
2. SIDEWALK THICKNESS TO BE INCREASED TO 6" THICK AT DRIVEWAY LOCATIONS.
3. ALL REPAIRS REQUIRED DURING CONSTRUCTION SHALL BE REMOVED AND REPLACED 10' MINIMUM TO NEXT FULL JOINT.

4" THICK SIDEWALK DETAIL

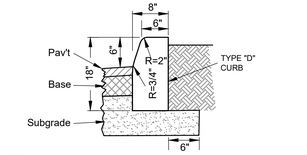
N.T.S



NOTES: EACH BIKE RACK SHOULD ACCOMMODATE A MINIMUM OF FIVE (5) BIKES.

TYPICAL BIKE RACK DETAIL

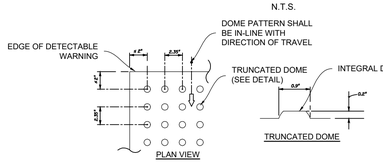
N.T.S.



NOTES:
1. USE 3,000 P.S.I. CONCRETE AT 28 DAYS FOR CONSTRUCTION.
2. SUBGRADE TO EXTEND AN ADDITIONAL 6" BEYOND TYPE "D" CURB.
3. TYPE "D" CURB TO BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX #300.

TYPE "D" CURB

N.T.S

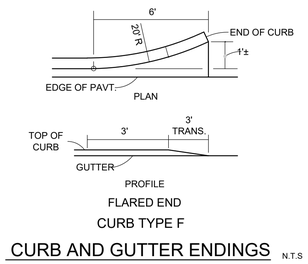


ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES (610 MM) FROM THE BACK OF CURB

NOTES:
REFER TO FDOT INDEX 304 FOR FURTHER DETAILS
CAST IN PLACE

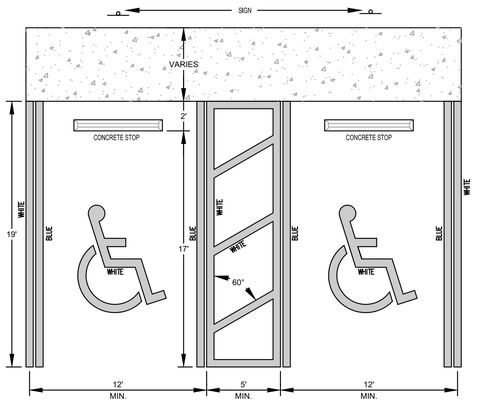
DETECTABLE WARNING

N.T.S.



CURB AND GUTTER ENDINGS

N.T.S





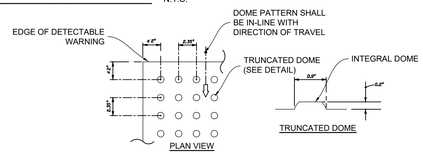
NOTES:
1. FTP 20-06: TOP PORTION SHALL HAVE REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
2. FTP 21-06: TOP PORTION SHALL HAVE REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. FTP 20-06 IS FOR USE IN AREAS WHERE SPACE IS LIMITED.
4. FTP 22-06 IS SUPPLEMENTAL PANEL FOR THE FTP 20-06 & FTP 21-06 SIGNS.
5. HEIGHT SHALL BE 7 FEET MEASURED FROM THE GROUND OR SIDEWALK TO THE BOTTOM OF "PERMIT ONLY" SIGN OR 6 FEET TO THE BOTTOM OF "$250 FINE" SIGN.
6. REFER TO FDOT INDEX No. 711-001 FOR PAVEMENT MARKING DETAILS & FDOT INDEX No. 700-102 SIGN DETAILS PER THE LATEST FDOT DESIGN STANDARDS.

HANDICAPPED SPACE DETAIL

N.T.S

HANDICAP CURB CUT RAMP

N.T.S.



1. SIDEWALK IS PARALLEL TO CURB.

ALL SIDEWALK CURB RAMPS SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH OF THE RAMP AND IN THE DIRECTION OF TRAVEL 24 INCHES (610 MM) FROM THE BACK OF CURB

NOTES:
REFER TO FDOT INDEX 304 FOR FURTHER DETAILS CAST IN PLACE

DETECTABLE WARNING

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS
10250 VILLAGE PARKWAY
SUITE 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com
F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DCB DESIGNED BY
RAH DRAWN BY
24-158 - site plan.dwg FILENAME
CSP 02 LAYOUT
AS SHOWN SCALE
03/JAN/2024 DATE

REVISION COMMENTS
DATE

THE DISTRICT
SITE PLAN
FORT PIERCE FLORIDA

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS
10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455

24-158

2 OF 2

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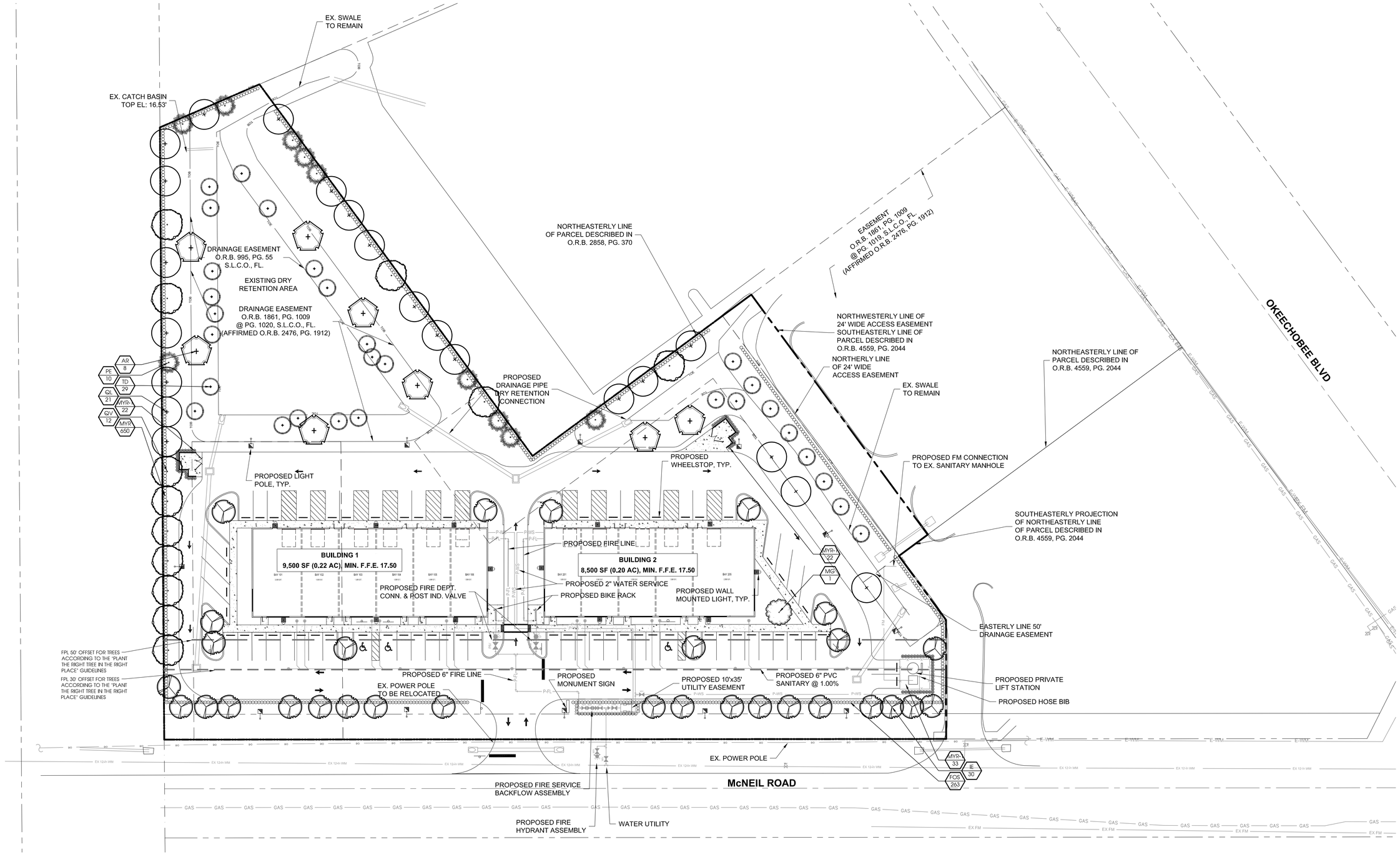
Know what's below. Call before you dig.
www.callsunshine.com



ELECTRONIC SIGNATURE AND SEAL
Registered Landscape Architect
Jeffrey W. Smith, RLA
LA0001635
Prepared, Reviewed & Supervised By:
Conceptual Design Group, Inc.
900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340

Jeffrey W. Smith, RLA
2024.08.14 16:06:55 -04'00'

Landscape Plan

North
Scale: 1" = 30'
0 15' 30' 60'

Conceptual Design Group, Inc.
Landscape Architecture - Site Planning
900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340
LC: 26000198

The District
McNeil Road
City of Fort Pierce, Florida

City Project Number:

Jeffrey W. Smith, RLA
Florida Registration Number:
LA 0001635

Job No.	24-0801
Drawn By	JWS
Submittal Dates	8-14-2024
Revision Dates	

These drawings are the property of the landscape architect and are not to be used for other projects except by written permission from the landscape architect. Report any discrepancies immediately to the landscape architect.

Sheet L-1 of 2

Landscape Specifications

1. All tree and plant material to be Florida No. 1 or better, as classified in "Grades and Standards for Nursery Plants", Part 1 and Part II, State of Florida, Dept. of Agriculture, Tallahassee. All plants not listed in "Grades and Standards for Nursery Plants" shall conform to a Florida No. 1 as to: (1) health and vitality, (2) condition of foliage, (3) root system, (4) freedom from pest or mechanical damage, (5) heavily branched and densely foliated according to the accepted normal shape of the species.
2. Undersizing or substitution of one species or cultivar for another species is a breach of contract and will be "Rejected" at the time of final landscape inspection unless approved by Landscape Architect.
3. Project Warranty: All plant material shall be warranted for a period of one (1) year after date of substantial completion against defects, including death and unsatisfactory growth, except for defects resulting from abuse or damage by others or unusual phenomena or incidents which are beyond the contractor's control.
4. Any and all conditions which the contractor feels will be detrimental to the success of the planting shall be brought to the owner or representative's attention.
5. The contractor shall verify the location of underground utilities prior to commencing work on any project area.
6. Mulch planting areas with 3" layer of Melaleuca, Eucalyptus, or Enviromulch, Cypress Mulch is NOT ACCEPTABLE. Planting beds to receive mulch throughout entire bed area.
7. All plants to be set to ultimate grade. No filling will be permitted around trunks or stems. Mulch to be kept a minimum of 2" away from trunks and stems.
8. Planting trees and shrubs: Excavate hole per planting detail. When plant is set, place additional backfill consisting of a 50% mixture of Peat humus and natural soil around the base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Water again after placing final layer of backfill and before installing mulch.
9. Guy and stake trees in 3 directions with galvanized wire, through flexible hose chafing guards, with wooden stake anchors immediately after planting. (See Detail)
10. Trees and shrubs shall be fertilized with a complete natural organic fertilizer with a ratio of approximately 3:0:2 or 3:0:3 (e.g. one labeled 12-0-8). Similar analysis such as 16-0-8 (4:0:2) can also be used. Fertilizers that are slow release, controlled release, sulphur coated or with nitrogen as IBDU or ureaformaldehyde have extended release period. Thirty to fifty percent of the nitrogen should be water insoluble or slow release.

Palms should receive a complete granular fertilizer formulated for palms ("Palm Special") at a rate of 5 to 8 lbs. per palm.

Agriform 20-0-5 twenty-one gram planting tablets may be substituted for granular fertilizer. If utilized, the following rates shall be utilized: Position plant in hole, Backfill halfway up the rootball, Place tablet(s) beside rootball about 1" from root tips. Do not place tablet(s) in bottom of hole.

1 Gallon 1 Tablet
3 Gallon 2 Tablets
25 Gallon & B&B Trees 2 per 1" caliper

11. All planting areas and sod to be irrigated to provide 100% coverage. Shop drawings to be submitted by the irrigation contractor for approval prior to installation.
12. Maintain trees, shrubs, and other plants by watering, cultivating, and weeding as required for healthy growth. Restore planting saucers and mulch. Tighten and repair stake and guying and reset trees and shrubs to proper grade or vertical position as required. Spray as necessary to keep trees and shrubs free of insects and disease. The contractor shall begin maintenance immediately after planting and shall continue maintenance through final acceptance when Certificate of Occupancy is issued to the General Contractor by City and project is released by the General Contractor to Client.
13. Prune trees and shrubs only to remove damaged branches as directed by the Landscape Architect.
14. Planting Lawns: Provide clean, strongly rooted, uniformly sized strips of Stenotaphrom secundatus Floritam (unless otherwise noted), machine stripped not more than 24 hours prior to laying. Grade and roll prepared lawn surface. Water thoroughly but not to create muddy soil conditions. Lay sod strips with tight joints, roll or tamp lightly, and water thoroughly.
15. Maintain positive drainage, no planting is to block drainage.
16. Drainage Testing
    Prior to planting of trees, palms, and specimen material, each planting pit shall be tested in the following manner to verify adequate drainage.
    A) Dig each planting pit to the minimum specified size.
    B) Fill the planting pit with (12") twelve inches of water. If the water level in the planting pit drops (4") four or more inches within (4) four hours, the drainage is sufficient and a drainage channel is not required. If the water level drops less than (4") four inches within the (4) four hour period, then a drainage channel is required.
    C) When a drainage channel is required, the drainage channel must extend down through the non porous soil and into porous soil. (See Drainage Testing Detail)
    D) Discard all material removed from the drainage channel.
    E) When backfilling the planting pit, add course gravel to the drainage channel. Also, care must be taken to keep the consistency of the soil mix the same throughout the planting pit,

NOTES:
1. Contractor to include drainage testing for all trees and palms in bid. If drainage is inadequate, the soil specification in item #8 above shall be revised for site conditions. Contractor shall notify the Owner and Landscape Architect of poor drainage conditions in writing and written direction will be provided to the contractor of appropriate soil mixture specification to be used.
2. All fertilizers shall meet the City of Fort Pierce's and St Lucie County's fertilizer ordinances,

Plant List

QTY	SYM	SPECIES	COMMON NAME/DESCRIPTION	SIZE	SPACING	REMARKS
CANOPY / ORNAMENTAL TREES						
8	AR*	ACER RUBRUM	RED MAPLE	12' x 5', 2.5" D.B.H.	A.S.	FULL CANOPY, 5' C.T. MIN.
30	IE*	ILEX x ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	12' x 5', 2.5" D.B.H.	A.S.	FULL CANOPY, 5' C.T. MIN.
1	MG*	MAGNOLIA GRANDIFLORA	D D BLANCHARD MAGNOLIA	12' x 5', 2.5" D.B.H.	A.S.	FULL CANOPY, 2.5' C.T. MIN.
10	PE*	PINUS ELLIOTTI	SLASH PINE	12' x 5', 2.5" D.B.H.	A.S.	FULL CANOPY, 5' C.T. MIN.
21	QL*	QUERCUS LAURIFOLIA	LAUREL OAK	12' x 5', 2.5" D.B.H.	A.S.	FULL CANOPY, 5' C.T. MIN.
12	QV*	QUERCUS VIRGINIANA	LIVE OAK	12' x 5', 2.5" D.B.H.	A.S.	FULL CANOPY, 5' C.T. MIN.
29	TD*	TAXODIUM DISTICHUM	BALD CYPRESS	12' x 5', 2.5" D.B.H.	A.S.	FULL CANOPY, 5' C.T. MIN.
SHRUBS / GROUNDCOVERS						
263	FOS*	FORESTIERA SEGREGATA	FLORIDA PRIVET	2' x 2'	2' O.C.	FULL & THICK
650	MYR*	MYRICANTHES FRAGRANS	SIMPSON STOPPER	2' x 2'	2' O.C.	FULL & THICK
77	MYR-1*	MYRICANTHES FRAGRANS	SIMPSON STOPPER	4' x 2'	2' O.C.	FULL & THICK
	SOD-1	PASPALUM NOTATUM	BAHIA SOD			FULL & THICK
		* = Florida Native				SEE SPECS
		NOTE: D.B.H. IS MEASURED 4.5' ABOVE GRADE				

NOTE: ALL AREAS NOT MULCHED FOR INDIVIDUAL PLANT MATERIALS AND PLANTING BEDS SHALL BE SODDED. NO EXPOSED SOIL AREAS SHALL REMAIN ON SITE. THIS INCLUDES ALL OPEN AREAS, LAKE BANKS, DRY RETENTION AREAS, DRY DETENTION AREAS, AND ANY OTHER AREAS NOT COVERED BY IMPERVIOUS MATERIALS OR PLANTING MATERIALS.

Landscape Data

Landscaping Adjacent to R.O.W. (East Buffer) 525'

Trees Required = 10' Wide Landscape Strip with 1 Tree/300 s.f.
550 l.f. x 10' = 5,250 s.f. / 300 = 18 Trees
Provided = 18 Trees

Shrubs Required = Continuous Hedge @ 2' o.c.
550 l.f. / 2' o.c. = 263 Shrubs
Provided = 263 Shrubs

Landscaping to Adjacent Property (North, South & West Buffer) 1,300'

Trees Required = 10' Wide Landscape Strip with 1 Tree/200 s.f.
1,300 l.f. x 10' = 13,000 s.f. / 200 = 65 Trees
Provided = 65 Trees

Shrubs Required = Continuous Hedge @ 2' o.c.
1,300 l.f. / 2' o.c. = 650 Shrubs
Provided = 650 Shrubs

Interior Vehicular Use Area

Required = 1 s.f. of interior landscaping per
15 s.f. of vehicular use area (42,260 s.f./15 = 2,818 s.f.)
Landscape Area Provided = 2,911 s.f.
Trees Required = 1 Tree/100 s.f. of interior landscape area
42,260 s.f./15 = 2,818 s.f. / 100 = 28 Trees
Trees Provided = 28

Maximum Use of Palm Trees
Sec. 22-187(1)(c)
Required = Fifty (50) percent of the required trees shall be species other than palm trees
Total Trees Required = 111 Trees
Maximum Palms Allowed = 54 (111 / 2 = 54)
Total Palms Provided = 0 (0%)

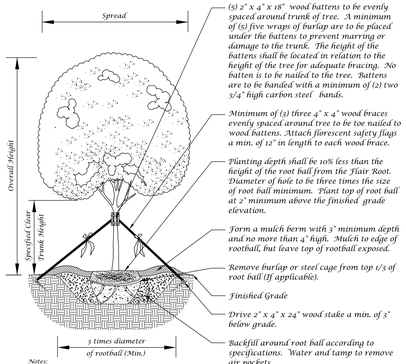
Total Trees Required = 111 Trees
Total Trees Provided = 111 Trees

Total Trees Required = 111 Trees
Total Native Trees Provided = 111 (100%)

Total Palms Required = 0
Total Native Palms Provided = 0 (0%)

Total Shrubs Required = 990
Total Native Shrubs Provided = 990 (100%)

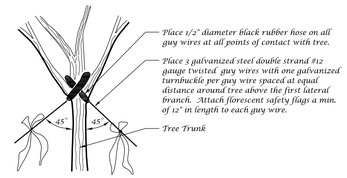
Landscape Details



Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. No nails shall be driven into tree

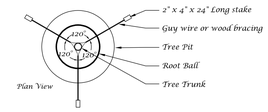
Large Tree Planting Detail (5" Caliper or Greater)

Not to Scale



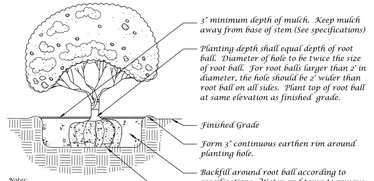
Guy Wire Attachment Detail

Not to Scale



Staking Detail

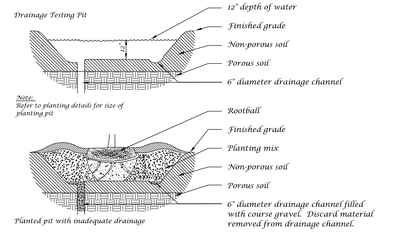
Not to Scale



Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. Remove any container from around rootball.
3. Plant as hedge row with O.C. (on center) spacing as specified in plant list, or with triangular spacing as a mass.

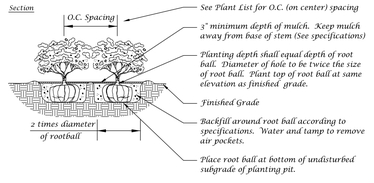
Shrub Detail

Not to Scale



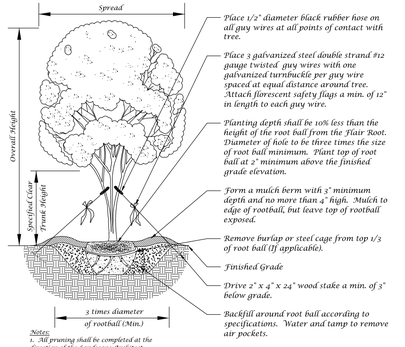
Drainage Testing Detail

Not to Scale



Ground Cover Detail

Not to Scale



Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. No nails shall be driven into tree

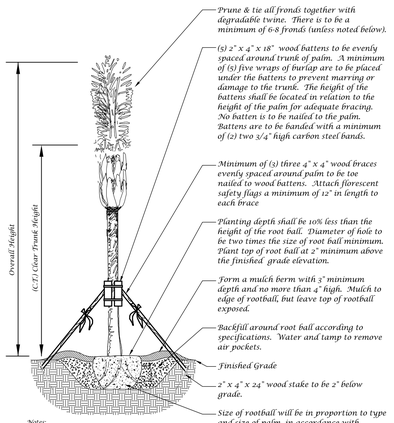
Tree Planting Detail

Not to Scale

Notes:
1. All pruning shall be completed at the direction of the Landscape Architect.
2. No nails shall be driven into tree

Multi-Trunk Tree Planting Detail

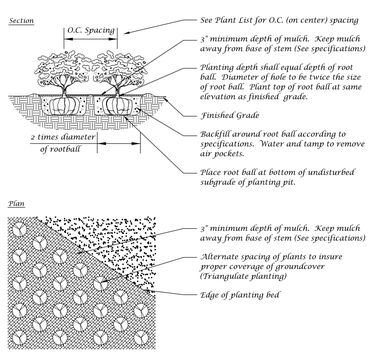
Not to Scale



Notes:
1. Hurricane cut Sabal Palms are acceptable.
2. All Washingtonia and Sabal Palms to be booted unless otherwise noted in plant list.
3. Palms with burned or marred trunks will not be accepted.

Palm Planting Detail

Not to Scale



Ground Cover Detail

Not to Scale

Landscape Plan

Conceptual Design Group, Inc.
Landscape Architecture - Site Planning
900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340
LC: 26000198

The District
McNeil Road
City of Fort Pierce, Florida

City Project Number:

Jeffrey W. Smith, RLA
Florida Registration Number:
LA 0001635

Job No. 24-0801
Drawn By JWS
Submittal Dates 8-14-2024

Revision Dates

These drawings are the property of the landscape architect and are not to be used for other projects except by written permission from the landscape architect. Report any discrepancies immediately to the landscape architect.

March 26, 2024 - Revised

Mason Development & Construction
Attn: Craig R. Mason
224 Chimney Corner Lane
Jupiter, FL 33458

VIA Email: cmason@masondc.com

Reference: **Environmental Assessment**
3.29 acres - McNeil Rd
St. Lucie County, Florida

Parcel ID	Parcel Address	Acreage
2419-244-0035-000-6	2591 McNeil Rd	0.46
2419-241-0001-010-7	McNeil Rd	2.91
Total Acres:		**3.37**

Dear Mr. Mason,

EDC, Inc. (EDC) has completed this Environmental Assessment (EA) for the above referenced property. The purpose of this evaluation was to conduct a review of the above listed parcels by means of site visit, review of available aerial photography, listed species review, review of soil resources, and review of environmental regulations pertaining to this parcel.

The following report details the findings of our on-site and desktop investigations of the properties as they pertain to St. Lucie County land developmental review regulations.

Please contact the undersigned if you have any questions regarding this report.

Respectfully submitted,
EDC, Inc.

Doug Schramm

Doug Schramm
Environmental Scientist

ENGINEERS ◆ SURVEYORS ◆ ENVIRONMENTAL

ENVIRONMENTAL ASSESSMENT

Parcel ID's:
2419-244-0035-000-6
2419-241-0001-010-7
2591 McNeil Rd – 3.37 acres
St. Lucie County, Florida

Date: December 22, 2023
Project # 23-380

Prepared For:
Mason Development & Construction
Attn: Craig Mason
224 Chimney Corner Lane
Jupiter, FL 33458

Cmason@masondc.com

Prepared By:
EDC, Inc.
10250 SW Village Parkway
Port St Lucie, Florida 34987
(772) 223-5200

SITE DESCRIPTION:

The subject property evaluated as part of this Environmental Assessment consists of two (2) tax parcels (Parcel ID # 2419-244-0035-000-6; 2419-241-0001-010-7) comprised a total of 3.37 acres. Both parcels are classified by the St. Lucie County Property Appraiser as vacant commercial (land use code 1000). The subject property is located on the west side of McNeil Rd and south of Okeechobee Rd within the municipal boundary of the City of Ft. Pierce, FL. The subject property has a Future Land Use designation of General Commercial (GC) and a zoning designation of General Commercial (C-3). The subject property is further located within Section 19, Township 35 South and Range 40 East, Ft. Pierce, Saint Lucie County.

This environmental assessment was completed as a precursor to permitting and review by governmental agencies as an applicable document for the supporting information associated with a building permit or land development application. EDC, Inc. staff visited the property on December 19, 2023 in order to ascertain the status and composition of any critical habitats, such as wetlands and native uplands that may be onsite.

VEGETATION:

It is the opinion of EDC that the subject property does contain native upland habitat associations. The historical land uses the on the subject property are not consistent with the surrounding area being dominated by commercial practices including a restaurant, car wash, and bank. The larger property has primarily been vacant and the smaller property appears to have been once utilized as a single-family dwelling in the 1990's and to mid-2000's. Since the mid-2000's and beyond, the dwelling unit has been demolished and no further development has occurred on the property. The smaller property is dominated by a combination of Live Oaks, Pine Trees and cabbage Palms and exotic vegetation. The larger property has remained cleared with the only development activity consisting of the excavation of the excavation of a dry retention area at the SW portion of the property.

The upland habitat associations were determined via onsite analysis and classified according to the Florida Cooperative Land Cover (CLC) System developed by the Florida Fish and Wildlife Conservation Commission (FWC). The CLC incorporates classifications used by FWC, Florida Land Use Cover Classification (FLUCCS), and Florida's water management districts. The following FLUCCS codes were identified onsite; Exotic Plants, 1112 Mixed Hardwoods, 1810 Mowed grass, 4220 Ditch/Artificial Stream, and 3250 Stormwater treatment area. Please refer to the attached Florida CLC map for the approximate location of the habitat(s) delineated onsite.

Common Name	Species Name
Slash Pine	*Pinus elliottii*
Sabal Palm	*Sabal palmetto*
Live Oak	*Quercus virginiana*
Brazilian Pepper**	*Schnius terebinthifolia*
Carrotwood**	*Cupaniopsis anacardioides*
Cogon Grass**	*Imperata cylindrica*

***Nuisance Vegetation**
****Exotic/Invasive Vegetation**

Table 1: This table lists a representative sample of vegetative species observed during the site visit.

Exotic Plants (7000): Upland and wetland areas dominated by non-native trees that were planted or have escaped and invaded native plant communities. These exotics include melaleuca, Australian Pine, Brazilian Pepper, and eucalyptus. This class includes sites known to be vegetated by non-native but for which the actual species composition could not be determined.

Mixed Hardwoods (1112): This is a hardwood community in which no single species or species group appears to achieve a 66 percent dominance of the canopy. This class of hardwoods includes any combination of large and small hardwood tree species none of which can be identified as dominating the canopy. (FLUCCS) This classification is the only native plant association on the property.

Mowed Grass (1810): These are non-urban upland communities where the predominant vegetative cover is very low growing grasses and forbs. This very early successional category includes all sites with herbaceous vegetation during the time period between bare ground, and the shrub and brush stage. It also includes areas that may be maintained in this stage through periodic mowing, such as along dikes or levees.

Ditch/Artificial Stream (4220): Aquatic community of an artificial waterway constructed for drainage or irrigation of adjacent lands. Water levels either fluctuate in response to variations in precipitation and groundwater levels, or water levels are artificially controlled. The sides of ditches are often vegetated, with grasses and sedges usually dominant. (NYNHP)

Stormwater Treatment Area (3250): Impoundments constructed primarily to retain or treat stormwater.

WETLAND DELINEATION:

According to aerial photographs and site visit, it appears that there are no State jurisdictional wetlands on site. Based on the State definition, a wetland consists of three components: 1) hydric soils, 2) wetland plants, and 3) hydrologic indicators. The property did not have an area that met the state definition and thus EDC did not delineate a wetland on the property.

WILDLIFE EVALUATION:

EDC, Inc. conducted a pedestrian survey throughout the property to investigate for the presence of any plant or animal listed species that are protected by a State or Federal agency. No gopher tortoises (a State of Florida protected species), their burrows, or signs (tracks, feces, etc.) were observed onsite.

No other state or federally listed plant/animal species or their critical habitat(s) were observed on site.

SOIL COMPOSITION:

Based on a review of the U.S. Department of Agriculture (USDA) Web Soil Survey the site is composed of typical regional soils including the following soil series:

Nettles Sand- is a poorly drained, nearly level soil found in areas of broad flatwoods. Typically the surface layer is 11 inches thick. Black sand comprises the upper 5 inches, very dark gray sand in the next three inches and dark gray sand in the lower 3 inches. Subsurface layer is light gray sand 22 inches thick. The water table is typically at a depth of 10 inches for 2 to 4 months during wet seasons, and at a depth of 10 to 40 inches for 6 months of longer in most years. Natural

vegetation includes slash pine, cabbage palm, saw palmetto, wax myrtle, inkberry, fetterbush, creeping bluestem, chalky bluestem, Florida threeawn, and pineland threeawn. This soil has severe limitations for cultivated crops unless water control and other food management practices are provided. This soil has potential for improved pasture grasses and high potential for dwellings without basements, small commercial buildings, and roads.

Oldsmar Fine Sand, Depressional- This soil is in wet depressions in the flatwoods and the soil is often ponded for six to nine months. The potential for cultivation is low without aggressive water management. Oldsmar sand is sandy, siliceous, poorly drained and slowly permeable sand. These soils are nearly level and found in broad areas of flatwoods and wet depressional areas. In most years the water stands above the surface for 6 to 9 months or more. These soils are saturated for long periods during the wet season. Natural vegetation includes sand weed, stillingia, longleaf threeawn, maidencane and sand cordgrass. The most common grasses are Florida threeawn and pineland threeawn. Water control measures are necessary to overcome excessive wetness. The potential for cultivation is low without aggressive water management. The soil is well suited for pasture and hay crops.

Wabasso Sand, 0 to 2% - This soil is a nearly level, poorly drained soil in broad open areas of the flatwoods. The surface layer is sand about 8 inches thick. The upper 4 inches is black and the lower 4 inches is dark grey. The water table is typically at a depth of less than 10 inches for 1 to 4 months during the wet season, and at a depth of 10 to 40 inches for 6 to 9 months in most years. Natural vegetation is slash pine, cabbage palm, saw palmetto, running oak, inkberry and fetterbush. Common grasses are threeawn and bluestem. The soil has severe limitations for cultivated crops and citrus due to wetness. The soil has high potential for dwellings without basements, small commercial buildings, local roads and streets.

CITY OF FORT PIERCE:

The following section references the City of Fort Pierce Land Development Code that apply to the subject property. As part of the local approval process, the applicant will be required to comply with the below items.

The regulation will be quoted in black; interpretation and consultation will be will be in red.

Sec. 123-64. - Permit required.

(a) Tree removal permit. No person shall, directly or indirectly, cut down, substantially alter, destroy, remove, relocate, damage or authorize any such act involving a protected tree situated on land within the city, without first obtaining a tree removal permit. But the following activities may be done without applying for a permit:

Before further land clearing activities commence, a Tree Removal Permit must be obtained from the City of Fort Pierce. This will require the applicant to mark and locate any tree that is protected by the City of Ft. Pierce. The includes measuring the trees according to diameter at breast height (DBH) and creating a tree mitigation plan (if necessary). It should be noted that EDC did observe trees that would fit the definition of “protected” by the City of Ft. Pierce land development code.

Sec. 107-6. - Design requirements.

(a) Grading, erosion control practices, sediment control practices, and waterway crossings shall be adequate to prevent transportation of sediment from the site to the satisfaction of city engineer. Cut and fill slopes shall be no greater than 4:1 to meet city environmental objectives.

(b) Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other chapters of this Code and other agency permits. Clearing techniques that retain natural vegetation and drainage patterns shall be implemented to the satisfaction of the city engineer.

(c) Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized.

In addition to a Tree Removal Permit, a Sediment and Erosion Control Plan must be established. This plan should identify control measures, and sensitive habitat (GopherTortoises) that may be affected

SUMMARY:

The subject property evaluated as part of this Environmental Assessment consists of two (2) tax parcels (Parcel ID # 2419-244-0035-000-6; 2419-241-0001-010-7) comprised of 3.37 acres. The property is classified by the St. Lucie County Property Appraiser as Commercial Class I (land use code 1000). The subject property is located on the west side of McNeil Rd and south of Okeechobee Rd within the City of Ft. Pierce, FL. The subject property has a Future Land Use designation of General Commercial (GC) and a zoning designation of General Commercial (C-3).

EDC, Inc. staff visited the property on December 19, 2023 in order to ascertain the status and composition of any critical habitats, such as wetlands and native uplands that may be onsite.

It is the opinion of EDC that the subject property does contain native upland habitat.

The following FLUCCS codes were identified onsite; 7000 – Exotic Plants, 4220 – Ditch/Artificial Stream, 1112 – Mixed Hardwoods, 1810 Mowed Grass, and 3250 – Stormwater Treatment Areas.

According to aerial photographs and site visit, it appears that there are no State jurisdictional wetlands on site.

One dry retention/detention area was located at the southwest corner of the larger subject property. Based off of historical imagery, the retention/detention area was created in 2004 and later in 2014 additional development activity occurred to the drainage system. Per the South Florida water Management District Environmental Resource Standard Permit No. 56-02366-P-02, there are four separate parcels that are part of the common surface water management system to serve the entire site. The smaller single-family site was not included in the design of the stormwater management system (See attached SFWMD ERP). It appears the parcel is currently in compliance with the permit, but a modification to the parcel will require a modification to the permit.

A Tree Inventory and/or survey will be required prior to obtaining a Vegetation Removal Permit. Trees with DBH of 14 inches or greater are protected and will require mitigation if the site plan requires for removal of all native trees.

It is the professional opinion of EDC that approximately .50 acre of cropland/pasture is located onsite. In addition, trees meeting the “protected trees” criteria for the City of Fort Pierce were observed onsite.

EDC, Inc. conducted a pedestrian survey throughout the property to investigate for the presence of any plant or animal listed species. No gopher tortoises, their burrows, or signs (tracks, feces, etc.) were observed onsite.

No other state or federally listed plant/animal species or their critical habitat(s) were observed on site.

ENGINEERS ◔ SURVEYORS ◔ ENVIRONMENTAL

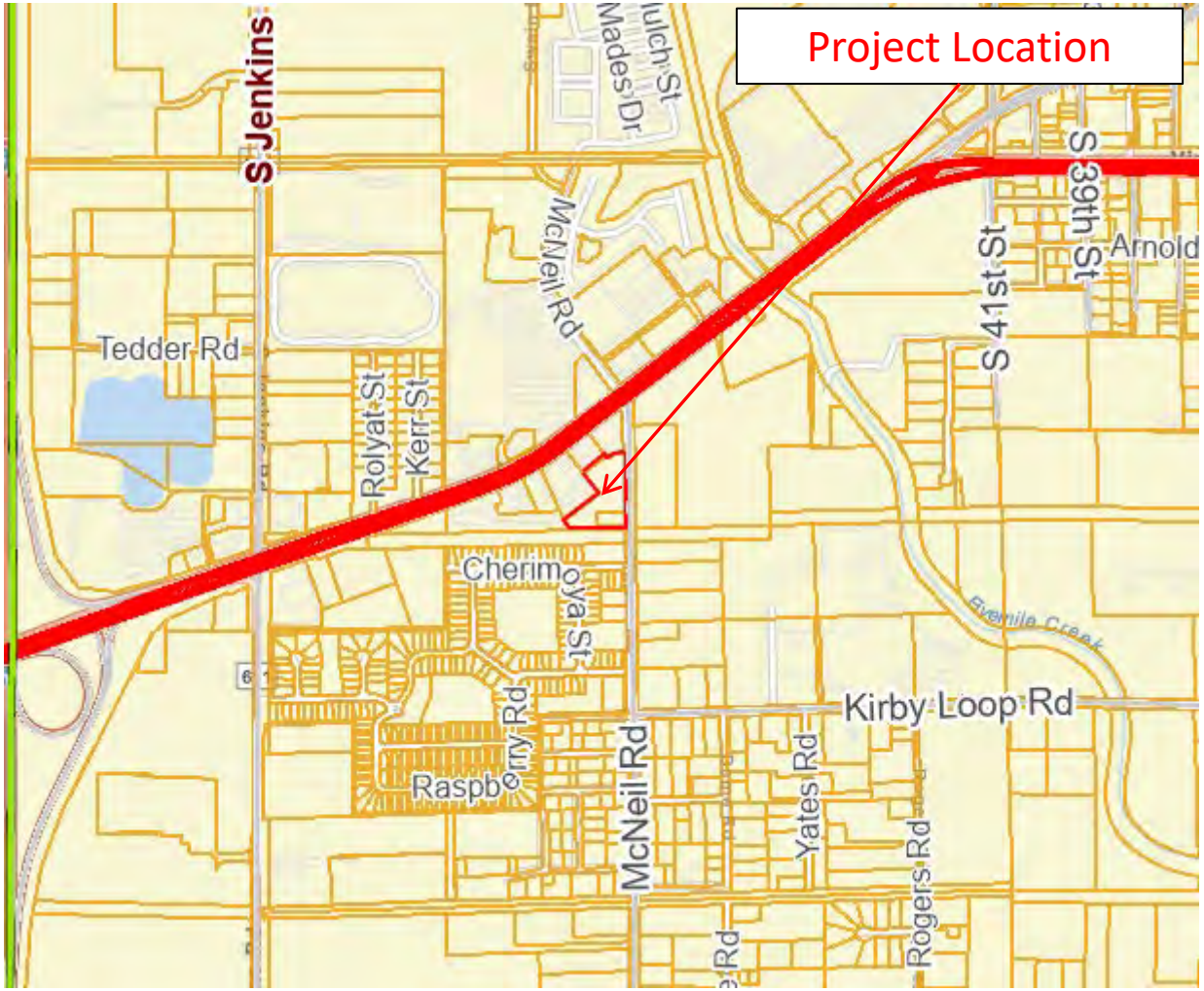
Environmental Assessment

McNeil Road

City of Fort Pierce, FL

Location Map

Project: 23-380	Mason Investment Company	3/26/2024



ENGINEERS SURVEYORS ENVIRONMENTAL

Environmental Assessment

McNeil Road

City of Fort Pierce, FL

Property Appraiser Map

Project: 23-380	Mason Investment Company	3/26/2024

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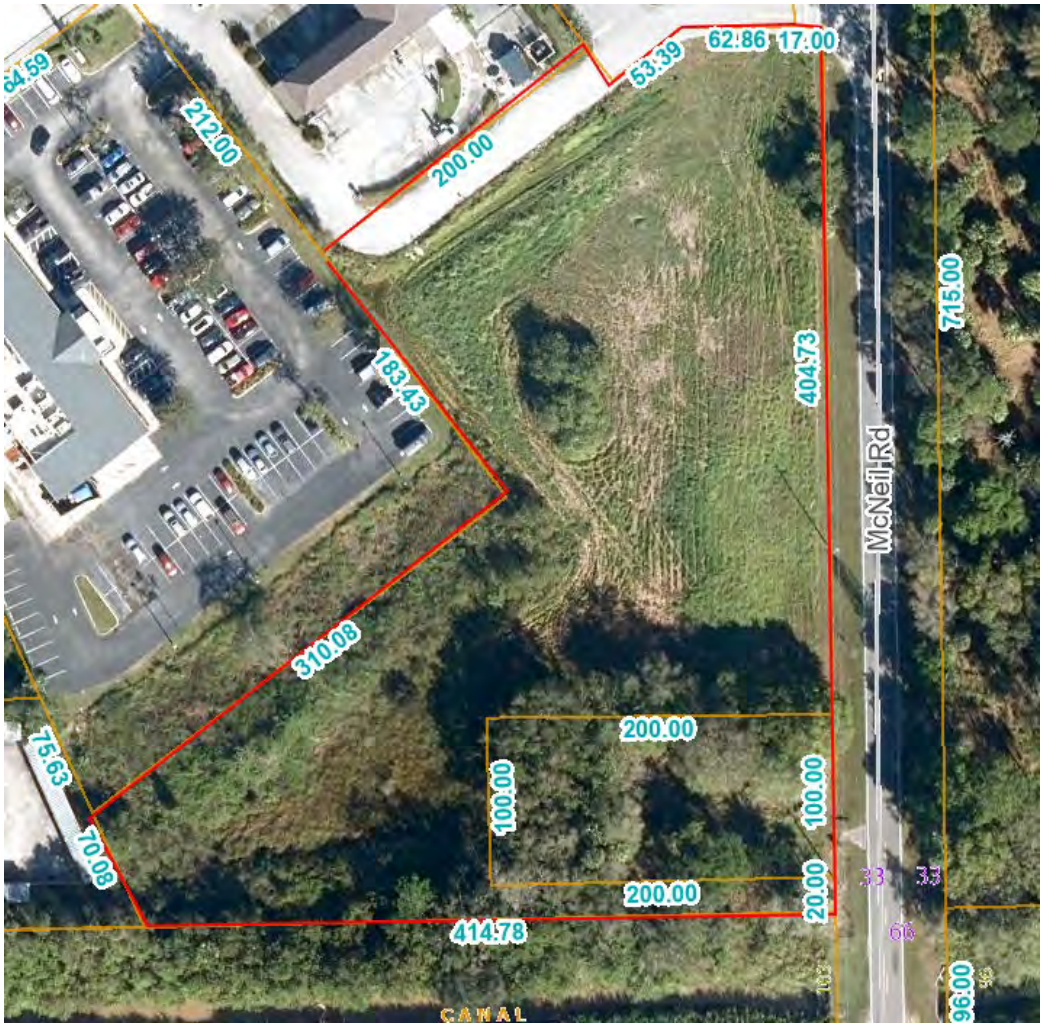


Environmental Assessment

McNeil Road

City of Fort Pierce, FL

Soil Map

Project: 23-380	Mason Investment Company	3/26/2024

ENGINEERS SURVEYORS ENVIRONMENTAL



St. Lucie County, Florida (FL111)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
25	Nettles and Oldsmar sands	4.1	96.5%
48	Wabasso sand, 0 to 2 percent slopes	0.1	3.5%
Totals for Area of Interest		**4.3**	**100.0%**

ENGINEERS SURVEYORS ENVIRONMENTAL

Environmental Assessment

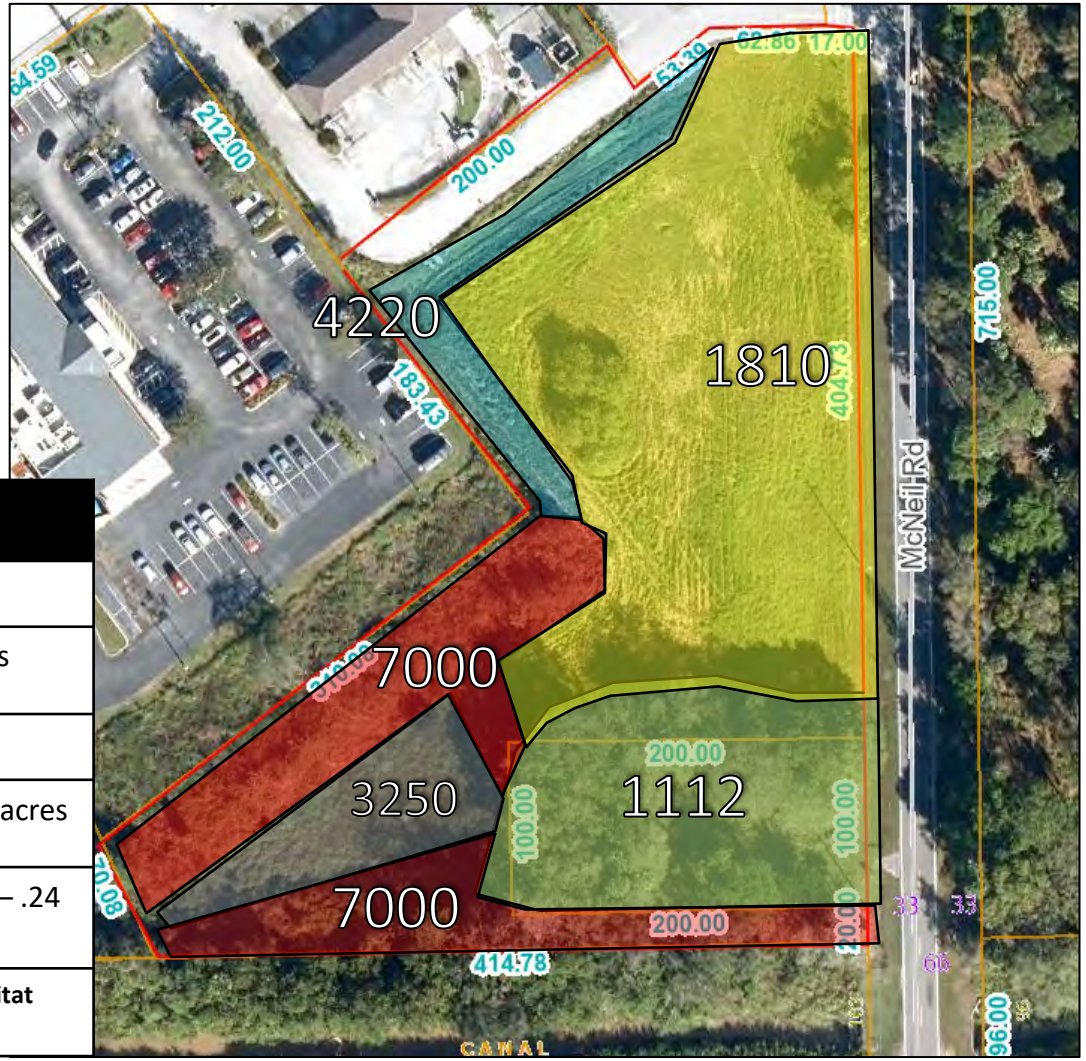
McNeil Road

City of Fort Pierce, FL

Florida Cooperative Land Cover (FNAI) Map

Project: 23-380	Mason Investment Company	3/26/2024

N



Florida FNAI Codes	
7000	Exotics – .24 acres
1112	Mixed Hardwoods – .50 acres
1810	Mowed Grass – 2.25 acres
4220	Ditch/Artificial Stream – .10 acres
3250	Stormwater Treatment Area – .24 acres

***This map demonstrates an approximation of habitat boundaries on site.**

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD PERMIT NO. 56-02366-P-02
DATE ISSUED:July 22, 2013

Form #0941
08/95

PERMITTEE: CENTERSTATE BANK
855 21ST STREET
VERO BEACH, FL 32960

PROJECT DESCRIPTION: Construction and operation of a surface water management system to serve a 1.2 acre project known as Centerstate Bank - Fort Pierce Branch.

PROJECT LOCATION: ST LUCIE COUNTY, SEC 19 TWP 35S RGE 40E

PERMIT DURATION: See Special Condition No:1. Pursuant to Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 130613-7, dated June 13, 2013. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40 , Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 General Conditions (See Pages : 2 - 4 of 6),
3. the attached 16 Special Conditions (See Pages : 5 - 6 of 6) and
4. the attached 2 Exhibit(s)

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 22nd day of July, 2013, in accordance with Section 120.60(3), Florida Statutes.

BY: Anita R. Bain

Anita Bain
Bureau Chief - Environmental Resource Permitting
Martin / St Lucie Regulatory Office

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GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to

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GENERAL CONDITIONS

be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities

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GENERAL CONDITIONS

which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

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SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on July 22, 2018.

2. Operation of the master surface water management system and the secondary surface water management system specific to the site shall be the responsibility of the permittee.

3. Discharge Facilities: No New Discharge Facilities.

4. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.

5. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.

6. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.

7. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.

8. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.

9. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.

10. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.

11. The permittee acknowledges that, pursuant to Rule 40E-4.101(2), F.A.C., a notice of Environmental Resource or Surface Water Management Permit may be recorded in the county public records. Pursuant to the specific language of the rule, this notice shall not be considered an encumbrance upon the property.

12. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

13. Minimum building floor elevation: 17.5 feet NAVD 88.

14. Minimum parking lot elevation: 16.20 feet NAVD 88

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SPECIAL CONDITIONS

15. The exhibits and special conditions in this permit apply only to this application. They do not supersede or delete any requirements for other applications covered in Permit No. 56-02366-P unless otherwise specified herein.

16. Prior to the commencement of construction, the permittee shall conduct a pre-construction meeting with field representatives, contractors and District staff. The purpose of the meeting will be to discuss construction methods and sequencing, including [type and location of turbidity and erosion controls to be implemented during construction, mobilization and staging of contractor equipment, phasing of construction, methods of vegetation clearing, construction dewatering if required, ownership documentation for eminent domain authority, coordination with other entities on adjacent construction projects, wetland/buffer protection methods, endangered species protection] with the permittee and contractors. The permittee shall contact District Environmental Resource Compliance staff from the Martin St. Lucie Regulatory Office at 863-462-5260 to schedule the pre-construction meeting.

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NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office.** An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

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Initiation of an Administrative Hearing
Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation
The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW
Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

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Last Date For Agency Action: August 12, 2013

STANDARD ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Centerstate Bank - Fort Pierce Branch

Permit No.: 56-02366-P-02

Application No.: 130613-7

Application Type: Environmental Resource (General Permit Modification)

Location: St Lucie County, S19/T35S/R40E

Permittee : Centerstate Bank

Operating Entity : Centerstate Bank Of Florida, N.A.

Project Area: 1.20 acres

Project Land Use: Commercial

Drainage Basin: NORTH ST LUCIE

Receiving Body: NSLRWCD Canal No.38 **Class:** N/A

Special Drainage District: North St Lucie River Water Control District

Conservation Easement To District : No

Sovereign Submerged Lands: No

Modification of an Environmental Resource Permit to authorize construction and operation of a surface water management system to serve a 1.2 acre commercial project known as CenterState Bank-Fort Pierce.

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PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

Please see the Location Map Exhibit 1.0. The site is located at the southwest intersection of State Road 70 (Okeechobee Road) and McNeil Road in the City of Ft. Pierce.

The project is part of a previously permitted storm water management system serving four parcels. Parcels 1 and 2 are developed as a Golden Corral restaurant and Hurricane Car Wash. Parcels 3 and 4 are currently undeveloped. The existing water management system consists of site grading, inlets, storm culverts and swales that direct runoff to a 0.51 acre dry detention pond located within Parcel 4. The detention pond discharges into the NSLRWCD Canal No. 38 via an existing control structure.

PROJECT BACKGROUND:

The original site (7.56 acres) was initially under single ownership (Fender). The site was divided into four parcels: Parcel 1 (Golden Corral - 2.58 acres) was retained by the original owner and developed; Parcel 2 (Hurricane Car Wash - 0.96 acre) was sold and developed; Parcels 3 and 4 (Harbor Federal - Parcel 3 (1.23 acres) and Parcel 4 (2.79 acres)) were sold and remain undeveloped except for the common surface water management system. Prior to the sale of the parcels, while under single ownership, a surface water management system was developed to serve the entire site. When the parcels were sold, the maintenance and use of the common surface water management system was described in recorded agreements. Both the Golden Corral and Hurricane Car Wash sites were developed under the assumption that each parcel complied with the requirements of the No Notice General Permit for Activities in Uplands (40E-400.315 FAC).

On February 23, 2006 the District authorized (Application 050627-1) the expansion of the Golden Corral building to the north and parking expansion to the south. The expansion of the Golden Coral does not appear to have been constructed. This permit has since expired.

CenterState Bank acquired the undeveloped parcel, which includes the pond, and is proposing construction of a branch office on a portion of the undeveloped parcel. The single family lot was not included in the design of the stormwater management system and is not included in this application.

PROPOSED PROJECT:

The applicant is proposing the construction of a 3,933 sf building and supporting infrastructure for a banking facility on the corner of SR-70 and McNeil Road in Fort Pierce. The existing master surface water management system was previously developed for the Golden Corral and revised to include the three other parcels. The master system serves the 7.56 acres that consists of the Golden Corral (2.58 acre Parcel 1), Car Wash (0.96 acre Parcel 2), and CenterState Bank (1.23 acres Parcel 3 and 2.79 acres Parcel 4). All four parcels drain into the dry detention system located in Parcel 4.

CenterState Bank will own and maintain the dry detention system located within Parcel 4 consistent with previous permit conditions for the owner of Parcel 4. Please see special conditions.

The project was originally designed using the NGVD 1929 vertical datum. This application uses the NAVD 1988 vertical datum. The convert from NAVD to NGVD in this area add approximately 1.5 ft. to the NAVD value.

LAND USE:

The previously permitted land use table represents existing construction. Total Project land use table

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LAND USE:

includes the design assumptions for the entire 7.56 acres.

Construction Project:

	Previously Permitted	This Phase	Total Project	
Building Coverage	.22	.09	1.17	acres
Dry Detention Areas	.51		.51	acres
Impervious	1.66	.63	4.41	acres
Pervious	.48	.48	1.47	acres
Total:	**2.87**	**1.20**	**7.56**	

WATER QUANTITY :

Discharge Rate :

The proposed project is consistent with the land use and site grading assumptions from the design of the master surface water management system. Therefore, the surface water management system for this project has not been designed to limit discharge for the design event to a specified rate.

The existing water management system discharges to the NSLRWCD canal #38 through a previously permitted control structure. The system discharges through a 3" diameter orifice up to and including the 25-yr. 3-day design storm event.

No new or modified discharge facilities are proposed by this application.

Discharge Storm Frequency : 25 YEAR-3 DAY Design Rainfall : 10.2 inches

Finished Floors :

Building Storm Frequency : 100 YEAR-3 DAY Design Rainfall : 12.9 inches

Parking Lot Design :

Parking Lot Storm Frequency : 10 YEAR-1 DAY Design Rainfall :6 inches

WATER QUALITY :

No adverse water quality impacts are anticipated as a result of the proposed project. The existing storm water management system was previously designed and permitted to provide water quality treatment equivalent to 2.5 inches times the percent imperviousness.

WETLANDS:

There are no wetlands or other surface waters located within or affected by the proposed project.

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It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

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RELATED CONCERNS:

Water Use Permit Status:

The applicant has indicated that potable water from Fort Pierce Utilities Authority will be used meet the projects irrigation requirements. The applicant has indicated that dewatering is not required for construction of this project.

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation, unless the work qualifies for a No-Notice Short-Term Dewatering permit pursuant to Chapter 40E-20.302(3) or is exempt pursuant to Section 40E-2.051, FAC.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Potable Water Supplier:

Fort Pierce Utilities Authority.

Waste Water System/Supplier:

Fort Pierce Utilities Authority.

Right-Of-Way Permit Status:

A District Right-of-Way Permit is not required for this project.

DRI Status:

This project is not a DRI.

Historical/Archeological Resources:

No information has been received that indicates the presence of archaeological or historical resources in the project area or indicating that the project will have any effect upon significant historic properties listed, or eligible for listing in the National Register of Historic Places.

This permit does not release the permittee from compliance with any other agencies' requirements in the event that historical and/or archaeological resources are found on the site.

DEO/CZM Consistency Review:

The District has not received a finding of inconsistency from the Florida Department of Environmental Protection or other commenting agencies regarding the provisions of the federal Coastal Zone Management Plan.

Third Party Interest:

No third party has contacted the District with concerns about this application.

Enforcement:

There has been no enforcement activity associated with this application.

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STAFF REVIEW:

DIVISION APPROVAL:

NATURAL RESOURCE MANAGEMENT:

for Barbara J. Conmy

DATE: 7/17/13

SURFACE WATER MANAGEMENT:

Hugo A. Carter, P.E.

DATE: July 16, 2013

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Table of Contents for Staff Report Exhibits

Center State Bank - Fort Pierce Branch

Application 130613-7

1 Location Map

2.0 Construction Plans (10 sheets)

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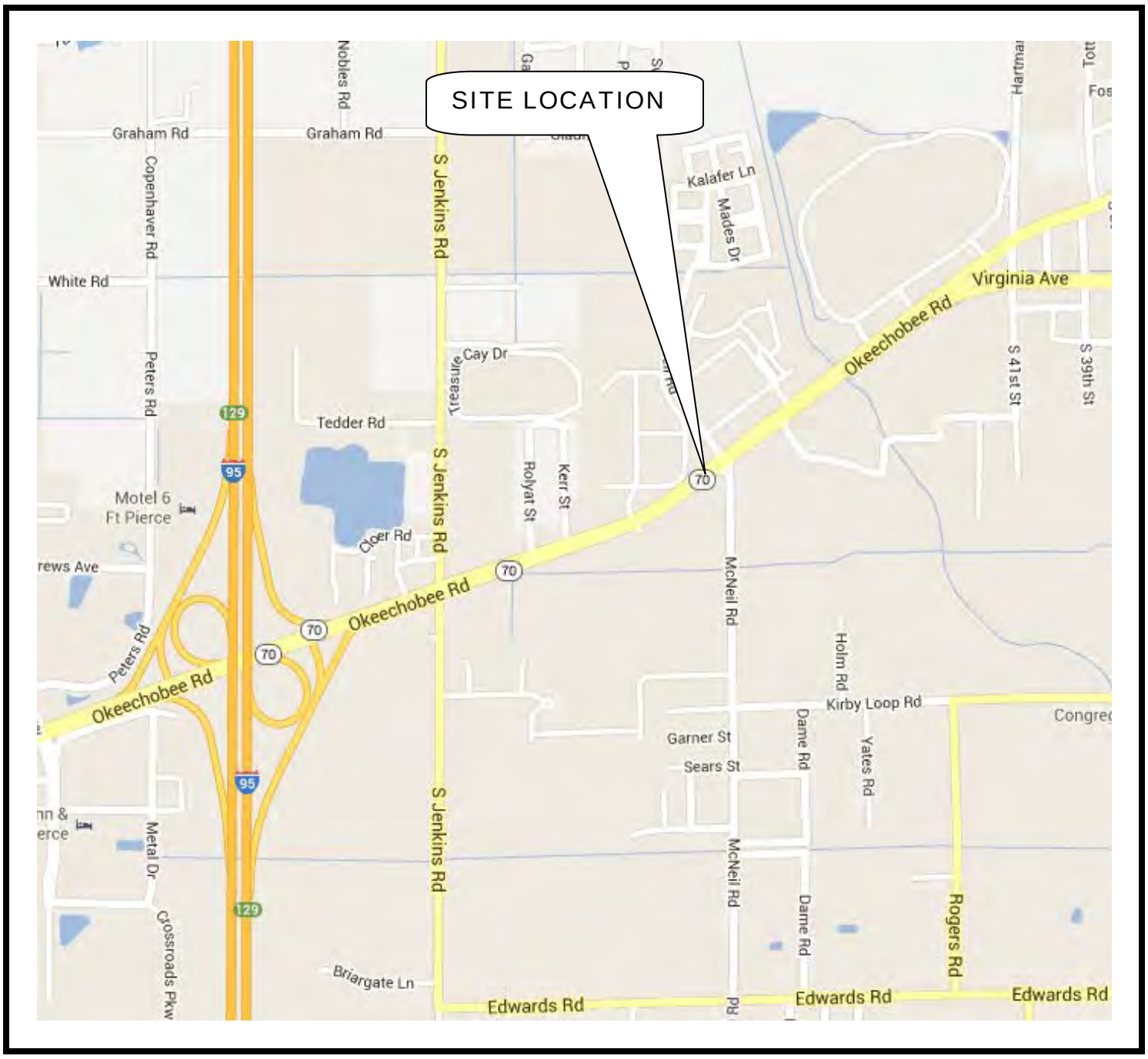


N
(n.t.s.)

CENTERSTATE BANK-FORT PIERCE

LOCATION MAP

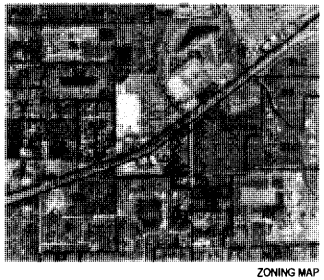
APPLICATION 130613-7 EXHIBIT 1.0 PAGE 1 OF 1

APPLICATION 130613-7

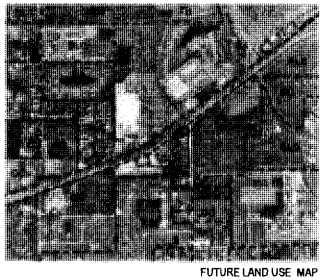
EXHIBIT 2.0

Page 1 of 10

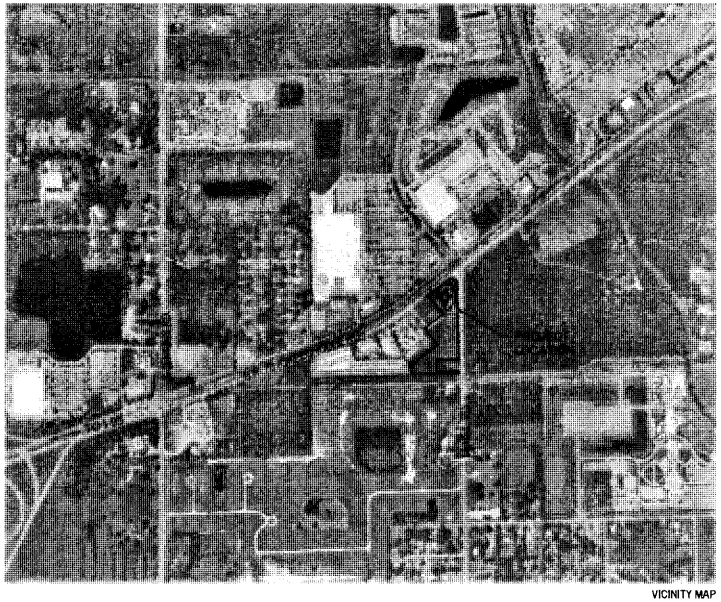
CenterState Bank - Fort Pierce Branch
CONSTRUCTION PLANS
FORT PIERCE, FLORIDA



ZONING MAP
NOT TO SCALE



FUTURE LAND USE MAP
NOT TO SCALE



VICINITY MAP
1" = 500'

SHEET INDEX

S-1 - S-3	BOUNDARY & TOPOGRAPHIC SURVEY
C-1	SITE PLAN
C-2	PAVING GRADING AND DRAINAGE PLAN
C-3	OVERALL DRAINGE PLAN
C-4	UTILITY PLAN
C-5	SECTIONS & PROFILES
C-6	PAVING, GRADING, AND DRAINAGE DETAILS
C-7	GENERAL UTILITY NOTES AND DETAILS
C-8	WATER AND WASTEWATER DETAILS
C-9	SEDIMENTATION & EROSION CONTROL PLAN

June 2013

CenterState Bank
855 21st Street
VERO BEACH, FL 32960
TEL: (772) 299-6860 FAX: (772) 299-6858

CARTER ASSOCIATES, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21st STREET, VERO BEACH, FL 32960
TEL: (772) 562-4191 FAX: (772) 562-7180

John H. Blum
FLORIDA LICENSE No. 45813
CARTER ASSOCIATES INC.
DATE
COA 205 / LB 205

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APPLICATION 130613-7 EXHIBIT 2.0 Page 2 of 10

SURVEYOR'S GENERAL NOTES AND REPORT:

1. UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER, THIS DRAWING, SKETCH, PLAT OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.
2. THE LAST DAY OF FIELD WORK PERFORMED FOR THE INITIAL SURVEY EFFORT WAS DECEMBER 11, 2012. SUBSEQUENT ADDITIONS (DELETIONS AND/OR UPDATES, IF ANY) ARE REFLECTED IN THE DRAWING REVISIONS.
3. BEARINGS SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983, ADJUSTMENT OF 2007, AND ARE PROJECTED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE (0901) AND ARE REFERENCED TO THE ESTABLISHED AND MONUMENTED LINE SHOWN HEREON, HAVING BEEN ASSIGNED THE BEARING SHOWN.
4. UNLESS A DIFFERENCE IS SHOWN, OBSERVED AND RECORD DIMENSIONS ARE THE SAME. ALL DIMENSIONS SHOWN HEREON ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL POINTS THEREOF.
5. THE BOUNDARY DETERMINATION AND DELINEATION SHOWN ON THIS MAP OF SURVEY WAS BASED UPON THE PROFESSIONAL OPINION OF THE REGISTERED SURVEYOR PURSUANT TO NORMAL PRINCIPLES AND PRACTICES OF LAND SURVEYING AND IS NOT INTENDED TO IMPLY OR DETERMINE OWNERSHIP. THIS SURVEY DOES NOT INTEND TO DELINEATE LOCAL AREAS OF CONCERN OR ANY OTHER JURISDICTIONAL DETERMINATION.
6. THIS SURVEY WAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT AND USE OF THE PERSONS AND/OR ENTITIES NAMED HEREON FOR THE PURPOSES IDENTIFIED HEREON ONLY. UNLESS OTHERWISE STATED, CERTIFICATION OF THIS SURVEY MAP APPLIES ONLY TO THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES. THE CERTIFICATION IN NO WAY CONSTITUTES NEITHER GUARANTY NOR WARRANTY TO ANY OTHER INFORMATION NOT SHOWN HEREON. ADDITIONS OR DELETIONS TO THIS DRAWING BY OTHERS ARE NOT PERMITTED AND THIS SURVEY MAY NOT BE TRANSFERRED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE SIGNING SURVEYOR. THIS SURVEY IS NOT VALID FOR ANY OTHER PURPOSE OTHER THAN INTENDED BY THE SIGNING SURVEYOR.
7. THE LEGAL DESCRIPTION AND MATTERS OF PUBLIC RECORD WERE FURNISHED THROUGH OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, TITLE COMMITMENT EFFECTIVE DATE: DECEMBER 2, 2012 @ 11:00 PM, FILE NO. CENTERSTATE\21781, BY THE CLIENT. THIS PROPERTY(IES) WAS NOT ABSTRACTED OR RESEARCHED BY THIS OFFICE FOR ENCUMBRANCES OF RECORD. THE HEREON DESCRIBED PROPERTY IS SUBJECT TO RESTRICTIONS, RESERVATIONS, EASEMENTS AND RIGHT-OF-WAY OF RECORD. IF ANY MATTERS OF RECORD NOT BROUGHT TO THE SURVEYOR'S ATTENTION BY THE CLIENT, THEIR AGENT OR AS DISCLOSED BY A FURNISHED TITLE INSURANCE POLICY (WHICH WAS NOT INCLUDED), NO INVESTIGATION WAS MADE BY THIS OFFICE INTO THE VALIDITY OF ANY EASEMENTS CITED IN THE LEGAL DESCRIPTION OR FOR ANY ENCUMBRANCES NOT OF RECORD IN THE INFORMATION FURNISHED BY THE CLIENT.
8. THE EXPECTED USE OF THE LAND AS CLASSIFIED IN THE MINIMUM TECHNICAL STANDARDS (5J17, F.A.C.) IS COMMERCIAL/HIGH RISK. THE MINIMUM RELATIVE DISTANCE ACCURACY OF 0.07 (ONE FOOT IN 10,000 FEET). THIS SURVEY MEETS OR EXCEEDS THE STATED ACCURACY REQUIREMENT.
9. WITH EXCEPTION TO WHAT HAS BEEN FIELD LOCATED AND SHOWN ON THIS SURVEY, THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. SUBSURFACE AND/OR AERIAL ENCROACHMENTS, IF ANY, WERE NOT LOCATED AND/OR DEPICTED ON THIS SURVEY UNLESS NOTED OR IDENTIFIED.
10. THE HEREON DESCRIBED PROPERTY APPEARS TO LIE WITHIN FLOOD ZONE "X", AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) PANEL 0 12111C, FIRM I.D. 12111C_PA FIRM PAN 12111C0121 F / PANEL 0121 F; SUFFIX / DATE EFFECTIVE: 8/5/ 09 / 18/13).
11. TREE LOCATIONS, IF SHOWN HEREON, ARE GENERALLY ACCURATE TO 1/2 THE DIAMETER OF THAT PARTICULAR TREE. THE DIAMETER IS DISPLAYED IN INCHES MEASURED AT BREAST HEIGHT ONLY. TREES WITH A BREAST HEIGHT DIAMETER OF 4" OR LARGER OR WITH 15 FEET OR CLEAR TRUNK WERE FIELD LOCATED.

VERTICAL DATUM AND CONTROL NOTES:

THE ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1991 (NAVD 1988) AND ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.

ORIGINATING BENCH MARK(S):
DESIGNATION: Z 928
POSITION: LAT. 27° 25' 08.95522" (N)
LON. 80° 29' 41.79077" (W)
HEIGHT: 17.77 FEET (N.A.V.D. '88)
LOCATION: A STEEL ROD LOCATED IN A 5-INCH LOGO CAP RECESSED 0.8 FEET BELOW GROUND. SAID MARK IS LOCATED 25 FEET NORTH OF THE CENTER LINE OF THE EAST BOUND LANE OF STATE ROAD 70, 1.5 FEET WEST OF A CARSONITE WITNESS POST IN MEDIAN AND 0.5 FEET SOUTH OF A MAGNET SET 0.3 FEET BELOW GROUND.

TEMPORARY BENCH-MARK(S):
TRAV PT. 2 "FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" ELEV. 18.73 (N.A.V.D. '88).
TRAV PT. 3 "FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" ELEV. 19.06 (N.A.V.D. '88).
TRAV PT. 4 "FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" ELEV. 19.29 (N.A.V.D. '88).
TRAV PT. 5 "FOUND NAIL & TAB STAMPED "LB 6790" ELEV. 16.96 (N.A.V.D. '88).

SURVEYOR'S GLOBAL POSITIONING SYSTEM (G.P.S.) NOTES:

1. G.P.S. SURVEY METHOD: REAL TIME KINEMATIC (RTK).
2. G.P.S. RECEIVER TYPE: TWO (2) DUAL FREQUENCY L1 & L2 (GA132737, 17 CHANNEL (L1 & L2).
3. THE ORIGINAL GPS RTK MEASUREMENTS BEGAN: DECEMBER 8, 2012 AND WERE COMPLETED ON DECEMBER 11, 2012. TWO LEICA DUAL FREQUENCY GPS RECEIVERS EQUIPPED WITH RTCM3 VRS& TRIM NETADVANTAGE CAPABILITIES, WERE USED TO GATHER GPS DATA TYPICALLY A BASE RECEIVER IS SET UP ON AN ESTABLISHED CONTROL STATION WHILE A ROVING RECEIVER LOCATES EXISTING MONUMENTS, IMPROVEMENTS AND/OR TOPOGRAPHIC DATA AND CONTROL THROUGHOUT. THE PROJECT AREA, REAL TIME COORDINATE COMPUTATIONS AND PRECISION INFORMATION ARE DETERMINED VIA RADIO / MODEM LINK WITH THE BASE STATION AND RECORDED AS THREE DIMENSIONAL (3D) POSITIONS.
4. G.P.S. SURVEY MEASUREMENTS WERE PROCESSED AND ADJUSTED USING LEICA GEO OFFICE, VERSION 4.3.
5. THE HORIZONTAL TARGET ACCURACY FOR THIS SURVEY IS AS FOLLOWS:
HORIZONTAL: 10MM + 1PPM (RMS)
VERTICAL: 20MM + 1PPM (RMS).

GPS CONTROL POINT (REFERENCE STATION):
DESIGNATION: ESTP
STATE/COUNTY - FLST_LUCIE
NAD 83 (2011) - LAT: 27° 25' 04.11924" (N) LON: 80° 22' 47.19277" (W)
COORDINATES N 1121579.160 E 957151.473
ELEVATION: 17.71 FEET (N.A.V.D. 1988)
LOCATION: A STEEL ROD LOCATED IN A 5-INCH LOGO CAP RECESSED 0.5 FEET BELOW GROUND. SAID MARK IS LOCATED 25 FEET NORTH OF THE CENTER LINE OF THE EAST BOUND LANE OF SAINT ROAD 70, 1.6 FEET WEST OF A CARSONITE WITNESS POST IN MEDIAN AND 0.5 FEET SOUTH OF A MAGNET SET 0.3 FEET BELOW GROUND.

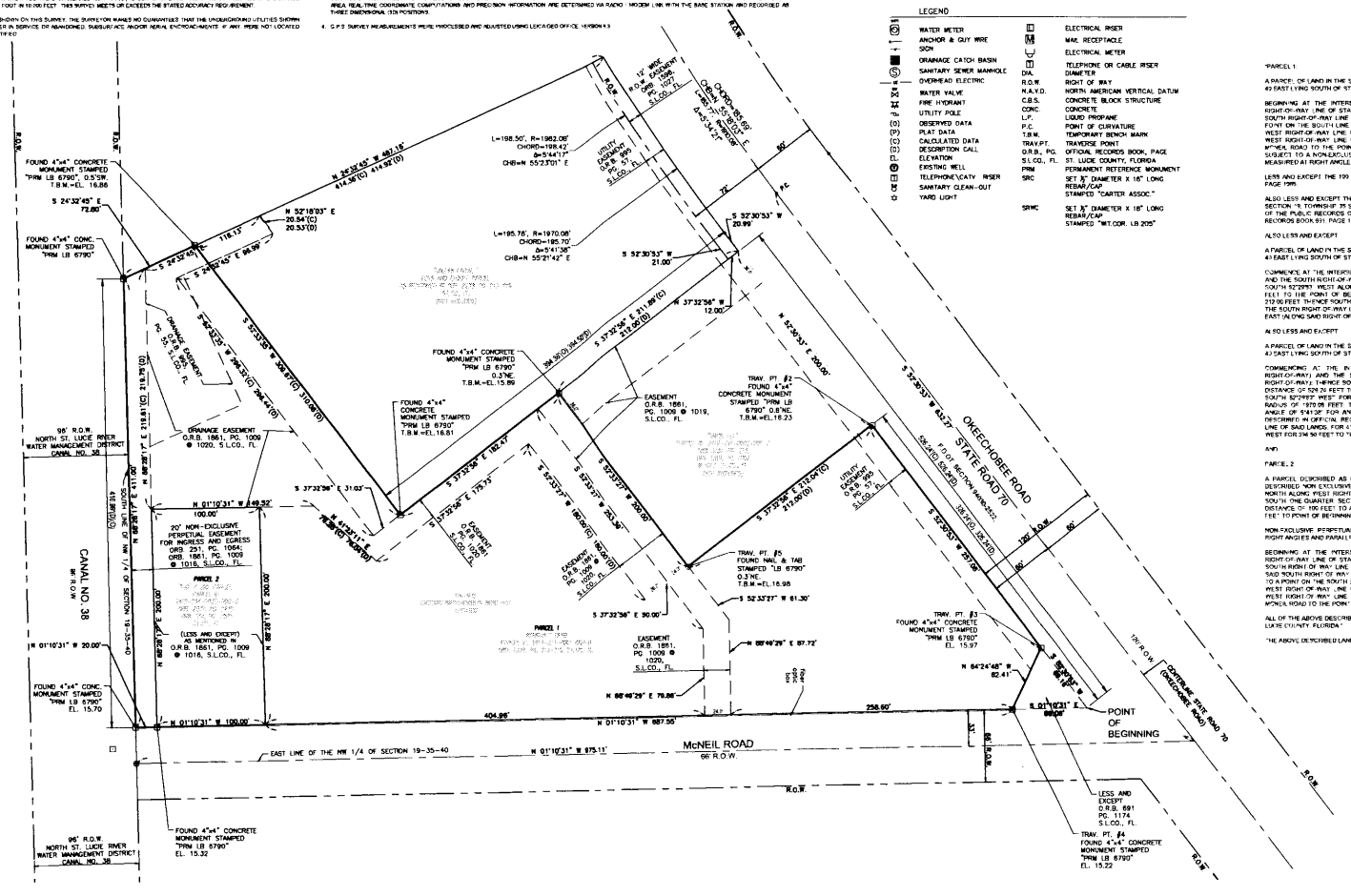
CERTIFIED TO:
OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY
CENTERSTATE BANK OF FLORIDA, N.A.
CENTURY BANK, SSB, ITS A'ISA

GRID NORTH

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

LEGEND

WM	WATER METER	EP	ELECTRICAL RISER
⊙	ANCHOR & GUY WIRE	MR	MAIL RECEPTACLE
■	SIGN	EM	ELECTRICAL METER
▲	DRAINAGE CATCH BASIN	TR	TELEPHONE OR CABLE RISER
(S)	SANITARY SEWER MANHOLE	DIA.	DIAMETER
OHE	OVERHEAD ELECTRIC	R.O.W.	RIGHT OF WAY
WV	WATER VALVE	N.A.V.D.	NORTH AMERICAN VERTICAL DATUM
FH	FIRE HYDRANT	C.B.S.	CONCRETE BLOCK STRUCTURE
UP	UTILITY POLE	CONC.	CONCRETE
(O)	OBSERVED DATA	L.P.	LIQUID PROPANE
(P)	PLAT DATA	P.C.	POINT OF CURVATURE
(C)	CALCULATED DATA	T.B.M.	TEMPORARY BENCH MARK
(D)	DESCRIPTION CALL	TRAV.PT.	TRAVERSE POINT
EL.	ELEVATION	O.R.B., PG.	OFFICIAL RECORDS BOOK, PAGE
⊗	EXISTING WELL	S.L.CO., FL	ST. LUCIE COUNTY, FLORIDA
T	TELEPHONE/CATV RISER	PRM	PERMANENT REFERENCE MONUMENT
⊡	SANITARY CLEAN-OUT	SRC	SET ⅝" DIAMETER X 18" LONG REBAR/CAP STAMPED "CARTER ASSOC."
☆	YARD LIGHT	SRMC	SET ⅝" DIAMETER X 18" LONG REBAR/CAP STAMPED "MIT.COR. LB 205"


OKEECHOBEE ROAD
STATE ROAD 70
McNEIL ROAD
66' R.O.W.
CANAL NO. 38
96' R.O.W.
NORTH ST. LUCIE RIVER WATER MANAGEMENT DISTRICT CANAL NO. 38
20' NON-EXCLUSIVE PERPETUAL EASEMENT FOR INGRESS AND EGRESS ORB 251, PG. 1064; ORB. 1861, PG. 1009 @ 1016, S.L.CO., FL.
(LESS AND EXCEPT) AS MENTIONED IN O.R.B. 1861, PG. 1009 @ 1016, S.L.CO., FL.
PARCEL 1
PARCEL 2
POINT OF BEGINNING
EAST LINE OF THE NW 1/4 OF SECTION 19-35-40
N 01°10'31" W 875.13'
N 01°10'31" W 687.55'
404.96'
258.60'
FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" EL. 15.70
FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" EL. 15.32
FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" EL. 15.97
FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" EL. 15.22
TRAV. PT. #1 FOUND NAIL & TAB STAMPED "LB 6790" 0.3'NE. T.B.M.=EL.16.98
TRAV. PT. #2 FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" 0.8'NE. T.B.M.=EL.18.23
TRAV. PT. #3 FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" EL. 15.97
TRAV. PT. #4 FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" EL. 15.22
TRAV. PT. #5 FOUND NAIL & TAB STAMPED "LB 6790" 0.3'NE. T.B.M.=EL.16.98
FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" 0.3'NE. T.B.M.=EL.15.89
FOUND 4"x4" CONCRETE MONUMENT STAMPED "PRM LB 6790" T.B.M.=EL.16.81
FOUND 4"x4" CONC. MONUMENT STAMPED "PRM LB 6790"
EASEMENT O.R.B. 1861, PG. 1009 @ 1019, S.L.CO., FL
DRAINAGE EASEMENT O.R.B. 1861, PG. 1009 @ 1020, S.L.CO., FL
UTILITY EASEMENT O.R.B. 1861, PG. 1009 @ 1016, S.L.CO., FL
LESS AND EXCEPT O.R.B. 691 PG. 1174 S.L.CO., FL.
R.O.W.
L=198.50', R=1962.08' CHORD=198.42' Δ=5°47'27" CHB=N 55°23'01" E
L=195.75', R=1970.08' CHORD=195.70' Δ=5°41'38" CHB=N 55°21'42" E
N 52°18'03" E 20.54'(C) 20.53'(D)
S 52°30'53" W 20.99'
S 52°30'53" W 21.00'
N 37°32'56" W 12.00'
S 37°32'56" E 31.03'
S 37°32'56" E 175.75'
S 37°32'56" E 182.47'
S 37°32'56" E 90.00'
S 37°32'56" E 112.64'(C) 112.65'(D)
S 52°30'53" W 43.27'
S 52°30'53" W 257.58'
S 52°33'27" W 61.30'
S 52°33'27" W 250.00'
S 52°33'27" W 250.00'(D)
N 88°49'29" E 97.72'
N 88°49'29" E 79.06'
N 84°24'48" W 82.41'
S 01°10'31" E 50.00'
N 01°10'31" W 100.00'
N 01°10'31" W 20.00'
N 01°10'31" W 100.00'
S 01°10'31" E 219.75'(C) 219.75'(D)
S 01°10'31" E 219.81'(C) 219.75'(D)
N 01°10'31" W 410.00'(D)
N 01°10'31" W 410.00'(D)
N 01°10'31" W 410.00

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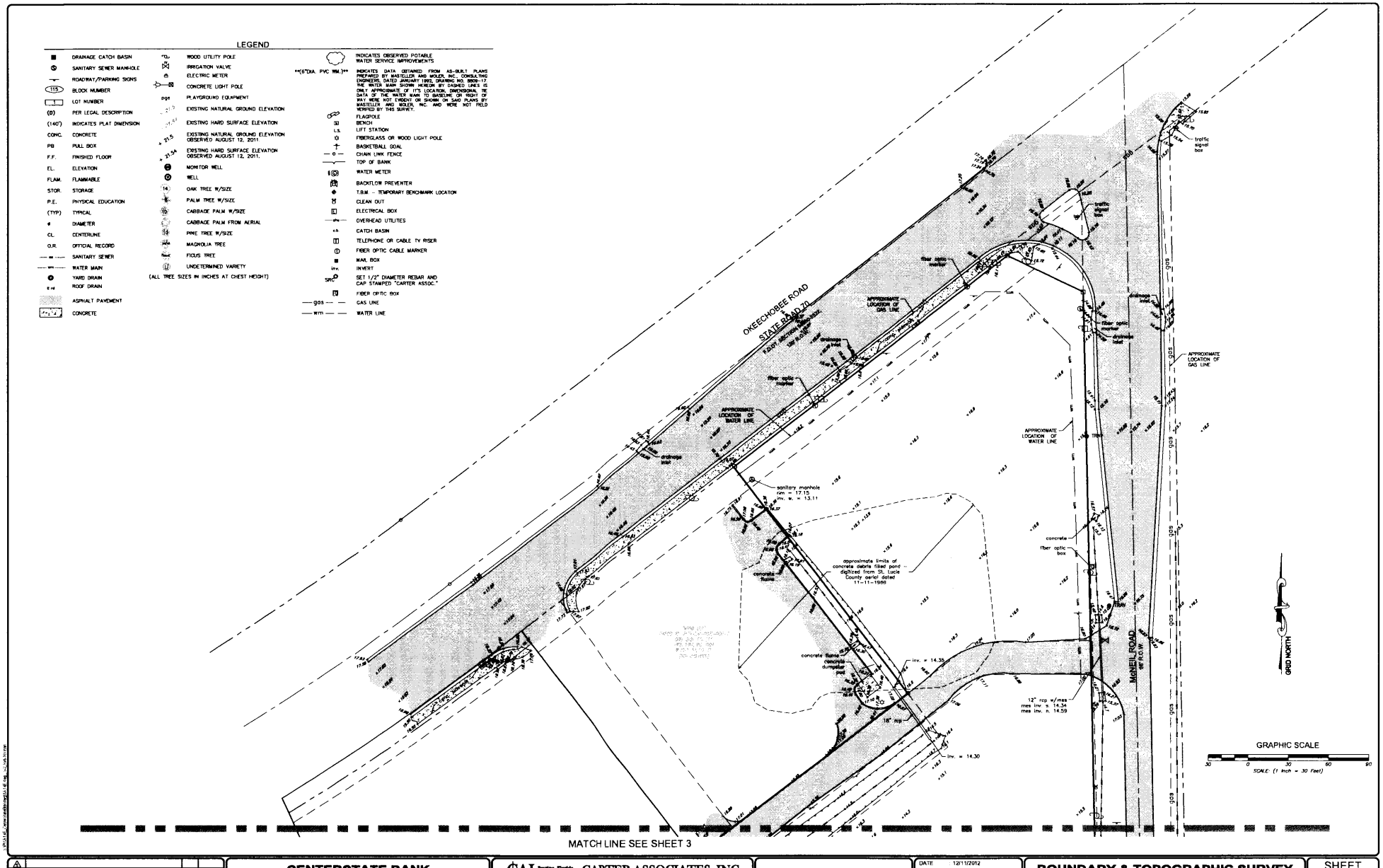
LEGEND
DRAINAGE CATCH BASIN
SANITARY SEWER MANHOLE
ROADWAY/PARKING SIGNS
BLOCK NUMBER
LOT NUMBER
PER LEGAL DESCRIPTION
INDICATES PLAT DIMENSION
CONC. CONCRETE
PB PULL BOX
F.F. FINISHED FLOOR
EL. ELEVATION
FLAM. FLAMMABLE
STOR. STORAGE
P.E. PHYSICAL EDUCATION
(TYP) TYPICAL
DIAMETER
CL. CENTERLINE
O.R. OFFICIAL RECORD
SANITARY SEWER
WATER MAIN
YARD DRAIN
ROOF DRAIN
ASPHALT PAVEMENT
CONCRETE
WOOD UTILITY POLE
IRRIGATION VALVE
ELECTRIC METER
CONCRETE LIGHT POLE
PLAYGROUND EQUIPMENT
EXISTING NATURAL GROUND ELEVATION
EXISTING HARD SURFACE ELEVATION
EXISTING NATURAL GROUND ELEVATION OBSERVED AUGUST 12, 2011
EXISTING HARD SURFACE ELEVATION OBSERVED AUGUST 12, 2011
MONITOR WELL
WELL
OAK TREE W/SIZE
PALM TREE W/SIZE
CABBAGE PALM W/SIZE
CABBAGE PALM FROM AERIAL
PINE TREE W/SIZE
MAGNOLIA TREE
FICUS TREE
UNDETERMINED VARIETY
(ALL TREE SIZES IN INCHES AT CHEST HEIGHT)
INDICATES OBSERVED POTABLE WATER SERVICE IMPROVEMENTS
(6"DIA. PVC WM.)
INDICATES DATA OBTAINED FROM AS-BUILT PLANS PREPARED BY MASTELLER AND MOLER, INC., CONSULTING ENGINEERS, DATED JANUARY 1992, DRAWING NO. 8909-17. THE WATER MAIN SHOWN HEREON BY DASHED LINES IS ONLY APPROXIMATE OF IT'S LOCATION, DIMENSIONAL TIE DATA OF THE WATER MAIN TO BASELINE OR RIGHT OF WAY WERE NOT EVIDENT OR SHOWN ON SAID PLANS BY MASTELLER AND MOLER, INC. AND WERE NOT FIELD VERIFIED BY THIS SURVEY.
FLAGPOLE
BENCH
LIFT STATION
FIBERGLASS OR WOOD LIGHT POLE
BASKETBALL GOAL
CHAIN LINK FENCE
TOP OF BANK
WATER METER
BACKFLOW PREVENTER
T.B.M. - TEMPORARY BENCHMARK LOCATION
CLEAN OUT
ELECTRICAL BOX
OVERHEAD UTILITIES
CATCH BASIN
TELEPHONE OR CABLE TV RISER
FIBER OPTIC CABLE MARKER
MAIL BOX
INVERT
SET 1/2" DIAMETER REBAR AND CAP STAMPED "CARTER ASSOC."
FIBER OPTIC BOX
GAS LINE
WATER LINE
OKEECHOBEE ROAD STATE ROAD 70
F.D.O.T. SECTION 94060-2502
120' R.O.W.
McNEIL ROAD
66' R.O.W.
APPROXIMATE LOCATION OF GAS LINE
APPROXIMATE LOCATION OF WATER LINE
APPROXIMATE LOCATION OF GAS LINE
APPROXIMATE LOCATION OF WATER LINE
sanitary manhole rim = 17.15 inv. = 13.11
approximate limits of concrete debris filled pond - digitized from St. Lucie County aerial dated 11-11-1996
concrete fibers
concrete fiber optic box
concrete fiber optic box
concrete fiber optic box

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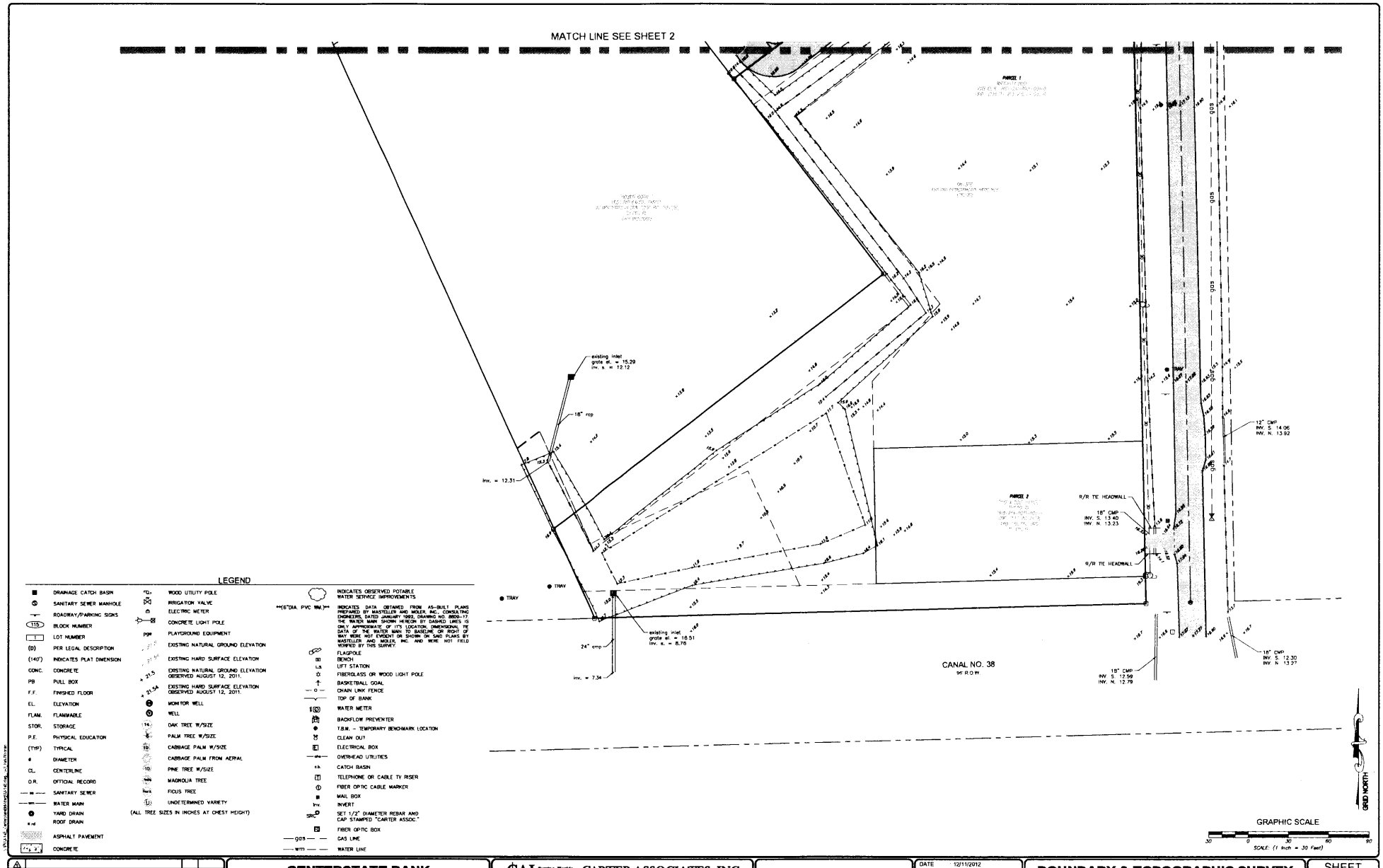

LEGEND

DRAINAGE CATCH BASIN	WOOD UTILITY POLE	INDICATES OBSERVED POTABLE WATER SERVICE IMPROVEMENTS	
SANITARY SEWER MANHOLE	IRRIGATION VALVE	**(6"DIA. PVC WM.)**	INDICATES DATA OBTAINED FROM AS-BUILT PLANS PREPARED BY MASTELLER AND MOLER, INC., CONSULTING ENGINEERS, DATED JANUARY 1992, DRAWING NO. 8809-17. THE WATER MAIN SHOWN HEREON BY DASHED LINES IS ONLY APPROXIMATE AS TO ITS LOCATION, DIMENSIONAL RELATION TO THE PLATTED MAIN TO BASELINE OR RIGHT OF WAY AS SHOWN ON SAID PLANS BUT WERE NOT FIELD VERIFIED BY THIS SURVEY.
ROADWAY/PARKING SIGNS	ELECTRIC METER		
(115) BLOCK NUMBER	CONCRETE LIGHT POLE		
1 LOT NUMBER	PGM PLAYGROUND EQUIPMENT		
(D) PER LEGAL DESCRIPTION	EXISTING NATURAL GROUND ELEVATION		
(140') INDICATES PLAT DIMENSION	EXISTING HARD SURFACE ELEVATION	FLAGPOLE	
CONC. CONCRETE	EXISTING NATURAL GROUND ELEVATION OBSERVED AUGUST 12, 2011.	BENCH	
PB PULL BOX		LS LIFT STATION	
F.F. FINISHED FLOOR	EXISTING HARD SURFACE ELEVATION OBSERVED AUGUST 12, 2011.	FIBERGLASS OR WOOD LIGHT POLE	
EL. ELEVATION	MONITOR WELL	BASKETBALL GOAL	
FLAM. FLAMMABLE	WELL	CHAIN LINK FENCE	
STOR. STORAGE	OAK TREE W/SIZE	TOP OF BANK	
P.E. PHYSICAL EDUCATION	PALM TREE W/SIZE	WATER METER	
(TYP) TYPICAL	CABBAGE PALM W/SIZE	BACKFLOW PREVENTER	
ø DIAMETER	CABBAGE PALM FROM AERIAL	T.B.M. - TEMPORARY BENCHMARK LOCATION	
CL. CENTERLINE	PINE TREE W/SIZE	CLEAN OUT	
O.R. OFFICIAL RECORD	MAGNOLIA TREE	ELECTRICAL BOX	
SANITARY SEWER	FICUS TREE	OVERHEAD UTILITIES	
WATER MAIN	UNDETERMINED VARIETY	CATCH BASIN	
YARD DRAIN	(ALL TREE SIZES IN INCHES AT CHEST HEIGHT)	TELEPHONE OR CABLE TV RISER	
ROOF DRAIN		FIBER OPTIC CABLE MARKER	
ASPHALT PAVEMENT		MAIL BOX	
CONCRETE		INVERT	
		SET 1/2" DIAMETER REBAR AND CAP STAMPED "CARTER ASSOC."	
		FIBER OPTIC BOX	
		GAS LINE	
		WATER LINE	

NO.	REVISION	BY	DATE
	ADD APPROX. LIMITS OF PREVIOUS POND LOCATION PER AERIALS	XWN	01/10/2013

CENTERSTATE BANK
855 21ST STREET
VERO BEACH, FLORIDA 32960
TEL: 772-299-6860 FAX 772-299-6858

CAI Serving Florida Since 1911
CARTER ASSOCIATES, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21st STREET, VERO BEACH, FL 32960
TEL: (772) 562-4191 FAX: (772) 562-7160

THIS SURVEY CONSISTS OF 3 SHEETS.
ONE IS NOT VALID WITHOUT THE OTHER(S).

DATE	12/11/2012
PROJ. #	12-14E
DRAWN BY	DJM
APPD BY	FSC
PLOT BY	Kirk Noonan
FILE NAME	12-14E.dwg
REF. #	-
F.B. & PG	773/WP 31+

BOUNDARY & TOPOGRAPHIC SURVEY
SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST
5000 OKEECHOBEE ROAD
FORT PIERCE, FLORIDA 34947-5426
TOPOGRAPHIC SURVEY

SHEET 3 of 3
Dwg. # 19386.C

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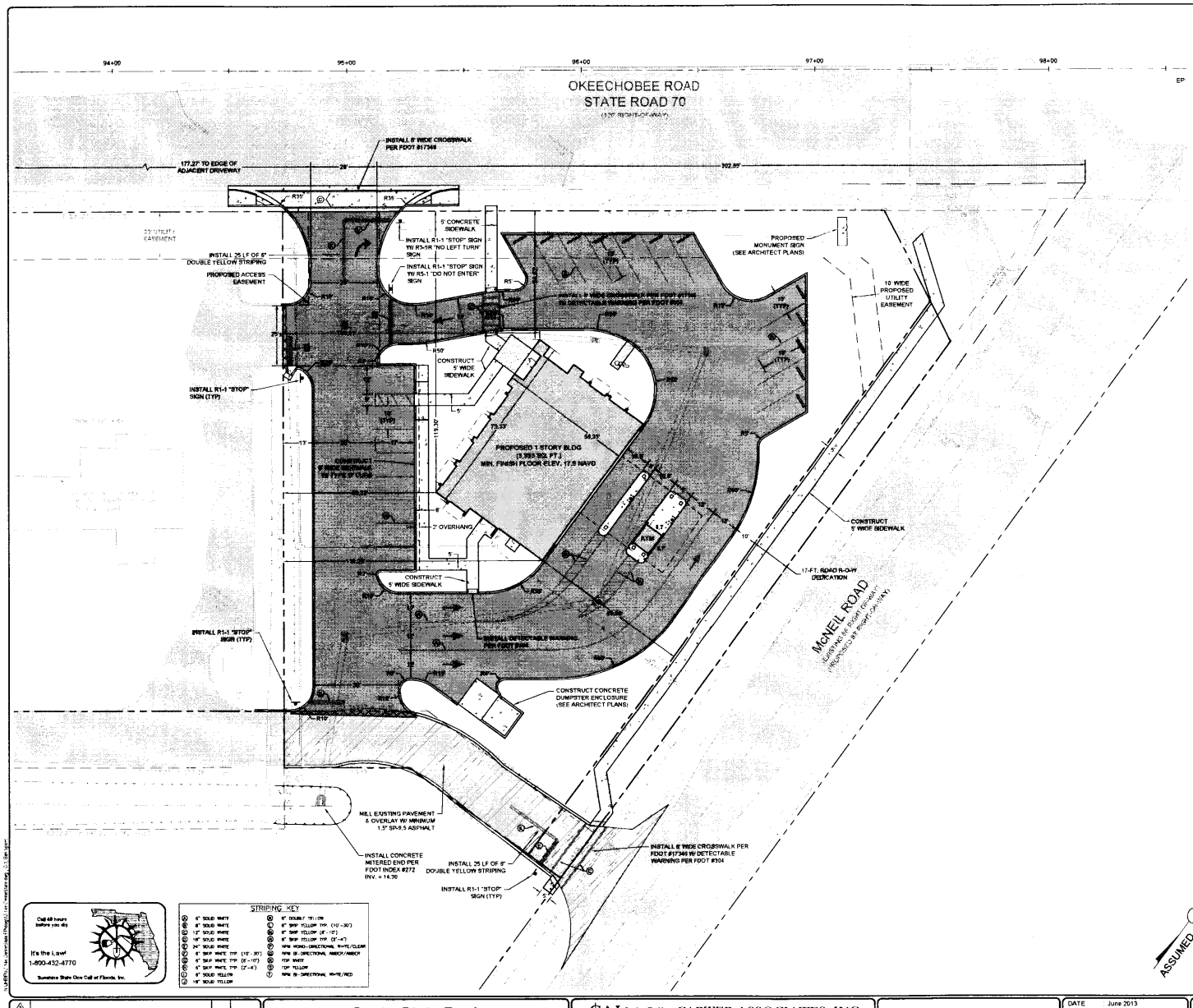

SITE DATA

PROJECT NAME	CenterState Bank - Fort Pierce Branch
PROJECT USE	Bank with Drive-thru
APPLICANT/OWNER	CenterState Bank Attn: Andy Beindorf 855 21st Street Vero Beach, Florida 32960 (772) 299-5859
ENGINEER/SURVEYOR	Carter Associates, Inc. Attn: John H. Blum, P.E. 1708 21st Street Vero Beach, Florida 32960 (772) 562-4191
SITE ADDRESS	5000 Okeechobee Road Fort Pierce, Florida 34947
LOT SIZE	96,928 sf (1.31 ac) gross - 4,877 sf (0.11 ac) R-O-W dedication = 92,051 sf (1.2± ac) net
TAX ID NUMBER	Section 19, Township 35S, Range 40E 2419-241-0001-000-0
100-YR FLOOD ZONE	Zone 'X' Per Map No. 12111C0157J (Dated 2/15/2012)
CURRENT ZONING	C-3 - General Commercial
CURRENT LAND USE	GC - General Commercial
LOT COVER	Net Lot Size: 92,051 sf Proposed Impervious Area: Building: 3,933 sf Asphalt Pavement: 24,397 sf Concrete Sidewalks/Pavement/Misc.: 3,260 sf Total Impervious: 35,779 sf (58.7 %)
SETBACKS	Front: 25 Feet Abutting R-O-W of Residential District: 15 Feet
LOT DIMENSIONS	Minimum Width = 70 Minimum Depth = 90' Minimum Area = 10,000 sf Maximum Coverage by Building = 69% Actual Width (at narrowest point) = 131' Actual Depth (at smallest point) = 236' Net Lot Size = 92,051 sf Actual Coverage by Building = 7.5%
START / FINISH DATE	September 2013 / April 2014
TRAFFIC	Proposed Use: Drive-in Bank: 3,933 sf @ 148.15 A.D.T./1,000 sf = 583 A.D.T.
PARKING	Required Parking Spaces: Bank: 3,933 sf @ 1 Space / 300 sf = 14 Spaces Parking Provided: City Code: Up to 25 Spaces Requires 1 Handicap Space = 1 Handicap Spaces 90° Standard Parking Spaces = 7 99° Std. Spaces 60° Standard Parking Spaces = 12 60° Std. Spaces Total Parking Spaces Provided = 20 Spaces
PROPOSED ELECTRIC	FPUA Electric
PROPOSED WATER	Connect to existing FPUA water main along McNeil Road
PROPOSED SEWER	Connect to existing FPUA gravity sanitary sewer along Okeechobee Road. Estimated Flow: Office Building 15 GPD per 100 sf Floor Space 3,933 sf @ 15 GPD/100 sf = 590 GPD
STORMWATER	Collect stormwater runoff and convey via existing drainage to the existing, previously permit master stormwater management area at the southwest corner of the parent parcel.
REQUIRED PERMITS	City of Fort Pierce • Site Plan Approval (Exempt) • Land Clearing Permit St. Lucie County • Right-of-Way Permit Fort Pierce Utilities Authority • Water / Sewer Permit S.F.W.M.D. • Environmental Resource General Permit F.D.O.T. • Driveway Connection Permit • Drainage Connection Permit F.D.E.P. • NPDES Notice Of Intent • Waste-water Collection Permit

NO.	REVISION	BY	DATE

CenterState Bank
855 21st Street
Vero Beach, Forida 32960
TEL: (772) 299-5859 FAX: (772) 299-5858

CAI Serving Florida Since 1911 CARTER ASSOCIATES, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21st STREET, VERO BEACH, FL 32960
TEL: (772) 562-4191 FAX: (772) 562-7180

John H. Blum, P.E.
FLORIDA LICENSE No. 45813
CARTER ASSOCIATES, INC
SIGNATURE DATE
COA 205 / LB 205

DATE: June 2013
PROJ. #: 12-14e
DRAWN BY: BDS
APPD. BY: JHB
PLOT BY: Ben Speed
FILE NAME: 12-14e CenterState.dwg
REF. #:
F.B. & PG.

CenterState Bank
Fort Pierce, Florida
Fort Pierce Branch

Site Plan

SHEET C-1

Dwg. #

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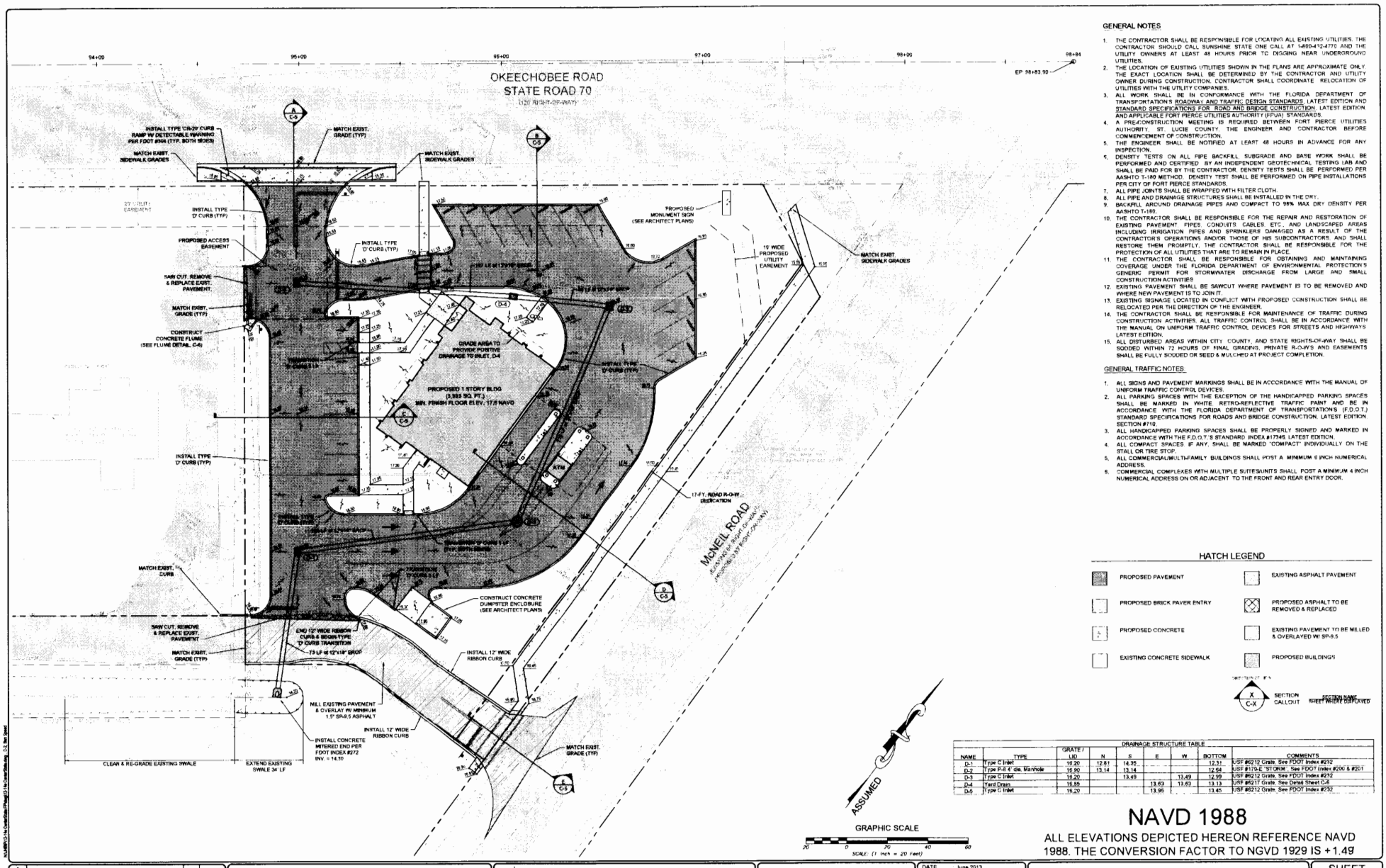
APPLICATION 130613-7 EXHIBIT 2.0 Page 6 of 10



GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES. THE CONTRACTOR SHOULD CALL SUNSHINE STATE ONE CALL AT 1-800-432-4770 AND THE UTILITY OWNERS AT LEAST 48 HOURS PRIOR TO DIGGING NEAR UNDERGROUND UTILITIES.
2. THE LOCATION OF EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR AND UTILITY OWNER DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITIES WITH THE UTILITY COMPANIES.
3. ALL WORK SHALL BE IN CONFORMANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND APPLICABLE FORT PIERCE UTILITIES AUTHORITY (FPUA) STANDARDS.
4. A PRE-CONSTRUCTION MEETING IS REQUIRED BETWEEN FORT PIERCE UTILITIES AUTHORITY, ST. LUCIE COUNTY, THE ENGINEER AND CONTRACTOR BEFORE COMMENCEMENT OF CONSTRUCTION.
5. THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE FOR ANY INSPECTION.
6. DENSITY TESTS ON ALL PIPE BACKFILL, SUBGRADE AND BASE WORK SHALL BE PERFORMED AND CERTIFIED BY AN INDEPENDENT GEOTECHNICAL TESTING LAB AND SHALL BE PAID FOR BY THE CONTRACTOR. DENSITY TESTS SHALL BE PERFORMED PER AASHTO T-180 METHOD. DENSITY TEST SHALL BE PERFORMED ON PIPE INSTALLATIONS PER CITY OF FORT PIERCE STANDARDS.
7. ALL PIPE JOINTS SHALL BE WRAPPED WITH FILTER CLOTH.
8. ALL PIPE AND DRAINAGE STRUCTURES SHALL BE INSTALLED IN THE DRY.
9. BACKFILL AROUND DRAINAGE PIPES AND COMPACT TO 98% MAX DRY DENSITY PER AASHTO T-180.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RESTORATION OF EXISTING PAVEMENT, PIPES, CONDUITS, CABLES, ETC., AND LANDSCAPED AREAS INCLUDING IRRIGATION PIPES AND SPRINKLERS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS AND/OR THOSE OF HIS SUBCONTRACTORS, AND SHALL RESTORE THEM PROMPTLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES THAT ARE TO REMAIN IN PLACE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING COVERAGE UNDER THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES
12. EXISTING PAVEMENT SHALL BE SAWCUT WHERE PAVEMENT IS TO BE REMOVED AND WHERE NEW PAVEMENT IS TO JOIN IT.
13. EXISTING SIGNAGE LOCATED IN CONFLICT WITH PROPOSED CONSTRUCTION SHALL BE RELOCATED PER THE DIRECTION OF THE ENGINEER.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION ACTIVITIES. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS LATEST EDITION.
15. ALL DISTURBED AREAS WITHIN CITY, COUNTY, AND STATE RIGHTS-OF-WAY SHALL BE SODDED WITHIN 72 HOURS OF FINAL GRADING. PRIVATE R-O-W'S AND EASEMENTS SHALL BE FULLY SODDED OR SEED & MULCHED AT PROJECT COMPLETION.

GENERAL TRAFFIC NOTES

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. ALL PARKING SPACES WITH THE EXCEPTION OF THE HANDICAPPED PARKING SPACES SHALL BE MARKED IN WHITE RETRO-REFLECTIVE TRAFFIC PAINT AND BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION'S (F.D.O.T.) STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION, LATEST EDITION SECTION #710.
3. ALL HANDICAPPED PARKING SPACES SHALL BE PROPERLY SIGNED AND MARKED IN ACCORDANCE WITH THE F.D.O.T.'S STANDARD INDEX #17345 LATEST EDITION.
4. ALL COMPACT SPACES, IF ANY, SHALL BE MARKED "COMPACT" INDIVIDUALLY ON THE STALL OR TIRE STOP.
5. ALL COMMERCIAL/MULTI-FAMILY BUILDINGS SHALL POST A MINIMUM 6 INCH NUMERICAL ADDRESS.
6. COMMERCIAL COMPLEXES WITH MULTIPLE SUITES/UNITS SHALL POST A MINIMUM 4 INCH NUMERICAL ADDRESS ON OR ADJACENT TO THE FRONT AND REAR ENTRY DOOR.

HATCH LEGEND

- PROPOSED PAVEMENT
- EXISTING ASPHALT PAVEMENT
- PROPOSED BRICK PAVER ENTRY
- PROPOSED ASPHALT TO BE REMOVED & REPLACED
- PROPOSED CONCRETE
- EXISTING PAVEMENT TO BE MILLED & OVERLAYED W/ SP-9.5
- EXISTING CONCRETE SIDEWALK
- PROPOSED BUILDINGS

X / C-X — SECTION CALLOUT — SECTION NAME (SHEET WHERE DISPLAYED)

DRAINAGE STRUCTURE TABLE

NAME	TYPE	GRATE / LID	N	S	E	W	BOTTOM	COMMENTS
D-1	Type C Inlet	16.20	12.81	14.35			12.31	USF #6212 Grate, See FDOT Index #232
D-2	Type P-8 4' dia. Manhole	16.90	13.14	13.14			12.64	USF #170-E 'STORM', See FDOT Index #200 & #201
D-3	Type C Inlet	16.20		13.49		13.49	12.99	USF #6212 Grate, See FDOT Index #232
D-4	Yard Drain	16.86			13.63	13.63	13.13	USF #6217 Grate, See Detail Sheet C-6
D-5	Type C Inlet	16.20			13.95		13.45	USF #6212 Grate, See FDOT Index #232

NAVD 1988

ALL ELEVATIONS DEPICTED HEREON REFERENCE NAVD 1988. THE CONVERSION FACTOR TO NGVD 1929 IS +1.49

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2			
3			
4			
5			

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855 21st Street
Vero Beach, Florida 32960
TEL: (772) 299-5859 FAX: (772) 299-5858

CARTER ASSOCIATES, INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21st STREET, VERO BEACH, FL 32960
TEL: (772) 562-4191 FAX: (772) 562-7180

John H. Blum, P.E.
FLORIDA LICENSE No. 45813
CARTER ASSOCIATES, INC.
SIGNATURE DATE
COA 205 / LB 205

DATE: June 2013
PROJ. #: 12-14e
DRAWN BY: BDS
APPD. BY: JHB
PLOT BY: Ben Speed
FILE NAME: 12-14e CenterState.dwg
REF. #:
F.B. & PG.

CenterState Bank
Fort Pierce, Florida
Fort Pierce Branch

Paving, Grading, and Drainage Plan

SHEET C-2
Dwg. #

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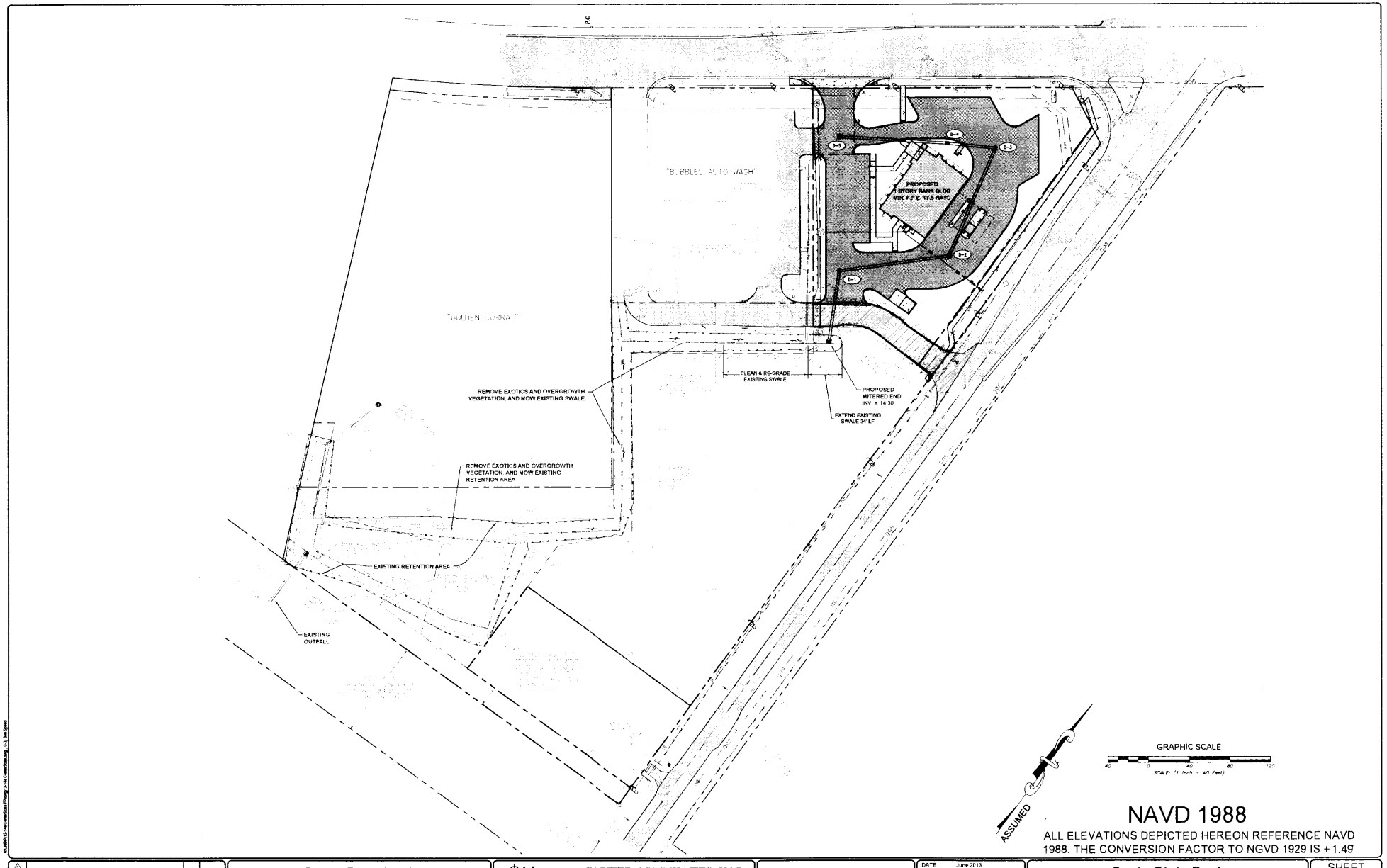
APPLICATION 130613-7

EXHIBIT 2.0

Page 7 of 10



NAVD 1988

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CenterState Bank
Fort Pierce, Florida
Fort Pierce Branch

Overall Drainage Plan

SHEET
C-3
Dwg. #

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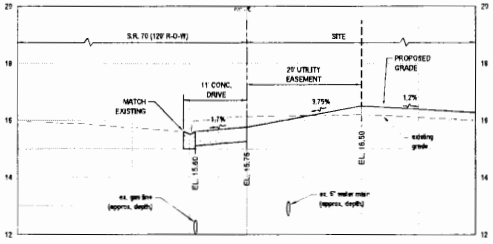
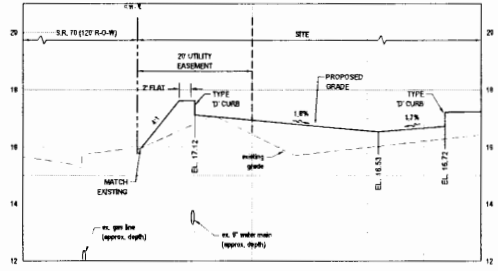
APPLICATION 130613-7 EXHIBIT 2.0 Page 8 of 10



SECTION "A"
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'



SECTION "B"
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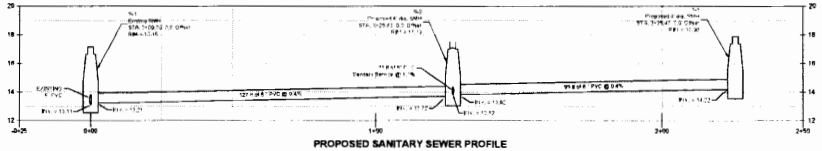
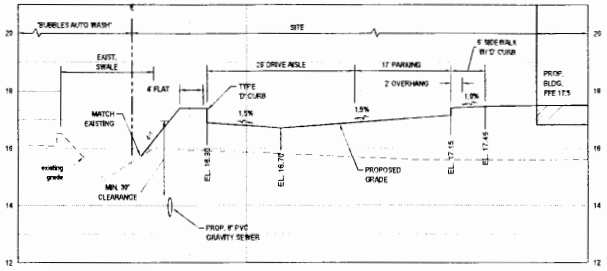


PROPOSED SANITARY SEWER PROFILE
Horiz. Scale: 1" = 20' Vert. Scale: 1" = 4'



SECTION "C"
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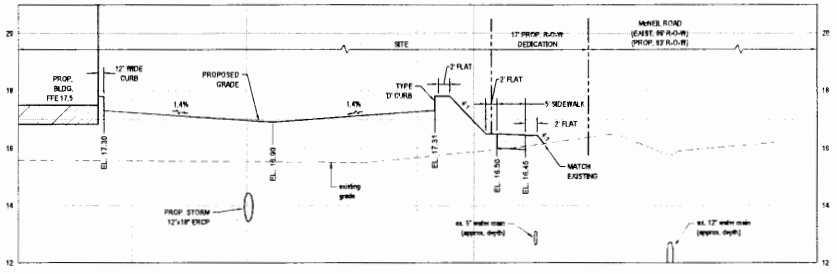

SECTION "D"
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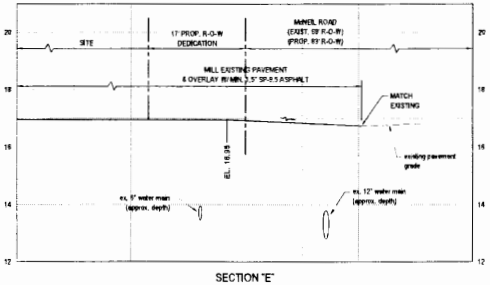
VERT. SCALE: 1" = 4'



SECTION "E"
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'

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John H. Blum P.E.
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PLOT BY	Ben Speed
FILE NAME	12-14e CenterState dwg
REF. #	
F.B. & PG.	

CenterState Bank
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Fort Pierce Branch

Sections & Profiles

SHEET C-5

Dwg. #

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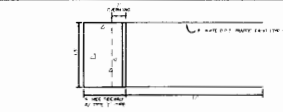
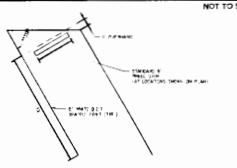


TYPICAL 90° PARKING SPACE DETAIL

NOT TO SCALE



TYPICAL 60° PARKING SPACE DETAIL

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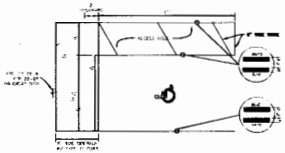
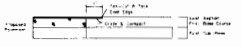


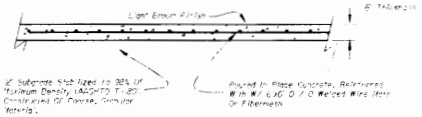
TYPICAL HANDICAP PARKING SPACE
W/ ACCESS AISLE DETAIL PER FDOT #17346

NOT TO SCALE



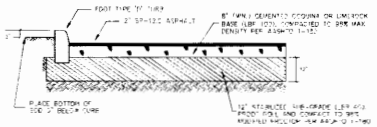
RE-CONSTRUCTED ASPHALT PAVEMENT BUTT JOINT DETAIL

NOT TO SCALE



CONCRETE PAVEMENT SECTION

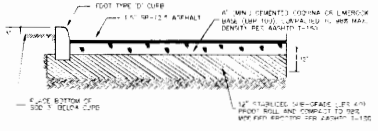
NOT TO SCALE



NOTE: CONCRETE PAVEMENT MAY BE CONSIDERED AT OWNER'S DISCRETION

TYPICAL HEAVY-DUTY ASPHALT PAVEMENT SECTION

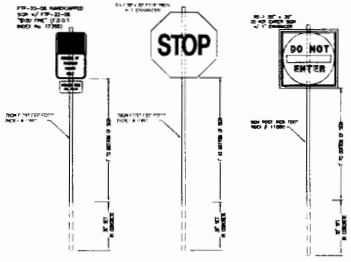
NOT TO SCALE



NOTE: CONCRETE PAVEMENT MAY BE CONSIDERED AT OWNER'S DISCRETION

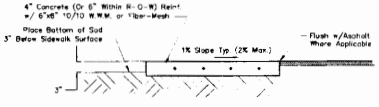
TYPICAL LIGHT-DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE



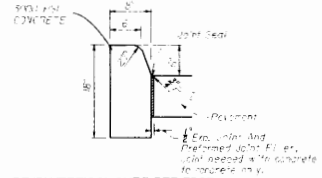
TYPICAL SIGN DETAILS

NOT TO SCALE



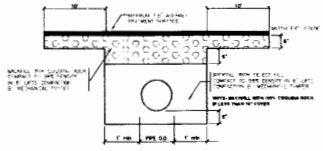
TYPICAL SIDEWALK DETAIL

NOT TO SCALE



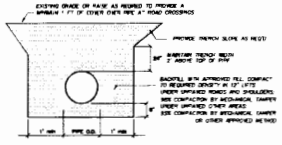
TYPE 'D' VERTICAL CURB PER FDOT #300

NOT TO SCALE



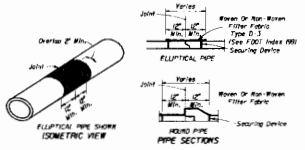
PIPE BACKFILL DETAIL
PAVED AREAS

NOT TO SCALE



PIPE BACKFILL DETAIL
UNPAVED AREAS

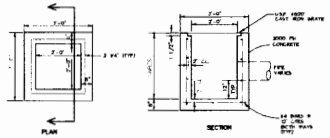
NOT TO SCALE



FOR ALL PIPE TYPES - CONCRETE PIPE SHOWN

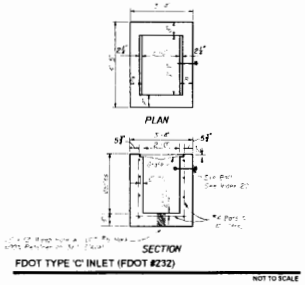
FILTER FABRIC JOINT JACKET (FDOT #280)

NOT TO SCALE



YARD DRAIN DETAIL

NOT TO SCALE



FDOT TYPE 'C' INLET (FDOT #232)

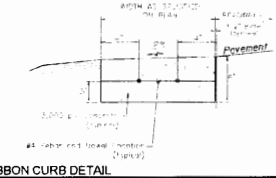
NOT TO SCALE

GENERAL NOTES:

1. The site plan is provided to assist Contractors in developing bids. All above grade facilities which, in the Engineer's opinion, may conflict with the proposed installation, have been shown to the extent known. The Contractor is advised that not all underground facilities may be indicated on the plans. The underground utilities are shown to the extent of information made available to the Engineer. Contractor shall familiarize himself with the project site and determine the effect of all existing conditions prior to submitting a bid.
2. The locations of off site property lines shown on the plans are approximate and shown for informational purposes only. Actual lines shall be established in the field by the Contractor, when needed.
3. All materials and workmanship shall meet or exceed Fort Pierce Utilities Authority (FPUA) and City of Fort Pierce Engineering Departments standards and shall be subject to the inspection and approval of the City of Fort Pierce Utility and City of Fort Pierce Engineering Departments.
4. The Contractor shall notify the FPUA at (772) 466-1600 at least 48 hours prior to commencement of construction.
5. The Contractor shall verify all required right-of-way permits from the St. Lucie County and FDOT for all construction activities within St. Lucie County and FDOT right-of-way.
6. The locations of existing utilities as plotted on these plans are approximate only and are made available to assist contractors in developing their bids. The utility locations are from documentation obtained from the Engineer, and shall be verified by the Contractor prior to installation of the proposed of site utilities. The Contractor shall contact Sunshine State One - Call of Florida, Inc., at 811 for positive underground location of utilities sufficiently in advance of the proposed installation to prevent delay of the project. The Contractor shall provide relocation or support of existing utilities as required.

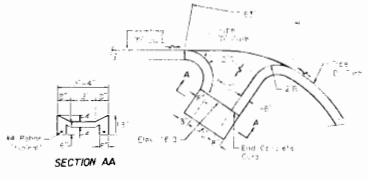
BELL SOUTH 3300 Okeechobee Road Ft. Pierce, FL 34947 (772) 562-9901	FORT PIERCE UTILITIES AUTHORITY 1701 S. 37th Street Fort Pierce, FL 34947 (772) 466-1600
COMCAST (CABLE TV) 940 12th Street Vero Beach, FL 32960 (772) 562-2141	ST. LUCIE COUNTY 2300 Virginia Avenue Fort Pierce, FL 34982 (772) 462-1707

7. Shop drawings of all fabricated structures, mechanical and electrical components, and piping shall be submitted to the Engineer for approval. No items shall be manufactured or delivered to the project site without shop drawings having been previously approved by the Owner's Engineer. All materials shall be new unused, and in good working order. Materials shall not exhibit signs of deterioration due to excessive storage periods or rough transportation. A pre-construction conference will not be scheduled prior to City of Fort Pierce approval of the shop drawings.
8. Any change or deviation from the plans shall be approved by Engineer prior to the construction of said change or deviation.
9. The Contractor shall submit one set of record drawings to the Engineer indicating any and all changes or deviations from the original plans.



RIBBON CURB DETAIL

NOT TO SCALE



CONCRETE FLUME DETAIL

NOT TO SCALE

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CenterState Bank
855 21st Street
Vero Beach, Florida 32960
TEL: (772) 299-6860 FAX: (772) 299-6858

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CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21st STREET, VERO BEACH, FL 32960
TEL: (772) 562-4191 FAX: (772) 562-7180

John H. Blum, P.E.
FLORIDA LICENSE No. 45817
CARTER ASSOCIATES, INC.
SIGNATURE DATE
COA 205 / LB 205

DATE June 2013
PROJ. # 12-14e
DRAWN BY BDS
APPD. BY JHB
PLOT BY Ben Speed
FILE NAME 12-14e CenterState Details.dwg
REF. #
F.B. & PG.

CenterState Bank
Fort Pierce, Florida
Fort Pierce Branch

Paving, Grading, and Drainage Details

SHEET C-6

Dwg. #

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APPLICATION 130613-7 EXHIBIT 2.0 Page 10 of 10

EROSION CONTROL NOTES

1. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land disturbing activity and shall be made functional before up-slope land disturbance takes place.

2. All sediment control measures are to be adjusted to meet field conditions at the time of construction and be constructed prior to any grading or disturbance of existing surface material on balance of site. Perimeter sediment barriers shall be constructed to prevent sediment or trash from flowing or floating on to adjacent properties.

3. Permanent or temporary soil stabilization shall be applied to denuded areas within seven (7) days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven (7) days to denuded areas that may not be at final grade but will remain undisturbed for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left undisturbed for more than one year.

4. During construction of the project, soil stock piles shall be stabilized, covered or contained with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as soil intentionally transported from the project site.

5. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized.

6. After any significant rainfall, sediment control structures will be inspected for integrity. Any damaged devices shall be corrected immediately.

7. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume, slope drain structure or approved control.

8. Sediment will be prevented from entering any storm water system, ditch or channel. All storm water inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.

9. When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction.

10. Periodic inspection and maintenance of all sediment control structures must be provided to ensure intended purpose is accomplished. The developer, owner and/or contractor shall be continually responsible for all sediment controls. Sediment control measures shall be in working condition at the end of each working day.

11. Where construction vehicle access routes intersect paved public roads, provisions shall be made to minimize the transport of sediment by tracking onto the paved surface. Where sediment is transported onto a public road surface with curbs and gutters, the road shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual subdivision lots as well as to larger land disturbing activities.

12. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed.

13. Properties and waterways downstream from construction sites shall be protected from sediment deposition and erosion at all times during construction.

14. Erosion control design and construction shall follow the requirements in Index numbers 101, 102 and 103 of F.D.O.T. Roadway and Traffic Design Standards and county permits.

15. Contractor is responsible for all surface water discharges, rainfall run off or dewatering activities.

16. Contractor must incorporate all BMP's necessary to meet or exceed state water quality and SWPPP requirements.

17. The Sedimentation & Erosion Control Plan Plan is a minimum guideline only. Additional BMP's may be necessary at contractor's expense.

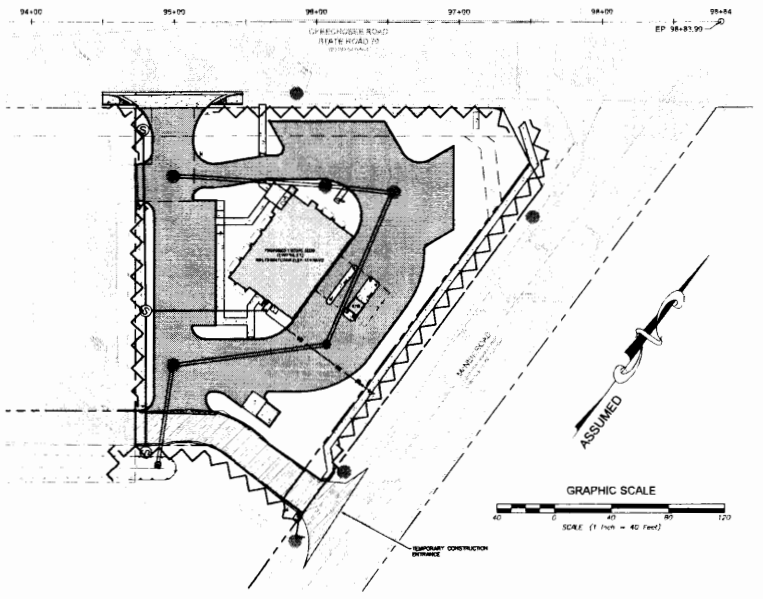
18. NOI to be posted on site.

19. Dewatering activities:
   - A – Discharge must not exceed state water quality standards.
   - B – Contractor must have a transferable SFWMD Consumptive Use Permit known as a "Noticed General Permit For Short Term Construction De-Watering".
   - C – No hydraulic pumps may be used for dewatering unless approved by the water management district for that area.
   - D – No turbid discharge. Turbidity readings are required once a week and must be reported to the project engineer.

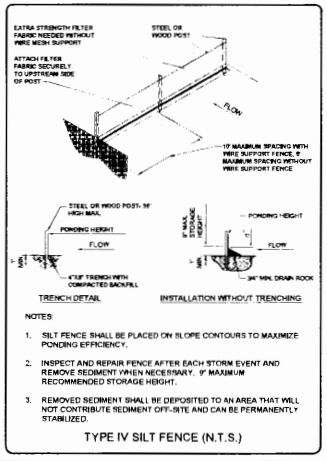
LEGEND

SILT FENCE INLET PROTECTION OR SEDIMENTATION BARRIER

SILT FENCE



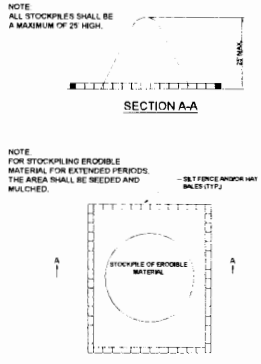
NOTE: ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ALL STABILIZATION METHODS HAVE BEEN COMPLETED. ALL PERVIOUS AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED OR SEEDED & MULCHED.



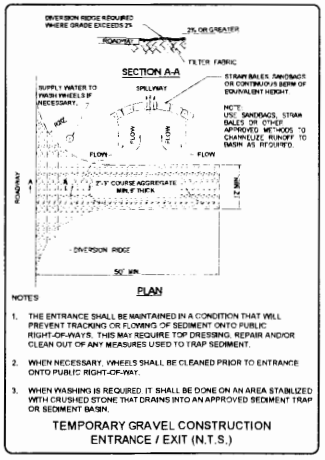
NOTES:

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. 6" 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.

TYPE IV SILT FENCE (N.T.S.)



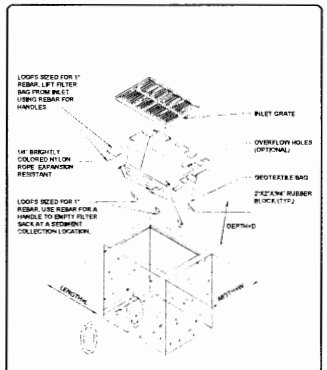
SEDIMENT CONTROL DETAIL FOR STOCKPILING OF ERODIBLE MATERIALS (N.T.S.)



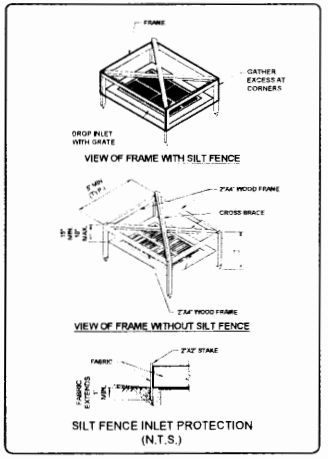
NOTES

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE / EXIT (N.T.S.)



FILTER SACKS FOR GRATED INLETS AND STABILIZED ROADWAYS (N.T.S.)



SILT FENCE INLET PROTECTION (N.T.S.)

NO.	REVISION	BY	DATE
1			
2			
3			
4			
5			

CenterState Bank
855 21st Street
Vero Beach, Forida 32960
TEL: (772) 299-5959 FAX: (772) 299-5958

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CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21st STREET, VERO BEACH, FL 32960
TEL: (772) 562-4191 FAX: (772) 562-7180

John H. Blum, P.E.
FLORIDA LICENSE No. 45813
CARTER ASSOCIATES, INC
SIGNATURE DATE
COA 295 / LB 295

DATE June 2013
PROJ # 12-14e
DRAWN BY BDS
APPD BY JHB
PLOT BY Ben Speed
FILE NAME 12-14e CenterState.dwg
REF #
F.B. & PG.

CenterState Bank
Fort Pierce, Florida
Fort Pierce Branch

Sedimentation & Erosion Control Plan

SHEET C-9
Dwg. #

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Application No: 130613-7

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X St. Lucie County Engineer
X St. Lucie County Planning and Development Services
Mark Satterlee, AICP, Director

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dholbrook@cityofpsl.com

North St Lucie River Water Control District
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Ft Pierce FL 34945

St. Lucie County Engineer
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Fort Pierce FL 34982
powleym@stlucieco.org

St. Lucie County Planning and Development Services
Mark Satterlee, AICP, Director
2300 Virginia Avenue
Fort Pierce FL 34482
satterleem@stlucieco.org

DRDD
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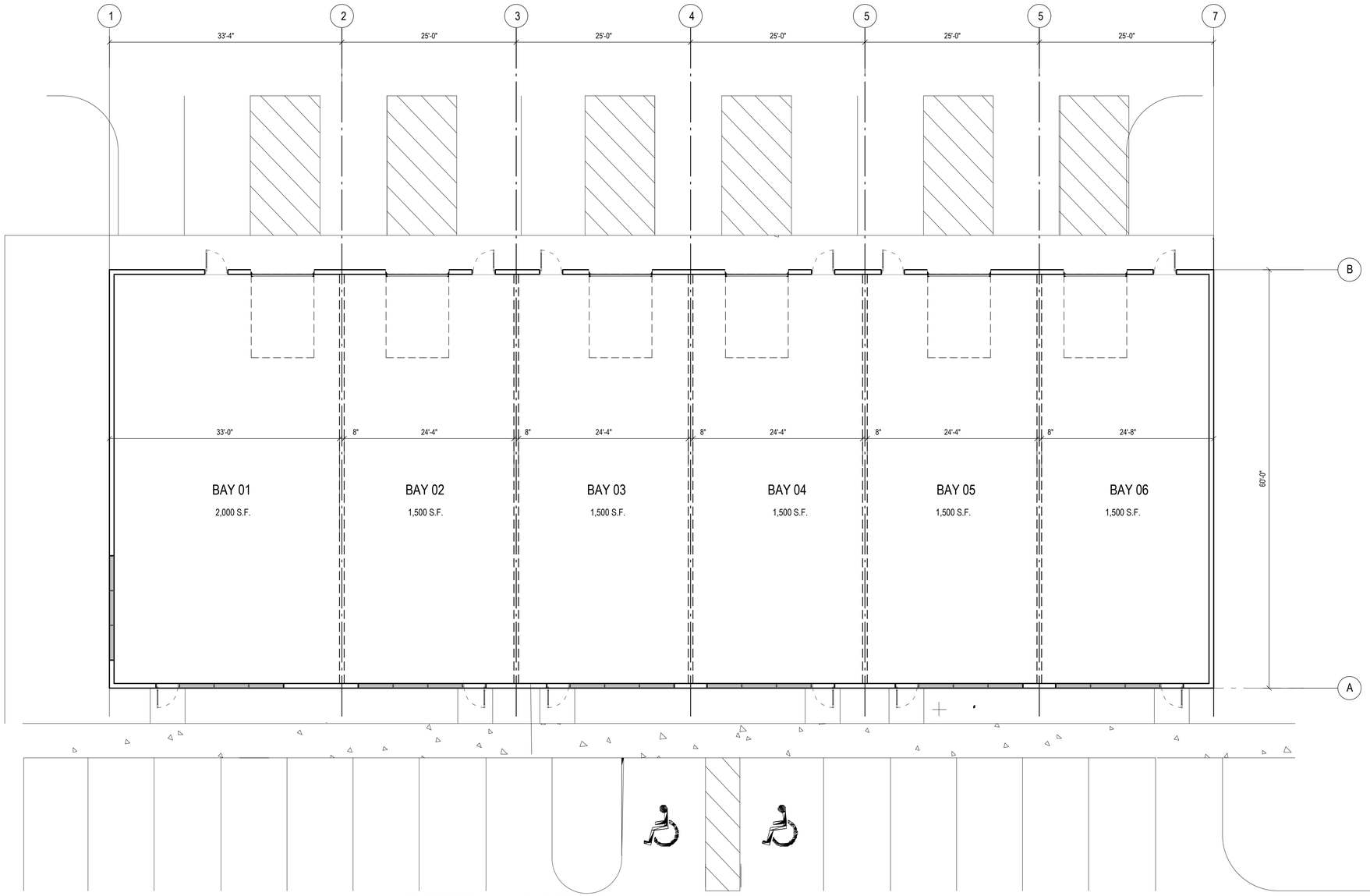
Drainage Plan

Please see drainage included as part of the attached Site Plan.



FLOOR PLAN - BUILDING 1

1/8" = 1'-0"

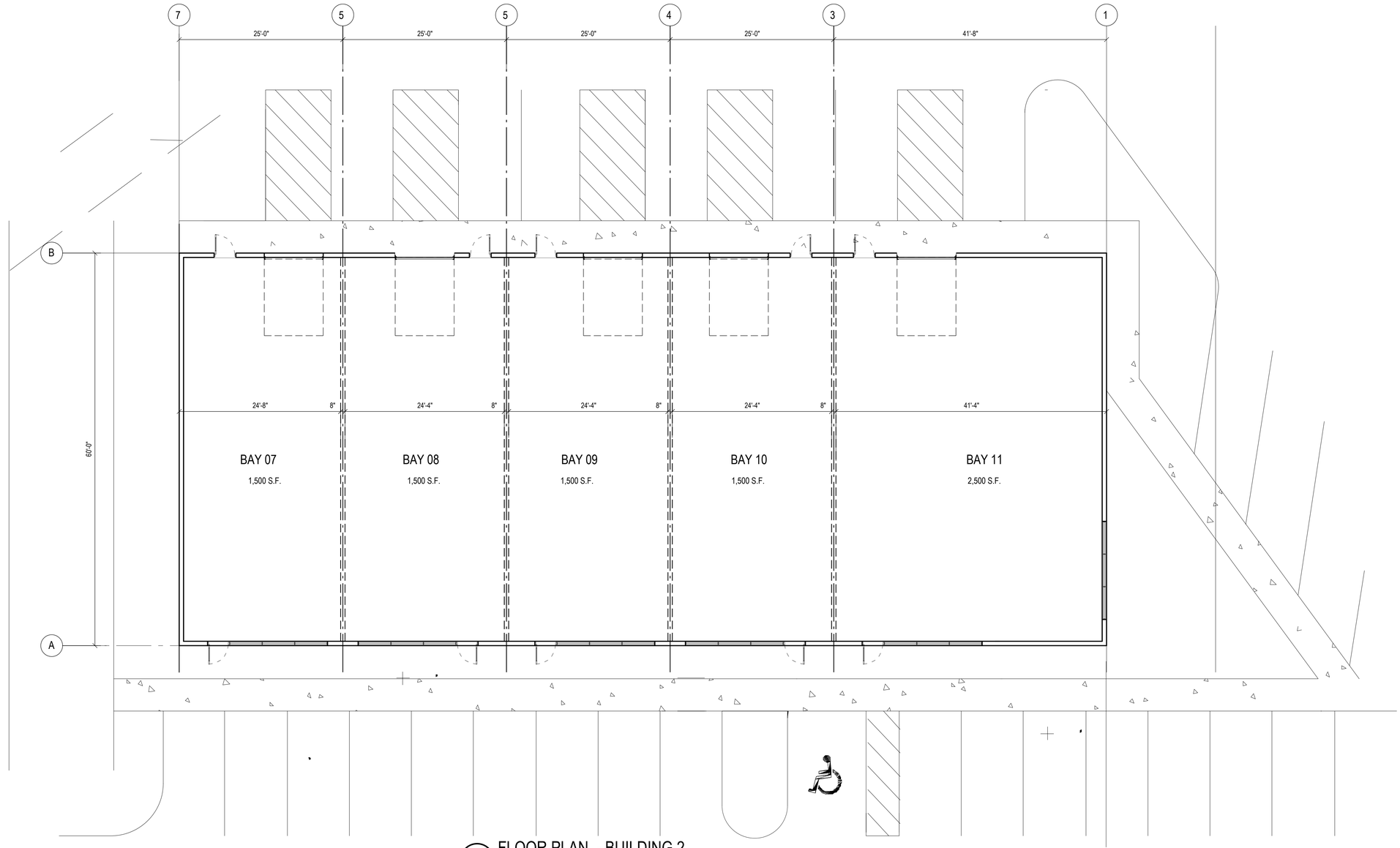
TUTTLE DESIGN LLC
561-860-2905

HAROLD TUTTLE
AR #0015335

"THE DISTRICT"
FLEX-WAREHOUSE BUILDING ONE
2591 MCNEIL ROAD, FORT PIERCE, FL

REVISIONS	DATE

Contract	
Permit	
Bid	
Date	5/27/24
Scale	AS NOTED
Drawn	HT
Job	2024-15
Sheet	A2.01
Of	X/X Sheets



FLOOR PLAN - BUILDING 2

1/8" = 1'-0"

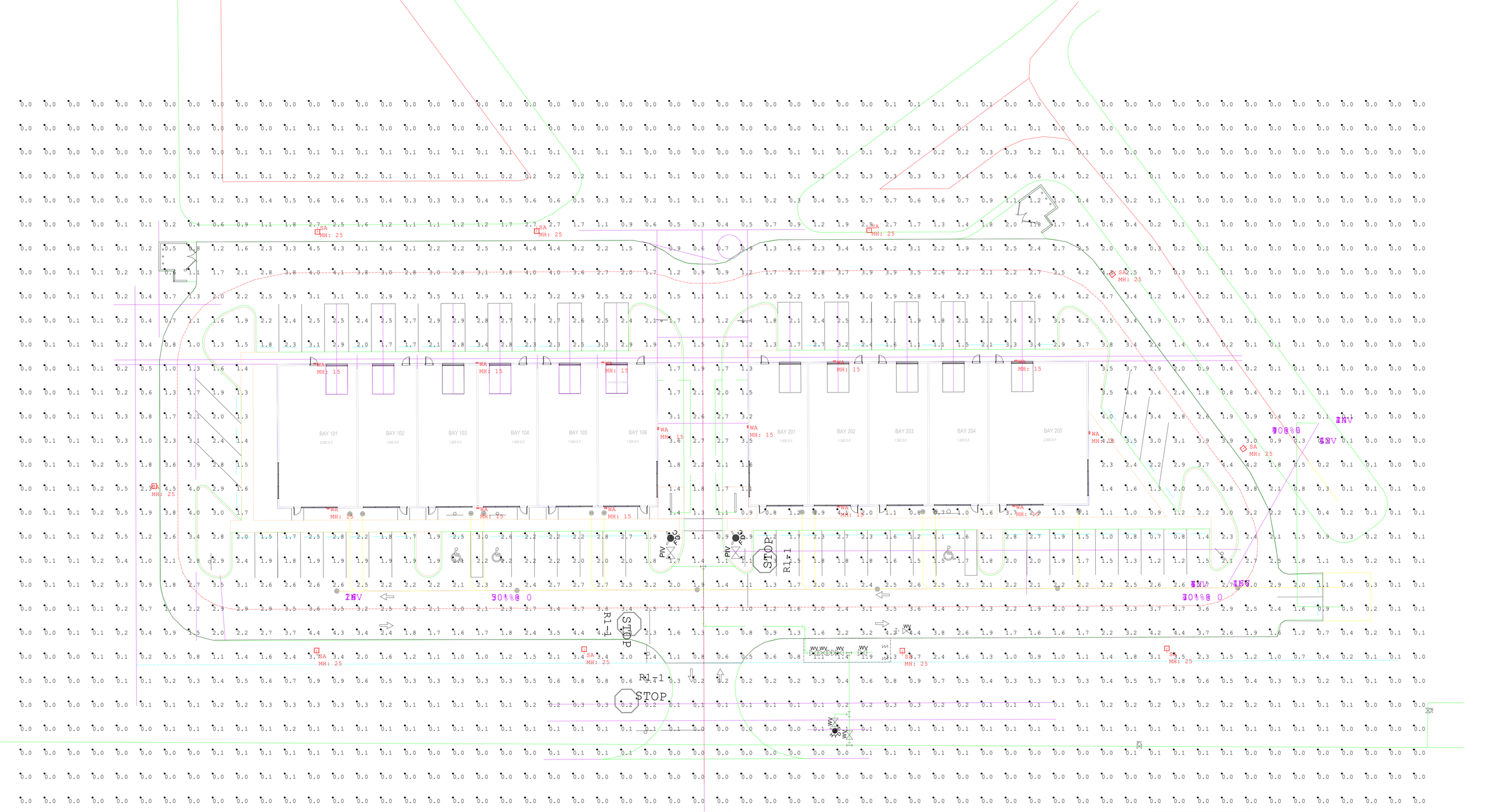
TUTTLE DESIGN LLC
561-860-2905

HAROLD TUTTLE
AR #0015335

"THE DISTRICT"
FLEX-WAREHOUSE BUILDING TWO
2591 MCNEIL ROAD, FORT PIERCE, FL

REVISIONS	DATE

Contract	
Permit	
Bid	
Date	5/27/24
Scale	AS NOTED
Drawn	HT
Job	2024-15
Sheet	A2.02
Of	X/X Sheets



Luminaire Schedule

Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
-	10	SA	Single	Cree Lighting OSQL-C-22L-40K7-3B-XX-NM-XX	0.900	14375	131	1310
·	13	WA	Single	Cree Lighting OSQW-C-4L-40K7-3M-UL-WM-XX-XX	0.900	4071	26.8	348.4

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Complete Site	Illuminance	Fc	1.01	4.7	0.0	N.A.	N.A.
Paved Area	Illuminance	Fc	2.37	4.7	0.5	4.74	9.40

TRAFFIC IMPACT ANALYSIS

For

The District

Prepared By: Deanna Foriere, EI

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

October 2024

STEVEN GARY FRINK
LICENSE
No. 95595
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

2024.10.03 15:15:48-04'00'

Steven Frink, P.E. **Date**
#95595
10250 SW Village Parkway, Suite 201

This document has been digitally signed and sealed by Steven G. Frink, PE #95595, on October 03, 2024.

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

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Existing Condition 2
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Pass-by Trip Capture 3
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Introduction:

Engineering Design & Construction has completed a traffic statement and impact analysis for the proposed Commercial Parcel, located on McNeil Rd a two-lane un-divided collector road, approximately 739 LF south of the intersection of Okeechobee Rd, a four-lane divided principle arterial road. See the attached Location Map in Appendix A.

The purpose of this study is to determine the proposed project's impact on the surrounding traffic and roadway level of service. This analysis follows the guidelines set forth in the Standard Traffic Impact Studies (TIS) Methodology and Procedures created by St. Lucie TPO, along with the City of Fort Pierce *code section 105-5(f).*

Project Description

The project is located on 2 parcels 2419-241-0001-010-7 and 2419-244-0035-000-6 with a total area of 3.19 AC. The proposed project consists of a 2 flex space buildings one 9,500 SF and the second 8,500 S.F. With the buildings being proposed flex space the assumption of 20% office and 80% warehouse was assumed for building breakdown. Please see Appendix B for the proposed site plan. There is one proposed access point to this property on McNeil Rd which would allow left and right turn access into the site.

Existing Condition

McNeil Rd has a current posted speed of 30 mph and is a two-lane un-divided collector road. The intersection of Okeechobee Rd and McNeil does provide a median divided right turn lane to access McNeil Rd. All existing traffic was collected from the St. Lucie TPO Traffic Counts and Level of Service Report Fall(2023/2024).

Trip Generation:

To properly estimate the trip generation the Institute of Traffic Engineers' (ITE) Report, Trip Generation (11th edition) was used to produce Daily Average, A.M Peak, and P.M. Peak. The proposed development is a combination of two uses, 14,400 S.F. – Warehouse (ITE Code: 150) and 3,600 S.F.-Office (ITE code:710)

THE DISTRICT - FLEX SPACE

Institute of Transportation Engineers: Trip Generation, 11th Edition

WEEKDAY: DAILY AVERAGE

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Warehouse	150	14400	S.F.	T=1.58(X/1000)+38.29	50%	50%	31	31	61
Office	710	3600	S.F.	Ln(T)=0.87Ln(X)+3.05	50%	50%	32	32	64
						TOTAL:	**63**	**63**	**125**

WEEKDAY: A.M. PEAK HOUR TRIPS

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Warehouse	150	14400	S.F.	T=0.11(X/1000)+28.55	65%	35%	19	11	30
Office	710	3600	S.F.	Ln(T)=0.86Ln(X/1000)+1.16	88%	12%	8	2	10
						TOTAL:	**27**	**13**	**40**

WEEKDAY: P.M. PEAK HOUR TRIPS

Land Use	ITE Code	Intensity	Units	Trip Generation Rate	Directional Split		Gross Trips		
					IN	OUT	IN	OUT	TOTAL
Warehouse	150	14400	S.F.	T=0.15(X/1000)+20.47	24%	76%	5	17	23
Office	710	3600	S.F.	Ln(T)=0.83Ln(X/1000)+1.29	18%	82%	2	9	11
						TOTAL:	**7**	**26**	**33**

Internal Capture

This project contains no internal capture

Pass-by Trip Capture

The pass-by trip capture rate is 0

Traffic Distribution

Traffic Distribution and assignment was determined using engineering judgement, trip lengths, surrounding uses and review of the roadway network. The general distribution can be seen below, a detailed distribution map is attached in Appendix C. The LOS analysis can also be found in Appendix D, the distribution of trips is added to the existing background traffic collected by St. Lucie TPO with an estimated 5yr future peak hour trip, using a growth rate to encompass all vested trips. Two roadways are exceeding their current LOS, but the proposed project does not occupy more than 1% capacity of the failing roadways and is not liable for any improvements.

North =94%
South =6%

Turn Warrant

Driveway volumes were analyzed to determine if a turn lane was warranted for the driveway into the site. Since McNeil is 30mph and there are less than 80 turns into the driveway it can be concluded that a turn lane is not warranted. Please find the traffic distribution map to see driveway volumes.

Table 27 – Recommended Guidelines for Exclusive Right-Turn Lanes to Unsignalized Driveway[10]

Roadway Posted Speed Limit	Number of Right Turns Per Hour
45 mph or less	80 – 125[1]
Over 45 mph	35 – 55[2]
Note: A posted speed limit of 45 mph may be used with these thresholds if the operating speeds are known to be over 45 mph during the time of peak right turn demand.	
Note on traffic projections: Projecting turning volumes is, at best, a knowledgeable estimate. Keep this in mind especially if the projections of right turns are close to meeting the guidelines. In that case, consider requiring the turn lane.	
[1] The lower threshold of 80 right-turn vehicles per hour would be most used for higher volume (greater than 600 vehicles per hour, per lane in one direction on the major roadway) or two-lane roads where lateral movement is restricted. The 125 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with a large entry radius (50 feet or greater).	
[2] The lower threshold of 35 right-turn vehicles per hour would be most appropriately used on higher volume two-lane roadways where lateral movement is restricted. The 55 right-turn vehicles per hour upper threshold would be most appropriate on lower volume roadways, multilane highways, or driveways with large entry radius (50 feet or greater).	

Source: NCHRP Report 420 (Impacts of Access Management Techniques)

Intersection Analysis

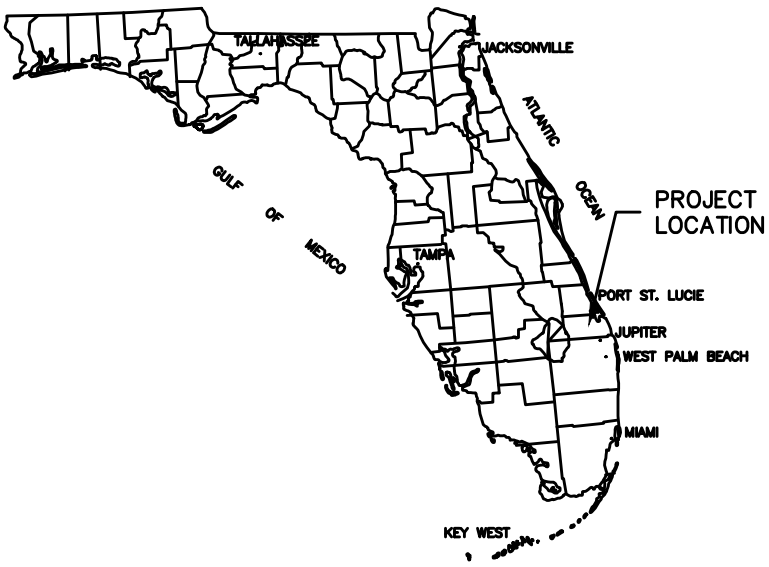
The intersection of Okeechobee Rd (SR70) and McNeil Rd are within the radius of impact. Due to this a Pre vs Post Intersection Analysis was conducted to show the impact of the proposed added trips. The current intersection's LOS was not affected by the increase.

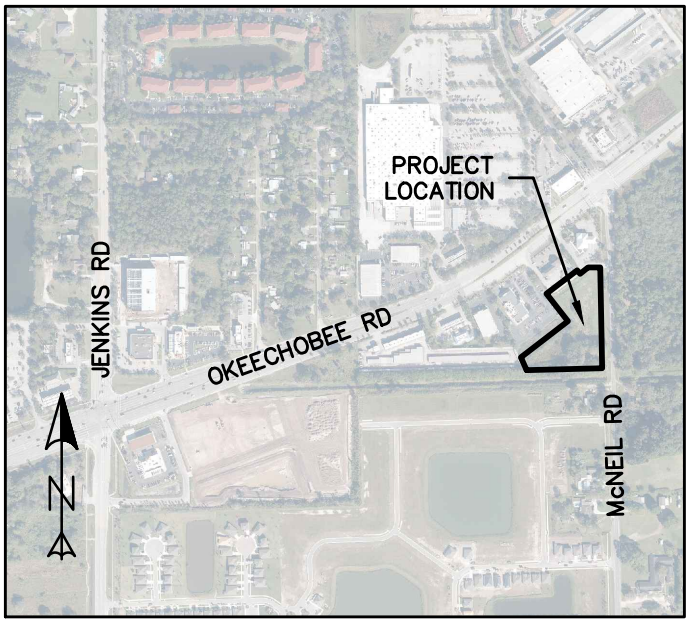
Conclusion

In conclusion the proposed development on the 3.19 AC commercial site located on McNeil Rd. will produce 125 daily trips with 40 AM Peak Hour Trips, and 33 PM Peak Hour Trips. Analysis of the distribution of trips, LOS analysis and access volumes is attached. The AM Peak Hr trips were utilized in those calculations for worst case scenario. EDC, believes this development will have no negative impacts on surrounding roads.

Appendix A – Location Map

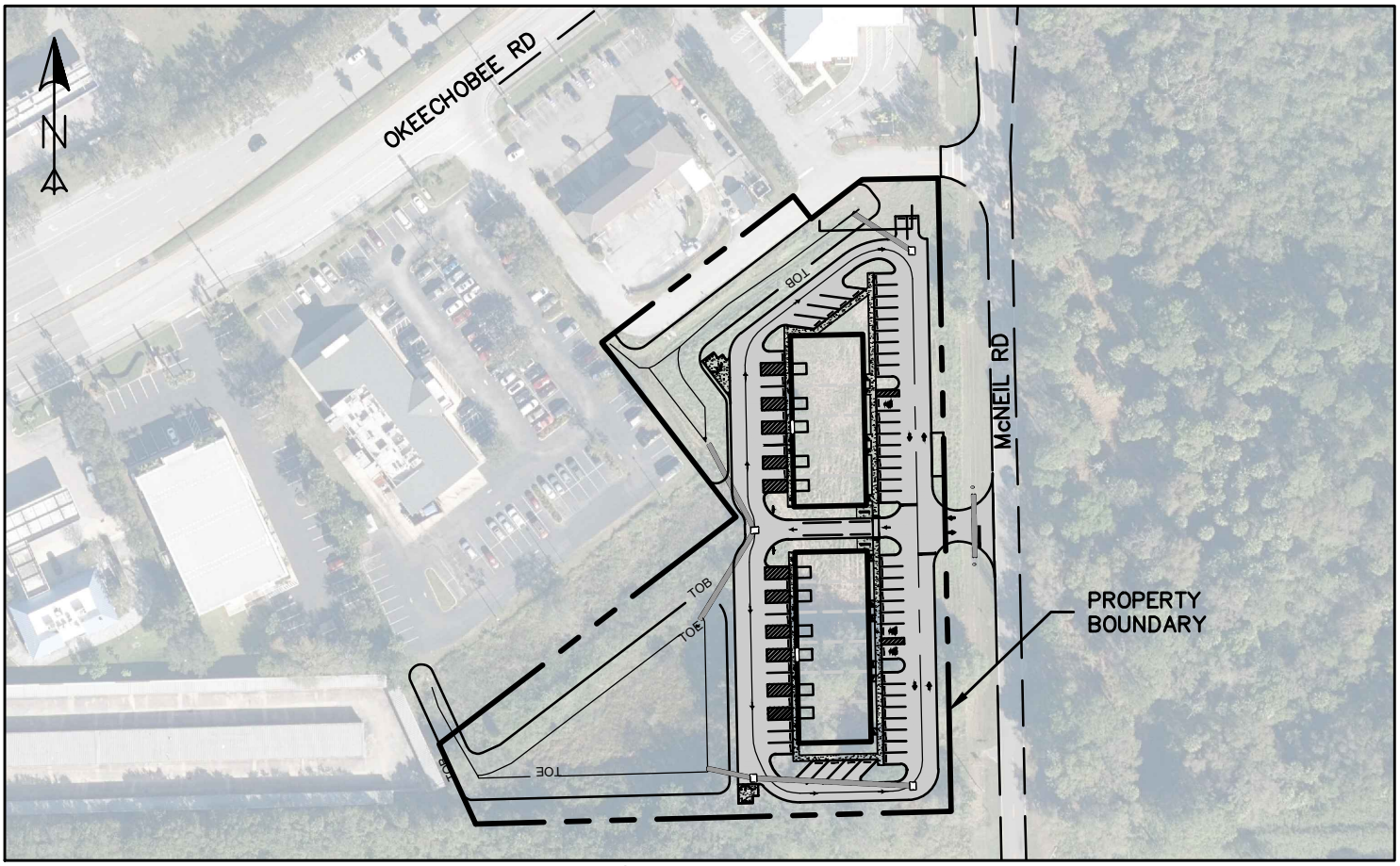
LOCATION MAP





VICINITY MAP

SCALE: 1"=1000'



SITE MAP

SCALE: 1"=100'

24-158

1 OF 1

ENGINEERS SURVEYORS
ENVIRONMENTAL
10250 SW VILLAGE PKWY - SUITE 201
PORT SAINT LUCIE, FL
772-462-2455

THE DISTRICT

LOCATION MAP
WITH AERIAL PHOTOGRAPH

FORT PIERCE FLORIDA

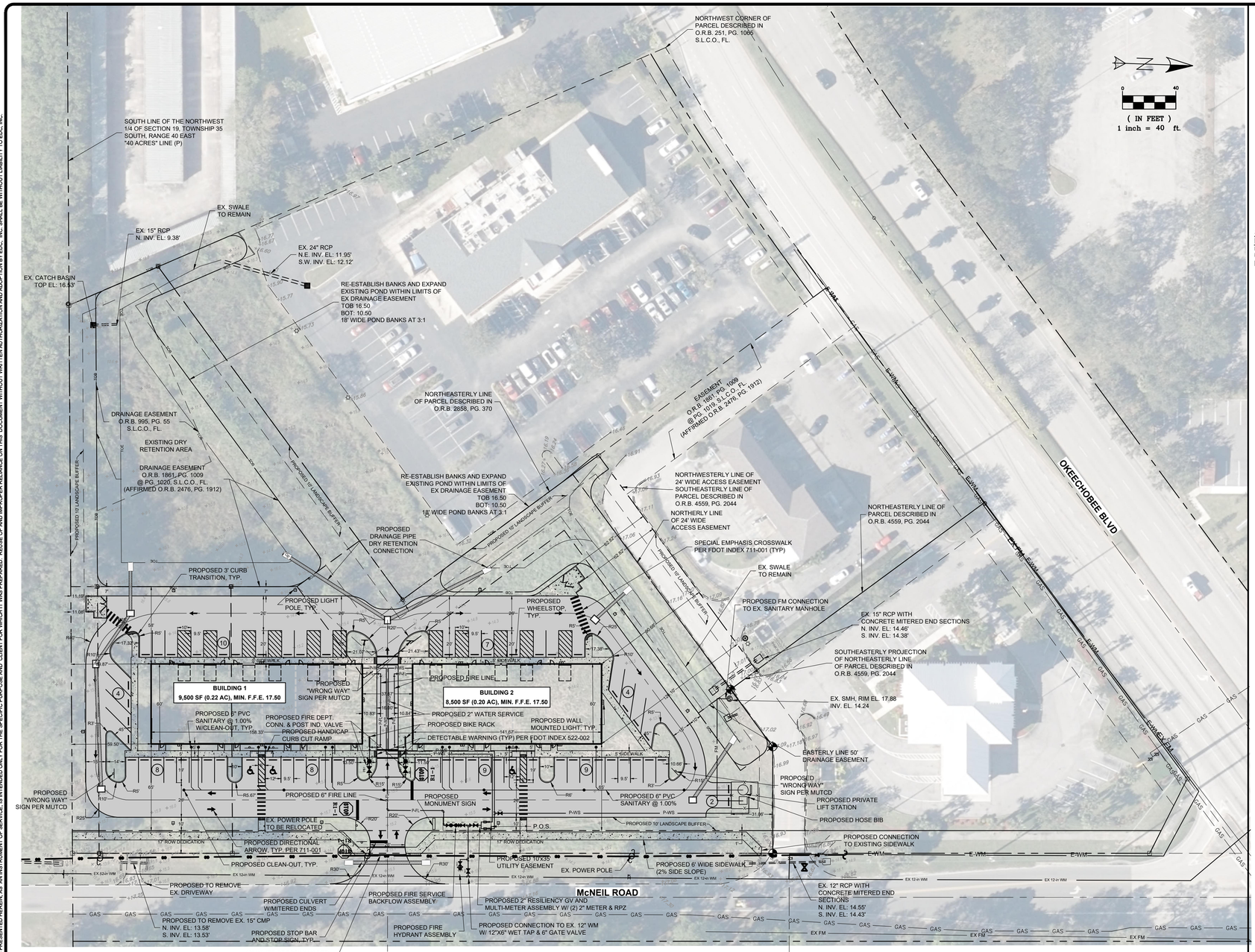
DATE REVISION COMMENTS

ENGINEERS SURVEYORS
ENVIRONMENTAL
PORT SAINT LUCIE OFFICE
10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

Appendix B – Site Plan

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY EDC, INC. SHALL BE WITHOUT LIABILITY TO EDC, INC.



DESCRIPTION	FOUND (YES/NO)	AGENCY CONTACT INFORMATION	MANAGEMENT PLAN (YES/NO)	RELOCATION PLAN (YES/NO)
WETLANDS	NO			
RARE HABITAT	NO			
THREATENED SPECIES	NO			
ENDANGERED SPECIES	NO			
SPECIES OF SPECIAL CONCERN	NO			
INVASIVE/EXOTIC VEGETATION	YES			

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ENVIRONMENTAL NOTE:
REFER TO ENVIRONMENTAL ASSESSMENT COMPLETED BY EDC, INC. ON MARCH 26, 2024.

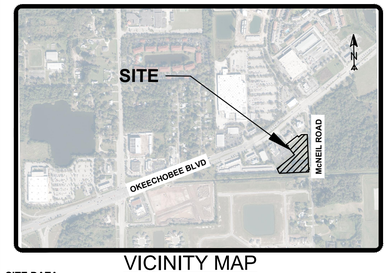
VERTICAL DATUM NOTE:
ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D.88) AND ARE GIVEN IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
*GENERAL ACCEPTED CONVERSION: NAVD + 1.475 = NGVD

NOTE:
THE PROPERTY OWNER, CONTRACTOR, AND AUTHORIZED REPRESENTATIVES SHALL PROVIDE PICKUP, REMOVAL, AND DISPOSAL OF LITTER WITHIN THE PROJECT LIMITS AND SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE AREA FROM THE EDGE OF PAVEMENT TO THE PROPERTY LINE WITHIN THE RIGHT-OF-WAY

CONSTRUCTION NOTE:
ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN THE CITY OF FORT PIERCE CODE OF ORDINANCES SECTIONS 107, 119, 123 AND 125.

LEGEND

M E	EXISTING METER		EXISTING UTILITY POLE
	PROPOSED SIGN		PROPOSED DRAINAGE INLET
	PROPOSED MITERED END SECTION		EXIST. DRAINAGE INLET
	HANDICAP PARKING SYMBOL		EXISTING STREET LIGHT
	EXISTING CONCRETE		PROPOSED LIGHT POLE (SINGLE)
	EXISTING PAVEMENT		DRAINAGE FLOW ARROW
	PROPOSED CONCRETE		PROPOSED LIGHT POLE (DOUBLE)
	PROPOSED PAVEMENT	#	PARKING STALL COUNT
			EXISTING DRAINAGE
			PROPOSED DRAINAGE PIPE



VICINITY MAP
SCALE: 1:1,000

SITE DATA

LEGAL DESCRIPTION
PER TITLE COMMITMENT ISSUED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NUMBER 1466211

PARCEL 1:

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), RUN THENCE SOUTHWESTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 742.69 FEET; THENCE RUN SOUTHEASTERLY TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 19 WHICH IS 410.99 FEET WEST OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN EAST ALONG SAID QUARTER SECTION LINE TO THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN NORTH ALONG SAID WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE 100 FOOT X 200 FOOT PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 251, PAGE 1065. ALSO LESS AND EXCEPT THAT PART OF LOT 9, MODEL LAND COMPANY SUBDIVISION OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, AS PER PLAT THEREOF, RECORDED IN PLAT BOOK 3, PAGE 63 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED IN OFFICIAL RECORDS BOOK 691, PAGE 1174.

ALSO, LESS AND EXCEPT

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD (66 FOOT RIGHT-OF-WAY) AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD, 120 FOOT RIGHT-OF-WAY), THENCE SOUTH 52°29'53" WEST ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 326.24 FEET TO THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED; THENCE SOUTH 37°30'07" EAST FOR 212.00 FEET; THENCE SOUTH 52°29'53" WEST FOR 200.00 FEET; THENCE NORTH 37°30'07" WEST FOR 212.00 FEET (TO THE SOUTH RIGHT-OF-WAY LINE OF SAID STATE ROAD 70, 120 FOOT RIGHT-OF-WAY); THENCE NORTH 52°29'53" EAST (ALONG SAID RIGHT-OF-WAY LINE) FOR 200.00 FEET TO THE POINT OF BEGINNING.

ALSO, LESS AND EXCEPT

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD (66 FT. RIGHT-OF-WAY) AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD, 120 FOOT RIGHT-OF-WAY); THENCE SOUTH 52°29'53" WEST ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 526.24 FEET TO THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED; THENCE CONTINUE SOUTH 52°29'53" WEST FOR 20.99 FEET TO THE POINT OF A RADIUS OF 1970.08 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 5°41'38" FOR AN ARC DISTANCE OF 195.78 FEET TO THE NORTHWEST CORNER OF THE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 251, PAGE 1065; THENCE SOUTH 24°27'36" EAST ALONG THE WESTERLY LINE OF SAID LANDS, FOR 414.92 FEET; THENCE NORTH 52°29'53" EAST FOR 310.08 FEET; THENCE NORTH 37°30'07" WEST FOR 394.50 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PORTION OF THE LAND CONVEYED TO SAINT LUCIE COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA BY WARRANTY DEED OF DONATION RECORDED IN O.R. BOOK 3586, PAGE 2401.

LESS AND EXCEPT (SOUTH STATE BANK PARCEL) A PARCEL OF LAND BEING A PORTION OF ALL THAT CERTAIN LAND ACCORDING TO THE WARRANTY DEED DESCRIBED IN OFFICIAL RECORDS BOOK 2238, PAGE 213 THROUGH 216 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0001-000-0, LYING IN PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), THENCE RUN SOUTH 52°30'28" WEST ALONG THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 326.24 FEET TO THE NORTHERLY CORNER OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA (EXHIBIT 'B') AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7; THENCE RUN SOUTH 37°33'21" EAST ALONG THE EAST LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009, A DISTANCE OF 212.00 FEET TO THE SOUTHEASTERLY CORNER OF SAID PARCEL, SAID SOUTHEASTERLY CORNER ALSO LYING ON THE NORTHERLY LINE OF THAT CERTAIN 24.00 FEET WIDE EASEMENT DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE RUN SOUTH 52°33'02" WEST ALONG THE SOUTHEASTERLY LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7, AND ALONG SAID NORTHERLY EASEMENT LINE A DISTANCE OF 200.00 FEET TO THE SOUTHERLY CORNER OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009, SAID SOUTHERLY CORNER ALSO LYING ON THE NORTHEASTERLY LINE OF THAT CERTAIN PARCEL DESCRIBED IN AFORESAID OFFICIAL RECORDS BOOK 2238, PAGE 213 AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-244-0001-000-9; THENCE RUN SOUTH 37°33'21" EAST ALONG SAID NORTHEASTERLY LINE A DISTANCE OF 24.00 FEET; THENCE RUN NORTH 52°33'02" EAST PARALLEL WITH AND NORMAL TO THE AFOREMENTIONED SOUTHEASTERLY LINE OF THE PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7 AND ALONG THE SOUTHERLY LINE OF THE AFOREMENTIONED 24.00 FEET WIDE ACCESS EASEMENT A DISTANCE OF 253.39 FEET; THENCE RUN NORTH 88°49'04" EAST ALONG SAID SOUTHERLY EASEMENT LINE A DISTANCE OF 79.86 FEET TO THE AFOREMENTIONED WEST RIGHT OF WAY LINE OF MCNEIL ROAD (66.00 FEET WIDE RIGHT OF WAY); THENCE RUN NORTH 01°10'56" WEST ALONG SAID WEST RIGHT OF WAY LINE A DISTANCE OF 351.65 FEET TO THE POINT OF BEGINNING;

LESS AND EXCEPT THEREFROM THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION PARCEL NO. 106.1 ACCORDING TO DEED AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 691, PAGE 1174 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

AND,

LESS AND EXCEPT THE RIGHT OF WAY DONATION FOR MCNEIL ROAD DESCRIBED AND RECORDED IN OFFICIAL RECORD BOOK 3586, PAGE 2401 (RESOLUTION 2013-240).

TOGETHER WITH AND SUBJECT TO AND AGREEMENT FOR EASEMENTS OF ACCESS AND DRAINAGE AS DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 AT PAGE 1020 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

THE ABOVE-DESCRIBED PARCEL CONTAINING 123,157.87 SQ. FT OR 2.83 ACRES, MORE OR LESS.

SEE PAGE 2 FOR CONTINUATION

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS
10250 VILLAGE PARKWAY
SUITE 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com
F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DESIGNED BY	DGB
DRAWN BY	RAH
FILENAME	24-158 cso dwg
LAYOUT	CSP
SCALE	AS SHOWN
DATE	03/JUNE/24

REVISION COMMENTS

DATE

THE DISTRICT

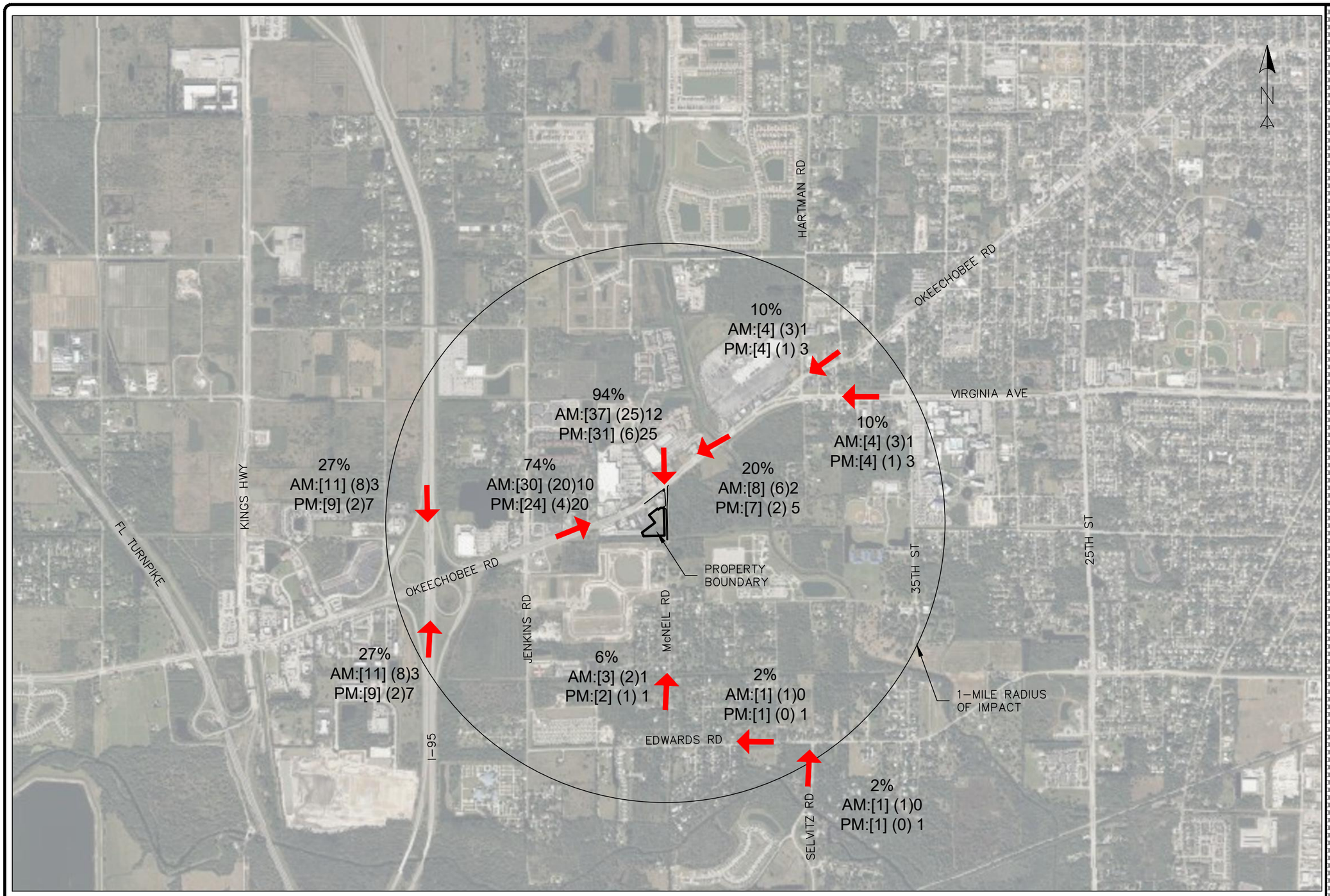
SITE PLAN

FORT PIERCE FLORIDA

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS
10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455

24-158

Appendix C - Trip Distribution



AM PEAK TRIPS: [40] (IN: 27) OUT: 13
PM PEAK TRIPS: [33] (IN: 7) OUT: 26

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL

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L.B. CERTIFICATE OF AUTHORIZATION 8098

DRF — DESIGNED BY
DRF — DRAWN BY
24-158.dgn.dwg — FILENAME
TRIP DISTRIBUTION — LAYOUT
AS SHOWN — SCALE
AUGUST 2023 — DATE

#	DATE	REVISION COMMENTS

THE DISTRICT
FORT PIERCE FLORIDA

TRIP DISTRIBUTION

MONTH-YEAR

10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
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24-158

1 OF 1

Appendix D – LOS Analysis

Trip Distribution & Level of Service (AM Peak Hour)

ROW Segment	From	To	LOS Service Capacity	Year Data Collected	Peak Hr Service Capacity	Exist Peak Hr Peak Direction	Growth Rate *	5yr (2029) Future Peak Hour	Adopted LOS Currently Exceeded?	Peak Hr Project Volumne	% project of LOS Capacity	Total Peak Hr Volumne	Adopted LOS to be Exceeded
Edwards Rd	**McNeil Rd**	**Selvitz Rd**	F	2024	700	742	2%	816	**YES**	1	0.1%	817	**YES**
I-95	**Midway Rd**	**Okeechobee Rd**	D	2018	5500	5004	2%	6105	**YES**	8	0.1%	6113	**YES**
I-95	**Okeechobee Rd**	**Orange Ave**	B	2020	7320	2804	2%	3309	NO	8	0.1%	3317	NO
McNeil Rd	**Okeechobee Rd**	**Kirby Loop Rd**	C	2023	790	345	2%	386	NO	26	3.3%	412	NO
McNeil Rd	**Kirby Loop Rd**	**Edwards Rd**	D	2023	540	345	2%	386	NO	2	0.4%	388	NO
Okeechobee Rd	**I-95**	**Jenkins Rd**	C	2020	4240	2082	2%	2457	NO	20	0.5%	2477	NO
Okeechobee Rd	**Jenkins Rd**	**McNeil Rd**	C	2020	4040	2082	2%	2457	NO	6	0.1%	2463	NO
Okeechobee Rd	**McNeil Rd**	**Virginia Ave**	C	2020	3170	1550	2%	1829	NO	3	0.1%	1832	NO
Okeechobee Rd	**Virginia Ave**	**Hartman Rd**	C	2023	2100	681	2%	763	NO	3	0.1%	766	NO
Okeechobee Rd	**Hartman Rd**	**35th St**	C	2023	1630	681	2%	763	NO	3	0.2%	766	NO
Selvitz Rd	**Glades Cut-Off Rd**	**Edwards Rd**	D	2024	790	765	2%	842	**YES**	1	0.1%	843	**YES**
Virginia Ave	**Okeechobee Rd**	**Hartman Rd**	C	2020	3020	1116	2%	1317	NO	3	0.1%	1320	NO
Virginia Ave	**35th St**	**Hartman Rd**	C	2020	3020	1116	2%	1317	NO	3	0.1%	1320	NO

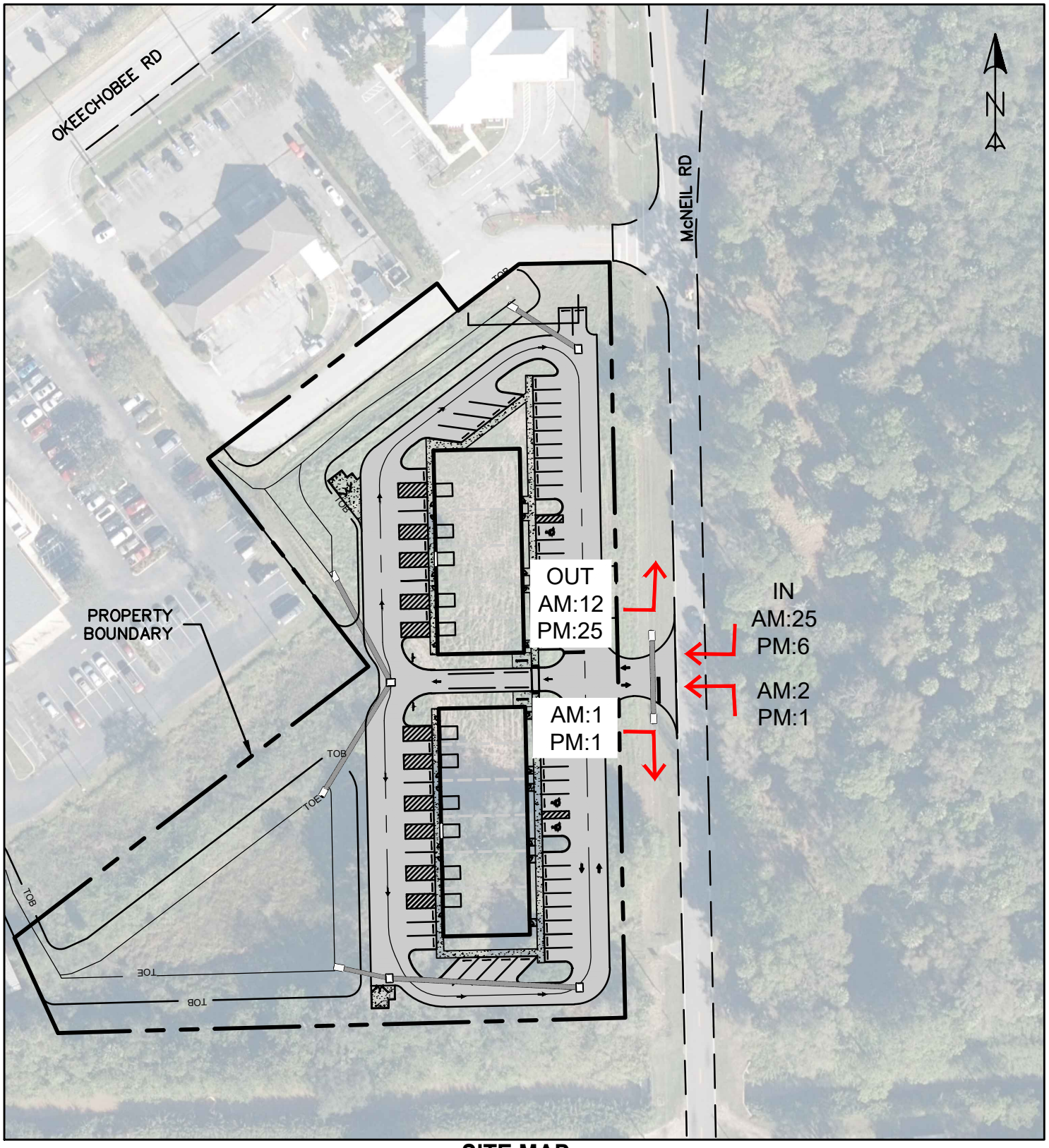
*Growth rate was collected through St Lucie TPO traffic system. A minimum of 2% is used

Trip Distribution & Level of Service (PM Peak Hour)

ROW Segment	From	To	LOS Service Capacity	Year Data Collected	Peak Hr Service Capacity	Exist Peak Hr Peak Direction	Growth Rate*	5yr (2029) Future Peak Hour	Adopted LOS Currently Exceeded?	Peak Hr Project Volumne	% project of LOS Capacity	Total Peak Hr Volumne	Adopted LOS to be Exceeded
Edwards Rd	**McNeil Rd**	**Selvitz Rd**	F	2024	700	718	2%	790	**YES**	1	0.1%	791	**YES**
I-95	**Midway Rd**	**Okeechobee Rd**	D	2018	5500	4063	2%	4469	NO	7	0.1%	4476	NO
I-95	**Okeechobee Rd**	**Orange Ave**	B	2020	7320	2804	2%	3084	NO	7	0.1%	3091	NO
McNeil Rd	**Okeechobee Rd**	**Kirby Loop Rd**	C	2023	790	345	2%	380	NO	25	3.2%	405	NO
McNeil Rd	**Kirby Loop Rd**	**Edwards Rd**	D	2023	540	345	2%	380	NO	1	0.2%	381	NO
Okeechobee Rd	**I-95**	**Jenkins Rd**	C	2020	4240	2082	2%	2290	NO	19	0.4%	2309	NO
Okeechobee Rd	**Jenkins Rd**	**McNeil Rd**	C	2020	4040	2082	2%	2290	NO	5	0.1%	2295	NO
Okeechobee Rd	**McNeil Rd**	**Virginia Ave**	C	2020	3170	1550	2%	1705	NO	2	0.1%	1707	NO
Okeechobee Rd	**Virginia Ave**	**Hartman Rd**	C	2023	2100	681	2%	749	NO	2	0.1%	751	NO
Okeechobee Rd	**Hartman Rd**	**35th St**	C	2023	1630	681	2%	749	NO	2	0.1%	751	NO
Selvitz Rd	**Glades Cut-Off Rd**	**Edwards Rd**	D	2024	790	765	2%	842	**YES**	1	0.1%	843	**YES**
Virginia Ave	**Okeechobee Rd**	**Hartman Rd**	C	2020	3020	1116	2%	1228	NO	2	0.1%	1230	NO
Virginia Ave	**35th St**	**Hartman Rd**	C	2020	3020	1116	2%	1228	NO	2	0.1%	1230	NO

*Growth rate was collected through St Lucie TPO traffic system. A minimum of 2% is used

Appendix E – Supporting Documents



SITE MAP

NTS

24-158

1 OF 1

ENGINEERS SURVEYORS ENVIRONMENTAL
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PORT SAINT LUCIE, FL
772-462-2455

DRIVEWAY ANALYSIS

LOCATION MAP WITH AERIAL PHOTOGRAPH

FORT PIERCE FLORIDA

DATE REVISION COMMENTS

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PORT SAINT LUCIE, FL 34987
772-462-2455
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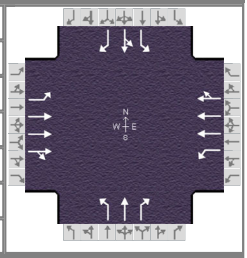
L.B. CERTIFICATE OF AUTHORIZATION 8098

HCS7 Signalized Intersection Results Summary

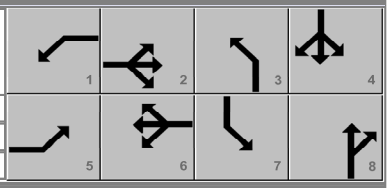
General Information				Intersection Information	
Agency	Engineering Design & Construction Inc			Duration, h	0.250
Analyst	Deanna Foriere	Analysis Date	10/2/2024	Area Type	Other
Jurisdiction	Fort Pierce	Time Period		PHF	1.00
Urban Street	McNeil Rd	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	SR70 & McNeil Rd	File Name	24-158 Pre-Development Intersection Analysis.xus		
Project Description	Pre-Developement Intersection				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	60	1843	198	198	1843	60	173	50	173	50	20	50

Signal Information			
Cycle, s	207.3	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	10.2	60.0	35.0	60.0	0.0
Yellow	4.8	3.7	4.8	4.0	4.8	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	4.0		9.0		9.0
Phase Duration, s	24.8	64.8	38.7	78.7		64.8		39.0
Change Period, ($Y+R_c$), s	4.8	4.8	3.7	4.8		4.8		4.0
Max Allow Headway (*MAH*), s	3.0	2.9	3.0	2.9		3.3		3.3
Queue Clearance Time (g_s), s	6.4	62.0	18.7	69.5		19.7		7.5
Green Extension Time (g_e), s	0.1	0.0	0.3	0.0		0.8		0.2
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	1.00	0.00	1.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	60	1381	660	198	1275	628	173	50	173	50	20	50
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1803	1810	1900	1868	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	4.4	60.0	60.0	16.7	67.4	67.5	15.6	4.0	17.7	4.9	1.8	5.5
Cycle Queue Clearance Time (g_c), s	4.4	60.0	60.0	16.7	67.4	67.5	15.6	4.0	17.7	4.9	1.8	5.5
Green Ratio (*g/C*)	0.39	0.29	0.29	0.47	0.36	0.36	0.29	0.29	0.29	0.17	0.17	0.17
Capacity (*c*), veh/h	214	1100	522	340	1355	666	524	550	466	306	321	272
Volume-to-Capacity Ratio (*X*)	0.280	1.255	1.266	0.582	0.941	0.943	0.330	0.091	0.371	0.164	0.062	0.184
Back of Queue (*Q*), ft/ln (95 th percentile)	89.4	1686.6	1668.5	255.9	1105.4	1137.8	293	88.1	296.2	104.4	41	104.8
Back of Queue (*Q*), veh/ln (95 th percentile)	3.6	67.5	66.7	10.2	44.2	45.5	11.7	3.5	11.8	4.2	1.6	4.2
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	48.9	73.7	73.7	57.7	64.6	64.7	57.9	53.7	58.6	73.6	72.4	73.9
Incremental Delay (d_2), s/veh	0.3	122.4	134.2	1.7	12.8	21.7	0.1	0.0	0.2	0.1	0.0	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	49.2	196.1	207.8	59.4	77.4	86.3	58.0	53.8	58.8	73.7	72.4	74.0
Level of Service (LOS)	D	F	F	E	E	F	E	D	E	E	E	E
Approach Delay, s/veh / LOS	195.6	F		78.4	E		57.8	E		73.6	E	
Intersection Delay, s/veh / LOS	128.7						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.15	B	2.14	B	2.64	C	2.61	C
Bicycle LOS Score / LOS	1.64	B	1.64	B	1.14	A	0.69	A

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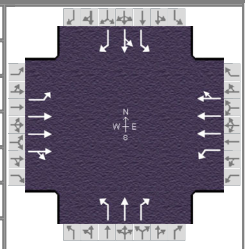
HCS7 Signalized Intersection Results Summary

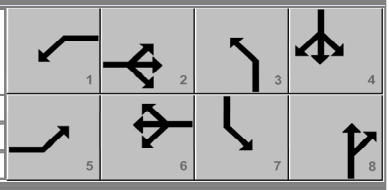
General Information				Intersection Information	
Agency	Engineering Design & Construction Inc			Duration, h	0.250
Analyst	Deanna Foriere	Analysis Date	10/2/2024	Area Type	Other
Jurisdiction	Fort Pierce	Time Period		PHF	1.00
Urban Street	McNeil Rd	Analysis Year	2024	Analysis Period	1> 7:00
Intersection	SR70 & McNeil Rd	File Name	24-158 Post-Development Intersection Analysis.xus		
Project Description	Post-Developement Intersection				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	60	1843	218	204	1843	60	175	50	173	50	20	50

Signal Information			
Cycle, s	207.3	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	20.0	10.2	60.0	35.0	60.0	0.0
Yellow	4.8	3.7	4.8	4.0	4.8	0.0
Red	0.0	0.0	0.0	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	1.1	4.0	1.1	4.0		9.0		9.0
Phase Duration, s	24.8	64.8	38.7	78.7		64.8		39.0
Change Period, ($Y+R_c$), s	4.8	4.8	3.7	4.8		4.8		4.0
Max Allow Headway (*MAH*), s	3.0	2.9	3.0	2.9		3.3		3.3
Queue Clearance Time (g_s), s	6.4	62.0	19.4	69.5		19.7		7.5
Green Extension Time (g_e), s	0.1	0.0	0.3	0.0		0.8		0.2
Phase Call Probability	1.00	1.00	1.00	1.00		1.00		1.00
Max Out Probability	0.00	1.00	0.00	1.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	60	1396	665	204	1275	628	175	50	173	50	20	50
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1900	1794	1810	1900	1868	1810	1900	1610	1810	1900	1610
Queue Service Time (g_s), s	4.4	60.0	60.0	17.4	67.4	67.5	15.8	4.0	17.7	4.9	1.8	5.5
Cycle Queue Clearance Time (g_c), s	4.4	60.0	60.0	17.4	67.4	67.5	15.8	4.0	17.7	4.9	1.8	5.5
Green Ratio (*g/C*)	0.39	0.29	0.29	0.47	0.36	0.36	0.29	0.29	0.29	0.17	0.17	0.17
Capacity (*c*), veh/h	214	1100	519	340	1355	666	524	550	466	306	321	272
Volume-to-Capacity Ratio (*X*)	0.280	1.269	1.281	0.600	0.941	0.943	0.334	0.091	0.371	0.164	0.062	0.184
Back of Queue (*Q*), ft/ln (95 th percentile)	89.4	1724.6	1701.7	263.9	1105.4	1137.8	296	88.1	296.2	104.4	41	104.8
Back of Queue (*Q*), veh/ln (95 th percentile)	3.6	69.0	68.1	10.6	44.2	45.5	11.8	3.5	11.8	4.2	1.6	4.2
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	48.9	73.7	73.7	58.6	64.6	64.7	57.9	53.7	58.6	73.6	72.4	73.9
Incremental Delay (d_2), s/veh	0.3	128.3	140.7	2.1	12.8	21.7	0.1	0.0	0.2	0.1	0.0	0.1
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (*d*), s/veh	49.2	202.0	214.4	60.6	77.4	86.3	58.1	53.8	58.8	73.7	72.4	74.0
Level of Service (LOS)	D	F	F	E	E	F	E	D	E	E	E	E
Approach Delay, s/veh / LOS	201.5	F		78.4	E		57.9	E		73.6	E	
Intersection Delay, s/veh / LOS	131.6						F					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.15	B	2.14	B	2.64	C	2.61	C
Bicycle LOS Score / LOS	1.65	B	1.65	B	1.14	A	0.69	A

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July 30, 2024

Craig Mason
Mason Development and Construction
880 Jupiter Park Drive, Ste 10
Jupiter, FL 33458

VIA Email: cmason@masondc.com

Reference: **Tree Report**
2591 McNeil Road – 3.37ac.
Parcel IDs # 2419-241-0001-010-7, 2419-244-0035-000-6
St. Lucie County, Florida

Prepared by: Anthony A. Adams
International Society of Arboriculture Certified Arborist FL-9472A

Certification of Performance

I, Anthony A. Adams, certify to the best of my knowledge, and abilities:

That I have personally inspected the tree(s) and or the property referred to in this report.

That it is my professional opinion, that the following report is true, and the conclusions and results stated are correct based on the information received about the property evaluated and the evaluation methods followed.

That the reported analyses, opinions, and conclusions are only limited by the reported assumptions, methods and limiting conditions and my personal, unbiased professional analyses, opinions and conclusions.

That EDC, Inc. acts as an independent tree, and environmental consultant.

That this Report, or parts of this Report, have not been revealed to any party other than the Client named and will not be revealed to any other party unless authorized to do so by Client named or by due process of law or by legally required public testimony by this firm of these results.

This report is written in good faith and all rights are reserved by EDC, Inc. It is for use by the client named only.

Signature: _____ Date: 07/30/2024

REPORT

I. Introduction

This Report is written for Craig Mason of Mason Development and Construction. It is based on information obtained from the site visit(s), to provide and assign values to the trees located on the subject property. This subject property is currently vacant. Site visits to review the trees were performed on July 30, 2024.

II. Property Involved

The subject property evaluated as part of this Tree Report consists of two (2) tax parcels, Parcel #2419-241-0001-010-7, and 2419-244-0035-000-6 totaling 3.37ac. The subject property is located south of Okeechobee Road, just west of McNeil Road, in Fort Pierce, Florida. The subject property is further located within Section 19, Township 35 South and Range 40 East.

III. Data Collection

The property/trees were evaluated by site visit to determine environmental conditions. This appraisal is based on value of subject as per ISA “Rule 14-40.030, Florida Administrative Code”. See Appendix A for full tree data.

IV. Limiting Conditions

This “Arboriculture Report” includes only the listed trees, landscape conditions in the immediate area where the tree is located, and conditions caused by or attributable to the trees on this property.

Limits of the Assignment

1. This report is not intended as and does not represent legal advice and should not be relied upon to take the place of such advice.

2. This report is limited to documenting the condition of the tree on the dates given. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.

3. Loss or alteration of any part of this report invalidates the entire report.

4. Sketches and photographs used in this report are intended as visual aids only and are not necessarily to scale.

V. Discussion

There is a total of twenty-seven (27) native trees on the subject parcel that meet City of Fort Pierce requirements for mitigation. The break-down by species is as follows:

Cabbage Palms:	12		
Oak *spp.*:	14	Slash Pines:	1

VI. Conclusions and Recommendations

Values are calculated for trees 14” D.B.H and greater as per City of Fort Pierce code.

Formula(s) used:

Trees

(Total D.B.H. Inches) x ($250) = Mitigation Costs - Tree Removal

Palms

(Total # of Palms) x ($250) = Mitigation Costs - Palms

Trees =	(468.8in.)	x	x $250	=	$117,200.00
Palms =	(12)		x $250	=	$3,000.00
		Max. Mitigation Cost		**=**	**$120,200.00 fee**

The calculated fee of $120,200.00 is the **maximum** amount of tree mitigation fee that is possible – if every tree on the subject parcel was to be cleared.

Alternatively, the site planner can use the information in this report to avoid impacts to high-value trees, and preserve other trees in order to reduce mitigation costs to zero.

For reference, a 15” tree costs $3,750 to mitigate if fully removed.

Please see attached Tree Location Map and Tree Table in **Appendix A**.

This Report, or parts of this Report, have not been revealed to any party other than the Client named and will not be revealed to any other party unless authorized to do so by Client named or by due process of law or by legally required public testimony by this firm of these results.

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Appendix A

Tree Location Map & Table



ALL TREES TO BE IMPACTED

#	TYPE	DBH
3	LAOAK	28
4	LAOAK	29
5	LAOAK	44.5
6	LIOAK	26.8
7	PALM	
8	LAOAK	38.6
9	LIOAK	15.1
10	PALM	
11	PINE	17.3
12	PALM	
13	PALM	
14	PALM	
16	LIOAK	49.2
17	PALM	
18	PALM	
19	LIOAK	27.9
21	LIOAK	24.6
23	LAOAK	17.3
24	LAOAK	57.6
25	PALM	
26	PALM	
27	PALM	
28	PALM	
29	LAOAK	20.8
30	PALM	
31	LIOAK	29.9
32	LIOAK	42.2
TOTAL DBH		468.8
TOTAL PALMS		12
TOTAL OAKS		14
TOTAL PINES		1

LEGEND

PALMS - GREEN

PINES - RED

OAKS - BLUE

ENGINEERS ● SURVEYORS
ENVIRONMENTAL ● LAND PLANNERS
INTERIOR DESIGNERS

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SUITE 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DESIGNED BY	AAA
DRAWN BY	AAA
FILENAME	24-158 - TREES
LAYOUT	TREES
SCALE	AS SHOWN
DATE	07/30/2024

REVISION COMMENTS

DATE

The District
2591 MCNEIL ROAD

TREE LOCATION MAP

CITY OF FORT PIERCE FLORIDA

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ENVIRONMENTAL ● LAND PLANNERS
INTERIOR DESIGNERS

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24-158

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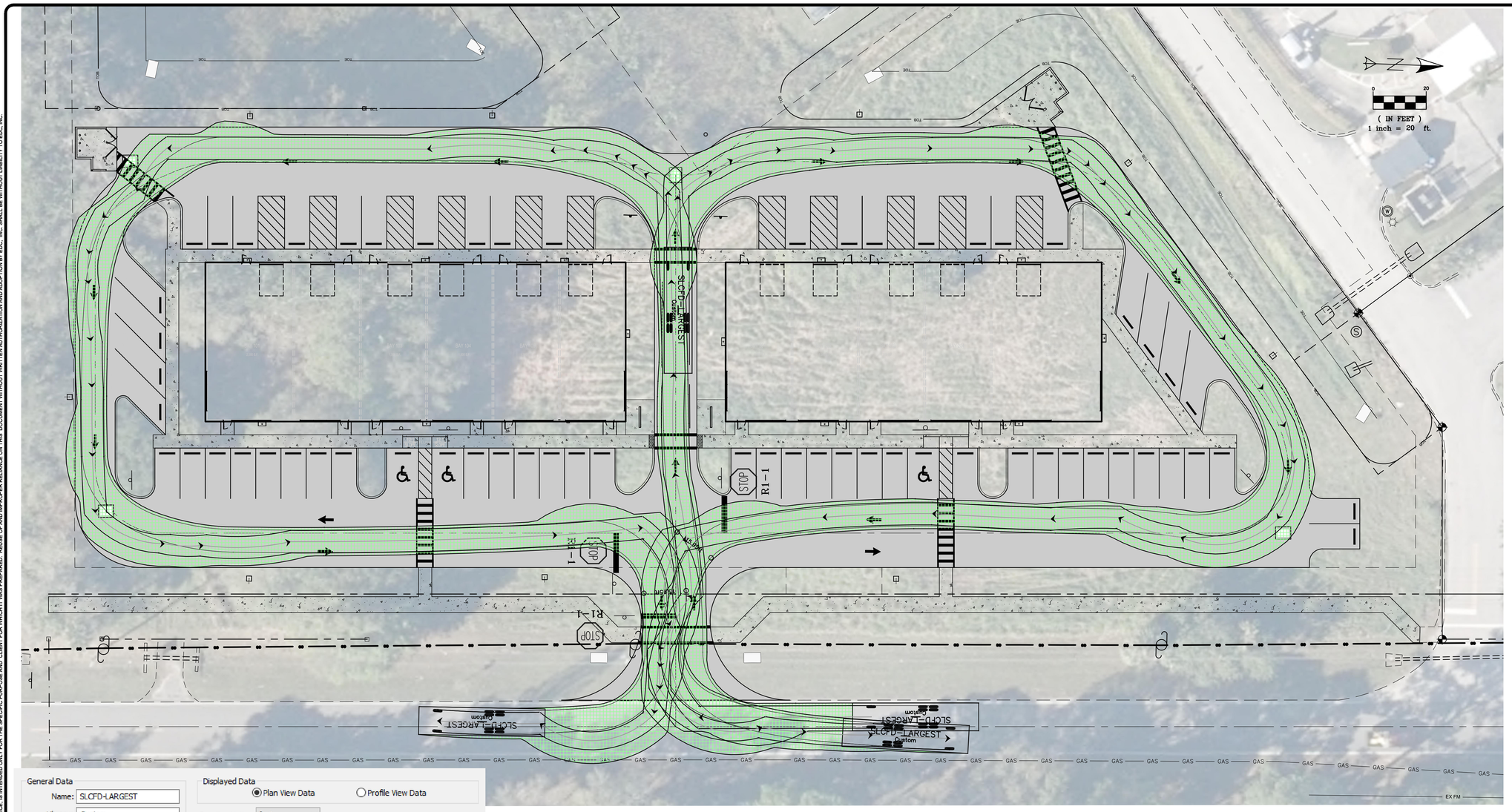

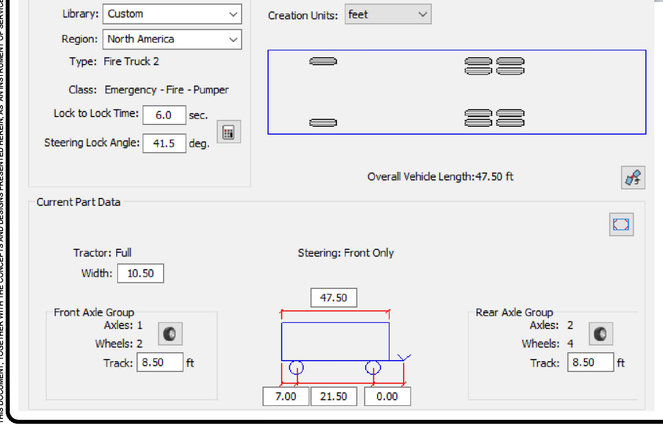

LEGEND

M E	EXISTING METER		EXISTING UTILITY POLE
	PROPOSED SIGN		PROPOSED DRAINAGE INLET
	PROPOSED MITERED END SECTION		EXIST. DRAINAGE INLET
	HANDICAP PARKING SYMBOL		EXISTING STREET LIGHT
	EXISTING CONCRETE		PROPOSED LIGHT POLE (SINGLE)
	EXISTING PAVEMENT		DRAINAGE FLOW ARROW
	PROPOSED CONCRETE		PROPOSED LIGHT POLE (DOUBLE)
	PROPOSED PAVEMENT	#	PARKING STALL COUNT
			EXISTING DRAINAGE
			PROPOSED DRAINAGE PIPE

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DESIGNED BY: DGB
DRAWN BY: RAH&JJL
FILENAME: 24-158 autotum.dwg
LAYOUT: FIRE
SCALE: AS SHOWN
DATE: 03/JUNE/2024

REVISION COMMENTS

DATE

THE DISTRICT

VEHICULAR CIRCULATION ANALYSIS SLCFD FIRE TRUCK

FORT PIERCE FLORIDA

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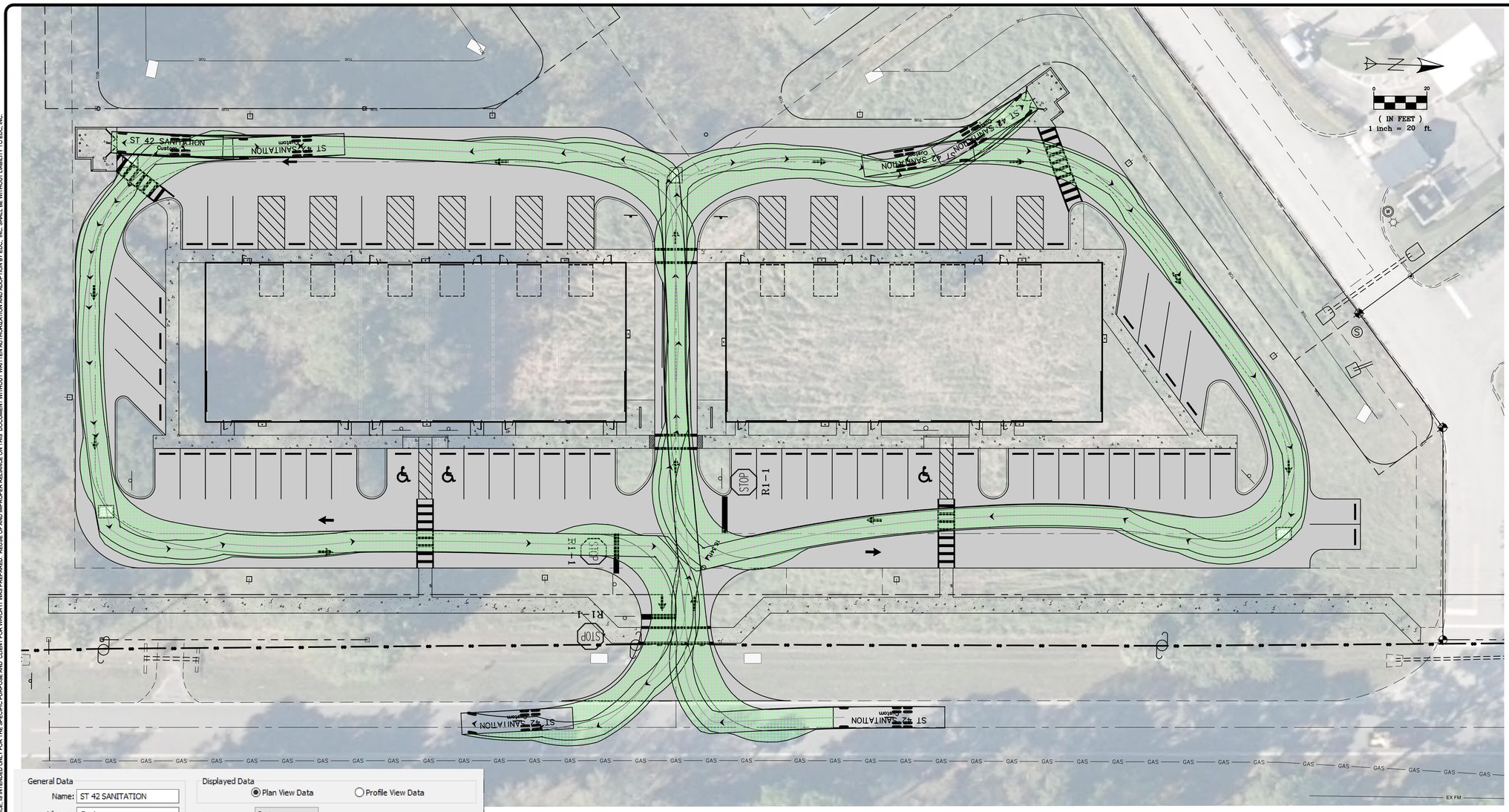

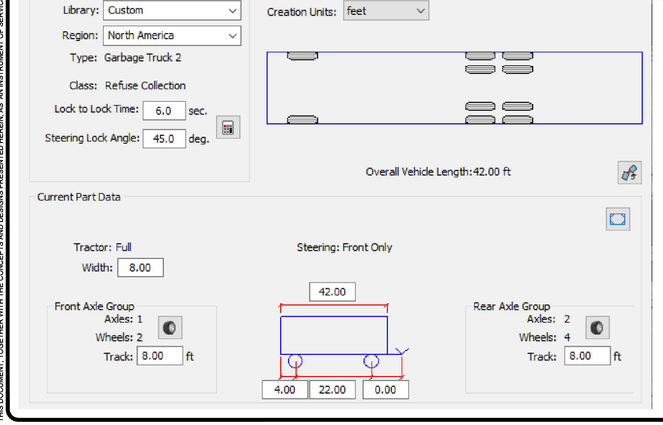

LEGEND

M E	EXISTING METER		EXISTING UTILITY POLE
	PROPOSED SIGN		PROPOSED DRAINAGE INLET
	PROPOSED MITERED END SECTION		EXIST. DRAINAGE INLET
	HANDICAP PARKING SYMBOL		EXISTING STREET LIGHT
	EXISTING CONCRETE		PROPOSED LIGHT POLE (SINGLE)
	EXISTING PAVEMENT		DRAINAGE FLOW ARROW
	PROPOSED CONCRETE		PROPOSED LIGHT POLE (DOUBLE)
	PROPOSED PAVEMENT	#	PARKING STALL COUNT
			EXISTING DRAINAGE
			PROPOSED DRAINAGE PIPE

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DESIGNED BY: DGB
DRAWN BY: RAH&JJL
FILENAME: 24-158 autotum.dwg
LAYOUT: REFUSE
SCALE: AS SHOWN
DATE: 03/JAN/2024

REVISION COMMENTS

DATE

THE DISTRICT

VEHICULAR CIRCULATION ANALYSIS

REFUSE TRUCK

FORT PIERCE FLORIDA

ENGINEERS ✪ SURVEYORS
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THE SUNRISE CITY
FORT PIERCE
PLANNING DEPARTMENT
Florida

CONCURRENCY
CAPACITY ANALYSIS

I. Site Data:

	Existing Use	Future Land Use	Zoning
North	Commercial (Car Wash / Bank)	GC	C-3
South	Single-Family (Detached Dwelling Unit)	OP	C-1
East	Undeveloped	GC	C-3
West	Commercial (Restaurant / Self Storage)	GC	C-3

	Future Land Use	Zoning Classification	Maximum Intensity Residential: Dwelling Units per Acre Other: Square Footage	Total Acreage	Flood Zone
Current	GC	C-3	N/A	3.37	X
****Proposed**	No Change	No Change	N/A	3.37	N/A

II. Public Facilities Information:

A. Potable Water:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.125 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day 0.125 X 18,000 = 2,250 gpd
**Change in Demand	Total gallons per day 2,250 gpd

B. Wastewater:	
Average Use	Residential: 100 gallons per day per person (du x 2.6= persons x 100 gpd = demand) Other: 0.1 gallons per day per square foot
Demand Analysis	Maximum
Current Zoning/FLU	Total gallons per day
**Proposed Zoning/FLU	Total gallons per day 0.1 x 18,000 = 1,800 gpd
**Change in Demand	Total gallons per day 1,800 gpd

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

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

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

	K-8	High
School Name	N/A	N/A
City	N/A	N/A
Distance	N/A	N/A
Current Zoning/FLU Enrollment Demand	N/A	N/A
****Proposed Zoning/FLU Enrollment Demand**	N/A	N/A
****Change in Demand**	N/A	N/A

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	Non-Residential
****Proposed Zoning/FLU**	Non-Residential
***Change in Demand**	N/A

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	Storm water run-off from the project area will be collected in a series of inlets that are connected via underground pipes. The underground pipes convey the storm water to the existing swale and dry retention area that is located on the eastern side of the property. The dry retention will be expanded within the limits of existing drainage easement to provide treatment for the existing surrounding uses.

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

G. Transportation Analysis: Complete ITE Trip Generation Data Form Most recent ITE Code for use; HCM Roadway Capacity		
	AADT	**AM/PM Peak Hour Trips**
Demand Analysis	Maximum	Maximum
Current Zoning/FLU	ITE Codes 150 / 710 - Warehouse / Office (C-3/GC)	40 AM / 33 PM PEAK HOUR TRIPS
****Proposed Zoning/FLU**	No change in Zoning / Flu Proposed	No change in Zoning / FLU proposed
***Change in Demand**	Trips	Trips Increase of 40 AM / 33 PM Peak Hour Trips
Impact to Capacity	Increase in flow of weekday traffic. No change in Zoning or FLU proposed.	

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: N/A	Single Family: N/A	Multifamily: N/A	
Non-residential (square footage): 18,000 SF			
Mixed-use (describe use): Proposed project consists of two (2) office/flex space buildings made totaling 18,000 SF.			
(If this is a single phase project, name it Phase I – Total) Single phase development			

RESIDENTIAL DATA

Type	**Phase**	**Number of Units**	**Acres**	**Expected beginning date**	**Expected completion date**
Single-family, detached	N/A				
Single-family, attached	N/A				
Multi-family	N/A				
Other (specify)	N/A				

NON-RESIDENTIAL DATA					
Type(s) specify	**Phase**	**Square footage**	**Acres**	**Expecting beginning date**	**Expected completion date**
Two (2) building office/flex space buildings	1	18,000	3.37	June, 2025	April, 2026

A. Indicate whether the proposed project will be eliminating any existing recreational facilities. If yes, detail the number and type being eliminated. ☐ Yes ☑ No

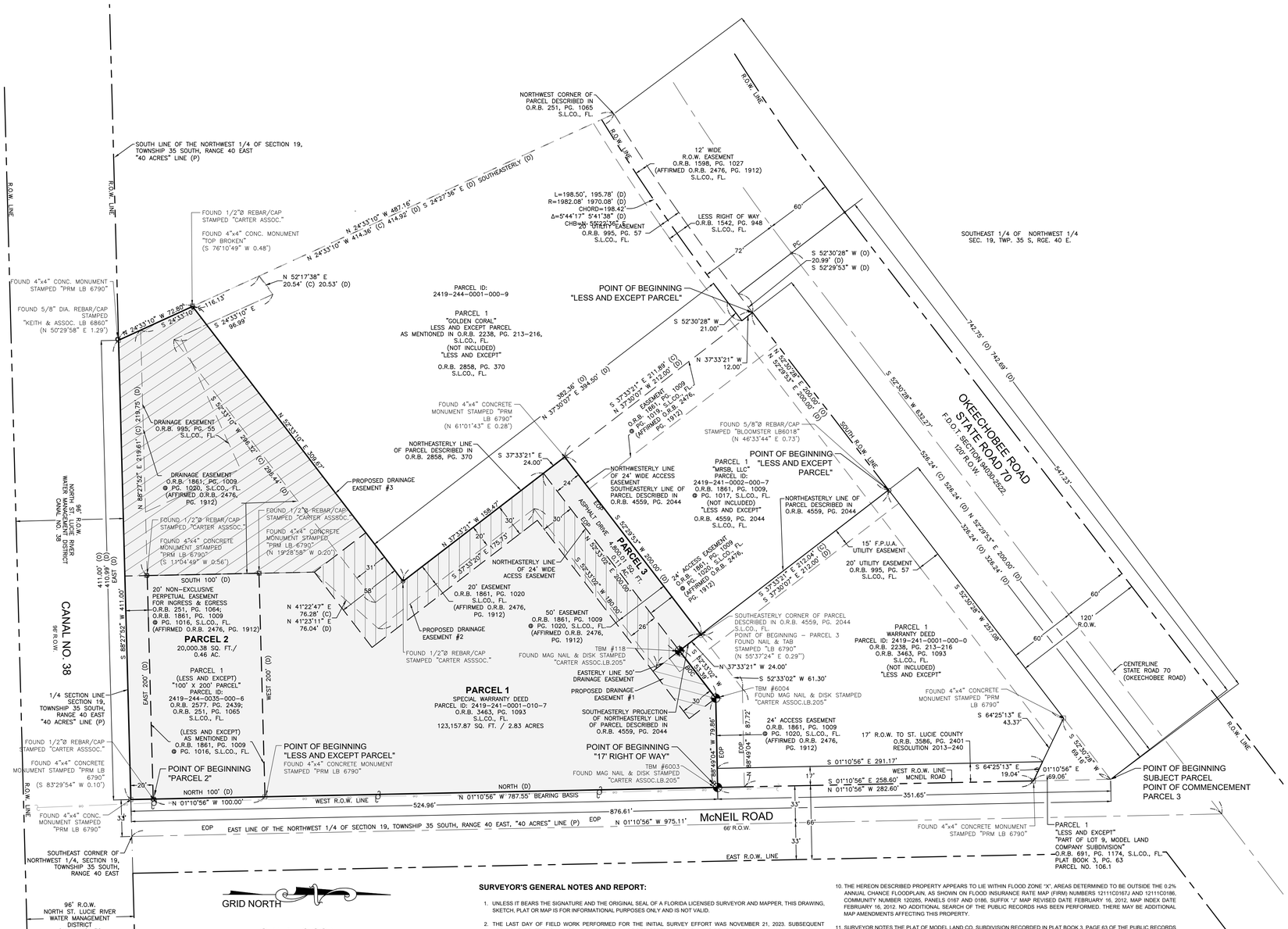
B. 1. Does this application involve demolition or re-use of any structure(s)? ☐ Yes ☑ No
If yes, what is the size of the structure(s) to be demolished or re-used? N/A

2. What is the current use of the structure to be demolished or re-used? N/A

3. Are you claiming trip credits for the demolition or re-use of a structure(s) at the site? ☐ Yes ☑ No
If yes, provide estimates of credits for each previous use at the site. (Attach sheet with calculations)

C. Exemptions Requested: NONE

** Complete section if requesting a change in zoning, future land use, or expanding



LEGEND

WM	WATER METER		ELECTRICAL METER
	ANCHOR & GUY WIRE	DIA.	DIAMETER
	SIGN	EOP	EDGE OF PAVEMENT
	DRAINAGE CATCH BASIN	R.O.W.	RIGHT OF WAY
S	SANITARY SEWER MANHOLE	CONC.	CONCRETE
		L.P.	LIQUID PROPANE
D	DRAINAGE MANHOLE	SWL	SWALE
OE	OVERHEAD ELECTRIC	I.R.C., FL.	INDIAN RIVER COUNTY, FLORIDA
	WATER VALVE	SRC	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "CARTER ASSOC."
	FIRE HYDRANT		FOUND "MAG" NAIL AND DISK STAMPED "CARTER ASSOC."
	UTILITY POLE	FMAG	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "WIT.COR. LB.205"
(O)	OBSERVED DATA	SRWC	POINT OF BEGINNING
(P)	PLAT DATA	P.O.B.	POINT OF COMMENCEMENT
(C)	CALCULATED DATA	P.O.C.	OFFICIAL RECORD BOOK
(D)	DEED DATA	ORB	PAGE
	EXISTING WELL	PG	INDIAN RIVER FARMS WATER CONTROL DISTRICT
	TELEPHONE\CATV RISER	I.R.F.W.C.D.	INDIAN RIVER FARMS COMPANY SUBDIVISION
	SANITARY CLEAN-OUT	I.R.F.C.SD.	ST. LUCIE COUNTY, FLORIDA
	YARD LIGHT	S.L.CO., FL	CONCRETE BLOCK STRUCTURE
E	ELECTRICAL RISER	C.B.S.	FT. PIERCE UTILITY AUTHORITY
		F.P.U.A.	PROPOSED EASEMENT – (NO RECORD DOCUMENTATION PROVIDED)
OE	OVERHEAD ELECTRIC		

SURVEYOR'S GENERAL NOTES AND REPORT:

1. UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER, THIS DRAWING, SKETCH, PLAT OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.
2. THE LAST DAY OF FIELD WORK PERFORMED FOR THE INITIAL SURVEY EFFORT WAS NOVEMBER 21, 2023. SUBSEQUENT ADDITIONS, DELETIONS AND/OR UPDATES, IF ANY, ARE REFLECTED IN THE DRAWING REVISIONS.
3. BEARINGS AND OR COORDINATES SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983, ADJUSTMENT OF 2011, AND ARE PROJECTED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE (901) AND ARE REFERENCED TO THE ESTABLISHED AND MONUMENTED LINE SHOWN HEREON LABELED AS THE BEARING BASIS.
4. UNLESS A DIFFERENCE IS SHOWN, OBSERVED AND RECORD DIMENSIONS ARE THE SAME. ALL DIMENSIONS SHOWN HEREON ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
5. THE BOUNDARY DETERMINATION AND DELINEATION SHOWN ON THIS MAP OF SURVEY WAS BASED UPON THE PROFESSIONAL OPINION OF THE REGISTERED SURVEYOR PURSUANT TO NORMAL PRINCIPALS AND PRACTICES OF LAND SURVEYING AND IS NOT INTENDED TO IMPLY OR DETERMINE OWNERSHIP. THIS SURVEY DOES NOT INTEND TO DELINEATE LOCAL AREAS OF CONCERN OR ANY OTHER JURISDICTIONAL DETERMINATION.
6. THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT AND USE OF THE PERSONS AND/OR ENTITIES NAMED HERON FOR THE PURPOSES IDENTIFIED HEREON ONLY. UNLESS OTHERWISE STATED, CERTIFICATION OF THIS SURVEY MAP APPLIES ONLY TO THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17 FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES. THE CERTIFICATION IN NO WAY CONSTITUTES NEITHER GUARANTY NOR WARRANTY TO ANY OTHER INFORMATION NOT SHOWN HEREON, ADDITIONS, DELETIONS OR REVISIONS TO THIS DRAWING BY OTHERS ARE NOT PERMITTED AND THIS SURVEY MAY NOT BE TRANSFERRED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE SIGNING SURVEYOR. THIS SURVEY IS NOT VALID FOR ANY OTHER PURPOSE OTHER THAN INTENDED BY THE SIGNING SURVEYOR.
7. THE LEGAL DESCRIPTION AND MATTERS OF PUBLIC RECORD WERE FURNISHED BY THE CLIENT AND MODIFIED BY THE SURVEYOR TO LESS OUT THE PARCEL TO BE RETAINED BY SOUTH STATE BANK. THIS PROPERTY(S) WAS NOT ABSTRACTED OR RESEARCHED BY THIS OFFICE FOR ENCUMBRANCES OF RECORD. THE HEREON DESCRIBED PROPERTY IS SUBJECT TO RESTRICTIONS, RESERVATIONS, EASEMENTS AND RIGHTS-OF-WAY OF RECORD, IF ANY. MATTERS OF RECORD NOT BROUGHT TO THE SURVEYOR'S ATTENTION BY THE CLIENT, THEIR AGENT OR AS DISCLOSED BY A FURNISHED TITLE INSURANCE POLICY WERE NOT INCLUDED. NO INVESTIGATION WAS MADE BY THIS OFFICE INTO THE VALIDITY OF ANY EASEMENTS CITED IN THE LEGAL DESCRIPTION OR FOR ANY ENCUMBRANCES NOT OF RECORD IN THE INFORMATION FURNISHED BY THE CLIENT. A TITLE COMMITMENT WAS FURNISHED FOR THE PREPARATION OF THIS SURVEY, AND WAS PREPARED BY OLD REPUBLIC NATIONAL INSURANCE COMPANY, COMMITMENT NUMBER 1468211, WITH AN EFFECTIVE DATE OF DECEMBER 8, 2023, AT 11:00 A.M., AND IS SUBJECT TO THE SCHEDULE B-II EXCEPTIONS AS SHOWN THEREIN.
8. THIS SURVEY MEETS THE REQUIREMENTS AS STATED IN THE STANDARDS OF PRACTICE (5J-17) FLORIDA ADMINISTRATIVE CODE AND MEETS THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) RECOMMENDED CLASSIFICATION FOR URBAN PROPERTY SURVEYS HAVING AN ACCEPTABLE RELATIVE POSITIONAL ACCURACY OF 0.07 FEET (21 MM) PLUS 50 PPM. "ACCURACY IS GIVEN AT THE 95 PERCENT CONFIDENCE LEVEL.
9. WITH EXCEPTION TO WHAT HAS BEEN FIELD LOCATED AND SHOWN ON THIS SURVEY, THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. SUBSURFACE AND/OR AERIAL ENCROACHMENTS, IF ANY, WERE NOT LOCATED AND/OR DEPICTED ON THIS SURVEY UNLESS NOTED OR IDENTIFIED.
10. THE HEREON DESCRIBED PROPERTY APPEARS TO LIE WITHIN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) NUMBERS 12111C0167J AND 12111C0186, COMMUNITY NUMBER 120285, PANELS 0167 AND 0186, SUFFIX "J" MAP REVISED DATE FEBRUARY 16, 2012, MAP INDEX DATE FEBRUARY 16, 2012. NO ADDITIONAL SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED. THERE MAY BE ADDITIONAL MAP AMENDMENTS AFFECTING THIS PROPERTY.
11. SURVEYOR NOTES THE PLAT OF MODEL LAND CO. SUBDIVISION RECORDED IN PLAT BOOK 3, PAGE 63 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA, DATED SEPTEMBER, 1911 NOTES A 15 FOOT STRIP RESERVED AROUND EACH 40 ACRES FOR ROADS - NOT GRAPHICALLY DEPICTED DUE TO UNCERTAINTY OF STATEMENT.

SURVEYOR'S GLOBAL POSITIONING SYSTEM (G.P.S.) NOTES:

1. G.P.S. SURVEY METHOD: REAL TIME KINEMATIC (RTK)
2. G.P.S. RECEIVER TYPE: LEICA GS 18 / CS 20 GPS/GLONASS/GALILEO GNSS (GLOBAL NAVIGATION SATELLITE SYSTEM), SBAS, CODE AND PHASE (L1, L2, L2C & L5 / L1, L2, L2C & L3 / E1, E5a, E5b, AltBOC, E6). THE HORIZONTAL AND VERTICAL TARGET ACCURACY FOR THIS EQUIPMENT IS: HORIZONTAL: 8MM + 1PPM (RMS) VERTICAL: 15MM + 1PPM (RMS).
3. HORIZONTAL POSITIONS OF LOCAL SITE CONTROL WERE ESTABLISHED BY GPS RTK OBSERVATIONS UTILIZING THE FDOT FPRN NETWORK CORRECTIONS. LOCAL GPS SITE CONTROL VALUES ARE NETWORK CORRECTED (ADJUSTED) POSITIONS.
4. G.P.S. SURVEY MEASUREMENTS WERE PROCESSED AND ADJUSTED USING LEICA INFINITY, VERSION 3.6.1 APPLYING THE GEOID 18 MODEL.

VERTICAL DATUM AND CONTROL NOTES:

THE ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) AND ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF. SAID ELEVATIONS SHOWN ARE BASED ON A CLOSED DIFFERENTIAL LEVEL LOOP MEETING OR EXCEEDING +/-0.05 TIMES THE SQUARE ROOT OF THE DISTANCE OF THE LOOP IN MILES. GROUND ELEVATIONS SHOWN HEREON HAVE AN ESTIMATED ACCURACY OF +/-0.2 FEET, AND HARD (WELL DEFINED) FEATURES HAVE AN ESTIMATED ACCURACY OF +/-0.1 FEET.

ORIGINATING BENCH MARK(S):

SAINT LUICE COUNTY 2001 VERTICAL CONTROL DISK IN CONCRETE 0.4 MILES PLUS OR MINUS SOUTH OF OKEECHOBEE ROAD (STATE ROAD #70), 27 FEET PLUS OR MINUS EAST OF THE EAST EDGE OF PAVEMENT OF MCNEIL ROAD, 18 FEET PLUS OR MINUS NORTH OF THE NORTH EDGE OF PAVEMENT OF KIRBY LOOP ROAD, 15 FEET PLUS OR MINUS NORTHEAST OF A CATCH BASIN, 75 FEET PLUS OR MINUS WEST OF A WOOD UTILITY POLE.
ELEVATION: 14.40' (NAVD 1988)

TEMPORARY BENCHMARKS:

TBM #6003 MAG NAIL & DISK	TBM #6004 MAG NAIL & DISK	TBM #118 MAG NAIL & DISK
STAMPED "TRAV. PT. LB 205"	STAMPED "TRAV. PT. LB 205"	STAMPED "TRAV. PT. LB 205"
N: 1122305.91	N: 1122304.21	N: 1122271.77
E: 859014.78	E: 858934.89	E: 858892.51
ELEVATION 17.04' NAVD'88	ELEVATION 17.17' NAVD'88	ELEVATION 17.12' NAVD'88

DESCRIPTION:

PER TITLE COMMITMENT ISSUED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NUMBER 1468211

PARCEL 1:

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), RUN THENCE SOUTHWESTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 742.69 FEET; THENCE RUN SOUTHEASTERLY TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 19 WHICH IS 410.99 FEET WEST OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN EAST ALONG SAID QUARTER SECTION LINE TO THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN NORTH ALONG SAID WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE 100 FOOT X 200 FOOT PARCEL OF LAND AS DESCRIBED IN OFFICIAL RECORDS BOOK 251, PAGE 1065. ALSO LESS AND EXCEPT THAT PART OF LOT 9, MODEL LAND COMPANY SUBDIVISION OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, AS PER PLAT THEREOF, RECORDED IN PLAT BOOK 3, PAGE 63 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA. BEING MORE PARTICULARLY DESCRIBED IN OFFICIAL RECORDS BOOK 691, PAGE 1174.

ALSO, LESS AND EXCEPT

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD (66 FOOT RIGHT-OF-WAY) AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD, 120 FOOT RIGHT-OF-WAY), THENCE SOUTH 52°29'53" WEST ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 326.24 FEET TO THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED; THENCE SOUTH 37°30'07" EAST FOR 212.00 FEET; THENCE SOUTH 52°29'53" WEST FOR 200.00 FEET; THENCE NORTH 37°30'07" WEST FOR 212.00 FEET (TO THE SOUTH RIGHT-OF-WAY LINE OF SAID STATE ROAD 70, 120 FOOT RIGHT-OF-WAY); THENCE NORTH 52°29'53" EAST (ALONG SAID RIGHT-OF-WAY LINE) FOR 200.00 FEET TO THE POINT OF BEGINNING.

ALSO, LESS AND EXCEPT

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST LYING SOUTH OF STATE ROAD 70 (OKEECHOBEE ROAD), DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD (66 FT. RIGHT-OF-WAY) AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD, 120 FOOT RIGHT-OF-WAY); THENCE SOUTH 52°29'53" WEST ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 526.24 FEET TO THE POINT OF BEGINNING OF THE PARCEL HEREIN DESCRIBED; THENCE CONTINUE SOUTH 52°29'53" WEST FOR 20.99 FEET TO THE POINT OF A RADIUS OF 1970.08 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 5°41'38" FOR AN ARC DISTANCE OF 195.78 FEET TO THE NORTHWEST CORNER OF THE LANDS AS DESCRIBED IN OFFICIAL RECORDS BOOK 251, PAGE 1065; THENCE SOUTH 24°27'36" EAST ALONG THE WESTERLY LINE OF SAID LANDS, FOR 414.92 FEET; THENCE NORTH 52°29'53" EAST FOR 310.08 FEET; THENCE NORTH 37°30'07" WEST FOR 394.50 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THAT PORTION OF THE LAND CONVEYED TO SAINT LUCIE COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA BY WARRANTY DEED OF DONATION RECORDED IN O.R. BOOK 3586, PAGE 2401.

LESS AND EXCEPT (SOUTH STATE BANK PARCEL) A PARCEL OF LAND BEING A PORTION OF ALL THAT CERTAIN LAND ACCORDING TO THE WARRANTY DEED DESCRIBED IN OFFICIAL RECORDS BOOK 2238, PAGE 213 THROUGH 216 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0001-000-0, LYING IN PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 19, TOWNSHIP 35 SOUTH, RANGE 40 EAST, ST. LUCIE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), THENCE RUN SOUTH 52°30'28" WEST ALONG THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 326.24 FEET TO THE NORTHERLY CORNER OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA (EXHIBIT "B"). AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7; THENCE RUN SOUTH 37°33'21" EAST ALONG THE EAST LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009, A DISTANCE OF 212.00 FEET TO THE SOUTHEASTERLY CORNER OF SAID PARCEL. SAID SOUTHEASTERLY CORNER ALSO LYING ON THE NORTHERLY LINE OF THAT CERTAIN 24.00 FEET WIDE EASEMENT DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA; THENCE RUN SOUTH 52°33'02" WEST ALONG THE SOUTHEASTERLY LINE OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7, AND ALONG SAID NORTHERLY EASEMENT LINE A DISTANCE OF 200.00 FEET TO THE SOUTHERLY CORNER OF SAID PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009, SAID SOUTHERLY CORNER ALSO LYING ON THE NORTHEASTERLY LINE OF THAT CERTAIN PARCEL DESCRIBED IN AFORESAID OFFICIAL RECORDS BOOK 2238, PAGE 213 AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-244-0001-000-9; THENCE RUN SOUTH 37°33'21" EAST ALONG SAID NORTHEASTERLY LINE A DISTANCE OF 24.00 FEET; THENCE RUN NORTH 52°33'02" EAST PARALLEL WITH AND NORMAL TO THE AFOREMENTIONED SOUTHEASTERLY LINE OF THE PARCEL DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND IDENTIFIED BY THE TAX ROLE OF ST. LUCIE COUNTY, FLORIDA AS PARCEL NO. 2419-241-0002-000-7 AND ALONG THE SOUTHERLY LINE OF THE AFOREMENTIONED 24.00 FEET WIDE ACCESS EASEMENT A DISTANCE OF 253.39 FEET; THENCE RUN NORTH 88°49'04" EAST ALONG SAID SOUTHERLY EASEMENT LINE A DISTANCE OF 79.86 FEET TO THE AFOREMENTIONED WEST RIGHT OF WAY LINE OF MCNEIL ROAD (66.00 FEET WIDE RIGHT OF WAY); THENCE RUN NORTH 01°10'56" WEST ALONG SAID WEST RIGHT OF WAY LINE A DISTANCE OF 351.65 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THEREFROM THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION PARCEL NO. 106.1 ACCORDING TO DEED AS DESCRIBED AND RECORDED IN OFFICIAL RECORDS BOOK 691, PAGE 1174 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

AND,

LESS AND EXCEPT THE RIGHT OF WAY DONATION FOR MCNEIL ROAD DESCRIBED AND RECORDED IN OFFICIAL RECORD BOOK 3586, PAGE 2401 (RESOLUTION 2013-240).

TOGETHER WITH AND SUBJECT TO AND AGREEMENT FOR EASEMENTS OF ACCESS AND DRAINAGE AS DESCRIBED IN OFFICIAL RECORDS BOOK 1861, PAGE 1009 AT PAGE 1020 OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

THE ABOVE-DESCRIBED PARCEL CONTAINING 123,157.87 SQ. FT OR 2.83 ACRES, MORE OR LESS.

PARCEL 2:

A PARCEL DESCRIBED AS BEGINNING AT THE POINT OF INTERSECTION OF THE NORTH LINE OF THE BELOW DESCRIBED NON EXCLUSIVE PERPETUAL EASEMENT AND THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD, RUN NORTH ALONG WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD 100 FEET; THENCE RUN WEST, PARALLEL WITH THE SOUTH ONE-QUARTER SECTION LINE OF SAID SECTION 19 A DISTANCE OF 200 FEET; THENCE RUN SOUTH A DISTANCE OF 100 FEET TO A POINT ON THE NORTH LINE OF SAID PERPETUAL EASEMENT; THENCE RUN EAST 200 FEET TO POINT OF BEGINNING.

NON-EXCLUSIVE PERPETUAL EASEMENT BEING THE SOUTH 20 FEET, THE SAID 20 FEET BEING MEASURED AT RIGHT ANGLES AND PARALLEL TO THE ONE-QUARTER SECTION LINE, OF THE FOLLOWING DESCRIBED PROPERTY:

BEGINNING AT THE INTERSECTION OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD AND THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 (OKEECHOBEE ROAD), RUN THENCE SOUTHWESTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 70 A DISTANCE OF 742.69 FEET; THENCE RUN SOUTHEASTERLY TO A POINT ON THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 19 WHICH IS 410.99 FEET WEST OF THE WEST RIGHT-OF-WAY LINE OF MCNEIL ROAD; THENCE RUN EAST ALONG SAID QUARTER-SECTION LINE TO THE WEST RIGHT-OF-WAY-LINE OF MCNEIL ROAD; THENCE

LEGEND

DIA.	DIAMETER
EOP	EDGE OF PAVEMENT
R.O.W.	RIGHT OF WAY
CONC.	CONCRETE
L.P.	LIQUID PROPANE
SWL	SWALE
I.R.C., FL.	INDIAN RIVER COUNTY, FLORIDA
SRC	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "CARTER ASSOC."
SMAG	SET "MAG" NAIL AND DISK STAMPED "CARTER ASSOC."
SRWC	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "WIT.COR. LB.205"
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
ORB	OFFICIAL RECORD BOOK
PG	PAGE
I.R.F.W.C.D.	INDIAN RIVER FARMS WATER CONTROL DISTRICT
I.R.F.C.SD.	INDIAN RIVER FARMS COMPANY SUBDIVISION
S.L.CO., FL	ST. LUCIE COUNTY, FLORIDA
C.B.S.	CONCRETE BLOCK STRUCTURE
F.P.U.A.	FT. PIERCE UTILITY AUTHORITY
+25.31	EXISTING SPOT ELEVATION (HARD)
+19.4	EXISTING SPOT ELEVATION (SOFT)
OE	OVERHEAD ELECTRIC
	TOP OF BERM
SWALE	SWALE
FENCE	FENCE
	PROPOSED EASEMENT – (NO RECORD DOCUMENTATION PROVIDED)
WM	WATER METER
	ANCHOR & GUY WIRE
	SIGN
	DRAINAGE CATCH BASIN
S	SANITARY SEWER MANHOLE
D	DRAINAGE MANHOLE
OE	OVERHEAD ELECTRIC
WV	WATER VALVE
FH	FIRE HYDRANT
UP	UTILITY POLE
(O)	OBSERVED DATA
(P)	PLAT DATA
(C)	CALCULATED DATA
(D)	DEED DATA
W	EXISTING WELL
T	TELEPHONE\CATV RISER
SC	SANITARY CLEAN–OUT
	YARD LIGHT
E	ELECTRICAL RISER
	CABBAGE PALM W/SIZE
10	OAK TREE W/SIZE
10	PINE TREE W/SIZE
U	UNKNOWN TREE W/SIZE

CARTER ASSOCIATES, INC.
SERVING FLORIDA SINCE 1911
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21ST STREET
VERO BEACH, FL 32960
TEL: (772) 562-4191
EMAIL: Inquiries@CarterAssoc.com

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MASON DEVELOPMENT & CONSTRUCTION
880 JUPITER PARK DRIVE, SUITE 10
JUPITER, FLORIDA 33458
TEL: 561-623-8801 EMAIL: cmason@masondc.com

NO.	REVISION	DATE

TOPOGRAPHIC SURVEY

SOUTH STATE BANK PARCELS 1 & 2
SEC 19, TWP 35 SOUTH, RNG 40 EAST
FORT PIERCE, FLORIDA 34947

THIS SURVEY CONSISTS OF 2 SHEETS.
ONE IS NOT VALID WITHOUT THE OTHER(S).

DATE : April 15, 2024
PROJ. # : 23-490S
DRAWN BY: EJH
DATUM : SEE SURVEY
REF. # : 22-103, 23-490
F.B. & PG. : 973MM/21

SHEET TITLE:
TOPOGRAPHIC SURVEY

SHEET
2 OF 2
DWG. NO: 22727-C

GRID NORTH

GRAPHIC SCALE
30 0 30 60 90
SCALE: (1 Inch = 30 Feet)

S:\CA\Projects\23-490 Mason Development\dwg\23-490S-TOPO.dwg S (C) Eric Hargreaves
Apr. 15, 24, 4:20 PM

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

Property Identification

Site Address: MCNEIL RD
Sec/Town/Range: 19/35S/40E
Parcel ID: 2419-241-0001-010-7
Jurisdiction: Fort Pierce

Use Type: 1000
Account #: 177231
Map ID: 24/19N
Zoning: General Co

Ownership

Centerstate Bank of Florida NA

c/o Corporate Real Estate
PO Box 1287
Orangeburg, SC 29116



Legal Description

19 35 40 FROM INT W R/W LI OF MCNEIL RD AND S R/W LI OF OKEECHOBEE RD RUN S 52 29 53 W ALG S R/W LI OF OKEECHOBEE RD 69.41 FT TO POB,TH CONT S 52 29 53 W ALG S R/W LI 256.83 FT,TH S 37 30 07 E 212 FT, TH S 52 29 53 W 200 FT,TH S 37 30 07 E 170.70 FT,TH S 52 29 53 W 310.08 FT,TH S 24 29 40 E 70.08 FT,TH E 410.99 FT TO W RD R/W LI OF MCNEIL RD,TH N ALG R/W LI 20 FT,TH WLY 200 FT,TH NLY 100 FT,TH ELY 200 FT TO W RD R/W LI MCNEIL RD,TH N ALG R/W LI 687.33 FT,TH NWLY 62.46 FT TO S RD R/W LI OF OKEECHOBEE RD AND POB LESS THAT PARCEL MPDAF : FROM INT W R/W LI OF MCNEIL RD AND S R/W LI OF OKEECHOBEE RD RUN S 52 29 53 W ALG S R/W LI OF OKEECHOBEE RD 69.41 FT TO POB,TH CONT S 52 29 53 W ALG S R/W LI 256.83 FT,TH S 37 30 07 E 212 FT, TH S 37 30 07 E 24 FT, TH N 52 33 27 E 53.39 FT, TH N 88 49 29 E 79.86 FT, TH N 01 1031 W 282.60 FT , TH N 64 24 48 W 62.41 FT TO POB (2.94 +/-AC- 126,679 SF) (OR 3463-1093)

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	2.91
Land Size (SF):	126,679

Current Values

Just/Market Value:	$372,400
Assessed Value:	$372,400
Exemptions:	$0
Taxable Value:	$372,400

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Building Design Wind Speed

Occupancy Category	I	II	III
Speed	140	150	160

Sources/links:

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
Dec 11, 2012	3463 / 1093	0312	SPWD	Harbor Federal Savings Bank	$266,000
Apr 28, 2005	2238 / 0213	XX00	WD	Twenty Six Associates LLC	$1,500,000
Sep 14, 2004	2064 / 2887	XX00	WD	Fender Sarah E	$950,000
Apr 1, 1976	0251 / 1064	XX00	CV		$165,000

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View: Roof Cover: Roof Structure:

Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:
Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Sketch Area Legend

Sub Area	Description	Area	Fin. Area	Perimeter

Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$372,400
Just/Market:	$372,400
Ag Credit:	$0
Save Our Homes or 10% Cap:	$0
Assessed:	$372,400
Exemption(s):	$0
Taxable:	$372,400

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2014	0054	2.94	North St. Lucie Water Management District	$70.56

Start Year	AssessCode	Units	Description	Amount
2014	0041	8.1	Fort Pierce Stormwater Charge	$558.90

This does not necessarily represent the total Special Assessements that could be charged against this property. The total amount charged for special assessments is reflected on the most current tax statement and information is available with the SLC Tax Collector's Office.

Historical Values

Year	Just/Market	Assessed	Exemptions	Taxable
2023	$372,400	$372,400	$0	$372,400
2022	$363,600	$341,440	$0	$341,440
2021	$310,400	$310,400	$0	$310,400

Permits

Number	Issue Date	Description	Amount	Fee
0700000031	May 11, 2007	Concrete	$8,700	$162
BP13-0284	Feb 13, 2013	Fence	$1,500	$80

Notice: This does not necessarily represent all the permits for this property.
Click the following link to check for additional permit data in Fort Pierce

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

Site Address: 2591 MCNEIL RD
Sec/Town/Range: 19/35S/40E
Parcel ID: 2419-244-0035-000-6
Jurisdiction: Fort Pierce

Use Type: 1000
Account #: 27348
Map ID: 24/19N
Zoning: General Co

Ownership

Centerstate Bank of Florida NA

c/o Corporate Real Estate
PO Box 1287
Orangeburg, SC 29116



Legal Description

19 35 40 FROM INT OF 1/4 SEC LI AND W R/W MCNEIL RD RUN NLY ON SD R/W 20 FT FOR POB, TH CONT NLY 100 FT, TH WLY 200 FT, TH SLY 100 FT, TH ELY 200 FT TO POB (0.46 AC) (OR 3463-1093)

Current Values

Just/Market Value:	$96,800
Assessed Value:	$84,821
Exemptions:	$0
Taxable Value:	$84,821

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this parcel: Download PDF

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	0.46
Land Size (SF):	20,038

Building Design Wind Speed

Occupancy Category	I	II	III
Speed	140	150	160

Sources/links:

Sale History

Date	Book/Page	Sale Code	Deed	Grantor	Price
Dec 11, 2012	3463 / 1093	0312	SPWD	Harbor Federal Savings Bank	$266,000
May 25, 2006	2577 / 2439	XX01	WD	Delevante Jr Kenneth L	$175,000
May 1, 1988	0589 / 0058	XX00	CV		$42,500
Dec 1, 1978	0299 / 1578	XX00	CV		$17,000
Apr 1, 1976	0252 / 2427	XX00	CV		$9,400

Building Information (1 of 1)

Finished Area: 0 SF

Gross Sketched Area: 0 SF

Exterior Data

View:	Roof Cover:	Roof Structure:
Building Type:	Year Built: N/A	Frame:
Grade:	Effective Year: N/A	Primary Wall:

Story Height:	No. Units: 0	Secondary Wall:

Interior Data

Bedrooms: 0	Electric:	Primary Int Wall:
Full Baths: 0	Heat Type:	Avg Hgt/Floor: 0
Half Baths: 0	Heat Fuel:	Primary Floors:
A/C %: 0%	Heated %: N/A%	Sprinkled %: 0%



Image or Sketch unavailable for display

Sketch Area Legend

Sub Area	Description	Area	Fin. Area	Perimeter

Special Features and Yard Items

Type	Qty	Units	Year Blt

Current Year Values

Current Values Breakdown

Building:	$0
Land:	$96,800
Just/Market:	$96,800
Ag Credit:	$0
Save Our Homes or 10% Cap:	$11,979
Assessed:	$84,821
Exemption(s):	$0
Taxable:	$84,821

Current Year Exemption Value Breakdown

Current Year Special Assessment Breakdown

Start Year	AssessCode	Units	Description	Amount
2007	0041	1	Fort Pierce Stormwater Charge	$69.00
Start Year	AssessCode	Units	Description	Amount
2013	0054	0.46001	North St. Lucie Water Management District	$25.00

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	$96,800	$84,821	$0	$84,821
2022	$94,400	$77,110	$0	$77,110
2021	$70,100	$70,100	$0	$70,100

Permits

Number	Issue Date	Description	Amount	Fee
C06080616	Mar 31, 2006	Demolition	$0	$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.
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JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 3779529 OR BOOK 3463 PAGE 1093, Recorded 12/13/2012 at 02:28
Doc Tax: $1862.00

This instrument prepared by:

Daniel W. Humbert
Daniel W. Humbert, P.A.
12 S.E. 7th Street
Suite 606
Ft. Lauderdale, FL 33301
(954) 533-8565

Parcel I.D. No: 2419-244-0035-000-6 and
2419-241-0001-000-0

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED made this 11th day of December, 2012, by **PNC BANK, National Association, Successor to Harbor Federal Savings Bank,** whose post office address is Two PNC Plaza, 19th Floor, 620 Liberty Avenue, Pittsburgh, Pennsylvania 15222, hereinafter called the Grantor, to **CenterState Bank of Florida, N.A., a national banking association,** whose post office address is 42745 US Highway 27, Davenport, Florida 33837.

, hereinafter called the Grantee:

[Wherever used herein, the terms "Grantor" and "Grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations.]

WITNESSETH: That the Grantor, for and in consideration of the sum of $10.00, and other valuable consideration, receipt of which is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys, and confirms unto the Grantee, all that certain land situate in **St. Lucie County,** Florida, viz:

SEE EXHIBIT "1" ATTACHED HERETO AND MADE A PART HEREOF

SUBJECT TO: all restrictions, reservations, covenants, conditions and easements of record which shall not by this reference be re-imposed; and all governmental zoning regulations, resolutions, and ordinances; and taxes accruing subsequent to December 31, 2012.

TOGETHER with all the tenements, hereditaments, and appurtenances thereto belonging or in any wise 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 premises are free from all encumbrances made by Grantor and Grantor does hereby bind Grantor and Grantor's successors and assigns to warrant and forever defend the title to the property to the Grantee above named and Grantee's successors, and assigns, against every person lawfully claiming the property, or any part thereof, by, through, or under the Grantor, but not otherwise.

PNC Bank, National Association, is successor to Harbor Federal Savings Bank, as described on the Certificate attached hereto as **Exhibit "2**."

IN WITNESS WHEREOF, the said Grantor has signed and sealed these presents the day and year first above-written.

Signed, sealed, and delivered in our presence:

Daniella Byford

Printed Name: Danielle Byford

Amy Hohman-Vajda

Printed Name: Amy Hohman-Vajda

PNC BANK, National Association, Successor to Harbor Federal Savings Bank

By: _____

Daha Bodnar, Assistant Vice President

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF ALLEGHENY

The foregoing instrument was acknowledged before me this 11th day of December, 2012, by Dana Bodnar as Assistant Vice President, of **PNC BANK, National Association, Successor to Harbor Federal Savings Bank,** who is authorized to sign the foregoing pursuant to the Authorizing Resolution attached hereto as **Exhibit "3,"** and who is:

X personally known to me, or

___ who has produced _____ as identification

and who ___did/X did not take an oath.

[Notary Seal]

NOTARIAL SEAL
HELEN KUNDMAN
Notary Public
PITTSBURGH CITY, ALLEGHENY COUNTY
My Commission Expires May 3, 2016

Helen Kundman

Notary Public, Commonwealth of Pennsylvania

Printed Name: HELEN KUNDMAN

My Commission Expires May 3rd 2016

EXHIBIT 1 – LEGAL DESCRIPTION

Page 1 of 3

PARCEL 1:

A parcel of land in the Southeast 1/4 of the Northwest 1/4 of Section 19, Township 35 South, Range 40 East lying South of State Road 70 (Okeechobee Road), described as follows:

Beginning at the intersection of the West right-of-way line of McNeil Road and the South right-of-way line of State Road 70 (Okeechobee Road), run thence Southwesterly along the said South right-of-way line of State Road 70 a distance of 742.69 feet; thence run Southeasterly to a point on the South line of the Northwest 1/4 of said Section 19 which is 410.99 feet West of the West right-of-way line of McNeil Road; thence run East along said quarter section line to the West right-of-way line of McNeil Road; thence run North along said West right-of-way line of McNeil Road to the Point of Beginning. The South 20.00 feet of the foregoing described land is subject to a non-exclusive perpetual easement of ingress and egress. The said 20.00 feet being measured at right angles and parallel to said one-quarter section line.

Less and except the 100 foot x 200 foot parcel of land as described in Official Records Book 251, Page 1065.

Also less and except that part of Lot 9, Model Land Company Subdivision of the Northwest 1/4 of Section 19, Township 35 South, Range 40 East, as per plat thereof, recorded in Plat Book 3, Page 63 of the Public Records of St. Lucie County, Florida. Being more particularly described in Official Records Book 691, Page 1174.

Also less and except

A parcel of land in the Southeast 1/4 of the Northwest 1/4 of Section 19, Township 35 South, Range 40 East lying South of State Road 70 (Okeechobee Road), described as follows:

Commence at the intersection of the West right-of-way line of McNeil Road (66 foot right-of-way) and the South right-of-way line of State Road 70 (Okeechobee Road, 120 foot right-of-way), thence South 52°29'53" West along the said South right-of-way line of State Road 70 a distance of 326.24 feet to the Point of Beginning of the parcel herein described; thence South 37°30'07" East for 212.00 feet; thence South 52°29'53" West for 200.00 feet; thence North 37°30'07" West for 212.00 feet (to the South right-of-way line of said State Road 70, 120 foot right-of-way); thence North 52°29'53" East (along said right-of-way line) for 200.00 feet to the Point of Beginning.

EXHIBIT 1 – LEGAL DESCRIPTION

Also less and except

A parcel of land in the Southeast 1/4 of the Northwest 1/4 of Section 19, Township 35 South, Range 40 East lying South of State Road 70 (Okeechobee Road), described as follows:

Commencing at the intersection of the West right-of-way line of McNeil Road (66 ft. right-of-way) and the South right-of-way line of State Road 70 (Okeechobee Road, 120 foot right-of-way); thence South 52°29'53" West along the said South right-of-way line of State Road 70 a distance of 526.24 feet to the Point of Beginning of the parcel herein described; thence continue South 52°29'53" West for 20.99 feet to the point of curve concave Northwesterly and having a radius of 1970.08 feet; thence Southwesterly along the arc of said curve through a central angle of 5°41'38" for an arc distance of 195.78 feet to the Northwest corner of the lands as described in Official Records Book 251, Page 1065; thence South 24°27'36" East along the Westerly line of said lands, for 414.92 feet; thence North 52°29'53" East for 310.08 feet; thence North 37°30'07" West for 394.50 feet to the Point of Beginning.

Parcel Identification Number: 2419-241-0001-000/0

EXHIBIT 1 – LEGAL DESCRIPTION

PARCEL 2:

A parcel described as beginning at the point of intersection of the North line of the below described non exclusive perpetual easement and the West right-of-way line of McNeil Road, run North along West right-of-way line of McNeil Road 100 feet; thence run West, parallel with the South one-quarter section line of said Section 19 a distance of 200 feet; thence run South a distance of 100 feet to a point on the North line of said perpetual easement; thence run East 200 feet to Point of Beginning.

Non-exclusive perpetual easement being the South 20 feet, the said 20 feet being measured at right angles and parallel to the one-quarter section line, of the following described property:

Beginning at the intersection of the West right-of-way line of McNeil Road and the South right-of-way line of State Road 70 (Okeechobee Road), run thence Southwesterly along the said South right-of-way line of State Road 70 a distance of 742.69 feet; thence run Southeasterly to a point on the South line of the Northwest 1/4 of said Section 19 which is 410.99 feet West of the West right-of-way line of McNeil Road; thence run East along said quarter-section line to the West right-of-way-line of McNeil Road; thence run North along said West right-of-way line of McNeil Road to the point of beginning.

All of the above described lands lying and being in Section 19, Township 35 South, Range 40 East, St. Lucie County, Florida.

Parcel Identification Number: 2419-244-0035-000/6

EXHIBIT 2 – CERTIFICATE WITH BANK MERGER HISTORY
(2 pages attached)

PNC BANK

CERTIFICATE

The undersigned, Janet L. Deringer, Assistant Secretary of PNC Bank, National Association, does hereby certify as follows:

1. Effective March 17, 2007, Harbor Federal Savings Bank merged with and into National City Bank.

2. National City Bank was a wholly owned subsidiary of National City Corporation.

3. Effective December 31, 2008, National City Corporation merged with and into The PNC Financial Services Group, Inc. and National City Bank became a wholly owned subsidiary of The PNC Financial Services Group, Inc.

4. Effective as of November 6, 2009, National City Bank and pursuant to approval granted by the United States Office of the Comptroller of the Currency (as evidenced by the official certification dated November 6, 2009 attached hereto as Exhibit "A"), was merged with and into PNC Bank, National Association.

5. PNC Bank, National Association is a duly organized and existing national banking association (Charter Number 1316) and wholly owned subsidiary of PNC Bancorp, Inc. (a wholly owned subsidiary of The PNC Financial Services Group, Inc.), having its main office located at 222 Delaware Avenue, Wilmington, Delaware 19801 and using federal Employer Identification Number 22-1146430.

IN WITNESS WHEREOF, the undersigned has hereunto set her hand and affixed the seal of this Association this 19th day of July, 2012.

PNC BANK NATIONAL ASSOCIATION SEAL

Janet L. Deringer

EXHIBIT A

Comptroller of the Currency
Administrator of National Banks

Northeastern District Office
340 Madison Avenue, 5th Floor
New York, New York 10173-0002

Licensing Division
Telephone: (212)790-4055
Fax: (301) 333-7015

November 6, 2009

James S. Keller
Chief Regulatory Counsel
The PNC Financial Services Group, Inc.
249 Fifth Avenue
One PNC Plaza, 21st Floor
Pittsburgh, Pennsylvania 15222-2707

Re: Application to merge National City Bank, Cleveland, Ohio, with and into PNC Bank, National Association, Wilmington, Delaware under the charter and title of the latter.
Control No: 2009 NE 02 0017 Charter No: 1316

Dear Mr. Keller:

This letter is the official certification of the Comptroller of the Currency to merge National City Bank, Cleveland, Ohio ("NCB"), with and into PNC Bank, National Association, Wilmington, Delaware ("PNC Bank"), effective as of close of business on November 6, 2009. The resulting bank's title is PNC Bank, National Association, charter number 1316.

This is also the official authorization given to PNC Bank, the resulting bank, to operate branches of NCB as branches of the resulting bank. Branches of a national bank target are automatically carried over to the resulting bank and retain their current OCC branch numbers.

We understand that upon consummation, the capital surplus of PNC Bank will increase. Within 30 days following consummation, please provide this office with the exact dollar amount of the capital change so that we may issue our letter certificating the capital increase.

If the combination does not occur as represented in your letter of October 26, 2009, this certification must be returned to the OCC. Following consummation of the merger, please return the charter certificate for NCB so that we may properly close our files for this bank.

Sincerely,

Sandya Reddy
Acting Director for District Licensing

EXHIBIT 3

PNC BANK

CERTIFICATE

The undersigned, Ruby Altizer, Assistant Secretary of PNC Bank, National Association, does hereby certify that the following is a true and correct copy of a Resolution adopted by the Board of Directors of PNC Bank, National Association, as amended and restated on May 17, 2012 and that said Resolution is in full force and effect:

RESOLVED, that Dana Bodnar, Dennis W. Hartman, Kathleen A. Taylor, Gary J. Saulson, Mario T. Spudic, Kevin J. Wade, Francis R. Walters, and Courtney Yanov be and each of them is hereby expressly authorized and empowered in the name and on behalf of The PNC Financial Services Group, Inc. (the "Corporation") to purchase, sell or lease, or to guarantee a purchase, sale, or lease, for such price or prices, or rents, and upon such terms and conditions as he or she may deem advisable, such Corporation and other properties, including but not limited to those properties occupied by the Corporation in the transaction of its business, as he or she may hereinafter identify, including any buildings located thereon, and for and on behalf of the Corporation and as its corporate act and deed, to negotiate, execute and deliver any deeds, leases, or conveyances of such real estate, and guarantees of any purchase, sale, or lease together with such agreements, contracts, powers of attorney or other instruments which may be necessary in connection with such purchase, sale, lease or guarantee, and to affix the corporate seal of the Corporation to any and all such instruments and to acknowledge the same before any person having authority to take such acknowledgments on such instruments, with the intent that they may be duly recorded.

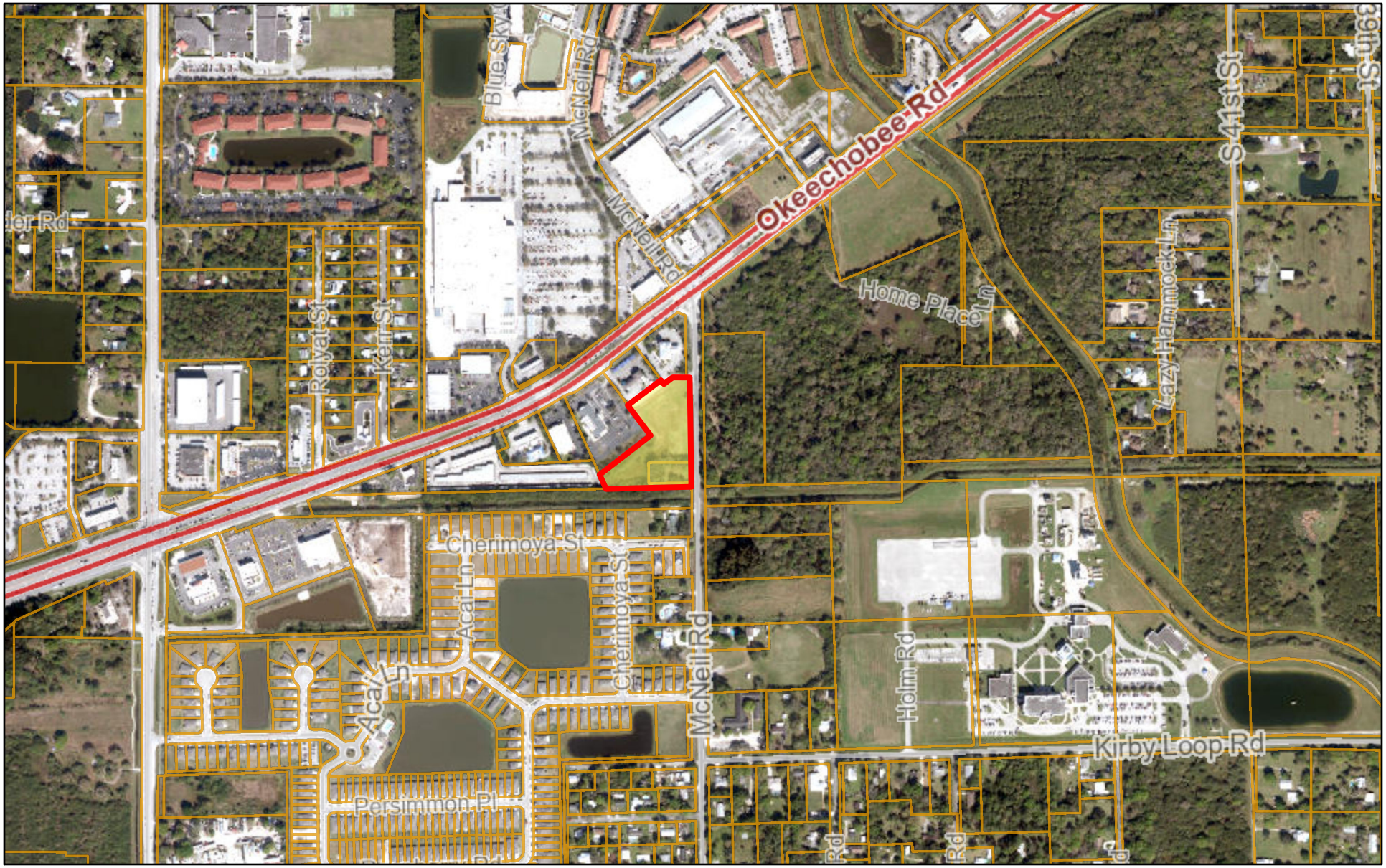
The undersigned further certifies that Dana Bodnar is a duly appointed Assistant Vice President of PNC Bank, National Association.

IN WITNESS WHEREOF, the undersigned has hereunto set her hand and affixed the seal of the Association this 4th day of October, 2012.

PNC BANK, NATIONAL ASSOCIATION

Ruby Altizer

Subject Site Location Map

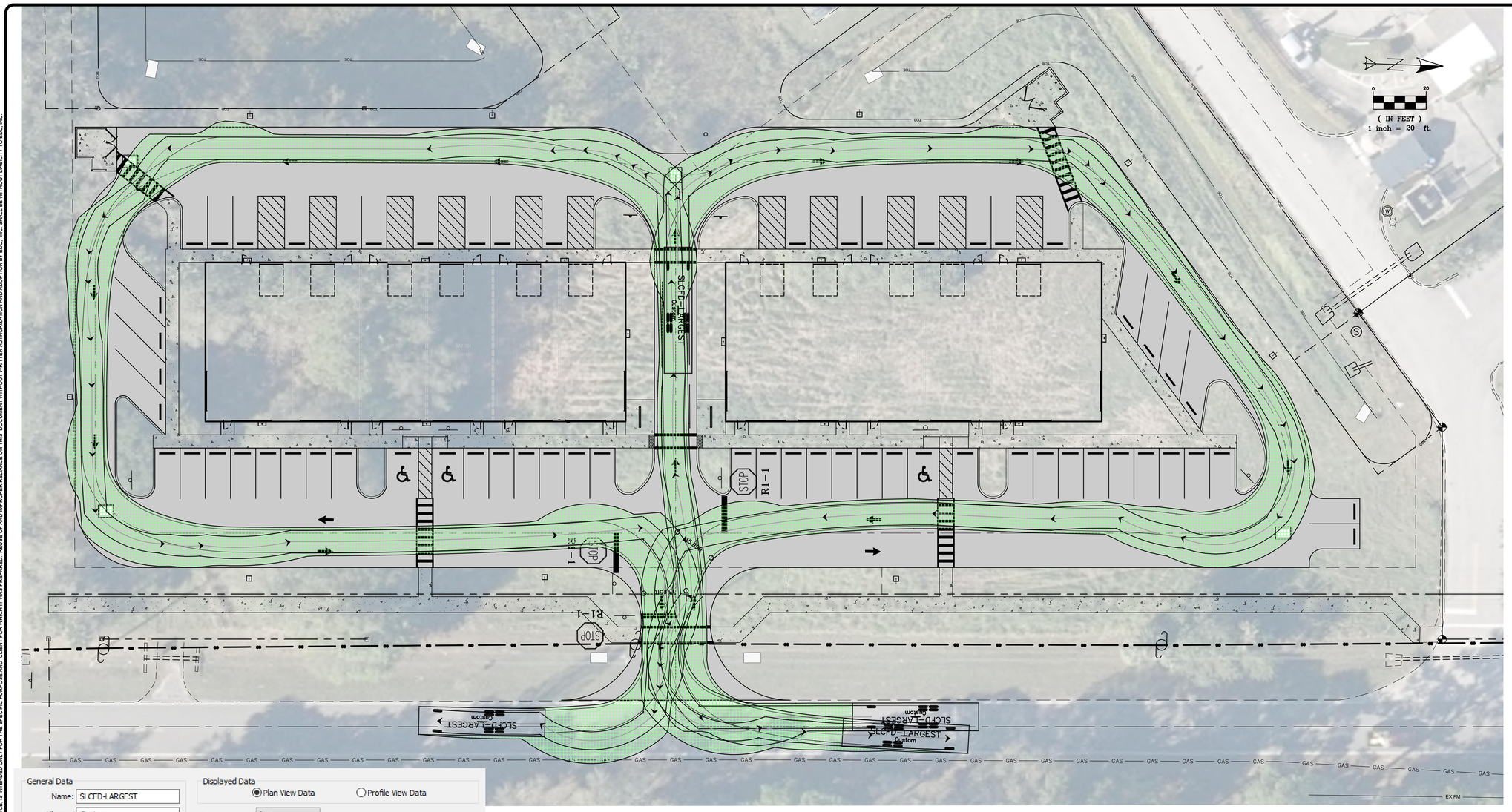


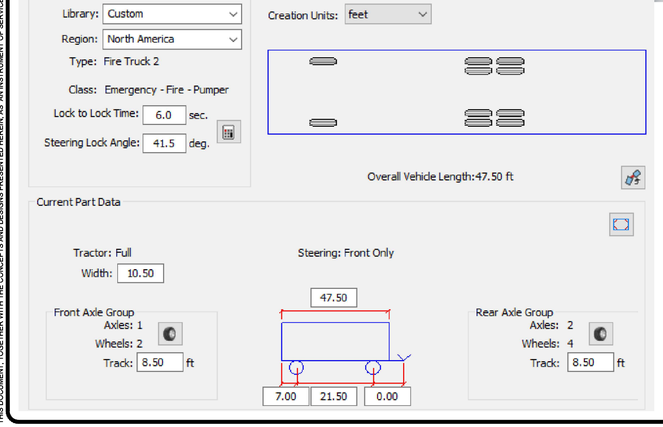
8/2/2024

1:9,028

0 370 740 1,480 ft

0 112.5 225 450 m





LEGEND

M E	EXISTING METER		EXISTING UTILITY POLE
	PROPOSED SIGN		PROPOSED DRAINAGE INLET
	PROPOSED MITERED END SECTION		EXIST. DRAINAGE INLET
	HANDICAP PARKING SYMBOL		EXISTING STREET LIGHT
	EXISTING CONCRETE		PROPOSED LIGHT POLE (SINGLE)
	EXISTING PAVEMENT		DRAINAGE FLOW ARROW
	PROPOSED CONCRETE		PROPOSED LIGHT POLE (DOUBLE)
	PROPOSED PAVEMENT	#	PARKING STALL COUNT
			EXISTING DRAINAGE
			PROPOSED DRAINAGE PIPE

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS

10250 VILLAGE PARKWAY
SUITE 201
PORT ST. LUCIE, FL 34987
772-462-2455
www.edc-inc.com

F.B.P.E. CERTIFICATE OF AUTHORIZATION 9935
L.B. CERTIFICATE OF AUTHORIZATION 8098

DESIGNED BY: DGB
DRAWN BY: RAH&JJL
FILENAME: 24-158 autotum.dwg
LAYOUT: FIRE
SCALE: AS SHOWN
DATE: 03/JUNE/2024

REVISION COMMENTS

DATE

THE DISTRICT

VEHICULAR CIRCULATION ANALYSIS SLCFD FIRE TRUCK

FORT PIERCE FLORIDA

ENGINEERS ✪ SURVEYORS
ENVIRONMENTAL ✪ LAND PLANNERS
INTERIOR DESIGNERS

10250 SW VILLAGE PARKWAY - SUITE 201
PORT SAINT LUCIE, FL 34987
772-462-2455

24-158

1 OF 1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADOPTION BY EDC, INC. SHALL BE WITHOUT LIABILITY TO EDC, INC.

Z:\EDC-2024\24-158 - Mission - 2591 McNeil Road Flex\ENGINEERING\AutoCAD\DWG\24-158 AUTOTURN.dwg, FIRE, 9/25/2024 12:27:04 PM, James, EDC, Inc., EDC, Inc.

TUTTLE DESIGN, LLC

561-860-2905

City of Fort Pierce Planning and Zoning
100 N U.S. Highway 1
Fort Pierce, FL 34950

RE: The District Flex Space located at McNiel and Okeechobee Blvd

Architectural Narrative

The District is a flex office / warehouse project that has been designed to complement the neighboring properties with modern clean architectural elements. The east facade of the buildings are predominantly storefront to complement the retail feel of the area. The storefront bays have raised elements to define the entrances and provide signage opportunities for the users. The buildings will have contrasting colored canopies to provide protection from the elements and architectural relief. There will also be lap siding score lines to add architectural detail. The high quality concrete and metal joist construction will be softened by adding creative painted murals on the side walls. All HVAC equipment will be located on the roof and screened by parapet walls on all four sides. There are large green areas that serve as retention for the storm drainage and ample sidewalks providing connectivity.

Below are some photographs of the neighboring buildings.

SouthState Bank – neighbor to the north




SUBJECT
PROPERTY


CARWASH
BANK
INDIAN RIVER STATE
COLLEGE LAND
SUBJECT PROPERTY
McNeil Rd


McNeil
AspenDental





Sincerely,

Harold Tuttle

561-860-2905



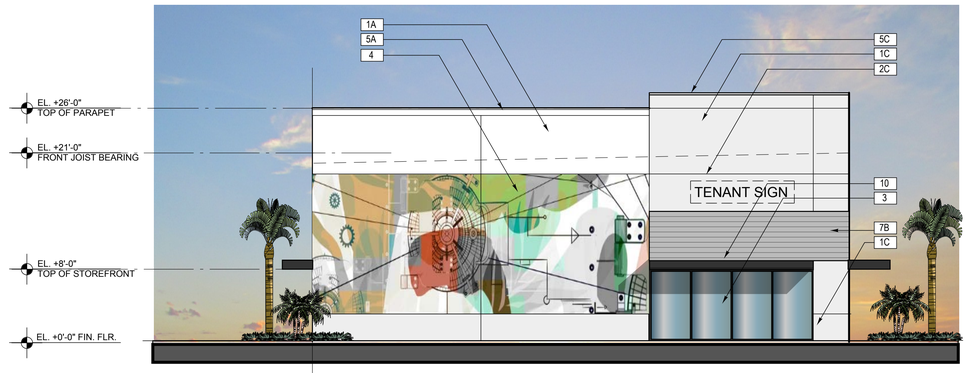
FRONT ELEVATION

1/8" = 1'-0"



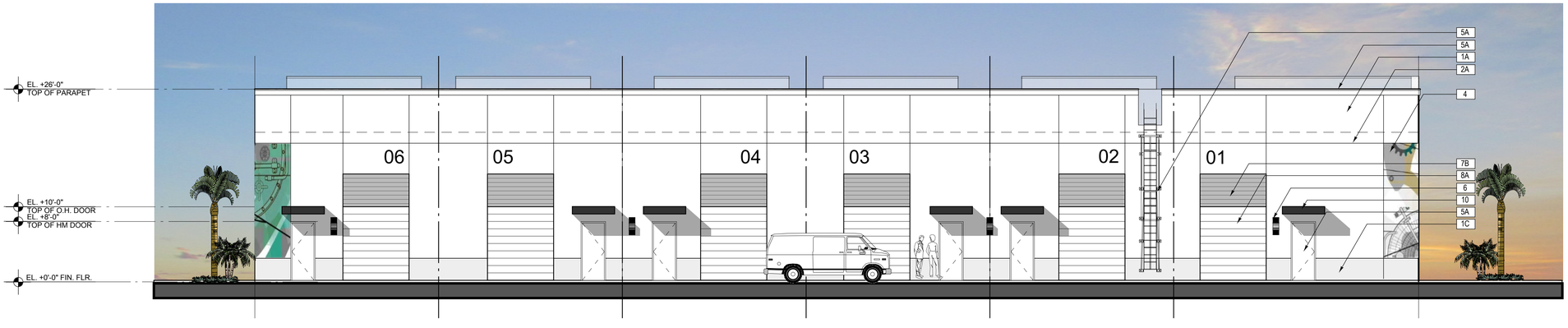
SIDE INTERIOR ELEVATION

1/8" = 1'-0"



SIDE ELEVATION

1/8" = 1'-0"



REAR ELEVATION

1/8" = 1'-0"

MATERIAL SCHEDULE

MK	Material	Finish
1	CEMENT PLASTER	PAINT - LIGHT TEXTURED FINISH
2	SCORE LINE - 1/2" D X 1/2" W MIN.	PAINT
3	ALUM & GLASS STOREFRONT	DARK BRONZE - GLASS - CLEAR
4	CUSTOM MURAL	PAINT
5	METAL	PAINT
6	ARCHITECTURAL LIGHT FIXTURE	BLACK FINISH
7	HORIZONTAL SCORE LINE PATTERN	PAINT
8	ROLL-UP DOOR	PAINT
9	ALUMINUM DOWNSPOUT	PAINT TO MATCH ADJACENT WALL
10	METAL CANOPY	PRE-FINISHED BLACK
11		
12		
A	SHERWIN WILLIAMS	OFF WHITE
B	SHERWIN WILLIAMS	MEDIUM GRAY
C	SHERWIN WILLIAMS	LIGHT GRAY
D		
E		
F		

TUTTLE DESIGN LLC
561-860-2665
HAROLD TUTTLE
AR #0015395

"THE DISTRICT"
FLEX-WAREHOUSE BUILDING ONE
2591 MCNEIL ROAD, FORT PIERCE, FL

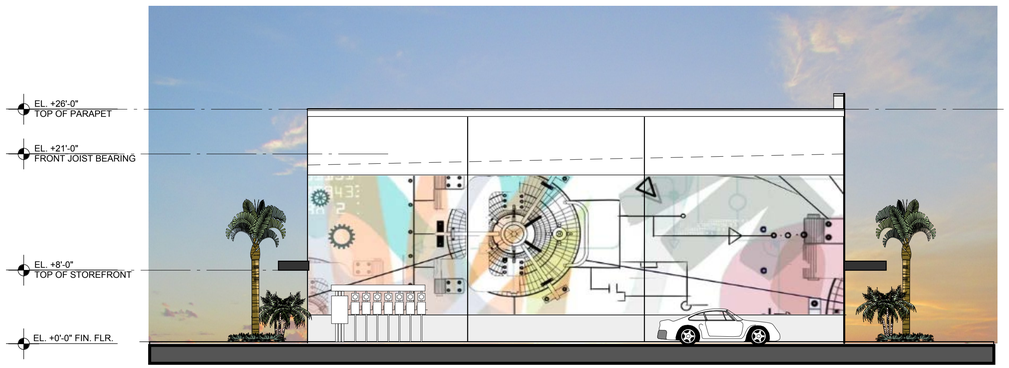
REVISIONS	DATE

Contract
Permit
Bid
Date 7/16/24
Scale AS NOTED
Drawn HT
Job 2024-15
Sheet A3.01
Of X/X Sheets



FRONT ELEVATION

1/8" = 1'-0"



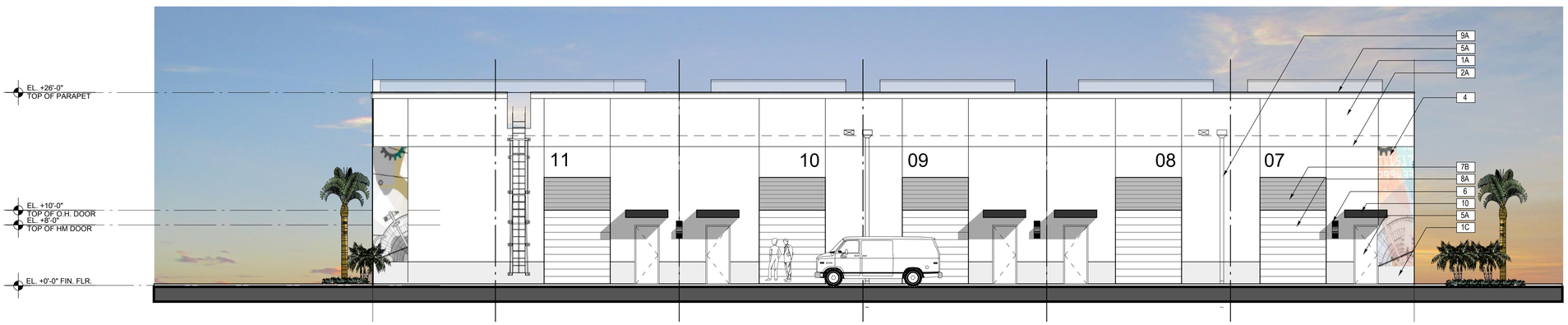
SIDE INTERIOR ELEVATION

1/8" = 1'-0"



SIDE ELEVATION

1/8" = 1'-0"



REAR ELEVATION

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MATERIAL SCHEDULE

MK	Material	Finish
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A	SHERWIN WILLIAMS	OFF WHITE
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C	SHERWIN WILLIAMS	LIGHT GRAY
D		
E		
F		

PRE-FIN. ALUM. CANOPY - DK GRAY

TUTTLE DESIGN LLC
561-860-2965
HAROLD TUTTLE
AR #0015395

"THE DISTRICT"
FLEX-WAREHOUSE BUILDING TWO
2591 MCNEIL ROAD, FORT PIERCE, FL

REVISIONS	DATE

Contract
Permit
Bid
Date 7/16/24
Scale AS NOTED
Drawn HT
Job 2024-15
Sheet A3.02
Of X/X Sheets

Color Board

Please see color and materials board included as part of the attached building elevations.

Context Photos – Subject Property

The subject site is undeveloped. As such context photos of the property are not included.

Context Photos – Neighborhood

Please see context photos included as part of the attached Architectural Narrative.

Renderings of Signs

Renderings of Signs will be provided prior to Board Approval.


2591
McNeil Rd
McNeil Rd
McNeil Rd
McNeil Rd
McNeil Rd
McNeil


01 CABINETS
CONTRACTOR 02
SURVEYOR 03
LANDSCAPING 04
05 PET GROOMERS
07 GARDEN
GYM 08
BOOKS 11


01
02
03
04
05
06

THE SUNRISE CITY
FORT PIERCE
Florida
ENGINEERING
DEPARTMENT

To : Vennis Gilmore, Assistant Planning Director

From : Tracy Telle, Engineering Manager

Re : 2591 McNeil Road – The District
PZSITE2024-00006

Date : December 4, 2024

This is to advise you that we have completed the review of the following documents as received by this office on December 4, 2024

- ☐ Development Permit Compliance Review
- ☒ Site Plan
- ☐ Executed Construction Contract
- ☐ Permits
- ☐ Construction Drawings
- ☐ Test Reports & Related Documents
- ☐ Record Drawings
- ☐ Other _____

Based on our reviews and appropriate site final inspection, we

- ☒ Recommend Approval
- ☐ Do Not Recommend Approval

Developer, Owner, Engineer, Contractor, and other members of the Development Team must be aware, the above recommendation is based only on the construction requirements of the engineering plans and other engineering documentation approved by this department. The Development Team shall be responsible for the compliance with other City department requirements and all approved documents, as well as Local, State and Federal regulations. The development requirements for this project may necessitate additional construction requirements that are not subject to this department's review for approval.

☒ See attached for advisory comments

100 NORTH US 1, FORT PIERCE, FLORIDA 34950 • CITYOFFORTPIERCE.COM • TEL: 772.467.3000 • FAX: 772.460.6847

ENGINEERING ADVISORY COMMMENTS:

1. The project is comprised of two parcels and will be required to be unified under one owner prior to DPCR approval.
2. The stormwater drainage plan was reviewed conceptually. An in-depth review will be conducted at the time of DPCR. Please provide all appropriate calculations as required by Code Chapter 119 Stormwater Management and Site Development Technical Regulations.
3. Coordination with NSLRWCD and/or St. Lucie County is required for impacts to the existing drainage easement.
4. A tree mitigation plan shall be required prior to any land clearing activities. A building permit will not be issued until all tree mitigation fees are paid. A complete review of the mitigation calculations will be conducted at time of site work submittal.
5. McNeil Road is a St. Lucie County owned and maintained roadway. All proposed improvements within the limits of McNeil Road R/W will require permitting through St. Lucie County.

September 17, 2024

PROJECT: **The District Flex Space**

REF: PZSITE2024-00006

TO: Vennis Gilmore

FROM: Grant Chambers

Corrections:

1. Interconnectivity shall be provided to the adjacent drive aisles for better access distribution.

Conditions:

2. A Site Development Permit is required prior to performing site improvement activities.

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

BUREAU OF FIRE PREVENTION

SITE PLAN REVIEW

TO: Site Plan Applicant

SITE PLAN: The District Flex Space

REVIEW DATE: 8/16/2024, 10/3/2024

PLANNER: VENNIS GILMORE

REVIEWED BY: Captain Andres Elizondo, Lt Almand

Site Plan Approved with conditions: ____X___

Site Plan Requires Re-submittal: _____

Site Plan Rejected: _____

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). This form is available on-line at https://www.slcfd.com.**~~ **Received 8/16/2024.**

2. ~~**Fire District review fees are due at the time of submittal. An abbreviated fee schedule is included on the application form.**~~ **Received 8/21/2024.**

3. ~~**Please provide an electronic revised copy of the site plan (pdf format).**~~ **Received 8/16/2024.**

4. ~~**Please provide written acknowledgement of the conditions/revisions provided**~~**.** **Received 10/3/2024.**

5. ~~**A separate review and permit is required for Underground Fire Mains connected to standpipes or sprinkler systems.**~~ **Acknowledged 10/3/2024**

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

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. (NFPA 1 16.1.4). 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. (NFPA 1.18.2.3.5.2)**~~ **Acknowledged 10/3/2024**

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 10/3/2024**

8. ~~**The Fire District reserves the right for future comments at the site plan & building construction phase.**~~ **Acknowledged 10/3/2024**

9. ~~**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. (SLCFD Resolution 740-23)**~~ **Acknowledged 10/3/2024**

10. ~~**Minimum roadway pavement width (two-way traffic) shall be twenty (20) ft. (SLCFD Resolution 740-23)**~~ **Acknowledged 10/3/2024**

11. ~~**Minimum roadway pavement width (one-way traffic) shall be twelve (12) ft. (SLCFD Resolution 740-23)**~~ **Acknowledged 10/3/2024**

12. ~~**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. NFPA 1:18.5.3. Please provide fire flow calculations for hydrants.**~~ **Acknowledged 10/3/2024**

13. ~~**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. (NFPA 1.18.3.1)**~~ **Acknowledged 10/3/2024**

14. ~~**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**~~

ST. LUCIE COUNTY FIRE DISTRICT
Community Risk Reduction Division
Office of the Fire Marshal

Telephone: **(772) 621-3322**
Fax: **(772) 621-3604**

~~**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. (SLCFD Fire Prevention Code Resolution 740-23).**~~ **Acknowledged 10/3/2024**

Fort Pierce Utilities Authority
FPUAnet Communications
500 Boston Avenue (PO Box 3191)
Fort Pierce, FL 34950 (34948)

Dear Developer,

I am writing to you today on behalf of FPUAnet, the City of Fort Pierce's municipal fiber internet service provider. I am reaching out to you to discuss the benefits of choosing FPUAnet for your next development project.

FPUAnet offers a number of advantages over traditional internet providers, including:

- **Scalable to meet growing demands:** FPUAnet's fiber optic network is designed to scale to meet the growing demands of Fort Pierce. This means that you can be confident that your internet connection will be able to handle even the most demanding applications and devices.
- **Gigabit internet throughout the entire service area:** FPUAnet offers gigabit internet speeds throughout its entire service area. This means that you can get the fastest possible internet speeds, no matter where you live in Fort Pierce.
- **High-quality internet to rural and low-income areas:** FPUAnet is committed to providing high-quality internet access to all residents of Fort Pierce, including those in rural and low-income areas. This is important for ensuring that everyone has the opportunity to participate in the digital economy.
- **Faster and more affordable than privately owned ISPs:** FPUAnet's prices are competitive with other internet providers, and in many cases, they are even more affordable. This is because FPUAnet does not have to make a profit, so it can pass on the savings to its customers.

In addition to these advantages, FPUAnet is also committed to providing excellent customer service. Our team of experts is available 24/7 to help you with any questions or problems you may have.

I would be happy to discuss your specific needs in more detail. Please do not hesitate to contact me at peters@fpua.com or 772-466-1600 ext.3311.

Thank you for your time and consideration. I look forward to hearing from you soon.
Sincerely,

Eric Peters
On behalf of FPUAnet

FORT PIERCE UTILITIES AUTHORITY
"Community Proud"

Developer's Responsibilities for Utility Connection

The purpose of this document is to provide clear direction for connecting a project to the Fort Pierce Utilities Authority (FPUA) water and wastewater system.

Note that approval through the City of Fort Pierce or Saint Lucie County site plan approval process does not constitute approval of your detailed utility plans through FPUA. The steps required for FPUA approval are listed below. All Forms, Standards and Specifications, Standard Details, etc. can be downloaded from our website under the Doing Business with FPUA link then W/WW Engineering Downloads.

1. Visit www.FPUA.com and become familiar with our Standards and Specifications. Standard details are provided .pdf format for easy transfer onto your construction plans. These details are updated often and you are responsible for obtaining the most current specifications.

   (http://www.fpua.com/Business/StartStopNewServices/DevelopmentServicesWWWDownloads.aspx)

2. It is recommended at this time to contact schedule a pre-design conference with an FPUA Project Manager.

3. Submit payment for Engineering plan review and inspection services fee as per U.A. Resolution 2011-06. You may calculate this fee yourself or contact our office and we shall prepare and fax/e-mail an invoice to you. If you elect to calculate the fee yourself in an effort to expedite the submittal process, keep in mind that your calculations are subject to FPUA approval. This fee must be paid prior to the return of your first plan submittal, permits, etc. Review fees are based on:

   $500 Flat charge per development
   plus $20 per water equivalent residential connection (WERC) at 300 gallons per day
   plus $20 per sewer equivalent residential connection (SERC) at 240 gallons per day

   Note: For multi-family developments, (more than two units per building) each unit represents 70% of one WERC and 87.5% of one SERC.

4. Submit 2 initial sets of detailed utility drawings to 1701 S. 37th Street, Fort Pierce, FL 34947. Submit 3 sets of drawings.

   Note: Reference section 1.22 of the General Design & Construction Standards for Drawing/CAD requirements. Failure to adhere to requirements will result in utility plan denial. Allow 30-day response time. It may take several submittals to receive an approved design.

5. Submit any required permits (Draft) with your initial construction plans. Please use the Water and Wastewater FDEP Permit forms provided on the website as the pertinent information is always current.

6. Submit a Notice of Intent to Discharge Form with your initial construction plans. Should you need an Application for Wastewater Discharge Permit, you will be contacted by our Pretreatment Coordinator.

7. Upon plan approval, you will receive one set of the submitted plans stamped approved or approved as noted and any applicable permits executed.
8. Execute and submit a Water and Wastewater Supply Agreement at the time of final plan submittal. This is a three party document outlining the requirements of the project owner and project engineer.
9. If your property is outside the City Limits, the property owner will be required to sign an Annexation Agreement. Please utilize the following procedure to complete the agreement: provide your FPUA Project Manager with the following information for the property owner: Name, Contact Number, Site Address, Mailing Address, Parcel ID Number

   Our office will provide this information to our attorney, R.N. Koblegard, who will prepare an annexation agreement and their office will call the property owner to schedule an appointment to sign the agreement and will thereafter record the agreement. The service fees, which are subject to change and are payable to Mr. Koblegard at the time the agreement is signed, range from $50 - $400.

   Note that until the approval and acceptance of the Plans and Permits, the execution of the Annexation Agreement, Supply Agreement, and Payment of Capital Improvement Charges, Accrued Guaranteed Revenue Charges, and other associated fees, the project cannot move forward to the construction phase.

10. Submit five sets of shop drawings for all sanitary structures and manufacturer's cut sheets for all materials. These submittals will be reviewed and may be returned approved or revise and resubmit if major deficiencies are found.
11. Contact your FPUA Project Manager to schedule a pre-construction meeting.
12. When your project is getting about 90% complete, please contact your FPUA Project Manager to schedule a post-construction meeting. At that meeting, you will need to have your turnover package complete. All items in the turnover package must be complete prior to scheduling a walk-through. Listed below are the items in the turnover package:

    a. Bill of Sale/Cost and Quantities (utilize form on website)
    b. FDEP Water/Wastewater Certification
    c. DDC Data Sheet to include device number, manufacturer, installation date, test date and results, and device size
    d. Record Drawings – Need Two Sets of Paper Copy Drawings (As-Builts are not accepted)
    e. Gravity Sewer Inspection DVD
    f. Lift Station Start Up
    g. Lift Station O & M Manuals (FPUA Owned Only)
    h. Private Lift Station/Collection System Application (if applicable)

13. If your project requires an easement, the property owner will be required to sign an Easement Form. Please complete the attached form Request for Preparation of Easement and return to your FPUA Project Manager.

    Our office will provide this information to our attorney, who will prepare an easement and their office will call the property owner to schedule an appointment to sign it and will thereafter record the easement. The service fees, which are subject to change and are payable to Mr. Koblegard at the time the easement is signed, are $250 plus recording costs.

14. The following items need to be received prior to any meters being installed or chain being removed from DDC:

    a. All Fees Paid (meter, DDC, deposits, New Account Setup Fees, etc.)
    b. Final Inspection/Walk-Through
    c. Punch List Complete
    d. Contractor's Affidavit and Release of Lien (utilize form on website)
    e. Executed Easement
    f. Memorandum from Applicable Right-of-Way Agency (Agency Granting Permit) that Project is Acceptable to Them
    g. Record Drawings – After Review and Approval, Need Two Sets Paper Copy, One Set of Mylars and One CD in AutoCad Format.

DDC Installation Procedures

Below are the procedures for the installation of a DDC for unmetered fire

- Fire/Mechanical Plans (offsite to device only) approved by FPUA Project Manager (PM)
- Submittals approved by PM, with an approved set provided to Water Distribution (WD)
- PM will acquire DDC installer contact information at pre-construction meeting and provide to WD
- DDC contractor must be licensed with certification in backflow device installation and testing. Proof of certification must be provided to WD prior to pressure test
- Upon notification of the need for a DDC, Engineering Coordinator (EC) e-mails Key Accounts (KA) with device size and account information
- KA sets up account and creates service order which charges $40 Initiation of Service Charge and alerts WD, via service order, of the DDC being installed
- Contractor installs standpipes, concrete pad, and DDC under direct supervision of Water/Wastewater/Natural Gas Engineering Inspector to ensure compliance with clearances and adequate work space for future testing, maintenance, and repairs. Inspector locks device with chain after installation
- Prior to scheduling the backflow certification test through the inspector, all lines to and from the device must be chlorinated and pressure tested per their respective agencies
- WD Service Foreman must be notified (via Inspector) at least 24 hours prior to the test. Service Foreman must be present for the test and re-locks the OS&Y in the closed position after test. The test sheet must be given to WD either directly after the test or arrangements should be made to receive the test results. Engineering does not need a copy of the test results; WD will notify inspector of the test results
- If at any time after the DDC installation the lock or chain has been found cut, the Revenue Protection Officer will be notified immediately. **Tampering or removal of the lock and/or chain will result in a Tampering Fee of $200 and all associated fees according to the current FPUA Resolution. (WD will do a T-Tamper-Water service order; Revenue Protection Officer will go to site, take pictures, and bill tampering fee)**
- After final walk-thru, EC will send Meter Installation Authorization (MIA) Form to WD Administrative Coordinator authorizing removal of the chain and begin billing
- WD will remove the chain and add the DDC information to the account, including the device number and billing rate
- EC will send Cost and Quantities to Finance to record the asset

REQUEST FOR PREPARATION OF EASEMENT

1. CUSTOMER NAME AND ADDRESS

_____

_____

_____

_____

2. CUSTOMER CONTACT PERSON, ADDRESS AND PHONE NUMBER

_____

_____

_____

3. FPUA CONTACT PERSON AND CONTACT INFORMATION

_____

_____

4. SITE ADDRESS AND PARCEL ID

_____

_____

_____

_____

5. LEGAL DESCRIPTION AND EASEMENT DESCRIPTION

_____

_____

_____

_____

_____

_____

_____

_____

6. EASEMENT TO BE PREPARED AT THE COST OF

_____ PROPERTY/BUSINESS OWNER

_____ FPUA

7. PROJECT SCHEDULED COMMENCEMENT DATE _____

8. ATTACH SKETCH OF EASEMENT

SEQUENCE OF EVENTS IN PREPARATION OF EASEMENT

1. Complete Request for Preparation of Easement. When at all possible, all easements should be done on one form.

2. Forward completed Request form to FPUA Attorney.

3. FPUA Attorney will order title search.

4. Upon receipt of title search, FPUA Attorney will email identity of owner and any mortgagees to FPUA Contact Person.

5. FPUA Contact Person will contact Customer/Owner to determine willingness to sign an easement and inform the Owner of the need for the lender, if any, to join in easement.

6. If Customer/Owner is willing to sign an easement, FPUA Contact Person will so advise FPUA Attorney, and an easement will be prepared.

7. FPUA Attorney will call Customer/Owner to make arrangements to have the easement signed. In the alternative, if Contact Person wishes, the easement and other documents can be emailed to FPUA Contact Person to have signed. FPUA Contact Person will then return the signed easement/documents to FPUA Attorney.

8. FPUA Attorney will record the signed easement/documents and will return the recorded easement to Water/Wastewater Engineering to the Engineering Coordinator.

9. Engineering Coordinator assigns a Utilities Easement Number, scans and saves easement document, and records in the MS Access Easement Database.

10. Engineering Coordinator gives the easement to the technician assigned to put on GIS. Technician draws easement on GIS and gives to Project Manager for verification.

11. Upon verification, Project Manager gives Engineering Coordinator original recorded easement. Engineering Coordinator places in fireproof file cabinet.

Fort Pierce Utilities Authority
Water/Wastewater Engineering
1701 South 37th Street
Fort Pierce, FL 34947
772.466.1600 x3473

Technical Review Committee Meeting

TECHNICAL REVIEW PROJECT: # PZSITE2024-00006

The District Flex Space -1st Resubmittal

Comments

W/WW Engineering: Concept approved.

Water and wastewater is available to serve the subject parcel. To connect to water and wastewater services please submit Utility Plan (2 complete sets) along with a completed commercial service application, and plan review application to FPUA's Water and Wastewater Engineering department, at 1701 S 37th Street Fort Pierce Florida 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 applications (link below). For questions please contact Shane Ostrander sostrander@FPUA.com or 772-466-1600 ext 3468

https://fpua.com/water-and-wastewater-engineering-downloads/



Electric Engineering: FPUA Electric & Gas Engineering has reviewed the application. **Approved**.

New pad mount transformer lead time is at 52 weeks.

Please contact Sal Scimeca for electric customer requirements and project coordination.

Before work begins.

Sal Scimeca
Engineering Technician III, Electric & Gas Engineering
Fort Pierce Utilities Authority
sscimeca@fpua.com
772.466.1600 ext. 6957

(Con't pg 2)

Gas: Approved.

FPUAnet Fiber: FPUAnet **Approves;** Fiber Internet Service **– Can Available**.
If client would like **Fiber Internet Service** from FPUAnet Communications, please contact Eric Peters at (772) 468-1697 for **Fiber Internet** requirements if service is desired.

Developer Letter.pdf

Connor Kennedy, Engineering Design & Construction
10250 SW Village Parkway – Suite 201
Port St. Lucie, FL 34987

Re: Site Plan & Design Review – The District

Dear Connor Kennedy,

The following are comments from the Planning Department's review of your application (Please Provide a Written Response and any revisions (if applicable) for all responsible Departments):

1. Prior to Certificate of Occupancy, a Landscape Maintenance Agreement is required:

   The Landscape Maintenance Agreement shall note that all approved 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, in conformity with the following requirements:

   a. Vegetation required by this article shall be replaced with equivalent or better vegetation if it is not living. All trees for which credit is awarded and which subsequently die shall be replaced by the same or greater number of living trees according to the standards established in this article.

   b. Maintenance shall include sufficient weeding, watering, fertilizing, pruning, mowing, edging, mulching and other horticultural practices to ensure that the landscaping continues to maintain a healthy, neat, and orderly appearance.

In case of violation:

Maintenance shall include the replacement of all unhealthy/dead material within 30 days after a notification of violation in conformance with the approved site plan or landscape plan. Violations of this article, or failure to maintain all required landscaping as reflected in the approved landscaping plan, shall be grounds for referral to the special magistrate for appropriate action.

(See attached Landscape Maintenance Agreement

2. Prior to the issuance of any site clearing permits, a Final Tree Mitigation Survey shall be approved by 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.

3. Per City Code Section 125-317. – Sidewalks (b) 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:

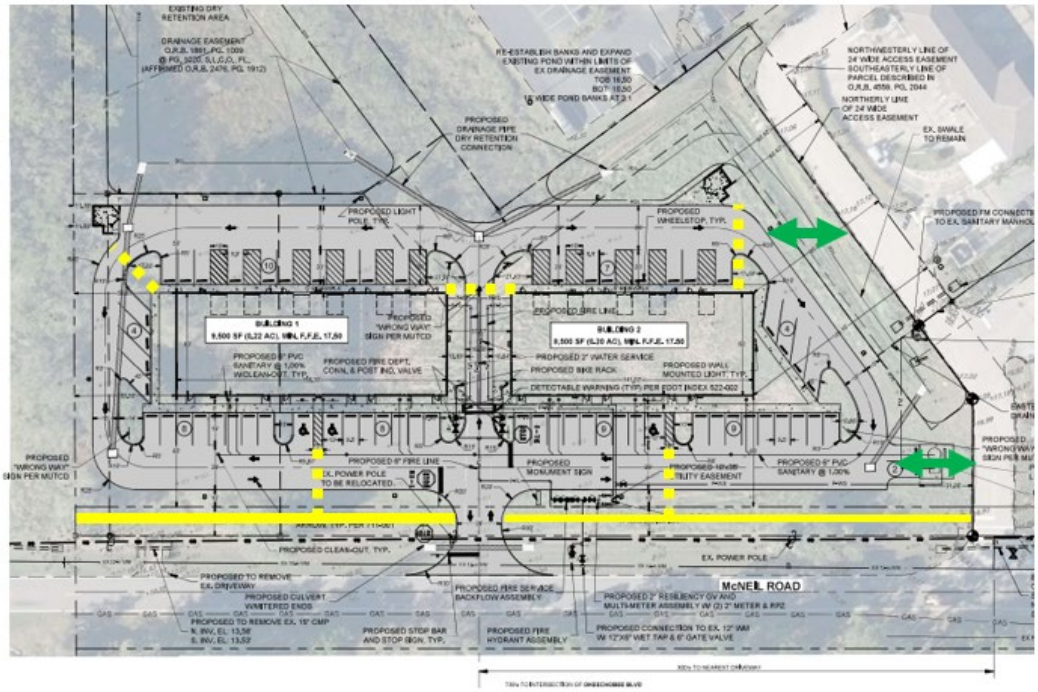
   (4) Plans submitted for site plan, conditional use, PUD/PUR, and subdivision review. Plans shall reflect all proposed sidewalk improvements.

   Please provide pedestrian sidewalks, sidewalk linkages, and possible cross access to abutting commercial properties. See example below.

Sidewalks

Sidewalk Linkages

Potential Cross Access/Sidewalks



4. Per City Code Section 125-314. – Design Review (9) Signs. - **Please consider installing a landscaped area around the proposed monument sign base which extends a minimum distance of three (3) feet in all directions. Such landscaped area shall be completely covered by ground cover, trees at a minimum height of 15 feet and shrubs, hedges, or similar vegetative materials.**

5. **Per the City's Comprehensive Plan Policies 2.5.4 and 2.5.5:**

   Apply access management standards along main arterial and collector roads to improve safety. Access management strategies such as inter-parcel or shared driveway access shall be implemented.

   Implement pedestrian cross-access, pedestrian features, transit features and other transportation demand strategies on all primary City corridors.

If deemed necessary, please provide a written response to each comment to expedite the review of any subsequent submittals. Please contact me should you have any questions regarding the project at (772) 467-3741 or by e-mail: vgilmore@cityoffortpierce.com.

Sincerely,

Vennis Gilmore

Assistant Planning Director

November 26, 2024

City of Fort Pierce
Attn: Vennis Gilmore and Selena Griffett
100 N. U.S. Highway 1
Fort Pierce, FL 34950

via: Energov

Re: The District – Major Site Plan – Commercial – PZSITE2024-00006

Dear Vennis Gilmore:

On behalf of our client, please find the attached response to comments received following our November 4th resubmittal for the project known as **The District**. Each comment is identified below followed by a response in ***bold italics***.

Engineering

1. "The parking lot layout allows vehicles entering the site to proceed straight, turn left, or turn right. There are concerns with cars not being able to legally exit the lot should no parking spaces be available on the east side of Building 1 and Building 2 due to the one-way driveways located on the north side of Building 2 and the south side of Building 1. Please review the parking lot layout and advise." The response included the addition of "Do Not Enter" and "One Way" signage to the plan. However, this signage does not resolve the dilemma that vehicles will have if parking is not available as they will be forced to back up a distance of 220' +/- in order to access the drive aisle. It is suggested that the parking lot be constructed with some type of paved vehicle turnaround at these two areas.
   RESPONSE: Please see updated site plan. Gore striped turnaround stalls have been added to the northeast and southeast end of the parking lot.

2. "In accordance with the City of Fort Pierce Code of Ordinances Section 119-9. the maximum bank slopes for a dry detention/retention area shall be 4'H:1'V as opposed to the noted 3'H:1'V. Please revise the plans to indicate all proposed retention area regrading in compliance with this requirement." The applicant responded that the existing pond was constructed at a 3:1 slope and so the bank regrading will comply with the existing slope. Please be aware that all proposed construction shall comply with the City of Fort Pierce Code of Ordinances regardless of the current non-compliant slope.
   RESPONSE: Acknowledged. Please see updated site plan showing the retention area at a slope of 4'H:1'V.

ADVISORY COMMENTS

1. The project is comprised of two parcels and will be required to be unified under one owner prior to DPCR approval.
   RESPONSE: Acknowledged.

2. The stormwater drainage plan was reviewed conceptually. An in-depth review will be conducted at the time of DPCR. Please provide all appropriate calculations as required by Code Chapter 119 Stormwater Management and Site Development Technical Regulations.
   RESPONSE: Acknowledged.

3. Coordination with NSLRWCD and/or St. Lucie County is required for impacts to the existing drainage easement.
   RESPONSE: Acknowledged.

4. A tree mitigation plan shall be required prior to any land clearing activities. A building permit will not be issued until all tree mitigation fees are paid.
   RESPONSE: Acknowledged.

5. McNeil Road is a St. Lucie County owned and maintained roadway. All proposed improvements within the limits of McNeil Road R/W will require permitting through St. Lucie County.
   RESPONSE: Acknowledged.

We feel the attached adequately addresses staff comments and respectfully request the approval of this application. If you have any questions regarding this application, the attached documents, or the project, please contact our office.

Respectfully,

ENGINEERING DESIGN & CONSTRUCTION, INC.

Connor Kennedy
Planner

Z:\EDC-2024\24-158 - Mason - 2591 McNeil Road Flex\ENGINEERING\Documents\Submittal Documents\Comment Response Letter\2024-11-26_TRC_Comments_Letter.docx