AGENDA

PLANNING COMMISSION

CITY OF PORT ORANGE

Meeting Date: Thursday, November 17, 2022 **Time:** 5:30 PM

Location: Council Chambers, City Hall
1000 City Center Circle
Port Orange

A. CALL TO ORDER

1. Pledge of Allegiance
2. Roll Call

B. DISCUSSION/ACTION

3. Consideration of Minutes - October 27, 2022
4. APPLICATION Leila's Hammock Subdivision Final Plat and Plans
   CASE NO. 22-50000002
   APPLICANT Hamid Reza Toutounchian
   STAFF CONTACT Gwen Perney, Principal Planner (386) 506-5673

   A request for approval of Leila’s Hammock Subdivision Final Plat and Plans.
5. APPLICATION LDC Amendment/Chapter 20 - Ridgewood Corridor Improvements
   CASE NO. 22-25000006
   APPLICANT City of Port Orange
   STAFF CONTACT Penelope Cruz, Planning Manager (386) 506-5671

   A request to amend Chapter 20 of the Land Development Code (LDC), regarding the Ridgewood Targeted Business Program.
6. APPLICATION Comprehensive Plan Capital Improvements Element - 2022 Annual Update
   CASE NO. 22-27500001
   APPLICANT City of Port Orange
   STAFF CONTACT Penelope Cruz, Planning Manager, (386) 506-5671

   Update and amendment to the Comprehensive Plan Capital Improvements Element (CIE) in accordance with Florida Statutes.

C. OTHER BUSINESS

7. 2022 Concurrency Management Report

8. Commissioner Comments
9. Staff Comments

D. <u>PUBLIC COMMENTS</u>

E. <u>ADJOURNMENT</u>

<u>NOTICES</u> – PURSUANT TO SECTION 286.0105 OF THE FLORIDA STATUTES, IF ANY PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE PLANNING COMMISSION WITH RESPECT TO ANY MATTER CONSIDERED AT THIS PUBLIC MEETING OR HEARING, SUCH PERSON WILL NEED A RECORD OF THE PROCEEDINGS, AND THAT, FOR SUCH PURPOSE, SUCH PERSON MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED. THE CITY DOES NOT PREPARE OR PROVIDE SUCH A RECORD.

FOR SPECIAL ACCOMMODATIONS, PLEASE NOTIFY THE CITY CLERK'S OFFICE (PHONE: 386-506-5563) AS FAR IN ADVANCE AS POSSIBLE, BUT PREFERABLY WITHIN 2 WORKING DAYS OF YOUR RECEIPT OF THIS NOTICE OR 5 DAYS PRIOR TO THE MEETING OR HEARING DATE.

HELP FOR THE HEARING IMPAIRED IS AVAILABLE THROUGH THE ASSISTIVE LISTENING SYSTEM RECEIVERS CAN BE OBTAINED FROM THE CITY CLERKS' OFFICE.

IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA), IF YOU ARE A PERSON WITH A DISABILITY WHO NEEDS AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PROCEEDING, YOU ARE ENTITLED, AT NO COST TO YOU, THE PROVISION OF CERTAIN ASSISTANCE. PLEASE CONTACT THE CITY CLERK FOR THE CITY OF PORT ORANGE, 1000 CITY CENTER CIRCLE, PORT ORANGE, FLORIDA 32129, TELEPHONE NUMBER 386-506-5563, CITYCLERK@PORT-ORANGE.ORG, AS FAR IN ADVANCE AS POSSIBLE, BUT PREFERABLY WITHIN 2 WORKING DAYS OF YOUR RECEIPT OF THIS NOTICE OR 5 DAYS PRIOR TO THE MEETING OR HEARING DATE. IF YOU ARE HEARING OR VOICE IMPAIRED, CONTACT THE RELAY OPERATOR AT 7-1-1 or 1-800-955-8771.

UPON REQUEST BY A QUALIFIED INDIVIDUAL WITH A DISABILITY, THIS DOCUMENT WILL BE MADE AVAILABLE IN AN ALTERNATE FORMAT. IF YOU NEED TO REQUEST THIS DOCUMENT IN AN ALTERNATE FORMAT, PLEASE CONTACT THE CITY CLERK WHOSE CONTACT INFORMATION IS PROVIDED ABOVE.

REGULAR PLANNING COMMISSION MEETING MINUTES
COUNCIL CHAMBERS – CITY HALL
1000 CITY CENTER CIRCLE
PORT ORANGE, FLORIDA
October 27, 2022

THE REGULAR PLANNING COMMISSION MEETING of the City of Port Orange was called to order by Vice Chair Lance Green at 5:30 p.m.

Pledge of Allegiance

Roll Call

Present:	Member Maria Mills-Benat Member Darrel "Bo" Bofamy Member Thomas Jordan Member Lance Green Member John Junco
Absent:	Stan Schmidt
Also Present:	Shannon Balmer, Assistant City Attorney Tracee Cody, Assistant City Clerk

DISCUSSION/ACTION

3. Consideration of Minutes

    Motion to approve the August 25, 2022 minutes was made by Thomas Jordan and Seconded by Newton White. Motion carried unanimously by voice vote.

4. APPLICATION: 9th Amendment to the Master Development Agreement for the Crystal Lake Planned Unit Development
   CASE NO.: 22-40000003
   APPLICANT: A. Joseph Posey, Storch Law Firm
   STAFF CONTACT: Gwen Perney, Principal Planner (386) 506-5673/gperney@port-orange.org

   A request by the Applicant to approve the 9th Amendment to the Master Development Agreement (MDA) for the Crystal Lake Planned Unit Development (PUD) to add mini-warehouse to the list of uses allowed on Lots 13-53 through 13-84.

    Motion to approve Case #22-40000003 was made by Member Maria Mills-Benat and Seconded by Member Thomas Jordan.

Gwen Perney, Principal Planner, discussed the details of the requested amendment and answered questions from the Commissioners.

Joey Posey, Applicant, expressed his thoughts that this would be a good location given all of the apartments around the area. He answered questions from the Commissioners.

Motion carried unanimously by roll call vote.

5. AGENDA ITEM: 2023 Proposed Public Hearing and Development Review Calendars
   STAFF CONTACT: Penelope Cruz, Planning Manager (386) 506-5671/pcruz@port-orange.org

Penelope Cruz, Planning Manager, explained the changes made to the calendars due to the holidays.

OTHER BUSINESS

6. Commissioner Comments

Commissioners thanked staff for all of their help. Chairman Lance Green expressed his concerns regarding who will have to pay for repairing the fence along Woodhaven and Interstate 95. He would like to see if Woodhaven is open to the idea of putting in vegetation rather than another fence. Tim Burman, Community Development Director, commented that the decision will have to go through Woodhaven's Homeowner's Association.

7. Staff Comments

There were none.

PUBLIC COMMENTS

There were none.

ADJOURNMENT - 5:47 p.m.

____
Chairman Stan Schmidt

STAFF REPORT
LEILA'S HAMMOCK SUBDIVISION PLAT & PLANS
CASE NO. 22-50000002

REQUEST:	Approval of the Leila's Hammock Final Subdivision Plat and Plans
LOCATION:	1143 Old Hammock Road (Figure 1)
APPLICANT:	Hamid Reza Toutounchian
OWNER:	Riga, Inc.
STAFF CONTACT:	Gwen Perney, Principal Planner (386) 506-5673
STAFF RECOMMENDATION:	Approval
PLANNING COMMISSION:	November 17, 2022

DEVELOPMENT PROPOSAL
The applicant requests approval of the Leila's Hammock Subdivision. If approved, the applicant intends to subdivide a ±1.84-acre property into six (6) single-family lots along with tracts for tree preservation, stormwater retention, and open space. The subject property is located on the south side of Old Hammock Road in the Bennett's Hammock subdivision.

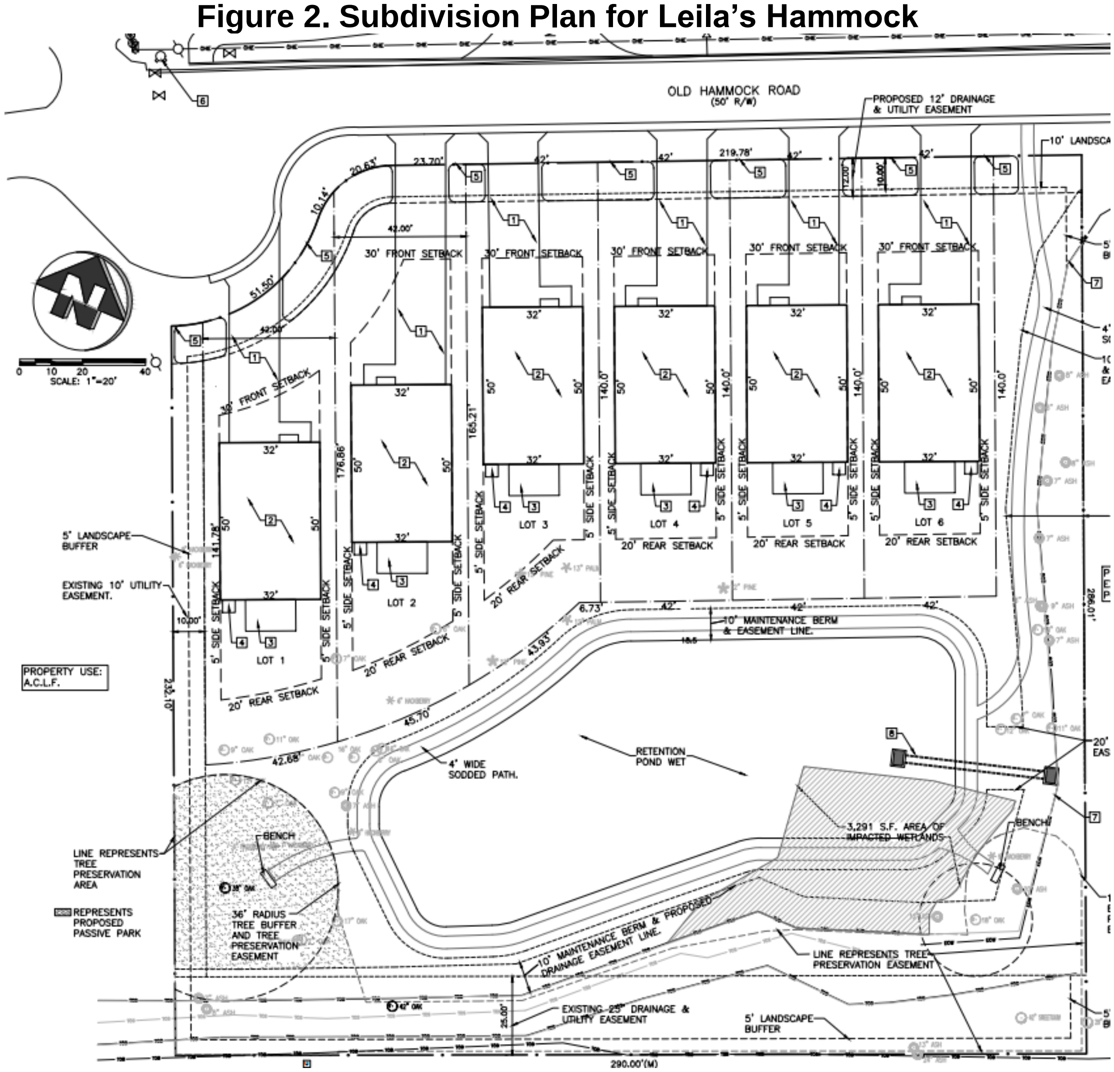
Figure 1. Location Map

The subject property is currently vacant, zoned Planned Unit Development (PUD), and has a Future Land Use designation of *Urban High-Density Residential (8-16 units/acre)*. In September 2021, the City Council approved the 7th Amendment to the Bennett's Hammock PUD Master Development Agreement (MDA) which provides the framework for the development of six (6) single-family home lots.

The proposed subdivision layout maintains the same layout shown on the approved Conceptual Development Plan (CDP) in the 7th MDA Amendment. The plat and subdivision plans have been designed according to the requirements of the City's Land Development Code (LDC) and the dimensional standards in the 7th MDA Amendment (Figure 2). The lots within the subdivision will have access from Old Hammock Road, along with the following subdivision improvements that will be constructed.

- Grading and stormwater drainage infrastructure
- Water and sewer infrastructure
- Landscaping buffers along the east and west perimeters of the subdivision; and
- Common areas with Tree Conservation Easements for the preservation of trees and specimen trees.

Figure 2. Subdivision Plan for Leila's Hammock



CONCURRENCY REVIEW

Public facilities and services such as roads, public infrastructure, schools, and recreational facilities are currently available to serve the proposed six (6) single-family residential lots (Table 1). The following discussion summarizes the impacts the proposed development will have on these public facilities and services.

Table 1 - Infrastructure Impact Assessment for Six (6) Single-Family Lots

DEVELOPMENT VARIABLE	IMPACTS
Population[1]	15
A.M./P.M./Daily Peak Hour Trips[2]	5/7/58 trips
Sanitary Sewer (gallons per day)[3]	960 gallons
Potable Water (gallons per day)[4]	1,080 gallons
Solid Waste (lbs. Per day)[5]	49 pounds
Stormwater Drainage[6]	See Note
Recreation & Open Space[7]	0.1 acres

Notes:
1. **Population**: 2.39 persons per household (per 2020 Census)
2. **Transportation**: ITE Trip Generation Manual, 11th Edition: 9.52 daily trips, 0.77 AM peak hour, and 1.02 PM peak hour trips per unit per day
3. **Sanitary Sewer**: 160 gallons per day per Equivalent Residential Unit
4. **Potable Water**: 180 gallons per day per Equivalent Residential Unit
5. **Solid Waste**: 3.21 pounds per person per day
6. **Stormwater Drainage**: LOS standard = 25-year, 24-hour event. The drainage system will be designed to meet the requirements of the Land Development Code.
7. **Rec. & Open Space**: 7 acres per 1,000 persons (0.007 acres/person)

Water and Sewer

The City has available potable water and sanitary sewer capacity to accommodate the proposed six (6) lot subdivision. All lots will be provided with stub-outs for utilities. The developer will construct potable water and sanitary sewer lines in accordance with the approved utility plan for this project. Irrigation water will be provided by a private well on the site.

Stormwater Drainage

The City's adopted level-of-service standard for stormwater drainage requires that all new retention/detention facilities be able to treat and convey the runoff from the 25-year, 24-hour storm event without causing flooding or pollution of receiving water bodies. In addition, there must be no net loss of stormwater retention function because of development; therefore, the subdivision property must have the same ability to store and discharge water after development as it does before development occurs. The proposed subdivision design provides stormwater retention for the six (6) single-family lots and complies with all current City stormwater design requirements and Standard Construction details.

Recreation and Open Space

According to the City's 2021 Concurrency Management Report, the City is not deficient in any of the recreational facilities categories and there are sufficient facilities to support the additional population from the six (6) single-family lot subdivision.

School Capacity

Single-family subdivisions which are less than 10 lots are exempt from School Concurrency review. However, using the Volusia County School District's student generation rate, a total of two (2) students are anticipated to be generated by the proposed development.

Transportation

According to the Institute of Transportation Engineers (ITE) Trip Generation Manual, the trip generation rate for six (6) single-family lots is anticipated to generate 5 AM peak-hour trips, 7 PM peak-hour trips, and 58 daily trips. The roadways within the general area of the proposed subdivision are operating within the adopted level of service standards and the traffic generated from the 6-lot single-family lot subdivision will not exceed level of service standards for these roadways.

The Institute of Transportation Engineers (ITE) Trip Generation Manual is nationally recognized by transportation professionals including, transportation engineers, transportation planners, consultants, educators, technologists, and researchers for conducting vehicle trip generation rate analysis studies, determining on-site circulation patterns, performing access management studies, and determining traffic signal timing.

According to the latest traffic counts on the surrounding roadways (Clyde Morris Boulevard, Nova Road, and Herbert Street), there is capacity for the vehicular traffic estimated to be generated by the 6-lot single-family lots (Table 2).

Table 2. Roadway Capacity for Adjacent Roadways (Herbert St., Clyde Morris Blvd, and Nova Rd.)

Roadway Segment	Maximum Capacity Vehicles per day	2020 volume per day	2021 volume per day	2022 volume per day	Remaining Capacity Vehicles per day	V/C Ratio*
Herbert St. Clyde Morris Blvd. to City Center Dr.	12,744	6,710	7,129	8,183	4,561	0.64
Herbert St. City Center Dr. to Nova Rd.	12,744	7,173	8,159	8,385	4,359	0.66
Clyde Morris Blvd. Madeline Ave. to Willow Run Blvd.	37,970	18,820	23,390	N/A	14,580	0.62
Nova Rd. Madeline Ave. to Dunlawton Ave.	39,800	18,000	18,000	N/A	21,800	0.45

Source: City of Port Orange Herbert St. counts conducted by Traffic Engineering Data Solutions, Inc. (TEDS) April 2022
Clyde Morris Blvd. (County facility) and Nova Rd. (State facility) counts; Volusia County Traffic Engineering, 2021
Where no data is available the previous year's count was used for the purpose of calculating total counts and percent volume change for total counts.
*Volume/Capacity (V/C) Ratio - Volume-Demand-to-Capacity Ratio compares roadway demand (vehicle volumes) with roadway supply (carrying capacity). A V/C ratio of 1.00 indicates the roadway is operating at its capacity.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

The proposed subdivision is consistent with the 7th Amendment to the Bennett's Hammock PUD Master Development Agreement and Conceptual Development Plan which have already been determined to be consistent with the City's Comprehensive Plan. The subject property has a Future Land Use (FLU) designation of *Urban High-Density Residential (8-16 units/acre)* on the City's Future Land Use Map. According to the Comprehensive Plan, the maximum gross residential density for the 1.84-acre subject property is 29 units. The development of six (6) single-family lots is consistent with the allowable density for the current FLU designation on the subject property.

RECOMMENDATION

Staff recommends approval of the final Plat and Subdivision Plans for the Leila's Hammock Subdivision.

ATTACHMENTS:

1. Exhibit A – Leila's Hammock Subdivision Plat and Plans

LEILA'S HAMMOCK

SECTION 5, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA BEING A RE-PLAT OF A PORTION OF TRACT III, SEVENTH ADDITION BENNETT'S HAMMOCK, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 42, PAGE 137, PUBLIC RECORDS OF VOLUISA COUNTY, FLORIDA.

GENERAL NOTES:

1. BEARINGS SHOWN HEREON ARE ASSUMED ALONG THE SOUTH RIGHT-OF-WAY LINE OF OLD HAMMOCK ROAD, A 50' PRIVATE RIGHT-OF-WAY AS SHOWN ON PLAT OF BENNETT'S HAMMOCK, AS RECORDED IN PLAT BOOK 42, PAGE 137, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA BEING (N 89°07'09"E). FOR ANGLE MEASUREMENT ONLY.

2. MONUMENTATION
   ◎ - DENOTES PERMANENT REFERENCE MONUMENT FOUND STAMPED (AS NOTED).

   ⊠ - DENOTES PERMANENT REFERENCE MONUMENT SET 4"x4" CONCRETE MONUMENT STAMPED "LB 8205".

   ● - DENOTES LOT CORNERS SET 5/8" IRON ROD AND CAP STAMPED "LB 8205".

3. (NR) - DENOTES A LINE NOT RADIAL RELATIVE TO ADJACENT CURVE.

4. DIMENSIONS SHOWN ARE IN FEET AND DECIMALS THEREOF.

5. ACCURACY
   THE BOUNDARY LINEAR ERROR OF CLOSURE DOES NOT EXCEED 1:10,0000.
   THE BOUNDARY ANGULAR ERROR OF CLOSURE DOES NOT EXCEED 15 SECONDS MULTIPLIED BY THE SQUARE ROOT OF THE NUMBER OF ANGLE TURNED.

6. BEARINGS SHOWN HERE ARE RELATIVE TO ASSUMED DATUM, BASED ON NORTH AMERICAN DATUM 1983 (NAD83).

7. NOTE: ALL MEASUREMENTS REFER TO HORIZONTAL PLANE IN ACCORDANCE WITH THE DEFINITION OF THE U.S.SURVEY FOOT OR METER ADOPTED BY THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY. ALL MEASUREMENTS SHALL USE THE 39337/12=3.28083333333 EQUATION FOR CONVERSION FROM A U.S. FOOT TO METERS.

8. NOTICE: THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT. THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

9. THIS PLAT IS SUBJECT TO ALL EASEMENTS OF RECORD AND RESERVATIONS OF EASEMENTS, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITY AND ACCESS EASEMENTS GRANTED HEREON WHICH SHALL BE LOCATED AS FOLLOWS EXCEPT AS OTHERWISE NOTED ON THE PLAT:
   a.) 12 FOOT WIDE ON STREET FRONTAGE OF LOTS AND COMMON AREAS.

10. UTILITIES INCLUDE BUT ARE NOT LIMITED TO SANITARY SEWER, POTABLE WATER, RECLAIMED WATER, STORM DRAINAGE, ELECTRIC, TELEPHONE, CABLE TELEVISION, SECURITY, NATURAL GAS, FIBER OPTIC, TELECOMMUNICATION.

11. UTILITY EASEMENTS PROVIDED ON THIS PLAT INCLUDE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES, PROVIDED, HOWEVER, NO SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SHALL INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY.

12. ALL OTHER EASEMENTS ARE SUBORDINATE TO ANY CONSERVATION EASEMENTS DEDICATED HEREON. THERE SHALL BE NO REMOVAL OR DISTURBANCE OF ANY VEGETATION WITHIN SUCH CONSERVATION EASEMENTS. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONST CONSERVATION.

13. TREE PRESERVATION EASEMENT AS DEFINED ON THIS PLAT IS FOR THE EXPRESS PURPOSE OF THE PRESERVATION AND LONGEVITY OF THE TREES THEREIN. ACTIONS DETRIMENTAL TO TREE HEALTH SURVIVAL WITHIN THE BOUNDARIES OF THE DRIPLINE ARE PROHIBITED WITHOUT THE EXPRESS PERMISSION OF THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT. NOTHING HEREIN SHALL, HOWEVER, BE CONSTRUCTED TO PREVENT NATURAL VEGETATION WITHIN THE EASEMENT AREA FROM BEING CLEARED BY HAND TO PROVIDED A NEAT, MANICURED APPEARANCE. IN ADDITION, NOTHING HEREIN SHALL BE CONSTRUED TO PREVENT THE PLACEMENT OF SOD, IRRIGATION AND LANDSCAPE PLANTS OR TO PREVENT NORMAL LAWN MAINTENANCE SUCH AS MOWING, EDGING AND WEEDING NOT HARMFUL TO THE OBJECTIVE OF TREE PRESERVATION WITH THE EASEMENT AREA. ANY PROPOSED CONSTRUCTION OR OTHER USE WITHIN A CONSERVATION EASEMENT MUST BE REVIEWED AND APPROVED BY THE CITY OF PORT ORANGE AND ANY OTHER AUTHORITY HAVING JURISDICTION OVER THE CONSERVATION EASEMENT.

LOT SETBACKS AND OPEN SPACES/COVERAGE REQUIREMENTS FOR SINGLE FAMILY LOTS

14. MAXIMUM LOT IMPERVIOUS AREA:	60%
MAXIMUM BUILDING AREA:	40%
MINIMUM OPEN AREA PER LOT:	40%
FRONT SETBACK:	30
REAR SETBACK:	20
SIDE SETBACK:	5

15. THE COMMON AREAS GRANTED TO THE LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION, INC. BY THIS PLAT SHALL BE SUBJECT TO EASEMENTS AS SHOWN OR DESCRIBED HEREON OR GRANTED IN ACCORDANCE WITH THE LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION, INC.'S COVENANTS AND RESTRICTIONS. THE GRANTING OF SUCH COMMON AREAS IS NOT INTENDED TO GRANT ANY RIGHT TO THE GENERAL PUBLIC.

16. THE LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION INC., A FLORIDA NON-PROFIT CORPORATION SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE DRAINAGE SYSTEM SERVING THE AREA WITHIN THE BOUNDARIES OF THIS PLAT, AS DEPICTED ON THE STORMWATER MANAGEMENT PLAN APPROVED FOR THE DEVELOPMENT BY THE CITY OF PORT ORANGE, FLORIDA. SHOULD THE ASSOCIATION FAIL TO PERFORM THE MAINTENANCES OF THE DRAINAGE AND STORMWATER MANAGEMENT SYSTEMS, THE CITY OF PORT ORANGE SHALL BE ENTITLED TO ENTER UPON THE COMMON AREAS AND DESIGNATED EASEMENT AREAS TO PERFORM MAINTENANCE, REPAIR OR REPLACE THE FACILITIES; AND, SHALL HAVE THE RIGHT TO LIEN ALL OWNERS OF RECORD IN PROPERTY FOR THE COST OF SUCH MAINTENANCE, REPAIR, AND REPLACEMENT, AS DEEMED BY THE CITY TO BE NECESSARY. IN THE EVENT OF TERMINATION, DISSOLUTION, OR FINAL LIQUIDATION OF THE ASSOCIATION, THE RESPONSIBILITY FOR THE OPERATION AND MAINTENANCE OF THE SURFACE WATER OR STORM WATER MANAGEMENT SYSTEM WILL BE TRANSFERRED TO AND ACCEPTED BY AN IDENTITY WHICH COMPLIES WITH SECTION 40C-42.027, F.A.C. AND BE APPROVED BY THE SAINT JOHNS RIVER WATER MANAGEMENT DISTRICT PRIOR TO SUCH TERMINATION, DISSOLUTION, OR LIQUIDATION.

17. RETENTION AREAS AND COMMON AREAS ARE GRANTED AS EASEMENTS TO THE CITY OF PORT ORANGE WITH RIGHTS OF ACCESS, INGRESS, AND EGRESS.

18. THE LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION, INC. SHALL BE RESPONSIBLE FOR MAINTAINING ALL LANDSCAPING AND IRRIGATION IN COMMON AREAS.

19. THE ARTICLES OF INCORPORATION FOR THE LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK _______, PAGES _______ THROUGH _______ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA. THE DECLARATION OF COVENANTS AND RESTRICTIONS FOR THE LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION, INC. ARE RECORDED IN OFFICIAL RECORDS BOOK ________, PAGES _______ THROUGH ______, OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

LEGAL DESCRIPTION:

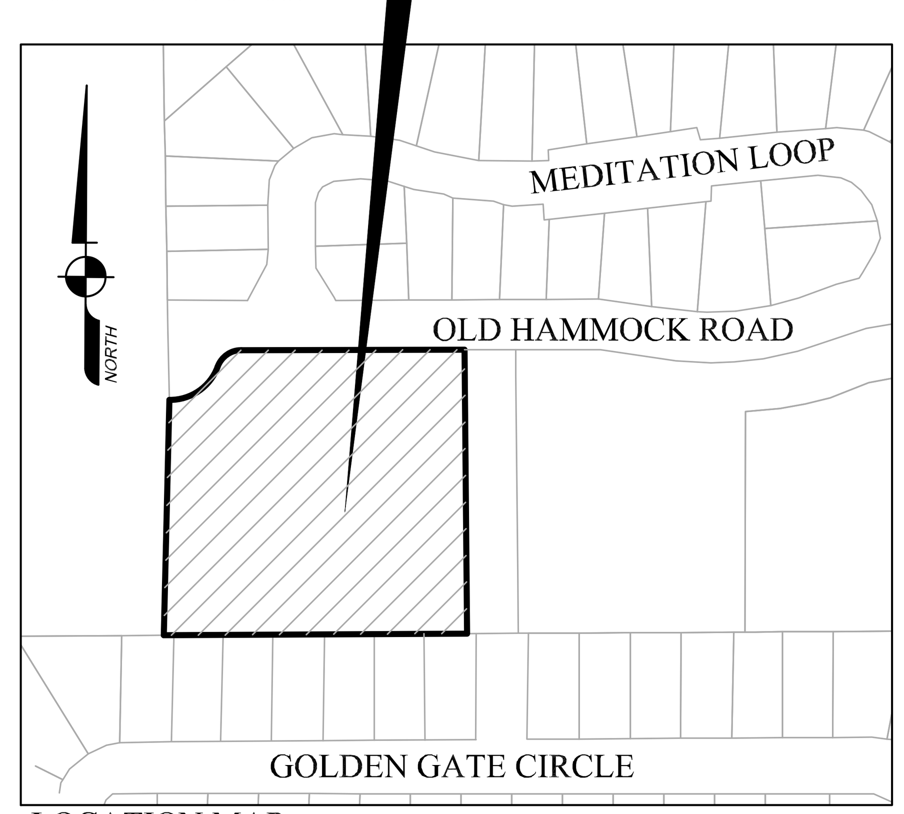
BEING A PORTION OF TRACT III, BENNETT'S HAMMOCK, ACCORDING TO THE PLAT THEREOF, RECORDED IN MAP BOOK 42, PAGE 137, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS.

BEGIN AT THE SOUTHWEST CORNER OF TRACT III, PLAT OF BENNETT'S HAMMOCK, RECORDED IN MAP BOOK 42, PAGE 137, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, MARKED BY A 4 INCH ROUND CONCRETE MONUMENT, NO ID, THENCE ALONG THE WEST LINE OF SAID TRACT III NORTH 00 DEGREES 18 MINUTES 52 SECONDS WEST, A DISTANCE OF 232.10 FEET TO A POINT ON A THE SOUTHERLY RIGHT-OF-WAY LINE OF OLD HAMMOCK ROAD, A 50 FOOT RIGHT-OF-WAY, ALSO BEING ON A NON-TANGENT CURVE, CONCAVE NORTHERLY AND TO THE LEFT, SAID CURVE HAVING A CENTRAL ANGLE OF 70 DEGREES 32 MINUTES 59 SECONDS, RADIUS OF 50.00 FEET, A CHORD BEARING NORTH 53 DEGREES 51 MINUTES 55 SECONDS EAST, CHORD LENGTH 57.75 FEET; THENCE ALONG THE ARC OF SAID CURVE 61.57 FEET TO A POINT ON A REVERSE CURVE, CONCAVED SOUTHERLY AND TO THE RIGHT, SAID CURVE HAVING A CENTRAL ANGLE 70 DEGREES 31 MINUTES 17 SECONDS EAST, A RADIUS OF 25.00 FEET, A CHORD BEARING NORTH 53 DEGREES 51 MINUTES 17 SECONDS EAST, A CHORD LENGTH 51.75 FEET; THENCE ALONG SAID ARC A DISTANCE OF 61.57 FEET TO A POINT ON THE NORTH LINE OF TRACT III OF AFORESAID BENNETT'S HAMMOCK ALSO BEING THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID OLD HAMMOCK ROAD; THENCE NORTH 89 DEGREES 07 MINUTES 09 SECONDS EAST ALONG THE NORTH LINE OF TRACT III; A DISTANCE OF 219.78 FEET; THENCE DEPARTING SAID NORTH LINE OF SAID TRACT III SOUTH 00 DEGREES 18 MINUTES 52 SECONDS EAST AND PARALLEL TO THE WEST LINE OF SAID TRACT III A DISTANCE OF 286.01 FEET TO A POINT ON THE SOUTH LINE OF SAID TRACT III ALSO BEING THE NORTH LINE OF TWIN GATES MOBILE ESTATES SUBDIVISION, MAP BOOK 33, PAGE 48, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE ALONG SAID SOUTH LINE OF TRACT III SOUTH 89 DEGREES 53 MINUTES 26 SECONDS WEST, A DISTANCE OF 290.00 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED LAND CONTAINS 80,349 SQUARE FEET OR 1.8 ACRES MORE OR LESS.

SITE LOCATION
LAT: N 29°08'13.6"
LON: W 81°01'03.4"



LOCATION MAP SCALE = 1" = 150'

LEGEND:

FD	FOUND
FL	FLORIDA
ID	IDENTIFICATION
IRC	IRON ROD & CAP
LB	LICENSED BUSINESS
LC	LICENSED SURVEYOR
M.B.	MAP BOOK
No.	NUMBER
O.R.	OFFICIAL RECORD BOOK
P.B.	PLAT BOOK
PG	PAGE
PGS	PAGES
PSM	PROFESSIONAL SURVEYOR & MAPPER
PRM	PERMANENT REFERENCE MONUMENT
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENT
R/W	RIGHT-OF-WAY
V.C.R.	VOLUSIA COUNTY RECORDS
℄	CENTERLINE RIGHT-OF-WAY
◎	FOUND 4" ROUND CONCRETE MONUMENT (AS NOTED)
⊠	SET 4" X 4" CONCRETE MONUMENT STAMPED PRM LB 8205
●	SET 5/8" IRON ROD & CAP LB 8205 AT ALL LOTS, TRACTS AND RIGHT-OF-WAY CORNERS, EXCEPT NOTED BY A PRM OR PCP WILL BE SET IN ACCORDANCE WITH CHAPTER 177, PART 1, FLORIDA STATUTES.

INDEX OF SHEETS:

SHEET PL-1 OF PL-3

Professional Surveyor
A1A SURVEYING, INC.
Residential Commercial Construction
Phone: 386.216.5730
555 W Granada Blvd., Suite D7, Ormond Beach, Florida 32174 LB 8205

PLAT BOOK PAGE

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION, INC., BEING THE OWNER IN FEE SIMPLE OF THE LANDS SHOWN HEREON AS THE PLAT ENTITLED LEILA'S HAMMOCK, LOCATED IN THE CITY OF PORT ORANGE, FLORIDA. HEREBY DEDICATES THE SAID LANDS AND PLAT FOR THE USE AND PURPOSES HEREON EXPRESSED. DRAINAGE, MAINTENANCE, UTILITIES, TREE PRESERVATION AND ACCESS EASEMENTS, UNLESS OTHERWISE INDICATED ARE DEDICATED TO THE CITY OF PORT ORANGE. TRACT A IS HEREBY GRANTED TO LEILA'S HAMMOCK HOMEOWNERS ASSOCIATION, INC. FOR THE BENEFIT OF ALL LOT OWNERS OF THE LANDS DESCRIBED HEREIN AND FOR PURPOSES DESCRIBED IN THE GENERAL NOTES.

IN WITNESS WHERE OF,____________________ HAS CAUSED THESE PRESENTS TO BE SIGNED, ATTESTED, AND SEALED BY THOSE NAMED BELOW ON THIS ______________________________.

SIGNED AND SEALED IN THE PRESENCE OF:

____________________ ____________________
WITNESS

LAND OWNER
____________________ ____________________
PRINTED NAME:

PRINTED NAME:
STATE OF FLORIDA, COUNTY OF VOLUSIA

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME ON THIS _____ DAY OF _________________, 2022, BY______________, AS MANAGING MEMBER OF, A FLORIDA LIMITED LIABILITY COMPANY ON BEHALF OF SAID COMPANY. IS PERSONALLY KNOWN TO ME OR HAS PRODUCED ________________________________ AS IDENTIFICATION.

____

NOTARY PUBLIC
PRINT NAME
MY COMMISSION EXPIRES: ____________________ SEAL

COMMISSION NUMBER: ____________________

CERTIFICATE OF SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING A LICENSED AND REGISTERED SURVEYOR AND MAPPER, DOES HEREBY CERTIFY THAT THE PLAT SHOWN AND DESCRIBED HEREON, ENTITLED LEILA'S HAMMOCK, WAS PREPARED UNDER MY DIRECTION AND SUPERVISION, THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, FLORIDA STATUES, AND THAT ALL MONUMENTATION SHOWN HEREON OR REQUIRED PER CHAPTER 177, FLORIDA STATUES, HAS BEEN PROPERLY PLACED.

David McMillen

DAVID McMILLEN PSM #6378
A1A SURVEYING, Inc.
555 W. Granada Blvd., Ste. D-7
Ormond Beach, FL. 32174

DATE: ____________________

REGISTRATION NUMBER
LB #8205

REVIEW BY SURVEYOR & MAPPER FOR THE CITY OF PORT ORANGE

I HEREBY CERTIFY TO THE CITY, THAT I HAVE REVIEWED THE FOREGOING PLAT FOR COMPLIANCE WITH THE REQUIREMENTS OF CHAPTER 177, FLORIDA STATUES, AND THAT I AVE PROVIDED BOTH THE CITY AND THE SURVEYOR AND MAPPER OF RECORD A LIST OF DEVIATIONS, IF ANY, FROM SUCH REQUIREMENTS.

____________________ ____________________
NAME DATE

PRINT NAME: ____________________ P.L.S. No.: ____________

PLANNING COMMISION CERTIFICATE OF APPROVAL

THIS STATEMENT HEREBY CERTIFIED THAT THE PLAT ENTITLED, LEILA'S HAMMOCK, WAS APPROVED BY THE PORT ORANGE PLANNING COMMISSION ON ____________________

BY: ____________________
CHAIRMAN OF THE PORT ORANGE PLANNING COMMISSION

CITY COUNCIL CERTIFICATE OF APPROVAL

THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED, LEILA'S HAMMOCK, WAS APPROVED BY THE PORT ORANGE CITY COUNCIL ON ____________________

BY: ____________________ ATTEST: ____________________
MAYOR OF THE CITY OF PORT ORANGE CITY CLERK OF PORT ORANGE

CERTIFICATE OF CLERK

I HEREBY CERTIFY THAT I HAVE EXAMINED THE FOREGOING PLAT AND FOUND THAT IT COMPLIES, IN FORM, WITH ALL REQUIREMENTS STATED IN CHAPTER 177, FLORIDA STATUTES, AND THAT IT WAS FILED FOR RECORD ON _____________ AT _________________ A.M. / P.M..

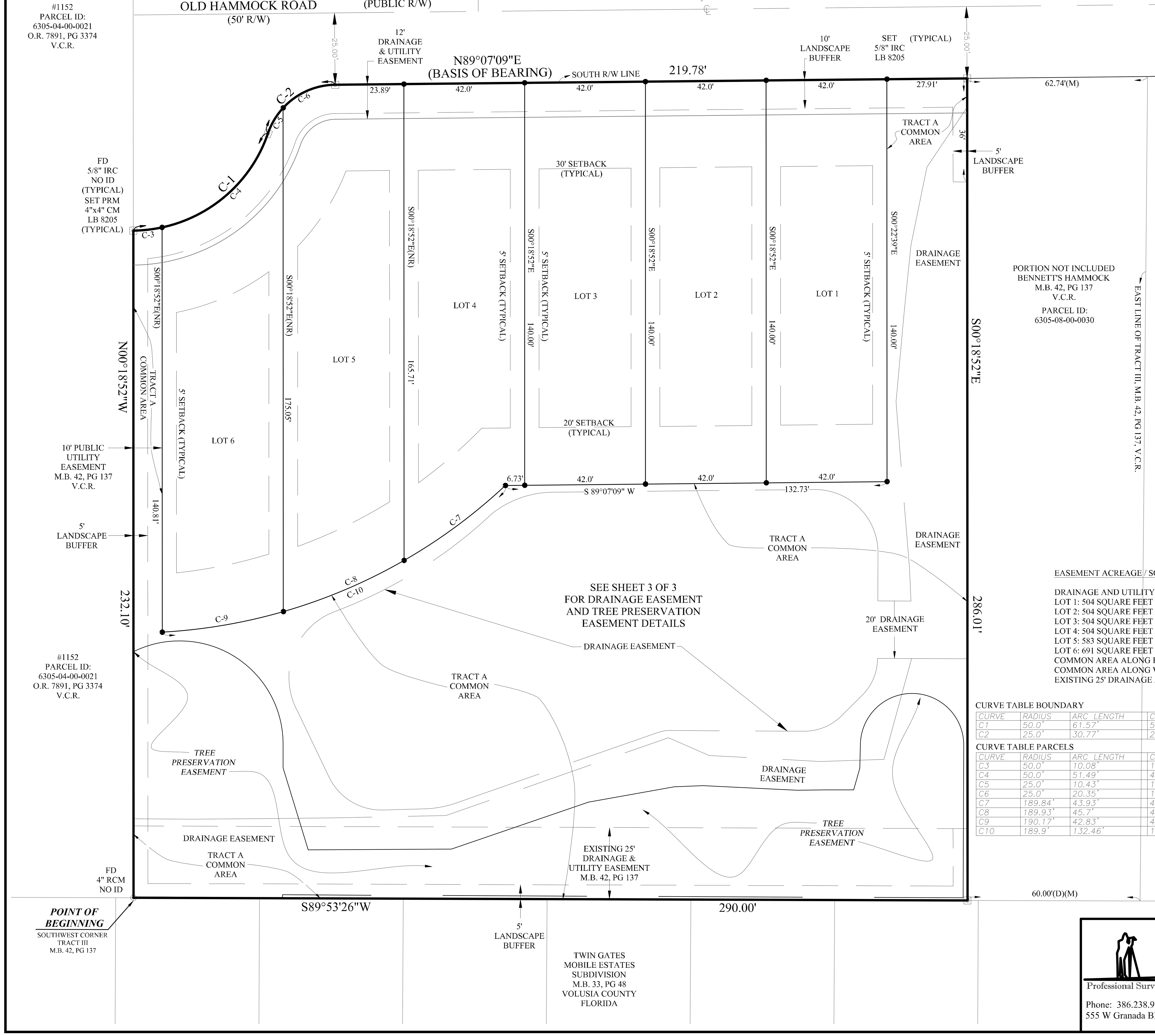
FILE # ____________________

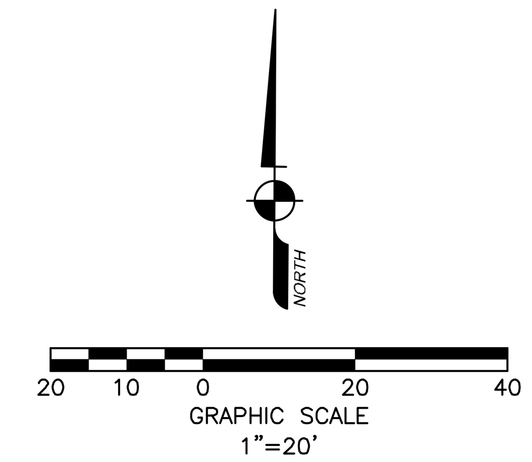
BY: ____________________
CLERK OF THE CIRCUIT COURT
IN AND FOR VOLUSIA COUNTY, FLORIDA.

LEILA'S HAMMOCK

SECTION 5, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA BEING A RE-PLAT OF A PORTION OF TRACT III, SEVENTH ADDITION BENNETT'S HAMMOCK, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 42, PAGE 137, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

PLAT BOOK	PAGE





EASEMENT ACREAGE / SQUARE FOOTAGE TOTALS

DRAINAGE AND UTILITY STREET FRONTAGE:
LOT 1: 504 SQUARE FEET / 0.0116 ACRES
LOT 2: 504 SQUARE FEET / 0.0116 ACRES
LOT 3: 504 SQUARE FEET / 0.0116 ACRES
LOT 4: 504 SQUARE FEET / 0.0116 ACRES
LOT 5: 583 SQUARE FEET / 0.0134 ACRES
LOT 6: 691 SQUARE FEET / 0.0159 ACRES
COMMON AREA ALONG EAST LINE: 335 SQUARE FEET / 0.0077 ACRES
COMMON AREA ALONG WEST LINE: 121 SQUARE FEET / 0.0028 ACRES
EXISTING 25' DRAINAGE ALONG THE SOUTH: 7,250 SQUARE FEET / 0.1664 ACRES.

CURVE TABLE BOUNDARY

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	50.0'	61.57'	57.75'	N 53°51'55" E	70°32'59"
C2	25.0'	30.77'	28.87'	N 53°51'17" E	70°31'44"

CURVE TABLE PARCELS

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C3	50.0'	10.08'	10.06'	N 83°21'57" E	11°32'56"
C4	50.0'	51.49'	49.24'	N 48°05'27" E	59°00'04"
C5	25.0'	10.43'	10.35'	N 30°32'23" E	23°53'55"
C6	25.0'	20.35'	19.79'	N 65°48'15" E	46°37'49"
C7	189.84'	43.93'	43.83'	S 53°12'13" W	13°15'30"
C8	189.93'	45.7'	45.59'	S 66°43'07" W	13°47'16"
C9	190.17'	42.83'	42.74'	S 80°04'41" W	12°54'11"
C10	189.9'	132.46'	129.79'	S 66°33'21" W	39°57'58"

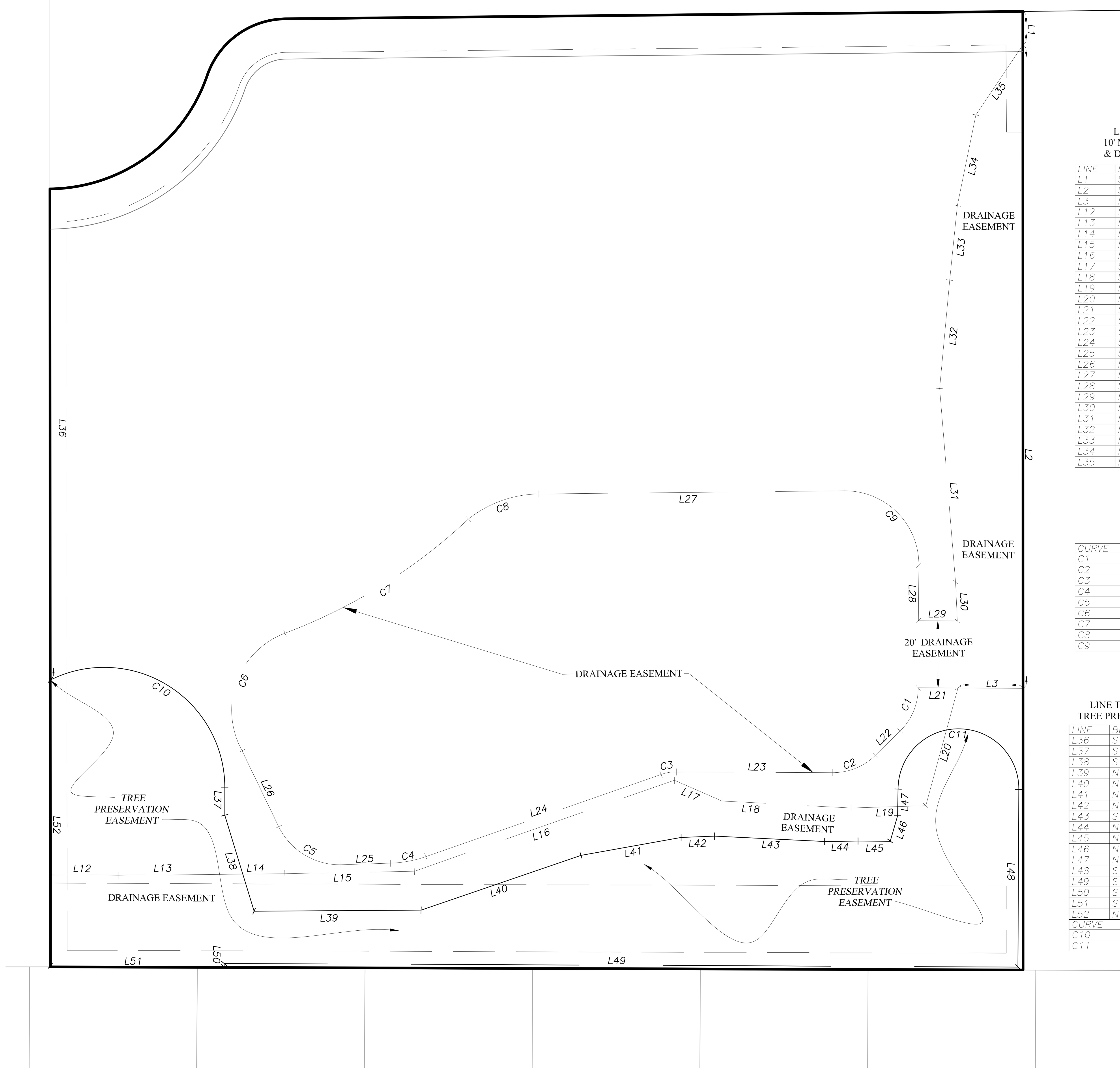
SHEET PL-2 OF PL-3

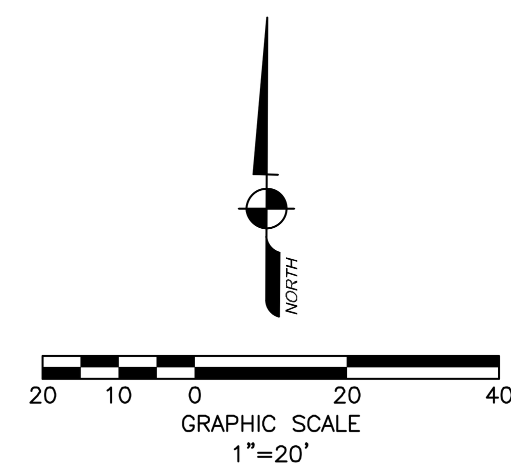
A1A SURVEYING, INC.
Professional Surveyor
Residential Commercial Construction
Phone: 386.238.9231
555 W Granada Blvd., Suite D7, Ormond Beach, Florida 32174 LB 8205

PLAT BOOK	PAGE

LEILA'S HAMMOCK

SECTION 5, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA BEING A RE-PLAT OF A PORTION OF TRACT III, SEVENTH ADDITION BENNETT'S HAMMOCK, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 42, PAGE 137, PUBLIC RECORDS OF VOLUISA COUNTY, FLORIDA.





LINE / CURVE TABLE
10' MAINTENANCE BERM
& DRAINAGE EASEMENT

LINE	BEARING	DISTANCE
L1	S 00°18'52" E	10.04'
L2	S 00°18'52" E	191.91'
L3	N 89°42'25" W	19.39'
L12	S 89°51'08" E	20.21'
L13	N 89°12'45" E	26.23'
L14	N 89°06'06" E	23.30'
L15	N 88°33'19" E	38.88'
L16	N 70°24'41" E	82.03'
L17	S 66°46'36" E	15.50'
L18	S 87°10'55" E	38.54'
L19	N 87°52'17" E	22.26'
L20	N 15°01'28" E	36.39'
L21	S 90°00'00" W	11.89'
L22	S 45°00'00" W	10.34'
L23	S 90°00'00" W	46.54'
L24	S 70°25'46" W	74.33'
L25	S 88°04'04" W	14.65'
L26	N 25°58'30" W	25.17'
L27	N 89°07'09" E	91.01'
L28	S 00°00'00" E	16.63'
L29	N 90°00'00" E	11.55'
L30	N 02°54'17" W	11.66'
L31	N 04°55'28" W	57.89'
L32	N 04°57'37" E	32.48'
L33	N 05°34'20" E	22.32'
L34	N 11°10'29" E	27.64'
L35	N 33°38'28" E	25.11'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	18.00'	14.29'	13.92'	S 22°15'28" W	45°29'04"
C2	18.00'	14.14'	13.78'	S 67°30'00" W	45°00'00"
C3	13.58'	4.71'	4.69'	S 80°21'49" W	19°52'06"
C4	35.33'	10.81'	10.77'	S 79°18'12" W	17°31'45"
C5	20.00'	23.02'	21.77'	N 58°57'13" W	65°57'26"
C6	24.56'	42.33'	37.28'	N 19°44'13" E	98°46'33"
C7	163.93'	64.83'	64.41'	N 57°47'42" E	22°39'35"
C8	34.56'	22.72'	22.31'	N 70°06'53" E	37°39'58"
C9	22.00'	34.90'	31.35'	S 45°26'26" E	90°52'51"

LINE TABLE / CURVE TABLE
TREE PRESERVATION EASEMENT

LINE	BEARING	DISTANCE
L36	S 00°18'52" E	146.50'
L37	S 00°02'28" E	8.16'
L38	S 17°20'38" E	29.91'
L39	N 89°21'50" E	49.78'
L40	N 70°47'58" E	50.39'
L41	N 79°32'53" E	30.29'
L42	N 87°25'16" E	10.02'
L43	S 87°28'36" E	32.82'
L44	N 88°49'07" E	9.96'
L45	N 89°58'02" E	9.61'
L46	N 15°34'11" E	7.87'
L47	N 00°55'26" E	7.97'
L48	S 00°01'14" E	52.91'
L49	S 89°57'51" W	236.68'
L50	S 00°02'28" E	0.99'
L51	S 90°00'00" W	51.79'
L52	N 00°18'52" W	85.27'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C10	36.00'	73.16'	61.20'	S 58°34'03" E	116°25'57"
C11	18.00'	56.72'	36.00'	N 89°58'46" E	180°32'42"

EASEMENT ACREAGE / SQUARE FOOTAGE TOTALS

DRAINAGE EASEMENT, VARYING WIDTH: 24,320 SQUARE FEET / 0.5583 ACRES.
TREE PRESERVATION EASEMENT, VARYING WIDTH: 12,483 SQUARE FEET / 0.29 ACRES.

SHEET PL-3 OF PL-3

Professional Surveyor
A1A SURVEYING, INC.
Residential Commercial Construction
Phone: 386.238.9231
555 W Granada Blvd., Suite D7, Ormond Beach, Florida 32174 LB 8205

Cover Page For:

LEILA'S HAMMOCK

OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

DEVELOPER:
RIGA INC.
REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL. 32115
Phone: (386)
E-mail: REZA32174@YAHOO.COM

COMMUNITY DEVELOPMENT DIRECTOR
TIM BURMAN
1000 CITY CENTER CIRCLE
PORT ORANGE, FL. 32129
Phone: (386) 506-5625
Fax: (386)
E-mail: TBURMAN@PORT-ORANGE.ORG

CIVIL ENGINEER:
RICHARD J. DIXON, P.E.
102 SOUTH ORANGE AVENUE
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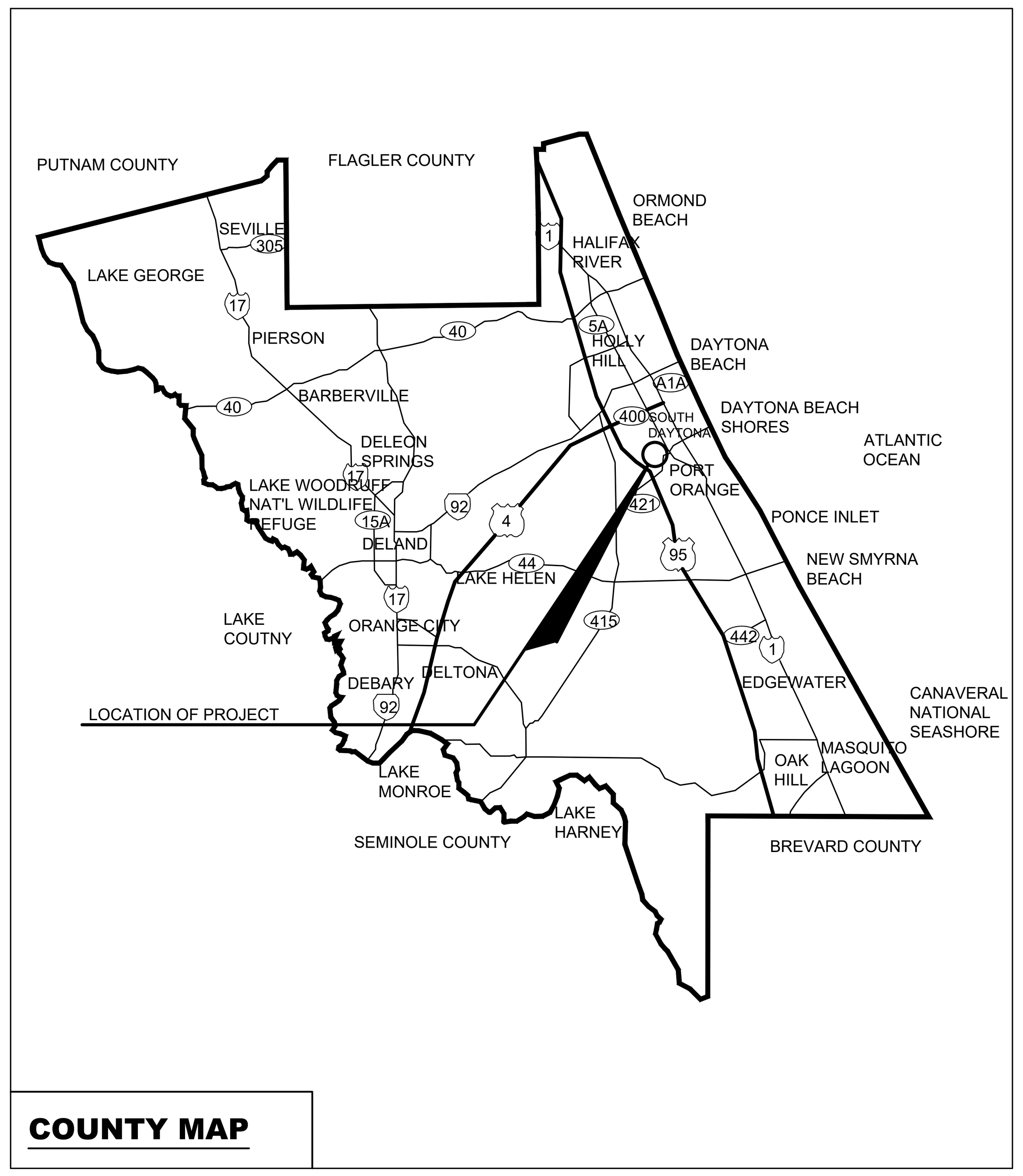
Phone: (386) 428-5834
Fax: (386) 409-3781
E-mail: RICK@ANDERSONDIXONLLC.COM

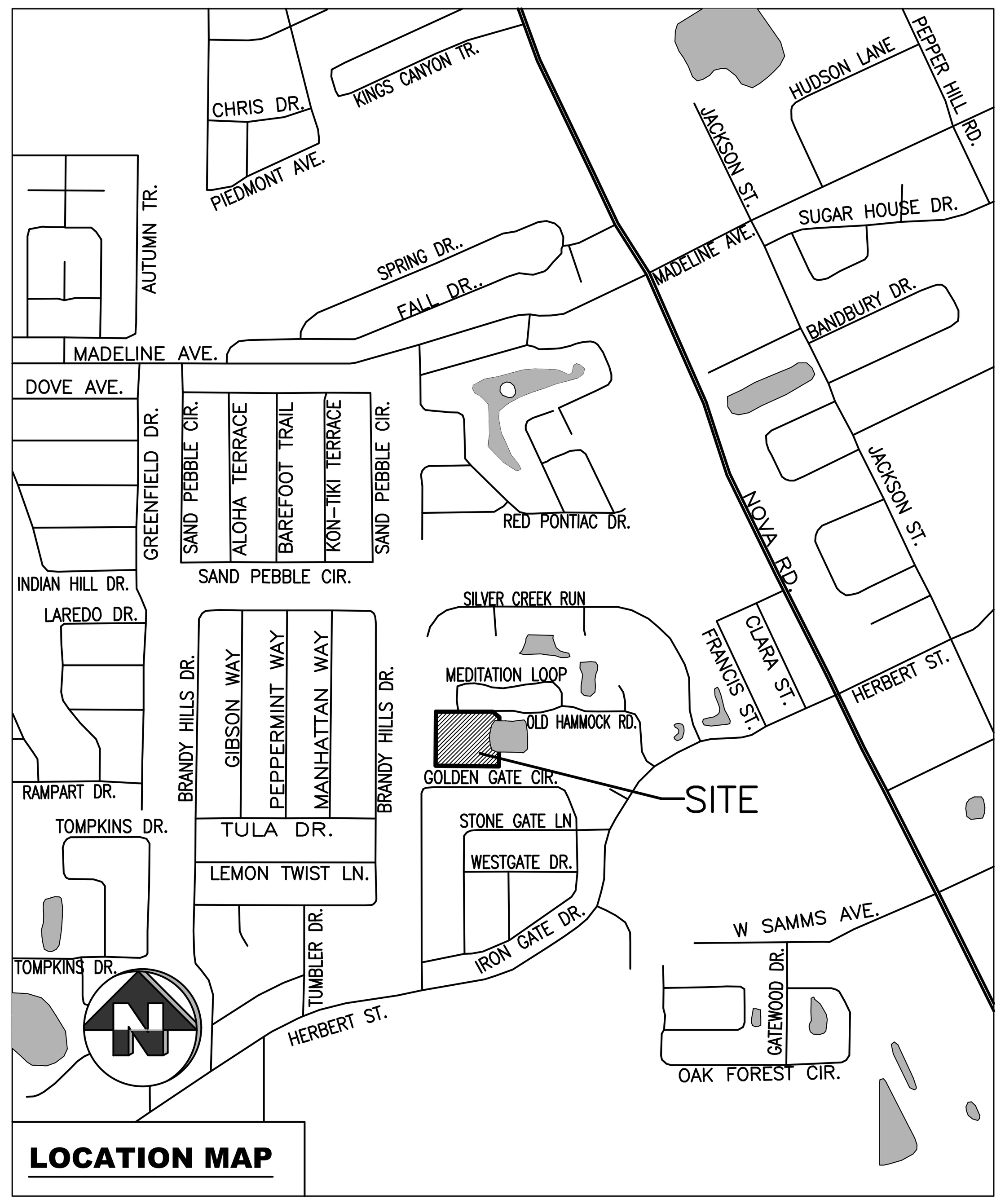
SURVEYOR:
A1A SURVEYING, INC.
DAVID McMILLEN
555 W. GRANADA BLVD., STE D7
ORMOND BEACH, FL. 32174
Phone: (386) 5730
E-mail: DAVID@A1ASURVEYING.COM

PROJECT BIOLOGIST:
YOUNG BEAR ENVIRONMENTAL
DANNY YOUNG
2773 DATE PALM DRIVE
EDGEWATER, FL. 32132
Phone: (386) 576-3541
E-mail: DYOUNG@YBECONSULTING.COM

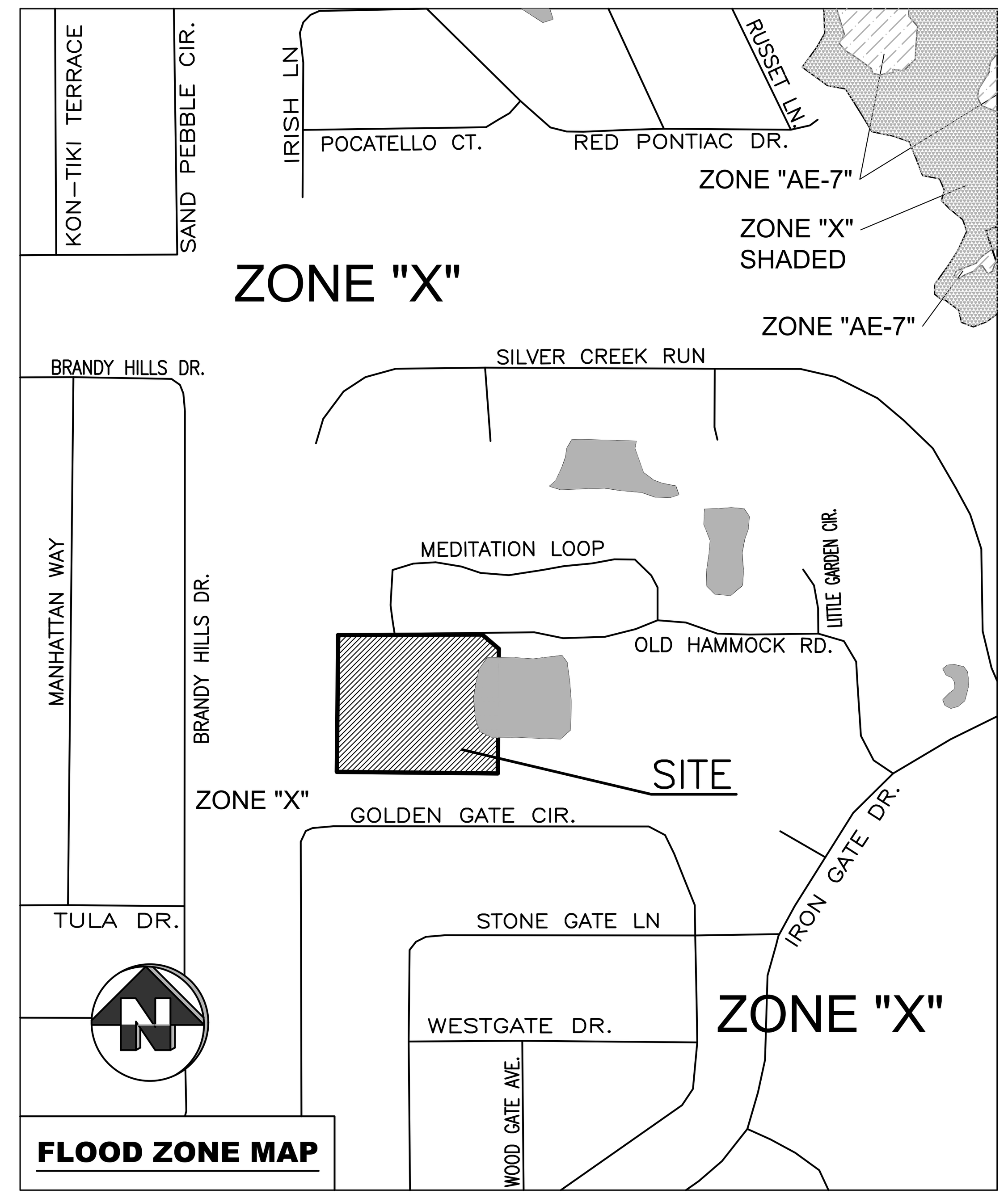
GEOTECHNICAL ENGINEER:
BRIAN POHL, P.E.
UNIVERSAL ENGINEERING SERVICES
911 BEVILLE ROAD, STE. #3
SOUTH DAYTONA, FL.
Phone: 386-756-1105
Fax: 386-760-4067
E-mail: BPOHL@UNIVERSALENGINEERING.COM



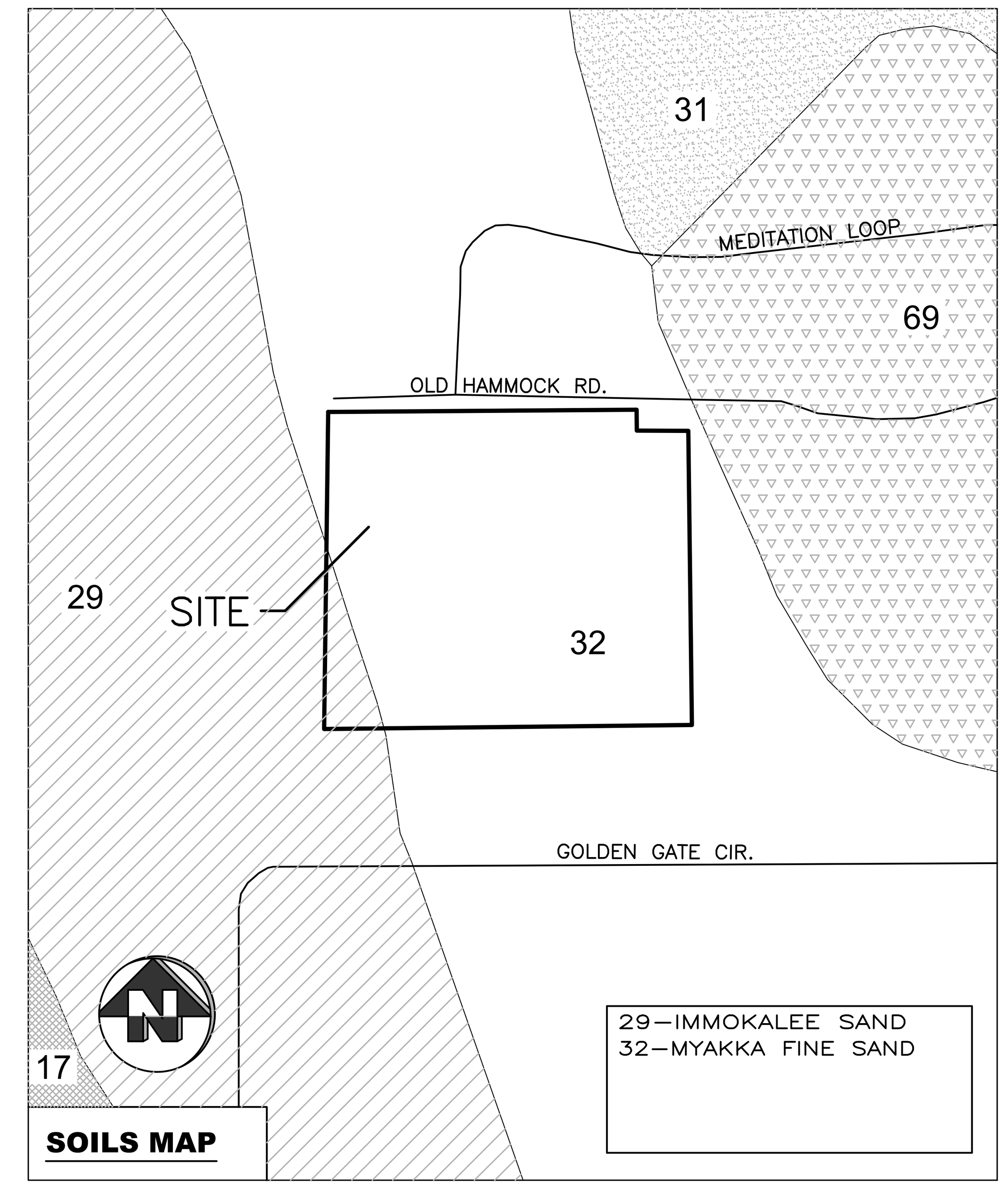
COUNTY MAP



LOCATION MAP



FLOOD ZONE MAP



SOILS MAP

ZONING DATA:

EXISTING ZONING:	RPUD
MIN. LOT WIDTH	42'
MIN. LOT DEPTH	140'
MIN. LOT SIZE	5,880 S.F.
MAX. LOT IMPERVIOUS COVERAGE	60%
MIN. OPEN AREA	40%
MAX. BUILDING COVERAGE	40%
FRONT YARD SETBACK	30'
SIDE YARD SETBACK	5'
REAR YARD SETBACK	20'
SIDE CORNER SETBACK	N.A.
MAXIMUM BUILDING HEIGHT	35'

TAX PARCEL NO: 6305-08-00-0030

LEGAL DESCRIPTION:
TRACT III & INC S 1/2 OF W 290 FT OF OLD HAMMOCK RD BENNETTS HAMMOCK MB 42 PG 137 PER OR 4245 PG 1325

PROJECT SCOPE:

- CONSTRUCT (6) SINGLE FAMILY HOMES FRONTING ON OLD HAMMOCK ROAD.

UTILITY INFORMATION

SEWER – CITY OF PORT ORANGE
WATER – CITY OF PORT ORANGE
ELECTRIC – FLORIDA POWER & LIGHT

FLOOD DATA:

PROJECT IS LOCATED IN FLOOD ZONE "X" PER SURVEY BY A1A SURVEYING INC.

SOIL DATA:

SOIL DATA IS CLASSIFIED AS MYAKKA FINE SAND & IMMOKALEE SAND.

PROJECT CRITERIA

- CITY OF PORT ORANGE FINAL PLAT APPROVAL REQUIRED.
- ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PERMIT REQUIRED.
- CITY OF PORT ORANGE CONSTRUCTION PLAN APPROVAL.
- NPDES PERMIT WILL BE REQUIRED OF THE PROJECT CONTRACTOR.
- CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY OF PORT ORANGE ENGINEERING AND LAND DEVELOPMENT REGULATIONS.
- FDEP APPLICATION TO CONSTRUCT A DOMESTIC WASTEWATER COLLECTION TRANSMISSION SYSTEM.

INDEX OF DRAWINGS

(PERMIT SUBMITTAL SET)

DATE: 03-28-22

ANDERSON DIXON
ENGINEERING•PLANNING•PERMITTING
PHONE: (386) 428-5834 - FAX: (386) 409-3781

RICHARD J. DIXON, P.E.
PROFESSIONAL ENGINEER
FL. REG.# 47544
102 SOUTH ORANGE STREET
NEW SMYRNA BEACH, FL
32168 (386) 428-5834

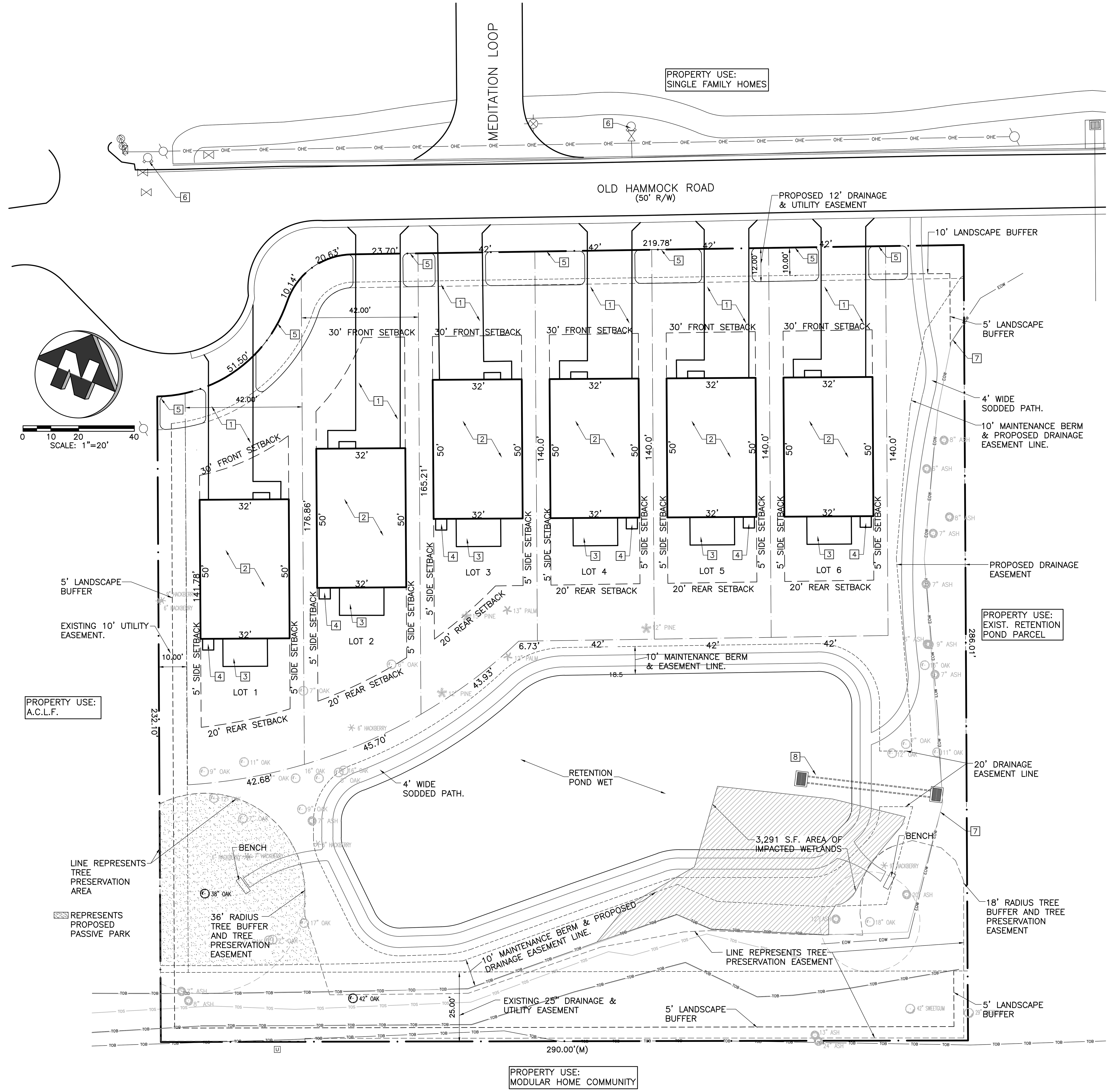
COVERPAGE FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
EDGEWATER, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS
2	12-12-22	R.A.I. #2 - CITY COMMENTS
3	10-27-22	R.A.I. #3 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282

CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL. 32115

SHEET NO.
C-1



LEGEND

—SILT—	SILT FENCE	—S—	SEWER LINES
—W—	WATER LINES	——	PROPERTY LINES
—OU—	OVERHEAD ELECTRIC		SITE LIGHTING

SITE PLAN GENERAL NOTES:

1. EROSION CONTROL MUST BE MAINTAINED THROUGHOUT CONSTRUCTION, SEE CLEARING PLAN AND CITY STANDARD CONSTRUCTION DETAIL M-3.
2. ELEVATIONS SHOWN ARE GIVEN IN N.A.V.D. 1988 DATUM, UNLESS NOTED OTHERWISE, SEE PAVING AND GRADING PLAN.
3. PROJECT IS LOCATED IN FLOOD ZONE X, PER FEMA MAP #120313 PANEL #12127 C 0368 J, DATED 9-29-17.
4. CONTACT ENGINEER OF RECORD IMMEDIATELY IF ANY DESCREPANCIES IN DIMENSIONS OR OTHERWISE HAS OCCURED IN THESE PLANS.
5. TRASH COLLECTION WILL BE ROLL OUT TOTES.
6. CONTRACTOR TO PROVIDE AS-BUILT INFORMATION OF ALL SITE WORK FOR REVIEW BY ENGINEER OF RECORD AND SUBMITTAL TO CITY. AS-BUILT DRAWING TO INCLUDE PAVING, CURBS, STORMWATER INLET & PIPES, AND GRADE/ELEVATION DATA.
7. CONTACT COMMUNITY DEVELOPMENT ENGINEER PRIOR TO CONSTRUCTION TO SET UP PRE-CONSTRUCTION CONFERENCE.
8. ALL CONSTRUCTION SITE WIDE SHALL CONFORM TO CITY OF PORT ORANGE STANDARD CONSTRUCTION DETAILS.
9. UTILITIES ARE TO BE PROVIDED UNDERGROUND.

SITE PLAN CONSTRUCTION NOTES:

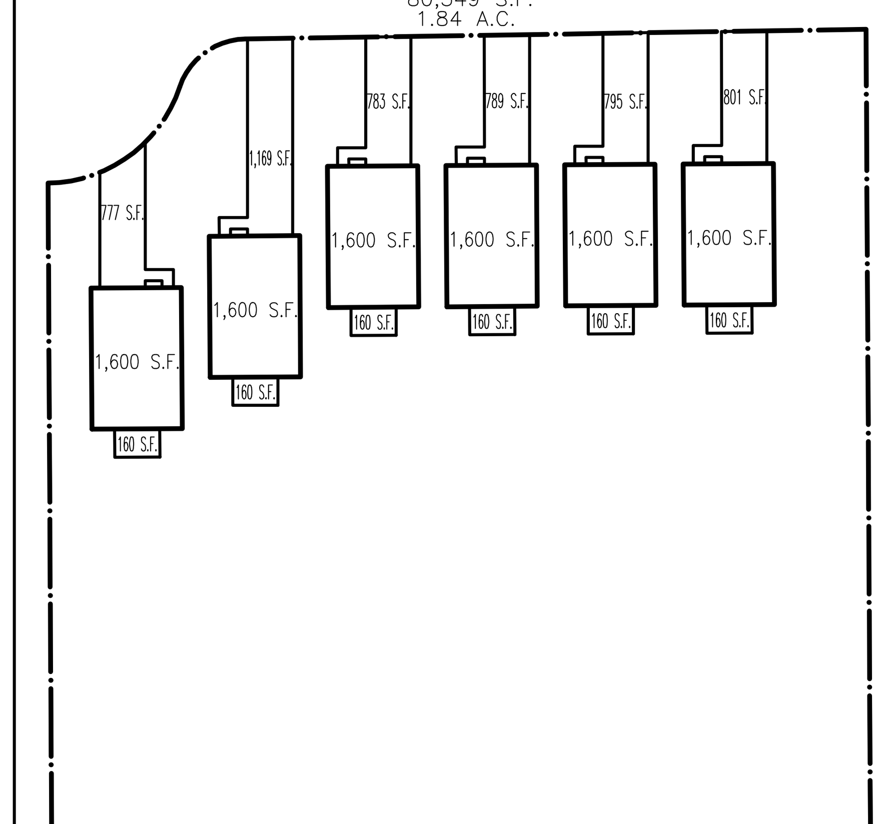
1. PROPOSED DRIVEWAY.
2. PROPOSED SINGLE FAMILY RESIDENTIAL HOME.
3. PROPOSED 10'x16' CONCRETE PATIO.
4. PROPOSED 4'x4' CONCRETE AIR CONDENSER PAD.
5. PROPOSED FRONT SWALE.
6. EXIST. FIRE HYDRANT LOCATED DIRECTLY ACROSS OLD HAMMOCK ROAD.
7. TOP OF BANK, EXISTING OLD HAMMOCK RETENTION POND.
8. EMERGENCY DISCHARGE FOR PROPOSED RETENTION POND.

SITE REQUIREMENTS:

	PROPOSED	ALLOWABLE
OVERALL MAX. IMPERVIOUS:	15,674 S.F.(20%)	32,140 S.F.(40%)
OVERALL MIN. OPEN SPACE	64,675 S.F.(80%)	48,209 S.F.(60%)
OVERALL MIN. COMMON SPACE	32,726 S.F.(41%)	16,349 S.F.(20%)
LOT 1 MAX. IMPERVIOUS SPACE	2,353 S.F.(37%)	3,827 S.F.(60%)
LOT 2 MAX. IMPERVIOUS SPACE	2,945 S.F.(40%)	4,393 S.F.(60%)
LOT 3 MAX. IMPERVIOUS SPACE	2,559 S.F.(40%)	3,822 S.F.(60%)
LOT 4 MAX. IMPERVIOUS SPACE	2,565 S.F.(44%)	3,528 S.F.(60%)
LOT 5 MAX. IMPERVIOUS SPACE	2,571 S.F.(44%)	3,528 S.F.(60%)
LOT 6 MAX. IMPERVIOUS SPACE	2,577 S.F.(44%)	3,528 S.F.(60%)
LOT 1 MIN. OPEN SPACE	4,025 S.F.(63%)	2,551 S.F.(40%)
LOT 2 MIN. OPEN SPACE	4,376 S.F.(60%)	2,928 S.F.(40%)
LOT 3 MIN. OPEN SPACE	3,811 S.F.(60%)	2,548 S.F.(40%)
LOT 4 MIN. OPEN SPACE	3,315 S.F.(56%)	2,352 S.F.(40%)
LOT 5 MIN. OPEN SPACE	3,315 S.F.(56%)	2,352 S.F.(40%)
LOT 6 MIN. OPEN SPACE	3,315 S.F.(56%)	2,352 S.F.(40%)

OPEN AREA CALC.S

80,349 S.F.
1.84 A.C.



777 S.F.
1,169 S.F.
783 S.F.
789 S.F.
795 S.F.
801 S.F.
DRIVEWAY TOTAL: 5,114 S.F.

6x1,600 S.F. = 9,600 SQ. FT.
BUILDING TOTAL: = 9,600 SQ. FT.
6x160 S.F. = 960 SQ. FT.
PATIO TOTAL: = 960 SQ. FT.

BUILDING TOTAL: = 9,600 SQ. FT.
PATIO TOTAL: = 960 SQ. FT.
DRIVEWAY TOTAL: = 5,114 SQ. FT.
TOTAL: = 15,674 SQ. FT.
15,674 S.F./80,349 S.F.
= 20% IMPERVIOUS AREA PROPOSED
40% IMPERVIOUS AREA ALLOWABLE(MAX.)
60% OPEN AREA REQUIRED(MIN..)

(PERMIT SUBMITTAL SET)

IN ORDER TO ENSURE THAT NEW SUBDIVISIONS AND SITE PLANS ARE CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY REGULATIONS AND THE APPROVED DRAWINGS, THE FOLLOWING INFORMATION IS REQUIRED ON ALL AS-BUILT DRAWINGS:

1. INDIVIDUAL PLAN AND PROFILE SHEETS FOR ALL ROADS AND SANITARY SEWER LINES, SHOWING MANHOLES, INLETS, AND PIPE CROSSINGS. PLAN AND PROFILE SHEETS SHALL SHOW SANITARY LINES AND ALL OTHER BURIED UTILITIES THAT CROSS SEWER LINES, AND ANY THAT ARE PARALLEL AND WITHIN TEN FEET OF SANITARY SEWER LINES. PLAN VIEWS SHALL BE DRAWN AT A SCALE OF ONE (1) INCH EQUAL TO FORTY (40) FEET HORIZONTAL. PROFILES SHALL BE DRAWN AT ONE (1) INCH EQUAL TO FOUR (4) FEET VERTICAL AND ALIGNED VERTICALLY WITH IMPROVEMENTS SHOWN ON THE PLAN VIEW.
2. DESIGN ELEMENTS SHALL BE CROSSED OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
3. PAVEMENT AND CURB WIDTHS SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET AT EACH BLOCK FOR SUBDIVISIONS AND AS APPROPRIATE TO CONFIRM PAVING LIMITS FOR SITE PLANS.
4. ALL RADII AT INTERSECTIONS SHALL BE VERIFIED, DIMENSIONED AND CLEARLY INDICATED ON THE AS-BUILT.
5. ROADWAY ELEVATIONS AT CENTERLINE AND CURB INVERT SHALL BE RECORDED AT ALL GRADE CHANGES, 100' INTERVALS FOR LONG ROADWAYS, AND OTHER INTERVALS AS NEEDED. FOR SUBDIVISIONS, THE AS-BUILT CENTERLINE GRADE LINES OF ALL STREETS SHALL BE SHOWN ON THE PLAN AND PROFILE ALONG WITH THE DESIGN PROFILE GRADE LINES. IN THE EVENT THAT THE AS-BUILT CENTERLINE LONGITUDINAL GRADE DOES NOT MEET THE CITY MINIMUM STANDARDS, ADDITIONAL LONGITUDINAL GRADES OF THE ADJACENT CURBING AND SIMILAR ROADWAY CROSS-SECTIONS SHALL BE REQUIRED TO VERIFY THAT THE SYSTEM WILL FUNCTION AS ORIGINALLY DESIGNED.
6. FOR SUBDIVISIONS, PROPOSED DESIGN FINISHED FLOOR ELEVATIONS SHALL APPEAR ON ALL SUBDIVISION LOTS ON THE APPROPRIATE PLAN AND PROFILE SHEET AS WELL AS ON THE MASTER DRAINAGE PLAN.
7. STORM DRAINAGE STRUCTURES SHALL BE LOCATED AND DIMENSIONED FROM STREET/ROADWAY CENTERLINES OR LOT LINES AS APPROPRIATE. STORM DRAINAGE PIPE SHALL BE LOCATED AND DIMENSIONED FROM THE BACK OF CURB, OR EDGE OF PAVEMENT IF NO CURB IS PRESENT.
8. STORM DRAINAGE STRUCTURE RIMS, PIPE INVERT AND INLET BOTTOM ELEVATIONS SHALL BE RECORDED AND CLEARLY DENOTED AS AS-BUILT INFORMATION. STORM DRAINAGE PIPE MATERIAL, LENGTH, AND SIZE SHALL BE RECORDED AND CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
9. ALL APPLICABLE TOPOGRAPHIC INFORMATION PERTINENT TO THE ON-SITE DRAINAGE SYSTEM, SUCH AS DITCHES, SWALES, LAKES, CANALS, ETC. THAT ARE DEEMED NECESSARY BY THE CITY TO VERIFY THE FUNCTIONAL PERFORMANCE OF THE STORMWATER SYSTEM, SHALL BE NOTED. NORMALLY, RECORDING ELEVATIONS EVERY 100' AT THE TOP OF BANK AND TOE OF SLOPE WILL BE REQUIRED. MEASUREMENTS SHALL BE TAKEN AND RECORDED IN ORDER TO ACCURATELY TIE DOWN THESE FEATURES TO THE ROADWAY CENTERLINES AND TO PLAT LINES WHENEVER POSSIBLE, CONTOUR LINES SHALL BE UTILIZED TO GRAPHICALLY DESCRIBE THESE TOPOGRAPHIC FEATURES.
10. RETENTION AREAS SHALL HAVE THEIR TOP AND BOTTOM OF BANK ELEVATIONS RECORDED. ACTUAL DIMENSIONS OF THE SIZE OF ALL RETENTION AREAS ARE TO BE RECORDED AS MEASURED FROM TOP-OF-BANK TO TOP-OF-BANK WITH SIDE SLOPES INDICATED.
11. ACTUAL MATERIALS USED AND ELEVATIONS AND DIMENSIONS OF OVERFLOW WEIR STRUCTURES AND SKIMMERS SHALL BE NOTED ON THE AS-BUILT.
12. STORM DRAINAGE SWALE CENTERLINES SHALL BE LOCATED AND ELEVATIONS OF FLOW LINE AND TOPS OF BANKS SHALL BE RECORDED EVERY 100 FEET. SIDE SLOPES SHALL ALSO BE INDICATED.

STANDARD CONSTRUCTION DETAIL
REQUIREMENTS FOR AS-BUILT DRAWINGS
REV. 12/18
FILE NAME: M5-DOC
DETAIL REF: M-5

13. SANITARY SEWER STRUCTURES SHALL BE LOCATED AND DIMENSIONED FROM STREET/ROADWAY CENTERLINES OR LOT LINES, AS APPROPRIATE. SANITARY SEWER STRUCTURE RIMS, PIPE INVERTS AND BOTTOM ELEVATIONS SHALL BE RECORDED AND CLEARLY NOTED AS AS-BUILT INFORMATION.
14. SANITARY SEWER PIPE SHALL BE LOCATED AND DIMENSIONED FROM THE BACK OF CURB, OR EDGE OF PAVEMENT IF NO CURB IS PRESENT. SANITARY SEWER PIPE MATERIAL, LENGTH, AND SIZE SHALL BE RECORDED AND CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
15. SEWER LATERALS SHALL BE RECORDED AT THEIR CLEAN-OUT LOCATIONS. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TOWARD UPSTREAM MANHOLES.
16. LIFT STATIONS SHALL BE LOCATED AND DIMENSIONED FROM STREET/ROADWAY CENTERLINES OR LOT LINES, AS APPROPRIATE. LIFT STATION DIMENSIONAL AND ELEVATION INFORMATION INDICATED ON THE APPROVED FOR CONSTRUCTION PLANS SHALL BE VERIFIED AND AS-BUILT INFORMATION INDICATED. BURIED ELECTRICAL SERVICE LINE SHALL BE CLEARLY DIMENSIONED, LOCATED, AND LABELED. FORCE MAIN PIPE INVERT ELEVATIONS SHALL BE RECORDED AND CLEARLY DENOTED AS AS-BUILT INFORMATION.
17. FORCE MAIN PIPE SHALL BE LOCATED AND DIMENSIONED FROM THE BACK OF CURB, OR EDGE OF PAVEMENT IF NO CURB IS PRESENT. FORCE MAIN PIPE MATERIAL, LENGTH, AND SIZE SHALL BE RECORDED AND CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
18. TIE-IN DIMENSIONS TO THREE (3) PERMANENT ABOVE GRADE FEATURES SHALL BE SHOWN 0N THE AS-BUILTS FOR ALL VALVES, TEES, BENDS, CROSSES, SERVICE CONNECTION TEES, FIRE HYDRANTS AND APPLICABLE FIXTURES AT THE POTABLE WATER, RECLAIMED WATER AND FORCE MAIN SERVICES.
19. A TABLE SHALL BE SHOWN ON THE AS-BUILTS LISTING THE NORTHING, EASTING, TOP ELEVATION, SIZE, MATERIAL, TYPE AND MODEL INFORMATION FOR ALL POTABLE WATER, RECLAIMED WATER AND FORCE MAIN VALVES, TEES, BENDS, CROSSES, SERVICE CONNECTION TEES, FIRE HYDRANTS AND APPLICABLE FIXTURES.
20. FOR PERPENDICULAR CROSSINGS OF STORMWATER, POTABLE WATER, RECLAIMED WATER, OR FORCE MAIN SERVICES, THE AS-BUILT PLANS SHALL CLEARLY INDICATE WHICH UTILITIES ARE LOCATED OVER OR UNDER OTHER UTILITIES.
21. ANY SPECIAL FEATURES SUCH AS, CONCRETE FLUMES, LAKE BANKS, WALLS, FENCING, ETC., WHICH WERE A PART OF THE APPROVED CONSTRUCTION DRAWINGS SHALL ALSO BE LOCATED AND DIMENSIONED.
22. IF AN APPROVED SUBDIVISION PLAT OR SITE PLAN SHOWS A CONSERVATION EASEMENT, THE PROJECT SURVEYOR SHALL PROVIDE THE EXACT LOCATION OF THE SPECIMEN TREE(S) FROM THE RIGHT-OF-WAY OR PROPERTY LINES AND PROPOSED EASEMENT BOUNDARIES ON THE AS-BUILT DRAWING. THE AS-BUILT LOCATION OF THESE TREES WILL HELP VERIFY THE SUFFICIENCY OF THE CONSERVATION EASEMENT PRIOR TO PLAT RECORDING OR CERTIFICATE OF OCCUPANCY.
23. WHEN STORMWATER, POTABLE WATER, RECLAIMED WATER OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWING SHALL ACCURATELY DEPICT THE LOCATION OF THE IMPROVEMENTS AND THE EASEMENT. SUCH DOCUMENTATION AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF SAID EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED VIA A SEPARATE LEGAL INSTRUMENT.

STANDARD CONSTRUCTION DETAIL
REQUIREMENTS FOR AS-BUILT DRAWINGS
(CONTINUED)
REV. 12/18
FILE NAME: M5-DOC
DETAIL REF: M-5.1

DATE: 03-28-22

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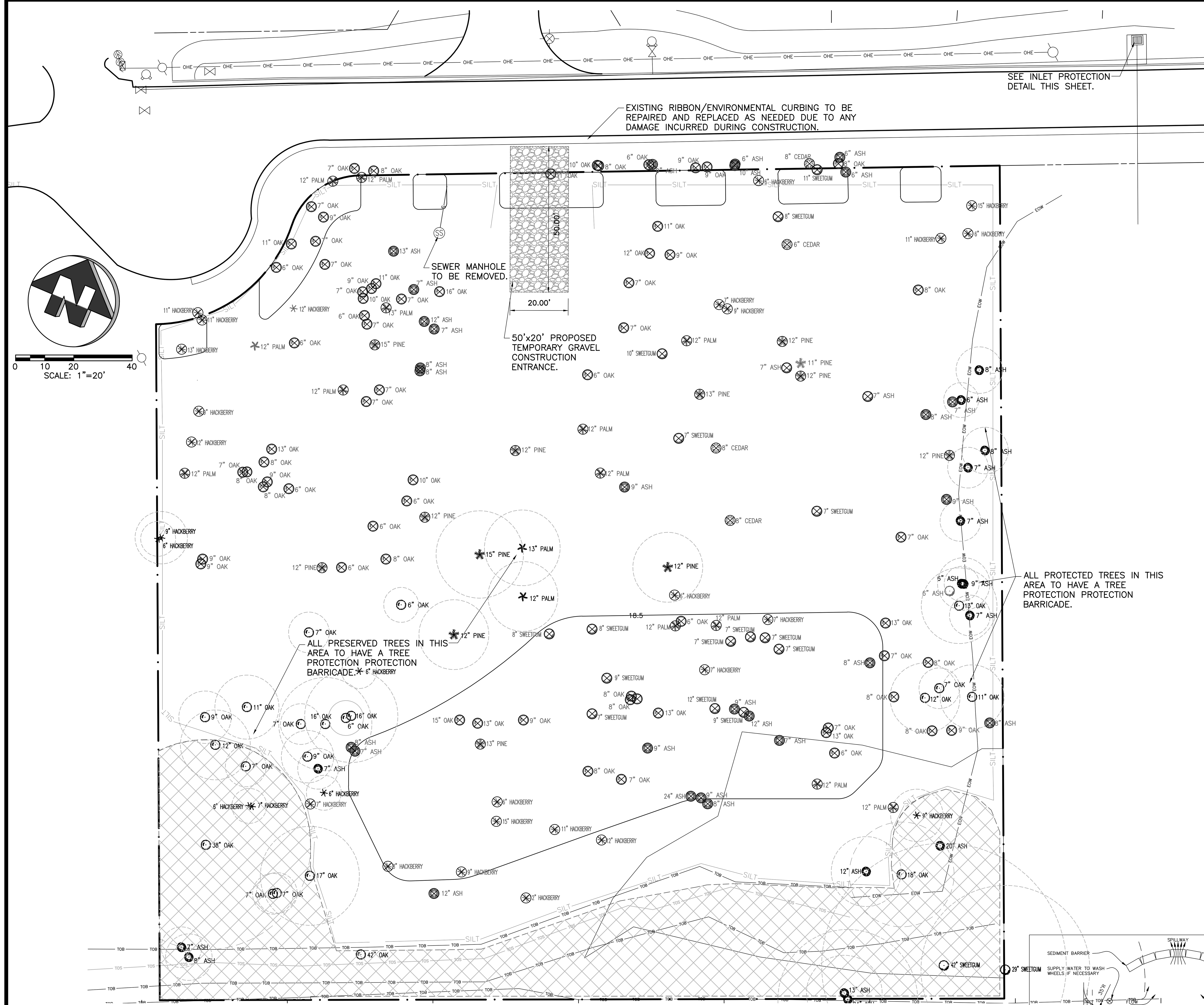
SITE PLAN FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS
2	10-12-22	R.A.I. #2 - CITY COMMENTS

CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL. 32115

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282

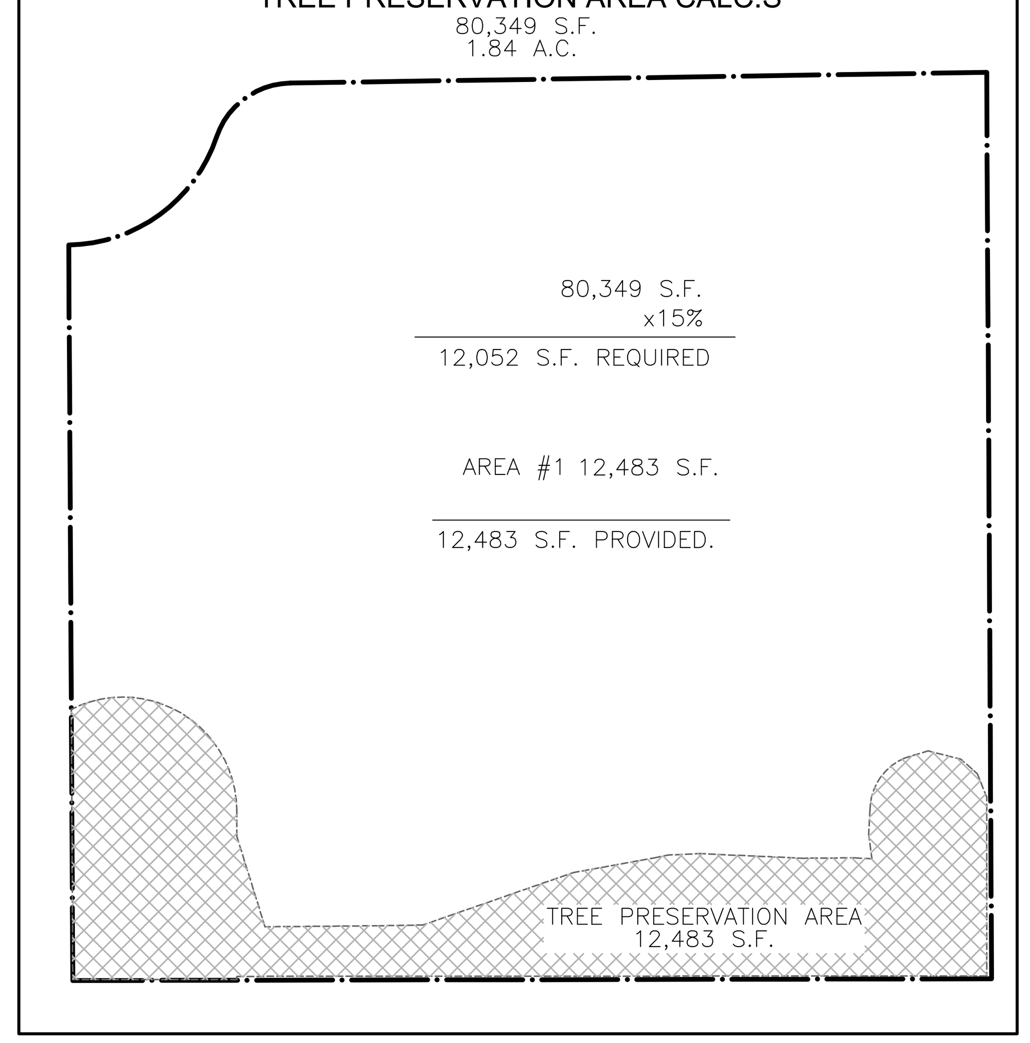
SHEET NO.
C-2



DEMOLITION/EROSION NOTES

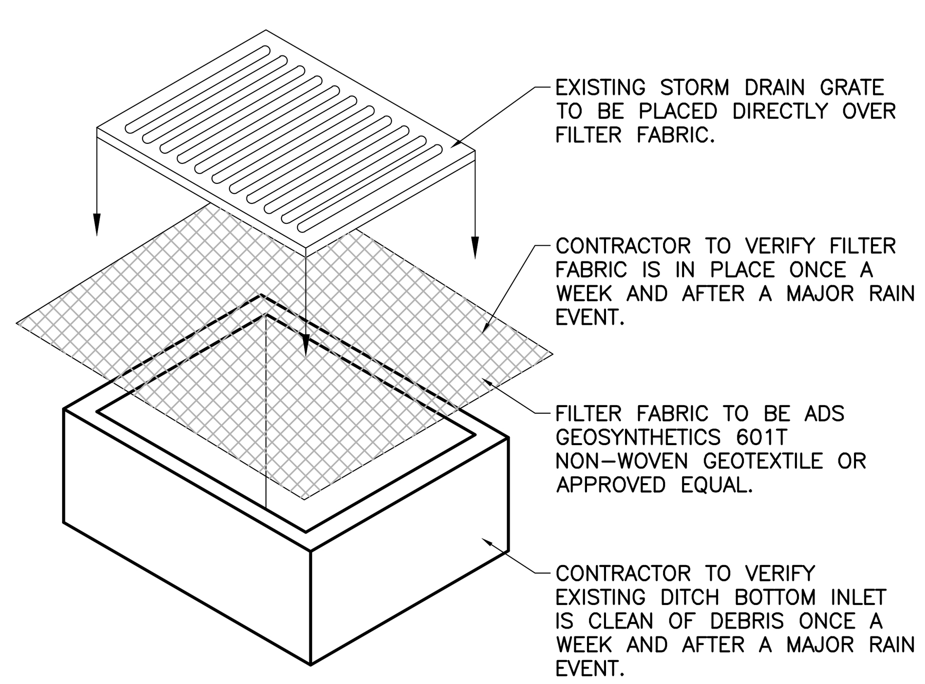
1. CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES BEFORE CONSTRUCTION. CONTACT SUNSHINE 811 FOR LOCATIONS. USE EXTREME CAUTION WHEN DIGGING AROUND EXISTING UTILITIES.
2. CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES BEFORE STARTING DEMOLITION / CLEARING.
3. NO WORK SHALL BE PERFORMED OUTSIDE OF SILT FENCE/LIMITS OF CONSTRUCTION LINE.
4. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
5. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT SPECIFICATIONS AND CRITERIA.
6. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
7. SWALES AND GRASSED AREAS WILL BE MOWED AS NECESSARY AND ARE TO BE CHECKED PERIODICALLY FOR EROSION, ALL TO BE MAINTAINED BY OWNER ONCE CONSTRUCTION IS COMPLETED.
8. SEE TREE PROTECTION DETAIL THIS SHEET, PROVIDE TREE PROTECTION AROUND ALL EXISTING TREES TO REMAIN ON SITE.
9. SILT FENCE TO BE LOCATED JUST IN SIDE OF PROPERTY LINES AND TREE PRESERVATION AREA LIMITS, UNLESS OTHERWISE SHOWN.
10. CONTRACTOR TO REMOVE ALL ORGANIC SOILS AND ORGANIC DEBRIS WHICH MAY EXIST BENEATH THE BUILDING, DRIVEWAY, AND PARKING AREA FOOTPRINTS. SEE PROJECT GEOTECHNICAL REPORT BY UNIVERSAL ENGINEERING.
11. CONTRACTOR TO OBTAIN NATIONAL POLLUTION DISCHARGE ELIMINATION PERMIT AND PROVIDE TO THE CITY.
12. CLEARING, GRADING AND SITE PREPARATION ACTIVITY MUST ADHERE TO THE CITY'S CONSTRUCTION SITE MANAGEMENT STANDARDS.
13. SOIL TRACKING DEVICE IS REQUIRED AT OLD HAMMOCK STREET. SEE CITY DETAIL THIS SHEET. CONTRACTOR TO MAINTAIN DEVICE TO PREVENT SOIL DEPOSITION ON OLD HAMMOCK STREET THROUGH OUT CONSTRUCTION.

TREE PRESERVATION AREA CALC.S

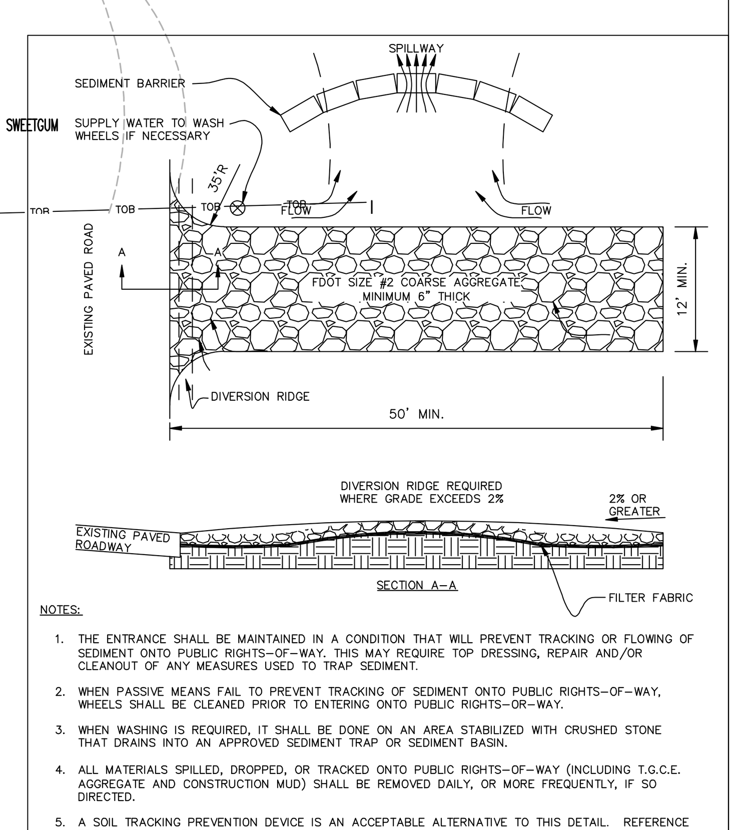


LEGEND

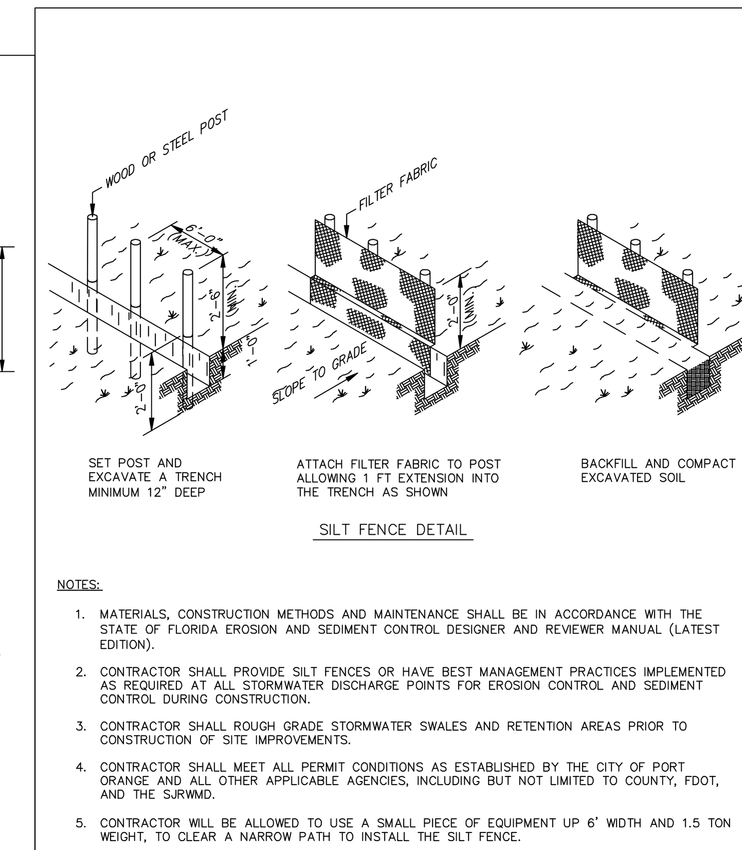
	PROPERTY LINES
SILT	SILT FENCE
# TREE	EXISTING TREES TO REMAIN
	TREE PRESERVATION AREA
# TREE	EXISTING TREES TO BE REMOVED.



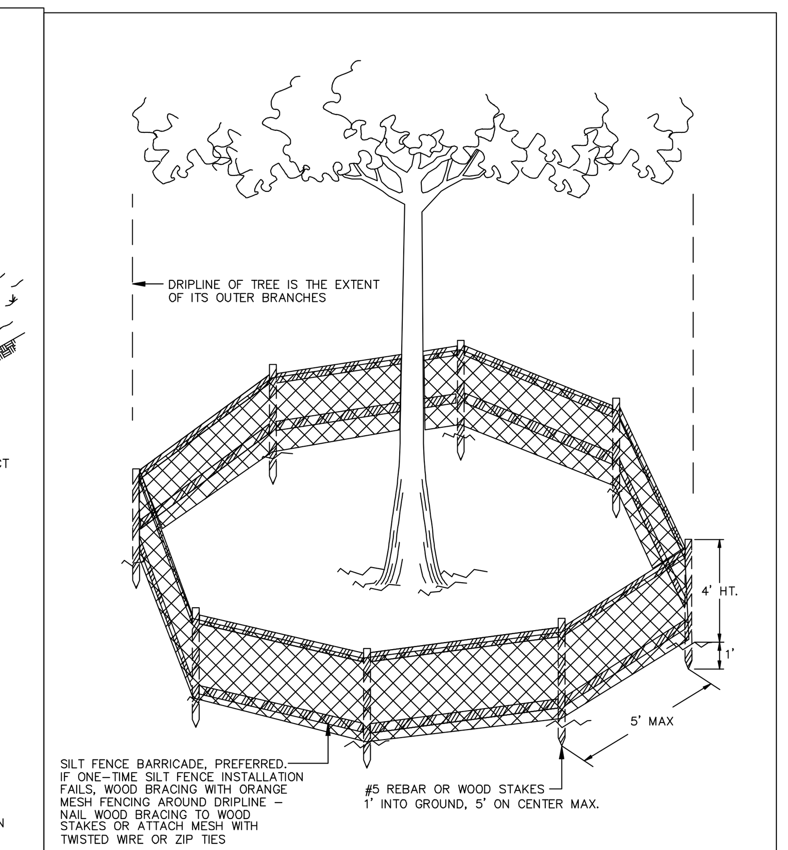
INLET PROTECTION DETAIL



STANDARD CONSTRUCTION DETAIL
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
FILE NAME: M21.DWG
DETAIL REF: M-21
REV. 12/18



STANDARD CONSTRUCTION DETAIL
SILT FENCE TURBIDITY BARRIER
FILE NAME: M23.DWG
DETAIL REF: M-23
REV. 12/18



STANDARD CONSTRUCTION DETAIL
TREE PROTECTION BARRICADE
FILE NAME: M25.DWG
DETAIL REF: M-25
REV. 12/18

DATE: 03-28-22

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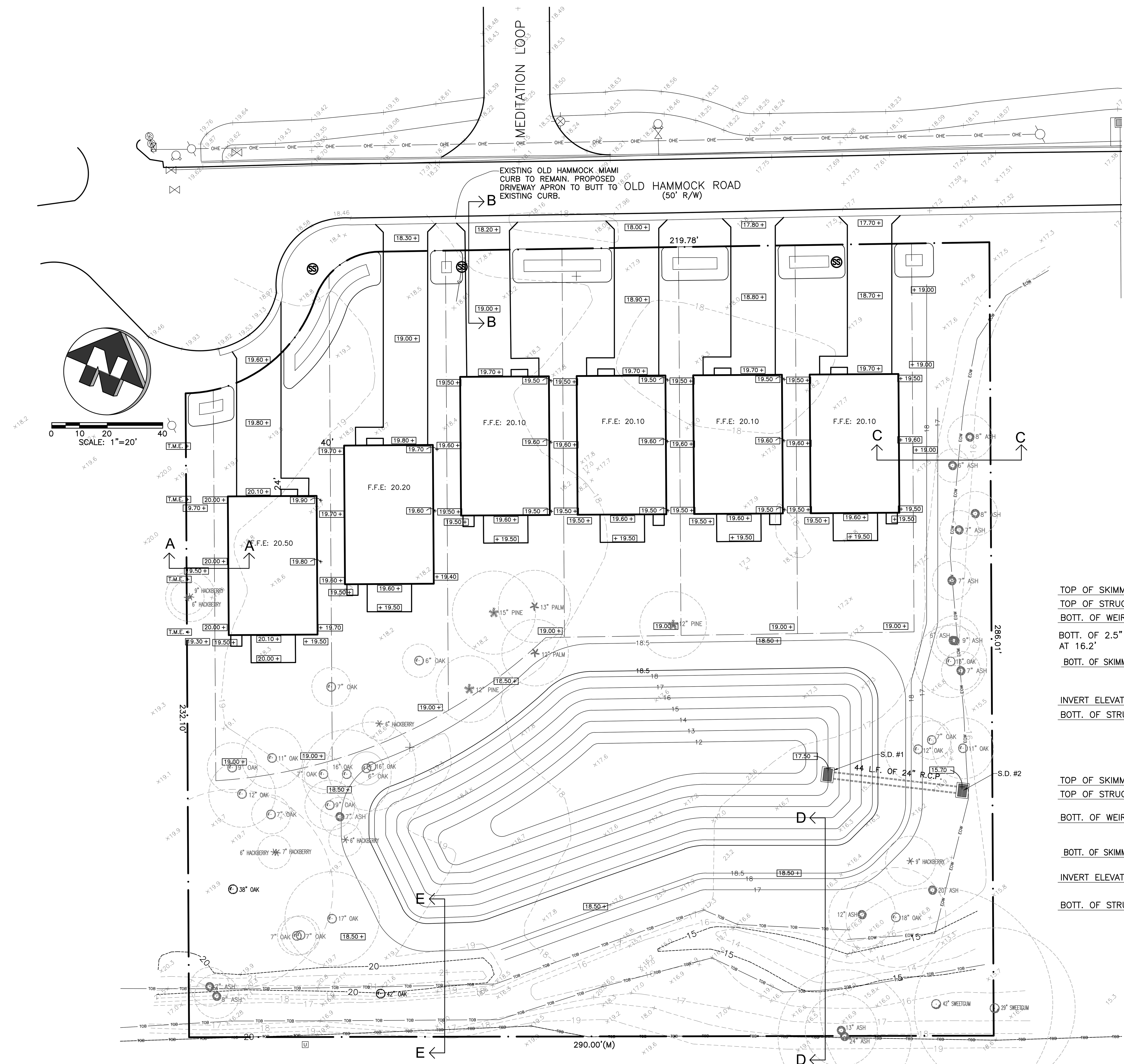
CLEARING PLAN FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I #1 - CITY COMMENTS
2	10-12-22	R.A.I #2 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282
CLIENT: REZA (RAY) TOUTOUNCHIAN, P.O. BOX 2027, DAYTONA BEACH, FL 32115

SHEET NO. C-3

(PERMIT SUBMITTAL SET)



GRADING NOTES:

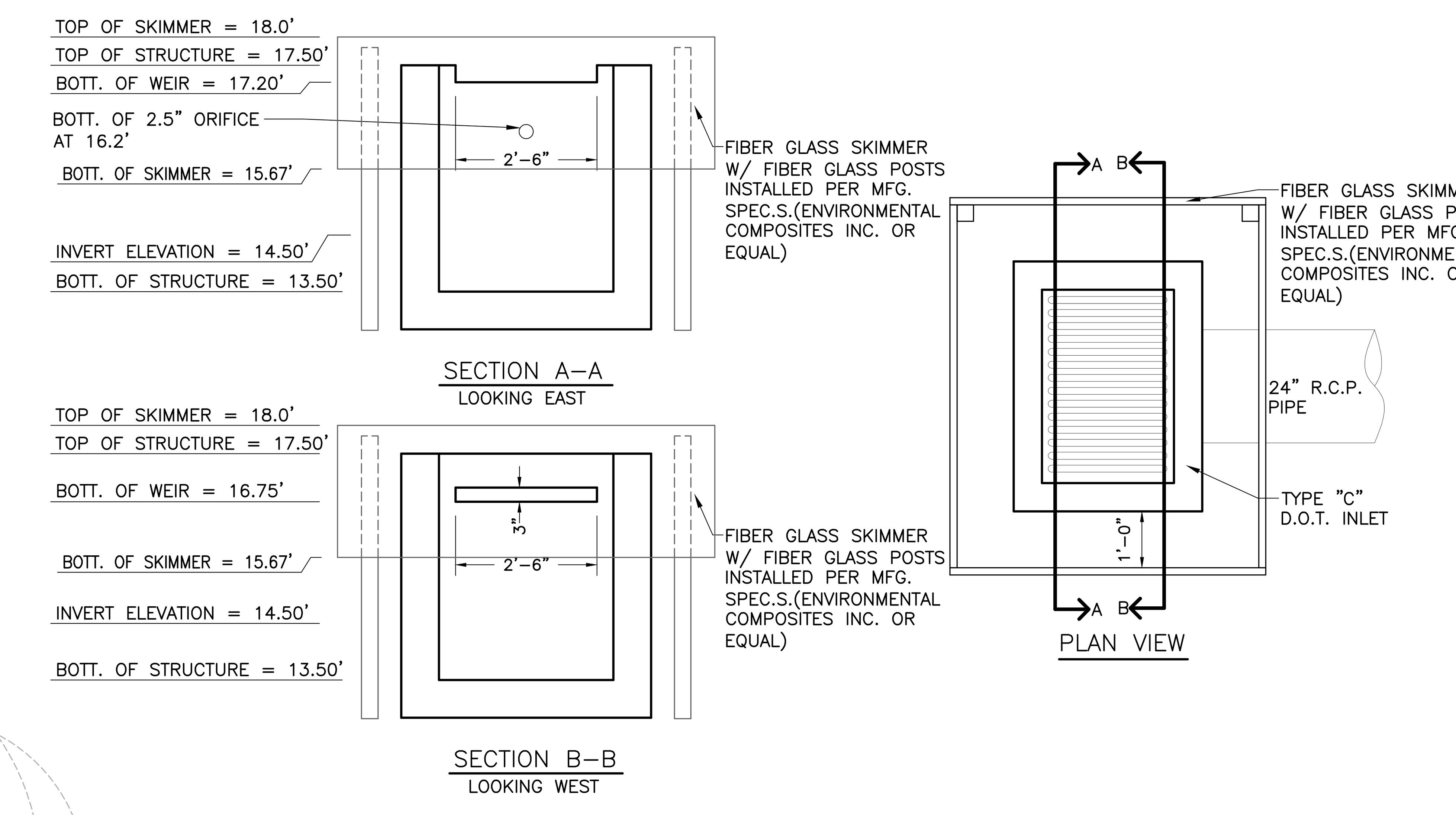
1. CONTRACTOR TO CALL FOR UTILITY LOCATES AND HAND DIG AROUND ALL EXISTING UTILITIES AND USE EXTREME CAUTION.
2. NO CLEARING OR ROUGH GRADING WILL COMMENCE UNTIL ALL EROSION CONTROL MEASURES ARE IN PLACE. SEE CLEARING PLAN FOR SILT FENCE LOCATION AND INSTALLATION DETAILS.
3. IMMEDIATELY SOD AND STABILIZE ALL SLOPED AREAS TO MAINTAIN PROPOSED GRADES AND TO PREVENT EROSION.
4. ELEVATIONS SHOWN ON PLANS ARE NAVD 88 DATUM.
5. GRADING ELEVATIONS IN MULCHED LANDSCAPED AREAS ARE TO TOP OF FINISHED MULCH.
6. PROPOSED GRADES SHOWN IN BUFFER AND NATURAL VEGETATION AREAS ARE SHOWN. WHERE EXISTING TREES ARE SHOWN TO BE SAVED, LEAVE EXISTING GRADE AROUND TREES TO THE EXTENT POSSIBLE TO PREVENT ROOT DAMAGE.
7. ALL PROPOSED HOMES TO HAVE A MIN. 6" REVEAL FROM FINISHED FLOOR ELEVATION TO ADJACENT PROPOSED GRADE.

STORMWATER NOTES:

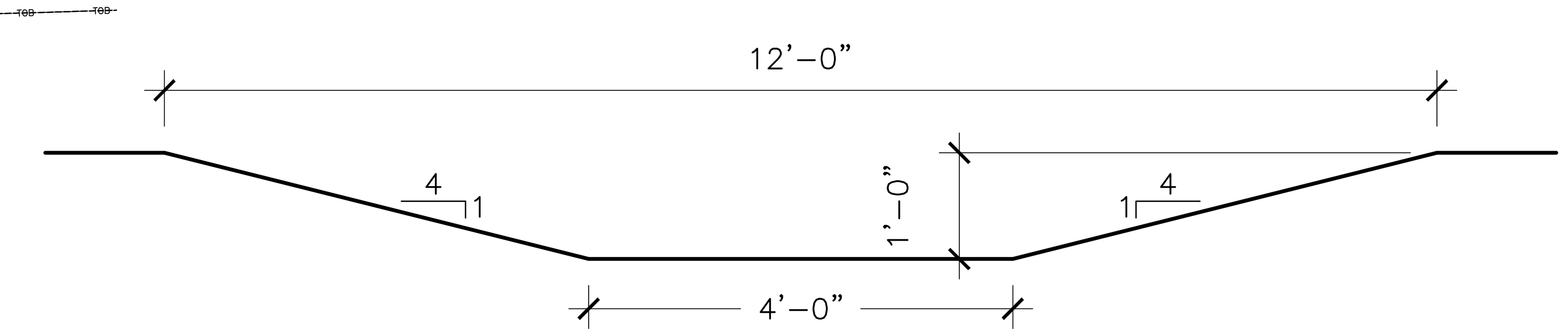
1. CONTRACTOR TO VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION COMMENCEMENT AND NOTIFY ENGINEER OF RECORD IF LOCATIONS OF EXISTING UTILITIES ARE NOT AS SHOWN ON PLANS.
2. BUILDINGS DRAINAGE TO BE DIRECTED TO RETENTION POND AT THE SOUTH END OF THE PROPERTY USING BUILDING GUTTERING SYSTEM AND SHEET FLOW DRAINAGE. SEE POST DRAINAGE PLAN SHEET C-5.
3. ALL BUILDING DRIVEWAYS ONLY SHALL DRAIN TO THE SHALLOW SWALES IN THE FRONT YARDS.
4. ELEVATIONS SHOWN ON PLANS ARE NAVD 1988 DATUM.
5. CONTRACTOR TO OBTAIN AS-BUILT SURVEY INFORMATION TO BE APPROVED BY THE ENGINEER OF RECORD AND CITY ENGINEER.
6. ADJUST FRONT YARD SWALES AROUND PROPOSED SEWER MANHOLES WHERE REQUIRED.

CATCH BASIN SCHEDULE

ITEM DESC.	TOP ELEV.	INVERT ELEVATIONS				STRUCTURE:
		NORTH	WEST	SOUTH	EAST	
S.D. #1	17.50	——	——	——	12.00	TYPE "D"
S.D. #2	15.70	——	11.80	——	——	TYPE "C"



CONTROL STRUCTURE S.D. #1



FRONT SWALE SECTION (TYP.)

DATE:
03-28-22

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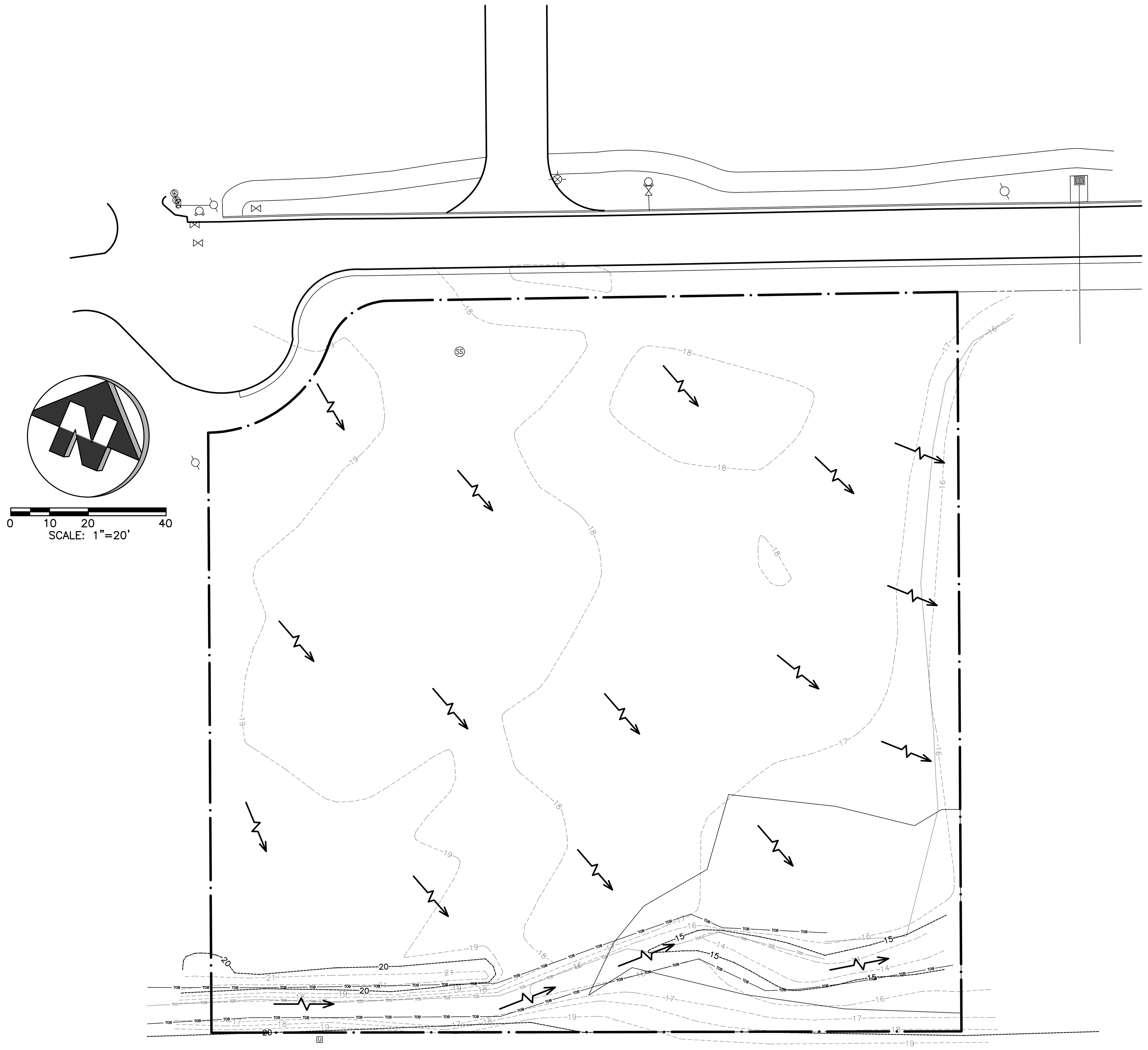
PAVING-GRADING-STORMWATER PLAN FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS
3	10-27-22	R.A.I. #3 - CITY COMMENTS

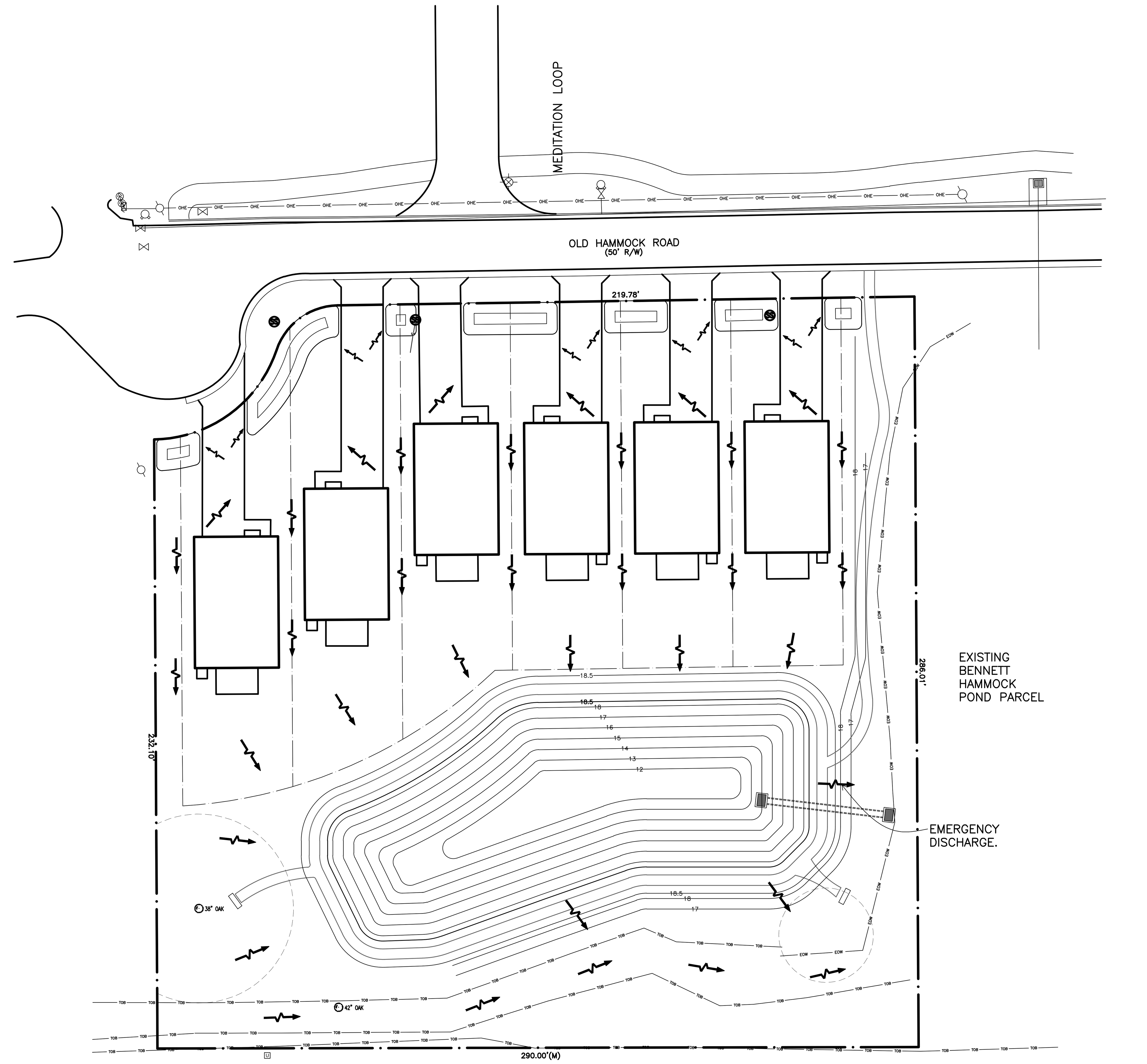
CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL. 32115

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282

SHEET NO.
C-4



PRE-DRAINAGE PLAN



POST-DRAINAGE PLAN

LEGEND

⟶	EXISTING FLOW DIRECTION
➞	PROPOSED FLOW DIRECTION

PRE-DEVELOPMENT NOTES:

1. ELEVATIONS SHOWN ARE NAVD 88.
2. SEE ALSO SITE SURVEY BY A1A SURVEYING.
3. THE SITE GENERALLY DRAINS FROM THE NORTH WEST CORNER TO THE SOUTH EAST CORNER TO THE EXISTING SWALE THAT DRAINS TO AN EXISTING RETENTION POND ON PROPERTY TO EAST.
4. EXISTING DITCH ALONG SOUTH BOUNDARY PROVIDES FOR OFF-SITE WATER TO BE DELIVERED TO THE EXISTING BENNETTS HAMMOCK POND.

POST-DEVELOPMENT NOTES:

1. S.J.R.W.M.D. PERMIT AND CITY SITE PLAN APPROVAL REQUIRED FOR THIS PROJECT.
2. FRONT YARDS AND DRIVEWAYS WILL DRAIN TO THE SHALLOW FRONT YARD SWALES.
3. SIDE AND REAR YARDS AND BUILDING DRAINAGE WILL BE DIRECTED TO BACKYARDS WHICH WILL DRAIN TOWARD THE PROPOSED POND.
4. THE EMERGENCY OUTFALL WILL DISCHARGE TO THE EXISTING BENNETT HAMMOCK POND PARCEL.

(PERMIT SUBMITTAL SET)

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282

CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL 32115

PRE & POST DRAINAGE PLAN FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

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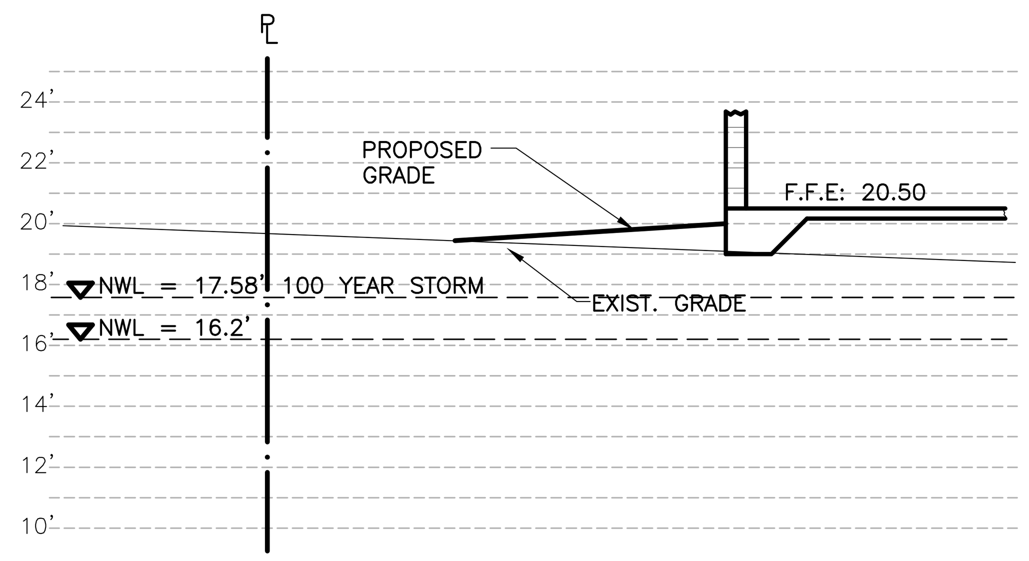
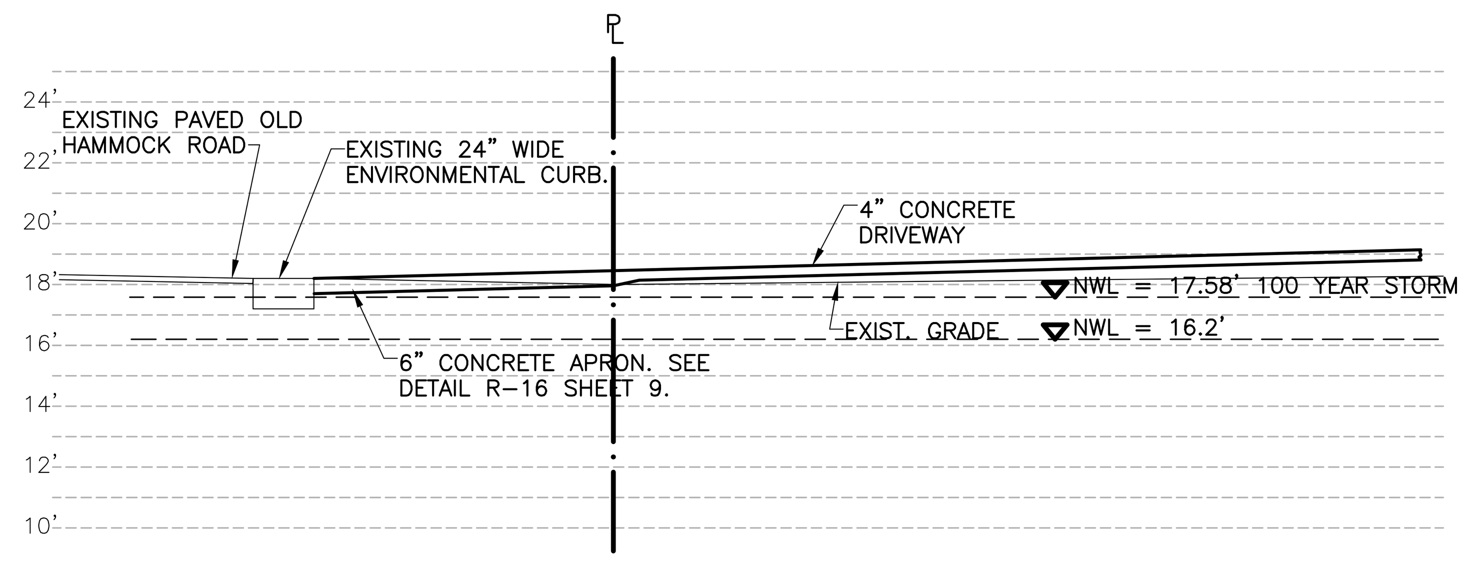
DATE:
03-28-22

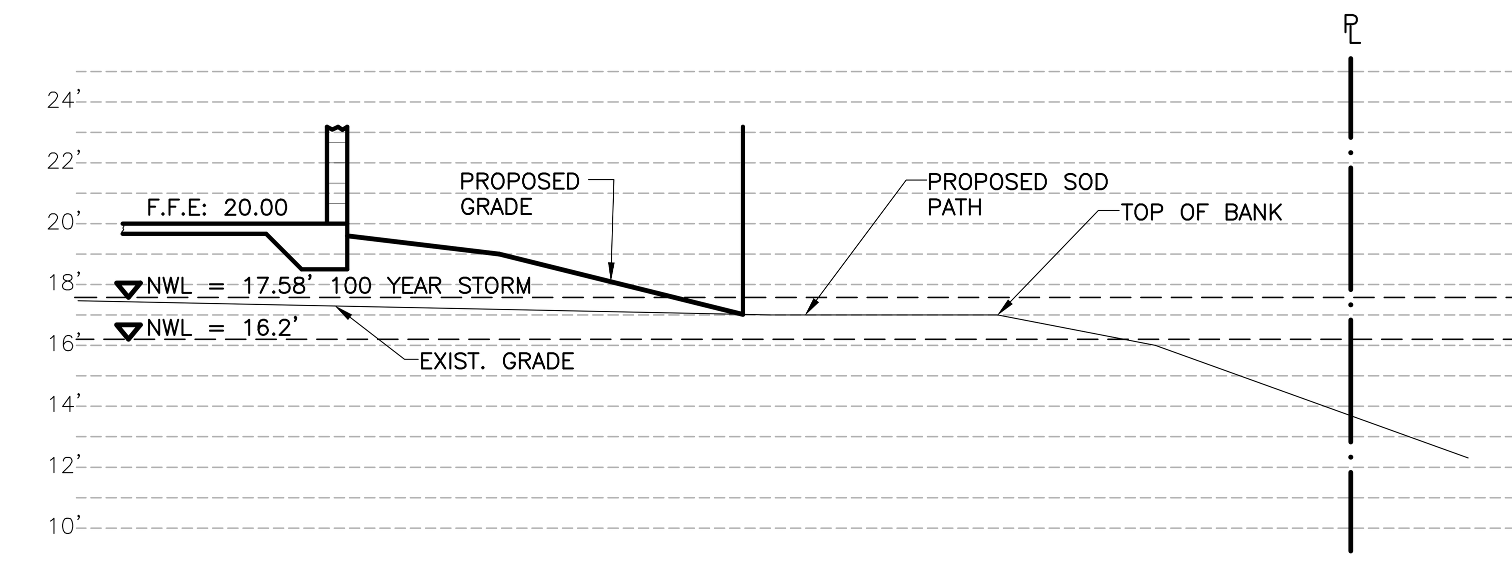
SHEET NO.
C-5



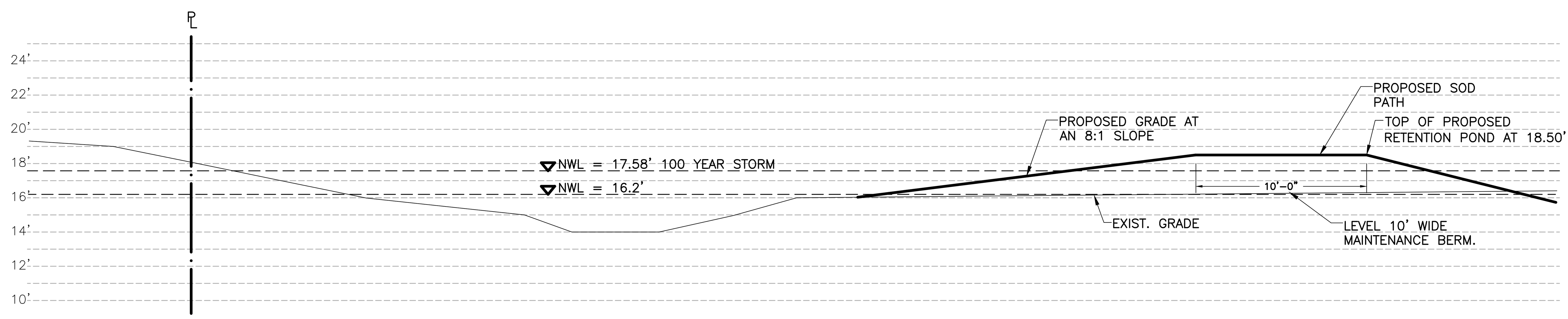
SECTION "A–A"
SCALE: 1"=5' HOR.
1"=5' VERT.



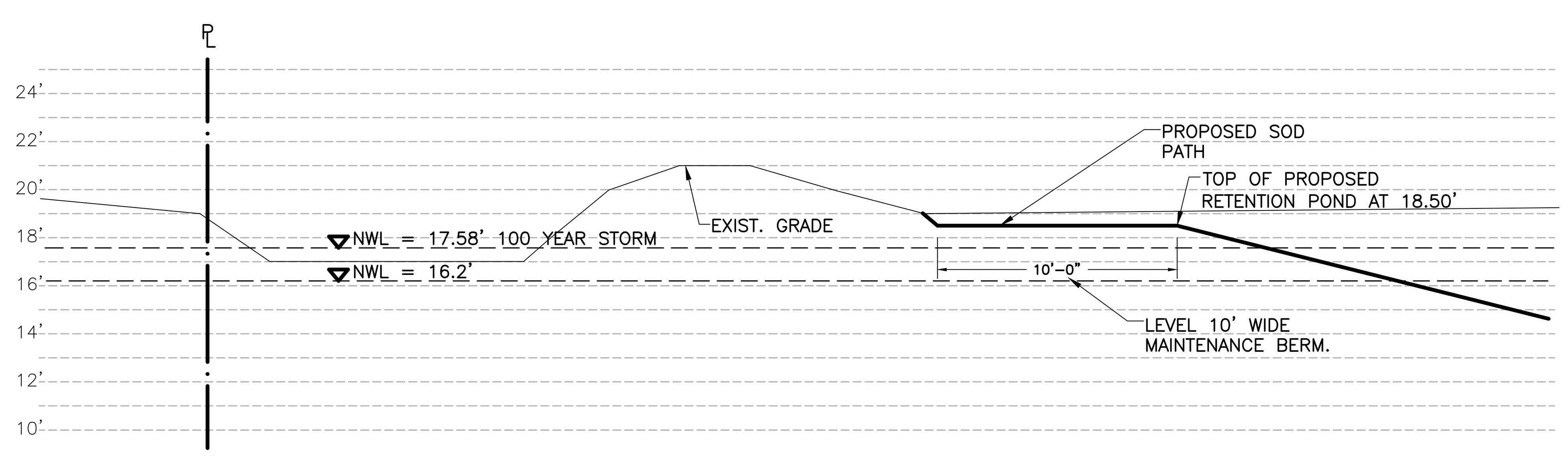
SECTION "B–B"
SCALE: 1"=5' HOR.
1"=5' VERT.



SECTION "C–C"
SCALE: 1"=5' HOR.
1"=5' VERT.



SECTION "D–D"
SCALE: 1"=5' HOR.
1"=5' VERT.



SECTION "E–E"
SCALE: 1"=5' HOR.
1"=5' VERT.

(PERMIT SUBMITTAL SET)

DATE: 03-28-22

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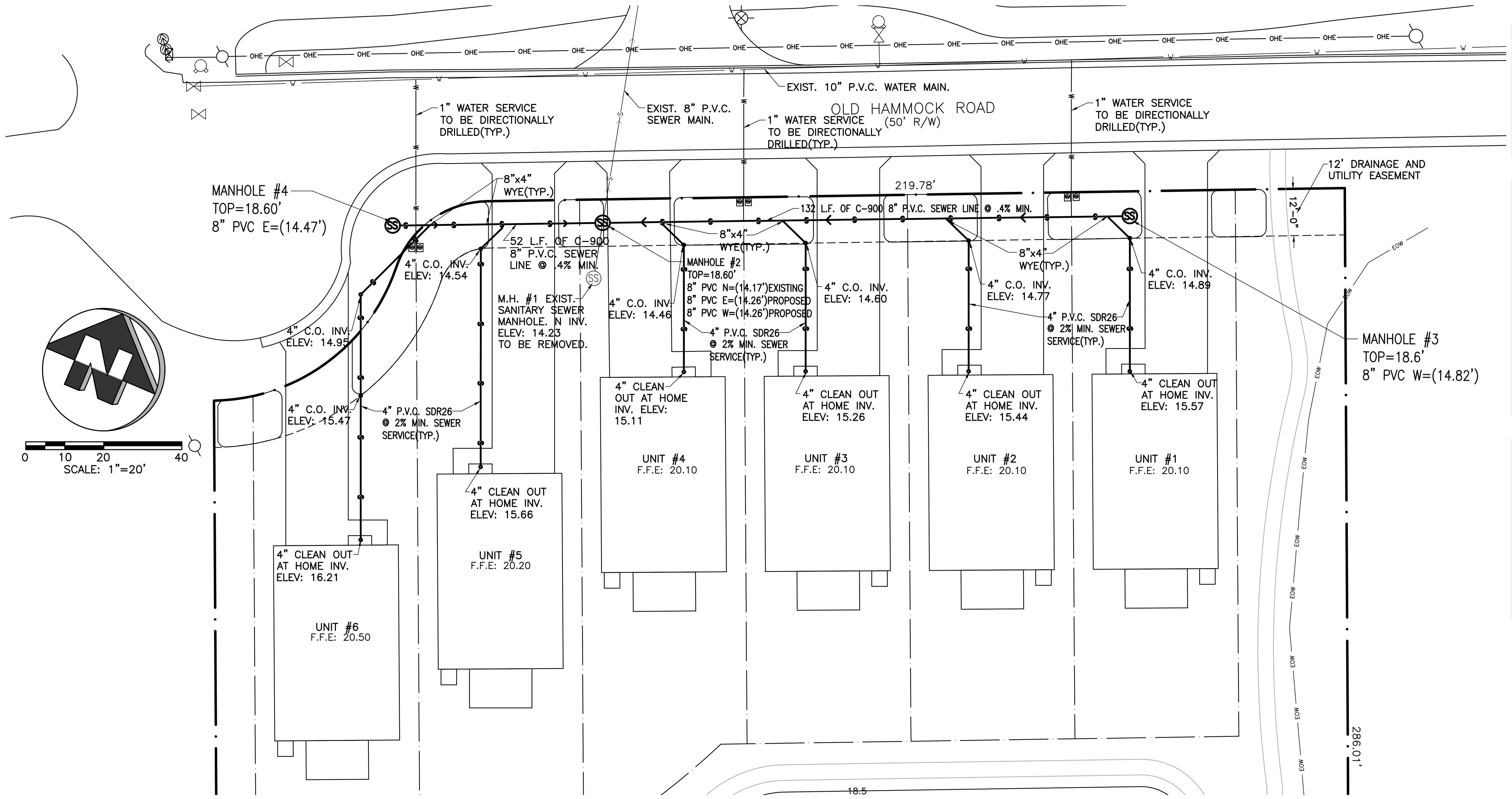
PROFILES FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282

CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL 32115

SHEET NO.
C-6



LEGEND

—SILT—	SILT FENCE	—S—	SEWER LINES
—W—	WATER LINES	——	PROPERTY LINES
—OU—	OVERHEAD ELECTRIC		SITE LIGHTING

GENERAL UTILITY NOTES

1. CONTRACTOR TO LOCATE ALL UNDERGROUND UTILITIES BEFORE CONSTRUCTION. CONTACT SUNSHINE 811 FOR LOCATIONS. USE EXTREME CAUTION WHEN DIGGING AROUND EXISTING UTILITIES.
2. POTABLE WATER AND SANITARY SEWER SERVICE WILL BE PROVIDED BY THE CITY OF PORT ORANGE UTILITIES DEPARTMENT. (386) 506-5750
3. ELECTRIC SERVICE WILL BE PROVIDED BY F.P.L.
4. OWNER WILL SELECT TELECOMMUNICATIONS AND CATV SERVICE PROVIDERS. SERVICES WILL BE UNDERGROUND. GENERAL CONTRACTOR TO COORDINATE LOCATION WITH THE APPROPRIATE PROVIDER.
5. CONTRACTOR TO RESTORE THE RIGHT-OF-WAY TO AN "AS GOOD OR BETTER" CONDITION UPON COMPLETION OF WORK.
6. ALL PROPOSED UTILITIES ARE REQUIRED TO BE PROVIDED UNDERGROUND.

SANITARY SEWER MANHOLE SCHEDULE

ITEM DESC.	TOP ELEV.	INVERT ELEVATIONS				NOTES:
		NORTH	WEST	SOUTH	EAST	
M.H. #1	18.62	14.23	——	——	——	EXISTING TO BE REMOVED
M.H. #2*	18.60	14.17	14.26	——	14.26	NEW(NORTH INVERT EXISTING)
M.H. #3	18.60	——	14.82	——	——	NEW
M.H. #4	18.60	——	——	——	14.47	NEW

NOTES:
SEWER MANHOLES AND LIDS TO BE FABRICATED AND INSTALLED PER THE CITY OF PORT ORANGE DETAILS.
*CONTRACTOR TO VERIFY EXISTING INVERT TO NORTH BEFORE ORDERING SHOP DRAWINGS.

SANITARY SEWER NOTES

1. SANITARY SEWER CONSTRUCTION MUST ADHERE TO THE CITY OF PORT ORANGE STANDARD CONSTRUCTION DETAILS.
2. INSTALL 8" P.V.C. C-900 SEWER MAIN AT 0.40% IN CENTER OF 12' UTILITY EASEMENT WITH MANHOLES LOCATED AS SHOWN.
3. DEMOLISH EXISTING SEWER MANHOLE AND EXISTING P.V.C. SEWER MAIN AS NEEDED TO ACCOMMODATE INSTALLATION OF NEW SEWER MANHOLE #2
4. SEE SEWER MANHOLE SCHEDULE FOR MANHOLE ELEVATIONS. CONTRACTOR TO ADJUST FRONT YARD SWALES AROUND MANHOLE LOCATIONS.
5. LATERALS TO BE 4" P.V.C. S.D.R. 26 TO BE AT 2% SLOPE.
6. INSTALL CLEAN-OUTS AT BLDG.S, AT R/W LINE, AT CHANGE OF DIRECTION, AND AT A MAX. SPACING OF 75' PER S-11.
7. SERVICES TO BE 4" USING 8"x4" WYES WHERE SHOWN ON PLANS.
8. ALL (3) PROPOSED MANHOLES TO BE OUTFITTED WITH FIBERGLASS OR EPOXY LINER IN COMPLIANCE WITH ASTM-3753.

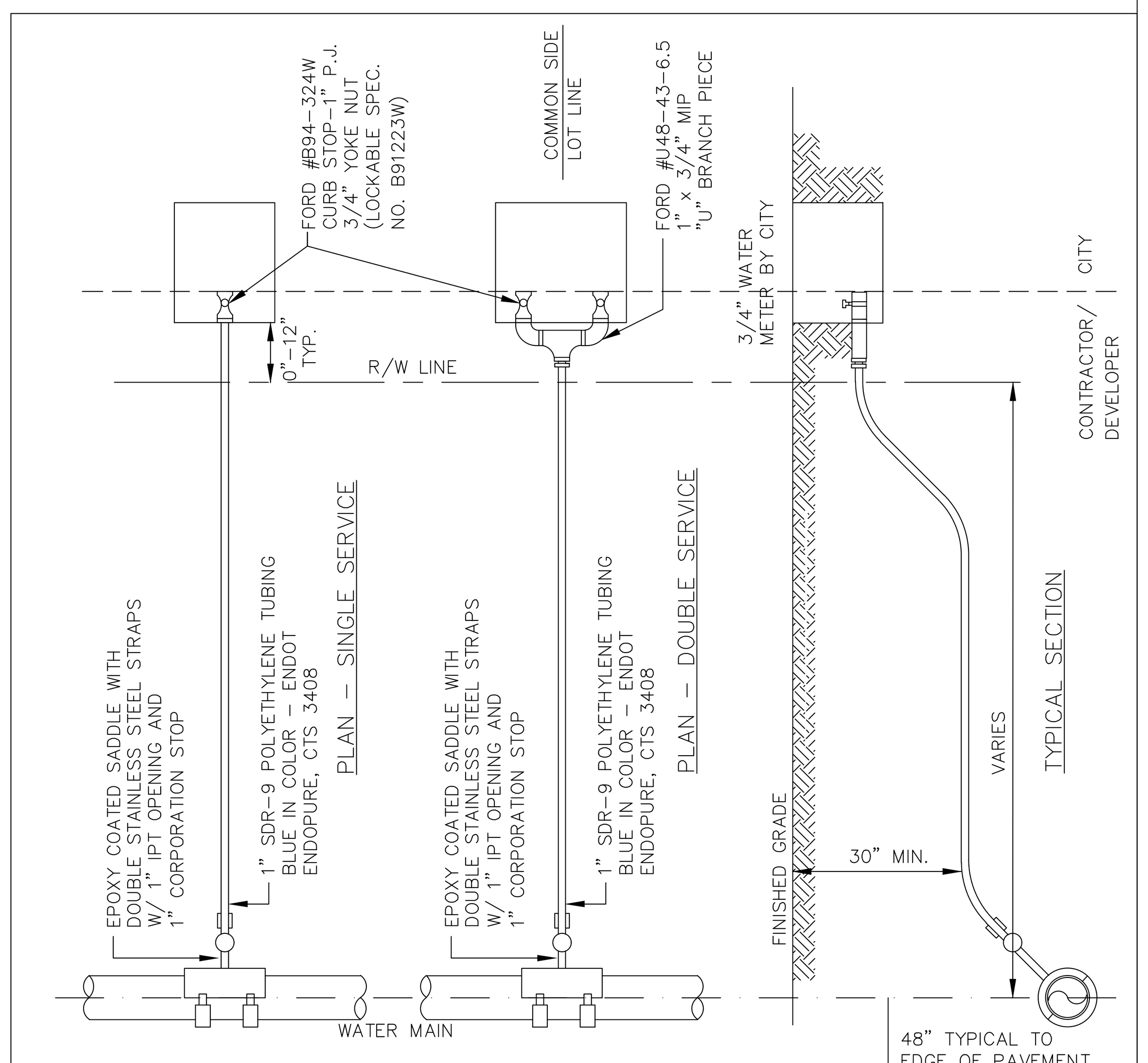
ELECTRIC SERVICE NOTES

1. F.P.L. SERVICE POINT WILL BE AN EXISTING POLE ON THE NORTH SIDE OF OLD HAMMOCK ROAD.
2. SEE F.P.L. PLAN FOR PROVIDING SERVICE. (F.P.L. CONTACT 800-226-3545.)
3. SEE GENERAL NOTES FOR TELECOMMUNICATION COMPANY SERVICES.
4. EACH OF SIX RESIDENCES WILL BE METERED.

POTABLE WATER SERVICE NOTES

1. WATER SERVICE CONSTRUCTION MUST ADHERE TO THE CITY OF PORT ORANGE STANDARD CONSTRUCTION DETAILS.
2. INSTALL DOUBLE WATER SERVICES 3/4" AT LOCATIONS SHOWN ON PLAN.
3. SEE THE CITY WATER SERVICE STANDARD DETAIL W-5 FOR TAP AND SERVICE DETAILS.
4. CITY OF PORT ORANGE TO INSTALL METER BOX, METER, AND BACKFLOW DEVICE.

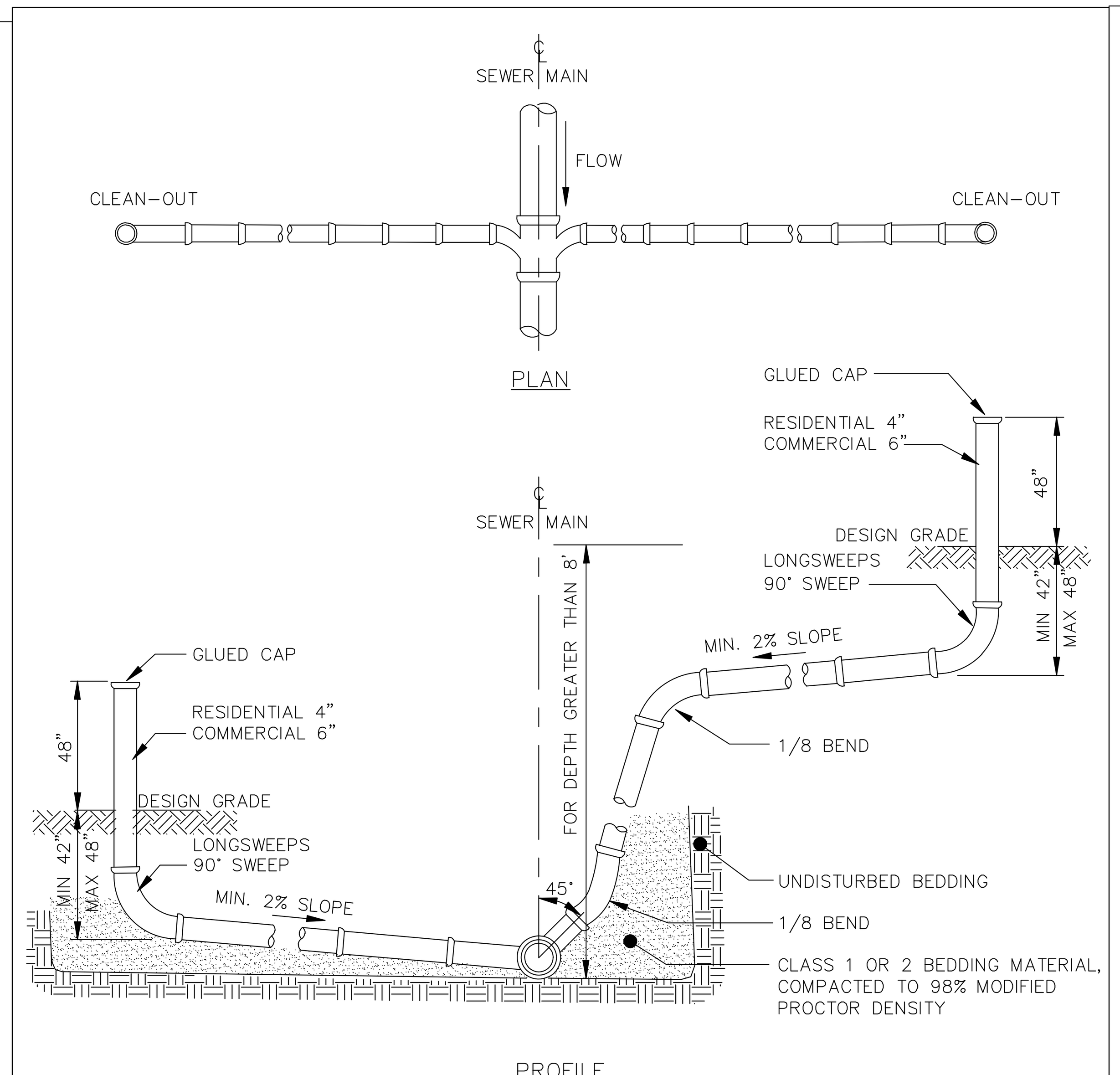
(PERMIT SUBMITTAL SET)



LOCKSEAL	
ITEM #	DESCRIPTION
93280148	HEAD WITH ALUMINUM SEAL
93210140	REGULAR DIAMETER STUD
93280139	KEY

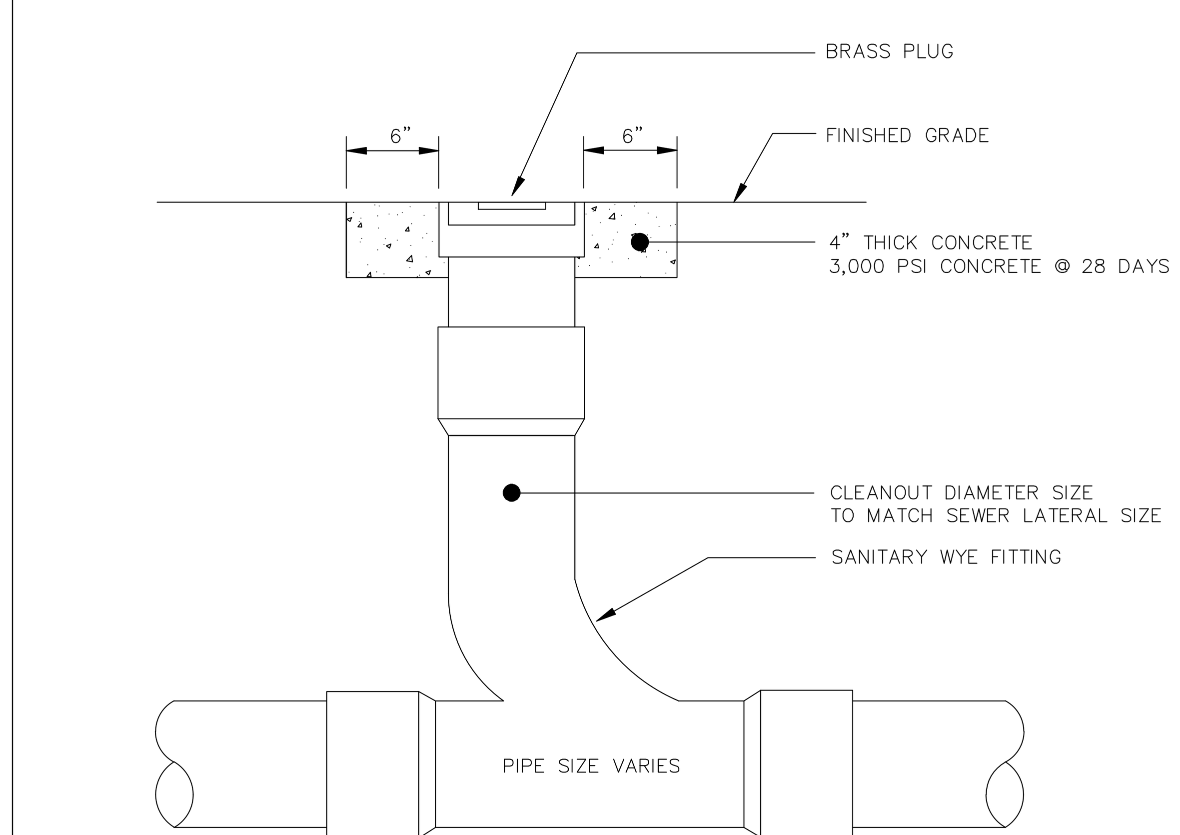
NOTE:
1. ALL VALVES SHALL BE FULL PORT.
2. DEVELOPER SHALL PROVIDE AND INSTALL BULLET LOCKS ON ALL VALVES PRIOR TO FINAL ACCEPTANCE.
3. POLYTUBING SHALL BE CONTINUOUS WITH NO COUPLINGS.

STANDARD CONSTRUCTION DETAIL
3/4"-1" METER SIZES POTABLE WATER SERVICE CONNECTION
REV. 12/18
FILE NAME: W5.DWG
DETAIL REF: W-5



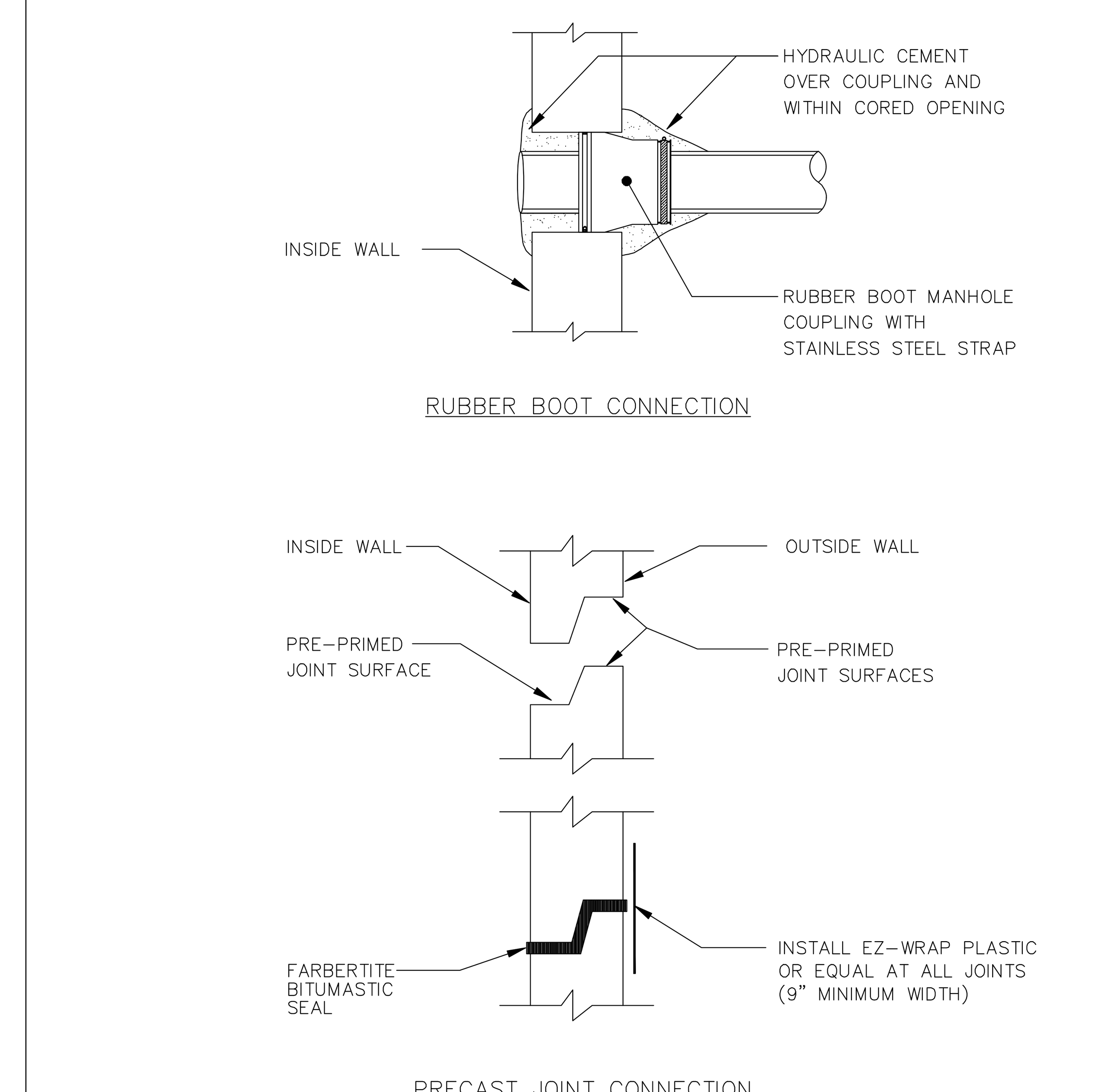
NOTES:
1. USE OF STYRENE MATERIAL WILL NOT BE PERMITTED.
2. ALL JOINTS TO BE RUBBER GASKET - NO GLUED FITTINGS.
3. USE ALL HARCO SDR26 FITTINGS OR CITY APPROVED EQUAL.
4. APPROVED EQUAL IS MULTI FITTINGS 8" X 6" OR 8" X 4" T-WYE AND 8" X 6" OR 8" X 4" WYE WITH A DATE STAMP.

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER SERVICE LATERALS
REV. 12/18
FILE NAME: S11.DWG
DETAIL REF: S-11



NOTE:
1. CLEANOUT SIZE SHOULD ALWAYS MATCH MAIN LINE SIZE TO ALLOW FOR PROPER CLEANING.

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER SERVICE CLEANOUT
REV. 12/18
FILE NAME: S12.DWG
DETAIL REF: S-12



NOTE:
1. NEW SANITARY SEWER MANHOLE CONNECTIONS SHALL UTILIZE IN-FIELD INSTALLATION OF RUBBER BOOT AND STRAP AND COVER WITH HYDRAULIC CEMENT.
2. EXISTING SANITARY SEWER MANHOLE CONNECTIONS SHALL UTILIZE A CORING METHOD AND IN-FIELD INSTALLATION OF RUBBER BOOT AND STRAP AND COVER WITH HYDRAULIC CEMENT.

STANDARD CONSTRUCTION DETAIL
RUBBER BOOT AND PRECAST JOINT CONNECTION
REV. 12/18
FILE NAME: S10.DWG
DETAIL REF: S-10

DATE: 03-28-22

ANDERSON DIXON
ENGINEERING-PLANNING-PERMITTING
PHONE: (386) 428-5834 - FAX: (386) 409-3781

RICHARD J. DIXON, P.E.
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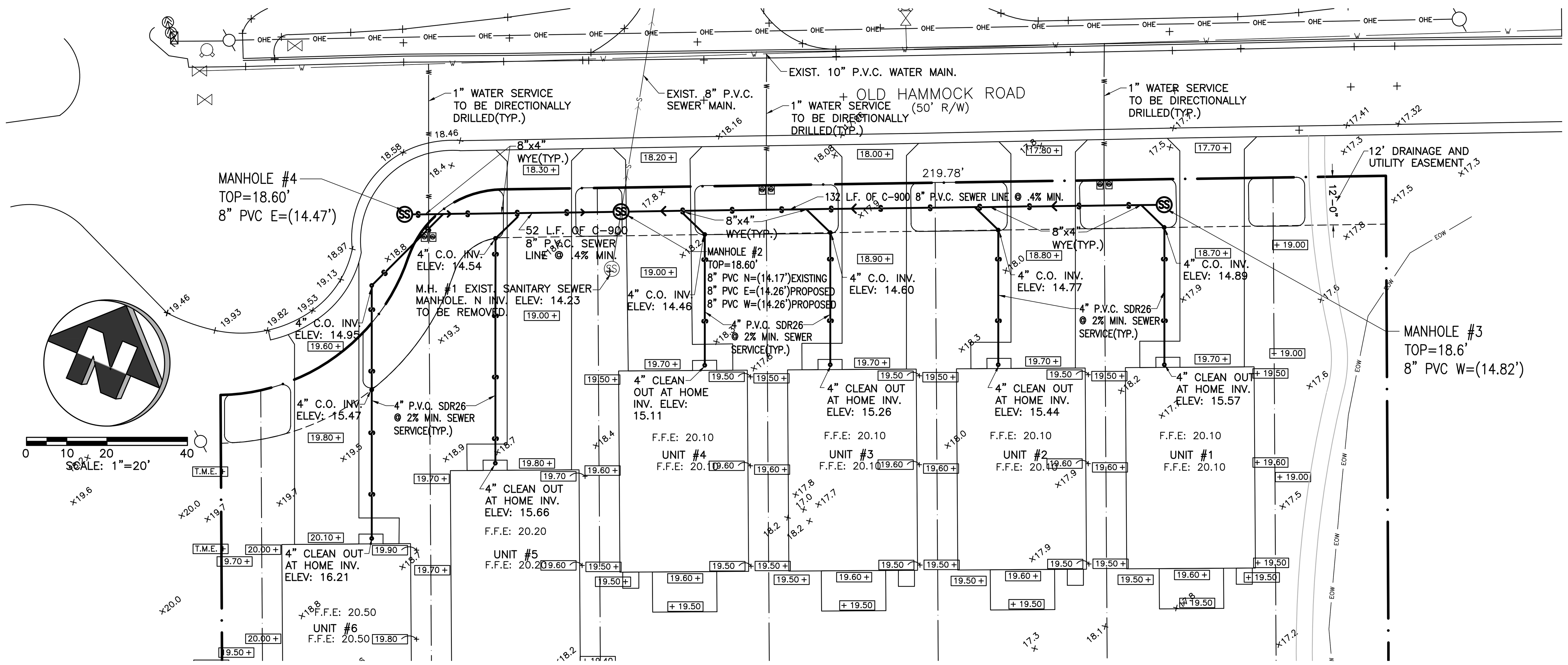
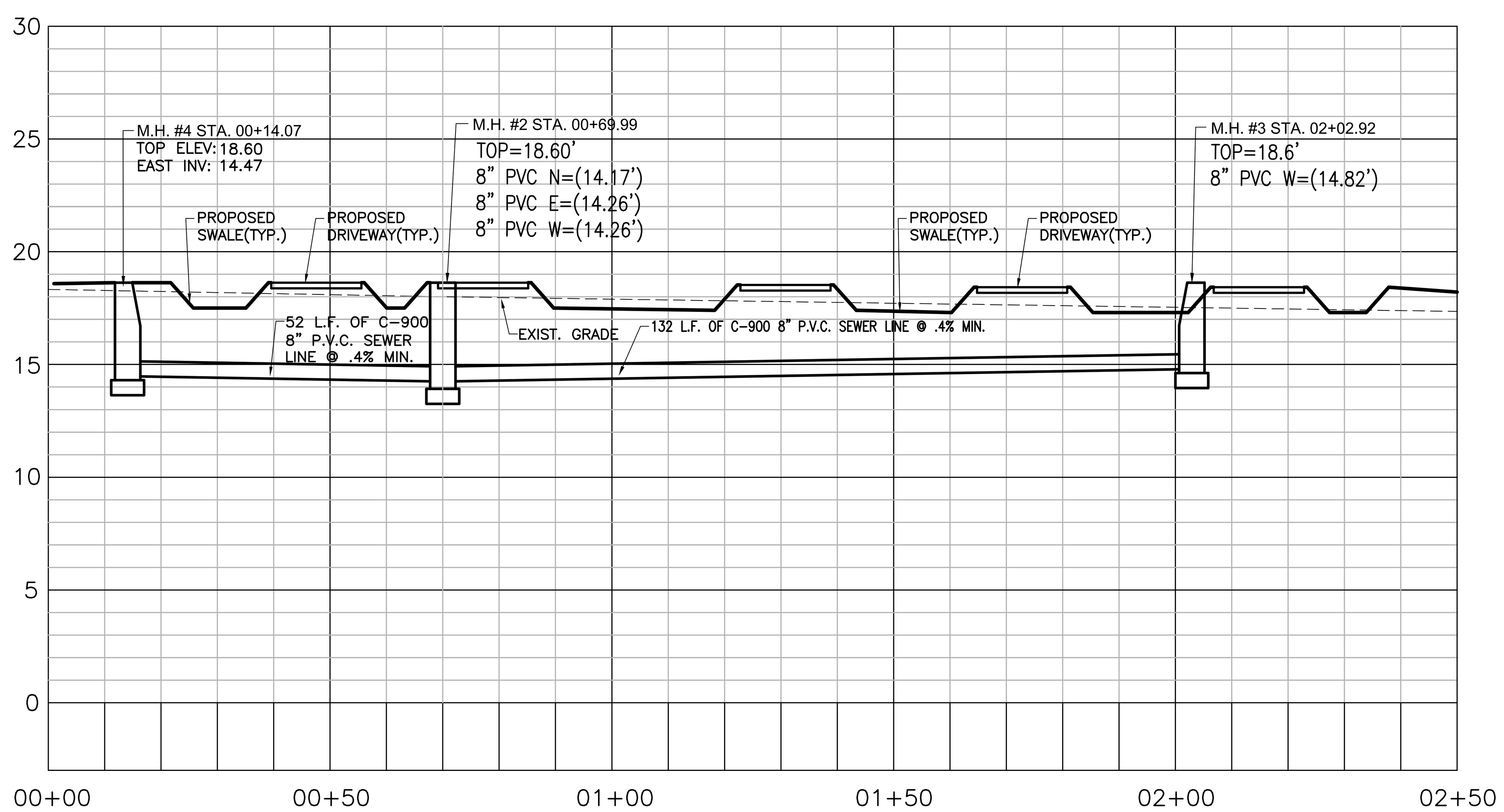
UTILITY PLAN FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS
2	10-12-22	R.A.I. #2 - CITY COMMENTS
3	10-27-22	R.A.I. #3 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282
CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL 32115

SHEET NO.
C-7





SEWER PROFILE

HORZ. 1"=10'
VERT. 1"=50'

(PERMIT SUBMITTAL SET)

UTILITY PLAN & PROFILE FOR:

LEILA'S HAMMOCK

OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

DATE: 03-28-22

ANDERSON DIXON
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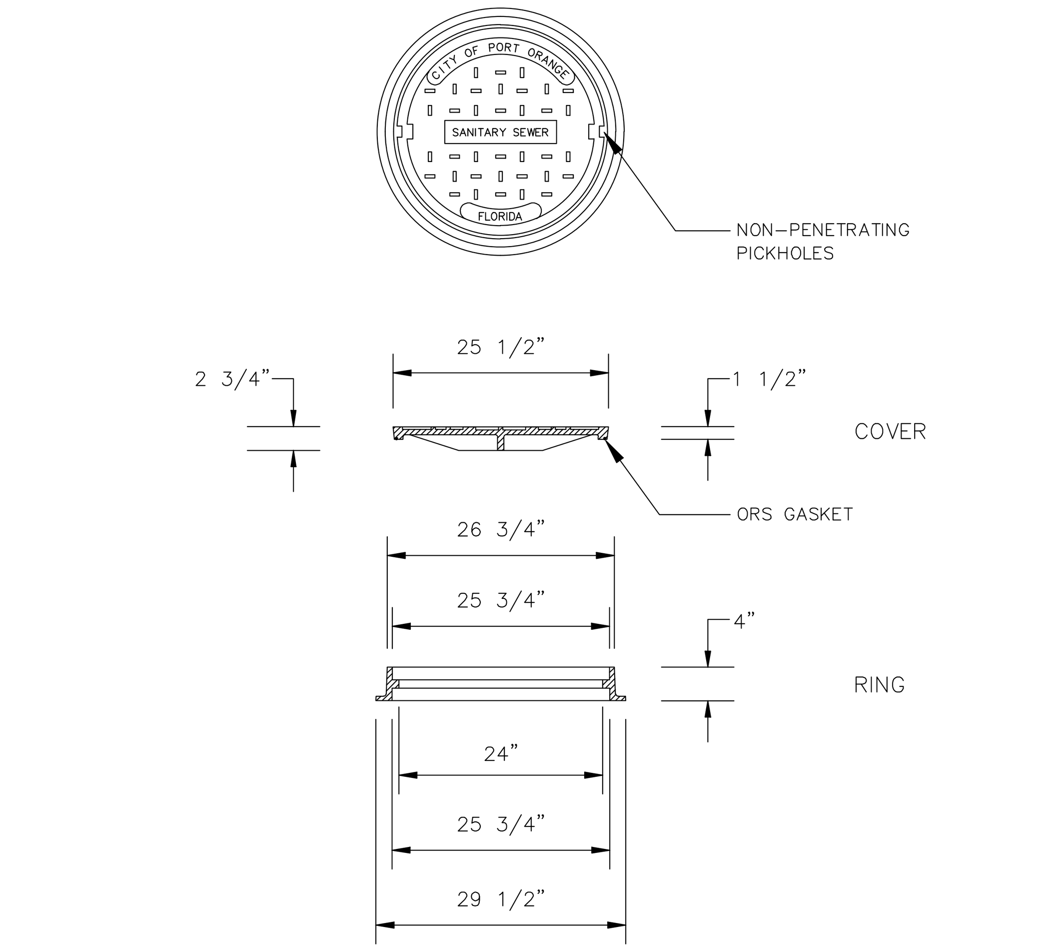
REV.	DATE:	NOTES:
1	08-01-22	R.A.I. #1 - CITY COMMENTS
2	10-12-22	R.A.I. #2 - CITY COMMENTS
3	10-27-22	R.A.I. #3 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282

CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL. 32115

SHEET NO.
C-7.1

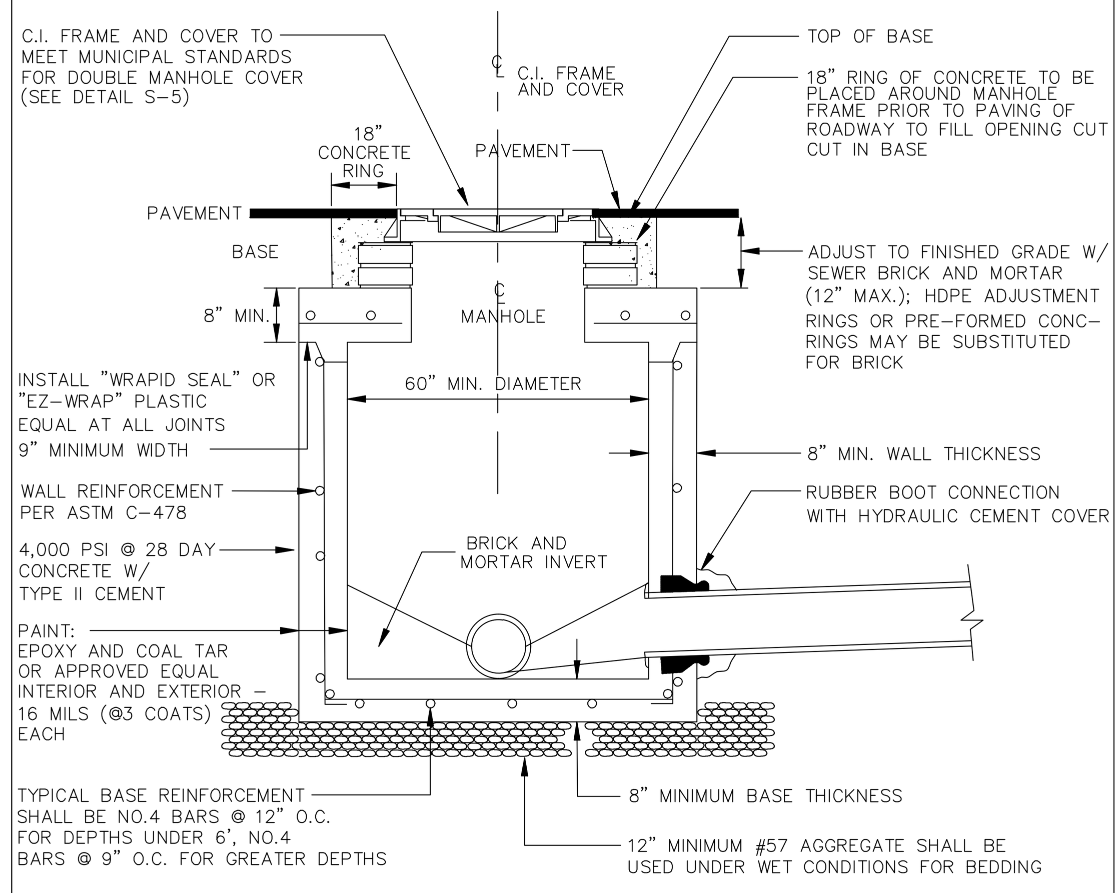


NOTES:

1. COVER – 125 LBS.
2. RING – 90 LBS.
3. MATERIAL: ASTM-A48 GRAY IRON CLASS 35B
4. BL COVER AND USF 117 BASE BY US FOUNDRY & MFG. CORP., OR EQUAL
5. GREASE INTERCEPTOR COVERS TO BE MARKED WITH "GREASE" INSTEAD OF "SANITARY SEWER"

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER MANHOLE SINGLE COVER

FILE NAME: S4.DWG
DETAIL REF: S-4
REV. 12/18



NOTES:

1. INSTALL EZ-WRAP PLASTIC OR EQUAL AT ALL JOINTS, 9" MINIMUM WIDTH.
2. NON-PENETRATING PICK-HOLES IN ALL CONCRETE SECTIONS.
3. USE FARBERTITE BITUMASTIC SEALER BETWEEN SECTIONS OF MANHOLE.
4. 0.1' PIPE ELEVATION DROP ACROSS MANHOLE.

STANDARD CONSTRUCTION DETAIL
SANITARY SDEWER SHALLOW MANHOLE
(DEPTH 60" OR LESS)

FILE NAME: S7.DWG
DETAIL REF: S-7
REV. 12/18

THE CITY'S PUBLIC UTILITIES DEPARTMENT (386) 506-5750 SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY SANITARY SEWER CONSTRUCTION.

CONSTRUCTION:

1. ALL WORK PERFORMED ON SANITARY SEWER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY SHALL BE CONSTRUCTED BY AN UNDERGROUND UTILITY CONTRACTOR, OR FLORIDA LICENSED GENERAL CONTRACTOR REGISTERED WITH THE CITY.
2. THE PLANS SHALL DIMENSION THE LOCATION, OF ALL MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT, IF NO CURBING EXISTS. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PROPOSED AND EXISTING PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE.
3. PROFILE VIEWS SHALL BE PROVIDED FOR ALL SEWER MAINS. PROFILE VIEWS SHALL BE ON THE SAME SHEET AS THE ASSOCIATED PLAN VIEW AND SHALL INCLUDE THE FOLLOWING INFORMATION:
   - A. SIZE, SLOPE, LENGTH AND CLASS OF PIPE
   - B. MANHOLE RIM AND INVERT ELEVATIONS
   - C. UTILITY CROSSINGS WITH VERTICAL SEPARATION
   - D. SHOW PROPOSED SEWER AND EXISTING UTILITY
   - E. EXISTING GROUND PROFILE
   - F. MATCH LINE
   - G. VICINITY MAP
   - H. PROFILE VIEW STATIONS TO COINCIDE WITH PLAN VIEW STATIONS
4. GREASE INTERCEPTORS ARE REQUIRED FOR ALL COMMERCIAL BUILDINGS HAVING KITCHEN, FOOD PREPARATION OR SERVING FACILITIES AND / OR MISCELLANEOUS USES. GREASE INTERCEPTORS CONSTRUCTED EXTERNAL TO BUILDINGS SHALL BE SIZED IN ACCORDANCE WITH FAC 64-E-6. CALCULATIONS TO DETERMINE SIZING REQUIREMENTS SHALL BE SUBMITTED AS PART OF BUILDING PERMITTING. AN INSPECTION MANHOLE MAY BE REQUIRED IMMEDIATELY DOWN STREAM OF THE GREASE INTERCEPTOR FOR INSPECTION PURPOSES, AS DEEMED APPROPRIATE BY THE CITY.
5. ON ALL EXCAVATION AND BACKFILLING, THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING IN ACCORDANCE TO OSHA GUIDELINE IN ORDER TO PROVIDE FOR THE SAFETY OF WORKMEN, AS WELL AS REPRESENTATIVES OF THE CITY, THE DESIGN ENGINEER, AND THE DEVELOPER.
6. ALL PVC. PIPE SHALL BE STORED IN SUCH A WAY AS TO PREVENT WARPING, DEFLECTION, OR DEFORMATION. ANY PIPE DEEMED TO BE MISSHAPED IN ANY WAY FOR ANY REASON SHALL BE REJECTED.
7. NO USED, RE-USED, RUSTED, SECOND HAND, OR ANY MATERIAL THAT IS NOT NEW SHALL BE USED IN ANY UTILITY IMPROVEMENT PROJECTS WITHIN THE CITY SERVICE AREA.
8. THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING OPERATIONS DEWATER THE GROUND SUFFICIENTLY TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE AREA OF THE TRENCH.
9. ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION. SOFT OR SPONGY BEDDING FOR PIPES IS NOT ACCEPTABLE. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY. MORTAR TO CONTAIN "HYDRATITE" OR APPROVED EQUAL, TO PREVENT SHRINKAGE. CEMENT USED IN CONCRETE MIX FOR PRECAST STRUCTURES SHALL BE TYPE II, ACID RESISTANT AND SULFIDE RESISTANT CONCRETE.
10. MORTAR TO CONTAIN "HYDRATITE" OR APPROVED EQUAL, TO PREVENT SHRINKAGE. CEMENT USED IN CONCRETE MIX FOR PRECAST STRUCTURES SHALL BE TYPE II, ACID RESISTANT AND SULFIDE RESISTANT CONCRETE.

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER NOTES

FILE NAME: S1.DOC
DETAIL REF: S-1
REV. 12/18

11. THE CITY MAY REQUIRE ALL NEW SANITARY SEWER GRAVITY SYSTEMS TO BE SMOKE TESTED PRIOR TO FINAL ACCEPTANCE. ALL TESTING MUST BE DONE IN THE PRESENCE OF THE CITY'S DESIGNATED SITE INSPECTOR.
12. THE CITY OF PORT ORANGE RESERVES THE RIGHT TO REQUIRE THE DEVELOPER TO PERFORM VACUUM TESTING OF ALL SANITARY MANHOLES, AIR TEST SEWER MAINS, AND REQUIRES THAT ALL SANITARY SEWER MAIN LINES BE TELEVISED PRIOR TO FINAL ACCEPTANCE. LATERALS SHALL BE TELEVISED UPON DEMAND BY THE CITY PRIOR TO FINAL ACCEPTANCE WHEN IT IS SUSPECTED THAT A PROBLEM EXISTS.
13. ALL TAPPING OF PRESSURE MAINS AND CORING OF MANHOLES SHALL BE PERFORMED BY THE CITY AND BILLED IN ACCORDANCE WITH THE ADOPTED FEE RESOLUTION. SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOURS NOTIFICATION DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE THE WORK DIRECTLY WITH THE PUBLIC UTILITIES DEPARTMENT. SUBSEQUENTLY, THE CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 8:00 A.M. AND NOON ON THE APPROPRIATE DAY ESTABLISHED BY CITY. WITH RESPECT TO TIE-IN CONNECTIONS AND CORING OPERATIONS, THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW (MIDNIGHT TO 6:00 A.M.) IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS. CONTRACTORS HAVING EXPERIENCE AND PROPER EQUIPMENT MAY BE GRANTED PERMISSION TO CORE MANHOLE BY PUBLIC UTILITIES DEPARTMENT.
14. NEW OR RELOCATED, UNDERGROUND MAINS SHALL BE LAID TO PROVIDE THE FOLLOWING MINIMUM HORIZONTAL SEPARATIONS (OUTSIDE TO OUTSIDE):

	WATER	STORM GRAVITY	STORM FORCE	RECLAIM	SANITARY GRAVITY	SANITARY FORCE
WATER		3'	3'	3'	6', PREFERRED 10'	6', PREFERRED 10'
STORM GRAVITY	3'		3'	3'	6', PREFERRED 10'	6', PREFERRED 10'
STORM FORCE	3'	3'		3'	6', PREFERRED 10'	6', PREFERRED 10'
RECLAIM	3'	3'	3'		3'	3'
SANITARY GRAVITY	6', PREFERRED 10'	6', PREFERRED 10'	6', PREFERRED 10'	3'		6', PREFERRED 10'
SANITARY FORCE	6', PREFERRED 10'	6', PREFERRED 10'	6', PREFERRED 10'	3'	6', PREFERRED 10'	

15. A 3' MINIMUM HORIZONTAL SEPARATION BETWEEN THE SANITARY GRAVITY AND WATER MAINS SHALL BE ALLOWED WHEN THE WATER MAIN IS INSTALLED IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 6" ABOVE THE SANITARY GRAVITY MAIN. ALTERNATIVELY, THE 3' MINIMUM HORIZONTAL SEPARATION SHALL BE ALLOWED WHEN THE SEWER MAIN IS ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE OR UPGRADED TO PRESSURE RATED PVC PIPE (MEETING AWWA C-900 OR C-905 SPECIFICATION AND PRESSURE TESTED AT 150 PSI TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING).

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER NOTES
(CONTINUED)

FILE NAME: S1.DOC
DETAIL REF: S-1.1
REV. 12/18

16. NEW OR RELOCATED, UNDERGROUND MAINS SHALL BE LAID TO PROVIDE THE FOLLOWING MINIMUM CROSSING/VERTICAL SEPARATIONS (OUTSIDE TO OUTSIDE):

	WATER	STORM GRAVITY	STORM FORCE	RECLAIM	SANITARY GRAVITY	SANITARY FORCE
WATER		OVER STORM GRAVITY 6", PREFERRED 12"	OVER STORM FORCE 12"	OVER RECLAIM 12"	OVER SANITARY GRAVITY 6", PREFERRED 12"	OVER SANITARY FORCE 12"
		UNDER STORM GRAVITY 12"	UNDER STORM FORCE 12"	UNDER RECLAIM 12"	UNDER SANITARY GRAVITY 12"	UNDER SANITARY FORCE 12"
STORM GRAVITY	OVER WATER 12"		OVER STORM FORCE 6"	OVER RECLAIM 6", PREFERRED 12"	OVER SANITARY GRAVITY 6", PREFERRED 12"	OVER SANITARY FORCE 6", PREFERRED 12"
	UNDER WATER 6", PREFERRED 12"		UNDER STORM FORCE 6"	UNDER RECLAIM 12"	UNDER SANITARY GRAVITY 12"	UNDER SANITARY FORCE 12"
STORM FORCE	OVER WATER 12"	OVER STORM GRAVITY 6"		OVER RECLAIM 12"	OVER SANITARY GRAVITY 12"	OVER SANITARY FORCE 12"
	UNDER WATER 12"	UNDER STORM GRAVITY 6"		UNDER RECLAIM 12"	UNDER SANITARY GRAVITY 12"	UNDER SANITARY FORCE 12"
RECLAIM	OVER WATER 12"	OVER STORM GRAVITY 12"	OVER STORM FORCE 12"		OVER SANITARY GRAVITY 12"	OVER SANITARY FORCE 12"
	UNDER WATER 12"	UNDER STORM GRAVITY 6", PREFERRED 12"	UNDER STORM FORCE 12"		UNDER SANITARY GRAVITY 12"	UNDER SANITARY FORCE 12"
SANITARY GRAVITY	OVER WATER 12"	OVER STROM GRAVITY 12"	OVER STORM FORCE 12"	OVER RECLAIM 12"		OVER SANITARY FORCE 12"
	UNDER WATER 6", PREFERRED 12"	UNDER STORM GRAVITY 6", PREFERRED 12"	UNDER STORM FORCE 12"	UNDER RECLAIM 12"		UNDER SANITARY FORCE 12"
SANITARY FORCE	OVER WATER 12"	OVER STORM GRAVITY 12"	OVER STORM FORCE 12"	OVER RECLAIM 12"	OVER SANITARY GRAVITY 12"	
	UNDER WATER 12"	UNDER STORM GRAVITY 6", PREFERRED 12"	UNDER STORM FORCE 12"	UNDER RECLAIM 12"	UNDER SANITARY GRAVITY 12"	

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER NOTES
(CONTINUED)

FILE NAME: S1.DOC
DETAIL REF: S-1.2
REV. 12/18

17. SEWER LATERAL LOCATIONS SHALL BE MARKED ALONG THE OUTSIDE OF THE CURB WITH A SAW CUT "V", OR BY A METAL TAB SET INTO THE PAVEMENT.
18. THE CONTRACTOR SHALL INSTALL A METALLIZED FOIL LOCATOR TAPE, OR SIMILAR DEVICE AS MAY BE APPROVED BY THE CITY FOR THE FULL LENGTH OF ALL PVC SEWAGE FORCE MAINS. THIS PIPE LOCATOR AID SHALL BE INSTALLED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS DIRECTED BY THE MANUFACTURER. TAPE SHALL BE COLOR CODED GREEN FOR SANITARY SEWER AND FORCE MAIN. A CONTINUOUS NO. 10 COPPER HEAD WIRE SHALL BE INSTALLED WITH WIRE BROUGHT UP AT ALL VALVES.

FORCE MAIN SANITARY SEWER:

1. PVC SANITARY SEWER FORCE MAINS, INCLUDING FITTINGS, SHALL BE GREEN PVC AWWA C-900, OR C-905, UNLESS SPECIFICALLY NOTED OTHERWISE. PRESSURE FITTINGS SHALL BE PRESSURE CLASS 150 OR C-907.
2. HDPE SANITARY SEWER FORCE MAINS SHALL BE SDR11 (OR THICKER) UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC TO WHICH IT IS ATTACHED. PRESSURE FITTINGS SHALL BE PRESSURE CLASS 150 OR C-907.
3. ALL SANITARY SEWER FORCE MAINS SHALL USE A THRUST RESTRAINT JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION GUIDELINES MODIFIED TO ACCOMMODATE PVC PIPE BY FOLLOWING THE RECOMMENDED INCREASE IN RESTRAINT LENGTH CORRESPONDING TO THE INSTALLATION OF POLYETHYLENE WRAP. IN NO INSTANCE SHALL THRUST BLOCKS BE PERMITTED.
4. ALL IN-LINE SANITARY SEWER FORCE MAIN VALVES SHALL BE AWWA C-509 OR C-515 COMPLIANT RESILIENT SEAT VALVES FEATURING AN EPOXY LINED DUCTILE IRON BODY.
5. FORCE MAIN SYSTEMS SHALL BE PRESSURE TESTED AT 100 PSI STATIC PRESSURE FOR A PERIOD OF 2 HOURS PER AWWA STANDARDS.
6. FORCE MAINS SHALL BE FLUSHED, PRESSURE TESTED, PIGGED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE WATER OR WASTEWATER TREATMENT PLANT (AS APPROPRIATE) AT LEAST 48 HOURS PRIOR TO BEGINNING A FULL-DIAMETER FLUSH OF THE MAINS AND PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING (SUBJECT TO AVAILABILITY).
7. THE CONTRACTOR SHALL BE REQUIRED TO PIG ALL FORCE MAINS AND PRIMARY TRANSMISSION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR. ALL PIGGING OPERATIONS SHALL BE WITNESSED BY A PORT ORANGE REPRESENTATIVE.

GRAVITY SANITARY SEWER:

1. ALL GRAVITY SANITARY SEWER LINES IN PUBLIC RIGHTS-OF-WAY SHALL BE GREEN PVC SDR26, ASTM D-3034. SEWER LINES CONSTRUCTED OUTSIDE OF PUBLIC RIGHTS-OF-WAY, WITHIN SIDE YARDS, BACKYARDS, AND OTHER POORLY ACCESSIBLE AREAS SHALL BE CONSTRUCTED OF GREEN AWWA C-900 PVC SDR25. USE OF PLASTIC STYRENE FITTINGS SHALL NOT BE ALLOWED.
2. IN PLACES WHERE A MINIMUM COVER OF 36" CANNOT BE MAINTAINED, AWWA C-900 GREEN PVC SDR25 OR CONCRETE ENCASEMENT SHALL BE USED. WATER LINES, RECLAIMED LINES, AND STORM DRAINAGE CROSSINGS SHALL ALSO FOLLOW THE CONCRETE ENCASEMENT REQUIREMENT PER THESE STANDARDS AND AS PER REGULATORY REQUIREMENTS.
3. GRAVITY SANITARY SEWER PIPE SIZES SHALL BE:
   - MAINS - 8" DIAMETER MINIMUM
   - COMMERCIAL SERVICE LATERALS WITH MULTIPLE CONNECTIONS - 6" DIAMETER MINIMUM
   - SINGLE FAMILY RESIDENTIAL SERVICE LATERALS - 4" DIAMETER
   - MULTI-FAMILY RESIDENTIAL SERVICE LATERALS - 6" DIAMETER MINIMUM

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER NOTES
(CONTINUED)

FILE NAME: S1.DOC
DETAIL REF: S-1.3
REV. 12/18

4. SINGLE FAMILY RESIDENTIAL SERVICE LATERALS SHALL BE CONSTRUCTED AT EACH LOT OR UNIT AND LOCATED ON THE DOWNSTREAM SIDE OF THE LOT CENTER LINE. THESE SERVICES SHALL BE EXTENDED 48" ABOVE GROUND AT THE PROPERTY LINE WITH A PVC RISER AND PLUG BEING EASILY VISIBLE FROM THE ROAD. RUBBER SEAL FITTINGS SHALL BE USED ON ALL LINES. NO GLUED JOINTS ARE PERMITTED ON LATERALS.
5. GRAVITY SANITARY SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY THE CITY.
6. MINIMUM GRAVITY SANITARY SEWER SLOPES ARE AS FOLLOWS:
   - 8" PIPE - 0.40 %
   - 10" PIPE - 0.30 %
   - 12" PIPE - 0.22 %
7. GRAVITY SANITARY SEWER LINES SHALL BE INSTALLED WHENEVER POSSIBLE UNDER PAVED AREAS WITHIN PUBLIC RIGHTS-OF-WAY. UTILITY EASEMENTS SHALL BE PROVIDED WHENEVER PUBLICLY-OWNED SEWER LINES ARE CONSTRUCTED OUTSIDE OF A PUBLIC RIGHT-OF-WAY.
8. AS A GENERAL RULE, THE NUMBER OF JOINTS SHALL BE LIMITED WHENEVER POSSIBLE. IN SPECIAL CASES WHERE A POINT REPAIR TO AN 8" TO 12" PVC SEWER MAIN IS REQUIRED, THE PROPER RIGID WRAP AROUND SLEEVE SUCH AS A JCM-210 OVERSIZED DUCTILE IRON COUPLING OR AN APPROVED EQUAL MAY BE ALLOWED BY SPECIAL APPROVAL BY THE CITY.
9. SEWER MAINS SHALL BE FLUSHED, PRESSURE TESTED, PIGGED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE WATER OR WASTEWATER TREATMENT PLANT (AS APPROPRIATE) AT LEAST 48 HOURS PRIOR TO BEGINNING A FULL-DIAMETER FLUSH OF THE MAINS AND PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING (SUBJECT TO AVAILABILITY).
10. THE CONTRACTOR SHALL BE REQUIRED TO PIG ALL MAINS AND PRIMARY TRANSMISSION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR. ALL PIGGING OPERATIONS SHALL BE WITNESSED BY A PORT ORANGE REPRESENTATIVE.

SANITARY MANHOLES:

1. STANDARD MANHOLES SHALL BE LOCATED AT INTERVALS NOT EXCEEDING 350'. SHOP DRAWINGS FOR ALL STRUCTURES SHALL BE SUBMITTED TO AND APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION WITH TWO COPIES FORWARDED BY THE DESIGN ENGINEER TO THE CITY.
2. MAXIMUM DEPTH OF SANITARY MANHOLES SHALL BE 15'.
3. LOCAL COLLECTION SANITARY SEWER MANHOLES SHALL BE PRECAST WITH A MINIMUM INSIDE DIAMETER OF 48".
4. THICKER MANHOLE WALLS AND BASES MAY BE REQUIRED TO PREVENT FLOATATION BASED ON HIGH GROUND WATER TABLE ELEVATIONS AS DETERMINED USING ACCEPTED ENGINEERING PRACTICES AND/OR PUBLIC UTILITIES DEPARTMENT.
5. ALL SANITARY SEWER MANHOLES SHALL HAVE ALL INTERIOR SURFACES COATED WITH THREE (3) COATS OF WHITE/GRAY OVER RED OVER BLACK EW-1 EPOXY PAINT WITH A TOTAL OF 12 MILS THICKNESS OR BLACK COAL-TAR EPOXY WITH A TOTAL OF 16 MILS THICKNESS. OUTSIDE SURFACE TO BE COATED WITH TWO (2) COATS OF BLACK OVER BLACK EW-1 EPOXY PAINT WITH A TOTAL OF 8 MILS OR ONE (1) COAT OF BLACK COAL-TAR EPOXY WITH A TOTAL OF 8 MILS. ALL COATS SHALL BE APPLIED AT THE FACTORY EXCEPT MINOR FIELD TOUCH UP AT JOINTS AND AT MANHOLE NECK.
6. ALL MANHOLES CONSTRUCTED IN SIDE YARDS, BACKYARDS, AND EASEMENTS OUTSIDE OF THE RIGHT-OF-WAY SHALL BE OUTFITTED WITH FIBERGLASS OR EPOXY LINERS IN COMPLIANCE WITH ASTM-3753 OR OTHER TYPES OF LINERS APPROVED BY THE CITY. IN ADDITION, THE CITY MAY REQUIRE LINERS TO BE INSTALLED IN OTHER AREAS WHERE THE PUBLIC UTILITIES DEPARTMENT BELIEVES THE NEED IS JUSTIFIED SUCH AS IMMEDIATELY UPSTREAM OF FORCE MAINS CONNECTING TO GRAVITY MAINS.

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER NOTES
(CONTINUED)

FILE NAME: S1.DOC
DETAIL REF: S-1.4
REV. 12/18

7. MANHOLE RIMS SHALL MATCH FLUSH WITH THE FINISH GRADE ELEVATION IN PAVED AREAS AND A MINIMUM OF 0.2' AND MAXIMUM OF 0.5' ABOVE GRADE ELEVATION IN UNPAVED AREAS.
8. ALL SANITARY SEWER MANHOLE COVERS SHALL HAVE THE WORDS "PORT ORANGE FLORIDA SANITARY SEWER" CAST INTO THEM.
9. THE CONTRACTOR SHALL CONSTRUCT SANITARY SEWER MANHOLES IN SUCH A WAY THAT SEWER LINES DO NOT INTERSECT SEALED JOINTS BETWEEN SECTIONS OF THE MANHOLE.
10. NO BUG HOLES OR HONEYCOMB WILL BE ACCEPTED.
11. INDIVIDUAL SANITARY SERVICE ON NEW CONSTRUCTION SHALL NOT BE CONNECTED DIRECTLY INTO MANHOLES. THE SERVICE CONNECTION WILL BE BY USE OF WYE CONNECTIONS, UNLESS OTHERWISE APPROVED BY THE CITY.
12. RUBBER BOOTS WITH 316 STAINLESS STEEL BANDS SHALL BE UTILIZED IN THE CONNECTION OF THE SEWER MAIN TO THE MANHOLES. COMPLETELY COVER RUBBER BOOTS AT OUTSIDE CONNECTION AND SEAL INSIDE PROTRUSION WITH HYDRAULIC CEMENT.
13. EZ-WRAP PLASTIC, AS MANUFACTURED BY PRESS SEAL GASKET CORPORATION, SHALL BE USED ON THE OUTSIDE OF ALL MANHOLE AND WET WELL JOINTS. APPLY ONE LAYER OF 9" WRAP CENTERED ON EACH JOINT. A CITY INSPECTOR SHALL PERSONALLY INSPECT ALL JOINT SEALS PRIOR TO BACKFILLING OPERATIONS.

TESTING:

1. ALL TESTING REQUIRED BY THE CITY SHALL BE PAID FOR BY THE CONTRACTOR / DEVELOPER. THE CONTRACTOR SHALL EMPLOY AN INDEPENDENT TESTING LABORATORY AT HIS OWN EXPENSE.
2. TO ENSURE THAT COMPACTION OF ALL FILL MATERIAL IS COMPLETED PROPERLY, TESTS SHALL BE DONE 12" ABOVE THE PIPE AND THEN AT 12" VERTICAL INTERVALS UNTIL FINAL GRADE IS REACHED.
3. ALL TRENCHES SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL AND COMPACTED TO MINIMUM 95% IN UNPAVED AREAS AND 98% IN PAVED AREAS OF THE MAXIMUM DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
4. TEST RESULTS SHALL BE SUBMITTED TO THE CITY AT A MINIMUM FREQUENCY OF ONE SET OF TESTS BETWEEN EACH MANHOLE AND ONE ADDITIONAL SET OF TESTS AT EVERY MANHOLE. IDENTIFICATION OF TEST LOCATIONS SHALL BE CLEARLY INDICATED ON TEST REPORTS. TEST RESULTS SHALL BE FORWARDED PROMPTLY TO THE CITY'S DESIGNATED SITE INSPECTOR.

CLOSE-OUT:

1. ALL SEWER MAINS, PRIOR TO FINAL ACCEPTANCE BY THE CITY AND PRIOR TO ANY FINAL PAVING OPERATIONS, SHALL BE TELEVISED AND SUBMITTED TO THE CITY USING A "PAN AND TILT CAMERA" WITH DEPTH GAUGE IN FRONT OF THE CAMERA BY A CITY APPROVED CONTRACTOR. THE CAMERA SHALL RUN FROM DOWN STREAM MANHOLE TO UP STREAM MANHOLE. CITY INSPECTOR SHALL BE NOTIFIED IN ADVANCE AND BE PRESENT DURING THE TELEVISING OF THE SEWER SYSTEM. THE VIDEO SHALL BE NON-STOP WITH AUDIO DESCRIBING WHAT IS BEING REVIEWED. WRITTEN VIDEO LOGS DESCRIBING THE CONDITION OF THE LINES SHALL ACCOMPANY THE VIDEO SUBMISSION TO THE CITY 48 HOURS PRIOR TO COMMENCING ANY INSTALLATION OF ASPHALT OR CONCRETE PAVEMENT. THE CITY MAY REQUIRE ADDITIONAL VIDEO TAPING, VIDEO TAPING OF LATERALS, AND/OR INFILTRATION/EXFILTRATION TESTS IF DEFECTS ARE APPARENT OR WORKMANSHIP IS QUESTIONABLE.
2. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AS-BUILTS ARE PROVIDED TO THE CITY PRIOR TO ANY USE OF THE SYSTEM.

STANDARD CONSTRUCTION DETAIL
SANITARY SEWER NOTES
(CONTINUED)

FILE NAME: S1.DOC
DETAIL REF: S-1.5
REV. 12/18

(PERMIT SUBMITTAL SET)

DATE: 03-28-22

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UTILITY DETAILS FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282

CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL. 32115

SHEET NO.
C-8

MATERIALS

THE INSPECTION AND TESTING OF MATERIALS AND FINISHED ARTICLES TO BE INCORPORATED IN THE WORK SHALL BE MADE BY BUREAUS, LABORATORIES, OR AGENCIES APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL SUBMIT SUCH SAMPLES, OR SUCH SPECIAL OR TEST PIECES OF MATERIALS AS THE ENGINEER OF RECORD MAY REQUIRE. THE CONTRACTOR SHALL NOT INCORPORATE ANY MATERIAL OR FINISHED ARTICLE INTO THE WORK UNTIL THE RESULTS OF THE INSPECTION OR TESTS ARE KNOWN AND THE CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER OF RECORD THAT THE MATERIAL OR FINISHED ARTICLE IS ACCEPTED. ALL MATERIALS MUST BE OF THE SPECIFIED QUALITY AND BE EQUAL TO THE APPROVED SAMPLE IF A SAMPLE HAS BEEN SUBMITTED. CERTIFIED COPIES OF ALL TESTS MADE SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS WELL AS TO THE CITY'S DESIGNATED SITE INSPECTOR. THE CITY'S DESIGNATED SITE INSPECTOR MUST RECEIVE COPIES OF ALL TESTING REPORTS AND CERTIFICATES PRIOR TO THE ENGINEER OF RECORD REQUESTING A FINAL PROJECT INSPECTION FROM THE CITY.

LABORATORY CONTROL AND CERTIFICATES

1. SPECIFICATIONS: SAMPLING, TESTING, AND LABORATORY METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE AASHTO OR ASTM. WHERE AASHTO OR ASTM SPECIFICATIONS ARE USED, THE REFERENCE SHALL BE CONSTRUED TO BE THE MOST RECENT STANDARD SPECIFICATIONS OF THE AASHTO OR ASTM IN FORCE ON THE DATE OF THE TEST.

2. TEST & CERTIFICATES: THE CONTRACTOR SHALL ENGAGE AN APPROVED TESTING LABORATORY TO PROVIDE THE FOLLOWING TESTS AND CERTIFICATIONS SIGNED BY A REGISTERED ENGINEER OF THE STATE OF FLORIDA. ALL TECHNICIANS PERFORMING THE TESTS SHALL BE STATE CERTIFIED FOR THE TESTING PERFORMED. ADDITIONAL TESTS THAT MAY BE REQUIRED BY EITHER THE ENGINEER OF RECORD OR THE CITY SHALL ALSO BE PROVIDED BY THE CONTRACTOR AND THE FOLLOWING SHALL NOT BE TAKEN AS A COMPLETE AND EXHAUSTIVE LIST OF THE CONTRACTOR'S TESTING RESPONSIBILITIES.
   - A) SOIL ANALYSIS FOR STRUCTURAL FILL MATERIAL PRIOR TO INSTALLATION.
   - B) PROCTOR DENSITIES, MOISTURE CONTENT, COMPACTED FIELD DENSITIES, AND ATTERBERG LIMITS.
   - C) FLOWABLE FILL – MIX DESIGNS, CONSTRUCTION SUPERVISION AND COMPRESSIVE STRENGTH TESTS.
   - D) ANALYSIS OF RECYCLED CONCRETE BASE MATERIAL PRIOR TO INSTALLATION.
   - E) ASPHALT MIX DESIGN, BITUMEN CONTENT, SIEVE ANALYSIS, HUBBARD FIELD STABILITY TESTS, NUCLEAR DENSITY TESTS (BACKSCATTER METHOD), AND ANALYSIS OF CORE SAMPLES.
   - F) CONCRETE MIX DESIGNS FOR ALL APPLICATIONS INCLUDING PAVEMENT, CAST-IN-PLACE STRUCTURES, CURBING, GUTTERS, SIDEWALKS, BIKE PATHS, APRONS AND DRIVEWAYS.
   - G) COMPRESSIVE TEST CYLINDERS AND SLUMP TESTS FOR ALL APPLICATIONS OF CONCRETE, INCLUDING PAVEMENT, CAST-IN-PLACE STRUCTURES, CURBING, GUTTERS, SIDEWALKS, BIKE PATHS, APRONS, AND DRIVEWAYS.
   - H) CHLORINE RESIDUAL AND BACTERIOLOGICAL TESTING OF WATER MAINS.
   - I) PRESSURIZED LEAK TESTING OF WATER MAINS, FORCE MAINS, AND RECLAIMED WATER MAINS.

STANDARD CONSTRUCTION DETAIL
TECHNICAL SPECIFICATIONS
FOR SITES AND SUBDIVISIONS
TESTING

FILE NAME: M2.DWG
DETAIL REF: M-2
REV. 12/18

THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE EMPLOYED WHEN WARRANTED BY CONDITIONS AND/OR THE FAILURE OF THE CONTRACTOR TO EMPLOY APPROPRIATE EROSION CONTROL BEST MANAGEMENT PRACTICES. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER".

1. NO DISTURBANCE OF PROPOSED CONSERVATION EASEMENTS, NATURAL BUFFERS, OR WATER BODIES IS PERMITTED. THE CONTRACTOR SHALL LOCATE THESE AREAS ON SITE AND BARRICADE THEM TO AVOID ANY UNAUTHORIZED CLEARING. BARRICADES AND OTHER PROTECTIVE FENCING ARE TO BE LOCATED AT THE DRIP LINE OF EXISTING NATIVE TREES OR AT THE EDGE OF THE NATIVE UNDER-STORY HABITAT, WHICHEVER IS FURTHEST.
2. SPECIMEN AND HISTORIC TREES, CONSERVATION EASEMENTS, NATURAL VEGETATION BUFFERS, AND SIMILAR AREAS MUST BE PROTECTED BY BARRICADES OR FENCING PRIOR TO CLEARING. BARRICADES ARE TO BE SET AT THE DRIP LINE OF THE TREES, AS SPECIFIED, AND MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. BARBED WIRE IS NOT PERMITTED AS A PROTECTIVE BARRIER.
3. WHERE A CHANGE OF GRADE OCCURS WITHIN THE DRIP LINE OF A SPECIMEN TREE, SILT FENCES WILL BE REQUIRED DURING CONSTRUCTION AND RETAINING WALLS MUST BE INSTALLED PRIOR TO FINAL ACCEPTANCE BY THE CITY.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PROTECTIVE VEGETATION BARRICADES AND EROSION CONTROL DEVICES AND MEASURES IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK, INCLUDING PRELIMINARY GRUBBING. BEST MANAGEMENT PRACTICES (BMP'S) ARE TO BE IMPLEMENTED, SUCH AS TEMPORARY CONSTRUCTION FENCES, SILT FENCES AND FLOATING TURBIDITY BARRIERS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION CONTROL DEVICES AND MEASURES THROUGHOUT THE DURATION OF THE ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE, BUT NOT LIMITED TO, PERIODIC INSPECTION AND REMOVAL OF DEBRIS ABUTTING EROSION CONTROL DEVICES AS SPECIFICALLY IDENTIFIED IN LDC, CH 10, ARTICLE I, SEC. 5.
5. PRIOR TO THE INSTALLATION OF ANY FILL MATERIALS ON SUBJECT SITE, SILT FENCES SHALL BE INSTALLED (1) ALONG SUBJECT SITE BOUNDARY AND/OR PROPERTY LINES, (2) AT THE EDGE OF CONSERVATION EASEMENTS AND WETLANDS, (3) ADJACENT TO NATURAL LANDSCAPE BUFFERS, (4) AROUND THE PERIMETER OF EXISTING STORM WATER TREATMENT FACILITIES, AND (5) AT ANY ADDITIONAL AREAS THAT THE CITY DEEMS NECESSARY TO BE PROTECTED FROM POTENTIAL EROSION IMPACTS DURING CONSTRUCTION. THESE CONDITIONS SHALL APPLY IN ALL INSTANCES WHERE FILL MATERIAL IS BEING INSTALLED WITHIN 25 FEET OF ANY OF THE AFOREMENTIONED LOCATIONS. WHILE THESE ITEMS REPRESENT THE MINIMUM REQUIREMENTS, THE CITY RESERVES THE RIGHT TO IMPOSE ADDITIONAL PROTECTIVE MEASURES, AS DETERMINED DURING ACTUAL SITE VISITS CONDUCTED AS PART OF THE STANDARD REVIEW OF THE SITE-SPECIFIC ABC CLEARING PERMIT APPLICATION AND THROUGHOUT PROJECT CONSTRUCTION.
6. WHERE FILL MATERIAL IS INTENDED TO BE INSTALLED ADJACENT TO EXISTING VEGETATION WHICH IS INTENDED TO REMAIN NATURAL, THE CONTRACTOR MAY INSTALL SILT FENCING AS A TREE PROTECTION MEASURE, IN LIEU OF INSTALLING WOOD BRACING WITH ORANGE MESH. THIS PRACTICE IS ENCOURAGED BY THE CITY. IF THE SILT FENCE FAILS TO PROVIDE ADEQUATE PROTECTION FROM IMPACT DUE TO CONSTRUCTION, THEN BARRICADES OR WOOD BRACING SHALL BE REQUIRED.
7. AT A MINIMUM, THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. SUFFICIENT GRASS COVERAGE IS TO BE ESTABLISHED WITHIN TWO WEEKS.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGH SCHEDULING, TO MINIMIZE THE DISTURBANCE OF SITE AREAS THAT HAVE BEEN BROUGHT TO THEIR PROPOSED FINAL GRADE. WITHIN SEVEN (7) DAYS OF BRINGING A SUBJECT AREA TO ITS FINAL GRADE OR INACTIVITY IN CONSTRUCTION, THE CONTRACTOR SHALL INSTALL SEED AND MULCH OR SOD, AS REQUIRED.

STANDARD CONSTRUCTION DETAIL
CONTRACTOR REQUIREMENTS FOR
SITE CLEARING, GRADING, AND EROSION CONTROL
DESIGN AND CONSTRUCTION

FILE NAME: M3.DWG
DETAIL REF: M-3
REV. 12/18

SCOPE OF WORK

FURNISH AND INSTALL SOD, OR SEED AND MULCH, THE LIMITS CALLED FOR ON THE CONSTRUCTION DRAWINGS. AT A MINIMUM, ALL WORK SHALL MEET THE MINIMUM STANDARDS OF SECTION 570 OF FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND MINIMUM REQUIREMENTS OF THE CITY, AS OUTLINED BELOW.

SEED

SEED SHALL BE PRE-MIXED BY A SEED COMPANY TO THE PERCENTAGES DESCRIBED BELOW, WITH CERTIFICATION FROM THE SUPPLIER PROVIDED TO THE CITY'S DESIGNATED LANDSCAPE INSPECTOR PRIOR TO USE. THE GRASS SEED MIXTURE SHALL BE:

PENSACOLA BAHIA (USE 50% SCARIFIED SEED)	50%
HULLED BERMUDA	25%
BROWN TOP MILLET	25%

NOTE: IN THE FALL AND WINTER MONTHS, AND WITH THE APPROVAL OF THE CITY, ANNUAL RYE GRASS SHALL BE SUBSTITUTED IN EQUAL AMOUNTS FOR THE BROWN TOP MILLET.

MULCH

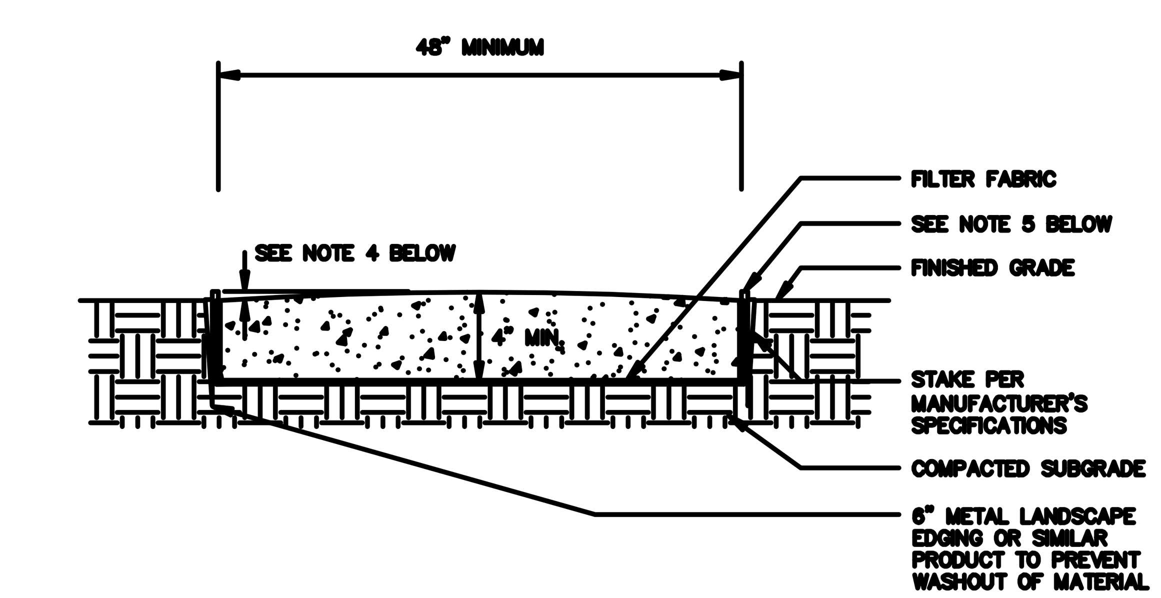
STRAW OR HAY CONSISTING OF OATS, RYE, OR WHEAT STRAW, OR OF PANGOLA, PEANUT, COASTAL BERMUDA OR BAHIA GRASS HAY. MULCH SHALL BE FREE FROM WEED AND OTHER UNDESIRABLE GRASS. APPROXIMATELY ONE INCH (1"), LOOSE THICKNESS, OF MULCH MATERIAL SHALL BE APPLIED UNIFORMLY OVER THE SEEDED AREAS (APPROXIMATELY ONE AND ONE-HALF (1-1/2) BALES PER 1000 SQUARE FEET). THE MULCH MATERIAL SHALL BE CUT INTO THE SOIL WITH A DISC HARROW OR OTHERWISE ANCHORED DOWN. UNDER PROPER CIRCUMSTANCES, CONTRACTOR MAY REQUEST OPTION TO INSTALL HYDRO-SEEDING, SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT AND THE CITY.

METHOD

GRASSING SHALL BE DONE IMMEDIATELY UPON COMPLETION OF THE FINE GRADING OPERATION. HOWEVER, NO SEEDING SHALL BE DONE WHEN THE GROUND IS FROZEN OR UNDULY WET. THE RATE OF SPREAD FOR THE SEED MATERIAL SHALL BE ONE HUNDRED AND THIRTY (130) POUNDS PER ACRE.

STANDARD CONSTRUCTION DETAIL
SODDING, SEEDING AND MULCHING
NOTES

FILE NAME: M4.DWG
DETAIL REF: M-4
REV. 12/18

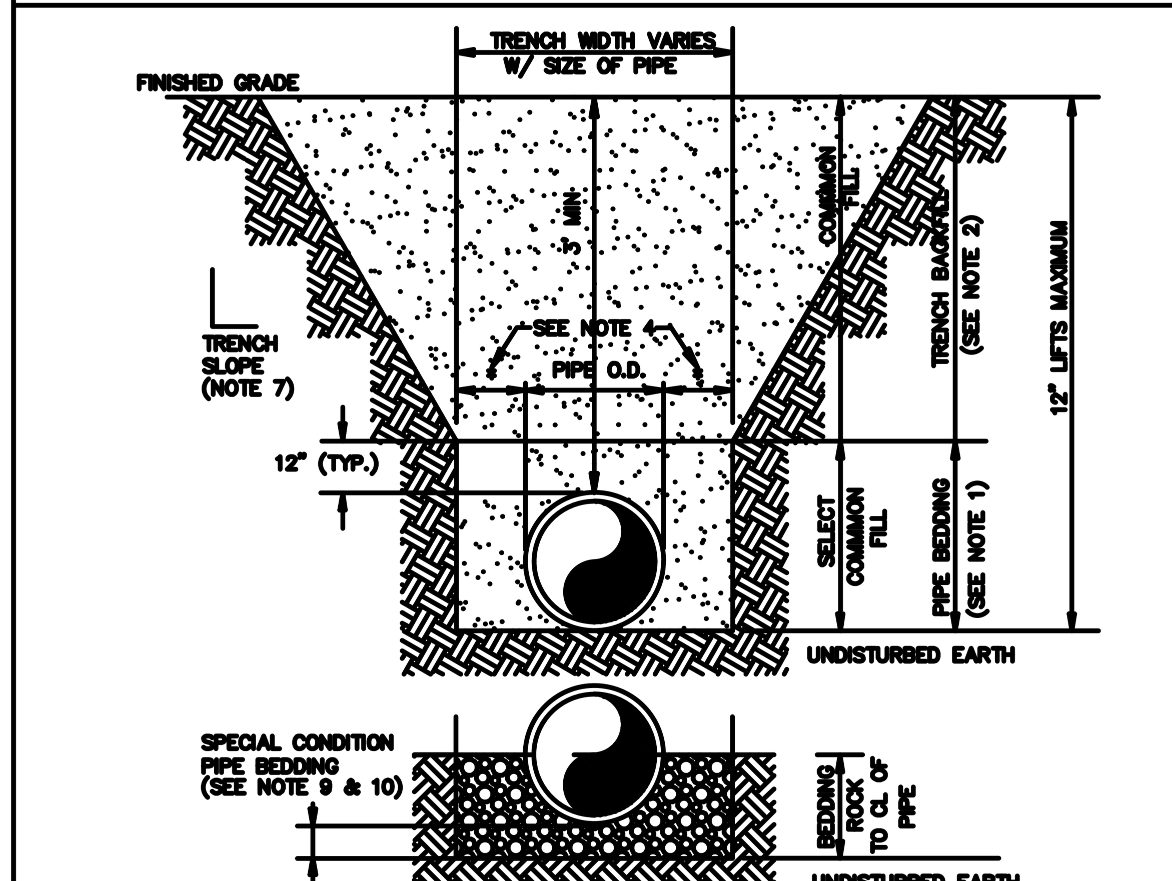


NOTE:

1. THE FOLLOWING MATERIALS ARE PERMITTED TO BE USED AS A STABILIZED WALKWAY:
   - A. COMPACTED CRUSHED MINERAL AGGREGATE
   - B. COMPACTED CRUSHED SHELL
   - C. OTHER MATERIALS APPROVED THROUGH THE SDRC PROCESS.
2. CONCRETE AND ASPHALT SHALL BE USED IN HIGH-TRAFFIC AREAS.
3. MULCH SHALL NOT BE USED AS A STABILIZED WALKING PATH MATERIAL.
4. THE FINAL GRADE OF THE WALKPATH SHALL BE GRADED WITH A MAXIMUM 2.08% CROSS-SLOPE AWAY FROM THE CENTERLINE OF THE PATH.
5. METAL LANDSCAPE EDGING IS TO BE INSTALLED SUCH THAT THE TOP OF THE EDGING IS TO BE AT OR BELOW THE CROWN OF THE WALKING PATH, BUT NOT MORE THAN 3" ABOVE FINISHED GRADE.

STANDARD CONSTRUCTION DETAIL
STABILIZED WALKING PATH

FILE NAME: M10.DWG
DETAIL REF: M-10
REV. 12/18

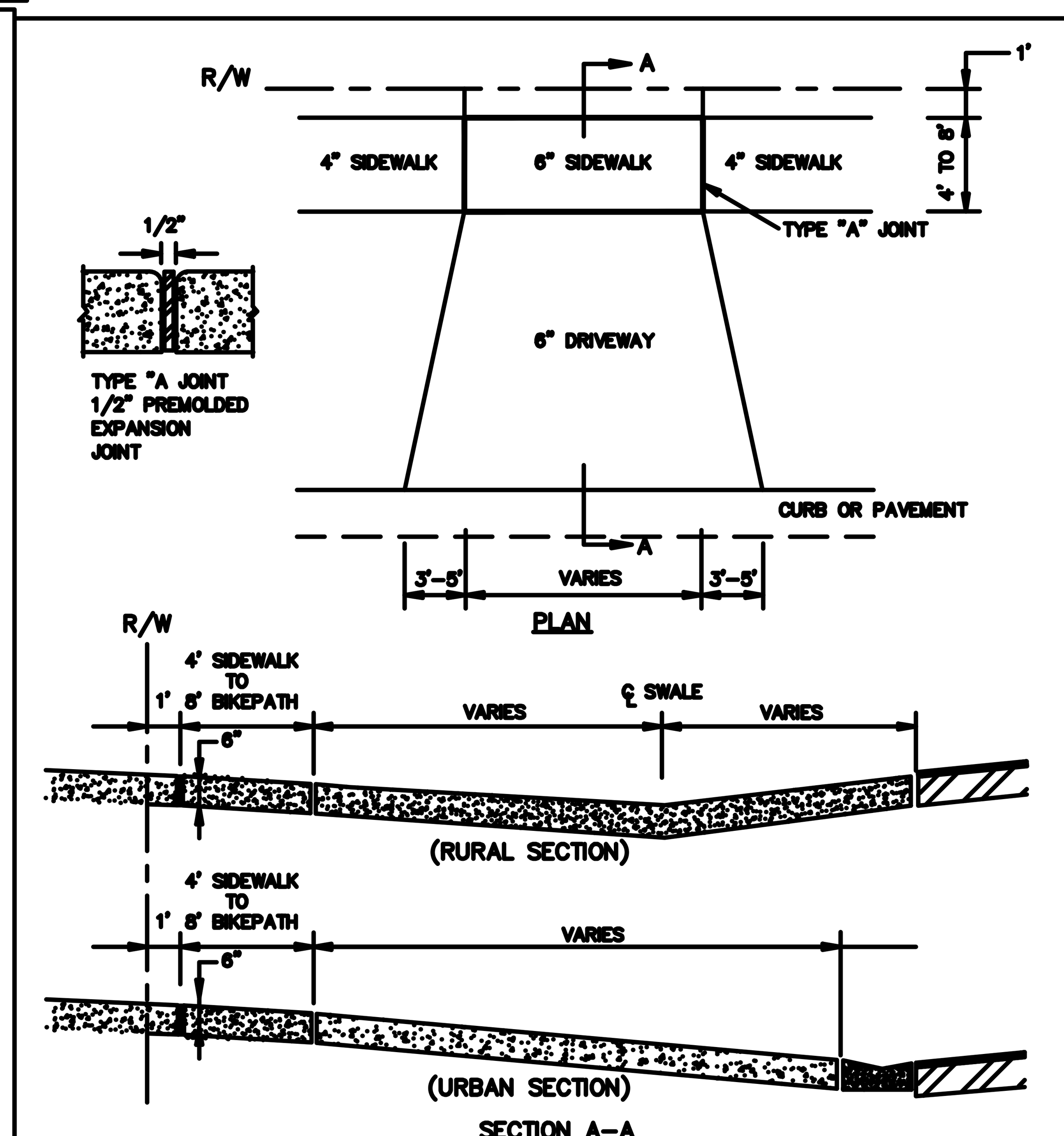


NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180. 98% DENSITY REQUIRED UNDER DRIVEWAYS, PAVEMENT AND STRUCTURES.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE "A" BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. (*) 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF FLOW.
7. REFER TO OSHA REQUIREMENTS FOR SLOPING, SHEETING AND BRACING IN EXCAVATIONS.
8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
9. GRAVITY SEWERS SHALL UTILIZE BEDDING ROCK WHERE UNSUITABLE MATERIAL EXISTS. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15", AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
10. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. CITY SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.

STANDARD CONSTRUCTION DETAIL
PIPE BEDDING AND TRENCH

FILE NAME: M27.DWG
DETAIL REF: M-27
REV. 12/18



NOTES:

1. DRIVEWAY APRON BASE TO BE COMPACTED AND TESTED TO 98% DENSITY WITH MINIMUM LBR 40 BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
2. DRIVEWAY APRON CONCRETE – 2,500 PSI AT 28 DAY.

STANDARD CONSTRUCTION DETAIL
DRIVEWAY APRON

FILE NAME: R16.DWG
DETAIL REF: R-16
REV. 12/18

(PERMIT SUBMITTAL SET)

DATE: 03-28-22

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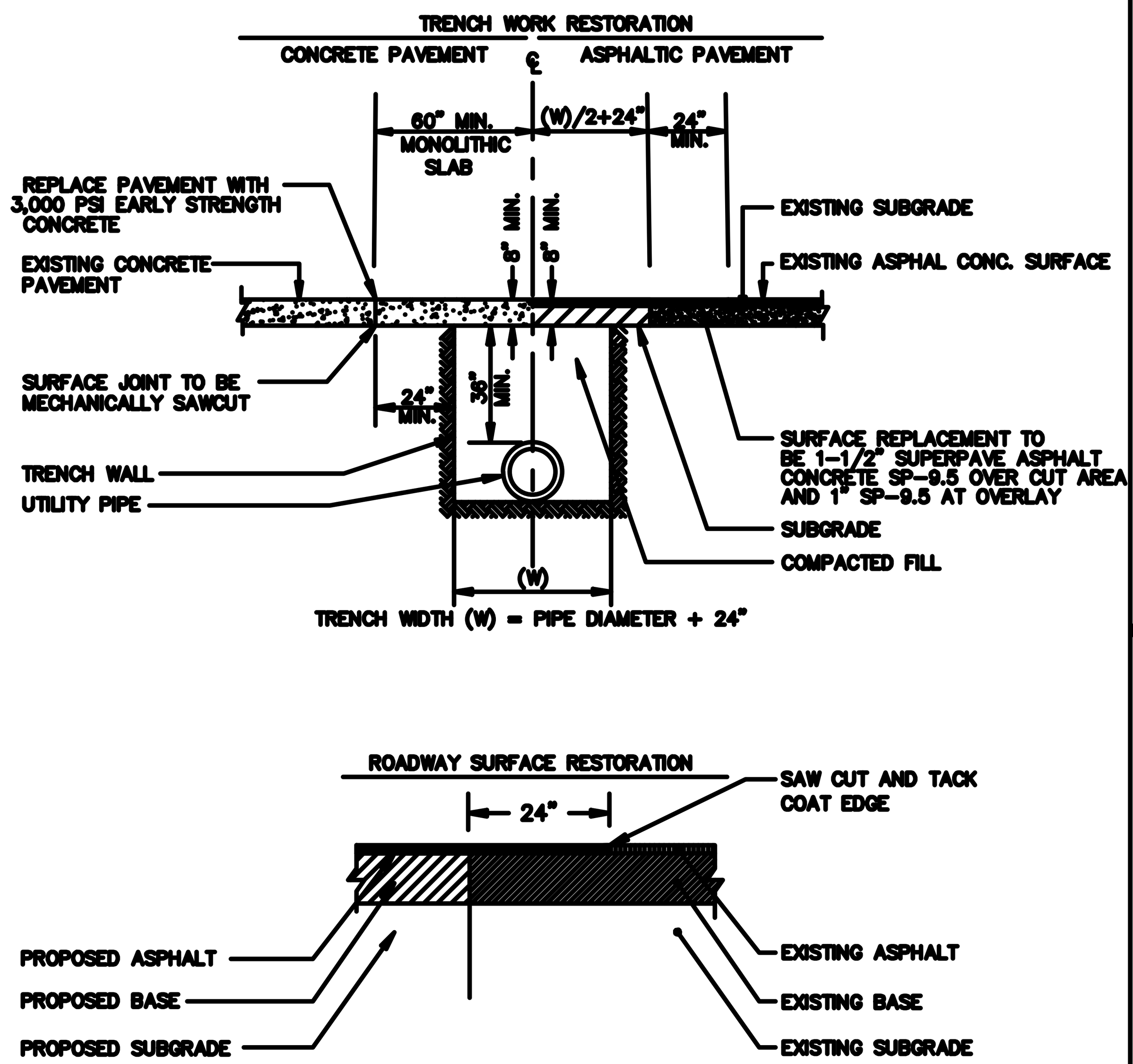
DETAILS FOR:
LEILA'S HAMMOCK
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS

DRAFTER: DBA
CHECKED BY: RD
PROJECT NO. 20-1282
CLIENT: REZA (RAY) TOUTOUNCHIAN
P.O. BOX 2027
DAYTONA BEACH, FL. 32115

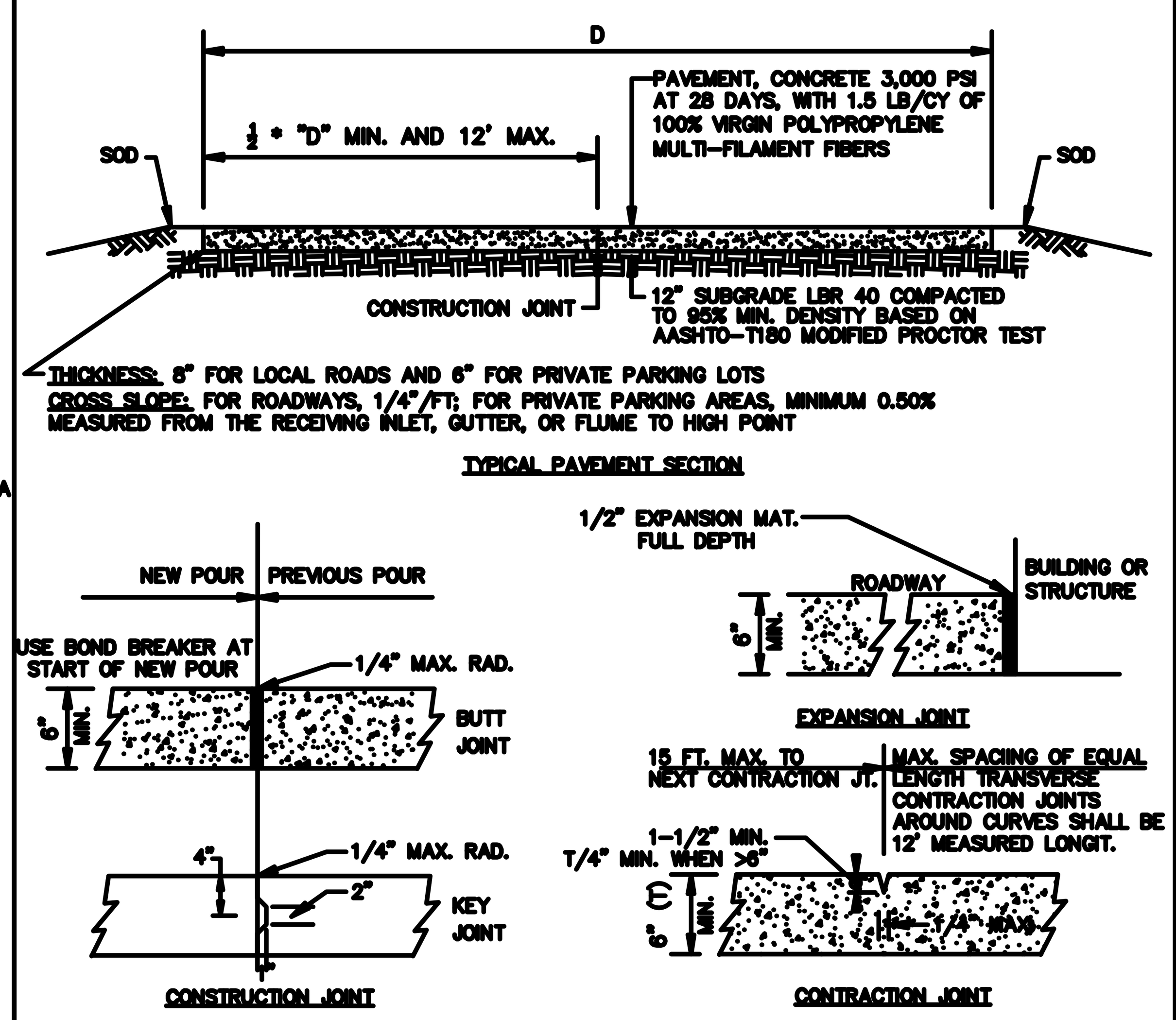
SHEET NO.
C-9



NOTES:

1. PAVING REPLACEMENT SHALL INCLUDE RAISING ALL MANHOLE FRAMES/LIDS AND VALVE BOXES/LIDS, AND SIMILAR APPURTENANCES, TO FINAL ELEVATION PRIOR TO RESURFACING.
3. REPLACEMENT BASE MATERIAL TO BE LIMEROCK OR RECYCLED CONCRETE. BASE AND ANY SUBBASE TO BE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
4. IN AREAS WHERE CONCRETE PAVEMENT IS TO BE UTILIZED, AREA MUST REMAIN FREE OF VEHICULAR TRAFFIC FOR A MINIMUM OF 3 DAYS.

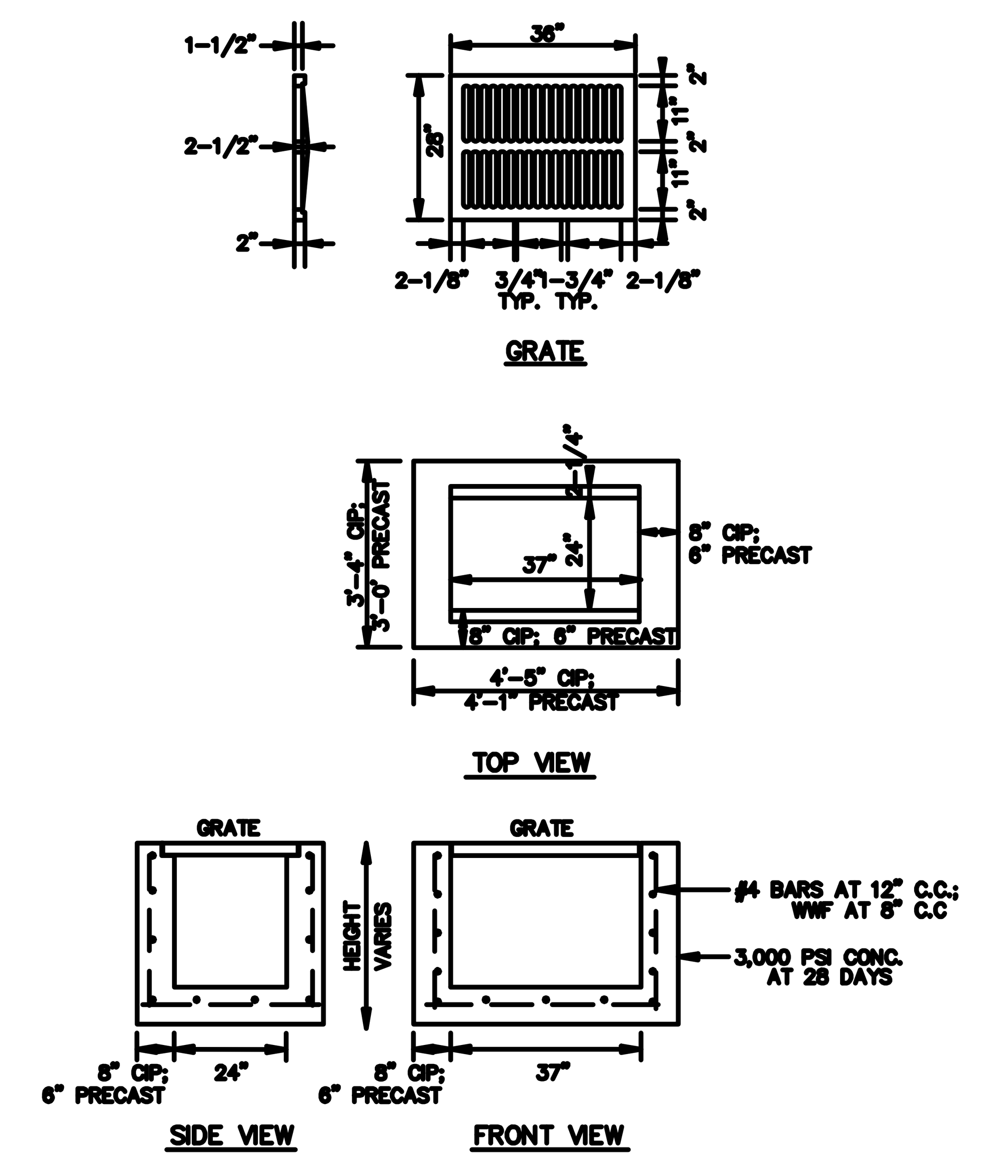
CITY OF PORT ORANGE 1867 FLORIDA	STANDARD CONSTRUCTION DETAIL PAVEMENT RESTORATION REV. 12/18	FILE NAME: R13.DWG DETAIL REF: R-13



NOTES:

1. CONTRACTION JOINTS MAY BE HAND FORMED, SAWED OR CONSTRUCTED WITH A 1/4" PRE-MOLDED FILLER JOINT. JOINTS MUST BE SAWED BETWEEN 4 AND 18 HOURS AFTER CONCRETE HAS BEEN PLACED.
2. EXPANSION JOINTS TO BE PLACED BETWEEN STRUCTURE AND CURB AND AT ANY PERMANENT STRUCTURE ABUTTING OR WITHIN THE PAVED AREA, INCLUDING SIDEWALKS. USE OF WOOD IS NOT ACCEPTABLE.
3. FINAL DETERMINATION OF CONSTRUCTION JOINT SELECTION AND APPLICATION SHALL BE MADE BY THE ENGINEER OF RECORD BASED ON PROJECT REQUIREMENTS AND LOCATION.
4. CONSTRUCTION JOINTS WITHIN THE SLAB AREA SHOULD NOT CONTAIN PRE-MOLDED EXPANSION JOINT FILLER.
5. CONCRETE PAVEMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI PUBLICATION 330R-87.

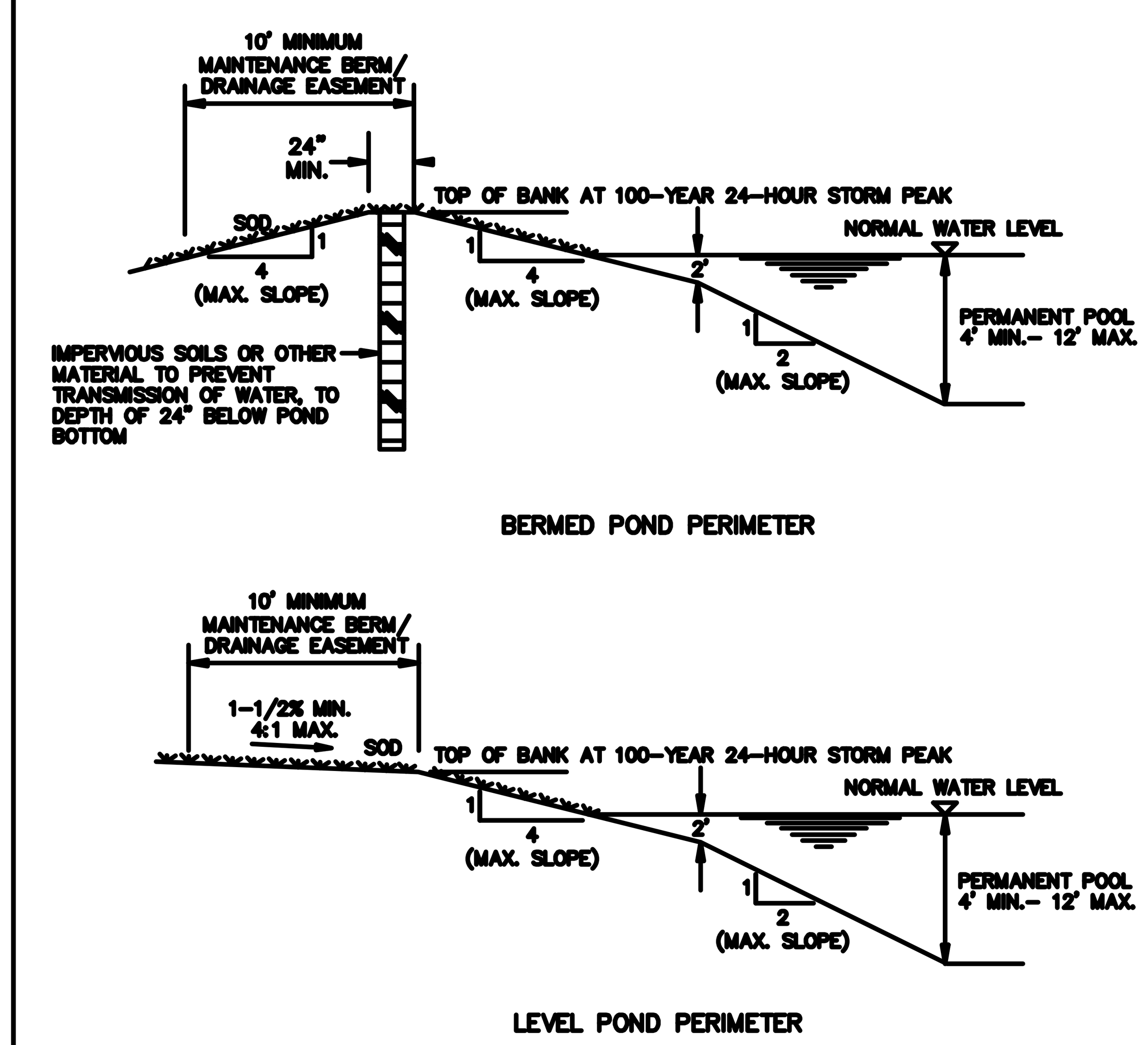
CITY OF PORT ORANGE 1867 FLORIDA	STANDARD CONSTRUCTION DETAIL CONCRETE PAVEMENT DETAILS REV. 12/18	FILE NAME: R14.DWG DETAIL REF: R-14



NOTE:

1. 8" WALL THICKNESS FOR CAST IN PLACE STRUCTURES. 6" WALL THICKNESS FOR PRECAST STRUCTURES.
2. MAXIMUM PIPE DIAMETER 18" ALONG 24" WALL.
3. MAXIMUM PIPE DIAMETER 24" ALONG 37" WALL.
4. SEE FDOT INDEX 232 FOR ADDITIONAL DETAIL.

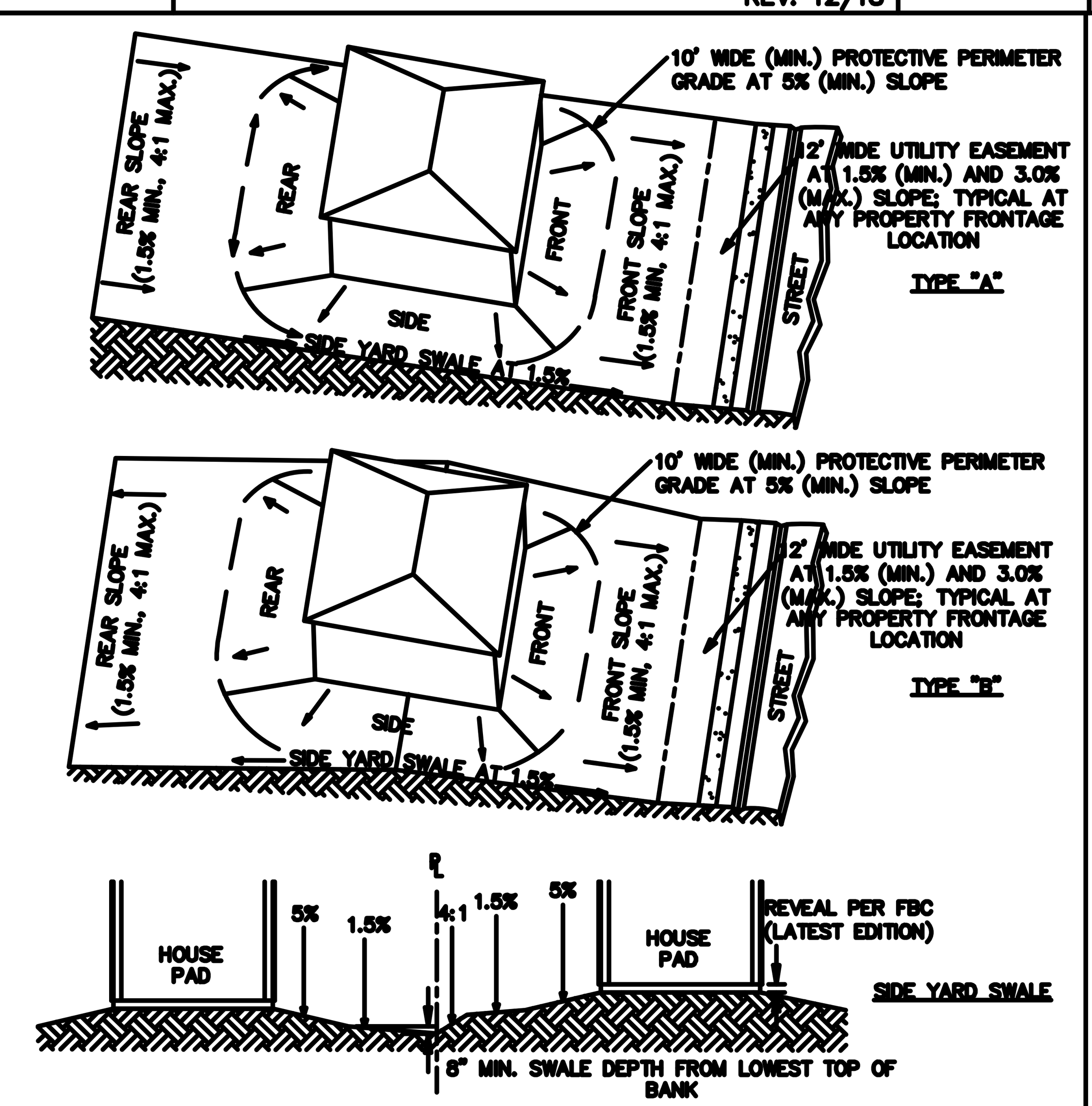
CITY OF PORT ORANGE 1867 FLORIDA	STANDARD CONSTRUCTION DETAIL TYPE "C" STORM INLET REV. 12/18	FILE NAME: ST4.DWG DETAIL REF: ST-4



NOTES:

1. SOD IS TO BE PLACED TO THE NORMAL WATER LEVEL.
2. A PLANTED LITTORAL ZONE IS NOT PERMISSIBLE FOR SLOPES EXCEEDING 6:1 (HORIZONTAL:VERTICAL).
3. AS AN OPTION TO A LITTORAL ZONE, THE DESIGNER CAN EITHER:
   A) PROVIDE AN ADDITIONAL 50% OF THE PERMANENT POOL VOLUME.
   B) PROVIDE PRETREATMENT OF THE STORMWATER PRIOR TO ENTERING THE WET DETENTION POND.

CITY OF PORT ORANGE 1867 FLORIDA	STANDARD CONSTRUCTION DETAIL WET POND REV. 12/18	FILE NAME: ST9.DWG DETAIL REF: ST-9



NOTE:

1. ALL FINISHED FLOOR ELEVATIONS SHALL BE SET A MINIMUM OF 12" ABOVE THE 100 YEAR FLOOD PLAIN AND/OR 12" ABOVE THE 100 YEAR DESIGN HIGH WATER LEVEL OF THE ADJACENT DETENTION/ RETENTION AREA.
2. TYPE "C" LOT GRADING REQUIRES FLORIDA PROFESSIONAL ENGINEER'S DESIGN AND APPROVAL BY CITY.
3. SIDE YARD SWALE LONGITUDINAL GRADE MAY BE REDUCED TO 1.0% FROM 1.5% WHERE WELL DRAINED SOILS ARE PRESENT AND APPROVED BY CITY.
4. SIDE YARD SWALE SHALL BE CENTERED ON THE COMMON PROPERTY LINES FOR NEW CONSTRUCTION AND INSTALLED COMPLETELY WITHIN PARCEL LIMITS OF INFILL PROPERTIES.
5. ALL SLOPES SHALL NOT EXCEED 4:1 RATIO.

CITY OF PORT ORANGE 1867 FLORIDA	STANDARD CONSTRUCTION DETAIL RESIDENTIAL LOT GRADING REV. 12/18	FILE NAME: ST10.DWG DETAIL REF: ST-10

(PERMIT SUBMITTAL SET)

DATE: 03-28-22

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DETAILS FOR: LEILA'S HAMMOCK

OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REV.	DATE:	NOTES:
1	09-01-22	R.A.I. #1 - CITY COMMENTS

DRAFTER: DBA
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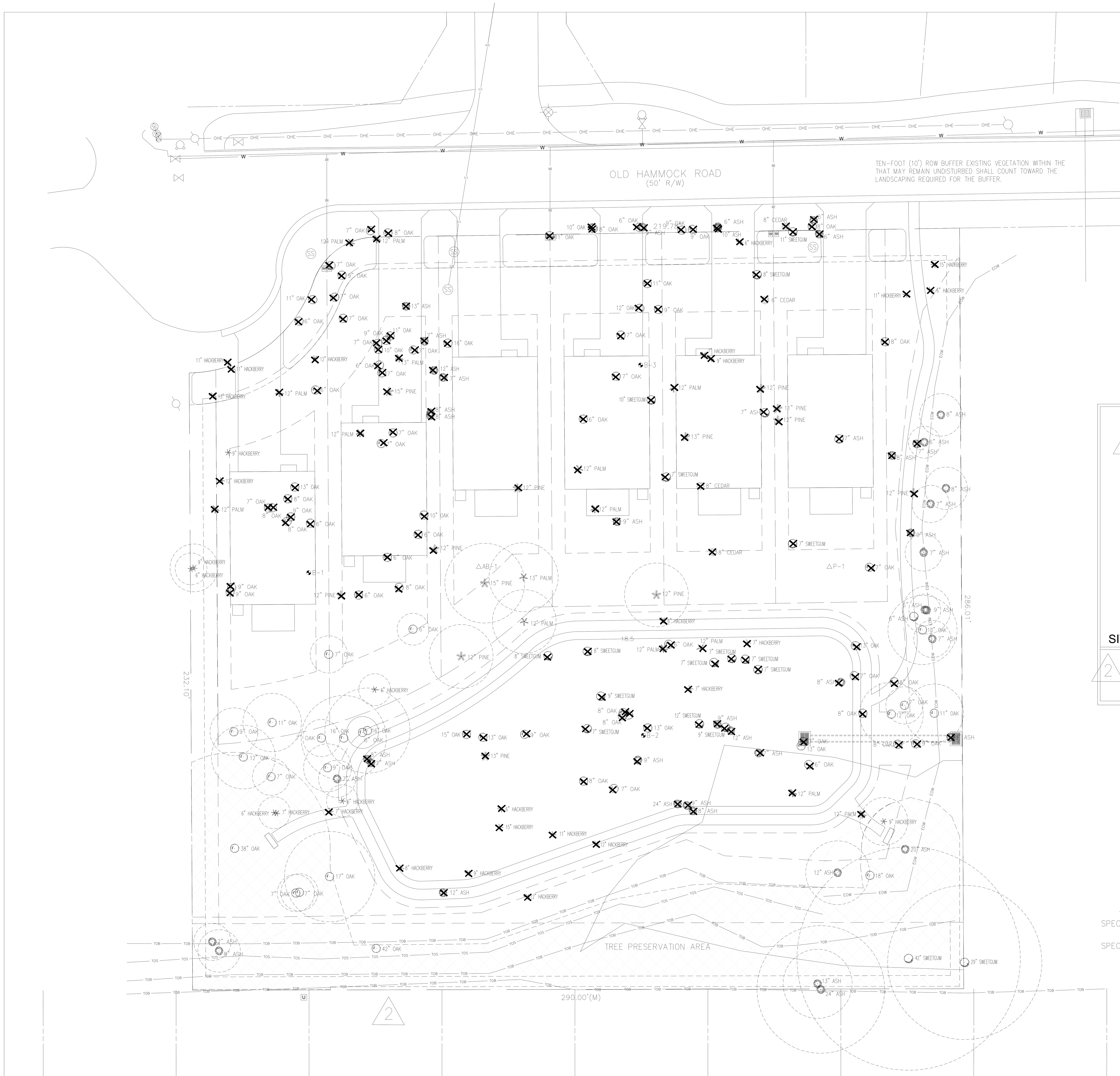

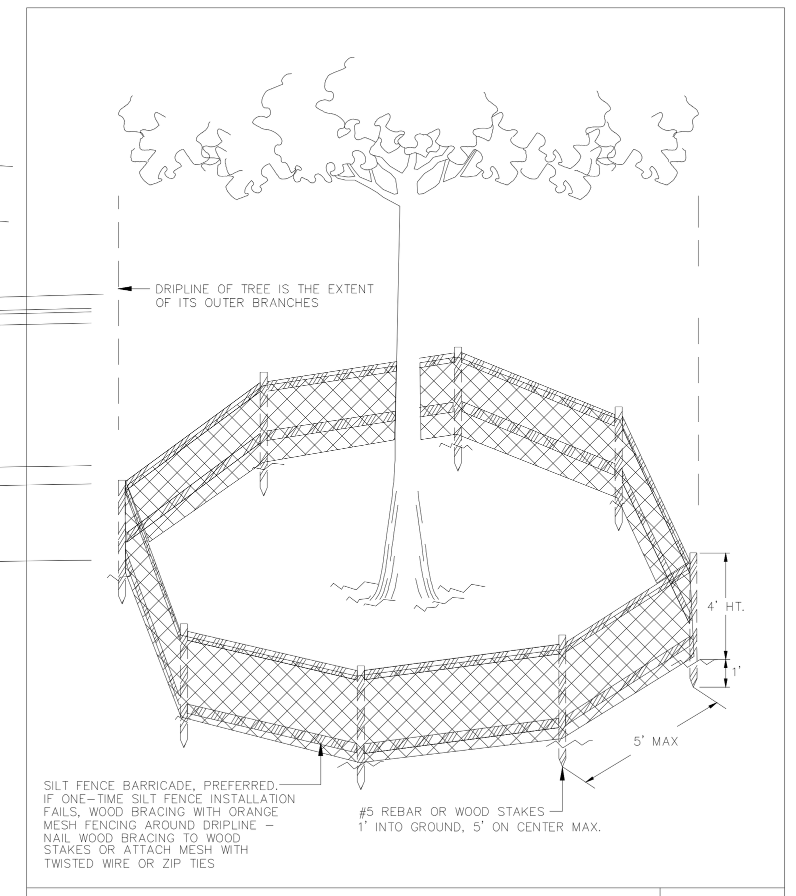

STANDARD CONSTRUCTION DETAIL
TREE PROTECTION BARRICADE

REV 12/18 .

FILE NAME: M25.DWG

DETAIL REF: M-25

TREE PRESERVATION CALCULATIONS

2

1.84Ac PROJECT AREA (80,349 SF)
12,052 S.F. REQUIRED TREE PRESERVATION (15%)
12,483 S.F. PROVIDED TREE PRESERVATION (16%)

SITE TREE REQUIREMENTS

1.84Ac TOTAL PROJECT AREA (80,349 SF)
(0.86) Ac RESIDENTIAL LOT AREA (37,488.7 SF)
(0.98) Ac PROJECT SITE AREA (42,691.7 SF)
ONE (1) TREE/2,500 SF = SEVENTEEN (17) TREES REQUIRED (EXISTING AND PROPOSED)

LANDSCAPE REQUIRED ON EACH LOT AT TIME OF EACH HOUSE CONSTRUCTION PER LDC
ONE (1) TREE / 2,500 sf OF RESIDENTIAL LOT AREA AND EITHER
(12) TO (20) SHRUBS DEPENDING ON LOT SIZE

NO LANDSCAPE BUFFER REQUIRED ACROSS THE FRONT OF THE SINGLE FAMILY LOTS

SITE TREE REMOVAL CALCULATIONS / MITIGATION

2

SPECIMEN TREE SITE REQUIREMENTS AS PER PUD AGREEMENT
ORIGINAL TREE SURVEY SHOWED A 24" ELM WHICH WAS TO BE REMOVED. THE UPDATED SURVEY SHOWS THE TREE TO ACTUALLY BE A 24" ASH WHICH HAS NO MITIGATION REQUIRED SINCE THE TREE IS NOT A SPECIMEN TREE.

SITE TREE REMOVAL QUANTITY

	ASH	CED	HACK	OAK	PALM	PINE	SWTGM
6"	3	1	4	11	0	0	0
7"	7	0	4	16	0	0	7
8"	7	3	1	14	0	0	3
9"	6	0	3	11	0	0	2
10"	1	0	0	2	0	0	1
11"	0	0	4	4	0	1	1
12"	3	0	4	1	12	6	1
13"	1	0	1	4	1	2	0
14"	0	0	0	0	0	0	0
15"	0	0	2	1	0	1	0
16"	0	0	0	1	0	0	0
17"	0	0	0	0	0	0	0
18"	0	0	0	0	0	0	0
19"	0	0	0	0	0	0	0
20"	0	0	0	0	0	0	0
24"	1	0	0	0	0	0	0
TOTAL NON-SPECIMEN TREES REMOVED	29	4	23	65	13	10	15
SPECIMEN TREES REMOVED	0	0	0	0	0	0	0

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APPROVAL STAMP BLOCK

GENERAL NOTES

ALL PLANT MATERIAL THAT IS INSTALLED MUST BE FLORIDA NO.1 GRADE OR BETTER ACCORDING TO THE CURRENT GRADES AND STANDARDS FOR NURSERY PLANTS, STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE.

ANY VARIATIONS FROM THE APPROVED LANDSCAPE PLAN MUST BE INITIALLY REVIEWED BY THIS LANDSCAPE ARCHITECT PRIOR TO ANY PROPOSED REVISIONS TO THE LANDSCAPE PLANTING PLAN. FAILURE TO COMPLY WITH THIS PROCEDURE MAY RESULT IN REQUIRED MITIGATION AND/OR DELAY OF THIS PROJECT.

ALL FILL DIRT TO BE PLACED IN THE PROPOSED LANDSCAPE AREAS AND/OR BERMS, MUST HAVE A pH RANGE BETWEEN 5.5 AND 7.5, BE ORGANIC IN NATURE, FREE OF ROCKS AND DEBRIS, AND MATCH NATIVE EXISITNG SOILS.

CURVLINEAR LANDSCAPE BEDS ARE TO BE EDGED WITH SMOOTH FLOWING CURVES. STRAIGHT-LINE LANDSCAPE BEDS ARE TO BE EDGED IN A STRAIGHT LINE AND MUST BE PARRALLEL TO PARKING LOTS, WALKWAYS, AND/OR STRUCTURES UNLESS INTENTIONALLY DESIGNED TO MEANDER.

BAHIA ARGENTINE SOLID SOD IS TO BE USED IN ALL OPEN SODDED AREAS AS SHOWN ON THIS PLAN AND THE LANDSCAPE IRRIGATION PLAN. ALL OPEN SPACE AREAS, INCLUDING BUT NOT LIMITED TO ALL DISTURBED AREAS, RETENTION AREAS, AREAS SUBJECT TO POSSIBLE EROSION, RIGHT-OF WAYS (R.O.W.), ETC, SHALL ALSO BE SODDED WITH BAHIA ARGENTINE SOLID SOD OR SOLID BERMUDA SOD. ALSO, REFERENCE AND SEE CIVIL ENGINEERING DWGS FOR SODDING LIMITATIONS OF SOD AT WET AND/OR DRY RETENTION AREAS, AND THE EDGE OF PAVEMENTS AND

THE IRRIGATION SYSTEM SHALL MEET SECTION 808.04 OF THE VOLUSIA CODE.

REMOVE ALL NON-BIODEGRADABLE NYLON TREE BALL STRAPPING AND REMOVE THE BURLAP FROM THE TOPS OF ALL ROOTBALLS THAT ARE B&B (BURLAPPED AND BALLED) IF CONTAINER TREES ARE NOT INSTALLED. ALSO, REMOVE THE TREE BALL HOISTING BASKET HOOKS. SEE TREE PLANTING DETAIL.

ALL IRRIGATION BACK-FLOW DEVICES WILL BE VISUALLY SCREENED WITH LANDSCAPING AND PAINTED BLACK AND/OR NILE GREEN. MODIFY ALL SHRUB PLANTINGS AND IRRIGATION HEAD LAYOUT FOR EXISTING TREE AND PALMS ON SITE DESIGNED TO REMAIN.

A MINIMUM FIVE-FOOT (5') GRASS RING SHALL BE INSTALLED AROUND EACH CATCH BASIN LOCATED WITHIN ANY LANDSCAPE AREA. THE CONTRACTOR IS TO BE SURE THAT NO MULCH CAN FLOW INTO THESE BASINS.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ANY PROPOSED TREES AND SHRUBS TO BE PRESERVED. SEE TREE PROTECTION DETAIL. NO VEHICLES OR MATERIALS SHALL BE PLACED UNDER OR AROUND THESE TREES TO REMAIN.

ALL EXISTING SHRUBS, GROUND COVERS AND TREES NOT SHOWN TO REMAIN ARE TO BE REMOVED ALONG WITH THEIR ROOT SYSTEM. ALL UNDERBRUSH, STUMPS, AND DEAD BRANCHES ARE TO BE REMOVED ON ALL EXISTING REMAINING TREES AND PALMS. ALL WORK AROUND SPECIMEN TREES WILL BE LIMITED TO HAND LABOR AND TOOLS.

ALL EVASIVE EXOTIC PLANTS, AS LISTED ON THE FLORIDA EXOTIC PEST PLANT COUNCIL'S INVASIVE PLANT SPECIES LIST, SHALL BE REMOVED. THIS SHALL INCLUDE ALL BRAZILIAN PEPPER WHICH IS EXISTING.

ALL EXISTING HARDSCAPE SURFACES WHICH ARE SHOWN TO BE REMOVED, SHALL HAVE THEIR LIMEROCK AND/OR COMPACTED BASES REMOVED DOWN TO THE NATIVE SOIL BASE.

THE LOCATION OF ALL REQUIRED TREES MUST NOT CONFLICT WITH THE LIGHTING FIXTURES, SIGNS, UNDERGROUND AND OVERHEAD UTILITIES, FIRE HYDRANTS, ETC.

ALL TREES NOT LOCATED WITHIN A MULCHED PLANTING BED SHALL HAVE A MINIMUM FIVE-FOOT (5') MULCH RING INSTALLED AROUND THE TRUNK AREA. TREES SHALL BE PLANTED A MINIMUM OF FIVE-FEET (5') FROM BACK OF CURB OR SIDEWALK (TYP).

SEE ENGINEER'S PLAN FOR ALL EXISTING AND PROPOSED EASEMENTS, COVENANTS, R.O.W., BUFFER DIMENSTIONS, AND ALL SITE LAYOUT DIMENSIONING.

PROJECT MULCH SHALL BE PINE BARK NUGGETS AND BE INSTALLED A MINIMUM OF THREE-INCHES (3") THICK AND A MINIMUM OF TWELVE-INCHES (12") FROM ANY PLANTED TREE TRUNK.

NO.	DATE	DESRIPTION
1.	083122	REV SITE PLAN
2.	100922	REV SITE PLAN

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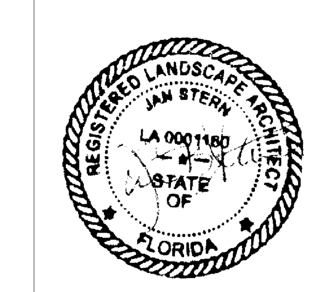
SternDesignGroup@att.net

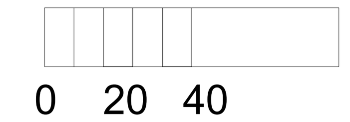
SITE TREE REMOVAL PLAN
OLD HAMMOCK HOMES
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA



SHEET TITLE

SITE TREE REMOVAL PLAN

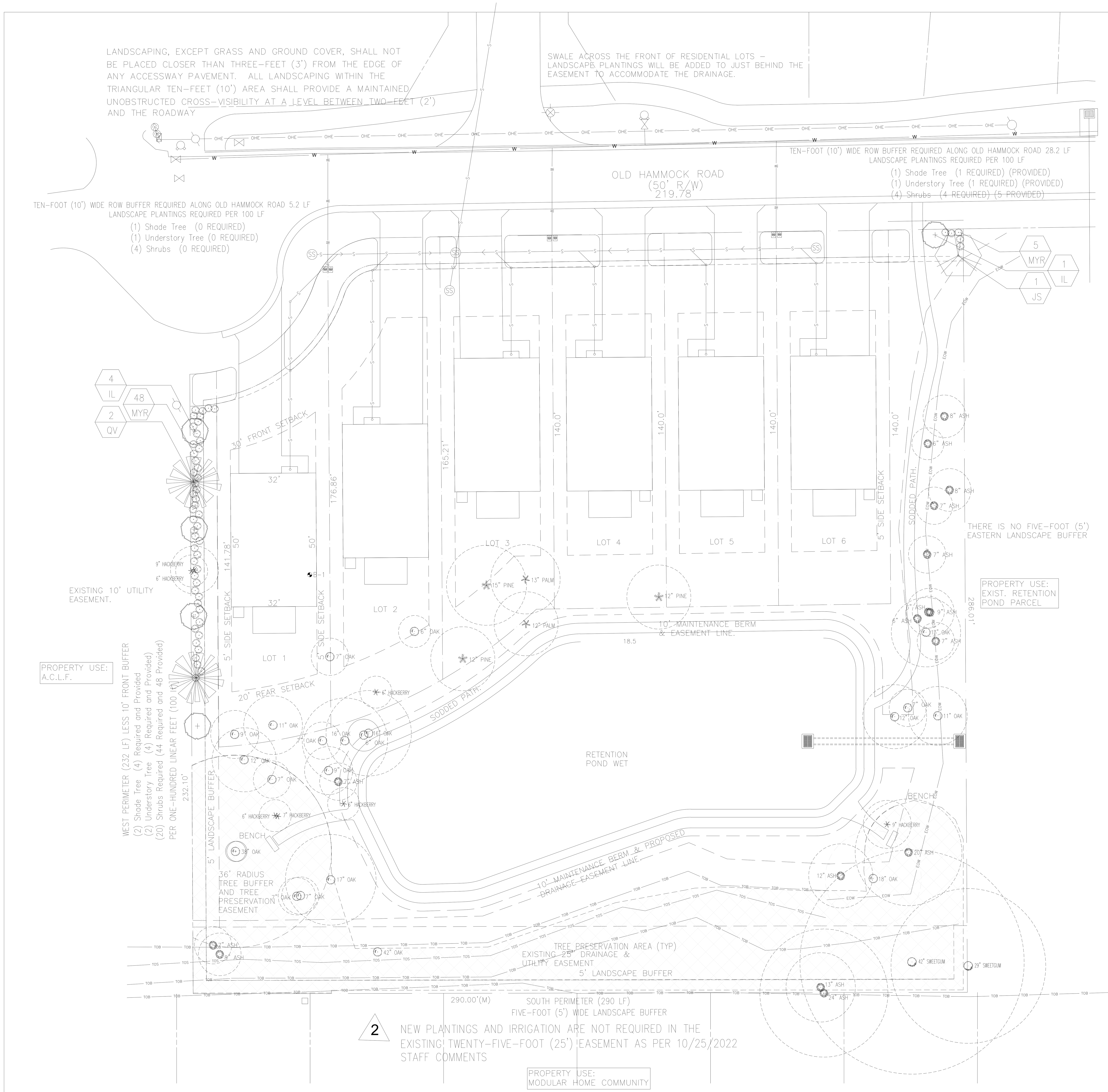
SCALE: 1" = 20 FT



SHEET

L-1

OF 4



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APPROVAL STAMP BLOCK

2

PROPOSED TREES

KEY	QTY	BOTANICAL/COMMON NAMES	HT.	SPR.	REMARKS
IL	5	Ilex x attenuata 'Eagleston' Eagleston Holly	8'-10'	3'-4'	Min 2" Cal Shape/Full
JS	1	Juniperus silisicola Southern Red Cedar	10'-12'	3'	Min 2 1/2" Cal Shape/Full
QV	2	Quercus virginiana Live Oak	10'-12'	4'	Min 2 1/2" Cal Shape/Full

PROPOSED SHRUBS AND GROUND COVERS

KEY	QTY	BOTANICAL/COMMON NAMES	HT.	SPR.	REMARKS
MYR	53	Myrica cerifera Wax Myrtle Shrub	28" Min 5 Branches PP 36" O.C.	14"	3 Gal Cont

0 20 40

NO.	DATE	DESRIPTION
1.	083122	REV SITE PLAN
2.	102622	SOUTH BUFFER

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SternDesignGroup@att.net

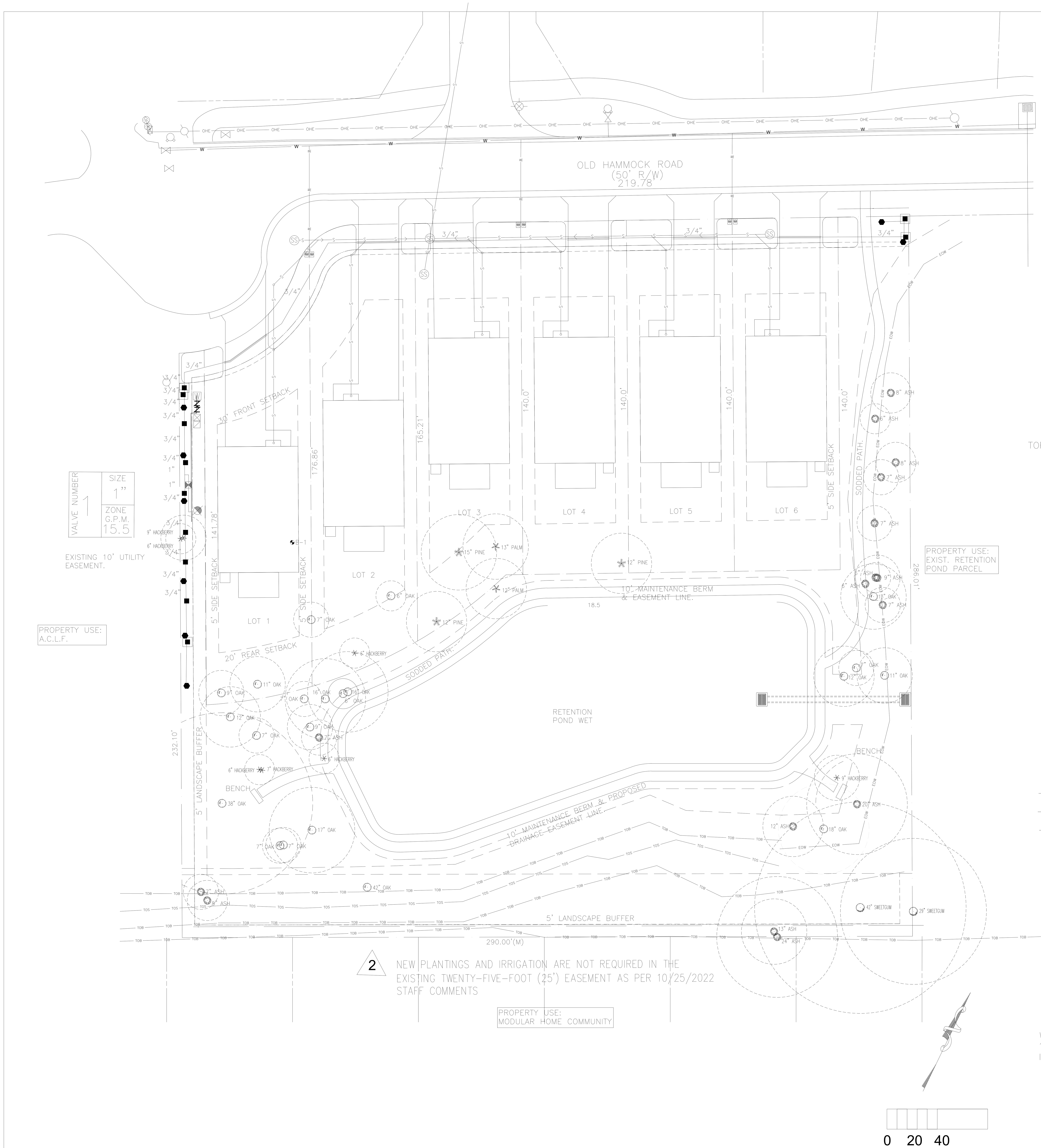
SITE TREE REMOVAL PLAN
OLD HAMMOCK HOMES
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REGISTERED LANDSCAPE ARCHITECT JAM STERN LA 0001160 STATE OF FLORIDA

SHEET TITLE
SITE LANDSCAPE PLANTING PLAN

SCALE: 1" = 20 FT

SHEET
L-2
OF 4



LEGEND

DESCRIPTION		
W	WATER SOURCE	Shallow Well Irrigation To Produce 25gpm@40psi
	RPZ	1" Backflow Preventer
	SCH 40 MAIN-LINE	1.25" SCH 40 PVC
	SLEEVE	SCH 40 PVC IRRIGATION SLEEVE WHERE NEEDED 1.5x IRRIGATION LATERAL/MAIN LINE

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CITY OF PORT ORANGE

APPROVAL STAMP BLOCK

COUNTY OF VOLUSIA LOW-VOLUME IRRIGATION COMPLIANCE

PROJECT AREA 42,691.7 SF (0.98 Ac)
PROJECT LANDSCAPE AREA 26,6363.7 SF
REQUIRED LANDSCAPE AREA FOR LOW-VOLUME IRRIGATION 6,659.2 SF (25%)
LANDSCAPE AREA PROVIDED (BAHIA SOD/NATURAL AREA) 10,598.7 SF (38%)

WATERING SCHEDULE -CLOCK A

PROGRAM	ZONE	G.P.M.	MINUTES	DAYS/WEEK	WATER USAGE
A	1	15.50	20	2	M

IRRIGATION RUN TIMES WILL VARY MONTHLY DUE TO TEMPERATURE AND RAINFALL. CHECK WEEKLY FOR BREAKS IN PIPES, CLOGGED HEADS, AND DRY/WET SOIL CONDITIONS.
AFTER PLANT MATERIAL ESTABLISHMENT, SYSTEM RUN-TIME CAN BE REDUCED OR DISCONTINUED.

TORO, or equal manufacturer, 500 MPR Plus Spray Nozzles, at 30 p.s.i., with pressure compensating nozzles, installed where shown
(Adjust for Site Compensation)

End Strip Series, 4' x 15' @ 0.50 G.P.M.
Side Strip Series, 4' x 30' @ 1.50 G.P.M.
Flood Bubbler @ 0.50 G.P.M.

"Rainbird", or equal manufacturer, plastic solenoid valves, EP Series, sized as shown on Landscape Irrigation Plans, with flow control and bleed screw installed in a "meter" plastic valve box (green cover for potable water; purple cover for non-potable water), square 8"x12" top installed in ground. Keep all valves a minimum of four-feet (4') from all walkways, driveways, etc. QTY=1

"Rainbird", or equal manufacturer, Electro-Mechanical Station Time Clock, wall mounted inside appropriate building, or where shown on Landscape Irrigation Plans,or as per Owner with 117v./24v. With LPP-K primary and valve lightning surge protection respectively controller master circuit connected to 110v. Master valve solenoid. QTY= One @ (1) Four-Zone (4)

"Rainbird", or equal manufacturer, PVB Series Dual Check Valve and Backflow Preventer, sized as required, mounted above ground as per local City and/or County Codes. QTY= One (1)

"Hunter", or equal manufacturer, RAIN-CLIK (Rain Shut-Off Device) installed as per manufacturer's instructions where shown on Landscape Irrigation Plans. QTY= One (1)

Pipe Connected
Pipe NOT Connected
Pipe in Sleeve
Sleeve Only
Shows connection point of solenoid valve lateral to project main-line

NOTES

Irrigation Contractor shall be responsible for all applicable fees and permits.

All Pipe and Wire under paving shall be placed in Schedule 40 P.V.C. Sleeves for the full pavement coverage length and shall be at least 24" below grade.

Mainlines shall be buried to provide a minimum cover of 18", while all Lateral lines shall have a minimum of 12".

The Contractor should take care to reroute piping as necessary to avoid plant or tree roots.

All Sprinklers shall be site adjusted to prevent water overthrow onto building surfaces and walkways.

All Piping downstream of Solenoid Valve to be PR-160 P.V.C.

All Control Wiring to be 14/1 U.F. direct burial.

Install a Hunter RainClik, or equal, rain sensor device. Verify location with Owners Representative.

Shrub body sprinklers may be substituted for Hi-Pops against building(s) at owners discretion.

No irrigation heads may be installed closer than twelve-inches (12") to any building.

All pop-up spray heads located in parking lot areas shall be twelve-inches (12") in height.

Contractor is responsible to provide all necessary accessories to provide adequate water volume for this system.

ALL HEADS SHALL HAVE CHECK VALVES AND BE PRESSURE COMPENSATING.

A MAINTENANCE CHECKLIST SHALL BE PROVIDED TO THE OWNER BY THE IRRIGATION CONTRACTOR IT SHALL HAVE A MAINTENANCE SCHEDULE, PROPER IRRIGATION SETTINGS ACCORDING TO SEASON, RECOMMENDATIONS FOR CHECKING THE RAIN SENSOR DEVICE, FILTER CLEANING RECOMMENDATIONS AND INFORMATION ON CURRENT WATER RESTRICTIONS.

THE IRRIGATION CONTRACTOR SHALL SUBMIT A COMPLETED AND ENCLOSED CHECKLIST ON A FORM PROVIDED BY THE PERMITTING AUTHORITY. IT SHALL BE ACCOMPANIED BY AN AS-BUILT SKETCH OF THE IRRIGATION SYSTEM. THIS SHALL BE SUPPLIED WITHIN 30 DAYS OF THE COMPLETION OF THE IRRIGATION SYSTEM OR WITH THE REQUEST FOR FINAL INSPECTION.

A HIGH VOLUME AREA IS ANY ZONE USING ROTARY HEADS OR REQUIRING 1" OF WATER PER WEEK. THE RUN TIME ON THESE AREAS SHALL BE SET TO NOT APPLY MORE THAN 1" OF WATER PER WEEK. ALL ST. AUGUSTINE SOD ZONES SHALL BE CONSIDERED HIGH VOLUME IRRIGATION.

A MEDIUM VOLUME AREA IS ANY ZONE OF SPRAY HEADS. THE RUN TIME ON THESE AREAS SHALL BE SET TO APPLY 0.5" OF WATER PER WEEK. ALL SHRUB AREAS SHALL BE CONSIDERED MEDIUM VOLUM IRRIGATION.

A LOW VOLUME AREA IS ANY ZONE OF BUBBLER OR DRIP SPRAY HEADS. THE RUN TIME ON THESE AREAS SHALL BE SET TO APPLY 0.25" OF WATER PER WEEK. ALL DRIP OR TREE BUBBLER AREAS SHALL BE CONSIDERED LOW VOLUM IRRIGATION.

NO.	DATE	DESRIPTION
1.	083122	REV SITE PLAN
2.	102622	SOUTH BUFFER

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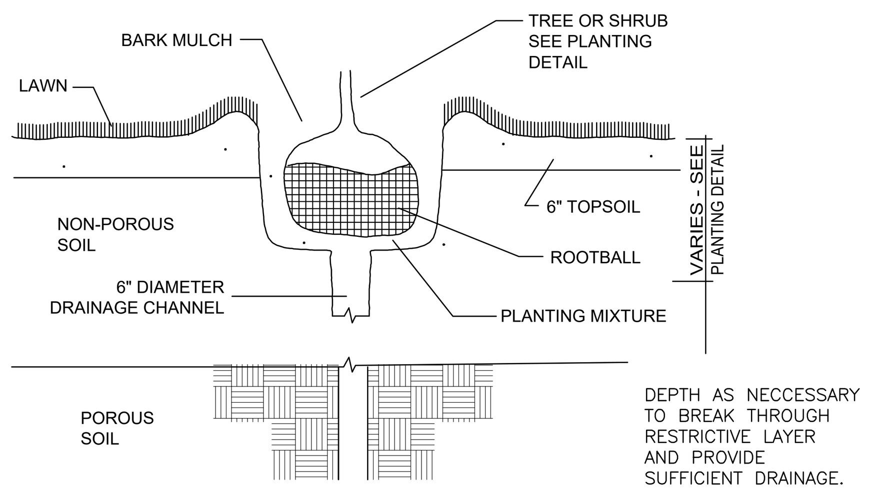
SITE LANDSCAPE IRRIGATION PLAN
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

REGISTERED LANDSCAPE ARCHITECT
IAN STERN
LA 0001160
STATE OF FLORIDA

SHEET TITLE
SITE IRRIGATION PLAN
SCALE: 1" = 20 FT

SHEET
L-3
OF 4



DRAINAGE TESTING/DRAINAGE CHANNEL REQUIREMENTS

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

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

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

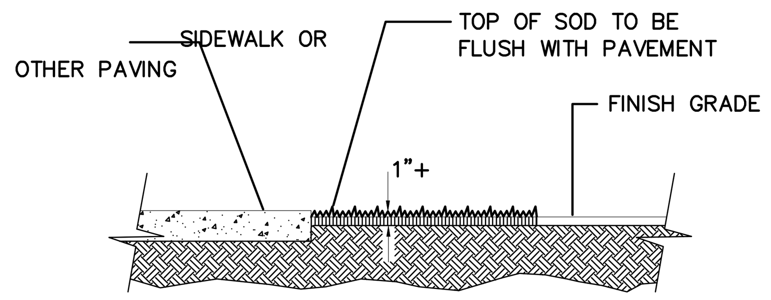
C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON-POROUS SOIL AND INTO POROUS SOIL. (SEE DETAIL)

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

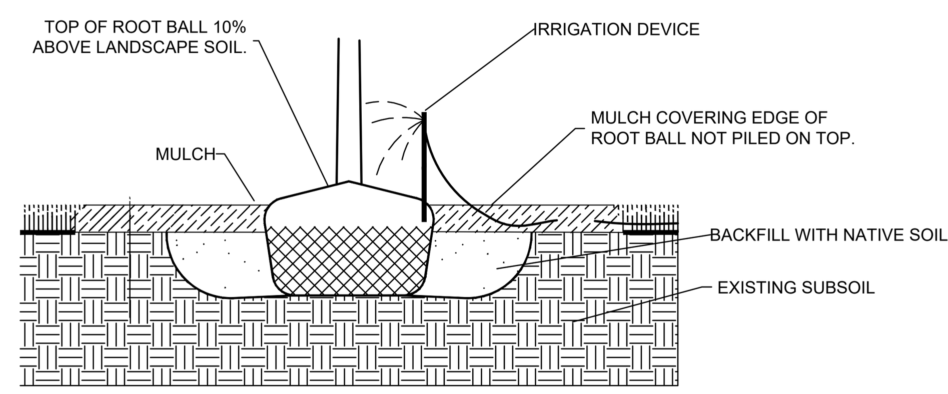
E. WHEN BACKFILLING PLANTING PITS WITH PLANTING MIXTURE, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX THE SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.

DRAINAGE CHANNEL DETAIL

NOT TO SCALE



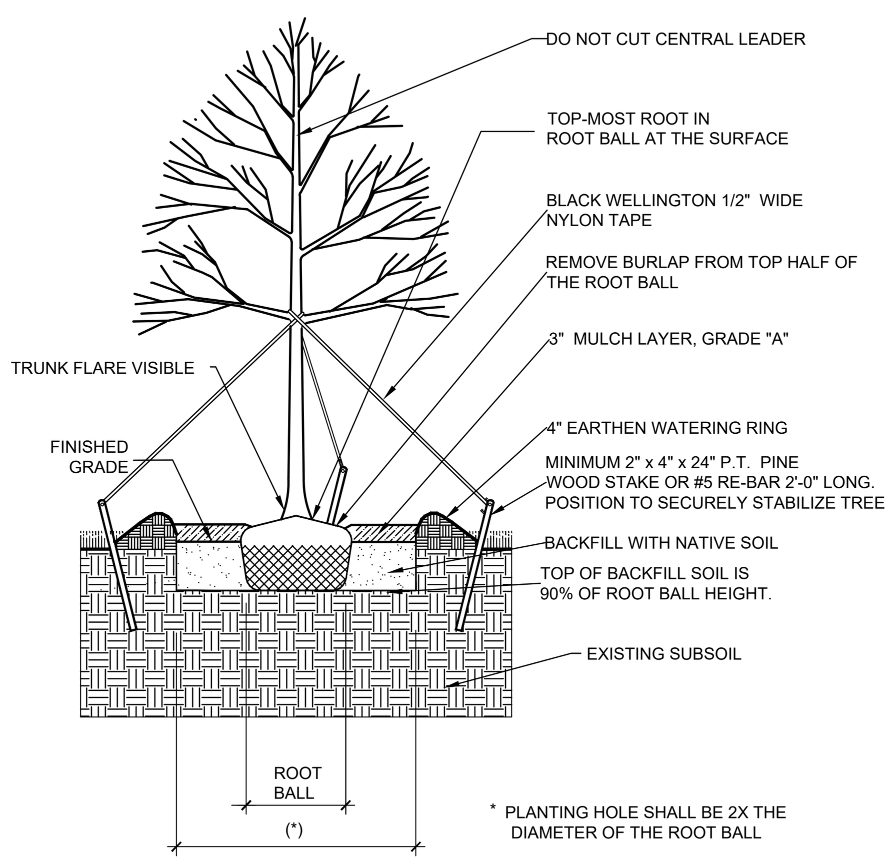
SOD PLACEMENT ADJ. TO PAVEMENT
Scale: N.T.S.



NEVER PLACE ANY SOIL OVER THE ROOT BALL. THE ROOT BALL SHOULD BE POSITIONED IN THE HOLE SHALLOW ENOUGH SO THE FINISHED GRADE OF THE BACKFILL SOIL DOES NOT REACH THE TOP. IN OTHER WORDS, LEAVE THE TOP FEW INCHES OF THE ROOT BALL SIDES EXPOSED TO THE AIR. MULCH WILL COVER THE REMAINING COUPLE INCHES. THE TOP OF THE ROOT BALL SHOULD BE SEVERAL INCHES HIGHER THAN THE SURROUNDING LANDSCAPE SOIL. BE SURE THAT WHEN YOU ARE FINISHED PLANTING, THERE IS NO SOIL OVER THE ROOT BALL. SOIL (AS WELL AS THICK MULCH LAYERS MORE THAN 3 INCHES DEEP) OVER THE ROOT BALL CAN PREVENT WATER AND AIR FROM ENTERING THE ROOT BALL. YOU SHOULD BE ABLE TO SEE THE TOP-MOST ROOT ORIGINATING FROM THE TRUNK AT THE SOIL SURFACE OR WITHIN THE TOP INCH OF SOIL IN THE ROOT BALL. THE TRUNK FLARE SHOULD BE VISIBLE.

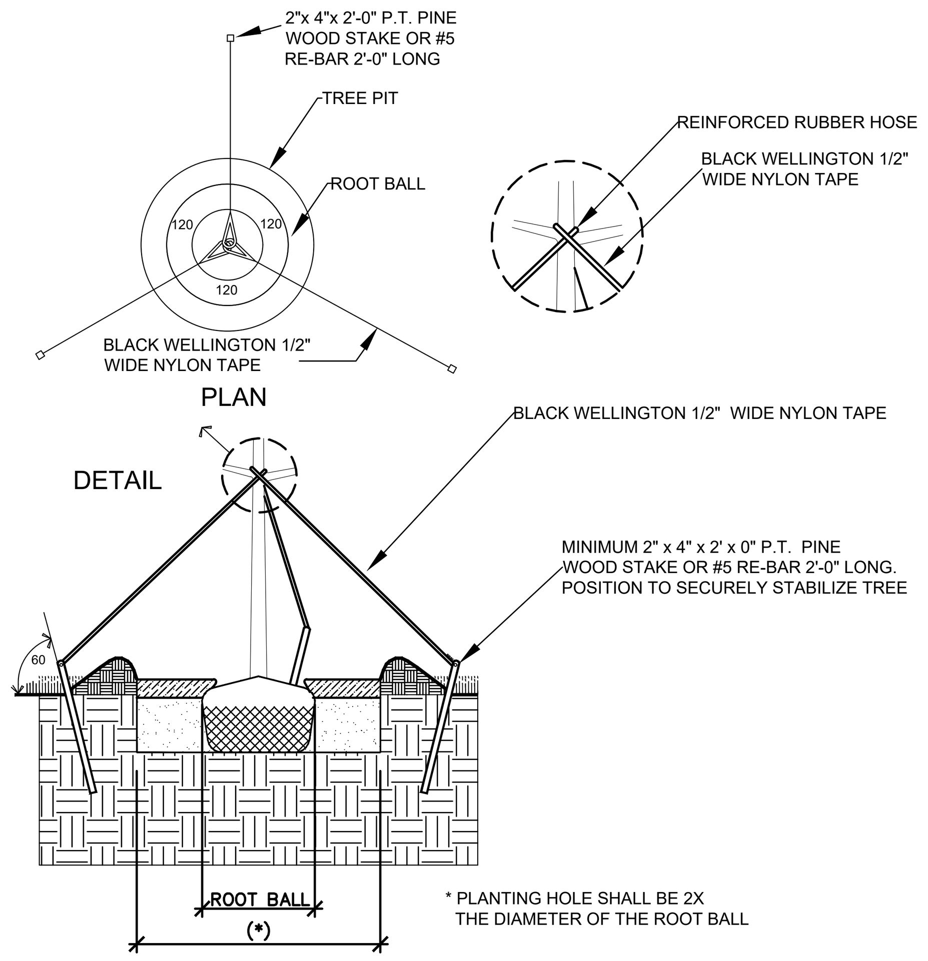
MULCH SHOULD COVER ONLY THE EDGE OF THE ROOT BALL, SINCE THICK LAYERS OVER THE ROOT BALL CAN KEEP THE TRUNK TOO MOIST OR TOO DRY AND CAN CAUSE OTHER PROBLEMS. LOCATE THE IRRIGATION DEVICE SO IT DELIVERS WATER DIRECTLY TO THE ROOT BALL. THERE IS USUALLY NO NEED TO WATER AREAS OUTSIDE THE ROOT BALL. NO AMENDMENTS OF ANY KIND ARE NECESSARY IN THE BACKFILL SOIL, BECAUSE EXTENSIVE RESEARCH CLEARLY SHOWS THAT THEY TYPICALLY DO NOT NOT INCREASE THE SURVIVAL, NOR GROWTH AFTER PLANTING. NO SOIL BERM IS NEEDED IF TREES WILL BE IRRIGATED WITH A LOW-VOLUME DEVICE. PLACE THE BERM AT THE EDGE OF THE ROOT BALL IF THE ROOT BALL IS FINER TEXTURE THAN THE BACKFILL SOIL. THIS WILL HELP INSURE THAT WATER PERCOLATES INTO THE ROOT BALL.

STANDARD CONSTRUCTION DETAIL
PLANT LIKE THIS DETAIL
NTS.

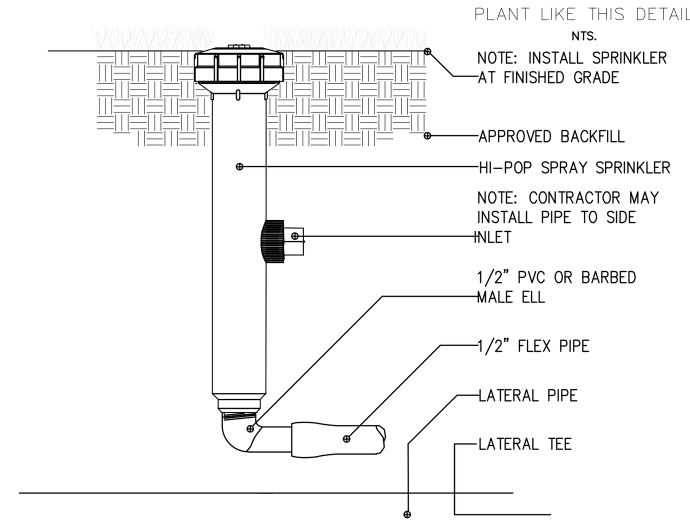


STANDARD CONSTRUCTION DETAIL
LARGE TREE PLANTING DETAILS
NTS.

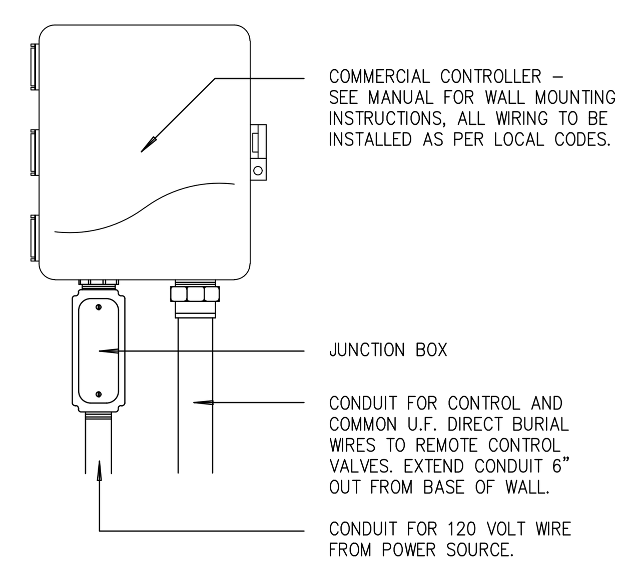
STANDARD CONSTRUCTION DETAIL
STRAIGHT TRUNK PALM PLANTING DETAIL



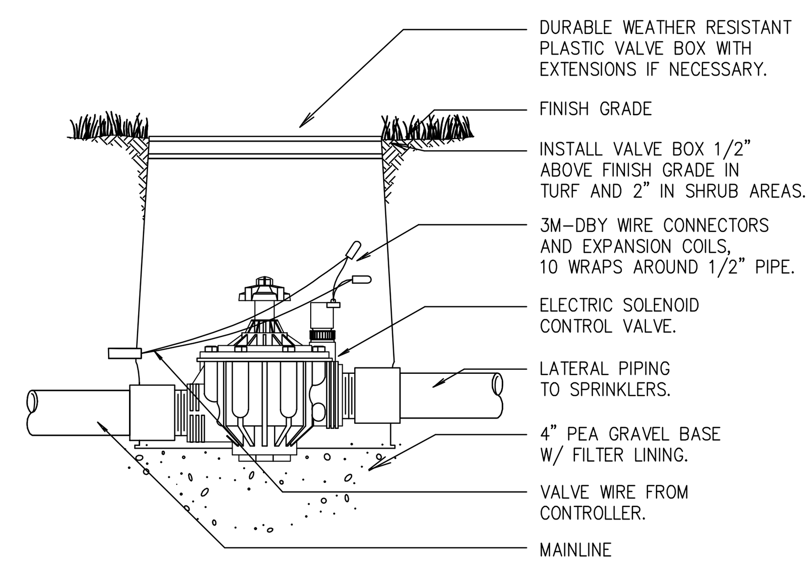
STANDARD CONSTRUCTION DETAIL
TYPICAL TREE GUYING DETAIL
NTS



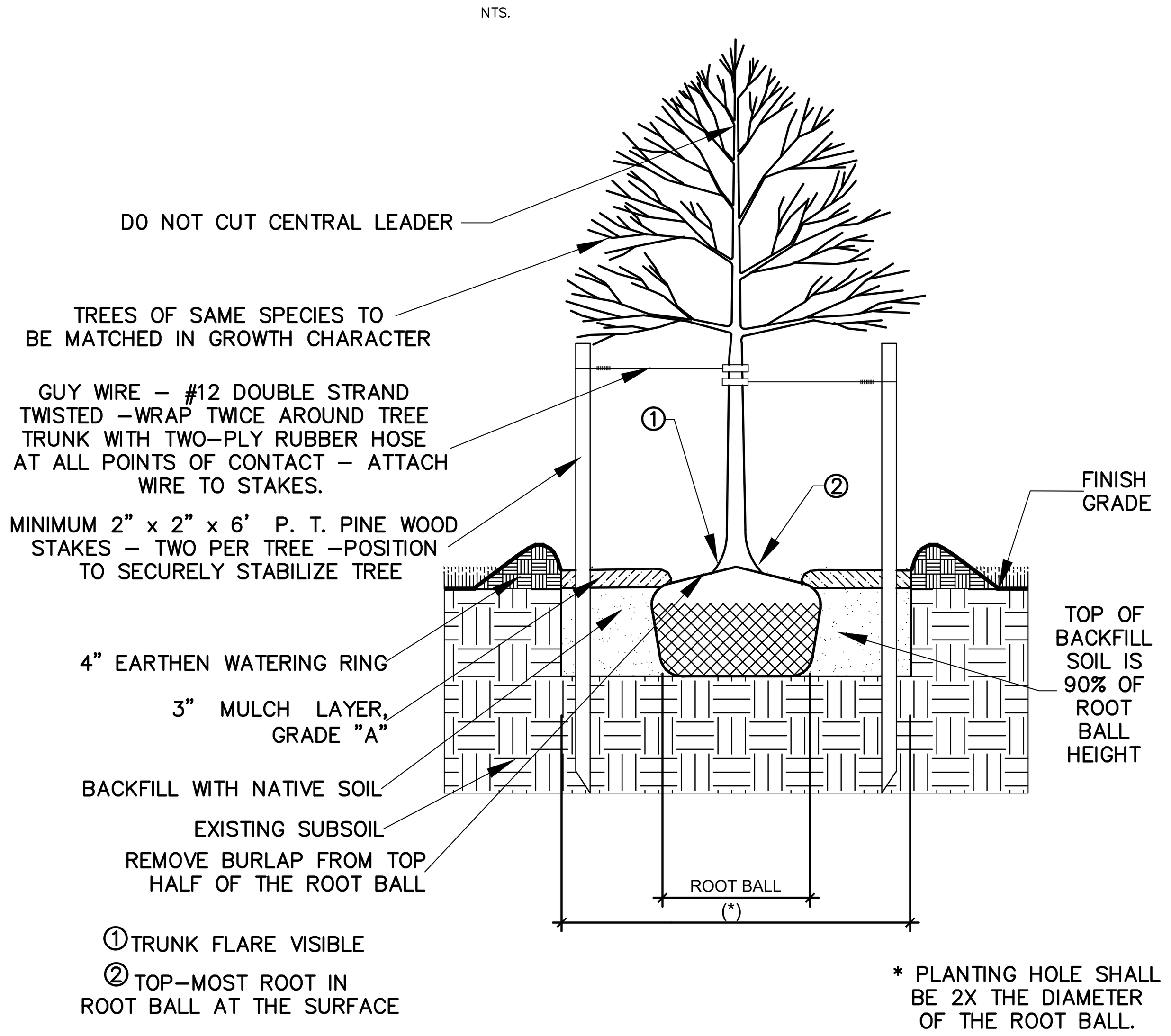
TYPICAL HI-POP SPRAY SPRINKLER
NOT TO SCALE



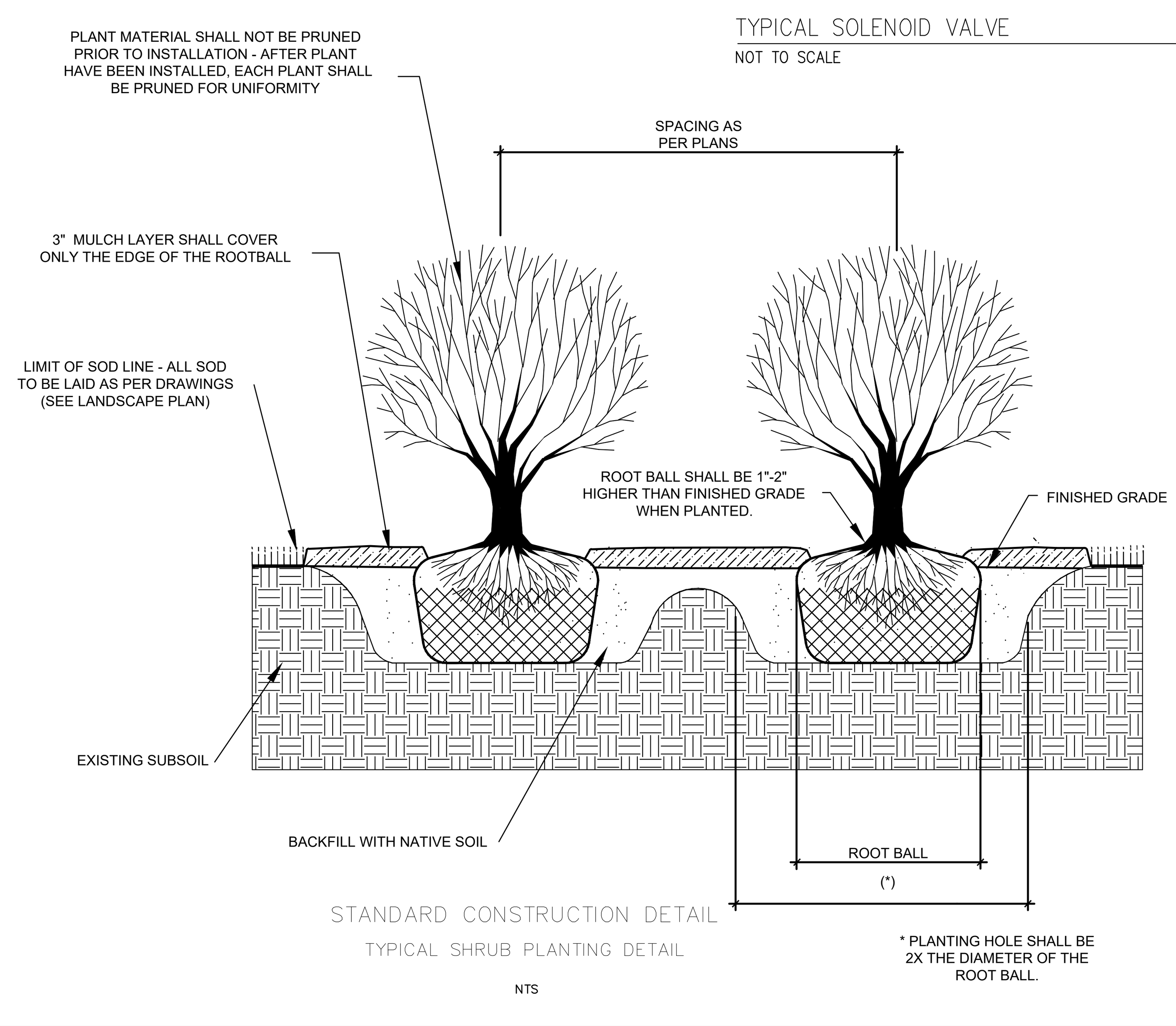
TYPICAL WALL MOUNT CONTROLLER
NOT TO SCALE



TYPICAL SOLENOID VALVE
NOT TO SCALE



STANDARD CONSTRUCTION DETAIL
SMALL TREE PLANTING DETAIL
NTS.



STANDARD CONSTRUCTION DETAIL
TYPICAL SHRUB PLANTING DETAIL
NTS

PLANTING NOTES

1. ALL MATERIALS ARE TO BE FLORIDA #1 OR BETTER, INSTALLED ACCORDING TO THE HIGHEST NURSERY STANDARDS.

2. MULCH IS TO BE 100% SHREDDED CYPRESS, GRADE "A", INSTALLED A MINIMUM OF 2" THICK IN ALL PLANTING AREAS. MULCHED PLANTING BEDS SHALL BE A MINIMUM OF 10" WIDE AND SHALL BE CONTINUOUS WHERE PLANTINGS ARE PROPOSED.

3. ALL AREAS MARKED SOD ON THE PLANS, SHALL BE SODDED WITH 95% WEED-FREE ST. AUGUSTINE "FLORATAM" SOLID SOD. SOD SHALL BE INSTALLED WITH TIGHT JOINTS, BOLLED, AND FERTILIZED. NUTRIENTS SHALL BE ADDED TO THE SOIL AS PER SOIL TESTING RESULTS.

4. BAHIA SOLID SOD SHALL BE USED ON ALL AREAS SO MARKED AS IN SWALES, RIGHT-OF-WAYS, DISTURBED AREAS, OR OTHER AREAS SUBJECT TO EROSION.

5. GRASS SEEDED AREAS SHALL MEET FLORIDA STATE DEPARTMENT OF TRANSPORTATION STANDARDS.

6. LANDSCAPE CONTRACTOR IS TO LOCATE AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING THE WORK. THE LANDSCAPE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO UTILITY OR IRRIGATION

7. LANDSCAPE CONTRACTOR IS TO VERIFY ALL DRAWINGS AND CHECK FOR DISCREPANCIES AND BRING THEM TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING WITH THE WORK.

8. THE PLANT MATERIALS SCHEDULE IS PROVIDED FOR THE CONVENIENCE OF THE LANDSCAPE CONTRACTOR. SHOULD THERE BE ANY DISCREPANCY, PLANTING PLANS SHALL TAKE PRECEDENCE OVER THE PLANT LIST.

10. NO SUBSTITUTIONS WILL BE MADE AT THE TIME OF BIDDING OR CHANGES OF ANY KIND, SO AS TO PROVIDE FOR FAIR COMPARISONS. NO FURTHER CHANGES ARE TO ME BADE WITHOUT PRIOR CONSENT OF THE LANDSCAPE ARCHITECT.

11. 100% AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED ACCORDING TO THE IRRIGATION PLAN AND SPECIFICATIONS WITH A MINIMUM 50% OVERLAP. ALL IRRIGATION AND ELECTRICAL LINES ARE TO BE LOCATED AT THE PERIMETER OF ALL PLANTERS AND/OR PLANTING AREAS.

12. ALL BUILDING MATERIALS AND LABOR ARE TO CONFORM TO THE SOUTHERN BUILDING CODE AND ALSO TO ALL LOCAL CODES THAT HAVE JURISDICTION.

13. ALL PERMIT AND VARIANCE APPLICATION ARE TO BE MADE BY THE CONTRACTOR.

14. PRIOR TO THE INSTALLATION OF THE IRRIGATION SYSTEM, A WATER TEST IS TO BE CONDUCTED ON THE WATER SOURCE TO DETERMINE PH.. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO NOTIFY THE LANDSCAPE ARCHITECT IF THE RESULTING WATER PH. REQUIRES AMENDING PLANT SELECTIONS OR MODIFYING WATER SOURCE.

15. PRIOR TO CONSTRUCTION OF PLANTING BEDS, ALL AREAS ARE TO HAVE SOIL TESTS CONDUCTED TO DETERMINE PH. AND FERTILITY. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO AMEND THE SOIL TO MEET ADEQUATE FERTILITY AND PH. FOR CORRESPONDING PLANT MATERIALS.

16. PRIOR TO THE LAND CLEARING STAGE, THE CONTRATOR SHALL CLEARLY MARK ANY TREE, TREE GROUPS OR SHRUBS TO BE MAINTAINED IN THE PROXIMITY OF ANY AREA WHERE LAND CLEARING EQUIPMENT IS TO BE OPERATED. THE MARKINGS SHALL REMAIN IN PLACE DURING CONSTRUCTION. SAID EQUIPMENT SHALL BE OPERATED IN A MANNER AS OT NOT INJURE OR DESTROY THREE (3) FEET IN HEIGHT SHALL BE FORMED A MINIMUM RADIUS OF SIX (6) FEET FROM THE BASE OF THE TREES OR SHRUBS, AND THE DEVELOPER SHALL NOT CAUSE OR ALLOW THE CLEARING OF EQUIPMENT OR MATERIAL WITHIN THE DRIP LINE OF ANY TREE OR GROUPS OF TREES TO BE MAINTAINED. NEITHER SHALL THE DEVELOPER CAUSE OR ALLOW THE DISPOSAL OF WASTE MATERIAL, SUCH AS PAINT, OIL SOLVENTS, ASPHALT, CONCRETE, MORTAR OR OTHER MATERIALS HARMFUL TO THE LIFE OF A TREE WITHIN THE DRIP LINE OF ANY TREE OR GROUPS OF TREES. NO ATTACHMENT WIRES (OTHER THAN PROTECTION GUY WIRES), SIGNS, OR PERMITS MAY BE FASTENED TO A TREE.

17. REMOVE ALL TAGS FROM INSTALLED PLANT MATERIALS.

18. PLACE TERRA SORB UNDER THE ROOT BALL OF ALL PLANT MATERIALS.

19. ALL TREES ARE TO BE GUYED WITHING "DUCKBILL" ANCHORING SYSTEMS OR AN APPROVED EQUAL.

20. ALL TREE CALIPERS ARE TO BE MEASURED ACCORDING TO LOCAL CODES AND ORDINANCES.

21. ALL QUESTIONS CONCERNING THE PLAN AND/OR SPECIFICATIONS ARE TO BE DIRECTED TO THE LANDSCAPE ARCHITECT. (904-677-4486)

22. ALL PLANT MATERIAL TO BE GUARANTEED FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM THE TIME OF FINAL ACCEPTANCE. ALL REPLACEMENTS TO BE MADE WITHING TWO (2) WEEKS OF CONTRACTOR NOTIFICATION.

IRRIGATION NOTES

1. ALL PIPE NOT SIZED TO BE 1/2" CLASS 1120-160 P.S.I. P.V.C.

2. ALL SLEEVES AND MAIN LINE TO BE SCHEDULE 40 P.V.C. PIPE.

3. THE ENTIRE SYSTEM TO BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES. CONTRACTOR TO SUPPLY AND INSTALL ALL CHECK VALVES, BACKFLOW PREVENTORS, PERMITS, ETC. AS REQUIRED BY THESE CODES EVEN IF THOSE ITEMS ARE NOT SHOWN ON DRAWINGS.

4. ALL SLEEVES UNDER ASPHALT PAVEMENT TO BE BURIED 24" BELOW PAVEMENT SURFACE. ALL SLEEVES UNDER SIDEWALKS TO BE BURIED 6"-12" BELOW WALK SURFACE.

5. MAIN LINE LOCATION IS SHOWN SHEMATICALLY. WEHREVER POSSIBLE LATERAL LINES ARE TO BE BURRIED IN COMMON TRENCH WITH MAIN LINE.

6. ALL LOW VOLTAGE WIRING TO BE #14 DIRECT BURIAL WIRE.

7. ALL SPRAY HEADS OR NOZZLES IN PLATNING BEDS TO BE PLACED ON RISERS (SCHEDULE 40) OF APPROPRIATE HEIGHT TO PLANTING AND RISERS TO BE PAINTED COLOR TO MATCH HEAD OR NOZZLE COLOR.

8. ALL HEADS IN OPEN LAWN AREAS TO BE MOUNTED ON SWING JOINTS.

9. ALL WORK TO BE DONE IN GOOD WORKMAN LIKE MANNER AND IN

11. ALL LINE LOCATIONS ARE APPROXIMATE. CONTRACTOR TO ADJUST TRENCHING IN FIELD FOR EXISTING CONDITIONS, PLANTINGS AND STRUCTURES.

12. HEAD LOCATIONS ARE APPROXIMATE. CONTRACTOR TO MAINTAIN 100% COVERAGE WITH APPROXIMATELY 50% OVERLAP WHEN MINOR HEAD LOCATIN CHANGES ARE NECESSARY DUE TO FIELD CONDITIONS.

13. ALL ELECTIRCAL WORK NOT LOW VOLTAGE IN NATURE IS NOT PART OF THE IRRIGATION CONTRACT.

14. CONTRACTOR SHALL BE RESPONSEIBLE FOR HTE LOCATION AND EXISTENCE OF ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL VERIFY UTILITIES IN THE FILED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE AND ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES.

15. THERE SHALL BE A ONE (1) YEAR GUARANTEE ON ALL PARTS AND A NINETY (90) DAY GUARANTEE ON LABOR FROM THE DATE OF FINAL ACCEPTANCE.

16 AT THE END OF 90 DAYS FORM THE DATE OF ACCEPTANCE, THE CONTRACTOR SHALL CHECK AND ADJUST (IF NECESSARY) THE ENTIRE SYSTEM.

17. CONTRACTOR SHALL MARK STATIONS ON THE CONTROLLER PANEL TO CORRESPOND WITH THE ZONE NUMBERS ON THIS PLAN AND SET OPERATING SEQUENCE TO CORRESPOND TO THE NUMBERING.

18. ALL SLEEVES UNDER ASPHALT OR WALKS TO BE INSTALLED PRIOR TO PAVING INSTALLATIONS.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUMP(S) AND WELL(S) SIZES.

20. IRRIGATION CONTRACTOR IS TO VERIFY ALL DRAWINGS AND CHECK FOR DISCREPANCIES AND BRING TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO COMMENCING WITH THE WORK.

21. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR A FINAL FINISHED WORKING IRRIGATION SYSTEM.

22. IRRIGATION CONTRACTOR IS TO VERIFY ALL LOCATIONS OF EXISTING HEADS AND ZONES. THE EXISTING SYSTEM IS TO BE MODIFIED AND MODIFIED TO ACCEPT THIS NEW DESIGN.

CITY OF PORT ORANGE

APPROVAL STAMP BLOCK

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NO.	DATE	DESRIPTION
1	06/21/22	Per April 21 Comments
2	08/31/22	REV SITE PLAN

THE STERN DESIGN GROUP, P.A.
LANDSCAPE ARCHITECTS • LAND PLANNERS
1685 Promenade Circle, Port Orange, Florida 32129
(386) 788-3788 CELL (386) 290-6411
SternDesignGroup@att.net

PLANTING AND IRRIGATION DETAILS
OLD HAMMOCK HOMES
OLD HAMMOCK ROAD
PORT ORANGE, FLORIDA

SHEET TITLE

LND DTLS
PLANT SPECS

SCALE: AS SHOWN

SHEET
L-4
OF 4

STAFF REPORT
CASE NO. 22-25000006
LDC Amendment/Chapter 20 - Ridgewood Corridor Improvements

REQUEST:	Amendment to Chapter 20 of the Land Development Code (LDC), regarding the Ridgewood Targeted Business Program.
APPLICANT:	City of Port Orange
STAFF RECOMMENDATION:	Approval
STAFF CONTACT:	Penelope Cruz, Planning Manager (386) 506-5671
PLANNING COMMISSION:	November 17, 2022

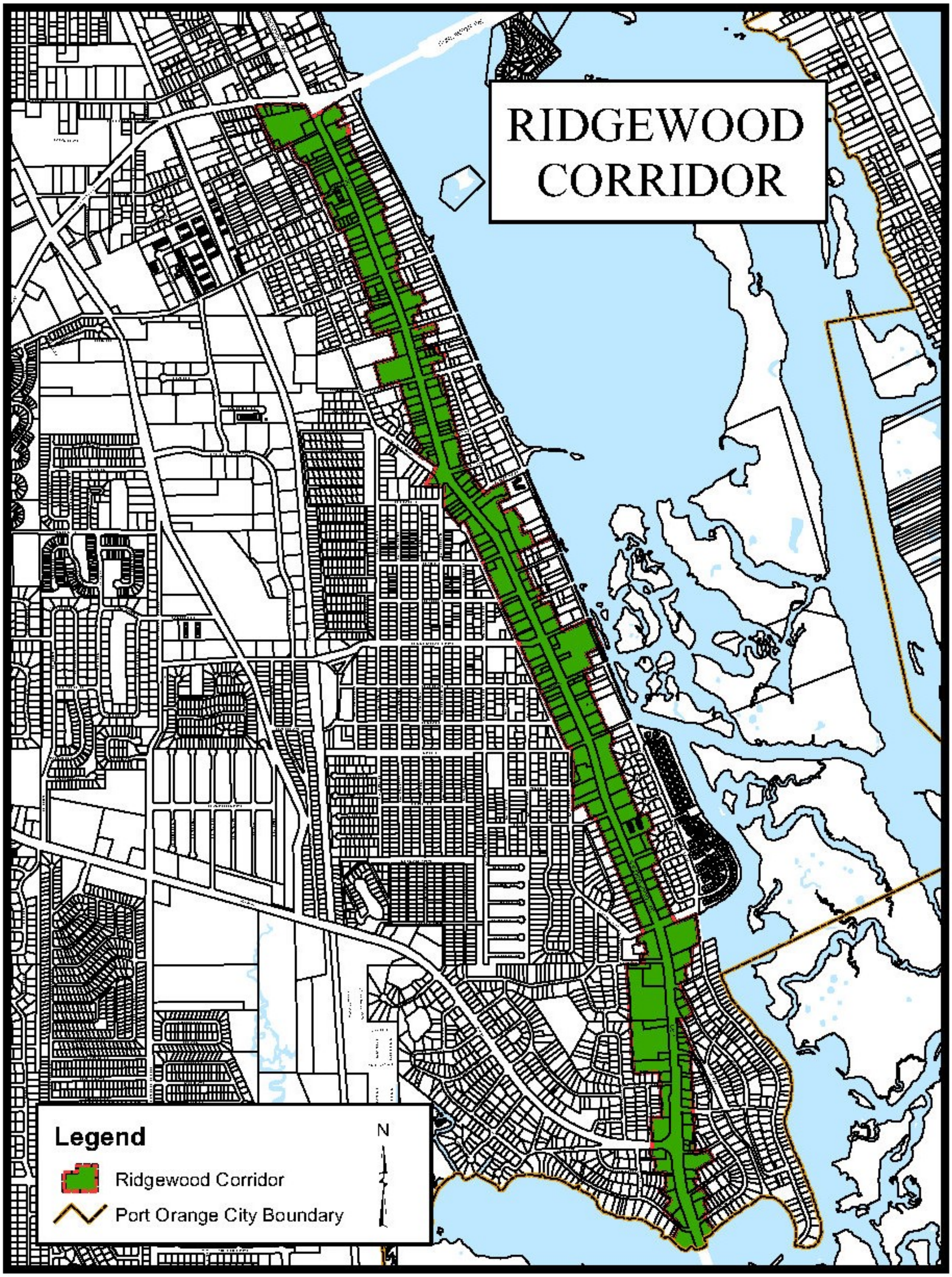
Introduction
The proposed amendment to the Land Development Code is to make the Ridgewood Corridor Target Business Site Improvement Waiver Program a permanent program to encourage the redevelopment of targeted businesses within the Ridgewood Corridor (Figure 1 on page 2). If approved, the Target Business Site Improvement Waiver Program would be a permanent incentive program that can continue to be used to assist in the redevelopment of the Ridgewood Corridor. The program is consistent with the existing Ridgewood Corridor Plan (RCP) Long Term Strategy #1 to encourage redevelopment and improve the corridor by making it more attractive, improving its economic position, and minimizing activities that discourage investment.

Summary of Proposed Amendments to LDC - Chapter 20

Remove the expiration date for the Target Business Site Improvement Waiver Program:
In December 2017, City Council approved a three-year pilot program for targeted businesses within the Ridgewood Corridor that waived the requirement for a site development plan and site improvements that are not required to meet accessibility, Building, and Fire Code requirements if there is no increase in the area of the principal building. This program was extended for an additional two (2) years by City Council in January 2020 and will currently end on January 31, 2023. The proposed amendment is to make the current pilot Target Business Site Improvement Waiver Program permanent requirements in the LDC by removing the expiration date.

The intent of the Target Business Site Improvement Waiver Program is to encourage redevelopment of the Ridgewood Corridor by allowing smaller “mom-and-pop” and local businesses to get started without a substantial amount of upfront costs. Some communities have successfully encouraged redevelopment by allowing some site upgrades to be deferred until the areas have transformed and there is enough private market interest to drive a higher level of improvements. There is a risk that site improvements may never be made, but the standard regulatory environment has not been successful at encouraging reinvestment in this area, and it is not anticipated that this will change in the near future.

Figure 1. Ridgewood Corridor Map



The following businesses have been designated by City Council as Ridgewood Corridor Targeted Businesses and as part of the amendment, no uses are proposed to be added or removed.

1. Restaurants
2. Professional offices
3. Developments that assemble land to create a connection from Ridgewood to the riverfront
4. Water-based businesses (e.g., watersports sales and rentals, such as kayaks, jet skis, paddle boards, etc., water taxis, boat tours, fish markets, bait, and tackle shops)
5. Eco-tourism (e.g., guided tours)
6. Grocery store
7. Craft food and beverage producer
8. Microbrewery
9. Adult/vocational education
10. Appliance/electronic repair shops
11. Business service
12. Convenience stores without fuel operations
13. Financial services
14. Fleet-based services
15. Health/exercise club
16. Laboratory, research, and development
17. Manufacturing (craftsman shop and limited)
18. Personal services
19. Retail home building materials
20. Any other enterprise/project with an anticipated socio-economic benefit and supported by the city council

According to the targeted business owners that have redeveloped along the corridor, they would not have been able to have a business located in Port Orange if it was not for the Ridgewood Targeted Business Program because their business was able to get started without a substantial amount of upfront costs. Staff believes extending the timeframe for the Target Business Site Improvement Waiver Program will provide staff with additional time to further promote the program to continue the redevelopment and reinvestment in the City's oldest commercial corridor. The number of new targeted businesses each year since the targeted business program started has averaged around 8 targeted businesses per year. There is a risk that the improvements may never get done, but the standard regulatory environment for these businesses has not been successful at encouraging reinvestment in this area.

Since the start of the pilot program in December 2017, there have been forty-seven (47) targeted businesses added to the Ridgewood Corridor, with an average of eight (8) businesses added each year.

Figure 2. Examples of Targeted Businesses Added Since December 2017

Riley’s Coney House Restaurant - 5901 Ridgewood Ave.

Water’s Edge Dental – 4410 Ridgewood Ave.

E & J Bait & Tackle – 5253 Ridgewood Ave.

Rossi’s Heat & Air Conditioning – 215 Church St.

Port Orange Bait and Tackle – 4751 Ridgewood Ave.

Recommendation
Approval of the amendment to Chapter 20 of the Land Development Code, subject to review by the City Attorney as to legal form and content.

Attachments
Exhibit 1 - Proposed LDC Amendments to Chapter 20

Exhibit 1

Land Development Code

Chapter 20 - ECONOMIC DEVELOPMENT INCENTIVES

Sec. 2: - Overview of available city incentives.

[No changes to sections (a) – (e)]

(f) *Waiver of required site improvements for Ridgewood Corridor Targeted Business*. ~~As a pilot program,~~ ~~d~~Developers of all Ridgewood Corridor targeted businesses, as identified in subsection (k)(2), with direct frontage on Ridgewood Avenue south of Dunlawton Avenue (regardless of zoning) may request a waiver of required site improvements other than those improvements related to screening of outdoor storage and equipment, accessibility, building code, and fire code so long as there is no increase in the area of the principal structure and no increase in impervious area that would require drainage improvements. ~~shall terminate and expire on January 31, 2023, unless terminated earlier or extended by city council action.~~

[No changes to sections (g) – (j)]

(k) *Targeted businesses program*.

[No changes to section (1)]

(2) *Targeted businesses—Ridgewood Corridor*. The following businesses shall be targeted businesses along the Ridgewood Corridor and may be extended assistance by the city: restaurants; professional offices; adult/vocational education; appliance/electronic repair shops; business service; convenience stores without fuel operations; financial services; fleet-based services; health/exercise club; laboratory, research and development; personal services; developments that assemble land to create a connection from Ridgewood to the riverfront; water-based businesses (e.g. watersports sales and rentals, such as kayaks, jet skis, paddle boards, etc., water taxis, boat tours, fish markets, bait and tackle shops); eco-tourism (e.g. guided tours); grocery store; craft food and beverage producer; microbrewery; manufacturing (craftsman shop and limited); retail home building materials; and any other enterprise/project with an anticipated socio-economic benefit and supported by the city council.

STAFF REPORT
CASE NO. 22-27500001
Comprehensive Plan Capital Improvements Element - 2022 Annual Update

REQUEST:	Update and amend the Comprehensive Plan Capital Improvements Element (CIE) in accordance with Florida Statutes
APPLICANT:	City of Port Orange
STAFF RECOMMENDATION:	Approval
STAFF CONTACT:	Penelope Cruz, Planning Manager, (386) 506-5671
PLANNING COMMISSION:	November 17, 2022

INTRODUCTION
Each year, the city is required to amend their Comprehensive Plan Capital Improvements Element (CIE) to include projects from the City's current FY23-28 Capital Improvements Program (CIP). The projects copied from the CIP are primarily improvements needed to maintain the City's adopted level of service (LOS) standards for public facilities. These facilities include water, sewer, stormwater, solid waste, roads, parks, and schools. The CIP was adopted in concept by City Council on September 7, 2022, by Resolution No. 22-26 and it was formally adopted as part of the FY23 Operating and Capital Budgets on September 21, 2022, by Resolution No. 22-30. The CIP includes various projects to support the LOS for City public facilities. The proposed amendments take these projects previously approved by Council with the CIP and add them into the CIE.

State law requires that local governments update their Comprehensive Plan Capital Improvements Element (CIE) every year to show that they have funded or planned to fund the public facility improvements needed to support their population[1]. The proposed amendments in Exhibit A are required to be in the underline/strikethrough format. For each table or text that is to be updated from the prior year CIP (FY22 – FY27) to the current year CIP (FY23 – FY28) the deleted prior year text is shown in strikethrough (~~strikethrough~~) format and the added current year text is underlined (<u>underlined</u>). Text that is not struck through or underlined remains as existing text in the current year CIE.

PURPOSE
Under the 1985 Growth Management Act, local governments are mandated to plan for the availability of public facilities and services to support development and the impacts of such development. The purpose of the CIE and the 5-year Capital Improvements Schedule is to identify the capital improvements needed to implement the Comprehensive Plan and

[1] *Ch. 163.3177(3) F.S.*

ensure the adopted Level of Service (LOS) Standards for concurrency-related facilities are achieved and maintained.

DISCUSSION

The amendments to the CIE include the updated Schedule (copied from the City's adopted FY23 – 28 Capital Improvements Program) and other amendments to update data related to the Schedule and other statutorily required information, such as excerpts from the Transportation Planning Organization's (TPO) Transportation Improvements Program (TIP) and the Volusia County School District Five-Year Work Program (Exhibit 1, Tables 5 and 6).

The CIE Schedule includes projects required to meet or maintain adopted LOS standards for concurrency-related facilities or implement the Goals, Objectives, and Policies of the Comprehensive Plan (Exhibit 1). The concurrency management system for the City of Port Orange is established by policy in the City's Comprehensive Plan and administered through regulations contained within the City's Land Development Code.

The City is required to monitor the cumulative effect of all approved Development Orders and Development Permits on the capacity of public facilities. This obligation is met through individual concurrency reviews of development proposals and the annual Concurrency Management Report (CMR). The City's concurrency review evaluates the following public facilities and services:

- Transportation
- Sanitary Sewer
- Potable Water
- Stormwater Drainage
- Solid Waste
- Recreation
- Public Schools

The 2022 CMR identified that all public facilities and services subject to concurrency are at sufficient levels based on adopted Level-of-Service (LOS). The CMR also identified improvements that are planned or programmed to ensure that the city continues to maintain the adopted LOS.

RECOMMENDATION

Staff recommends **approval** of the adoption of the 2022 CIE Annual Update.

ATTACHMENT

Exhibit 1 – Annual Update to the CIE

Exhibit 1

Annual Update to the Capital Improvements Element

~~Strikethrough~~ indicates text is to be deleted; <u>Underline</u> indicates text is to be added

Please Note: No changes after page 10-29

COMPREHENSIVE PLAN

CAPITAL IMPROVEMENTS ELEMENT

Policy Document

CHAPTER 10: CAPITAL IMPROVEMENTS ELEMENT

TABLE OF CONTENTS

INTRODUCTION

Under the 1985 Growth Management Act, local governments are mandated to plan for the availability of public facilities and services to support development and the impacts of such development. The purpose of the Capital Improvements Element (CIE) and the Capital Improvements Schedule (Schedule) is to identify the capital improvements that are needed to implement the Comprehensive Plan and ensure that the adopted Level of Service (LOS) Standards are achieved and maintained for concurrency related facilities.

The 2005 Growth Management Act requires the Schedule to be financially feasible. As defined by Chapter 163.3164(32) F.S., in order for a Schedule to be financially feasible it must demonstrate that sufficient revenues are currently available or will be available from committed funding sources for the first 3 years, or will be available from committed or planned funding sources for years 4 and 5. These revenues must be adequate to fund the projected costs of the capital improvements identified in the comprehensive plan necessary to ensure that adopted LOS standards are achieved and maintained within the period covered by the 5-year Schedule. The requirement that LOS standards be achieved and maintained does not apply if the proportionate-share process set forth in Chapter 163.3180(12) and (16), F.S., is used.

This Element, intended to demonstrate the financial feasibility of the City of Port Orange's Comprehensive Plan, commences in the fiscal year ~~2021/22~~2022/23 and identifies potential projects for the initial five-year planning period. Individual Capital Improvement needs identified in this Element are, for the most part, those improvements which cost $25,000 or more and are generally non-recurring purchase items. The capital improvements identified in the other Elements of this Comprehensive Plan are listed with a brief description in Table 1 along with their estimated cost, funding source, and projected year of expenditure. The improvements are listed by type of service, related to the various Elements of the Comprehensive Plan. The Capital Improvements Element addresses existing and future capital improvements needed for at least the first five fiscal years after the adoption of the comprehensive plan. Therefore, Table 1 lists improvements identified for the years ~~2022~~2023-~~2027~~2028.

The capital improvements projects listed in Table 1 are not inclusive of all anticipated capital expenditures by the City during the designated time period. For the most part, the list of improvements has been limited to the capital projects required to meet or maintain adopted LOS standards or implement the Goals, Objectives, and Policies of the Comprehensive Plan. Improvements on a smaller scale (generally under $25,000 in cost) are outlined in the City's five-year Capital Improvement Program and annual budget as they are needed over time.

TABLE 1
CAPITAL IMPROVEMENTS SCHEDULE

Project #	Description	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
WATER								
029408	**Water System Replacement/ Upsizing**	**2,000,000**	**600,000**	**400,000**	**400,000**	**500,000**	**500,000**	**4,400,000**
Water/Sewer Operating 401		1,200,000	200,000	200,000	200,000	200,000	200,000	2,200,000
Water/Sewer R&R 403		400,000	400,000	200,000	200,000	300,000	300,000	1,800,000
Water Impact Fee 405		400,000	-	-	-	-	-	400,000
-	**Total**	**2,000,000**	**600,000**	**400,000**	**400,000**	**500,000**	**500,000**	**4,400,000**
Planned replacement of undersized galvanized steel piping in older sections of the city and peninsula area. Target areas to be accomplished based on current priorities. This project will improve water quality and fire flow. (Consistent w/ Comp Plan: Pot. Water, Policy 1.1, 2.6 and 2.7)								
029409A	**Water System Extensions/ Upsizing**	**-**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**
Water Impact Fee 405		-	50,000	50,000	50,000	50,000	50,000	250,000
-	**Total**	**-**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**
Provide water service to existing residential areas not presently served by the City and provide for greater system redundancy and looping. Additional water main installations that serve to reinforce the distribution system to eliminate or avoid areas of substandard water pressure. (Consistent w/ Comp Plan: Pot. Water, Policy 2.2, 2.4 and 2.5)								
039493A	**Water Treatment Plant R&R - Equipment**	**100,000**	**125,000**	**150,000**	**200,000**	**200,000**	**250,000**	**1,025,000**
Water/Sewer Operating 401		100,000	125,000	150,000	200,000	200,000	250,000	1,025,000
Water/Sewer R&R 403		-	-	-	-	-	-	-
-	**Total**	**100,000**	**125,000**	**150,000**	**200,000**	**200,000**	**250,000**	**1,025,000**
On-going R&R program to maintain the City's Garnsey Water Treatment Plant and three off-site storage/pump stations to ensure continued operation. (Consistent w/ Comp Plan: Pot. Water, Policy 1.7 and San. Swr., Policy 1.6)								
039494	**Water Treatment Plant 1-Million Gallon Water Storage Tank**	**-**	**-**	**1,500,000**	**-**	**-**	**-**	**1,500,000**
Sewer Impact Fee 405		-	-	1,500,000	-	-	-	1,500,000
-	**Total**	**-**	**-**	**1,500,000**	**-**	**-**	**-**	**1,500,000**
The water plant produces and distributes an average of 6 million gallons per day of drinking water. The plant has one water storage tank that holds 1 million gallons. The tank was constructed in 1983. There are three storage tanks located throughout the City to store a total of 4.5 million gallons of water. In order to ensure water can be produced and distributed continuously from the treatment plant, an additional storage tank needs to be constructed. It is recommended that a one million gallon tank be constructed on the property adjacent to the water plant. The City owns the property. The existing pumping equipment would be sufficient to distribute the water from the new tank. Since this is an expansion of service to our customers, water impact fee funds could be used (Consistent w/ Comp Plan: Pot. Water, Objectives 1 & 2, Policy 2.1)								
039495	**Water Treatment Plant-Raw Water Main Replacement**	**-**	**3,000,000**	**-**	**-**	**-**	**-**	**3,000,000**
Water/Sewer R&R 403		-	3,000,000	-	-	-	-	3,000,000
-	**Total**	**-**	**3,000,000**	**-**	**-**	**-**	**-**	**3,000,000**
There is currently only one pipeline from the wellfield on Shuntz Road to the Garnsey Water Treatment Plant. This pipeline provides 80% of the well water into the treatment plant. The 30-inch diameter, 5 mile long prestressed concrete pipeline has been in service over 30 years. It is a specialty pipe that staff cannot repair in house. In fact, there are very few speciality firms that can repair this type of pipeline. Should the pipe fail, damages would be significant to the surrounding area and significantly impair the treatment plants ability to supply drinking water to the customers. This project would provide a secondary pipeline to the treatment plant to provide reliability on the system. (Consistent w/ Comp Plan: Pot. Water, Objectives 1 & 2)								
028813	**Production Well Replacement**	**-**	**250,000**	**250,000**	**225,000**	**250,000**	**250,000**	**1,225,000**
Water/Sewer R&R 403			250,000	250,000	225,000	250,000	250,000	1,225,000
-	**Total**	-	**250,000**	**250,000**	**225,000**	**250,000**	**250,000**	**1,225,000**

Project #	Description	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
This project is to replace four wells that are impacting water quality due to increase salinity levels. The wells, constructed in 1973, can not be rehabilitated. This project is to replace the four wells, one per year. (Consistent w/ Comp Plan: Pot. Water, Objectives 1 & 2, Policy 2.1)								
NEW	**Water System Rehab - 16" Water Main River Crossing**	**2,000,000**	**-**	**-**	**-**	**-**	**-**	**2,000,000**
Water/Sewer R&R 401		-	-	-	-	-	-	-
Water/Sewer R&R 403		2,000,000	-	-	-	-	-	2,000,000
-	**Total**	**2,000,000**	**-**	**-**	**-**	**-**	**-**	**2,000,000**
The existing pipeline was installed in late 1980 and constructed of ductile iron pipes. The western section of the water main was installed in shallow trenches via dredging and thus are exposed to salt water. In the winter of 2020 the pipeline had failures at two different locations, both times a hole approximately 6" x 9" was found, and repair bands were installed at both locations. This watermain is one of two mains that provide potable water and fire protection to Ponce Inlet, Daytona Beach Shores and unincorporated Wilber by the Sea. A new pipeline is needed to provide more reliability and save money on costly point repairs to the existing pipeline. (Consistent w/ Comp Plan: Pot. Water, Objectives 1 & 2, Policy 2.1)								
	TOTAL - WATER	**2,100,000**	**4,025,000**	**2,350,000**	**900,000**	**1,000,000**	**1,050,000**	**11,425,000**
SANITARY SEWER								
049467	**Sewer System Rehab.**	**850,000**	**750,000**	**750,000**	**750,000**	**750,000**	**-**	**3,850,000**
Water/Sewer Operating 401		850,000	750,000	750,000	750,000	750,000	-	3850,000
-	**Total**	**850,000**	**750,000**	**750,000**	**750,000**	**750,000**	**-**	**3850,000**
There are currently 111 lift stations in the collection system. This is an on-going repair and rehabilitation project for the sewer collection system at each lift station. The scope of work will depend upon the condition, age and capacity of the pipeline. (Consistent w/ Comp Plan: San. Swr., Policy 1.5 and 4.3)								
038964A	**Water Reclamation Facility R&R**	**800,000**	**600,000**	**500,000**	**500,000**	**550,000**	**550,000**	**3,500,000**
Water/Sewer Operating 401		-	-	-	-	-	-	-
Water/Sewer R&R 403		800,000	600,000	500,000	500,000	550,000	550,000	3,500,000
-	**Total**	**800,000**	**600,000**	**500,000**	**500,000**	**550,000**	**550,000**	**3,500,000**
Repair and replacement of existing Water Reclamation Treatment Plant equipment as required in DEP Operating Permit. (Consistent w/ Comp Plan: Pot. Water, Policy 1.1 and 2.6 along with San. Swr, Policy 1.6)								
049468	**Sewer System Rehab - Force Main River Crossing**	**3,000,000**	**-**	**-**	**-**	**-**	**-**	**3,000,000**
Sewer Impact Fee 405		-	-	-	-	-	-	-
Future Grant Bonds		3,000,000	-	-	-	-	-	3,000,000
-	**Total**	**3,000,000**	**-**	**-**	**-**	**-**	**-**	**3,000,000**
To provide a second sewage transmission force main under the Halifax River and connecting to the existing sewer system at US 1. There is currently only 1- 20" diameter pipeline crossing under the Halifax River to provide service to Ponce Inlet, Daytona Beach Shores, and Port Orange customers east of US1 and north of Dunlawton. The pipeline was installed in 1986 and constructed of ductile iron pipe. The pipe is not very deep under the bed of the river and exposed to salt water. There is no secondary service to this area should the pipeline fail. In addition, Ponce Inlet is undertaking a septic to sewer program to increase the amount of customers in that area. This new pipeline would provide more reliability and ensure sufficient capacity for the new customers. Since this new pipeline provides redundancy and expanded capacity to the beachside area, we believe grant funding is available. (Consistent w/ Comp Plan: Pot. Water, Policy 1.1 and 2.6 along with San. Swr, Policy 1.6)								
038972	**Water Reuse Program**	**-**	**-**	**-**	**-**	**3,000,000**	**-**	**3,000,000**
Sewer Impact Fee 405		-	-	-	-	1,500,000	-	1,500,000
Future Grant/Bond		-	-	-	-	1,500,000	-	1,500,000
-	**Total**	**-**	**-**	**-**	**-**	**3,000,000**	**-**	**3,000,000**
A three million gallon ground storage tank with pump station to provide additional reuse supply for irrigation and minimize discharge to the Halifax River. Location to be identified in utility master plan. Staff will apply for grant funding. Current grant funding from SFRWMD is 33% for shovel ready projects. (Consistent w/ Comp Plan: San. Swr, Objective 3)								
089409	**Sewer System Expansion**	**-**	**3,000,000**	**3,000,000**	**300,000**	**-**	**-**	**9,000,000**
Water/Sewer Operating 401		-	-	**3,000,000**	-	-	-	3,000,000
Sewer Impact Fee 405		-	2,000,000	-	2,000,000	-	-	4,000,000
Future Grant/Bonds		-	1,000,000	-	1,000,000	-	-	2,000,000
-	**Total**	**-**	**3,000,000**	**3,000,000**	**300,000**	**-**	**-**	**9,000,000**
Sewer system construction at locations that are currently on septic. The locations and the priorities have been determined and design has been initiated. (Consistent w/ Comp Plan: San. Swr., Policy 2.2 and 2.3)								

~~Project #~~	~~Description~~	~~FY 21-22~~	~~FY 22-23~~	~~FY 23-24~~	~~FY 24-25~~	~~FY 25-26~~	~~FY 26-27~~	~~Total~~
~~-~~	~~**TOTAL - SANITARY SEWER**~~	~~**4,650,000**~~	~~**4,350,000**~~	~~**4,250,000**~~	~~**4,250,000**~~	~~**4,300,000**~~	~~**550,000**~~	~~**22,350,000**~~
~~**WATER & SANITARY SEWER**~~								
~~**038710**~~	~~**City Cost Participation**~~	~~**-**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**250,000**~~
~~Water Impact Fee 405~~		~~-~~	~~25,000~~	~~25,000~~	~~25,000~~	~~25,000~~	~~25,000~~	~~125,000~~
~~Sewer Impact Fee 405~~		~~-~~	~~25,000~~	~~25,000~~	~~25,000~~	~~25,000~~	~~25,000~~	~~125,000~~
~~-~~	~~**Total**~~	~~**-**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**250,000**~~
~~Citywide annual cost participation program with new development to upsize various water and sewer lines, extension of various mains, upsizing of lift stations, and other miscellaneous items. (Consistent w/ Comp Plan: San. Swr., Policy 4.2 and Pot. Water, Policy 2.5 & 2.7)~~								
~~**TOTAL - WATER & SANITARY SEWER**~~		~~**-**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**50,000**~~	~~**250,000**~~
~~**TRANSPORTATION**~~								
~~**430201**~~	~~**Road Program**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**4,800,000**~~
~~Capital Projects 301~~		~~800,000~~	~~800,000~~	~~800,000~~	~~800,000~~	~~800,000~~	~~800,000~~	~~4,800,000~~
~~-~~	~~**Total**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**800,000**~~	~~**4,800,000**~~
~~Annual citywide resurface program for existing streets and collector roads. (Consistent w/ Comp Plan: Transp. Objective 2.14 and 2.7)~~								
~~**200905**~~	~~**Williamson Blvd. N. of Pavilion**~~	~~**-**~~	~~**220,000**~~	~~**260,935**~~	~~**2,200,000**~~	~~**-**~~	~~**-**~~	~~**2,680,935**~~
~~Developer Constructed~~		~~-~~	~~220,000~~	~~260,935~~	~~2,200,000~~	~~-~~	~~-~~	~~2,680,935~~
~~-~~	~~**Total**~~	~~**-**~~	~~**220,000**~~	~~**260,935**~~	~~**2,200,000**~~	~~**-**~~	~~**-**~~	~~**2,680,935**~~
~~This project involves adding 2 lanes to the existing 2 lane Williamson Blvd. roadway from the north boundary of the Pavilion project north to Townwest Blvd., a 0.53-mile section. Project cost estimates are based on construction of an additional 2 travel lanes within the existing right-of-way with minimal impact to the existing roadway. The new construction will require stormwater treatment and it will be necessary to acquire an estimated 1 acre of off-site property for this purpose. (Consistent w/ Comp Plan: Transp. Objective 2.6, 2.7, 2.13, and 2.14)~~								
~~**200907**~~	~~**Coraci Blvd. Extension**~~	~~**-**~~	~~**257,000**~~	~~**2,150,000**~~	~~**-**~~	~~**-**~~	~~**-**~~	~~**2,407,000**~~
~~Developer Constructed~~		~~-~~	~~257,000~~	~~2,150,000~~	~~-~~	~~-~~	~~-~~	~~2,407,000~~
~~-~~	~~**Total**~~	~~**-**~~	~~**257,000**~~	~~**2,150,000**~~	~~**-**~~	~~**-**~~	~~**-**~~	~~**2,407,000**~~
~~This project involves construction of a 1/2 mile 2-lane divided roadway extending Coraci Blvd. 2600' from Forest Lakes subdivision (Carmody Lake Drive) to Santuary at Westport Apartment within the existing undeveloped right-of-way. Drainage improvements are projected to be constructed in the right-of-way. This will serve as an alternate route for traffic from the Forest Lakes subdivision and reduc eimpacts on the Taylor Rd./Williamson Blvd. intersection. This roadway is indicated as a future collector road in the Comprehensive Plan. (Consistent w/ Comp Plan: Transp. Objective 2.7, 2.10, and 2.14)~~								
~~**201008**~~	~~**Yorktowne Blvd North Section**~~	~~**150,250**~~	~~**1,894,000**~~	~~**-**~~	~~**-**~~	~~**-**~~	~~**-**~~	~~**2,044,250**~~
~~General Capital Replacement (317)~~		~~-~~	~~1,407,020~~	~~-~~	~~-~~	~~-~~	~~-~~	~~1,407,020~~
~~Developer Fairshare Contr. (Planned)~~		~~150,250~~	~~-~~	~~-~~	~~-~~	~~-~~	~~-~~	~~150,250~~
~~Developer Constructed~~		~~-~~	~~486,980~~	~~-~~	~~-~~	~~-~~	~~-~~	~~486,980~~
~~-~~	~~**Total**~~	~~**150,250**~~	~~**1,894,000**~~	~~**-**~~	~~**-**~~	~~**-**~~	~~**-**~~	~~**2,044,250**~~
~~This project is proposed as either a 2-lane or 4-lane divided curb and gutter road designed to major collector street standards. This improvement is required to complete the Yorktowne Blvd. connection between Hidden Lakes Dr. and Willow Run Blvd. Completion of these sections would redirect traffic and relieve congestion at the I-95/Dunlawton Ave. intersection and Williamson Boulevard, south of Willow Run Boulevard. The north Yorktowne Boulevard segment is +/- 3,000 ft from the B-19 tributary crossing to Willow Run Boulevard and is proposed to be located west of the homes along Chardonnay Lane,on property currently owned by NLA Holdings, LLC. According to the 2018 Agreement between NLA Holdings, LLC, and the City of Port Orange, the dedication of the 100'right-of-way needed for the north segment will be provided by the property owner prior to any development on the NLA Holdings, LLC property, or within 30 days after written notice to the property owner that the City intends to construct the Yorktowne Boulevard extension. As part of a 2018 Agreement the City obtained the rights to all of the roadway designs, surveys, legal description for the road alignment, and all documents for the active Environmental Resource Permit, for the north segment of the Yorktowne Boulevard. Prior to construction, the City will have to modify the two sets of roadway plans (north and central) to create one set that can be used for bidding and construction to complete the full Yorktowne Boulevard extension between Hidden Lakes Drive and Willow Run Boulevard. The cost estimates have been updated based on inflation and current cost data. (Consistent w/ Comp Plan: Transp. Objective 2.7, 2.9, 2.13 and 2.14)~~								

Project #	Description	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
201015	Willow Run Boulevard Widening	-	200,000	1,125,000	-	-	-	1,325,000
Capital Projects 301		-	200,000	–	-	-	-	200,000
TPO Funds		-	-	1,125,000	-	-	-	1,125,000
-	Total	-	200,000	1,125,000	-	-	-	1,325,000
A 1/4 mile segment of Willow Run east of Williamson Boulevard to the proposed intersection of the Yorktowne Boulevard extension will need to be improved to accommodate future traffic flows diverted from Williamson Boulevard and future traffic on the new Yorktowne north extension. A signalized intersection, traffic circle, or other feasible improvements at the Willow Run/Yorktowne intersection will be considered as part of the design. (Consistent w/ Comp Plan: 2.7, 2.9, 2.13, and 2.14)								
201647	WB Dnlwtn Ave Right Turn Lane and City Center Prkwy	85,270	657,612	-	-	-	-	742,882
Capital Projects 301		8,527	65,761	-	-	-	–	74,288
TPO Funds		76,743	591,851	-	-	-	–	668,594
-	Total	85,270	657,612	-	-	-	–	742,882
This project consists of a proposal to construct a westbound right turn lane on Dunlawton Avenue at the intersection with City Center Parkway to improve traffic flow and reduce delays for turning vehicles and Dunlawton Avenue through vehicles. No additional right-of-way should be needed for this project. The project will add roadway capacity at the intersection and reduce delays for westbound Dunlawton Avenue vehicles turning right. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)								
201750	Eastbound Dunlawton Ave Right Turn Lane at Clyde Morris Blvd.	111,448	678,616	-	-	-	-	790,064
Capital Projects 301		11,145	67,862	-	-	-	–	79,007
TPO Funds		100,303	610,754	-	-	-	–	711,057
-	Total	111,448	678,616				–	790,064
This project consists of a proposal to construct a right turn lane on eastbound Dunlawton Avenue at the intersection with Clyde Morris Boulevard to improve traffic flow and reduce delays for turning vehicles and through vehicles. No additional right-of-way should be needed for this project. The project will add roadway capacity at the intersection and reduce delays for eastbound vehicles turning right. (Consistent w/ Comp Plan: 2.7, 2.9, 2.13, and 2.14)								
201751	WB Dunlawton Ave Right Turn Lane at Nova Rd.	148,726	260,000	698,629	-	-	–	1,107,355
Capital Projects 301		20,273	260,000	69,863	-	-	-	350,136
General Capital Replacement 317		-	-	-	-	-	-	-
TPO Funds		128,453	-	628,766	-	-	-	757,219
-	Total	148,726	260,000	698,629	-	-	–	1,107,355
This project consists of a proposal to construct a right turn lane on westbound Dunlawton Avenue at the intersection with Nova Road to improve traffic flow and reduce delays for turning vehicles and through vehicles. Additional right-of-way is needed for this project prior to design being funded. The project will add roadway capacity at the intersection and reduce delays for westbound vehicles turning right. (Consistent w/ Comp Plan: 2.7, 2.9, 2.13, and 2.14)								
201856	EB & WB Herbert St. Turn Lanes at Nova Rd.	-	35,000	100,000	660,000	-	–	795,000
Capital Projects 301		-	3,500	10,000	66,000	-	–	79,500
TPO Funds		-	31,500	90,000	594,000	-	–	715,500
-	Total	-	35,000	100,000	660,000	-	–	795,000

~~Project #~~	~~Description~~	~~FY 21-22~~	~~FY 22-23~~	~~FY 23-24~~	~~FY 24-25~~	~~FY 25-26~~	~~FY 26-27~~	~~Total~~
~~The project consists of looking at options to modify the intersection of Nova Road and Herbert Street to improve movement through the intersection. The intersection experiences congestion throughout the day, most notably in the morning and late afternoon. Additional right-of-way is anticipated to be needed for any intersection improvements.~~ ~~• Option 1: Extend the stacking area for the existing left-turn lane on eastbound Herbert Street at Nova Road, realigning the westbound Herbert Street travel lane, along with necessary improvements to the intersection.~~ ~~• Option 2: Modify eastbound Herbert Street at Nova Road to create a left-turn lane, right-turn lane, and a thru lane. Also, realigning the westbound Herbert Street travel lane and realigning the westbound Herbert Street travel lane, along with necessary improvements to the intersection.~~ ~~• Option 3: Other modifications or design alternatives that the consultant, selected by the TPO to prepare the Feasibility Study, can recommend to improve movement through the intersection, specifically for vehicles turning onto Nova Road and Herbert Street. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~New-002~~	**~~Madeline Ave Widening between Clyde Morris and Nova Rd~~**	**~~-~~**	**~~35,000~~**	**~~200,000~~**	**~~1,125,000~~**	**~~-~~**	~~-~~	**~~1,360,000~~**
~~Transportation Impact Fee 312~~		~~-~~	~~3,500~~	~~20,000~~	~~112,500~~	~~-~~	~~-~~	~~136,000~~
~~TPO Funds~~		~~-~~	~~31,500~~	~~180,000~~	~~1,012,500~~	~~-~~	~~–~~	~~1,224,000~~
~~-~~	**~~Total~~**	**~~-~~**	**~~35,000~~**	**~~200,000~~**	**~~1,125,000~~**	**~~-~~**	**~~–~~**	**~~1,360,000~~**
~~This project consists of widening the current vehicle travel lanes on Madeline Avenue between Clyde Morris and Nova Road. The proposed improvements are anticipated to be constructed within the existing right-of-way of Madeline Avenue; additional right-of-way is not anticipated to be requested for this project. Removal of existing tree within the right-of-way may be required to accomodate the widening to improve driver safety, maintain sidewalks, LOS capacity, safety conditions, and long-term maintennace. The City submitted the project for TPO funding in Spring 2020. Under the current policy, the TPO will fund up to 90% of the project design and construction cost and the City will fund 10% of the project. Once ranked by the TPO, a feasibility study will be conducted; upon construction, the project will be eligible for inclusion in the TPO program if the City commits to support the design and construction phases. The estimated design and construction cost of the project will be adjusted after the feasibility study is completed.~~								
~~New-001~~	**~~Madeline Avenue EB & WB Turn Lane Improvement at Nova Road~~**	**~~-~~**	**~~35,000~~**	**~~100,000~~**	**~~660,000~~**	**~~-~~**	~~-~~	**~~795,000~~**
~~Transportation Impact Fee 312~~		~~-~~	~~3,500~~	~~10,000~~	~~66,000~~	~~-~~	~~-~~	~~79,500~~
~~TPO Funds~~		~~-~~	~~31,500~~	~~90,000~~	~~594,000~~	~~-~~	~~-~~	~~715,500~~
	~~Total~~	**~~-~~**	**~~35,000~~**	**~~100,000~~**	**~~660,000~~**	**~~-~~**	~~-~~	**~~795,000~~**
~~The project consists of widening the current vehicle travel lanes on Madeline Avenue between Clyde Morris Boulevard and Nova Road. The proposed improvements are anticipated to be constructed within the existing right-of-way of Madelline Avenue; additional right-of-way is not anticipated to be required for this project. Removal of existing trees within the right-of-way may be required to accommodate the widening to improve driver safety, maintain sidewalks, LOS capacity, safety conditions, and long-term maintenance. The City submitted the project for TPO funding in Spring 2020. Under the current policy, the TPO will fund up to 90% of the project design and construction cost and the City will fund 10% of the project. Once ranked by the TPO, a feasibility study will be conducted; upon completion, the project will be eligible for inclusion in the TPO program if the City commits to support the design and construction phases. The estimated design and construction cost of the project will be adjusted after the feasibility study is completed.~~								
~~201859~~	**~~Taylor Rd./Williamson Blvd. Intersection Improvement~~**	**~~-~~**	**~~2,000,000~~**	**~~4,521,736~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~6,521,736~~**
~~Transportation Impact Fee 312~~		~~-~~	~~25,000~~	~~452,174~~	~~-~~	~~-~~	~~-~~	~~477,174~~
~~General Capital Replacement (317)~~		~~-~~	~~1,750,000~~	~~-~~	~~-~~	~~-~~	~~-~~	~~1,750,000~~
~~TPO Funds~~		~~-~~	~~225,000~~	~~4,069,562~~	~~-~~	~~-~~	~~-~~	~~4,294,562~~
	~~Total~~	**~~-~~**	**~~2,000,000~~**	**~~4,521,736~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~6,521,736~~**

~~Project #~~	~~Description~~	~~FY 21-22~~	~~FY 22-23~~	~~FY 23-24~~	~~FY 24-25~~	~~FY 25-26~~	~~FY 26-27~~	~~Total~~
~~A Feasibility Study was completed in April 2020. The Feasibility Study identified alternatives that provide effective Improvements to minimize delays to traffic, eliminate or reduce crashes, and improve sidewalks and crosswalks for pedestrians at the Taylor Road and Williamson Boulevard intersection, and along the Taylor Road/Dunlawton Avenue corridor al 1-95. Under current policy, the TPO will fund up to 90% of the project and the City will fund 10% of the project. the TPO does not provide matching funds for land acquisition. Now that the study is completed. the projects identified by the feasibility study will be eligible for inclusion in the TPO's Project Priority List for design and construction funding. The current estimated cost for the improvement recommended in the Feasibility Study is $4,137,135 and this cost does not include anticipated right-of-way needed for stormwater drainage at an anticipated 1.75 million dollars. The TPO does not provide matching funds for land or right-of-way acquisition. Staff plans to further discuss the recommendations in this Feasibility Study with FDOT to determine if these can be improvements completed by FOOT as they would add capacity, minimize delays to traffic, eliminate or reduce crashes, and improve sidewalks and crosswalks for pedestrians. The proposed improvements include: Taylor Road at Williamson Boulevard: 1)Provide an additional southbound left tum lane (3rd tum lane) and 2)Modify the sidewalk and crosswalk on the north leg as shown to Improve pedestrian visibility. Taylor Road/Duniawton Avenue at 1-95 SB Ramps: 1) Provide an additional southbound left tum lane, and 2) Remove the southbound channelized right tum lane and bring it under a signal, 3) Add a lane under the bridge in the westbound direction that will drop as outside westbound left tum lane at Taylor Road and Williamson Boulevard, and 4) Provide an eastbound right tum lane and remove the channelized right tum lane. Dunlawton Avenue at 1-95 NB Ramps: 1) Extend the existing storage lane for the westbound left turn lo 1-95 SB on-ramp to help mitigate the lane imbalance issue along westbound Taylor Road, 2) Add an exclusive westbound right tum for 1-95 NB on-ramp with the current westbound outside lane being dropped as a right tum lane to 1-95 NB on-ramp. and 3) Provide sidewalk south of Taylor Road between east of Williamson Boulevard and east of 1-95 NB Ramps.~~								
~~201964~~	**~~Taylor Rd./Clyde Morris Blvd. Intersection Improvement~~**	**~~35,000~~**	**~~50,000~~**	**~~350,000~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~435,000~~**
~~Transportation Impact Fee 312~~		~~3,500~~	~~5,000~~	~~80,000~~	~~-~~	~~-~~	~~-~~	~~43,500~~
~~TPO Funds~~		~~31,500~~	~~45,000~~	~~270,000~~	~~-~~	~~-~~	~~-~~	~~391,500~~
~~-~~	**~~Total~~**	**~~35,000~~**	**~~50,000~~**	**~~350,000~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~435,000~~**
~~The project consists of looking at options to modify the intersection at Taylor Rd./Clyde Morris Blvd. to improve movement through the intersection, specifically the eastbound Taylor Rd. through movement and left turn on to Clyde Morris Blvd. Additional right of way is anticipated for any intersection improvements. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~202065~~	**~~Dunlawton Ave. Existing Left Turn Lanes Extension~~**	**~~153,174~~**	**~~635,343~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~788,517~~**
~~Capital Projects 301~~		~~15,317~~	~~63,534~~	~~-~~	~~-~~	~~-~~	~~-~~	~~78,851~~
~~TPO Funds~~		~~137,857~~	~~571,809~~	~~-~~	~~-~~	~~-~~	~~-~~	~~709,666~~
~~-~~	**~~Total~~**	**~~153,174~~**	**~~635,343~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~788,517~~**
~~The project consists of extending the existing left turn lanes along Dunlawton Ave. at the intersection of Nova Road (eastbound)and Clyde Morris Blvd. (westbound) to improve traffic flow and roadway capacity, reduce delays for turning and through movements, improve intersection safety and reduce damage and maintenance costs for the medians. Additional right of way is not anticipated to be needed for this project. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~202067~~	**~~NB Clyde Morris Blvd. Right Turn Lane at Reed Canal Rd.~~**	**~~-~~**	**~~275,500~~**	**~~488,000~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~763,500~~**
~~Capital Projects 301~~		-	~~162,550~~	~~48,800~~	-	-	~~-~~	~~211,350~~
~~TPO Funds~~		-	~~112,950~~	~~439,200~~	-	-	~~-~~	~~552,150~~
~~-~~	**~~Total~~**	-	**~~275,500~~**	**~~488,000~~**	-	-	**~~-~~**	**~~763,500~~**
~~The project consists of a right turn lane on northbound Clyde Morris Blvd. at the intersection with Reed Canal Rd. to improve traffic flow, reduce delays for turning and through movements and improve intersection safety. Additional right of way is not anticipated to be needed for this project. The project will add roadway capacity at the intersection and reduce delays for northbound vehicles turning right or through northbound traffic. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~202068~~	**~~NB Clyde Morris Blvd. Right Turn Lane at Madeline Ave.~~**	**~~-~~**	**~~75,000~~**	**~~440,000~~**	**~~-~~**	**~~-~~**	**~~-~~**	**~~515,000~~**

~~Project #~~	~~Description~~	~~FY 21-22~~	~~FY 22-23~~	~~FY 23-24~~	~~FY 24-25~~	~~FY 25-26~~	~~FY 26-27~~	~~Total~~
~~Capital Projects 301~~		~~-~~	~~7,500~~	~~44,000~~	~~-~~	~~-~~	~~–~~	~~51,500~~
~~TPO Funds~~		~~-~~	~~67,500~~	~~396,000~~	~~-~~	~~-~~	~~–~~	~~463,500~~
~~-~~	~~**Total**~~	~~-~~	~~**75,000**~~	~~**440,000**~~	~~-~~	~~-~~	~~–~~	~~**515,000**~~
~~The project consists of a right turn lane on northbound Clyde Morris Blvd. at the intersection with Madeline Ave. to improve traffic flow, reduce delays for turning and through movements and improve intersection safety. Additional right of way is not anticipated to be needed for this project. The project will add roadway capacity at the intersection and reduce delays for northbound vehicles turning right or through northbound traffic. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~**202069**~~	~~**SB Clyde Morris Blvd. Right Turn Lane at Willow Run Blvd.**~~	~~-~~	~~**135,750**~~	~~**483,000**~~	~~-~~	~~-~~	~~–~~	~~**618,750**~~
~~Capital Projects 301~~		~~-~~	~~58,575~~	~~48,300~~	~~-~~	~~-~~	~~–~~	~~106,875~~
~~TPO Funds~~		~~-~~	~~77,175~~	~~434,700~~	~~-~~	~~-~~	~~–~~	~~511,875~~
~~-~~	~~**Total**~~	~~-~~	~~**135,750**~~	~~**483,000**~~	~~-~~	~~-~~	~~–~~	~~**618,750**~~
~~The project consists of a right turn lane on southbound Clyde Morris Blvd. at the intersection with Willow Run Blvd. to improve traffic flow, reduce delays for turning and through movements and improve intersection safety. Additional right of way is not anticipated to be needed for this project. The project will add roadway capacity at the intersection and reduce delays for southbound vehicles turning right or through southbound traffic. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~**202070**~~	~~**SB Clyde Morris Blvd. Right Turn Lane at Madeline Ave.**~~	~~-~~	~~**217,000**~~	~~**510,350**~~	~~-~~	~~-~~	~~–~~	~~**727,350**~~
~~Capital Projects 301~~			~~111,700~~	~~51,035~~			~~–~~	~~162,735~~
~~TPO Funds~~			~~105,300~~	~~459,315~~		~~-~~	~~–~~	~~564,615~~
~~-~~	~~**Total**~~		~~**217,000**~~	~~**510,350**~~			~~–~~	~~**727,350**~~
~~The project consists of a right turn lane on southbound Clyde Morris Blvd. at the intersection with Madeline Ave. to improve traffic flow, reduce delays for turning and through movements and improve intersection safety. Additional right of way is not anticipated to be needed for this project. The project will add roadway capacity at the intersection and reduce delays for southbound vehicles turning right or through southbound traffic. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~**202072**~~	~~**SB & NB Yorktowne Blvd. Right Turn Lanes at Dunlawton Ave.**~~	~~**115,000**~~	~~**660,000**~~	~~-~~	~~-~~	~~-~~	~~–~~	~~**775,000**~~
~~Transportation Impact Fee 312~~		~~11,500~~	~~66,000~~	~~-~~	~~-~~	~~-~~	~~–~~	~~77,500~~
~~TPO Funds~~		~~103,500~~	~~594,000~~	~~-~~	~~-~~	~~-~~	~~–~~	~~697,500~~
~~-~~	~~**Total**~~	~~**115,000**~~	~~**660,000**~~	~~-~~	~~-~~	~~-~~	~~–~~	~~**775,000**~~
~~The project consists of a right turn lane on southbound Yorktowne Blvd. at the intersection with Dunlawton Ave. and extension of the existing right turn lane for northbound Yorktowne Blvd. at the intersection with Dunlawton Ave. to improve traffic flow, reduce delays for turning and through movements and improve intersection safety. Additional right of way is not anticipated to be needed for this project. The project will add roadway capacity and reduce delays at the intersection. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)~~								
~~**202073**~~	~~**Spruce Creek Elem. School EB Taylor Rd. Right Turn Lane and Pedestrian Improvement**~~	~~-~~	~~**35,000**~~	~~**75,000**~~	~~**440,000**~~	~~-~~	~~–~~	~~**550,000**~~
~~Capital Projects 301~~		~~-~~	~~3,500~~	~~7,500~~	~~44,000~~	~~-~~	~~–~~	~~55,000~~
~~TPO Funds~~		~~-~~	~~31,500~~	~~67,500~~	~~396,000~~	~~-~~	~~–~~	~~495,000~~
~~-~~	~~**Total**~~	~~-~~	~~**35,000**~~	~~**75,000**~~	~~**440,000**~~	~~-~~	~~–~~	~~**550,000**~~

Project #	Description	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
The project consists of a right turn lane on eastbound Taylor Rd. at the intersection with Spruce Creel Elementary School to improve safety, improve traffic flow, reduce delays for turning vehicles and through vehicles during school drop off and pick up. Additionally, pedestrian improvements and modifications to the left turn lane could also be accomplished with this project. The project will improve safety at the school, improve roadway capacity and reduce delays for eastbound and westbound vehicles. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)								
	TOTAL - TRANSPORTATION	1,563,868	7,070,821	7,330,914	5,225,000	800,000	800,000	22,790,603
DRAINAGE								
201439	Halifax River Outfall Replacement	130,000	285,430	285,430	285,430	285,430	285,430	1,557,150
Drainage Fund 412		130,000	285,430	285,430	285,430	285,430	285,430	1,557,150
-	Total	130,000	285,430	285,430	285,430	285,430	285,430	1,557,150
There are 23 stormwater discharge outfalls directly to the Halifax River throughout the City. Many of these outfalls are constructed of metal pipes that have corroded throughout the years due to the harsh salt water environment. These pipes need to be replaced with Reinforced Concrete Pipe; in addition, headwalls will need to be constructed or reconstructed to accommodate the reinforced concrete pipe and possibly upsized in the diameter of the pipe. Also, the storm water pipe networks associated with the outfalls are tidally influenced which allows river water to enter the networks and equalize to the tidal water level. This project presents an opportunity to install engineered tidal gates at all locations where flooding issues are caused by tidal surcharge and lack of stormwater capacity. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)								
201441	Southwinds Stormwater Pond Outfall Retrofit	-	680,400	680,400	-	-	-	1,360,800
Drainage Fund 412		-	680,400	680,400	-	-	-	1,360,800
-	Total	-	680,400	680,400	-	-	-	1,360,800
This project involves modification to the existing stormwater ponds of the Southwinds neighborhood stormwater system. Currently, the subdivision does not have a positive stormwater outfall discharge. An engineered plan will be required to design and permit an outfall. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)								
201645	White Place & Riverside Drive Drainage Improvement	115,000	-	-	-	-	-	115,000
Drainage Fund 412		115,000	-	-	-	-	-	115,000
-	Total	115,000	-	-	-	-	-	115,000
Analyze, design, and construct improvements to White Place and Riverside Drive drainage system to improve storm water storage and conveyance to reduce potential for flooding. Improvements will include the boring and installation of properly sized pipe. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)								
201647	Pipe Repair and Replacement	350,000	350,000	350,000	350,000	350,000	350,000	2,100,000
Drainage Fund 412		350,000	350,000	350,000	350,000	350,000	350,000	2,100,000
-	Total	350,000	350,000	350,000	350,000	350,000	350,000	2,100,000
R & R funding to Replace/repair deteriorated and/or undersized corrugated metal pipes with properly sized reinforced concrete pipe or liners to improve storm water conveyance to reduce potential for flooding. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)								
201868	Storm Water Master Plan Phase I Projects	-	1,500,000	1,500,000	1,500,000	-	-	4,500,000
American Rescue Plan Act		-	1,500,000	1,500,000	1,500,000	-	-	4,500,000
	Total	-	1,500,000	1,500,000	1,500,000	-	-	4,500,000
The City's Stormwayer Master Plan Update has identified corrective measures to alleviate exixting deficiencies in the system and proactively plan for new improvements needed to accommodate future development. The Stormwater Master Plan has prioritized spending for future capital drainage projects and ensure existing stormwater drainage systems are adequately and procatively maintaoned. Phase I of the plan assessed the Eastern Basin and the vicinity of District I and IV. Projects will be designed and scheduled based on the priorities determined by the Phase 1 assessment. (Consistent w/Comp. Plan: Draiange Objective 1, Policy 1.1 – 1.4)								
201866	Storm Water Master Plan Phase II	250,000	-	-	-	-	–	100,000
American Rescue Plan Act		250,000	-	-	-	-	–	100,000
-	Total	250,000	-	-	-	-	–	100,000

~~Project #~~	~~Description~~	~~FY 21-22~~	~~FY 22-23~~	~~FY 23-24~~	~~FY 24-25~~	~~FY 25-26~~	~~FY 26-27~~	~~Total~~
~~The Stormwater Master Plan Update has identified corrective measures to alleviate existing deficiencies in the system and proactively plan for new improvements needed to accommodate future development. The Stormwater Master Plan has prioritize spending for future capital drainage projects and ensure existing stormwater drainage systems are adequately and proactively maintained. Phase 2 of the plan is anticipated to begin in Fiscal Year 2022. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)~~								
~~**202069**~~	~~**Delmar and Palmas Drive**~~	~~**125,000**~~	~~-~~	~~-~~	~~-~~	~~-~~	~~–~~	~~**125,000**~~
~~Drainage Fund 412~~		~~125,000~~	~~-~~	~~-~~	~~-~~	~~-~~	~~–~~	~~125,000~~
~~-~~	~~**Total**~~	~~**125,000**~~	~~-~~	~~-~~	~~-~~	~~-~~	~~–~~	~~**125,000**~~
~~At the intersection of Del Mar Drive and Palmas Drive, roadway and property continually flood due to the absence of a drainage system to convey stormwater runoff. In addition, the existing grade at the intersection is much lower than the surrounding areas allowing the stormwater runoff to accumulate. The accumulation causes flooding on the roadway and adjacent residential properties. The project consists of correcting the drainage deficiencies at Delmar where it intersects with Palmas Drive. The cost of drainage easement acquisition (if required) are not included. The design is to create a path for the stormwater runoff to drain to the exiting stormwater drainage system and prevent continued flooding of this intersection. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)~~								
~~**TOTAL - DRAINAGE**~~		~~**720,000**~~	~~**1,565,830**~~	~~**1,315,830**~~	~~**635,430**~~	~~**635,430**~~	~~**635,430**~~	~~**5,507,950**~~
~~**PARKS AND RECREATION**~~								
~~**201686**~~	~~**Recreational Educational Cultural Center (REC)**~~	~~**281,000**~~	~~-~~	~~-~~	~~-~~	~~-~~	~~–~~	~~**281,000**~~
~~Recreation Impact Fee 611~~		~~281,000~~	~~-~~	~~-~~	~~-~~	~~-~~	~~–~~	~~281,000~~
~~-~~	~~**Total**~~	~~**281,000**~~	~~-~~	~~-~~	~~-~~	~~-~~	~~–~~	~~**281,000**~~
~~This project will provide for a re-purposing and expansion of a former gymnasium to a Recreational, Educational and Cultural Center that will include areas for classes, after school programs, community meetings, dance/exercise room and a youth activity room. New restrooms will be constructed, and the Center will provide for ADA access. This project will provide expanded recreational opportunities for the City.~~								
~~**201378**~~	~~**West Side Sports Complex (Coraci North)**~~	~~-~~	~~**3,500,000**~~	~~**120,000**~~	~~**1,150,000**~~	~~**575,000**~~	~~**575,000**~~	~~**6,495,000**~~
~~Grant Funding~~		~~-~~	~~3,500,000~~	~~120,000~~	~~1,150,000~~	~~575,000~~	~~575,000~~	~~6,495,000~~
~~-~~	~~**Total**~~	~~-~~	~~**3,500,000**~~	~~**120,000**~~	~~**1,150,000**~~	~~**575,000**~~	~~**575,000**~~	~~**6,495,000**~~
~~This project involves the design and construction of a sports complex to include 3 baseball fields, 4 - 6 soccer / football fields, lighting and support buildings. The project would encompass 100 acres with the construction of roadways, ponds, parking lots, playgrounds and picnic areas as well as trails and open space. The project would be eligible for FRDAP and ECHO grants and provide availability for partnerships with other public groups and private donors. This project will provide expanded recreational opportunities for the City.~~								
~~**201795**~~	~~**West Side Community Center**~~	~~-~~	~~**55,000**~~	~~**4,000,000**~~	~~-~~	~~-~~	~~-~~	~~**4,055,000**~~
~~Grant Funding - Unsecured~~		~~-~~	~~55,000~~	~~4,000,000~~	~~-~~	~~-~~	~~–~~	~~4,055,000~~
~~-~~	~~**Total**~~	~~-~~	~~**55,000**~~	~~**4,000,000**~~	~~-~~	~~-~~	~~-~~	~~**4,055,000**~~
~~This project will provide for the construction of a 15,000 SF community center to include two gyms, community rooms, after school areas and offices. The center would be equipped with technology, office furniture and miscellaneous equipment. Proposed funding is from grants, bonds or possibly a community foundation. This project will provide expanded recreational opportunities for the City.~~								
~~**TOTAL - PARKS AND RECREATION**~~		~~**281,000**~~	~~**3,555,000**~~	~~**4,120,000**~~	~~**1,150,000**~~	~~**575,000**~~	~~**1,150,000**~~	~~**10,831,000**~~
~~**TOTAL - CAPITAL IMPROVEMENTS**~~		~~**9,314,868**~~	~~**20,616,651**~~	~~**19,416,744**~~	~~**12,210,430**~~	~~**7,360,430**~~	~~**4,235,430**~~	~~**73,154,553**~~

Project #	**Description**	**FY 22-23**	**FY 23-24**	**FY 24-25**	**FY 25-26**	**FY 26-27**	**Total**
WATER							
URP001	**Water System Replacement/ Upsizing**	**400,000**	**300,000**	**300,000**	**300,000**	**300,000**	**1,600,000**
Water/Sewer Operating (401)		-	100,000	100,000	100,000	100,000	400,000
Water/Sewer R&R (403)		400,000	200,000	200,000	200,000	200,000	1,200,000
	Total	**400,000**	**300,000**	**300,000**	**300,000**	**300,000**	**1,600,000**

Planned replacement of undersized galvanized steel piping in older sections of the city and peninsula area. Target areas to be accomplished based on current priorities. (Consistent w/ Comp Plan: Pot. Water, Policy 1.1, 2.6 and 2.7)							
UET001	**Water System Extensions/Upsizing**	**-**	**-**	**50,000**	**50,000**	**50,000**	**150,000**
Water Impact Fee (405)		-	-	50,000	50,000	50,000	150,000
	Total	**-**	**-**	**50,000**	**50,000**	**50,000**	**150,000**
Provide water service to existing residential areas not presently served by the City and provide for greater system redundancy and looping. Additional water main installations that serve to reinforce the distribution system to eliminate or avoid areas of substandard water pressure. (Consistent w/ Comp Plan: Pot. Water, Policy 2.2, 2.4 and 2.5)							
WWP003	**Water Treatment Plant R&R - Equipment**	**200,000**	**200,000**	**200,000**	**200,000**	**250,000**	**1,050,000**
Water/Sewer Operating (401)		200,000	200,000	200,000	200,000	250,000	1,050,000
	Total	**200,000**	**200,000**	**200,000**	**200,000**	**250,000**	**1,050,000**
Planned improvements for City's water treatment plant and various wells per Table 2A Water Treatment Plant Improvements. (Consistent w/ Comp Plan: Pot. Water, Policy 1.7 and San. Swr., Policy 1.6)							
WWP007	**Water Treatment Plant-1 Million Gal Water Storage Tank**	**-**	**1,500,000**	**-**	**1,500,000**	**-**	**3,000,000**
Sewer Impact Fee (405)		-	1,500,000	-	1,500,000	-	3,000,000
	Total	**-**	**1,500,000**	**-**	**1,500,000**	**-**	**3,000,000**
The water plant produces and distributes an average of 6 million gallons per day of drinking water. The plant has one water storage tank that holds 1 million gallons. The tank was constructed in 1983. There are three storage tanks located throughout the City to store a total of 4.5 million gallons of water. In order to ensure water can be produced and distributed continuously from the treatment plant, an additional storage tank needs to be constructed. It is recommended that a one-million-gallon tank be constructed on the property adjacent to the water plant. The City owns the property. The existing pumping equipment would be sufficient to distribute the water from the new tank. Since this is an expansion of service to our customers, water impact fee funds could be used (Consistent w/ Comp Plan: Pt. Water, Obj. 2, Policy 2.1, Policy 2.6)							
WWW005	**Production Well Replacement**	**-**	**250,000**	**250,000**	**250,000**	**250,000**	**1,000,000**
Water/Sewer R&R (403)		-	250,000	250,000	250,000	250,000	1,000,000
	Total	**-**	**250,000**	**250,000**	**250,000**	**250,000**	**1,000,000**
This project is to replace four wells that are impacting water quality due to increase salinity levels. The wells, constructed in 1973, cannot be rehabilitated. This project is to replace the four wells, one per year.							
WRP002	**Ridgewood Avenue Water Main Replacement**	**150,000**	**100,000**	**900,000**	**100,000**	**900,000**	**2,150,000**
Water and Sewer Impact Fees (405)		150,000	100,000	900,000	100,000	900,000	2,150,000
	Total	**150,000**	**100,000**	**900,000**	**100,000**	**900,000**	**2,150,000**
Replacement of substandard water mains and associated fittings, valves, and hydrants on Ridgewood Avenue between Farmbrook Road and Niver Street. These improvements will include an upsizing of the water main project. The current water main is 2". this project would include upsizing to a 6" pipeline and adding fire hydrants where needed. This is to encourage commercial development on the Ridgewood corridor by providing sufficient water to service potential customers and provide sufficient fire flow. Farmbrook to Niver being replaced in FY21, Dunlawton to Commonwealth being replaced with North Commonwealth project, see URP001.							
	TOTAL - WATER	**750,000**	**2,350,000**	**1,700,000**	**2,400,000**	**1,750,000**	**8,950,000**
SANITARY SEWER							
URH001	**Sewer System Rehabilitation**	**1,500,000**	**750,000**	**750,000**	**750,000**	**750,000**	**4,500,000**
Water/Sewer Operating (401)		1,500,000	750,000	750,000	750,000	750,000	4,500,000
	Total	**1,500,000**	**750,000**	**750,000**	**750,000**	**750,000**	**4,500,000**
There are currently 110 lift stations in the collection system. This is an on-going repair and rehabilitation project for the sewer collection system at each lift station. The scope of work will depend upon the condition, age, and capacity of the pipeline. (Consistent w/ Comp Plan: San. Swr., Policy 1.5 and 4.3)							
SSP002	**Water Reclamation Facility R&R**	**600,000**	**500,000**	**500,000**	**550,000**	**550,000**	**2,700,000**
Water/Sewer R&R (403)		600,000	500,000	500,000	550,000	550,000	2,700,000
	Total	**600,000**	**500,000**	**500,000**	**550,000**	**550,000**	**2,700,000**
Scheduled facility repair and equipment replacement of electrical and mechanical system components for the City's wastewater treatment plant per Table 2D Wastewater Treatment Plant Improvements. (Consistent w/ Comp Plan: Pot. Water, Policy 1.1 and 2.6 along with San. Swr, Policy 1.6)							
SSP017	**Water Reuse Program**	**-**	**-**	**-**	**5,000,000**	**-**	**5,000,000**
Future Grant/Bonds		-	-	-	5,000,000	-	5,000,000
	Total	**-**	**-**	**-**	**5,000,000**	**-**	**5,000,000**

A three-million-gallon ground storage tank with pump station to provide additional reuse supply for irrigation and minimize discharge to the Halifax River. Location to be identified in utility master plan. Staff will apply for grant funding. Current grant funding from SFRWMD is 33% for shovel ready projects. (Consistent w/ Comp Plan: San. Swr. Obj. 3)							
UET023	**Sewer System Expansion**	**-**	**-**	**-**	**2,000,000**	**-**	**2,000,000**
Sewer Impact Fee (405)		-	-	-	1,000,000	-	1,000,000
Future Grant/Bonds		-	-	-	1,000,000	-	1,000,000
	Total	**-**	**-**	**-**	**2,000,000**	**-**	**2,000,000**
Sewer system construction at locations that are currently on septic. The locations and the priorities have been determined and design has been initiated. (Consistent w/ Comp Plan: San. Swr., Policy 2.2 and 2.3)							
SLS203	**Williams Regional Lift Station Rehab**	**150,000**	**1,500,000**	**-**	**-**	**-**	**1,650,000**
Water/Sewer Operating (401)		150,000	1,500,000	-	-	-	1,650,000
	Total	**150,000**	**1,500,000**	**-**	**-**	**-**	**1,650,000**
This wastewater transmission system improvement project involves the design, permitting, and construction of mechanical, electrical, Odor control, building, and site upgrades to the Williamson Regional Lift Station (Station No. 95). This project is necessary to insure uninterrupted collection and transmission of wastewater. Williamson is a regional lift station that provides service to residences in the southwest portion of the City. The proposed improvements include installation of an advance odor control system, installation of static mixers in the wet well, replacement of electrical equipment damaged by the excessive hydrogen sulfide gasses, and rehabilitation of the existing electrical building. (Consistent w/ Comp. Plan: San. Swr. Obj. 1 and Obj. 4)							
SLS204	**Sugar Forest Lift Station Rehab**	**250,000**	**700,000**	**-**	**-**	**-**	**950,000**
Water/Sewer Operating (401)		250,000	700,000	-	-	-	950,000
	Total	**250,000**	**700,000**	**-**	**-**	**-**	**950,000**
This wastewater transmission system improvement project involves the design, permitting, and construction of mechanical, electrical, and site upgrades to the Sugar Forest Lift Station (Station No. 40). This project is necessary to insure uninterrupted collection and transmission of wastewater. Due do the shallow existing wet well, the gravity sewer lines in the area of the lift station are often surcharged, additionally the lift station is constructed in the center median at the entrance of the Sugar Forest neighborhood. This location makes it difficult to properly maintain the lift station. The proposed improvements include installing a new, deeper wet well, converting from suction lift pumping to submersible pumping, installation of a new electrical control panel, and site improvements. (Consistent w/ Comp. Plan: San. Swr. Obj. 1 and Obj. 4)							
SLS202	**Lowes/Gateway Lift Station Rehab**	**550,000**	**-**	**-**	**-**	**-**	**550,000**
Water/Sewer Operating (401)		550,000	-	-	-	-	550,000
	Total	**550,000**	**-**	**-**	**-**	**-**	**550,000**
This wastewater transmission system improvement project involves the design, permitting, and construction of mechanical, electrical, and site upgrades to the Lowes/Gateway Lift Station (Station No. 82). This project is necessary to insure uninterrupted collection and transmission of wastewater. The proposed improvements include converting from suction lift pumping to submersible pumping, installation of a new control panel, and site improvements. This lift station was constructed in 1999 and has not been upgraded since initially constructed. (Consistent w/ Comp. Plan: San. Swr. Obj. 1 and Obj. 4)							
	TOTAL - SANITARY SEWER	**3,050,000**	**3,450,000**	**1,250,000**	**8,300,000**	**1,300,000**	**17,350,000**
WATER & SANITARY SEWER							
UCP001	**City Cost Participation**	**-**	**-**	**-**	**50,000**	**50,000**	**100,000**
Water Impact Fee (405)		-	-	-	25,000	25,000	50,000
Sewer Impact Fee (405)		-	-	-	25,000	25,000	50,000
	Total	**-**	**-**	**-**	**50,000**	**50,000**	**100,000**
Citywide annual cost participation program with new development to upsize various water and sewer lines, extension of various mains, upsizing of lift stations, and other miscellaneous items. (Consistent w/ Comp Plan: San. Swr., Policy 4.2 and Pot. Water, Policy 2.5 & 2.7)							
	TOTAL - WATER & SANITARY SEWER	**-**	**-**	**-**	**50,000**	**50,000**	**100,000**
TRANSPORTATION							
POL204	**Road Program**	**800,000**	**800,000**	**800,000**	**800,000**	**800,000**	**4,000,000**
Capital Projects (301)		800,000	800,000	800,000	800,000	800,000	4,000,000
	Total	**800,000**	**800,000**	**800,000**	**800,000**	**800,000**	**4,000,000**
Multi Year Reconstruction Program. Ongoing routine maintenance program to repair/replace paving on existing streets throughout the city. This project also includes unexpected repairs that cannot be performed by in-house staff. (Consistent w/ Comp Plan: Transp. Objective 2.14 and 2.7)							
200905	**Williamson Blvd. N. of Pavilion**	**-**	**-**	**-**	**220,000**	**260,935**	**480,935**

Developer Constructed		-	-	-	220,000	260,935	480,935
	Total	**-**	**-**	**-**	**220,000**	**260,935**	**480,935**
This project involves adding 2 lanes to the existing 2 lane Williamson Blvd. roadway from the north boundary of the Pavilion project north to Townwest Blvd., a 0.53-mile section. Project cost estimates are based on construction of an additional 2 travel lanes within the existing right-of-way with minimal impact to the existing roadway. The new construction will require stormwater treatment and it will be necessary to acquire an estimated 1 acre of off-site property for this purpose. (Consistent w/ Comp Plan: Transp. Objective 2.6, 2.7, 2.13, and 2.14)							
200907	**Coraci Blvd. Extension**	**-**	**-**	**-**	**-**	**257,000**	**257,000**
Developer Constructed		-	-	-	-	257,000	257,000
	Total	**-**	**-**	**-**	**-**	**257,000**	**257,000**
This project involves construction of a 1/2 mile 2-lane divided roadway extending Coraci Blvd. 2600' from the south limits of Coquina Cove III to Carmody Lake Drive within the existing undeveloped right-of way. Drainage improvements are projected to be constructed in the right-of-way. This will serve as an alternate route and reliever route for traffic generated by the Forest Lakes subdivision and to a lesser extent to Coquina Cove and reduce impacts on Taylor Road. This roadway is indicated as a future collector road in the Comprehensive Plan. (Consistent w/ Comp Plan: Transp. Objective 2.7, 2.10, and 2.14)							
PNC015	**Yorktowne Blvd North Section (Nautica Lakes)**	**-**	**-**	**-**	**2,131,414**	**-**	**2,131,414**
Developer Fairshare Contr. (Planned)		-	-	-	2,131,414	-	2,131,414
	Total	**-**	**-**	**-**	**2,131,414**	**-**	**2,131,414**
This project is proposed as either a 2-lane or 4-lane divided curb and gutter road designed to major collector street standards. The Yorktowne Boulevard extension consist of two segments, the north and central segment. The central segment has been permitted and the funds for construction is already dedicated. This design of the north segment is required to complete the Yorktowne Blvd. connection between Hidden Lakes Dr. and Willow Run Blvd. Construction of the north section along with the central section~~s~~ would redirect traffic and relieve congestion at the I-95/Dunlawton Ave. intersection and Williamson Boulevard, south of Willow Run Boulevard. (Consistent w/ Comp Plan: Transp. Objective 2.7, 2.9, 2.13 and 2.14)							
201015	**Willow Run Boulevard Widening**	**-**	**200,000**	**1,125,000**	**-**	**-**	**1,325,000**
Capital Projects (301)		-	200,000	-	-	-	200,000
TPO Funds		-	-	1,125,000	-	-	1,125,000
	Total	**-**	**200,000**	**1,125,000**	**-**	**-**	**1,325,000**
A 1/4 mile segment of Willow Run east of Williamson Boulevard to the proposed intersection of the Yorktowne Boulevard extension will need to be improved to accommodate future traffic flows diverted from Williamson Boulevard and future traffic on the new Yorktowne north extension. A traffic circle or other improvements at the Willow Run/Yorktowne intersection will be considered as part of the design. (Consistent w/ Comp Plan: 2.7, 2.9, 2.13, and 2.14)							
PNC200	**Dunlawton and Yorktowne Turn Lane Bundle**	**-**	**886,158**	**1,359,960**	**-**	**-**	**2,246,118**
Capital Projects (301)		-	88,616	135,996	-	-	224,612
TPO Funds		-	797,542	1,223,964	-	-	2,021,506
	Total	**-**	**886,158**	**1,359,960**	**-**	**-**	**2,246,118**
This project is a bundle of three previous separate projects (PNC020, IMI011, PNC018, PNC019) . This project consists of five turn lanes: 1) Westbound Dunlawton Ave. right turn lane at Nova Road; extension of existing left turn lanes westbound Dunlawton Ave. at Clyde Morris Boulevard and eastbound Dunlawton Ave. at Nova Road and a right-turn lane on southbound Yorktowne Boulevard at the intersection with Dunlawton Avenue and modification to the left-turn lane on northbound Yorktowne Boulevard at the intersection with Dunlawton Avenue. (Consistent w/ Comp Plan: Transp. Objective , 2.7, Policy 2.7.3)							
PNC024	**Clyde Morris Turn Lane Bundle**	**217,446**	**441,000**	**5,125,054**	**-**	**-**	**5,783,500**
Capital Projects (301)		20,275	36,000	117,225	-	-	173,500
TPO Funds		197,171	405,000	5,007,829	-	-	5,610,000
	Total	**217,446**	**441,000**	**5,125,054**	**-**	**-**	**5,783,500**

THIS PROJECT IS PART OF A BUNDLE OF CLYDE MORRIS TURNLANES. (PNC021, PNC022, PNC023) This project consists of a right turn lane on southbound Clyde Morris Boulevard at the intersection with Madeline Avenue to improve traffic flow, reduce delays for turning vehicles and through vehicles, and improve intersection safety. The project will add roadway capacity at the intersection and reduce delays for northbound vehicles turning right or through northbound traffic. Additional right-of-way is anticipated to be needed for this project. The City submitted the project for TPO funding in Spring 2019 and a feasibility study was completed in February 2020. Under current policy, the TPO will fund up to 90% of the project design, construction and CEI cost and the City will fund 10% of the project. The project is now on the TPO's Project Priority List and is eligible for funding if the City commits to support the design and construction phases based on the feasibility study. The City's local match will be funded with restricted Gas Tax funds (Fund 301). The cost estimate was updated in March 2022 based on inflation and current cost data. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)

New-002	**Widening of Madeline Avenue Between Clyde Morris Blvd & Nova Road**	**-**	**1,125,000**	**-**	**-**	**-**	**1,125,000**
Transportation Impact Fee (312)		-	112,500	-	-	-	112,500
TPO Funds		-	1,012,500	-	-	-	1,012,500
	Total	**-**	**1,125,000**	**-**	**-**	**-**	**1,125,000**

The project consists of widening the current vehicle travel lanes on Madeline Avenue between Clyde Morris Boulevard and Nova Road. The proposed improvements are anticipated to be constructed within the existing right-of-way of Madelline Avenue; additional right-of-way is not anticipated to be required for this project. Removal of existing trees within the right-of-way may be required to accommodate the widening to improve driver safety, maintain sidewalks, LOS capacity, safety conditions, and long-term maintenance. The City submitted the project for TPO funding in Spring 2020. Under the current policy, the TPO will fund up to 90% of the project design and construction cost and the City will fund 10% of the project. Once ranked by the TPO, a feasibility study will be conducted; upon completion, the project will be eligible for inclusion in the TPO program if the City commits to support the design and construction phases. The estimated design and construction cost of the project will be adjusted after the feasibility study is completed. (Consistent w/ Comp Plan: Transp. Obj. 2.7, 2.9, 2.13, and 2.14)

001	**Madeline Avenue Eastbound & Westbound Turn Lane Improvement at Nova Road**	**-**	**155,800**	**640,800**	**-**	**-**	**796,600**
Capital Projects (301)		-	15,580	64,080	-	-	79,660
TPO Funds		-	140,220	576,720	-	-	716,940
	Total	**-**	**155,800**	**640,800**	**-**	**-**	**796,600**

The project consists of widening the current vehicle travel lanes on Madeline Avenue between Clyde Morris Boulevard and Nova Road. The proposed improvements are anticipated to be constructed within the existing right-of-way of Madelline Avenue; additional right-of-way is not anticipated to be required for this project. Removal of existing trees within the right-of-way may be required to accommodate the widening to improve driver safety, maintain sidewalks, LOS capacity, safety conditions, and long-term maintenance. The City submitted the project for TPO funding in Spring 2020. Under the current policy, the TPO will fund up to 90% of the project design and construction cost and the City will fund 10% of the project. Once ranked by the TPO, a feasibility study will be conducted; upon completion, the project will be eligible for inclusion in the TPO program if the City commits to support the design and construction phases. The estimated design and construction cost of the project will be adjusted after the feasibility study is completed. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)

201859	**Taylor Rd./Williamson Blvd. Intersection Improvement**	**-**	**-**	**2,000,000**	**4,521,736**	**-**	**6,521,736**
Transportation Impact Fee (312)		-	-	1,775,000	452,174	-	2,227,174
TPO Funds		-	-	225,000	4,069,562	-	4,294,562
	Total	**-**	**-**	**2,000,000**	**4,521,736**	**-**	**6,521,736**

A Feasibility Study was completed in April 2020. The Feasibility Study identified alternatives that provide effective Improvements to minimize delays to traffic, eliminate or reduce crashes, and improve sidewalks and crosswalks for pedestrians at the Taylor Road and Williamson Boulevard intersection, and along the Taylor Road/Dunlawton Avenue corridor al 1-95. Under current policy, the TPO will fund up to 90% of the project and the City will fund 10% of the project. the TPO does not provide matching funds for land acquisition. Now that the study is completed. the projects identified by the feasibility study will be eligible for inclusion in the TPO's Project Priority List for design and construction funding. The current estimated cost for the improvement recommended in the Feasibility Study is $4,137,135 and this cost does not include anticipated right-of-way needed for stormwater drainage at an anticipated 1.75 million dollars. The TPO does not provide matching funds for land or right-of-way acquisition. Staff plans to further discuss the recommendations in this Feasibility Study with FDOT to determine if these can be improvements completed by FOOT as they would add capacity, minimize delays to traffic, eliminate or reduce crashes, and improve sidewalks and crosswalks for pedestrians. The proposed improvements include Taylor Road at Williamson Boulevard: 1)Provide an additional southbound left tum lane (3rd tum lane) and 2)Modify the sidewalk and crosswalk on the north leg as shown to Improve pedestrian visibility. Taylor Road/Duniawton Avenue at 1-95 SB Ramps: 1) Provide an additional southbound left tum lane, and 2) Remove the southbound channelized right tum lane and bring it under a signal, 3) Add a lane under the bridge in the westbound direction that will drop as outside westbound left tum lane at Taylor Road and Williamson Boulevard, and 4) Provide an eastbound right tum lane and remove the channelized right tum lane. Dunlawton Avenue at 1-95 NB Ramps: 1) Extend the existing storage lane for the westbound left turn lo 1-95 SB on-ramp to help mitigate the lane imbalance issue along westbound Taylor Road, 2) Add an exclusive westbound right tum for 1-95 NB on-ramp with the current westbound outside lane being dropped as a right tum lane to 1-95 NB on-ramp. and 3) Provide sidewalk south of Taylor Road between east of Williamson Boulevard and east of 1-95 NB Ramps. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)							
OMI037	**Taylor Rd./Clyde Morris Blvd. Intersection Improvements**	**-**	**-**	**90,000**	**385,000**	**-**	**475,000**
Transportation Impact Fee (312)		-	-	9,000	38,500	-	47,500
TPO Funds		-	-	81,000	346,500	-	427,500
	Total	**-**	**-**	**90,000**	**385,000**	**-**	**475,000**
The project consists of looking at options to modify the intersection at Taylor Road/Clyde Morris Boulevard to improve movement through the intersection, specifically the eastbound Taylor Road though movement and left tum onto Clyde Morris Boulevard. The intersection experiences congestion throughout the day, most notably in the morning and late afternoon. Additional right-of-way is anticipated to be needed for any intersection improvements. The City submitted the project for TPO funding to prepare a Feasibility Study in Spring 2018. A Feasibility Study will first need to be conducted to develop an estimated cost for design and construction. Under current policy, the TPO will fund up to 90% of the project and the City will fund 10% of the project. Once the study is completed, the project will be eligible for inclusion In the TPO's Project Priority List for design and construction funding and the cost estimates will be updated. The City's local match will be funded with Transportation Impact Fee Fund 312. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3, Obj. 2.8)							
PNC025	**Spruce Creek Elem. School EB Taylor Rd. Right Turn Lane and Pedestrian Improvements**	**-**	**-**	**75,000**	**440,000**	**-**	**515,000**
Capital Projects (301)		-	-	7,500	44,000	-	51,500
TPO Funds		-	-	67,500	396,000	-	463,500
	Total	**-**	**-**	**75,000**	**440,000**	**-**	**515,000**
The project consists of a right turn lane on eastbound Taylor Rd. at the intersection with Spruce Creel Elementary School to improve safety, improve traffic flow, reduce delays for turning vehicles and through vehicles during school drop off and pick up. Additionally, pedestrian improvements and modifications to the left turn lane could also be accomplished with this project. The project will improve safety at the school, improve roadway capacity and reduce delays for eastbound and westbound vehicles. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)							
PNC016	**EB & WB Herbert St. Turn Lanes at Nova Rd**	**32,700**	**-**	**100,000**	**660,000**	**-**	**792,700**
Capital Projects (301)		3,000	-	10,000	66,000	-	79,000
TPO Funds		29,700	-	90,000	594,000	-	713,700
	Total	**32,700**	**-**	**100,000**	**660,000**	**-**	**792,700**

The project consists of looking at options to modify the intersection of Nova Road and Herbert Street to improve movement through the intersection. The intersection experiences congestion throughout the day, most notably in the morning and late afternoon. Additional right-of-way is anticipated to be needed for any intersection improvements. The City submitted the project for TPO funding in Spring 2017 but as of March 2022, this project has not been selected to receive funds for a feasibility study. The estimated design and construction cost of the project is $760,000 but will be adjusted after the feasibility study is completed. Based on this estimated cost, the City's share would be $78,000 including $2,000 for feasibility study, $10,000 for design, $60,000 for construction, and $6,000 for CEI. The City's local match will be funded with restricted Gas Tax funds (Fund 301). As part application request for a feasibility study, the City requests that multiple options be evaluated. With improvements to the intersection, specifically, turn lane improvements on Herbert Street and Nova Road along with corresponding signal timing improvements more green time could be allocated to Nova Road. (Consistent w/ Comp Plan: Transp. Objective 2.7, Policy 2.7.3)							
TOTAL - TRANSPORTATION		**1,050,146**	**3,607,958**	**11,315,814**	**9,158,150**	**1,317,935**	**26,450,003**
DRAINAGE							
DIP068	**Halifax River Outfall Replacement**	**285,430**	**285,430**	**285,430**	**285,430**	**285,430**	**1,427,150**
Stormwater Utility Capital Project Fund 413		285,430	285,430	285,430	285,430	285,430	1,427,150
	Total	**285,430**	**285,430**	**285,430**	**285,430**	**285,430**	**1,427,150**
There are 14 stormwater discharge outfalls directly to the Halifax River throughout the City. Many of these outfalls are constructed of metal pipes that have corroded throughout the years due to the harsh saltwater environment. These pipes need to be replaced with Reinforced Concrete Pipe; in addition, headwalls will need to be constructed or reconstructed to accommodate the reinforced concrete pipe and possibly upsized in the diameter of the pipe. Also, the storm water pipe networks associated with the outfalls are tidally influenced which allows river water to enter the networks and equalize to the tidal water level. This project presents an opportunity to install engineered tidal gates at all locations where flooding issues are caused by tidal surcharge and lack of stormwater capacity. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)							
DIP200	**Southwinds Stormwater Pond Outfall Retrofit**	**-**	**-**	**100,000**	**-**	**-**	**100,000**
Stormwater Utility Capital Project Fund 413		-	-	100,000	-	-	100,000
	Total	**-**	**-**	**100,000**	**-**	**-**	**100,000**
This project involves modification to the existing stormwater ponds of the Southwinds neighborhood stormwater system. Currently, the subdivision does not have a positive stormwater outfall discharge. An engineered plan will be required to design and permit an outfall. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)							
DIP075	**Pipe Repair and Replacement**	**350,000**	**350,000**	**350,000**	**350,000**	**350,000**	**1,750,000**
Stormwater Utility Capital Project Fund 413		350,000	350,000	350,000	350,000	350,000	1,750,000
	Total	**350,000**	**350,000**	**350,000**	**350,000**	**350,000**	**1,750,000**
R & R funding to Replace/repair deteriorated and/or undersized corrugated metal pipes with properly sized reinforced concrete pipe or liners to improve storm water conveyance to reduce potential for flooding. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)							
DIP073	**Storm Water Master Plan Phase II**	**250,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**6,250,000**
Stormwater Utility Capital Project Fund 413		250,000	1,500,000	1,500,000	1,500,000	1,500,000	6,250,000
	Total	**250,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**6,250,000**
The Stormwater Master plan update will identify corrective measures to alleviate existing deficiencies in the system and proactively plan for new improvements needed to accommodate future development. The Stormwater Master Plan will help prioritize spending for future capital drainage projects and ensure existing stormwater drainage systems are adequately and proactively maintained. The current estimated cost to update the Stormwater Master Plan is $605,000.00. Phase 1 of the plan began in Fiscal Year 2016 at a cost of $247,340.00. This phase only included the Eastern Basin and the vicinity of District I and IV. Phase 2 of the plan is anticipated to begin in Fiscal Year 2021 at a cost of $200,00.00. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)							
DIP203	**Delmar and Palmas Drive**	**150,000**	**-**	**-**	**-**	**-**	**150,000**
Stormwater Utility Capital Project Fund 413		150,000	-	-	-	-	150,000
	Total	**150,000**	**-**	**-**	**-**	**-**	**150,000**

At the intersection of Delmar and Palmas Drive, roadway and property continually flood due to the absence of a drainage system to convey stormwater runoff. In addition, the existing grade at the intersection is much lower than the surrounding areas allowing the stormwater runoff to accumulate. The accumulation causes flooding on the roadway and adjacent residential properties. The project consists of correcting the drainage deficiencies at Delmar where it intersects with Palmas Drive. The cost of drainage easement acquisition (if required) is not included. The design is to create a path for the stormwater runoff to drain to the exiting stormwater drainage system and prevent continued flooding of this intersection. (Consistent w/ Comp Plan: Drainage, Policy 1.2 through 1.4)							
	TOTAL - DRAINAGE	**1,035,430**	**2,135,430**	**2,235,430**	**2,135,430**	**2,135,430**	**9,677,150**
PARKS AND RECREATION							
QPC082	**Recreational Educational Cultural Center (REC) Center Expansion**	**281,000**	**-**	**-**	**-**	**-**	**281,000**
General Capital Replacement (317)		281,000	-	-	-	-	281,000
	Total	**281,000**	**-**	**-**	**-**	**-**	**281,000**
This project will provide for a re-purposing and expansion of a former gymnasium to a Recreational, Educational and Cultural Center that will include areas for classes, after school programs, community meetings, dance/exercise room and a youth activity room. New restrooms will be constructed, and the Center will provide for ADA access. This project will provide expanded recreational opportunities for the City. (Consistent w/ Comp Plan: ROSE, Obj. 1, Policy 1.2, Obj. 2, Policy 2.2)							
QPC200	**Coraci North**	**-**	**1,210,000**	**575,000**	**575,000**	**575,000**	**2,935,000**
Grant Funding		-	1,210,000	575,000	575,000	575,000	2,935,000
	Total	**-**	**1,210,000**	**575,000**	**575,000**	**575,000**	**2,935,000**
This project involves the design and construction of a sports complex to include 3 baseball fields, 4 - 6 soccer / football fields, lighting, and support buildings. The project would encompass 100 acres with the construction of roadways, ponds, parking lots, playgrounds, and picnic areas as well as trails and open space. The project would be eligible for FRDAP and ECHO grants and provide availability for partnerships with other public groups and private donors. This project will provide expanded recreational opportunities for the City. (Consistent w/ Comp Plan: ROSE, Obj. 1, Policy 1.1, Obj. 2, Policy 2.1)							
201795	**West Side Community Center**	**-**	**630,000**	**-**	**5,250,000**	**-**	**5,880,000**
Grant Funding - Unsecured		-	630,000	-	5,250,000	-	5,880,000
	Total	**-**	**630,000**	**-**	**5,250,000**	**-**	**5,880,000**
This project will provide for the construction of a 15,000 SF community center to include two gyms, community rooms, after school areas and offices. The center would be equipped with technology, office furniture and miscellaneous equipment. Proposed funding is from grants, bonds or possibly a community foundation. This project will provide expanded recreational opportunities for the City. (Consistent w/ Comp Plan: ROSE, Obj. 1, Policy 1.1, Obj. 2, Policy 2.2)							
	TOTAL - PARKS AND RECREATION	**281,000**	**1,840,000**	**575,000**	**5,825,000**	**575,000**	**9,096,000**
	TOTAL - CAPITAL IMPROVEMENTS	**6,166,576**	**13,383,388**	**17,076,244**	**27,868,580**	**7,128,365**	**71,623,153**

Source: City of Port Orange, Department of Finance, Department of Community Development, ~~2021~~2022

TABLE 2
TRANSPORTATION PROPORTIONATE FAIR-SHARE AGREEMENTS BY PROJECT

Developer	Development	Agreement Approval	Date of Contribution	Total
Project 1: Dunlawton / Taylor at I-95				
Intervest Construction, Inc	Waters Edge Phase 9A and 11	08/17/04	01/26/06	50,000
Centerline Homes (Prev. Olson Assoc 4/25/06)	Port Orange Landings Phase I	03/29/05	03/29/05	32,878
Tomoka Farms Dev, LLC (DR Horton)	Coquina Cove Phase I	04/19/05	04/19/05	104,242
Airport Pharmacy LLC (Charles Wayne)	Walgreens at Taylor Road	08/16/05	02/23/07	13,763
Villages of Royal Palm (Winston-James)	Royal Palm PUD, Phase III	11/15/05	11/15/05	54,797
D.R. Horton	Port Orange Plantation Phase II	11/15/05	11/15/05	32,878
Holiday Builders	Port Orange Landings, Phase II	03/21/06	09/27/07	41,034
Viscomi and Associates (Paytas Homes)	Pinnacle PUD, Phase II	06/27/06	09/22/06	106,791
D.R. Horton	Port Orange Plantation Phases III, IV, V	07/25/06	12/06/06	49,445
D.R. Horton	Villas of P.O. Plantation Phases I, II	09/26/06	12/06/06	62,953
Intervest Construction, Inc	Waters Edge Phase 9B	06/05/07	07/05/07	27,526
Quest Design Group	Crystal Lake Business Park	08/07/07	09/19/07	16,567
Floridian Bank	Floridian Bank	08/28/07	08/28/07	10,959
All Aboard Storage	Nova Depot	09/18/07	09/18/07	10,959
Shoppes at Southwinds LLC	Shoppes at Southwinds	10/08/07	10/08/07	8,156
Port Orange Properties, LC	Port Orange Properties	11/13/07	11/16/07	38,486
Halifax Veterinary Clinic	Halifax Veterinary Clinic	12/18/07	01/04/08	2,804
Continental 217 Fund, LLC	Westport Square - Kohls	01/15/08	01/15/08	175,351
Atlantic Coast, LLC	Atlantic Coast Office Building	04/16/08	04/16/08	2,804
Cruz Investment Group	Nova Bella Piazza	04/22/08	04/23/08	10,959
City of Port Orange	Port Orange Business Park	05/06/08	08/05/09	235,756
Port Orange Apartment Assoc.	Reserve at Crystal Lake	05/27/08	02/24/09	2,804
K E M Associates, LLC	Countryside Commercial	08/19/08	09/17/08	2,804
Sun Glow Construction Inc.	Summer Trees Plaza - Site "B"	01/27/09	05/02/09	2,804
Sun Glow Construction Inc.	National City Bank	01/27/09	01/27/09	8,156
Four Lanes, LLC	CVS Pharmacy #4112 (Altamira CVS)	04/15/10	04/15/10	8,156
US Foodservice, Inc.	US Foodservice Facility Expansion	06/22/10	06/22/10	13,763
The Pavilion at Port Orange, LLC	Pavilion at Port Orange	08/19/09	09/30/09	500,000
Four Lanes, LLC	Altamira Shopping Center	01/24/12	Deferred	312,472
Dunlawton Yorktowne, LLC	Dunlawton-Yorktowne Shopping Center	01/24/12	Deferred	134,317
Ferber Construction Mgmt, LLC	Gateway Center Lot 6A – Multi-Tenant Retail	02/28/12	02/28/12	43,838
			Total - Approved Contribution Amounts for Project 1	**$ 2,118,222**
Project 2: Dunlawton / Clyde Morris				
D.R. Horton	Port Orange Plantation Phase II	11/15/05	11/15/05	19,788
Villages of Royal Palm (Winston-James)	Royal Palm PUD, Phase III	11/15/05	11/15/05	29,681
Holiday Builders	Port Orange Landings, Phase II	03/21/06	09/27/07	74,204
Viscomi and Associates (Paytas Homes)	Pinnacle PUD, Phase II	06/27/06	09/22/06	39,575
D.R. Horton	Port Orange Plantation Phases III, IV, V	07/25/06	12/06/06	34,628
Linen Group	Nova Oaks	09/26/06	09/26/06	9,894
D.R. Horton	Villas of P.O. Plantation Phases I, II	09/26/06	12/06/06	34,628
Intervest Construction, Inc	Waters Edge Phase 9B	06/05/07	07/05/07	14,841
Quest Design Group	Crystal Lake Business Park	08/07/07	09/19/07	9,894
Floridian Bank	Floridian Bank	08/28/07	08/28/07	54,416

Developer	Development	Agreement Approval	Date of Contribution	Total
All Aboard Storage	Nova Depot	09/18/07	09/18/07	9,894
Shoppes at Southwinds LLC	Shoppes at Southwinds	10/08/07	10/08/07	9,894
Port Orange Properties, LC	Port Orange Properties	11/13/07	11/16/07	29,681
Halifax Veterinary Clinic	Halifax Veterinary Clinic	12/18/07	01/04/08	4,947
CBL	Pavillion at Port Orange	12/18/07	01/08/08	317,447
Continental 217 Fund, LLC	Westport Square - Kohls	01/15/08	1/15/2008	34,628
Atlantic Coast, LLC	Atlantic Coast Office Building	04/16/08	04/16/08	9,894
Cruz Investment Group	Nova Bella Piazza	04/22/08	04/23/08	9,894
City of Port Orange	Port Orange Business Park	05/06/08	08/05/09	29,681
Port Orange Apartment Assoc.	Reserve at Crystal Lake	05/27/08	02/24/09	14,841
The Animal, LLC	Ravenwood Veterinary Clinic	08/18/08	09/05/08	4,947
K E M Associates, LLC	Countryside Commercial	08/19/08	09/17/08	4,947
ABC Liquors, Inc.	ABC Liquor Store and Bank	05/19/09	05/27/09	9,894
LaCour & Company (Southwind Villas)	Dollar General Store	01/19/10	01/19/10	4,947
Four Lanes, LLC	CVS Pharmacy #4112 (Altamira CVS)	04/15/10	04/15/10	29,681
Houligan's Port Orange, LLC	Houligan's Restaurant & Office Bldg.	06/03/10	06/03/10	4,947
Four Lanes, LLC	Altamira Shopping Center	01/24/12	04/15/12	59,363
Dunlawton Yorktowne, LLC	Dunlawton-Yorktowne Shopping Center	01/24/12	06/21/12	24,735
			Total - Approved Contribution Amounts for Project 2	**$ 935,811**
Project 3: Town West / Williamson Signalization				
D.R. Horton	Port Orange Plantation Phase II	11/15/05	11/15/05	82,994
D. R. Horton Refund	Port Orange Plantation Phase II	11/15/05	12/21/17	(9,969)
Villages of Royal Palm (Winston-James)	Royal Palm PUD, Phase III	11/15/05	11/15/05	66,736
Villages of Royal Palm (Winston-James) Refund	Royal Palm PUD, Phase III	11/15/05	09/27/17	(8,015)
D.R. Horton	Port Orange Plantation Phases III, IV, V	07/25/06	12/06/06	80,770
D. R. Horton Refund	Port Orange Plantation Phases III, IV, V	07/25/06	10/23/17	(9,702)
D.R. Horton	Villas of P.O. Plantation Phases I, II	09/26/06	12/06/06	76,064
D. R. Horton Refund	Villas of P.O. Plantation Phases I, II	09/26/06	10/23/17	(9,137)
Port Orange Properties, LLC	Port Orange Properties	11/13/07	11/16/07	5,813
Port Orange Properties, LLC (additional Payment)	Port Orange Properties	11/13/07	09/30/16	8,792
Port Orange Properties, LLC (City Council Approved Write Off of Additional Payment)	Port Orange Properties	11/13/07	09/28/18	(8,792)
CBL	Pavillion at Port Orange	12/18/07	01/08/08	162,657
Continental 217 Fund, LLC	Westport Square - Kohls	01/15/08	01/15/08	24,957
Continental 217 Fund, LLC – (Refund Issued)	Westport Square - Kohls	01/15/08	12/20/12	(17,467)
Continental 217 Fund, LLC (additional payment)	Westport Square - Kohls	01/15/08	09/30/16	11,331
Continental 217 Fund, LLC (City Council Approved Write Off of Additional Payment)	Westport Square - Kohls	01/15/08	09/28/18	(11,331)
			Total - Approved Contribution Amounts for Project 3	**$445,701**
Project 4: Summertrees Road Extension				
Villages of Royal Palm (Winston-James)	Royal Palm PUD, Phase III	11/15/05	11/15/05	65,896
Holiday Builders	Port Orange Landings, Phase II	03/21/06	09/27/07	18,287
Viscomi and Associates (Paytas Homes)	Pinnacle PUD, Phase II	06/27/06	09/22/06	84,183
D.R. Horton	Port Orange Plantation Phases III, IV, V	07/25/06	12/06/06	47,609

Developer	Development	Agreement Approval	Date of Contribution	Total
D.R. Horton	Villas of P.O. Plantation Phases I, II	09/26/06	12/06/06	40,358
Intervest Construction, Inc	Waters Edge Phase 9B	06/05/07	07/05/07	22,071
All Aboard Storage	Nova Depot	09/18/07	09/18/07	7,252
Shoppes at Southwinds LLC	Shoppes at Southwinds	10/08/07	10/08/07	7,252
Port Orange Properties, LC	Port Orange Properties	11/13/07	11/16/07	47,609
Halifax Veterinary Clinic	Halifax Veterinary Clinic	12/18/07	01/04/08	3,784
CBL	Pavillion at Port Orange	12/18/07	01/08/08	889,220
Continental 217 Fund, LLC	Westport Square - Kohls	01/15/08	01/15/08	172,466
Atlantic Coast, LLC	Atlantic Coast Office Building	04/16/08	04/16/08	3,784
City of Port Orange	Port Orange Business Park	05/06/08	08/05/09	168,682
Port Orange Apartment Assoc.	Reserve at Crystal Lake	05/27/08	02/24/09	7,252
K E M Associates, LLC	Countryside Commercial	08/19/08	09/17/08	7,252
Sun Glow Construction Inc.	Summer Trees Plaza - Site "B"	01/27/09	05/02/09	11,035
Sun Glow Construction Inc.	National City Bank	01/27/09	01/27/09	36,574
Four Lanes, LLC	CVS Pharmacy #4112 (Altamira CVS)	04/15/10	04/15/10	11,035
US Foodservice, Inc.	US Foodservice Facility Expansion	06/22/10	06/22/10	29,322
Four Lanes, LLC	Altamira Shopping Center	01/24/12	04/15/12	102,786
Dunlawton Yorktowne, LLC	Dunlawton-Yorktowne Shopping Center	01/24/12	06/21/12	44,142
Ferber Construction Mgmt, LLC	Gateway Center Lot 6A – Multi-Tenant Retail	02/28/12	02/28/12	11,036
Intervest Construction, Inc	Water's Edge Phase XII	06/05/07	08/30/13	91,751
LIV Development	Whitepalm Apartments	02/26/13	03/18/13	47,610
Edge Cove LLC	Westport Reserve Subdivision PH 2	08/16/16	08/19/16	3,784
Edge Cove LLC	Sanctuary at Westport PH 2A	06/21/16	06/23/16	14,665
Westport Reserve LLC	Westport Reserve Subdivision-PH 3	12/12/17	12/18/17	14,819
Westport Reserve LLC	Westport Reserve Subdivision-PH 4	12/12/17	12/18/17	7,252
2017 Yorktown Port Orange LLC	Port Orange Gateway Center Lot 3A	03/20/18	03/26/18	11,036
Acorn Ministorage of Brevard	Acorn Mini-Storage	05/01/18	09/17/18	18,288
Z Development Services	Arby's Site Plan	08/21/18	08/28/18	3,784
Autozone Stores LLC	AutoZone	12/18/18	12/28/18	51,393
Continental 425 Fund LLC	Springs Apartments	12/04/18	03/13/19	106,254
Memorial Health Systems Inc	Advent Health Medical Center	5/5/2020	8/12/20	164,979
Central Parc at Oakwater	Central Parc at Oakwater	11/05/19	12/09/19	87,989
NX Port Orange Owner LLC	Palms at Ashtopn Lakes ALF & Commercial Development	02/14/20	02/14/20	43,994
Noon Development of Florida LLC	Halifax Health Port Orange (Springs Lot 3)	12/15/20	12/29/20	58,659
Memorial Health Systems Inc	Advent Health MOB	04/06/21	04/13/21	21,998
N&T Enterprises, LLC	Paytas Office Building	08/27/20	12/28/20	3,666
Crane Lakes Depot, LLC	Crane Lakes Depot	12/15/21	12/22/21	65,896
Woodhaven, LLC	Woodhaven Phase II	10/25/21	10/29/21	130,704
HPI Self Storage Port Orange , LLC	Port Orange Neighborhood Storage	02/17/22	04/19/22	18,331
Town West Senior Living Partners, LTD	Town West Senior Living	5/11/22	6/29/22	21,997
Health Care 4, LLC	New Port Lot 4 -Conviva	06/07/22	06/08/22	3,666
Stor-It Self Storage Port Orange, LLC	Stor-It	06/07/22	06/08/22	14,665
Southern Hospitality Management & Development, INC	Woodspring Suites	03/01/22	04/22/22	7,251
Total - Approved Contribution Amounts for Project 4				**$~~2,590,808~~ 2,853,318**
Project 5: Devon / Taylor Road Signalization				
Coventry Partners LLC	Kings Landing – PH 1	12/05/17	12/20/17	3,653
N&T Enterprises, LLC	Paytas Office Building	08/27/20	12/28/20	176

Developer	Development	Agreement Approval	Date of Contribution	Total
Southern Hospitality Management & Development, INC	Woodspring Suites	03/01/22	04/22/22	232
	Total - Approved Contribution Amounts for Project 5			**$~~3,829~~4,061**
Project 6: Yorktowne Boulevard Extension				
Westport Reserve LLC	Westport Reserve Subdivision-PH 3	12/12/17	12/18/17	117,795
Westport Reserve LLC	Westport Reserve Subdivision-PH 4	12/12/17	12/18/17	77,363
2017 Yorktown Port Orange LLC	Port Orange Gateway Center Lot 3A	03/20/18	03/26/18	17,741
Acorn Ministorage of Brevard	Acorn Mini-Storage	05/01/18	09/17/18	16,968
Z Development Services	Arby's Site Plan	08/21/18	08/28/18	1,580
Edengate Development	Eden (formerly Lazul) at Crytsal Lake	12/04/18	09/05/19	27,825
Autozone Stores LLC	AutoZone	12/18/18	12/28/18	33,704
POA Development LLC	New Port Apartments	11/05/19	11/13/19	240,354
Central Parc at Oakwater	Central Parc at Oakwater	11/05/19	12/09//19	30,916
NX Port Orange Owner LLC	Palms at Ashton Lakes ALF & Commercial Development	02/14/20	02/14/20	72,984
N&T Enterprises, LLC	Paytas Office Building	08/27/20	12/28/20	5,773
Health Care 4, LLC	New Port Lot 4 - Conviva	06/07/22	06/08/22	82,922
	Total - Approved Contribution Amounts for Project 6			**$~~643,003~~ 725,925**
	Grand Total - All Projects			**$~~6,737,375~~ 7,083,039**

Notes: Initial funding for above transportation concurrency projects was appropriated during previous or current fiscal years.

Total contributions received through fair share agreements through 9/30/~~21~~22. Total contributions include actual project costs for projects 1, 2, 3 and 4 which have been completed. Total contributions, on projects 5 and 6, include estimated project costs and contingency funding for potential cost overruns.

SOURCE: City of Port Orange, Department of Finance, Department of Community Development, ~~2021~~2022

TABLE 3
SUMMARY OF CAPITAL IMPROVEMENTS

~~Facility Type~~	~~FY 21-22~~	~~FY 22-23~~	~~FY 23-24~~	~~FY 24-25~~	~~FY 25-26~~	~~FY 26-27~~	~~Total~~
~~Water~~	~~2,100,000~~	~~4,025,000~~	~~2,350,000~~	~~900,000~~	~~1,000,000~~	~~1,050,000~~	~~11,425,000~~
~~Sanitary Sewer~~	~~4,650,000~~	~~4,350,000~~	~~4,250,000~~	~~4,250,000~~	~~4,300,000~~	~~550,000~~	~~22,350,000~~
~~Water & Sewer~~	~~-~~	~~50,000~~	~~50,000~~	~~50,000~~	~~50,000~~	~~50,000~~	~~250,000~~
~~Drainage~~	~~720,000~~	~~1,565,830~~	~~1,315,830~~	~~635,430~~	~~635,430~~	~~635,430~~	~~5,507,950~~
~~Transportation~~	~~1,563,868~~	~~7,070,821~~	~~7,330,914~~	~~5,225,000~~	~~800,000~~	~~800,000~~	~~22,790,603~~
~~Parks & Recreation~~	~~281,000~~	~~3,555,000~~	~~4,120,000~~	~~1,150,000~~	~~575,000~~	~~1,150,000~~	~~10,831,000~~
~~Total Capital Improvements~~	**~~9,314,868~~**	**~~20,616,651~~**	**~~19,416,744~~**	**~~12,210,430~~**	**~~7,360,430~~**	**~~4,235,430~~**	**~~73,154,553~~**

Facility Type	**FY 22-23**	**FY 23-24**	**FY 24-25**	**FY 25-26**	**FY 26-27**	**Total**
Water	750,000	2,350,000	1,700,000	2,400,000	1,750,000	8,950,000
Sanitary Sewer	3,050,000	3,450,000	1,250,000	8,300,000	1,300,000	17,350,000
Water & Sewer	-	-	-	50,000	50,000	100,000
Stormwater	1,035,430	2,135,430	2,235,430	2,135,430	2,135,430	9,677,150
Transportation	1,050,146	3,607,958	11,315,814	9,158,150	1,317,935	26,450,003
Parks and Recreation	281,000	1,840,000	575,000	5,825,000	575,000	9,096,000
Total Capital Improvements	**6,166,576**	**13,383,388**	**17,076,244**	**27,868,580**	**7,128,365**	**71,623,153**

TABLE 4
SUMMARY SCHEDULE OF COMMITTED AND PLANNED FUNDS

~~Fund~~	~~FY 21-22~~	~~FY 22-23~~	~~FY 23-24~~	~~FY 24-25~~	~~FY 25-26~~	~~FY 26-27~~	~~Total~~
~~Capital Projects (301)~~	~~855,262~~	~~1,807,982~~	~~1,089,498~~	~~976,000~~	~~800,000~~	~~800,000~~	~~6,328,742~~
~~Transportation Impact Fee (312)~~	~~15,000~~	~~99,500~~	~~507,174~~	~~112,500~~	~~-~~		~~734,174~~
~~General Capital Rplcmnt Fund (317)~~	~~281,000~~	~~3,157,020~~					~~3,438,020~~
~~Water/Sewer Operating (401)~~	~~2,150,000~~	~~1,075,000~~	~~4,100,000~~	~~1,150,000~~	~~1,150,000~~	~~450,000~~	~~10,075,000~~
~~Water/Sewer R&R (403)~~	~~1,200,000~~	~~4,250,000~~	~~950,000~~	~~950,000~~	~~1,100,000~~	~~1,100,000~~	~~9,550,000~~
~~Water/Sewer Impact (405)~~	~~400,000~~	~~2,100,000~~	~~1,600,000~~	~~2,100,000~~	~~1,600,000~~	~~100,000~~	~~7,900,000~~
~~Drainage Construct/Operating (412)~~	~~720,000~~	~~1,315,830~~	~~1,315,830~~	~~635,430~~	~~635,430~~	~~635,430~~	~~5,257,950~~
~~Recreation Impact Fee (611)~~	~~-~~	~~-~~		~~-~~	~~-~~		
~~Proportionate Fair Share / Other / Grant~~	~~-~~	~~4,555,000~~	~~4,120,000~~	~~2,150,000~~	~~2,075,000~~	~~1,150,000~~	~~14,050,000~~
~~TPO Funds~~	~~578,356~~	~~3,127,339~~	~~8,295,043~~	~~2,596,500~~	~~-~~		~~14,597,238~~
~~Developer Fairshare Contr. (Planned)~~	~~150,250~~	~~963,980~~	~~2,410,935~~	~~2,200,000~~	~~-~~		~~5,725,165~~
~~American Rescue Plan Act~~	~~5,000,000~~	~~1,750,000~~	~~1,500,000~~	~~1,500,000~~	~~–~~	~~–~~	~~9,750,000~~
~~Total Committed and Planned Funds~~	**~~11,349,868~~**	**~~24,201,651~~**	**~~25,888,480~~**	**~~14,370,430~~**	**~~7,360,430~~**	**~~4,235,430~~**	**~~87,406,289~~**

Fund	**FY 22-23**	**FY 23-24**	**FY 24-25**	**FY 25-26**	**FY 26-27**	**Total**
Capital Projects (301)	823,275	1,140,196	1,134,801	910,000	800,000	4,808,272
Transportation Impact Fee (312)	-	112,500	1,784,000	490,674	-	2,387,174

General Capital Fund (317)	281,000	-	-	-	-	281,000
Water/Sewer Operating (401)	2,650,000	3,250,000	1,050,000	1,050,000	1,100,000	9,100,000
Water/Sewer R&R (403)	1,000,000	950,000	950,000	1,000,000	1,000,000	4,900,000
Water/Sewer Impact Fee (405)	150,000	1,600,000	950,000	2,700,000	1,000,000	6,400,000
Stormwater Utility (413)	1,035,430	2,135,430	2,235,430	2,135,430	2,135,430	9,677,150
Recreation Impact Fee (611)	-	-	-	-	-	-
Proportionate Fair Share / Other / Grant	-	1,840,000	575,000	12,045,000	1,092,935	15,552,935
TPO Funds	226,871	2,355,262	8,397,013	5,406,062	-	16,385,208
ARPA	-	-	-	-	-	-
Developer Fairshare Contr. (Planned)	-	-	-	2,131,414	-	2,131,414
Total Committed and Planned Funds	**6,166,576**	**13,383,388**	**17,076,244**	**27,868,580**	**7,128,365**	**71,623,153**

SOURCE (For Tables 3 and 4): City of Port Orange, Department of Finance, 2021

Table 5 identifies transportation improvements included in the first five years of the applicable Transportation Planning Organization's (TPO) adopted Transportation Improvement Program (TIP), to the extent that such improvements are relied upon to ensure concurrency and financial feasibility.

TABLE 5
TPO TRANSPORTATION IMPROVEMENT PLAN*

~~*There are no concurrency realted improvements in the 2021/22 – 2025/26 TPO TIP.~~

Project Name	Work Summary	Agency	2022/23	2023/24	2024/25	2025/26	2026/27	Total
Dunlawton Ave. Turn Lanes Various Locations	Intersection improvements at various intersections along Dunlawton Ave.	City of Port Orange	$610,050	-	$290,940	-	$4,728,567	$5,629,557

SOURCE: TPO TIP FY ~~2021/22-2025/26~~2022/23 – 2023/27; City of Port Orange, Department of Community Development, ~~2021~~2022

Table 6 identifies public school facilities improvements included in the first five years of the ~~2021/22~~2022/23 – ~~2025-26~~2023/27 Volusia County School District Work Program.

Table 6
VOLUSIA COUNTY SCHOOL DISTRICT FIVE-YEAR WORK PROGRAM

	Budget 2021-2022	Forecast 2022-2023	Forecast 2023-2024	Forecast 2024-2025	Forecast 2025-2026
Major Projects - New Construction					
New Smyrna Beach Mid - HVAC, Ceiling, Lighting and Flooring Campus Wide	500,000	-	-	-	-
Ortona and Osceola Elm - Master Plan	2,000,000	-	-	-	-
Woodward Elm - Renovations and Addition	19,000,000	1,750,000	-	-	-
Turie T. Small Elm - Master Plan	24,000,000	2,000,000	-	-	-
Tomoka Elm - Master Plan	2,000,000	26,000,000	2,000,000	-	-
Starke Elm - Renovations and Classroom Addition	1,550,000	10,500,000	1,000,000	-	-
Orange City Elm - Renovations and Classroom Addition	1,500,000	17,000,000	1,200,000	-	-
Spruce Creek HS - Classroom Addition and Auditorium Remodeling	1,200,000	10,000,000	5,000,000	1,200,000	-
Port Orange Elm - Renovations	-	500,000	5,000,000	500,000	-
McInnis Elm - Renovations and Administration Addition	-	650,000	6,500,000	500,000	-
Read-Patillo Elm - Remodeling	-	-	700,000	7,000,000	500,000
Enterprise Elm - Remodeling	-	-	800,000	8,000,000	500,000
Silver Sands Mid - Classroom Addition and Remodeling	-	-	1,500,000	12,000,000	750,000
Ormond Beach Elm - Renovations	-	-	-	500,000	5,000,000
New Smyrna Beach Mid - Classroom Addition	-	-	1,500,000	10,000,000	750,000
Citrus Grove Elm - Classroom Addition	-	-	-	750,000	8,500,000
Timbercrest Elm - Classroom Addition	-	-	-	750,000	8,500,000
Pineridge HS - Classroom Addition	-	-	-	-	1,000,000
Creekside Mid - Classroom Addition	-	-	-	-	750,000
Total Major Projects - New Construction	**51,750,000**	**68,400,000**	**25,200,000**	**41,200,000**	**26,250,000**
Projects at Existing Schools and Facilities					
Atlantic HS - Upgrade HVAC Ceiling and Lighting Bldgs. 9 and 10	2,200,000	-	-	-	-
Atlantic HS - Replace Generator Bldg. 1	475,000	-	-	-	-
Brewster Center - Interior Renovations	-	-	-	3,000,000	-
Campbell Mid - Upgrade HVAC Bldgs. 3 and 7	-	1,800,000	-	-	-
Creekside Mid - Upgrade HVAC Bldg. 4	2,200,000	-	-	-	-
DeBary Elm - Resurface Bus Loop and Parking	-	350,000	-	-	-
DeBary Elm - Upgrade HVAC, Ceiling and Lighting Bldgs. 1 and 4	-	3,100,000	-	-	-
DeLand HS - Upgrade HVAC Bldgs. 14 and 15	-	1,900,000	-	-	-
DeLand HS - Replace Cafeteria Chiller	-	800,000	-	-	-
DeLand HS - Replace Culinary Lab Flooring	85,000	-	-	-	-
Deland Mid - Campus Wide VAV Insulation	150,000	-	-	-	-
DeLand Warehouse - Leases	109,304	-	-	-	-
Deltona HS - Upgrade CEP	-	1,200,000	-	-	-
Deltona HS - Upgrade Stage Lighting	-	100,000	-	-	-
Deltona HS - Parking Lot Tree Removal and Lighting Upgrade	600,000	-	-	-	-
Deltona Lakes Elm - Upgrade HVAC, Ceiling and Lighting Bldgs. 1 - 2	1,400,000	-	-	-	-
Deltona Transportation - Site Improvements	1,500,000	-	-	-	-
Enterprise Elm - Upgrade HVAC,Ceiling and Lighting Bldg. 3	-	2,250,000	-	-	-
Facilities Services - Garbage Truck Wash Station	400,000	-	-	-	-
Forest Lake Elm - Replace OAU and Duct Work	1,500,000	-	-	-	-
Friendship Elm - Replace Intercom	-	300,000	-	-	-
Freedom Elm - Upgrade Parking Lot Lighting	-	250,000	-	-	-
Galaxy Mid - Upgrade Door Hardware	700,000	-	-	-	-
Heritage Mid - Replace Roof Campus Wide	-	200,000	-	-	-
Heritage Mid - Upgrade HVAC, Ceiling and Lighting Bldg. 3 and Chiller	-	-	2,750,000	-	-
Hinson Mid - CEP and Bldgs. 2 and 10 HVAC Upgrade	1,300,000	-	-	-	-
Hinson Mid - Replace Gutters and Downspouts	500,000	-	-	-	-
Hinson Mid - Upgrade HVAC and Lighting Bldgs. 7 and 9	-	2,600,000	-	-	-
Hinson Mid - Upgrade Parking Lot Lighting	-	250,000	-	-	-
Holly Hill School - Replace Switchgear Bldg. 6	-	300,000	-	-	-
Indian River Elm - Door Replacement Bldgs. 1 and 4	500,000	-	-	-	-
Indian River Elm - Upgrade HVAC, Ceiling and Lighting Bldgs. 2 - 4	-	2,000,000	-	-	-
Mainland HS - Upgrade Chiller Plant	175,000	-	-	-	-
Mainland HS - Upgrade Site Lighting	-	625,000	-	-	-
McInnis Elm - Potable Water and Sanitary Sewer	100,000	100,000	100,000	350,000	100,000
McInnis Elm - Upgrade Site Lighting	-	250,000	-	-	-
New Smyrna Beach HS - Replace Intercom	-	400,000	-	-	-
New Smyrna Beach HS - Upgrade BAS System Bldgs 6 - 8	-	1,150,000	-	-	-
New Smyrna Beach Mid - New Parent Loop and Parking	1,200,000	-	-	-	-

	Budget 2021-2022	Forecast 2022-2023	Forecast 2023-2024	Forecast 2024-2025	Forecast 2025-2026
Ormond Beach Elm - Reroof Bldg. 1	105,000	-	-	-	-
Palm Terrace Elm - Replace Fire Alarm	750,000	-	-	-	-
Palm Terrace Elm - Replace Roof	1,800,000	-	-	-	-
Pathways Elm - Replace Fire Alarm	-	750,000	-	-	-
Pine Ridge HS - Upgrade HVAC, Ceiling and Lighting Bldg. 3	2,000,000	-	-	-	-
Pine Trail Elm - Intercom Replacement	-	150,000	-	-	-
Pine Trail Elm - Replace Gutter and Downspouts	230,000	-	-	-	-
Port Orange Elm - Renovate Reception	-	130,000	-	-	-
Port Orange Elm - Remodel Clinic and Office Toilet Rooms	-	150,000	-	-	-
Port Orange Elm - Parking Area	-	100,000	-	-	-
Portables - Lease	100,000	100,000	100,000	100,000	100,000
Portables - Moves & Compliance	400,000	400,000	400,000	400,000	400,000
Pride Elm - Replace Shelter Generators	1,100,000	-	-	-	-
RJ Longstreet Elm - Upgrade Lighting at Parking Lot and Canopy	-	250,000	-	-	-
Seabreeze HS - Intercom Replacement	250,000	-	-	-	-
Seabreeze HS - Upgrade HVAC Bldgs. 8 and 9	2,900,000	-	-	-	-
Silver Sands Mid - Replace Switchgear Bldg. 12	-	300,000	-	-	-
Southwestern Mid - Replace 250 Ton Chiller	-	700,000	-	-	-
Starke Elm - Replace South Canopy Bldg. 2	310,000	-	-	-	-
Sugar Mill Elm - Intercom Replacement	-	250,000	-	-	-
Sunrise Elm - Drainage Between Buildings	660,000	-	-	-	-
Sunrise Elm - Upgrade OAU and Chiller Bldgs. 1 - 4	-	-	1,300,000	-	-
T. Dewitt Taylor Mid-HS - Replace Football Field Lighting	-	800,000	-	-	-
Timbercrest Elm - Replace Loop Boiler	40,000	-	-	-	-
Tomoka Elm - Upgrade HVAC Bldgs. 1, 9 - 11	-	1,800,000	-	-	-
University HS - Upgrade AHU Sensors, Dampers and Duct Heaters	-	950,000	-	-	-
University HS - Renovate Cupola	250,000	-	-	-	-
Westside Elm - Replace Doors and Hardware Bldg. 1	-	350,000	-	-	-
Various Schools - Infrastructure for Technology	250,000	250,000	250,000	250,000	250,000
Various Schools - Minor Projects	3,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Various Schools - Pavilions	555,000	350,000	350,000	350,000	350,000
Various Schools - Playgrounds	270,000	300,000	300,000	300,000	300,000
Various Schools - Security	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Various Schools - HS School Athletics	800,000	2,000,000	3,000,000	3,000,000	3,000,000
Total Projects at Existing Schools and Facilities	**31,864,304**	**36,005,000**	**14,550,000**	**13,750,000**	**10,500,000**
Facilities Management					
Facilities Management - Various Projects	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000
Total Facilities Management	**2,800,000**	**2,800,000**	**2,800,000**	**2,800,000**	**2,800,000**
Technology					
Network, EDP & Communications Equipment	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
Total Technology	**9,000,000**	**9,000,000**	**9,000,000**	**9,000,000**	**9,000,000**
System Wide Equipment and Vehicles					
Various Schools & Departments Vehicles	500,000	500,000	500,000	500,000	500,000
Various Schools & Departments Furniture & Equipment	500,000	1,000,000	1,000,000	1,000,000	1,000,000
Total System Wide Equipment and Vehicles	**1,000,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**
Buses					
Transportation Dept - Bus Replacement	2,295,160	2,386,960	2,386,960	2,386,960	2,386,960
Total Buses	**2,295,160**	**2,386,960**	**2,386,960**	**2,386,960**	**2,386,960**
PROJECT TOTALS	**$ 98,709,464**	**$ 120,091,960**	**$ 55,436,960**	**$ 70,636,960**	**$ 52,436,960**
Transfers					
Transfers - To General Fund	9,465,133	7,579,258	5,722,766	5,515,160	5,515,160
Transfers - To Debt Service	49,337,438	48,951,525	48,953,625	36,057,388	36,053,663
Total Transfers	**58,802,571**	**56,530,783**	**54,676,391**	**41,572,548**	**41,568,823**
GRAND TOTAL	**$ 157,512,035**	**$ 176,622,743**	**$ 110,113,351**	**$ 112,209,508**	**$ 94,005,783**

	Budget 2022-2023	Forecast 2023-2024	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027
Major Projects - New Construction					
Woodward Elm - Renovations and Addition	1,750,000	-	-	-	-
Turie T. Small Elm - Master Plan	16,000,000	-	-	-	-
Tomoka Elm - Master Plan	35,000,000	2,000,000	-	-	-
Starke Elm - Renovations and Classroom Addition	16,500,000	1,000,000	-	-	-
Orange City Elm - Renovations and Classroom Addition	28,300,000	1,200,000	-	-	-
Spruce Creek HS - Classroom Addition and Auditorium Remodeling	-	10,000,000	5,000,000	1,200,000	-
Enterprise Elm - Master Plan	2,000,000	18,000,000	2,000,000	-	-
McInnis Elm - Renovations and Administration Addition	650,000	6,500,000	500,000	-	-
Spruce Creek Elm - Campuswide HVAC and Lighting	-	1,200,000	12,200,000	-	-
Turie T. Small Elm - Joint Venture	-	1,500,000	5,000,000	500,000	-
Avalon Park	-	-	3,000,000	65,000,000	3,000,000
Timbercrest Elm - Classroom Addition	-	700,000	7,000,000	500,000	-
Citrus Grove Elm - Classroom Addition	-	800,000	8,000,000	500,000	-
Silver Sands Mid - Classroom Addition and Remodeling	-	1,500,000	12,000,000	750,000	-
Ormond Beach Elm - Renovations	-	-	500,000	5,000,000	-
Creekside Mid - Classroom Addition	-	750,000	8,500,000	750,000	-
Port Orange Elm - Renovations	-	-	750,000	8,500,000	-
Read-Patillo Elm - Remodeling	-	-	750,000	8,500,000	-
Pineridge HS - Classroom Addition	-	-	-	1,000,000	-
New Smyrna Beach Mid - Classroom Addition	-	-	-	1,500,000	10,000,000
Total Major Projects - New Construction	**100,200,000**	**45,150,000**	**65,200,000**	**93,700,000**	**13,000,000**
Projects at Existing Schools and Facilities					
Atlantic HS - Install Grandstands	150,000	-	-	-	-
Atlantic HS - Pressbox Concession	300,000	-	-	-	-
Atlantic HS - Repair Exterior Doors	-	-	306,000	-	-
Atlantic HS - Upgrade Auditorium Seating and Flooring	792,000	-	-	-	-
Blue Lake Elm - Resurface Basketball Court	100,000	-	-	-	-
Brewster Center - Interior Renovations	-	-	3,000,000	-	-
Brewster Center - Repair Wood Floor Joists	-	117,600	-	-	-
Brewster Center - Replace First and Second Floor Outside Air Units	464,445	-	-	-	-
Brewster Center - Replace Generator, Upgrade Main Electrical Distribution	-	2,000,000	-	-	-
Campbell Mid - Generator Replacement	-	225,000	-	-	-
Campbell Mid - Repair Security Gates	78,000	-	-	-	-
Campbell Mid - Upgrade HVAC Bldgs. 1 and 2	-	-	-	1,129,086	-
Campbell Mid - Upgrade HVAC Bldgs. 3 and 7	2,219,661	-	-	-	-
Campbell Mid - Upgrade HVAC Bldgs. 5 and 9	-	-	1,817,016	-	-
Campbell Mid - Upgrade HVAC Bldgs. 8 and 10	-	518,906	-	-	-
Chisholm Elm - Perimeter Fencing	115,000	-	-	-	-
Debary Elm - Upgrade HVAC, Ceiling and Lighting Bldgs 1 and 4	-	3,777,026	-	-	-
DeBary Elm - Resurface Bus Loop and Parking	350,000	-	-	-	-
DeLand HS - Replace Cafeteria Chiller	941,512	-	-	-	-
DeLand HS - Replace Site Generator	528,000	-	-	-	-
Deland HS - Softball Field Lighting	-	660,000	-	-	-
DeLand HS - Upgrade HVAC Bldgs 14 and 15	-	3,022,390	-	-	-
Deltona HS - Rebuild Chillers, Cooling Tower and Piping	-	2,400,000	-	-	-
Deltona HS - Relocate and Replace Shelter Generator	1,400,000	-	-	-	-
Deltona HS - Repair Building Cracks Campus Wide	1,500,000	-	-	-	-
Deltona HS - Upgrade Stage Lighting	100,000	-	-	-	-
Deltona Lakes Elm - Upgrade HVAC, Ceiling and Lighting Bldgs. 3 and 4	1,759,583	-	-	-	-
Deltona Transportation - Site Improvements	-	2,000,000	-	-	-
Forest Lake Elm - Resurface Basketball Court	100,000	-	-	-	-
Freedom Elm - Upgrade Parking Lot Lighting	250,000	-	-	-	-
Friendship Elm - Replace Intercom	483,000	-	-	-	-
Galaxy Mid - Replace 50 KW Kitchen Generator	200,000	-	-	-	-
Galaxy Mid - Replace Gymnasium Bleachers	400,000	-	-	-	-
Galaxy Mid - Upgrade Intrusion and Monitoring	396,000	-	-	-	-
George Marks Elm - Coat Roof Bldg 2	33,600	-	-	-	-

	Budget 2022-2023	Forecast 2023-2024	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027
Heritage Mid - Replace Gymnasium Bleachers	400,000	-	-	-	-
Heritage Mid - Replace Roof Campus Wide	200,000	-	-	-	-
Heritage Mid - Resurface Tennis and Basketball Courts	60,000	-	-	-	-
Heritage Mid - Upgrade Chiller, HVAC Ceiling and Lighting Bldg. 3	-	2,930,610	-	-	-
Hinson Mid - Upgrade HVAC and Lighting Bldg. 7	-	1,800,000	-	-	-
Hinson Mid - Upgrade HVAC, Ceiling and Lighting Bldgs. 6 and 8	3,608,302	-	-	-	-
Holly Hill School - Replace Switchgear Bldg. 6	300,000	-	-	-	-
Indian River Elm - Replace Doors and Hardware Buildings 2 and 3	831,600	-	-	-	-
Indian River Elm - Upgrade HVAC , Ceiling and Lighting Bldgs 2, 3 and 4	-	2,591,224	-	-	-
Indian River Elm - Upgrade Intrusion and Monitoring	396,000	-	-	-	-
Mainland HS - Upgrade Chiller Plant	-	1,700,000	-	-	-
Mainland HS - Upgrade Site Lighting	-	900,000	-	-	-
McInnis Elm - Potable Water and Sanitary Sewer	100,000	100,000	350,000	100,000	100,000
McInnis Elm - Upgrade Site Lighting	250,000	-	-	-	-
New Smyrna Beach HS - Replace Intercom	690,000	-	-	-	-
New Smyrna Beach HS - Upgrade Controls Campus Wide	-	1,629,826	-	-	-
New Smyrna Beach HS - Upgrade BAS System Bldgs 6 - 8	1,150,000	-	-	-	-
New Smyrna Beach HS - Traffic Signal	300,000	-	-	-	-
New Smyrna Beach Mid - Replace Millwork Campus Wide	-	1,479,604	-	-	-
Palm Terrace Elm - Replace Roof	2,338,000	-	-	-	-
Pathways Elm - Replace Fire Alarm	990,000	-	-	-	-
Pathways Elm - Upgrade Parking Lot Poles and Lighting	-	-	258,000	-	-
Pierson Elm - Upgrade Fire Supression Water Tank	95,497	-	-	-	-
Pierson Transportation - Remove Underground Fuel Tank and Pumps	150,000	-	-	-	-
Pine Ridge HS - Upgrade HVAC, Ceiling and Lighting Bldgs. 9 and 10	2,488,374	-	-	-	-
Pine Trail Elm - Intercom Replacement	150,000	-	-	-	-
Port Orange Elm - Renovate Reception Area	-	168,000	-	-	-
Port Orange Elm - Parking Area	100,000	-	-	-	-
Port Orange Elm - Remodel Clinic and Office Toilet Rooms	150,000	-	-	-	-
Port Orange Elm - Renovate Reception	130,000	-	-	-	-
Portables - Lease	100,000	100,000	100,000	100,000	100,000
Portables - Moves & Compliance	400,000	400,000	400,000	400,000	400,000
River Springs Mid - New Chiller Plant	-	-	3,500,000	-	-
RJ Longstreet Elm - Upgrade Lighting at Parking Lot and Canopy	250,000	-	-	-	-
Seabreeze HS - New Chiller 3, Upgrade HVAC Bldgs 4, 5, and 6	3,579,930	-	-	-	-
Seabreeze HS - Reroof Media Center	504,536	-	-	-	-
Silver Sands Mid - Replace Gymnasium Bleachers	-	-	-	400,000	-
Silver Sands Mid - Renovate Culinary Lab	514,700	-	-	-	-
Silver Sands Mid - Replace Cafeteria 30 Ton WSHP	175,000	-	-	-	-
Silver Sands Mid - Replace Main Electrical Switchgear Bldg 12	528,000	-	-	-	-
Southwestern Mid - Replace 250 Ton Chiller	700,000	-	-	-	-
Sugar Mill Elm - Intercom Replacement	250,000	-	-	-	-
Sunrise Elm - Upgrade HVAC, Ceiling and Lighting Bldgs. 2 and 3	-	2,125,000	-	-	-
Sunrise Elm - Upgrade OAU and Chiller Bldgs. 1 - 4	-	1,300,000	-	-	-
T. Dewitt Taylor Mid-HS - Replace Gutters	260,534	-	-	-	-
Transportation - Warehouse DeLand - Warehouse Renovations	2,500,000	-	-	-	-
University HS - Install Grandstands	275,000	-	-	-	-
University HS - Pressbox Concession	300,000	-	-	-	-
University HS - Repair Wall Flashings Bldg 2	177,360	-	-	-	-
University HS - Upgrade AHU Sensors, Dampers and Duct Heaters	1,007,535	-	-	-	-
Westside Elm - Replace Doors and Hardware Bldg. 1	764,000	-	-	-	-
Various Locations - Rural Broadband	2,500,000	-	-	-	-
Various Schools - HS School Athletics	3,070,000	3,000,000	3,000,000	3,000,000	3,000,000
Various Schools - Infrastructure for Technology	250,000	250,000	250,000	250,000	250,000

	Budget 2022-2023	Forecast 2023-2024	Forecast 2024-2025	Forecast 2025-2026	Forecast 2026-2027
Various Schools - Minor Projects	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Various Schools - Minor Projects - Spruce Creek HS	500,000	-	-	-	-
Various Schools - Parking Lot Improvements	-	4,000,000	-	-	-
Various Schools - Pavilions	250,000	-	-	-	-
Various Schools - Playgrounds	350,000	300,000	300,000	300,000	300,000
Various Schools - Security	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Total Projects at Existing Schools and Facilities	**53,745,169**	**46,495,186**	**20,281,016**	**12,679,086**	**11,150,000**
Facilities Management					
Facilities Management - Various Projects	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000
Total Facilities Management	**2,800,000**	**2,800,000**	**2,800,000**	**2,800,000**	**2,800,000**
Technology					
Network, EDP & Communications Equipment	2,537,007	2,537,007	2,716,902	9,000,000	9,000,000
Total Technology	**2,537,007**	**2,537,007**	**2,716,902**	**9,000,000**	**9,000,000**
System Wide Equipment and Vehicles					
Various Schools & Departments Vehicles	500,000	500,000	500,000	500,000	500,000
Various Schools & Departments Furniture & Equipment	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Total System Wide Equipment and Vehicles	**1,700,000**	**1,700,000**	**1,700,000**	**1,700,000**	**1,700,000**
Buses					
Transportation Dept - Bus Safety Upgrades	2,300,000	-	-	-	-
Transportation Dept - Bus Replacement	-	2,386,960	2,386,960	2,386,960	2,386,960
Total Buses	**2,300,000**	**2,386,960**	**2,386,960**	**2,386,960**	**2,386,960**
PROJECT TOTALS	**$ 163,282,176**	**$ 101,069,153**	**$ 95,084,878**	**$ 122,266,046**	**$ 40,036,960**
Transfers					
Transfers - To General Fund	16,242,204	14,325,935	11,938,434	5,655,336	5,655,336
Transfers - To Debt Service	48,951,525	48,953,625	36,057,388	36,053,663	36,059,450
Total Transfers	**65,193,729**	**63,279,560**	**47,995,822**	**41,708,999**	**41,714,786**
GRAND TOTAL	**$ 228,475,905**	**$ 164,348,713**	**$ 143,080,700**	**$ 163,975,045**	**$ 81,751,746**

Source: Volusia County School District, Work Program adopted September ~~14, 2021~~13, 2022

IMPLEMENTATION

5-YEAR SCHEDULE OF IMPROVEMENTS

The 5-Year Schedule of Improvements (Table 1) is the mechanism by which the City can effectively stage the timing, location (see Figure 10-1), projected cost, and revenue sources for the capital improvements derived from the other Comprehensive Plan Elements. This table lists only those capital projects that will be funded by the City of Port Orange as part of its annual Capital Improvement Program. Based upon the Inventory, Analysis, and Goals, Objectives, and Policies of this Element, the 5-Year Schedule of Improvements has been developed to document the financial feasibility of the City of Port Orange's *Comprehensive Plan*.

MONITORING AND EVALUATION

The role of monitoring and evaluation is vital to the effectiveness of any Comprehensive Plan and particularly for the Capital Improvements Element. As part of the annual budgeting process, the City evaluates the status of all scheduled capital improvements and the overall status of public facilities in relation to current and projected demand. This evaluation ensures that revisions to the budget, work programs, the Capital Improvements Program and this Comprehensive Plan may be made as necessary to provide facilities in a timely and financially feasible manner, consistent with adopted level-of-service standards. This review is coordinated by the Capital Improvements Project Manager. In addition, the issuance of development orders and development permits is monitored continuously to ensure consistency with this Plan.

The City's annual review includes the following considerations, which are also evaluated each year to determine their continued applicability:

1) Any corrections, updates, and modifications concerning costs; revenue sources; acceptance of facilities pursuant to dedications which are consistent with the element; or the date of construction of any facility listed in this Element,
2) The Capital Improvement Element's consistency with the other Elements and its support of the Future Land Use Element.
3) The City's ability to provide public facilities and services within the Urban Service Area in order to determine any need for boundary modification or adjustment.
4) The priority assignment of existing public facility deficiencies.
5) The City's progress in meeting those needs that are determined to be existing deficiencies.
6) The criteria used to evaluate capital improvement projects in order to ensure that projects are being ranked in their appropriate order of priority.
7) The City's effectiveness in maintaining the adopted LOS standards.
8) The City's effectiveness in reviewing the impacts of plans and programs of state agencies and water management districts that provide public facilities within the City's jurisdiction.
9) The effectiveness of impact fees, and mandatory dedications or fees in lieu of, for assessing new development a pro rata share of the improvement costs which they generate.

10) The impacts of special districts and any regional facility and service provision upon the City's ability to maintain its adopted LOS standards.
11) The ratio of outstanding indebtedness to the property tax base.
12) Efforts made to secure grant or private funds, whenever available to finance the provision of capital improvements.
13) The transfer of any unexpended account balances.
14) The criteria used to evaluate proposed plan amendments and requests for new development or redevelopment.
15) Capital improvements needed for the latter part of the planning period, for inclusion in the 5-Year Schedule of Improvements.

CONCURRENCY MANAGEMENT SYSTEM

OVERVIEW

The purpose of a Concurrency Management System is to provide the necessary regulatory mechanism for evaluating development orders to ensure that the level-of-service standards adopted as part of the *Comprehensive Plan* are maintained. The system consists of three primary components: 1) an inventory of existing public facilities for which concurrency is to be determined; 2) a concurrency assessment of each application for a final development order or permit; and 3) a schedule of improvements needed to correct any existing public facility deficiencies. Under this system, and according to the Florida State Legislature, no development orders may be issued which will cause a public facility to operate below its adopted level-of-service standard. However, development orders may be conditioned such that needed public facility improvements will be in place concurrent with the impacts of the proposed development.

In order to ensure that all public facilities included within this system are available concurrent with the impacts of development, concurrency will be determined during the final site plan or final subdivision plan approval process. All development orders and permits will specify any needed improvements and a schedule for their implementation. Thus, while some required improvements may not have to be completed until a certificate of occupancy is applied for, the requirements for the certificate of occupancy will have already been specified as a condition of approval of the original development order. If a development proposal can not meet the test for concurrency, then it may not proceed under any circumstances and no development orders or permits may be issued. Likewise, if a development fails to meet a condition of approval once it has commenced, then no additional development orders, permits, or certificates of occupancy may be issued.

APPLICABILITY

Prior to the granting of a development order, all applications for a final site plan or final subdivision plan shall be reviewed for concurrency consistent with the provisions and requirements of this system. Development orders may be issued only upon a finding by the City that the public facilities addressed under the Concurrency Management System will be available concurrent with the impacts of the development.

All applicants for development permits shall be required to provide all information deemed necessary by the City so that the impacts of the proposed development may be accurately assessed.

The City's land development regulations specifically list the application requirements for development permits that reflect the informational needs for the determination of concurrency, and application forms have been developed accordingly.

DEPARTMENT OF COMMUNITY DEVELOPMENT

The City's Department of Community Development is responsible for the four primary tasks which are described below. The Director of Community Development may delegate all or a part of these functions to the employees within this Department. The four tasks are: 1) maintaining an inventory of existing public facilities and capacities or deficiencies; 2) determining concurrency of proposed development which does not require City Council approval; 3) providing advisory concurrency assessments and recommending conditions of approval to the City Council for those applications for development orders which require City Council approval; and 4) reporting the status of all public facilities covered under this system to the City's Capital Improvement Facilities Project Manager and recommending a schedule of improvements for those public facilities found to have existing deficiencies.

CAPACITY AND LEVEL-OF-SERVICE INVENTORY

The Department of Community Development collects, and makes available to the public, information on certain facilities as described below in Table 7. The information has been available since November 1, 1990 and is updated annually thereafter. The provisions and requirements of the Concurrency Management System apply only to those facilities listed in Table 7.

TABLE 7
PUBLIC FACILITIES CAPACITIES AND LEVEL-OF-SERVICE INVENTORY
FOR CONCURRENCY MANAGEMENT

The following inventories shall be maintained by the Department of Community Development to be used for the concurrency assessment of new development.

TRANSPORTATION

Design capacity of different roadway types and bikeways.

The existing level of service measurement.

Analysis of specific facilities.

The service degradation on those facilities classified as backlogged, based on the methodology described in the Transportation Element of this Plan.

The adopted level of service standards for all roadway types and desired level of service standard for bikeways.

The existing capacities or deficiencies of the transportation system.

The capacities reserved for approved but unbuilt development.

The projected capacities or deficiencies due to approved but unbuilt development.

The improvements to be made to the transportation system in the current fiscal year by the City, Volusia County, the Florida Department of Transportation, or other public agency and the impact of such improvements on the existing capacities or deficiencies.

SANITARY SEWER

The design capacity of the wastewater treatment facilities.

The existing level-of-service standards measured by the average number of gallons per day unit based on the average flows experienced at the treatment plant and the total number of equivalent residential units within the service area.

The adopted level-of-service standard for average daily flows per equivalent residential unit.

The existing deficiencies of the system.

The capacities reserved for approved but unbuilt development.

The projected capacities or deficiencies due to approved but unbuilt development.

The improvements to be made to the facility in the current fiscal year by any approved developments pursuant to previous development orders and the impact of such improvements on the existing capacities or deficiencies.

POTABLE WATER

Permitted groundwater withdrawal capacity as per the City’s Consumptive Use Permit.

The design capacity of potable water treatment facilities.

The existing level of service measured by the average number of gallons per day per unit based on the average flows experienced and the total number of equivalent residential units within the service area.

The existing potable water storage capabilities of the water system.

TABLE 7
(Continued)

POTABLE WATER (Continued)

The existing minimum water pressure.

The adopted level-of-service standards for the potable water facility components.

The existing capacities or deficiencies of the system.

The capacities reserved for approved but unbuilt development.

The improvements to be made to the facility in the current fiscal year by any approved developments pursuant to previous development orders and the impact of such improvements on the existing capacities or deficiencies.

The improvements to be made to the facility in the current fiscal year by the City and the impact of such improvements on the existing capacities or deficiencies.

SOLID WASTE DISPOSAL

The design capacity of solid waste disposal facilities.

The existing level of service measured by the number of units served per route.

The adopted level-of-service standard for solid waste.

The capacities reserved for approved but unbuilt development.

The projected capacities or deficiencies due to approved but unbuilt development.

The improvements to be made to the system in the current fiscal year by any approved developments pursuant to previous development orders and the impact of such improvements on the existing capacities or deficiencies.

The improvements to be made to the system in the current fiscal year by the City and the impact of such improvements on the existing capacities or deficiencies.

STORMWATER DRAINAGE

The existing level of service measured by storm event.

The adopted level-of-service standard for stormwater drainage quantity and quality.

RECREATION AND OPEN SPACE

The existing acreage of parkland and the existing number of recreation facilities in the Recreation and Open Space Element of this Plan.

The existing level of service measured by the number of acres of parkland available per 1,000 residents of the City based on an inventory of parklands in the City and the population of the City.

The existing level of service for recreation facilities measured by the adopted standard based on an inventory of the facilities in the City and the population of the City.

The adopted level-of-service standards for parkland acreage and individual recreation facilities in the Recreation and Open Space Element of this Plan.

TABLE 7
(Continued)

RECREATION AND OPEN SPACE (Continued)
The existing capacities reserved for approved but unbuilt development.
The projected capacities or deficiencies due to approved but unbuilt development.
The improvements to be made to the recreation facilities in the current fiscal year by any approved developments pursuant to previous development orders and the impact of such improvements on the existing capacities or deficiencies.
The improvements to be made to the recreation facilities in the current fiscal year by the City and the impact of such improvements on the existing capacities or deficiencies.
PUBLIC SCHOOL FACILITIES*
The existing level-of-service for each School Concurrency Service Area.
The adopted level-of-service standard for each School Concurrency Service Area.
The existing and projected deficiencies of the system.
The number of approved residential units and their projected students that have received school concurrency certificates, but whose units are not constructed.
The projected capacities and level-of-service due to approved but unbuilt residential development.
The improvements to be made by any approved developments pursuant to Capacity Enhancement Agreements and/or Mitigation Agreements and the projected impact of such improvements on school capacities and the adopted level-of-service.
*The Public School Facilities inventories are maintained by the School Board of Volusia County.

Source: City of Port Orange, 2009

CONCURRENCY ASSESSMENT

The Department of Community Development is responsible for determining concurrency for all applications of development orders for final site plans and/or applications of development orders for final site plans and/or final subdivision plans. When reviewing applications for such development orders, the Department performs a Concurrency Assessment to ensure that public facilities are available concurrent with the impacts of the proposed development. To conduct the assessment, the inventory presented in Table 7 is used as a base for the establishment of existing conditions. The capacity of existing public facilities to service new development shall then be determined by using the general rules presented in Table 8 and the facility-specific rules presented in Table 9. Finally, a determination of concurrency is made. Such determination may include conditions of approval which are deemed necessary for concurrency to be ensured.

The Department of Community Development provides recommendations to the Planning Commission and City Council concerning those development order applications which require Planning Commission and City Council approval. The comments and recommendations provided by the Department include, but are not limited to:

1. the ability of existing facilities to accommodate the proposed development at the adopted level-of-service standards;
2. any existing facility deficiencies that will need to be corrected prior to the completion of the proposed development;
3. the facility(s) improvements or additions that will be needed to accommodate the impacts of the proposed development at the adopted level(s)-of-service standard(s);
4. the date such facility(s) improvements or additions will need to be completed to be concurrent with the impacts on such facility(s) created by the proposed development; and
5. a recommendation of approval or denial with any applicable conditions for the timing and location of needed improvements.

Prior to the issuance of a development order for a proposed new development, the City Council and/or the Department of Community Development determines:

1. the impacts created by the proposed development;
2. whether the public facilities covered under the Concurrency Management System will be available concurrent with the impacts of new development at the adopted level;
3. those facility(s) improvements or additions that are required to ensure the finding of concurrency; and
4. the entity responsible for the design and installation of all required facility(s) improvements or additions.
5. whether the development will have to participate in a Concurrency and Fair Share Agreement, as outlined in the City's Proportionate Fair Share Ordinance.

The adopted level-of-service standards are the minimum acceptable standards with which all proposed new development shall comply. The Concurrency Management System does not preclude the Planning Commission or the City Council from imposing other conditions of approval, including improvements and additions to the facilities covered under this system beyond the minimums necessary to achieve concurrency.

FACILITIES REPORTING

Annually, the Department of Community Development reports to the City Council the information required in Table 7. The report includes the degree of any deficiencies and a summary of the impacts the deficiencies will have on the approval of development orders. The Department of Community Development then recommends a schedule of improvements necessary to prevent a moratorium or a reduction in the approval of development orders.

TABLE 8
GENERAL RULES FOR CONCURRENCY ASSESSMENT

EXISTING DEFICIENCIES
No development may be approved which will impact any facility which is currently deficient unless the facility is required to be improved in the current fiscal year pursuant to a previous development order or permit, except within the Transportation Concurrency Exception Area. Any needed improvements shall be completed prior to the projected impacts of the proposed development as required by Table 7. Developments within the Town Center TCEA shall be required to provide funding contributions or mobility improvements commensurate with anticipated level of impact to the overall transportation system and shall be credited for any mobility improvements or programs deemed acceptable by the City as a means of offsetting such mobility impacts.
APPROVED IMPACTS
The impacts of new development shall be assessed against the existing conditions as described in Table 7 and the projected impacts from approved but unbuilt development. These two items together shall be considered the existing conditions for all public facilities for the impact assessment of all proposed development.
PHASING
Development that is proposed to be phased may also phase the improvement of facilities provided the concurrency requirements for each facility as described in Table 7 are met.
TIME SPECIFIC APPROVAL
All development approvals shall have a time period specified in the development order or permit in which development must commence. The time period may involve two or more phases but the timing of each phase shall be specified in the development order or permit. Any required improvements shall also require a time period for construction and completion. Should development or facilities improvements fail to begin or be completed in accordance with the development order or site construction permit, all outstanding approvals of the development shall expire. Amendments to time schedules shall be permitted but must be approved consistent with the procedures established in the Land Development Code.
ADDITIONAL INFORMATION
The Department of Community Development may require additional information from applicants or other City Departments in order for an accurate assessment to be conducted. Such additional informational requests shall be reasonable and be provided in writing to the applicant or appropriate Department. Should the Department of Community Development require a special study (such as traffic counts on a road that is not regularly monitored), the applicant shall provide such information. Review and approval of proposed development may be postponed for a reasonable time period in order that more information may be gathered on a facility. Proposed development may be denied approval, for failure of the applicant to provide adequate information on the projected impacts created by the development.

Source: City of Port Orange, 2009

TABLE 9
FACILITY SPECIFIC RULES FOR CONCURRENCY ASSESSMENT

TRANSPORTATION

Traffic impact analysis studies are required for development projects to determine the project impacts, maintain information on roadway conditions, and develop appropriate mobility mitigation strategies. Such studies must be consistent with the adopted TPO Guidelines. The studies shall calculate the number of trips generated by the proposed development, show the distribution and assignment of the projected trips, and project the level of service of impacted road links. Traffic studies shall still be required for projects within the Town Center Transportation Concurrency Exception Area (TCEA) to provide a measure of the projects impacts and to maintain information on the roadway conditions within the TownCenter TCEA to develop, monitor, and adjust mobility strategies.

Prior to the issuance of a Certificate of Occupancy, all facility improvements necessary to accommodate the impacts of the development shall be in place or planned for construction within the first three years of the adopted FDOT Work Program, County Road Program, and/or City CIP. If the necessary facility improvements will not be in place or under construction within three years of the time of the development approval, the development's approval will be subject to the signing of an enforceable development agreement, such as a Concurrency and Fair-Share Agreement, as outlined in the City's Proportionate Fair Share Ordinance. Completed improvements may be required prior to the issuance of a building permit if deemed necessary for public safety purposes. Outside the boundaries of the Transportation Concurrency Exception Area, the City may grant *de minimus* exceptions up to a cumulative 10% degradation of the adopted peak-hour LOS standard volume, as long as the facility is not an evacuation route or part of the State's SIS.

SANITARY SEWER

The City's Land Development Code provides sanitary sewer use standards for residential development based on equivalent residential units and for non-residential development based on gross leasable area. The City may also require commercial and industrial developments to provide a description and estimate of wastewater generations for any commercial or industrial processes which create wastewater that will be discharged into the City's system.

Prior to the issuance of a Certificate of Occupancy, all facility improvements necessary to accommodate the impacts of that portion of the development receiving a Certificate of Occupancy shall be in place, as required by the Development Order.

POTABLE WATER

The City's Land Development Code provides potable water use standards for residential development based on equivalent residential units and for non-residential development based on gross leasable area. The City may also require commercial and industrial developments to provide a description and estimate of water use needs for any commercial or industrial processes involving potable water.

Prior to the issuance of a Certificate of Occupancy, groundwater or alternative water supplies and all facility improvements necessary to accommodate the impacts of that portion of the development receiving a Certificate of Occupancy shall be in place, as required by the Development Order and the City Consumptive Use Permit.

TABLE 9
(Continued)

SOLID WASTE
The City's Land Development Code provides solid waste generation standards based on land use types. Commercial and industrial developments which are potential hazardous waste generators shall provide a description and estimate of tonnage of solid waste to be generated. The applicant will be responsible for coordinating with Volusia County for disposal of such waste. The City will then obtain written approval from Volusia County that the proposed development's hazardous waste generation can be accommodated at the County's landfill. Prior to the issuance of a Certificate of Occupancy, all facility improvements necessary to accommodate the impacts of that portion of the development receiving a Certificate of Occupancy shall be in place.
STORMWATER DRAINAGE
All development shall prepare a drainage plan based on the Stormwater Management regulations which incorporate the level-of-service design storm. Such plans shall be approved by the City's Storm Drainage Engineer prior to the approval of the development. Prior to the issuance of a building permit, all facility improvements necessary to accommodate the impacts of that portion of the development receiving the building permit shall be approved and a schedule established for their implementation such that all improvements shall be completed prior to the issuance of a Certificate of Occupancy.
RECREATION
The City's Land Development Code provides recreation standards for residential uses. Commercial and industrial developments shall not be assessed as having an impact on recreational facilities. However, the City reserves the right to require the provision of recreational facilities a part of Planned Commercial Developments. Prior to the issuance of a building permit, all facility improvements necessary to accommodate the impacts of the entire development shall be approved and a schedule established for their implementation such that all improvements shall be completed prior to the issuance of the last Certificate of Occupancy.
PUBLIC SCHOOLS
The Interlocal Agreement for Public School Facilities Planning, the Public School Facilities Element, and the City's Land Development Code provides district-wide level-of-service standards for all school types and establishes Concurrency Service Areas for each school type. The School Board shall conduct a concurrency review that includes findings and recommendations of whether there is adequate capacity to accommodate proposed development for each type of school, consistent with the adopted level-of-service. Prior to the issuance of the Final Development Order for a residential development or a development with a residential component, facility capacity necessary to accommodate the impacts of that portion of the development receiving a Development Order shall be in place or planned for construction within the first three years of the adopted five-year School District Capital Improvement Program. If the necessary facility capacity will not be in place or under construction within three years of the time of the development approval, the developer has the option to enter into negotiations for a Mitigation Agreement and development approval will be subject to the execution of the Mitigation Agreement.

Source: City of Port Orange, 2009

GOALS, OBJECTIVES, AND POLICIES

GOAL 1: CAPITAL IMPROVEMENTS

THE CITY SHALL UNDERTAKE NECESSARY ACTIONS TO ECONOMICALLY AND EFFICIENTLY PROVIDE NEEDED PUBLIC FACILITIES AND SERVICES TO ALL RESIDENTS WITHIN ITS JURISDICTION IN A MANNER WHICH PROTECTS INVESTMENTS IN EXISTING FACILITIES, MAXIMIZES THE USE OF EXISTING FACILITIES, AND PROMOTES ORDERLY COMPACT URBAN GROWTH.

Objective 1.1: Capital improvements will be provided to correct existing deficiencies, to accommodate anticipated future growth, and to replace outdated and obsolete facilities, as indicated in the Schedule of Improvements of this Element.

Policy 1.1.1: The City shall include all projects required to meet or maintain adopted LOS standards or implement the Goals, Objectives, and Policies of the Comprehensive Plan and determined to be of relatively large scale in cost ($25,000 or greater) as Capital Improvement Projects to be included in the Schedule of Improvements of this Element;

Policy 1.1.2: The City shall, for accounting purposes, also include into this Element Debt Service and Operating expenditures.

Policy 1.1.3: The City shall, as a matter of priority, schedule and fund all capital improvement projects in the City's annual Capital Improvement Program which are designed to correct existing deficiencies as listed in the various other Elements of this Plan.

Policy 1.1.4: The City will continue its current program providing for renewal and replacement of capital facilities as outlined in the various Elements of this Plan.

Policy 1.1.5: The Capital Improvements Coordinating Committee, composed of senior staff from operating departments and Finance, shall evaluate and rank on an annual basis in order of priority the projects proposed to be included in the Schedule of Improvements.

Policy 1.1.6: Proposed City capital improvement projects shall be evaluated and ranked in order of priority according to the following criteria:

A. Whether the project is needed to protect public health and safety, to fulfill the City's legal commitment to provide facilities and services, or to preserve or achieve full use of those facilities already in place.

B. Whether the project increases efficiency of use of existing facilities, prevents or reduces future improvement costs, provides services to developed areas lacking full service, or promotes in-fill development.

C. Whether the project represents a logical extension of facilities and services and is coordinated with the plans of state agencies that provide facilities within the City.

D. Whether the project implements the policies of this Comprehensive Plan as they pertain to the concurrency requirements or mobility strategies in support of the City's Town Center TCEA.

E. Whether the project is financially feasible.

Policy 1.1.7: The potential for reducing Vehicle Miles Traveled (VMTs) and green house gas (GHG) emissions should be considered in all location and investment decisions for public facilities.

Objective 1.2: Future development will bear a proportionate cost of facility improvements or mobility strategies necessitated by the development in order to maintain the adopted level-of-service standards or to maintain mobility within the City's Town Center Transportation Concurrency Exception Area (TCEA).

Policy 1.2.1: The City will continue to collect impact fees from development projects to pay for the provision of public facilities and services required by those projects.

Policy 1.2.2: The City shall consider the use of other impact feesto fund TCEA mobility strategies.

Policy 1.2.3: All new development shall be required to donate or reserve their fair share of right-of-way adjacent to major roadways prior to the issuance of a final development order.

Policy 1.2.4: All new development shall be required to pay its proportionate fair share toward transportation LOS and mobility improvements necessary to provide capacity for its impacts.

Objective 1.3: The City will manage its fiscal resources to ensure the provision of needed capital improvements for previously issued development orders and for future development and redevelopment.

Policy 1.3.1: In providing capital improvements, the City shall limit the maximum ratio of outstanding indebtedness to no greater then 15% of the property tax base.

Policy 1.3.2: The City shall continue to adopt a Capital Improvement Program and an Operating Budget on a yearly basis as part of this budgeting process for implementation of the Goals, Objectives, and Policies set forth in this Comprehensive Plan.

Policy 1.3.3: The City shall continue to apply for and secure grants or private funds whenever available to finance the provision of capital improvements and other City improvement projects.

Policy 1.3.4: Prior to the issuance of Certificates of Occupancy, the City will provide for all public facilities needed to service development for which Development Orders were previously issued.

Policy 1.3.5: The City shall allocate the costs of new public facilities on the basis of the benefits received by existing and future residents.

Policy 1.3.6: The City shall identify and use stable revenue sources which are also responsive to growth for financing public facilities.

Policy 1.3.7: The City shall continue to strive for financial self-sufficiency in the provision of public facilities.

Policy 1.3.8: A capital improvement scheduled to be funded through grants and/or funding that requires a referendum will not be undertaken if the grants are not secured or the referendum is not passed; however, if the improvement is needed to maintain a LOS standard, then all new development will be required to contribute its fair share towards the improvement.

Policy 1.3.9: The City shall identify funding sources for the mobility strategies in the Town Center Transportation Concurrency Exception Area (TCEA) annually during the update to the Capital Improvements Plan. Mitigation shall be satisfied through a combination of physical infrastructure improvements, as listed in the Transportation Mobility Element, or payment of impact fees, and proportionate fair-share contributions, or other future identified sources.

Policy 1.3.10: The City may create a special assessment district to secure funding for TCEA strategies and identified improvements within the Port Orange Town Center Redevelopment District. The City shall amend the Capital Improvements Schedule annually to incorporate funding from the special assessment district for capital improvements to enhance mobility within the TCEA.

Policy 1.3.11: The City will pursue and secure funding from other revenue sources including, but not limited to:

- Florida Inland Navigation Department (FIND) grants
- Volusia County ECHO grants
- Community Development Block Grant (CDBG) funds
- Ponce de Leon Port District
- Special Assessment District
- Florida Department of Economic Opportunity (DEO)
- Florida Department of Transportation (FDOT)
- Transportation Planning Organization (TPO)
- Transportation impact fees
- Utility projects (drainage, water, wastewater)
- Parking credits
- Gas tax

Objective 1.4: The City will utilize a Concurrency Management System so that decisions regarding the issuance of development orders and permits will be based upon coordination of the development requirements included in this Plan, the land development regulations, and the availability of necessary public facilities to support such development at the time needed.

The Transportation Concurrency Exception Area provides concurrency exceptions for the issuance of development orders and permits for infill development and redevelopment based upon the multimodal transportation policies and strategies for mobility included in this Plan.

Policy 1.4.1: The City shall use the following Level-of-Service (LOS) standards in reviewing the impacts of new development and redevelopment upon public facility provision, except for the Roadways within the Transportation Concurrency Exception Area as described in the Transportation Mobility Element:

Sanitary Sewer --

Capacity: 160 gallons per equivalent residential unit per day. 1/10 gallon per square foot per day of commercial, industrial, or institutional development

Solid Waste --

Capacity: 3.21 pounds per capita per day; up to 1,350 residential units per curbside collection vehicle; 10 lbs/1,000 square feet of non-residential development

Potable Water --

Per Capita Consumption: 180 gallons per day per equivalent residential unit. 1/10 gallon per square foot per day of commercial, industrial, or institutional development; not to exceed CUP capacity for groundwater withdrawals

System Minimum Pressure during fire flow: 20 psi

Storage Provided: 50% of daily flow

Well Capacity: Meet or exceed CUP capacity for groundwater withdrawals

Normal Operating Pressure: 60-70 psi

Water Plant Capacity: Adequate for peak day. Three year lead time for planned expansion.

High Service Pumping: Peak hour with largest pump out of service. Expansion concurrent with treatment capacity.

Water Quality: Meet State and Federal Drinking Water Standards.

Drainage --

Quantity: 25-year, 24-hour storm event; per Drainage Sub-Element.

Quality: Reduction of pollutants to a level compatible with State Standards.

Transportation --

LOS C for FIHS and SIS roads
LOS E for City and County-maintained arterials and collectors

LOS D for Williamson Boulevard (*Spruce Creek* to Airport Road)
LOS D for State maintained non SIS or FIHS roadways, and designated hurricane evacuation routes

Desired LOS D for bikeways

Recreation Standards for Facilities --

Parkland	7 acres / 1,000 persons
Ball Field	1 field / 5,000 persons
Basketball Court	1 court / 4,000 persons
Multipurpose Field	1 field / 3,500 persons
Tennis Court	1 court / 4,000 persons
Neighborhood Center	1 facility / 15,000 persons

Policy 1.4.2: Prior to the approval of an application for a final subdivision or development plan, the City will review the proposed application to ensure that public facilities and services needed to support the development are available concurrent with the impacts of such development based on the Concurrency Management System as set forth in the Capital Improvements Element (Tables 7, 8, and 9) and as provided in Goals 1 and 2 of the Transportation Mobility Element.

Policy 1.4.3: Provisions in the Comprehensive Plan that ensure public facilities and services standards will be met to satisfy the Concurrency requirement are listed below.

A. The necessary facilities and services are in place or under construction at the time a development permit is issued; or

B. A development permit is issued subject to the condition that the necessary facilities and services will be in place when the impacts of the development occur. For required roadway facilities, the construction commencement and completion date and source of funds for the necessary facility shall be adopted in the Capital Improvements Schedule; or

C. The necessary facilities and services are guaranteed in an enforceable development agreement. The agreement must guarantee that the necessary facilities and services will be in place when the impacts of the development occur; or

D. At the time the development permit is issued, the necessary facilities and services are the subject of a binding executed contract which provides for the commencement of the actual construction of the required facilities or the provision of services within three years of the development approval; or

E. The necessary facilities and services are guaranteed in an enforceable development agreement which required the commencement of the actual construction of the facilities or the provision of services within one year of the issuance of the applicable development permit; or

F. The necessary facilities and services are guaranteed in an adopted CIP but are not funded for construction within the first three years, and the development has entered into a Fair-Share Agreement to pay its proportionate fair share toward the required facilities.

For potable water, sewer, solid waste, and drainage facilities, at a minimum, one of provisions A-C must be met to satisfy the concurrency requirement. For parks and recreation and transportation facilities, any one of the provisions A-E must be met to satisfy the concurrency requirement. It should be noted, however, that concurrency for transportation facilities, as per provisions C and E, is predicated only upon development agreements which are subject to Chapter 163.3220 (Florida Local Government Development Agreement Act) or Chapter 380 (Land and Water Management), Florida Statutes.Pursuant to 163.3180 F.S., the portion of the City designated as a Transportation Concurrency Exception Area (TCEA) is not subject to State-mandated transportation concurrency requirements. In accordance with this statute, the City has developed mobility strategies which must be met for development to occur, in the TCEA. As development occurs, mitigation shall be satisfied through a combination of physical infrastructure improvements, as listed in the Transportation Mobility Element, or payment of impact fees, and proportionate fair-share contributions, or other future identified sources. These must be guaranteed using any one of options above.

Policy 1.4.4: Proposed plan amendments and requests for new development or redevelopment shall be evaluated according to the following guidelines as to whether the proposed action would:

A. Be consistent with the Public Facilities Element and the Coastal Management Element and not contribute to a condition of public hazard.
B. Be consistent with the Transportation Mobility Element; Public Facilities Element; and Recreation and Open Space Element and not intensify any existing public facility capacity deficits not envisioned within this plan.
C. Generate public facility demands that may be accommodated by planned capacity increases.
D. Conform with future land uses as shown on the future land use map, and Urban Service Areas as described in the Public Facilities Element of this Plan.
E. Accommodate public facility demands based upon level-of-service standards by provision of facilities by the developer or by the City consistent with this element.
F. Be consistent with state and regional agencies' and water management district's facilities plans.

Policy 1.4.5: The City shall include projects within the City's Five-Year Capital Improvements Program and the Capital Improvements Element to fund mobility and implement strategies to support the Town Center Transportation Concurrency Exception Area (TCEA). The identified projects will be prioritized consistent with the Transportation Mobility Element.

Policy 1.4.6: The City will work annually through the TPO's Transportation Improvement Program (TIP) with FDOT, the TPO and Volusia County to promote the inclusion of projects in their plans, programs and development regulations that maintain mobility within or that would benefit the TCEA in terms of mobility; and to identify joint funding strategies, including special assessment and developer contributions, that would allow for the acceleration of long range improvements for inclusion with the TIP or the City's 5-year Capital Improvements Schedule, as appropriate.

Policy 1.4.7: Capital Improvements necessary for water supply concurrency will be identified and included in the annual update to the Capital Improvements Schedule.

GOAL 2: PUBLIC SCHOOL FACILITIES

PROVIDE FOR A FINANCIALLY FEASIBLE PUBLIC SCHOOL FACILITIES PROGRAM.

***Objective 2.1*: The City of Port Orange shall ensure that the capacity of schools is sufficient to support residential subdivisions and site plans at the adopted level-of-service standard. This level of service standard shall be consistent with the level of service standard adopted in the interlocal agreement entered into by the School Board and the local governments within Volusia County.

Policy 2.1.1: The level-of-service standard adopted by the City of Port Orange is the same as adopted by all local governments within Volusia County and by the School Board and shall be applied district-wide to all schools of the same type.

Policy 2.1.2: Consistent with the interlocal agreement, the uniform, district-wide level-of-service standards are set as follows using FISH capacity based on the traditional school calendar:

Elementary Schools: 115% of permanent FISH capacity for the concurrency service area

K- 8 Schools: 115% of permanent FISH capacity for the concurrency service area.

Middle Schools: 115% of permanent FISH capacity for the concurrency service area

High Schools: 120% of permanent FISH capacity for the concurrency service area

Special Purpose Schools: 100% of permanent FISH capacity

***Objective 2.2*: The City of Port Orange shall cooperate with the School Board to ensure existing deficiencies and future needs are addressed consistent with adopted level of service standards for public schools.

Policy 2.2.1: By December 1 of each year, the City of Port Orange shall adopt as part of its Capital Improvement Element the Volusia County School District five year work program approved in September of each year as part of the School

District budget, including planned facilities and funding sources to ensure a financially feasible capital improvements program and to ensure the level of service standards will be achieved by the end of the five-year period.

Policy 2.2.3: The City of Port Orange shall coordinate with the School Board and adopt development requirements to ensure that future development pays a proportionate share of the costs of capital facility capacity needed to accommodate new development and to assist in maintaining the adopted level-of-service standards via impact fees and other legally available and appropriate methods.

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2022

CONCURRENCY MANAGEMENT REPORT

Prepared by the
Department of Community Development
November 2022

CONTENTS

This 2022 Concurrency Management Report was prepared by the Community Development Department, with assistance from the Finance, Parks & Recreation, Public Utilities, and Public Works Departments and Volusia County Schools.

I. EXECUTIVE SUMMARY

Concurrency is the finding that public facilities and services necessary to support new development are available, or will be made available, by the time the impacts of development are expected to occur. As mandated by State law, all municipalities must conduct concurrency reviews on development proposals and make a finding of concurrency before any development orders or permits can be issued. Concurrency reviews evaluate a project's impact on the following seven public facilities and services:

Transportation
Sanitary Sewer
Potable Water
Stormwater Drainage
Solid Waste
Recreation
Public Schools

The concurrency management system for the City of Port Orange is established by policy in the City's Comprehensive Plan and administered through regulations contained within the City's Land Development Code. The Community Development Department is responsible for regularly monitoring the cumulative effect of all approved Development Orders and Development Permits on the capacity of public facilities. In addition to the individual concurrency reviews for current development proposals, this report, prepared annually, is intended to meet this obligation.

From October 1, 2021, through September 30, 2022, the Community Development Department issued Development Orders that secured capacity reservations for 424,798 square feet of new non-residential space and 764 residential units.

In review of the City's position with respect to concurrency, the public facilities and services subject to concurrency review are at sufficient levels for FY 22/23.

- Traffic: Traffic volumes within the city have increased on some segments and decreased on other segments over the past year. Roads on the west side of I-95 will continue to experience the most traffic growth in the future. The capacity on Williamson Boulevard north of the Pavilion, and Taylor Road between Dunlawton Avenue and Clyde Morris Boulevard, will need to continue to be monitored as these segments are above or near the Level of Service (LOS) standard established by Volusia County. Throughout the city, roadway capacity improvements are planned or being planned for the next several years to keep pace with anticipated development.
- Sanitary Sewer and Potable Water: These systems continue to have capacity to support additional growth within the city. The LOS for potable water will be monitored to ensure that permitted ground water withdrawal capacity per the Consumptive Use Permit, issued to the City by St. Johns River Water Management District, is not exceeded.
- Stormwater Drainage: The stormwater LOS requirement is being met for all drainage facilities constructed after the 1970's (when the city's stormwater regulations were

adopted) with respect to being able to treat the runoff from the 25-year, 24-hour storm without causing flooding or polluting the receiving water bodies. The city continues to identify long-term solutions and implement drainage improvement and maintenance programs to enhance the function of the full stormwater system including those areas developed prior to the adoption of the stormwater regulations.

- Solid Waste: Solid waste generation rates are above the adopted LOS standard. There is no concurrency review for trash collection; however, the city's ability to collect and dispose of this waste is subject to concurrency review. As long as the City has sufficient financial resources to pay for private waste collection and space is available at the landfill, the City will have fulfilled its obligation to ensure that its waste is collected and disposed, regardless of the LOS standard. The amount of solid waste generated by individuals is not something that the city can directly control; however, the city can promote recycling programs to inform residents and businesses about the benefits of reducing the amount of waste generated.
- Recreation and Open Space: There are surpluses for each recreation facility that will meet the adopted LOS through the planning horizon (2025).
- Public Schools: The LOS is being met for all the public schools located in the Port Orange area.

II. OVERVIEW OF CONCURRENCY MANAGEMENT

Concurrency is the finding that public facilities and services necessary to support a proposed development are available or will be made available concurrently with the impacts of a development. All Florida municipalities are required to adopt and implement concurrency management systems in accordance with State law.

The concurrency management system for the City of Port Orange is established by policy in the city's Comprehensive Plan and administered through regulations contained within the city's Land Development Code (LDC). Local level-of-service standards (LOS) for seven types of public facilities and services have been adopted as part of the Comprehensive Plan. During the subdivision or site plan review process, the city evaluates each proposed development for its anticipated impact on these facilities and services and makes a finding of whether approval of the project would cause these facilities or services to drop below their adopted LOS.

In general, no final Development Orders or permits may be issued for development until there is a finding that all public facilities and services included in the city's Concurrency Management System have sufficient capacity to accommodate the impacts of the development, or that improvements necessary to bring facilities up to their adopted LOS will be in place at the same time the impacts occur. Development Orders and permits include subdivision approval, site development plan approval, and the issuance of building permits.

Public Facilities and Services Subject to Concurrency Review

Concurrency review evaluates impacts on seven types of public facilities and services:

Transportation
Sanitary Sewer
Potable Water
Stormwater Drainage
Solid Waste
Recreation
Public Schools

If the city's concurrency review reveals a proposed development will generate impacts that exceed available capacity, the city must secure a financial, or other legally binding commitment, to ensure that improvements necessary to correct the anticipated deficiency will be in place concurrent with the impacts of the proposed development. Should the city and/or the developer be unable to provide such assurances, the project must be denied. Projects denied due to a failure to meet concurrency requirements, but for which all other LDC requirements have been met, can be placed on a prioritized list for approval of Development Orders once facility improvements have been made.

Concurrency Administration

The Community Development (CD) Department is responsible for coordinating all concurrency reviews by City departments. Concurrency reviews are conducted as part of the development review process for site plans and residential subdivisions. The CD Department may also conduct non-binding concurrency reviews for developments in the pre-application or conceptual plan stage.

The CD Department is also responsible for monitoring the cumulative effect of all approved Development Orders and development permits on the capacity of public facilities. The annual Concurrency Management Report is intended to meet this obligation.

From October 1, 2021, through September 30, 2022, the CD Department conducted concurrency reviews for 8 non-residential projects and 5 residential projects. During this period, Development Orders were issued (or extended) and capacity reservations were secured for a total of 424,798 square feet of new non-residential space and 764 residential units. As of September 30, 2022, there is 981,220 square feet of non-residential space and 1,214 residential units that remain vested but un-built from previous years (see Exhibit 1).

Exemptions from Concurrency

Three types of development are exempt from concurrency review.

1. Vested projects with valid development orders or permits issued prior to November 1, 1990;
2. Public facilities; and
3. De minimus projects.

Development Orders for projects which meet these criteria may be issued without a finding of concurrency. However, if the proposed development will impact a public facility for which a deferral or moratorium on development has been placed, then no Development Orders may be issued until the deficiency is corrected.

Public facilities necessary to ensure the protection of the health, safety and general welfare of the citizens of Port Orange are exempt from concurrency review. This includes all public facility construction projects in the city's Capital Improvements Program required to maintain adopted LOS standards. This means that new public facilities, such as fire stations, are not reviewed to determine whether they will generate impacts that may negatively affect the City's level of service standards.

A de minimus development has very minimal impact, if any, on the city's adopted level of service standards set forth in the Comprehensive Plan. The following criteria are used to determine if a development is de minimus:

- Development of a single-family or two-family (duplexes) dwellings on a lot of record or un-platted parcel created before April 10, 1990 is deemed to be de minimus from all Concurrency reviews.
- Development with a daily trip generation rate of less than one percent of the maximum trip volume at the adopted level-of-service on an adjacent roadway and, on non-hurricane evacuation routes, would not cause the maximum volume to be exceeded by 110 percent is deemed de minimus for purposes of assessing

transportation LOS.

- Development that does not increase the number of school-age residents beyond the district-wide LOS standards established by the Volusia County School Board is deemed de minimus for purposes of assessing school levels of service.

In addition, developments in the Port Orange Town Center Transportation Concurrency Exception Area (TCEA) are exempt from the standard vehicular transportation concurrency review requirements of the LDC. The TCEA is intended to support the redevelopment objectives of the city by providing a multi-faceted strategy for maintaining acceptable overall mobility, while minimizing the need for major road improvements that would potentially alter the desired character of the Town Center. Development within the TCEA is required to comply with the mobility strategies identified by the city to ensure continued safety and efficiency of the transportation system and to mitigate the impacts of the proposed development. While there has been an increase in development within the Port Orange Town Center CRA over the past 5 years, there are no transportation concurrency issues in the area.

Vested Development

Development projects which had valid Development Orders or permits prior to the commencement of the City's concurrency regulations on November 1, 1990, are considered vested. This also includes all vacant single-family and two-family residential lots in subdivisions platted before that time. Lots and parcels which are vested for concurrency but have not yet been constructed or built out are considered reserved, meaning that the capacity has been reserved in the concurrency system to support their eventual construction.

When completed and occupied, the vested and reserved residential development will add approximately 2,901 new citizens to Port Orange[1]. The current list of remaining vested development, as of September 30, 2022, is listed in Exhibit 1, along with the developments that have current Development Orders and capacity reservations.

[1] Average household size is 2.39, per the 2020 Census. Previous census provided average household size by housing unit type (i.e., single-family, multi-family, mobile home). As of the 2010 Census, this data is no longer provided.

EXHIBIT 1: VESTED & RESERVED DEVELOPMENT (September 30, 2022)

RESIDENTIAL DEVELOPMENT

SINGLE-FAMILY SUBDIVISIONS	NUMBER LOTS
Angler's Cove	4
Cambridge Acres	2
Carter Woods	2
Countryside I-XII	2
Golden Pond Estates	1
Hidden Oaks at Spruce Creek	2
Ken Bern	1
Kings Landing	24
Kings Landing II	45
Kingswood I-III	1
Northern Lites	3
Oakland Park I-III	1
Palms Del Mar	1
Pheasant Run West	1
Reedy Creek Acres	1
Reedy Creek North	2
The Sanctuary on Spruce Creek I-III	2
Sawgrass Point I-III	1
Skylake II-III	1
Sleepy Hollow II	1
Spruce Creek Woods	1
Sugar Forest III	1
Summertrees South I-III	2
Sweetwater Estates	8
Syford Acres	2
Viking I-II	1
Westport Reserve 4	8
Woodhaven I	25
Woodhaven II	175
Woodlake	2
TOTAL	**323**
MOBILE HOME LOTS / SPACES	
Bayview	3
Crane Lakes	8
Halifax Estates	8
Laurelwood I-V	1
Pickwick Village	10
Spruce Creek Village	5
Twin Gates	3
TOTAL	**38**
MULTI-FAMILY/TOWNHOUSE/DUPLEX UNITS	
Bella Oaks	37
Canalview Place	20
Country Apartments	14
Eden Apartments	168
Hawks Mill Apartments	360
Hidden Village	1
Oak Cove Villas	12
Potato Patch	1
Southern Oaks	6
Town West Senior Apartments	115
Trailwood I	8
Woodhaven I	11
Woodhaven II	100
TOTAL	**853**
GRAND TOTAL	**1,214**

NON-RESIDENTIAL DEVELOPMENT

DEVELOPMENT	SQUARE FEET
Advent Health Medical Office Building	32,000
Christ The King Community Church	9,112
Clean Machine Car Wash	3,683
Conviva (New Port, Lot 4)	12,991
Crane Lakes Depot	66,064
Eastport, Lot 9B (Pioneer Arms Corps)	20,000
Eddin Medical Office	1,816
Eddin Retail	2,880
Halifax Health at Oakwater	29,736
Halifax Health Port Orange (Lot 3)	6,979
Holiday Inn Express	51,504
Madeline Williamson Property	29,600
Newport Lot 3 (2 buildings)	7,982
Oak Street Industrial Park	9,014
Pavilion at Port Orange (Lot 5)	124,903
Paytas Office Building	11,032
Port Orange Neighborhood Storage	103,314
Raydon, Phase II	66,557
Stor-It Self Storage	209,104
Thompson Pump	162,141
Unatin Office Bldg.	8,300
Woodspring Suites	12,508
GRAND TOTAL	**981,220**

Adopted Level-of-Service Standards (LOS)

The adopted level-of-service standards (LOS) for public facilities subject to concurrency are established in the City of Port Orange's Comprehensive Plan and the Land Development Code. The standards for each facility and service are indicated in Part II of this report.

Capacity Reservations

If a concurrency review for a proposed development reveals that there is sufficient capacity to support it, a Development Order will be issued, and capacity is reserved. Capacity reservations are made based on the date of project approval by the Community Development Department or the City Council. Capacity reservations are made in conjunction with the issuance of a final Development Order. They are valid only for the specific land use(s), densities, intensities and construction and improvement schedules as contained on the Development Order and any applicable development agreements for the property.

The issuance of a Development Order generally reserves public facility capacity for the project for one year. For Planned Unit Developments (PUD) and Planned Commercial Developments (PCD), capacity may be reserved for the first phase of the project for up to one year from the issuance of the approval. Capacity reservations for concurrency expire when the underlying Development Order or development agreement expires or is revoked.

The City Council may also reserve public facility capacity for a particular land area or specific land use, provided it is done in accordance with a specific development or redevelopment strategy identified in the Comprehensive Plan. This would include such community development objectives as providing affordable housing or diversification of the tax base.

Development Deferrals/Moratoria

If, at any time, the city's inventory of public facilities capacities indicates that a facility has dropped below its adopted LOS, then the City will cease to issue any Development Orders which would impact that facility. Such a deferral will continue until the adopted LOS is reestablished through facility improvements or other methods, or the adopted LOS as established in the Port Orange Comprehensive Plan is amended to reflect a lower, acceptable community standard. If improvements to a facility are not anticipated to keep pace with the demand brought about by new development, then the city may declare a development deferral or moratorium of specified duration and/or location.

III. CURRENT CAPACITIES AND LEVEL-OF-SERVICE

This section of the report will look at each facility subject to concurrency. First, the facility's adopted level-of-service (LOS) will be identified. Next, the current status of the facility relative to its adopted LOS will be evaluated. Lastly, the City's ability to meet the demands of new development at adopted levels-of-service during the upcoming year will be considered and a description of projected long-term improvements is provided.

TRANSPORTATION FACILITIES

Level of Service Measures

The city evaluates LOS for concurrency review purposes based on peak-hour trips for city roads and on peak-hour and daily trips for County and State roads. This allows the city to evaluate the existing and projected LOS on roadway segments so the city can target specific improvements to maintain the adopted LOS or to make improvements for specific movements, if necessary.

Adopted Level-of-Service Standards

Exhibit 2 lists the currently adopted level-of-service standards for roads in the city. The adopted LOS Standard is set by the maintaining agency for the roadway.

Exhibit 2: Adopted Roadway Level-of-Service Standards

Administrative Facility Type	Adopted LOS Standard
Florida Strategic Intermodal System (SIS)	C
State Arterials (FDOT) and non-SIS roads	D
County (Volusia County)	E
City (Port Orange)	E

Florida Strategic Intermodal System (SIS) Roadways - LOS "C"

In Port Orange, the sole Florida Strategic Intermodal System (SIS) roadway facility is I-95. The state mandates these roads be maintained at LOS "C" or better. According to the Highway Capacity Manual, LOS "C" is defined as stable flow, but the operation of individual users is significantly affected by interactions with other vehicles in the traffic stream. Ability to select and maintain a desired speed is affected by the presence of other vehicles, and changing lanes becomes more difficult.

State Arterials (Non-SIS Facility) & Designated Hurricane Evacuation Routes - LOS "D"

State-maintained principal arterials and hurricane evacuation routes are designated at LOS "D". US 1 (Ridgewood Avenue), SR 421 (Dunlawton Avenue), SR A1A (Dunlawton bridge) and SR 5A (Nova Road) are designated with LOS "D". According to the Highway Capacity Manual, LOS "D" is defined as high-density yet stable flow. The ability to select a desired speed and to change lanes is severely restricted, although the driver or passenger still experiences a fair level of comfort and convenience. Small increases in traffic flow can cause operational delays at this LOS.

All City Roads and County Arterial and Collector Facilities - LOS "E"
The city's LOS standard for city roads and the Volusia County LOS standard for county roads is "E". According to the Highway Capacity Manual, LOS "E" is defined as high-density and often unstable traffic flow. Speeds are generally reduced to a low, but relatively uniform value during peak periods. The ability to change lanes is extremely difficult and is generally accomplished by forcing another vehicle to slow down to accommodate such maneuvers. Comfort and convenience are poor and driver frustration is high. Small increases in traffic volume or other minor problems such as a stalled vehicle can cause traffic delays.

Design Capacity LOS and Existing Level-of-Service
The capacity of a roadway is based on roadway characteristics for urbanized areas described in Table 1 of the latest edition of the Quality Level of Service Handbook (2020) published by FDOT. The volume to capacity ratio or VC ratio measures the amount of traffic on a given roadway relative to the amount of traffic the roadway was designed to accommodate. Exhibit 3, "Roadway Counts, Functional Classification and LOS" indicates the design capacity and adopted levels of service of various arterial and collector roadways in the City of Port Orange, existing traffic volumes, existing level-of-service, and the percentage change in traffic volumes between 2020 and 2021 for county roadways, between 2020 and 2021 for state roadways and between 2021 and 2022 for city roadways.

Traffic Counts and Trends

According to the latest traffic count volumes available for the roads within the city, there were moderate increases on some road segments and decreases on other road segments (see Exhibit 3). The volumes indicated in Exhibit 3 are presented as average daily trips. The most recent daily traffic counts available were taken in April 2022 for city roads and in 2021 for county and state roads. There is one roadway segment along Williamson Boulevard operating above the adopted Volusia County LOS standard (Willow Run Boulevard to Town West Boulevard). All other city, county, and state roads within the city are operating below their adopted LOS standard.

State Roads (2021 Data)
There were no state maintained roadway segments that exceeded the adopted LOS standard. Of the 14 state count stations, 3 showed a traffic volume increase, while the remaining count stations showed a decrease or no change in traffic volume. Capacity remains on these roadway segments and staff will continue to monitor traffic volume counts in this area. Overall, there was a 11.6% decrease in total trips on the state's roads within the city from 2020 to 2021.

County Roads (2021 Data)
There is one county maintained roadway segment that exceeded the adopted LOS standard, the segment is Williamson Boulevard between Willow Run Boulevard and Town West Boulevard. Between 2021 and 2020 of the 24 county count stations, 16 showed traffic volume increases, 6 showed traffic volume decreases, and two showed no change. Overall, there was an 4.46% increase in total trips on Volusia County roads within the city from 2020 to 2021.

City Roads (2022 Data)

There were no local maintained roadway segments that exceeded the adopted LOS standard. Of the 29 city count stations, 27 stations showed increases in traffic and only two showed decreases due to a road closure at the time of the counts (Canal View Boulevard). The 2022 city traffic counts show a comparable level to the pre-Covid 2019 traffic counts. Overall, there was a 1.42% increase in total trips on City roadways from 2021 to 2022.

Exhibit 3: Roadway Counts, Functional Classification and LOS (Blue = State Road/count; Yellow = County Road/count; White = City Road/count)

ROAD	LOCATION	COUNT STATION	NO. OF LANES	FUNCT. CLASS[A]	ADOPTED LOS STANDARD	ADOPTED LOS CAPACITY	2019 VOLUME	2020 VOLUME	2021 VOLUME	2022 VOLUME	EXISTING LOS	% Change [B]	VC Ratio [C]
Airport Road	Pioneer Trail-Williamson	64	2	CO	E	32,600	6,600	6,260	7,310	N/A	B	16.77%	22.42%
Canal View Blvd.*	Nova Rd. to Spruce Creek Rd.	201	2	CO	E	12,744	2,146	1,967	2,050	1,229	B	-40.05%	9.64%
Central Park Blvd.	Hensel Rd. to Spruce Creek Rd.	2201	2	local	E	12,744	2,863	2,644	2,449	2,822	B	15.23%	22.14%
Charles St.	Ridgewood Ave. to FEC Railroad	301	2	local	E	12,744	2,031	1,879	1,408	1,615	B	14.70%	12.67%
Charles St.	FEC Railroad to McDonald Rd.	302	2	local	E	12,744	2,776	2,114	2,158	2,239	B	3.75%	17.57%
City Center Pkwy.	Dunlawton Ave. to City Center Cir.	2401	2	local	E	12,744	5,626	3,995	4,341	5,157	B	18.80%	40.47%
City Center Blvd.	Clyde Morris to City Center Cir.	2402	2	local	E	12,744	5,062	3,478	3,875	4,534	B	17.01%	35.58%
City Center Dr.	Herbert St. to City Center Cir.	2403	2	local	E	12,744	2,591	1,883	2,210	2,335	B	5.66%	18.32%
Clyde Morris Blvd.	N. City Limits to Madeline Ave.	335	4	UPA	E	37,970	20,350	21,160	21,520	N/A	C	1.70%	56.68%
Clyde Morris Blvd.	Madeline Ave. to Willow Run	333	4	UPA	E	37,970	21,430	18,820	23,390	N/A	C	24.28%	61.60%
Clyde Morris Blvd.	Willow Run Blvd. to Dunlawton Ave.	332	4	UPA	E	37,970	18,660	16,850	19,360	N/A	C	14.90%	50.99%
Clyde Morris Blvd.	Dunlawton Ave. to Taylor Rd.	330	2	UMA	E	17,050	9,910	8,210	9,150	N/A	C	11.45%	53.67%
Commonwealth Blvd.	Spruce Creek Rd. to FEC Railroad	360	2	MA	E	13,640	5,540	5,260	5,510	N/A	C	4.75%	40.40%
Commonwealth Blvd.	FEC Railroad to Ridgewood Ave.	361	2	MA	E	13,640	3,870	3,850	3,830	N/A	C	-0.52%	28.08%
Country Ln.	Village Trail to Smokerise Blvd.	601	2	local	E	12,744	5,697	5,273	5,394	5,535	B	2.61%	43.43%
Country Ln.	Smokerise Blvd. to Taylor Rd.	602	2	local	E	12,744	4,491	4,289	4,212	4,357	B	3.44%	34.19%
Dunlawton Ave.	Peninsula Dr. to Ridgewood Ave.	427	4	PA	D	32,400	25,500	24,500	24,500	N/A	D	0.00%	75.62%

ROAD	LOCATION	COUNT STATION	NO. OF LANES	FUNCT. CLASS[A]	ADOPTED LOS STANDARD	ADOPTED LOS CAPACITY	2019 VOLUME	2020 VOLUME	2021 VOLUME	2022 VOLUME	EXISTING LOS	% Change [B]	VC Ratio [C]
Dunlawton Ave.	Ridgewood to Spruce Creek Rd.	5181	4	PA	D	39,800	26,500	25,500	25,500	N/A	C	0.00%	64.07%
Dunlawton Ave.	Spruce Creek Rd. to Nova Rd.	1015	4	PA	D	39,800	33,000	32,000	32,000	N/A	C	0.00%	80.40%
Dunlawton Ave.	Nova Rd. to Clyde Morris Blvd.	1014	6	PA	D	59,900	40,000	39,000	39,000	N/A	C	0.00%	65.11%
Dunlawton Ave.	Clyde Morris Blvd. to I-95	517	6	PA	D	59,900	53,500	52,000	52,000	N/A	C	0.00%	86.81%
Hensel Rd.	Taylor Rd. to Central Park Blvd.	1001	2	local	E	12,744	6,630	6,713	6,268	6,757	B	7.80%	53.02%
Herbert St.	Ridgewood Ave. to Nova Rd.	903	2	CO	E	12,744	6,942	5,714	6,403	7,050	C	10.10%	55.32%
Herbert St.	Nova Rd. to City Center Dr.	904	2	CO	E	12,744	8,805	7,173	8,159	8,385	C	2.77%	65.80%
Herbert St.	City Center Dr. to Clyde Morris	905	2	CO	E	12,744	7,585	6,710	7,129	8,183	C	14.78%	64.21%
McDonald Rd.	Charles St. to Madeline Ave.	1201	2	local	E	12,744	2,990	2,656	2,924	2,979	B	1.88%	23.38%
Madeline Ave.	Sauls Rd. to Nova Rd.	1164/1301	2	MA	E	14,040	5,264	4,652	4,414	5,059	B	14.61%	36.03%
Madeline Ave.	Nova Rd. to Clyde Morris Blvd.	1163/1303	2	MA	E	14,040	8,881	8,098	9,033	9,319	C	3.17%	66.37%
Madeline Ave.	Clyde Morris Blvd. to Williamson	1161/1304	2	MA	E	14,040	12,304	10,701	12,233	13,943	D	13.98%	99.31%
Nova Rd.	Madeline Ave. to Dunlawton Ave.	1017	4	UPA	D	39,800	27,000	18,000	18,000	N/A	C	0.00%	45.23%
Nova Rd.	Dunlawton to Spruce Creek Rd.	1016	4	UPA	D	39,800	28,000	27,000	27,000	N/A	C	0.00%	67.84%
Nova Rd.	Spruce Creek Rd.to Ridgewood Av.	458	4	UPA	D	39,800	21,500	20,500	18,200	N/A	C	-11.22%	45.73%
Pioneer Trail	Airport-Turnbull Bay Rd.	1465	2	UC	E	13,640	6,020	6,320	7,380	N/A	C	16.77%	54.11%
Reed Canal Rd.	Nova Rd-Clyde Morris Rd.	1561	2	UC	E	13,640	6,260	6,350	6,460	N/A	D	1.73%	47.36%
Ridgewood Ave.	N. City Limits to Dunlawton Ave.	213	4	UPA	D	39,800	25,000	24,000	24,000	N/A	C	0.00%	60.30%
Ridgewood Ave.	Dunlawton Ave. to Oak St.	5057	4	UPA	D	39,800	21,000	20,200	17,600	N/A	C	-12.87%	44.22%

ROAD	LOCATION	COUNT STATION	NO. OF LANES	FUNCT. CLASS[A]	ADOPTED LOS STANDARD	ADOPTED LOS CAPACITY	2019 VOLUME	2020 VOLUME	2021 VOLUME	2022 VOLUME	EXISTING LOS	% Change [B]	VC Ratio [C]
Ridgewood Ave.	Oak St. to Nova Rd.	152	4	UPA	D	39,800	15,900	15,500	15,700	N/A	C	1.29%	39.45%
Ridgewood Ave.	Nova Rd. to S. City Limits	13	4	UPA	D	65,600	24,500	23,500	23,500	N/A	B	0.00%	35.82%
Spruce Creek Rd.	Central Park Blvd. to Merrimac Dr.	1701	2	CO	E	12,744	6,291	5,686	5,839	6,384	B	9.33%	50.09%
Spruce Creek Rd.	Merrimac Dr. to Taylor Rd.	1702	2	CO	E	12,744	9,303	9,476	9,773	10,938	C	11.92%	85.83%
Spruce Creek Rd.	Taylor Rd. to Nova Rd.	1751	4	UMA	E	37,970	15,100	13,180	14,740	N/A	C	11.84%	38.82%
Spruce Creek Rd.	Commonwealth to Dunlawton Ave.	1755	2	MA	E	13,640	8,990	N/A	N/A	N/A	D	N/A	N/A
Spruce Creek Rd.*	Dunlawton to Canal View Blvd.	1708	2	CO	E	13,640	2,662	2,541	2,535	1,519	B	-40.08%	11.14%
Taylor Rd.	Hensel Rd. to Spruce Creek Road	1826	4	MA	E	37,970	15,840	14,760	14,800	N/A	C	0.27%	38.98%
Taylor Rd.	Clyde Morris Blvd. to Hensel Rd.	1824	4	MA	E	37,970	19,440	16,970	16,970	N/A	C	0.00%	44.69%
Taylor Rd.	Dunlawton Av. to Clyde Morris Blvd.	1823	2	MA	E	14,040	14,720	14,710	12,780	N/A	D	-13.12%	91.03%
Taylor Rd.	Williamson Blvd. to I-95	1814	5	UPA	E	47,560	40,620	48,950	44,340	N/A	D	-9.42%	93.23%
Taylor Rd.	Summer Trees Rd. to Williamson Blvd.	1813	4	UPA	E	37,970	16,390	17,200	18,120	N/A	C	5.35%	47.72%
Taylor Rd.	Crane Lakes Blvd. to Summer Trees Rd.	1812	2	UPA	E	17,050	16,190	15,000	14,840	N/A	C	-1.07%	87.04%
Town West Blvd.	Williamson Blvd. to Coraci Blvd.	100	2	CO	E	17,900	7,675	7,094	7,909	8,022	B	1.43%	44.82%
Town West Blvd.	Coraci Blvd. to Tomoka Farms Rd.	110	2	CO	E	17,900	3,884	3,564	3,973	4,298	B	8.18%	24.01%
Victoria Gardens Blvd.	S. of Dunlawton Ave.	2501	2	local	E	15,930	3,826	2,732	3,255	3,342	B	2.67%	20.98%
Victoria Gardens Blvd.	E. of Clyde Morris Blvd.	2502	2	local	E	15,930	2,887	1,794	2,232	2,391	B	7.12%	15.01%
Village Trail	Dunlawton Ave. to Country Ln.	1901	2	local	E	15,930	7,260	7,027	6,597	7,081	B	7.34%	44.45%

ROAD	LOCATION	COUNT STATION	NO. OF LANES	FUNCT. CLASS[A]	ADOPTED LOS STANDARD	ADOPTED LOS CAPACITY	2019 VOLUME	2020 VOLUME	2021 VOLUME	2022 VOLUME	EXISTING LOS	% Change [B]	VC Ratio [C]
Village Trail	Country Ln. to Nova Rd.	1902	2	local	E	15,930	8,102	8,624	7,782	7,965	B	2.35%	50.00%
Willow Run	Clyde Morris Blvd. to Hidden Lakes	2013	3	CO	E	30,420	10,515	8,851	10,243	10,480	B	2.31%	34.45%
Willow Run	Hidden Lakes Dr. to Williamson Blvd.	2010	2	CO	E	14,040	7,653	6,355	7,502	7,797	C	3.93%	55.53%
Williamson Blvd.	N. City Limits to Madeline Ave.	1993	2	UPA	E	17,050	19,740	15,200	14,430	N/A	D	-5.07%	84.63%
Williamson Blvd.	Madeline Ave. to Willow Run Blvd.	1992	2	UPA	E	17,050	18,590	15,200	14,840	N/A	D	-2.37%	87.04%
Williamson Blvd.	Willow Run Blvd. to Town West	1991	2	UPA	E	17,050	19,150	15,880	17,140	N/A	F	7.93%	100.53%
Williamson Blvd.	Town West Blvd. to Taylor Rd.	1990	2	UPA	E	37,970	20,840	18,330	19,440	N/A	C	6.06%	51.20%
Williamson Blvd.	Taylor Rd. to Spruce Creek Bridge	66	4	UPA	E	37,970	24,210	20,920	25,040	N/A	C	19.69%	65.95%
Williamson Blvd.	Spruce Creek Bridge to Airport Rd.	65	4	UPA	D	37,970	20,720	20,130	22,550	N/A	C	12.02%	59.39%
Williamson Blvd.	Airport Rd. to Pioneer Trail	1989	4	UPA	D	37,970	5,430	5,940	6,100	N/A	C	2.69%	16.07%
Yorktowne Blvd.	North of Dunlawton Ave.	2080	2	CO	E	17,050	3,514	3,188	3,334	3,921	B	17.61%	23.00%
I-95	Beville Rd. to Dunlawton Ave.	492	4	SIS	D	111,800	68,000	58,000	81,500	N/A	C	40.52%	72.90%
I-95	Dunlawton Ave. to SR 44	133	4	SIS	D	111,800	24,000	43,036	50,700	N/A	B	17.81%	45.35%
	Total City Counts						**158,256**	**146,871**	**155,634**	**157,839**		1.42%	
	Total County Counts*						**374,610**	**330,450**	**345,200**			4.46%	
	Total State Counts**						**433,400**	**422,736**	**373,700**			-11.60%	
	Total of All Roadways						**966,266**	**900,057**	**874,534**				

Notes to Exhibit 3:

A UPA = Urban Principal Arterial, MA = Minor Arterial, CO/UCO = Collector/Urban Collector (TPO and/or City Sources)

B Percent volume change is from 2020 to 2021 for State and County and from 2021 to 2022 for City.

C Volume to Capacity Ratio compares roadway demand (vehicular volume) with roadway supply (carrying capacity)

Blue = State Facility or Counts; Data derived from Volusia County Traffic Engineering, 2021

Yellow = County Facility or Counts; Data derived from Volusia County Traffic Engineering, 2021

White = City Facility or Counts; Data derived from Traffic Engineering Data Solutions, Inc., 2022

*Canal View Blvd. was closed during 2022 traffic counts to local traffic only

Where no data is available the previous year count was used for the purpose of calculating total counts and percent volume change for total counts.

Sources: FDOT 2013 Quality/Level of Service Handbook; Traffic Engineering Data Solutions, Inc., 2022; and Volusia County Traffic Engineering, 2022.

Roadways Currently Not Operating Within Adopted Level-of-Service:

Based on the latest traffic count data, there is one roadway segment on Williamson Boulevard (county thoroughfare road) that slightly exceeds the adopted level-of-service (Willow Run Boulevard to Town West Boulevard). The city will continue to monitor the traffic volume on Williamson Boulevard along with several roadways, such as Dunlawton Avenue, Clyde Morris Boulevard, Nova Road, Taylor Road, and Madeline Avenue, and will continue to work with FDOT, Volusia County, and the River to Sea Transportation Planning Organization (R2CTPO) to identify and construct improvements to improve roadway capacity and LOS.

The future widening of Williamson Boulevard from Town West Boulevard to Beville Road is a long-term improvement that will need to be a roadway project programmed by Volusia County. By widening this segment, the capacity at the adopted Volusia County LOS standard is anticipated to increase from 17,050 daily trips to approximately 37,970 daily trips. The Williamson Boulevard widening project is included in the TPO's 2040 Long Range Transportation Plan, but it is not currently funded.

Public or Private Improvements to the System during the Past Fiscal Year (FY 21/22) and Its Impact on Capacity and LOS:

Dunlawton Avenue Left-Turn Lane Extensions (various locations)

In December 2021 and January 2022, the left-turn lanes on Dunlawton Avenue at the intersections of Yorktowne Boulevard (westbound) and Victoria Gardens Boulevard (westbound) were extended to improve traffic flow and roadway capacity, reduce delays for turning and through vehicles and improve intersection safety. These improvements were completed by FDOT as part of their Pushbutton Program.

Proportionate Fair-Share Ordinance

In 2006, the City Council adopted a Proportionate Fair-Share Ordinance. The city has entered into Concurrency and Fair-Share Agreements with several developers. City initiated projects funded through the fair-share process and the status of each of these projects is listed below. As of September 30, 2022, the city has received $7,083,039 in proportionate fair-share.

1. Interstate 95/SR 421 interchange area (phase 1) – ***Project Completed***
2. Clyde Morris Blvd/Dunlawton Avenue intersection - ***Project Completed***
3. Summer Trees Road extension- ***Project Completed***
4. Devon Street/Taylor Road Intersection –***Project Completed***
5. Town West Boulevard/Williamson Boulevard signal – ***Project Completed***
6. Yorktowne Boulevard Extension – ***Partial Design Completed***

Public or Private Improvements to the System during the Current Fiscal Year (FY 22/23) and its Impact on Capacity and LOS:

Dunlawton Avenue Turn Lanes The following turn lanes along Dunlawton Avenue will be designed in FY 22/23. The turn lanes will improve traffic flow and roadway capacity, reduce delays for turning and through vehicles and improve intersection safety.

- Eastbound right-turn lane at Clyde Morris Boulevard for traffic heading south towards Taylor Rd.
- Westbound right-turn lane at City Center Parkway for traffic heading into the City Center Complex.
- Westbound right-turn lane at Nova Road for traffic heading north toward Daytona Beach.
- Southbound right-turn lane on Yorktowne Boulevard for traffic heading south on Yorktowne Boulevard and turning toward the I-95 interchange.
- Northbound left-turn lane on Yorktowne Boulevard for traffic heading north on Yorktowne Boulevard from Taylor Road and turning toward the I-95 interchange.
- Northbound left-turn lane extension at Nova Road for traffic heading north toward Daytona Beach.
- Westbound left-turn lane extension at Clyde Morris Boulevard for traffic heading south toward Taylor Road.

Capacities Reserved for Approved but Un-built Development:

According to Exhibit 1, there are 1,214 vested but un-built residential units, which are estimated to generate 8,772 average cumulative daily trips.[2] Residential trips such as these are reserved on the city's roadway system upon being approved or obtaining vesting. A net total of 981,220 square feet of non-residential construction is also vested but un-built.

The city along with Volusia County (maintaining agency) will continue to monitor the traffic volume on Taylor Road and Williamson Boulevard along with several roadways such as Dunlawton Avenue, Clyde Morris Boulevard, Nova Road, and Madeline Avenue, and will continue to work with FDOT, Volusia County, and the River to Sea Transportation Planning Organization (R2CTPO) to identify and construct improvements to improve roadway capacity and LOS.

Bikeway/Pedestrian Improvements during the Past Fiscal Year:

There were no bikeway or pedestrian improvement projects completed in FY21/22.

[2] 9.52 trips per day for each single-family residential unit, 4.99 per mobile home, 5.81 per duplex or townhouse and 6.65 per multi-family unit. Source: ITE Trip Generation Manual, 10th Edition.

SANITARY SEWER

The Port Orange Sanitary Sewer System serves the City of Port Orange, Daytona Beach Shores, Ponce Inlet (wholesale), and other unincorporated areas of East Volusia County. The Port Orange collection system contains 113 standard public pump stations (lift stations), 24 “grinder” stations and an estimated 366 miles of pipeline. The collectors range in size from 8” to 30” and transmit flow back to the city’s treatment plant through a series of force mains and relatively deep interceptors.

Adopted Level-of-Service Standard:
Residential consumption is 160 gallons per day per Equivalent Living Unit (ELU) and Commercial consumption is 1/10 gallon per sq. ft. per day of commercial, industrial, or institutional development.

Design Capacity of the Wastewater Treatment Plant and Existing LOS:
The Florida Department of Environmental Protection (FDEP) has permitted the Wastewater Treatment Plant with a maximum capacity of 12.0 million gallons per day (MGD). According to the Public Utilities Department, the present total number of sewer connections is 26,363, and the number of permitted ELU’s connected to the system is 48,833. The Wastewater Treatment Plant currently has a committed capacity of 7.81 MGD, based on FDEP permits for development. Using the City’s LOS figure of 160 gallons per ELU, the Wastewater Treatment Plant is capable of providing service to 75,000 ELU’s. Therefore, the sanitary sewer system capacity is sufficient to serve the current committed ELU’s (see Exhibit 4).

Exhibit 4: Capacity of the Wastewater Treatment Plant

	MGD*	ELU**
Maximum Capacity	12.0	75,000
Committed Capacity	7.81	48,833
Remaining Capacity	**+4.19**	**+26,167**

*MGD - Million Gallons per Day
**ELU - The water usage equivalent to one single-family dwelling.
Source: Port Orange Public Utilities Department, November 2022 and FDEP Waste Treatment Plant Permit Application.

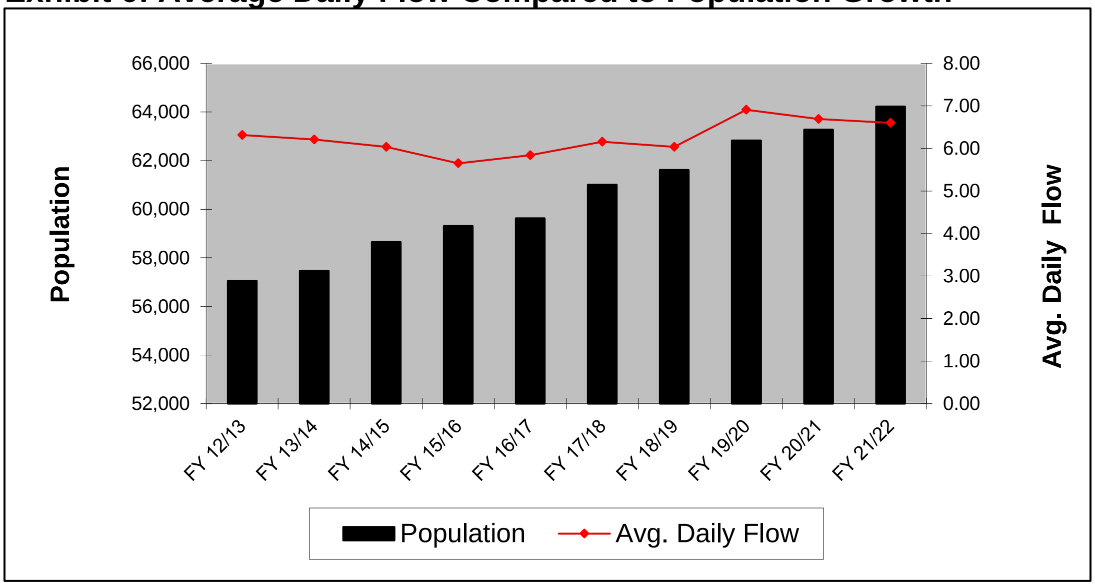
As indicated in Exhibit 5 and 6 (see next page), wastewater generation rates have generally been increasing since FY 15/16. The increase is consistent with the increase in population. Exhibit 5 presents a summary of the actual wastewater generation throughout the entire service area since FY 12/13 and the projection through 2025. The 2025 projection was based on population projections in the Comprehensive Plan developed in 2006, prior to the recession that began in 2008. The city did not achieve the projected growth that was anticipated when generating the projections and will likely not reach the 2025 projection. Exhibit 6 presents a comparison between the average wastewater generation daily flow and the city’s population since 2012.

Exhibit 5: Wastewater Generation

YEAR	AVERAGE DAILY FLOW
FY 12/13 (actual)	6.32 MGD
FY 13/14 (actual)	6.21 MGD
FY 14/15 (actual)	6.04 MGD
FY 15/16 (actual)	5.65 MGD
FY 16/17 (actual)	5.84 MGD
FY 17/18 (actual)	6.16 MGD
FY 18/19 (actual)	6.04 MGD
FY 19/20 (actual)	6.91 MGD
FY 20/21 (actual)	6.69 MGD
FY 21/22 (actual)	6.60 MGD*
2025 (projected)	8.00 MGD

*Average Daily Flow pending final verification by DEP.
Source: Port Orange Public Utilities Department, November 2022 and DEP Waste Treatment Plant Permit Application.

Exhibit 6: Average Daily Flow Compared to Population Growth



Source: Port Orange Public Utilities Department, November 2022. DEP Waste Treatment Plant Permit Application.

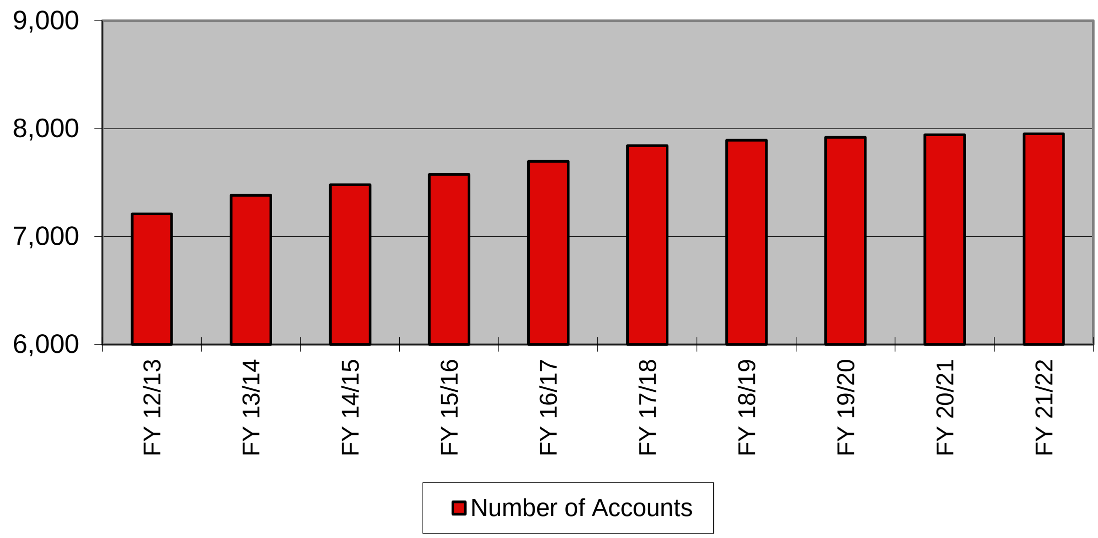
Capacities Reserved for Approved but Unbuilt Development and its Impact on Capacity and LOS:

It is possible to determine the per capita demand for sanitary sewer generated by reserved and vested development, given the generation rate, the future population, and the non-residential building square footage involved. According to Exhibit 1 on Page 6, the vested and reserved capacity includes the volume needed for 1,214 residential units and 981,220 SF of gross leasable non-residential space. Given a per capita generation rate of 160 gallons per day per ELU for residential and 1/10 gallon per square foot of gross building area for non-residential development, the vested and reserved development could increase the total demand by 292,362 gallons per day (0.29 MGD). According to Exhibit 5, sufficient capacity exists for the development with vested and reserved capacity (Exhibit 1, page 6). Further demand may also be generated by growth within the service area outside of the city limits and will be analyzed with each concurrency review and annually through this report.

Reclaimed Water:
Reclaimed water is derived from wastewater that has been collected and treated and is safe to be placed back into the environment. Previously, reclaimed water was discharged into the Halifax River; however, in the early 1990's the city began to distribute reclaimed water to residents and businesses for irrigation. Therefore, the use of reclaimed water for irrigation reduces the amount of treated wastewater discharged into the Halifax River and reduces the amount of potable water used for irrigation.

The number of metered reclaimed water accounts within the city has continued to increase over the years with the present total number of reclaimed water accounts at 7,953 (see Exhibit 7).

Exhibit 7: Number of Reclaimed Accounts



Source: City of Port Orange Finance Department, November 2022

The continued increase in reclaimed demand is due to the following factors:

- The city requirement that developers install service connections and connect to reclaimed water lines, where available.
- Potable water irrigation meters are no longer issued, except where no other source, such as a private well or stormwater pond, is available.

Proposed Public or Private Improvements to the System in the Current Fiscal Year and its Impact on Capacity and LOS:

Lift Station Capacity Projects:

- Replacement of the lift station near Atlantic High School in conjunction with the Eden Apartments development. Replacement is expected to be complete in FY 22/23.

- Replacement of the Master Lift Station at Herbert Street & Nova Road permitting is in progress and replacement is expected to be complete in FY 22/23.

On-going maintenance projects that allow for LOS to be maintained:

Sewer System Rehabilitation: Reduce inflow and infiltration (I&I) by cleaning, videoing, and curing in place lining of various gravity sewer lines identified in a previous I&I study. Cured In-Place Pipe lining is a trenchless rehabilitation method used to repair existing pipelines that reduces time and restoration costs. This program is on-going through FY 22/23.

Water Reclamation Facility (WRF): The following projects are planned for this facility in FY 22/23:

- East Master Lift Station Rehabilitation – Replace existing pumps and piping and upgrades to the electrical and controls. Currently out for bid in Fall 2022.
- Denitrification Filter Rehabilitation – Complete rehabilitation to filters. All piping, valves, electrical, and controls to be replaced. Design is 60% complete.
- Generator Replacement – Replace existing diesel generator with natural gas generator along with electrical and controls and site improvements. Design is complete and project will go out for bid in early 2023.

Lift Stations/Transmission System: Convert the mechanical equipment for lift stations from the surface mounted pump systems to submersible pumps at the following locations:

- Christiancy Street
- Oceans Avenue
- Townhomes West
- Sugar Forest
- Southern Pines
- Lowe's

Potable Water

The Port Orange water utility currently serves the following areas:

- City of Port Orange
- City of Daytona Beach Shores (south of Thames Avenue)
- Town of Ponce Inlet (wholesale account)
- Wilbur-By-The-Sea (unincorporated area)
- Other non-designated unincorporated areas

Adopted Level-of-Service Standard:

(1) Consumption :
  - Residential is 180 gallons per day per ELU
  - Commercial, industrial, or institutional development is 1/10 gallon per sq. ft. per day

(2) System Minimum Pressure: 20 pounds per square inch during fire flow
(3) Storage Provided: 50% of peak daily flow
(4) Well Capacity: Peak day flow with two wells out of service
(5) Norm. Operating Pressure: 60-70 pounds per square inch (psi)
(6) Water Plant Capacity: Adequate for peak daily; three-year lead-time for planned expansion
(7) High Service Pumping: Peak hour with largest pump out of service
(8) Water Quality: Meet State/Federal drinking water standards

Design Capacity of Potable Water Treatment Facilities, Consumptive Use Permit, and Existing LOS:

The Garnsey Water Treatment Plant provides the city with a water quality supply that meets all applicable State and Federal standards. The plant was constructed in 1981 and has undergone two upgrades since that time. The plant currently has a capacity of 15.0 MGD and consists of four high-service fixed-speed pumps and two variable-speed pumps that provide adequate water supply to all portions of the service area.

There are two concurrency measures related to potable water: plant capacity and water supply capacity. Regarding plant capacity, there are presently 29,544 potable water connections, equivalent to 42,885 ELUs (Equivalent Living Unit). Based on an LOS standard of 180 gallons per ELU, the capacity currently committed is 7.72 MGD. Therefore, the Water Treatment Plant capacity is sufficient (15.0 MGD) to serve the current number of ELUs at current peak flow rates (see Exhibit 8).

Exhibit 8: Remaining Capacity at the Garnsey Water Treatment Plant

	MGD*	ELU**
Maximum Plant Capacity	15.00	83,333
Committed Capacity	7.72	42,885
Remaining Capacity	**7.28**	**40,448**

*MGD- Million Gallons Per Day
**ELU - The water usage equivalent to one single-family dwelling.

Source: Port Orange Public Utilities Department, November 2022

The second measure is water supply capacity. While the city has the technical capability to pump up to 15 million gallons per day from its wells, the Consumptive Use Permit (CUP) issued by the St. John's River Water Management District limits how much water the City can actually pump out of the ground. The CUP is a 20-year permit that was issued in 2002 and will expire in 2022. Currently, the Public Utilities Department is in the process of obtaining a new CUP which is expected to be issued in February 2023. The 2022 permitted average daily groundwater withdrawal is 8.97 MGD and the maximum permitted peak day withdrawal is 13.46 MGD. The 2023 proposed permitted average daily flow is 6.42 MGD and the maximum permitted peak day withdrawal is 13.46 MGD. The maximum groundwater withdrawal permitted by the CUP in year 2022 is 13.46 MGD.

Exhibit 9 shows the actual average and peak daily flow in 2022 and the proposed permitted average and peak daily flow allowed by the CUP in 2023. Based upon this measure, the city is below the maximum water withdrawal allowed by the CUP.

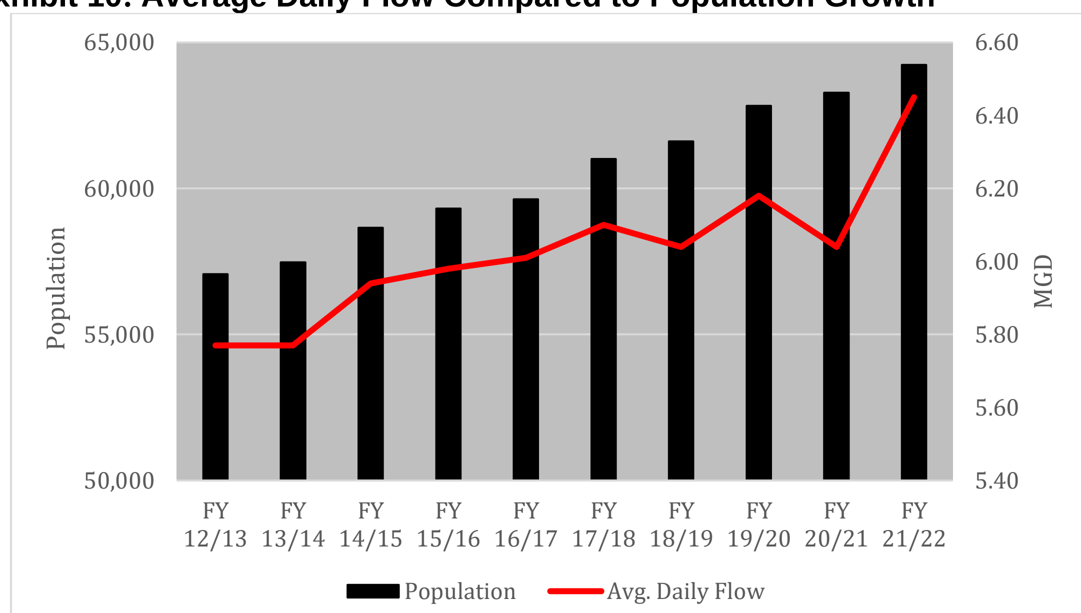
Exhibit 9: Permitted and Actual Average Daily Flow and Peak Flow

	2022	2023
Permitted Average Daily Flow	8.97 MGD	6.42 MGD
Actual Average Daily Flow	6.45 MGD	N/A
Permitted Peak Daily Flow	13.46 MGD	13.46 MGD
Actual Peak Daily Flow	7.97 MGD	N/A

MGD- Million Gallons per Day
Source: Port Orange Public Utilities Department, November 2022

As indicated in the graph in Exhibit 10, the average daily flow has remained generally constant relative to the increase in the city's population.

Exhibit 10: Average Daily Flow Compared to Population Growth



Source: Port Orange Public Utilities Department, November 2022

Existing Potable Water Storage Capabilities:

During times of peak flow, portions of the service area, primarily on the barrier island, are subject to greatly increased water demands. Demand requirements are met by ground storage tanks located at the north and south ends of Peninsula Avenue. When demand subsides, water is no longer pumped from the storage tanks, and they are refilled to normal operating levels. This allows the peak flow requirements to be met efficiently, so that demand at the treatment plant remains constant. The adopted LOS standard for water storage is 50% of average daily flow. With an average daily flow of 6.45 MGD in 2022, the LOS standard water storage volume would be 3.22 MGD. Present potable water storage facilities for the Port Orange system can accommodate 5.5 million gallons. Therefore, the city has sufficient surplus storage capacity to support new development.

Existing Minimum Water Pressure:

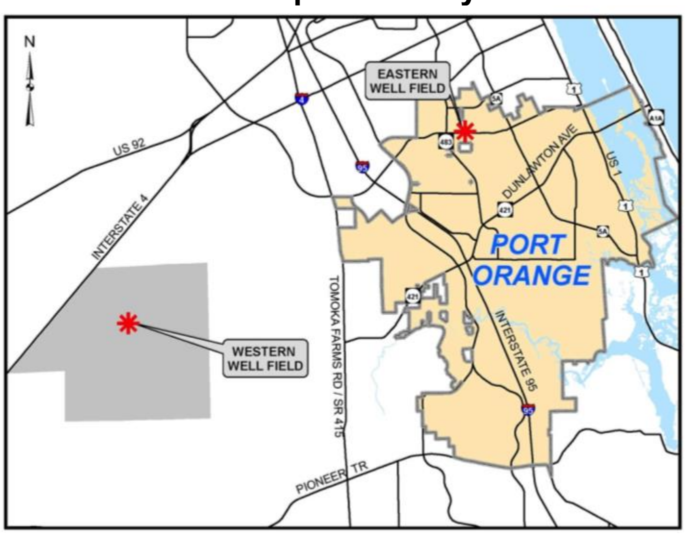
The existing water pressure fluctuates from an absolute low of 40 psi (non-fire flow) to a high of 70 psi with the normal operating pressure being between 60 and 70 psi. The system's minimum pressure during fire flow[3] is presently 20 psi, which also meets the city's adopted LOS standards. Therefore, the water pressure meets the adopted LOS.

Existing Well Capacities:

The city has two well fields; The Central Recharge Well Field and the Eastern Well Field, with a cumulative water production capacity of approximately 11.5 MGD (see Exhibit 11):

- The Central Recharge Well Field (Western Well Field) is located west of the city, south of I-4 and is the primary source of the city's potable water supply (approximately 87%). This well field contains 27 wells.
- The Eastern City Well Field is located off Clyde Morris Boulevard and contains 13 fully functioning secondary wells. These wells supply approximately 13% of the total flow.

Exhibit 11: Location Map of the City's Well Field Sites



[3] Fire flow is the quantity of water measured in gallons per minute (gpm) that is needed to extinguish a fire involving a particular building, block, area or material.

Exhibit 12 shows the number of wells needed to supply the raw water peak daily flow demand in 2022. The number of wells required includes an allowance for two wells out of service, which is within the adopted LOS standard.

Exhibit 12: **Raw Water Supply Wells Required for the Port Orange Service Area**

Year	Permitted Peak Day Demand	Number of Wells Required*	Wells Available	Excess (+) or Deficiency
2022	13.46 MGD	25	40	15

* Average output for each well is 0.527 MGD

Source: Port Orange Public Utilities Department, November 2022

Capacities Reserved for Approved but Unbuilt Development and its Impact on Capacity and LOS:

According to Exhibit 1, the vested and reserved capacity includes the volume needed for 1,214 residential units and 981,220, square feet of gross leasable non-residential space. Given a consumption rate of 180 gallons per day per ELU and 1/10 gallon per square foot of gross building area for non-residential development, the vested and reserved development could increase the total demand by 316,642 gallons per day (0.32 MGD). Therefore, sufficient capacity exists for the vested development indicated in Exhibit 1. In addition, further demand may also be generated by growth within the water service area outside of the city limits.

Proposed Public Improvements to the System in the Current Fiscal Year and its Impact on Capacity and LOS:

- Ridgewood Watermain Replacement (Farmbrook Road to Niver Street). Replace an existing 2” galvanized pipe with a 6” PVC pipe and include fire hydrants along this segment of Ridgewood Avenue.
- North Commonwealth Water System Improvements. Replace aging and undersized water distribution system from Commonwealth Blvd to Dunlawton Ave. (Improves level of service for fire protection.
- 16” Water Main Replacement River Crossing. Replacement of the 16” watermain that crosses the Halifax River to serve Ponce Inlet & Wilber by the Sea. We have had multiple failures of this pipe which require sub aqueous repairs. (No impact on LOS)

STORMWATER DRAINAGE

For the purpose of stormwater management, the city is divided into 13 drainage basins, with each basin divided into a number of sub-basins. The city has utilized both structural and non-structural elements to accomplish the objective of controlling the volume, rate of flow, and pollutant load of post-development runoff. Retention and detention basins are structural elements designed to remove pollutants, attenuate post-development discharge in well-drained areas, and encourage percolation and retention of discharge volume. The city is also implementing non-structural methods of flood-damage mitigation, such as increased regulation of development in flood-prone areas through participation in the National Flood Insurance Program (NFIP) Community Rating System (CRS).

Within Port Orange there are currently 569 stormwater ponds and only nine (9) of those ponds have the capability to be lowered either by pump or gates.

- 135 stormwater ponds are city-maintained
- 416 stormwater ponds are privately maintained ponds
- 9 stormwater ponds are county-maintained
- 9 stormwater ponds are FDOT-maintained

There is a total of 76,874 linear feet of ditches and canals throughout the city. The city has cleaned an average of 47,000 feet per year over the last three years.

Adopted Level-of-Service Standard (Quantity):
The city's adopted level-of-service (LOS) standard for stormwater management is the 25-year, 24-hour storm event. The city adopted this LOS standard in the late 1970's. Since the late 1970's, all drainage facilities must be able to detain the runoff from the 25-year, 24-hour storm without causing flooding or increasing the 25-year, 24-hour discharge rate to the receiving water bodies. Additionally, the city requires that the post-development 100-yr, 24-hour storm event peak discharge from a given piece of property does not exceed the 100-yr, 24-hour pre-development peak flow.

Adopted Level-of-Service Standard (Quality):
The city's adopted level-of-service (LOS) standard for stormwater management also includes the reduction of pollutants to a level compatible with State standards. On October 1, 2013, a Statewide Stormwater Rule went into effect which requires the removal of 80% of the dissolved contaminant Nitrogen and 95% of the dissolved contaminant Phosphorous from the first 1.25 to 1.75 inches of runoff.

Existing Level-of-Service:
The city's Land Development Code provides minimum standards for stormwater management to control runoff, preserve critical water resources, facilitate recharge of the aquifer, and prevent erosion and flooding. This is accomplished through the development review process for new developments to ensure they meet or exceed the minimum LOS standard, responding to citizen complaints, and coordinating with other jurisdictions to identify areas in need of improvements within the Port Orange system.

After a development is approved and built, the on-going maintenance of private stormwater drainage systems is the responsibility of the homeowners or property owners association. The on-going maintenance of these private stormwater drainage systems is regulated by St. Johns Water Management District (SJRWMD).

An assessment of the city's stormwater drainage system is needed to provide the necessary data to examine and create prioritized improvement and maintenance programs to enhance the function of the full stormwater system, including those areas developed prior to the adoption of the stormwater regulations.

There have been ongoing proactive maintenance activities, such as ditch clearing and pipe replacement; however, replacement of deteriorated stormwater drainage pipes has been reactive to failures.

Public or Private Improvements to the System during the Past Fiscal Year and Impacts on Capacity and LOS:

On-going Maintenance: Staff continued to perform ongoing maintenance of the drainage system including street sweeping, removal of sediment from inlets and pipes, ditch maintenance (including mowing, large plant removal, cleaning, dredging sediment, restoration and seeding), emergency pipe replacement of aging and failed pipes, and erosion repairs.

As part of on-going maintenance to the drainage system, the following projects were completed in FY 21/22:

Howes Street Drainage Improvement: The project improved roadway drainage along Howes Street from Orange Avenue to Westridge Avenue and along Orange Avenue between Crowell Street and Orchard Street. The improvements included the construction of 25 storm inlets, ±1,150 linear feet of exfiltration trenches, ±1,610 linear feet of reinforced concrete pipe, and ±2,560 linear feet of curbing to collect stormwater runoff. In addition, part of Orange Avenue was rebuilt to eliminate low spots along the roadway. The project provided a positive drainage outfall to the B-23 Canal at Howes Street and Westridge Avenue for discharge. Construction was completed in June 2022.

Canal View Bank Hardening: Construction of this project was completed in July 2022.The southerly bank of the Halifax Canal along Canal View Boulevard from Jackson Street to Spruce Creek Road was stabilized to stop erosion. Over the years, the bank slope changed significantly due to natural erosion and mowing. The slope eroded due to the lack of a shoulder next to Canal View Boulevard and the length of exposed guardrail posts. The bank stabilization consisted of placing a membrane and honeycomb stabilization mat over the slope to protect it from erosion. Construction of this project was completed in July 2022.

Proposed Public Improvements to the System in the Current Fiscal Year and Impacts on Capacity and LOS:

On-going Maintenance: Staff will continue to monitor the drainage system which will include street sweeping, removal of sediment from inlets and pipes, ditch restoration and maintenance, emergency pipe replacement, and erosion repairs. The following areas are scheduled for be improved in FY 22/23:

- White Place and Riverside Drive Drainage Improvements: Install properly sized stormwater collection inlets and pipe as well as improvements to the river outfall and sea wall at east side of the intersection. Design services are planned for FY 22/23.
- Jackson Street and Oak Street Drainage Improvements: Install pipe in the open ditch on the west side of Jackson Street from Oak Street to Canal View Boulevard and the open ditch on south side of Oak Street from Jackson Street to Dunlawton Avenue. Design services by Zev Cohen & Associates, Inc. began in October 2022.
- Alexander Avenue Drainage Improvements: Install approximately 175 linear feet of 42-inch pipe in the open ditch from Alexander Avenue west. Design services are planned for FY 22/23.
- Boggs Ford Road Drainage Improvements: Improve the roadway drainage along Boggs Ford Rd. for 500 feet south of Taylor Rd. by replacing undersized inlets and culvert pipes. Construction is planned to begin in FY 22/23.

Cured In-Place Pipe Lining: Cured In-Place Pipe lining is a trenchless rehabilitation method used to repair existing pipelines that reduces time and restoration costs. Staff did not perform any Cured In-Place Pipe lining in FY 21/22 due to ongoing supply-chain issues. There is work on the system planned for FY 22/23.

City's Stormwater Master Plan Update: The City's Stormwater Master Plan was created in 1990 but has not been updated on a city-wide basis since. Objective 1, Policy 1.1 of the Comprehensive Plan Drainage Sub-Element indicates the city shall update the drainage plan every five years. While updates have been prepared for specific basins, the system has not been re-examined since 1990 when the plan was first created. The update began in 2017 and principally consists of data collection and review of record information to later identify corrective measures to alleviate existing deficiencies in the system and proactively plan new improvements needed to accommodate future development. It will help prioritize spending for future capital drainage projects. This is necessary to ensure that level-of-service standards for stormwater drainage are maintained. Phase 1 identified areas of stormwater infrastructure and prioritized those areas for improvement and has been completed. Currently, Public Works is focused on stormwater system repair and rehabilitation projects identified in Phase 1. Phase 2 has been subdivided into two parts. Part 1 consists of surveying all the stormwater infrastructure within the limits of Phase 2 and is planned to be completed in FY 22/23.

Other Stormwater Programs:
National Pollutant Discharge Elimination System (NPDES): The city is currently in the fifth year of the five-year permit cycle of the municipal separate storm sewer system (MS4) NPDES stormwater permit. A municipal separate storm sewer system (MS4) is a publicly owned conveyance or system of conveyances (i.e., ditches, curbs, catch basins, underground pipes, etc.) designed or used for collecting or conveying stormwater and that discharges to surface waters of the state.

Total Maximum Daily Loads (TMDL) program: This program is part of the statewide Watershed Management Program (WMP) administered by the Florida Department of Environmental Protection (FDEP). The program is based on a five-phase cycle that rotates through Florida's basins. The five phases are: Initial Basin Assessment, Coordinated Monitoring, Data Analysis and TMDL Development, Basin Management Plan Development, and Implementation of Basin Management Plan.

As part of its NPDES permit, the city is to develop a schedule of specific activities to address the State adopted and EPA approved TMDL for review and approval by FDEP. The TMDL to be reduced are fecal coliform, nutrients, and dissolved oxygen in Spruce Creek, the B-19 Canal, and Nova Canal. Coordination with watershed contributors Volusia County, New Smyrna Beach and Ponce Inlet is required. A study to determine the pollutant sources and sampling point locations is required prior to development of the Basin Managements Plan. In FY 22/23, Kimley Horn and Associates will be conducting a study to determine the city's contribution to Spruce Creek's TMDL pollutant load. The study is anticipated to be completed in FY 22/23/

National Flood Insurance Program (NFIP) and Community Rating System (CRS): The city is one of 468 communities in the state of Florida and one of 22,000 communities nationwide that participate in the National Flood Insurance Program (NFIP) Community Rating System (CRS). This program provides incentives for communities to go beyond the minimum floodplain management requirements to develop extra measures to provide protection from flooding. The incentives are in the form of flood insurance premium discounts. FEMA recognizes Port Orange as a Class 5 CRS Community. With this designation, all property owners with flood insurance qualify to receive a 25% discount on their annual FEMA flood insurance policy premium.

In addition, the city participates in Volusia County's Multi-jurisdictional Local Mitigation Strategy (LMS) for flood control. The LMS provides a mitigation action plan that identifies areas within the city that have drainage issues that would benefit from engineered improvements.

SOLID WASTE DISPOSAL

Adopted Level-of-Service (LOS) Standard:
The city's collection standard is 1,350 residential units per curbside collection crew, per day, and a solid waste weight standard of 3.21 lbs. per capita, per day for residential, and 10 lbs. per 1,000 square feet per day for non-residential development. 2,545 residential units were serviced per crew, per day in FY 21/22, which meets the collection standard.

The amount of solid waste generated by individuals is not something that the city can directly control; however, the city can promote recycling programs to inform residents about the benefits of reducing the amount of waste generated. There is no concurrency review for trash collection; however, the city's ability to collect and dispose of this waste is subject to concurrency review. As long as the city has sufficient financial resources to pay for private waste collection and room is available at the landfill, the city will have fulfilled its obligation to ensure that its waste is collected and disposed, regardless of the LOS standard.

Design Capacity of Solid Waste Disposal Facilities and Existing LOS:
The City of Port Orange is currently in a five-year contract (2021-2026) with Waste Pro to provide household solid waste, recycling, and yard waste collection services. The contract provides residents with five weekly pick-ups: two for garbage, two for yard waste and large items, and one for recyclables. The residential and commercial solid waste collected is transported to the Volusia County Tomoka Farms Road Landfill. The capacity at the landfill is projected to be sufficient to accommodate waste from Volusia County until the year 2050. The waste collection numbers for residential and commercial customers are shown in Exhibit 13. The 3.52 pounds per capita, of solid waste generated daily by each Port Orange resident during FY 21/22 is above the solid waste LOS standard of 3.21 pounds.

Exhibit 13: Residential and Commercial Waste Generation Figures (FY 21/22)

	Residential	Commercial[4]	Residential and Commercial
Solid Waste	2.42 lb. per capita, per day	1.10 lb. per capita, per day	3.52 lb. per capita, per day
Recycled Items	0.08 lb. per capita, per day	0.04 lb. per capita, per day	0.12 lb. per capita, per day
Yard Waste	0.85 lb. per capita, per day	0.39 lb. per capita, per day	1.24 lb. per capita, per day
Total	3.35 lb. per capita, per day	1.53 lb. per capita, per day	4.88 lb. per capita, per day

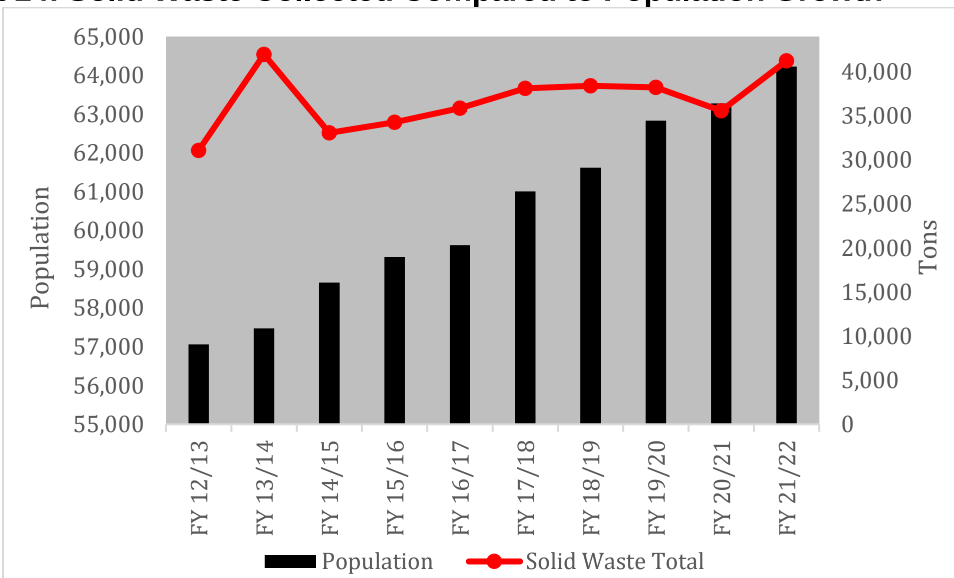
Source: Public Works Department, City of Port Orange, October 2022

There was an overall increase in the amount of solid waste for both Residential and Commercial in FY 21/22. There was a slight decrease in the growth of residential solid waste from FY 19/20 to FY 20/21 which could have been related to the COVID-19 response when businesses and schools were closed or operating at limited capacity.

[4] The amount of commercial recyclable items and yard waste was determined by interpolating the proportion of residential recyclable items and yard waste to the total amount of residential waste disposed.

As indicated in Exhibit 14, the amount of solid waste had been decreasing since FY 18/19 despite the increase in population but has since rebounded after the reopening of schools and businesses after the mandated COVID-19 closures. Solid waste collection is anticipated to increase in FY 22/23 as a result of Hurricane Ian clean-up, which made landfall on September 28, 2022. The city will need to continue to monitor the amount of solid waste generated and explore options to encourage waste reduction and expand recycling programs.

Exhibit 14: Solid Waste Collected Compared to Population Growth



Source: Public Works Department, City of Port Orange, October 2022

Recycling increased for the first time since FY 17/18; however, the tonnage of recycled items received was still approximately 30% less than in FY 18/19. In FY 18/19 approximately 4,320 tons were accepted for recycling and in FY 21/22 there was only approximately 1,330 tons of materials recycled. FY 18/19 was also the last year when glass was accepted for recycling.

Residential yard waste has been increasing since FY 18/19 while Commercial yard waste had been decreasing until FY21/22. Overall, there was a 10% increase in yard waste in FY 21/22 compared to FY 20/21. An increase in yard waste in FY 22/23 is anticipated for debris associated with Hurricanes Ian and Nicole that occurred in October and November 2022.

Capacities Reserved for Approved but Unbuilt Development and its Impact on Capacity and LOS:

The capacity reservations for vested and approved development identified in Exhibit 1 represent approximately 2,901 additional people and 981,220 square feet of non-residential development. When all residential and commercial projects noted in Exhibit 1 are built, the amount of waste is estimated to increase by approximately 3,490 tons per year. The capacity at the landfill is projected to be sufficient to accommodate waste from Volusia County until the year 2050.

Changes to Solid Waste Collection in the Current Fiscal Year and its Impact on Capacity and LOS:

As of October 1, 2022, the impacts on Solid Waste and Yard Waste Collection due to Hurricane Ian is still unknown but increases in the tonnage collected is expected. The city will continue to monitor any further impacts as residents and businesses recover from the storm. The city will also be looking for other alternatives to expand the ability of residents to recycle.

RECREATION AND OPEN SPACE

During FY 21/22 the following projects or improvements were completed to existing parks facilities that increased capacity of the recreational facility system:

- Airport Road Park*:* Replaced the existing playground equipment that had reached its end-of-life expectancy with new playground equipment to maintain the current level of service.
- City Center: Replaced the lighting for two sports fields with LED lights for modernization of the fields. Sod was replaced on three baseball fields to maintain the current level of service.

Exhibit 15. Airport Road Park Playground Equipment

Adopted Level-of-Service Standards:

FACILITY	UNIT OF MEASURE
Parkland	7 acres per 1,000 persons
Ball Fields	1 field per 5,000 persons
Basketball Courts	1 court per 4,000 persons
Multipurpose Fields	1 field per 3,500 persons
Tennis Courts	1 court per 4,000 persons
Neighborhood Centers	1 facility per 15,000 persons

Existing Recreational Facilities and Levels of Service:

The existing acreage of parkland and the number of recreational facilities within the city are identified in the inventory in Exhibit 16 and the status of the recreational facility levels-of-service capacities are outlined in Exhibit 17.

Exhibit 16: Recreational Facility Table

Facility Name	Location	Acreage	Ten.	Bask.	Bb./Soft.	Multi.*	Neigh C.
Regional Facilities							
Causeway Park	93 Dunlawton Avenue	30					
Cypress Head Golf Course	6231 Palm Vista Street	216.9					1
Riverwalk Park and Trail	3459 Ridgewood Avenue	10					1
Sugar Mill Ruins	950 Old Sugar Mill Road	10.3					
Community Facilities							
Adult Activity Center	4790 Ridgewood Avenue	5.1			1		1
Adult Center Annex	3738 Halifax Drive	0.3					1
Airport Road Park	6731 Airport Road	25	6	2		1	
*City Center Complex/YMCA	1000 City Center Circle	49		4	5	6	3
*Coraci Park	5200 Coraci Boulevard	36			4	6	
Lakeside Comm. Center	1999 City Center Circle	2					1
Russell Property	6060 Deer Feed Trail	17					
*Spruce Creek Rec. Area	5959 Spruce Creek Road	40	6	1	2	2	
Neighborhood Facilities							
Buschman Park	4575 Spruce Creek Road	27.5					
Creekside Middle School	6801 Airport Road	15	2	4		5	
Frederick Street Park	5210 Frederick Street	5					
Harbor Oaks	5937 Riverside Drive	0.2		1			
Ken Bern Park	850 Canal View Boulevard	5					
Larry Haines Park	5550 W Bayshore Drive	0.4					
Memorial Park	3801 Jackson Street	12.6					
Silver Sands Middle School	1300 Herbert Street	22.9	4	4	3	2	
Southwinds Park	1200 Richel Road	10				2	
Willow Run Park	1351 Schoolhouse Drive	10	2	6	2	2	
TOTALS		**550.2**	**20**	**22**	**17**	**26**	**8**

Ten. – Tennis Court
Bask. – Basketball Court
Bb./Soft. – Baseball/Softball Field
Multi. – Multipurpose Field (soccer, play, etc.)
Neigh C. – Neighborhood Center

* Baseball/softball fields also function as multipurpose fields and are counted under both categories.

Source: Park & Recreation Department, City of Port Orange, October 2022

Exhibit 17: Public Recreational Facilities Capacities and Level of Service (LOS)

FACILITY	AMOUNT REQUIRED FOR ADOPTED LOS*	CURRENT SUPPLY**	EXCESS (+) OR DEFICIENT (-) CAPACITY
Parkland (acres)	469.9 acres	550.2 acres	+80.3 acres
Baseball/Softball Fields	13 fields	17 fields	+4 fields
Basketball Courts	17 courts	22 courts	+5 courts
Multipurpose Fields	19 fields	26 fields	+7 fields
Tennis Courts	17 courts	20 courts	+3 courts
Neighborhood Centers	4 centers	8 centers	+4 centers

Notes:

* Estimated City Population = 64,230 based on University of Florida Bureau of Economic and Business Research, and anticipated population increases (2,901) from vested and reserved development. Total population to be served = 67,131

** Refer to Exhibit 16, Recreation Facilities Inventory, for individual facility listings.

Source: Parks and Recreation Department and Community Development Department, October 2022

Capacities Reserved for Approved but Unbuilt Development and Its Impact on Capacity and LOS:

According to the University of Florida Bureau of Economic and Business Research (BEBR), the 2022 estimated city population is 64,230. Anticipated population increases from vested and reserved residential development is approximately 2,901, which equals a total population to be served of 67,131. As indicated in Exhibit 17, the city is not deficient in any of the recreational facilities categories for the current population or additional population from vested and reserved development.

Proposed Public and Private Improvements to Recreation Facilities in the Current Fiscal Year and its Impact on Capacity and LOS:

- Causeway Park: Replacement of the floating docks on the south side of Causeway Park. The replacement will include an ADA ramp to increase accessibility of the park.
- City Center: Replacement of sod on two ballfields to maintain the current level of service.
- The REC: Renovation of the existing gymnasium building into a Recreation, Education, and Cultural (REC) facility for the residents of Port Orange. The existing building will be expanded by 10,000 square feet. The expansion will include an indoor playground, game room, multi-purpose rooms and activity space, offices, and meeting spaces. The three existing original gym courts will remain. The REC is anticipated to open in FY 22/23.
- Southwinds Park: Replacement of the playground equipment to maintain the current level of service.
- YMCA: Roof repairs and parking lot light replacement to maintain the current level of service.

SCHOOLS

Adopted Level-of-Service Standard:
The uniform, district-wide LOS standards are as follows:

- Elementary: 115% of permanent FISH[5] capacity for the concurrency service area
- K-8: 115% of permanent FISH capacity for the concurrency service area
- Middle: 115% of permanent FISH capacity for the concurrency service area
- High: 120% of permanent FISH capacity for the concurrency service area
- Special Purpose Schools: 100% of permanent FISH capacity for each school

Public or Private Improvements to the System during the Past Fiscal Year and Its Impact on Capacity and LOS:
The school district did not have any capital (capacity-related) projects scheduled in last year's five-year work plan for schools located in Port Orange. Last year's five-year work plan included dollars programmed for several renovations at various schools throughout the district as well as one replacement school, master plans for various schools, and four capacity additions.

Existing Facilities:
Exhibit 18 details existing public-school facilities operated by the Volusia County School Board within the City's municipal boundaries. For elementary and middle schools, the Concurrency Service Areas (CSAs) are the respective school attendance boundaries. High schools are grouped into five larger CSAs that reflect student movement between schools at this level.

The high schools located in Port Orange are part of the Halifax Planning Area CSA. All of the high schools in this CSA are shown since the LOS standard is applied to the entire CSA as a whole. The adopted LOS for the Halifax Planning Area CSA is 120%. This year Spruce Creek High School is at 124% permanent FISH capacity and the Halifax Planning Area CSA for high schools is below the adopted LOS of 120% with an average utilization of 97% for the overall Halifax Planning Area CSA. The School District anticipates the utilization to continue to balance out some across the Halifax Planning Area High Schools with the addition of academy programs that have opened at some of the other High Schools.

The elementary schools and middle schools within Port Orange currently meet the LOS standards (115% of permanent FISH capacity). However, it should be noted that all of the elementary and middle schools in Port Orange are considered to be at capacity or have limited capacity for planning purposes and are on the School District's watch list for closely monitoring capacity.

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[5] **FISH – Florida Inventory of School Houses**. An official inventory report of all district-owned facilities.

Student Enrollment Trends

Between school years 2007-08 and 2012-13 the Volusia County School District, along with many other school districts in Florida, experienced an unprecedented decline in student enrollment. According to the Volusia County School District, the decline was attributed to the economic recession and the result of families with school aged children moving out of the area in search of employment and an overall decline of in-migration (new people moving here). Starting with the 2013-14 school year, the Volusia County School District has experienced an increase in its student enrollment. Current trends indicate student enrollment growth is slow, largely due to an aging population and lower birth rates. However, student enrollment is trending upward, so school district staff is looking closely at its enrollments and other economic indicators prior to releasing student projections. According to the School District, the 2021-22 school year actual enrollment numbers were greater than the School District's Projection Model anticipated which may have been affected by projections made during Covid-19. The School District's Projection Model for the 2023-24 school year will not be available until early 2023. Spruce Creek High School is the only school in Port Orange projected to be operating at or above the current level of service.

Proposed Public and Private Improvements to School Facilities in the Current Fiscal Year and its Impact on Capacity and LOS:

There is one capacity project in the current School District five-year work plan for a Port Orange school. The current five-year work plan includes dollars programmed for a 3-story classroom addition and renovations at Spruce Creek High School. This improvement is expected to move students into a permanent building and remove temporary portables. Project design was completed in FY 21/22 and construction is anticipated to begin in FY 23/24.

Exhibit 18: PORT ORANGE PUBLIC SCHOOL ENROLLEMENT & CAPACITY SUMMARY REPORT

	Prior Year			**Current Year**			***Projected***		
	2021/2022			2022/2023			2023/2024		
School	Enroll*	Cap**	Util***	Enroll*	Cap**	Util****	Enroll*	Cap**	Util****
Elementary (LOS = 115%)									
Cypress Creek	809	754	107%	818	754	108%			
Horizon	737	725	102%	779	725	107%			
Port Orange	311	344	90%	366	344	106%			
Spruce Creek	761	827	92%	783	827	95%			
Sugar Mill	594	623	95%	616	623	99%			
Sweetwater	690	725	95%	699	725	96%			
Total	**3902**	**3998**		**4061**	**3998**				
Middle (LOS = 115%)									
Creekside	1232	1132	109%	1238	1132	109%			
Silver Sands	1262	1161	109%	1171	1161	101%			
Total	**2494**	**2293**		**2409**	**2293**				
High (LOS = 120% for the overall Halifax Planning Area CSA)									
Atlantic	1247	1380	90%	1275	1380	92%			
Mainland	1780	2376	75%	1866	2376	79%			
Seabreeze	1619	1747	93%	1679	1747	96%			
Spruce Creek	2481	2080	119%	2571	2080	124%			
Total	**7127**	**7583**	**94%**	**7391**	**7583**	**97%**			

Enrollment Projections will not be available from the School District until early 2023.

Notes: Red – over LOS standard
- * Student enrollment
- ** Permanent FISH capacity (does not include portables)
- *** Utilization - Percentage of student enrollment to permanent student capacity
- **** Current and projected year utilization includes reserved capacity (not shown) for proposed development

Source: Volusia County School District School Capacity Report, October 2022

IV. SUMMARY AND CONCLUSIONS

The data indicates all public facilities and services subject to concurrency review are at sufficient levels for FY 22/23. As new development and redevelopment occurs, the level of service will need to be addressed, along with the monitoring of all city facilities and services to ensure capacity is available.

Traffic volumes within the city have slightly increased on some segments and decreased on other segments over the past year. As the city continues to develop, roads on the west side of I-95 will likely experience the most traffic growth in the future. The capacity on Williamson Boulevard (north city limit to Town West Boulevard) will need to be monitored as this roadway has segments near or above its LOS standards. Staff will need to continue to monitor arterial segments such as Dunlawton Avenue, Nova Road, Clyde Morris Boulevard, Taylor Road, and Madeline Avenue to maintain or improve roadway traffic. Roadway improvements are planned for the next several years to keep pace with anticipated development specifically along these roadway segments.

Sanitary sewer and potable water system capacity exists to support additional growth within the city. The city's Consumptive Use Permit (CUP) limits how much water can actually be withdrawn from the aquifer. As new development and redevelopment occurs, the level of service for potable water will be monitored to ensure that permitted capacity as provided for in the city's CUP is not surpassed.

The stormwater LOS requirement is being met for all drainage facilities constructed after the 1970's (when the city's stormwater regulations were adopted) with respect to being able to treat the runoff from the 25-year, 24-hour storm without causing flooding or polluting the receiving water bodies. The city continues to identify long-term solutions and implement drainage improvement and maintenance programs to enhance the function of the stormwater system including those areas developed prior to the adoption of the stormwater regulations.

Solid waste generation rates are above the adopted LOS standard. There is no concurrency review for trash collection; however, the city's ability to collect and dispose of this waste is subject to concurrency review. As long as the city has sufficient financial resources to pay for private waste collection and room is available at the landfill, the city will have fulfilled its obligation to ensure its waste is collected and disposed, regardless of the LOS standard. The amount of solid waste generated by individuals is not something the city can directly control; however, the city can promote recycling programs to inform residents and businesses about the benefits of reducing the amount of waste generated.

The adopted LOS is being met for all recreational facilities. There are surpluses for each recreation facility that will meet the adopted LOS through the planning horizon (2025).

The adopted LOS is being met for all public schools located in the Port Orange area.