



AGENDA
PLANNING COMMISSION
CITY OF PORT ORANGE

Meeting Date: Thursday, December 13, 2018 **Time:** 5:30 PM

Type of Meeting: Regular

Location: Council Chambers
City Hall, 1000 City Center Circle

A. CALL TO ORDER

1. Pledge of Allegiance
2. Silent Invocation
3. Roll Call

B. DISCUSSION/ACTION

4. Consideration of Minutes
5. Case No. 18-50000004
SUBDIVISION PLAT & PLANS/BELLA OAKS SUBDIVISION
4068 Carlisle Drive

A request by the applicant to approve the Final Plat and Subdivision plans for the Bella Oaks Subdivision, to subdivide +/- 18.21 acres into 138 multi-family townhome lots, along with associated subdivision improvements.

Staff Contact: Gwen Perney (386) 506-5673/gperney@port-orange.org

6. Case No. 18-25000008
LDC TEXT AMENDMENT/CHAPTER 15, SECTION 4 AND 7

Amendment to Chapter 15, Section 4 and 7 of the Land Development Code, to allow manual changeable copy signs to be installed in a residential subdivision.

Staff Contact: Briana Conlan-King (386) 506-5676/brking@port-orange.org

7. Case No. 18-25000009
LDC TEXT AMENDMENT/CHAPTER 13

Amendment to Chapter 13 of the Land Development Code, to update the landscaping requirements for residential lots.

Staff Contact: Briana Conlan-King (386) 506-5676/brking@port-orange.org

8. Case No. 18-25000010
LDC TEXT AMENDMENT/CHAPTER 2, 16, and 18

Amendment to Chapter 2, 16, and 18 of the Land Development Code (LDC), to update the regulations in the LDC related to personal wireless communication facilities siting.

Staff Contact: Tim Burman (386) 506-5675/tburman@port-orange.org

C. OTHER BUSINESS

9. Commissioner Comments
10. Staff Comments

D. PUBLIC COMMENTS

E. ADJOURNMENT

ANY PERSON WHO DECIDES TO APPEAL ANY DECISION MADE BY THE **PLANNING COMMISSION** WILL NEED A RECORD OF THE PROCEEDINGS, AND FOR SUCH PURPOSE HE OR SHE MAY NEED TO ENSURE AT HIS OR HER OWN EXPENSE FOR THE TAKING AND PREPARATION OF A VERBATIM RECORD OF ALL TESTIMONY AND EVIDENCE OF THE PROCEEDINGS UPON WHICH THE APPEAL IS TO BE BASED. NOTE: 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, TO 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 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
November 15, 2018

THE REGULAR PLANNING COMMISSION MEETING of the City of Port Orange was called to order by Chairman Newton White at 5:32pm.

Pledge of Allegiance

Silent Invocation

Roll Call

Present: John Junco
Joseph Fazzie
Thomas Jordan
Newton White, Chairman

Absent: Maria Mills-Benat (excused)
Lance Green
Darrel “Bo” Bofamy

Also Present: Shannon Balmer, Assistant City Attorney
Shelby Field, Assistant City Clerk

DISCUSSION/ACTION

4. Consideration of Minutes

Motion to approve meeting minutes from October 25, 2018 was made by Commissioner Thomas Jordan and Seconded by Commissioner John Junco. Motion carried unanimously by voice vote.

5. Case No. 18-40000002

MASTER DEVELOPMENT AGREEMENT AMENDMENT/3RD AMENDMENT TO THE JOURNEY'S END PLANNED COMMERCIAL DEVELOPMENT MASTER DEVELOPMENT AGREEMENT 5790 Journey's End Way

A request by the applicant to amend the Master Development Agreement (MDA) for the Journey's End Planned Commercial Development (PCD) to allow for additional tenant panels on the multi-tenant subdivision sign.

Staff Contact: Briana Conlan-King (386) 506-5676/brking@port-orange.org

Briana Conlan-King, Community Development Planner, discussed the details of the project and answered questions from the Commissioners.

Motion to approve was made by Commissioner John Junco and seconded by Commissioner Joseph Fazzie. Motion carried by roll call vote with Tomas Jordan voting no.

6. Case No. 18-27500001
COMPREHENSIVE PLAN CAPITAL IMPROVEMENTS ELEMENT/2018 ANNUAL UPDATE

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

Staff Contact: Penelope Cruz (386) 506-5671/pcruz@port-orange.org

Penelope Cruz, Planning Manager, discussed the details of the plan and answered questions from the Commissioners.

Motion to approve was made by Commissioner Thomas Jordan and seconded by Commissioner Joseph Fazzie. Motion carried unanimously by roll call vote.

7. 2019 PROPOSED PUBLIC HEARING AND DEVELOPMENT REVIEW CALENDARS

Staff Contact: Penelope Cruz (386) 506-5671/pcruz@portorange.org

Mrs. Cruz discussed the 2019 proposed Public Hearing and Development Review calendars.

Motion to approve was made by Commissioner John Junco and seconded by Commissioner Joseph Fazzie. Motion carried unanimously by voice vote.

OTHER BUSINESS

8. 2018 Concurrency Management Report

Mrs. Cruz stated the report is simply an annual report they provide with a cumulative view of all the concurrency analysis for the year. Commissioner Thomas Jordan asked questions about the transportation complaints the commission receives, and Mrs. Cruz explained how the city addresses these service issues. Chairman Newton White stated that we could be adopting services for the roads that the community might not want. Mrs. Cruz clarified that the state sets the service level standards for the state roads, the city only sets the service level standards for the city roads which are typically not the ones complaints are about.

9. Commissioner Comments

Tim Burman, Community Development Director, answered commissioner questions about the cell phone tower AT&T was looking to put on the property at the church on Taylor Road. No site plan application has been received for the tower. The previous public hearing was required because of the City's Code.

Chairman White discussed unintended consequences from passed decisions the Planning Commission has made and advised being careful in all future decisions. All of the commissioners wished everyone and their families a happy Thanksgiving.

10. Staff Comments – there were none.

PUBLIC COMMENTS- there were none.

ADJOURNMENT- 5:59pm

Chairman Newton White



STAFF REPORT

BELLA OAKS SUBDIVISION PLAT & PLANS

CASE NO. 18-50000004

REQUEST:	Approval of the Bella Oaks Subdivision Plat and Plans
LOCATION:	4068 Carlisle Drive (Figure 1)
OWNER:	Gatlin Two LLC
APPLICANT:	James Paytas, Jr.
PLANNING COMMISSION DATE:	December 13, 2018
STAFF RECOMMENDATION:	Approval
STAFF CONTACT:	Gwen Perney (386) 506-5673

DISCUSSION:

The applicant requests approval of the Bella Oaks Subdivision Plat and Plans. If approved, the applicant intends to subdivide the ±18.21-acre property into 138 townhomes lots along with tracts for tree preservation, stormwater retention, and open space. The subject property is located west of Clyde Morris Boulevard, between the Colony In The Wood Mobile Home Park and Pickwick Mobile Home Park.

Figure 1. Location Map for Bella Oaks Subdivision



Map showing the location of the Bella Oaks subdivision west of Clyde Morris Blvd., north of Pickwick Mobile Home Park, south of Colony In the Wood Mobile Home Park

The subject property is zoned “R-3L” (Multi-Family Residential) and has a Future Land Use designation of *Urban Medium Density Residential (4-8 units/acre)*. The R-3L zoning district is intended to accommodate low-density, multi-family residential housing up to 8 units per acre such as apartments, condominium and townhome developments.

In 2006, the Bella Oaks project was initially submitted for review as a condominium townhome site plan for a 138-unit townhome development on ±18.21 acres. The required transportation fair-share payment was not made so a Development Order was not issued. The site plan application was resubmitted for review in 2017 and was issued a Development Order in May 2018 (Case No. 17-80000011).

In 2017 the site plan for the Bella Oaks condominium townhome project was reviewed and approved based on requirements in the Land Development Code (LDC) including setbacks, open space, building coverage, access, architecture, parking, stormwater retention, landscaping, and utilities. The site plan also includes common facilities such as visitor parking, mail kiosks, garbage collection areas, picnic areas, and gazebos to be maintained by the Homeowners Association (HOA).

After the site plan was approved and construction began in Summer 2018, the developer inquired about changing the site plan with condominium townhome units to a residential subdivision with individual townhome lots. According to the applicant, by subdividing the property into individual townhome lots, purchasers would own the townhome unit along with the property directly in front of and behind their townhome. In September 2018, variances were approved by Planning Commission and City Council in order to maintain the previously approved layout. The variances were required because there are specific development requirements in the LDC that only apply to the subdivision of land which did not apply when the project was reviewed as a site plan.

The proposed subdivision maintains the same layout as the approved site plan. The plat and subdivision plans have been designed according to the requirements of the City’s Land Development Code (LDC), the dimensional standards outlined in the R-3L zoning district of the LDC (Exhibit A), and the variances approved in Fall 2018 (Case No. 18-90000004).

The following subdivision improvements be completed before or simultaneously with the development of the first lot:

- Improvements to the Carlisle Drive right-of-way including:
 - Paving, sidewalks, grading & drainage improvements according to City Standard Construction Details for local roads
 - Landscaping & irrigation
 - Signage for the subdivision
- Water, sewer, and reclaimed water infrastructure;
- Stormwater drainage infrastructure;
- Private streets within the subdivision;
- Sidewalks and streetlights along the private streets;
- Landscape buffers around the perimeter of the property; and
- Common areas with conservation easements for tree preservation and specimen trees.

CONCURRENCY REVIEW:

Public facilities and services such as roads, public infrastructure, schools, and recreational facilities are currently available to serve the proposed 138 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 138 Lots

DEVELOPMENT VARIABLE	IMPACTS
Population ¹	311
A.M./P.M./Daily Peak Hour Trips ²	67/78/851 trips
Sanitary Sewer (gallons per day) ³	22,080 gallons
Potable Water (gallons per day) ⁴	24,840 gallons
Solid Waste (lbs. Per day) ⁵	998 pounds
Stormwater Drainage ⁶	See Note
Recreation & Open Space ⁷	2.17 acres

Notes:

1. **Population:** 2.25 persons per household (per 2010 Census)
2. **Transportation:** ITE Trip Generation Manual, 9th Edition
3. **Sanitary Sewer:** 160 gallons per day per Equivalent Residential Unit; 1/10 gallon per square foot per day of non-residential development
4. **Potable Water:** 180 gallons per day per Equivalent Residential Unit; 1/10 gallon per square foot per day of non-residential development
5. **Solid Waste:** 3.21 pounds per person per day; 10 lbs. per 1,000 square feet of non-residential development per day
6. **Stormwater Drainage:** LOS standard = 25 year, 24-hour event. 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, Sewer, Reclaimed Water:

The City has available potable water, sanitary sewer, and reclaimed water capacity to accommodate the proposed 138 lot subdivision. The proposed subdivision will be served by potable water, sanitary sewer, and reclaimed water. All lots will be provided with stub-outs for utilities, and the developer will construct potable water, sanitary sewer, and reclaimed water lines in accordance with the utility plan for this project.

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 waterbodies. In addition, there must be no net loss of stormwater retention function as a result of development; therefore, the subdivision property must have the same ability to store and discharge water after development as it does before development occurs.

Recreation and Open Space:

According to the City's 2018 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 this subdivision phase.

School Capacity:

The Volusia County School District determined that the adopted level of service will be met and capacity exists in the schools for the estimated students to be generated by the proposed subdivision (Exhibit C).

Transportation:

According to the Bella Oaks, Traffic Impact Analysis (TIA) prepared by LTG Engineering & Planning, the 138 townhomes are expected to generate 78 PM peak-hour trips and 851 daily trips. The TIA indicates that all roadway segments and intersections identified in the TIA study area will operate within the adopted level of service standards with traffic generated from the 138-lot townhome development.

As part of the proposed subdivision improvements, the developer is improving the Carlisle Drive right-of-way as a City local road from the subdivision entrance to Clyde Morris Boulevard. A license agreement for the developer to maintain the proposed landscaping, irrigation, and signage will need to be approved by the City Council prior to installation of those improvements.

Consistency with the Comprehensive Plan:

The subject property has a Future Land Use (FLU) designation of *Urban Medium Density Residential (4-8 units/acre)* on the City's Future Land Use Map. According to the Comprehensive Plan, the maximum gross residential density for the 18.21-acre subject property is 145 units. The development of the proposed 138 townhome subdivision is consistent with the allowable density, locational criteria, and intent of the FLU designation.

REMAINING COMMENTS TO BE ADDRESSED:

The Staff Development Review Committee (SDRC) has reviewed this project and there are some remaining comments that will need to be addressed prior to scheduling for City Council.

RECOMMENDATION:

Staff recommends approval of the Plat and Subdivision Plans for the Bella Oaks Subdivision.

ATTACHMENTS:

1. Exhibit A – Subdivision Plat
2. Exhibit B – Subdivision Plans
3. Exhibit C – Volusia County School Board Letter
4. Exhibit D – Tree Preservation Chart

EXHIBIT A

BELLA OAKS

A PORTION OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, AND A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA AND THE EASTERLY 32.50 FEET OF THE NORTHERLY 110 FEET OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA

GENERAL NOTES:

1. Monumentation

- Denotes Permanent Reference Monument
- Denotes Permanent Reference Monument set
- 4x4 concrete monument stamped LB 3019
- Denotes Permanent Control Point set
- Metal disk stamped LB 3019

2. Additional symbols:

- (R) - Denotes a line radial relative to adjacent curve.
- (NR) - Denotes a line not radial relative to adjacent curve.

Additional abbreviations:

3. Dimensions shown are in feet and decimals thereof.

4. Accuracy

- The boundary linear error of closure does not exceed 1:10,000.
- The boundary angular error of closure does not exceed 15 seconds multiplied by the square root of the number of angles turned.

5. Bearing structure based on NAD 83, Florida State Plane Coordinate System, East Zone, U.S. Survey Foot, with the Bearing on the Southerly Line of Parcel "A" Being N89°33'54"W.

6. 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 36.37/12=3.2808333333333333 equation for conversion from a U.S. foot to meters.

7. 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 supplanting in authority by any other graphic or digital form of the plat. There may be additional restrictions that are not recorded on this plat that may be found in the public records of this county.

8. This plat is subject to all easements of record and reservations of easements, including but not limited to drainage, utility, and access easements granted heron which shall be located as follows except as otherwise noted on the plat: Entire street frontages of lots and common areas: 12.00 feet wide

9. 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.

10. 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.

11. All other easements are subordinate to any conservation easements dedicated heron. 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 conservation easement.

12. Tree Conservation 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 easement 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 construed to prevent natural vegetation within the easement area from being cleared by hand to provide 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 within 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.

13. Building setback requirements:

- Front (street frontage):
- Side:
- Rear:

14. Lot coverage requirements:

- Minimum open space:
- Maximum building coverage:

15. The common areas granted to the Association, Inc. by this plat shall be subject to easements as shown or described heron or granted in accordance with the 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 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 maintenance 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 proportion to 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 entity which complies with Section 400-42.027, 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, together with the right to harvest excess storm water / ground water as deemed appropriate in the discretion of the City.

18. The Association, Inc. shall be responsible for maintaining all private roads granted to the Association by this plat.

19. The Association, Inc. shall be responsible for maintaining all landscaping and irrigation in common areas.

20. The articles of incorporation for the 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 Association, Inc. are recorded in Official Records Book Pages through of the Public Records of Volusia County, Florida.

21. Additional fencing is not allowed. This does not include the required patio screening fencing [LDC, Ch. 14, Sec. 3(a)(1)]

LEGAL DESCRIPTION

PARCEL "A":

A PORTION OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, AND A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: AS A POINT OF REFERENCE, FROM THE SOUTHWEST CORNER OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, RUN THENCE ALONG THE SOUTH LINE OF SECTION 6 SOUTH 89 DEGREES 35 MINUTES 25 SECONDS EAST A DISTANCE OF 2540.00 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON THE WEST LINE OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST; THENCE NORTH 00 DEGREES 24 MINUTES 35 SECONDS EAST A DISTANCE OF 220.00 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 25 SECONDS EAST A DISTANCE OF 660.00 FEET; THENCE SOUTH 00 DEGREES 24 MINUTES 35 SECONDS WEST A DISTANCE OF 1210.00 FEET; THENCE NORTH 89 DEGREES 35 MINUTES 25 SECONDS WEST A DISTANCE OF 660.00 FEET TO A POINT ON THE WEST LINE OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 16 SOUTH, RANGE 33 EAST; THENCE NORTH 00 DEGREES 24 MINUTES 35 SECONDS EAST ALONG SAID WEST LINE A DISTANCE OF 990.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 18.33 ACRES MORE OR LESS

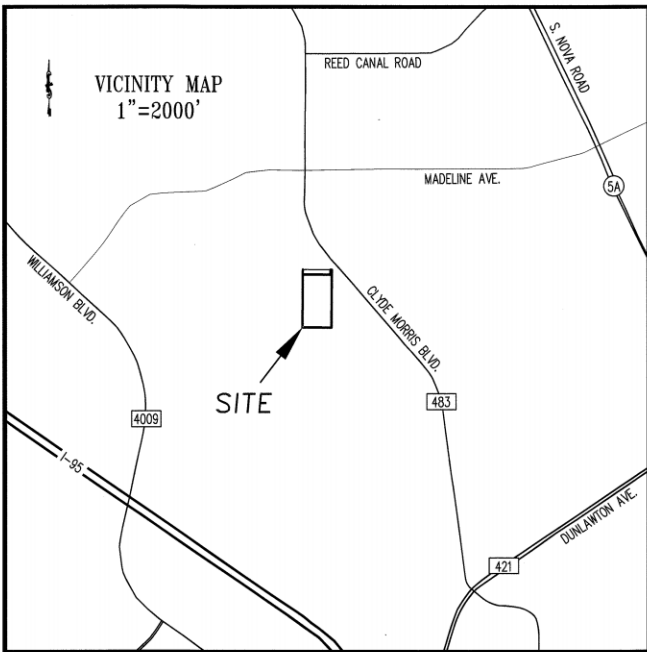
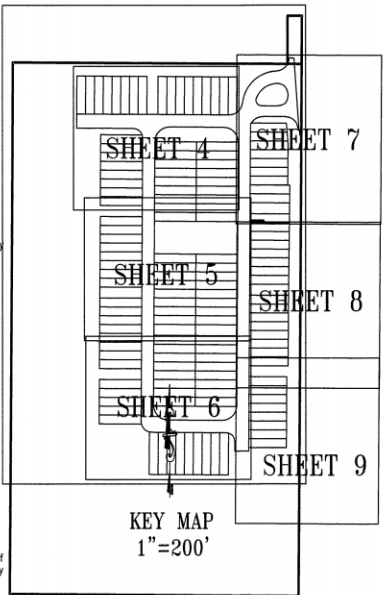
AND PARCEL B:

THE EASTERLY 32.50 FEET OF THE NORTHERLY 110 FEET OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: AS A POINT OF REFERENCE FROM THE SOUTHWEST CORNER OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, RUN THENCE ALONG THE SOUTH LINE OF SECTION 6, SOUTH 89 DEGREES 35 MINUTES 25 SECONDS EAST A DISTANCE OF 2540.00 FEET TO A POINT ON THE WEST LINE OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST; THENCE NORTH 00 DEGREES 24 MINUTES 35 SECONDS EAST ALONG SAID WEST LINE A DISTANCE OF 330.00 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 25 SECONDS EAST A DISTANCE OF 627.50 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE SOUTH 89 DEGREES 35 MINUTES 25 SECONDS EAST A DISTANCE OF 32.50 FEET; THENCE SOUTH 00 DEGREES 24 MINUTES 35 SECONDS WEST A DISTANCE OF 110.00 FEET; THENCE NORTH 89 DEGREES 35 MINUTES 25 SECONDS WEST A DISTANCE OF 32.50 FEET; THENCE NORTH 00 DEGREES 24 MINUTES 35 SECONDS EAST A DISTANCE OF 110.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 0.08 ACRES MORE OR LESS.

PARCELS "A" AND "B" CONTAINING TOGETHER 18.41 ACRES MORE OR LESS

LESS AND EXCEPT ANY PORTION LYING WITHIN THE RIGHT OF WAY OF CARLUSE DRIVE.



CITY COUNCIL CERTIFICATE OF APPROVAL

THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED _____ WAS APPROVED BY THE PORT ORANGE CITY COUNCIL ON _____

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

PLANNING COMMISSION CERTIFICATE OF APPROVAL

THIS STATEMENT HEREBY CERTIFIES THAT THE PLAT ENTITLED _____ WAS APPROVED BY THE PORT ORANGE PLANNING COMMISSION ON THIS DAY OF _____, 2018

BY: _____ CHAIRMAN OF THE PORT ORANGE PLANNING COMMISSION

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 "BELLA OAKS PLAT" WAS PREPARED UNDER MY DIRECTION AND SUPERVISION, THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES, AND THAT ALL MONUMENTATION SHOWN HEREON OR REQUIRED PER CHAPTER 177, FLORIDA STATUTES, HAS BEEN PROPERLY PLACED.

J.E. ZAPERT P.L.S. NO. 4046 SLIGER & ASSOCIATES, INC. 3921 NOVA ROAD PORT ORANGE, FLORIDA 32127

DATE _____ SLIGER & ASSOCIATES, INC. CERTIFICATE OF AUTHORIZATION NO. 3019

MAP BOOK:___ PAGE:___

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, that GATLIN TWO LLC, being the owner in fee simple of the lands shown and described herein as the plat entitled BELLA OAKS, located in the City of Port Orange, Volusia County, Florida, hereby dedicates the said lands and plat for the uses and purposes hereon expressed. All potable water, reclaimed water, sanitary sewer mains, & Sewer lift station constructed within the area encompassed within the plat are dedicated to the City of Port Orange. All utility easements shown or described on the plat are, unless otherwise indicated, granted to the City of Port Orange. All drainage easements shown or described on the plat are also, unless otherwise indicated, granted to the Association, Inc. for the purposes described in the General Notes. All private roads are hereby granted to the Association, Inc. Access easements on and across all private roads are hereby granted to each lot owner for ingress and egress and granted to the City of Port Orange for emergency vehicles and government services. Utility easements across, on, over, through, and under all private roads are hereby granted to the City of Port Orange and franchise utility companies for the construction and maintenance of utilities. All parcels and other areas shown or depicted herein as common areas are hereby granted to the Association, Inc. for the purposes depicted on the subdivision plans approved by the City of Port Orange, Florida. Tree Conservation easements Tract H, L, J, K, are granted to the City of Port Orange. In witness where of, _____ has caused these presents to be signed, attested, and sealed by those named below on this _____ day of _____, 20____, and sealed by those named below on this _____ day of _____, 20____, and sealed by those named below on this _____ day of _____, 20____.

IN WITNESS WHEREOF, _____ HAS CAUSED THESE PRESENTS TO BE SIGNED, SEALED AND ATTESTED TO, BY THE PERSONS DESCRIBED BELOW, AND ITS CORPORATE SEAL TO BE AFFIXED HERETO ON THIS _____ DAY OF _____, 20____.

SIGNED AND SEALED IN THE PRESENCE OF: GATLIN TWO LLC

PRINTED NAME: _____ BY: _____

PRINT NAME, TITLE

PRINTED NAME: _____ (CORPORATE SEAL)

STATE OF _____ COUNTY OF _____

THIS IS TO CERTIFY THAT, ON _____, 2018, BEFORE ME, AN OFFICER DULY AUTHORIZED TO TAKE ACKNOWLEDGMENTS IN THE STATE AND COUNTY AFORESAID, PERSONALLY APPEARED _____

TO ME KNOWN TO BE THE PERSON WHO FOR AND ON BEHALF OF _____ AUTHORIZED TO DO BUSINESS IN THE STATE OF FLORIDA, EXECUTED THE FOREGOING DEDICATION FOR AND ON BEHALF OF SAID CORPORATION.

HE/SHE (IS) _____ (IS NOT) _____ KNOWN TO ME OR HAS PRODUCED _____ AS IDENTIFICATION AND HE (HAS) _____ (HAS NOT) _____ TAKEN AN OATH.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND SEAL ON THE ABOVE DATE.

SEAL

NOTARY PUBLIC STATE OF _____ AT LARGE MY COMMISSION EXPIRES: _____

TITLE/RANK: _____ COMMISSION NUMBER: _____

JINDER AND CONSENT TO DEDICATION

A _____ CORPORATION, HEREBY CERTIFIES THAT IT IS THE HOLDER OF A MORTGAGE, LIEN, OR OTHER ENCUMBRANCE UPON THE PROPERTY SHOWN AND DESCRIBED HEREON AS THE PLAT ENTITLED _____, LOCATED IN THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA.

HEREBY JOINS AND CONSENTS TO THE DEDICATION OF THE LANDS AND PLAT AND AGREES THAT ITS MORTGAGE, LIEN OR OTHER ENCUMBRANCE RECORDED IN OFFICIAL RECORDS BOOK _____ PAGE _____ OF THE PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, SHALL BE SUBORDINATED TO THE SAID DEDICATION. IN WITNESS WHEREOF _____ HAS CAUSED THESE PRESENTS TO BE SIGNED, ATTESTED, AND SEALED BY THOSE NAMED BELOW ON THIS _____.

IN WITNESS WHEREOF, _____ HAS CAUSED THESE PRESENTS TO BE SIGNED, ATTESTED, AND SEALED BY THOSE NAMED BELOW ON THIS _____ DAY OF _____, 20____.

SIGNED AND SEALED IN THE PRESENCE OF: _____

PRINTED NAME: _____ BY: _____

PRINTED NAME: _____ TITLE: _____

SIGNATURE: _____ ATTEST: _____

PRINTED NAME: _____ PRINTED NAME: _____

SIGNATURE: _____ TITLE: _____

STATE OF _____ COUNTY OF _____

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 200____, BY _____ AND _____

AS _____ AND _____

RESPECTIVELY, OF _____ A _____

ON BEHALF OF _____ AS IDENTIFICATION

AND HAVE _____ HAVE NOT _____ TAKEN AN OATH.

NOTARY PUBLIC MY COMMISSION EXPIRES: STATE OF FLORIDA AT LARGE COMMISSION NUMBER: _____

CERTIFICATE OF CLERK

I HEREBY CERTIFY, THAT I HAVE EXAMINED THE FOREGOING PLAT AND FOUND THAT IT COMPLIES IN FORM WITH ALL THE REQUIREMENTS IN CHAPTER 177, FLORIDA STATUTES, AND THAT IT WAS FILED FOR RECORD ON THIS _____ DAY OF _____ AT _____ AM/PM

FILE NO. _____ CLERK OF THE CIRCUIT COURT IN AND FOR VOLUSIA COUNTY, FLORIDA

REVIEW BY SURVEYOR AND MAPPER FOR THE CITY

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

SIGNATURE _____

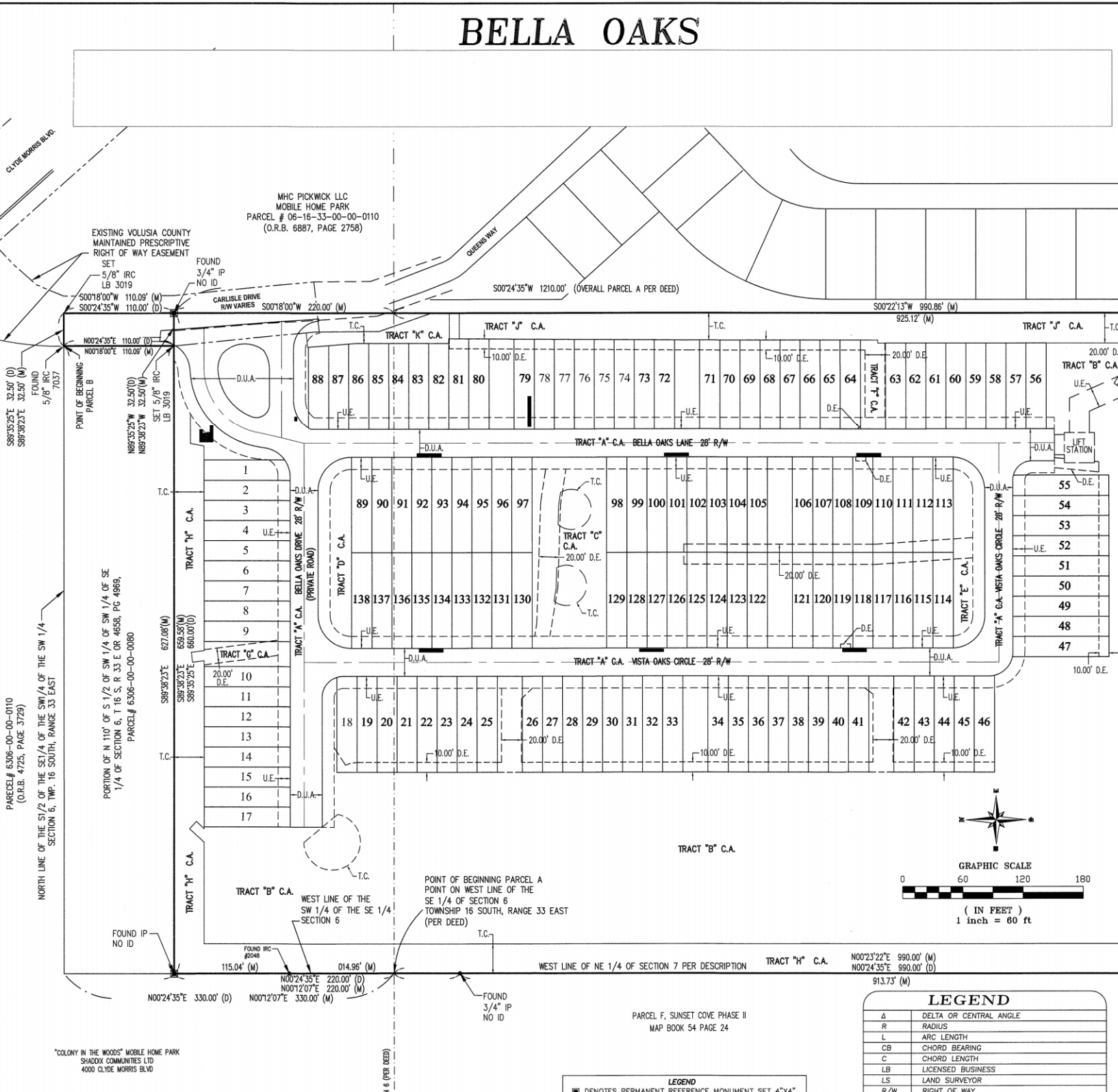
PRINTED NAME: _____ DATE _____

CERTIFICATE OF SURVEYOR AND MAPPER P.L.S./P.S.M. NO. _____

BELLA OAKS

MAP BOOK:___ PAGE:___

- GENERAL NOTES:
1. Monumentation
- Denotes Permanent Reference Monument Found
 - Denotes Permanent Reference Monument set
 - 4x4 concrete monument stamped PRM 3019
 - Denotes Permanent Control Point set
 - Metal disk stamped LB 3019
2. Additional symbols:
- (R) - Denotes a line radial relative to adjacent curve.
 - (NR) - Denotes a line not radial relative to adjacent curve.
 - Additional abbreviations:
3. Dimensions shown are in feet and decimals thereof.
4. Accuracy
- The boundary linear error of closure does not exceed 1:10,000.
The boundary angular error of closure does not exceed 15 seconds multiplied by the square root of the number of angles turned.
5. Bearing structure based on NAD 83, Florida State Plane Coordinate System, East Zone, U.S. Survey Foot, with the Bearing on the Southerly Line of Parcel "A" Being N89°33'54"W.
6. 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 39.37/12=3.280833333333333 equation for conversion from a U.S. foot to meters.
7. NOTICE: This plot, 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 plot. There may be additional restrictions that are not recorded on this plot that may be found in the public records of this county.
8. This plot 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 plot. Entire street frontages of lots and common areas: 12.00 feet wide.
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Side: _____
Rear: _____
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PREPARED BY:

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS

3921 NOVA ROAD
PORT ORANGE, FL 32127
(386) 761-5385
LICENSED BUSINESS CERTIFICATION NO. 3019

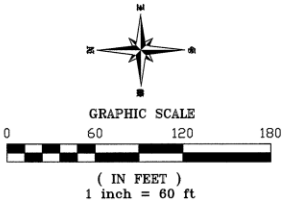
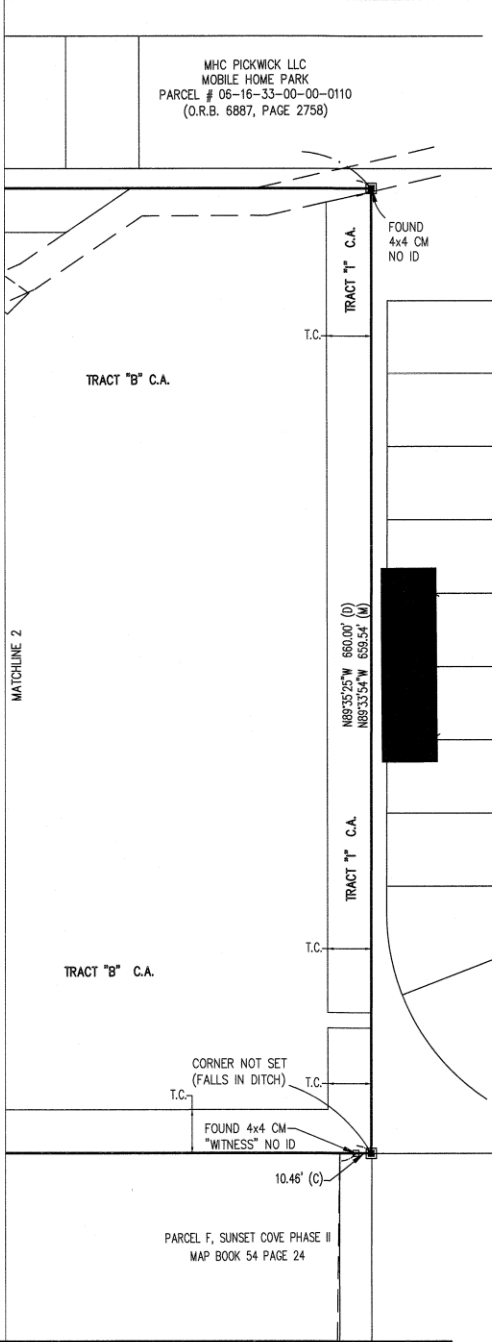
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 - Denotes PC / PT

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R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
C	CHORD LENGTH
LB	LICENSED BUSINESS
LS	LAND SURVEYOR
R/W	RIGHT OF WAY
ORB	OFFICIAL RECORDS BOOK
PG	PAGE
C.A.	COMMON AREA
SJRWMD	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
U.E.	UTILITY EASEMENT
PRC	POINT OF REVERSE CURVE
D.U.A.	DRAINAGE, UTILITY, ACCESS EASEMENT
D.E.	DRAINAGE EASEMENT
T.C.	TREE CONSERVATION EASEMENT

[Handwritten signature]

BELLA OAKS

A PORTION OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, AND A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA AND THE EASTERLY 32.50 FEET OF THE NORTHERLY 110 FEET OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA



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PROFESSIONAL LAND SURVEYORS

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[Handwritten signature]

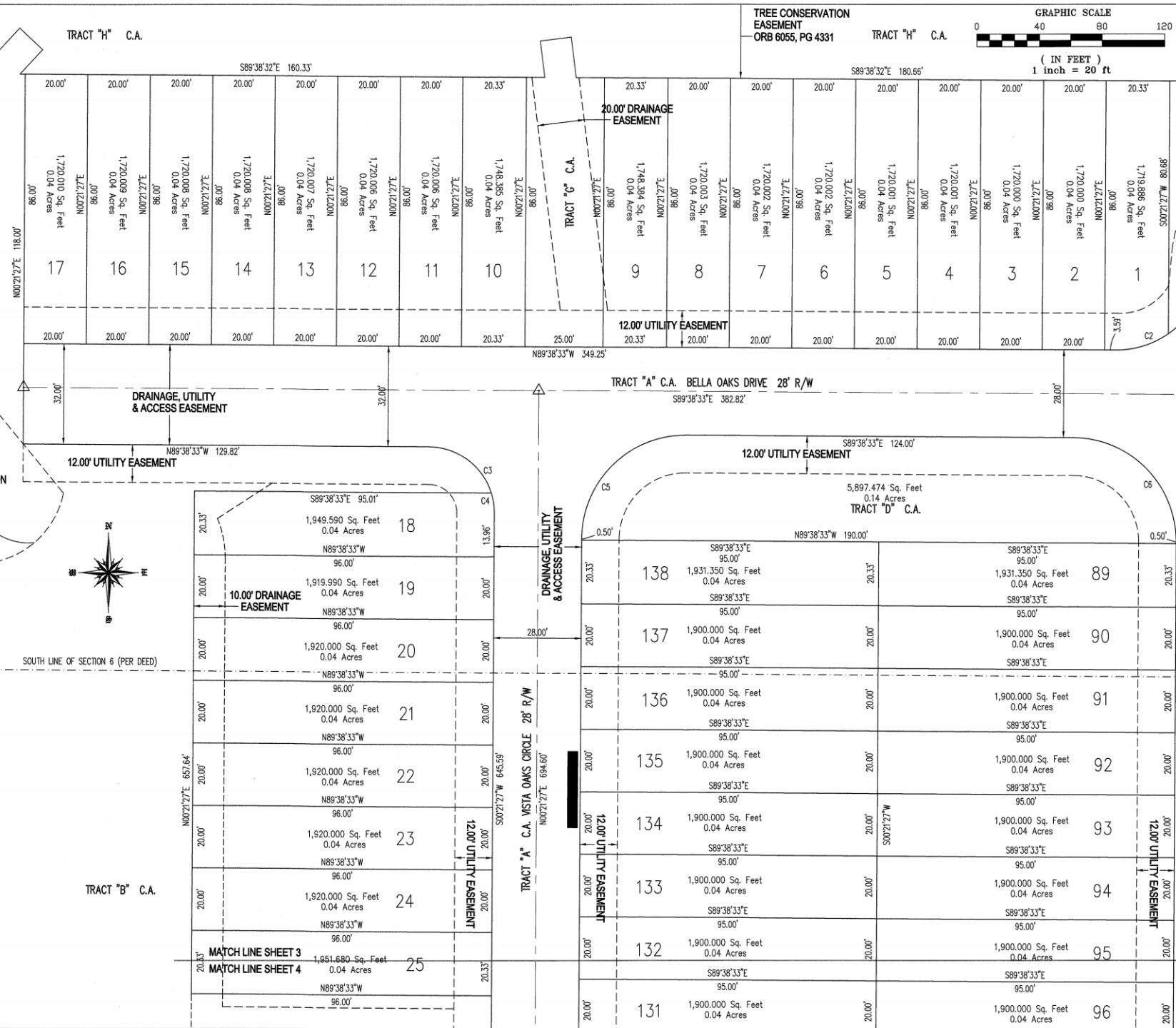
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CURVE TABLE				
CURVE	DELTA	RADIUS	LENGTH	DIRECTION
C1	18°15'24"	28.00'	41.13'	N49°43'46"E
C2	35°15'12"	28.00'	17.84'	N72°43'52"W
C3	90°00'00"	21.00'	32.98'	S44°38'33"E
C4	17°39'25"	21.00'	6.47'	S08°28'14"E
C5	90°00'00"	33.00'	51.84'	N45°21'27"E
C6	90°00'00"	33.00'	51.84'	S44°38'33"E
C7	04°33'52"	33.00'	2.63'	N31°08'36"E
C8	61°29'48"	33.00'	35.42'	N59°38'54"E
C9	111°09'43"	13.00'	25.22'	N34°03'41"W
C10	66°45'15"	53.00'	61.75'	N54°53'48"E
C11	78°57'08"	67.06'	92.40'	N48°37'03"E



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LEGEND			
Δ	DELTA OR CENTRAL ANGLE	PG	PAGE
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L	ARC LENGTH	SURVMO	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
CB	CHORD BEARING	U.E.	UTILITY EASEMENT
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ORB	OFFICIAL RECORDS BOOK	D.U.A.	DRAINAGE, UTILITY, ACCESS EASEMENT

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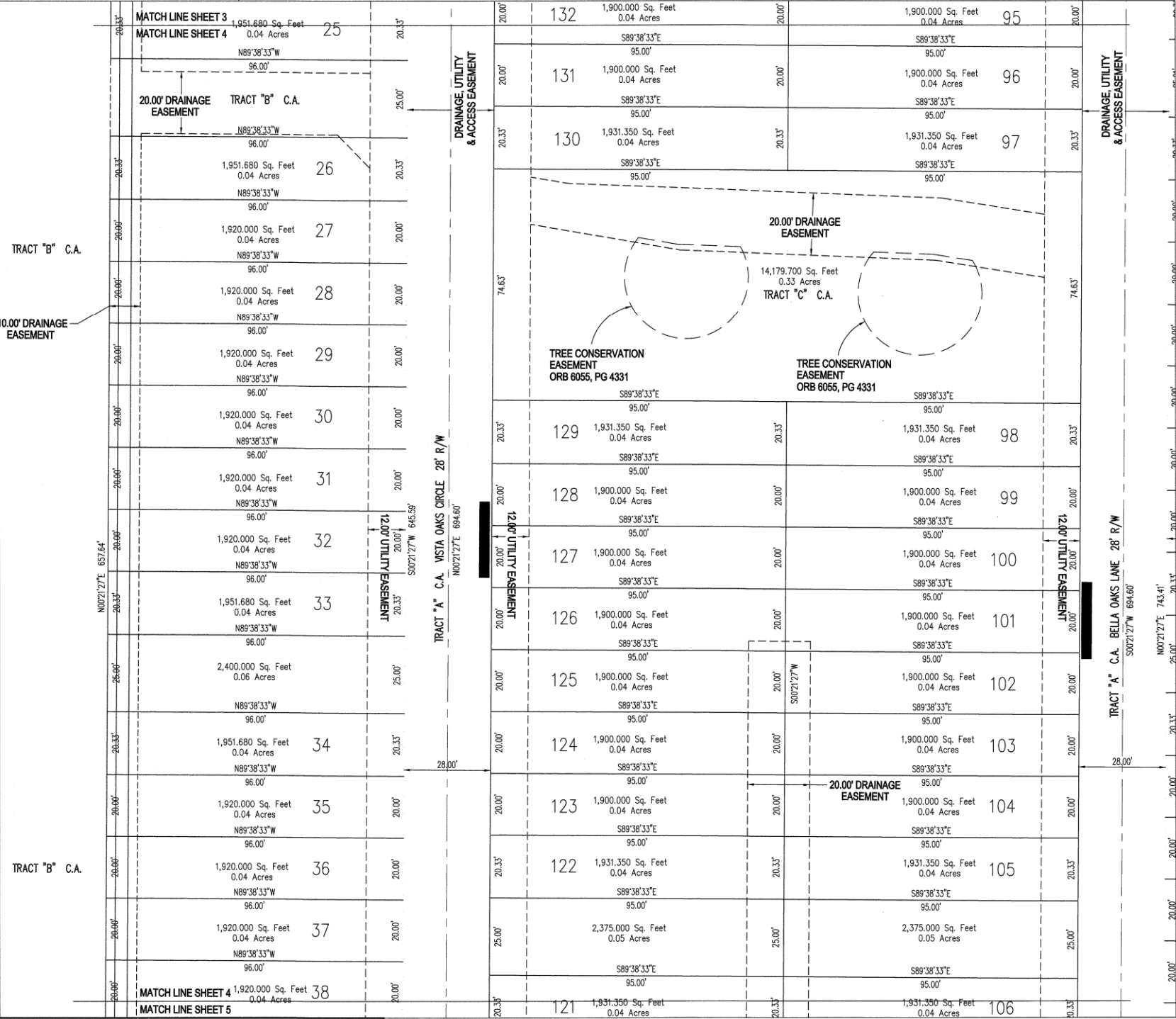


GRAPHIC SCALE

0 40 80 120

(IN FEET)
1 inch = 20 ft

SHEET 5 OF 9



PREPARED BY:

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS

3921 NOVA ROAD
PORT ORANGE, FL 32127
(386) 761-5385
LICENSED BUSINESS CERTIFICATION NO. 3019

LEGEND			
Δ	DELTA OR CENTRAL ANGLE	PG	PAGE
R	RADIUS	C.A.	COMMON AREA
L	ARC LENGTH	SURV	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
CB	CHORD BEARING	U.E.	UTILITY EASEMENT
C	CHORD LENGTH	D.E.	DRAINAGE EASEMENT
R/W	RIGHT OF WAY	T.C.	TREE CONSERVATION EASEMENT
ORB	OFFICIAL RECORDS BOOK	D.U.A.	DRAINAGE, UTILITY, ACCESS EASEMENT

LEGEND

- DENOTES PERMANENT REFERENCE MONUMENT SET 4"x4" CONCRETE MONUMENT STAMPED PRM LB 3019.
- DENOTES PERMANENT REFERENCE MONUMENT FOUND 4"x4" CONCRETE MONUMENT STAMPED PRM RLS 6723
- △ DENOTES NAIL & CAP SET STAMPED PRM LB 3019.
- I DENOTES PC / PT

MAP BOOK:___ PAGE:___

GENERAL NOTES:

1. Monumentation

□ - Denotes Permanent Reference Monument Found

■ - Denotes Permanent Reference Monument set

4x4 concrete monument stamped L6 3019

△ - Denotes Permanent Control Point set

Metal disk stamped L6 3019

2. Additional symbols:

(R) - Denotes a line radial relative to adjacent curve.

(N/R) - Denotes a line not radial relative to adjacent curve.

Additional abbreviations:

3. Dimensions shown are in feet and decimals thereof.

4. Accuracy

The boundary linear error of closure does not exceed 1:10,000.

The boundary angular error of closure does not exceed 15 seconds multiplied by the square root of the number of angles turned.

5. Bearing structure based on NAD 83, Florida State Plane Coordinate System, East Zone U.S. Survey Foot, with the Bearing on the Southerly Line of Parcel "A" Being N89°35'54"W.

6. NOTE: All measurements refer to horizontal plane in accordance with the definition of the U.S. Survey foot or meter adopted by the International Union of Standards and Technology. All measurements shall use the 39.37/12=3.2808333333333333 equation for conversion from a U.S. foot to meters.

7. NOTICE: This plot, as recorded in its graphic form, is the official depiction of the subdivided lands described herein and will in no circumstances be supplemented in authority by any other graphic or digital form of the plot. There may be additional restrictions that are not recorded on this plot that may be found in the public records of this county.

8. This plot is subject to all easements of record and reservations of easements, including but not limited to, utility easements or access easements located herein which shall be located as follows except as otherwise noted on the plat: Entire street frontages of lots and common areas: 12.00 feet wide

9. 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.

10. Utility easements provided on this plot 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.

11. All other easements are subordinate to any conservation easements dedicated herein. 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 conservation easement.

12. Tree Conservation Easement as defined on this plat is for the express purpose of the preservation and longevity of the trees therein. Actions detrimental to tree healths survived within the boundaries of the dipline are prohibited without the express permission of the City of Port Orange and any other authority having jurisdiction over the conservation easement. However, this shall, however, be construed to prevent natural vegetation within the easement area from being cleared by hand to provide 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 low maintenance such as mowing, edging and weeding similar to the objective of tree preservation within 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.

13. Building setback requirements:

Front (street frontage): _____

Side: _____

Rear: _____

14. Lot coverage requirements:

Minimum open space: _____

Maximum building coverage: _____

15. The common areas granted to the _____ Association, Inc. by this plat shall be subject to easements as shown or described herein or granted in accordance with the _____ Association's Association's covenants and restrictions. The granting of such common areas is not intended to grant any right to the general public.

16. The _____ 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 maintenance of the drainage and stormwater management systems, The City of Port Orange shall be warranting to the common owner of the drainage and designated easement area to perform maintenance, repair or replace 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 he city to be necessary. In the event of termination, dissolution, or final liquidation of the _____, the responsibility for the maintenance of the surface water or storm water management system will be transferred to and accepted by an entity which complies with Section 404-42.027, 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, together with the right to harvest excess storm water / ground water as deemed appropriate in the discretion of the City.

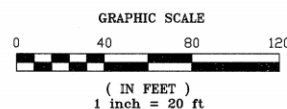
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19. The _____ Association, Inc. shall be responsible for maintaining all landscaping and irrigation in common areas.

20. The articles of Incorporation for the _____ 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 _____ Association, Inc. are recorded in Official Records Book _____ Pages _____ through _____ of the Public Records of Volusia County, Florida.

21. Additional fencing is not required. This does not include the required patio screening fencing [LDC, Ch. 14, Sec. 3.(d)(1)].

CURVE	DELTA	CURVE TABLE			CHORD
		RADIUS	LENGTH	DIRECTION	
C12	13°40'48"	24.00	5.73	S06238°56'E	5.72
C13	64°42'08"	24.00	27.10	S45°40'24"E	29.68
C14	11°37'05"	24.00	4.87	S83°50'00"E	4.86
C15	90°00'00"	24.00	37.70	N44°38'33"W	33.94
C16	14°43'01"	19.00	4.88	N82°17'11"W	4.87
C17	75°17'17"	19.00	29.87	S37°17'02"E	23.21
C18	90°00'00"	19.00	26.95	N44°38'33"W	26.87
C19	02°34'58"	33.00	1.49	S00°56'01"E	1.49
C20	87°25'03"	33.00	50.35	N45°06'02"E	45.61
C21	90°00'00"	33.00	51.84	N44°38'33"W	46.67
C22	02°35'03"	33.00	1.49	S01°38'53"E	1.49
C23	87°25'02"	33.00	50.35	S46°36'56"E	45.61
C24	90°00'00"	33.00	51.84	S45°21'27"W	46.67



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PORT ORANGE, FL. 32127
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LICENSED BUSINESS CERTIFICATION NO. 3019

LEGEND			
Δ	DELTA OR CENTRAL ANGLE	PG	PAGE
R	RADIUS	C.A.M.	COMMON AREA
L	ARC LENGTH	SUR/MO	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
CB	CHORD BEARING	U.E.	UTILITY EASEMENT
	CHORD LENGTH	D.E.	DRAINAGE EASEMENT
R/W	RIGHT OF WAY	T.C.	TREE CONSERVATION EASEMENT
OPB	OFFICIAL RECORDS BOOK	D.U.A.	DRAINAGE, UTILITY, ACCESS EASEMENT

LEGEND

■ DENOTES PERMANENT REFERENCE MONUMENT SET 4"x4" CONCRETE MONUMENT STAMPED PRM LB 3019.

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△ DENOTES NAIL & CAP SET STAMPED PRM LB 3019.

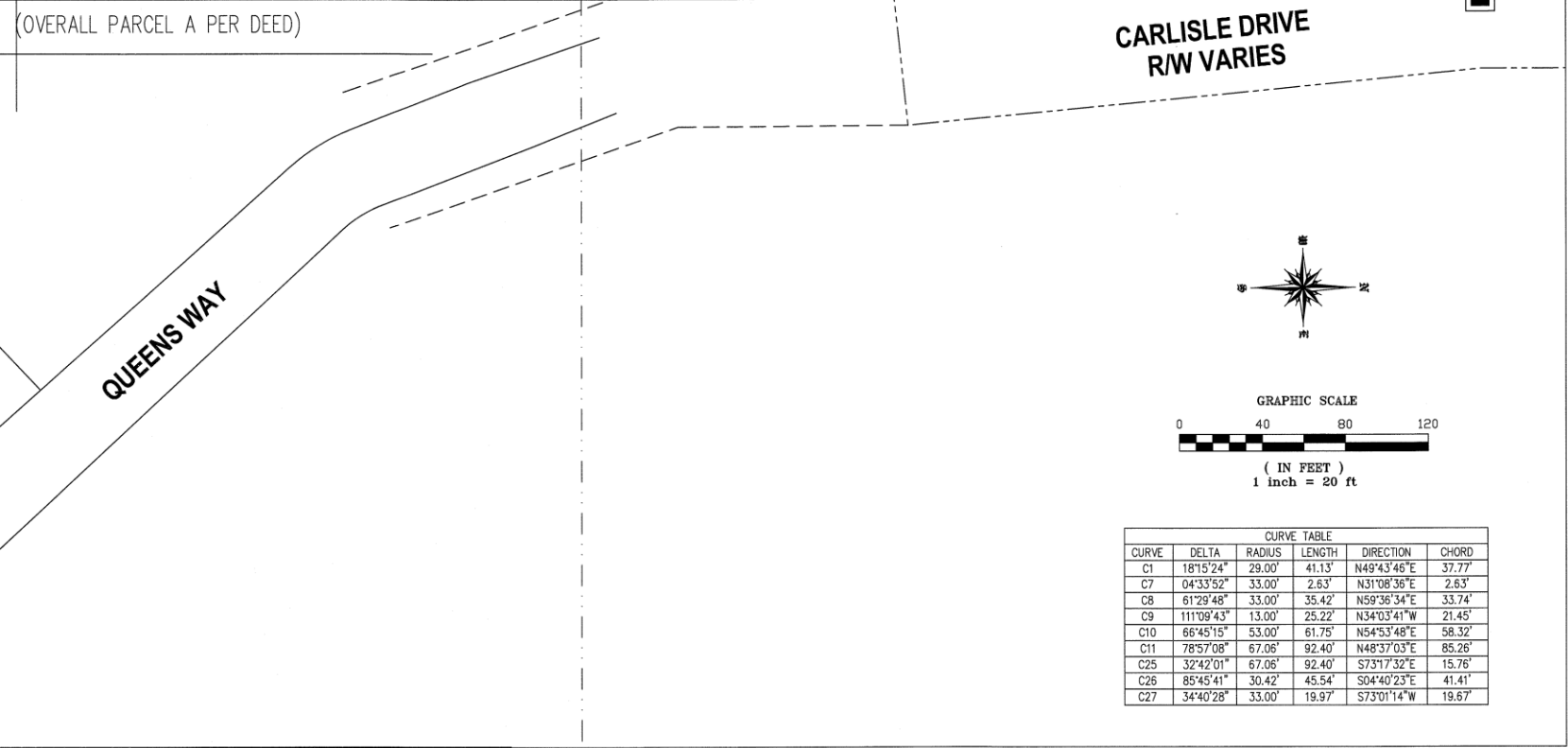
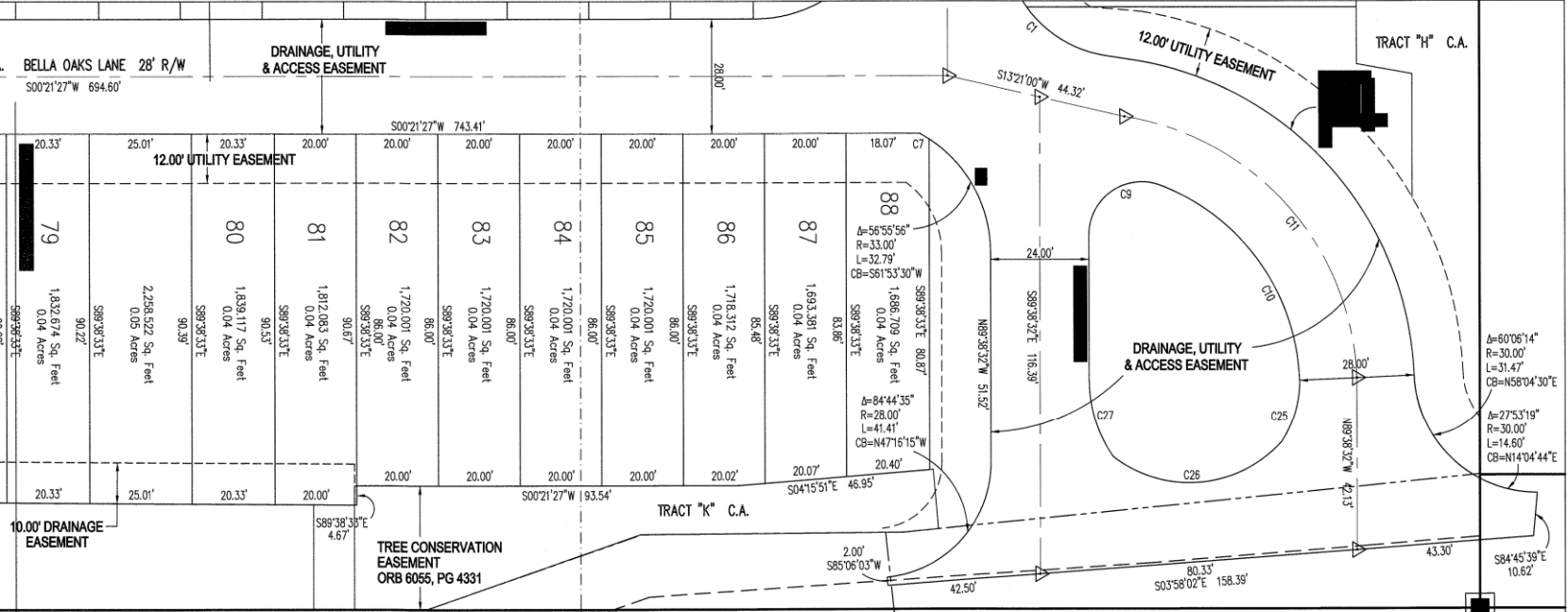
| DENOTES PC / PT

BELLA OAKS

A PORTION OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, AND A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA AND THE EASTERLY 32.50 FEET OF THE NORTHERLY 110 FEET OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA

MAP BOOK:___ PAGE:___

- GENERAL NOTES:
1. Monumentation
- Denotes Permanent Reference Monument Found
 - Denotes Permanent Reference Monument Set
 - 4x4 concrete monument stamped LB 3019
 - Denotes Permanent Control Point set
 - Metal disk stamped LB 3019
2. Additional symbols:
- (R) - Denotes a line radial relative to adjacent curve.
 - (NR) - Denotes a line not radial relative to adjacent curve.
 - Additional abbreviations:
3. Dimensions shown are in feet and decimals thereof.
4. Accuracy
- The boundary linear error of closure does not exceed 1:10,000.
The boundary angular error of closure does not exceed 15 seconds multiplied by the square root of the number of angles turned.
5. Bearing structure based on NAD 83, Florida State Plane Coordinate System, East Zone, U.S. Survey Foot, with the Bearing on the Southerly Line of Parcel "A" Being N89°33'54"W.
6. 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 39.37/12=3.28083333333333 equation for conversion from a U.S. foot to meters.
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9. 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.
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11. 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 conservation easement.
12. Tree Conservation 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 drainage 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 construed to prevent natural vegetation within the easement area from being cleared by hand to provide a neat, manicured appearance. In addition, nothing herein shall be construed to prevent the placement of soil, irrigation and landscape plants or to prevent normal lawn maintenance such as mowing, edging and weeding not harmful to the objective of tree preservation within 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.
13. Building setback requirements:
- Front (street frontage): _____
Side: _____
Rear: _____
14. Lot coverage requirements:
- Minimum open space: _____
Maximum building coverage: _____
15. The common areas granted to the _____ Association, Inc. by this plat shall be subject to easements as shown or described herein or granted in accordance with the _____ 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 _____, 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 maintenance 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 proportion 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 entity which complies with Section 400-42.027, F.A.C. and be approved by the Saint Johns River Water Management District prior to such termination, dissolution, or liquidation.
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CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	DIRECTION	CHORD
C1	18°15'24"	29.00'	41.13'	N49°43'46"E	37.77'
C7	04°33'52"	33.00'	2.63'	N31°08'36"E	2.63'
C8	61°29'48"	33.00'	35.42'	N59°36'34"E	33.74'
C9	111°09'43"	13.00'	25.22'	N34°03'41"W	21.45'
C10	66°45'15"	53.00'	61.75'	N54°53'48"E	58.32'
C11	78°57'08"	67.06'	92.40'	N48°37'03"E	85.26'
C25	32°42'01"	67.06'	92.40'	S73°17'32"E	15.76'
C26	85°45'41"	30.42'	45.54'	S04°40'23"E	41.41'
C27	34°40'28"	33.00'	19.97'	S73°01'14"W	19.67'

PREPARED BY:

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS

3921 NOVA ROAD
PORT ORANGE, FL. 32127
(386) 761-5385
LICENSED BUSINESS CERTIFICATION NO. 3019

LEGEND			
A	DELTA OR CENTRAL ANGLE	PG	PAGE
R	RADIUS	C.A.	COMMON AREA
L	ARC LENGTH	SURVMD	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
CB	CHORD BEARING	U.E.	UTILITY EASEMENT
C	CHORD LENGTH	D.E.	DRAINAGE EASEMENT
R/W	RIGHT OF WAY	T.C.	TREE CONSERVATION EASEMENT
ORB	OFFICIAL RECORDS BOOK	D.U.A.	DRAINAGE, UTILITY, ACCESS EASEMENT

LEGEND

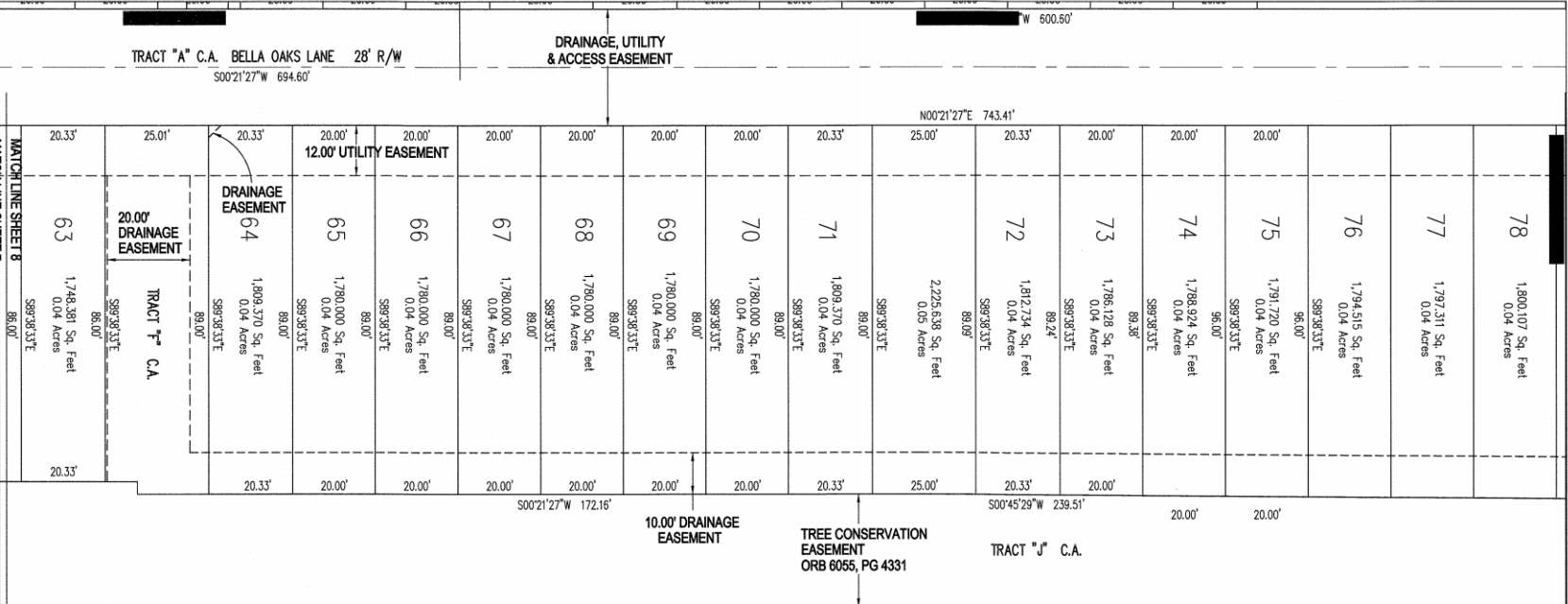
- Denotes Permanent Reference Monument Set 4"x4" CONCRETE MONUMENT STAMPED PRM LB 3019.
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- Denotes PC / PT

BELLA OAKS

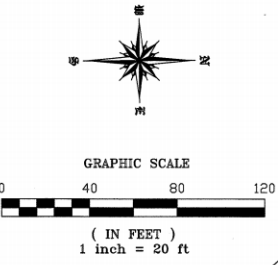
A PORTION OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, AND A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA AND THE EASTERLY 32.50 FEET OF THE NORTHERLY 110 FEET OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA

MAP BOOK:___ PAGE:___

- GENERAL NOTES:
1. Monumentation
 - - Denotes Permanent Reference Monument Found
 - - Denotes Permanent Reference Monument set
 - 4x4 concrete monument stamped LB 3019
 - △ - Denotes Permanent Control Point set
 - Metal disk stamped LB 3019
 2. Additional symbols:
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 - The boundary linear error of closure does not exceed 1:10,000.
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 5. Bearing structure based on NAD 83, Florida State Plane Coordinate System, East Zone, U.S. Survey Foot, with the Bearing on the Southerly Line of Parcel "A" Being N89°33'54"W.
 6. 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 39.37/12=3.280833333333333 equation for conversion from a U.S. foot to meters.
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 13. Building setback requirements:
 - Front (street frontage): _____
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 - Rear: _____
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 - Minimum open space: _____
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 15. The common areas granted to the _____ Association, Inc. by this plat shall be subject to easements as shown or described hereon or granted in accordance with the _____ Association, Inc.'s covenants and restrictions. The granting of such common areas is not intended to grant any right to the general public.
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 21. Additional fencing is not allowed. This does not include the required patio screening fencing [LDC, Ch. 14, Sec. 3(d)(1)].



(OVERALL PARCEL A PER DEED)



PREPARED BY:

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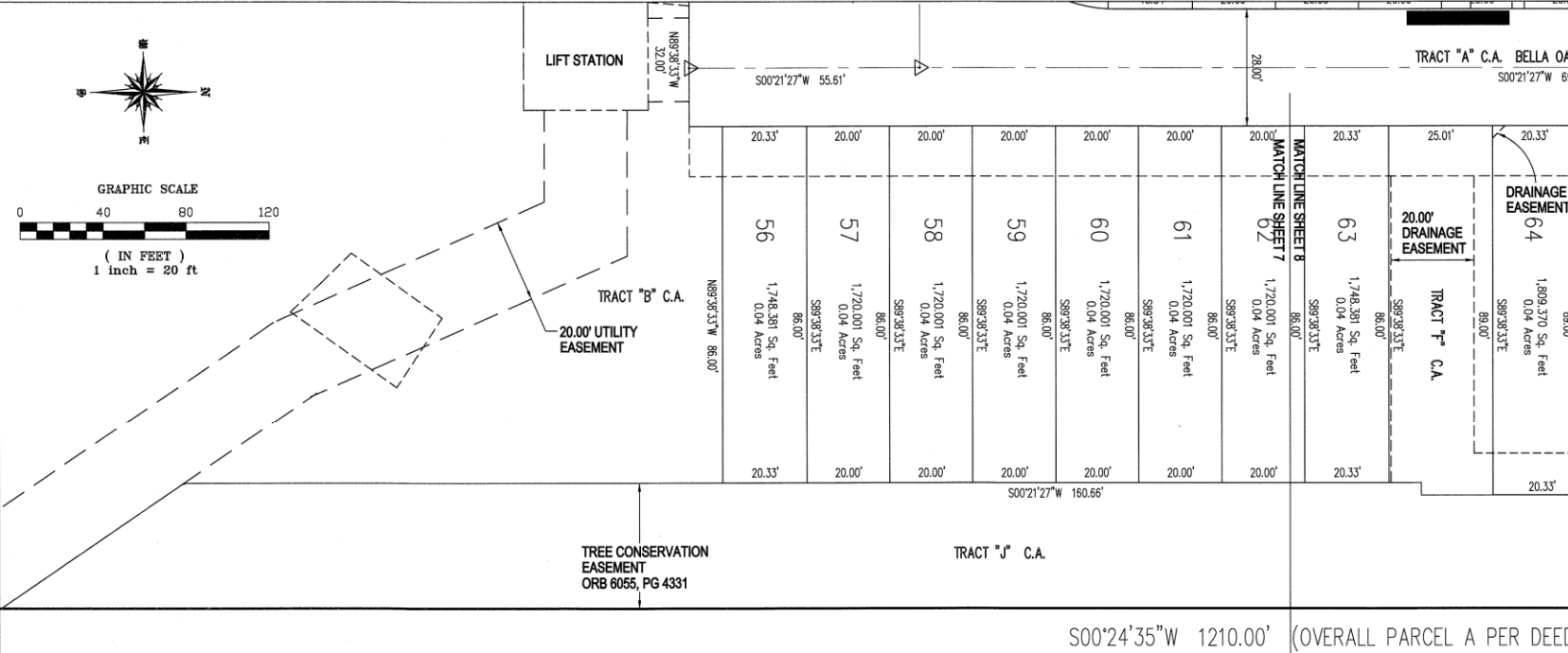
LEGEND			
Δ	DELTA OR CENTRAL ANGLE	PG	PAGE
R	RADIUS	C.A.	COMMON AREA
L	ARC LENGTH	S.J.R.W.M.D.	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
CB	CHORD BEARING	U.E.	UTILITY EASEMENT
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LEGEND

- DENOTES PERMANENT REFERENCE MONUMENT SET 4"x4" CONCRETE MONUMENT STAMPED PRM LB 3019.
- DENOTES PERMANENT REFERENCE MONUMENT FOUND 4"x4" CONCRETE MONUMENT STAMPED PRM RLS 8723
- △ DENOTES NAIL & CAP SET STAMPED PRM LB 3019.
- | DENOTES PC / PT

BELLA OAKS

A PORTION OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, AND A PORTION OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 7, TOWNSHIP 16 SOUTH, RANGE 33 EAST, VOLUSIA COUNTY, FLORIDA AND THE EASTERLY 32.50 FEET OF THE NORTHERLY 110 FEET OF THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 6, TOWNSHIP 16 SOUTH, RANGE 33 EAST, CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA



MAP BOOK:___ PAGE:___

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 - 4x4 concrete monument stamped LB 3019
 - Denotes Permanent Control Point set
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 9. 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.
 10. Utility easements provided on this plot 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.
 11. All other easements are subordinate to any conservation easements dedicated herein. 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 conservation easement.
 12. Tree Conservation Easement as defined on this plot 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 easement 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 construed to prevent natural vegetation within the easement area from being cleared by hand to provide a neat, manicured appearance. In addition, nothing herein shall be construed to prevent the placement of soil, irrigation and landscape plants or to prevent normal lawn maintenance such as mowing, edging and weeding not harmful to the objective of tree preservation within 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.
 13. Building setback requirements:
 - Front (street frontage): _____
 - Side: _____
 - Rear: _____
 14. Lot coverage requirements:
 - Minimum open space: _____
 - Maximum building coverage: _____
 15. The common areas granted to the _____ Association, Inc. by this plot shall be subject to easements as shown or described herein or granted in accordance with the _____ 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 _____ 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 plot, 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 maintenance 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 entity which complies with Section 400-42.027, 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, together with the right to harvest excess storm water / ground water as deemed appropriate in the discretion of the City.
 18. The _____ Association, Inc. shall be responsible for maintaining all private roads granted to the Association by this plot.
 19. The _____ Association, Inc. shall be responsible for maintaining all landscaping and irrigation in common areas.
 20. The articles of incorporation for the _____ Association, Inc. are recorded in Official Records Book _____ Pages _____ of the Public Records of Volusia County, Florida. The declaration of covenants and restrictions for the _____ Association, Inc. are recorded in Official Records Book _____ Pages _____ through _____ of the Public Records of Volusia County, Florida.
 21. Additional fencing is not allowed. This does not include the required patio screening fencing [UDC, Ch. 14, Sec. 3(a)(1)].

PREPARED BY:

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS

3921 NOVA ROAD
PORT ORANGE, FL 32127
(386) 761-5385
LICENSED BUSINESS CERTIFICATION NO. 3019

LEGEND			
Δ	DELTA OR CENTRAL ANGLE	PG	PAGE
R	RADIUS	C.A.	COMMON AREA
L	ARC LENGTH	SURWMD	ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
CB	CHORD BEARING	U.E.	UTILITY EASEMENT
C	CHORD LENGTH	D.E.	DRAINAGE EASEMENT
R/W	RIGHT OF WAY	T.C.	TREE CONSERVATION EASEMENT
ORB	OFFICIAL RECORDS BOOK	D.U.A.	DRAINAGE, UTILITY, ACCESS EASEMENT

LEGEND

■ DENOTES PERMANENT REFERENCE MONUMENT SET 4"x4" CONCRETE MONUMENT STAMPED PRM LB 3019.

□ DENOTES PERMANENT REFERENCE MONUMENT FOUND 4"x4" CONCRETE MONUMENT STAMPED PRM RLS 6723

△ DENOTES NAIL & CAP SET STAMPED PRM LB 3019.

I DENOTES PC / PT

- VOLUSIA COUNTY USE PERMIT NOTES:**
1. Notify Volusia County Development Engineering Division at 386-736-5926 24 hours prior to the start of construction.
 2. Volusia County Traffic Engineering is not a member of Sunshine One Call. All traffic signal locations shall be requested from Traffic Engineering at 386-736-5968.
 3. Driving and/or staging of construction vehicles is not permitted on any sidewalks in the right-of-way. Any damage to sidewalks will be repaired and/or replaced in like kind by the contractor.
 4. Any sidewalk, lane or road closure (including flagging operations) requires review and approval in advance and a seven (7) day minimum notice to Volusia County Traffic Operations (386-239-6535).
 5. All existing sidewalks within County rights of way shall remain open or provision of a temporary walkway shall be provided in accordance with the current version of Florida Department of Transportation Standard Index #660 'Mid Block Closure with Temporary Walkway' unless otherwise approved by the County Traffic Engineer. Please note that Index #660 must be shown on the Use Permit plans.
 6. No trench or excavation shall be left open or unattended overnight, unless the excavations within the Clear Zone of the roadway meet the Drop Off Criteria of the latest FDOT Design Standards (Index 600) (of properly barricaded and secured excavations).
 7. There shall be no overnight construction vehicle related parking, construction materials placement or storage of any kind permitted within County rights of way in accordance with Volusia County Ordinance Article 1, Section 94-1.
 8. All disturbed areas within the County right of way shall be re-graded and sodded. Seed and mulch are not acceptable.

- GENERAL NOTES:**
1. EROSION CONTROL SHALL BE INSTALLED PRIOR TO CLEARING.
 2. CONTRACTOR SHALL REVIEW AND MAINTAIN A COPY OF THE SJRWMD PERMIT AT THE CONSTRUCTION SITE.
 3. THE CONTRACTOR MUST CONSTRUCT AND MAINTAIN A PERMANENT PROTECTIVE COVER FOR EROSION AND SEDIMENT CONTROL ON ALL LAND SURFACES EXPOSED OR DISTURBED BY CONSTRUCTION OF THE PERMITTED PROJECT. SAID COVER MUST BE INSTALLED WITHIN 14 DAYS AFTER FINAL GRADING OF THE AFFECTED LAND SURFACE. A PERMANENT VEGETATIVE COVER MUST BE ESTABLISHED WITHIN 60 DAYS OF ITS INSTALLATION.
 4. ELEVATIONS REFER TO NGVD 1929 DATUM OBTAINED FROM FIELD SURVEY.
 5. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SOODED OR SEEDED.
 6. EXISTING TREES ON THE SITE THAT ARE TO BE SAVED WILL BE PROTECTED BY TREE BARRICADES AND MUST BE LEFT INTACT INCLUDING TREE PRESERVATION AREAS.
 7. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH CITY OF PORT ORANGE SPECIFICATIONS.
 8. THIS PROJECT IS LOCATED IN THE 100 YEAR FLOOD PLAIN, IN AE27.
 9. SANITARY SEWER IS PROVIDED BY CITY OF PORT ORANGE.
 10. POTABLE WATER IS PROVIDED BY CITY OF PORT ORANGE.
 11. THERE ARE NO KNOWN HISTORICAL OR ARCHAEOLOGICAL RESOURCES ON THE SITE.
 12. NO ENDANGERED OR THREATENED SPECIES OF PLANTS OR ANIMALS ARE KNOWN TO INHABIT THIS SITE.
 13. ENTRANCE SIGN BY SEPERATE SIGN PERMIT.
 14. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ON AND ADJACENT TO THIS SITE, PRIOR TO ANY CONSTRUCTION.
 15. ALL PROPOSED UTILITIES WILL BE UNDERGROUND.
 16. CONSTRUCTION TESTING IS THE RESPONSIBILITY OF THE CONTRACTOR.
 17. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY STANDARD CONSTRUCTION DETAILS, LATEST VERSION, UNLESS OTHERWISE SPECIFICALLY APPROVED.
 18. Project shall conform to latest FDOT Design Standard Index, FDOT Road & Bridge Specifications, and MUTCD

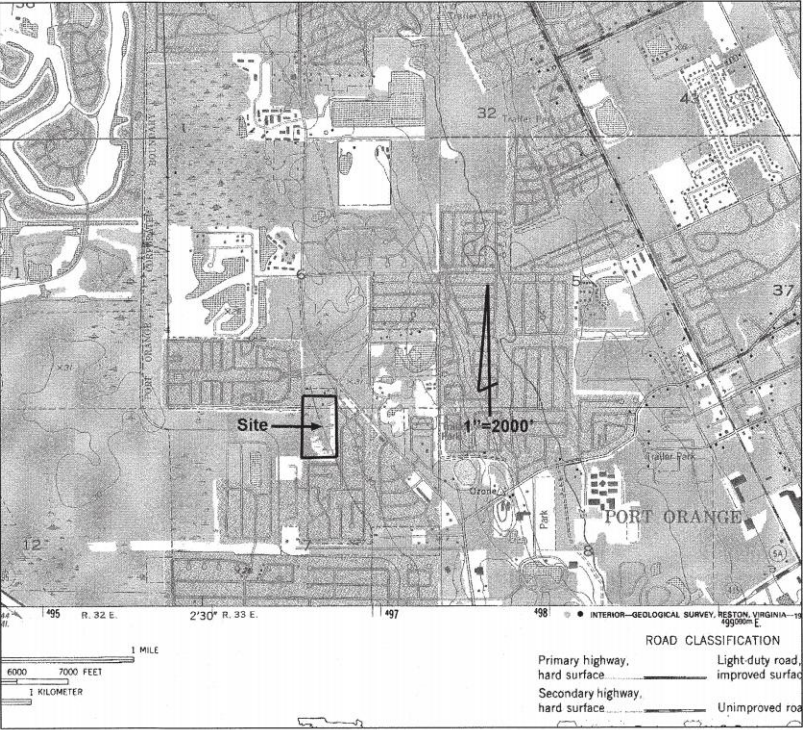


VICINITY MAP
SCALE: 1"=776'

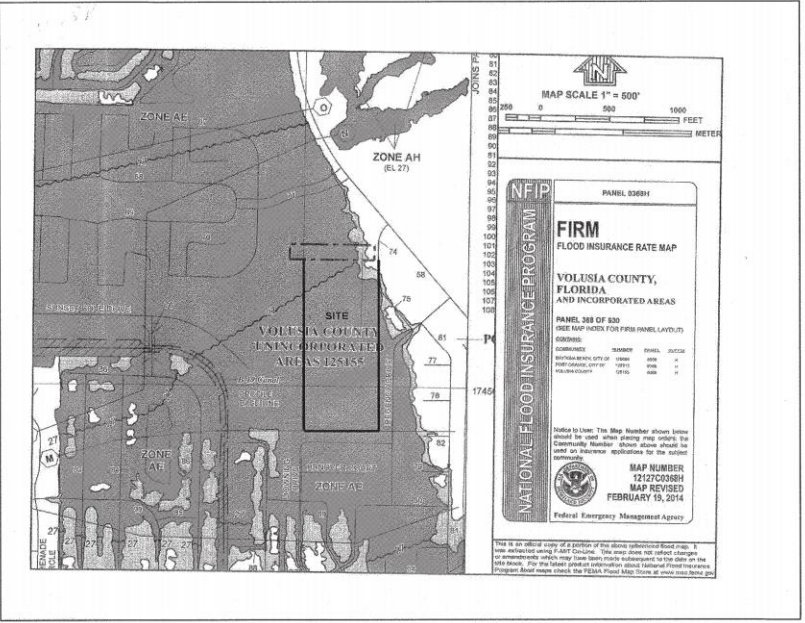
EXHIBIT B

BELLA OAKS

Port Orange, Volusia County, Florida



QUADRANGLE MAP
SCALE: AS SHOWN



FLOOD MAP
SCALE: AS SHOWN

RECEIVED
11-19-18
CITY OF PORT ORANGE
Community Development
REVISED

VARIANCE CASE NO. 18-90000004/BELLA OAKS SUBDIVISION
4068 CARLISLE DR
At its regular meeting on August 23, 2018, the Planning Commission approved the request for variances to: 1) allow for a single point of access in lieu of two points of access for a subdivision; 2) allow for a sidewalk on only one side of a street; 3) allow for a right-of-way less than 50-feet in width; 4) allow for a minimum lot area less than the 2,000 square-foot lot area in the R-3L zoning district; 5) allow for a maximum building coverage more than the 40% required in the R-3L zoning district; 6) allow for a minimum open space per lot less than the 60% required in the R-3L zoning district; and 7) allow for a rear building setback less than the 25 feet required in the R-3L zoning district.

At its regular meeting on September 19, 2018, the City Council approved the request for subdivision variances to: 1) allow one point of access for a subdivision; 2) reduce the minimum right-of-way width from 50 feet to 28 feet; and 3) provide a 4-foot sidewalk on only one side of the right-of-way

SITE INFORMATION
TAX PARCEL ID: 6306-00-00-0070
ZONING: LOW DENSITY MULTIFAMILY RESIDENTIAL R-3L
PROPOSED USE: RESIDENTIAL TOWNHOME SUBDIVISION
TOTAL AREA OF SITE: 18.21 ACRES EXCLUDES CARLISLE DR. R/W DEDICATION

SITE DATA
TOTAL AREA = 18.21 AC.
TOTAL NUMBER OF UNITS = 138
DENSITY = 7.58 UNITS/ACRE
PROPOSED TOTAL IMPERVIOUS AREA = 5.87 AC. = 32%
PROPOSED TOTAL OPEN SPACE = 12.34 AC. = 68% INCLUDES LAKE WATER SURFACE

BUILDING AREA = 3.11 AC.
ASPHALT PAVEMENT = 1.06 AC.
CONCRETE PAVEMENT = 0.97 AC.
CONCRETE SIDEWALK AND PADS = 0.72 AC.

PARKING REQUIRED:
138 UNITS (ALL ARE 3 BEDROOMS) x 2 = 276
VISITOR 138 x 0.25/UNIT = 35
TOTAL REQUIRED = 311 SPACES
PARKING PROVIDED:
GARAGE SPACES = 138
DRIVEWAY SPACES = 138
STANDARD SPACES = 33
HANDICAP SPACES = 2
TOTAL PROVIDED = 311

BICYCLE PARKING = 0.1 x 311 = 31 REQUIRED
35 PROVIDED

SOILS ON THE SITE ARE:
HYD. GROUP "D", GWT -1.0' PER SOIL SURVEY
SEE ACTUAL SOIL BORINGS FOR DESIGN INFORMATION

Drawing Index	
Sheet #	Description
1	Cover Sheet
2-3	Surveys
4	Tree Survey
5-6	Demo - SWPPP Plan
7	Site Plan
8	Easement Plan
9-11	Drainage/Grading Plans
12-16	Utility Plans
17-18	Sanitary Sewer Details
19-20	Water Details
21	Stormwater Details
22	Roadway Details
23-24	Misc. Details
25-28	Landscape Plans
29-32	Irrigation Plans
33-34	Landscape and Irrigation Details
35-36	Architectural Plans
37-38	Carlisle Drive Landscaping

OWNER/DEVELOPER:
GATLIN TWO, LLC
JAMES PAYTAS, JR.
794 SANDERS RD. - SUITE #1
PORT ORANGE, FL. 32127
JPAYTAS@PAYTASHOMES.COM
386-756-0439

ENGINEER:
DANIEL JOHNS, P.E.
3869 S. NOVA RD. - SUITE 3
PORT ORANGE, FL. 32127
DANJOHNS@DJENGINEERS.COM
386-756-8582

LANDSCAPE ARCHITECT:
RICHARD POORE
300 GATEWOOD CT.
ORMOND BEACH, FL. 32174
THEPOOREFAM@GMAIL.COM
386-212-8491

Proposed two story fee simple platted townhomes, 138 units, on 18.21 Ac. site. Stormwater management will be provided via wet detention ponds with irrigation harvesting.

11-19-18	city comments	By
Revised	Description of Revision	
Daniel Johns, P.E. Professional Engineer 54037 3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-756-8582		
Vicinity Map		
BELLA OAKS		
Port Orange, Volusia County, Florida		
file:	date: 10-2018	scale: shown
		sheet: 1 of 38

LINE	BEARING	DISTANCE
L1	N09°11'12"E	76.05'
L2	S47°09'04"W	76.24'
L3	S47°09'02"W	100.00'
L4	S46°03'03"W	27.44'
L5	S41°07'42"W	50.65'
L6	S22°33'32"W	29.21'
L7	S09°11'12"E	110.15'
L8	N09°05'25"W	32.50'
L9	N09°35'25"W	32.50'
L10	N09°11'12"E	110.16'

FLOOD ZONE 'X'

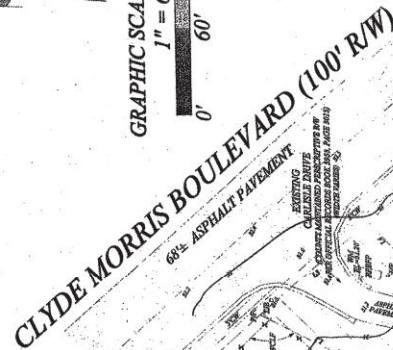


Figure 1 consists of two diagrams of wetland polygons. The top diagram is a quadrilateral labeled "WETLANDS B-1" with vertices B1, B2, B3, and B4. It contains four internal points labeled L1, L2, L3, and L4. The bottom diagram is a pentagon labeled "WETLANDS A-1" with vertices A1, A2, A3, A4, and A5. It contains five internal points labeled L1, L2, L3, L4, and L5. Both diagrams include a north arrow and a scale bar.

SURVEYS NOTES:

- 1) BEARINGS AND DISTANCES REFER TO DEEDS OF RECORD
- 2) BASIS OF BEARINGS REFER TO THE EASTERN PROPERTY LINE OF SUBJECT PARCEL AS BEING 9 00° 24' 35" W
- 3) DISTANCES SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF
- 4) THE CERTIFICATION OF THIS SURVEY REFERS TO THE FIELD SURVEY
- 5) NO SECTIONAL BREAKDOWN WAS PERFORMED ON SUBJECT PROPERTY
- 6) UNDEVELOPED BOUNDARY LINES OF 5 INDIVIDUAL PARCELS MAKING UP SUBJECT PROPERTY HELD AS MEASURED IN THE FIELD.
- 7) THERE IS CONFLICTING EVIDENCE ALONG THE WEST LINE OF THE NE 1/4 OF SECTION 7, T 10 N, R 10 E, S 14 OF THE SE 1/4 OF SECTION 16, T 10 N, R 10 E, S 14 (SHOWN AS HATCHED AREA)
- 8) ELEVATIONS ARE NGVD 1929 AND REFER TO TOP OF FINE HYDRANT
- 9) 150% SLOPE OF MADELINE
- 10) DISTANCES SHOWN AS ANGLE TO BE BOUNDARY

[illegible]

SUBJECT AREA LIES IN FLOOD ZONE
"X& AE" (AREAS OF MINIMAL
FLOODING) PER FEDERAL
EMERGENCY MANAGEMENT
AGENCY FIRM FLOOD ZONE
DETERMINED BY SCALING FROM
FLOOD INSURANCE RATE MAPS
COMMUNITY # 125155, PANEL #0368
SUFFIX G, DATED APRIL 15, 2002.
MAP NUMBER 12127C0368 G

THE SURVEY DEPICTED HEREON
CHECKED BY: JMB
DRAWN BY: GCP
FILED IN: LOOSE NOTES IN FOLDER
PARTY CHIEF: RCrocker
SURVEY DATE: 03/21/2006
SHEET 1 OF 1
HPTBL: Valley File:
TomValleyBellaOaksPortOrange.mxd
SURVEY TYPE: BOUNDARY SURVEY,
TOPOGRAPHICAL AND SPECIFIC PURPOSE
FLOOD ZONE CLASSIFICATION, TREE
LOCATION & JURISDICTIONAL POINT
LOCATION

NOT VALID WITHOUT THE SIGNATURE OF THE SURVEYOR

PREPARED BY

JAMES MARVIN BUNN PROFESSIONAL SURVEYOR INC

PROFESSIONAL SURVEYOR AND MAPPER

LB # 7037 PSM # 5816

211 LIVE OAK STREET, NEW SMYRNA BEACH, FLORIDA 32168

PHONE (386) 424-0998 FAX (386) 424-0885

I, THE UNDERSIGNED HEREBY CERTIFY THIS PLAN TO BE A TRUE REPRESENTATION OF A FIELD SURVEY MADE UNDER MY SUPERVISION AND MEETS OR EXCEEDS THE MINIMUM TECHNICAL STANDARDS FOR SURVEYING IN THE STATE OF FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES SUBJECT TO ALL NOTES HEREON.

 DATE SIGNED

JAMES MARVIN BUNN JR. PSM # 5816

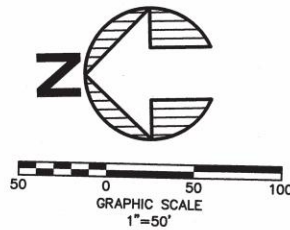
LEGAL DESCRIPTION

LEGAL DESCRIPTION
PARCEL "A": A portion of the Southwest 1/4 of the Southeast 1/4 of Section 6, Township 16 South, Range 33 East, and a portion of the Northwest 1/4 of the Northeast 1/4 of Section 7, Township 16 South, Range 33 East, Volusia County, Florida being more particularly described as follows: As a point of reference, from the Southwest corner of Section 6, Township 16 South, Range 33 East, run thence along the South line of Section 6 South 89 degrees 35 minutes 25 seconds East a distance of 2640.00 feet to the Point of Beginning, said point being on the West line of the Southeast 1/4 of Section 6, Township 16 South, Range 33 East; thence North 00 degrees 24 minutes 35 seconds East a distance of 220.00 feet; thence South 89 degrees 35 minutes 25 seconds East a distance of 660.00 feet; thence South 00 degrees 24 minutes 35 seconds West a distance of 1210.00 feet; thence North 89 degrees 35 minutes 25 seconds West a distance of 660.00 feet to a point on the West line of the Northeast 1/4 of Section 7, Township 16 South, Range 33 East; thence North 00 degrees 24 minutes 35 seconds East along said West line a distance of 990.00 feet to the Point of Beginning. Containing 18.33 acres more or less.

AND PARCEL "B":

AND PARCEL B:
The Easterly 32.50 feet of the Northerly 110 feet of the South 1/2 of the Southwest 1/4 of the Southwest 1/4 of the Southeast 1/4 of Section 6, Township 16 South, Range 33 East, Volusia County, Florida, being more particularly described as follows: As a point of reference from the Southwest corner of Section 6, Township 16 South, Range 33 East, run thence along the South line of Section 6, South 89 degrees 35 minutes 25 seconds East a distance of 2640.00 feet to a point on the West line of the Southeast 1/4 of Section 6, Township 16 South, Range 33 East; thence North 00 degrees 24 minutes 35 seconds East along said West line a distance of 330.00 feet; thence South 89 degrees 35 minutes 25 seconds East a distance of 627.50 feet to the Point of Beginning; thence continue South 89 degrees 35 minutes 25 seconds East a distance of 32.50 feet; thence South 00 degrees 24 minutes 35 seconds West a distance of 110.00 feet; thence North 89 degrees 35 minutes 25 seconds West a distance of 32.50 feet; thence North 00 degrees 24 minutes 35 seconds East a distance of 110.00 feet to the Point of Beginning. Containing 0.08 acres more or less. Parcels "A" and "B" containing together 18.41 acres more or less.

All the above being subject to, Carlisle Drive, an existing 35 foot prescriptive right-of-way easement centered along the common boundary of the above described properties and properly described as Parcel "A" in Official Records Book 4725, page 3731, and running North to Clyde Morris Boulevard, (a 100 foot right-of-way as now laid out and used) and meandering South to Queens Way. And also being subject to, a proposed non-exclusive 50 foot ingress, egress, drainage and utility easement by enlarging the existing Carlisle Drive being more particularly described as follows: From the Point of Beginning of Parcel "B", run thence North 89 degrees 35 minutes 25 seconds East, a distance of 76.05 feet; thence North 27 degrees 39 minutes 41 seconds East, a distance of 76.24 feet; thence South 41 degrees 06 minutes 50 seconds East, a distance of 100.00 feet; thence South 46 degrees 36 minutes 34 seconds West, a distance of 27.44 feet; thence South 41 degrees 37 minutes 42 seconds West, a distance of 30.45 feet; thence South 22 degrees 37 minutes 32 seconds West, a distance of 29.21 feet; thence South 00 degrees 11 minutes 12 seconds West, a distance of 110.19 feet; thence North 89 degrees 35 minutes 25 seconds West, a distance of 17.50 feet; thence North 89 degrees 35 minutes 25 seconds West, a distance of 32.50 feet; thence North 00 degrees 11 minutes 12 seconds East, a distance of 110.16 feet to the Point of Beginning.

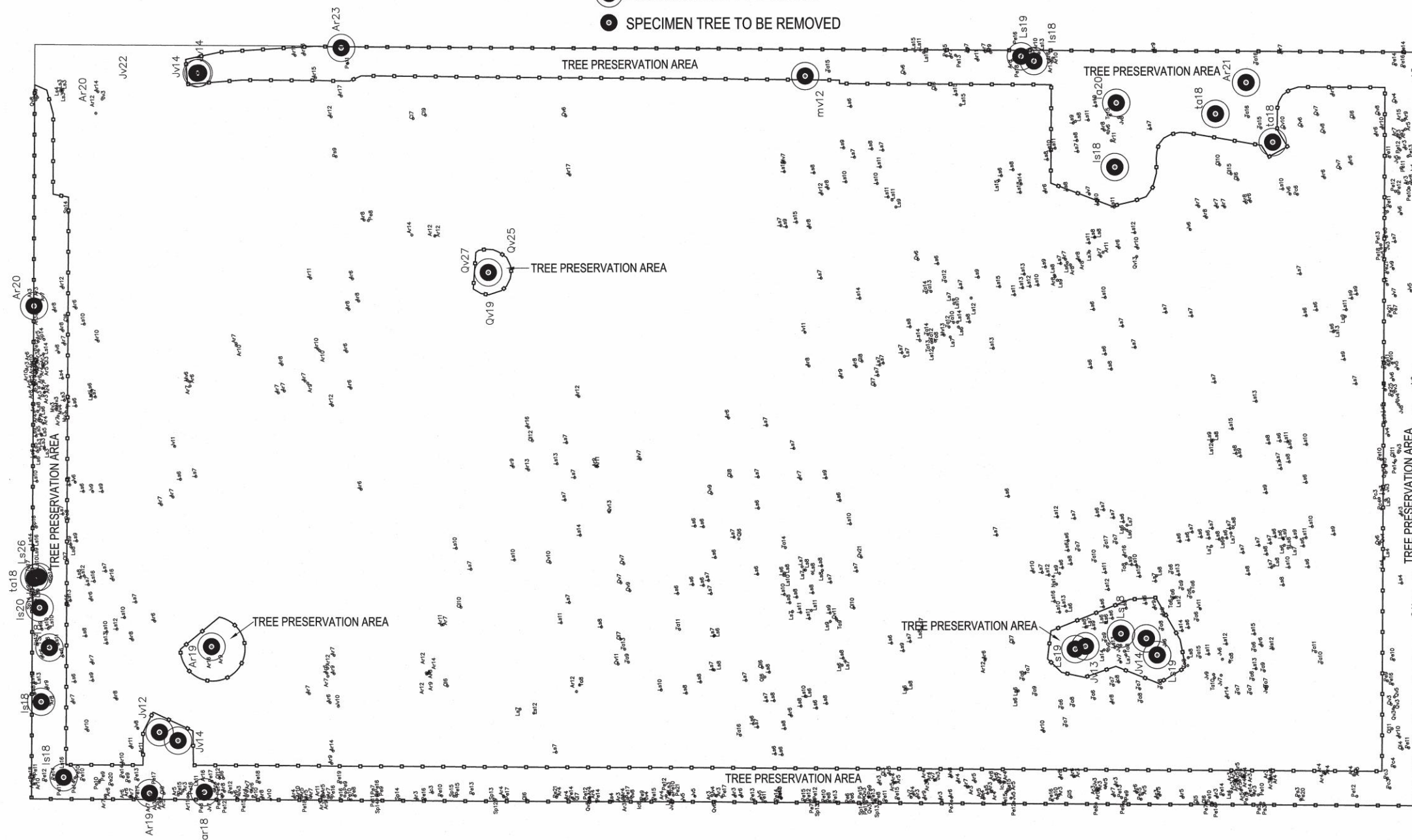


LEGEND

AR ACER RUBRUM - RED MAPLE
CL CELTIS LAEVIGATA - HACKBERRY
GL GORDONIA LASIANTHUS - LOBLOLLY BAY
IC ILEX CASSINE - DAHOON HOLLY
JV JUNIPERUS VIRGINIANA - RED CEDAR
LS LIQUIDAMBAR STYRACIFLUA - SWEETGUM
MV MAGNOLIA VIRGINIANA - SWEETBAY MAGNOLIA
PC PRUNUS CAROLINIANA - CHERRY LAUREL
PE PINUS ELLIOTTII - SLASH PINE
QL QUERCUS LAURIFOLIA - LAUREL OAK
QV QUERCUS VIRGINIANA - LIVE OAK
SP SABAL PALMETTO - CABBAGE PALM

PLANTS WERE IDENTIFIED USING THE ISB ATLAS OF FLORIDA VASCULAR PLANTS

- SPECIMEN TREE TO BE SAVED
- SPECIMEN TREE TO BE REMOVED



TREE PRESERVATION:
SITE AREA x 15% = 2.75 ACRES TO PRESERVE
TOTAL AREA PRESERVED = 2.91 ACRES = 16%

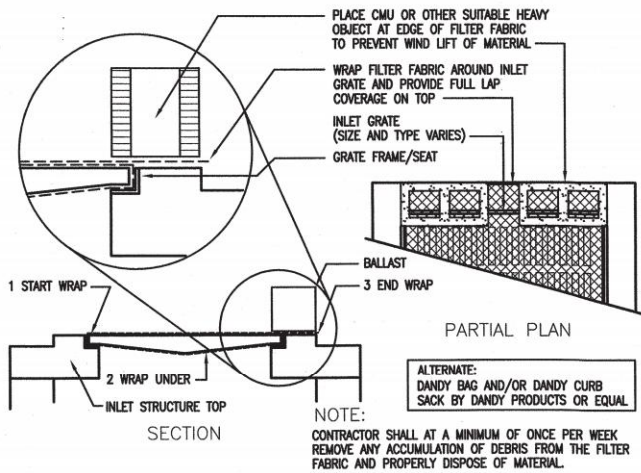
SPECIMEN TREES:
TOTAL EXISTING SPECIMEN TREES = 31
31/18.33 = 1.69 PER ACRE - REQUIRED TO SAVE = 80%
31 x .80 = 25 TO SAVE
SPECIMEN TREES SAVED = 31

MINIMUM NUMBER OF TREES REQUIRED:
18.33 ACRES/2500 S.F. = 320 TREES REQUIRED
NUMBER OF ADDITIONAL TREES SAVED
IN PRESERVATION AREAS = 320 TREES
TOTAL NUMBER TREES SAVED = 351

TREES PROPOSED ON LANDSCAPE PLAN = 548
PALM TREES PROPOSED ON LANDSCAPE PLAN = 100

TOTAL NUMBER OF TREES ON DEVELOPED SITE = 999

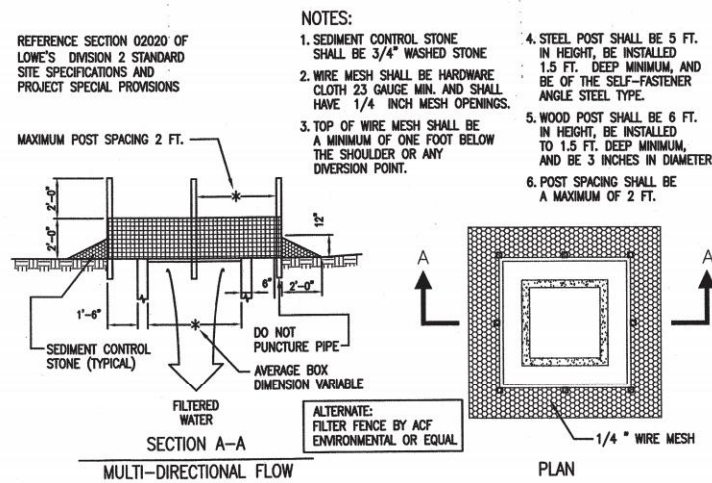
12-7-18	tree calculation	
3-5-18	revised trees	
Revised	Description of Revision	By
Daniel Johns, P.E. Professional Engineer 54037 3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-756-8582		
TREE SURVEY		
BELLA OAKS		
Port Orange, Volusia County, Florida		
file: *	date: 1-2018	scale: shown
sheet: 4 of 38		SEAL



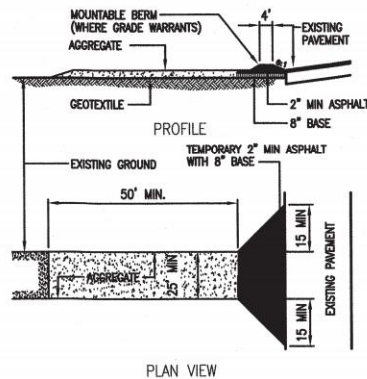
INLET SILT PROTECTION DETAIL IS-1
NOT TO SCALE

- NOTES:
1. STONE SIZE - #2 COARSE AGGREGATE, OR RECLAIMED/RECYCLED CONCRETE.
 2. LENGTH - 50' MINIMUM
 3. DEPTH - 6" MINIMUM (COMPACTED)
 4. WIDTH - 25' MINIMUM
 5. GEOTEXTILE - 100% POLYPROPYLENE, 4 OZ/SY OVER THE ENTIRE AREA PRIOR TO PLACEMENT OF AGGREGATE.
 6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 6:1 SLOPES IS ACCEPTABLE.
 7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. MAINTAIN PERIODIC TOP DRESSING OF ADDITIONAL AGGREGATE AS CONDITIONS REQUIRE AND REPAIR AND/OR CLEANOUT ANY AREAS USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, WASHING SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE WHICH DRAINS INTO AN APPROVED SEDIMENT POND OR SWALE.
 9. INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN OR WEEKLY AT A MINIMUM.

CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

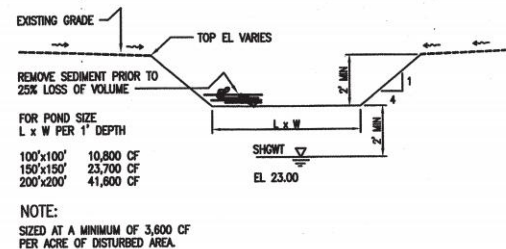


INLET PROTECTION IP-1
NOT TO SCALE

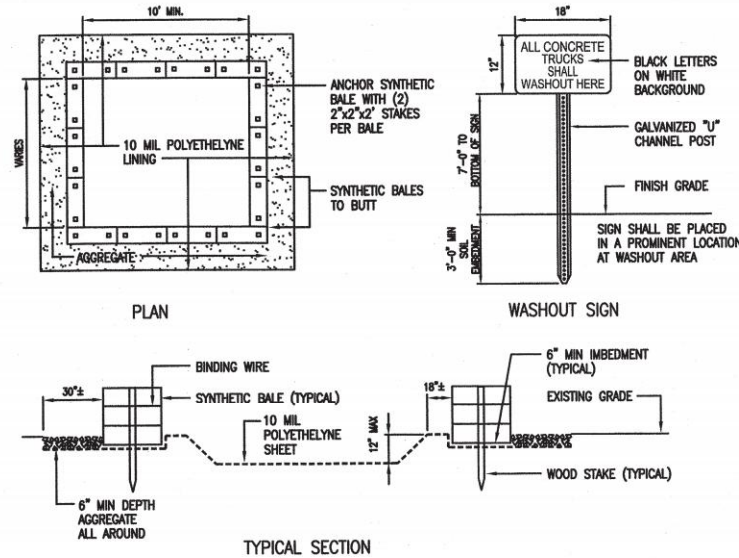


USE DOZER TRACKS TO CREATE GROOVES PERPENDICULAR TO THE SLOPE. GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF.

TRACKING DETAIL
NOT TO SCALE

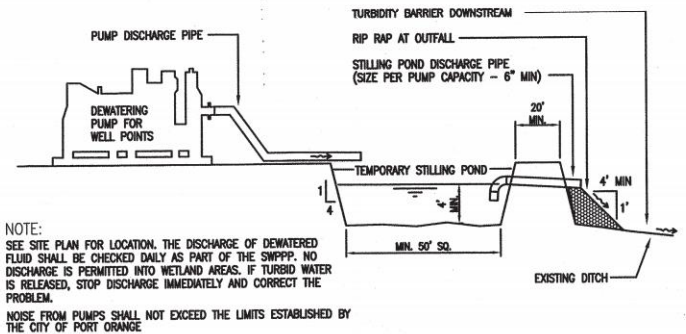


TEMPORARY SEDIMENT POND DETAIL
NOT TO SCALE



- NOTES:
1. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
 2. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
 3. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT AREA DETAIL
NOT TO SCALE



TYPICAL DEWATERING DISCHARGE DETAIL
NOT TO SCALE

TEMPORARY SEEDING SPECIFICATIONS

GENERAL SEEDING CAN BE USED FOR TEMPORARY OR PERMANENT STABILIZATION. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 7 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED. AREAS WHERE FINAL GRADING HAS BEEN COMPLETED FOR MORE THAN 7 DAYS SHALL BE TEMPORARILY OR PERMANENTLY SEEDED. TEMPORARY SEED MIXTURES ARE SPECIFIED BELOW. PERMANENT SEED MIXTURES SHALL BE SEEDED DURING SEASON SPECIFIED.

SEED BED PREPARATION (PERMANENT SEEDING) SURFACE WATER CONTROL MEASURES SHALL BE IN PLACE. AREA TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL. TOTAL SEEDBED PREPARED DEPTH SHOULD BE AT LEAST 4 INCHES. LOOSE ROCKS, ROOTS AND OTHER OBSTRUCTIONS NEED TO BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH THE ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION SHOULD BE AT FINISH GRADE AND BE REASONABLY SMOOTH AND UNIFORM.

IF NO SOIL TEST IS TAKEN, FERTILIZER AND LIME SHOULD BE ACCORDING TO SEEDING SPECIFICATIONS. IF SOIL TEST IS TAKEN, APPLY FERTILIZER AND LIME ACCORDING TO SOIL TEST REPORT. FERTILIZER AND LIME SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION. WEIGHTS, SEED SPECIES AND PERCENTAGE OF PURITY AND GERMINATION MUST BE CHECKED PRIOR TO SEEDING.

SEEDING SHALL BE ACCOMPLISHED IN TWO DIRECTIONS AND AT RIGHT ANGLES TO EACH OTHER. LAWN AREAS SHALL BE SEEDED AT THE RATE INDICATED ON THE DRAWINGS BY SOWING EVENLY WITH AN APPROVED MECHANICAL CULTI-PACKER SEEDER TO COVER THE SEED AND FORM THE SEEDBED IN ONE OPERATION. IF BROADCAST SEEDER IS USED, THE SEEDING RATE SHALL BE TWO (2) TIMES THE DRILL RATE. IN INACCESSIBLE AREAS, THE SEED SHALL BE LIGHTLY RAKED WITH FLEXIBLE RAKES AND ROLLED WITH A WATER BALAST ROLLER. AFTER ROLLING SEEDED AREAS ARE TO BE MULCHED ACCORDING TO SPECIFICATION. IF HYDROSEEDING OPERATION IS USED, SEEDING RATE SHALL BE FIVE (5) TIMES THE DRILL RATE INDICATED ON THE DRAWINGS.

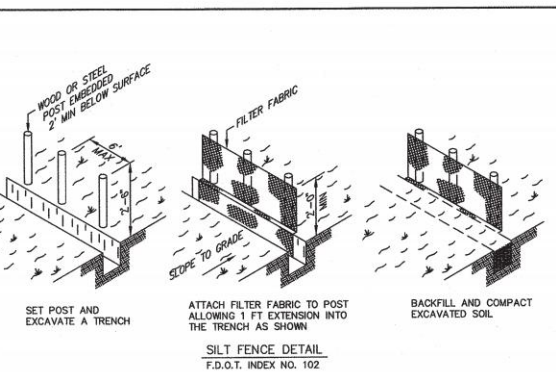
IF SEEDING CAN NOT BE ACCOMPLISHED DUE TO SEASONAL CONSTRAINTS, APPLY STRAW MULCH AND TACKIFIER TO ALL SLOPES AND DISTURBED AREAS UNTIL PERMANENT SEEDING IS ALLOWED. IN THE EVENT SEEDING OCCURS OUT OF SEASON, MAINTENANCE SHALL OCCUR AND CONTINUE INTO THE FOLLOWING GROWING SEASON OR UNTIL A UNIFORM STAND OF THE SPECIFIED PERMANENT GRASSES HAVE BEEN ESTABLISHED AND THE SITE HAS REACHED 85% STABILIZATION. PERMANENT AND TEMPORARY SEEDING SHALL BE ACCOMPLISHED THROUGHOUT THE CONSTRUCTION PROCESS.

INSPECTION INSPECT SEEDED AREAS FREQUENTLY. IF SEEDED AREAS FAIL TO GERMINATE, OR TO PROVIDE ADEQUATE GROUND COVERAGE, THE AREA SHALL BE RE-SEEDED UNTIL FINAL STABILIZATION IS ACHIEVED. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT MINIMUM EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24-HOURS OF A RAINFALL EVENT OF GREATER THAN .5 INCHES OF RAIN DURING A 24-HOUR PERIOD (OR MORE FREQUENTLY IF REQUIRED BY THE STATE FDEP GENERIC PERMIT) THROUGHOUT CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED OR MORE FREQUENTLY IF REQUIRED PER THE FDEP GENERIC PERMIT.

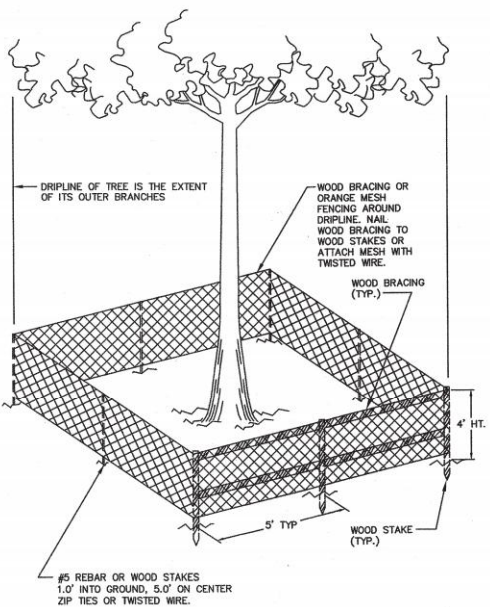
UNLESS OTHERWISE PROVIDED FOR, THE CONTRACTOR SHALL CONFORM TO THE FOLLOWING SEED SCHEDULE WHERE INDICATED ON THE SWPPP, GRADING AND/OR LANDSCAPE DRAWINGS. THE TOTAL POUNDS OF SEED PER ACRE SHALL BE THE SUM TOTAL SHOWN FOR ALL VARIETIES OF SEED OPPOSITE THE SCHEDULE NUMBER.

SCH. No.	COMMON NAME OF SEED	RATE LB/ACRE	SEEDING DATES
1.	PENSACOLA BAHIA (SCARIFIED)	90	MARCH 15 -
	BERMUDA COMMON (50% HULLED)	25	OCTOBER 15
2.	PENSACOLA BAHIA (SCARIFIED)	100	OCTOBER 16 -
	BERMUDA COMMON (50% HULLED)	35	MARCH 14
	ANNUAL RYE GRASS	10	
	RYE GRASS	30	

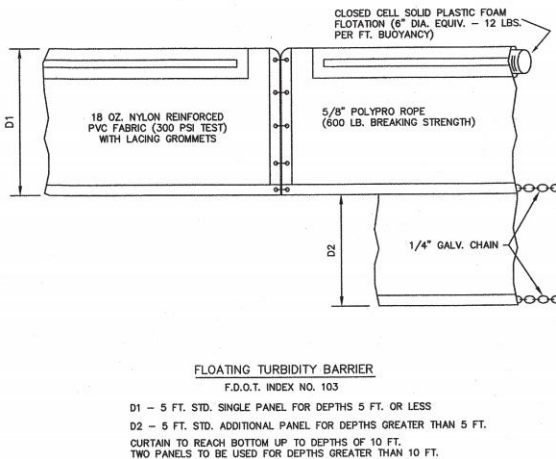
1. THE BERMUDA SEED SHALL BE EQUAL MIXTURE OF HULLED AND UNHULLED SEED.
2. THE PENSACOLA BAHIA SEED SHALL BE SCARIFIED SEED, HAVING A MINIMUM ACTIVE GERMINATION OF 40 PERCENT AND A TOTAL GERMINATION OF 85 PERCENT.
3. QUICK-GROWING TYPE GRASS SEED SHALL BE A SPECIES WHICH WILL PROVIDE AN EARLY GROUND COVER DURING THE PARTICULAR SEASON WHEN SEEDING IS DONE AND WILL NOT LATER COMPLETE WITH PERMANENT GRASS.
4. MULCH SEEDED AREA WITH 2 TONS PER ACRE CLEAN GRASS STRAW. ANCHOR STRAW WITH HYDRAULIC WOOD FIBER MULCH AT THE RATE OF 1000 LBS PER ACRE, OR 150-200 POUNDS OF ORGANIC MULCH TACKIFIER PER ACRE, OR USE NETTING, OR USE A MULCH ANCHORING TOOL.



- NOTES:
1. MATERIALS, CONSTRUCTION METHODS AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DESIGN STANDARDS CURRENT EDITION.
 2. CONTRACTOR SHALL PROVIDE SILT FENCES AND SYNTHETIC BALES AT ALL STORMWATER DISCHARGE POINTS FOR EROSION CONTROL AND SEDIMENT CONTROL DURING CONST.
 3. CONTRACTOR SHALL ROUGH GRADE STORMWATER SWALES AND RETENTION AREAS PRIOR TO CONSTRUCTION OF SITE IMPROVEMENTS.
 4. CONTRACTOR SHALL MEET ALL PERMIT CONDITIONS AS ESTABLISHED BY THE CITY OF PORT ORANGE AND ALL OTHER APPLICABLE AGENCIES, INCLUDING BUT NOT LIMITED TO COUNTY, FDOT, AND THE SJRWMD.



NOTE: BARBED WIRE FENCING IS NOT PERMISSIBLE.



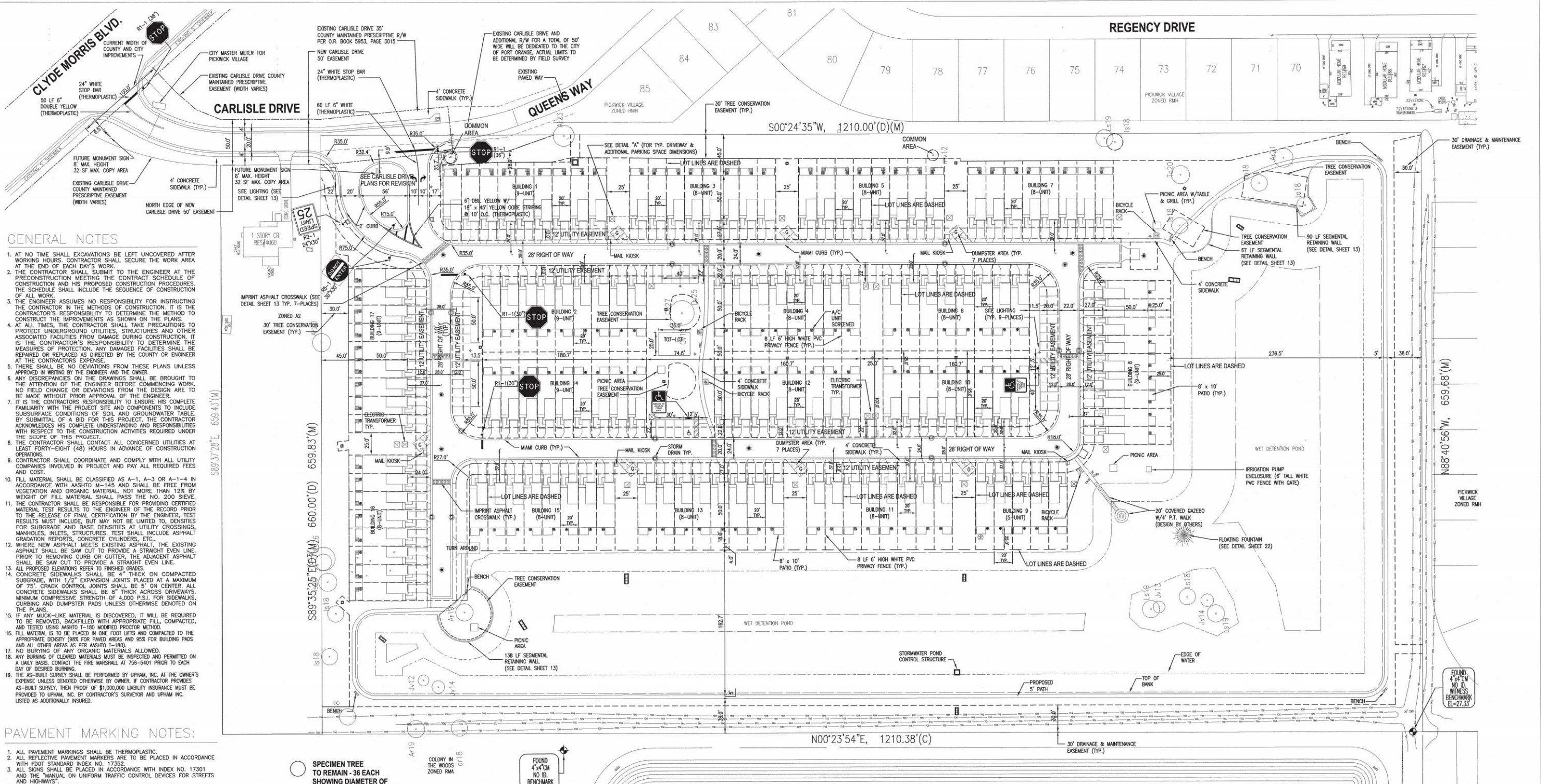
FLOATING TURBIDITY BARRIER
F.D.O.T. INDEX NO. 103

- D1 - 5 FT. STD. SINGLE PANEL FOR DEPTHS 5 FT. OR LESS
D2 - 5 FT. STD. ADDITIONAL PANEL FOR DEPTHS GREATER THAN 5 FT.
CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FT.
TWO PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FT.

- NOTES:
1. POSITIVE GRADE MUST BE PROVIDED TO ASSURE DRAINAGE. IF SLOPE EXCEEDS 2%, SEED AND MULCH DIVERSION, TRY NOT TO EXCEED 5% (HIGH RUNOFF VELOCITIES RESULT). MAXIMUM DRAINAGE AREA IS 5.00 ACRES WITHOUT SUPPORTING CALCULATIONS FOR PERMANENT CHANNEL DIVERSIONS AT THE TOPS OF SLOPES MUST BE EMPTY INTO AN APPROVED SLOPE DRAIN (SEE DETAILS).
 2. THE BERM/ DITCH IS THE MOST COMMONLY USED DIVERSION.
 3. MACHINE COMPACTION OF ALL FILL IS REQUIRED.
 4. DIVERSIONS SUFFICIENT TO DIRECT ALL SEDIMENT-LADEN STORMWATER INTO SEDIMENT CONTROL DEVICE MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING OF AREA (OR IN CONJUNCTION WITH THIS OPERATION IF SEDIMENT CONTROLS AND DIVERSIONS ARE INSTALLED AT EACH CRITICAL POINT AS INDICATED).
 5. DIVERSIONS SHOULD BE LOCATED TO MINIMIZE DAMAGES BY CONSTRUCTION OPERATIONS.
 6. DIVERSIONS SHOULD BE SEEDED AND MULCHED IF THEY ARE TO REMAIN IN PLACE OVER 14 DAYS.
 7. CHECK DIVERSIONS AFTER EACH RAIN, OR ONCE PER WEEK WHICH EVER IS THE SHORTER DURATION.

REPAIR AS NEEDED TO MAINTAIN FUNCTION.

DETAIL TEMPORARY DIVERSION BERM/DITCH
NOT TO SCALE



GENERAL NOTES

1. AT NO TIME SHALL EXCAVATIONS BE LEFT UNCOVERED AFTER WORKING HOURS. CONTRACTOR SHALL SECURE THE WORK AREA AT THE END OF EACH DAY'S WORK.
2. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AT THE PRECONSTRUCTION MEETING THE CONTRACT SCHEDULE OF CONSTRUCTION AND HIS PROPOSED CONSTRUCTION PROCEDURES. THE SCHEDULE SHALL INCLUDE THE SEQUENCE OF CONSTRUCTION OF ALL WORK.
3. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR INSTRUCTING THE CONTRACTOR IN THE METHODS OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE METHOD TO CONSTRUCT THE IMPROVEMENTS AS SHOWN ON THE PLANS.
4. AT ALL TIMES, THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT UNDERGROUND UTILITIES, STRUCTURES AND OTHER ASSOCIATED FACILITIES FROM DAMAGE DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEASURES OF PROTECTION. ANY DAMAGED FACILITIES SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE COUNTY OR ENGINEER AT THE CONTRACTOR'S EXPENSE.
5. THERE SHALL BE NO DEVIATIONS FROM THESE PLANS UNLESS APPROVED IN WRITING BY THE ENGINEER AND THE OWNER.
6. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGE OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE HIS COMPLETE FAMILIARITY WITH THE PROJECT SITE AND COMPONENTS TO INCLUDE SUBSURFACE CONDITIONS OF SOIL AND GROUNDWATER TABLE. BY SUBMITTAL OF A BID FOR THIS PROJECT, THE CONTRACTOR ACKNOWLEDGES HIS COMPLETE UNDERSTANDING AND RESPONSIBILITIES WITH RESPECT TO THE CONSTRUCTION ACTIVITIES REQUIRED UNDER THE SCOPE OF THIS PROJECT.
8. THE CONTRACTOR SHALL CONTRACT ALL CONCERNED UTILITIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
9. CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COST.
10. FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-2, A-3 OR A-1-4 IN ACCORDANCE WITH AASHTO M-145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL. NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF THE RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND BASE DENSITIES AT UTILITY CROSSINGS, MANHOLES, INLETS, STRUCTURES. TEST SHALL INCLUDE ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC.
12. WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE. PRIOR TO REMOVING CURB OR CUTTING, THE ADJACENT ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.
13. ALL PROPOSED ELEVATIONS REFER TO FINISHED GRADES.
14. CONCRETE SIDEWALKS SHALL BE 4" THICK ON COMPACTED SUBGRADE, WITH 1/2" EXPANSION JOINTS PLACED AT A MAXIMUM OF 75' CRACK CONTROL JOINTS SHALL BE 5' ON CENTER. ALL CONCRETE SIDEWALKS SHALL BE 8" THICK ACROSS DRIVEWAYS. MINIMUM COMPRESSIVE STRENGTH OF 4,000 P.S.I. FOR SIDEWALKS, CURBING AND DUMPSTER PADS UNLESS OTHERWISE DENOTED ON THE PLANS.
15. IF ANY MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH APPROPRIATE FILL, COMPACTED, AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
16. FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER AASHTO T-180).
17. NO BURYING OF ANY ORGANIC MATERIALS ALLOWED.
18. ANY BURNING OF CLEARED MATERIALS MUST BE INSPECTED AND PERMITTED ON A DAILY BASIS. CONTACT THE FIRE MARSHALL AT 756-5401 PRIOR TO EACH DAY OF DESIRED BURNING.
19. THE AS-BUILT SURVEY SHALL BE PERFORMED BY UPHAM, INC. AT THE OWNER'S EXPENSE UNLESS DENOTED OTHERWISE BY OWNER. IF CONTRACTOR PROVIDES AS-BUILT SURVEY, THEN PROOF OF \$1,000,000 LIABILITY INSURANCE MUST BE PROVIDED TO UPHAM, INC. BY CONTRACTOR'S SURVEYOR AND UPHAM INC. LISTED AS ADDITIONALLY INSURED.

PAVEMENT MARKING NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
2. ALL REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 17352.
3. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH INDEX NO. 17301 AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
4. LOCATION OF SIGNS IS APPROXIMATE ONLY AND IS SUBJECT TO CHANGE AS DIRECTED BY THE ENGINEER.
5. FOR ADDITIONAL DETAILS SEE INDEX NO. 11860, 11863, 17302, 17344 AND 17346.
6. ALL TRAFFIC CONTROL SIGNS SHALL BE FABRICATED USING 3M BRAND "SCOTCHLITE" SHEETING (ENGINEER GRADE) ON MINIMUM .08 GA ALUMINUM BLANKS. ALL 36" x 48" SIGNS SHALL BE .100 GA MINIMUM AND SHALL BE INSTALLED USING 3"x12" ROUND ALUMINUM POST. ALL STOP SIGNS SHALL BE 36" OCTAGON INSTALLED ON 12"x1 LBS/FT. "U" CHANNEL POST. RAIL STEEL ONLY OR 3"x12" ROUND ALUMINUM POSTS. "U" CHANNEL POSTS MAY BE USED FOR SIGNS SMALLER THAN 36"x36". ALL SPEED LIMIT SIGNS SHALL BE 24"x30".
7. DELINEATORS (DOUBLE UNIT) ARE TO BE PLACED AT EACH MITERED END SECTION, FACING TRAFFIC AT TOP AND CHORD OF STRUCTURE.

PAVING LEGEND

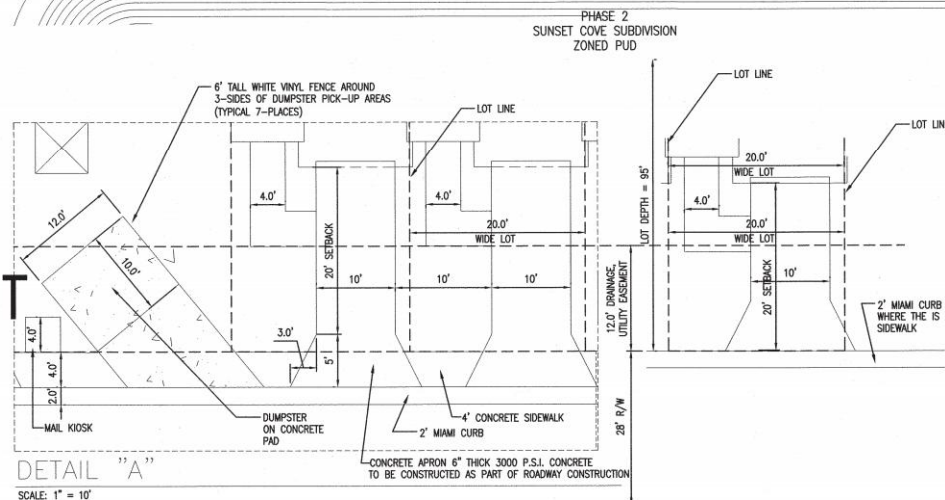
- PAVEMENT
- 1.5" TYPE S-III SURFACE COURSE MIN MARSHALL STABILITY OF 1,500 LB (COMPACTED TO MIN OF 95% OF MARSHALL)
 - 6" LIMEROCK BASE (LBR 100) MIN OF 98% MOD. PROCTOR MAX DENSITY PER AASHTO T-180 (4" LIFTS)
 - 8" STABILIZED SUBBASE (LBR 40) MIN OF 98% MOD. PROCTOR MAX DENSITY PER AASHTO T-180 (TYPE B STABILIZATION)
- CONCRETE SIDEWALK
- 4" THICK (MIN.) 4,000 PSI CONCRETE @ 28 DAYS WITH FIBERGLAS REBAR - CITY DETAIL M-3
- CONCRETE PAVEMENT
- 6" MIN. CONCRETE (4,000 PSI @ 28 DAYS) REINFORCED W/FIBERMESH PER MANUFACTURERS REQUIREMENTS
 - 8" MIN. COMPACTED SUBBASE (LBR 40) MIN. OF 98% MODIFIED PROCTOR MAX. DENSITY PER AASHTO T-180.

SPECIMEN TREE TO REMAIN - 36 EACH SHOWING DIAMETER OF PRESERVATION EASEMENT

NOTE:

ALL IMPROVEMENTS SHALL BE STAKED FOR CONSTRUCTION BY MEANS OF DIGITAL COORDINATES BY SURVEYOR UTILIZING GEODETIC TOTAL STATION. SCALING OF DRAWINGS FOR PURPOSES OF STAKING ARE AT THE SURVEYOR'S RISK.

NOTE: ALL DIMENSIONS AND TIES ARE TO THE EDGE OF PAVEMENT AND FACE OF BUILDING.



6-29-18 PLAT 4-24-18 1-24-18

Revised

1" = 50'

GRAPHIC SCALE

50 0 50 100

DESCRIPTION OF REVISION

By

Daniel Johns, P.E.

Professional Engineer 54037

3889 S. Nova Rd., Ste. #3, Port Orange, FL 32127

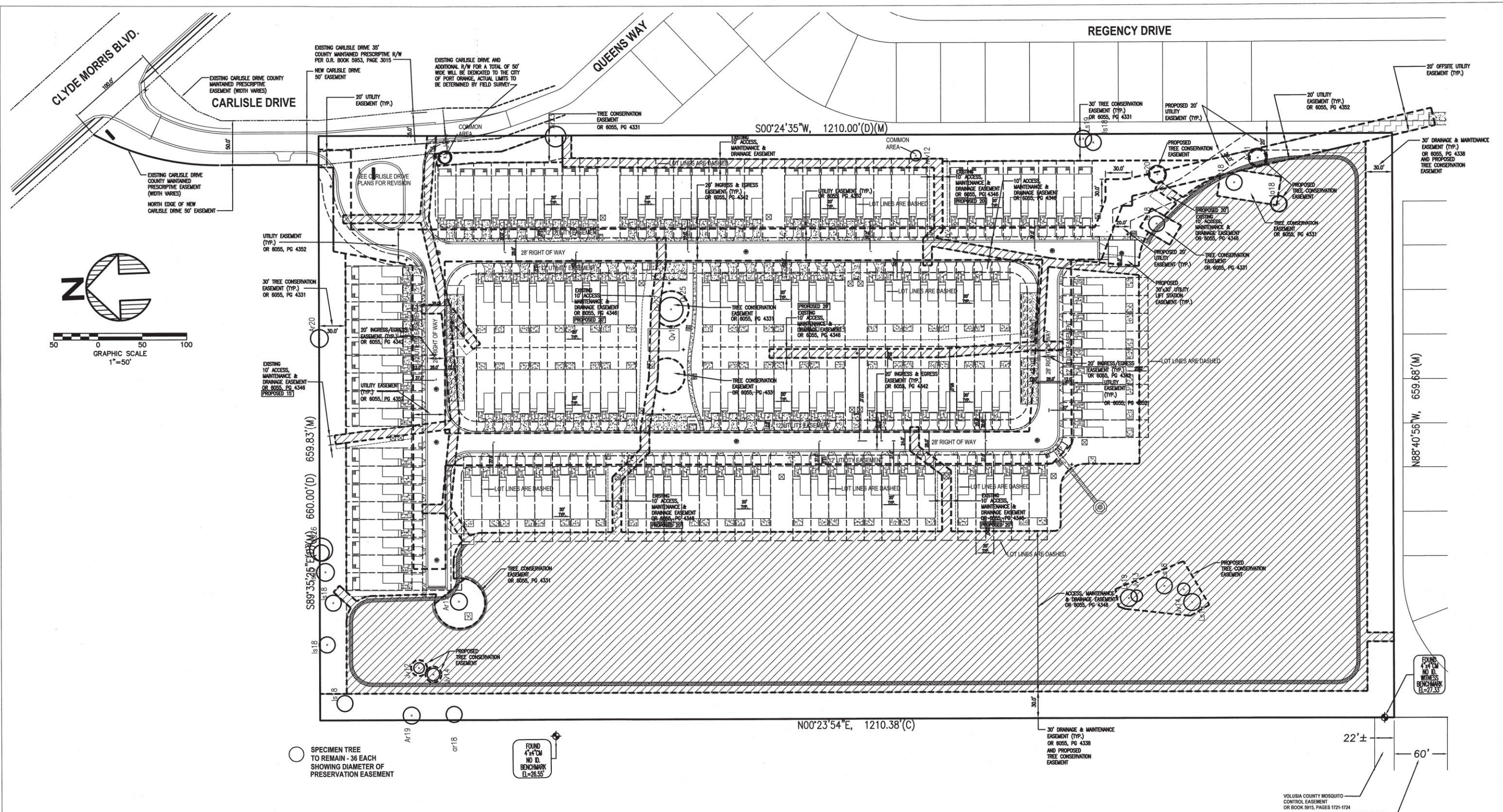
phone: 386-756-8582

SITE PLAN

BELLA OAKS

Port Orange, Volusia County, Florida

file: date: 8-2017 scale: shown sheet: 7 of 38

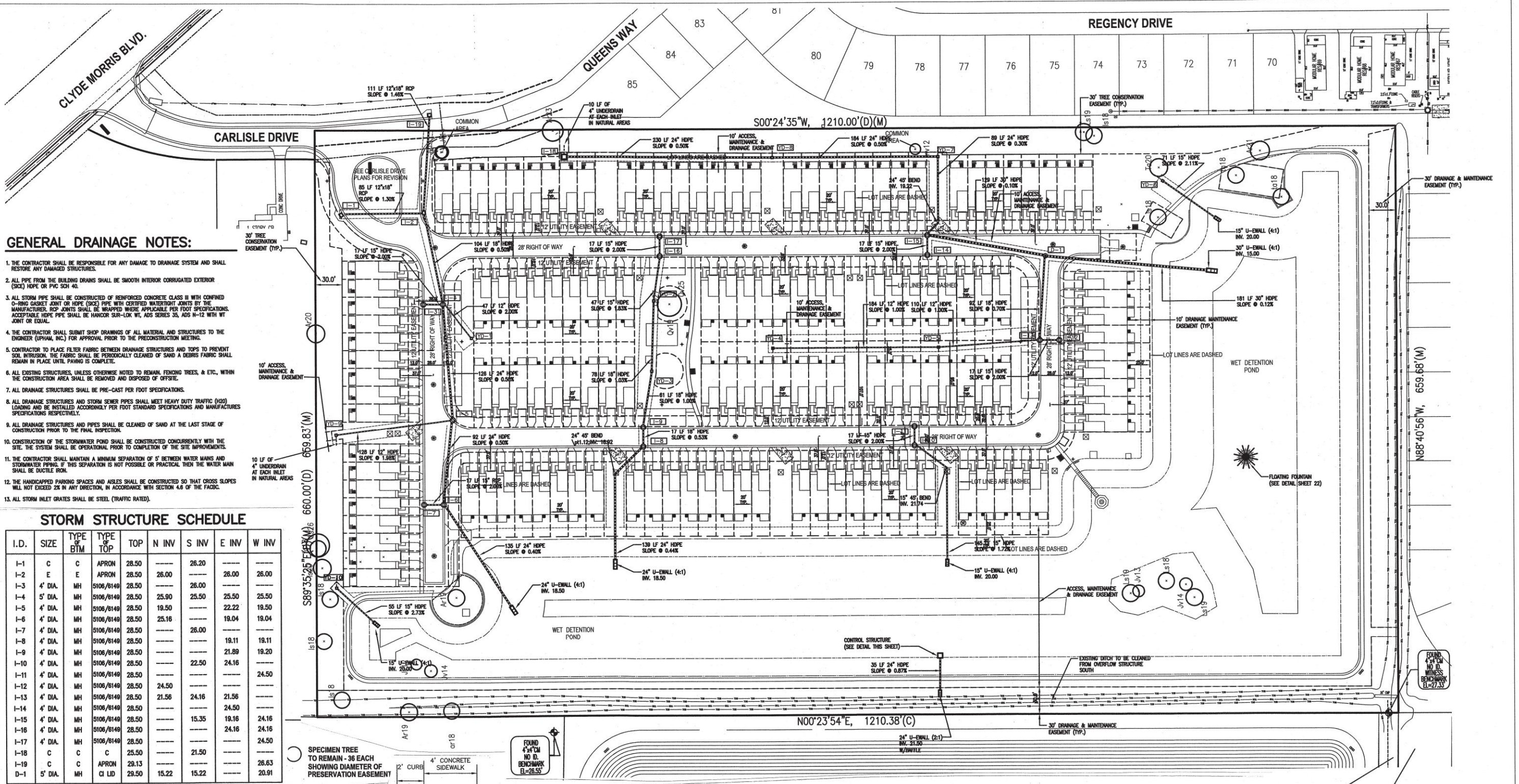


LEGEND

- INGRESS & EGRESS EASEMENT
- ACCESS, MAINTENANCE & DRAINAGE EASEMENT (WIDTH VARIES, 10' MIN.)
- 20' OFFSITE UTILITY EASEMENT FOR LIFT STATION

NOTE: TEMP. EASEMENT SHOWN IN OR 6055, PG 4356 ENCOMPASSES THE ENTIRE SITE

11-19-18 4-24-18 3-5-18 1-24-18	CITY COMMENTS CITY COMMENTS CITY COMMENTS CITY COMMENTS
Revised	
Description of Revision	
By	
Daniel Johns, P.E. Professional Engineer 54037 3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-756-8582	
Easement Plan	
BELLA OAKS	
Port Orange, Volusia County, Florida	
file: *	date: 8-2018
scale: shown	sheet: 8 of 38



GENERAL DRAINAGE NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO DRAINAGE SYSTEM AND SHALL RESTORE ANY DAMAGED STRUCTURES.
2. ALL PIPE FROM THE BUILDING DRAINS SHALL BE SMOOTH INTERIOR CORRUGATED EXTERIOR (SIC) HOPE OR PVC SCH 40.
3. ALL STORM PIPE SHALL BE CONSTRUCTED OF REINFORCED CONCRETE CLASS II WITH CONFINED O-RING GASKET JOINT OR HOPE (SIC) PIPE WITH CERTIFIED WATER TIGHT JOINTS BY THE MANUFACTURER. RCP JOINTS SHALL BE WRAPPED WHERE APPLICABLE PER FOOT SPECIFICATIONS. ACCEPTABLE HOPE PIPE SHALL BE HANCOCK SUR-LOK WT, ADS SERIES 35, ADS N-12 WITH WT JOINT OR EQUAL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MATERIAL AND STRUCTURES TO THE ENGINEER (UPHAM, INC.) FOR APPROVAL PRIOR TO THE PRECONSTRUCTION MEETING.
5. CONTRACTOR TO PLACE FILTER FABRIC BETWEEN DRAINAGE STRUCTURES AND TOPS TO PREVENT SOIL INTRUSION. THE FABRIC SHALL BE PERIODICALLY CLEANED OF SAND AND DEBRIS FABRIC SHALL REMAIN IN PLACE UNTIL PAVING IS COMPLETE.
6. ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN, FENCING TREES, & ETC., WITHIN THE CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OFFSITE.
7. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST PER FOOT SPECIFICATIONS.
8. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY PER FOOT STANDARD SPECIFICATIONS AND MANUFACTURERS SPECIFICATIONS RESPECTIVELY.
9. ALL DRAINAGE STRUCTURES AND PIPES SHALL BE CLEANED OF SAND AT THE LAST STAGE OF CONSTRUCTION PRIOR TO THE FINAL INSPECTION.
10. CONSTRUCTION OF THE STORMWATER POND SHALL BE CONSTRUCTED CONCURRENTLY WITH THE SITE. THE SYSTEM SHALL BE OPERATIONAL PRIOR TO COMPLETION OF THE SITE IMPROVEMENTS.
11. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION OF 5' BETWEEN WATER MAINS AND STORMWATER PIPING. IF THIS SEPARATION IS NOT POSSIBLE OR PRACTICAL THEN THE WATER MAIN SHALL BE DUCTILE IRON.
12. THE HANDICAPPED PARKING SPACES AND AISLES SHALL BE CONSTRUCTED SO THAT CROSS SLOPES WILL NOT EXCEED 2% IN ANY DIRECTION, IN ACCORDANCE WITH SECTION 4.6 OF THE FACB.
13. ALL STORM INLET GRATES SHALL BE STEEL (TRAFFIC RATED).

STORM STRUCTURE SCHEDULE

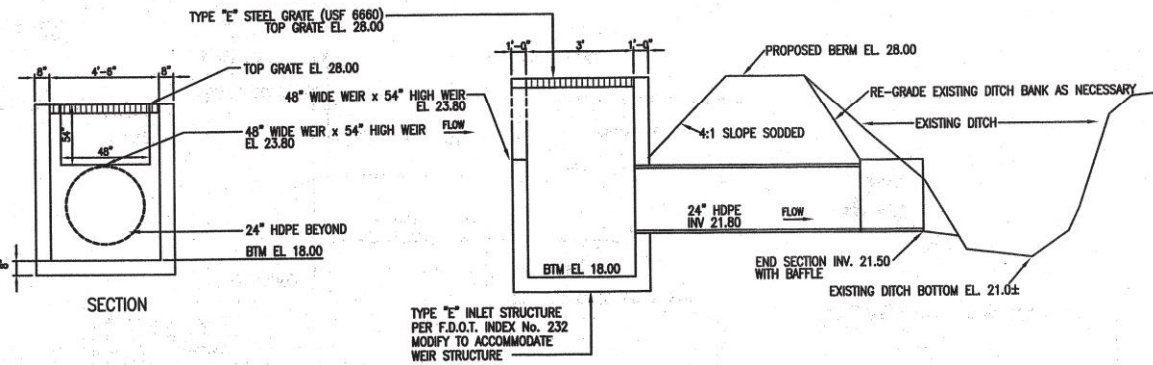
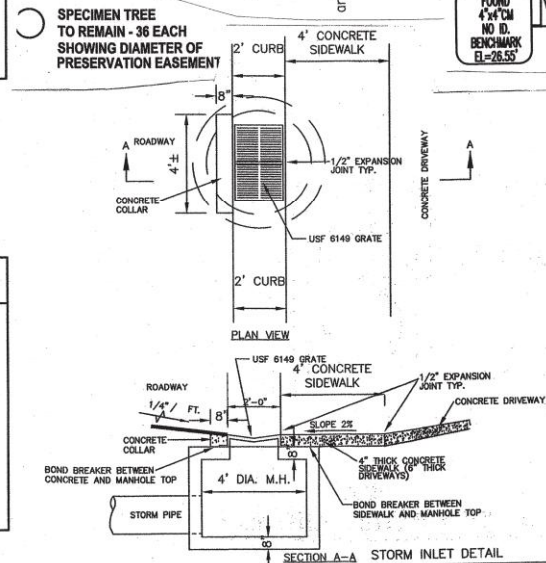
I.D.	SIZE	TYPE OF BTM	TYPE OF TOP	TOP	N INV	S INV	E INV	W INV
I-1	C	C	APRON	28.50	---	26.20	---	---
I-2	E	E	APRON	28.50	26.00	---	26.00	26.00
I-3	4" DIA.	MH	5106/6149	28.50	---	26.00	---	---
I-4	5" DIA.	MH	5106/6149	28.50	25.90	25.50	25.50	25.50
I-5	4" DIA.	MH	5106/6149	28.50	19.50	---	22.22	19.50
I-6	4" DIA.	MH	5106/6149	28.50	25.16	---	19.04	19.04
I-7	4" DIA.	MH	5106/6149	28.50	---	26.00	---	---
I-8	4" DIA.	MH	5106/6149	28.50	---	---	19.11	19.11
I-9	4" DIA.	MH	5106/6149	28.50	---	---	21.89	19.20
I-10	4" DIA.	MH	5106/6149	28.50	---	22.50	24.16	---
I-11	4" DIA.	MH	5106/6149	28.50	---	---	24.50	---
I-12	4" DIA.	MH	5106/6149	28.50	24.50	---	---	---
I-13	4" DIA.	MH	5106/6149	28.50	21.56	24.16	21.56	---
I-14	4" DIA.	MH	5106/6149	28.50	---	---	24.50	---
I-15	4" DIA.	MH	5106/6149	28.50	---	15.35	19.16	24.16
I-16	4" DIA.	MH	5106/6149	28.50	---	---	24.16	24.16
I-17	4" DIA.	MH	5106/6149	28.50	---	---	---	24.50
I-18	C	C	C	25.50	---	21.50	---	---
I-19	C	C	APRON	29.13	---	---	---	26.63
D-1	5" DIA.	MH	CI LID	29.50	15.22	15.22	---	20.91

- NOTES:
1. ALL GRATES SHALL BE TRAFFIC RATED (H-20 LOAD)
 2. SEE CITY DETAIL ST-1 FOR TYPICAL CONCRETE APRON ON INLETS AT CURBS.
 3. TYPE 5106/6149 - US FOUNDRY 5106 FRAME WITH 6149 GRATE CAST IRON

YARD DRAIN SCHEDULE

I.D.	TYPE	TOP	N INV	S INV	E INV	W INV
YD-1	24" INLINE DRAIN (ADS)	28.00	25.75	---	---	---
YD-2	24" INLINE DRAIN (ADS)	26.80	---	---	23.30	23.30
YD-3	24" INLINE DRAIN (ADS)	26.00	---	---	22.50	22.50
YD-4	24" INLINE DRAIN (ADS)	27.80	---	24.50	---	---
YD-5	24" INLINE DRAIN (ADS)	27.80	22.66	22.66	---	---
YD-6	24" INLINE DRAIN (ADS)	25.50	---	21.50	---	---
YD-7	24" INLINE DRAIN (ADS)	25.50	19.43	---	---	19.43
YD-8	24" INLINE DRAIN (ADS)	25.50	20.35	20.35	---	---
YD-9	24" INLINE DRAIN (ADS)	25.50	---	22.00	---	---
YD-10	24" INLINE DRAIN (ADS)	25.50	---	---	---	21.50

ALL YARD DRAINS SHALL HAVE A CAST IRON PEDESTRIAN GRATE (LOCKING) ADS OR EQUAL.



CONTROL STRUCTURE DETAIL

NOT TO SCALE

4-24-18
1-24-18

Revised

city comments
city comments

Description of Revision

By

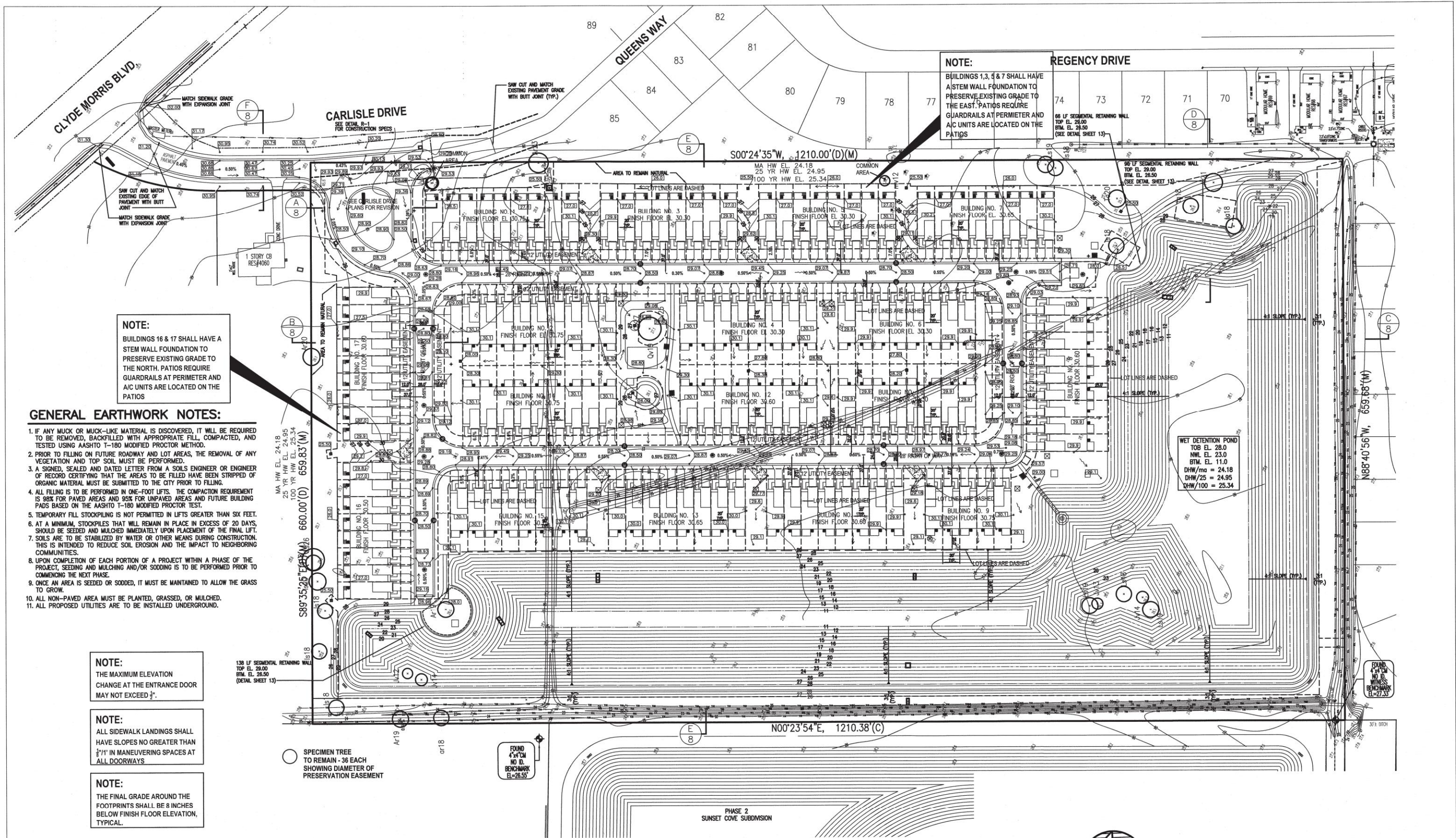
Daniel Johns, P.E.
Professional Engineer 54037
3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127
phone: 386-756-8582

Drainage Plan

BELLA OAKS

Port Orange, Volusia County, Florida

file: *
date: 3-31-17
scale: shown
sheet: 27 of 30



NOTE:
BUILDINGS 16 & 17 SHALL HAVE A STEM WALL FOUNDATION TO PRESERVE EXISTING GRADE TO THE NORTH. PATIOS REQUIRE GUARDRAILS AT PERIMETER AND A/C UNITS ARE LOCATED ON THE PATIOS

GENERAL EARTHWORK NOTES:

1. IF ANY MUCK OR MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH APPROPRIATE FILL, COMPACTED, AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
2. PRIOR TO FILLING ON FUTURE ROADWAY AND LOT AREAS, THE REMOVAL OF ANY VEGETATION AND TOP SOIL MUST BE PERFORMED.
3. A SIGNED, SEALED AND DATED LETTER FROM A SOILS ENGINEER OR ENGINEER OF RECORD CERTIFYING THAT THE AREAS TO BE FILLED HAVE BEEN STRIPPED OF ORGANIC MATERIAL MUST BE SUBMITTED TO THE CITY PRIOR TO FILLING.
4. ALL FILLING IS TO BE PERFORMED IN ONE-FOOT LIFTS. THE COMPACTION REQUIREMENT IS 98% FOR PAVED AREAS AND 95% FOR UNPAVED AREAS AND FUTURE BUILDING PADS BASED ON THE AASHTO T-180 MODIFIED PROCTOR TEST.
5. TEMPORARY FILL STOCKPILES IS NOT PERMITTED IN LIFTS GREATER THAN SIX FEET.
6. AT A MINIMUM, STOCKPILES THAT WILL REMAIN IN PLACE IN EXCESS OF 20 DAYS, SHOULD BE SEEDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.
7. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES.
8. UPON COMPLETION OF EACH PORTION OF A PROJECT WITHIN A PHASE OF THE PROJECT, SEEDING AND MULCHING AND/OR SODDING IS TO BE PERFORMED PRIOR TO COMMENCING THE NEXT PHASE.
9. ONCE AN AREA IS SEEDED OR SODDED, IT MUST BE MAINTAINED TO ALLOW THE GRASS TO GROW.
10. ALL NON-PAVED AREA MUST BE PLANTED, GRASSED, OR MULCHED.
11. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND.

NOTE:
THE MAXIMUM ELEVATION CHANGE AT THE ENTRANCE DOOR MAY NOT EXCEED $\frac{1}{2}$ ".

NOTE:
ALL SIDEWALK LANDINGS SHALL HAVE SLOPES NO GREATER THAN $\frac{1}{4}$ "/1' IN MANEUVERING SPACES AT ALL DOORWAYS

NOTE:
THE FINAL GRADE AROUND THE FOOTPRINTS SHALL BE 8 INCHES BELOW FINISH FLOOR ELEVATION, TYPICAL.

NOTE:
BUILDINGS 1, 3, 4 & 7 SHALL HAVE A STEM WALL FOUNDATION TO PRESERVE EXISTING GRADE TO THE EAST. PATIOS REQUIRE GUARDRAILS AT PERIMETER AND A/C UNITS ARE LOCATED ON THE PATIOS

REGENCY DRIVE

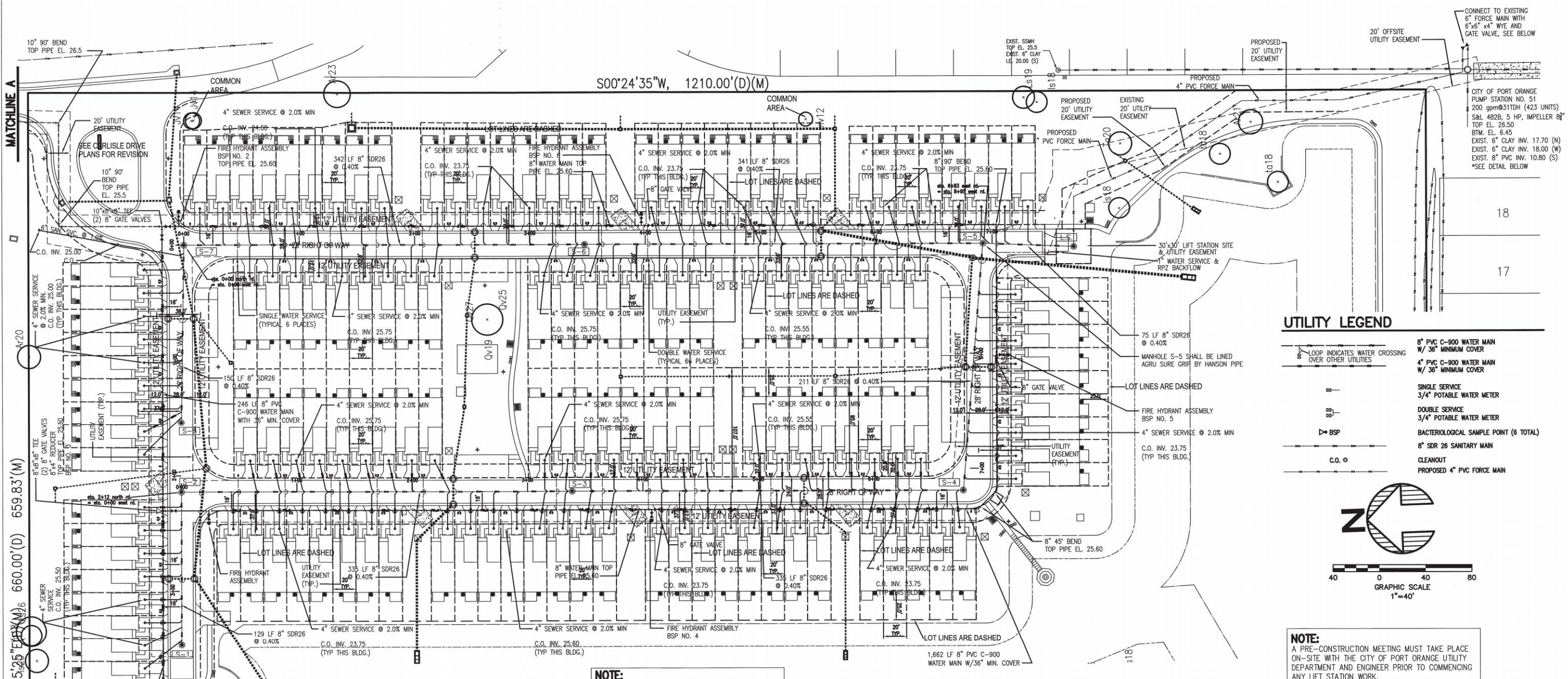
WET DETENTION POND
TOB EL. 28.0
NWL EL. 23.0
BTM. EL. 11.0
DHW/ma = 24.18
DHW/25 = 24.95
DHW/100 = 25.34

FOUND
4"x4" CM
NO. 10
BENCHMARK
EL. 26.55

4-24-18 1-24-18		city comments city comments Description of Revision	By
Daniel Johns, P.E. Professional Engineer 54037 3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-756-8582			
Grading Plan			
BELLA OAKS			
Port Orange, Volusia County, Florida			
file: *	date: 3-31-17	scale: shown	sheet: 1 of 3

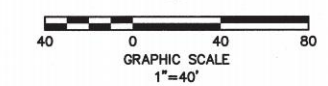


✓ 11 19 10



UTILITY LEGEND

- 8" PVC C-900 WATER MAIN
W/ 36" MINIMUM COVER
- 4" PVC C-900 WATER MAIN
W/ 36" MINIMUM COVER
- SINGLE SERVICE
3/4" POTABLE WATER METER
- DOUBLE SERVICE
3/4" POTABLE WATER METER
- BACTERIOLOGICAL SAMPLE POINT (6 TOTAL)
- 8" SDR 26 SANITARY MAIN
- CLEANOUT
- PROPOSED 4" PVC FORCE MAIN



NOTE:
A PRE-CONSTRUCTION MEETING MUST TAKE PLACE ON-SITE WITH THE CITY OF PORT ORANGE UTILITY DEPARTMENT AND ENGINEER PRIOR TO COMMENCING ANY LIFT STATION WORK.

NOTE:
ALL EXISTING UTILITIES, CONCRETE, ASPHALT, IRRIGATION AND LANDSCAPING DAMAGED DURING CONSTRUCTION OF THE PROPOSED 4" FORCE MAIN AT EXISTING LIFT STATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE EXISTING CONDITIONS SHALL BE RESTORED TO AS GOOD OR BETTER CONDITION AND MUST BE APPROVED/ACCEPTED BY PICKWICK PRIOR TO COMPLETION OF CONSTRUCTION.

SANITARY SEWER STRUCTURE SCHEDULE					
NO.	TOP	N INV	S INV	E INV	W INV
S-1	29.00	-	-	25.10	-
S-2	29.08	-	24.48	-	24.58
S-3	29.21	23.14	23.04	-	-
S-4	29.40	21.70	-	21.60	-
S-5	29.45	21.19	20.65	-	20.75
S-6	29.25	22.66	22.56	-	-
S-7	29.00	-	24.03	-	24.13
S-8	29.30	-	-	24.73	-
L.S.	30.00	20.35	-	-	-

NOTE:
BACTERIOLOGICAL SAMPLES SHALL BE TAKEN ON TWO CONSECUTIVE DAYS AT EACH POINT SHOWN ON PLAN.

NOTE:
GRAVITY MAINS MUST HAVE A TELEVIEWED INSPECTION. A VIDEO INSPECTION FORM MUST BE FAXED TO THE CITY OF PORT ORANGE WASTEWATER COLLECTION DEPARTMENT 48-HOURS PRIOR TO VIDEO INSPECTION. A CITY INSPECTOR MUST BE PRESENT.

NOTE:
WHERE VALVES AND BOXES, MANHOLE LIDS AND COVERS ARE LOCATED IN PAVED SURFACES THE TOPS MUST BE ADJUSTED ACCORDINGLY TO MATCH FINISHED GRADE.

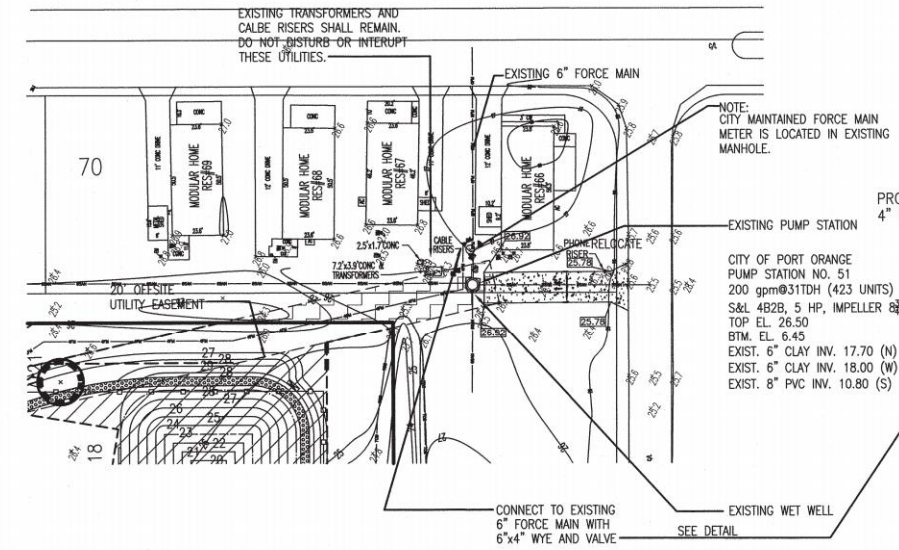
NOTE:
ALL POTABLE WATER MAINS/SERVICES AND SANITARY SERVICES SHALL HAVE A MINIMUM COVER OF 36".

NOTE:
ALL VALVES SHALL BE BOLTED TO TEES.

NOTE:
2" PVC MARKER PIPES SHALL BE INSTALLED 200' O.C. MAX. AND AT EACH TEE AND BEND ALONG THE WATER AND FIRE MAINS AND REMAIN IN PLACE UNTIL THE COMPLETION OF THE AS-BUILT SURVEY.

NOTE:
UTILITY CROSSINGS: WATER MAINS ARE INTENDED TO CROSS OVER SEWER MAINS AND SEWER SERVICES AND CROSS UNDER STORM SEWERS AND SHALL BE SHOWN ON THE AS-BUILT SURVEY.

WARNING!
CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING CONSTRUCTION TO AVOID CONTACT WITH OVERHEAD POWER LINES, FIBER OPTIC LINE AND EXISTING UNDERGROUND UTILITIES WITHIN THE RIGHT-OF-WAY CLYDE MORRIS BOULEVARD



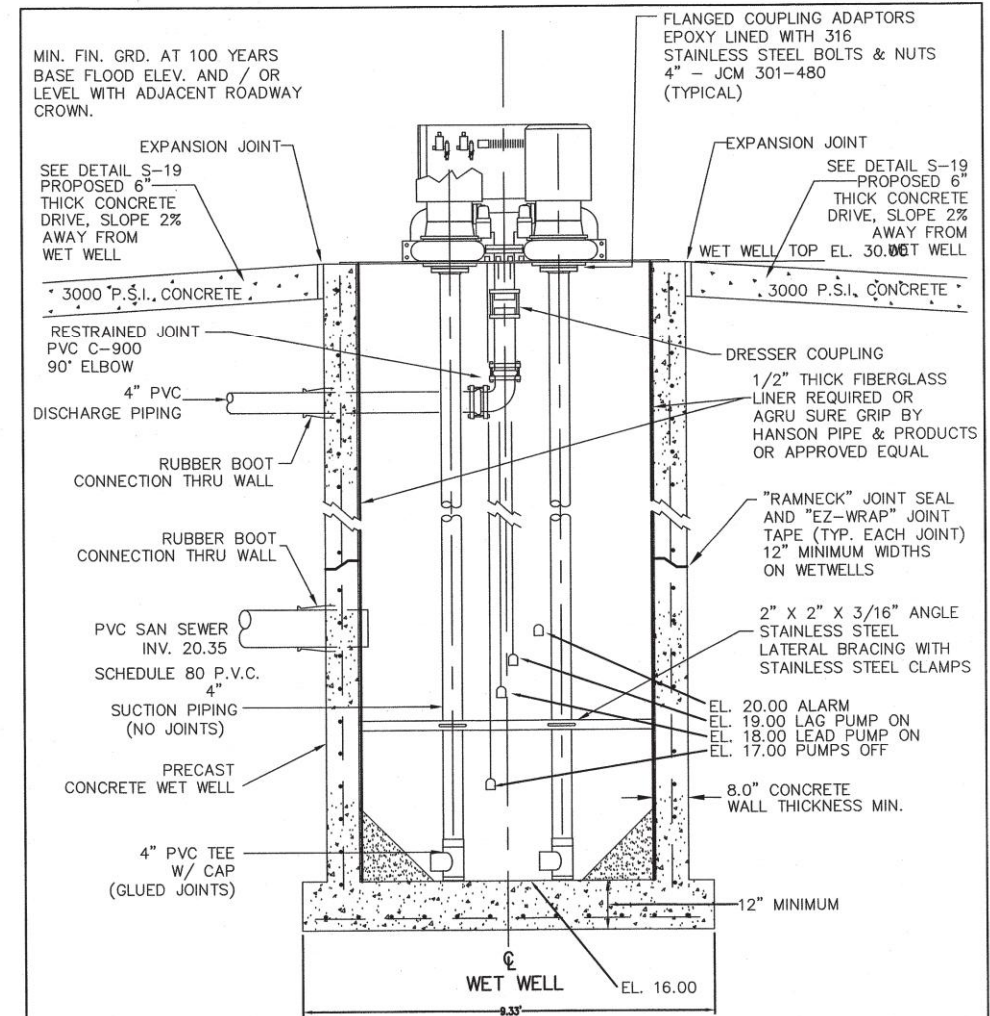
EXISTING LIFT STATION DETAIL
SCALE: 1" = 40'

- EXISTING 6" FORCE MAIN
- CUT-IN 6"x6"x4" WYE
- PROPOSED 6" CHECK VALVE
- EXISTING METER
- PROPOSED 6" GATE VALVE
- PROPOSED EMERGENCY PUMP OUT CONNECTION
- EXISTING WET WELL

Revised	Description of Revision	By
4-23-18	CITY COMMENTS	
3-8-18	CITY COMMENTS	
1-24-18	CITY COMMENTS	
Daniel Johns, P.E. Professional Engineer 54037 3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-756-8582		
Utility Plan BELLA OAKS Port Orange, Volusia County, Florida		
file: *	8-2017	scale: shown
sheet: 12 of 30		SEAL

NOTES:

- HOLES MADE IN WETWELL TO ACCOMMODATE PIPE SHALL BE 2" LARGER THAN OUTSIDE DIA. OF PIPE. THIS SPACE SHALL BE COMPLETELY FILLED WITH NON SHRINK CEMENT MORTAR AFTER PIPE IS SET AS NOTED BELOW. KOR-N-SEAL ADAPTERS SHALL BE USED UNLESS A WETWELL MUST BE CUT INTO IN FIELD
- MORTAR FOR JOINTS AND FILL AROUND PIPES SHALL CONTAIN "HYDRATITE" OR SIMILAR ADMIXTURE OF REPUTABLE MANUFACTURE TO PREVENT SHRINKAGE AND LEAKAGE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INSURE WATER TIGHT STRUCTURES.
- THE WETWELL SHALL BE CLEANED AND DRIED PRIOR TO PUMP INSTALLATION. WETWELL WALLS AND FLOOR SHALL BE CHECKED FOR DAMAGE AND INFILTRATION. IMMEDIATELY NOTIFY THE CITY UTILITY DEPARTMENT IF ENCOUNTERED.
- UPSTREAM MANHOLE SHALL REMAIN PLUGGED UNTIL PUMP AND ALL EQUIPMENT INSTALLATION WORK HAS BEEN ACCEPTED BY THE MANUFACTURER'S REPRESENTATIVE AND CITY UTILITY DEPARTMENT.
- TYPE II ACID RESISTANT CEMENT SHALL BE USED FOR SANITARY SEWER CONSTRUCTION 4000 PSI.
- CONTRACTOR SHALL LEAVE WELL POINTS IN THE GROUND AND IN OPERATION UNTIL TOP IS POURED AND PLACED OVER WETWELL, AND BACKFILL IS WITHIN 3 FT. OF FINISHED GRADE.
- POSITION OF BASE ELBOWS AND GUIDE RAILS SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIAL.
- THE CONTRACTOR SHALL ADHERE TO THE PUMP MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
- THERE SHALL BE NO ELECTRICAL JUNCTION BOXES IN WETWELL.
- THE CONTRACTOR SHALL INSTALL A COMPLETE PACKAGE OF THE LIFT STATION, INCLUDING BUT NOT LIMITED TO ALL ELECTRICAL, FITTINGS, CONTROL PANEL AND EQUIPMENT.
- CONTRACTOR SHALL COORDINATE WITH FLORIDA POWER AND LIGHT TO PROVIDE UPGRADED ELECTRICAL SERVICE TO THE CONTROL PANEL. ALL CHARGES FOR THE INSTALLATION AND ELECTRICAL WORK SHALL BE THE CONTRACTOR'S RESPONSIBILITY UNTIL ACCEPTED BY THE OWNER.
- THE AS-BUILT SURVEY SHALL VERIFY THE ELEVATIONS SPECIFIED IN THE TABLE WITH A TOLERANCE OF 0.10 ±.



NOTE: MAXIMUM DEPTH NOT TO EXCEED 20.0 FEET MEASURED FROM WET WELL TOP TO INSIDE BOTTOM.



STANDARD CONSTRUCTION DETAIL
LIFT STATION WET WELL

REV. 8-31-18
REV. 12/08

FILE NAME:

S22.DWG

DETAIL REF:

S-22

PUMP SCHEDULE

STA. NO.	G.P.M.	T.D.H.	H.P.	ELECTRIC SERVICE	R.P.M.	PUMP DATA
BELLA OAKS	80	70	10.0	3ø : 240	1760	SMITH & LOVELESS 482X1 (8 3/4" IMPELLER)

NOTE: PUMP STATION WILL OPERATE AT A EFFICIENCY OF 55%.

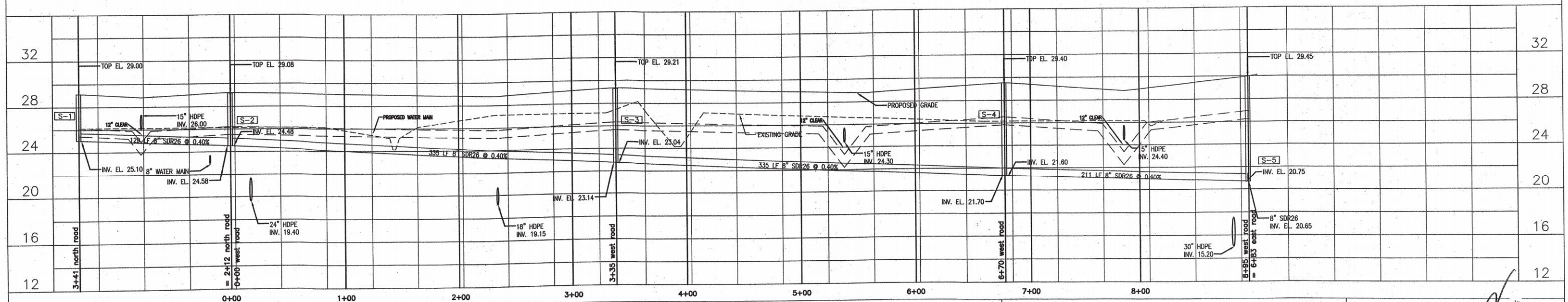
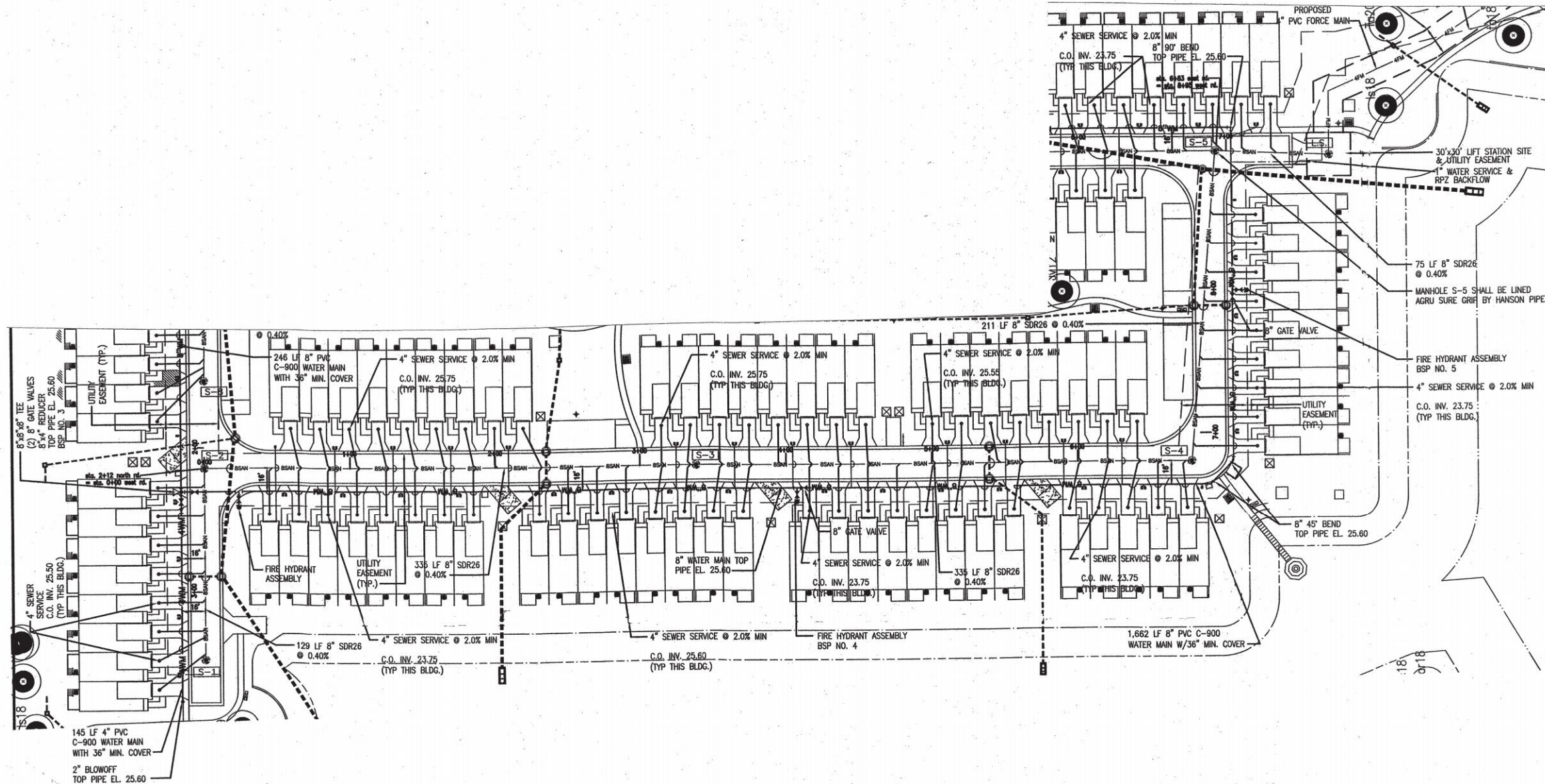
NOTE:

FLOAT LEVELS MAY BE ADJUSTED AT THE TIME OF INSTALLATION FOR ANY CHANGE IN FLOW CONDITIONS ACTUAL NUMBER OF UNITS BUILT AND OCCUPIED

NOTE: SEE SEWER STANDARD DETAIL SHEETS FOR ADDITIONAL LIFT STATION DETAILS

REV. 8-31-18 3-8-18 1-24-18	CITY COMMENTS Description of Revision	By
Daniel Johns, P.E. Professional Engineer 54037 3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-756-8582		
Lift Station Details		
BELLA OAKS		
Port Orange, Volusia County, Florida		
file: *	8-2017	scale: shown
sheet: 14 of 30		SEAL

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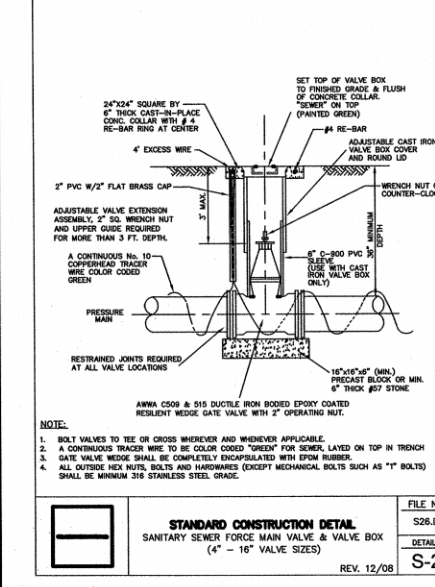
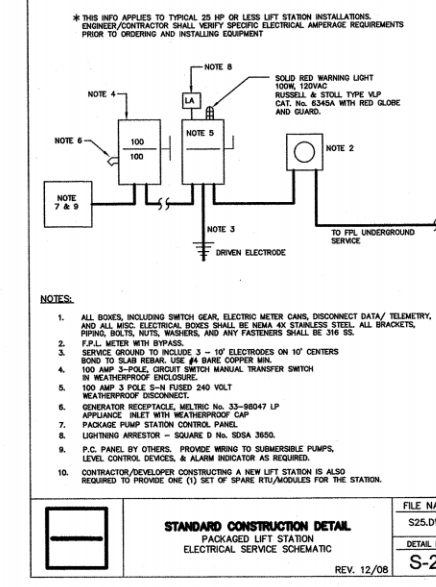
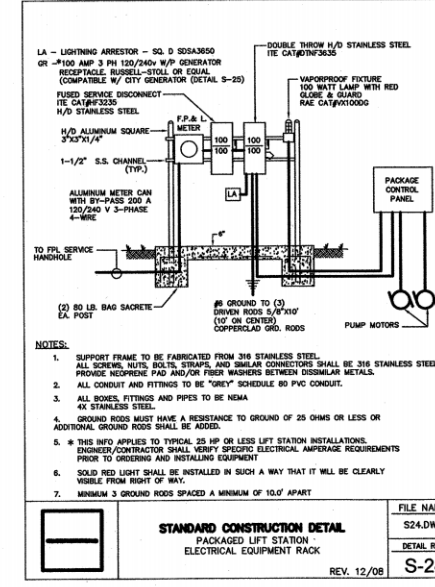
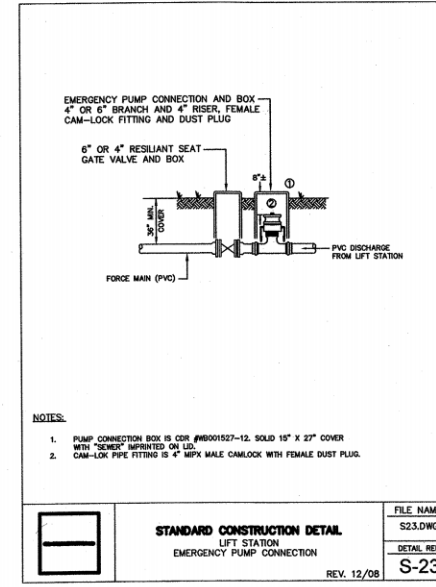
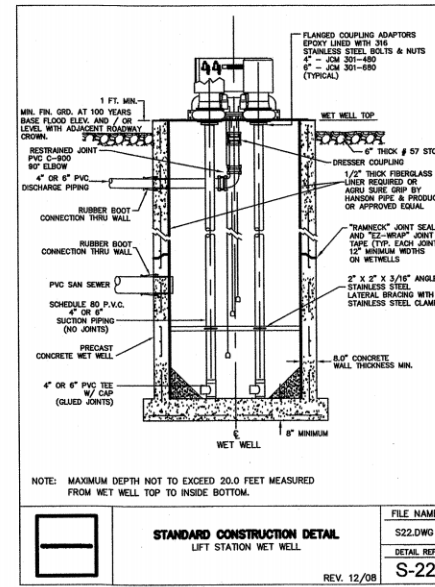
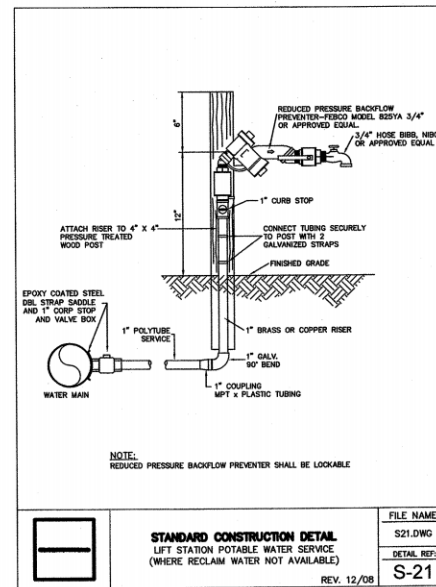
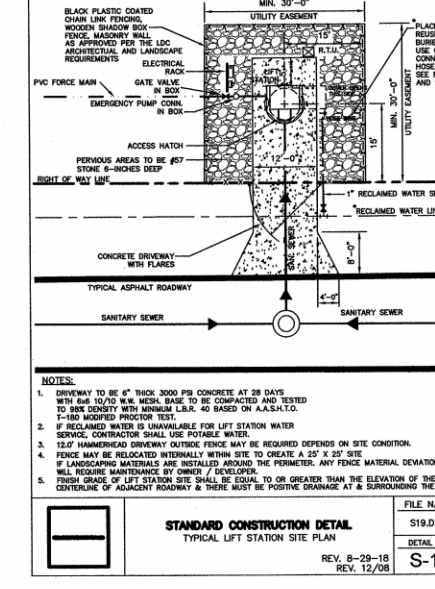
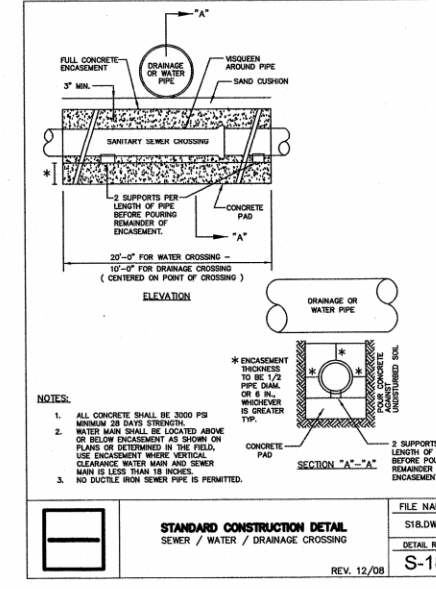
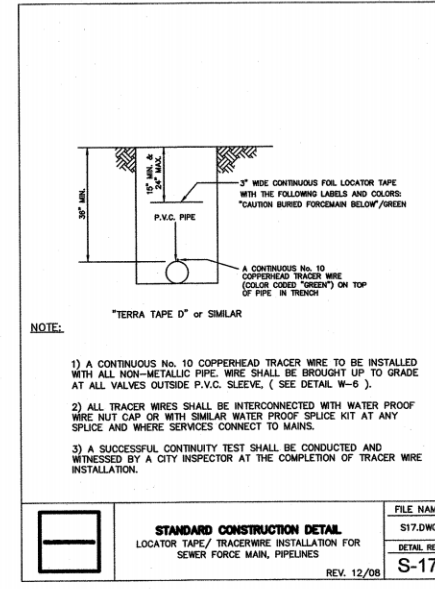
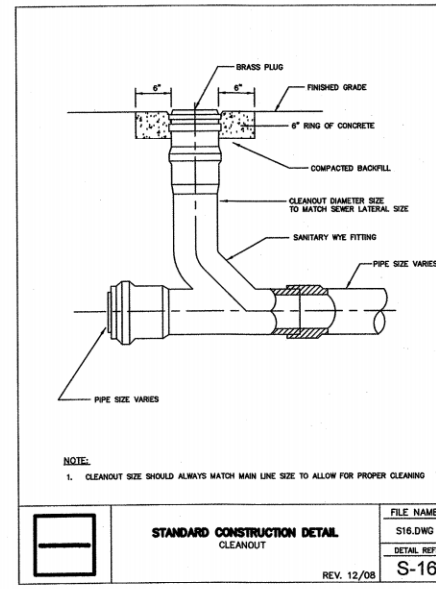
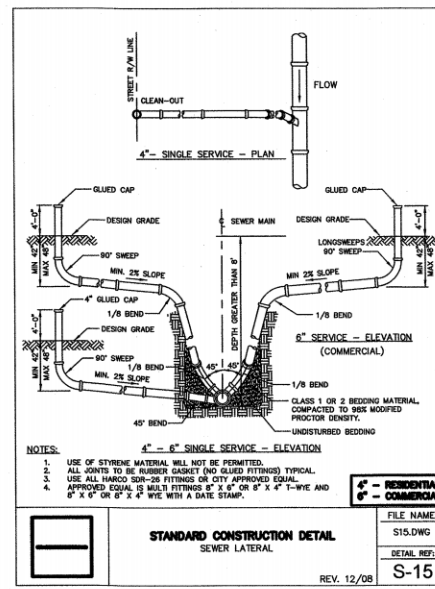
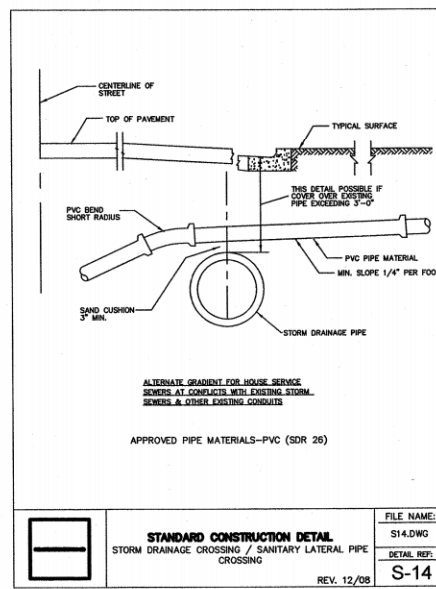
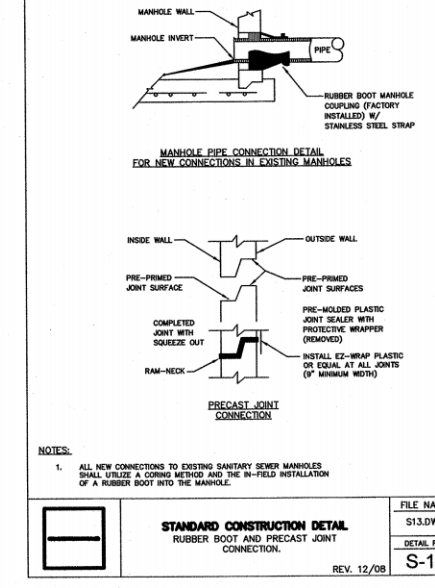
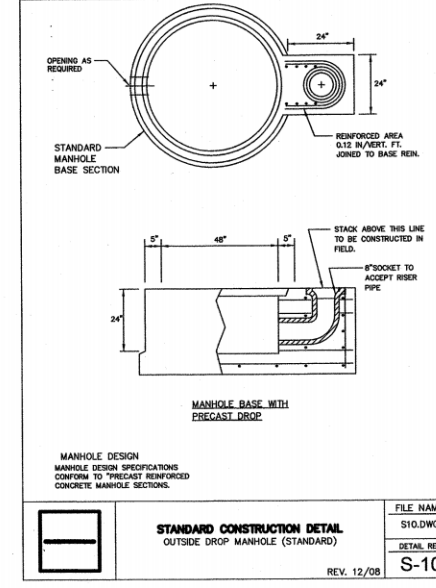
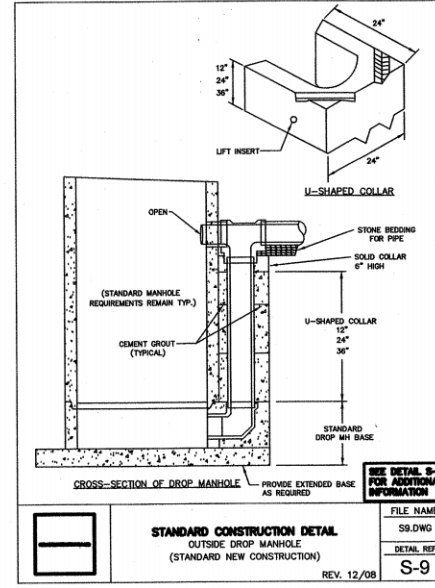
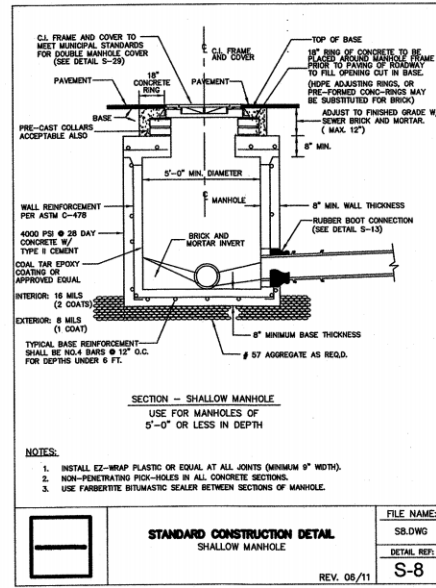
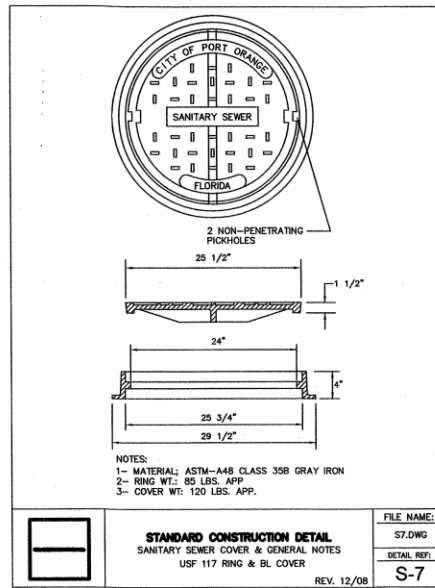
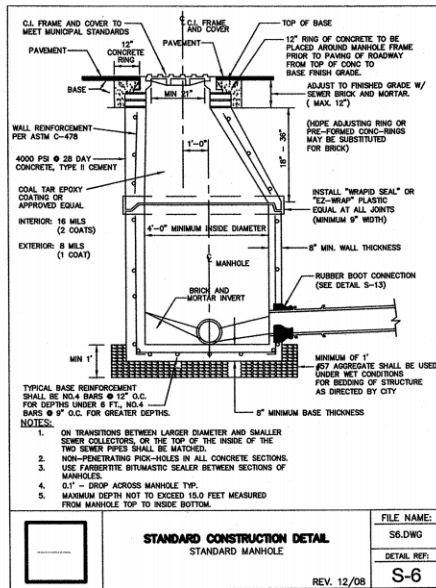
SCALE
1" = 40' HORIZ.
1" = 4' VERT.

Daniel Johns, P.E.
Professional Engineer 54037
3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127
phone: 386-756-8582

Sanitary Profiles
BELLA OAKS
Port Orange, Volusia County, Florida

REVISION: 1-24-18
2-15-18
2-25-18

shea, 10/19/18



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PORTABLE WATER CONSTRUCTION NOTES

1. THE CITY OF PUEBLO PROVIDES TO THE USER (S) BELOW THAT SUCH CITY SHALL BE GIVEN A HUNDRED DAYS (100) OF WRITING NOTICE OF ANY VIOLATIONS OR VIOLATIONS BEING TO BEGINNING ANY FUTURE WATER SYSTEM CONSTRUCTION.

2. DEVELOPMENT OF THE PROJECT WILL BE REQUIRED TO OBTAIN A PERMIT FROM THE CITY OF PUEBLO.

3. WATER MAINS SHALL BE Laid ON A FIRM CONSTRUCTION WITH ALL UNDESIRABLE MATERIALS (SAND, ROCK, GRAVEL, ETC.) REMOVED AND REPLACED WITH CLEAN MATERIALS.

4. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACQUIRING TO THE CITY WITH A MINIMUM COMPACTION OF 95% AND SHALL BE PROTECTED BY A MINIMUM OF 18" OF GRANULAR MATERIAL.

5. THE USER IS THE CONTRACTOR RESPONSIBILITY TO ENSURE THAT TRENCHES AND CONNECTIONS SHALL BE PROVIDED AT POINTS OF ENTRY AND EXIT OF THE PIPE AND AT POINT WATER INTERFACES TO HOUSE GRAB, AT A MINIMUM, A 36" DIAMETER AND 30' DEEP.

6. IF MATERIALS PUT LOCATION HAVE BEEN Laid LOCATED BETWEEN 18" AND 36" BELOW FINISHED GRADE OR SURFACE OF MANHOLE CHAMBER FOR ALL PVC LINES, MANHOLES SHALL BE Laid ON ALL COLLECTOR LINES, AS WELL.

7. ALL WATER SERVICE ENDSHALLS SHALL BE MARKED WITH A 2" OF LUMBER PIERCE TRENCHING (E)ATING FIVE FEET ABOVE GRADE, WITH WATER SERVICES SECURED AT MANHOLE ABOVE THE GROUND. ALL SERVICES SHALL BE LOCATED AT THE TIME OF FINAL INSPECTION BY THE CONTRACTOR BY THE PRESENCE OF THE CITY OF PUEBLO OR CITY PERSONNEL, AFTER THEY HAVE BEEN IDENTIFIED AND VIEWED TO BE COMPLETE PROPER.

8. AT WATER MAINS AND CHANGES, VALVES SHALL BE INSTALLED ON ALL LEAD OFFCUTS.

9. ALL MATERIALS SHALL BE APPROVED BY THE CITY OF PUEBLO. ALL MATERIALS SHALL BE INSTALLED IN A NEATLY WORKMANLIKE MANNER.

10. THE ACCEPTANCE OF NEW WATER SYSTEMS, WATER VALVES SHALL BE COMPLETELY OFFERED BY PUBLIC UTILITIES DEPARTMENT, AT OR TO THE SAME SHALL BE PROVIDED BY THE CONTRACTOR AND/OR THE USER.

11. ALL TRENCHES SHALL BE COVERED WITH A MINIMUM OF 18" OF GRANULAR MATERIAL TO BE FIRMED IN BY THE CITY OF PUEBLO. PRIMARY INGRESS POINT SHALL ALWAYS FACE THE STREET.

12. AT ALL PORTAGE, WATER MAINS SHALL BE INSTALLED 4' OFF THE BACK OF CURB OR AS PROVIDED IN THE CITY OF PUEBLO.

13. ALL WATER MAINS SHALL BE 18" AND/OR ABOVE AVERAGE FOR PORTABLE WATER, AND SHALL HAVE A MINIMUM OF 18" OF GRANULAR MATERIAL TO BE FIRMED IN BY THE CITY OF PUEBLO. THE USER SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES CROSSINGS ON SPECIAL APPROVAL WHEN IT IS DETERMINED TO BE IN THE BEST INTERESTS OF THE CITY.

14. WATER MAINS SHALL BE 18" OR 24" OR 30" OR 36" OR 42" OR 48" OR 54" OR 60" OR 66" OR 72" OR 78" OR 84" OR 90" OR 96" OR 102" OR 108" OR 114" OR 120" OR 126" OR 132" OR 138" OR 144" OR 150" OR 156" OR 162" OR 168" OR 174" OR 180" OR 186" OR 192" OR 198" OR 204" OR 210" OR 216" OR 222" OR 228" OR 234" OR 240" OR 246" OR 252" OR 258" OR 264" OR 270" OR 276" OR 282" OR 288" OR 294" OR 300" OR 306" OR 312" OR 318" OR 324" OR 330" OR 336" OR 342" OR 348" OR 354" OR 360" OR 366" OR 372" OR 378" OR 384" OR 390" OR 396" OR 402" OR 408" OR 414" OR 420" OR 426" OR 432" OR 438" OR 444" OR 450" OR 456" OR 462" OR 468" OR 474" OR 480" OR 486" OR 492" OR 498" OR 504" OR 510" OR 516" OR 522" OR 528" OR 534" OR 540" OR 546" OR 552" OR 558" OR 564" OR 570" OR 576" OR 582" OR 588" OR 594" OR 600" OR 606" OR 612" OR 618" OR 624" OR 630" OR 636" OR 642" OR 648" OR 654" OR 660" OR 666" OR 672" OR 678" OR 684" OR 690" OR 696" OR 702" OR 708" OR 714" OR 720" OR 726" OR 732" OR 738" OR 744" OR 750" OR 756" OR 762" OR 768" OR 774" OR 780" OR 786" OR 792" OR 798" OR 804" OR 810" OR 816" OR 822" OR 828" OR 834" OR 840" OR 846" OR 852" OR 858" OR 864" OR 870" OR 876" OR 882" OR 888" OR 894" OR 900" OR 906" OR 912" OR 918" OR 924" OR 930" OR 936" OR 942" OR 948" OR 954" OR 960" OR 966" OR 972" OR 978" OR 984" OR 990" OR 996" OR 1002" OR 1008" OR 1014" OR 1020" OR 1026" OR 1032" OR 1038" OR 1044" OR 1050" OR 1056" OR 1062" OR 1068" OR 1074" OR 1080" OR 1086" OR 1092" OR 1098" OR 1104" OR 1110" OR 1116" OR 1122" OR 1128" OR 1134" OR 1140" OR 1146" OR 1152" OR 1158" OR 1164" OR 1170" OR 1176" OR 1182" OR 1188" OR 1194" OR 1200" OR 1206" OR 1212" OR 1218" OR 1224" OR 1230" OR 1236" OR 1242" OR 1248" OR 1254" OR 1260" OR 1266" OR 1272" OR 1278" OR 1284" OR 1290" OR 1296" OR 1302" OR 1308" OR 1314" OR 1320" OR 1326" OR 1332" OR 1338" OR 1344" OR 1350" OR 1356" OR 1362" OR 1368" OR 1374" OR 1380" OR 1386" OR 1392" OR 1398" OR 1404" OR 1410" OR 1416" OR 1422" OR 1428" OR 1434" OR 1440" OR 1446" OR 1452" OR 1458" OR 1464" OR 1470" OR 1476" OR 1482" OR 1488" OR 1494" OR 1500" OR 1506" OR 1512" OR 1518" OR 1524" OR 1530" OR 1536" OR 1542" OR 1548" OR 1554" OR 1560" OR 1566" OR 1572" OR 1578" OR 1584" OR 1590" OR 1596" OR 1602" OR 1608" OR 1614" OR 1620" OR 1626" OR 1632" OR 1638" OR 1644" OR 1650" OR 1656" OR 1662" OR 1668" OR 1674" OR 1680" OR 1686" OR 1692" OR 1698" OR 1704" OR 1710" OR 1716" OR 1722" OR 1728" OR 1734" OR 1740" OR 1746" OR 1752" OR 1758" OR 1764" OR 1770" OR 1776" OR 1782" OR 1788" OR 1794" OR 1800" OR 1806" OR 1812" OR 1818" OR 1824" OR 1830" OR 1836" OR 1842" OR 1848" OR 1854" OR 1860" OR 1866" OR 1872" OR 1878" OR 1884" OR 1890" OR 1896" OR 1902" OR 1908" OR 1914" OR 1920" OR 1926" OR 1932" OR 1938" OR 1944" OR 1950" OR 1956" OR 1962" OR 1968" OR 1974" OR 1980" OR 1986" OR 1992" OR 1998" OR 2004" OR 2010" OR 2016" OR 2022" OR 2028" OR 2034" OR 2040" OR 2046" OR 2052" OR 2058" OR 2064" OR 2070" OR 2076" OR 2082" OR 2088" OR 2094" OR 2100" OR 2106" OR 2112" OR 2118" OR 2124" OR 2130" OR 2136" OR 2142" OR 2148" OR 2154" OR 2160" OR 2166" OR 2172" OR 2178" OR 2184" OR 2190" OR 2196" OR 2202" OR 2208" OR 2214" OR 2220" OR 2226" OR 2232" OR 2238" OR 2244" OR 2250" OR 2256" OR 2262" OR 2268" OR 2274" OR 2280" OR 2286" OR 2292" OR 2298" OR 2304" OR 2310" OR 2316" OR 2322" OR 2328" OR 2334" OR 2340" OR 2346" OR 2352" OR 2358" OR 2364" OR 2370" OR 2376" OR 2382" OR 2388" OR 2394" OR 2400" OR 2406" OR 2412" OR 2418" OR 2424" OR 2430" OR 2436" OR 2442" OR 2448" OR 2454" OR 2460" OR 2466" OR 2472" OR 2478" OR 2484" OR 2490" OR 2496" OR 2502" OR 2508" OR 2514" OR 2520" OR 2526" OR 2532" OR 2538" OR 2544" OR 2550" OR 2556" OR 2562" OR 2568" OR 2574" OR 2580" OR 2586" OR 2592" OR 2598" OR 2604" OR 2610" OR 2616" OR 2622" OR 2628" OR 2634" OR 2640" OR 2646" OR 2652" OR 2658" OR 2664" OR 2670" OR 2676" OR 2682" OR 2688" OR 2694" OR 2700" OR 2706" OR 2712" OR 2718" OR 2724" OR 2730" OR 2736" OR 2742" OR 2748" OR 2754" OR 2760" OR 2766" OR 2772" OR 2778" OR 2784" OR 2790" OR 2796" OR 2802" OR 2808" OR 2814" OR 2820" OR 2826" OR 2832" OR 2838" OR 2844" OR 2850" OR 2856" OR 2862" OR 2868" OR 2874" OR 2880" OR 2886" OR 2892" OR 2898" OR 2904" OR 2910" OR 2916" OR 2922" OR 2928" OR 2934" OR 2940" OR 2946" OR 2952" OR 2958" OR 2964" OR 2970" OR 2976" OR 2982" OR 2988" OR 2994" OR 3000" OR 3

[illegible][illegible]

AT LEAST 30 INCHES AND PREVENTED TIES BEHIND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUATION/EMERGENCY TRENCH.

4. NEW OR RELOCATED UNDERGROUND WATER MAINS SHALL BE LOCATED TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST 30 INCHES, AND PREVENTED TIES BEHIND THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONTAINING RECLAIMED WATER NOT REGULATED UNDER PART 4 OF CHAPTER 64-0.3. THE MINIMUM MINIMUM SEPARATION DISTANCE BETWEEN THE WATER MAIN AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LESS THAN AT LEAST 36 INCHES ABOVE THE TOP OF THE SEWER.

4. NEW OR RELOCATED UNDERGROUND WATER MAINS CARRYING ANY EXISTING OR PROPOSED GRAVITY OR VACUATION-TYPE SANITARY SEWER OR TOWN OR SEWER SHALL BE LOCATED TO THE OUTSIDE OF THE WATER MAIN, BE AT LEAST 36 INCHES, AND PREVENTED TIES BEHIND, ABOVE OR AT LEAST 36 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PERMITTED TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

4. NEW OR RELOCATED UNDERGROUND WATER MAINS CARRYING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONTAINING RECLAIMED WATER SHALL BE LOCATED TO THE OUTSIDE OF THE WATER MAIN, AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PERMITTED TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

4. AT THE EXISTING EXISTING, THE FULL LENGTH OF WATER MAIN PIPE SHALL BE CONTINUED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN REMAINS BEHIND AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT EACH CROSSING, THE PIPES SHALL BE ARRANGED SO THAT ALL EXISTING WATER MAINS ARE AT LEAST THREE FEET FROM ALL JUNCTIONS IN VACUATION-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS OR PIPELINES CONTAINING RECLAIMED WATER BEHIND AND UNDER PART 4 OF CHAPTER 64-0.3. A 30 INCH MINIMUM SEPARATION DISTANCE SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND GRAVITY-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONTAINING RECLAIMED WATER NOT REGULATED UNDER PART 4 OF CHAPTER 64-0.3.

4. WATER MAINS SHALL BE 480 CIP OR 60 CIP 150 CONCRETE OR 60 CIP 150 DUPLEX CLASS 350 STANDARD CEMENT LINER UNDER EXISTING OR APPROVED BY THE CITY.

DATE: 11/1/2020
W-2

STANDARD CONSTRUCTION DETAIL
POTABLE WATER CONSTRUCTION NOTES

REV. 1/1/2017

City of Port Orange Public Utilities Department List of Approved Products	
Potable Water	
<i><u>Fire Hydrant (5.8" Barrel)</u></i>	
MANUFACTURER	MODEL #
Muslier	A423 Sugar Cumbuster 250
American AVK Co.	Series R2780
American Darling	5 1/2" R-66-65
Clow	Medallion # F-2545 55
Air Release Valves	
MANUFACTURER	MODEL #
Vai-Matic	Series 38
<i><u>Gate Valves and Trapping Valves – Ballcast Seated (H208, H208 and C545) 24" or Smaller Valves with No Air Corrosion Enclosed with FPM O-Rings</u></i>	
MANUFACTURER	MODEL #
American AVK Co.	Series 3, 3R, 25, 45, 55, & 66
Clow	Model 2638 and 2639
Muslier	A-2960, A-2363, T-2360 & T-2361
American Flow Control	Series 2500
STANDARD CONSTRUCTION DETAIL POTABLE WATER APPROVED PRODUCTS	
	FILE NAME W3.00C
	DETAIL REF. W-3

City of Port Orange Public Utilities Department

List of Approved Products

Potable Water 12/08

Joints Restained - DIP and PVC

MANUFACTURER	MODEL #
EBBA Iron Inc.	Series 1300/1500/1600/1800/2500/2800
Star Pipe	Starpipe Series 1000/1100/1200/3000/4000
Signa	One-Lock 910, One-Lock 912C, Pop-Lock for PVC
Seelye-Wal	Cam-Lock [111 & 130], Jet-Lock [115 & 105]

Water Service Materials

Polyethylene Tubing – (Blue with UV Protection 1000-9) 1" & 2" only

MANUFACTURER	MODEL #
Endnot Endnote	Endnote-w/ #12 Copperhead "Trace" Wire

Corporation Stop 1"

MANUFACTURER	MODEL #
Ford	F-1100-4

Curb Stop – Straight Ball Meter Valve w/ Barrel Locks

MANUFACTURER	MODEL #
Ford	B-94 324W (Single Service) B-91 223W (Double Service)

"4" Branch (1" x 3")

MANUFACTURER	MODEL #
Ford	U-49-43-6.5

City of Port Orange Public Utilities Department

City of Port Orange Public Utilities Department

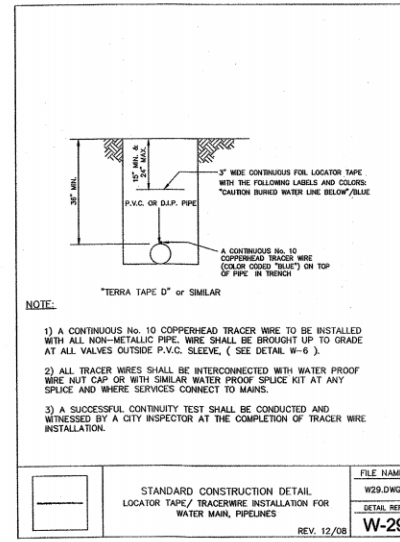
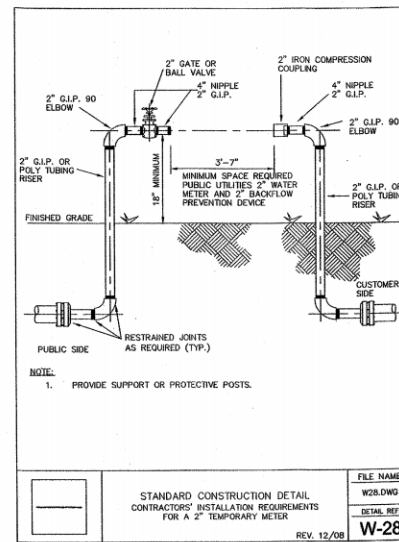
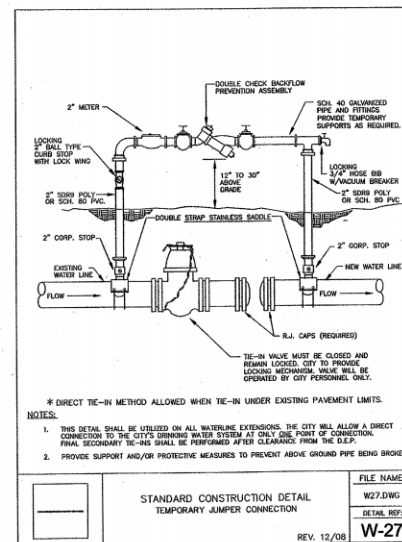
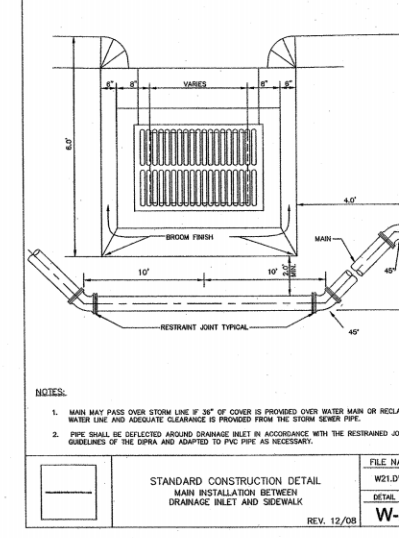
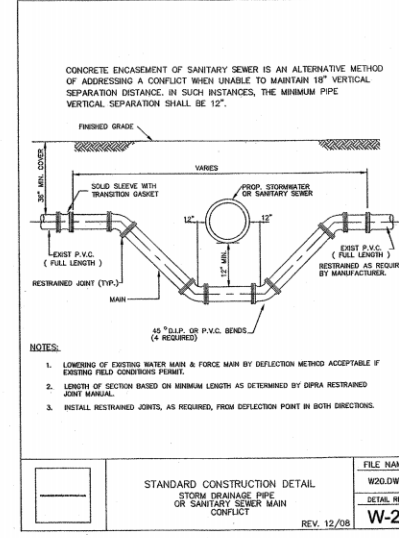
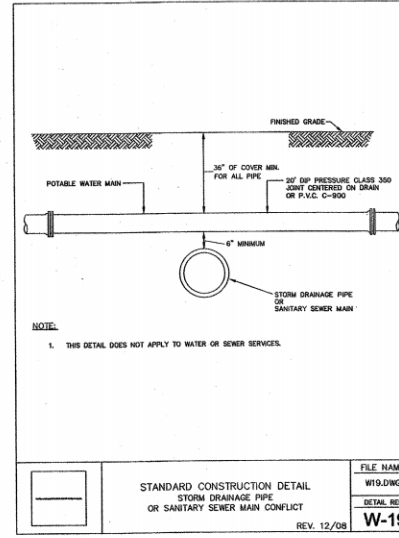
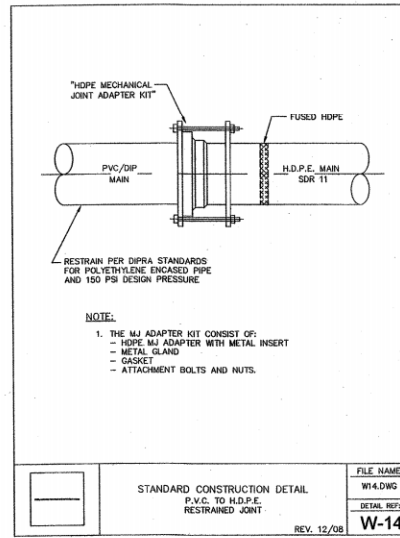
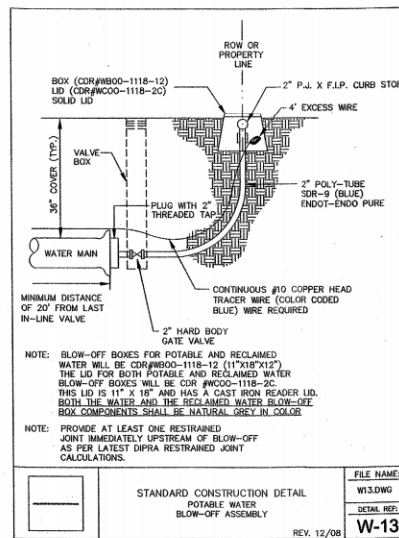
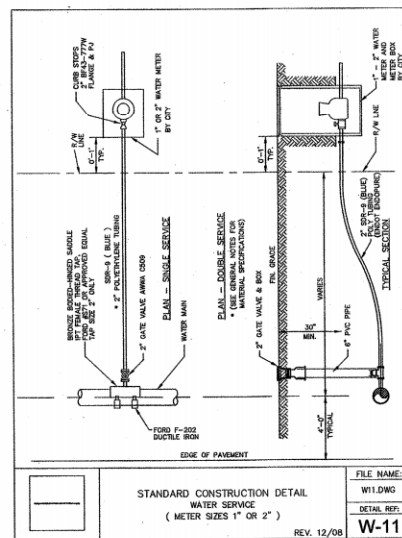
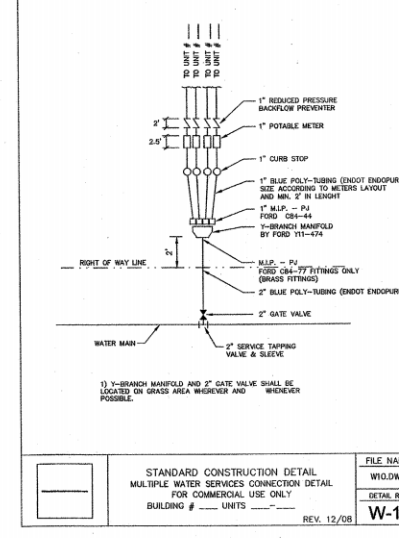
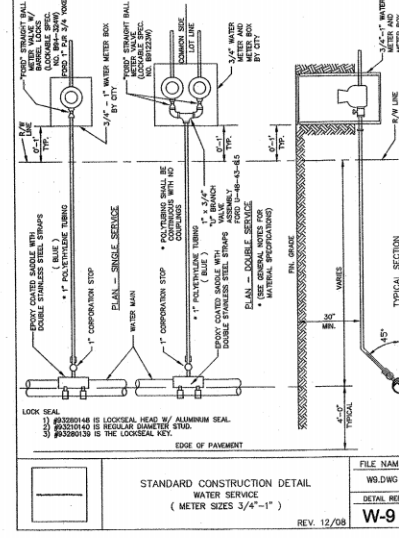
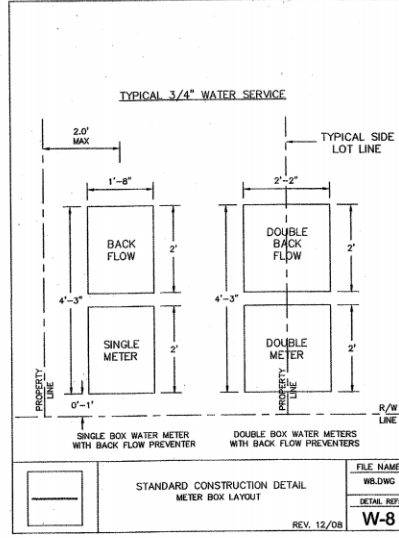
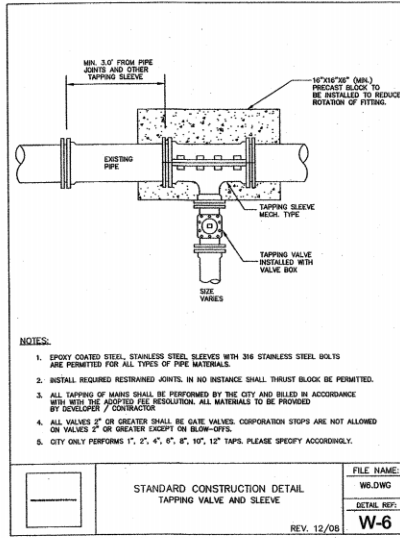
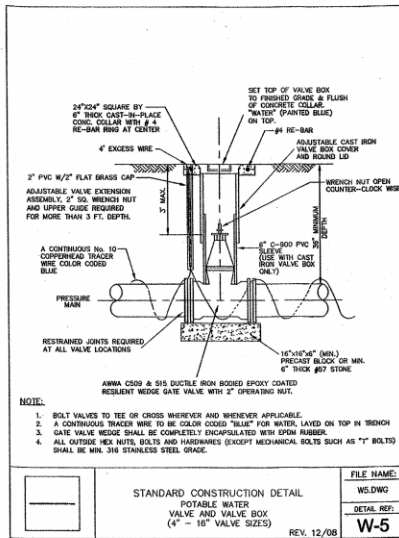
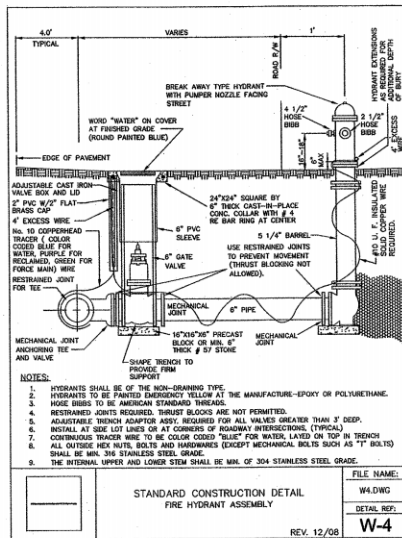
City of Port Orange Public Utilities Department

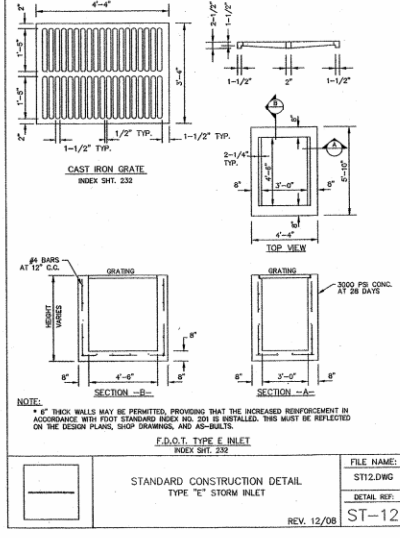
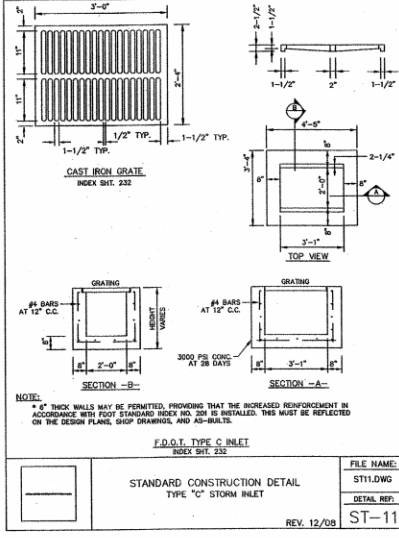
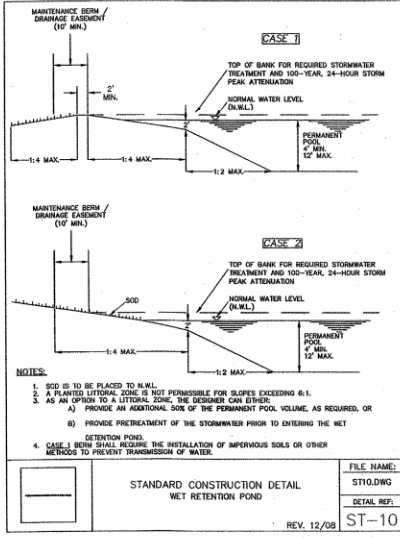
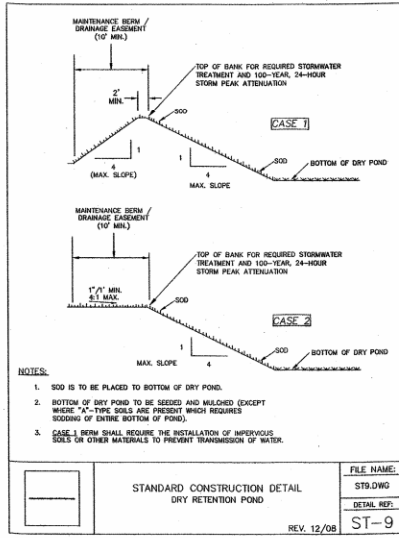
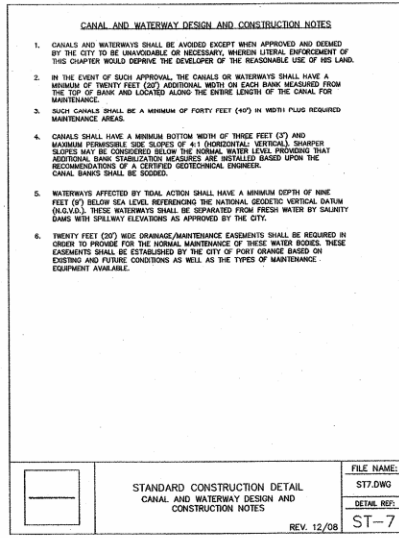
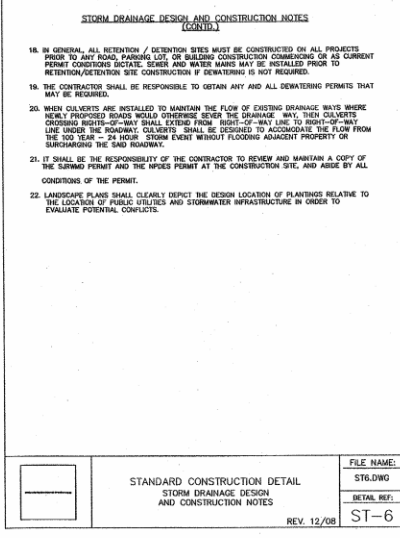
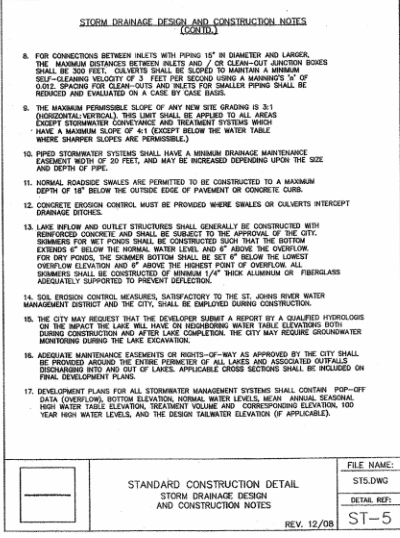
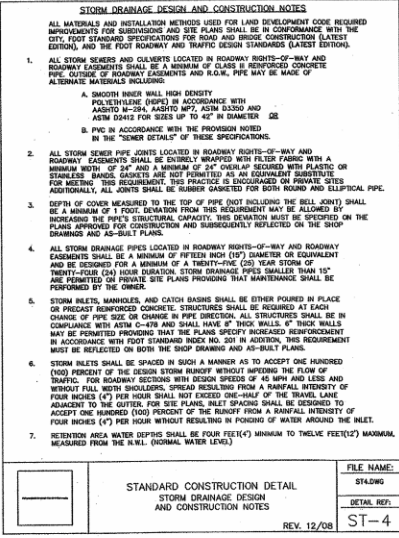
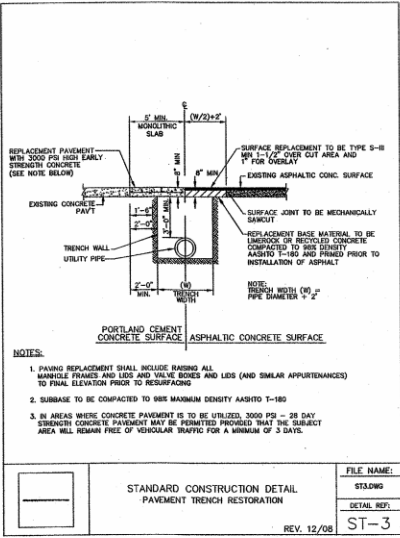
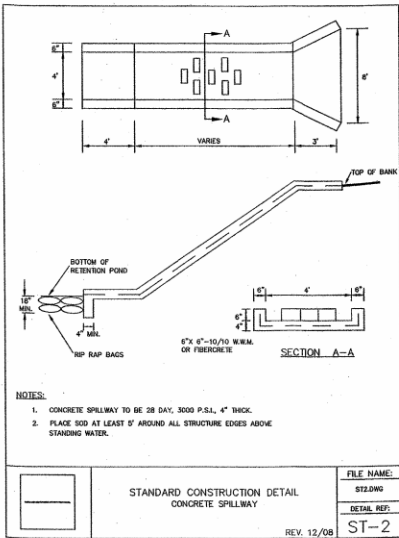
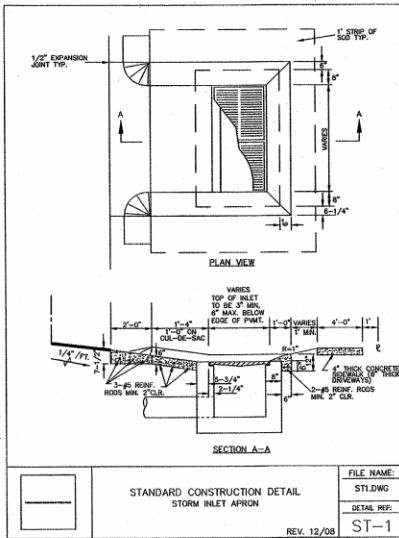
City of Port Orange Public Utilities Department

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City of Port Orange Public Utilities Department

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ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES
(CONT'D.)

10. SOLID CEMENT AND RECYCLED CONCRETE NO BEDDING SHALL BE SUBMITTED BY A LICENSED GEOTECHNICAL ENGINEER TO THE CITY ENGINEER FOR REVIEW AND TO THE START OF SUBBASE PREPARATION. ALL BEDDING SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.

11. CEMENT DELIVERY TICKETS SHALL BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR. THE TICKET INFORMATION SHALL BE RECORDED IN THE CITY'S RECORDS. THROUGHOUT THE ENTIRE INSTALLATION, ACCUMULATED DELIVERY TICKETS CAN BE PROVIDED TO THE INSPECTOR BY THE CONTRACTOR TO VERIFY THE TOTAL INSTALLATION OF SOLID CEMENT WITH THE CERTIFICATION REQUIRED BY D.O.C.T.

12. TESTING OF THE IN-PACE BASE SHALL BE DONE AT INTERVALS EQUIVALENT TO SUBBASE TESTING AND SHALL CONSIST OF, AS A MINIMUM, A MOISTURE CONTENT AND COMPACTION TEST.

13. PORTLAND CEMENT CONCRETE, UNWEIGHTED, RECYCLED CONCRETE, OR FULL REPEAT AQUIPAYMENT MAY NOT BE USED IN PLACE OF SOLID CEMENT. BASE, ALL BASE AND ROADWAY DESIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.

14. SOLID CEMENT BASE MATERIAL CONSTRUCTION SHALL BE CONTINUOUSLY SUPERVISED BY A SOLID TESTING LABORATORY AT THE DEVELOPER'S EXPENSE. THE TESTING LABORATORY SHALL PROVIDE AN ON-SITE CERTIFICATION OF THE TESTING OF SOLID CEMENT WITH THE CERTIFICATION REQUIRED BY D.O.C.T.

15. SOLID CEMENT PAVEMENT BASES WITH THE CURE COAT APPLIED SHALL BE ALLOWED TO CURE A MINIMUM OF 30 DAYS BEFORE ANY TYPE OF TRAFFIC OR TO PLACE ANY ASPHALT SURFACE. TEST RESULTS ARE REQUIRED TO BE DELIVERED TO THE CITY'S DESIGNATED SITE INSPECTOR FOR REVIEW AND RECORD.

16. RECYCLED CONCRETE CAN BE USED AS AN ALTERNATIVE BASE MATERIAL. PROVIDED THE MATERIAL IS A MINIMUM OF 95% COMPOSITION OF CALCIUM AND MAGNESIUM. THE MATERIAL SHALL BE LIMITED TO 10% FINE PARTICLES. THE MATERIAL SHALL BE PLASTICITY INDEX SHALL NOT EXCEED 10. THE MATERIAL SHALL NOT CONTAIN ORGANIC MATERIAL. THE QUANTITY OF MATERIAL SHALL BE SUFFICIENT TO PROVIDE THE SAME SAND SIZE MATERIAL OF A QUANTITY AS IS DETERMINED TO THE PROPER BONDING, TENSILE STRENGTH OF AT LEAST 10% OF THE MATERIAL SHALL PASS A #1" SIEVE AND FOR SUBBASE APPLICATIONS, AT LEAST 10% OF THE MATERIAL SHALL PASS A #10" SIEVE. FOR ALL OTHER BASE APPLICATIONS, THE MATERIAL SHALL BE GRADED UNIFORMLY DOWN TO 20% AND THE MINIMUM LOSS OF 10% OF THE MATERIAL SHALL BE 10% OF THE GRADE AGGREGATE USED IN THE RECYCLED CONCRETE SHALL HAVE A MAXIMUM LOSS OF 10% TO 15% LOSS. ALL MATERIAL SHALL BE SUBJECT TO THE TESTING OF SOLID CEMENT WITH THE CERTIFICATION REQUIRED BY D.O.C.T.

17. RECYCLED CONCRETE OR UNWEIGHTED FOR BASE OF SUBBASE APPLICATIONS SHALL BE ALLOWED FOR CITY ROADS ONLY. FOR SUBBASE APPLICATIONS, THE MATERIAL SHALL BE LIMITED TO 10% FINE PARTICLES. THE MATERIAL SHALL BE PLASTICITY INDEX SHALL NOT EXCEED 10. THE MATERIAL SHALL NOT CONTAIN ORGANIC MATERIAL. THE QUANTITY OF MATERIAL SHALL BE SUFFICIENT TO PROVIDE THE SAME SAND SIZE MATERIAL OF A QUANTITY AS IS DETERMINED TO THE PROPER BONDING, TENSILE STRENGTH OF AT LEAST 10% OF THE MATERIAL SHALL PASS A #1" SIEVE AND FOR SUBBASE APPLICATIONS, AT LEAST 10% OF THE MATERIAL SHALL PASS A #10" SIEVE. FOR ALL OTHER BASE APPLICATIONS, THE MATERIAL SHALL BE GRADED UNIFORMLY DOWN TO 20% AND THE MINIMUM LOSS OF 10% OF THE MATERIAL SHALL BE 10% OF THE GRADE AGGREGATE USED IN THE RECYCLED CONCRETE SHALL HAVE A MAXIMUM LOSS OF 10% TO 15% LOSS. ALL MATERIAL SHALL BE SUBJECT TO THE TESTING OF SOLID CEMENT WITH THE CERTIFICATION REQUIRED BY D.O.C.T.

18. RECYCLED CONCRETE OR UNWEIGHTED FOR BASE OF SUBBASE APPLICATIONS SHALL BE ALLOWED FOR CITY ROADS ONLY. FOR SUBBASE APPLICATIONS, THE MATERIAL SHALL BE LIMITED TO 10% FINE PARTICLES. THE MATERIAL SHALL BE PLASTICITY INDEX SHALL NOT EXCEED 10. THE MATERIAL SHALL NOT CONTAIN ORGANIC MATERIAL. THE QUANTITY OF MATERIAL SHALL BE SUFFICIENT TO PROVIDE THE SAME SAND SIZE MATERIAL OF A QUANTITY AS IS DETERMINED TO THE PROPER BONDING, TENSILE STRENGTH OF AT LEAST 10% OF THE MATERIAL SHALL PASS A #1" SIEVE AND FOR SUBBASE APPLICATIONS, AT LEAST 10% OF THE MATERIAL SHALL PASS A #10" SIEVE. FOR ALL OTHER BASE APPLICATIONS, THE MATERIAL SHALL BE GRADED UNIFORMLY DOWN TO 20% AND THE MINIMUM LOSS OF 10% OF THE MATERIAL SHALL BE 10% OF THE GRADE AGGREGATE USED IN THE RECYCLED CONCRETE SHALL HAVE A MAXIMUM LOSS OF 10% TO 15% LOSS. ALL MATERIAL SHALL BE SUBJECT TO THE TESTING OF SOLID CEMENT WITH THE CERTIFICATION REQUIRED BY D.O.C.T.

STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN
AND CONSTRUCTION NOTES

FILE NAME:
R1500
DATE: 01/15/2015
R-13

[illegible]

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION SPECIFICATIONS (CONT'D.)		
46.	UTILITY DEPTH A. HIGH VOLTAGE UTILITIES SUCH AS POWER FEEDER, SERVICE, AND DROPS) SHALL BE BURIED A MINIMUM OF 30 INCHES IN DEPTH. B. LOW VOLTAGE UTILITIES SUCH AS PHONE AND CABLE TV SHALL BE BURIED A MINIMUM OF 18 INCHES IN DEPTH FOR FEEDERS AND SERVICES. SERVICE DROPS SHALL BE BURIED A MINIMUM OF 12 INCHES IN DEPTH. C. IN NO INSTANCE SHALL THE DEPTH OF COVER BE LESS THAN 30" FROM FINISHED GRADE TO THE TOP OF PIPE FOR POTABLE WATER MAIN, SANITARY SEWER MAIN, AND RECLAIMED WATER MAINS. HOWEVER, IN THE EVENT THAT THIS CONDITION CANNOT BE MET DUE TO UNANTICIPATED CONFLICTS DURING THE CONSTRUCTION PROCESS, EXISTING LOW PRESSURE CLASS 300 OR CONCRETE ENCASEMENT MAY BE USED AS APPROVED BY THE CITY PUBLIC UTILITIES DEPARTMENT.	
47.	LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF RESIDENTIAL AND COMMERCIAL UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.	
STANDARD CONSTRUCTION DETAIL ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES		
FILE NAME: RTY/DWG DETAIL REF.		R-17 REV. 12/08

NOTES:

1. VALLEY GUTTER TO HAVE A STANDARD MINIMUM LONGITUDINAL SLOPE OF 0.3%.
2. VALLEY GUTTER TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE.
3. 6" SUBGRADE TO BE COMPACTED AND TESTED TO ABE DENSITY WITH MINIMUM L.B.E. 40 BASED ON AASHTO T-150 MODIFIED PROCTOR TEST.
4. VALLEY GUTTERS ARE REQUIRED WHEN STORMWATER CROSSES THE INTERSECTION OF ROADWAYS AND DRAINWAY CONNECTIONS.
5. REFER TO F.O.D.'S STANDARD INDEX NO. 303

	STANDARD CONSTRUCTION DETAIL	FILE NAME:
	ROADWAY INTERSECTION VALLEY GUTTER	R10DING
		DETAIL REF:
		R-10

REV. 12/08

[illegible][illegible][illegible]

507 OR 607 R/W OF WAY

1" 1/4" VARIAS 10' 10' 10' 1/4" VARIAS 1/4" 1/4"

1" 1/4" 1/4" 1/4"

(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z)

4" ± MIN. COMPACTED SUBGRADE
THICK LAYER

3" MIN. ABOVE TOP OF CURB

100 ± WED AND HEAVEN FOR F.A.D.'S STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE.

4" WED AREA WITH MINIMUM SLOPE OF 1" PER 4' FT.

CONCRETE PAVEMENT CURB, 3000 P.S.I.

ADJUST PAVEMENT

1/4" ± ASPHALT BITUMINOUS CONCRETE TYPE S-B, MINIMUM MARSHALL FIELD STABILITY 100, COMPACTED TO BEN DENSITY PER FM 1-723B (M-20) SHALL BE 100% MINIMUM. TEST: TRACK CANTER METHOD

7" ±

5" ± SOL COUNT BASE MINIMUM BEARING STRENGTH 3000 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS COMPACTED TO BEN DENSITY BASED ON AASHTO 1-180 MODIFIED PROCTOR TEST. TEST: STANDARD PROCTOR TEST. CONSTRUCTION METHOD: SHALL CONFORM TO SECTION 275 OF STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION

6" UNDRERK BASE (BURN 100) OR RECYCLED CONCRETE BASE (BURN 120) COMPACTED TO BEN DENSITY BASED ON AASHTO 1-180 MODIFIED PROCTOR TEST.

5" ±

5" ± SUB-BASE COMPACTED TO BEN DENSITY BASED ON AASHTO 1-180 MODIFIED PROCTOR TEST. BEN MINIMUM 40.

10" ±

5" ± SUBGRADE COMPACTED TO BEN DENSITY BASED ON AASHTO 1-180 MODIFIED PROCTOR TEST WITH MINIMUM BEN 40.

NOTES:

- ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTION AND THE SENDER'S LICENSED SOIL ENGINEER PRIOR TO PLACEMENT.
- A REPRESENTATION OF A CHIEF OF THE INSPECTION SHALL BE PRESENT DURING ALL WORK SHALL BE CERTIFIED BY F.O.S. BY THE REGULATION OF SOIL CLIMATE.

STANDARD CONSTRUCTION DETAIL
507 OR 607 R/W OF WAY SECTION

REV. 12/08

FILE NAME	R1-0W
DETAIL REF	R-1

REQUIREMENTS FOR AS-BUILT DRAWINGS

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 SUBDIVISION AS-BUILT DRAWINGS.

1. INDIVIDUAL POLE AND PROFILE SHEETS FOR ALL BODIES AND SANITARY SEWER LINES, SHOWING MANHOLES, BODIES, AND PIPE CROSSINGS. PLAN AND PROFILE SHEETS SHALL SHOW SANITARY LINES AND ALL OTHER BODIES LOCATED THAT CROSS SEWER LINES, AND ANY THAT PARALLEL AND ARE 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.
2. INVERTS AND CURB VERTICES SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET AT EACH BLOCK FOR SUBDIVISIONS AND AS APPROPRIATE TO COMBINATION PAVING LOTS (ON SITE PLANS).
3. ALL RADIUS AT INTERSECTIONS SHALL BE VERIFIED AND DIMENSIONED. THIS INFORMATION IS TO BE CLEARLY INDICATED ON THE AS-BUILT.
4. ROADWAY ELEVATIONS SHALL BE DIMENSIONED AT ALL GRADE CHANGES, 100' INTERVALS LONG ROADWAY, AND OTHER DETAILS AS NEEDED ALONG ALL STREETS. STREET CENTERLINE AND CURB VERTICES ELEVATIONS SHALL BE RECORDED AS NOTED. THE AS-BUILT CENTERLINE PROFILE OF ALL STREETS SHALL ALSO BE SHOWN ON THE PLAN AND PROFILE SHEET. IT MAY BE COMPARED TO THE DESIGN PROFILE. IN THE EVENT THAT THE AS-BUILT CENTERLINE LONGITUDINAL GRADE DOES NOT MEET THE CITY MINIMUM STANDARDS, ADDITIONAL LONGITUDINAL GRADES OF THE ADJACENT CORRESPONDING ROADWAY CROSS-SECTION SURVEYS TO VERIFY THE CORRECT CROSS-SECTION. THIS INFORMATION SHALL BE CLEARLY INDICATED AS NOTED.
5. STORM DRAINAGE STRUCTURES SHALL BE LOCATED AND / OR DIMENSIONED FROM CENTERLINES OR LOT LINES AS APPROPRIATE.
6. STORM DRAINAGE PIPE INVERT AND INLET ELEVATIONS SHALL BE RECORDED AND CLEARLY NOTED AS TO IT. INFORMATION DESIGN ELEVATIONS SHALL BE CROSSED-OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
7. STORM DRAINAGE PIPE MATERIAL, LENGTH, AND SIZE SHALL BE MEASURED AND / OR VERIFIED. THIS INFORMATION IS TO BE CLEARLY INDICATED AS NOTED.
8. ALL APPLICABLE TOPOGRAPHIC INFORMATION PRESENT TO THE ON-SITE DRAINAGE SYSTEM, SUCH AS DITCHES, SWALES, CANALS, ETC., THAT ARE DEEMED NECESSARY BY THE CITY TO VERIFY THE FUNCTIONAL PERFORMANCE OF THE STORM DRAINAGE SYSTEM, SHALL BE NOTED. NORMALLY, RECORDING ELEVATIONS EVERY 10 FEET AT THE TOP OF BANK AND TOP OF FLOOR WILL BE REQUIRED. MEASUREMENTS SHALL TAKE AND BE RECORDED IN ORDER TO ACCURATELY SHOW DOWN THESE FEATURES TO THE ROADWAY CENTERLINE AND TO PLAT LINES UNLESS OTHERWISE NOTED. CONTIGUOUS LINES SHALL BE USED TO DIMENSIONALLY LOCATE THESE TOPOGRAPHIC FEATURES.
9. RETENTION AREAS SHALL HAVE THEIR TOP-OF-BANK AND BOTTOM ELEVATIONS RECORDED. ACTUAL MEASUREMENTS SHALL BE TAKEN AND DIMENSIONED RECORDED OF THE SIZE OF ALL RETENTION AREAS. MEASUREMENTS SHALL BE TAKEN FROM TOP OF BANK TO TOP-OF-BANK WITH USE OF INDICATED. SEPARATE CALCULATIONS SHALL BE SUBMITTED TO INDICATE REQUIRED AND PROVIDED RETENTION VOLUMES.
10. ACTUAL MATERIALS USED AND ELEVATIONS AND DIMENSIONS OF OVERFLOW WEIR STRUCTURES AND DRAINAGES SHALL BE RECORDED ON THE AS-BUILT.
11. STORM DRAINAGE SHALE CENTERLINES SHALL BE LOCATED AND ELEVATIONS OF FLOW LINE AND TOP OF BANK SHALL BE RECORDED EVERY 100 FEET. USE SLOPE SHOWN, ALSO AS NOTED.

FILE NAME: M1.DWG	FILE NAME: M1.DWG
DETAIL REF: M-1	DETAIL REF: M-1
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

12. SANITARY SEWER MANHOLES SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT LINES AS APPROPRIATE. ALL MAN AND INVERT ELEVATIONS SHALL BE RECORDED. THIS INFORMATION SHALL BE CLEARLY INDICATED AS NOTED. DESIGN ELEVATIONS SHALL BE CROSSED-OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
13. FOR SUBDIVISIONS, PROPOSED EXISTING FLOOR ELEVATIONS SHALL APPEAR ON ALL SUBDIVISION LOTS ON THE APPROPRIATE PLAN AND PROFILE SHEET AS WELL AS ON THE MASTER DRAINAGE PLAN. SANITARY SEWER LINE LOCATIONS, SIZES, MATERIALS, ETC., SHALL BE VERIFIED AND RECORDED. THIS INFORMATION IS TO BE CLEARLY INDICATED AS NOTED.
14. POWER LATERALS SHALL BE RECORDED AT THEIR CLEAN-OUT LOCATIONS. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TOWARD UPSTREAM MANHOLES.
15. LIFT STATIONS AND FORCE MAINS SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT LINES AS APPROPRIATE. FORCE MAIN DEPTH AND LOCATION INCLUDING VALVES WILL BE PROVIDED AND TIED TO PERMANENT JAWB GRADE FEATURES. DIMENSIONAL AND ELEVATION INFORMATION INDICATED ON THE APPROVED PLAN SHALL BE VERIFIED AND RECORDED. THIS INFORMATION SHALL BE CLEARLY INDICATED AS NOTED.
16. CURB CUTS OR METAL TIES USED TO MARK SEWER LATERALS, WATER SERVICES AND WATER VALVES, SHALL BE VERIFIED FOR PRESENCE AND ACCURACY OF LOCATION.
17. PORTABLE AND RECLAIMED WATER MAIN LINES SHALL BE DIMENSIONED OFF THE BACK OF CURB, OR EDGE OF PARKWAY IF NO CURB IS PRESENT. WATER MAIN LINE MATERIAL, SIZE, LENGTH AND DEPTH PLACING SHALL ALSO BE NOTED. LOCATIONS OF VALVES, TIES AND CROSSINGS SHALL BE TIED TO (1) THREE PERMANENT ABOVE GRADE FEATURES. THIS INFORMATION SHALL BE CLEARLY INDICATED AS NOTED.
18. PORTABLE AND RECLAIMED WATER VALVES, TIES, SERVO, AIR SERVICE, AND THE PROHIBITS SHALL BE LOCATED BY TIES TO SANITARY SEWER MANHOLES. SIMILARLY, FORCE MAIN VALVES, TIES, AND SERVO SHALL BE LOCATED IN THE SAME MANNER. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TO UPSTREAM MANHOLES.
19. FOR PERPENDICULAR CROSSINGS OF STORMWATER, SANITARY SEWER, PORTABLE WATER, OR RECLAIMED WATER, THE AS-BUILT PLANS SHALL CLEARLY INDICATE WHICH UTILITIES ARE LOCATED OVER OR UNDER OTHER UTILITIES, IF ANY.
20. ANY SPECIAL FEATURES SUCH AS, CONCRETE, STUMPS, LANE MARKS, WALLS, FENCE, ETC., WHICH WERE A PART OF THE APPROVED CONSTRUCTION DRAWINGS SHALL ALSO BE LOCATED AND DIMENSIONED.
21. IF AN APPROVED SUBDIVISION PLAT OR SITE PLAN SHOWS A CONSERVATION EASEMENT, THE PROJECT SUBMITTER SHALL PROVIDE THE EXACT LOCATION OF THE EASEMENT (FROM THE RIGHT-OF-WAY OR PROPERTY LINE) AND PROPOSED EASEMENT DIMENSIONS ON THE AS-BUILT DRAWING. THE EXACT LOCATION OF THESE TIES WILL HELP VERIFY THE SUFFICIENCY OF THE CONSERVATION EASEMENT FROM PLAT RECORDING OR CERTIFICATE OF OCCUPANCY.

FILE NAME: M1.DWG	FILE NAME: M1.DWG
DETAIL REF: M-1	DETAIL REF: M-1
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

22. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M3.DWG	FILE NAME: M3.DWG
DETAIL REF: M-3	DETAIL REF: M-3
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

23. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M3.DWG	FILE NAME: M3.DWG
DETAIL REF: M-3	DETAIL REF: M-3
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

24. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M4.DWG	FILE NAME: M4.DWG
DETAIL REF: M-4	DETAIL REF: M-4
REV. 2/13	REV. 2/13

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

25. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M5.DWG	FILE NAME: M5.DWG
DETAIL REF: M-5	DETAIL REF: M-5
REV. 2/13	REV. 2/13

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

26. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M6.DWG	FILE NAME: M6.DWG
DETAIL REF: M-6	DETAIL REF: M-6
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

27. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M7.DWG	FILE NAME: M7.DWG
DETAIL REF: M-7	DETAIL REF: M-7
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

28. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M8.DWG	FILE NAME: M8.DWG
DETAIL REF: M-8	DETAIL REF: M-8
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

29. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M9.DWG	FILE NAME: M9.DWG
DETAIL REF: M-9	DETAIL REF: M-9
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

30. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M10.DWG	FILE NAME: M10.DWG
DETAIL REF: M-10	DETAIL REF: M-10
REV. 2/13	REV. 2/13

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

31. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M11.DWG	FILE NAME: M11.DWG
DETAIL REF: M-11	DETAIL REF: M-11
REV. 2/13	REV. 2/13

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

32. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M12.DWG	FILE NAME: M12.DWG
DETAIL REF: M-12	DETAIL REF: M-12
REV. 2/13	REV. 2/13

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

33. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M13.DWG	FILE NAME: M13.DWG
DETAIL REF: M-13	DETAIL REF: M-13
REV. 2/13	REV. 2/13

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

34. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M14.DWG	FILE NAME: M14.DWG
DETAIL REF: M-14	DETAIL REF: M-14
REV. 12/08	REV. 12/08

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

35. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M15.DWG	FILE NAME: M15.DWG
DETAIL REF: M-15	DETAIL REF: M-15
REV. 2/13	REV. 2/13

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

36. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M16.DWG	FILE NAME: M16.DWG
DETAIL REF: M-16	DETAIL REF: M-16
REV. 2/13	REV. 2/13

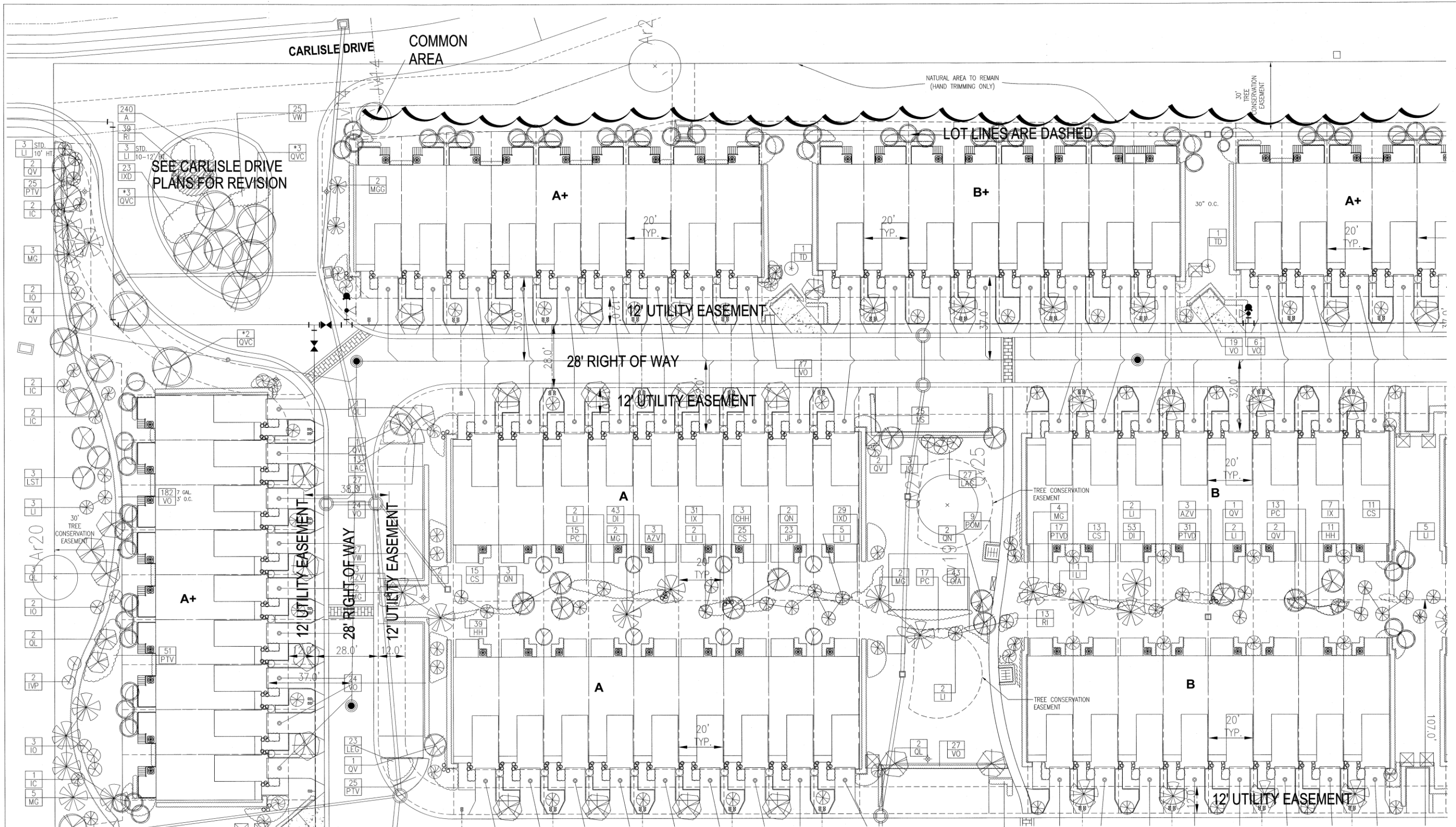
REQUIREMENTS FOR AS-BUILT DRAWINGS (CONT'D)

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 SUBDIVISION AS-BUILT DRAWINGS.

37. UNDER STORMWATER, PORTABLE WATER, OR SANITARY SEWER IMPROVEMENTS ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWINGS SHALL ACCURATELY SHOW THE LOCATION OF THE EASEMENT (FROM A) AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO VERIFY THAT FUTURE SURFACE EXCAVATION TO PERFORM REPAIRS CAN BE ACCOMPLISHED WITHOUT DISRUPTING THE EASEMENT. SUCH DIMENSIONING AND THE ASSOCIATED PROPOSED EASEMENT DOCUMENT WITH LEGAL DESCRIPTION SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL PRIOR TO RECORDING OF THE EASEMENT. UPON CITY APPROVAL, THE EASEMENT SHALL BE RECORDED IN A SEPARATE INSTRUMENT AND SHALL NOT BE RECORDED AS PART OF HOMEOWNER COVENANTS & RESTRICTIONS.

NOTE: 1. REFERENCES TO WATER SHALL MEAN BOTH PORTABLE AND RECLAIMED WATER.

FILE NAME: M17.DWG	FILE NAME: M17.DWG
DETAIL REF: M-17	DETAIL REF: M-17
REV. 2/13	REV. 2/13



North (660')	Required	Existing	Provided
Shade (3/100')	20		34
Understory (3/100')	20		41
Shrubs (30/100')	198		408
South (660')	Required	Existing	Provided
Shade (3/100')	20		
Understory (3/100')	20		
Shrubs (30/100')	198		
East (1100')	Required	Existing	Provided
Shade (3/100')	33		
Understory (3/100')	33		
Shrubs (30/100')	330		
West (1210')	Required	Existing	Provided
Shade (3/100')	37		
Understory (3/100')	37		
Shrubs (30/100')	363		

THESE ARE PROPOSED AS 30' WIDE NATURAL VEGETATION AREAS.
 Note:
 Additional plantings will be added to the tree preservation areas to supplement the existing material in areas where screening to adjacent properties is deficient.

NOTE:
 CONTRACTOR TO REMOVE INVASIVE VINES, FALLEN DEAD BRANCHES, INVASIVE SPECIES, LITTER AND CONSTRUCTION

DEBRIS FROM THE NATURAL AREAS. BEDLINES AROUND NATURAL AREAS ARE TO BE EDGED WITH SMOOTH, FLOWING CURVES. ALL AREAS TO REMAIN NATURAL SHALL

RECEIVE A 2-3" LAYER OF MULCH FROM THE SOD LINE TO A POINT WHERE NATURAL VEGETATION OCCURS (MIN. 2 FOOT WIDTH).

SEE LANDSCAPE BUILDING DETAILS SHEET 31 FOR VEGETATION LABELS

All ground equipment must be screened with landscaping of sufficient density and maturity to provide opaque screening at the time of planting

INTERIOR PORTION OF SITE:
 PLEASE END SHRUB MATERIAL 3 FEET FROM EDGE OF PAVEMENT TO PROVIDE VISUAL CLEARANCE TO VEHICLES ENTERING AND EXITING THE DRIVEWAY.

R L P

RICHARD L. POORE, LA
 PLANNER & LANDSCAPE ARCHITECT
 300 GARDEN COURT - GARDEN TRAILS, PORT ORANGE, FL 32127
 (386) 977-7518 CELL (386) 212-4491 FAX (386) 212-4491

11-15-18
 4-24-18
 5-15-18
 1-24-19

Revised Description of Revision By

Daniel Johns, P.E.
 Professional Engineer 54037
 3889 S. Nova Rd., Ste. #3, Port Orange, FL 32127
 phone: 386-756-8582

LANDSCAPE PLAN

BELLA OAKS

Port Orange, Volusia County, Florida

SEAL

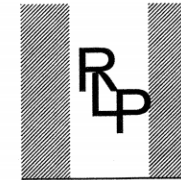
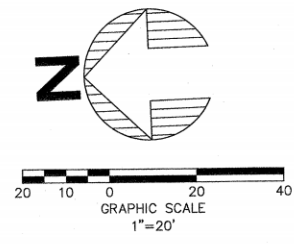
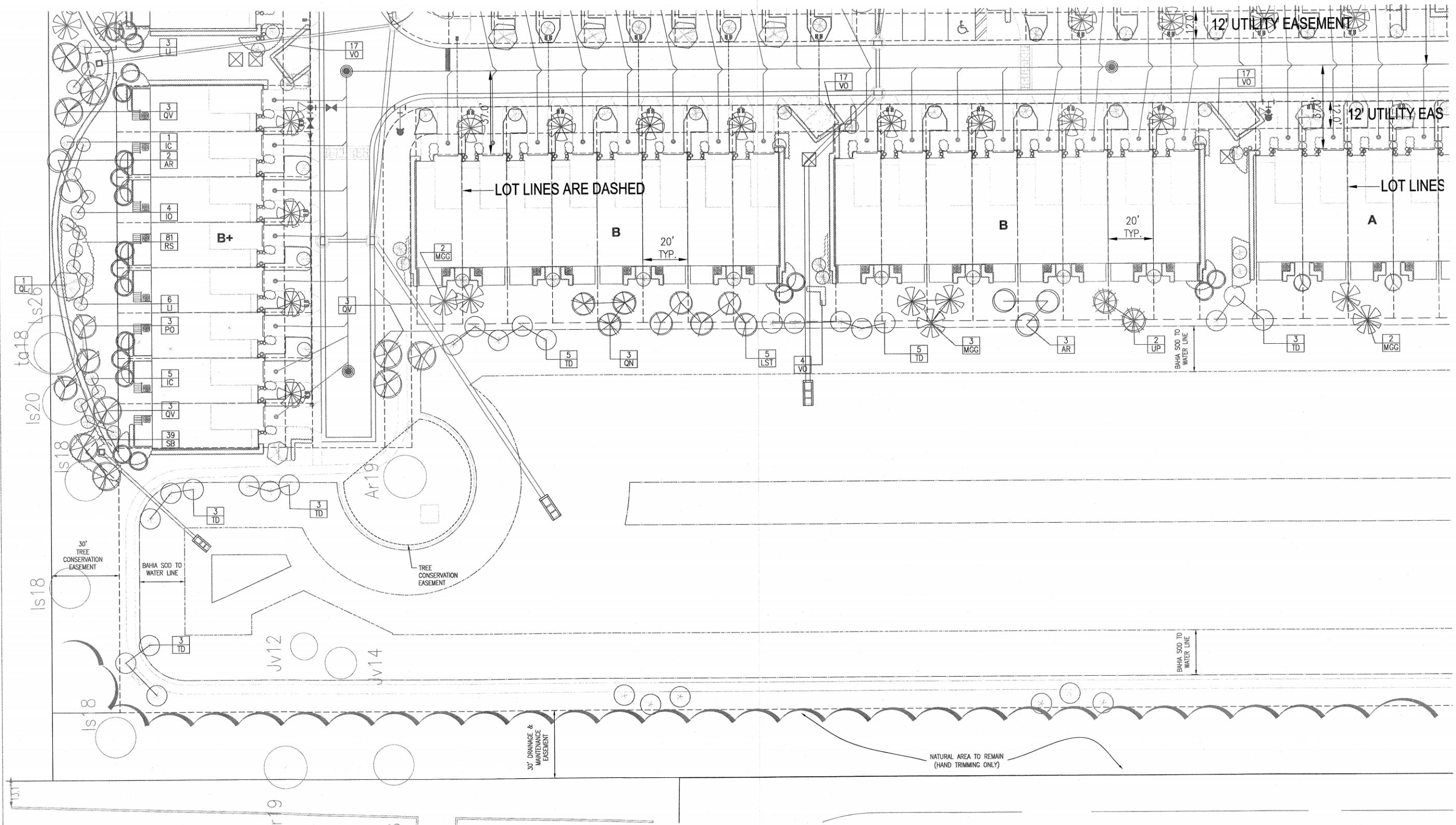
REVISIONS

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2	4-24-18	REVISED PER CITY COMMENTS
3	5-15-18	REVISED PER CITY COMMENTS
4	1-24-19	REVISED PER CITY COMMENTS

File: 3-31-17

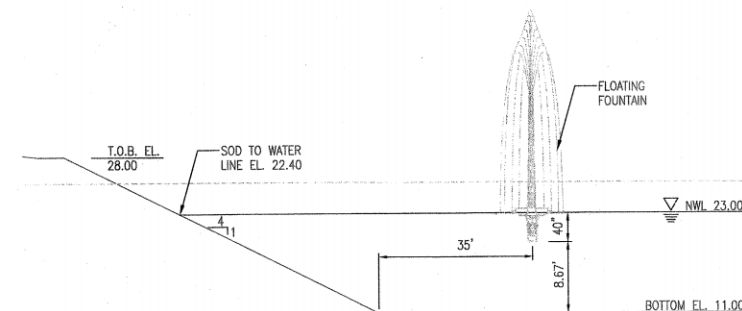
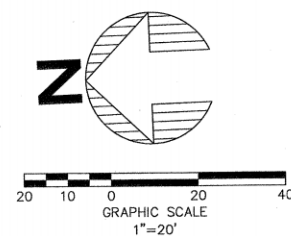
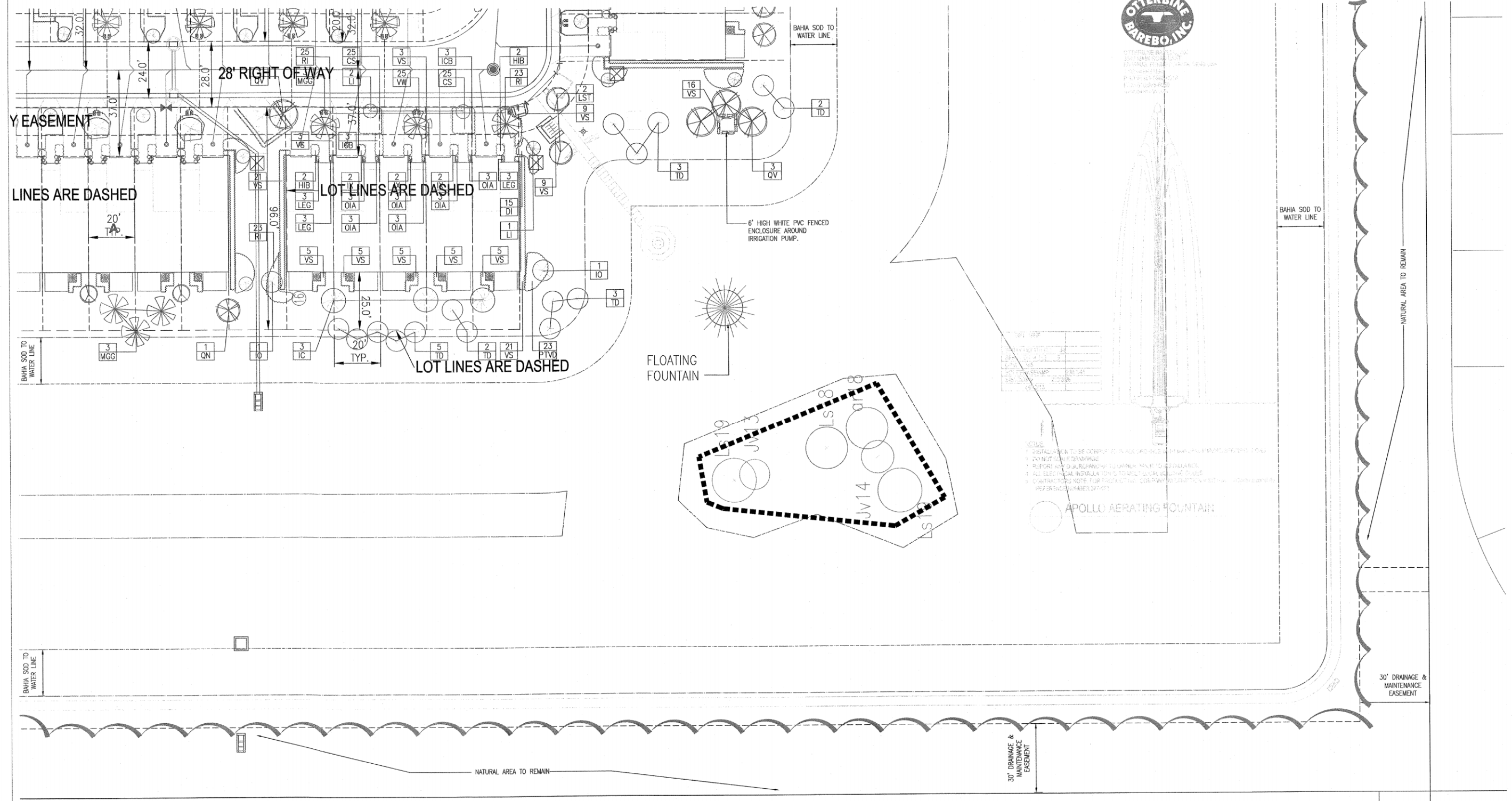
Scale: shown

Sheet: 14 of 35



RICHARD L. POORE, LA
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 300 GATEWOOD COURT - GROUND BEACH, FLORIDA 32174
 (386) 977-7518 CELL (386) 212-0481 FAX
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4/24/19 2/15/18 1/25/18 10/2/17 CITY COMMENTS CITY COMMENTS CITY COMMENTS City of Port Orange	
Daniel Johns, P.E. Professional Engineer 54037 3859 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-755-8592	
LANDSCAPE PLAN	
BELLA OAKS	
Port Orange, Volusia County, Florida	
REVISIONS DATE DESCRIPTION	SEAL 20/36



FOUNTAIN AND POND CROSS SECTION
NOT TO SCALE



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OTTERDALE BARBER, INC.
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EMMAUS, PENNSYLVANIA 17846 (610)
726-4400/3714
P.O. BOX 1000, EMMAUS
PA 17846-0000
www.otterdalebarber.com

NOTES

1. INSTALLATION TO BE COMPLETED AND OK'ED BY THE OWNER, ENGINEER, AND THE CITY.
2. NO TEST SCHE DRAWINGS
3. REPORT ON PERFORMANCE TO OWNER, CITY, AND INSURANCE.
4. ALL ELECTRICAL INSTALLATIONS TO BE IN ACCORDANCE WITH CODES.
5. CONTRACTORS NOTE FOR ELECTRICAL COMPANIES: ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF CHICAGO.

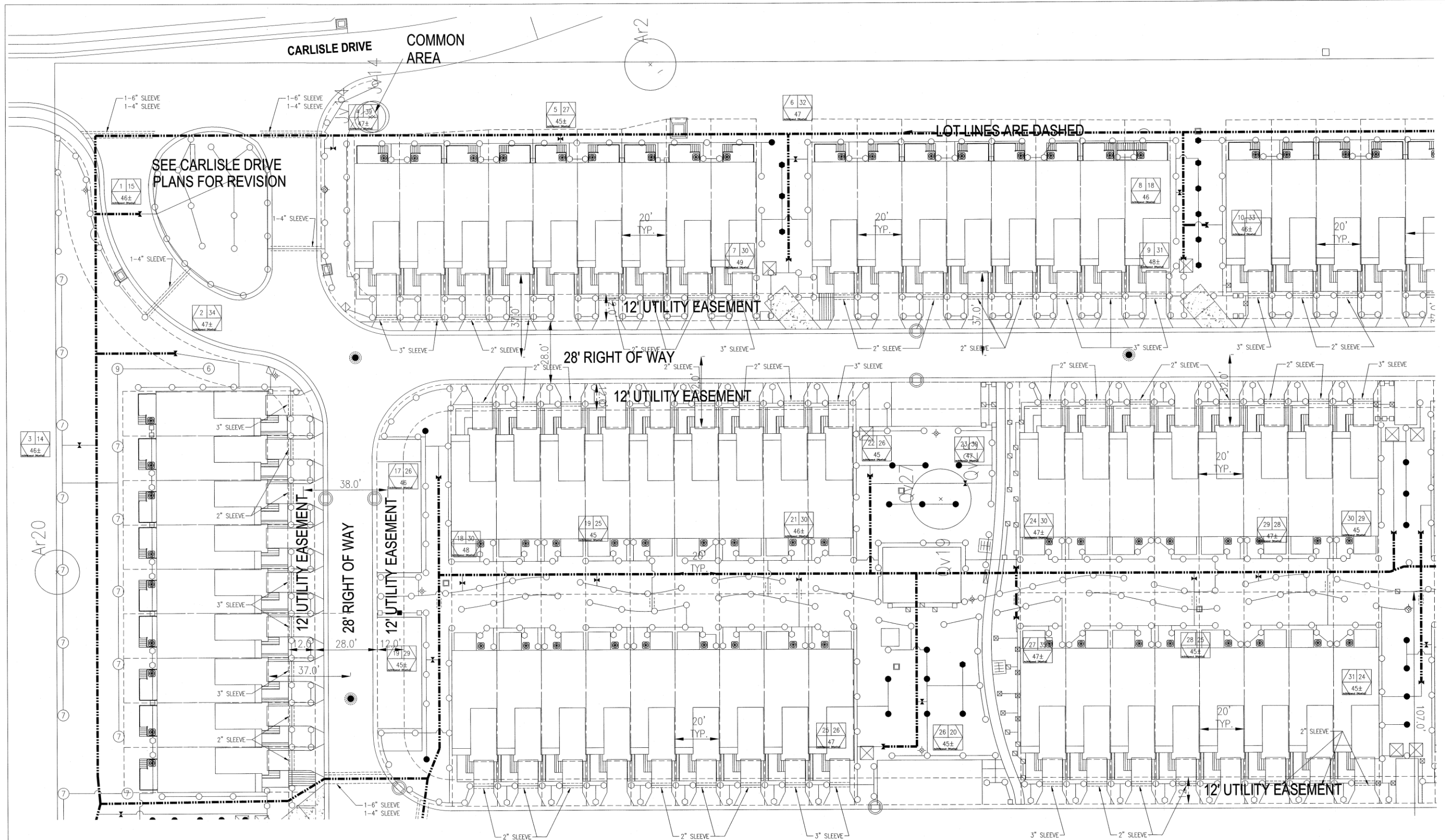
APOLLO AERATING FOUNTAIN



RICHARD L. POORE, LA
PLANNER & LANDSCAPE ARCHITECT
 300 GATWOOD COURT - GERMONT BEACH, FLORIDA 32174
 (386)677-7518 CELL (386)212-8491 RLAP
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REVISIONS		
MARK	DATE	DESCRIPTION

4-26-11	3-22-11	0177-0204-001875	
1-26-11	0177-0204-001875	0177-0204-001875	
0177-0204-001875	0177-0204-001875	0177-0204-001875	
<u>Daniel Johns, P.E.</u> Professional Engineer 54037 5059 S. Nova Rd., Ste. #3, Port Orange, FL 32127 phone: 386-756-8582			
LANDSCAPE PLAN			
BELLA OAKS			
Port Orange, Volusia County, Florida		SCALE	
DATE: 3-31-11	SCALE: shown	DATE: 20/136	



SLEEVE NOTE:
 AT ALL PLACES WHERE THE IRRIGATION MAIN IS PLACED UNDER SIDEWALKS OR PAVEMENT, THE MAIN SHALL BE PLACED IN A 6" SLEEVE AND THE WIRES IN AN ADJACENT 4" SLEEVE. ALL OTHER IRRIGATION PIPES PLACED UNDER SIDEWALKS OR PAVEMENT SHALL BE PLACED IN SLEEVES ACCORDING TO THE PIPE SLEEVE DETAIL, THIS PAGE.

NOTE:
 IRRIGATION LINES ARE SHOWN DIAGRAMMATICALLY AND ARE INTENDED TO SHOW DISTRIBUTION ZONES ONLY. ALL VALVES SHALL BE LOCATED WITHIN PLANTING AREAS (NOT WITHIN PAVEMENT). LINES LOCATED UNDER PAVEMENT SHALL BE KEPT TO A MINIMUM AND ALL PIPING UNDER PAVED AREAS SHALL BE SLEEVED.

NOTE:
 IRRIGATION SPRINKLER RISERS SHALL BE INSTALLED 12" MIN. DISTANCE FROM FACE OF BUILDING PER 314.1 FLORIDA BUILDING CODE PLUMBING VOLUME 2001, EDITION W/2003 REVISIONS.

REVISIONS

NO.	DATE	DESCRIPTION
1	11-16-18	CITY COMMENTS
2	4-24-18	CITY COMMENTS
3	3-15-18	CITY COMMENTS
4	1-24-18	CITY COMMENTS

11-16-18
4-24-18
3-15-18
1-24-18

Revised

Daniel Johns, P.E.
 Professional Engineer 54037
 3869 S. Nova Rd., Ste. #3, Port Orange, FL 32127
 phone: 386-756-8582

IRRIGATION PLAN

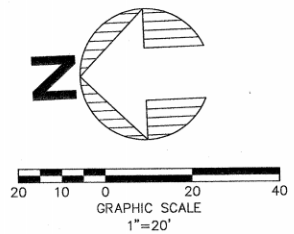
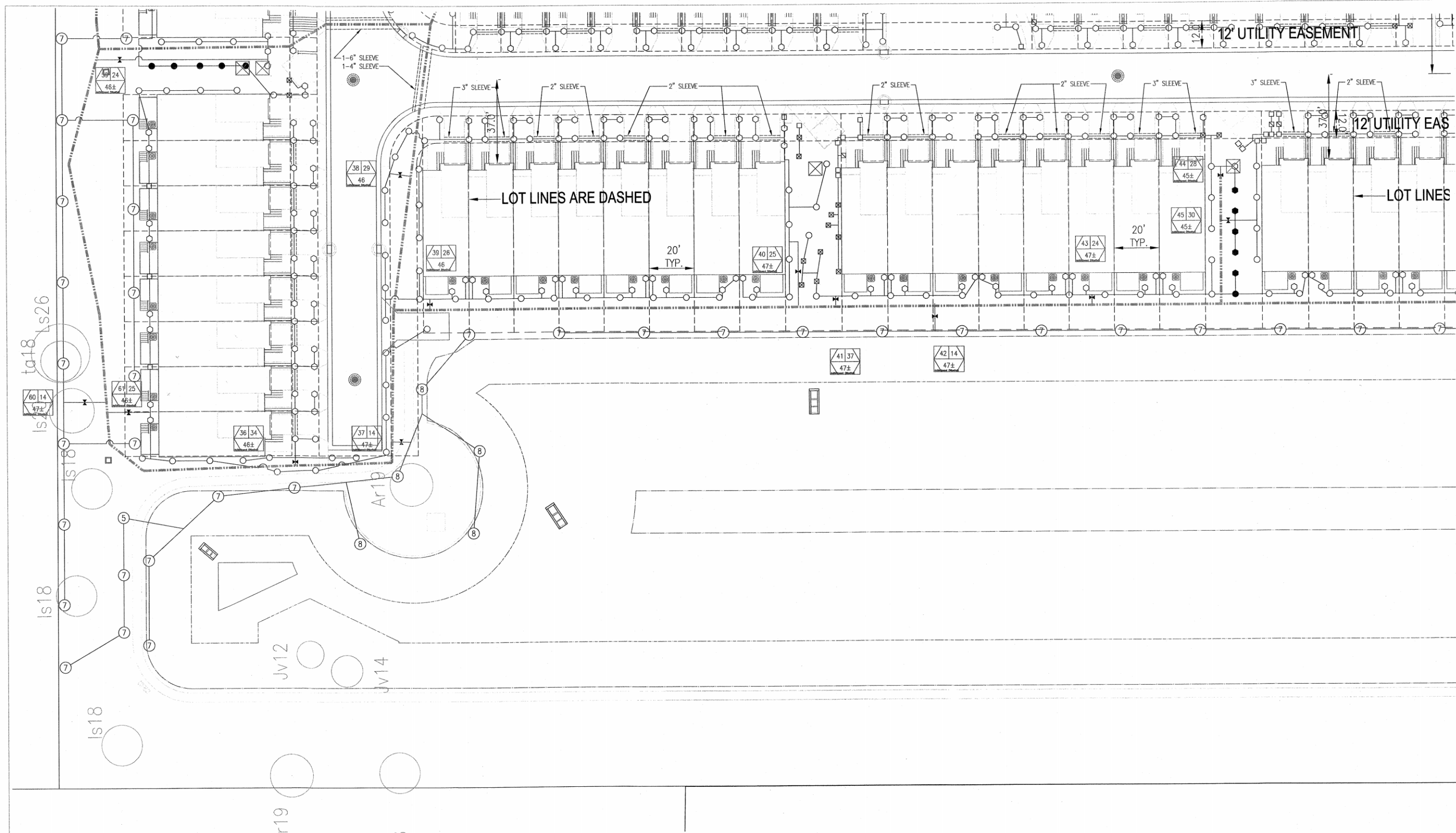
BELLA OAKS

Port Orange, Volusia County, Florida

SEAL

date: 3-31-17 scale: shown sheet: 29 of 30

RICHARD L. POORE, L.A.
 PLANNER & LANDSCAPE ARCHITECT
 300 GATEWOOD COURT - HUNTER HAVEN, FLORIDA 32114
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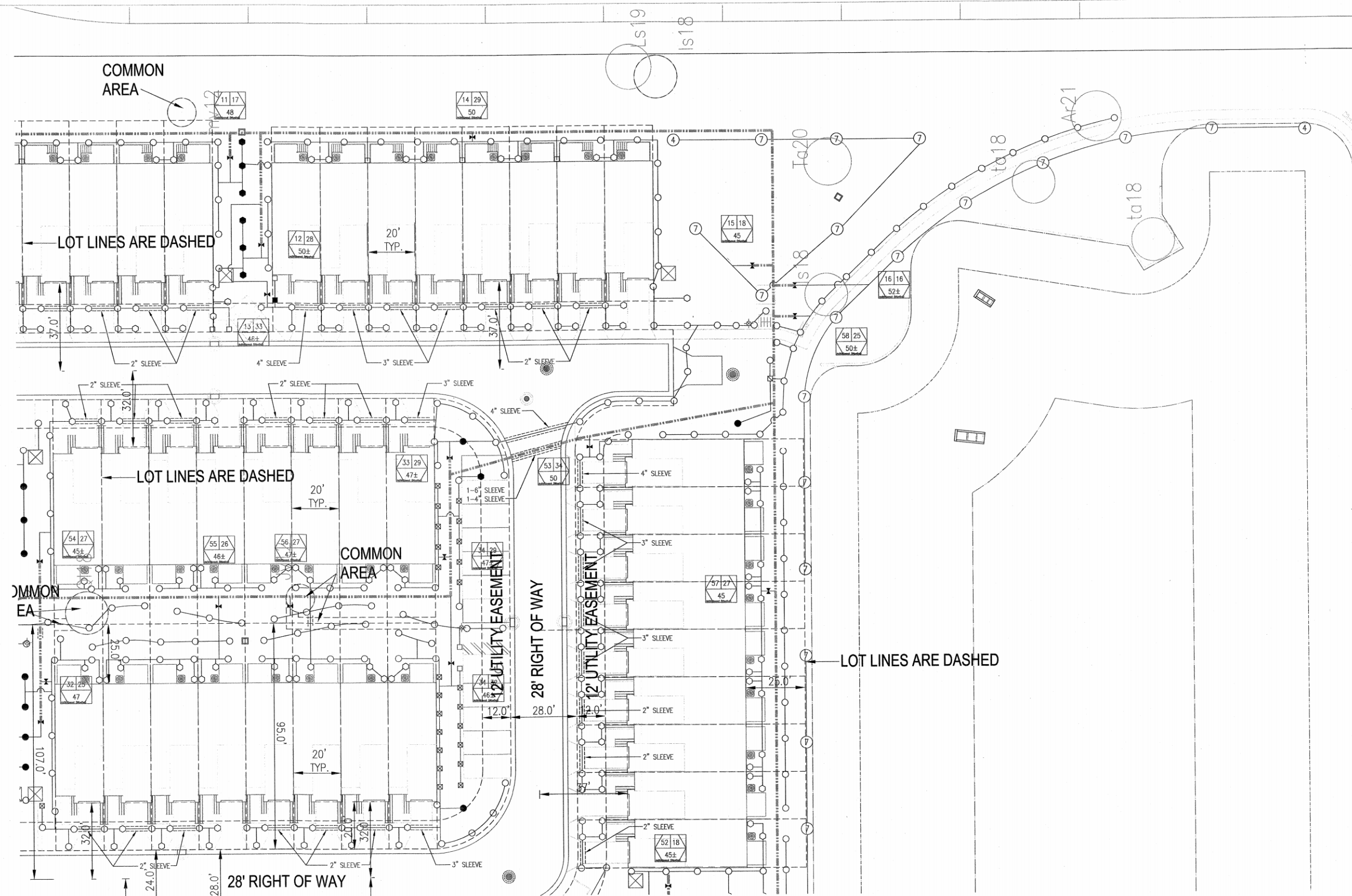
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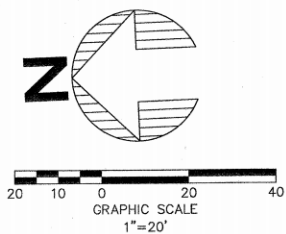
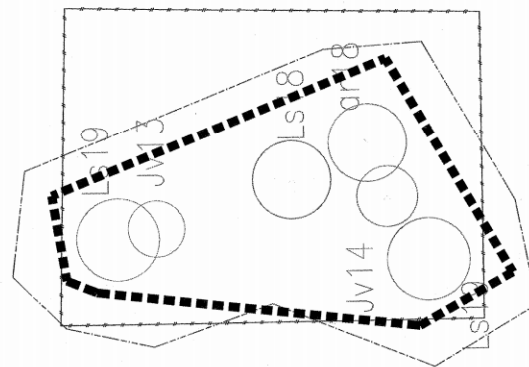
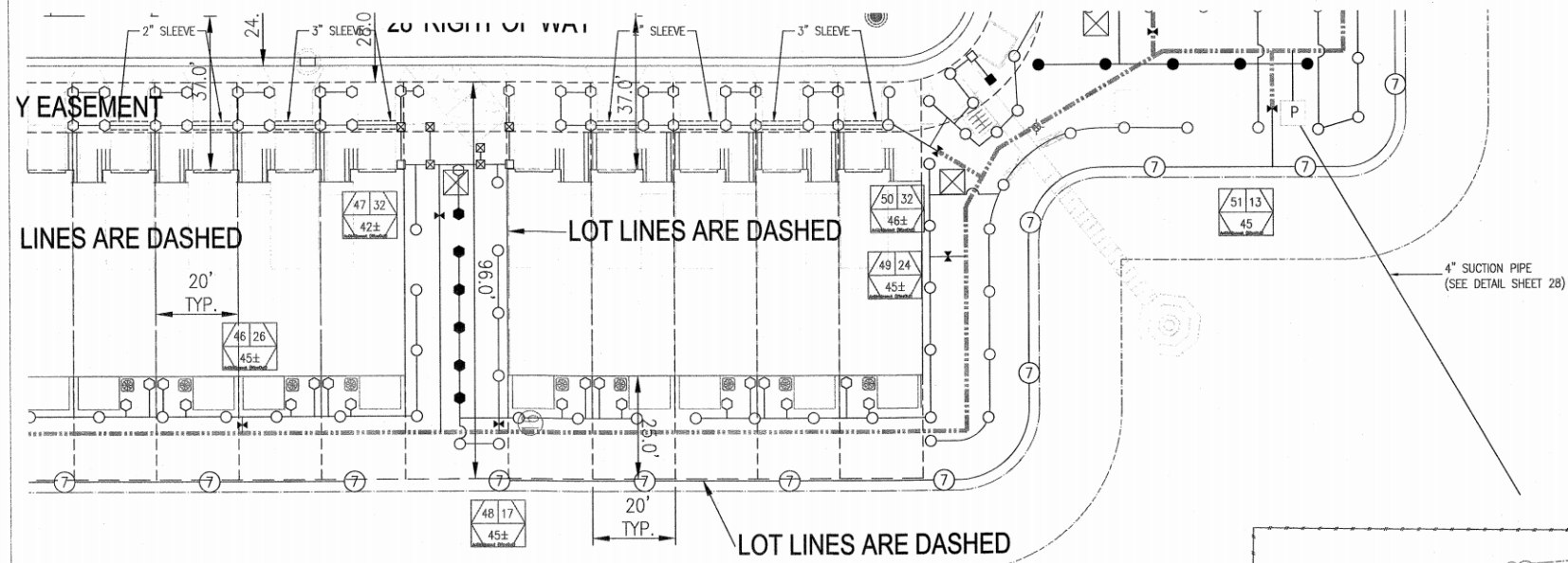


RICHARD L. POORE, LA
 PLANNER & LANDSCAPE ARCHITECT
 300 GARDNER COURT - GARDNER BRANCH, FLORIDA 32114
 (386) 877-7510 CELL (386) 212-6491 FAX (386) 877-7511
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Daniel Johns, P.E.
 PROFESSIONAL ENGINEER 54937
 3250 S. Nova Rd., Ste. #3, Port Orange, FL 32127
 phone: 386-796-5552

IRRIGATION PLAN	
BELLA OAKS	
Port Orange, Volusia County, Florida	
REVISIONS MARK DATE DESCRIPTION	SHEET 30/34 DATE 7-27-17 SCALE 1/8"=1'-0"





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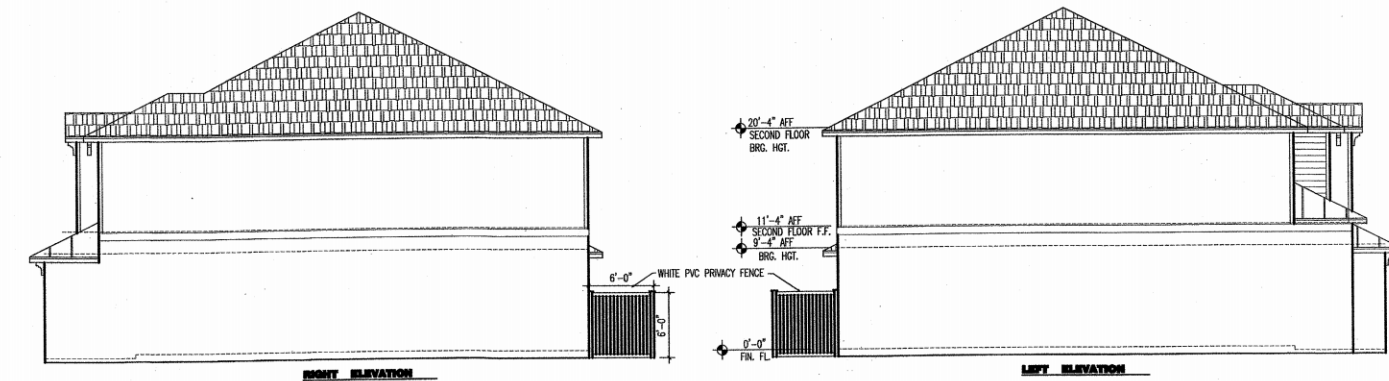
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R L P
RICHARD L. POORE, L.A.
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300 CAYWOOD COURT - GROUND BEACH, FLORIDA 32174
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Daniel Johns, P.E. Professional Engineer 24037 3869 S. Nova Rd., Ste. 40, Port Orange, FL 32127 Phone: 386 756-6592	
IRRIGATION PLAN	
BELLA OAKS	
Port Orange, Volusia County, Florida	
REVISIONS MARK DATE DESCRIPTION	File: 226-231-17 Date: 9/2/17





ALL WORK IS DONE ON A BEST EFFORT. THE CONTRACTOR / OWNER IS RESPONSIBLE TO VERIFY ALL DIMENSIONS, SPECIFICATIONS, AND OTHER DETAILS PRESENTED IN THESE RENDERINGS. THE CONTRACTOR AND OWNER INDEMNIFIES DRAFTING AND DESIGNS INC. FROM ANY RESPONSIBILITY FOR ANY DAMAGES RESULTING FROM PLAN ERRORS AND OMISSIONS. BUILDER/ HOMEOWNER TO VERIFY SETBACKS AND LOT BUILDABLE.

REVISIONS		
DATE:	NO.:	DESCRIPTION

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E-mail: draftingINC@AOL.COM

Daniel Johns, P.E. #54037
3869 S. NOVA ROAD SUITE #4
Port Orange, FL 32127
756-8582

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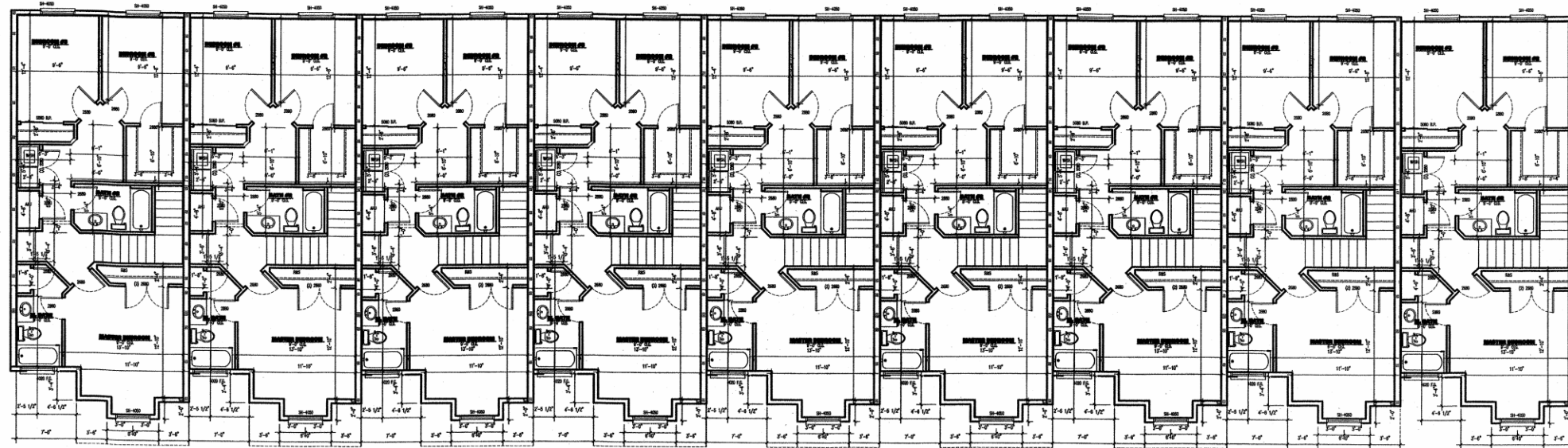
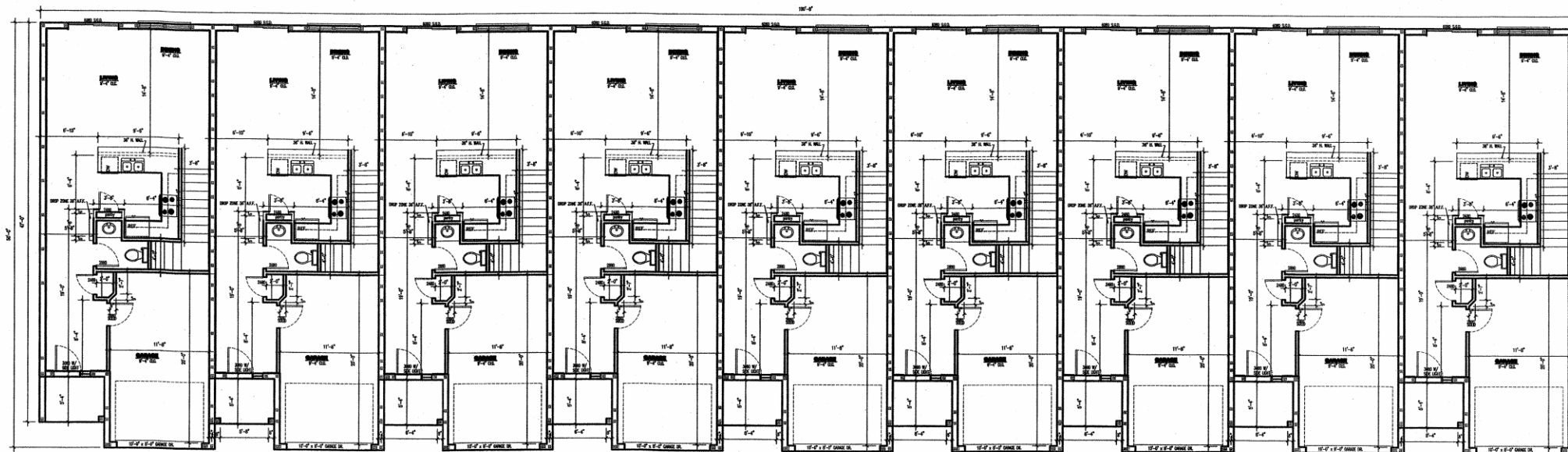
DATE: 03/28/17

CHECKED BY: RS/JM

SHEET #

1 OF 7

4/1/20



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REVISIONS		
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DATE: 03/28/17

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2 OF 7

Daniel Johns, P.E. #54037

3869 S. NOVA ROAD SUITE #4
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756-8562

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LANDSCAPE PLAN

Bella Oaks Entrance
4068 Carlisle Drive

Port Orange, Florida

REVISION: 11-14-2018

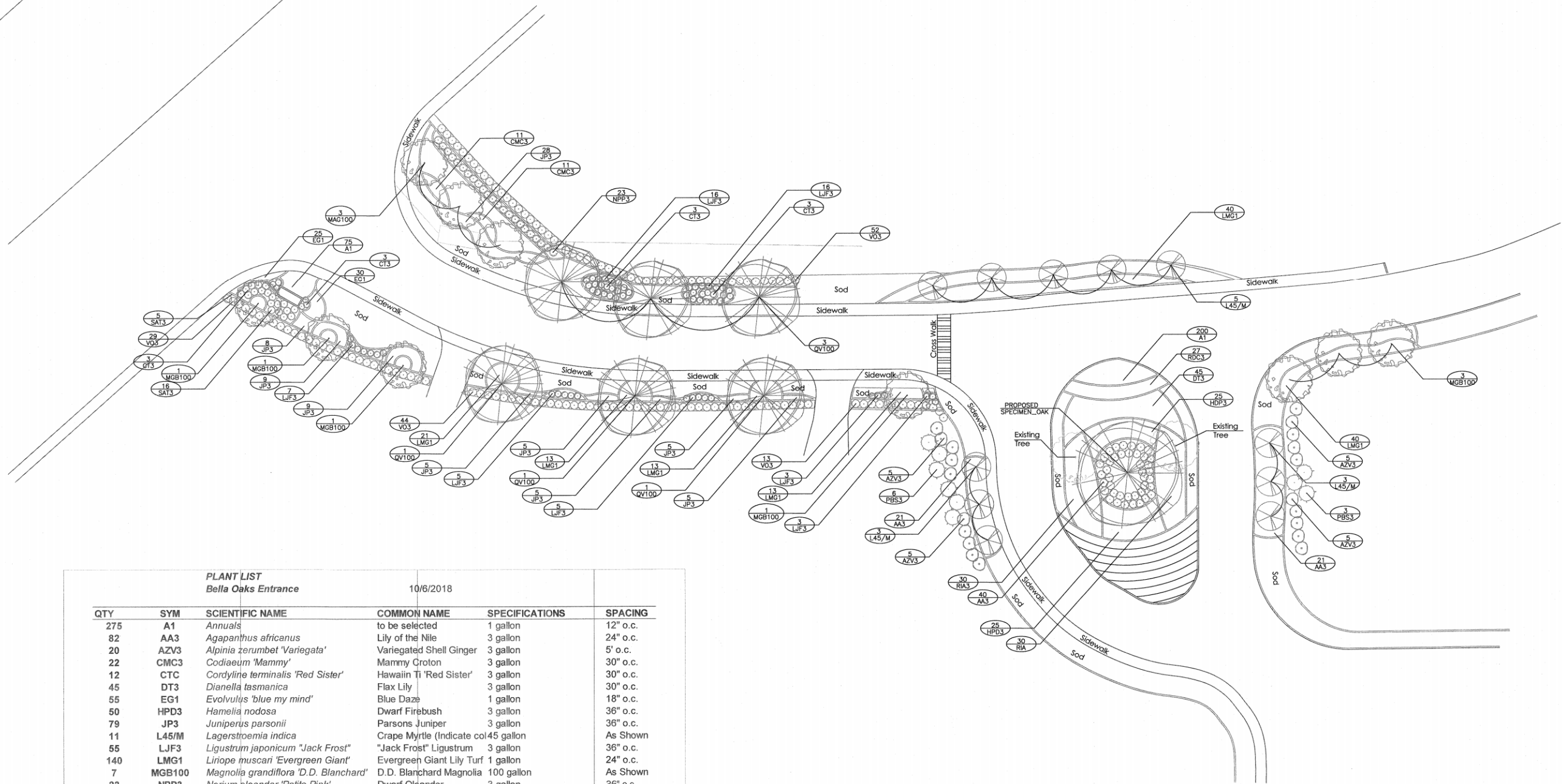
DATE: 10-6-2018
DRAWN BY: Amanda Willson
SCALE: AS SHOWN

SHEET
L-1

1 OF 1 SHEETS

JOB NO. -----

97/30



PLANT LIST
Bella Oaks Entrance
10/6/2018

QTY	SYM	SCIENTIFIC NAME	COMMON NAME	SPECIFICATIONS	SPACING
275	A1	Annuals	to be selected	1 gallon	12" o.c.
82	AA3	Agapanthus africanus	Lily of the Nile	3 gallon	24" o.c.
20	AZV3	Alpinia zerumbet 'Variegata'	Variegated Shell Ginger	3 gallon	5' o.c.
22	CMC3	Codiaeum 'Mammy'	Mammy Croton	3 gallon	30" o.c.
12	CTC	Cordyline terminalis 'Red Sister'	Hawaiian Ti 'Red Sister'	3 gallon	30" o.c.
45	DT3	Dianella tasmanica	Flax Lily	3 gallon	30" o.c.
55	EG1	Evolvulus 'blue my mind'	Blue Daze	1 gallon	18" o.c.
50	HPD3	Hamelia nodosa	Dwarf Firebush	3 gallon	36" o.c.
79	JP3	Juniperus parsonii	Parsons Juniper	3 gallon	36" o.c.
11	L45/M	Lagerstroemia indica	Crape Myrtle (Indicate color)	45 gallon	As Shown
55	LJF3	Ligustrum japonicum 'Jack Frost'	'Jack Frost' Ligustrum	3 gallon	36" o.c.
140	LMG1	Liriope muscari 'Evergreen Giant'	Evergreen Giant Lily Turf	1 gallon	24" o.c.
7	MGB100	Magnolia grandiflora 'D.D. Blanchard'	D.D. Blanchard Magnolia	100 gallon	As Shown
23	NPP3	Nerium oleander 'Petite Pink'	Dwarf Oleander	3 gallon	36" o.c.
6	QV100	Quercus virginiana	Live Oak	100 gallon	As Shown
1	S_OAK	Quercus virginiana / Specimen	Live Oak	Specimen / To Be Chosen	As Shown
27	RDC3	Rosa 'Drift'	Drift Rose (Coral)	3 gallon	30" o.c.
60	RIA3	Rhampholepis indica 'Alba'	Indian Hawthorne	3 gallon	36" o.c.
9	PBS3	Philodendron bipinnatifidum 'Selloum'	Selloum Philodendron	3 gallon	5' o.c.
21	SAT3	Schefflera Arboricola 'Trinette'	Trinette	3 gallon	36" o.c.
138	VO3	Viburnum odoratissimum	Viburnum - Sweet	3 gallon	36" o.c.

95 C.Y. Mini Pine Bark Nuggets
7200 Sq.Ft. St. Augustine Sod
10,200 Sq. Ft. Plant Beds
18 Pallets



3330 New State Street
Port Orange, FL 32110
Phone: 386.437.3322
amilton@verdego.com

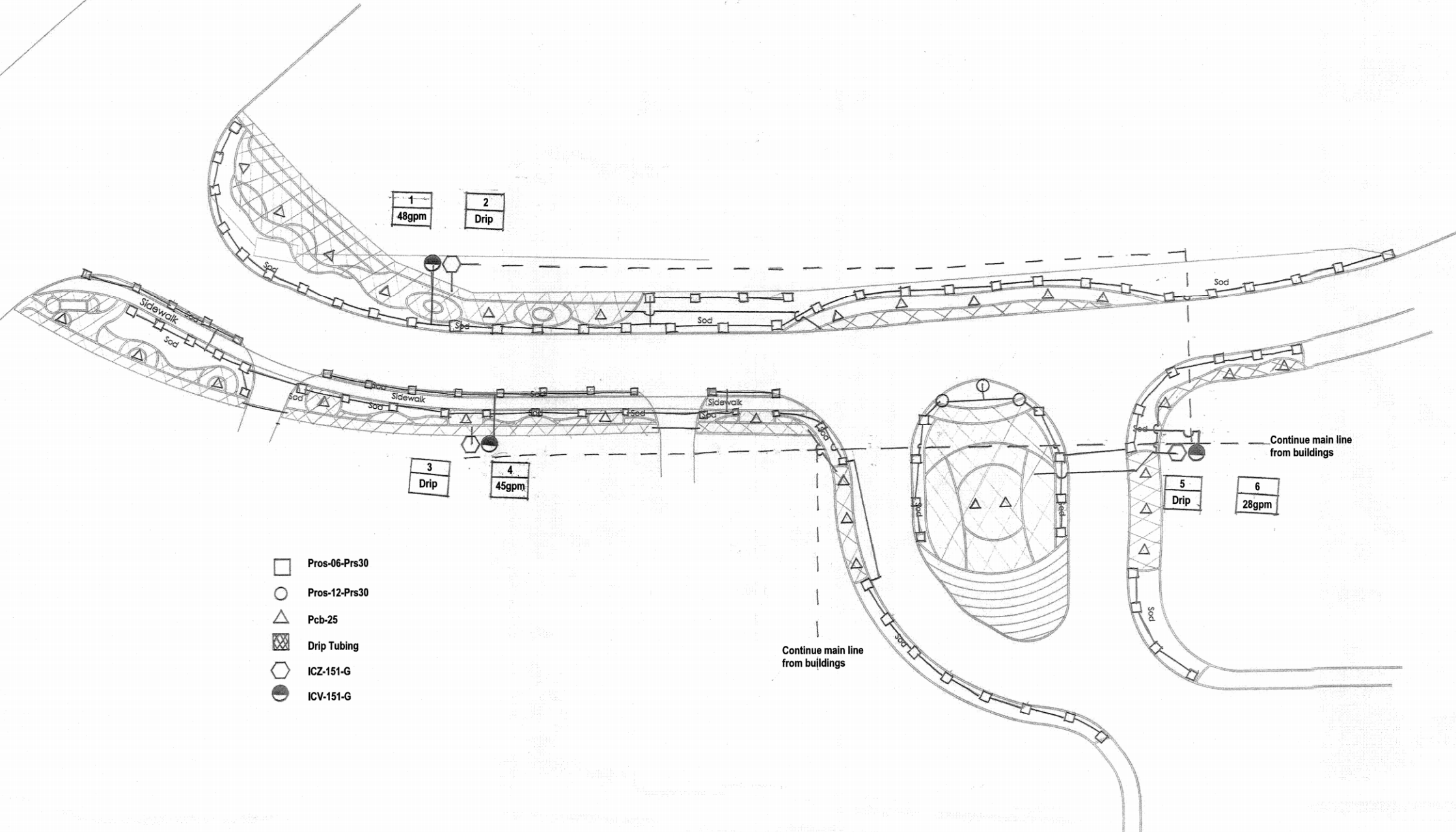


IRRIGATION PLAN
Bella Oaks Entrance
4068 Carlisle Drive
Port Orange, Florida

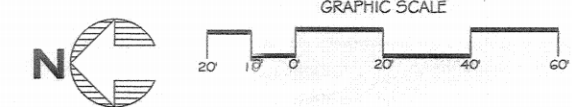
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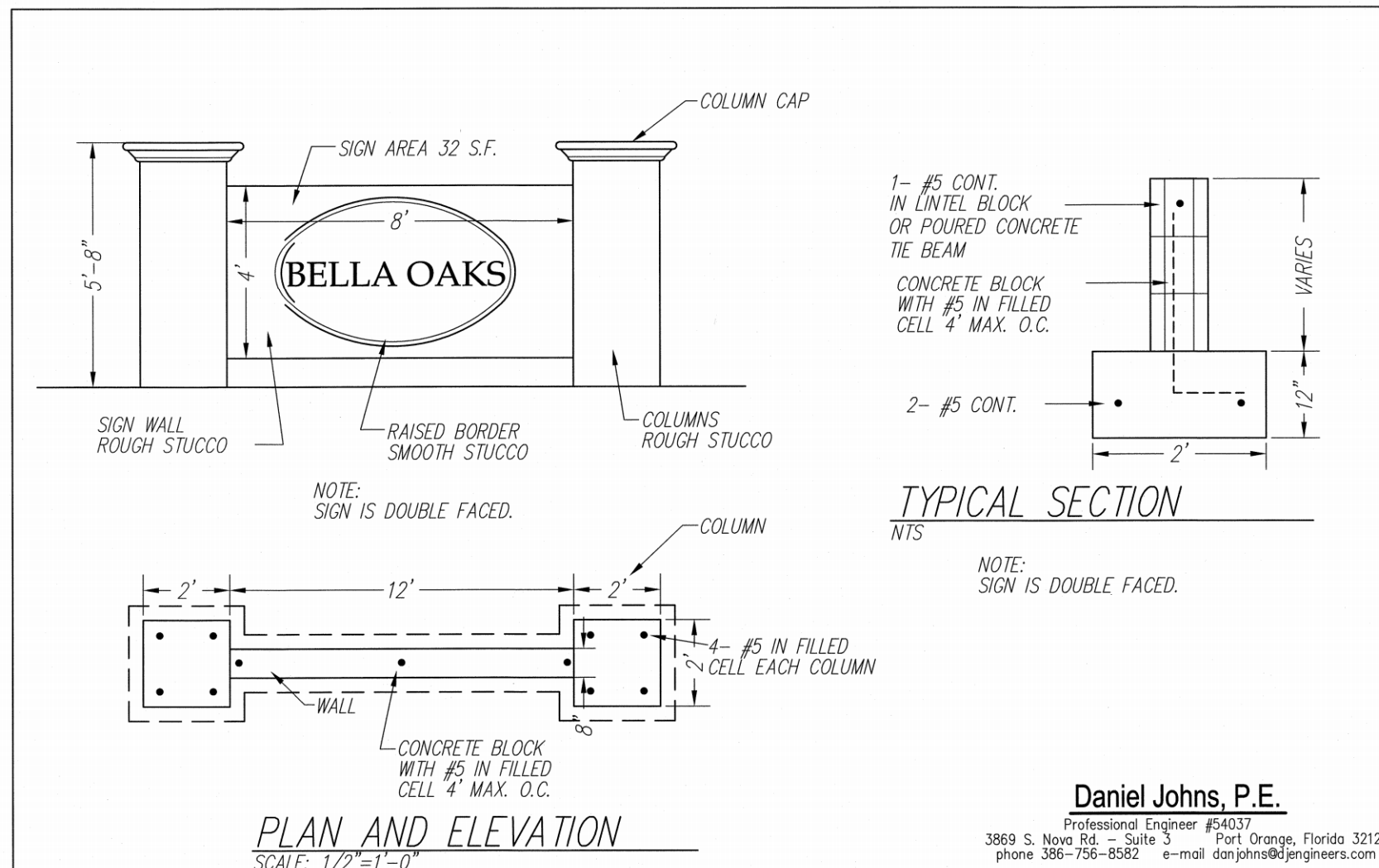
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DRAWN BY: Amanda Willson
SCALE: AS SHOWN

SHEET **1-1**
1 OF 1 SHEETS
JOB NO. _____
20/20

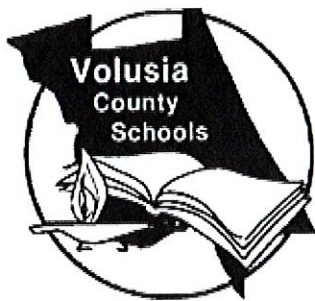


- Pros-06-Prs30
- Pros-12-Prs30
- △ Pcb-25
- ▨ Drip Tubing
- ⬡ ICZ-151-G
- ICV-151-G





Daniel Johns, P.E.
 Professional Engineer #54037
 3869 S. Nova Rd. - Suite 3 Port Orange, Florida 32127
 phone 386-756-8582 e-mail danjohns@djengineers.com



Mr. James T. Russell
Superintendent of Schools

FACILITIES SERVICES

3750 Olson Drive, Daytona Beach, Florida 32124
PHONE: 386/734-7190 • FAX: 386/506-5056

Page 1 of 2

School Board of Volusia County

Mrs. Linda Cuthbert, Chairman
Dr. John Hill, Vice-Chairman
Mrs. Melody Johnson
Mr. Carl Persis
Mrs. Ida D. Wright

School Concurrency Determination Concurrency Approval Letter

06 June 2018

Mr. Jim Paytas
c/o Daniel Johns PE
Daniel Johns Professional Engineers
3869 S. Nova Road, Suite 3
Port Orange, FL 32124

RE: Bella Oaks Condominiums – City of Port Orange
School Concurrency Case #18-05-30-002-R

Dear Mr. Paytas,

The District has reviewed your information for the residential project known as Bella Oaks. The 18.33 +/- acre project site is located within the City of Port Orange addressed as 4068 Carlisle Drive. Information provided within the concurrency application packet indicates the new development activity will consist of one hundred thirty-eight (138) condominium units.

The district uses a county wide Student Generation Rate (SGR) of (0.104) per multi-family dwelling unit. By applying the SGR to the use types in Table 1 below, we find the project could generate fourteen (14) full time students.

Table 1

UNIT TYPE	SGR	UNIT COUNT	STUDENTS GENERATED
Single Family Dwelling Unit	.104	138	14.35
	Total		14

The Concurrency Analysis (Page 2, Table 2) adjusts for impacts to the Concurrency Service Areas (CSAs) by accounting for current school year enrollments, existing reservations at the impacted schools, and the projected students generated by the applicant. These factors give an associated utilization or Level of Service (LOS) percentage for each CSA.

Bella Oaks Condominiums – City of Port Orange
06 June 2018

Concurrency Analysis

Table 2

Schools	Adopted LOS	SY 17/18 Enrollment	Adjusted Reservations	Existing LOS w/ Res	Students Generated by Request	Result LOS
Horizon Elementary	115%	775	9	108%	6	109%
Silver Sands Middle	115%	1168	35	104%	4	104%
Halifax High CSA	120%	7397	144	100%	4	100%
Other					0	

The adopted LOS standard at elementary and middle school is (115%) of permanent student stations and (120%) for high school CSAs. This projected increase in students will not exceed the adopted LOS at any school level; therefore, the school district does not have an objection to the proposed site plan. Minimum planning considerations should include pedestrian and vehicular access, safety, connectivity, and buffering.

Please note that the School Board has the right to adjust the attendance boundaries to balance the student enrollment populations at these area schools. Therefore, students generated from this project may not attend the current assigned schools.

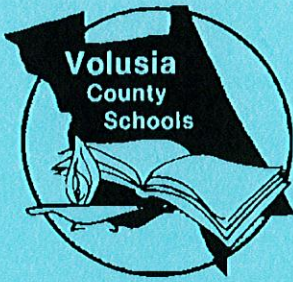
If you should have additional questions or require more information, please feel free to contact me at extension 50810.

Sincerely,



Eric A. Kozielski
Planning & GIS Specialist

Cc: James Russell, Superintendent of Schools
Daniel Johns P.E.
Penelope Cruz, City of Port Orange
Project File



Certificate of School Concurrency

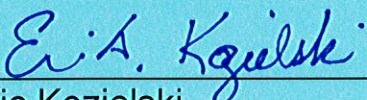
Volusia County School Board

Project Information	
Project Name	Bella Oaks
VCSB Project #	18-05-30-002-R
Jurisdiction Project#	
Parcel ID Numbers:	6306-00-00-0070
Project Location:	4068 Carlisle Drive
# of residential units:	138
Residential Unit Type:	Condominium
Property Owners:	Jim Paytas
Applicant/Agent Name:	Daniel Johns PE

This School Concurrency Certificate shall reserve student stations for the above referenced project and shall confirm that said project meets the School Concurrency requirements of the adopted Interlocal Agreement for Public School Facility Planning.

School Concurrency Analysis					
School Levels:	Elementary	Middle	High	Other	Total Student Stations Reserved
Students Generated	6	4	4	0	14
Comments: This certificate is required to be included with the building permit submittal(s) as proof of school concurrency.					

This concurrency reservation shall expire two (2) years from the date of issuance of this certificate.


Eric Kozielski
Planning and GIS Specialist

06June2018
Issue Date

VCSB Schools Impacted by Development Proposal

School Concurrency Review - Bella Oaks Condos



Created by Facilities Services
June 2018

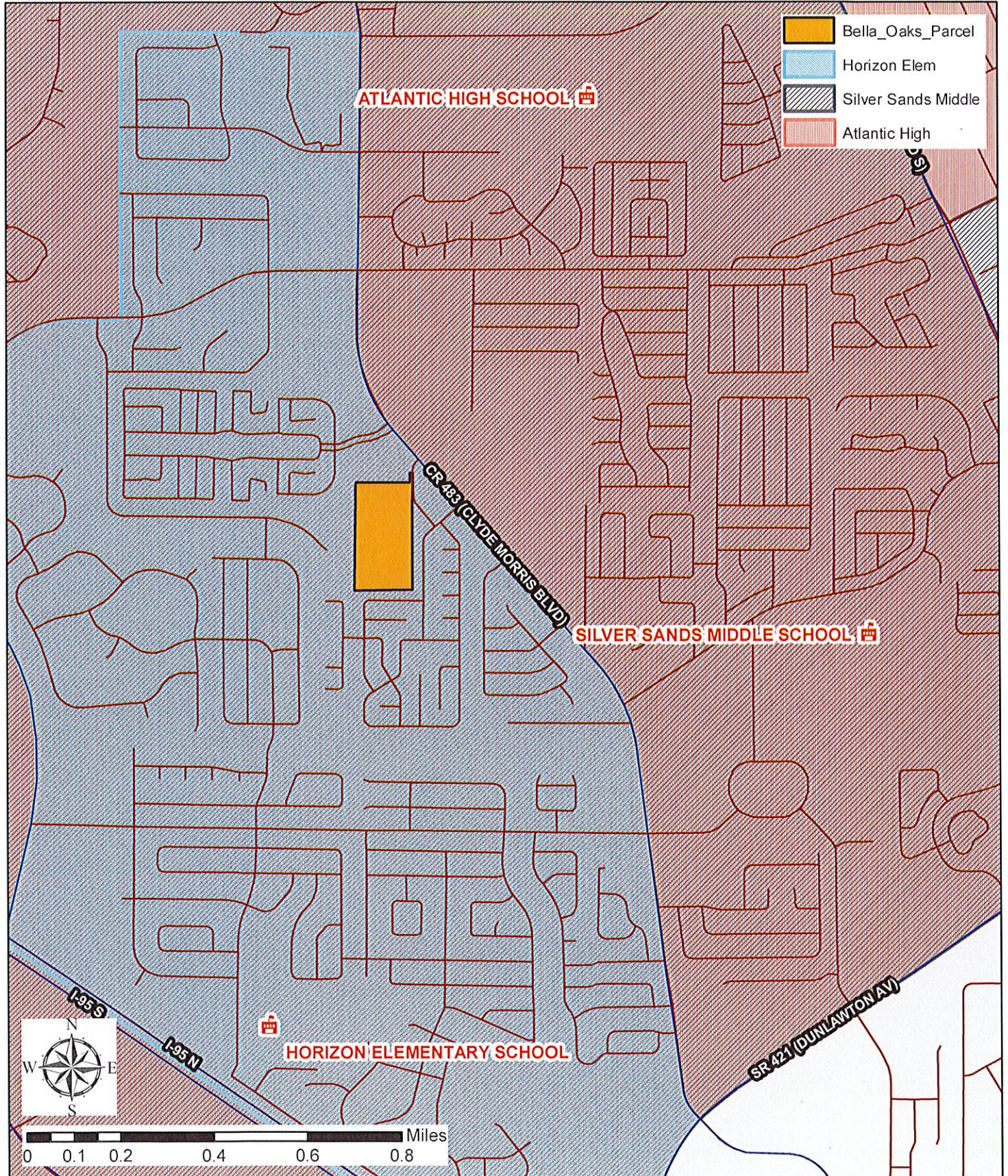


Exhibit D - Tree Preservation Chart

15% Tree Preservation Area

Total Site Area	Required 15% Tree Preservation Area	Tree Preservation Area Provided
18.21 Acres	2.73 Acres	2.91 Acres

Specimen Tree Calculations

Total Site Area	18.21 Acres
# of Specimen Trees	31 Specimen Trees
Specimen Trees Per Acre	1.7 Specimen Trees/Acre
Percentage of Specimen Trees to Remain [LDC, Ch 9, Sec 16]	80% (25 trees required)
Specimen Trees to Remain in Common Area	31 Specimen Trees

Minimum Tree Coverage Requirement - 1 Tree/2,500 SF

Total Site Area	18.21
Required # of New or Existing Trees (1/2,500 SF)	317 Trees
Trees Provided (New and Existing) as Part of Subdivision Plan	648 New* and 356 Existing Trees
Existing Trees in 15% Tree Preservation Area to Remain	320 Existing Trees

*** Includes trees to be planted on residential lots prior to issuance of a Certificate of Occupancy**

Tree Mitigation

Not Required with this Subdivision



STAFF REPORT

CASE NO. 18-25000008

LDC Amendment/Chapter 15, Sections 4 and 7

REQUEST: To amend Chapter 15, Section 4 and 7, of the Land Development Code (LDC) to allow a residential subdivision to install manual changeable copy signs within the subdivision.

APPLICANT: City of Port Orange

STAFF RECOMMENDATION: Approval

STAFF CONTACT: Briana Conlan-King, Senior Planner (386) 506-5676

PLANNING COMMISSION DATE: December 13, 2018

SUMMARY OF PROPOSED AMENDMENT

The proposed amendment is to allow for a freestanding sign(s) with a manual changeable copy reader board to be placed within a residential subdivision. Over the past few years, several Homeowner Associations (HOA) have inquired about installing freestanding signs with a manual changeable copy area near the HOA clubhouse or internally within the subdivision on common area. The request to use changeable copy is typically associated with a HOA wanting to display up to date information such as neighborhood meetings, general messages, and other events within the community. Currently, the LDC allows for residential subdivision entry signage but prohibits the use of manual changeable copy on any residential subdivision sign.

The proposed amendment would allow a residential subdivision to install a freestanding sign(s) with a manual changeable copy area reader subject to the following:

1. The sign shall be located within a common area for the HOA;
2. The maximum height of the sign shall not exceed 8 feet and the maximum area for the manual changeable copy area shall not exceed 20 square-feet;
3. As part of the sign permit application, a letter is required from the HOA documenting the sign has been discussed and voted upon at a recent HOA meeting;
4. The sign shall be setback 5' from a local street right-of-way and 50' from an arterial or collector road right-of-way;
5. The sign shall comply with all visual clearance requirements in the LDC;
6. The manual changeable copy area shall be oriented to face internally into the subdivision and not outward toward an arterial or collector road or main intersection; and
7. Only manual changeable copy area; electronic messages would be prohibited.

RECOMMENDATION

Approval of the amendment to the LDC to allow a residential subdivision to install manual changeable copy signs within the subdivision, subject to review by the City Attorney's office.



STAFF REPORT
CASE NO. 18-25000009
LDC Amendment/Chapter 13

REQUEST: To amend Chapter 13 of the Land Development Code (LDC), to update the landscaping requirements for residential lots.

APPLICANT: City of Port Orange

STAFF RECOMMENDATION: Approval

STAFF CONTACT: Briana Conlan-King, Senior Planner (386) 506-5676

PLANNING COMMISSION DATE: December 13, 2018

SUMMARY OF PROPOSED AMENDMENT

At the July 24 Environmental Advisory Board (EAB) meeting, the EAB discussed and recommended modifications to the City's Tree Protection and Landscape requirements in the Land Development Code (LDC). Then, at the October 23, 2018 City Council Workshop, staff presented a summary of the EAB's recommended modifications for discussion and Council direction. Based on the discussion at the workshop, staff was asked to move forward with implementing modifications to the LDC related to tree protection/preservation and landscaping requirements. Staff will bring these modifications to the LDC in a series of amendments over the next few months.

The proposed amendment does not change the shade tree requirement of 1 shade tree per 2,500 square-feet, but it does provide alternatives to plant or replant shade tree(s) on lots 6,000 square-feet or less to comply with code. The proposed amendment allows for the administrative official to have the ability to allow the following alternatives, or a combination of the following, in lieu of planting or replanting the required number of shade trees for a residential lot 6,000 square-feet or less:

1. The use of understory trees at a ratio of two (2) understory trees per one (1) required shade tree;
2. The upsizing of a shade tree from a two-inch, 10-foot tall tree at the time of planting, to a four-inch 14-foot tall tree at the time of planting, and to count the upsized shade tree as two (2) shade trees; and
3. A contribution to the City's Tree Mitigation Bank. The tree mitigation payment for a shade tree will be provided in a fee resolution that will accompany this item to Council.

The intent of the proposed amendment is to provide flexibility for lots 6,000 square-feet or less to meet the City's LDC requirements and maintain a residential tree canopy throughout the City and provide alternative options to meet the City's one shade tree per 2,500 square-feet of lot area requirement.

Over the past 10-15 years, there have been several residential subdivisions (Royal Palm, Coquina Cove, Westport Reserve, Port Orange Plantation, Cornerstone Grove, Woodhaven, etc.) developed with lots less than 6,000 square-feet, and typically when a property owner of a smaller lot requests to remove a required shade tree on their lot, they are then required to plant a replacement shade tree at another location on the lot. However, on these smaller lots, space to plant a replacement shade tree(s) can be limited because of the home, driveway, accessory

structures (pool, screen room, wood deck, patio, etc.), public/private infrastructure (FPL transformers, utility meter boxes, etc.), and existing tree roots. A typical standard planting area for a shade tree should be at least 30' X 30' so the tree roots have the area needed to establish and grow; for these smaller lots, there is not enough space to replant a required shade tree(s).

The proposed amendment also modifies the number of shrubs to be installed with a new residential dwelling. The current code uses residential zoning districts to determine the number of shrubs required to be planted; however, not all City residential zoning districts are currently listed in this section. The proposed amendment will modify the shrub requirement based on lots size:

1. A lot greater than 20,000 square-feet is required to install 20 shrubs;
2. A lot that is 20,000 square-feet to 6,000 square-feet is required to install 12 shrubs; and
3. A lot less than 6,000 square-feet is required to install eight (8) shrubs.

RECOMMENDATION

Approval of the amendment to Chapter 13 of the Land Development Code, subject to review from the City Attorney's office.



STAFF REPORT

CASE NO. 18-25000010

LDC Amendment/Chapters 2, 16, and 18

REQUEST: To amend Chapters 2, 16, and 18 of the Land Development Code (LDC) related to Wireless Communication Facilities Siting

APPLICANT: City of Port Orange

STAFF RECOMMENDATION: Approval

STAFF CONTACT: Tim Burman, Community Development Director (386) 506-5675

PLANNING COMMISSION DATE: December 13, 2018

SUMMARY OF PROPOSED AMENDMENT

In September 2018, a moratorium was approved for personal wireless communications governed by Chapter 16, Section 9 of the Land Development Code (LDC), in order to provide time to review existing regulations in the LDC related to personal wireless communications, and if necessary, to develop amendments to maintain reasonable and uniform regulations that protect the health, safety and general welfare of the residents of Port Orange.

The proposed amendment is intended to update the regulations in the LDC related to wireless communication facilities siting, to comply with federal and state law to regulate the siting of such communication towers, antennas and facilities, update local siting requirements, and minimizing adverse impacts on residential zoning districts from the construction of new communication towers and facilities through setbacks, separation requirements, and landscape/screening. The proposed amendments to the City's code requirements for personal wireless communications would:

1. Update and add definitions to Chapter 2 related to terms associated with personal wireless communications;
2. Establish that the City's first preference to siting new antennas is to co-locate on an existing communication tower or structure instead of constructing a new tower or structure;
3. Establish a hierarchy for siting antennas and communication towers and facilities, to minimize the construction of new towers within Port Orange. The City's first preference to siting new antennas is to co-locate on an existing communication tower or structure instead of constructing a new tower or structure;
4. If co-location on an existing tower or structure is not an option, and is demonstrated by the applicant, the applicant can propose to construct a new tower or structure according to the siting hierarchy outlined in the code. The new tower hierarchy is designed to place new towers on property located on municipal use property, industrial zoned property, and

commercial zoned property and places a preference to camouflaged towers being constructed. If an applicant selects a lower ranked site on the siting hierarchy list, the applicant shall demonstrate that higher ranked sites on the siting hierarchy list are not available. Specific criteria are provided that the applicant must use to demonstrate that an existing tower to co-locate an antenna is not available or a higher ranked site on the siting hierarchy list is not available. The proposed siting hierarchy is as follows:

- a. Camouflaged communication tower on municipal use property
 - b. Non-camouflaged communication tower on municipal use property
 - c. Camouflaged communication tower on light industrial and commercial industrial zoning district private property
 - d. Non-camouflaged communication tower on light industrial and commercial industrial zoning district private property in the following preferred order: monopole, guyed and lattice.
 - e. Camouflaged communication tower in other zoning districts on private or other governmental property other than residential
 - f. Non-camouflaged communication tower in the following preferred order monopole, guyed and lattice, in other zoning districts on private or other governmental property other than residential
5. Restrict new tower construction in all residential zoning districts, the Port Orange Town Center Community Redevelopment Agency (CRA) boundary, the Floodplain Conservation (F-C) zoning district, or the West Town Center, Neighborhood, and Community Districts of the Planned Community-Agricultural (PC-A) zoning district without a variance being approved by the City Council;
6. Provide dimensional requirements for a new tower along with associated equipment and buildings. The setback for a communication tower is 110% of the tower height or the minimum zoning setback, whichever is greater, from all property lines. The setback for any buildings, equipment, or generator associated with a tower and/or antenna is 10 feet or the minimum setback requirement for a specific zoning district, whichever is greater. The maximum height for a tower will remain at 300 feet;
7. Provide separation requirement between the base of a communication tower to the property line of a lot with a residential structure or vacant land in a residential zoning district. New camouflaged towers would need to be separated at least two times its height and guyed, lattice, and monopole communication towers separated at least four times their height. In addition, all communication towers are to be separated a minimum of one-half mile from an existing communication tower;
8. Outline the review process and submittal requirements to co-locate an antenna on an existing communication tower, construct a new communication tower, install or replace communication equipment or building, and re-build or structurally modify an existing communication tower, facility, or antenna;

9. Require the submittal of a visual impact analysis that consists of a photographic superimposition that includes the tower, antennas, equipment shelters, cables as well as cable runs, and security barrier, at a specified distance of from the subject property line;
10. Maintain requirement to install a wall or fence around the tower site and installation of perimeter landscaping along the wall or fence and landscape buffer adjacent to rights-of-way or property;
11. Establish a special fee requirement in addition to a site plan or building permit processing fee so the City can hire an independent consultant and/or expert to assist in the evaluation of an application(s);
12. Establish a security fund that all applicants constructing a new tower or installing an antenna on an existing tower are required to pay into at the permitting stage. The security fund is for the City to use to remove or repair a tower, antenna, or equipment that is abandoned or determined to be a hazard or nuisance by the City and the owner fails to address the issue. The City would be able use this fund to remove the nuisance as the City pursues legal action with the property owner to recover the cost;
13. Establish guidelines and criteria for an applicant to request a variance to the setback, separation, specific zoning district where such use is not allowed, and other provisions in Chapter 16, Section 9, of the LDC. The procedures for processing a variance in Chapter 19 shall apply, with the exception that the Planning Commission shall consider the application for a variance at a noticed public hearing and shall make a recommendation to the City Council, which shall consider the application for a variance at a noticed public hearing; and
14. Remove setback and height requirements in Chapter 16, Section 4 (height) and Section 5 (special setbacks) to eliminate possible conflicting requirements in Chapter 16, Section 9 (wireless communication facilities siting)

RECOMMENDATION

Approval of the amendment to the LDC related to Wireless Communication Facilities Siting, subject to ordinance preparation and review by the City Attorney's office prior to 1st Reading at City Council.

Maplewood
ESTATES

Douglas Clark Community Center

RESIDENTS COFFEE THURSDAY
MAY 15 10 AM

BINGO WED 6:30 PM

Scale Design Concept

Customer requested custom faux brick masonry to match their facade, and a changeable reader board with mix-n-match letters.



Completed Project

This monument is double sided and the faux masonry is a perfect match.

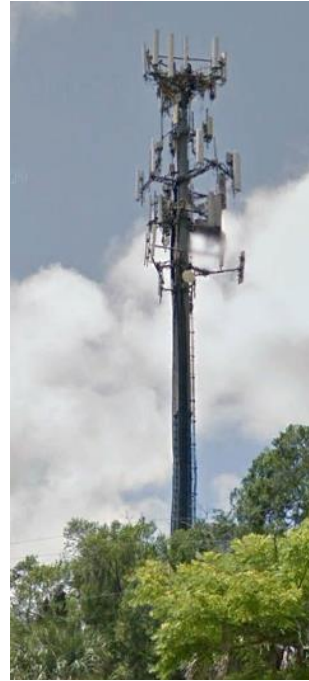
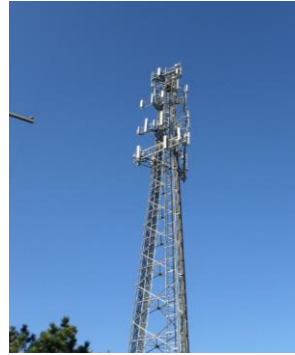


LDC Text Amendment to Chapter 13- Update Landscaping Requirements for Residential Lots



- ❑ Maintain the 1 tree/2,500 SF requirement for commercial and residential lots in the LDC.
- ❑ Add flexibility for required trees on a residential lot 6,000 SF or less.
 - The use of understory trees at a ratio of two (2) understory trees per one (1) required shade tree;
 - The upsizing of a shade tree from a two-inch, 10-foot tall tree at the time of planting, to a four-inch 14-foot tall tree at the time of planting, and to count the upsized shade tree as two (2) shade trees; and
 - A contribution to the City's Tree Mitigation Bank. The tree mitigation payment for a shade tree will be provided in a fee resolution that will accompany this item to Council.
- ❑ Modify the shrub requirement based on residential lot size:
 - A lot greater than 20,000 square-feet - install 20 shrubs
 - A lot that is 6,000 square-feet to 20,000 square-feet - install 12 shrubs
 - A lot less than 6,000 square-feet - install 8 shrubs

Co-locate Preference



Proposed Siting Hierarchy

1. Camouflaged communication tower on municipal use property
2. Non-camouflaged communication tower on municipal use property
3. Camouflaged communication tower on light industrial and commercial industrial zoning district private property
4. Non-camouflaged communication tower on light industrial and commercial industrial zoning district private property in the following preferred order: monopole, guyed and lattice.
5. Camouflaged communication tower in other zoning districts on private or other governmental property other than residential
6. Non-camouflaged communication tower in the following preferred order monopole, guyed and lattice, in other zoning districts on private or other governmental property other than residential



Dimensional and Separation Requirements

Setback and Height Requirements

- ❑ 110% of the tower height or the minimum zoning setback for a communication tower, whichever is greater, from all property lines
- ❑ 10 feet or the minimum setback requirement for a specific zoning district for a building, equipment, or generator associated with a tower
- ❑ Maximum height for a tower will remain at 300 feet

Separation Requirements - Between the base of a communication tower to a residential property line

- ❑ Camouflaged tower - two times its height
- ❑ Guyed, lattice, and monopole communication tower - four times its height
- ❑ Any communication tower - one-half mile from an existing communication tower

Additional Updates

- ❑ Outlines the review process and submittal requirements to co-locate an antenna on an existing communication tower, construct a new communication tower, install or replace communication equipment or building, and re-build or structurally modify an existing communication tower, facility, or antenna
- ❑ Require the submittal of a visual impact analysis that consists of a photographic superimposition that includes the tower, antennas, equipment shelters, cables as well as cable runs, and security barrier, at a specified distance of from the subject property line.
- ❑ Maintain requirement to install a wall or fence around the tower site and install perimeter landscaping along the wall or fence and landscape buffer adjacent to rights-of-way and adjacent property
- ❑ Establish a special fee requirement so the City can hire an independent consultant and/or expert to assist in the evaluation of an application(s) and a security fund payment in case there is a need to remove an unresolved nuisance related to a tower

Current Noise Requirements in Code of Ordinance

Sec. 42-80. - General restrictions.



- (a) No person shall operate or cause to be operated any source of sound from any occupancy in such a manner as to create a sound level which exceeds the limits set forth for the use occupancy in table I of this section, when measured at or beyond the property boundary of the land use from which the sound emanates.
- (b) Sound or noise projecting from one use district into another use district with a different noise level limit shall not exceed the limits of the district into which the noise is projected.

TABLE I

Use occupancy category	Time	Sound level limit dBA
Residential	7:00 a.m.—10:00 p.m.	60
	10:00 p.m.—7:00 a.m.	50
Commercial or business	7:00 a.m.—10:00 p.m.	65
	10:00 p.m.—7:00 a.m.	55
Manufacturing, industrial or agriculture	All times	75
Noise sensitive zone	All times	55