

**APOPKA CITY COUNCIL AGENDA**  
**October 03, 2018 1:30 PM**  
**APOPKA CITY HALL COUNCIL CHAMBERS**

**CALL TO ORDER**  
**INVOCATION**  
**PLEDGE**

**APPROVAL OF MINUTES:**

1. City Council regular meeting and budget hearing September 19, 2018.

**AGENDA REVIEW**

**EMPLOYEE RECOGNITION:**

- ❖ Five Year Service Award – Marianne R. Zerillo – Public Services/Utility Administration
- ❖ Ten Year Service Award – Clifford R. MacDonald II – Police/Field Services
- ❖ Fifteen Year Service Award – Clifford A. White – Public Services/Grounds
- ❖ Fifteen Year Service Award – Barry Hornett – Fire/EMS
- ❖ Fifteen Year Service Award – Mark J. Fry – Fire/EMS

**PRESENTATIONS:**

1. Presentation of funding by the Florida Department of Environmental Protection (FDEP) Robert Charles Brooks  
for the Apopka Athletic Complex Florida Recreation Development Assistance Program (FRDAP) grant.
2. Boy Scout Troop 211: WWII Monument Marker at Kit Land Nelson Park. Phil Lamphere  
Project: Monument to include a brick outlay with a bronze plaque.

**PUBLIC COMMENT PERIOD:**

The Public Comment Period is for City-related issues that may or may not be on today's Agenda. If you are here for a matter that requires a public hearing, please wait for that item to come up on the agenda. If you wish to address the Council, you must fill out an Intent to Speak form and provide it to the City Clerk prior to the start of the meeting. If you wish to speak during the Public Comment Period, please fill out a green-colored Intent-to-Speak form. If you wish to speak on a matter that requires a public hearing, please fill out a white-colored Intent-to-Speak form. Speaker forms may be completed up to 48 hours in advance of the Council meeting. Each speaker will have four minutes to give remarks, regardless of the number of items addressed. Please refer to Resolution No. 2016-16 for further information regarding our Public Participation Policy & Procedures for addressing the City Council.

**CONSENT (Action Item)**

1. Approve an amendment to the Agreement with Lake County for shared public service radio communication facilities.
2. School Concurrency Mitigation Agreement with Vista Reserve.
3. School Concurrency Mitigation Agreement with Meadow View Apartments.
4. Sewer and Water Capacity Agreement Lakeside Phase 2.

**BUSINESS (Action Item)**

1. Award a contract for the construction of the Alonzo Williams Park Community Center and off-street parking. Edward Bass
2. Final Development Plan/Plat - Lakeside, Phase 2 Bobby Howell  
Project: Avatar Properties, Inc.  
Location: South of Marshall Lake and West of SR 451
3. Final Development Plan/Plat – Vista Reserve Jean Sanchez  
Project: Pulte Home Company, LLC  
Location: East side of Rogers Road, approx. ½ mile north of the intersection of Rogers Road & Lester Road.

**PUBLIC HEARINGS/ORDINANCES/RESOLUTION (Action Item)**

1. Ordinance No. 2679 – Second Reading – Comprehensive Plan Amendment David Moon  
Project: City of Apopka - Capital Improvements Element – Recreation Improvements

- 2. Ordinance No. 2678 – First Reading – Change of Zoning/PUD Master Plan/Preliminary Development Plan Project: Mid-Florida Freezer Warehouses LTD; Florida Express Trucking, Inc.; Eagles Landing at Ocoee, LLC. Location: West side of SR 429, south of General Electric Road, and east of Hermit Smith Road Bobby Howell
- 3. Ordinance No. 2681 – First Reading – 2018 Annexation Cycle 5 Project: Construesse USA, Inc. Location: 2600 Rock Springs Road Jean Sanchez
- 4. Resolution 2018-20 - TEFRA Hearing on Revenue Bonds to Waste Management, Inc. Edward Bass
- 5. Resolution 2018-21 - Statewide Mutual Aid Agreement Assistant Chief Wylam
- 6. Resolution 2018-22 - Railroad Reimbursement Agreement Jay Davoll

**CITY COUNCIL REPORTS**

**MAYOR’S REPORT**

- 1. Follow up on building located at Park Ave. and 5th Street.

**ADJOURNMENT**

**MEETINGS AND UPCOMING EVENTS**

DATE	TIME	EVENT
October 4, 2018	5:30pm – 9:00pm	Food Truck Round Up
October 8, 2018	6:30pm –	CONA Meeting – UCF Apopka Business Incubator
October 9, 2018	5:30pm – 7:30pm	Planning Commission Meeting
October 17, 2018	7:00pm –	City Council Meeting
October 20, 2018	11:00am – 12:00pm	Cookies & Milk with a Cop – NW Orange/Apopka Library
October 22, 2018	10:00am –	Lake Apopka Natural Gas District Board Meeting: Winter Garden
October 27, 2018	5:00pm – 9:00pm	Hometown Halloween in the Park – Kit Land Nelson Park
November 1, 2018	5:30pm – 9:00pm	Food Truck Round Up
November 7, 2018	1:30pm –	City Council Meeting
November 12, 2018	-	City Offices Closed in observance of Veterans Day
November 12, 2018	6:30pm –	CONA Meeting – UCF Apopka Business Incubator
November 13, 2018	5:30pm – 7:30pm	Planning Commissioner Meeting
November 17, 2018	11:00am – 12:00pm	Cookies & Milk with a Cop – NW Orange/Apopka Library
November 20, 2018	6:00pm –	Code Enforcement Hearing
November 21, 2018	7:00pm –	City Council Meeting
November 22, 2018	-	City Offices Closed in observance of Thanksgiving
November 23, 2018	-	City Offices Closed in observance of Thanksgiving
November 26, 2018	10:00am –	Lake Apopka Natural Gas District Board Meeting: Winter Garden

Individuals with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk at least two (2) working days in advance of the meeting date and time at (407) 703-1704. F.S. 286.0105 If a person decides to appeal any decision or recommendation made by Council with respect to any matter considered at this meeting, he will need record of the proceedings, and that for such purposes he may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Any opening invocation that is offered before the official start of the Council meeting shall be the voluntary offering of a private person, to and for the benefit of the Council. The views or beliefs expressed by the invocation speaker have not been previously reviewed or approved by the City Council or the city staff, and the City is not allowed by law to endorse the religious or non-religious beliefs or views of such speaker. Persons in attendance at the City Council meeting are invited to stand during the opening ceremony. However, such invitation shall not be construed as a demand, order, or any other type of command. No person in attendance at the meeting shall be required to participate in any opening invocation that is offered or to participate in the Pledge of Allegiance. You may remain seated within the City Council Chambers or exit the City Council Chambers and return upon completion of the opening invocation and/or Pledge of Allegiance if you do not wish to participate in or witness the opening invocation and/or the recitation of the Pledge of Allegiance.

## 19ITY OF APOPKA

---

**Minutes of the regular City Council meeting held on September 19, 2018, at 7:00 p.m., in the City of Apopka Council Chambers.**

**PRESENT:** Mayor Bryan Nelson  
Commissioner Doug Bankson  
Commissioner Kyle Becker  
Commissioner Alice Nolan  
Commissioner Alexander Smith  
City Attorney Cliff Shepard  
City Administrator Edward Bass

**PRESS PRESENT:** John Peery - The Apopka Chief  
Reggie Connell, The Apopka Voice  
Wesh News

**INVOCATION:** - Mayor Nelson called on Chaplain Jim Schrock, Apopka Police Department, who gave the invocation.

**PLEDGE OF ALLEGIANCE:** Mayor Nelson introduced Emanuel Dejesus who led in the Pledge of Allegiance. He said on September 17, 1787, George Washington and James Madison signed the first U.S. Constitution at the Philadelphia Convention.

### **OPEN PUBLIC HEARING FOR FY18/19 BUDGET**

Mayor Nelson announced that the City of Apopka City Council convenes this Public Hearing on the City of Apopka's Fiscal Year 2018-2019 Final Millage rate and Final Budget as required by Florida Statutes, Chapters 129 and 200.

Florida Statutes, Chapter 200 requires that a final public hearing on the budget be preceded by a two to five day notice of hearing. Florida Statutes, Chapter 129 requires that we advertise a summary of the final budget. He asked the clerk if there was proof of publication.

Mrs. Goff stated there was proof of publication of the Tax Increase Notice and the Budget Summary were advertised in the Orlando Sentinel on Sunday, September 16, 2018.

### **SET FINAL MILLAGE & BUDGET FOR FISCAL YEAR 2018-2019**

1. Resolution No. 2018-18 - Setting the millage levy for the fiscal year 2018-2019 at 4.0376. The City Clerk read the title as follow:

#### **RESOLUTION NO. 2018-18**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF APOPKA, FLORIDA, SETTING THE MILLAGE LEVY FOR FISCAL YEAR 2018-2019.**

Mayor Nelson said Resolution 2018-18 is setting the millage levy for the FY 2018-2019 at 4.0376 mills, which represents an increase of 12.08% over the rolled back rate of 3.6024 mills.

Edward Bass, City Administrator, provided an overview of the proposed millage rate and proposed FY 18/19 Budget. He affirmed the first Public Hearing was held on September 5, 2018, at 5:15 p.m. to set the tentative millage rate and proposed budget. This is the final Public Hearing to set the final millage rate and budget for fiscal year that begins October 1, 2018, and ends September 30, 2019. He provided highlights stating the millage rate is at 4.0376 mills per \$1,000 of assessed value, which is a .25 increase from the prior year. There were no reserves or borrowing to balance the general fund this year. As of December 31, 2018, the Red Light Camera program is eliminated in the budget. There is funding for School Resource Officers in all of the Apopka Schools funded in this budget. Other highlights include the Orange County Station 29 agreement has been executed, and the meter replacement program are included. The City received \$85,000 for the Bear Cart Grant, which has been adjusted in this budget. Also, another change is the Police Department Grant funding for \$26,757 is included in this budget. He reported some money has been redirected from the Police and Fire Impact Fees to start the process of a needs assessment for a Public Safety Facility. Funding has been included for merit increases on a scale of 1-6%. He advised the evaluation process is being reviewed to tighten down on the employee performance. Money has been included from the Recreation Impact Fees for improved and additional parking at the NW Recreation Complex. He reviewed capital improvements that have had funding included in this budget. He stated that as these funds are expended they will come before Council for approval.

Mayor Nelson opened the meeting to a public hearing.

William Gusler provided copies of spreadsheets to Council pertaining to salary and merit pay looking at a comparative to surrounding cities. He said the City of Apopka was currently 3.4% higher than the other cities in the area. He stated the initial budget for merit raises started at 3% and with contention, it went back to the 1-6% increase. He said Mr. Bass said the evaluation process was going to be reviewed to make sure employees are being evaluated properly. He said the city averaged 4.5% citywide last year and some departments averaged over 5%. He stated he did not think this was realistic. He said with the data, 3% would be reasonable and higher than surrounding entities.

No one else wishing to speak, Mayor Nelson closed the public hearing.

**MOTION by Commissioner Nolan, and seconded by Commissioner Smith to approve Resolution No. 2018-18, establishing Fiscal Year 2018-2019 final millage rate at 4.0376 mills. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

Mayor Nelson said the City of Apopka has determined that a final millage rate of 4.0376 mills is necessary to fund the final budget. The final millage rate represents an increase of 12.08% from the rolled back rate of 3.6024 mills.

2. Resolution No. 2018-19 - Adopt the annual budget for fiscal year 2018-2019. The City Clerk read the title as follows:

**RESOLUTION NO. 2018-19**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF APOPKA, FLORIDA, ADOPTING THE ANNUAL BUDGET FOR THE GENERAL FUND, SPECIAL REVENUE FUNDS, AND ENTERPRISE FUNDS FOR FISCAL YEAR 2018-2019.**

Mayor Nelson said the Fiscal Year 2018-2019 proposed budget for all funds is balanced at \$114,691,561. This represents a decrease of \$9,981,148 or 8.0% from the FY 2017-2018 budget.

Commissioner Becker said at the last meeting Finance Director Roberson asked Council to let her know what reports going forward. He provided some examples of reports that would allow transparency and reports could be given either monthly or quarterly that would be helpful to see the year over year broken down and to see the total deficit.

Ms. Roberson said they planned to start providing reports on a quarterly basis.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

Call for a MOTION to adopt Resolution No. 2018-19 adopting revenues, expenditures, and fund balances for the City's Fiscal Year Budget commencing on October 1, 2018, and ending on September 30, 2019.

**MOTION by Commissioner Bankson, and seconded by Commissioner Nolan, to adopt Resolution 2018-19 adopting FY Budget 2018-2019 commencing on October 1, 2018, and ending on September 30, 2019. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

Mayor Nelson said the City of Apopka has adopted Resolution No. 2018-19, which adopts revenues, expenditures, and fund balances for the City's Fiscal Year Budget commencing on October 1, 2018 and ending September 30, 2019 balancing all funds at \$114,691,561. He stated this concludes the Public Hearing on the City of Apopka's Fiscal Year 2018-2019 Final Millage rate and Final Budget as required by Florida Statutes, Chapters 129 and 200.

**CLOSE PUBLIC HEARING FOR FY18/19 BUDGET**

**APPROVAL OF MINUTES:**

1. City Council regular meeting September 5, 2018.
2. City Council budget hearing September 5, 2018.

**MOTION by Commissioner Bankson, and seconded by Commissioner Nolan, to approve the minutes of August 15, 2018 as presented. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith and Nolan voting aye.**

**AGENDA REVIEW** – City Administrator Bass advised of one change under Business. Item 4 will be moved to Item 3.

## **PUBLIC COMMENT; STAFF RECOGNITION AND ACKNOWLEDGEMENT**

### **Presentations:**

1. Super Hero Award to Christian Redmon and Anthony Torres for their outstanding community efforts.

Mayor Nelson presented Christian Redmon with a “Super Hero” award for his outstanding community efforts in raising money to help his friend who has childhood cancer. He raised approximately \$800 more or less by holding a carwash, selling pizza and lemonade, and a raffle to raise money.

Mayor Nelson presented Anthony Torres with a “Super Hero” award for his outstanding community efforts in raising approximately \$800 from selling lemonade from a lemonade stand on Wekiva Springs Road to help the homeless. He purchased all the food and he and his family helped serve food to the homeless at First Baptist Church.

2. Boy Scout Troop 211: WWII Monument Marker at Kit Land Nelson Park. Project: Monument to include a brick outlay with a bronze plaque. – Withdrawn to a later date.
3. Chief McKinley recognized Captain Jerome Miller for his accomplishments in completing the FBI National Academy professional course at Quantico, VA. He said the FBI-NA is a national course of study for US and International law enforcement managers nominated by their agency head because of demonstrated leadership qualities. Participation in the Academy is by invitation only through a nomination process. Captain Miller attended Session 273 which consisted of approximately 220 law enforcement officials from around the world. Classes were offered in Intelligence Theory, Terrorism and Terrorist Mindsets, Management Science, Law, Behavioral Science, Law Enforcement Communication, and Forensic Science. In addition to academics, Captain Miller was required to participate in a demanding fitness program. Captain Miller is the first Apopka Police Officer to attend this prestigious law enforcement management training. He congratulated Captain Miller in completing this milestone in his law enforcement career.

Captain Miller thanked the Mayor, Commissioners and city staff for supporting him in his endeavor. He said he already had his information in the database prior to Chief McKinley coming to Apopka. Chief McKinley asked him if he was interested in attending the National Academy and his name was submitted for nomination. He said this was a once in a lifetime experience.

### **Public Comment:**

Garvin Persad said he and his brother own Hi-Flo Muffler shop located in Apopka at 545 S. Orange Blossom Trail and for the past two years they have been establishing their business in Apopka. They would like to extend their business out and open a car wash under the existing awning. The prior owner conducted outdoor car repairs under this awning. They have requested a

permit for the carwash and it has not been issued. He reiterated their desire to expand their business and said they have a plan for the water retention.

Commissioner Becker said he has discussed this matter with them a few times and stated the city staff has made a notation regarding the downtown overlay district. He stated it was a broad term to the specific nature of what they are doing. They were told outdoor activity would be prohibited. He inquired how staff was classifying outdoor activity as well as indoor activity.

Mr. Hitt said they have not had any conversations since the owners spoke at the Planning Commission meeting. He said they would need to speak with the city engineer regarding retention of water.

Following discussion, Mr. Bass asked Mr. Persad to provide his contact information and staff will contact him to set up a meeting to discuss specifics with him.

Alyssa James & Catalina Sandoval, from the Apopka High School Drama Club, spoke about the Dram Club and what they try to accomplish, as well as exposing children to the arts. They do not receive any funding from the school. The Drama Club is getting ready to hold their fundraiser and requested support from the City. They left flyers with the Clerk to provide to the Mayor and Commissioners stating they hope the City will be able to offer support.

## **CONSENT**

1. Approval of alcohol sales at the R&B Festival at Kit Land Nelson Park on September 29, 2018.

**MOTION by Commissioner Becker, and seconded by Commissioner Smith, to approve one item on the Consent Agenda. Motion carried unanimously with Mayor Nelson and Commissioners Bankson, Becker, and Nolan voting aye.**

## **BUSINESS**

1. Reject RFP 2018-20 Insurance: Property, Casualty, and Liability & Workers Compensation.

Mayor Nelson opened the meeting to public comment.

David Lodwick, Halifax of Century and Public Risk, spoke in support of the staff recommendation. He said they understand this is a trying time to bid this service out. He said they were able to put together a proposal that included the Florida Municipal Insurance Trust administered by the Florida League of Cities. He said their proposal represented over a 10% decrease in opposition of the 9% increase in the current budget. Their bid also did not have a provision requiring a letter from the city 45 days in advance nor a resolution or ordinance from Council. Their proposal did not have any hidden fees. He said they were here to be a resource for the City and staff to allow them to get to know the Leagues program.

Mayor Nelson advised the current provider has a buyout clause that would cost additional funds. This action gets the City to the position that they will be able to rebid next year.

No others wishing to speak, Mayor Nelson closed the public comment.

**MOTION by Commissioner Bankson, and seconded by Commissioner Smith to reject all bids for RFP 2018-20 and rebid at a future date. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

2. Memorandum of Agreement – Property Exchange  
Project: St. John’s River Water Management District and the City of Apopka  
Location: Off of Binion Road

Jim Hitt, Community Development Director, said this was a Memorandum of Agreement between the City of Apopka and St. John’s River Water Management District (SJRWMD). The property the City is looking to exchange is located off Lust Road and Binion Road. The property is at the entrance of the Wildlife Trail, also known as the loop. He reviewed the location on a map and said this was probably one of the best viewing areas in Central Florida for birders. He said this is an entrance feature and the Orange Audubon Society representatives is present to discuss. He explained we are looking to do a property exchange, stating this property was declared surplus in 2012 and it has to retain environmentally friendly and conscious property, which is a reflection of the property when it was provided to SJRWMD. He said the City would be stewards of the property, having worked out a 69-acre parcel with an entrance off Lust Road. Part of the exchange is the City taking over this portion and at a future date the SJRWMD may relocate their offices on a 5-acre piece of property the City owns off of Binion Road on the west side. IFAS is located nearby and the opportunity to have SJRWMD office in Apopka on the shores of Lake Apopka is something to seriously consider. He explained there are three parts to this, the Memorandum of Agreement and two options; one option is to possibly take over an additional portion of property for \$10.00. He reiterated the swap of land is the City exchanging 5-acres for 69-acres of land.

Mayor Nelson opened public comment.

Deborah Green, Orange Audubon Society, said Bird of Palooza introduced people to the Lake Apopka North Shore wildlife, which began a public movement to try to obtain access to see the wildlife. This led to the Lake Apopka Loop Trail being open by Orange County from Magnolia Park to the Pump House in 2013. The plan is for this to connect to the coast-to-coast connector trail. The Lake Apopka Wildlife Trail opened in 2015 with approximately 2,500 people going through the drive each weekend. She said there has not been a lot of advertising on the trail and most of the comments are through Facebook where some good photographers are posting. The wildlife drive is only open Friday, Saturday, Sundays, and Federal Holidays. She said the Hickerson property is to the right of the entrance to the Wildlife Drive and the SJRWMD purchased this property in the late 1990’s and they are not using it to restore Lake Apopka, so the property was been placed on the surplus list in 2012. She stated this could be a passive nature park open 7-days a week. She reviewed the surrounding parcels. The Orange Audubon Society is proposing a Gateway Birding Park, passive recreation park, immediate valuate of parking for carpooling on the drive for the three days the drive is open. This could also be utilized for parking for cycling or pedestrian entry for the drive on the days it is closed, as well as a place to be able to go birding and hiking 7-days a week. This is an upland site that several species of birds need and found on this site. Orange Audubon did a study and found over 100 species of birds. She suggested the renovation of the existing building at some point could serve various functions. Prior to



opening a passive birding park, the concrete pads from the greenhouses could be utilized for parking and would only require cleaning up of the site. Fencing and a gate would need to be installed near the entrance, bear proof trashcans, and port-o-lets would be required. She said this would be a low-level park for people to walk around and utilization of parking. They would plant bird friendly trees as well as other vegetation install benches and mowing paths. She affirmed they have a tentative plan for this and advised that a Memorandum of Understanding between Orange Audubon and the City was signed June 17, 2017. She urged Council to approve the Memorandum of Agreement with SJRWMD to accept this property exchange.

Robert Stamps said he was a 4-year resident of the area and hopes Council approves this agreement. He stated Dr. Green has pointed out the benefits to Apopka. He said more bird species have been seen on the Wildlife Drive in Apopka than at Black Point Drive at Merritt Island National Wildlife Refuge. He said there were multiple economic benefits to Apopka with more people coming to this park and they will make purchases while here. The citizens will have a very unique park not seen any place else that will be free and provide access to the Lake Apopka Loop Trail, Wildlife Drive, and to this 69-acre passive park. Another potential is concerning the Director of IFAS sending a letter to the Executive Director of the SJRWMD about doing some cooperative programs and work.

Steve Coleman said he was here to speak on behalf of the Gateway Birding Park proposal. He stated it is his hope Council would approve and proceed with this proposal and by doing this Apopka will make an unprecedented statement in eco-tourism. This very action would put Apopka on the map as a destination for anyone living in or visiting Central Florida. He said the best part is that this is free for families to come, explore, learn, and get away for a few hours. He stated he has learned so much about Lake Apopka and its wildlife since coming to the Wildlife Drive. The Gateway Birding Park will be the next step in the evolution of Apopka's rise and commitment to something that is unique, different, and the only one of its kind in Central Florida. He said he comes to the drive every weekend to capture the landscape, gators, bald eagles, and sunsets in photographs. He spoke of many people he has met from all over while at the Wildlife Drive. He declared the Gateway Birding Park would attract hundreds of birders from all over the world to come visit and spend money in Apopka.

Commissioner Becker said the photographs of sunsets and wildlife Steve takes are amazing. He thanked Steve for his comments.

Commissioner Bankson said Dr. Green mentioned 2,500 visitors a week and that is 130,000 a year. He stated that could grow and bring business and interest to Apopka.

Commissioner Nolan said we are very fortunate that we have the Wildlife Drive. She stated her family was recently out there and spoke of the people that were there enjoying the area. She would like to see more education for this area.

Commissioner Smith said being an Agriculturist, this is his ideal that we have something no one else has to be able to enjoy and give citizens a different aspect of nature. He stated he fully supports this idea of the project.

Mayor Nelson said for Apopka to be able to have the SJRWMD Service Center there would make this a win-win. He stated Fred Brummer brought on the Bird of Palooza and got it started. They were not able to hold it last year due to the dikes being compromised from the storm. He affirmed that two years ago we were in the top 10 of birding destinations.

**MOTION by Commissioner Nolan and seconded by Commissioner Smith to approve the Memorandum of Agreement as presented. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

Mr. Hitt complimented the Audubon Society stating that Dr. Green has been out there tirelessly planting different trees and putting a lot into this based on our Memorandum of Understanding with the Orlando Audubon Society.

3. Final Development Plan – Apopka Medical Office  
Project: Urgent Care Developers of Apopka, LLC  
Location: 1520 West Orange Blossom Trail

Jean Sanchez, Planner, provided an overview of the Apopka Medical Office Final Development Plan. She reviewed the location on a map and showed the surrounding land uses. She advised only a portion of this area is proposed to be developed at this time. The total area is approximately 4.5 acres and the applicant intends to replat the parcels and form lots 1 and 2. Approximately a 5,300 square foot building will be developed for this use. The stormwater will be located on the southern portion of the site that may later be incorporated into a master stormwater pond jointly used by the entire development. There will be 26 parking spaces will be provided, of which two are handicap accessible. This project will have right in right out only access to U.S. 441. She reviewed the landscape plan. The DRC recommends approval. The Planning Commission recommends approval subject to the findings of the staff report. The recommendation is to approve the Apopka Medical Office Final Development Plan subject to the findings of the staff report.

Commissioner Becker said this was less than half a mile from the developments they reviewed at the last meeting in terms of the lack of a right turn lane into the property.

Ms. Sanchez said the Transportation Planner as well as the project engineer and applicant are in contact with FDOT in terms of the right turn lane.

Selby Weeks, Engineer for the project said the staff report has been reviewed and they agree with the conditions. He stated the City and the applicant have reached out to FDOT regarding the right turn lane. They are in the permitting process on the driveway and they anticipate a right turn lane will not be required on this first phase of the project. The trips generated do not warrant a right turn lane for this project, but as it develops out, a right turn lane is more of a possibility.

Pam Richmond, Transportation Planner, said this is a valid point, but with a traffic analysis, there are certain boundaries they have to stay within, one being that they can require a traffic study if the project generates less than 400 trips. In this case, they did not due to knowing more development is coming. She stated when they do that traffic study they will do an accumulative study for the site. She declared with regards to a right turn lane, they are at the

mercy of FDOT on a road that they have jurisdiction. She advised FDOT has been asked to please consider the safety with regards to a right turn lane for this area.

Mr. Weeks said as this site is developed, it may have a higher number of trips generated and they will be back before Council with another plan and DOT will look at the site accumulatively. At that time the developer may be required to put in a right turn lane.

Mayor Nelson opened the meeting to public comment. No one wishing to speak he closed the public comment.

**MOTION by Commissioner Bankson, and seconded by Commissioner Nolan to approve the Final Development Plan for Apopka Medical Office Building. Motion carried 4-1 with Mayor Nelson, and Commissioners Bankson, Smith, and Nolan voting aye, and Commissioner Becker voting nay.**

#### **PUBLIC HEARINGS/ORDINANCES/RESOLUTION**

1. Resolution No. 2018-17 – Land Dedication for Public Right-of-Way  
Project: The Coca-Cola Company  
Location: Grand Avian Parkway. The City Clerk read the title as follows:

#### **RESOLUTION 2018-17**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF APOPKA, FLORIDA, ACCEPTING A QUIT CLAIM DEED FROM THE COCA-COLA COMPANY FOR REAL PROPERTY; DIRECTING THE CITY CLERK OR DESIGNEE TO RECORD THE EXECUTED DEED IN THE PUBLIC RECORDS OF ORANGE COUNTY, AND PAY ALL FEES NECESSARY TO EFFECTUATE SUCH RECORDATION; PROVIDING SEVERABILITY AND AN EFFECTIVE DATE.**

David Moon, Planning Manager, said this resolution is for City Council to accept a 30-foot wide tract of land owned by the Coca-Cola Company. The site is located on the east side of a 30-acre piece of property owned by Coca-Cola. This dedication of land will allow improved road access to the Coca-Cola property, as well as allow Grand Avian Parkway to contain an 80-foot wide right-of-way in lieu of 50-feet, allowing room for a two-lane divided street with a landscape or grass median and a multi-use trail and sidewalk on opposite sides of the street. DRC recommends acceptance of the land dedication.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Nolan, and seconded from Commissioner Smith to approve Resolution 2018-17, accepting a Quit Claim deed from Coca-Cola for the donation of said property. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

2. Ordinance No. 2618 – Second Reading – Comprehensive Plan Amendment – Large Scale –

Project: Orlando Beltway Associates  
Location: West & East of S.R. 429, north of Kelly Park Road. The City Clerk read the title as follows:

**ORDINANCE NO. 2618**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE FUTURE LAND USE ELEMENT OF THE APOPKA COMPREHENSIVE PLAN OF THE CITY OF APOPKA; CHANGING THE FUTURE LAND USE DESIGNATION FROM “COUNTY” RURAL RESIDENTIAL DISTRICT TO “CITY” MIXED USE - INTERCHANGE FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF PLYMOUTH SORRENTO ROAD AND EAST OF EFFIE DRIVE, OWNED BY ORLANDO BELTWAY ASSOCIATES; COMPRISING 107.5 ACRES, MORE OR LESS, PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

David Moon, Planning Manager, advised there have been no changes since the first reading.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Bankson, and seconded by Commissioner Nolan to adopt Ordinance No. 2618. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

3. Ordinance No. 2658 – Second Reading – Comprehensive Plan Amendment – Large Scale – Legislative Project: Eagles Landing at Ocoee, LLC  
Location: South of Peterson Road, West of SR 429. The City Clerk read the title as follows:

**ORDINANCE NO. 2658**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE FUTURE LAND USE ELEMENT OF THE APOPKA COMPREHENSIVE PLAN OF THE CITY OF APOPKA; CHANGING THE FUTURE LAND USE DESIGNATION FROM MIXED USE AND AGRICULTURE TO INDUSTRIAL FOR CERTAIN REAL PROPERTY GENERALLY LOCATED SOUTH OF PETERSON ROAD AND WEST OF STATE ROAD 429, OWNED BY EAGLES LANDING AT OCOEE, LLC; COMPRISING 37.4 ACRES, MORE OR LESS, PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

Phil Martinez, Planner, advised there have been no changes since the first reading.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Nolan, seconded by Commissioner Bankson to adopt Ordinance No. 2658. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

4. Ordinance No. 2659 – Second Reading - Comp Plan – Large Scale – Kelly Park Reserve  
Project: Min Sun Cho, Hong Sik and Deok Hwa Kim  
Location: 4068, 4046, & 4022 Plymouth Sorrento Road. The City Clerk read the title as follows:

**ORDINANCE NO. 2659**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE FUTURE LAND USE ELEMENT OF THE APOPKA COMPREHENSIVE PLAN OF THE CITY OF APOPKA; CHANGING THE FUTURE LAND USE DESIGNATION FROM RESIDENTIAL VERY LOW SUBURBAN TO MIXED USE - INTERCHANGE FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF PLYMOUTH SORRENTO ROAD AND NORTH OF APPY LANE, OWNED BY MIN SUN CHOE , HONG SIK KIM & DEOK HWA KIM; COMPRISING 20 ACRES, MORE OR LESS, PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

Mr. Martinez advised there have been no changes since the first reading.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Smith, seconded by Commissioner Nolan to adopt Ordinance No. 2659. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

5. Ordinance No. 2671 – Second Reading - PUD Master Plan Amendment – Avian Pointe  
Project: Apopka Clear Lake Investments, LLC  
Location: East side of SR 429, north of Lust Road. The City Clerk read the title as follows:

**ORDINANCE NO. 2671**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING ORDINANCE 2292, WHICH AMENDS THE ADOPTED “AVIAN POINTE PLANNED UNIT DEVELOPMENT (PUD) MASTER PLAN” FOR CERTAIN REAL PROPERTY LOCATED NORTH OF LUST ROAD AND EAST OF SR 429, COMPRISING 127.21 ACRES MORE OR LESS; OWNED BY APOPKA CLEAR LAKE INVESTMENTS, LLC; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.**

Mr. Moon advised there have been no changes to the Ordinance. City Council is requested to take two actions, one is to adopt Ordinance No. 2671 and the second is to approve the Development Agreement related to the development site. He advised the developer is present to answer any questions by Council and he finds the agreement acceptable.

Mayor Nelson opened the meeting to a public hearing.

Derek Ryan lives on Petersen Road and expressed concerns regarding traffic and safety of equipment and trucks traveling in the area of King Street and Petersen Road. He said that Florida Cactus sells their succulents retail, so there is also a lot of smaller vehicle traffic. He stated the road was not wide enough for two-lane traffic to safely pass each other and trucks must swing wide to go around the 90-degree curve, which is also a blind curve.

Commissioner Bankson inquired if the reason the curve is a blind curve was due to overgrowth, to which Mr. Ryan responded in the affirmative.

Mr. Moon affirmed staff has been aware of the situation on Petersen Road and King Street since Mr. Bombeeck began planning this site. He stated it is likely that Petersen Road from King Street to the project entrance will require some type of improvement. He affirmed there was sufficient right-of-way on both streets.

No one else wishing to speak, Mayor Nelson closed the public hearing.

**MOTION by Commissioner Bankson, and seconded by Commissioner Becker to adopt Ordinance No. 2671. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan, and Smith voting aye.**

**MOTION by Commissioner Smith and seconded by Commissioner Nolan to approve the Development Agreement for Avian Pointe. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

6. Ordinance No. 2672 – Second Reading - “MEdTech Campus Overlay District”  
Project: City of Apopka – Kelly Park Interchange Form-Based Code Amendment. The City Clerk read the title as follows:

**ORDINANCE NO. 2672**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE KELLY PARK INTERCHANGE FORM BASED CODE BY CREATING A NEW OVERLAY DISTRICT ENTITLED “MEDTECH CAMPUS OVERLAY DISTRICT”, PROVIDING FOR DIRECTIONS TO THE CITY CLERK; SEVERABILITY; CONFLICTS; AND AN EFFECTIVE DATE.**

Jim Hitt, Community Development Director, said suggested revisions were made to the definition of technology.

Commissioner Becker asked if they were trying to isolate technology to more hardware, to which Mr. Hitt responded in the negative. The consensus was to add verbiage to include

“production or research of advance or sophisticated devices or software technologies in the field of electronics, robotics, ...”.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Nolan, and seconded by Commissioner Bankson, to adopt Ordinance No. 2672 with the revised verbiage as suggested. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan, and Smith voting aye.**

7. Ordinance No. 2674 – Second Reading – 2018 Annexation Cycle 4 – Parcel  
Project: City of Apopka  
Location: East side of North Hiawasse Road, south of US 441. The City Clerk read the title as follows:

**ORDINANCE NO. 2674**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, TO EXTEND ITS TERRITORIAL AND MUNICIPAL LIMITS TO ANNEX PURSUANT TO CHAPTER 171.044, FLORIDA STATUTES THE HERINAFTER DESCRIBED LANDS SITUATED AND BEING IN ORANGE COUNTY FLORIDA, OWNED BY THE CITY OF APOPKA; AND LOCATED ON THE EAST SIDE OF N HIAWASSEE ROAD AND SOUTH OF US 441/ORANGE BLOSSOM TRAIL; PROVIDING FOR DIRECTIONS TO THE CITY CLERK, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.**

Pam Richmond, Senior Planner, said there have been no changes since the first reading.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Nolan, and seconded by Commissioner Bankson to adopt Ordinance No. 2674. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan, and Smith voting aye.**

8. Ordinance No. 2675 – Second Reading – 2018 Annexation Cycle 4 – Road Right-of-Ways  
Project: Orange County  
Locations: North Hiawasse Road, Lust Road, East Votaw Road, North Christiana Avenue, South Christiana Avenue, Vick Road, West Martin Street, E Nancy Lee Lane, and W Nancy Lee Lane. The City Clerk read the title as follows:

**ORDINANCE NO. 2675**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, TO EXTEND ITS TERRITORIAL AND MUNICIPAL LIMITS TO ANNEX PURSUANT TO FLORIDA STATUTE 171.044 THE HEREINAFTER DESCRIBED**

**PUBLIC RIGHTS-OF-WAY KNOWN AS NORTH HIAWASSEE ROAD, LUST ROAD, EAST VOTAW ROAD, NORTH CHRISTIANA AVENUE, SOUTH CHRISTIANA AVENUE, VICK ROAD, WEST MARTIN STREET, EAST NANCY LEE LANE, AND WEST NANCY LEE LANE, SITUATED AND BEING IN ORANGE COUNTY, FLORIDA, AND COMPRISED OF APPROXIMATELY 16.341 ACRES; OWNED BY ORANGE COUNTY BOARD OF COUNTY COMMISSIONERS; PROVIDING FOR DIRECTIONS TO THE CITY CLERK, SEVERABILTY, CONFLICTS, AND AN EFFECTIVE DATE.**

Ms. Richmond advised there have been no changes since the First Reading.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Smith, and seconded by Commissioner Becker to adopt Ordinance No. 2675. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan, and Smith voting aye.**

9. Ordinance No. 2673 – First Reading – Land Development Code Amendment  
Project: City of Apopka – Article V, Section 5.05.00 – Floodplains. The City Clerk read the title as follows:

**ORDINANCE NO. 2673**

**AN ORDINANCE BY THE APOPKA CITY COUNCIL AMENDING THE APOPKA CODE OF ORDINANCES TO REPEAL LAND DEVELOPMENT CODE SECTION 5.05.00 FLOODPLAINS; TO ADOPT A NEW SECTION 5.05.00; TO AMEND LAND DEVELOPMENT CODE SECTION 1.09.13 DEFINITIONS; TO ADOPT FLOOD HAZARD MAPS, TO DESIGNATE A FLOODPLAIN ADMINISTRATOR, TO ADOPT PROCEDURES AND CRITERIA FOR DEVELOPMENT IN FLOOD HAZARD AREAS, AND FOR OTHER PURPOSES; TO ADOPT TECHNICAL AMENDMENTS TO THE FLORIDA BUILDING CODE; PROVIDING FOR APPLICABILITY; SEVERABILITY, AND AN EFFECTIVE DATE**

Richard Earp, City Engineer, said in order for the City to maintain compliance with the minimum requirements of FEMA National Flood Insurance program, revisions to the floodplain ordinance and associated floodplain elements of the Land Development Code are required. He stated he worked with FEMA to develop these code revisions as required by the Florida Division of Emergency Management and FEMA. The language addresses the consistency issues between our definitions for Floodplain Administrator and other definitions with the Florida Building Code and FEMA minimum requirements. He said the only change not required by FEMA was the increase of a home 2-feet above floodplain elevation. This allows the City to continue additional FEMA community rating system credits and discounts for residents with flood insurance. The recommendation is to approve at first reading and carry over for a second reading.



Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Nolan, and seconded by Commissioner Becker to approve Ordinance No. 2673 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

10. Ordinance No. 2679 – First Reading – Comprehensive Plan Amendment  
Project: City of Apopka - Capital Improvements Element – Recreation Improvements. The City Clerk read the title as follows:

**ORDINANCE NO. 2679**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE CAPITAL IMPROVEMENTS ELEMENT OF THE APOPKA COMPREHENSIVE PLAN OF THE CITY OF APOPKA INCORPORATING AN AMENDMENT TO THE CITY'S FIVE YEAR CAPITAL IMPROVEMENTS PLAN; PROVIDING FOR SEVERABILITY AND PROVIDING FOR AN EFFECTIVE DATE.**

Mr. Moon said this was the first reading amending the Capital Improvement Element of the Comprehensive Plan to include playground improvements at Kit Land Nelson Park and the NW Recreation Area to be eligible for the grant.

Mayor Nelson opened the meeting to a public hearing. No one wishing to speak, he closed the public hearing.

**MOTION by Commissioner Nolan, and seconded by Commissioner Smith to approve Ordinance No. 2679 at First Reading, and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Smith, and Nolan voting aye.**

**CITY COUNCIL REPORTS**

Commissioner Nolan thanked staff for constantly looking for grants to improve the City.

Commissioner Bankson said a representative from Israel will be here next month and he would like to work with staff regarding partnering on bringing jobs to our area and headquartering here. He said when he makes the trip to Israel he wants to represent for the City and look at partnering and sister cities.

Commissioner Smith said he attended, as well as Commissioner Becker, the event this weekend regarding Childhood Cancer Awareness and it was an outstanding event. He commended City staff for the lights out front of City Hall.

**MAYOR'S REPORT**

1. Billie Dean Building.

Mr. Bass said he met with Commissioner Dean and they came to a resolution of rather than naming a road after him, he is honored and satisfied with having his name on the new community center at Alonzo Williams Park.

2. UCF Incubator Building located at Park Ave. and 5th Street. Mayor Nelson said Mr. Hitt was going to lead a discussion on the property at Park Avenue and 5<sup>th</sup> Street. Mr. Hitt said this property is for sale and has been for sale for approximately a year. He stated the building was a little over 20,000 square feet with five units currently in the building. He said the interior could be easily changed. It is block construction built in 1953. The City has an opportunity to purchase the building that was originally put on the market for \$1.2 million and the real estate agent came in to discuss the plans for the downtown and discussed the opportunity for this in terms of development. The property was recently reduced to \$850,000. He said when Council discussed relocating the UCF Incubator; they talked about finding a more permanent home for it. He said the Chamber of Commerce also needs a larger facility and this would be an opportunity for these entities sharing the space of this building with an opportunity to expand spaces for businesses that go through the incubator to stay and pay rent for the space. He stated the City would have to determine funding if they decide to move on this opportunity.

Commissioner Becker said this was intriguing for the land, versus the building itself. He felt it would be a miss to exploit that location and use it for the incubator and chamber. In terms of making the area, an attractive space to tie in with the west development of Station Street makes that area a natural progression from there on to the City Center.

Mayor Nelson said this property is available and the City has land we are selling. He stated there is a possibility for funding available up to 80% for improvements of the UCF Incubator if located there.

Commissioner Nolan said this was a prime location for the private sector, but she did not see moving the incubator there or the City owning this property. She stated there were other areas they need to focus on more rather than spending money on this.

Commissioner Bankson said this would put the City in the position to help develop and have more control of what is developed. He mentioned the condition of the roof and said there would need to be inspections of the building.

Commissioner Smith said he felt it was a good idea for the City to purchase the property and have control of what types of businesses they would like to see there. He stated he looked at this as an investment and an opportunity to make more money to fill some of the gaps.

Commissioner Becker said if looking at this as just that building alone, he could see those points. He stated with the RFP for Station Street and tying in the other city owned properties, it is all ties in together and makes that bundle more attractive to a potential developer.

Commissioner Bankson said in regards to timing, it is a larger ticket item and the City can approach how to fund and finance this in a different way than smaller items. He stated interest rates were historically low now and it would be making an investment that will pay off longer in the end.

Mr. Bass said financing options would be utilizing proceeds from property the city sells and invest those in this capital. Another option would be to finance, or take from reserves. The reserves would be replenished when the property is sold.

Mayor Nelson said the next step would be to look into having an appraisal done if the Council is interested in moving on this.

Mr. Hitt said he had funds in his budget that would cover an appraisal and building inspection.

Commissioner Smith asked if the owner could sale this property while the City obtains an appraisal.

City Attorney Shepard said the owner could sale the property, unless the City puts it under an option contract to give them time, but the City would pay for the option. He explained the City could enter in to a contract for a specified amount and have it contingent on certain things such as the appraisal and inspection so that if anything comes back problematic, the City would then get their deposit money back, but they would pay for the time it is off the market as negotiated. He spoke of the City being able to control the palate being critical when discussing redevelopment and pointed out this is in the CRA.

Commissioner Nolan said she felt the City should have the money before going down this road.

Commissioner Bankson reiterated he would not want to purchase something without knowing what condition it is in.

Mayor Nelson suggested an option of \$10,000 and a purchase price of \$800,000 with all the conditions that go with it including a sound roof, appraised value of \$800,000 or more. If the appraisal does not come back, then we would not be out anything.

Mr. Hitt said he could ask for a 2-3 week grace period without doing an option, and if not, then move forward with an option.

**MOTION by Commissioner Smith to allow Mr. Hitt to speak with the property owner to allow a three-week grace period to get the property inspected and appraised and if the owner does not agree to the grace period, and offer an option up to \$10,000 deposit to allow time to inspect the building and have an appraisal done with an offer of \$800,000. Motion failed due to lack of a second.**

Discussion ensued regarding the building and what to utilize it for; whether to immediately put it on the market for development, or utilize for the Incubator and Chamber. It was determined this would be a matter to determine at a later time.

**MOTION by Commissioner Smith, and seconded by Commissioner Becker to allow for an appraisal to be done and ask for a three week grace period to get it done. Motion**

**carried 4-1 with Mayor Nelson, and Commissioners Bankson, Becker, and Smith voting aye and Commissioner Nolan voting nay.**

Mayor Nelson reported that Rotarian Gary Kreisler's company, Clancy & Theys, is working with the Mason Lodge to get the wood repaired and painting of the lodge. Home Depot has offered all supplies to help with these improvements.

Mayor Nelson reported the total taken in for the Splash Pad to date is \$4,289. This has paid for the chemicals and staff. He announced that Porkie's purchased 200 tickets to give away to patrons that come in with children.

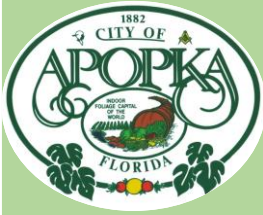
Mr. Bass said we were hearing complaints regarding the mowing of the golf course at Errol Estates and Rock Springs Ridge. He advised both owners have been contacted and they have started mowing. The City has requested schedules from both parties.

**ADJOURNMENT:** There being no further business the meeting adjourned at 10:21 p.m.

\_\_\_\_\_  
Bryan Nelson, Mayor

ATTEST;

\_\_\_\_\_  
Linda F. Goff, City Clerk



# CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER:

MEETING OF: October 3, 2018  
 FROM: Police Department  
 EXHIBITS: Agreement

**SUBJECT: TOWER SITE AGREEMENT**

**REQUEST: AUTHORIZE THE MAYOR TO EXTEND THE AGREEMENT WITH LAKE COUNTY TO CO-LOCATE A NORTHERN COMMUNICATIONS SITE.**

**SUMMARY:**

The City Council authorized the purchase and construction of a northern communications site (Motorola 2<sup>nd</sup> Site) to improve the radio communications coverage of public safety and general city services provided by the city. Apopka staff negotiated with Lake County staff regarding the colocation of radio services. Apopka City Council and Lake County Commission approved an agreement for Apopka’s use of Lake County land and Lake County’s use of Apopka’s communications tower. The agreement had a six month permitting clause. The permitting process is nearly complete, however it has exceeded the six-month clause. Lake County and Apopka staff request an amendment to allow for a six-month extension.

**FUNDING SOURCE:**

N/A

**RECOMMENDATION ACTION:**

Authorize the Mayor to extend the permitting clause.

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**FIRST AMENDMENT TO INTERLOCAL AGREEMENT**

**BETWEEN**

**LAKE COUNTY, FLORIDA**

**AND**

**CITY OF APOPKA, FLORIDA**

**FOR SHARED PUBLIC SERVICE RADIO COMMUNICATION FACILITIES**

**THIS IS THE FIRST AMENDMENT** to the Interlocal Agreement between Lake County, Florida, a political subdivision of the State of Florida (“COUNTY”), by and through its Board of County Commissioners, and the City of Apopka, Florida, a municipal corporation organized under the laws of the State of Florida (“CITY”).

**WHEREAS**, on May 3, 2018, the COUNTY and CITY entered into an Interlocal Agreement for construction and operation of a public safety radio communication facilities on County Property (“Agreement”); and

**WHEREAS**, the COUNTY and CITY desire to amend the Agreement to extend the date in which all required approvals can be obtained from six (6) months to one (1) year from the effective date.

**NOW, THEREFORE, IN CONSIDERATION** of the mutual terms, understandings, conditions, premises, and covenants hereinafter set forth in this First Amendment, and intending to be legally bound, the COUNTY and the CITY agree as follows:

1. **RECITALS**. The foregoing recitals are true and correct and incorporated herein by reference.


2. **AMENDMENT**. Section 21 is hereby amended to state as follows:

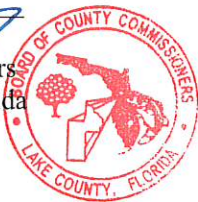
21. **APPROVALS**. The CITY will be responsible to apply for the appropriate COUNTY variances, permits, zoning approvals, site plan approval and building permits, in accordance with the applicable provisions in the Lake County Code and Land Development Regulations. If the CITY does not or is unable to obtain all required approvals within ~~6 months~~ 1 (one) year of the Effective Date this Agreement, this Agreement shall be deemed null and void.

3. **EFFECT OF AMENDMENT.** All other provisions of the Agreement will remain in full force and effect unless otherwise formally amended by the parties. To the extent this First Amendment conflicts with the Agreement, this First Amendment will govern.

**IN WITNESS WHEREOF**, the parties hereto have made and executed this First Amendment on the respective dates under each signature: Lake County, through its Board of County Commissioners, signing by and through its Chairman, and by the City of Apopka, Florida, through its City Council, signing by and through its Mayor.

ATTEST:

  
\_\_\_\_\_  
Gary J. Cooney, Clerk  
of the Board of County Commissioners,  
Commissioners of Lake County, Florida  
County, Florida



**LAKE COUNTY, FLORIDA** through its  
BOARD OF COUNTY COMMISSIONERS

  
\_\_\_\_\_  
Timothy I. Sullivan, Chairman

This 24 of September, 2018.

Approved as to form and legality:

  
\_\_\_\_\_  
Melanie Marsh, County Attorney

ATTEST:

**CITY OF APOPKA, FLORIDA**

\_\_\_\_\_  
Linda F. Goff, City Clerk

\_\_\_\_\_  
Bryan Nelson, Mayor

This \_\_\_\_ day of \_\_\_\_\_, 2018.

Approved as to form and legality:

\_\_\_\_\_  
Cliff Shepard, City Attorney





# CITY OF APOPKA CITY COUNCIL

CONSENT AGENDA  
 PUBLIC HEARING  
 SPECIAL REPORTS  
 OTHER:

MEETING OF: October 3, 2018  
FROM: Community Development  
EXHIBITS: Concurrency Agreement

**SUBJECT: VISTA RESERVE SCHOOL CONCURRENCY MITIGATION AGREEMENT**

**REQUEST: APPROVAL OF THE VISTA RESERVE SCHOOL CONCURRENCY MITIGATION AGREEMENT**

**SUMMARY:**

New residential development applications are reviewed by Orange County Public Schools (OCPS) for their impact placed on existing student capacity at public schools. This school impact analysis, called school concurrency, occurs at the time of a Final Development Plan and Plat application. In 2008 the City of Apopka entered into an interlocal agreement with the Orange County School Board to address public school facility planning and implementation of school concurrency (hereafter School Agreement). As a party to this School Agreement, the City becomes a party to this Agreement. Therefore, City Council must accept the Agreement and authorize the Mayor to sign it to allow OCPS to implement the mitigation plan. When school enrollment is over capacity at the public schools serving additional students generated by a proposed residential development, a new development must have a school concurrency mitigation analysis to determine additional cost of school impacts the proposed development will generate above that considered by the school impact fee. The developer pays these additional fees according to the conditions of the school concurrency mitigation fee. (See exhibit.)

OWNER/APPLICANT: Pulte Home Company, LLC/Pulte Home Corporation  
PROJECT ENGINEER: Madden, Moorhead & Stokes, Inc.  
LOCATION: East side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road  
PROPOSED DEVELOPMENT: 153 single family homes; developed in one phase  
DEVELOPABLE AREA: 61.1 +/- acres  
SCHOOL ATTENDENCE ZONES: Wolf Lake Elementary, Wolf Lake Middle, Apopka High

**FUNDING SOURCE: N/A**

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**CITY COUNCIL – OCTOBER 3, 2018**  
**VISTA RESERVE - SCHOOL CONCURRENCY MITIGATION AGREEMENT**  
**PAGE 2**

**PUBLIC HEARING SCHEDULE:**

October 3 – City Council (1:30 pm)

---

**RECOMMENDATION ACTION:**

**City Council Recommended Motion:** Approve the Vista Reserve Concurrency Mitigation Agreement and authorize the Mayor to sign the Agreement.

After recording return to:

Jamie Boerger, AICP  
Orange County Public Schools  
6501 Magic Way, Building 200  
Orlando, Florida 32809

-----[SPACE ABOVE THIS LINE FOR RECORDING DATA]-----

**SCHOOL CONCURRENCY  
MITIGATION AGREEMENT  
APK-18-017  
Vista Reserve  
Parcel ID 29-20-28-0000-00-003**

**THIS SCHOOL CONCURRENCY MITIGATION AGREEMENT** (“Agreement”), is entered into by **THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA** a body corporate and political subdivision of the State of Florida, (“School Board”); **CITY OF AOPKA**, a municipal corporation of the State of Florida, (“City”) and **PULTE HOME COMPANY**, a State of Florida limited liability company, whose address is 4901 Vineland Road, Suite 500, Orlando, Florida 32811, (collectively, the “Applicant”), collectively referred to herein as the “Parties.”

RECITALS:

WHEREAS, the School Board, Orange County, and the municipalities within Orange County have entered into that certain “Amended and Restated Interlocal Agreement For Public School Facility Planning and Implementation of Concurrency” (the “Interlocal Agreement”), and

WHEREAS, pursuant to Section 16.6 of the Interlocal Agreement, an applicant submitting a School Concurrency Determination Application for approval of a Site Plan that will generate additional students in a School Concurrency Service Area in which there is insufficient Available School Capacity to accommodate the anticipated additional students must enter into a Proportionate Share Mitigation Agreement to prevent school overcrowding attributable to the anticipated additional students generated by the Residential Development as specified in the Interlocal Agreement;

WHEREAS, an Applicant must submit the School Concurrency Determination Application along with a Development Analysis which identifies the proposed location of the Residential Development, the number of Residential Units that will be created, a phasing schedule (if applicable), a map demonstrating land use and zoning classifications for the Applicant’s property, as well as all other information required pursuant to Section 16.5 of the Interlocal Agreement, to the City; and

WHEREAS, Applicant is the fee simple owner, or authorized agent of the owner, of that certain tract of land, as more particularly described on **Exhibit “A,”** attached hereto and

incorporated herein by reference (the “Property”), the location of which is illustrated by a map attached hereto as **Exhibit “B,”** and incorporated herein by reference; and

WHEREAS, the Applicant has submitted a School Concurrency Determination Application and Development Analysis to the City in connection with a proposal to obtain approval for a plat in order to develop up to 153 single family Residential Units on the Property (the “Project”) and the City has forwarded the School Concurrency Determination Application and Development Analysis to the School Board; and

WHEREAS, the School Board has reviewed and evaluated the Applicant’s School Concurrency Determination Application and Development Analysis as required by Section 18.6 of the Interlocal Agreement, and has determined that based on the current adopted Level of Service standards for the School Concurrency Service Areas within which the Property is located and the anticipated new School Capacity that will be available in the first three (3) years of the current District Facilities Work Program to serve the proposed Residential Development, there is insufficient Available School Capacity at the middle school level to serve the new single-family Residential Units within the School Concurrency Service Areas for the Project or within adjacent School Concurrency Service Areas as determined by an Adjacency Review; and

WHEREAS, approving the School Concurrency Determination Application without requiring Proportionate Share Mitigation for the impacts of the proposed Project will either create or worsen school overcrowding in the applicable School Concurrency Service Areas; and

WHEREAS, the Applicant has agreed to enter into this Agreement with the School Board and City to provide Proportionate Share Mitigation proportionate to the demand for Public School Facilities to be created by the Project, as more particularly set forth herein.

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, agree as follows:

1. **INCORPORATION OF RECITALS.** The foregoing recitals are true and correct and are hereby incorporated into this Agreement by reference as if fully set forth herein.
2. **DEFINITION OF MATERIAL TERMS.** Any capitalized terms used herein but not defined shall have the meaning attributed to such term in the Interlocal Agreement.
3. **LEGALLY BINDING COMMITMENT.** This Agreement constitutes a legally binding commitment by the Applicant to mitigate for the impacts of the new Residential Units for which the Applicant is seeking approval pursuant to the School Concurrency Determination Application and is intended to satisfy the requirements of Florida law and the Orange County Code.
4. **PROPORTIONATE SHARE MITIGATION.** The Parties hereby agree that the Applicant shall provide Proportionate Share Mitigation in order to meet the demand for School Capacity created by the Project and to provide additional capacity for middle school students, as follows, in accordance with Section 19.2 of the Interlocal Agreement:

Payment in the amount of ONE MILLION ONE HUNDRED EIGHTY THREE THOUSAND SEVEN HUNDRED EIGHTY FIVE AND 00/100 DOLLARS (\$1,183,785.00) to cover the Proportionate Share Mitigation associated with providing the necessary school capacity for the Project (the “Proportionate Share”) to the School Board. Such payment shall be due and payable prior to the time the plat for the Property is approved and has been calculated in accordance with the formula found in Section 17.2 of the Interlocal Agreement. To the extent the Applicant’s proposed Residential Development is subject to a Capacity Enhancement Agreement, any capacity enhancement mitigation paid pursuant to such agreement will be applied as a credit to the Proportionate Share Mitigation required for the Project. Such credit will be subtracted from the total Proportionate Share Mitigation required pursuant to this Agreement and the Interlocal Agreement.

5. USE OF PROPORTIONATE SHARE. The School Board shall direct the Proportionate Share to a School Capacity improvement identified in the capital improvement schedule in the five (5) year district work plan of the School Board’s District Facilities Work Program which mitigates the impacts from the proposed Residential Development. If such a School Capacity improvement does not exist in the District Facilities Work Program, the School Board may, in its sole discretion, add a School Capacity improvement to its District Facilities Work Program to mitigate the impacts from the Project, as provided in Section 17.6 of the Interlocal Agreement.

6. IMPACT FEE CREDIT. The Proportionate Share Mitigation paid pursuant to Section 4 of this Agreement shall be credited against the School Impact Fee on a dollar for dollar basis at fair market value, up to the amount of the School Impact Fee Credit (hereinafter defined).

Upon payment of the Proportionate Share Mitigation., the School Board shall notify the City to establish a School Impact Fee credit account in the amount of NINE HUNDRED TWENTY ONE THOUSAND SEVEN HUNDRED FIFTY ONE AND 68/100 DOLLARS (\$921,751.68) based upon 105 Equivalent Residential Units (as defined in Section 30-622 of the Orange County Code)(“Impact Fee Credit Amount”). Applicant shall not be entitled to a credit or refund for any portion of the Proportionate Share Mitigation in excess of the Impact Fee Credit Amount.

7. ISSUANCE OF SCHOOL CONCURRENCY RECOMMENDATION. Upon final execution of this Agreement by all Parties hereto, this Agreement will serve as the Applicant’s Capacity Encumbrance Letter in accordance with Section 16.7 of the Interlocal Agreement.

8. SCHOOL CAPACITY ENCUMBRANCE AND RESERVATION. Upon final execution of this Agreement by all Parties hereto, this Agreement will serve as the Applicant’s Capacity Encumbrance Letter that School Capacity will be available for the Project. This is in accordance with Section 16.6(g) of the Interlocal Agreement.

At such time as Applicant has prepaid the School Impact Fees further described in Section 6 of this Agreement, and paid the applicable installment(s) of the School Capacity Reservation Fee described in Section 9 below, School Capacity shall be reserved for 153 single family Residential Units; if the Applicant fails to make any of the required School Capacity Reservation Fee payments described in Paragraph 9 below or if this Agreement is terminated, such reserved School Capacity shall lapse and be returned to the applicable Concurrency Service Area.

9. CAPACITY RESERVATION FEE. The Applicant shall also be required to pay a School Capacity Reservation Fee for the Project in accordance with Section 30-599 of the Orange County Code. The Applicant shall pay the School Capacity Reservation Fee further described below.

- a. 1<sup>st</sup> Installment due within six (6) months of the Effective Date of this Agreement:  
\$ 447,984.00
- b. 2<sup>nd</sup> Installment due 18 months from the Effective Date of this Agreement:  
\$447,984.00
- c. 3<sup>rd</sup> Installment due 30 months from the Effective Date of this Agreement:  
\$447,984.00

Notwithstanding the schedule provided by this Section, Applicant may prepay any or all of the School Capacity Reservation Fees in advance. School Capacity Reservation Fees paid pursuant to this Agreement shall be credited towards School Impact Fees as provided in Section 30-599 of the County Code. Additionally, Applicant may apply the Impact Fee Credit Amount against any one of the foregoing installment payments.

10. TERMINATION. This Agreement shall terminate and Applicant shall forfeit any administrative fees paid, as well as any capacity encumbered or reserved under the following circumstances, unless the City and the School Board agree to an extension of the Applicant's School Concurrency Mitigation Agreement:

a. The Applicable Local Government does not approve the Plat within one hundred eighty (180) days from approval of the Site Plan by the City Council. In such event, all Proportionate Share Mitigation paid by the Applicant shall be refunded to the Applicant by the School Board.

b. The Applicant fails to proceed in good faith and secure at least one Building Permit for a unit other than a model home within three (3) years of recording of the plat. In such case, this Agreement shall be terminated and any encumbered or reserved school capacity shall be returned to its applicable capacity bank. The Applicant will not be entitled to a refund of any portion of the Proportionate Share Mitigation paid under this Agreement, and will only be entitled to receive a 90% refund of the Capacity Reservation Fee.

11. COVENANTS RUNNING WITH THE LAND. This Agreement shall be binding, and shall inure to the benefit of the heirs, legal representatives, successors, and assigns of the parties, and shall be a covenant running with the Property and be binding upon the successors and assigns of the Owner and upon any person, firm, corporation, or entity who may become the successor in interest to the Property.

12. NOTICES. Any notice delivered with respect to this Agreement shall be in writing and be deemed to be delivered (whether or not actually received) (i) when hand delivered to the person(s) hereinafter designated, or (ii) upon deposit of such notice in the United States Mail, postage prepaid, certified mail, return receipt requested, addressed to the person at the address set forth opposite the party's name below, or to such other address or other person as the party shall have specified by written notice to the other party delivered in accordance herewith:

School Board            School Board of Orange County, Florida  
                                 Attn: Superintendent  
                                 445 West Amelia Street  
                                 Orlando, Florida 32801

With a Copy to:        Orange County Public Schools  
                                 Attn: Facilities Planning Department  
                                 6501 Magic Way, Building 200  
                                 Orlando, Florida 32809

Applicant:              Gray Robinson, P.A.  
                                 Attn: Thomas Sullivan  
                                 301 E. Pine Street, Suite 1400  
                                 Orlando, Florida 32801

With a Copy to:        Pulte Home Company, LLC  
                                 4901 Vineland Road, Suite 500  
                                 Orlando, Florida 32811

City:                      City of Apopka  
                                 Attn: Planning Department  
                                 120 E. Main Street  
                                 Apopka, Florida 32703

13.    CAPTIONS AND PARAGRAPH HEADINGS. Captions and paragraph headings contained in this Agreement are for convenience and reference only. They in no way define, describe, extend or limit the scope or intent of this Agreement.

14.    NO WAIVER. No waiver of any provision of this Agreement shall be effective unless it is in writing, and signed by the party against whom it is asserted. Any such written waiver shall only be applicable to the specific instance to which it relates, and shall not be deemed to be a continuing or future waiver.

15.    EXHIBITS. All Exhibits attached hereto are a part of this Agreement and are fully incorporated herein by this reference.

16.    AMENDMENTS. No modification, amendment, or alteration in the terms or conditions contained herein shall be binding upon the parties hereto unless in writing and executed by all the Parties to this Agreement. School Board does hereby confer upon the Superintendent, or Superintendent's designee, the authority to amend this Agreement, provide any consent, notice or approval set forth herein or otherwise exercise any right or election of the School Board granted or reserved herein, without formal approval from School Board, provided such amendment or consent does not substantially alter or modify the terms herein. Further, the Superintendent, or Superintendent's designee, shall have the authority, without further approval from the School Board, to finalize the form of all agreements, assignments, and similar documents set forth in this Agreement, and the School Board's signature of those agreements, assignments, and similar

documents is hereby authorized. The extension of any payment or deadline required hereunder for less than one (1) year shall not be considered to substantially alter or modify the terms herein. If, in the sole judgment of School Board, such amendment or consent does substantially alter or amend this Agreement, then School Board shall have the option of declaring the amendment or consent void *ab initio*, thus rendering the amendment or consent without any legal force and effect.

17. ASSIGNMENT, TRANSFER OF RIGHTS. The Applicant may assign its rights, obligations and responsibilities under this Agreement to a third-party purchaser of all or any part of fee simple title to the Property; provided, however, that any such assignment shall be in writing and shall require the prior written consent of all of the Parties hereto, which consent shall not be unreasonably withheld, conditioned, or delayed. Such consent may be conditioned upon the receipt by the other parties hereto of the written agreement of the assignee to comply with conditions and procedures to aid in the monitoring and enforcement of the assignee's performance of the Applicant's obligations with regard to Proportionate Share Mitigation under this Agreement. The assignor under such assignment shall furnish the Parties with a copy of the written assignment within ten (10) days of the date of execution of same.

The School Board hereby consents to the assignment of this Agreement to KB Home Orlando LLC, a Delaware limited liability company, and by signing the Joinder and Consent to this Agreement, KB Home Orlando LLC, for itself and on behalf of any affiliate that may become an assignee of this Agreement, hereby agrees upon acquisition of the Property to agree all rights and obligations of Applicant hereunder and further agrees to assume and comply with all conditions and procedures to aid in the monitoring and enforcement of the assignee's performance of the Applicant's obligations with regard to the applicable Capacity Reservation Fees and Proportionate Share Mitigation under this Agreement, including, without limitation, under Sections 4, 6 and Section 9 of this Agreement.

18. COUNTERPARTS. This Agreement may be signed in counterparts, each of which may be deemed an original, and all of which together constitute one and the same agreement.

19. RECORDING OF THIS AGREEMENT. The School Board agrees to record this Agreement, at Applicant's expense, in the Public Records of Orange County, Florida.

20. ENTIRE AGREEMENT. This Agreement sets forth the entire agreement among the Parties with respect to the subject matter addressed herein, and it supersedes all prior and contemporaneous negotiations, understandings and agreements, written or oral, among the Parties.

21. SEVERABILITY. If any provision of this Agreement is declared invalid or unenforceable by a court of competent jurisdiction, the invalid or unenforceable provision will be stricken from the Agreement, and the balance of the Agreement will remain in full force and effect as long as doing so would not affect the overall purpose or intent of the Agreement.

22. APPLICABLE LAW. This Agreement and the provisions contained herein shall be construed, controlled, and interpreted according to the laws of the State of Florida and in accordance with the Orange County Code and venue for any action to enforce the provisions of this Agreement shall be in the Ninth Judicial Circuit Court in and for Orange County, Florida.



23. ATTORNEY’S FEES. In the event any party hereto brings an action or proceeding, including any counterclaim, cross-claim, or third party claim, against any other party hereto arising out of this Agreement, each party in such action or proceeding, including appeals therefrom, shall be responsible for its own attorney fees.

24. EFFECTIVE DATE. The effective date of this Agreement shall be the date when the last one of the parties has properly executed this Agreement as determined by the date set forth immediately below their respective signatures (the “Effective Date”).

25. PRE-PAYMENT, MITIGATION & CAPACITY RESERVATION FORMS. This Agreement requires the Applicant to pay a Proportionate Share Mitigation and a portion of the Capacity Reservation Fee prior to the recording of a Plat. The form attached hereto as **Exhibit “C,”** must be completed and returned to the School Board’s Facilities Planning Department with all fees due hereunder, including, but not limited to, applicable Capacity Reservation Fees and Proportionate Share Mitigation. This form must be completed and returned to the Facilities Planning Department, in addition to all fees payable pursuant to the terms of this Agreement, to satisfy Sections 4 and Section 9 of this Agreement.

*[SIGNATURE PAGES TO FOLLOW]*

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed by their respective duly authorized representatives on the dates set forth below each signature:

**“SCHOOL BOARD”**

Signed and sealed in the presence of:

**THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA**, a body corporate and political subdivision of the State of Florida

Print Name: \_\_\_\_\_ By: \_\_\_\_\_  
William E. Sublette, its Chairman

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

STATE OF FLORIDA        )  
  ) s.s.:  
COUNTY OF ORANGE     )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2018, by William E. Sublette, Chairman of The School Board of Orange County, Florida, a body corporate and political subdivision of the State of Florida, on behalf of The School Board, who is personally known to me or had produced \_\_\_\_\_ (type of identification) as identification.

AFFIX NOTARY STAMP

\_\_\_\_\_  
NOTARY PUBLIC OF FLORIDA  
Print Name: \_\_\_\_\_  
Commission No.: \_\_\_\_\_  
Expires: \_\_\_\_\_

*[ADDITIONAL SIGNATURE PAGES TO FOLLOW]*

**THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA**, a body corporate and political subdivision of the State of Florida

Signed and sealed in the presence of:

\_\_\_\_\_  
Print Name: \_\_\_\_\_

\_\_\_\_\_  
Print Name: \_\_\_\_\_

Attest: \_\_\_\_\_  
Barbara M. Jenkins, Ed.D. as its  
Secretary and Superintendent

Dated: \_\_\_\_\_

STATE OF FLORIDA        )  
  ) s.s.:  
COUNTY OF ORANGE     )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2018, by Barbara M. Jenkins, ED.D. as Superintendent of The School Board of Orange County, Florida, a body corporate and political subdivision of the State of Florida, on behalf of The School Board, who is personally known to me or has produced \_\_\_\_\_ (type of identification) as identification.

\_\_\_\_\_  
NOTARY PUBLIC OF FLORIDA  
Print Name: \_\_\_\_\_  
Commission No.: \_\_\_\_\_  
Expires: \_\_\_\_\_

AFFIX NOTARY STAMP

Reviewed and approved by Orange County  
Public School's Chief Facilities Officer

Approved as to form and legality by legal  
counsel to The School Board of Orange  
County, Florida, exclusively for its use and  
reliance.

\_\_\_\_\_  
John T. Morris  
Chief Facilities Officer

\_\_\_\_\_  
Laura L. Kelly, Staff Attorney III/Planning  
and Real Estate

Date: \_\_\_\_\_, 2018

Date: \_\_\_\_\_, 2018

**“APPLICANT”**

Signed and sealed in the presence of:

**PULTE HOME COMPANY, LLC**, a Florida limited liability company

\_\_\_\_\_  
Print Name: \_\_\_\_\_

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_

\_\_\_\_\_  
Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF FLORIDA        )  
  ) s.s.:  
COUNTY OF ORANGE    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2018, by \_\_\_\_\_ as \_\_\_\_\_ of Pulte Home Company, LLC, a Florida limited liability company. He/she is personally known to me or has produced \_\_\_\_\_ (type of identification) as identification.

AFFIX NOTARY STAMP

\_\_\_\_\_  
NOTARY PUBLIC OF FLORIDA  
Print Name: \_\_\_\_\_  
Commission No.: \_\_\_\_\_  
Expires: \_\_\_\_\_

## Exhibit "A" Legal Description

Begin at the Southwest corner of the NW 1/4 of Section 29, Township 20 South, Range 28 East, Orange County, Florida; run thence North along the West line of said NW 1/4 a distance of 985.01 feet to the North line of the South 3/4 of the South 1/2 of said NW 1/4; run thence N88°38'14"E along said North line a distance of 2689.71 feet to the Northeast corner of said South 3/4; run thence S00°48'06"E along the East line of said NW 1/4 a distance of 989.23 feet to the Southeast corner of said NW 1/4; run thence S88°43'54"W along the South line of said NW 1/4 a distance of 2703.46 feet to the Southwest corner thereof, and the Point of Beginning. All being and lying in the NW 1/4 of Section 29, Township 20 South, Range 28 East, Orange County, Florida.

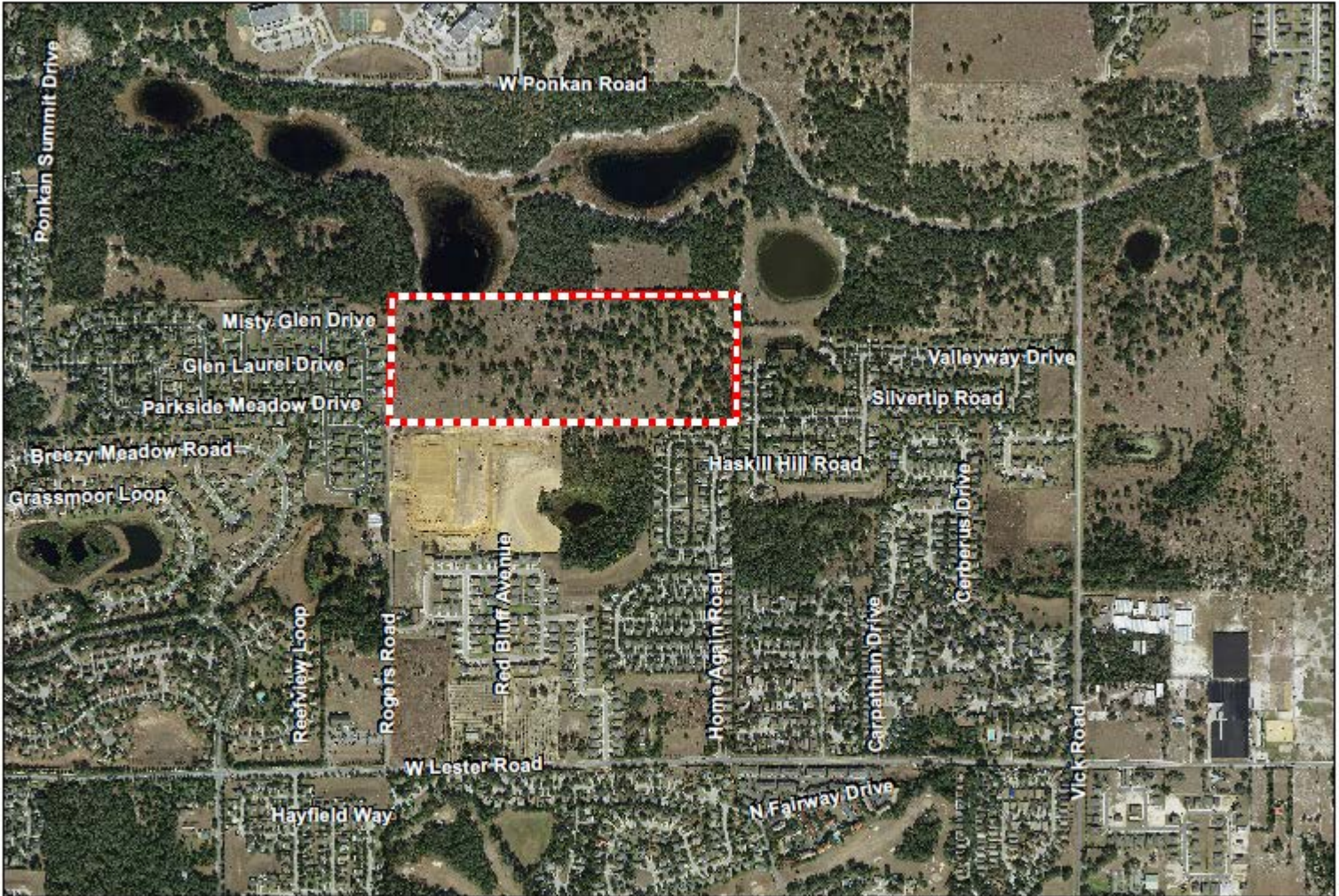
Also described as:

The South 3/4 of the South 1/2 of the NW 1/4 of Section 29, Township 20 South, Range 28 East, Orange County, Florida.

Also described as:

The South sixty (60) acres of the NW 1/4 of Section 29, Township 20 South, Range 28 East, Orange County, Florida.

**Exhibit “B” Location Map**



**Facilities Planning**  
Orange County Public Schools



**Jurisdiction: Orange County**  
**School Board Dist.: # 7**  
**Parcel ID: 29-20-28-0000-00-003**  
**Acreage: +/- 61 ac**

**Schools**  
**ES: Wolf Lake**  
**MS: Wolf Lake**  
**HS: Apopka**

**APK-18-017**  
**Vista Reserve**

## Exhibit “C”-Forms



### CAPACITY RESERVATION FEE & MITIGATION FORM

DEPARTMENT OF FACILITIES PLANNING

6501 MAGIC WAY, BUILDING 200, ORLANDO, FL 32809

TEL: 407-317-3974 / FAX: 407-317-3263 / WEBSITE: <http://planning.ocps.net>

A Concurrency Mitigation Agreement (CMA) or Capacity Encumbrance Letter (CEL) may require property owners and developers to pay a Capacity Reservation Fee (CRF) and/or Proportionate Share Mitigation at some point in the development process prior to issuance of a building permit. This form must be completed and returned to the Department of Facilities Planning at Orange County Public Schools (OCPS) along with a check for the estimated Capacity Reservation Fees, and/or Proportionate Share Mitigation. This form must be completed and returned to the Department of Facilities Planning at Orange County Public Schools. Any questions regarding this form should be directed to the following:

**Contact:**      Jamie Boerger, AICP  
 (407) 317-3700 x2022391  
 Jamie.DiLuzioBoerger@ocps.net

<b>SECTION 1: CMA/CEL INFORMATION</b>	CMA \ CEL #:
	CMA \ CEL Title:
	Jurisdiction:
	Parcel ID(s): <sup>1</sup>
	General Location:
	Development Permit Type: <sup>2</sup>

<b>SECTION 2: APPLICANT INFORMATION</b>	Date:
	Applicant Name:
	Company:
	Address:
	Phone #:
	Email:

# Exhibit “C”-Forms

## CAPACITY RESERVATION FEE & MITIGATION FORM

<b>SECTION 3: DEVELOPMENT PROFILE</b>	<b>Plat/Site Plan Title:</b> <sup>3</sup>
	<b>Project Title:</b>
	<b>Phase:</b>
	<b># Single Family Units:</b>
	<b># Multi-Family Units:</b>
	<b># Townhome Units:</b>
	<b>Total # of Units:</b>
<b>Local Governmental Approval date of Plat/Site Plan:</b>	

<b>SECTION 4: PAYMENT SUMMARY</b>	<b>Capacity Reservation Fee Amount</b> (payable to the applicable local government)		
	Installment: <input type="checkbox"/> 1 <sup>st</sup> <input type="checkbox"/> 2 <sup>nd</sup> <input type="checkbox"/> 3 <sup>rd</sup> <input type="checkbox"/> Remaining Balance    \$ _____		
	<b>Proportionate Share Mitigation Amount</b> (payable to Orange County School Board)		
	\$ _____		
	<small><i>A check made payable to OCPS must accompany this form. If the prepayment amount is correct and the form complete and sufficient, a Letter of Authorization will be prepared by OCPS to inform the Applicable Local Government to create a credit account. OCPS will forward the Letter of Authorization to the Applicable Local Government and copy the Applicant.</i></small>		
	<b>Single Family</b>	<b>Multi-Family</b>	<b>Townhome</b>
	\$8,784/unit	\$5,919/unit	\$6,930/unit
Does this CMA / CEL require an additional contribution?    Yes <input type="checkbox"/> No <input type="checkbox"/>			
Identify the section of the CMA / CEL that requires the mitigation payment?			

Applicant Checklist:	
<input type="checkbox"/>	Capacity Reservation Fee check, payable to the applicable <b>Local Government</b> . (Deliver to OCPS)
<input type="checkbox"/>	Proportionate Share Mitigation check, payable to the <b>Orange County Public Schools</b> . (Deliver to OCPS)
<input type="checkbox"/>	11 X 17 copy of the site plan/plat associated with this request. (Attach to email)

\_\_\_\_\_  
Signature of Applicant
\_\_\_\_\_  
Print Name of Applicant
\_\_\_\_\_  
Date



# Exhibit “C”-Forms

## CAPACITY RESERVATION FEE & MITIGATION FORM

For OCPS Use Only:	
Reviewer : _____  Date Reviewed: _____	Received Stamp
<input type="checkbox"/>	Application Sufficient
<input type="checkbox"/>	Letter of Authorization Approved

**Footnotes:**

1. List all parcel identification numbers assigned to the parcels within the Preliminary Subdivision Plan (PSP), site plan, or plat boundaries that apply to this application. List parcel IDs in a separate attachment, if necessary.
2. Development permit type – state whether the credit will be applied to a plat, PSP, site plan, or other type of permit required by local government. Only one development permit type should apply. A separate Prepaid School Impact Fee Form must be completed for each development permit application.
3. State the title of the PSP, site plan or plat exactly as it appears on that document.



# CITY OF APOPKA CITY COUNCIL

CONSENT AGENDA  
 PUBLIC HEARING  
 SPECIAL REPORTS  
 OTHER:

MEETING OF: October 3, 2018  
FROM: Community Development  
EXHIBITS: Concurrency Agreement

**SUBJECT: MEADOW VIEW APARTMENTS SCHOOL CONCURRENCY MITIGATION AGREEMENT**

**REQUEST: APPROVAL OF THE MEADOW VIEW APARTMENTS SCHOOL CONCURRENCY MITIGATION AGREEMENT**

**SUMMARY:**

New residential development applications are reviewed by Orange County Public Schools for their impact placed on existing student capacity at public schools. This school impact analysis, called school concurrency, occurs at the time of a Final Development Plan and Plat application. In 2008 the City of Apopka entered into an interlocal agreement with the Orange County School Board to address public school facility planning and implementation of school concurrency (hereafter School Agreement). As a party to this School Agreement, the City becomes a party to the Agreement. Therefore, City Council must accept the Agreement and authorize the Mayor to sign it to allow OCPS to implement the mitigation plan. When school enrollment is over capacity at the public schools serving additional students generated by a proposed residential development, a new development must have a school concurrency mitigation analysis to determine additional cost of school impacts the proposed development will generate above that considered by the school impact fee. The developer pays these additional fees according to the conditions of the school concurrency mitigation fee. (See exhibit.)

OWNER/APPLICANT: Allonde Development, LLC  
PROJECT ENGINEER: CivilCorp Engineering, Inc. c/o Stephen Allen, P.E.  
LOCATION: West side of Vick Road at Welch Road  
PROPOSED DEVELOPMENT: Multi-Family (Apartments) Residential Subdivision – 43 Units  
DEVELOPABLE AREA: 4.314 +/- acres  
SCHOOL ATTENDENCE ZONES: Apopka Elementary; Wolf Lake Middle; Apopka High

**FUNDING SOURCE: N/A**

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**CITY COUNCIL – OCTOBER 3, 2018  
MEADOW VIEW APARTMENTS  
SCHOOL CONCURRENCY MITIGATION AGREEMENT  
PAGE 2**

**PUBLIC HEARING SCHEDULE:**

October 3 – City Council (1:30 pm)

---

**RECOMMENDATION ACTION:**

**City Council Recommended Motion:** Approve the Meadow View Apartments Concurrency Mitigation Agreement and authorize the Mayor to sign the Agreement.

After recording return to:

Jamie Boerger, AICP  
Orange County Public Schools  
6501 Magic Way, Building 200  
Orlando, Florida 32809

-----[SPACE ABOVE THIS LINE FOR RECORDING DATA]-----

**SCHOOL CONCURRENCY  
MITIGATION AGREEMENT  
APK-18-010  
Meadow View Apartments  
32-20-28-0000-00-042**

THIS SCHOOL CONCURRENCY MITIGATION AGREEMENT (“Agreement”), is entered into by **THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA** a body corporate and political subdivision of the State of Florida, (“School Board”); **CITY OF APOPKA**, a municipal corporation of the State of Florida, (“City”) and **ALLONDE DEVELOPMENT, LLC**, a Florida limited liability company, whose address is 160 N. Spring Lake Drive, Altamonte Springs, Florida 32714(the “Applicant”), collectively referred to herein as the “Parties.”

RECITALS:

WHEREAS, the School Board, Orange County, and the municipalities within Orange County have entered into that certain “Amended and Restated Interlocal Agreement For Public School Facility Planning and Implementation of Concurrency” (the “Interlocal Agreement”), and

WHEREAS, pursuant to Section 16.6 of the Interlocal Agreement, an applicant submitting a School Concurrency Determination Application for approval of a Site Plan that will generate additional students in a School Concurrency Service Area in which there is insufficient Available School Capacity to accommodate the anticipated additional students must enter into a Proportionate Share Mitigation Agreement to prevent school overcrowding attributable to the anticipated additional students generated by the Residential Development as specified in the Interlocal Agreement;

WHEREAS, an Applicant must submit the School Concurrency Determination Application along with a Development Analysis which identifies the proposed location of the Residential Development, the number of Residential Units that will be created, a phasing schedule (if applicable), a map demonstrating land use and zoning classifications for the Applicant’s property, as well as all other information required pursuant to Section 16.5 of the Interlocal Agreement, to the County; and

WHEREAS, Applicant is the fee simple owner, or authorized agent of the owner, of that certain tract of land, as more particularly described on **Exhibit “A,”** attached hereto and

incorporated herein by reference (the “Property”), the location of which is illustrated by a map attached hereto as **Exhibit “B,”** and incorporated herein by reference; and

WHEREAS, the Applicant has submitted a School Concurrency Determination Application and Development Analysis to the City in connection with a proposal to obtain approval for a site plan in order to develop 43 multi-family, attached Residential Units on the Property (the “Project”) and the City has forwarded the School Concurrency Determination Application and Development Analysis to the School Board; and

WHEREAS, the School Board has reviewed and evaluated the Applicant’s School Concurrency Determination Application and Development Analysis as required by Section 18.6 of the Interlocal Agreement, and has determined that based on the current adopted Level of Service standards for the School Concurrency Service Areas within which the Property is located and the anticipated new School Capacity that will be available in the first three (3) years of the current District Facilities Work Program to serve the proposed Residential Development, there is insufficient Available School Capacity at the middle school level to serve the new multi-family Residential Units within the School Concurrency Service Areas for the Project or within adjacent School Concurrency Service Areas as determined by an Adjacency Review; and

WHEREAS, approving the School Concurrency Determination Application without requiring Proportionate Share Mitigation for the impacts of the proposed new Residential Units will either create or worsen school overcrowding in the applicable School Concurrency Service Areas; and

WHEREAS, the Applicant has agreed to enter into this Agreement with the School Board and County to provide Proportionate Share Mitigation proportionate to the demand for Public School Facilities to be created by the Project, as more particularly set forth herein.

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto, intending to be legally bound, agree as follows:

1. **INCORPORATION OF RECITALS.** The foregoing recitals are true and correct and are hereby incorporated into this Agreement by reference as if fully set forth herein.
2. **DEFINITION OF MATERIAL TERMS.** Any capitalized terms used herein but not defined shall have the meaning attributed to such term in the Interlocal Agreement.
3. **LEGALLY BINDING COMMITMENT.** This Agreement constitutes a legally binding commitment by the Applicant to mitigate for the impacts of the new Residential Units for which the Applicant is seeking approval pursuant to the School Concurrency Determination Application and is intended to satisfy the requirements of Florida law and the Orange County Code.
4. **PROPORTIONATE SHARE MITIGATION.** The Parties hereby agree that the Applicant shall provide Proportionate Share Mitigation in order to meet the demand for School Capacity created by the Project and to provide additional capacity for middle school students, as follows, in accordance with Section 19.2 of the Interlocal Agreement:

Payment in the amount of SEVENTY THREE THOUSAND TWO HUNDRED EIGHTY SEVEN AND 00/100 DOLLARS (\$73,287.00) to cover the Proportionate Share Mitigation associated with providing the necessary capacity to complete the Project (the "Proportionate Share") to the School Board. Such payment shall be due and payable prior to the time the plat for the Property is approved and has been calculated in accordance with the formula found in Section 17.2 of the Interlocal Agreement. To the extent the Applicant's proposed Residential Development is subject to a Capacity Enhancement Agreement, any capacity enhancement mitigation paid pursuant to such agreement was applied as a credit to the Proportionate Share Mitigation required for the Project. Such credit was subtracted from the total Proportionate Share Mitigation required pursuant to the Interlocal Agreement and is reflected in the Proportionate Share required in this Section 4.

5. USE OF PROPORTIONATE SHARE. The School Board shall direct the Proportionate Share to a School Capacity improvement identified in the capital improvement schedule in the five (5) year district work plan of the School Board's District Facilities Work Program which satisfies the demands from the proposed Residential Development. If such a School Capacity improvement does not exist in the District Facilities Work Program, the School Board may, in its sole discretion, add a School Capacity improvement to its District Facilities Work Program to mitigate the impacts from the Project, as provided in Section 17.6 of the Interlocal Agreement.

6. IMPACT FEE CREDIT. The Proportionate Share paid pursuant to this Agreement shall be credited against the School Impact Fee on a dollar for dollar basis at fair market value.

The School Board shall notify the City of the amount of the School Impact Fee Credit based upon 9.60 Equivalent Residential Units (as defined in Section 30-622 of the Orange County Code), currently estimated to be FIFTY SIX THOUSAND EIGHT HUNDRED SIXTY AND 28/100 DOLLARS (\$56,860.28), and shall request a School Impact Fee credit account in such amount upon receipt of the Proportionate Share Mitigation.

7. ISSUANCE OF SCHOOL CONCURRENCY RECOMMENDATION. Upon final execution of this Agreement by all Parties hereto, this Agreement will serve as the Applicant's Capacity Encumbrance Letter in accordance with Section 16.7 of the Interlocal Agreement.

8. SCHOOL CAPACITY ENCUMBRANCE AND RESERVATION. Upon final execution of this Agreement by all Parties hereto, this Agreement will serve as the Applicant's Capacity Encumbrance Letter that School Capacity will be available for the Project. This is in accordance with Section 16.6(g) of the Interlocal Agreement.

At such time as Applicant has prepaid the School Impact Fees further described in Section 6 of this Agreement, and paid the applicable installment(s) of the School Capacity Reservation Fee described in Section 9 below, School Capacity shall be reserved for the Project Units reflected on the application; if the Applicant fails to make any of the required School Capacity Reservation Fee payments described in Paragraph 9 below or if this Agreement is terminated, such reserved School Capacity shall lapse and be returned to the applicable Concurrency Service Area.

9. CAPACITY RESERVATION FEE. The Applicant shall be required to pay a School Capacity Reservation Fee for the Project in accordance with Section 30-599 of the Orange

County Code. The Applicant shall pay the School Capacity Reservation Fee further described below.

- a. 1st Installment due within six (6) months of the Effective Date of this Agreement:  
\$ 84,839.00; and
- b. 2nd Installment due 18 months from the Effective Date of this Agreement:  
\$ 84,839.00; and
- c. 3rd Installment due 30 months from the Effective Date of this Agreement:  
\$ 84,839.00.

Notwithstanding the schedule provided by this Section, Applicant may prepay any or all of the School Capacity Reservation Fees in advance. School Capacity Reservation Fees paid pursuant to this Agreement shall be credited towards School Impact Fees as provided in Section 30-599 of the County Code.

10. **TERMINATION.** This Agreement shall terminate and Applicant shall forfeit any administrative fees paid, as well as any capacity encumbered or reserved under the following circumstances, unless the City and the School Board agree to an extension of the Applicant's School Concurrency Mitigation Agreement:

a. The Applicable Local Government does not approve the Site Plan within one hundred eighty (180) days from approval of the Site Plan by the City Council. In such event, all Proportionate Share Mitigation paid by the Applicant shall be refunded to the Applicant by the School Board.

b. The Applicant fails to proceed in good faith in a diligent and timely manner and secure at least one Building Permit for a unit other than a model home within three (3) years of recording of the plat. In such case, this Agreement shall be terminated and any encumbered or reserved school capacity shall be returned to its applicable capacity bank. The Applicant will not be entitled to a refund of any portion of the Proportionate Share Mitigation paid under this Agreement, and will only be entitled to receive a 90% refund of the Capacity Reservation Fee assuming all other applicable conditions are met.

11. **COVENANTS RUNNING WITH THE LAND.** This Agreement shall be binding, and shall inure to the benefit of the heirs, legal representatives, successors, and assigns of the parties, and shall be a covenant running with the Property and be binding upon the successors and assigns of the Owner and upon any person, firm, corporation, or entity who may become the successor in interest to the Property.

12. **NOTICES.** Any notice delivered with respect to this Agreement shall be in writing and be deemed to be delivered (whether or not actually received) (i) when hand delivered to the person(s) hereinafter designated, or (ii) upon deposit of such notice in the United States Mail, postage prepaid, certified mail, return receipt requested, addressed to the person at the address set forth opposite the party's name below, or to such other address or other person as the party shall have specified by written notice to the other party delivered in accordance herewith:

School Board            School Board of Orange County, Florida  
                                 Attn: Superintendent  
                                 445 West Amelia Street  
                                 Orlando, Florida 32801

With a Copy to:        Orange County Public Schools  
                                 Attn: Facilities Planning Department  
                                 6501 Magic Way, Building 200  
                                 Orlando, Florida 32809

Owner:                    Allonde Development, LLC  
                                 Attn: Talal Hilal  
                                 160 N. Spring Lake Drive  
                                 Altamonte Springs, Florida 32714

City:                      City of Apopka  
                                 Attn: Planning Department  
                                 120 E. Main Street  
                                 Apopka, Florida 32703

13.    CAPTIONS AND PARAGRAPH HEADINGS. Captions and paragraph headings contained in this Agreement are for convenience and reference only. They in no way define, describe, extend or limit the scope or intent of this Agreement.

14.    NO WAIVER. No waiver of any provision of this Agreement shall be effective unless it is in writing, and signed by the party against whom it is asserted. Any such written waiver shall only be applicable to the specific instance to which it relates, and shall not be deemed to be a continuing or future waiver.

15.    EXHIBITS. All Exhibits attached hereto are a part of this Agreement and are fully incorporated herein by this reference.

16.    AMENDMENTS. No modification, amendment, or alteration to the terms or conditions contained herein shall be binding upon the parties hereto unless in writing and executed by all the Parties to this Agreement.

17.    ASSIGNMENT, TRANSFER OF RIGHTS. The Applicant may assign its rights, obligations and responsibilities under this Agreement to a third-party purchaser of all or any part of fee simple title to the Property; provided, however, that any such assignment shall be in writing and shall require the prior written consent of all of the Parties hereto, which consent shall not be unreasonably withheld, conditioned, or delayed. Such consent may be conditioned upon the receipt by the other parties hereto of the written agreement of the assignee to comply with conditions and procedures to aid in the monitoring and enforcement of the assignee's performance of the Applicant's obligations with regard to Proportionate Share Mitigation under this Agreement. The assignor under such assignment shall furnish the Parties with a copy of the written assignment within ten (10) days of the date of execution of same.



18. COUNTERPARTS. This Agreement may be signed in counterparts, each of which may be deemed an original, and all of which together constitute one and the same agreement.

19. RECORDING OF THIS AGREEMENT. The School Board agrees to record this Agreement, at Applicant's expense, in the Public Records of Orange County, Florida.

20. ENTIRE AGREEMENT. This Agreement sets forth the entire agreement among the Parties with respect to the subject matter addressed herein, and it supersedes all prior and contemporaneous negotiations, understandings and agreements, written or oral, among the Parties.

21. SEVERABILITY. If any provision of this Agreement is declared invalid or unenforceable by a court of competent jurisdiction, the invalid or unenforceable provision will be stricken from the Agreement, and the balance of the Agreement will remain in full force and effect as long as doing so would not affect the overall purpose or intent of the Agreement.

22. APPLICABLE LAW. This Agreement and the provisions contained herein shall be construed, controlled, and interpreted according to the laws of the State of Florida and in accordance with the Orange County Code and venue for any action to enforce the provisions of this Agreement shall be in the Ninth Judicial Circuit Court in and for Orange County, Florida.

23. ATTORNEY'S FEES. In the event any party hereto brings an action or proceeding, including any counterclaim, cross-claim, or third party claim, against any other party hereto arising out of this Agreement, each party in such action or proceeding, including appeals therefrom, shall be responsible for its own attorney fees.

24. EFFECTIVE DATE. The effective date of this Agreement shall be the date when the last one of the parties has properly executed this Agreement as determined by the date set forth immediately below their respective signatures (the "Effective Date").

25. PRE-PAYMENT, MITIGATION & CAPACITY RESERVATION FORMS. This Agreement requires the Applicant to pay a Capacity Reservation Fee and Proportionate Share Mitigation prior to the recording of a Plat. The form attached hereto as **Exhibit "C,"** must be completed and returned to the School Board's Facilities Planning Department with all fees due hereunder, including, but not limited to, Capacity Reservation Fees and Proportionate Share Mitigation. This form must be completed and returned to the Facilities Planning Department, in addition to all fees payable pursuant to the terms of this Agreement, to satisfy Paragraph 4 and Paragraph 9 of this Agreement.

*Signatures on Following Page*

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed by their respective duly authorized representatives on the dates set forth below each signature:

Signed and sealed in the presence of:

**“SCHOOL BOARD”**

**THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA**, a body corporate and political subdivision of the State of Florida

\_\_\_\_\_  
Print Name: \_\_\_\_\_

By: \_\_\_\_\_  
William E. Sublette, its Chairman

\_\_\_\_\_  
Print Name: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF FLORIDA        )  
  ) s.s.:  
COUNTY OF ORANGE     )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2017, by William E. Sublette, Chairman of The School Board of Orange County, Florida, a body corporate and political subdivision of the State of Florida, on behalf of The School Board, who is personally known to me or had produced \_\_\_\_\_ (type of identification) as identification.

AFFIX NOTARY STAMP

\_\_\_\_\_  
NOTARY PUBLIC OF FLORIDA  
Print Name: \_\_\_\_\_  
Commission No.: \_\_\_\_\_  
Expires: \_\_\_\_\_

*[ADDITIONAL SIGNATURE PAGES TO FOLLOW]*

**THE SCHOOL BOARD OF ORANGE COUNTY, FLORIDA**, a body corporate and political subdivision of the State of Florida

Signed and sealed in the presence of:

\_\_\_\_\_  
Print Name: \_\_\_\_\_

Attest: \_\_\_\_\_  
Barbara M. Jenkins, Ed.D. as its  
Secretary and Superintendent

\_\_\_\_\_  
Print Name: \_\_\_\_\_

Dated: \_\_\_\_\_

STATE OF FLORIDA        )  
  ) s.s.:  
COUNTY OF ORANGE     )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2017, by Barbara M. Jenkins as Secretary and Superintendent of The School Board of Orange County, Florida, a body corporate and political subdivision of the State of Florida, on behalf of The School Board, who is personally known to me or has produced \_\_\_\_\_ (type of identification) as identification.

\_\_\_\_\_  
NOTARY PUBLIC OF FLORIDA  
Print Name: \_\_\_\_\_  
Commission No.: \_\_\_\_\_  
Expires: \_\_\_\_\_

AFFIX NOTARY STAMP

Reviewed and approved by Orange County  
Public School's Chief Facilities Officer

Approved as to form and legality by legal  
counsel to The School Board of Orange  
County, Florida, exclusively for its use and  
reliance.

\_\_\_\_\_  
John T. Morris  
Chief Facilities Officer

\_\_\_\_\_  
Laura L. Kelly, Staff Attorney III/Planning  
and Real Estate

Date: \_\_\_\_\_, 2017

Date: \_\_\_\_\_, 2017

**“APPLICANT”**

Signed and sealed in the presence of:

**ALLONDE DEVELOPMENT**, a limited liability corporation

\_\_\_\_\_  
Print Name: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

\_\_\_\_\_  
Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF FLORIDA        )  
  ) s.s.:  
COUNTY OF ORANGE    )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2017, by \_\_\_\_\_ as \_\_\_\_\_ of \_\_\_\_\_, on behalf of the organization.

He/she is personally known to me or has produced \_\_\_\_\_ (type of identification) as identification.

\_\_\_\_\_  
NOTARY PUBLIC OF FLORIDA  
Print Name: \_\_\_\_\_  
Commission No.: \_\_\_\_\_  
Expires: \_\_\_\_\_

AFFIX NOTARY STAMP

**“CITY”**

**CITY OF APOPKA, FLORIDA**, a municipal corporation of the State of Florida.

By: Mayor

Print Name \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_

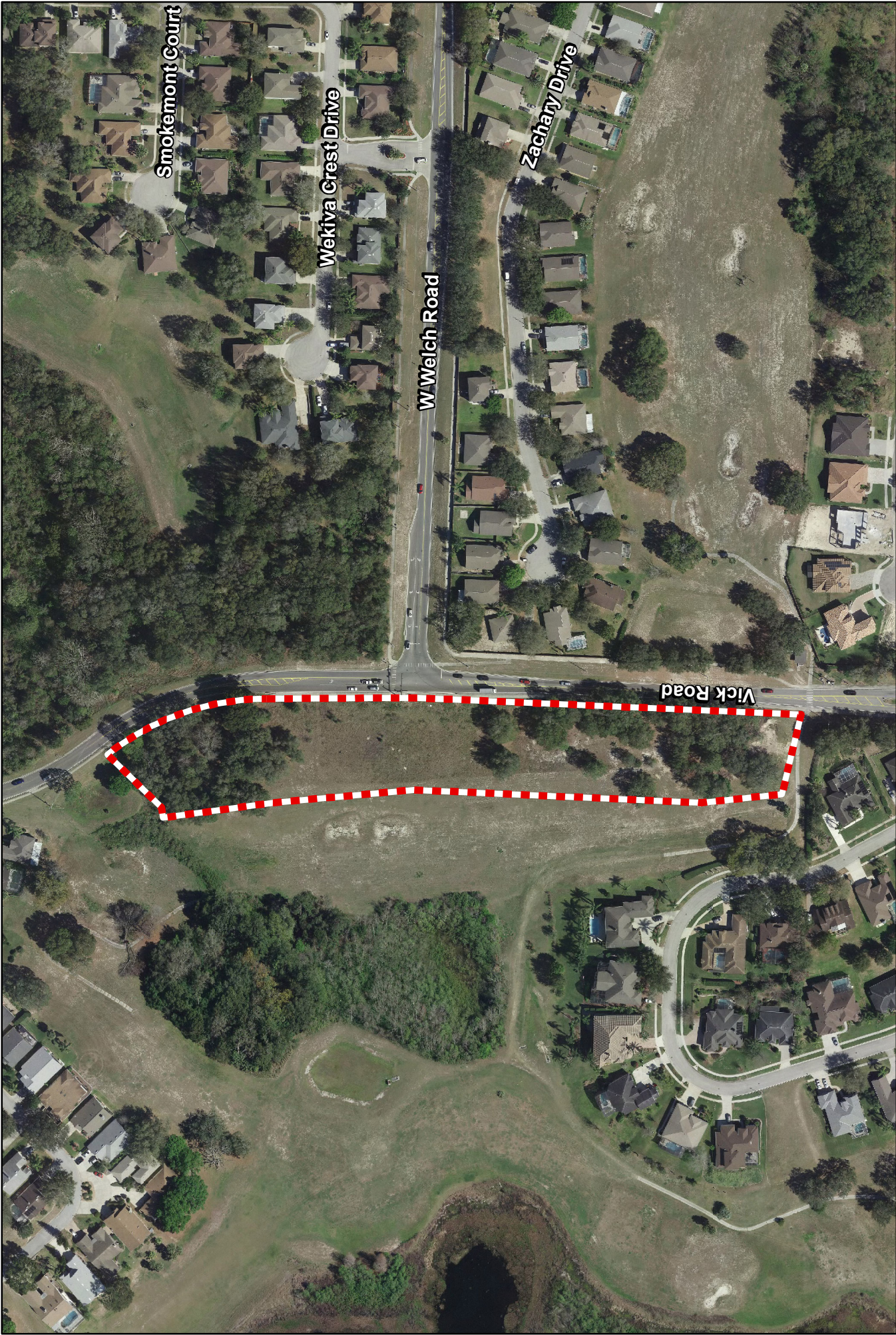
City Clerk

{ Corporate Seal }

Date: \_\_\_\_\_

## Exhibit "A" – Legal Description

Commence at the Southeast corner of the Northeast 1/4 of the Southeast 1/4 of Section 32, Township 20 South, Range 28 East, Orange County, Florida, run North  $88^{\circ}30'07''$  West, along the South line of said Northeast 1/4 of the Southeast 1/4 of Section 32, a distance of 30.04 feet to the Westerly right of way line of Vick Road; thence run North  $04^{\circ}42'00''$  East, along the Westerly right of way line, a distance of 782.41 feet to the POINT OF BEGINNING; thence run North  $74^{\circ}20'56''$  West, a distance of 142.15 feet; thence run North  $03^{\circ}54'17''$  West, a distance of 140.61 feet; thence run North  $04^{\circ}46'05''$  East, a distance of 501.31 feet; thence run North  $02^{\circ}58'59''$  West, a distance of 244.86 feet; thence run North  $05^{\circ}37'38''$  West, a distance of 194.31 feet to the Southwest corner of Tract D of ERRDL GULFSIDE VILLAGE as recorded in Plat Book 10, Pages 43 and 44 of the Public Records of Orange County, Florida; thence run North  $84^{\circ}22'22''$  East, along the South line of said Tract D, a distance of 18.00 feet to the Southeast corner of said Tract D; thence run North  $46^{\circ}45'59''$  East, a distance of 131.57 feet to a point on the Westerly right of way line of Vick Road and a point on a curve concave Southwesterly having a radius of 445.00 feet and a central angle of  $38^{\circ}24'22''$ ; thence from a chord bearing of South  $17^{\circ}07'28''$  East, run Southeasterly along the arc of said curve a distance of 298.29 feet to the point of tangency; thence run South  $01^{\circ}50'51''$  West, along said Westerly right of way line a distance of 259.32 feet; thence run South  $04^{\circ}42'00''$  West, along said Westerly right of way line, a distance of 671.32 feet to the POINT OF BEGINNING.



**Orange County  
Public Schools**



Jurisdiction: City of Apopka  
School Board Dist.: # 7  
Parcel ID: 32-20-28-0000-00-042  
Acreage: +/- 4.31 ac

Schools  
ES: Apopka  
MS: Wolf Lake  
HS: Apopka

APK-18-010  
Meadow View Apartments





This form must be completed and returned to the Department of Facilities Planning at Orange County Public Schools (OCPS) in conjunction with each plat request made to the local government to satisfy Section 4.c. of a School Mitigation Agreement ("Agreement"). When applicable, a check for the Capital Contribution payable to OCPS should accompany this form.

Received Stamp

**\*\*\*THIS FORM APPLIES ONLY TO AGREEMENTS EXECUTED AFTER FEBRUARY 1, 2018. \*\*\***

<b>SECTION 1: CEA INFORMATION</b>	<b>CEA #:</b>
	<b>CEA Title:</b>
	<b>Jurisdiction:</b>
	<b>Parcel ID(s) of property in this request:<sup>1</sup></b>
	<b>General Location:</b>
	<b>Development Permit Type:<sup>2</sup></b>
Please include copies of all transfers and/or assignments of units under the original CEA to the current property owner.	
<b>Acknowledge and Initial:</b> <input type="checkbox"/> _____	

<b>SECTION 2: APPLICANT INFORMATION</b>	<b>Date:</b>
	<b>Applicant Name:</b>
	<b>Company:</b>
	<b>Phone #:</b>
	<b>Email:</b>
	<b>Signature:</b>

Section 3: Applicant Checklist	
<input type="checkbox"/>	If applicable, copy of assignment and/or transfer of CEA credits to property. (Attach to email)
<input type="checkbox"/>	11 X 17 copy of the site plan/plat associated with this request. (Attach to email)
<input type="checkbox"/>	If applicable, check for Capital Contribution, payable to the <b>Orange County Public Schools.</b>



<b>SECTION 4: DEVELOPMENT PROFILE</b>	<b>Plat/Site Plan Title:</b> <sup>3</sup>				
	<b>Project Name:</b>				
	<b>New Units (CEA Units)</b>				
		<b>Total # of Units</b>	<b># Single Family</b>	<b># Multi-Family</b>	<b># Townhome</b>
	CEA Units				
	CEA Units in this Request				
	CEA Units in Previous Plats				
	CEA Units Balance				
	<b>Vested Units (Leave blank if there are no vested units)<sup>4</sup></b>				
	Vested Units				
	Vested Units in this Request				
	Vested Units in Previous Plats				
	Vested Balance				

<b>SECTION 5: MITIGATION</b>	<b>Please refer to Section 4.a. of the Agreement</b>			
	<b>Capital Contribution Amount (Payable to <u>Orange County School Board</u>)</b>			
	<b>Unit Type</b>	<b># of Units</b>	<b>\$ per Unit</b>	<b>Total Mitigation</b>
	SF	X	\$	\$
	TH	X	\$	\$
	MH	X	\$	\$
		<b>GRAND TOTAL:</b>	\$	

For OCPS Use Only:			
Reviewer : _____		Date Reviewed: _____	
<input type="checkbox"/>	Application Sufficient	<input type="checkbox"/>	Letter of Authorization Approved

**Footnotes:**

- List all parcel identification numbers assigned to the parcels within the Preliminary Subdivision Plan (PSP), site plan, or plat boundaries that apply to this application. List parcel IDs in a separate attachment, if necessary.
- Development permit type – state whether the request applies to a plat, PSP, site plan, or other type of approval. A separate School Mitigation Form must be completed for each development application.
- State the title of the PSP, site plan, master plan or plat exactly as it appears on that document.
- The CEA or your Capacity Determination application signed by the Applicable Local Government will have the number of residential units that are vested from the capacity enhancement process.

**"APPLICANT"**

Signed and sealed in the presence of:

**ALLONDE DEVELOPMENT**, a limited liability corporation

Nancy Lafavers  
Print Name: Nancy Lafavers

By: [Signature]

Nadia Hilal  
Print Name: Nadia A Hilal

Print Name: Talal Elias Hilal

Title: President

Date: 8/10/2018

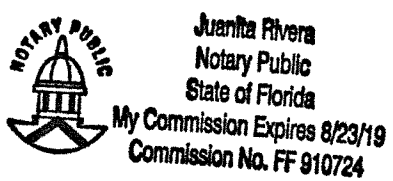
STATE OF FLORIDA     )  
  ) s.s.:  
COUNTY OF ORANGE    )

2018 The foregoing instrument was acknowledged before me this 10 day of Aug.,  
2018, by Talal E. Hilal as \_\_\_\_\_ of \_\_\_\_\_, on behalf of the organization.

He/she is personally known to me or has produced FDL  
(type of identification) as identification.

[Signature]  
NOTARY PUBLIC OF FLORIDA  
Print Name: Juanita Rivera  
Commission No.: FF 910724  
Expires: 8/23/2019

AFFIX NOTARY STAMP





# CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER:

MEETING OF: October 3, 2018  
 FROM: Community Development  
 EXHIBITS: Vicinity Map Agreement

**SUBJECT: LAKESIDE, PHASE 2 (124 LOTS)**

**REQUEST: AUTHORIZE THE MAYOR OR HIS DESIGNEE TO EXECUTE A SEWER AND WATER CAPACITY AGREEMENT FOR LAKESIDE PHASE 2 (124 LOTS)**

**SUMMARY:**

The City’s standard Sewer and Water Capacity Agreement has been prepared for Lakeside Phase 2, located south of Marshall Lake and West of SR 451.

**FUNDING SOURCE: N/A**

**RECOMMENDATION ACTION:**

Authorize the Mayor or his designee to execute the Sewer and Water Capacity Agreement for Lakeside Phase 2.

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief



## LAKESIDE PHASE 2

Avatar Properties Inc.

Parcel ID No's: 17-21-28-0000-00-014, 08-21-28-0000-00-043

Total Acres: 154.18 +/-

## VICINITY MAP



**SEWER AND WATER CAPACITY AGREEMENT**  
**LAKESIDE SUBDIVISION PHASE 2 (124 UNITS)**

THIS AGREEMENT, made as of this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, by and between the City of Apopka, Florida, a municipal corporation, hereinafter sometimes referred to as "City" or "Utility" or both; and \_\_\_\_\_, sometimes hereinafter referred to as "Owner" or "Developer" or both.

WHEREAS, in the City of Apopka Comprehensive Plan it has been established that land development shall not be permitted unless adequate capital facilities exist or are assured; and

WHEREAS, in the City of Apopka Comprehensive Plan the policy has been established that land development shall bear a proportionate cost of the provision of the new or expanded capital facilities required by such development; and

WHEREAS, the City of Apopka Comprehensive Plan established that the imposition of impact fees and dedication requirements are the preferred methods of regulating land development in order to ensure that it bears a proportionate share of the cost of capital facilities necessary to accommodate the development and to promote and protect the public health, safety and welfare; and

WHEREAS, the City Council of the City of Apopka has determined that the City of Apopka must expand its water and sewer systems in order to maintain current water and sewer standards if new development is to be accommodated without decreasing current standards; and

WHEREAS, the City Council of the City of Apopka enacted an Ordinance providing for Water and Sewer Capital Facilities Fees and Tap Fees; and

WHEREAS, Developer owns or controls lands located in City of Apopka or Orange County, Florida, and described in **Exhibit "A"** attached hereto and made a part hereof as if fully set out in this paragraph and hereinafter referred to as the "Property," and Developer intends to develop the Property by erecting thereon, individually metered units, general service units, or combination of these; and

WHEREAS, Developer has officially requested that the Utility provide central water distribution and sewage collection service for Developer's property herein described in **Exhibit "A"**; and

WHEREAS, the Utility is willing to provide, in accordance with the provisions of this Agreement, Utility's main extension policy and the City's Code of Ordinances, central water and sewer services to the Property and thereafter operate applicable facilities so that the occupants of the improvements on the Property will receive an adequate water supply and sewage collection and disposal service from Utility; and

WHEREAS, Developer's project and the receipt of water and sewer service is contingent upon the construction and utilization of existing and contemplated water and sewer service facilities and the availability of capacity of those facilities; and

WHEREAS, the Developer is obligated to pay certain Capital Facilities Fees in conjunction with this commitment for capacity and does desire to execute a Service Agreement with the City.

NOW, THEREFORE, the parties hereto agree as follows:

**Section 1. Compliance.**

The Owner agrees that both he and his successors and assigns will abide by the provisions of this Agreement and the relevant Ordinances of the City and that he will

install or have installed the improvements required by the City in accordance with the provisions of this Agreement and of said Ordinances. The Owner further understands and agrees that, in the development of the subject property, failure to abide by the terms of this Agreement, the provisions of the City's Ordinances, or any other applicable regulations, ordinances, or laws from time to time existing, shall constitute grounds for refusal by the City, or the appropriate authority thereof, to allow such development, to obtain building permits, to institute utility services, or to permit occupancy of completed improvements.

**Section 2. Definitions.**

A. "ERU (Water)" means Equivalent Residential Unit defined as having the average demand of 400 gallons per day, without reclaimed water available, and having the average demand of 300 gallons per day, with reclaimed water available.

B. "ERU (Sewer)" means Equivalent Residential Unit defined as having the average demand of 300 gallons per day.

C. "DEP" shall mean the Department of Environmental Protection of the State of Florida.

D. "Notice To Proceed" - A document executed by the Developer requesting specific water.

E. "Point of Delivery" - The point where the pipes or meter of the Utility are connected with the pipes of the consumer or Owner. Unless otherwise indicated, Point of Delivery shall be at the Owner's lot line.

F. "Property" - The area or parcel of land described in **Exhibit "A"** attached hereto.

G. "Service" - The readiness and ability on the part of the Utility to furnish and



maintain water and sewer service to the point of delivery for each lot or tract pursuant to applicable ordinances, laws, rules, regulations, permits and Utility policies.

**Section 3. On-Site Installation.**

To induce the Utility to provide the water treatment and sewage collection and disposal facilities, and to continuously provide Owner's Property with water and sewer services, unless otherwise provided for herein, Owner hereby covenants and agrees to construct and to transfer ownership and control to the Utility, as a contribution-in-aid-of-construction, the on-site water distribution and sewage collection systems located on Owner's Property. The term "on-site water distribution and sewer collection systems" means and includes all water distribution and supply mains, lines and pipes, and related facilities and sewage collection lines facilities and equipment, including pumping stations, constructed within the boundaries of Owner's Property adequate in size to serve each lot or unit within the property or as otherwise required by Utility. Owner shall install at its sole expense all of the aforesaid facilities within the Property in accordance with the plans, specifications and all other pertinent documents approved by the Utility. Developer will furnish Utility with three (3) copies of the plans and specifications for the water distribution system, sewage collection main lift stations and other facilities necessary to serve the property described in **Exhibit "A"**.

Developer shall obtain approval of plans and specifications from all necessary agencies. No construction shall commence until utility and appropriate regulatory agencies have approved such plans and specifications in writing. If construction commences prior to all such approvals and any other approvals required hereunder, Utility shall have no responsibility to accept such lines and facilities and Utility may elect

to terminate this Agreement and/or not provide service to Developer until such time as Developer obtains all such required approvals. When permits and approved plans are returned by appropriate regulatory agencies to Developer, Developer shall submit to Utility one copy of the water and/or sewer construction permit and approved plans. Developer shall also supply to the Utility a copy of the final estimate or payment covering all contract items and Release of Lien from Contractor(s).

After the approval of plans and specifications by Utility and appropriate regulatory agencies, Developer, or the engineer of record, shall set up a preconstruction conference with engineer of record, utility contractor, appropriate building official(s), all other utility companies involved in the development of the Property, and Utility, as may be appropriate.

Developer shall provide to Utility's representative forty-eight (48) hours written notice prior to commencement of construction and forty-eight (48) hours written notice prior to any inspections or tests being performed as described herein. "Notice" shall be complete when Utility actually receives same.

During the construction of the water distribution and sewage collection systems by Developer, Utility shall have the right to inspect such installations to determine compliance with the approved plans and specifications. The engineer of record shall also inspect construction to insure compliance with the approved plans and specifications. The engineer of record and utility contractor shall be present for all standard tests and inspections for pressure, exfiltration, line and grade, and all other normal engineering tests and inspections to determine that the systems have been installed in accordance with the approved plan and specifications, and good engineering practices.

Upon completion of construction, Developer's engineer of record shall submit to Utility a copy of the signed certification of completion submitted to the appropriate regulatory agencies. If certification is for the water distribution system, a copy of the bacteriological results and a sketch showing locations of all sample points shall be included. The engineer of record shall also submit to Utility paper copies of the as-built plans prepared signed and sealed by the engineer of record. Developer will provide Utility with two (2) copies of the approved paving and drainage plans. Developer will provide Utility with three (3) copies of the approved subdivision plat.

**Section 4. Off-Site Installation.**

The Developer will construct and install water mains, gravity sewer lines, lift station(s) and force main(s) from Developer's property to the Utility existing facilities in accordance with overall master plans of the utility system and in accordance with approved engineering plans and specifications. At all times prior to, during and upon completion of the construction of the extensions of water and sewer lines, Utility shall have the right to inspect and approve all construction plans and specifications, piping, connections, equipment, materials and construction work being provided or performed, or previously provided or performed, by or on behalf of the Developer. Such approval shall not be unreasonably withheld or delayed by Utility, and any costs of such inspections shall be borne by Utility. It shall be the Developer's responsibility to insure that all construction fully meets the plans and specifications approved by the Utility. The cost of inspections resulting from required corrective action shall be borne by the Developer. As conditions precedent to receiving water and sewer service, Developer shall:

- A. Provide Utility with three (3) copies of the approved subdivision plat.

B. Provide Utility with three (3) copies of the approved paving and drainage plans of the development.

C. Furnish Utility with three (3) copies of the plans, specifications and engineering cost estimate for the water distribution system, sewage collection system, lift station(s) and other facilities necessary to serve the property described in **Exhibit "A"**. Developer must receive approval from Utility of said plans, specifications and engineering cost estimate prior to proceeding with any construction of the facilities.

D. Obtain approval of the plans and specifications from all necessary governmental agencies, including, but not limited to, the Florida Department of Environmental Protection and the City of Apopka. No construction shall commence until Utility and appropriate regulatory agencies have approved such plans and specifications in writing. When permits and approved plans are returned by appropriate regulatory agencies to Developer, Developer shall submit to Utility one (1) copy of water and/or sewer construction permit and approved plans.

E. After the approval of plans and specifications by Utility and appropriate regulatory agencies, Developer, or the engineer of record shall set up a preconstruction conference with engineer of record, utility contractor, appropriate building official(s), all other utility companies involved in the development of the Property, and Utility, as may be appropriate.

Developer shall provide to Utility's representative forty-eight (48) hours written notice prior to commencement of construction and forty-eight (48) hours written notice prior to any inspections or tests being performed as described herein. "Notice" shall be complete when Utility actually received same.

During the construction of the water distribution and sewage collection systems by Developer, the Utility shall have the right to inspect such installations to determine compliance with the approved plans and specifications. The engineer of record shall also inspect construction to assure compliance with the approved plans and specifications. The engineer of record and utility contractor shall be present at all standard tests and inspections for pressure, exfiltration, line and grade, and all other normal engineering tests and inspections to determine that the systems have been installed in accordance with the approved plans and specifications, and good engineering practices.

F. Upon completion of construction, Developer's engineer of record shall submit to Utility a copy of the signed certifications of completion submitted to the appropriate regulatory agencies. If certification is for the water distribution system, a copy of the bacteriological results and a sketch showing locations of all sample points shall be included.

Developer's engineer shall deliver one (1) set of paper copies of "As-built" engineering plans, prepared signed and sealed by the professional engineer of record, showing the location of all water and sewer systems and services installed, and certification by the professional engineer of record to the Utility that such systems and services, as built, comply with the plans and specifications approved by the Utility.

Furnish proof satisfactory to the Utility that the installation of the facilities and all contractors, subcontractors, materialmen and laborers have been paid in full, and provide an engineer's certificate of total cost of improvements, i.e., by Release of Lien or other appropriate means.

G. As per this Agreement, Developer shall install, at its sole expense, all of the aforesaid facilities off-site, in accordance with the plans and specifications approved by the Utility. The Utility agrees it will complete its review of the plans and specifications within thirty (30) days of receipt from the Developer.

H. Developer hereby agrees to transfer to Utility title to all water distributions and sewage collection systems installed by Developer or Developer's contractor, pursuant to the provisions of this Agreement. Such conveyance shall take effect at the time Utility issues its final letter of acceptance. As further evidence of said transfer to title, upon completion of the installation, but prior to the issuance of the final letter of acceptance and the rendering of service by Utility, Developer shall:

I. Provide Utility with copies of Release of Lien for said Property.

J. Developer shall assign any and all warranties and/or maintenance bonds and the rights to enforce same to the Utility which Developer obtains from any contractor constructing the utility systems. Developer shall remain secondarily liable on such warranties. If Developer does not obtain such written warranty and/or maintenance bond from its contractor and deliver same to Utility, which warranty and/or maintenance bond shall be for a minimum period of two years, then in such event, Developer by the terms of this instrument, agrees to indemnify and save harmless the Utility for an loss, damages, costs, claims, suits, debts, or demands by reason of latent defects in the systems which could not have been reasonably discovered upon normal engineering inspection, for a period of two years from the date of acceptance by the Utility of said utility systems.

K. The Developer shall provide Utility with all appropriate operations/maintenance and parts manuals.

L. The Developer shall further cause to be conveyed to Utility all easements and/or rights-of-way covering areas in which water and sewer systems are installed, by recordable document in form satisfactory to the Utility and shall convey title to the Utility, by recordable document in form satisfactory to Utility, and lift stations constructed on Developer's Property along with recordable ingress/egress easement documents.

M. Utility agrees that the issuance of the final letter of acceptance for the water distribution and sewage collection systems installed by Developer shall constitute the assumption of responsibility by Utility for the continuous operation and maintenance of such systems from that date forward.

**Section 5. Easement.**

Developer hereby grants and gives to Utility, its successors and assigns, but subject to the terms of this Agreement, the exclusive right or privilege to construct, own, maintain or operate the water and sewer facilities to serve the Property; and the exclusive right or privilege to construct, own, maintain or operate the said facilities in, under, upon, over and across the present and future streets, roads, alleys and easements, reserved utility strips and utility sites, and any public place as provided and dedicated to public use in the record plats, or as provided for in agreements, dedications or grants made otherwise and is independent of said record plats. Mortgagees, if any, holding prior liens on the Property shall be required to either release such lien, subordinate their positions or join in the grant or dedication of the easements or rights-of-way, or give to Utility assurance by way of a "non-disturbance agreement," that in the event of foreclosure, mortgagee would continue to recognize the easement rights of Utility, as long as Utility complies with the terms of this Agreement. All water distribution and sewage collection

facilities, save and except consumer installations, shall be covered by easements or rights-of-way if not located within platted or dedicated road or rights-of-ways for utility purposes.

Developer hereby further agrees that the foregoing grants include the necessary right of ingress and egress to any part of the Developer's property upon which Utility is constructing or operating utility facilities. The foregoing grants shall be for such period of time as Utility or its successors or assigns require such rights, privileges or easements in the construction, ownership, maintenance, operation or expansion of the water and sewer facilities. The parties agree that in the event Developer and Utility agree to install any of the water or sewer facilities in lands within the Property lying outside the streets and easement areas described above, then Developer or the owner shall grant to Utility, the necessary easement or easements for such "private property" installation; provided, all such "private property" installations by Utility shall be made in such a manner as not to interfere with the then primary use of such "private property". The use of easements granted by Developer to Utility shall not preclude the use by other utilities of these easements, such as for cable television, telephone, electric, or gas utilities, or as otherwise agreed to by Utility, provided each does not interfere with Utility's use thereof.

The Utility hereby agrees that all easement grants will be utilized in accordance with the established and generally accepted practices of the water and sewer industry with respect to the installation of all its facilities in any of the easement areas.

**Section 6. Utility's Exclusive Right to Utility Facilities.**

Developer agrees with Utility that all water and sewer facilities accepted by Utility in connection with providing water and sewer services to the Property shall at all times



remain in the sole, complete and exclusive ownership of Utility, its successors and assigns, and any person or entity owning any part of the Property or any residence, building, or unit constructed or located thereon, shall not have any right, title, claim or interest in and to such facilities or any part of them, for any purpose, including the furnishing of water and sewer services to other persons or entities located within or beyond the limits of the Property.

**Section 7. Exclusive Right to Provide Service.**

As a further and essential consideration of this Agreement, Developer, or the successors and assigns of Developer, shall not (the words "shall not" being used in a mandatory definition) engage in business or businesses of providing potable water or sewer services to the Property during the period of time Utility, its successors and assigns, provide water or sewer services to the Property, it being the intention of the parties hereto that under the foregoing provision and also other provisions of this Agreement, Utility shall have the sole and exclusive right and privilege to provide water and sewer services to the Property and to the occupants of each residence, building or unit constructed thereon, except for providing by Developer, from its own sources and lines for irrigation uses.

**Section 8. Rates.**

The Utility agrees that the rates to be charged to Developer and individual consumers of water and sewer services shall be those set forth by the City Council. However, notwithstanding any provision in this Agreement, the Utility, its successors and assigns, may establish, amend or revise, from time to time in the future, and enforce rates or rate schedules so established and enforced and shall at all times be reasonable and subject to approval by the City Council.

Notwithstanding any provision in this Agreement, the Utility may establish, amend or revise, from time to time, in the future, and enforce rules and regulations covering water and sewer services to the Property, including the costs thereof.

Any such initial or future lower or increased rate schedules, and rules and regulations established, amended or revised and enforced by Utility from time to time in the future shall be binding upon Developer; upon any person or other entity holding by, through or under developer; and upon any user or consumer of the water and sewer provided to the Property by Utility.

**Section 9. Capital Facility Fees.**

In addition to the contribution of any water distribution and sewage collection systems, where applicable, and further to induce the Utility to provide water and sewage service, Developer hereby agrees to pay to Utility the following Capital Facility Fees:

A. Water Capital Facility Fee. A capital facility fee which represents the capital cost of the Primary System capacity expansion will be charged and paid in the manner described herein. The City reserves the right to also require additional contributions or in kind contributions, including but not limited to constructed donated facilities, as may be necessary to extend services or to further expand the Primary System to facilitate the providing of services to the Owner's property and, if any oversizing is required the Owner shall be reimbursed in accordance with Section 26-80 of the Apopka Municipal Code. The City reserves the right to prospectively adjust unpaid fees and charges assessed herein. The Owner will be required to build or to provide the cost of construction of the Secondary or Local Distribution System and all water facilities on site regardless of size necessary to provide service to the land development activity.

The water Capital Facility Fee charged shall be calculated as follows:

Total Water

Capacity Committed <u>in Gallons</u>	No. Of ERU's <u>Committed</u>	Water Capital Facility Fee <u>Per ERU</u>	Facility Fee Due from <u>Owner</u>
37,200	124	\$957.00	\$118,668.00

B. Sewer Capital Facility Fee. A capital facility fee shall be assessed by the City which represents the capital cost of the Primary System Capacity expansion. The City reserves the right to also require additional contributions or in kind contributions, including but not limited to constructed donated facilities, as may be necessary to extend services or to further expand the Primary System to facilitate the providing of services to the Owner's property and, if any oversizing is required, the Owner shall be reimbursed in accordance with Section 26-80 of the Apopka Municipal Code. The City additionally reserves the right to prospectively adjust unpaid fees and charges assessed herein. Owner will be required to build or to provide the cost of construction of the Secondary or Local Distribution System and all water facilities on site regardless of size necessary to provide service to the land development activity.

The Sewer Capital Facility Fee charged shall be calculated as follows:

Total Sewer

Capacity Committed <u>in Gallons</u>	No. Of ERU's <u>Committed</u>	Sewer Capital Facility Fee <u>Per ERU</u>	Facility Fee Due from <u>Owner</u>
37,200	124	\$4,775.00	\$592,100.00

**Section 10. Payment of Capital Fees.**

The capital facility fees described herein shall be due and payable as follows:

A. 10% of all capital facilities fees for all units at the time of applying to DEP for a permit.

B. 20% of all capital facilities fees at the time of receiving DEP approval/permit or 120 days from the date of application whichever occurs first.

C. 10% of all capital facilities fees at the time of issuance of Certificate of Acceptance by City or 120 days from the date of issuance of DEP permit whichever occurs first.

D. 20% of all capital facilities fees 12 months after the date of issuance of the DEP permit as set forth in (b).

E. 20% of all capital facilities fees not later than 24 months after the date of issuance of the DEP permit as set forth in (b).

F. All capital facilities fees are due not later than 36 months after the date of the issuance of the DEP permit as set forth in (b).

The capital facilities fees shall be based on the fee schedule in effect at the time payment is actually made to the City. The fees set forth therein are the minimum due and payable. Capital Facilities Fees shall be due and payable by the Owner on or before application for building permits for each individual lot or land development activity. During the time period following the issuance of the DEP permit until all capital facilities fees are paid, the amount due and payable shall always be the greater of the scheduled fees or the fees due upon applying for building permits during this period. If the Capital Facilities fees are paid in conjunction with the application for building permits are less than the fees currently due pursuant to subparagraphs (d), (e), and (f) of this Section, the Owner must remit the difference as same comes due pursuant to the schedule. If the

amount due in conjunction with the application for building permits exceeds the amount due pursuant to schedule, the amount due in conjunction with the application for building permits shall be the amount due and payable regardless of the amount of the scheduled payment.

The 40% first paid in accordance with subparagraphs (a), (b), and (c) of this Section will apply to the last 40% of the building permits applied for by the Developer. A failure of the Developer to pay all sums due in accordance with this Section shall be considered a default and all of the Capital Facilities Fees shall become immediately due and payable and all other rights and remedies associated with a default shall be available to the City.

It is also agreed by the parties that:

(a) No lots, units or interests in the property, development or units may be sold until 100% of all the capital facilities fees on those lots or units to be sold have been paid.

(b) No capacity may be transferred, sold or bartered to any other land development activity.

(c) If the Developer should default on any of the aforescribed, the City shall have the right to record a lien on all remaining lots owned by the Developer for unpaid fees and shall have the right to demand the return of unused capacity. This right is in addition to all other rights available to the City under Florida law.

**Section 11. Refund of Fee Paid.**

The parties agree that if a DEP permit expires and DEP has released all permitted

capacity back to the City and no construction has been commenced, then the Developer shall be entitled to a refund of the capital facility fees paid as a condition for its issuance except that the City shall retain three percent (3%) of the refunded funds as a fee to offset the costs of collection and refund.

**Section 12. Recapture of Capacity.**

The parties agree that if the development has not been substantially completed by the end of the calendar quarter immediately following two (2) years from the date on which the water and sewer capital facility fee was paid in full, or if the developer is in default under this agreement or if the DEP permit issued to the developer has expired or the Developer has not proceeded to develop the property described in **Exhibit "A"** within two years from the date of execution of this Agreement, the City may petition, if necessary, the DEP to recapture the capacity committed pursuant to this Agreement. If said capacity is all released back to the City, the City may refund the capital facility fees as set forth in paragraph 11 above.

**Section 13. Maintenance Fees.**

The parties agree that the City may subject encumbered or committed water and sewer capacity to a maintenance fee to be assessed by the City. The amount of such fee will be determined by the City Council and shall be based upon the costs of maintaining the committed capacity for the Developer. Such fees shall not be a Capital Facility Fee as described herein and shall be due and payable as directed by the City.

**Section 14. Water System Tap Fee.**

The parties agree that a Water Tap Fee shall be charged at the time of approval by

the City of a service connection. Such fee will include the labor cost and the cost of connection piping from the main to the meter not to exceed fifty (50) feet in length and shall be charged as follows:

Single Service Meter

3/4"	\$350.00
1"	\$412.00
1½"	\$631.00
2"	\$757.00

Dual Service Meter

3/4"	\$274.00
------	----------

Short Service Tap

3/4" & 1"	\$275.00
1½" & 2"	\$357.00

Long Service Tap

3/4" & 1"	\$836.00
1½" & 2"	\$918.00

For a meter or tap over two (2) inches in size, the work will be performed by the contractor, however, in circumstances where the City elects to perform the work, the fee charged shall be actual cost plus ten percent (10%).

Short service is defined as service located on the same side of a road or driveway of an existing water line where the connection is to be made. Long service is defined as service located on the opposite side of a road or driveway of an existing water line where the connection is to be made. There will be an additional charge of \$10.00 for every linear foot for service over 50 linear feet. An additional charge will be added equal to the county right-of-way permit fee when it is required. All Tap Fees are due and payable at the time that a service connection is approved by the Utility.

**Section 15. Sewer Tap Fee and Other Charges.**

The parties agree that a sewer tap fee shall be charged at the time of approval by the City of a service connection. The cost of extending or installing 6" sewer lateral shall be \$745.00 up to 25 feet and including cleanout, and shall be payable by the Developer upon billing. For additional footage beyond 25 feet, the charge shall be \$12.00 per linear foot. The costs of any applicable county or state permits will be also an additional charge payable by the Developer. Any sewer lateral within the public right-of-way easement will remain the property of the City. All Tap Fees are due and payable at the time that a service connection is approved by the Utility. The other charges described herein are due and payable within 10 days of the date of the billing.

**Section 16. Miscellaneous Provisions Regarding Payments.**

The parties agree to the following with reference to fees described herein:

A. No building permit for any developmental activity requiring the payment of a capital facility fee shall be issued unless and until the water and sewer capital facility fees have been paid.

B. The City may require that all payments be made with certified funds or cashier's check if payments have been late or if the Developer has previously provided bad funds or if the Developer has an impaired credit reputation.

C. In the event that the City should have to take any actions other than initial presentment of a check to a local bank in order to collect the payments due and payable pursuant to this Agreement, the Owner shall be responsible for any costs, including reasonable attorney's fee, incurred in taking such actions.

D. Acceptance of payment of any of the Fees described herein in part or in full shall not constitute a waiver of the Utility's rates or regulations.



E. Neither Developer nor any person or other entity holding any of the Property by, through or under Developer, or otherwise, shall have any present or future right, title, claim or interest in and to the Capital Facility Fee charges paid or to any of the water or sewer facilities and properties of Utility, and all prohibitions applicable to Developer with respect to refund of such fees, are applicable to all persons or entities owning such property or an interest in such property.

**Section 17. Agreement to Serve.**

Upon the completion of construction of the water and sewer facilities by Developer, its inspection, the issuance of the final letter of acceptance by the Utility, the Utility covenants and agrees that it will allow the connection of the water distribution and sewage collection facilities installed by Developer to the central facilities of the Utility and shall provide utility service in accordance with the terms and intent of this Agreement. Such connections shall at all times be in accordance with rules, regulations and orders of the applicable governmental authorities including the City. The Utility agrees that once it provides water and sewer service to the Property and Developer or others have connected consumer installations to its system, that thereafter the Utility will continuously provide, in accordance with the other provisions of this Agreement, including rules and regulations and rate schedules, water and sewer service to the Property in a manner to conform with all requirements of the applicable governmental authority.

The parties agree that the capacity needed to provide service to the Property is 37,200 gallons per day for potable water supply and 37,200 gallons per day for wastewater removal. Developer agrees that the number of units of development for which capacity is reserved hereby shall not exceed the number of units of development

for which capacity is reserved hereby pursuant to final development plans on file in the Community Development Department. Developer agrees that sewage to be treated by the Utility from Developer's property will consist of domestic wastewater and further agrees that it will not allow any abnormal strength sewage to flow from developers' property to the Utility Sewage treatment facility that will cause harm to the treatment process. In addition, Developer further agrees that no wastewater, fluids or other substances and materials shall be discharged to the Utility's sanitary sewer collection/transmission system, which contain any hazardous, inflammable, toxic and/or industrial constituents, in whole or in part, regardless of the concentrations (i.e., strengths) of said constituents. Developer grants to Utility the right to sample the Developer's sewage, as referred to hereinabove, to verify Developer's compliance with this paragraph.

**Section 18. Application for Service: Consumer Installations.**

Developer, or any owner of any parcel of the Property, or any occupant of any residence, building or unit located thereon shall not have the right to and shall not connect any consumer installation to the facilities of Utility until formal written application has been made to Utility by the prospective user of service, or either of them, in accordance with the then effective rules and regulations of the Utility and approval for such connection has been granted.

Although the responsibility for connecting the consumer installation to the meter and/or lines of the Utility at the point of delivery is that of the Developer or entity other than the Utility, with reference to such connections, the parties agree as follows:

A. Application for the installation of water meters and backflow preventers shall be made twenty-four (24) hours in advance, not including Saturdays, Sundays and holidays.

B. All consumer installation connections may at its sole option be inspected by the Utility before backfilling and covering of any pipes.

C. Written notice to the Utility requesting an inspection of a consumer installation connection may be given by the Developer or his contractor, and the inspection will be made within twenty-four (24) hours, not including Saturdays, Sundays and holidays, provided the meter and backflow preventer, if applicable, have been previously installed.

D. The cost of constructing, operating, repairing or maintaining consumer installations shall be that of Developer or a party other than the Utility.

E. If a kitchen, cafeteria, restaurant or other food preparation or dining facility is constructed within the Property, the Utility shall have the right to require that a grease trap and/or pretreatment unit be constructed, installed and connected so that all waste waters from any grease producing equipment within such facility, including floor drains in food preparation areas, shall first enter the grease trap for pretreatment before the wastewater is delivered to the lines of the Utility. The size, materials and construction of said grease traps are to be approved by the Utility. Developer hereby grants to the Utility the right to periodically inspect the pretreatment facilities herein described. The provisions of this paragraph shall not apply to individual residential kitchens.

No substance other than domestic wastewater will be placed into the sewage system and delivered to the lines of the Utility. Should any non-domestic wastes, grease or oils, including, but not limited to, floor wax or paint, be delivered to the lines, the Owner will be responsible for payment of the cost and expense required in correcting or repairing any resulting damage or impairment of the treatment process and/or facilities.

**Section 19. Assurance of Title.**

Within fifteen (15) days of DEP approval or prior to Developer issuing the Notice to Proceed to the Utility, at the expense of Developer, Developer agrees to deliver to the Utility a Certificate of Title, a Title Insurance Policy or an opinion of title from a qualified attorney-at-law, with respect to the Property. The provisions of this paragraph are for the purpose of evidencing Developer's legal right to grant the exclusive rights of service contained in the Agreement.

**Section 20. Binding Effect of Agreement.**

The Agreement shall be binding upon and shall inure to the benefit of Developer, the Utility and their respective assigns and successors by merger, consolidation, conveyance or otherwise, subject to the terms of this Agreement, as contained herein. This Agreement is freely assignable by either party.

**Section 21. Notice.**

Until further written notice by either party to the other, all notices provided for herein shall be in writing and transmitted by messenger, by mail or by telegram, and if to Developer, shall be mailed or delivered to Developer at:

Avatar Properties, Inc.  
2420 S. Lakemont Ave Suite 450  
Orlando, FL 32814  
Attention: Laura McPherson

With a copy to: AV Homes, Inc.  
8601 N. Scottsdale Road, Suite 225  
Scottsdale, Arizona 85253  
Attn: Gary Shullaw, Esq.

and if the Utility, at: City of Apopka  
Utilities Department, Attn: Eusie Watson  
120 East Main Street, Apopka, FL 32704

**Section 22. Laws of Florida.**

This Agreement shall be governed by the laws of the State of Florida and it shall be and become effective immediately upon execution by both parties hereto.

**Section 23. Cost and Attorney's Fees.**

In the event the Utility or Developer is required to enforce this Agreement by Court proceedings or otherwise, by instituting suit or otherwise, then the prevailing party shall be entitled to recover from the other party all costs incurred, including reasonable attorney's fees.

**Section 24. Force Majeure.**

In the event that the performance of this Agreement by either party to this Agreement is prevented or interrupted in consequence of any cause beyond the control of either party, including but not limited to Act of God or of the public enemy, war, national emergency, allocation or of other governmental restrictions upon the use of availability of labor or materials, rationing, civil insurrection, riot, racial or civil rights disorder or demonstration, strike, embargo, flood, tidal wave, fire, explosion, bomb detonation, nuclear fallout, windstorm, hurricane, earthquake, or other casualty or disaster or catastrophe, unforeseeable failure or breakdown of pumping transmission or other facilities, and all governmental rules or acts or action of any government or public or governmental authority or commission of board or agency or agent or official or officer, the enactment of any statute or ordinance or resolution or regulation or rule or ruling or order, order of decree or judgment or restraining order or injunction of any court, said party shall not be liable for such non-performance.

**Section 25.**

The rights, privileges, obligations and covenants of Developer and the Utility shall

survive the completion of the work of Developer with respect to completing the facilities and services to any development phase and to the Property as a whole.

**Section 26.**

This Agreement supersedes all previous agreements or representations, either verbal or written, heretofore in effect between Developer and Utility, made with respect to the matters herein contained, and when duly executed, fully constitutes the Agreement between Developer and the Utility. No additions, alterations or variations of the terms of this Agreement shall be valid, nor can provisions of this Agreement be waived by either party, unless such additions, alterations, variations or waivers are expressed in writing and duly signed.

**Section 27. Construction.**

Whenever the singular number is used in this Agreement and when required by the context, the same shall include the plural, and the masculine, feminine and neuter genders shall each include the others.

In case of any differences of meaning or implication between the text of this Agreement and any caption, illustration, summary table, or illustrative table, the text shall control.

The phrase "used for" includes "arranged for", "designed for", "maintained for", or "occupied for".

The work "includes" shall not limit a term to the specific example but is intended to extend its meaning to all other instances or circumstances of like kind or character.

**Section 28.**

Both parties warrant that they have the legal authority to execute this Agreement.

**Section 29.**

Notwithstanding the gallonage calculations that could be made hereunder relative to ERU's, by and execution hereof, Developer agrees that the intention of this contract is to reserve a given number of units of capacity for the property described in **Exhibit "A"** and not for purposes of any other calculations.

**Section 30.**

It is agreed by and between the parties hereto that all words, terms and conditions contained herein are to be read in concert, each with the other, and that provision contained under one heading may be considered to be equally applicable under another in the interpretation of this contract.

**Section 31.**

By the execution hereof, Developer agrees that the Utility Company has certain obligations as a municipal utility to protect the health, safety and welfare of the public and not to burden Utility's customers with extraordinary expenses attributed or attributable to Developer, his successors or assigns, and that the Utility may, at its sole option, require pretreatment or special features such as grease traps. It is the intention of the parties that all sewage shall conform to the requirements of the Utility prior to introduction into Utility's collection system. Developer shall be responsible for all costs associated herewith.

**Section 32.**

The Utility shall, at all reasonable times and hours, have the right of inspection of Developer's internal lines and facilities. This provision shall be binding on the successors and assigns of the Developer.

**Section 33. Water Conservation Measures.**

Water conservation measures shall be employed by the Developer. Said measures shall include but not be limited to:

- A. Low flush toilets which utilize 3.5 gallons or less of water per flushing cycle.
- B. Shower heads which have flow restrictors, pulsating features, flow control devices or other features which result in water conservation; and do not allow a flow exceeding 3.0 gallons per minute at 60 psi.
- C. No swimming pool filter backwash water or any other swimming pool wastewater shall be discharged to the sanitary sewer system.
- D. Spring-loaded/automatic shut-off water fixtures shall be utilized in all public restrooms. This shall include lavatory fixtures.
- E. Consideration and use (where possible) of dishwashers and washing machines which have water conservation features and/or utilize less water per cycle.

The Utility, at its discretion, shall review and approve all water conservation measures proposed by Developer.

**Section 34.**

Failure to insist upon strict compliance of any of the term, covenants, or conditions hereof shall not be deemed a waiver of such terms, covenants, or conditions, or shall any waiver or relinquishment of any right or power hereunder at any one time, or times, be deemed a waiver or relinquishment of such right or power at any other time or times.

**Section 35.**

In the event that relocation of existing water and sewer utilities are necessary for the Developer, Developer will reimburse utility in full for such relocations.



[Remainder of page intentionally left blank. [Signatures on the following pages.]

WITNESSES:

THE CITY OF APOPKA,  
A Florida municipal corporation

\_\_\_\_\_  
\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Edward Bass  
City Administrator

\_\_\_\_\_  
\_\_\_\_\_  
Print Name

STATE OF FLORIDA  
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Edward Bass, City Administrator of the City of Apopka, a Florida municipal corporation, he is personally known to me or has produced \_\_\_\_\_ as identification and did (did not) take an oath.

(NOTARY'S SEAL)

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Print Name  
Commission No. \_\_\_\_\_

WITNESSES:

\_\_\_\_\_

Print Name

\_\_\_\_\_

\_\_\_\_\_

Print Name

\_\_\_\_\_

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 20\_\_\_ by \_\_\_\_\_  
(Name of officer or agent) of \_\_\_\_\_  
(Name of corporation acknowledging), a \_\_\_\_\_  
(state or place of corporation) Corporation, on behalf of the corporation. He/She/They  
Is/are personally known to me or has produced \_\_\_\_\_  
(type of identification) as identification and did (did not) take an oath.

S E A L

\_\_\_\_\_  
NOTARY PUBLIC

**EXHIBIT "A"**

Legal Description



# CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Business

MEETING OF: October 3, 2018  
 FROM: Administration  
 EXHIBITS:

**SUBJECT: COMMUNITY DEVELOPMENT BLOCK GRANT – ALONZO WILLIAMS PARK COMMUNITY CENTER**

**REQUEST: AWARD TWO CONTRACTS CONTINGENT UPON THE FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY’S APPROVAL**

**SUMMARY:**

The City was awarded a \$750,000 Florida Small Cities, Community Development Block Grant (CDBG) by the Florida Department of Economic Opportunity (DEO). The grant was accepted with a matching requirement of \$50,000 via City Council in order to construct a Community Center at Alonzo Williams Park. A grant administrator was also awarded in the amount of \$60,000 to assist with the project and is being funded with the grant.

On December 17, 2017 a bid was advertised for the construction of the Community Center and off-street parking. Three bids were received significantly higher than the funding available, ranging from \$1,157,410 - \$1,371,619. City Council voted to reject said bids and establish additional funding for the project before re-bidding. During this time period an updated engineer’s estimate for the complete project was conducted to re-evaluate the cost of construction and was received at \$1,361,114. On August 15, 2018 the Community Redevelopment Agency (CRA) met and approved additional funding in the amount of \$621,114 in order to complete the project.

On August 19, 2018, a re-bid was advertised for the construction of the Community Center and off-street parking. Seven bids were received on September 21, 2018, as follows:

	Community Center Bid Amount	Off-Street Parking Bid Amount
MIE Inc.	<b>\$1,086,563.84</b>	\$30,000.00
Mid-South Contractors, LLC	\$1,114,000.00	\$29,500.00
Morton Construction Company	\$1,242,007.00	\$33,800.00
MC/Mulligan Constructors	\$1,494,100.00	\$30,770.00
R.L. Burns, Inc.	\$1,535,562.17	<b>\$27,561.83</b>
Johnson-Laux Construction	\$1,554,142.00	\$38,000.00
Marbek Construction Company	\$1,639,800.00	\$32,000.00

DEO does not allow for a joint award of alternate bid items (off-street parking) and the city is required to award the community center and off-street parking separately. Therefore MIE Inc. (Community Center) and R.L. Burns (off-street parking) are being requested as the awarded contractors for the project contingent upon DEO’s final approval. The contingency is being proposed at 10% of the total project cost or \$111,412.57 ( $\$1,086,563.84 + \$27,561.83 = \$1,114,125.67$ ).

In the event that either of the contractors do not meet the requirements of DEO or any substantial issues with either contractors are identified, staff requests the ability to move on to the next lowest qualified bidder contingent upon DEO approval. Any remaining dedicated funding for the project beyond the contingency will be brought forward for City Council approval in the future.

Total Summary of CDBG and Project funding:

<b>Description</b>	<b>Funding</b>	<b>Expenses</b>
CDBG Grant	\$750,000	
City Grant Funding Match	\$ 50,000	
CRA Funding	\$621,114	
Grant Administrator: Fred Fox Enterprises		\$60,000
Construction of Community Center: MIE Inc.		\$1,086,563.84
Construction of Off-Street Parking: RL Burns Inc.		\$27,561.83
Project Contingency at 10%		\$111,412.57
<b>Total</b>	<b>\$1,421,114</b>	<b>\$1,285,538.24</b>
Remaining Balance		\$135,575.76

---

**FUNDING SOURCE:**

\$740,000.00 CDBG Funds and includes matching funds (\$50k) from previous FY budget

\$485,538.24 CRA funds

\$1,225,538.24 for the Community Center, Off-Street Parking and Contingency

---

**RECOMMENDATION ACTION:**

Approval of award for the Alonzo Williams Park Community Center construction, contingent upon DEO approval, to MIE Inc. Approval of award for the Alonzo Williams Park off-street parking, contingent upon DEO approval, to R.L. Burns, Inc. Authority to continue to the next lowest qualified bidder with DEO approval, if any issues are identified with MIE, Inc. or RL Burns Inc. Authorize budgeted funding as described above.

---

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief



# CITY OF APOPKA CITY COUNCIL

CONSENT AGENA  
 PUBLIC HEARING  
 SPECIAL REPORTS  
 OTHER: Final Development Plan/Plat

MEETING OF: October 3, 2018  
FROM: Community Development  
EXHIBITS: Vicinity Map  
Final Development Plan  
Plat

---

**SUBJECT:** LAKESIDE, PHASE 2 RESIDENTIAL SUBDIVISION – FINAL DEVELOPMENT PLAN AND PLAT

**REQUEST:** APPROVAL OF THE LAKESIDE, PHASE 2 RESIDENTIAL SUBDIVISION FINAL DEVELOPMENT PLAN AND PLAT

---

**SUMMARY:**

OWNER: Avatar Properties Inc.  
APPLICANT: Appian Engineering, LLC. c/o Luke M. Classon, P.E.  
LOCATION: South of Marshall Lake and West of SR 451  
EXISTING USE: Vacant land  
FUTURE LAND USE: Low Density Residential, Mixed-Use  
ZONING: PUD (Planned Unit Development)  
PROPOSED USE: 124 single-family homes  
TRACT SIZE: 154.18 +/- acres  
DEVELOPABLE AREA: 52.06 +/- acres

---

**FUNDING SOURCE:** N/A

---

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**RELATIONSHIP TO ADJACENT PROPERTIES:**

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Industrial (max 0.60 FAR)	I-1	John’s Nursery, vacant property
East (City)	Industrial, None assigned (SR 451 right-of-way)	I-1, no zoning assigned	Existing agricultural use (John’s Nursery), SR 451 right-of-way
South (City)	Low Density Residential (0-5 du/ac), Commercial (max 0.25 FAR)	R-1A, C-1	Vacant property, SR 451 retention pond
West (City)	Low Density Residential (0-5 du/ac)	PUD	Breckenridge residential subdivision buffer tract

Project Use: On April 4, 2018 the City Council approved a PUD Master Plan/Preliminary Development Plan for the Lake Marshall subdivision, which details the development of 301 single family residential lots in two phases. The subject property is located south of Marshall Lake and west of SR 451. The surrounding properties consist primarily of single-family residential and agricultural uses. The developer has submitted a Final Development Plan and Plat for Phase 2 of the Lake Marshall subdivision, now named Lakeside.

The applicant is requesting approval of the Final Development Plan and Plat for Phase 2 of Lakeside, which is for 124 single-family residential lots. All internal roadways are proposed as privately owned and maintained, and the subdivision will be gated. Consistent with the approved PUD Master Plan/Preliminary Development Plan, lot widths of 55-feet and 60-feet are provided in Lakeside, Phase 2. A minimum living area of 1,600 square feet is provided for all units located within Phase 2.

The minimum setbacks applicable to this project are:

<b>Setback</b>	<b>Min. Standard</b>
Front	25’
Side	5’ – 60’ lot 7.5’ – 55’ lot
Rear	20’
Corner	15’

Access: Ingress/egress access points for the development will be via Johns Road. Adjacent to the west of the subject property is the Breckenridge subdivision. A gated access for emergency vehicles will be provided between the two subdivisions. This access point will only be for emergency vehicles. In response to the Breckenridge homeowners association, pedestrian access will not be permitted between the two subdivisions.

Stormwater: There are three (3) retention ponds designed to meet the City’s Land Development Code requirements.

Recreation and Open Space: Consistent with the approved PUD Master Plan/Preliminary Development Plan, the recreation package will be located within Phase 1 and will consist of a cabana with restrooms, a swimming pool, a playground, and a mixed-use active field at a minimum. In addition the developer is dedicating a tract in Phase 1 adjacent to Marshall Lake as a Community Lake Park that will have community dock, and a 1.03 acre open space tract across the street from this park. These amenities will



available to residents in Phase 2. In the Phase 2 area, two tracts will be dedicated as a park/open space area. A 15.12 acre Conservation area within Tract “II” will also be dedicated with an easement to the St. Johns River Water Management District.

Buffer/Tree Program: Consistent with the approved PUD Master Plan/Preliminary Development Plan, landscaping is provided at the subdivision entrance on Johns Road, a 10-foot landscape buffer is provided along Johns Road, and a 20-foot wide landscape buffer is provided along SR 451. An existing 50-foot landscape buffer occurs along the western and northern project line within the Breckenridge plat. This buffer is noted as a tract on the Breckenridge plat. The Lake Marshall development will not be visible from the homes within Breckenridge or along SR 451.

The following is a summary of the tree replacement program for this project:

Total inches on-site:	15,296
Total number of specimen trees:	45
Total inches removed:	15,161
Total inches retained:	135
Total inches replaced:	2,502
Total Inches (Post Development):	4,637

SCHOOL CAPACITY REPORT: The developer has obtained a school concurrency mitigation agreement with Orange County Public Schools to address school impacts generated by this residential development. The schools zoned to receive students from this community are the following: Apopka Elementary School, Wolf Lake Middle School and Apopka High School.

ORANGE COUNTY NOTIFICATION: The County was notified at the time of the subdivision plan and plat for this property through the DRC agenda distribution.

PUBLIC HEARING SCHEDULE:

September 11, 2018 - Planning Commission, 5:30 p.m.  
October 3, 2018 - City Council, 1:30 p.m.

---

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the Lakeside, Phase 2 Final Development Plan and Plat subject to the final review by the City surveyor and City Engineer prior to recording the plat.

The **Planning Commission** at its meeting on September 11, 2018, found the plat for Lakeside, Phase 2 consistent with the Comprehensive Plan and Land Development Code, and unanimously recommended approval of the Lakeside, Phase 2 plat subject to the findings of this staff report.

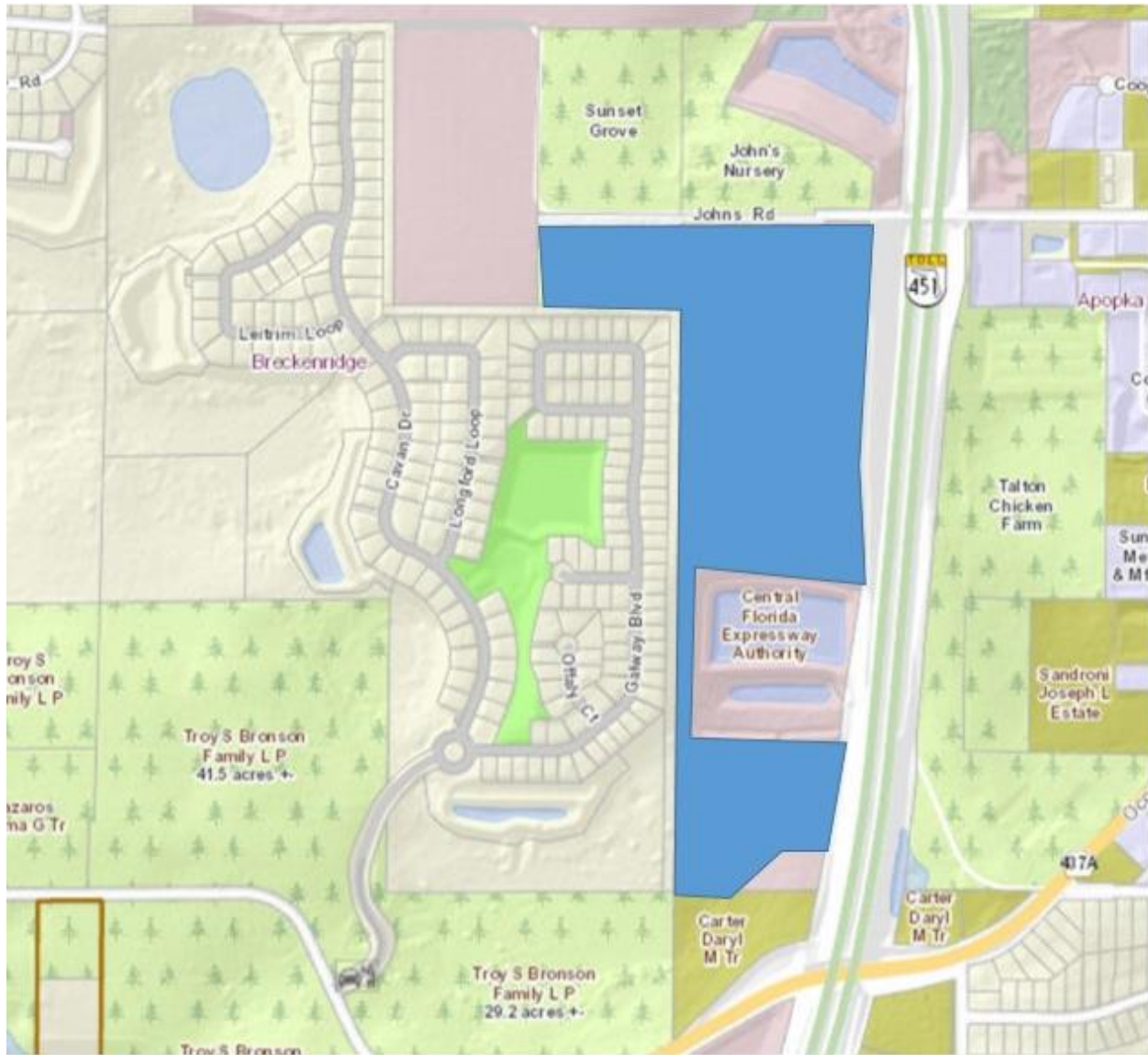
**City Council:** Approve the Lakeside, Phase 2 Final Development Plan and Plat.

**Note:** This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

**Application:** Lakeside, Phase 2 plat  
**Owners:** Avatar Properties, Inc  
**Project Engineer:** Appian Engineering, Inc., c/o Luke M. Classon, P.E.  
**Parcel ID#s:** 17-21-28-0000-00-014, 08-21-28-0000-00-043  
**Total Acres:** 154.18 +/-



## VICINITY MAP





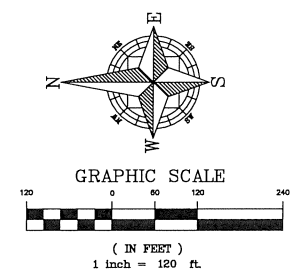
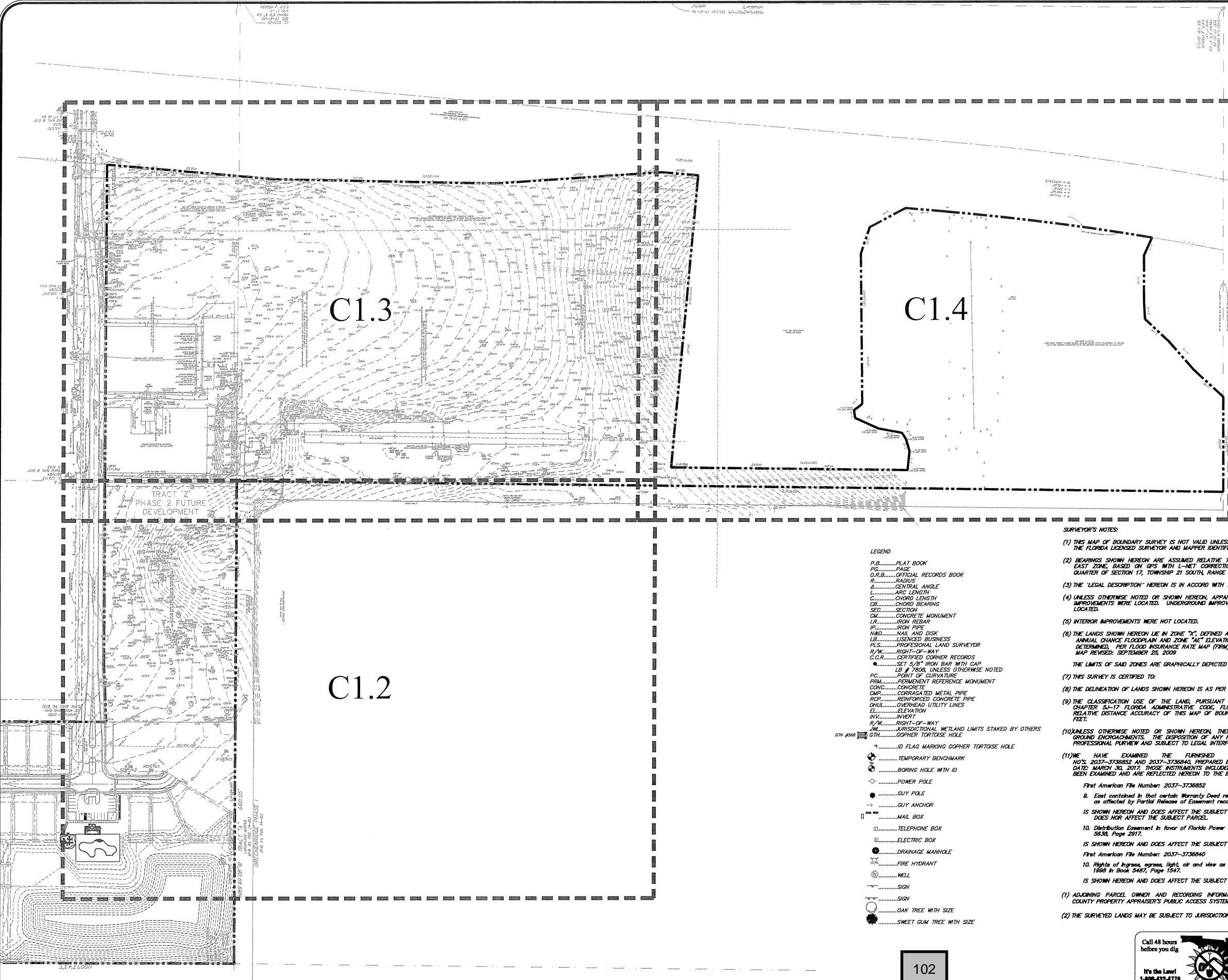
# AERIAL MAP







P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2 Existing Conditions Plan.dwg Modified: 6/8/2018 By: caamhcz



EXISTING CONDITION PLANS BASED ON SURVEY PROVIDED BY:  
 PEC - SURVEYING AND MAPPING, LLC  
 DAVID A. WHITE, PSM  
 FLORIDA REGISTRATION NO. 4044  
 DATE OF FIELD SURVEY: JUNE 2017

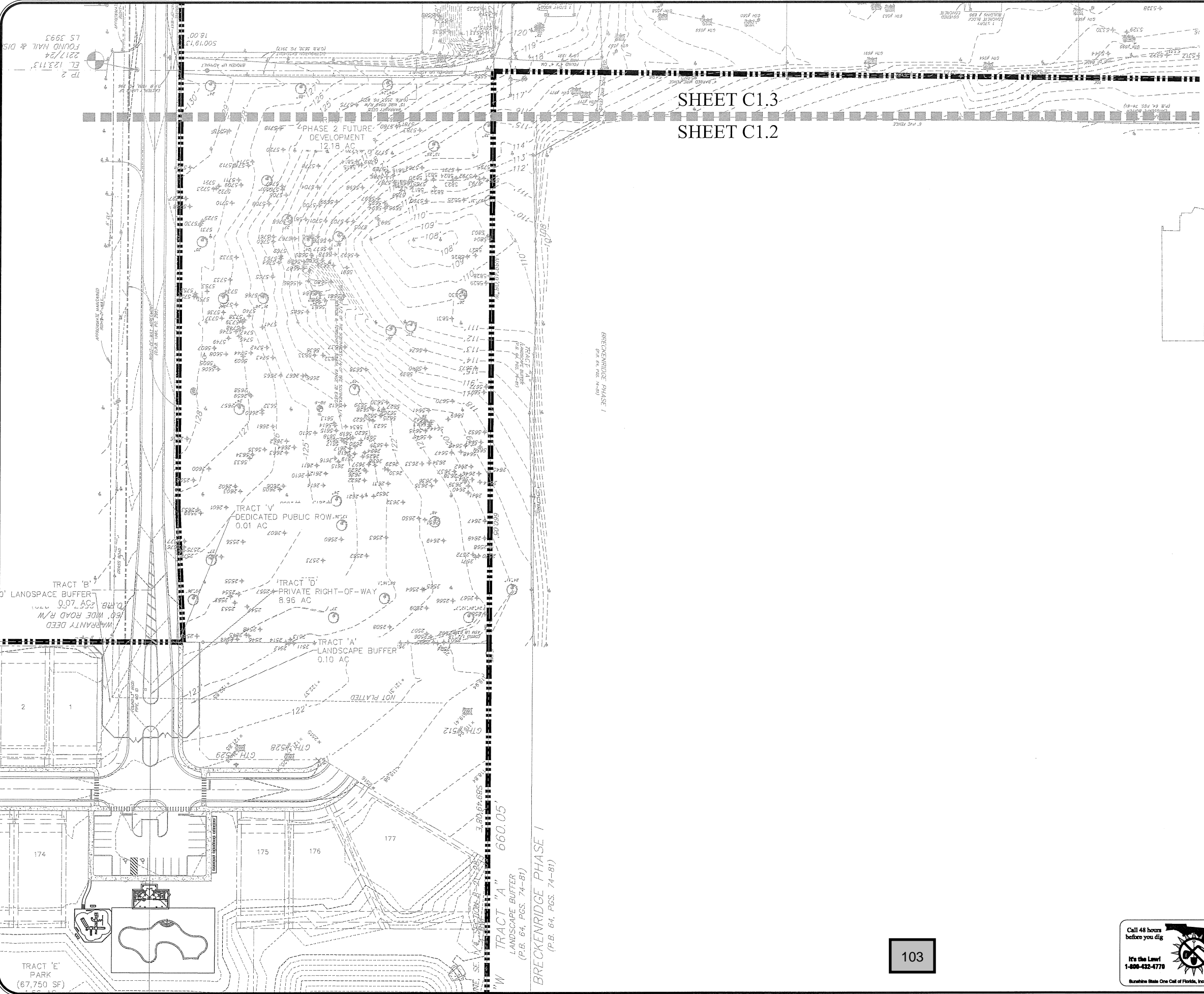
- LEGEND**
- P.B. PLAT BOOK
  - P.G. PAGE
  - O.R.B. OPTICAL RECORDS BOOK
  - R. RADIUS
  - Δ. CENTRAL ANGLE
  - L. ARC LENGTH
  - C. CHORD LENGTH
  - CB. CHORD BEARING
  - SEC. SECTION
  - CM. CONCRETE MONUMENT
  - I.R. IRON REBAR
  - IP. IRON PIPE
  - N&D. NAIL AND DISK
  - LB. LICENSED BUSINESS
  - PLS. PROFESSIONAL LAND SURVEYOR
  - R/W. RIGHT-OF-WAY
  - C.C.R. CERTIFIED CORNER RECORDS
    - SET 5/8" IRON BAR WITH CAP
    - LB # 3088, UNLESS OTHERWISE NOTED
  - P.C. POINT OF CURVATURE
  - PRM. PERMANENT REFERENCE MONUMENT
  - CONC. CONCRETE
  - CMP. CORRUGATED METAL PIPE
  - RCF. REINFORCED CONCRETE PIPE
  - CHL. OVERHEAD UTILITY LINES
  - EL. ELEVATION
  - INV. INVERT
  - R/W. RIGHT-OF-WAY
  - J.M. JURISDICTIONAL WETLAND LIMITS STAKED BY OTHERS
  - GTH. GOPHER TORTOISE HOLE
  - ▲ ID FLAG MARKING GOPHER TORTOISE HOLE
  - TEMPORARY BENCHMARK
  - BORING HOLE WITH ID
  - POWER POLE
  - GUY POLE
  - GUY ANCHOR
  - MAIL BOX
  - TELEPHONE BOX
  - ELECTRIC BOX
  - DRAINAGE MANHOLE
  - FIRE HYDRANT
  - WELL
  - SIGN
  - SIGN
  - OAK TREE WITH SIZE
  - SWEET GUM TREE WITH SIZE

- SURVEYOR'S NOTES:**
- (1) THIS MAP OF BOUNDARY SURVEY IS NOT VALID UNLESS IT BEARS THE SIGNATURE AND ORIGINAL RAISED SEAL OF THE FLORIDA LICENSED SURVEYOR AND MAPPER IDENTIFIED BELOW.
  - (2) BEARINGS SHOWN HEREON ARE ASSUMED RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM 1983 EAST ZONE, BASED ON GPS WITH L-NET CORRECTIONS, THE MONUMENTED NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST, BEING NORTH 89°49'08" WEST.
  - (3) THE "LEGAL DESCRIPTION" HEREON IS IN ACCORD WITH THE DESCRIPTION FURNISHED BY THE CLIENT.
  - (4) UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND PERIMETER IMPROVEMENTS WERE LOCATED. UNDERGROUND IMPROVEMENTS, SUCH AS FOUNDATIONS AND UTILITIES, WERE NOT LOCATED.
  - (5) INTERIOR IMPROVEMENTS WERE NOT LOCATED.
  - (6) THE LANDS SHOWN HEREON LIE IN ZONE "X", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AND ZONE "AE" ELEVATION 89.3, DEFINED AS BASE FLOOD ELEVATION DETERMINED PER FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 12085C0120F, MAP REVISED: SEPTEMBER 28, 2009.  
 THE LIMITS OF SAID ZONES ARE GRAPHICALLY DEPICTED HEREON AS NEAR AS MAY BE SCALED FROM SAID MAP.
  - (7) THIS SURVEY IS CERTIFIED TO:
  - (8) THE DELINEATION OF LANDS SHOWN HEREON IS AS PER THE CLIENT'S INSTRUCTIONS.
  - (9) THE CLASSIFICATION USE OF THE LAND, PURSUANT TO THE STANDARDS OF PRACTICE SET FORTH IN RULE CHAPTER 59-17 FLORIDA ADMINISTRATIVE CODE, FLORIDA STATUTES 472.027, IS SUBURBAN. THE MINIMUM RELATIVE DISTANCE ACCURACY OF THIS MAP OF BOUNDARY SURVEY ACHIEVES OR EXCEEDS ONE FOOT IN 7,500 FEET.
  - (10) UNLESS OTHERWISE NOTED OR SHOWN HEREON, THERE ARE NO APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND ENCROACHMENTS. THE DISPOSITION OF ANY POTENTIAL ENCROACHING IMPROVEMENTS SHOWN IS BEYOND PROFESSIONAL PURVIEW AND SUBJECT TO LEGAL INTERPRETATION.
  - (11) WE HAVE EXAMINED THE FURNISHED COMMITMENT TO INSURE TITLE, COMMITMENT NO'S. 2037-3736852 AND 2037-3736840, PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, EFFECTIVE DATE: MARCH 30, 2017. THOSE INSTRUMENTS INCLUDED IN "SCHEDULE BII, PART II" OF THE COMMITMENT HAVE BEEN EXAMINED AND ARE REFLECTED HEREON TO THE EXTENT THEY AFFECT THE LANDS SURVEYED.
    - First American File Number: 2037-3736852
    - 9. East contained in that certain Warranty Deed recorded August 13, 1974 in Book 2557, Page 872, as affected by Partial Release of Easement recorded March 17, 2009 in Book 7877, Page 845. IS SHOWN HEREON AND DOES AFFECT THE SUBJECT PROPERTY. THE PARTIAL RELEASE OF EASEMENT DOES NOT AFFECT THE SUBJECT PARCEL.
    - 10. Distribution Easement in favor of Florida Power Corporation recorded December 18, 1998 in Book 5833, Page 2917. IS SHOWN HEREON AND DOES AFFECT THE SUBJECT PROPERTY.
    - First American File Number: 2037-3736840
    - 10. Rights of ingress, egress, light, air and view as set forth in the Order of Taking recorded May 21, 1998 in Book 5487, Page 1547. IS SHOWN HEREON AND DOES AFFECT THE SUBJECT PROPERTY.
  - (1) ADJOINING PARCEL OWNER AND RECORDING INFORMATION DELINEATED HEREON WAS OBTAINED FROM THE COUNTY PROPERTY APPRAISER'S PUBLIC ACCESS SYSTEM.
  - (2) THE SURVEYED LANDS MAY BE SUBJECT TO JURISDICTIONAL ENTITIES.

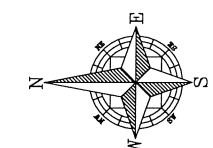


CIVIL ENGINEERING   LAND PLANNING		APPIAN ENGINEERING LLC		APPIAN.COM • 407.960.5888		2231 Lee Road, Suite 17, Waters Park, Ft. Pierce, FL 3789		STATE OF FLORIDA DEPARTMENT OF AGRICULTURE	
OVERALL EXISTING CONDITIONS PLAN		FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)		CITY OF APOPKA, FLORIDA	
SCALE	1" = 120'	DESIGNED	O. SANCHEZ	CHECKED	L. CLASSON	DATE	8/2/2018		
PROJECT	ROY-001								
SHEET	C1.1								
APPIAN ENGINEERING		APPIAN ENGINEERING LLC		APPIAN.COM • 407.960.5888		2231 Lee Road, Suite 17, Waters Park, Ft. Pierce, FL 3789		STATE OF FLORIDA DEPARTMENT OF AGRICULTURE	
8/2/18									
								CITY OF APOPKA COMMENTS DATED 07/23/18	
								DESCRIPTION	
								DATE	
								REV.	

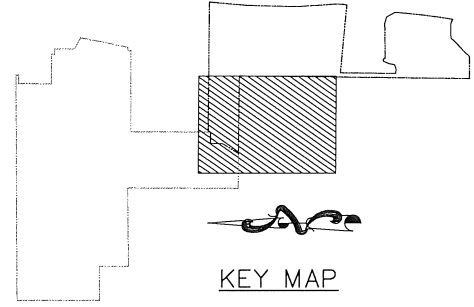
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2 Existing Conditions Plan.dwg Modified: 6/8/2018 By: ceamchez



SHEET C1.3  
SHEET C1.2



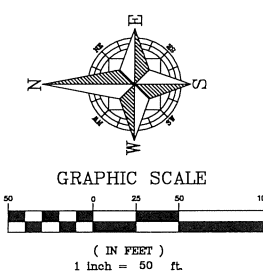
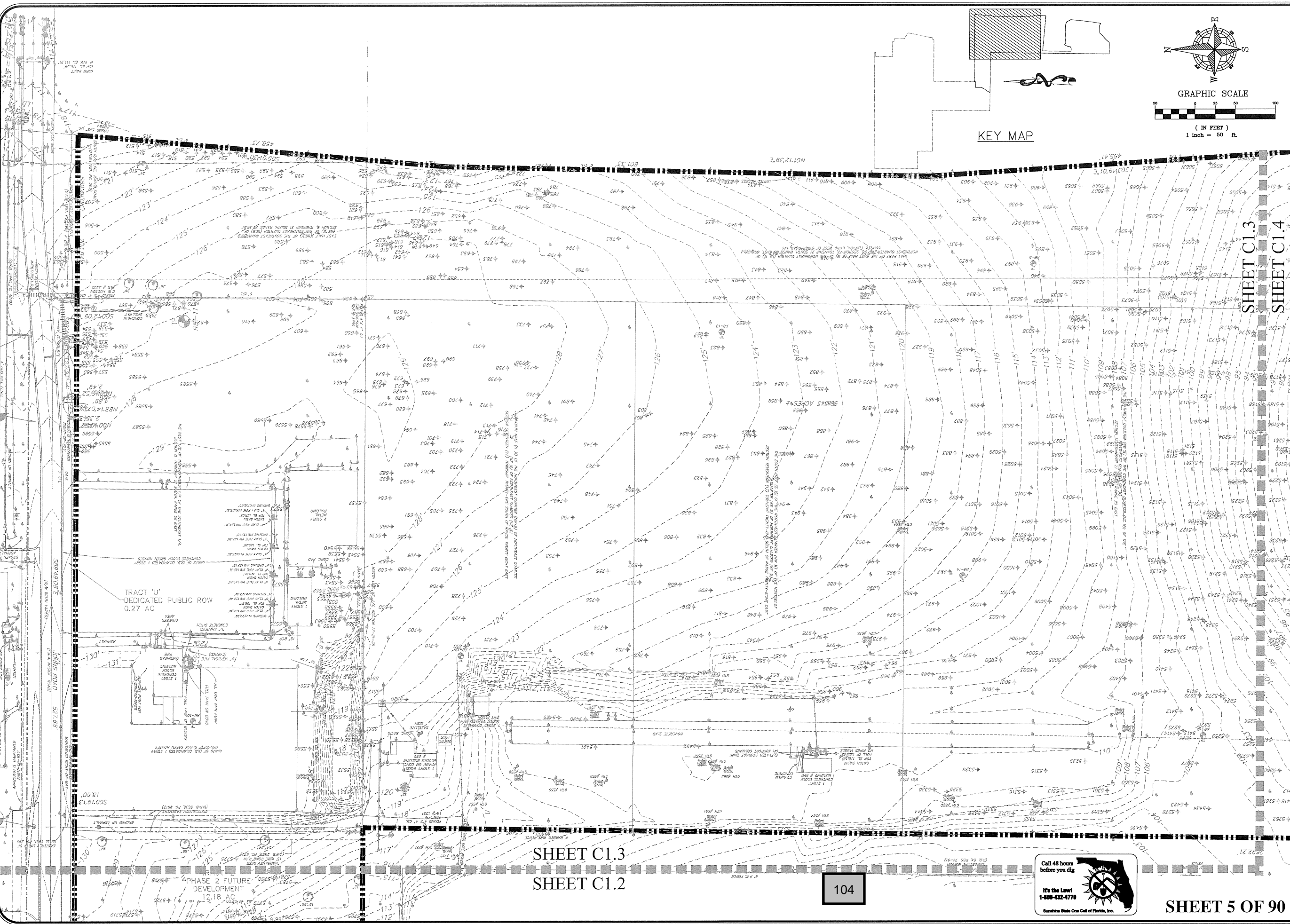
GRAPHIC SCALE  
( IN FEET )  
1 inch = 60 ft.



KEY MAP

	SCALE 1" = 50' PROJECT ROY-001 SHEET C1.2	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/2/2018	EXISTING CONDITIONS - WEST FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANE.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida, 32789	REV. DATE 07/30/18 CITY OF APOPKA COMMENTS DATED 07/23/18 BY:
	8/2/18			SHEET 4 OF 90	





KEY MAP

SHEET C1.3  
SHEET C1.4

TRACT 'U'  
DEDICATED PUBLIC ROW  
0.27 AC

PHASE 2 FUTURE  
DEVELOPMENT  
12.18 AC

SHEET C1.3  
SHEET C1.2

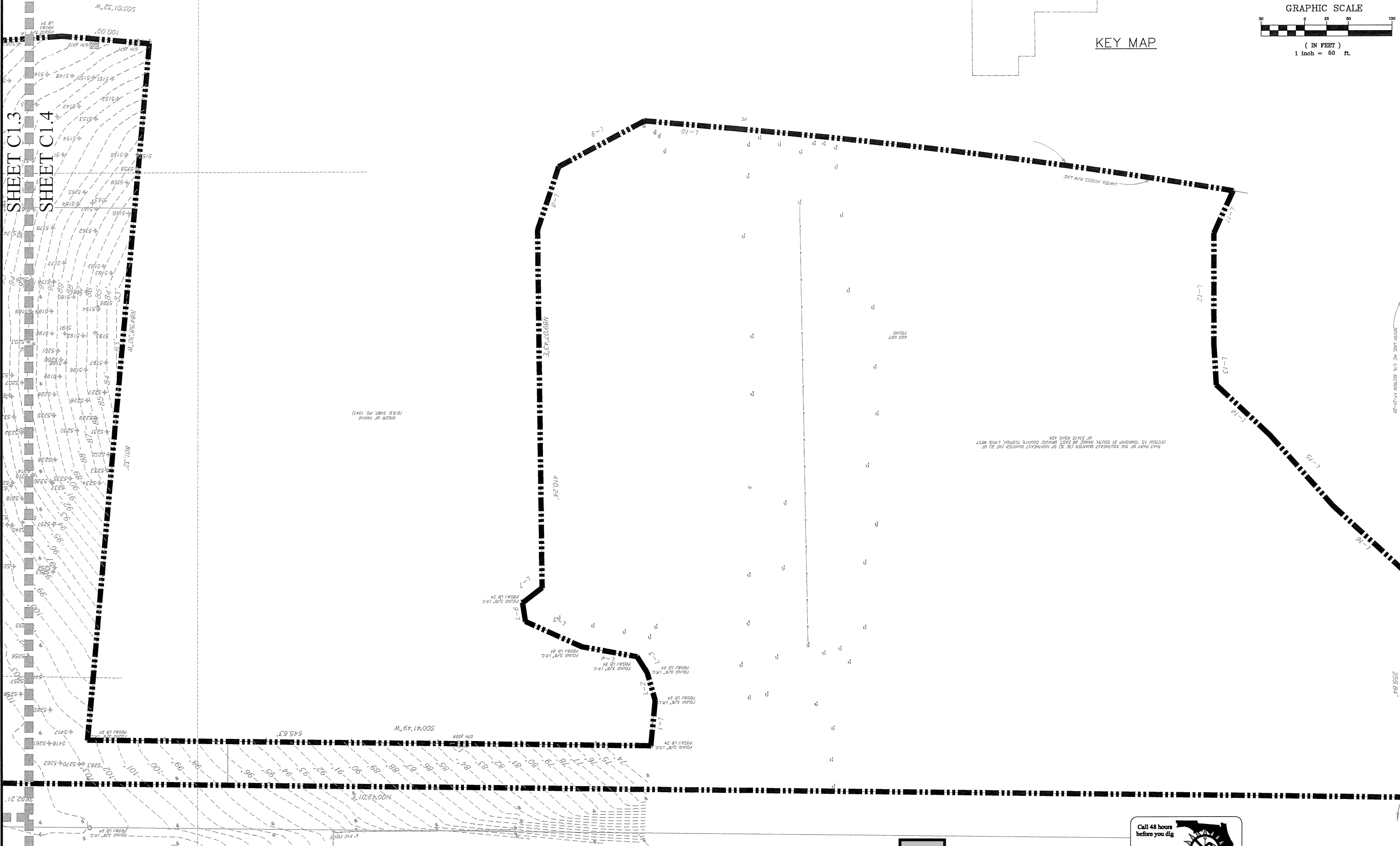
104



SHEET 5 OF 90

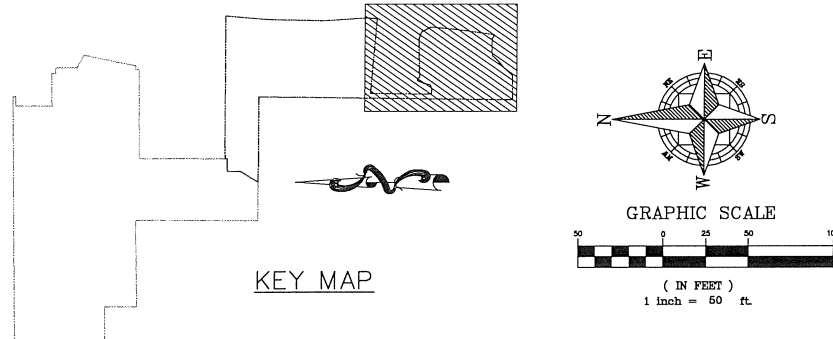
CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANENGINEERING.COM - 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789	
EXISTING CONDITIONS - NORTH FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	
SCALE: 1" = 50' PROJECT: ROY-001 SHEET: C1.3	DRAWN: S. SIERRA-OIL DESIGNED: O. SANCHEZ CHECKED: L. GLASSON DATE: 8/2/2018
8/2/18	
DATE: 8/2/2018 CITY OF APOPKA COMMENTS DATED: 07/23/18	DESCRIPTION:



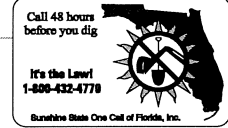


**NOTES:**

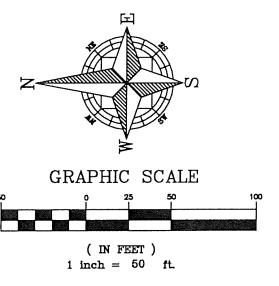
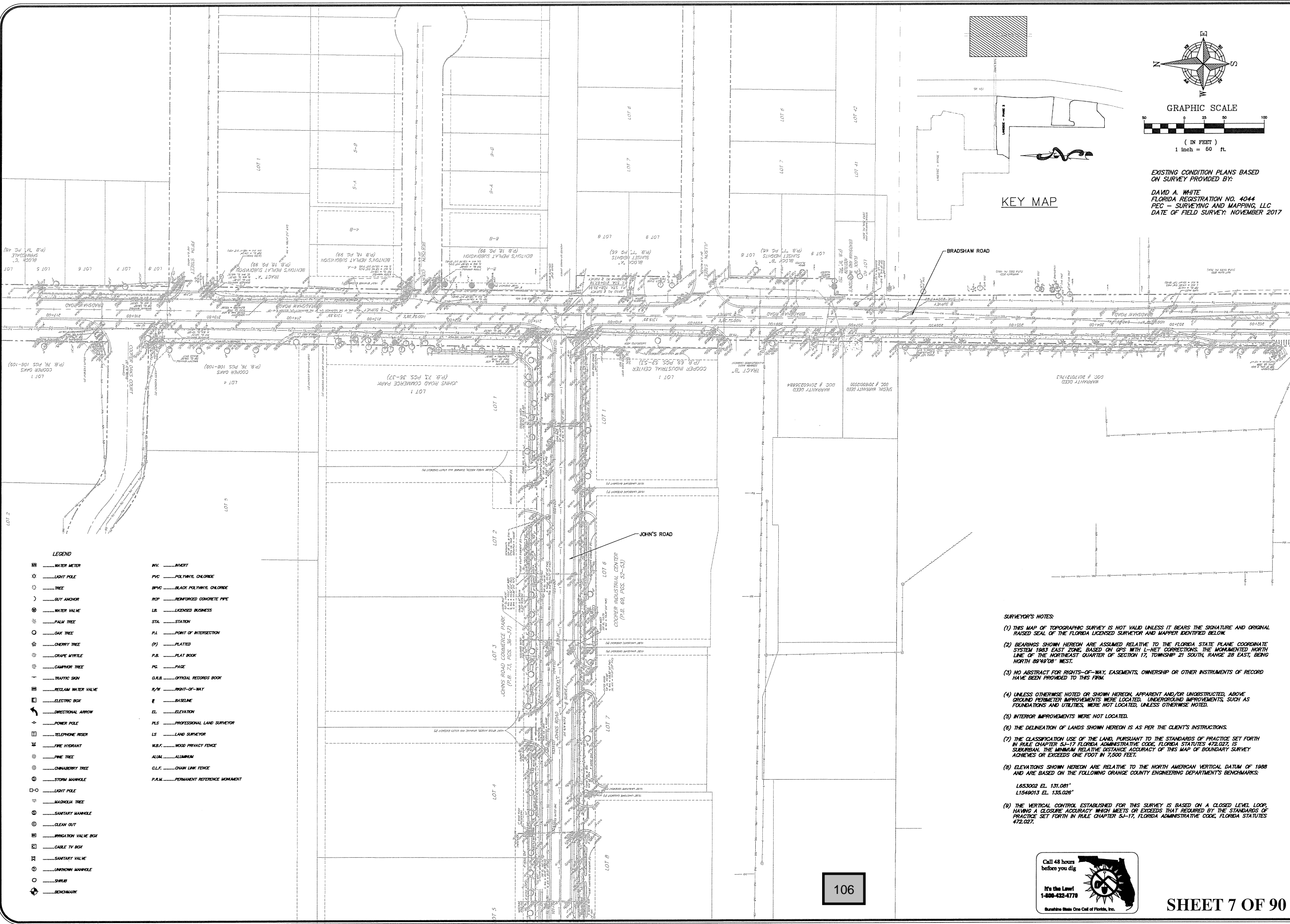
1. SOUTHERN AREA WITHIN PARCEL 28-21-17-0000-00-014 WAS NOT SURVEYED FOR TOPO OR TREES AS NO IMPROVEMENTS ARE BEING PROPOSED IN THIS AREA AND THE ENTIRE AREA IS BEING PROPOSED AS A CONSERVATION AREA.



		<b>CIVIL ENGINEERING   LAND PLANNING</b> <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 <small>STATE OF FLORIDA LICENSED PROFESSIONAL ENGINEER</small>	
EXISTING CONDITIONS - SOUTH FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	
DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ	CHECKED: L. CLASSON	DATE: 8/2/2018
SCALE: 1" = 50'	PROJECT: ROY-001	SHEET: C1.4	
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Existing Conditions Plan.dwg Modified: 6/8/2018 By: oscarchoz			REV. DATE DESCRIPTION 1 7/25/18 CITY OF APOPKA COMMENTS DATED 07/23/18 2 8/2/18



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Offsite Existing Conditions Plan.dwg Modified: 6/8/2018 By: oamchcz



**KEY MAP**

EXISTING CONDITION PLANS BASED ON SURVEY PROVIDED BY:  
 DAVID A. WHITE  
 FLORIDA REGISTRATION NO. 4044  
 PEC - SURVEYING AND MAPPING, LLC  
 DATE OF FIELD SURVEY: NOVEMBER 2017

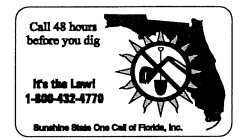
**LEGEND**

⊠	WATER METER	IN	INVERT
☆	LIGHT POLE	PVC	POLYVINYL CHLORIDE
○	TREE	BPVC	BLACK POLYVINYL CHLORIDE
⊙	GUT ANCHOR	RCP	REINFORCED CONCRETE PIPE
⊕	WATER VALVE	LB	LICENSED BUSINESS
○	PALM TREE	STA	STATION
○	OAK TREE	PI	POINT OF INTERSECTION
⊕	CHERRY TREE	(P)	PLATED
⊕	CRAPLE WHITELE	P.B.	PLAT BOOK
⊕	CAMPYOR TREE	PG	PAGE
—	TRAFFIC SIGN	O.R.B.	OFFICIAL RECORDS BOOK
⊠	RECLAIM WATER VALVE	R/W	RIGHT-OF-WAY
⊠	ELECTRIC BOX	E	BASELINE
➔	DIRECTIONAL ARROW	EL	ELEVATION
⊕	PONER POLE	PLS	PROFESSIONAL LAND SURVEYOR
⊠	TELEPHONE RESER	LS	LAND SURVEYOR
⊕	FIRE HYDRANT	M.B.F.	WOOD PRIVACY FENCE
⊕	PINE TREE	ALUM	ALUMINUM
⊕	CHERRYBERRY TREE	CL.F.	CHAIN LINK FENCE
⊕	STORM MANHOLE	P.R.M.	PERMANENT REFERENCE MONUMENT
⊕	LIGHT POLE		
⊕	MAGNOLIA TREE		
⊕	SANITARY MANHOLE		
⊕	CLEAN OUT		
⊕	IRRIGATION VALVE BOX		
⊕	CABLE TV BOX		
⊕	SANITARY VALVE		
⊕	UNKNOWN MANHOLE		
○	SHIELD		
⊕	BENCHMARK		

**SURVEYOR'S NOTES:**

- (1) THIS MAP OF TOPOGRAPHIC SURVEY IS NOT VALID UNLESS IT BEARS THE SIGNATURE AND ORIGINAL RAISED SEAL OF THE FLORIDA LICENSED SURVEYOR AND MAPPER IDENTIFIED BELOW.
- (2) BEARINGS SHOWN HEREON ARE ASSUMED RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM 1983 EAST ZONE BASED ON GPS WITH L-NET CORRECTIONS. THE UNMAGNETED NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST, BEING NORTH 89°49'08" WEST.
- (3) NO ABSTRACT FOR RIGHTS-OF-WAY, EASEMENTS, OWNERSHIP OR OTHER INSTRUMENTS OF RECORD HAVE BEEN PROVIDED TO THIS FIRM.
- (4) UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND PERIMETER IMPROVEMENTS WERE LOCATED. UNDERGROUND IMPROVEMENTS, SUCH AS FOUNDATIONS AND UTILITIES, WERE NOT LOCATED, UNLESS OTHERWISE NOTED.
- (5) INTERIOR IMPROVEMENTS WERE NOT LOCATED.
- (6) THE DELINEATION OF LANDS SHOWN HEREON IS AS PER THE CLIENT'S INSTRUCTIONS.
- (7) THE CLASSIFICATION USE OF THE LAND, PURSUANT TO THE STANDARDS OF PRACTICE SET FORTH IN RULE CHAPTER 6J-17, FLORIDA ADMINISTRATIVE CODE, FLORIDA STATUTES 472.027, IS SUBURBAN. THE MINIMUM RELATIVE DISTANCE ACCURACY OF THIS MAP OF BOUNDARY SURVEY ACHIEVES OR EXCEEDS ONE FOOT IN 7,500 FEET.
- (8) ELEVATIONS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 AND ARE BASED ON THE FOLLOWING ORANGE COUNTY ENGINEERING DEPARTMENT'S BENCHMARKS:  
 L853002 EL. 131.081'  
 L1549013 EL. 135.026'
- (9) THE VERTICAL CONTROL ESTABLISHED FOR THIS SURVEY IS BASED ON A CLOSED LEVEL LOOP, HAVING A CLOSURE ACCURACY WHICH MEETS OR EXCEEDS THAT REQUIRED BY THE STANDARDS OF PRACTICE SET FORTH IN RULE CHAPTER 6J-17, FLORIDA ADMINISTRATIVE CODE, FLORIDA STATUTES 472.027.

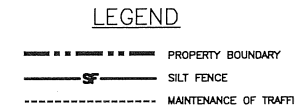
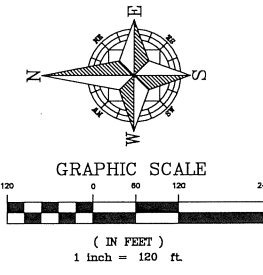
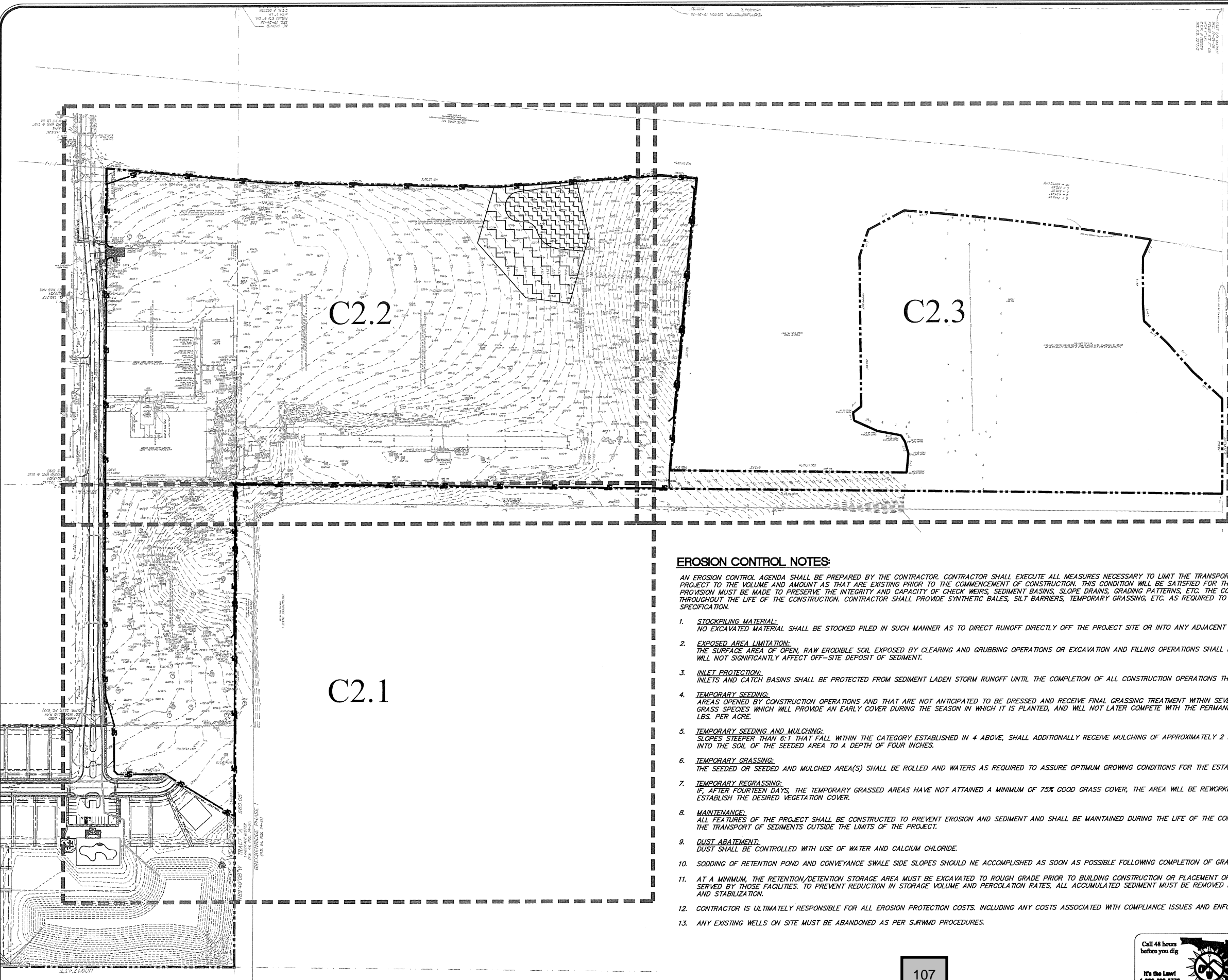
106



**SHEET 7 OF 90**

CIVIL ENGINEERING   LAND PLANNING		APPIAN ENGINEERING LLC.	
OFFSITE EXISTING CONDITIONS PLAN		FINAL DEVELOPMENT PLAN	
LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)	
CITY OF APOPKA, FLORIDA			
SCALE	1" = 50'	PROJECT	ROY-001
DRAWN BY	S. SIERRA-GIL	CHECKED BY	L. GLASSON
DESIGNED BY	O. SANCHEZ	DATE	8/2/2018
APPIAN ENGINEERING		APPIAN.COM - 407.960.5868	
2221 Lee Road, Suite 17, Winter Park, Florida 32789		STATE OF FLORIDA LICENSE NO. 12789	
REV	DATE	DESCRIPTION	BY

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\99civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Erosion Control & Demolition Plan.dwg Modified: 6/8/2018 By: osanchez



**SITE PREPARATION / OVER EXCAVATION NOTES:**

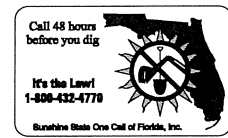
- CONTRACTOR TO REFER TO SUBSURFACE EXPLORATION AND GEOTECHNICAL ANALYSIS REPORTS AND COORDINATE WITH GEOTECHNICAL ENGINEER FOR LIMITS OF OVER-EXCAVATION AND SUITABLE APPROVED REPLACEMENT FILL WITHIN THE PROJECT LIMITS.
- REFER TO SHEET C2.2 FOR OVER-EXCAVATION NOTES

APPROXIMATE LIMITS OF STRATUM 4 SOILS TO BE OVER-EXCAVATED AND REMOVED PER GEOTECHNICAL REPORT  
 APPROXIMATE LIMITS OF STRATUM 4 SOILS CONTRACTOR TO DISCUSS POTENTIAL OVER-EXCAVATION AND REMOVAL WITH ON-SITE GEOTECHNICAL ENGINEER DURING SITE GRADING PER GEOTECHNICAL REPORT

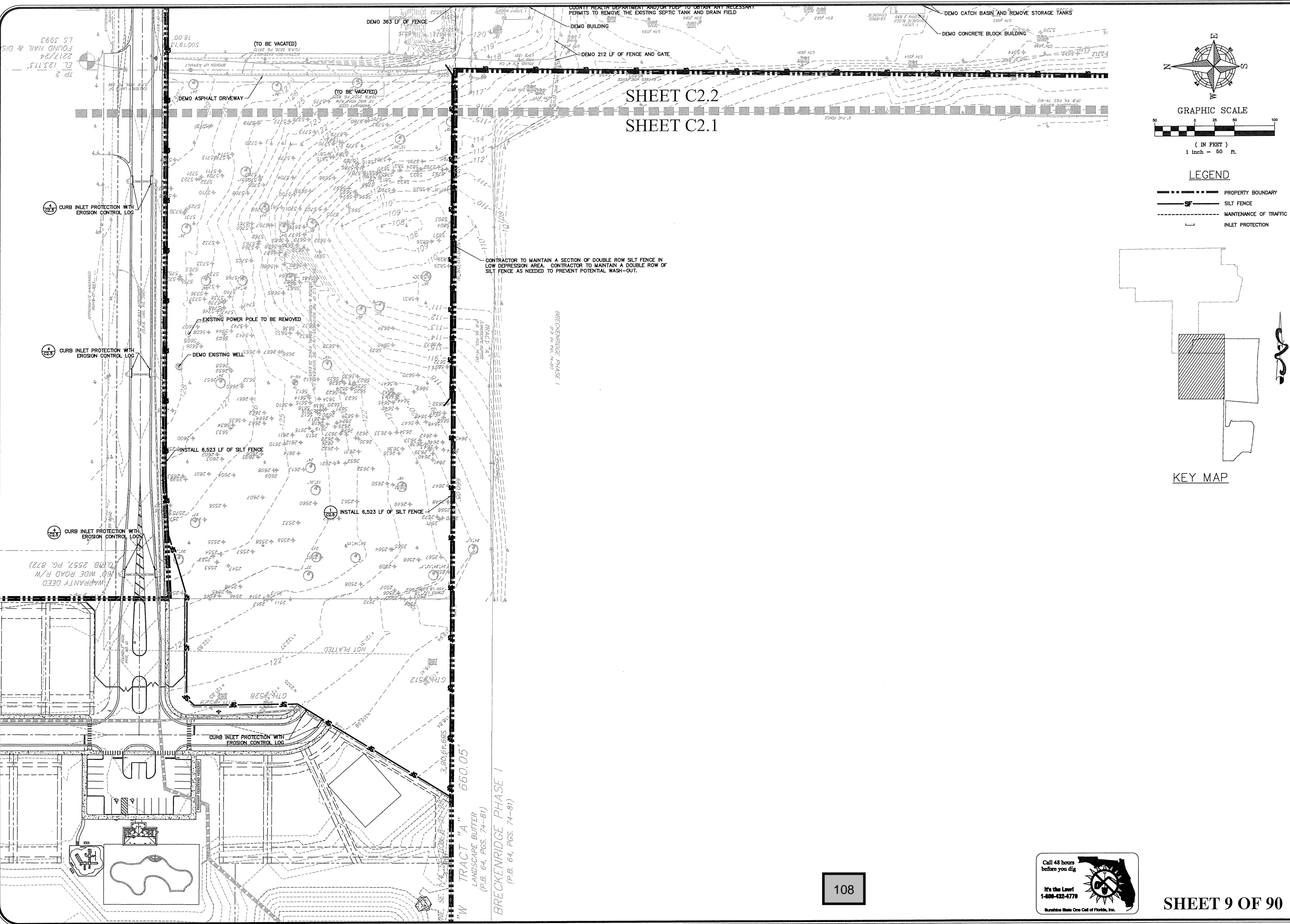
**EROSION CONTROL NOTES:**

- AN EROSION CONTROL AGENDA SHALL BE PREPARED BY THE CONTRACTOR. CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT AS THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF CHECK WEIRS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. THE CONTRACTOR IS REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. CONTRACTOR SHALL PROVIDE SYNTHETIC BALES, SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION.
- STOCKPILING MATERIAL:**  
NO EXCAVATED MATERIAL SHALL BE STOCKED PILED IN SUCH MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
  - EXPOSED AREA LIMITATION:**  
THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 5 ACRES SO LONG AS THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENT.
  - INLET PROTECTION:**  
INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
  - TEMPORARY SEEDING:**  
AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN SEVEN DAYS SHALL BE SEEDDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED, AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 LBS. PER ACRE.
  - TEMPORARY SEEDING AND MULCHING:**  
SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN 4 ABOVE, SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDDED AREA TO A DEPTH OF FOUR INCHES.
  - TEMPORARY GRASSING:**  
THE SEEDDED OR SEEDDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERS AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
  - TEMPORARY REGRASSING:**  
IF, AFTER FOURTEEN DAYS, THE TEMPORARY GRASSSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATION COVER.
  - MAINTENANCE:**  
ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.
  - DUST ABATEMENT:**  
DUST SHALL BE CONTROLLED WITH USE OF WATER AND CALCIUM CHLORIDE.
  - SODDING OF RETENTION POND AND CONVEYANCE SWALE SIDE SLOPES SHOULD BE ACCOMPLISHED AS SOON AS POSSIBLE FOLLOWING COMPLETION OF GRADING TO MINIMIZE EROSION POTENTIAL.
  - AT A MINIMUM, THE RETENTION/DETENTION STORAGE AREA MUST BE EXCAVATED TO ROUGH GRADE PRIOR TO BUILDING CONSTRUCTION OR PLACEMENT OF IMPERVIOUS SURFACE WITHIN THE AREA TO BE SERVED BY THOSE FACILITIES. TO PREVENT REDUCTION IN STORAGE VOLUME AND PERCOLATION RATES, ALL ACCUMULATED SEDIMENT MUST BE REMOVED FOR THE STORAGE AREA PRIOR TO FINAL GRADING AND STABILIZATION.
  - CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL EROSION PROTECTION COSTS, INCLUDING ANY COSTS ASSOCIATED WITH COMPLIANCE ISSUES AND ENFORCEMENT ACTIONS.
  - ANY EXISTING WELLS ON SITE MUST BE ABANDONED AS PER S.R.WMD PROCEDURES.

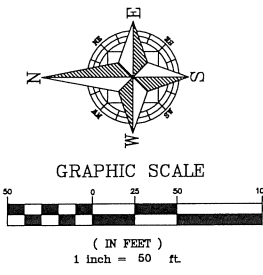
CIVIL ENGINEERING   LAND PLANNING		APPIAN ENGINEERING LLC.		APPIAN.COM • 407.960.5868		2211 Lee Road, Suite 17, Winter Park, Florida 32789		DATE	DESCRIPTION	BY
OVERALL EROSION CONTROL & DEMO PLAN		FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)		REV		
SCALE	1" = 120'	PROJECT	ROY-001	CHECKED:	L. GLASSON	DATE:	8/2/2018			
DRAWN:	S. SIERRA-GIL	DESIGNED:	O. SANCHEZ	CHECKED:	L. GLASSON	DATE:	8/2/2018			



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\Drawings 05 FINAL DEVELOPMENT PLAN - PHASE 2\Erosion Control & Demolition Plan.dwg Modified: 6/16/2018 By: esanchez

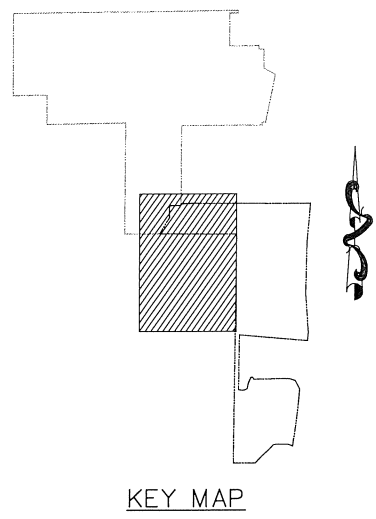


SHEET C2.2  
SHEET C2.1



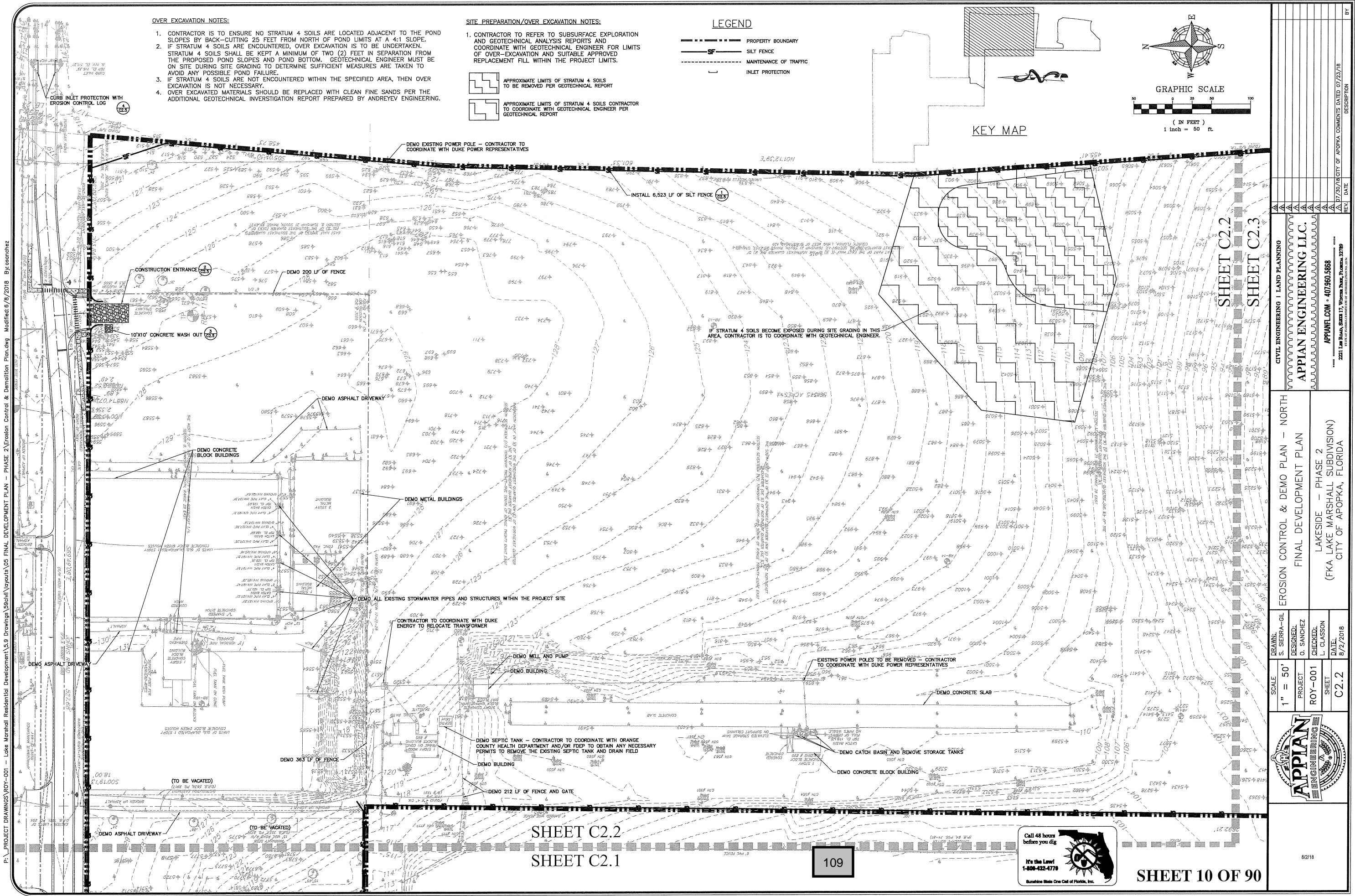
**LEGEND**

	PROPERTY BOUNDARY
	SILT FENCE
	MAINTENANCE OF TRAFFIC
	INLET PROTECTION



		CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIAN.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789	
EROSION CONTROL & DEMO PLAN - WEST FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA		DATE: 8/2/2018 SHEET: C.2.1 PROJECT: ROY-001 SCALE: 1" = 50'	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. GLASSON DATE: 8/2/2018
		CITY OF APOPKA COMMENTS DATED 07/23/18 BY:	

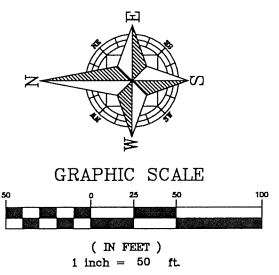
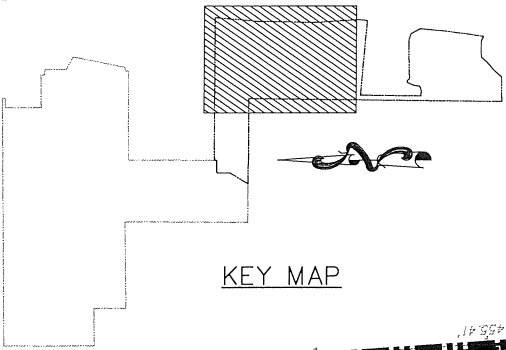




- OVER EXCAVATION NOTES:**
1. CONTRACTOR IS TO ENSURE NO STRATUM 4 SOILS ARE LOCATED ADJACENT TO THE POND SLOPES BY BACK-CUTTING 25 FEET FROM NORTH OF POND LIMITS AT A 4:1 SLOPE.
  2. IF STRATUM 4 SOILS ARE ENCOUNTERED, OVER EXCAVATION IS TO BE UNDERTAKEN. STRATUM 4 SOILS SHALL BE KEPT A MINIMUM OF TWO (2) FEET IN SEPARATION FROM THE PROPOSED POND SLOPES AND POND BOTTOM. GEOTECHNICAL ENGINEER MUST BE ON SITE DURING SITE GRADING TO DETERMINE SUFFICIENT MEASURES ARE TAKEN TO AVOID ANY POSSIBLE POND FAILURE.
  3. IF STRATUM 4 SOILS ARE NOT ENCOUNTERED WITHIN THE SPECIFIED AREA, THEN OVER EXCAVATION IS NOT NECESSARY.
  4. OVER EXCAVATED MATERIALS SHOULD BE REPLACED WITH CLEAN FINE SANDS PER THE ADDITIONAL GEOTECHNICAL INVESTIGATION REPORT PREPARED BY ANDREYEV ENGINEERING.

- SITE PREPARATION/OVER EXCAVATION NOTES:**
1. CONTRACTOR TO REFER TO SUBSURFACE EXPLORATION AND GEOTECHNICAL ANALYSIS REPORTS AND COORDINATE WITH GEOTECHNICAL ENGINEER FOR LIMITS OF OVER-EXCAVATION AND SUITABLE APPROVED REPLACEMENT FILL WITHIN THE PROJECT LIMITS.
- APPROXIMATE LIMITS OF STRATUM 4 SOILS TO BE REMOVED PER GEOTECHNICAL REPORT
- APPROXIMATE LIMITS OF STRATUM 4 SOILS CONTRACTOR TO COORDINATE WITH GEOTECHNICAL ENGINEER PER GEOTECHNICAL REPORT

- LEGEND**
- PROPERTY BOUNDARY
  - SILT FENCE
  - MAINTENANCE OF TRAFFIC
  - INLET PROTECTION



SHEET C2.2  
SHEET C2.3

SHEET C2.2  
SHEET C2.1

109

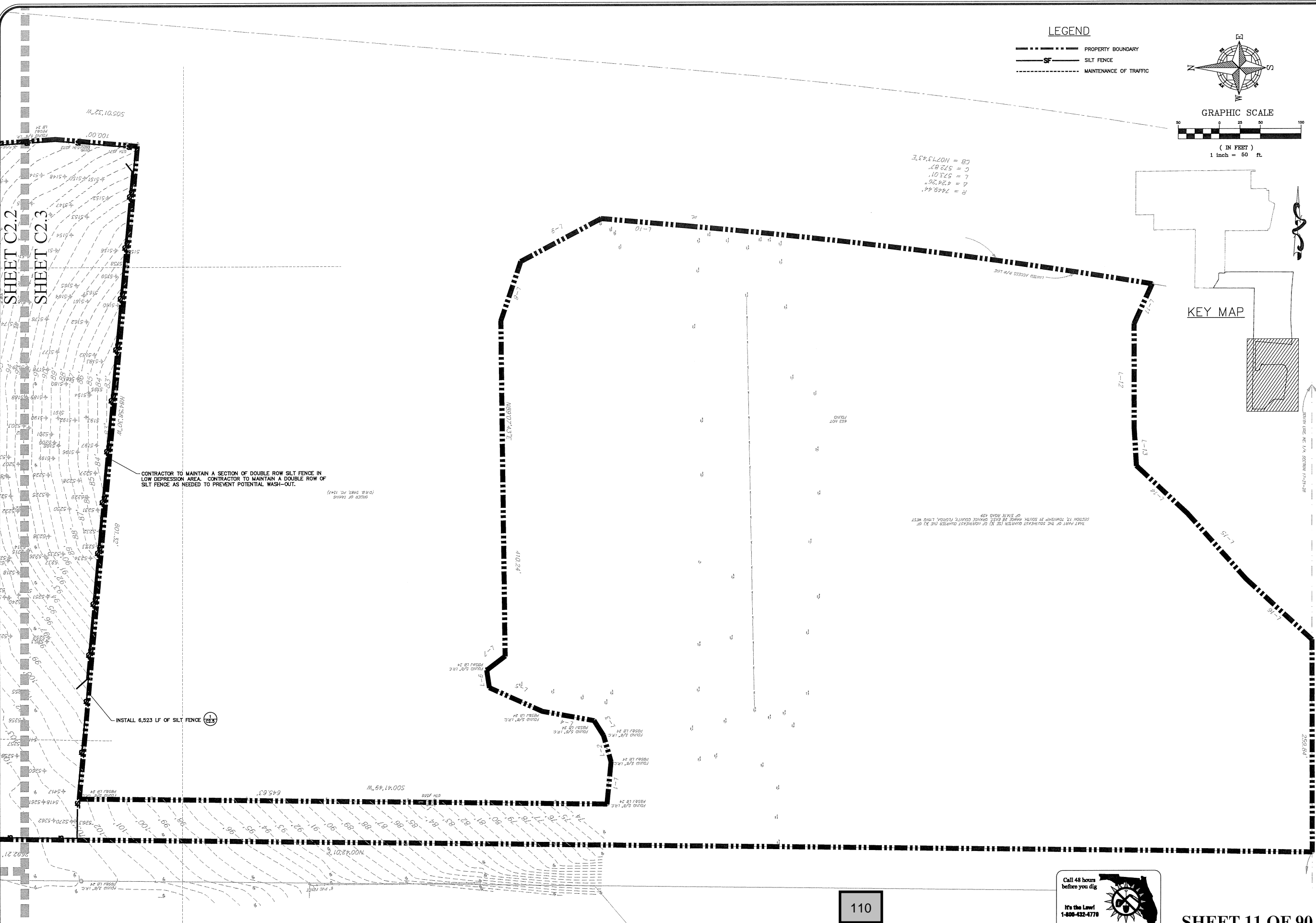


SHEET 10 OF 90

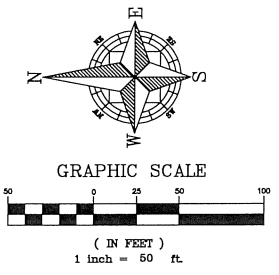
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\9.9 Drawings\99001\Layouts\06 FINAL DEVELOPMENT PLAN - PHASE 2\Erosion Control & Demolition Plan.dwg Modified: 6/8/2018 By: casanchez

CIVIL ENGINEERING   LAND PLANNING		EROSION CONTROL & DEMO PLAN - NORTH	
APPIAN ENGINEERING LLC.		FINAL DEVELOPMENT PLAN	
APPIAN.COM - 407.960.5868		LAKESIDE - PHASE 2	
2221 Lake Road, Suite 17, Winter Park, Florida 32789		CITY OF APOPKA, FLORIDA	
SCALE:	1" = 50'	PROJECT:	ROY-001
DRAWN:	S. SIERRA-GIL	CHECKED:	L. GLASSON
DESIGNED:	O. SANCHEZ	DATE:	8/2/2018
SHEET:	C2.2	SHEET 10 OF 90	

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9.dwg - Phase 2 Erosion Control & Demolition Plan.dwg Modified: 6/18/2018 By: osanchez



**LEGEND**  
 - - - - - PROPERTY BOUNDARY  
 - - - - - SILT FENCE  
 - - - - - MAINTENANCE OF TRAFFIC



R = 749.44'  
 Δ = 426.26'  
 L = 573.01'  
 C = 572.87'  
 CB = 10713.437'

KEY MAP

CONTRACTOR TO MAINTAIN A SECTION OF DOUBLE ROW SILT FENCE IN LOW DEPRESSION AREA. CONTRACTOR TO MAINTAIN A DOUBLE ROW OF SILT FENCE AS NEEDED TO PREVENT POTENTIAL WASH-OUT.

INSTALL 6,523 LF OF SILT FENCE

110



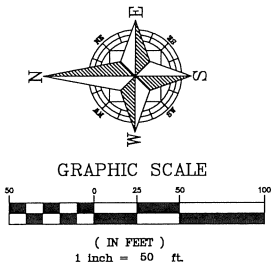
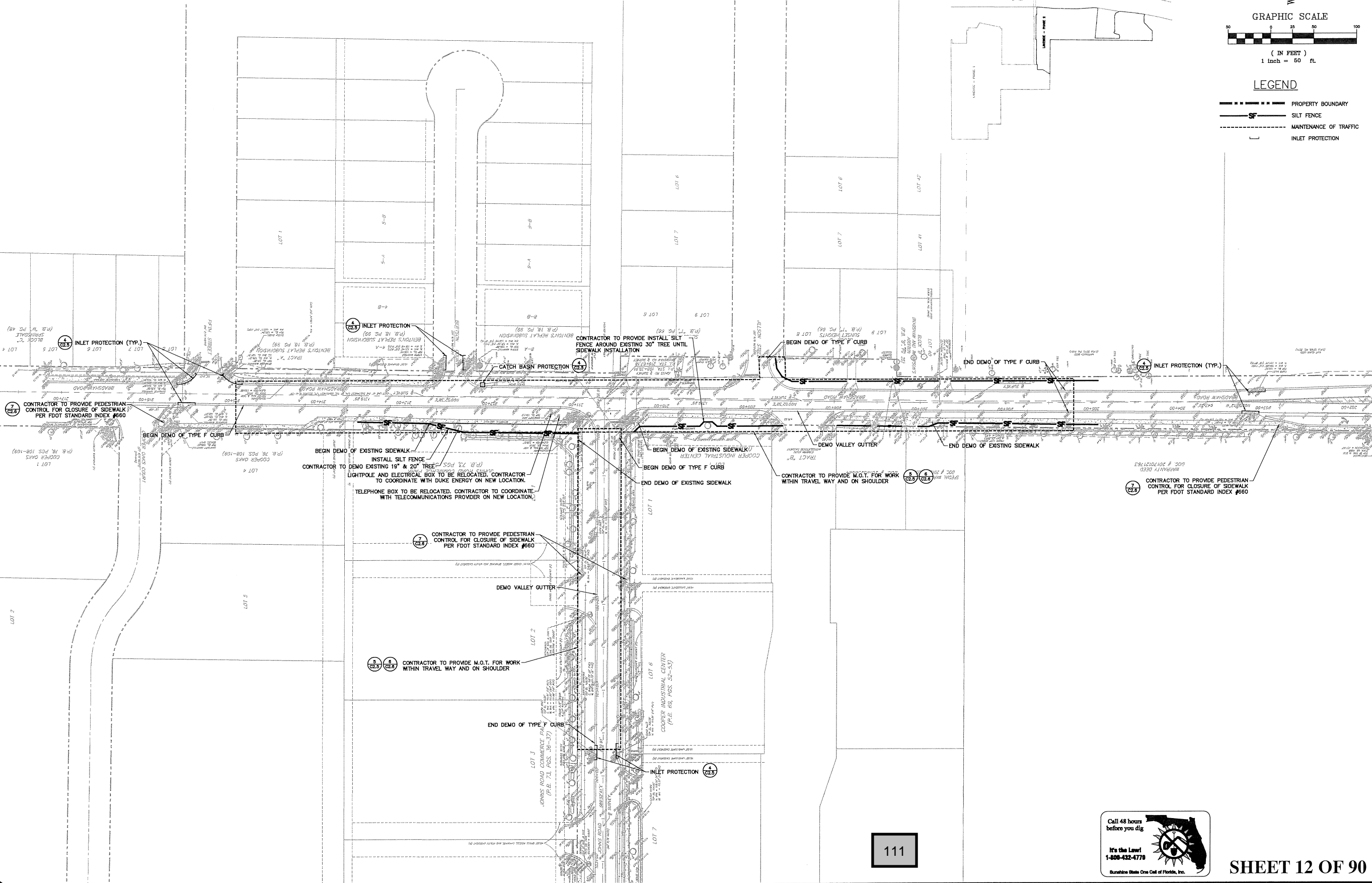
SHEET 11 OF 90

		<b>APPIAN ENGINEERING LLC.</b> CIVIL ENGINEERING   LAND PLANNING APPIANENGINEERING.COM - 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789	
SCALE 1" = 50' PROJECT ROY-001 SHEET C.2.3	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. OLANSON DATE: 8/2/2018	EROSION CONTROL & DEMO PLAN - SOUTH FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	REV. DATE DESCRIPTION A 07/20/18 CITY OF APOPKA COMMENTS DATED 07/23/18 BY

8/2/18


P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9civil\Drawings\5.9civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2 Offsite Erosion Control & Demolition Plan.dwg Modified: 8/2/2018 By: slerrogil

NOTE:  
BRADSHAW ROAD RIGHT-OF-WAY IMPROVEMENTS SHOWN FOR REFERENCE PURPOSES ONLY. ALL DEMOLITION AND PROPOSED IMPROVEMENTS WITHIN THE ORANGE COUNTY RIGHT-OF-WAY SHALL BE PERMITTED THROUGH THE COUNTY.



**LEGEND**

---	PROPERTY BOUNDARY
---	SILT FENCE
---	MAINTENANCE OF TRAFFIC
---	INLET PROTECTION

	SCALE 1" = 50' PROJECT ROY-001 SHEET C2.4	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/2/2018	OFFSITE EROSION CONTROL & DEMO PLAN FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM - 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789	REV. DATE DESCRIPTION 1 07/20/18 CITY OF APOPKA COMMENTS DATED 07/23/18 2 08/02/18	BY
---	--	---	---	---	--	----

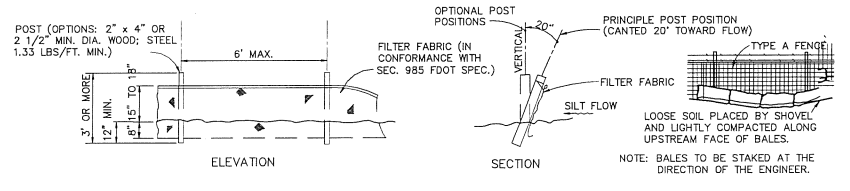
111



SHEET 12 OF 90

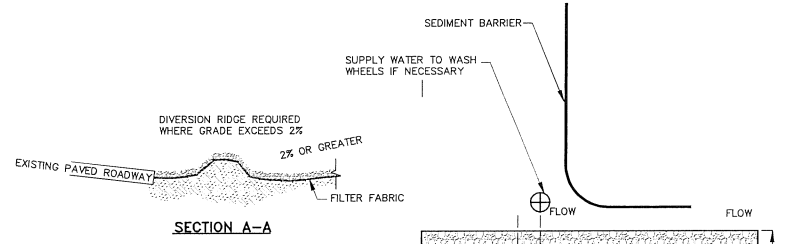
8/2/18

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9 Civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Erosion Control\_M.D.T. Details.dwg Modified: 6/9/2018 By: asanchez



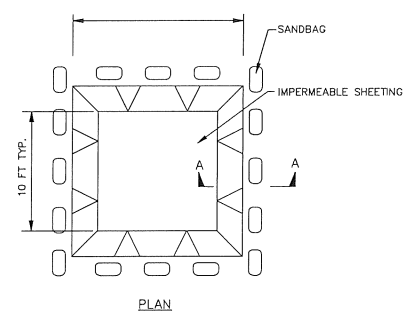
NOTE:  
SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

1 TYPE III SILT FENCE DETAIL  
N.T.S.



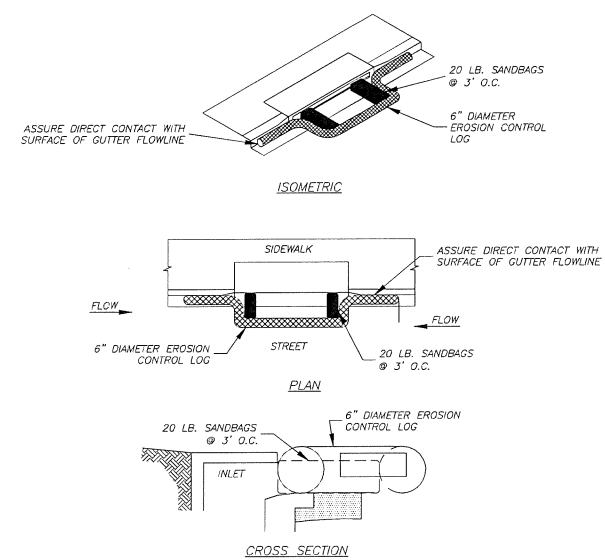
- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
  4. ALL EROSION CONTROL MATERIALS, CONSTRUCTION & MAINTENANCE TO BE PER APPLICABLE SECTIONS OF FDOT STANDARD SPECIFICATION SECTION 104.
  5. USE SANDBAGS OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN REQUIRED.
  6. COURSE AGGREGATE & FILTER FABRIC TO BE PER SECTIONS OF FDOT STANDARD SPECIFICATION SECTION 901 & 985 RESPECTIVELY.

2 TEMPORARY CONSTRUCTION ENTRANCE DETAIL  
N.T.S.



- NOTES:
1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
  2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
  3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
  4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
  5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER, WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

3 CONCRETE WASH OUT  
N.T.S.



- NOTES:
1. EROSION CONTROL LOG CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE, AND FILL MATERIAL SHALL CONSIST OF MULCH, ASPEN EXCELSIOR FIBERS, CHIPPED SITE VEGETATION, COCONUT FIBERS, 100% RECYCLABLE FIBERS, OR ANY OTHER ACCEPTABLE MATERIAL EXCLUDING STRAW AND HAY.
  2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2\".
  3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM WATER BEGINS TO OVERTOP THE CURB.
  4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

4 EROSION CONTROL LOG DETAIL  
N.T.S.

**Table I Device Spacing**

Speed (mph)	Max. Distance Between Devices (ft.)			
	Type I or Type II Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
25	25	50	25	50
30 to 45	25	50	30	50
40 mph or less	200	200		
45 mph	350	350		
50 mph or greater	500	500		

**Table II Taper Length - Shoulder**

Speed (mph)	Ls (ft)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	Ls WS' 60'
30	40	50	66	
35	55	68	82	L-WS
40	72	90	107	
45	120	150	180	L-WS
50	133	167	205	
55	147	183	220	L-WS
60	160	200	245	
65	173	217	260	L-WS
70	187	233	280	

**SYMBOLS**

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

**GENERAL NOTES**

1. When four or more work vehicles enter the through traffic lanes in a one hour period or less (excluding establishing and terminating the work area), the advanced FLAGGER sign shall be substituted for the WORKERS sign. For location of flaggers and FLAGGER signs, see Index No. 605.
2. SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign only on the side where the shoulder work is being performed.
3. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TTC Indexes.
4. For general TTC requirements and additional information, refer to Index No. 600.

**DURATION NOTES**

1. Signs and channelizing devices may be omitted if all of the following conditions are met:
  - a. Work operations are 60 minutes or less.
  - b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating or strobe lights operating.

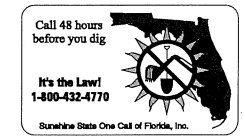
**CONDITIONS**

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENOUGH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

**SCALE**: N.T.S.  
**PROJECT**: ROY-001  
**SHEET**: C2.5

**LAST REVISION**: 07/01/15  
**DESCRIPTION**: FY 2017-18 DESIGN STANDARDS  
**INDEX NO.**: 602  
**SHEET NO.**: 1 of 1

5 MAINTENANCE OF TWO-LANE, TWO-WAY, WORK ON SHOULDER  
N.T.S.



CIVIL ENGINEERING | LAND PLANNING  
**APPIAN ENGINEERING LLC.**  
APPIANENGINEERING.COM - 407.560.5868  
2221 Lee Road, Suite 17, Winter Park, Florida 32789

EROSION CONTROL & DEMO DETAILS  
FINAL DEVELOPMENT PLAN  
LAKESIDE - PHASE 2  
(FKA LAKE MARSHALL SUBDIVISION)  
CITY OF APOPKA, FLORIDA

SCALE: N.T.S.  
PROJECT: ROY-001  
SHEET: C2.5

DRAWN BY: S. SIERRA-GIL  
DESIGNED BY: O. SANCHEZ  
CHECKED BY: L. CLASSON  
DATE: 8/2/2018

APPIAN ENGINEERING

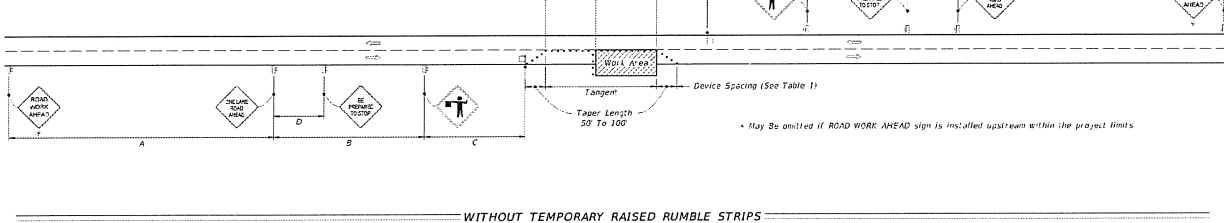
Call 48 hours before you dig  
1-800-432-4770  
Sunshine State One Call of Florida, Inc.

8/2/18



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Erosion Control\A.D.T. Details.dwg Modified: 6/9/2018 By: asanchez

**SYMBOLS:**  
 Work Area  
 Channelizing Device (See Index No. 600)  
 Work Zone Sign  
 Flagger  
 Lane Identification + Direction of Traffic



WITHOUT TEMPORARY RAISED RUMBLE STRIPS

**GENERAL NOTES:**

- Special Conditions may be required in accordance with these notes and the following sheets:
    - If an active railroad crossing is located closer to the Work Area than the taper length plus 100 feet, extend the Buffer Space as shown on Sheet 2.
    - If the spacing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway rail grade crossing even if automatic train warning devices are in place.
    - If the Work Area encroaches on the Centerline, use the Layout for Temporary Lane Shift to Shoulder on Sheet 3. If the Existing Paved Shoulder width is sufficient to provide for a 12' lane between the Work Area and the Edge of Existing Paved Shoulder, reduce the posted speed when appropriate.
  - Temporary Raised Rumble Strips
    - Use when both of the following conditions are met concurrently:
      - Existing Posted Speed is 35 mph or greater;
      - Work duration is greater than 60 minutes.
    - Use a consistent Strip Color throughout the work zone.
    - Place each Rumble Strip Set Transverse to the Lane at locations shown.
    - Use Option 1 or Option 2 as shown on Sheet 2. Use only one option throughout work zone.
  - Additional one-way control may be provided by the following means:
    - Flag-carrier vehicles;
    - Official vehicles;
    - Place vehicles;
    - Traffic signals.
- When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.

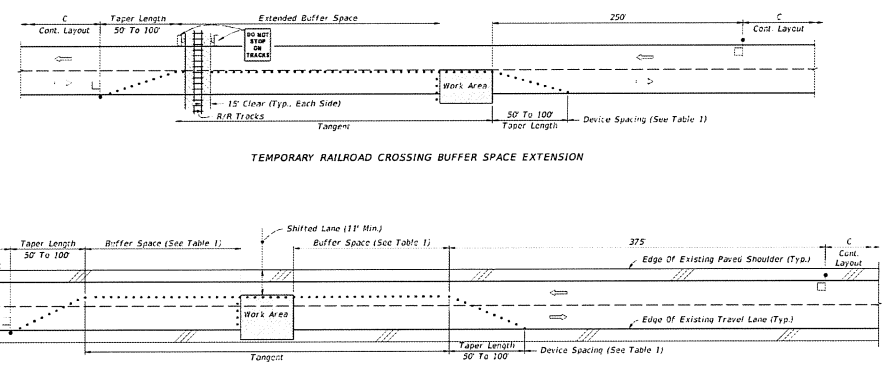
**TABLE 1**  
**DEVICE SPACING**

Posted Speed	Maximum Spacing of Cones or Tubular Markers		Maximum Spacing of Type I or Type II Barricades/Panels/Drums		Distance Between Signs				Buffer Space
	On a Taper	On a Tangent	On a Taper	On a Tangent	A	B	C	D	
25	20'	50'	20'	50'	200'	200'	200'	100'	150'
30	20'	50'	20'	50'	200'	200'	200'	100'	200'
35	20'	50'	20'	50'	200'	200'	200'	100'	250'
40	20'	50'	20'	50'	200'	200'	200'	100'	300'
45	20'	50'	20'	50'	350'	350'	350'	175'	300'
50	20'	50'	20'	100'	500'	500'	500'	250'	425'
55	20'	50'	20'	100'	2640'	1500'	1000'	500'	495'
60	20'	50'	20'	100'	2640'	1500'	1000'	500'	570'
65	20'	50'	20'	100'	2640'	1500'	1000'	500'	645'
70	20'	50'	20'	100'	2640'	1500'	1000'	500'	720'

**CONDITIONS**  
 WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRUCH THE AREA BETWEEN THE CENTERLINE AND A LINE 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION: 01/01/16	DESCRIPTION: FY 2017-18 DESIGN STANDARDS	FY 2017-18 DESIGN STANDARDS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX NO. 603	SHEET NO. 1 of 3
-------------------------	--	-----------------------------	--	---------------	------------------

**SYMBOLS:**  
 Work Area  
 Channelizing Device (See Index No. 600)  
 Work Zone Sign  
 Flagger  
 Lane Identification + Direction of Traffic



TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION

TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCRUCHES ON THE CENTERLINE

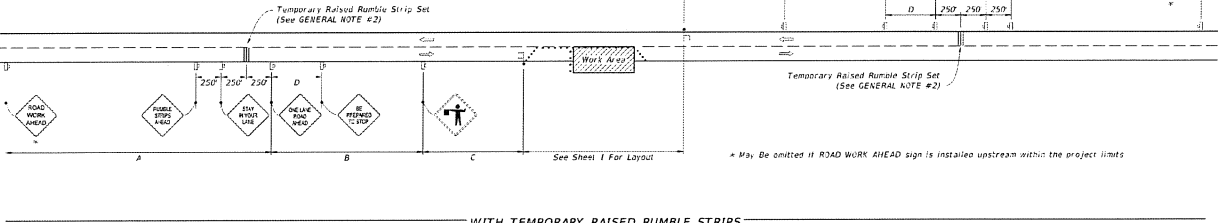
**SPECIAL CONDITIONS**

Cross Reference:  
 1. See General Note #1, Sheet 1 for more information.

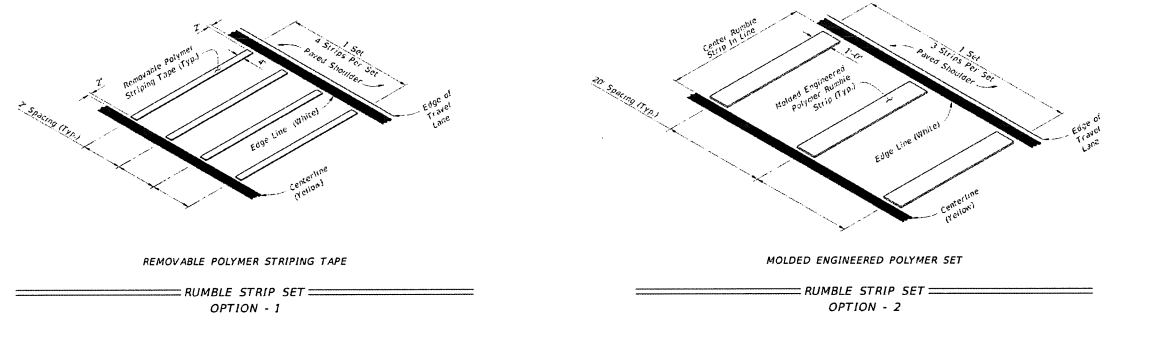
LAST REVISION: 01/01/16	DESCRIPTION: FY 2017-18 DESIGN STANDARDS	FY 2017-18 DESIGN STANDARDS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX NO. 603	SHEET NO. 3 of 3
-------------------------	--	-----------------------------	--	---------------	------------------

**6 MAINTENANCE OF TRAFFIC – WORK WITHIN THE TRAVEL WAY**  
 N.T.S.

**SYMBOLS:**  
 Work Area  
 Channelizing Device (See Index 102-600)  
 Work Zone Sign  
 Flagger  
 Lane Identification + Direction of Traffic



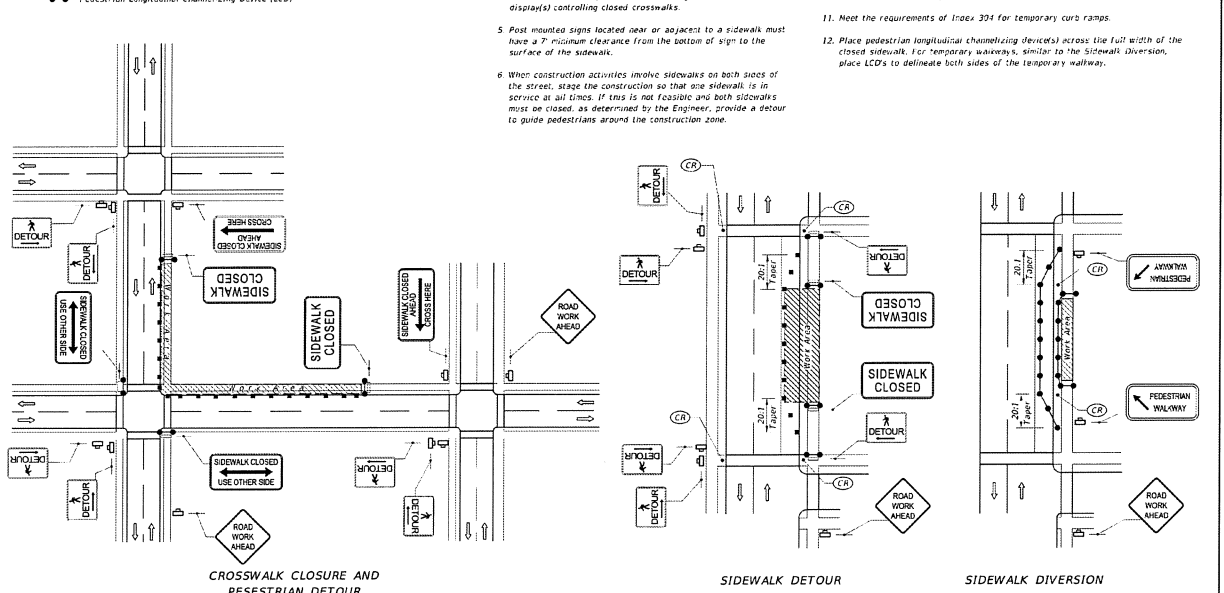
WITH TEMPORARY RAISED RUMBLE STRIPS (When Required See GENERAL NOTE #2)



**TEMPORARY RAISED RUMBLE STRIPS**

LAST REVISION: 11/01/17	DESCRIPTION: FY 2017-18 DESIGN STANDARDS	FY 2017-18 DESIGN STANDARDS	TWO-LANE, TWO-WAY WORK WITHIN THE TRAVEL WAY	INDEX NO. 603	SHEET NO. 2 of 3
-------------------------	--	-----------------------------	--	---------------	------------------

**SYMBOLS**  
 Work Area  
 Channelizing Device (See Index 600)  
 Work Zone Sign  
 Required Locations For Either Temporary or Permanent Curb Ramps  
 Lane Identification + Direction of Traffic  
 Pedestrian Longitudinal Channelizing Device (LCD) with Bounded Work Zone Sign or separate Work Zone Sign  
 Pedestrian Longitudinal Channelizing Device (LCD)



**GENERAL NOTES**

- Route pedestrian traffic around work areas when construction activities encroach on the sidewalk for more than 60 minutes using the devices and remedies shown on this Index. Use project specific designs for scenarios not included on this Index.
- For spacing of traffic control devices and general TCZ requirements refer to Index 600. The maximum spacing between barricades, vertical panels, drums or tubular markers is 25'.
- Use delineators or longitudinal channelizing devices separating the work area from vehicular traffic.
- Cover or deactivate pedestrian traffic signal display(s) controlling closed crosswalks.
- Post mounted signs located near or adjacent to a sidewalk must have a 7' minimum clearance from the bottom of sign to the surface of the sidewalk.
- When construction activities involve sidewalks on both sides of the street, stage the construction so that one sidewalk is in service at all times. If this is not feasible and both sidewalks must be closed, as determined by the Engineer, provide a detour to guide pedestrians around the construction zone.
- Provide a 5' wide temporary walkway, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary walkways less than 5' in width at intervals not to exceed 200'.
- Provide a cross-slope with a maximum value of 0.02 for all temporary walkways.
- Temporary walkway surfaces and ramps must be stable, firm, slip resistant, and free from any obstructions and hazards such as holes, debris, mud, construction equipment and stored materials.
- Remove temporary walkways immediately after reopening of the sidewalk, unless otherwise noted in the plans.
- Meet the requirements of Index 334 for temporary curb ramps.
- Place pedestrian longitudinal channelizing devices across the full width of the closed sidewalk. For temporary walkways, similar to the Sidewalk Diversion, place LCDs to delineate both sides of the temporary walkway.

LAST REVISION: 11/01/16	DESCRIPTION: FY 2017-18 DESIGN STANDARDS	FY 2017-18 DESIGN STANDARDS	PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS	INDEX NO. 660	SHEET NO. 1 of 1
-------------------------	--	-----------------------------	---	---------------	------------------

**7 PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALK**  
 N.T.S.



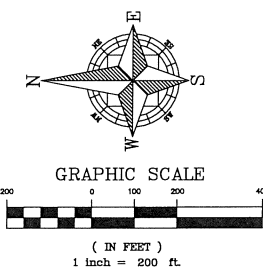
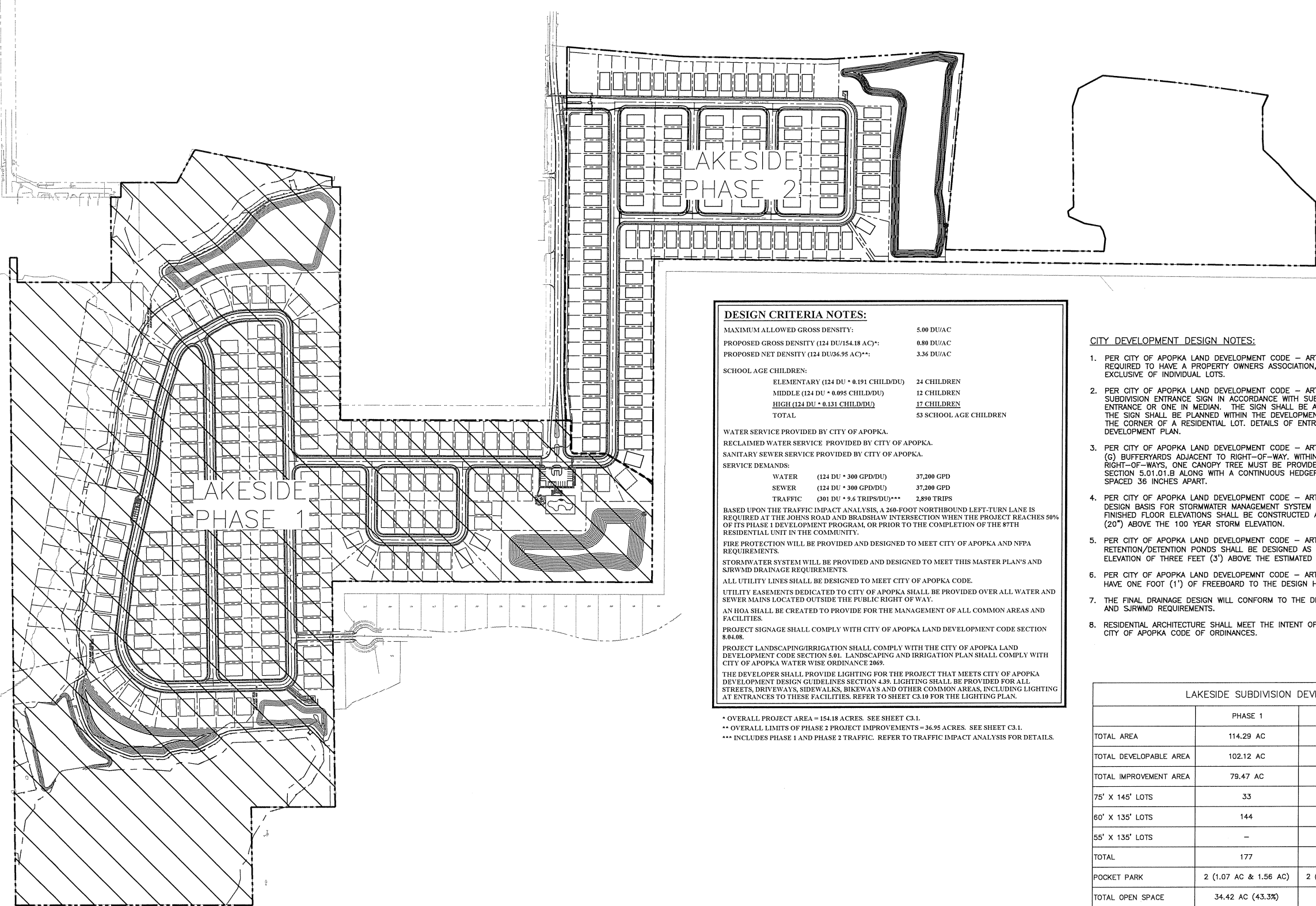
CIVIL ENGINEERING | LAND PLANNING  
**APPIAN ENGINEERING LLC.**  
 APPIAN.COM - 407.960.5868  
 2221 Lee Road, Suite 17, Weston, FL 33091  
 CITY OF APOPKA COMMENTS DATED 07/23/18

EROSION CONTROL & DEMO DETAILS  
 FINAL DEVELOPMENT PLAN  
 LAKESIDE - PHASE 2  
 (FKA LAKE MARSHALL SUBDIVISION)  
 CITY OF APOPKA, FLORIDA

SCALE: N.T.S.	DESIGNED: O. SANCHEZ	CHECKED: L. CLASSON
PROJECT: ROY-001		
SHEET: C2.6		DATE: 8/2/2018

APPIAN ENGINEERING  
 8/2/18

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9civil\Drawings\05 FINAL DEVELOPMENT PLAN - PHASE 2\Phasing Plan.dwg Modified: 6/8/2018 By: esaterragl



- LEGEND**
- LOT LINES
  - EASEMENTS
  - SETBACKS
  - x- FENCE
  - - - PHASING LINE
  - ▨ PHASE 1

**DESIGN CRITERIA NOTES:**

MAXIMUM ALLOWED GROSS DENSITY: 5.00 DU/AC  
 PROPOSED GROSS DENSITY (124 DU/154.18 AC)\*\*: 0.80 DU/AC  
 PROPOSED NET DENSITY (124 DU/36.95 AC)\*\*: 3.36 DU/AC

SCHOOL AGE CHILDREN:

ELEMENTARY (124 DU * 0.191 CHILDDU)	24 CHILDREN
MIDDLE (124 DU * 0.095 CHILDDU)	12 CHILDREN
HIGH (124 DU * 0.131 CHILDDU)	17 CHILDREN
<b>TOTAL</b>	<b>53 SCHOOL AGE CHILDREN</b>

WATER SERVICE PROVIDED BY CITY OF APOPKA.  
 RECLAIMED WATER SERVICE PROVIDED BY CITY OF APOPKA.  
 SANITARY SEWER SERVICE PROVIDED BY CITY OF APOPKA.

SERVICE DEMANDS:

WATER (124 DU * 300 GPD/DU)	37,200 GPD
SEWER (124 DU * 300 GPD/DU)	37,200 GPD
TRAFFIC (301 DU * 9.6 TRIPS/DU)**	2,890 TRIPS

BASED UPON THE TRAFFIC IMPACT ANALYSIS, A 260-FOOT NORTHBOUND LEFT-TURN LANE IS REQUIRED AT THE JOHNS ROAD AND BRADSHAW INTERSECTION WHEN THE PROJECT REACHES 50% OF ITS PHASE 1 DEVELOPMENT PROGRAM, OR PRIOR TO THE COMPLETION OF THE 87TH RESIDENTIAL UNIT IN THE COMMUNITY.

FIRE PROTECTION WILL BE PROVIDED AND DESIGNED TO MEET CITY OF APOPKA AND NFPA REQUIREMENTS.

STORMWATER SYSTEM WILL BE PROVIDED AND DESIGNED TO MEET THIS MASTER PLAN'S AND SRWMD DRAINAGE REQUIREMENTS.

ALL UTILITY LINES SHALL BE DESIGNED TO MEET CITY OF APOPKA CODE.

UTILITY EASEMENTS DEDICATED TO CITY OF APOPKA SHALL BE PROVIDED OVER ALL WATER AND SEWER MAINS LOCATED OUTSIDE THE PUBLIC RIGHT OF WAY.

AN HOA SHALL BE CREATED TO PROVIDE FOR THE MANAGEMENT OF ALL COMMON AREAS AND FACILITIES.

PROJECT SIGNAGE SHALL COMPLY WITH CITY OF APOPKA LAND DEVELOPMENT CODE SECTION 8.04.08.

PROJECT LANDSCAPING/IRRIGATION SHALL COMPLY WITH THE CITY OF APOPKA LAND DEVELOPMENT CODE SECTION 5.01. LANDSCAPING AND IRRIGATION PLAN SHALL COMPLY WITH CITY OF APOPKA WATER WISE ORDINANCE 2069.

THE DEVELOPER SHALL PROVIDE LIGHTING FOR THE PROJECT THAT MEETS CITY OF APOPKA DEVELOPMENT DESIGN GUIDELINES SECTION 4.39. LIGHTING SHALL BE PROVIDED FOR ALL STREETS, DRIVEWAYS, SIDEWALKS, BIKEWAYS AND OTHER COMMON AREAS, INCLUDING LIGHTING AT ENTRANCES TO THESE FACILITIES. REFER TO SHEET C3.10 FOR THE LIGHTING PLAN.

\* OVERALL PROJECT AREA = 154.18 ACRES. SEE SHEET C3.1.  
 \*\* OVERALL LIMITS OF PHASE 2 PROJECT IMPROVEMENTS = 36.95 ACRES. SEE SHEET C3.1.  
 \*\*\* INCLUDES PHASE 1 AND PHASE 2 TRAFFIC. REFER TO TRAFFIC IMPACT ANALYSIS FOR DETAILS.

- CITY DEVELOPMENT DESIGN NOTES:**
- PER CITY OF APOPKA LAND DEVELOPMENT CODE - ARTICLE VI - SEC. 6.01.00 B.3 THE DEVELOPMENT IS REQUIRED TO HAVE A PROPERTY OWNERS ASSOCIATION, CONVEYED IN FEE SIMPLE OWNERSHIP, FOR LAND EXCLUSIVE OF INDIVIDUAL LOTS.
  - PER CITY OF APOPKA LAND DEVELOPMENT CODE - ARTICLE VIII - SEC. 8.04.15 ONE RESIDENTIAL SUBDIVISION ENTRANCE SIGN IN ACCORDANCE WITH SUBDIVISION PLAN APPROVAL ON EACH SIDE OF ENTRANCE OR ONE IN MEDIAN. THE SIGN SHALL BE A WALL SIGN OR MONUMENT SIGN. AN AREA FOR THE SIGN SHALL BE PLANNED WITHIN THE DEVELOPMENT PLAN AND SUCH AREA SHALL NOT TRUNCATE THE CORNER OF A RESIDENTIAL LOT. DETAILS OF ENTRANCE SIGN SHALL BE PROVIDED AT FINAL DEVELOPMENT PLAN.
  - PER CITY OF APOPKA LAND DEVELOPMENT CODE - ARTICLE V - SEC. 5.01.08 REQUIRED LANDSCAPING (G) BUFFERYARDS ADJACENT TO RIGHT-OF-WAY. WITHIN BUFFER YARDS THAT ARE ADJACENT TO RIGHT-OF-WAYS, ONE CANOPY TREE MUST BE PROVIDED AT INTERVALS AND IN A FASHION DESCRIBED IN SECTION 5.01.01.B ALONG WITH A CONTINUOUS HEDGEROW WITH THE HEDGES 24 INCHES HIGH AND SPACED 36 INCHES APART.
  - PER CITY OF APOPKA LAND DEVELOPMENT CODE - ARTICLE VI - SEC. 6.05.00 B.3 THE CITY OF APOPKA DESIGN BASIS FOR STORMWATER MANAGEMENT SYSTEM IS THE 25 YEAR/24 HOUR STORM EVENT. ALL FINISHED FLOOR ELEVATIONS SHALL BE CONSTRUCTED AT AN ELEVATION NO LESS THAN TWENTY INCHES (20") ABOVE THE 100 YEAR STORM ELEVATION.
  - PER CITY OF APOPKA LAND DEVELOPMENT CODE - ARTICLE VI - SEC. 6.05.00 B.7 ALL RETENTION/DETENTION PONDS SHALL BE DESIGNED AS DRY BOTTOM PONDS WITH A MINIMUM BOTTOM ELEVATION OF THREE FEET (3') ABOVE THE ESTIMATED SEASONAL HIGH WATER TABLE.
  - PER CITY OF APOPKA LAND DEVELOPMENT CODE - ARTICLE VI - SEC. 6.05.00 D.5 ALL PONDS SHALL HAVE ONE FOOT (1') OF FREEBOARD TO THE DESIGN HIGH WATER RESULTING FROM THE DESIGN STORM.
  - THE FINAL DRAINAGE DESIGN WILL CONFORM TO THE DESIGN STANDARDS SET FORTH IN THE MASTER PLAN AND SRWMD REQUIREMENTS.
  - RESIDENTIAL ARCHITECTURE SHALL MEET THE INTENT OF THE DEVELOPMENT DESIGN GUIDELINES BY THE CITY OF APOPKA CODE OF ORDINANCES.

**LAKESIDE SUBDIVISION DEVELOPMENT PROGRAM**

	PHASE 1	PHASE 2	OVERALL
TOTAL AREA	114.29 AC	154.18 AC	154.18 AC
TOTAL DEVELOPABLE AREA	102.12 AC	52.06 AC	154.18 AC
TOTAL IMPROVEMENT AREA	79.47 AC	36.95 AC	116.42 AC
75' X 145' LOTS	33	-	33
60' X 135' LOTS	144	5	149
55' X 135' LOTS	-	119	119
TOTAL	177	124	301
POCKET PARK	2 (1.07 AC & 1.56 AC)	2 (0.44 AC & 0.32 AC)	3.39 AC
TOTAL OPEN SPACE	34.42 AC (43.3%)	12.75 AC (34.5%)	47.17 AC (40.5%)

CIVIL ENGINEERING | LAND PLANNING

**APPIAN ENGINEERING LLC.**

APPINEL.COM - 407.960.5868

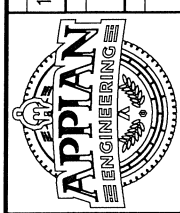
2221 Lee Road, Suite 17, Winter Park, Florida 32789

---

PHASING PLAN  
FINAL DEVELOPMENT PLAN

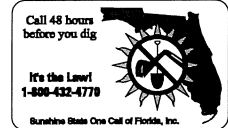
LAKESIDE - PHASE 2  
(FKA LAKE MARSHALL SUBDIVISION)  
CITY OF APOPKA, FLORIDA

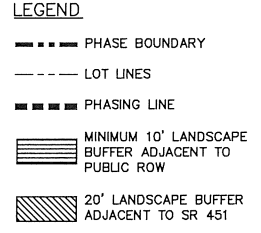
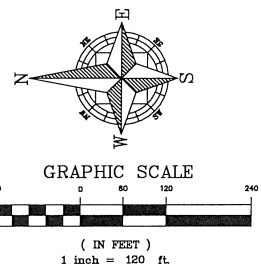
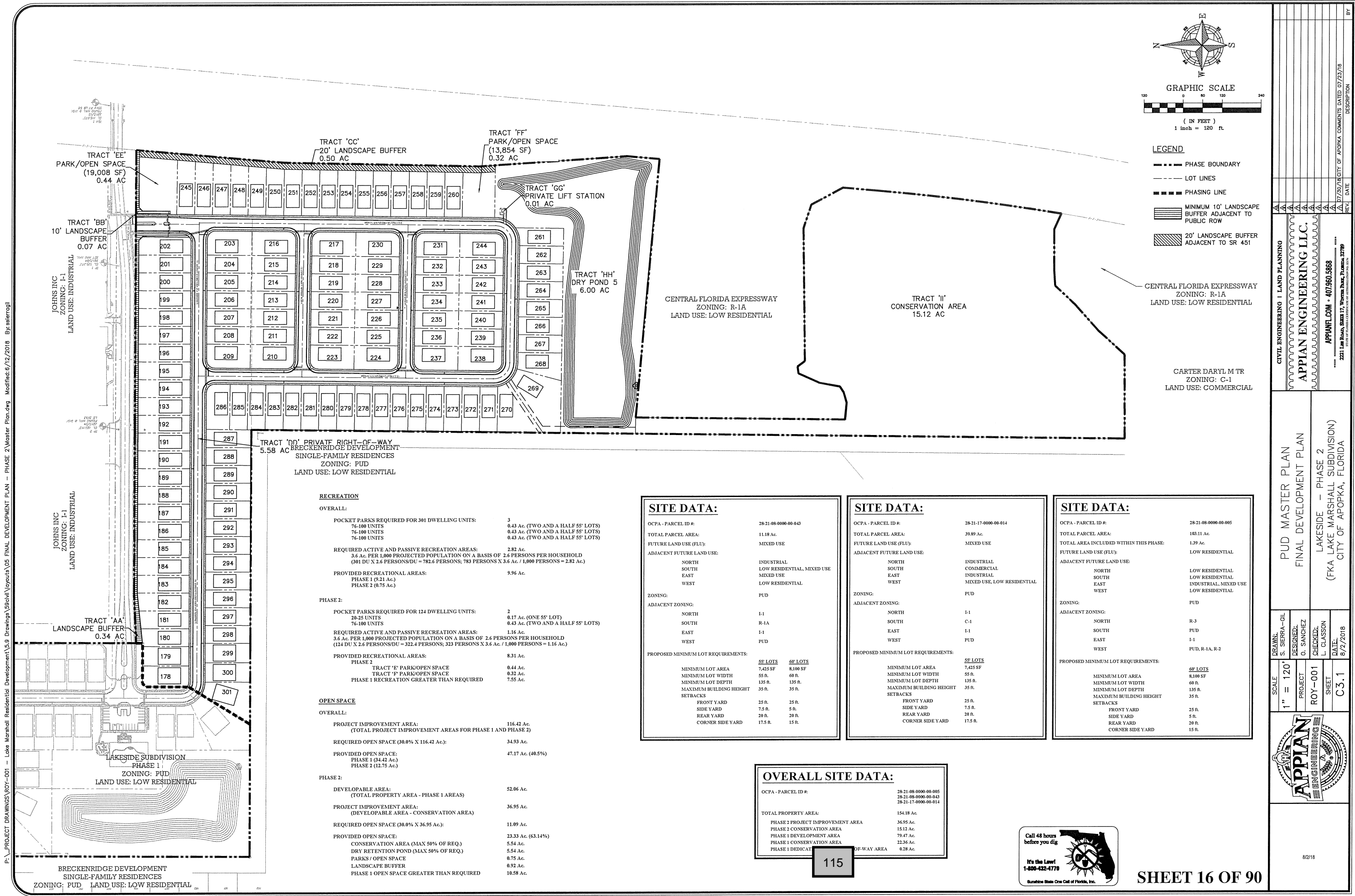
SCALE: 1" = 200'	PROJECT: ROY-001	SHEET: C3.0
DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ	CHECKED: L. GLASSON
DATE: 8/2/2018		



**APPIAN ENGINEERING**

8/2/18





**RECREATION**

OVERALL:

POCKET PARKS REQUIRED FOR 301 DWELLING UNITS:	3
76-100 UNITS	0.43 AC (TWO AND A HALF 55' LOTS)
76-100 UNITS	0.43 AC (TWO AND A HALF 55' LOTS)
76-100 UNITS	0.43 AC (TWO AND A HALF 55' LOTS)
REQUIRED ACTIVE AND PASSIVE RECREATION AREAS:	2.82 AC
3.6 AC PER 1,000 PROJECTED POPULATION ON A BASIS OF 2.6 PERSONS PER HOUSEHOLD (301 DU X 2.6 PERSONS/DU = 782.6 PERSONS; 783 PERSONS X 3.6 AC / 1,000 PERSONS = 2.82 AC)	
PROVIDED RECREATIONAL AREAS:	9.96 AC
PHASE 1 (0.21 AC)	
PHASE 2 (0.75 AC)	

PHASE 2:

POCKET PARKS REQUIRED FOR 124 DWELLING UNITS:	2
20-25 UNITS	0.17 AC (ONE 55' LOT)
76-100 UNITS	0.43 AC (TWO AND A HALF 55' LOTS)
REQUIRED ACTIVE AND PASSIVE RECREATION AREAS:	1.16 AC
3.6 AC PER 1,000 PROJECTED POPULATION ON A BASIS OF 2.6 PERSONS PER HOUSEHOLD (124 DU X 2.6 PERSONS/DU = 322.4 PERSONS; 323 PERSONS X 3.6 AC / 1,000 PERSONS = 1.16 AC)	
PROVIDED RECREATIONAL AREAS:	8.31 AC
PHASE 2	
TRACT 'E' PARK/OPEN SPACE	0.44 AC
TRACT 'F' PARK/OPEN SPACE	0.32 AC
PHASE 1 RECREATION GREATER THAN REQUIRED	7.55 AC

**OPEN SPACE**

OVERALL:

PROJECT IMPROVEMENT AREA:	116.42 AC
(TOTAL PROJECT IMPROVEMENT AREAS FOR PHASE 1 AND PHASE 2)	
REQUIRED OPEN SPACE (30.0% X 116.42 AC):	34.93 AC
PROVIDED OPEN SPACE:	47.17 AC (40.5%)
PHASE 1 (34.42 AC)	
PHASE 2 (12.75 AC)	

PHASE 2:

DEVELOPABLE AREA:	52.06 AC
(TOTAL PROPERTY AREA - PHASE 1 AREAS)	
PROJECT IMPROVEMENT AREA:	36.95 AC
(DEVELOPABLE AREA - CONSERVATION AREA)	
REQUIRED OPEN SPACE (30.0% X 36.95 AC):	11.09 AC
PROVIDED OPEN SPACE:	23.33 AC (63.14%)
CONSERVATION AREA (MAX 50% OF REQ.)	5.54 AC
DRY RETENTION POND (MAX 50% OF REQ.)	5.54 AC
PARKS / OPEN SPACE	0.75 AC
LANDSCAPE BUFFER	0.92 AC
PHASE 1 OPEN SPACE GREATER THAN REQUIRED	10.58 AC

**SITE DATA:**

OCPA - PARCEL ID #:	28-21-08-0000-00-043
TOTAL PARCEL AREA:	11.18 AC
FUTURE LAND USE (FLU):	MIXED USE
ADJACENT FUTURE LAND USE:	
NORTH	INDUSTRIAL
SOUTH	LOW RESIDENTIAL, MIXED USE
EAST	MIXED USE
WEST	LOW RESIDENTIAL
ZONING:	PUD
ADJACENT ZONING:	
NORTH	I-1
SOUTH	R-1A
EAST	I-1
WEST	PUD
PROPOSED MINIMUM LOT REQUIREMENTS:	
55' LOTS	60' LOTS
MINIMUM LOT AREA	7,425 SF
MINIMUM LOT WIDTH	55 ft.
MINIMUM LOT DEPTH	135 ft.
MAXIMUM BUILDING HEIGHT	35 ft.
SETBACKS:	
FRONT YARD	25 ft.
SIDE YARD	7.5 ft.
REAR YARD	20 ft.
CORNER SIDE YARD	17.5 ft.

**SITE DATA:**

OCPA - PARCEL ID #:	28-21-17-0000-00-014
TOTAL PARCEL AREA:	39.89 AC
FUTURE LAND USE (FLU):	MIXED USE
ADJACENT FUTURE LAND USE:	
NORTH	INDUSTRIAL
SOUTH	COMMERCIAL
EAST	INDUSTRIAL
WEST	MIXED USE, LOW RESIDENTIAL
ZONING:	PUD
ADJACENT ZONING:	
NORTH	I-1
SOUTH	C-1
EAST	I-1
WEST	PUD
PROPOSED MINIMUM LOT REQUIREMENTS:	
55' LOTS	
MINIMUM LOT AREA	7,425 SF
MINIMUM LOT WIDTH	55 ft.
MINIMUM LOT DEPTH	135 ft.
MAXIMUM BUILDING HEIGHT	35 ft.
SETBACKS:	
FRONT YARD	25 ft.
SIDE YARD	7.5 ft.
REAR YARD	20 ft.
CORNER SIDE YARD	17.5 ft.

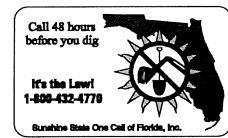
**SITE DATA:**

OCPA - PARCEL ID #:	28-21-08-0000-00-005
TOTAL PARCEL AREA:	103.11 AC
TOTAL AREA INCLUDED WITHIN THIS PHASE:	1.39 AC
FUTURE LAND USE (FLU):	LOW RESIDENTIAL
ADJACENT FUTURE LAND USE:	
NORTH	LOW RESIDENTIAL
SOUTH	LOW RESIDENTIAL
EAST	INDUSTRIAL, MIXED USE
WEST	LOW RESIDENTIAL
ZONING:	PUD
ADJACENT ZONING:	
NORTH	R-3
SOUTH	PUD
EAST	I-1
WEST	PUD, R-1A, R-2
PROPOSED MINIMUM LOT REQUIREMENTS:	
60' LOTS	
MINIMUM LOT AREA	8,100 SF
MINIMUM LOT WIDTH	60 ft.
MINIMUM LOT DEPTH	135 ft.
MAXIMUM BUILDING HEIGHT	35 ft.
SETBACKS:	
FRONT YARD	25 ft.
SIDE YARD	5 ft.
REAR YARD	20 ft.
CORNER SIDE YARD	15 ft.

**OVERALL SITE DATA:**

OCPA - PARCEL ID #:	28-21-08-0000-00-005
	28-21-08-0000-00-043
	28-21-17-0000-00-014
TOTAL PROPERTY AREA:	154.18 AC
PHASE 2 PROJECT IMPROVEMENT AREA	36.95 AC
PHASE 2 CONSERVATION AREA	15.12 AC
PHASE 1 DEVELOPMENT AREA	79.47 AC
PHASE 1 CONSERVATION AREA	22.36 AC
PHASE 1 DEDICATED OFF-WAY AREA	0.28 AC

115



SHEET 16 OF 90

CIVIL ENGINEERING | LAND PLANNING  
**APPIAN ENGINEERING LLC.**  
 APPIAN.COM - 407.960.5868  
 2221 Lee Road, Suite 17, Winter Park, Florida 32789

PUD MASTER PLAN  
 FINAL DEVELOPMENT PLAN  
 LAKESIDE - PHASE 2  
 (FKA LAKE MARSHALL SUBDIVISION)  
 CITY OF APOPKA, FLORIDA

SCALE: 1" = 120'  
 PROJECT: ROY-001  
 SHEET: C3.1

DRAWN: S. SIERRA-GIL  
 DESIGNED: O. SANCHEZ  
 CHECKED: L. CLAXSON  
 DATE: 8/2/2018

APPIAN ENGINEERING  
 8/2/18

REV. DATE DESCRIPTION  
 A 07/20/18 CITY OF APOPKA COMMENTS DATED 07/23/18  
 B  
 BY

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9a\Drawings\5.9a\05 FINAL DEVELOPMENT PLAN - PHASE 2\Master Plan.dwg Modified: 8/12/2018 By: ainerrogli

**LAKE MARSHALL PHASE 2 MASTER PLAN DEVELOPMENT STANDARDS**

**A. Design Standards**

**1. LOT CRITERIA:**

Description	Single-Family Detached 60' Lot	Single-Family Detached 55' Lot
<b>Lot Setbacks <sup>(1)</sup></b>		
Front Porch <sup>(2)</sup>	15'	15'
Front	25'	25'
Rear	20'	20'
Side	5'	7.5'
Side Corner	15'	N/A
Garage	25' <sup>(3)</sup>	25' <sup>(3)</sup>
Accessory Structure Rear	5'	5'
<b>Lot Dimensions</b>		
Min. Average Lot Area	8,100 SF	7,425 SF
Min. Lot Width	60' <sup>(3)</sup>	55' <sup>(4)</sup>
Min. Lot Depth	135'	135'
Max. Lot Coverage	75%	75%
Max. Building Height	35' <sup>(5)</sup> Stories	35' <sup>(5)</sup> Stories
Min. Living Area	1,600 SF	1,600 SF

- (1) See Sheet C3.6 for depiction of conceptual typical site plans.
- (2) Front porch setback as allowed per City of Apopka Development Design Guidelines 3.2.1.
- (3) Minimum lot width may be reduced to 40' around curves so long as lot width at the building line is 60' minimum.
- (4) Minimum lot width may be reduced to 35' around curves so long as lot width at the building line is 55' minimum.
- (5) A deviation from the City of Apopka's requirement of a 30' garage setback is hereby requested.

**B. Architectural, Buildings, and Accessory Structures**

- 1. Architectural design shall meet the intent of City of Apopka Development Design Guidelines unless otherwise stated.
- 2. All lots shall have detached single family homes.
- 3. Each individual single-family home shall have a minimum of two (2) bedrooms.
- 4. All lots shall have attached minimum two (2) car garages.
- 5. A deviation from the City of Apopka Development Design Guidelines is hereby requested to allow for side-entry, flush, recessed, and protruding garage styles throughout the Lake Marshall Subdivision.
- 6. Mail delivery for all lots within both phases of the Lake Marshall Subdivision shall occur at mail kiosks with cluster mailbox units. Approval from the Postmaster of the mail kiosks and their location shall be submitted prior to approval of the Final Development Plan.
- 7. A/C condenser units & similar equipment placed in the side yard area shall be screened with landscaping or opaque fencing.
- 8. Storage sheds or similar storage facilities shall not be allowed.
- 9. Swimming pools shall be allowed on all lots.

1

- 3. All parks and open space within the limits of Phase 1 of the Lake Marshall Subdivision shall be accessible to and account towards required recreation and open space areas for Phase 2 per the Lake Marshall Subdivision Phase 1 Planned Unit Development Master Plan/Preliminary Development Plan.
- 4. Tracts E and F will incorporate pedestrian circulation, benches, and open play areas. Specific park site plans and amenities/equipment shall be provided with the Final Development Plan.

**E. Buffers and Landscaping**

- 1. A twenty-foot (20') densely vegetated/landscaped tract will be provided along the rear of Lots 242-257 and Tracts 'E' and 'F' to provide buffering from the adjacent SR 451 right-of-way. This tract shall be dedicated to and maintained by the H.O.A. The design of this buffer tract shall generally follow the landscape design appearing on sheets LS-02 and LS-04 of the Master Plan/Preliminary Development Plan.
- 2. A minimum ten-foot (10') wide buffer tract for landscaping will be provided along the rear of lots 175-199 to provide buffering from the Johns Road right-of-way. This tract shall be dedicated to and maintained by the H.O.A. The design of this buffer shall generally follow the landscape design appearing on sheets LS-01, LS-02, LS-04, and LS-05 of the Master Plan/Preliminary Development Plan.
- 3. Main access for Phase 2 will be through the Main Entrance located within the Phase 1 limits of the Lake Marshall Subdivision.
- 4. Entrance provided within the Phase 2 limits is to be a secondary, resident-only access, which will also be accessible to Phase 1 of the Lake Marshall Subdivision.
- 5. Entrance feature and community sign details will be provided with the Final Development Plan.
- 6. Final landscape plans for the buffer areas along the proposed main entrance at John's Road will be provided with the Final Development Plan.
- 7. Tree Planting Conditions. Minimum of three (3) new trees shall be planted per 55' and 60' residential lot. The new trees shall be a minimum of three inches (3") DBH at the time of planting and shall count toward the overall number of required tree replacement inches, if any.
- 8. Tree Protection Plan - The Final Development Plan shall include tree protection techniques to prevent harm to any trees designate to be preserved or encroachment into protected natural areas, including but not limited to tree barricades, silt fencing or other similar techniques accepted by the City Engineer.

**F. Maintenance and Plat**

- 1. The Lake Marshall Home Owners' Association will maintain common areas, fences/walls, and landscaping within the front and corner yards of all lots. The HOA shall also be responsible for maintenance of streets, street lighting, and stormwater collection systems within the right-of-way and drainage easements within the Lake Marshall Subdivision.
- 2. The Final Development Plan shall include the plat document, and the plat shall be in final form.

**G. Wetlands and Environmental**

- 1. There is one wetland area onsite. It is entirely located within the Tract 'I' Conservation Area.
- 2. There are no areas within a FEMA floodplain onsite.
- 3. An erosion control plan will be submitted with the Final Development Plan.

4

- a) Swimming Pools must be in-ground type. Above Ground Pools are prohibited.
- b) Swimming pools and decks are prohibited from projecting beyond the side wall facade.
- 10. Screen enclosures over swimming pools and their respective deck area with non-metal or non-vinyl roofs shall be allowed.
  - a) Screening shall be dark mesh. Opaque, semi-opaque or clear panels on the walls or roofs are prohibited.
- 11. Screen enclosures with metal, vinyl, or screen mesh roofs over non-swimming pool decks are prohibited.
- 12. Architectural Design Standards:
  - a) Architectural styles shall be determined prior to Final Development Plan approval, and these shall meet the intent of to the City of Apopka's Development Design Guidelines except as noted on these Development Standards. Modification or replacement of the exterior elevations can be approved by the Community Development Director if such changes represent equivalent architectural value. Substantial deviations from architectural rendering must be approved by City Council.
  - b) A deviation from the City of Apopka Development Design Guidelines is hereby requested for all 60' lots with 50' wide homes to allow for the garage to cover a maximum of 60% of the length of the front primary facade only in the case a three (3) car garage is selected by the homebuyer.
  - c) Front facade materials such as cultured stone veneer, stucco, & fiber cement siding shall be utilized to be consistent with the applicable Architectural Style.
  - d) Minimum roof pitch over the main house and garage shall be 5/12. Roof pitch over porches shall be a minimum of 4/12.
  - e) 30-year asphalt shingle shall be installed on all roofs. 3-tab shingles are prohibited. Single shingle color shall be used for uniformity throughout the community.
  - f) Aluminum fascia and soffit shall be standard for all houses. Single Fascia and soffit color shall be used for uniformity throughout the community.
  - g) Trim around windows and doors shall be painted a different color from the body of the house. Doors may be painted either the same as the trim or separate accent color.
  - h) Pavers shall be installed in front yard driveways and lead walks.
- 13. Front Building Entrance Elevation Design Standards:
  - a) Front porches & porticos at grade level.
  - b) Identical model plan type shall not be constructed on neighboring lots who share a side yard property boundary line without a different elevation style type.
  - c) Identical exterior paint schemes shall not be applied on neighboring lots who share a side yard property boundary line.
  - d) Modification or replacement of the exterior elevations can be approved by the Community Development Director if such changes represent equivalent architectural value. Substantial deviations from architectural rendering must be approved by City Council.
- 14. Rear Elevation Design Standards:
  - a) Large expanses of solid wall shall be avoided thru use of windows, wall features, or wall / roof jogs.
  - b) Window grid patterns and window banding & trim shall match front elevation windows.
  - c) Identical exterior paint schemes shall not be applied on neighboring lots who share a side yard property boundary line.
  - d) Modification or replacement of the exterior elevation can be approved by the Community Development Director if such changes represent equivalent architectural value. Substantial deviations from architectural rendering must be approved by City Council.
- 15. Mail Kiosk Elevation Design Standards:

2

- 4. Tree removal, tree replacement, and landscaping shall comply with Water Wise Ordinance 2069 and shall be consistent with Article V of the City of Apopka Land Development Code.
- 5. Individual lot arbor/clearing permit is required prior to clearing or grading of any lot or issuance of building permit. Placement of the house shall preserve existing trees to the greatest extent practical. Plot plan for each lot shall illustrate tree locations as presented within the PUD Master Plan/Preliminary Development Plan.

**H. Development Condition Continuity**

The PUD Development Standards shall be printed within the PUD Master Plan and the Final Development Plan.

**I. Signage**

Signage shall comply with Article 8 of the City of Apopka Land Development Code and with the City of Apopka Development Design Guidelines.

**J. Lighting**

Lighting shall comply with the City of Apopka's City Ordinance No. 2069 and Section 3.10 of the City of Apopka Development Design Guidelines. Street and parking area or pedestrian path light poles shall be decorative type. Details will be provided with the Final Development Plan.

**L. Miscellaneous**

- 1. Any existing septic tanks or wells shall be properly abandoned prior to earthwork or construction. Permits shall be applied for and issued by the appropriate agencies.
- 2. All acreages are subject to change with final engineering and final plat review and approval.

5

- a) Elevation shall be compatible with the architectural elevation styles of the homes & mail kiosk within the community.
- 16. Individual Lot Front & Rear Yard Fencing Standards:
  - a) Maximum height of a fence shall be 6'-0" above final grade. When abutting a common area wall, the fence height shall taper to the height of the wall across a horizontal distance no less than 8'-0".
  - b) Rear yard fences shall not project more than five feet (5') beyond rear side wall building corner.

**C. Utilities and Infrastructure**

- 1. Water service shall be provided by the City of Apopka. The water system shall be designed to City standards.
- 2. Reclaim water service shall be provided by the City of Apopka. The reclaim water system shall be designed to City standards.
- 3. Stormwater management system shall be designed to comply with the design standards of this Master Plan and the St. Johns River Water Management District.
- 4. A final drainage report and soils report will be submitted with the Final Development Plan.
- 5. Sanitary service shall be provided by the City of Apopka. The sanitary system shall be designed to City of Apopka standards.
- 6. Utility easements shall be dedicated to the City of Apopka.
- 7. Drainage easements to be dedicated to the Home Owners' Association unless otherwise required by the City of Apopka.
- 8. All stormwater and utility pipes may be moved to save existing trees in the right-of-way. Any change in the location of these pipes will be shown on the Final Development Plan.
- 9. On-site streets are to be constructed per City of Apopka standards.
- 10. Stabilized access roadways and fire hydrants must be in place before building construction may begin.
- 11. Solid waste collection and public safety (police and fire) provided by the City of Apopka.
- 12. The internal street right-of-way is to be private.
- 13. Five-foot (5') wide sidewalks are to be constructed adjacent to internal roads throughout the entire project in compliance with the City of Apopka Land Development Code. Sidewalk alignment may be adjusted at final development plan to preserve existing trees.
- 14. Garages shall be accessed from the adjacent public right-of-way at the front of the lot for all lots.
- 15. Power service within the development shall be underground. No overhead service will be allowed.
- 16. Vehicular, Pedestrian and Accent lighting shall substantially conform the Section 3.10 - Lighting of the City of Apopka Development Design Guidelines.
- 17. Based upon the Lake Marshall Subdivision Phase 1 and Phase 2 total daily trip generation of 2,896 vehicles, the provision of one southbound deceleration lane on Bradshaw Road and one eastbound left turn lane on John's Road at the intersection of John's Road and Bradshaw Road to the east of the development are warranted. These are in addition to the northbound deceleration lane on Bradshaw Road warranted prior to the completion of the 87<sup>th</sup> residential unit within the entire Lake Marshall Subdivision.

**D. Recreation and Open Space**

- 1. Required project open space shall be a minimum of 30% of the developed site area in accordance with City of Apopka LDC Section 2.02.18(D)(19).
- 2. Required project recreation shall be provided at a rate of 3.6 acres per 1,000 population with 2.6 population per dwelling unit.

3



DRAWN: S. SIERRA-GIL  
 DESIGNED: O. SANCHEZ  
 CHECKED: L. CLASSON  
 DATE: 8/2/2018

SCALE: N.T.S.  
 PROJECT: ROY-001  
 SHEET: C3.2

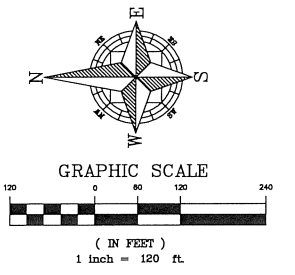
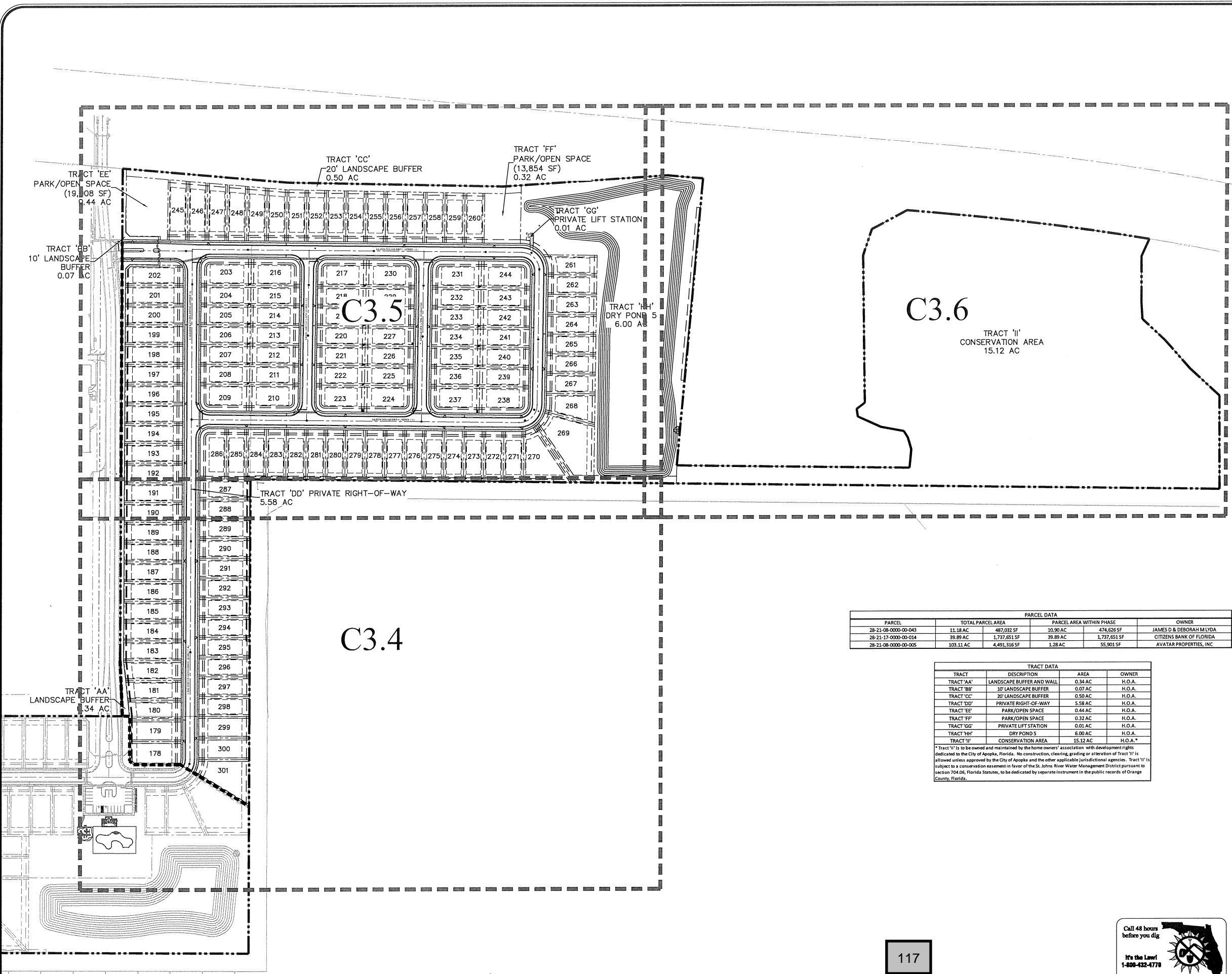
CIVIL ENGINEERING | LAND PLANNING  
**APPLAN ENGINEERING LLC.**  
 APPLAN.COM - 407.560.5868  
 2221 Lee Road, Suite 17, Weston, FL, Florida 32789

PUD DEVELOPMENT STANDARDS  
 FINAL DEVELOPMENT PLAN  
 LAKESIDE - PHASE 2  
 (FKA LAKE MARSHALL SUBDIVISION)  
 CITY OF APOPKA, FLORIDA

8/2/18

RECEIVED DATE: 07/23/18  
 CITY OF APOPKA COMMENTS DATED: 07/23/18  
 DESCRIPTION:

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Geometry Plan.dwg Modified: 8/2/2018 By: ssierragil



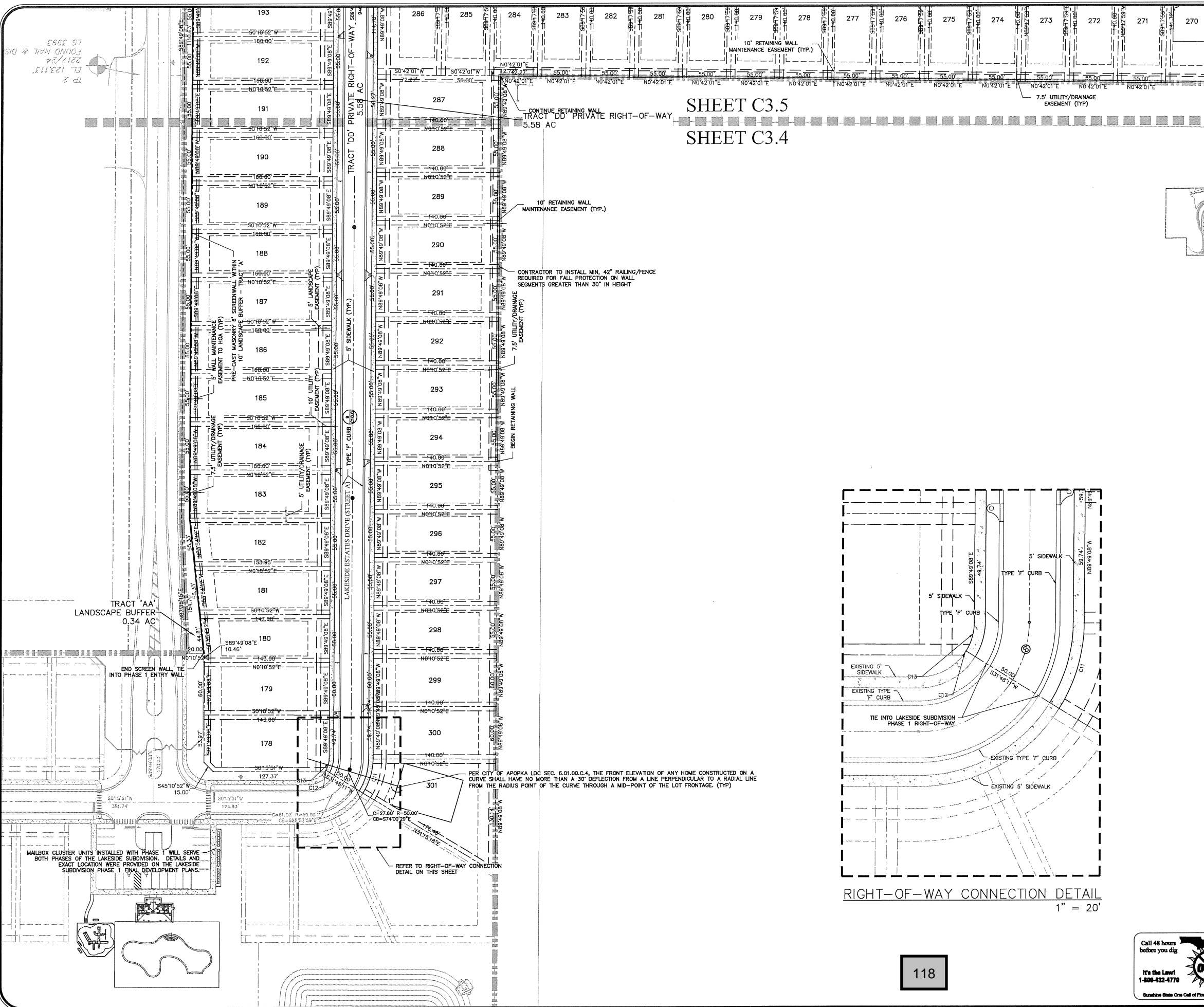
**LEGEND**  
 - - - - - LOT LINES  
 - - - - - EASEMENTS  
 - - - - - SETBACKS  
 - - - - - PHASING LINE

PARCEL	TOTAL PARCEL AREA		PARCEL AREA WITHIN PHASE		OWNER
	AC	SF	AC	SF	
28-21-08-0000-00-043	11.18	487,032	10.90	474,626	JAMES D & DEBORAH M LYDA
28-21-17-0000-00-014	39.89	1,737,651	39.89	1,737,651	CITIZENS BANK OF FLORIDA
28-21-08-0000-00-005	103.11	4,491,316	1.28	55,901	AVATAR PROPERTIES, INC

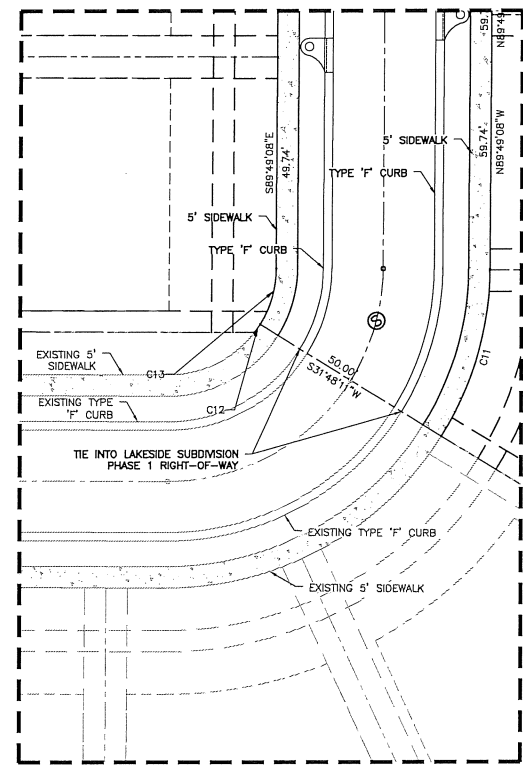
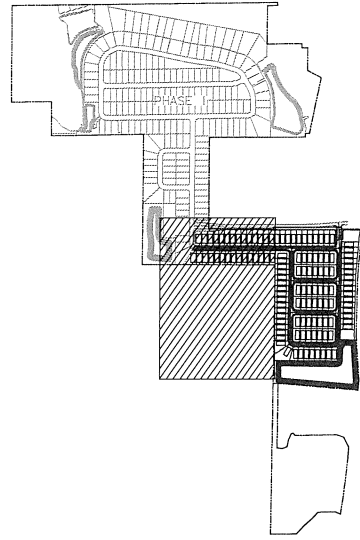
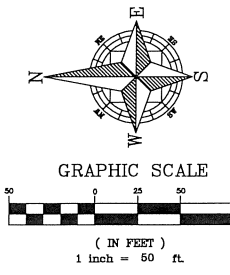
TRACT	DESCRIPTION	AREA	OWNER
TRACT 'AA'	LANDSCAPE BUFFER AND WALL	0.34 AC	H.O.A.
TRACT 'BB'	10' LANDSCAPE BUFFER	0.07 AC	H.O.A.
TRACT 'CC'	20' LANDSCAPE BUFFER	0.50 AC	H.O.A.
TRACT 'DD'	PRIVATE RIGHT-OF-WAY	5.58 AC	H.O.A.
TRACT 'EE'	PARK/OPEN SPACE	0.44 AC	H.O.A.
TRACT 'FF'	PARK/OPEN SPACE	0.32 AC	H.O.A.
TRACT 'GG'	PRIVATE LIFT STATION	0.01 AC	H.O.A.
TRACT 'HH'	DRY POND'S	6.00 AC	H.O.A.
TRACT 'II'	CONSERVATION AREA	15.12 AC	H.O.A.*

\* Tract 'II' is to be owned and maintained by the home owners' association with development rights dedicated to the City of Apopka, Florida. No construction, clearing, grading or alteration of Tract 'II' is allowed unless approved by the City of Apopka and the other applicable jurisdictional agencies. Tract 'II' is subject to a conservation easement in favor of the St. Johns River Water Management District pursuant to section 704.06, Florida Statutes, to be dedicated by separate instrument in the public records of Orange County, Florida.

CIVIL ENGINEERING   LAND PLANNING		APPLAN ENGINEERING LLC.		APPLAN.COM - 407.960.5868		2221 Lee Road, Suite 17, Winter Park, Florida 32789		DATE	DESCRIPTION	BY
OVERALL GEOMETRY PLAN		FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2		CITY OF APOPKA, FLORIDA		8/2/2018		
SCALE	1" = 120'	PROJECT	ROY-001	SHEET	C3.3					
DRAWN: S. SIERRA-GIL		DESIGNED: O. SANCHEZ		CHECKED: L. CLASSON		DATE: 8/2/2018				
APPLAN ENGINEERING		APPLAN ENGINEERING		APPLAN ENGINEERING		APPLAN ENGINEERING				
Call 48 hours before you dig		It's the Law!		1-800-432-4770		Sunshine State One Call of Florida, Inc.				
								8/2/18		



**SHEET C3.5**  
**SHEET C3.4**



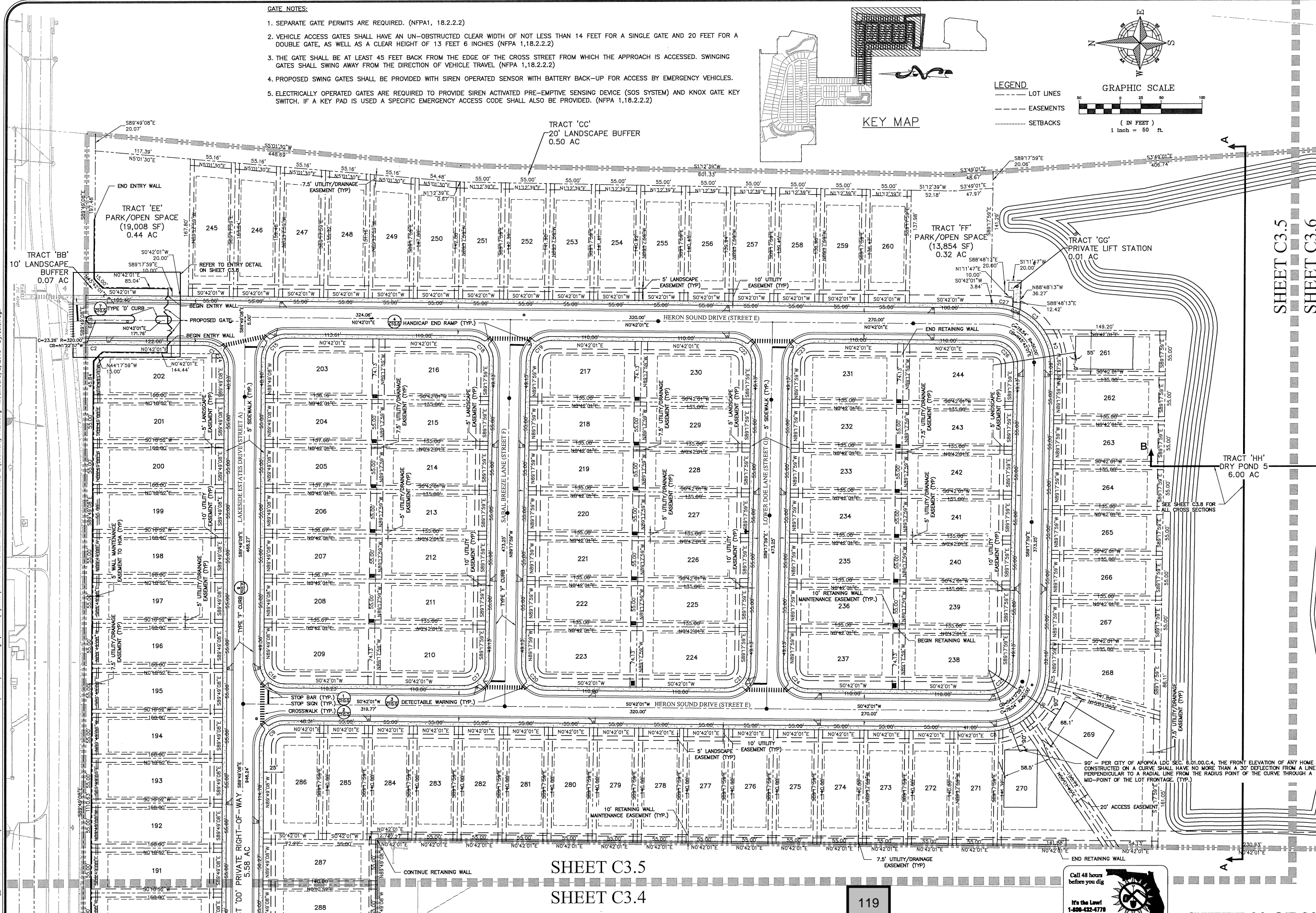
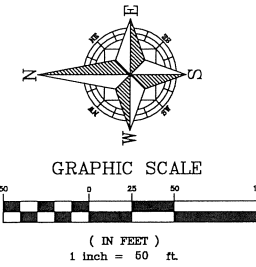
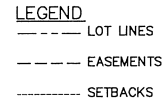
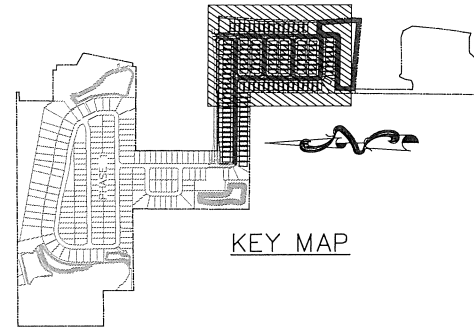
- LEGEND**
- LOT LINES
  - EASEMENTS
  - SETBACKS

<b>CIVIL ENGINEERING   LAND PLANNING</b> <b>APPIAN ENGINEERING LLC.</b> APPIAN.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789 STATE OF FLORIDA CERTIFICATE OF PROFESSIONAL ENGINEER			DATE: 07/20/18 BY:
<b>GEOMETRY PLAN - WEST</b> <b>FINAL DEVELOPMENT PLAN</b> <b>LAKESIDE - PHASE 2</b> (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA			DESCRIPTION: 07/23/18
SCALE: 1" = 50' PROJECT: ROY-001 SHEET: C-3.4	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. GLASSON DATE: 8/2/2018		



**GATE NOTES:**

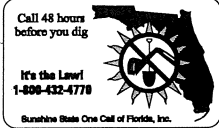
1. SEPARATE GATE PERMITS ARE REQUIRED. (NFPA 1, 18.2.2.2)
2. VEHICLE ACCESS GATES SHALL HAVE AN UN-OBSTRICTED CLEAR WIDTH OF NOT LESS THAN 14 FEET FOR A SINGLE GATE AND 20 FEET FOR A DOUBLE GATE, AS WELL AS A CLEAR HEIGHT OF 13 FEET 6 INCHES (NFPA 1, 18.2.2.2)
3. THE GATE SHALL BE AT LEAST 45 FEET BACK FROM THE EDGE OF THE CROSS STREET FROM WHICH THE APPROACH IS ACCESSED. SWINGING GATES SHALL SWING AWAY FROM THE DIRECTION OF VEHICLE TRAVEL (NFPA 1, 18.2.2.2)
4. PROPOSED SWING GATES SHALL BE PROVIDED WITH SIREN OPERATED SENSOR WITH BATTERY BACK-UP FOR ACCESS BY EMERGENCY VEHICLES.
5. ELECTRICALLY OPERATED GATES ARE REQUIRED TO PROVIDE SIREN ACTIVATED PRE-EMPTIVE SENSING DEVICE (SOS SYSTEM) AND KNOX GATE KEY SWITCH. IF A KEY PAD IS USED A SPECIFIC EMERGENCY ACCESS CODE SHALL ALSO BE PROVIDED. (NFPA 1, 18.2.2.2)



SHEET C3.5  
SHEET C3.6

SHEET C3.5  
SHEET C3.4

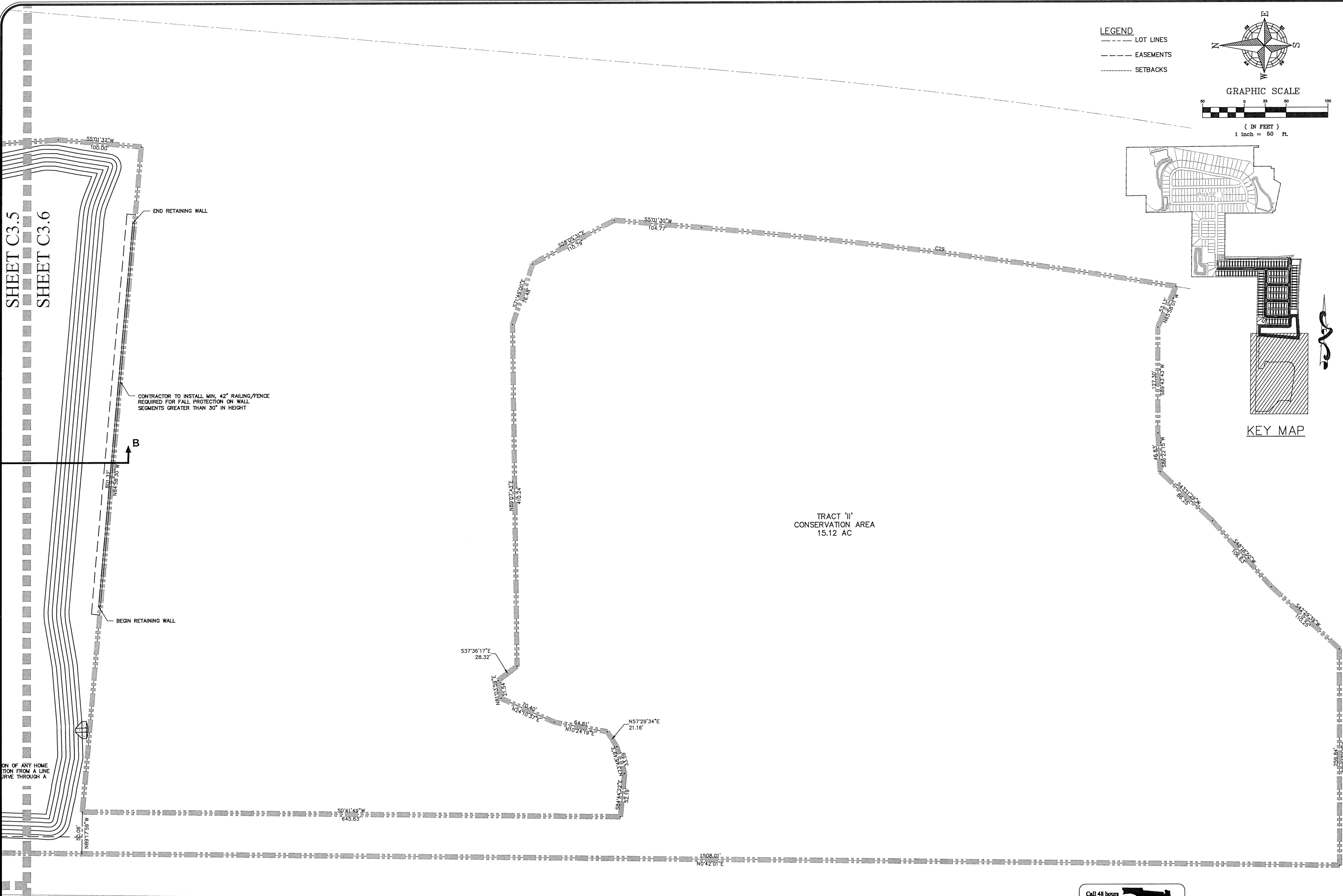
119



SHEET 20 OF 90

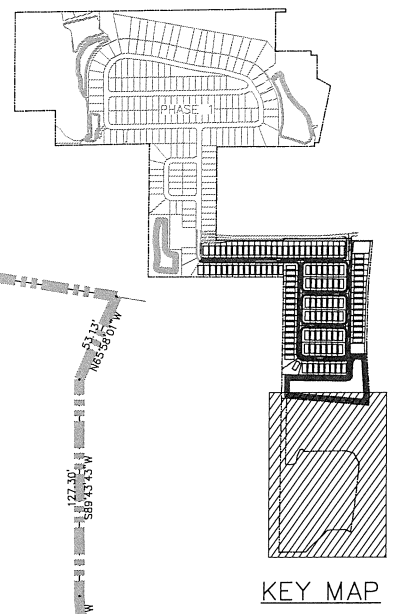
<b>CIVIL ENGINEERING   LAND PLANNING</b>			
<b>APPIAN ENGINEERING LLC.</b>			
APPIAN.COM • 407.960.5868			
2221 Lee Road, Suite 17, Warner Park, Panama City, Florida 32379			
		DATE	DESCRIPTION
GEOMETRY PLAN - NORTH FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	
DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ	CHECKED: L. CLASSON	DATE: 8/2/2018
SCALE: 1" = 50'	PROJECT: ROY-001	SHEET: C3.5	
8/2/18			

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Geometry Plan.dwg Modified: 6/2/2018 By: sslerrogil



**LEGEND**  
 --- LOT LINES  
 - - - EASEMENTS  
 ..... SETBACKS

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



TRACT 'II'  
 CONSERVATION AREA  
 15.12 AC

SHEET C3.5  
 SHEET C3.6

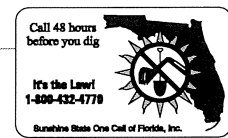
CONTRACTOR TO INSTALL MIN. 42" RAILING/FENCE  
 REQUIRED FOR FALL PROTECTION ON WALL  
 SEGMENTS GREATER THAN 30' IN HEIGHT

BEGIN RETAINING WALL

END RETAINING WALL

NO PORTION OF ANY HOME  
 OR STRUCTURE SHALL BE  
 PLACED WITHIN 10 FEET  
 OF ANY HOME OR  
 STRUCTURE FROM A LINE  
 OR CURVE THROUGH A

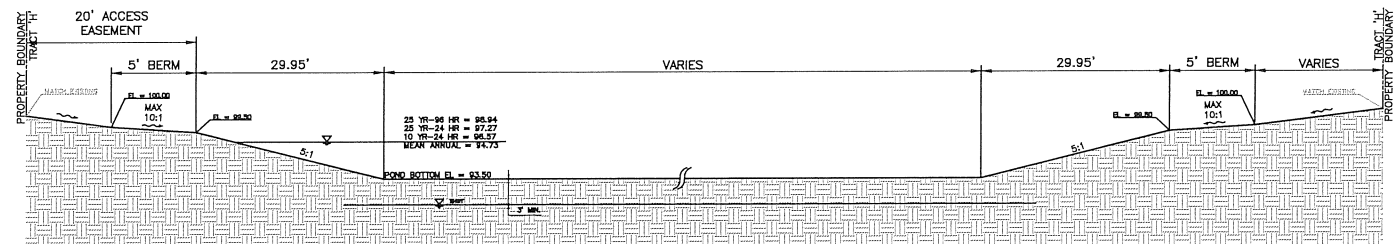
<b>CIVIL ENGINEERING &amp; LAND PLANNING</b> <b>APPIAN ENGINEERING LLC.</b> APPIANENGINEERING.COM - 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789		DATE: 8/2/2018 DESCRIPTION:
<b>GEOMETRY PLAN - SOUTH</b> <b>FINAL DEVELOPMENT PLAN</b> <b>LAKESIDE - PHASE 2</b> (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA		REV: 1 DATE: 8/2/2018 DESCRIPTION:
SCALE: 1" = 50' PROJECT: ROY-001 SHEET: C-3.6	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. OLASSON DATE: 8/2/2018	CITY OF APOPKA COMMENTS DATED 07/23/18



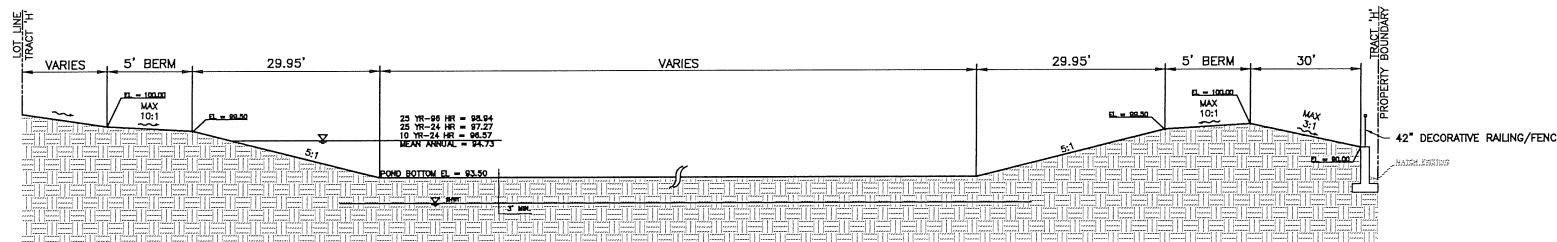




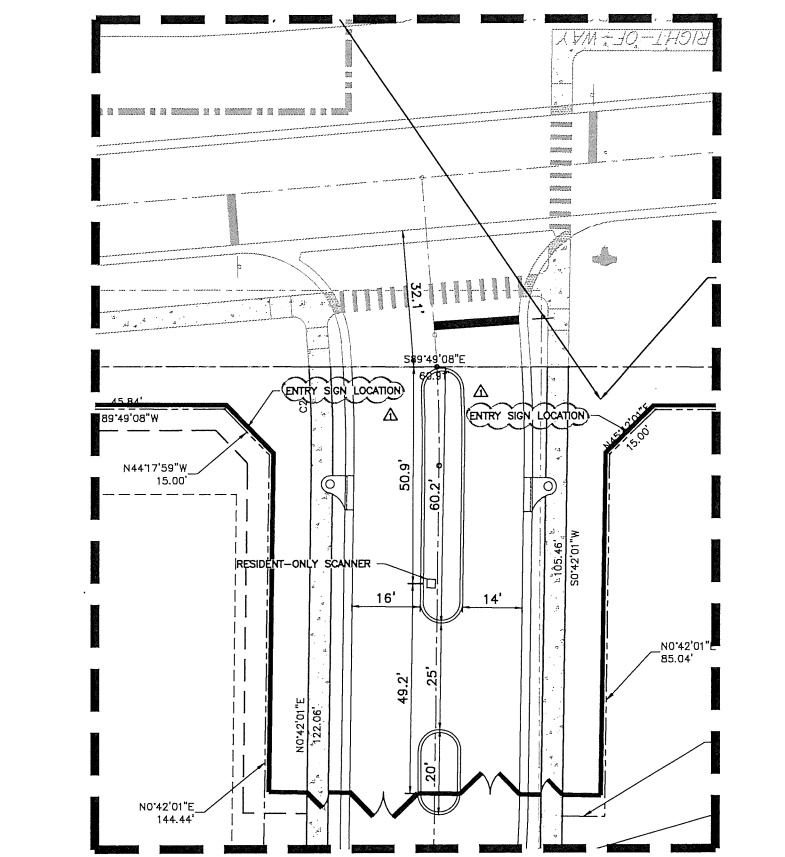
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\90civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Geometry Plan.dwg Modified: 8/2/2018 By: saliercgl



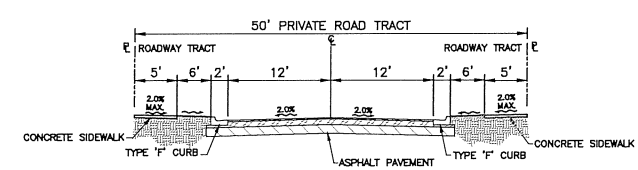
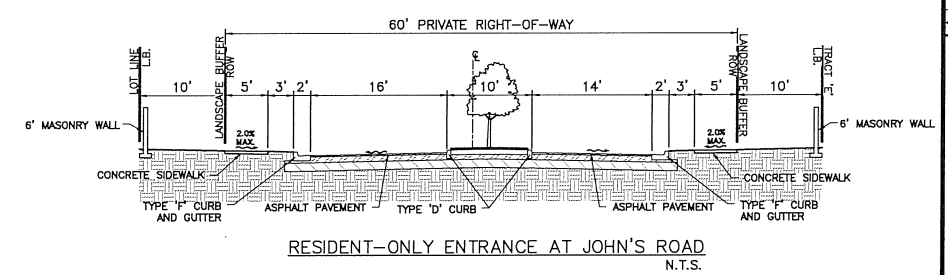
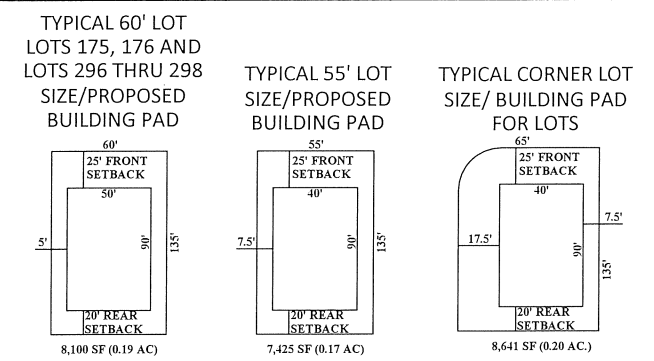
SECTION A-A  
N.T.S.



SECTION B-B  
N.T.S.



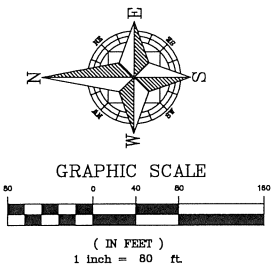
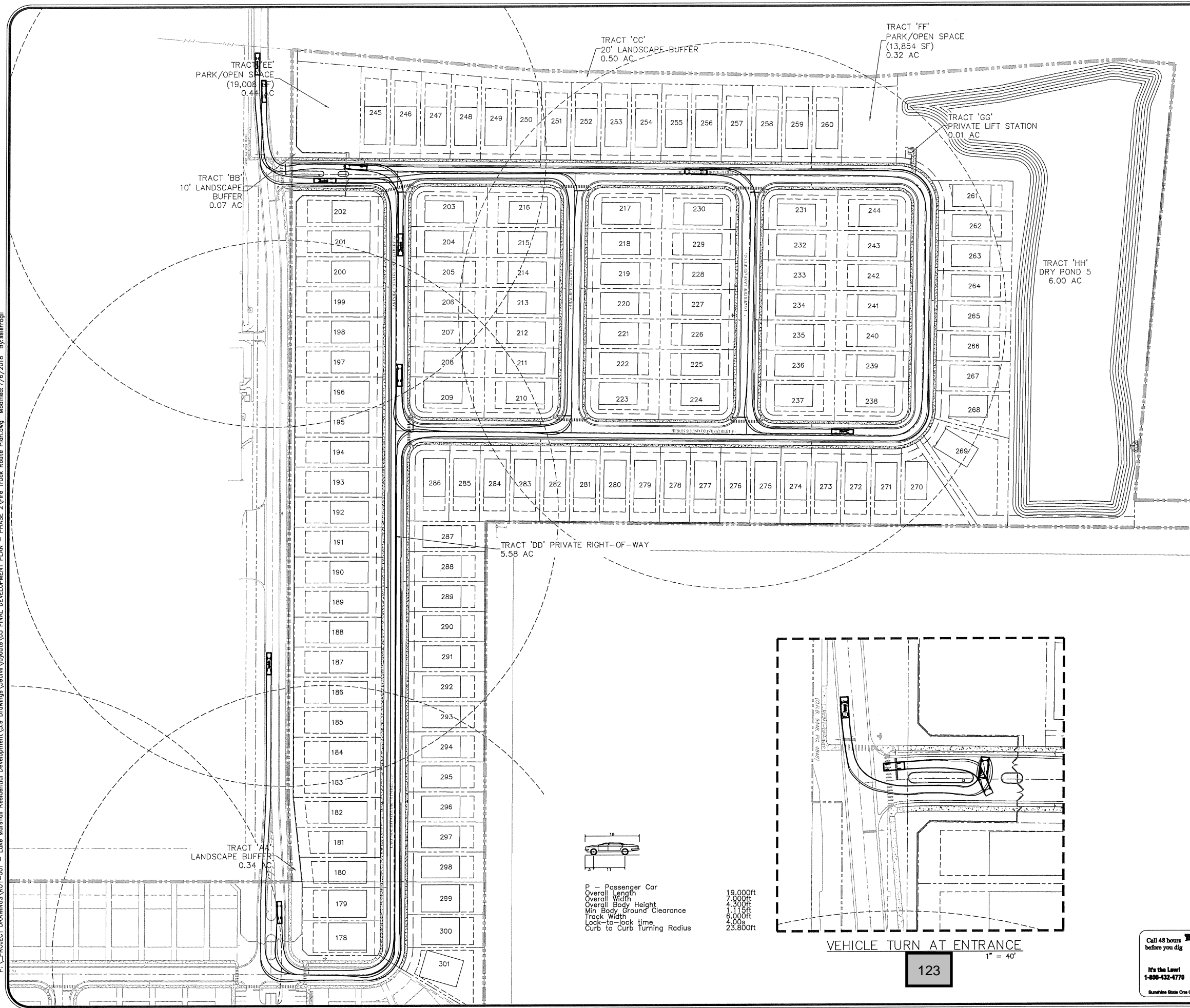
RESIDENT-ONLY ENTRANCE DETAIL  
1" = 20'



BY	
DATE	27/20/18 CITY OF APOPKA COMMENTS DATED 07/23/18
REV	
DESCRIPTION	
CIVIL ENGINEERING   LAND PLANNING	
APPIAN ENGINEERING LLC.	
APPIAN.COM - 407.960.5868	
2231 Lee Road, Suite 17, Winter Park, Florida 32789	
CROSS SECTIONS	
FINAL DEVELOPMENT PLAN	
LAKESIDE - PHASE 2	
(FKA LAKE MARSHALL SUBDIVISION)	
CITY OF APOPKA, FLORIDA	
SCALE	N.T.S.
PROJECT	ROY-001
SHEET	C.3.8
DRAWN	S. SIERRA-GIL
DESIGNED	O. SANCHEZ
CHECKED	L. GLASSON
DATE	8/2/2018



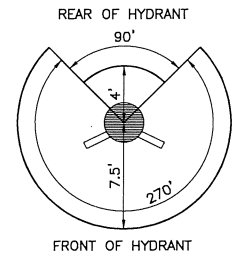
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Fire Truck Route Plan.dwg Modified: 7/6/2018 By: asterrogil



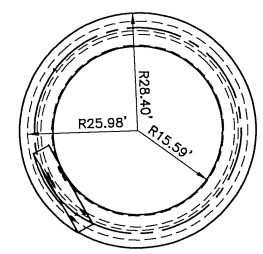
**LEGEND**  
 - - - - PHASE 2 FIRE HYDRANT 500' RADIUS  
 - - - - PHASE 1 FIRE HYDRANT 500' RADIUS

**FIRE ACCESS NOTES:**

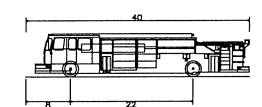
1. FIRE DEPARTMENT ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS AND SHALL BE PROVIDED WITH AN ALL WEATHER DRIVING SURFACE (NFPA 1.18.2.3.4.2).
2. THE LOCATION OF THE FIRE HYDRANTS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1.18.5.10.1)
3. ALL ROADWAYS, WATER LINE INFRASTRUCTURE, AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION CAN BEGIN.



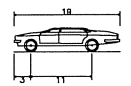
FIRE HYDRANT CLEARANCE  
DETAIL



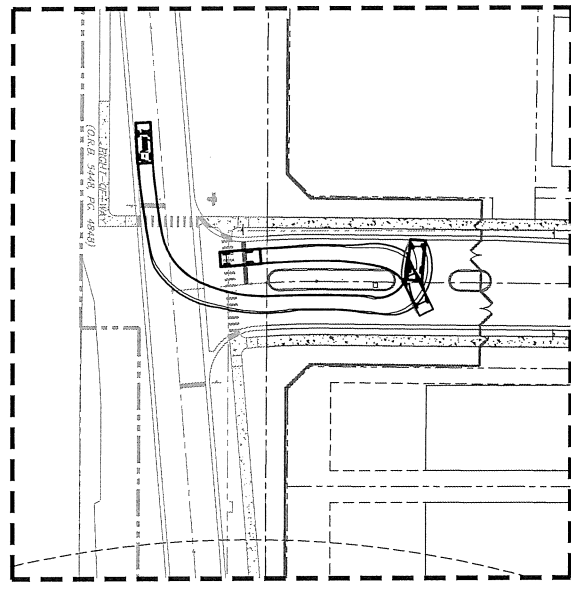
TURNING RADIUS SKETCH



Pumper Fire Truck  
 Overall Length 40.000ft  
 Overall Width 8.167ft  
 Overall Body Height 7.753ft  
 Min Body Ground Clearance 0.656ft  
 Track Width 5.167ft  
 Lock-to-lock time 4.09s  
 Max Wheel Angle 45.00°



P - Passenger Car  
 Overall Length 19.000ft  
 Overall Width 7.000ft  
 Overall Body Height 4.300ft  
 Min Body Ground Clearance 1.115ft  
 Track Width 6.000ft  
 Lock-to-lock time 4.09s  
 Curb to Curb Turning Radius 25.800ft



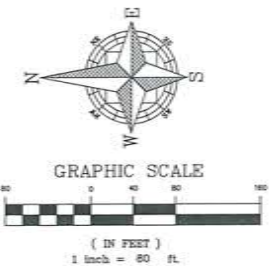
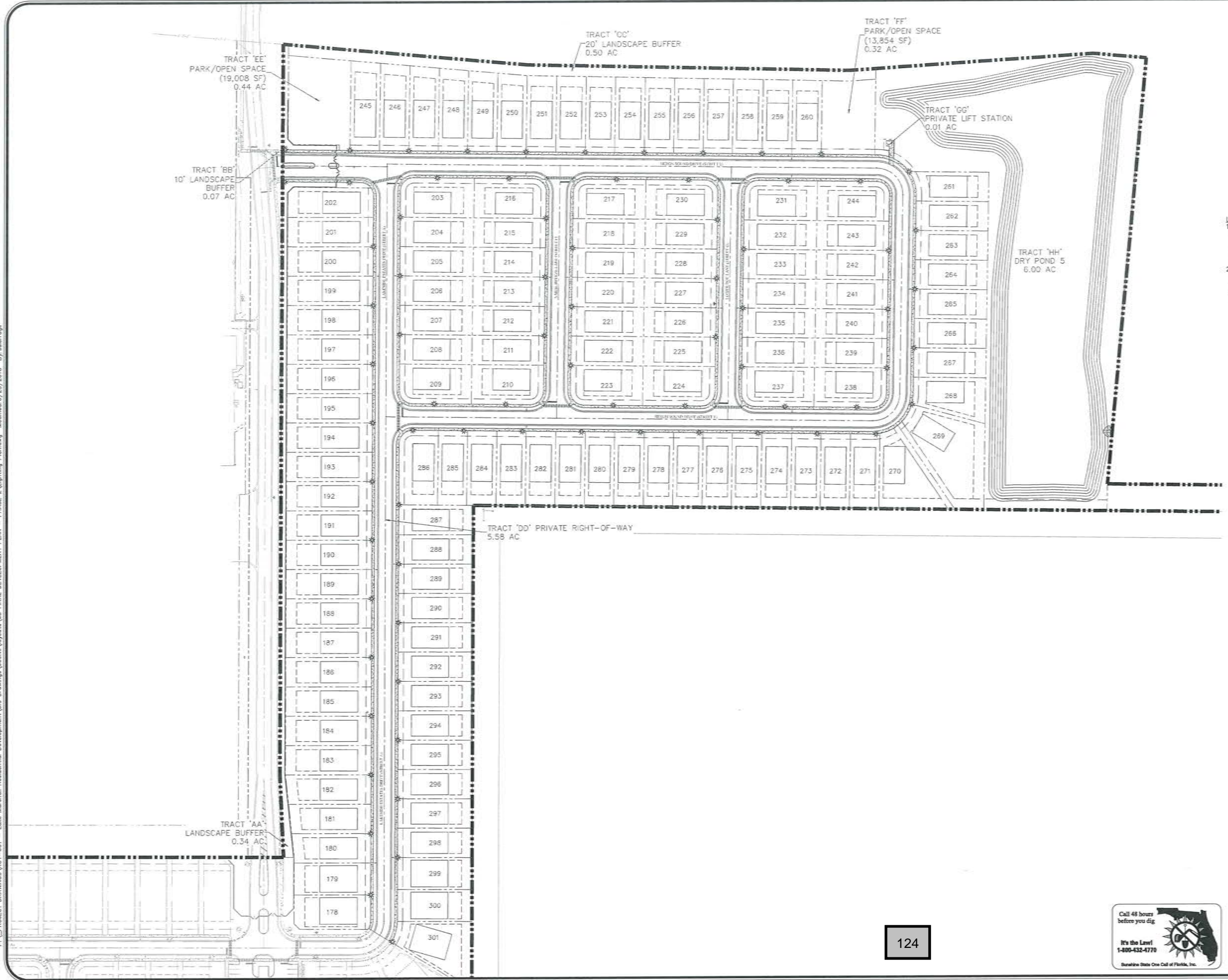
VEHICLE TURN AT ENTRANCE  
1" = 40'

123



CIVIL ENGINEERING   LAND PLANNING		APPIAN ENGINEERING LLC.		APPIAN.COM • 407.960.5868	2221 Lee Road, Suite 17, Winter Park, Florida 32789
FIRE TRUCK ROUTING PLAN		FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2	
				(FKA LAKE MARSHALL SUBDIVISION)	
				CITY OF APOPKA, FLORIDA	
SCALE	1" = 80'	PROJECT	ROY-001	SHEET	C-3.9
DRAWN:	S. SIERRA-GIL	DESIGNED:	O. SANCHEZ	CHECKED:	L. GLASSON
DATE:	8/2/2018				
APPIAN ENGINEERING		8/2/18			

P:\PROJECT DRAWINGS\100-001 - Lake Marshall Residential Development\5.0 Drawings\Civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Lighting Plan.dwg Modified: 6/25/2018 By: rslrrogh



LEGEND  
 ○ PHASE 2 LIGHT POLE  
 ○ PHASE 1 LIGHT POLE

LIGHTING NOTES:  
 1. STREET LIGHTS POLES SHALL BE DECORATIVE TYPE CONSISTENT WITH THE CITY OF APOPKA DEVELOPMENT DESIGN GUIDELINES. LIGHT POLE FOOTERS CANNOT BE EXPOSED ABOVE FINISHED GRADE.  
 2. PROPOSED LIGHT POLES SHOWN FOR FINAL DEVELOPMENT PLAN APPROVAL. EXACT LOCATION AND TYPE OF LIGHT POLES TO BE DESIGNED, LAID OUT AND INSTALLED BY DUKE ENERGY

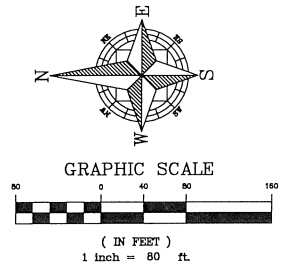
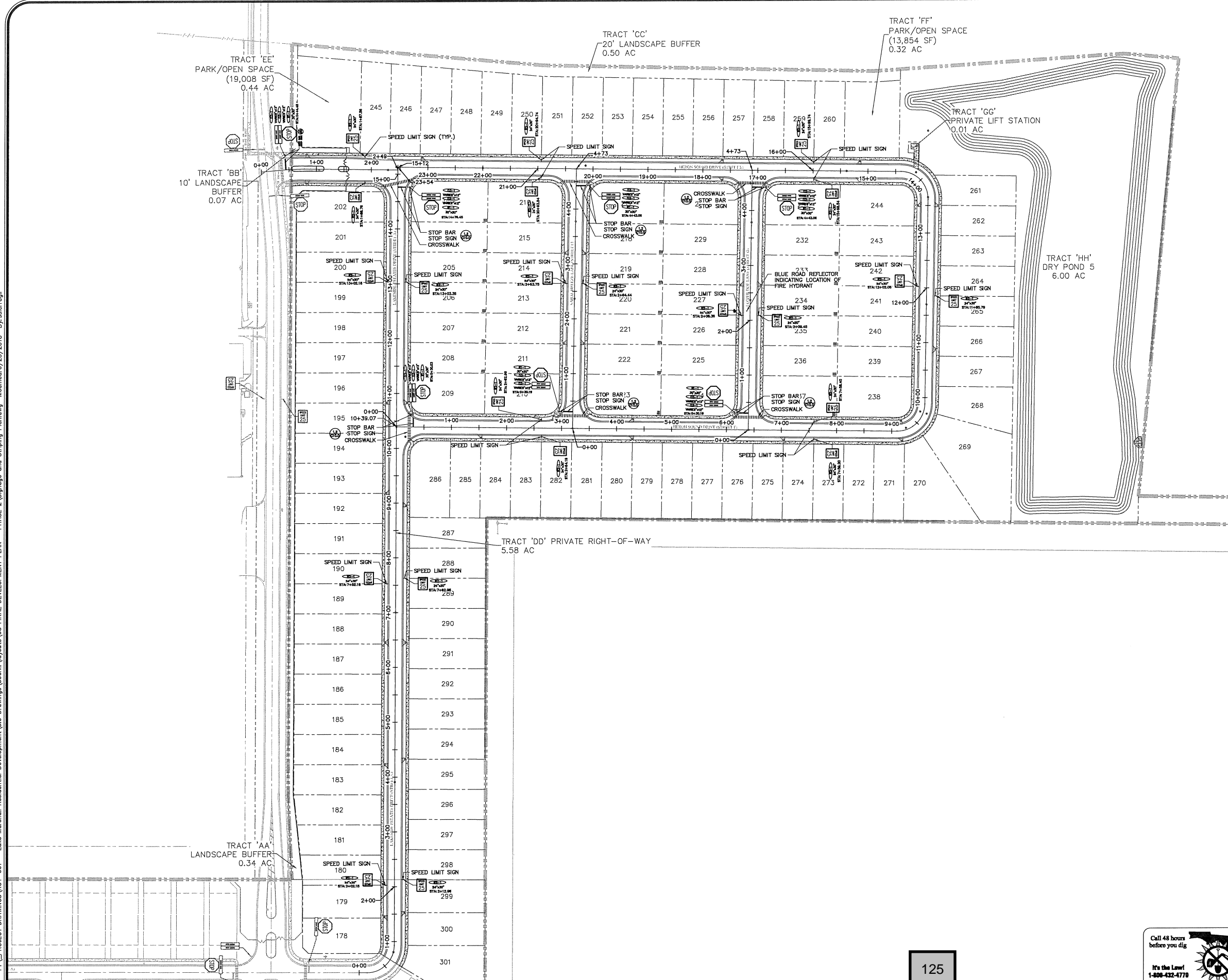


SCALE PROVIDED FROM DUKE ENERGY LIGHT AND POLE DETAIL



CIVIL ENGINEERING & LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANE.COM • 407.960.5868 2211 Lee Road, Suite 17, Wierum Park, Pomona 32719 www.appiane.com		DATE: 8/2/2018	BY:
LIGHTING PLAN FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA		PROJECT: ROY-001	DESCRIPTION:
SCALE: 1" = 80'	DRAWN: S. SIERRA-GIL	SHEET: C3.10	

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9ch1\Drawings\5.9 Final Development Plan - PHASE 2\Signage and Striping Plan.dwg Modified: 6/25/2018 By: ssierragil



- LEGEND**
- PHASE 2 STREET SIGNS
  - PHASE 1 STREET SIGNS

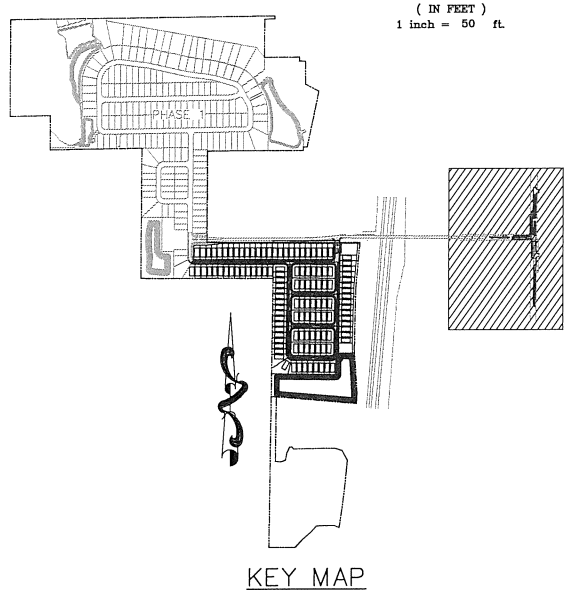
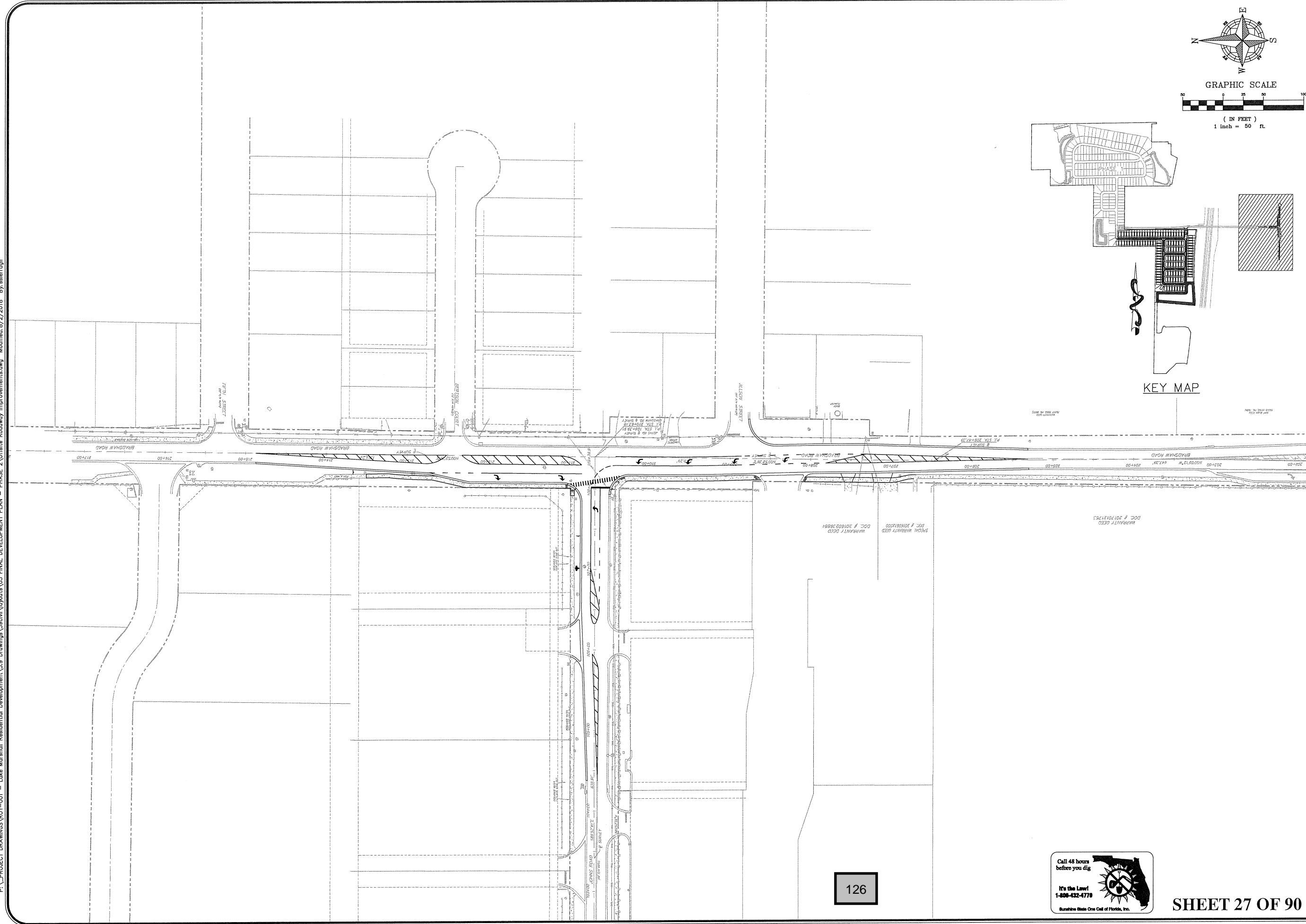
- STRIPING NOTES:**
1. ALL FIRE HYDRANT LOCATIONS SHALL BE INDICATED BY A BLUE ROAD REFLECTOR ON THE SIDE OF THE ROAD ADJACENT TO THE FIRE HYDRANT AS SHOWN ON PLANS.
  2. CONTRACTOR IS TO PLACE TEMPORARY STRIPING AFTER THE INITIAL LIFT OF ASPHALT IS INSTALLED.
  3. FINAL STRIPING SHALL BE INSTALLED BY CONTRACTOR AFTER THE SECOND LIFT OF ASPHALT IS INSTALLED AT FINAL HOME CONSTRUCTION BUILD-OUT.

125



**SHEET 26 OF 90**

<b>CIVIL ENGINEERING   LAND PLANNING</b> <b>APIAN ENGINEERING LLC.</b>							
<b>SIGNAGE &amp; STRIPING PLAN</b> <b>FINAL DEVELOPMENT PLAN</b> LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA							
SCALE 1" = 80'	PROJECT ROY-001	DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ	CHECKED: L. CLASSON	DATE: 8/2/2018	SHEET C3.11	DESCRIPTION
APPLAN.COM - 407.960.5868 2211 Lee Road, Suite 17, Winter Park, Florida 32789 <small>STATE OF FLORIDA LICENSE NO. 00000000000000000000</small>							



126

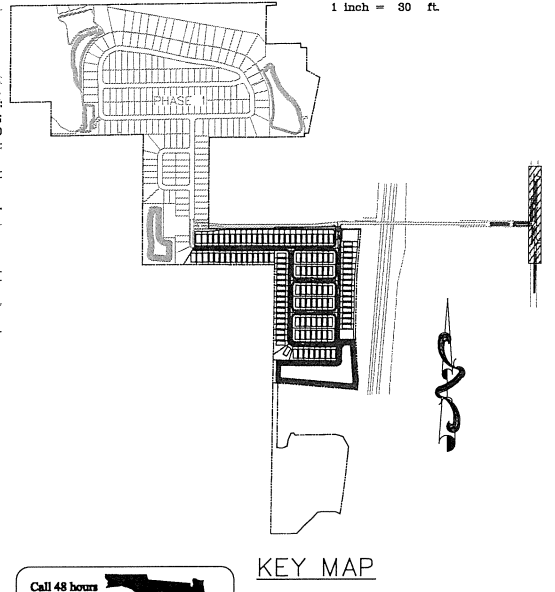
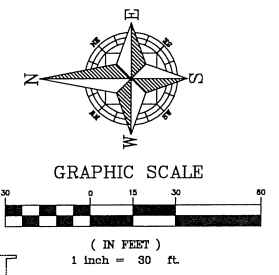
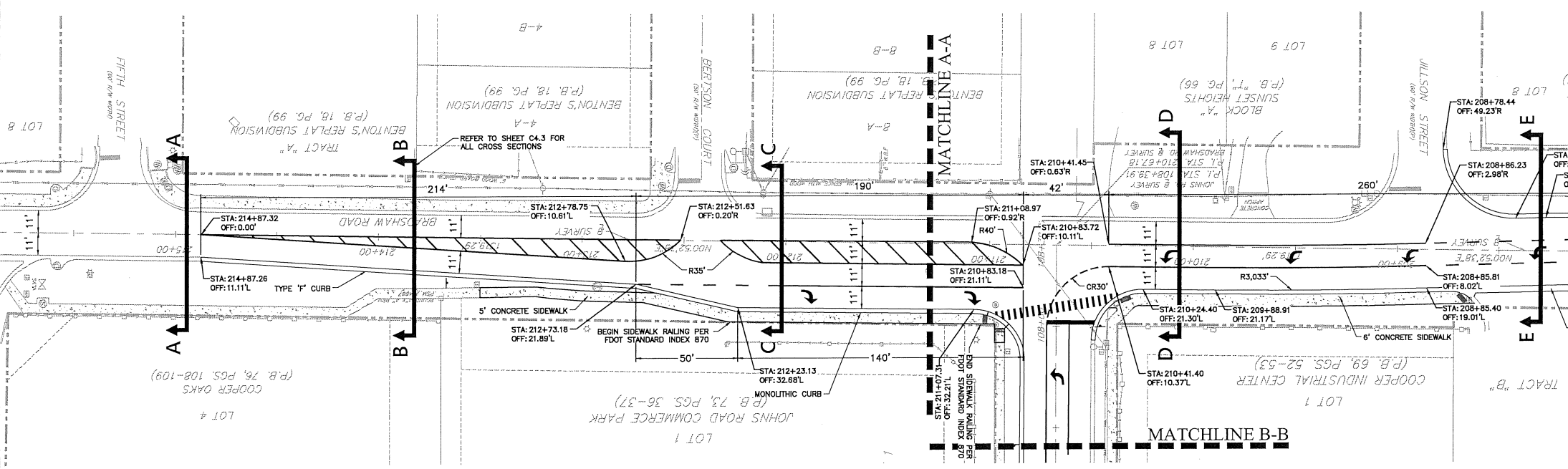
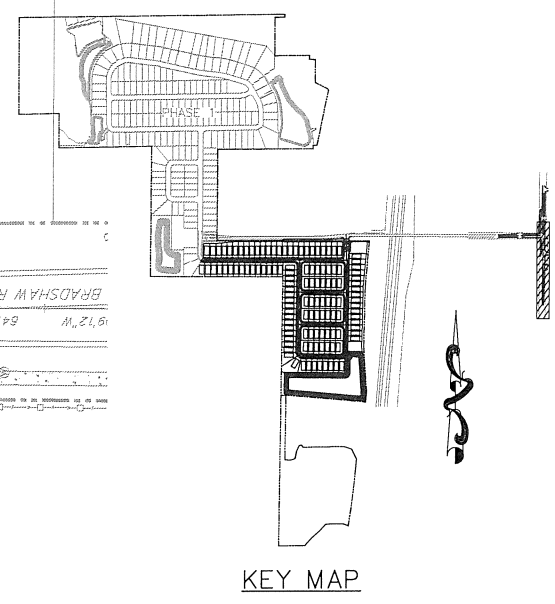
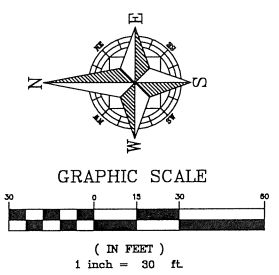
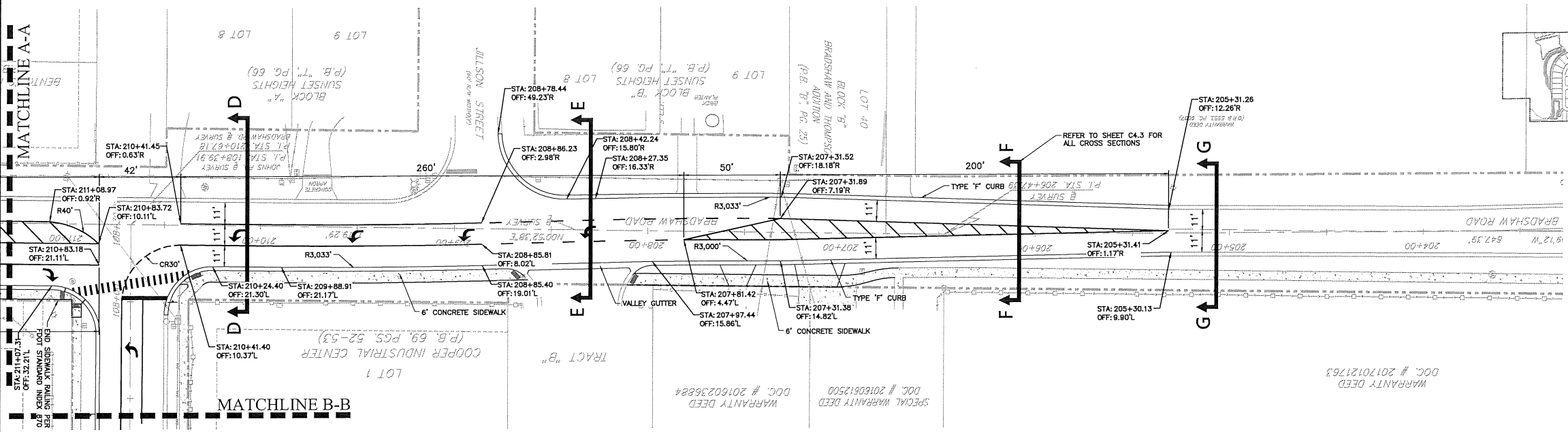


SHEET 27 OF 90

		<b>SCALE</b> 1" = 50' <b>PROJECT</b> ROY-001 <b>SHEET</b> C4.0	<b>DRAWN:</b> S. SIERRA-GIL <b>DESIGNED:</b> O. SANCHEZ <b>CHECKED:</b> L. CLASSON <b>DATE:</b> 8/2/2018	<b>OVERALL OFFSITE ROADWAY IMPROVEMENTS</b> <b>FINAL DEVELOPMENT PLAN</b> LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	<b>CIVIL ENGINEERING   LAND PLANNING</b> <b>APPIAN ENGINEERING LLC.</b> APPIANE.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789	<table border="1"> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REV.	DATE	DESCRIPTION						
REV.	DATE	DESCRIPTION													

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\Submittal\Novatus 05 FINAL DEVELOPMENT PLAN - PHASE 2 Offsite Roadway Improvements.dwg Modified: 8/2/2018 By: asierrogil

NOTE:  
BRADSHAW ROAD RIGHT-OF-WAY IMPROVEMENTS SHOWN FOR REFERENCE PURPOSES ONLY. ALL DEMOLITION AND PROPOSED IMPROVEMENTS WITHIN THE ORANGE COUNTY RIGHT-OF-WAY SHALL BE PERMITTED THROUGH THE COUNTY.



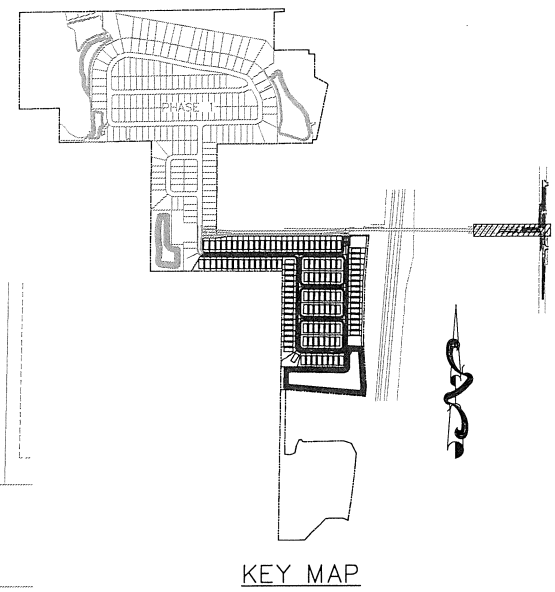
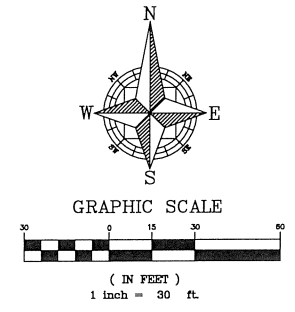
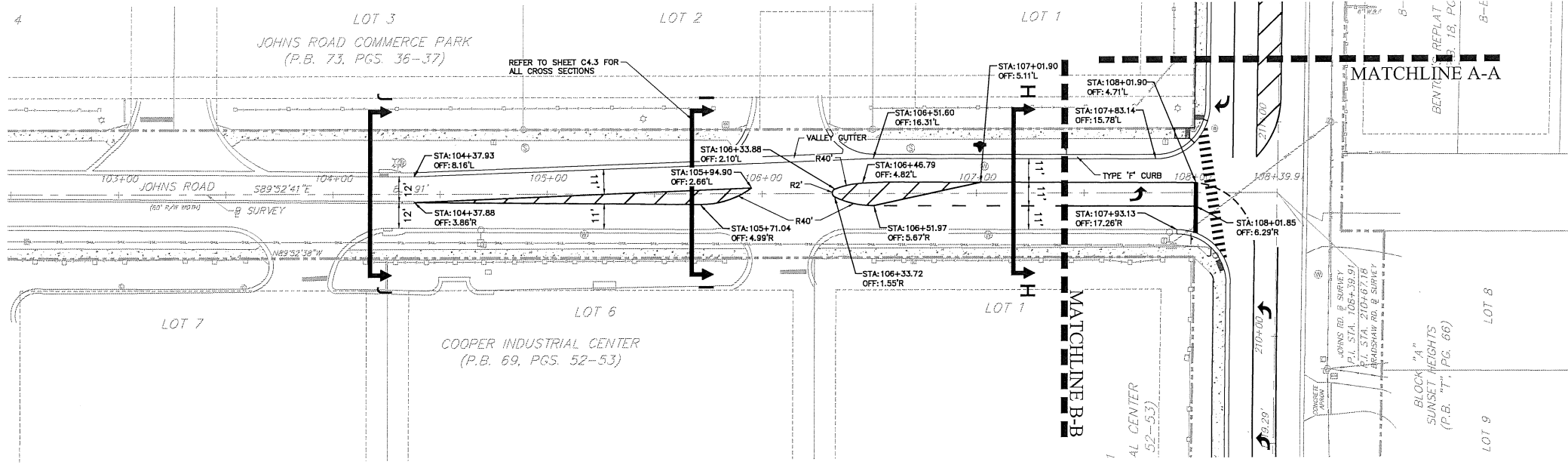
127




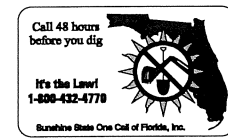
SHEET 28 OF 90

CIVIL ENGINEERING & LAND PLANNING		APPIAN ENGINEERING LLC.	
OFFSITE ROADWAY IMPROVEMENTS - BRADSHAW RD		FINAL DEVELOPMENT PLAN	
LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)	
CITY OF APOPKA, FLORIDA			
SCALE:	1" = 30'	DRAWN BY:	S. SIERRA-GIL
PROJECT:	ROY-001	DESIGNED BY:	O. SANCHEZ
SHEET:	C4.1	CHECKED BY:	L. CLASSON
DATE:	8/2/2018		
APPIAN ENGINEERING		APPIAN.COM - 407.960.5868	
2211 Lake Road, Suite 17, Winter Park, Florida 32789		CITY OF APOPKA COMMENTS DATED 07/23/18	
REV	DATE	DESCRIPTION	BY

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Offsite Roadway Improvements.dwg Modified: 8/2/2018 By: asierregil



	SCALE 1" = 30'	DRAWN: S. SIERRA-GIL	OFFSITE ROADWAY IMPROVEMENTS - JOHNS RD	CIVIL ENGINEERING   LAND PLANNING
	PROJECT ROY-001	DESIGNED: O. SANCHEZ	FINAL DEVELOPMENT PLAN	APPIAN ENGINEERING LLC.
SHEET C4.2	CHECKED: L. CLASSON	LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	APPIAN.COM - 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789 STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	REV. DATE DESCRIPTION
		DATE: 8/2/2018		07/29/18 CITY OF APOPKA COMMENTS DATED 07/23/18
				BY

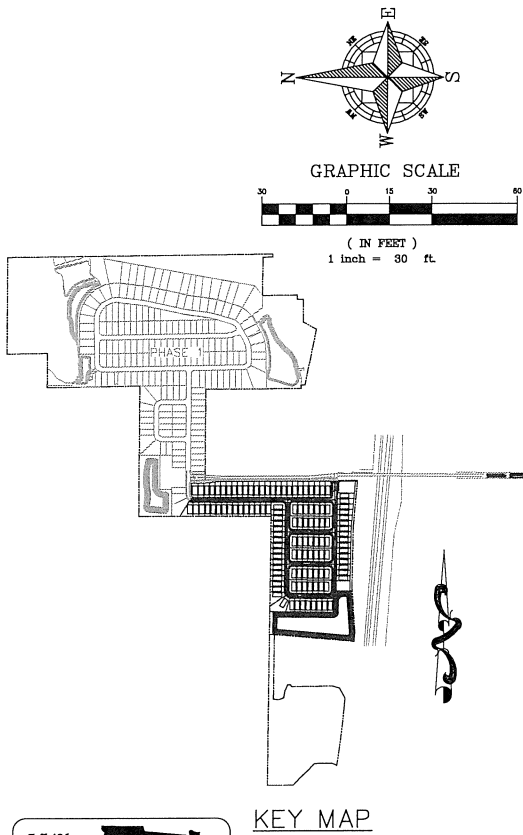
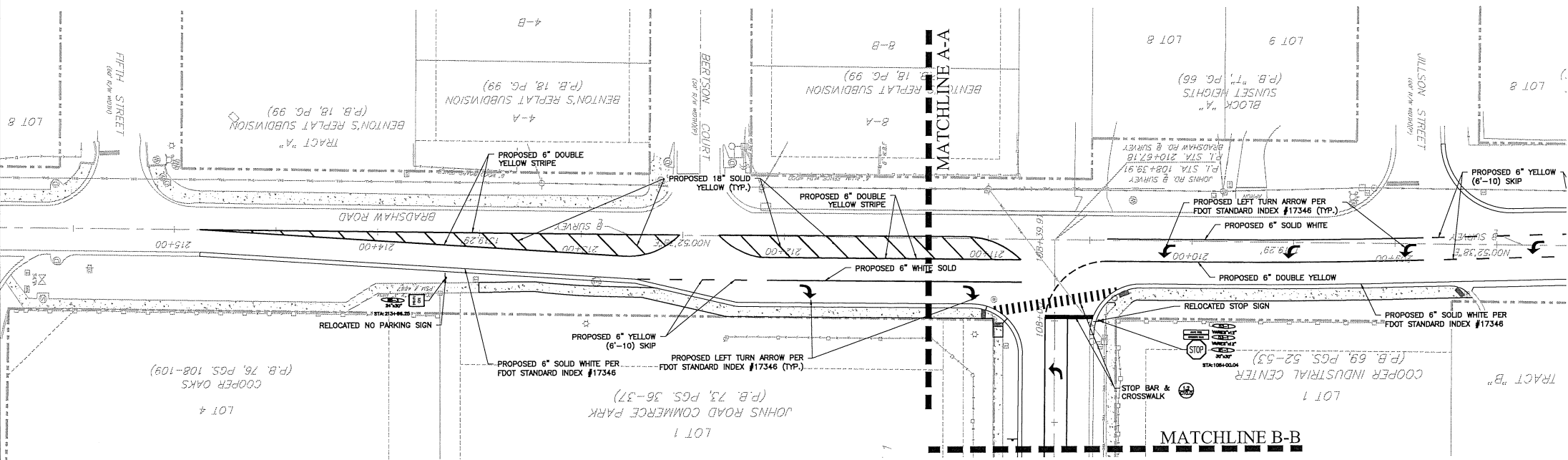
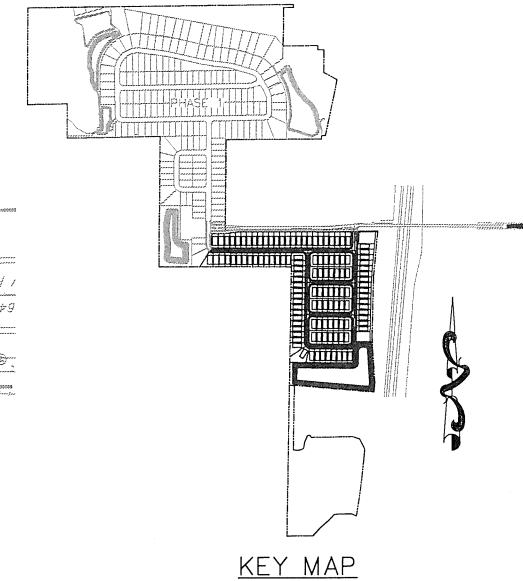
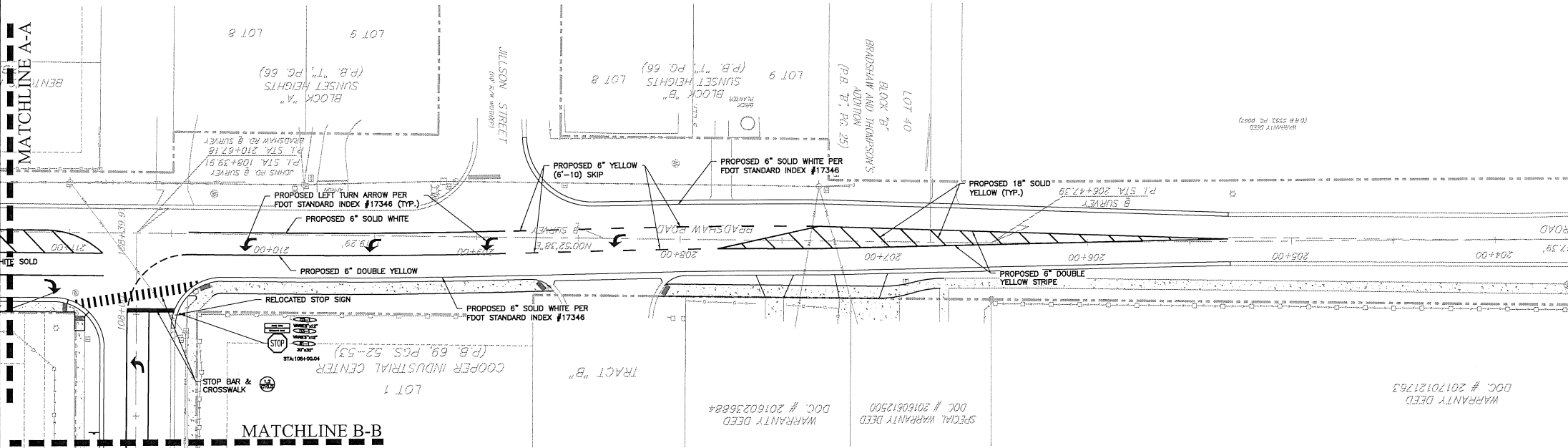




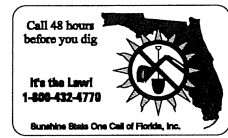


P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\3dch\Novatus\05 FINAL DEVELOPMENT PLAN - PHASE 2\Offsite Signage and Striping Plan.dwg Modified: 8/2/2018 By: asierrogil

NOTE:  
BRADSHAW ROAD RIGHT-OF-WAY IMPROVEMENTS SHOWN FOR REFERENCE PURPOSES ONLY. ALL DEMOLITION AND PROPOSED IMPROVEMENTS WITHIN THE ORANGE COUNTY RIGHT-OF-WAY SHALL BE PERMITTED THROUGH THE COUNTY.



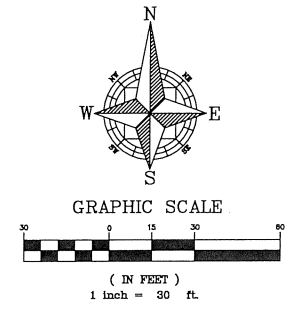
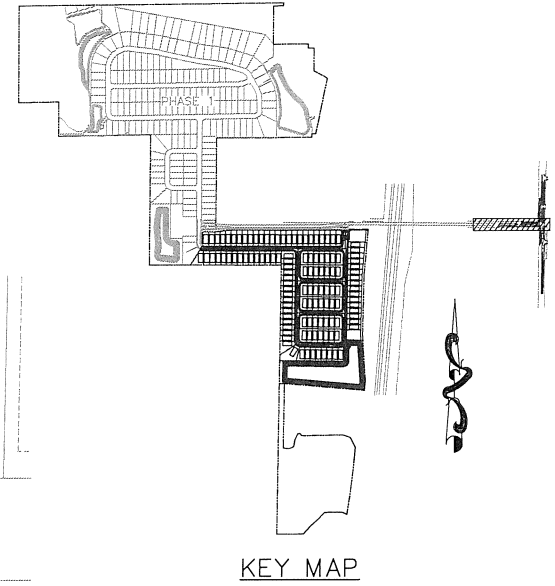
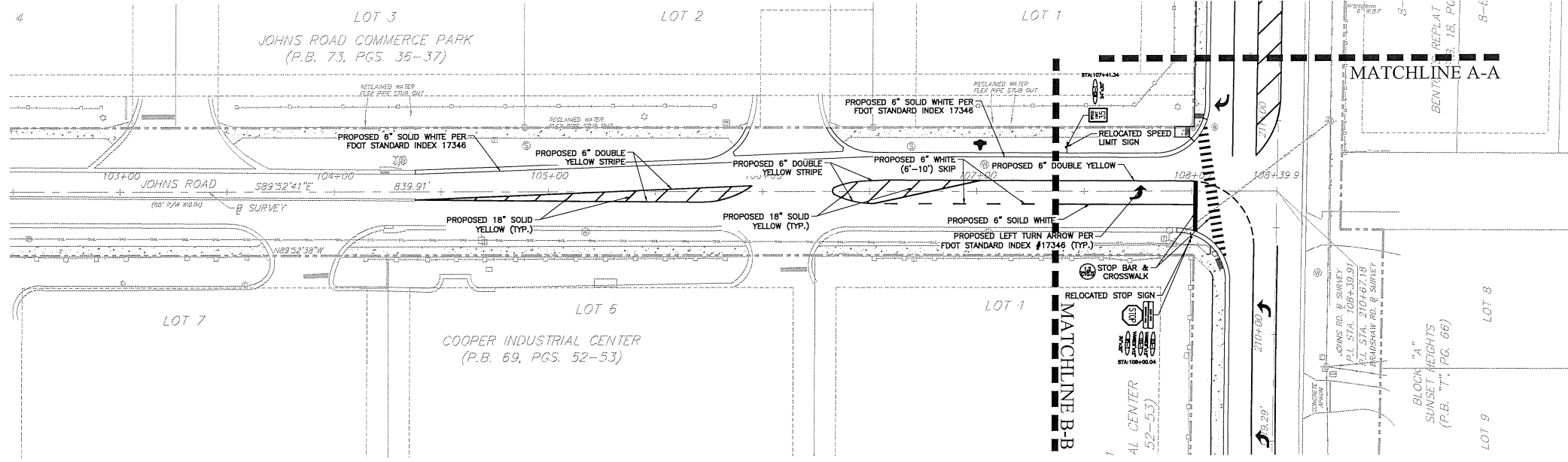
130



SHEET 31 OF 90

		APPIAN ENGINEERING LLC CIVIL ENGINEERING   LAND PLANNING	
SCALE: 1" = 30'	PROJECT: ROY-001	SHEET: C4.4	DATE: 8/2/2018
DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ	CHECKED: L. CLASSON	DATE: 8/2/2018
OFFSITE SIGNAGE & STRIPING PLAN - BRADSHAW RD		FINAL DEVELOPMENT PLAN	
LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)	
CITY OF APOPKA, FLORIDA		COMMENTS DATED: 07/23/18	
BY:	DATE:	DESCRIPTION:	REV:

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\30civil\Drawings\5.9 Final Development Plan - PHASE 2\Offsite Signage and Striping Plan.dwg Modified: 8/2/2018 By: asierrogil



131



SHEET 32 OF 90

	SCALE 1" = 30' PROJECT ROY-001 SHEET C4.5	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. GLASSON DATE: 8/2/2018	OFFSITE SIGNAGE & STRIPING PLAN - JOHNS RD FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	CIVIL ENGINEERING   LAND PLANNING APPIAN ENGINEERING LLC. APPIAN.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789 STATE OF FLORIDA LICENSE NO. 15000
	REV. DATE DESCRIPTION			BY
	A 07/25/18 CITY OF APOPKA COMMENTS DATED 07/23/18			DATE

**GENERAL UTILITY NOTES:**

- BACTERIOLOGICAL TESTS WITH CHLORINE RESIDUALS INDICATED (TAKEN ON TWO CONSECUTIVE DAYS) SHALL BE CONDUCTED AT EACH POTABLE WATER METER FOR EVERY BUILDING, AT EVERY WET-TAP CONNECTION AND EVERY LOCATION INDICATED WITHIN THESE PLANS. RESULTS OF THE BACTERIOLOGICAL TESTS SHALL BE PROVIDED TO THE ENGINEER OF RECORD IMMEDIATELY UPON COMPLETION. BACTERIOLOGICAL TEST RESULTS SHALL BE CONSIDERED UNACCEPTABLE IF THE TESTS WERE COMPLETED MORE THAN 30 DAYS BEFORE THE ENGINEER RECEIVED THE RESULTS.
- ALL WATERMAINS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINISHED GRADE.
- ALL WATERMAINS AND FIRELINES PIPES SHALL BE RESTRAINED VIA MECHANICAL JOINTS.
- WATER MAIN PVC PIPES LESS THAN 4 INCHES MUST CONFORM TO THE SPECIFICATIONS OF ASTM 1785 (SCHEDULE 40, 80, 120) OR ASTM 2241 SDR21 AND MUST BEAR THE NSF LOGO ON EACH INSTALLED LENGTH.
- UNDERGROUND MARKING TAPE FOR ALL SANITARY FORCEMAINS SHALL BE INSTALLED 4 TO 8 INCHES BELOW THE FINISHED GRADE SURFACE DIRECTLY OVER THE PIPELINE. MARKER TAPE SHALL BE MADE OF AN INERT POLYETHYLENE MATERIAL HAVING A MINIMUM THICKNESS OF 4 MILS AND BE COLOR CODED "SAFETY GREEN".
- CONTRACTOR SHALL CONDUCT AND PROVIDE RESULTS IMMEDIATELY TO THE ENGINEER OF RECORD FOR PRESSURE AND LEAKAGE TESTS ON THE FORCE MAIN TRUNK LINE ONCE THE PRESSURE SEWER HAS BEEN INSTALLED AND PARTLY BACKFILLED. FINAL BACKFILL AND COMPACTION SHALL NOT COMMENCE UNTIL APPROVAL OF THE PRESSURE AND LEAKAGE TESTS HAS BEEN PROVIDED BY THE ENGINEER OF RECORD.
- FOLLOWING SATISFACTORY PRESSURE TEST RESULTS, THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM, AND RECEIVE APPROVAL THEREOF FROM APPROPRIATE AGENCIES PRIOR TO PLACING THE SYSTEM INTO SERVICE.
- FIRE HYDRANTS SHALL BE PLACED A MINIMUM OF 3 FT. AND A MAXIMUM OF 5 FT. FROM THE CURB OR PAVED ROAD SURFACE UNLESS OTHERWISE APPROVED. NO FENCE, TREE, POST, SHRUB, OR OTHER OBJECT WHICH COULD BLOCK THE HYDRANT FROM NORMAL VIEW OR OBSTRUCT THE HYDRANT'S USE SHALL BE LOCATED WITHIN FOUR (4) FEET OF THE HYDRANT. THE FOUR-AND-ONE-HALF INCH (4-1/2") LARGE VOLUME CONNECTION SHALL FACE THE NEAREST ROADWAY. THE CENTER OF THE STEAMER PORT SHALL BE 16 INCHES MINIMUM AND 24 INCHES MAXIMUM ABOVE FINISHED GRADE.
- ALL FIRE HYDRANT LEADS SHALL HAVE AN INSIDE DIAMETER OF AT LEAST SIX INCHES AND INCLUDE AUXILIARY VALVES.
- WHEN NECESSARY, DEWATERING SHALL BE PROVIDED TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW MAIN BEING LAID.
- ALL UTILITIES SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
- TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE UTILITY PROVIDER WITH A MINIMUM COMPACTION OF 98% IN PAVED AREAS AND 95% IN UNPAVED AREAS IN ACCORDANCE WITH AASHTO T-180 MODIFIED PROCTOR TEST.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 12 INCHES ABOVE THE PIPE AND AT 12 INCHES VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
- ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH A 2" X 4" LUMBER (PRESSURE TREATED) EXTENDING 4 FEET ABOVE GRADE, WITH WATER SERVICES SECURED 12" MAXIMUM ABOVE THE GROUND.
- ALL WATER VALVES, INCLUDING CONCRETE COLLAR (WITH DEBRIS CAP), SHALL BE ADJUSTED TO FINISHED GRADE AND THE VALVE BOX LID, PAINTED BLUE TO MAKE THEM PLAINLY VISIBLE.
- UPON FINAL ACCEPTANCE OF NEW WATER SYSTEMS, WATER VALVES SHALL BE COMPLETELY OPENED BY PUBLIC UTILITIES PERSONNEL. AT NO TIME SHALL CONTRACTOR OPERATE ANY EXISTING VALVES WITHOUT CITY OF APOPKA INSPECTOR PRESENT.
- ALL WATER MAINS SHALL BE NSF-APPROVED FOR POTABLE WATER USE.
  - (a) ALL PVC PIPE OF NOMINAL DIAMETER FOUR (4) INCHES THROUGH TWELVE (12) INCHES SHALL BE MANUFACTURED IN ACCORDANCE WITH ANWA STANDARD C900, LATEST EDITION. THE PVC PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 150PSI AND SHALL HAVE A DIMENSION RATIO (DR) OF 18.
  - (b) ALL DUCTILE IRON PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ANS/AWWA A21.51/C151 AND HAVE A MINIMUM 350 PRESSURE CLASS RATING
- PIPE USED IN GRAVITY SEWER CONSTRUCTION SHALL BE POLYVINYL CHLORIDE (PVC) OR DUCTILE IRON PIPE (DIP). WHERE REFERENCE IS MADE TO AN ASTM, ANSI, OR AASHTO DESIGNATION, IT SHALL BE THE LATEST REVISION.
  - (a) PVC GRAVITY SEWER PIPE (4 INCH - 15 INCH). ASTM D3034, SDR 35 - UNIFORM MINIMUM PIPE STIFFNESS AT FIVE (5) PERCENT DEFLECTION SHALL BE 46PSI. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI-B-4. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL AND BE GREEN IN OVERALL COLOR. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE THIRTEEN (13) FEET.
  - (b) DUCTILE IRON PIPE SHALL CONFORM TO ANS/AWWA A21.51/C151, CLASS THICKNESS DESIGNED PER ANS/AWWA A21.50/C150, WITH MECHANICAL OR PUSH ON JOINTS. AN INTERIOR PROTECTIVE LINING OF COAL TAR EPOXY SHALL BE PROVIDED WITH A MINIMUM DRY THICKNESS OF 30 MILS. DUCTILE IRON GRAVITY SEWERS, WHERE REQUIRED BY THE UTILITY PROVIDER BASED ON GEOTECHNICAL INVESTIGATIONS, SHALL BE WRAPPED WITH POLYETHYLENE FILM, ANWA C105. SEE APPENDIX C. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE EIGHTEEN (18) FEET.
- ALL EXISTING UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR AT ALL POINTS OF CONNECTION TO AND AT ALL AREAS OF CONFLICT WITH EXISTING MAINS.
- ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.

**WATER SYSTEM TESTING REQUIREMENTS:**

- THE CONTRACTOR SHALL PERFORM HYDROSTATIC TESTING OF ALL WATER DISTRIBUTION SYSTEMS, AS SET FORTH IN THE FOLLOWING AND SHALL CONDUCT SAID TESTS IN THE PRESENCE OF REPRESENTATIVES FROM CITY OF APOPKA AND/OR OTHER AUTHORIZED AGENCIES. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE PRIOR TO TESTING OF THE WATER DISTRIBUTION SYSTEM.
- ALL TESTING REQUIRED BY CITY OF APOPKA SHALL BE PAID FOR BY THE DEVELOPER / CONTRACTOR.
- ALL PROPOSED WATER MAINS SHALL BE TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
- PRIOR TO HYDROSTATIC TESTING A PRELIMINARY FLUSHING SHALL BE REQUIRED THROUGH FULL DIAMETER FLUSHING OR SWABBING. PRELIMINARY FLUSHING/SWABBING SHALL BE PERFORMED PER AWWA C651 STANDARD - "DISINFECTING WATER MAINS". ALL PIPING SHALL BE THOROUGHLY CLEANED AND FLUSHED PRIOR TO TESTING TO CLEAR THE LINES OF ALL FOREIGN MATTER. WHILE THE PIPING IS BEING FILLED WITH WATER, CARE SHALL BE EXERCISED TO PERMIT THE ESCAPE OF AIR FROM EXTREMITIES ALONG THE TEST SECTION.
- HYDROSTATIC TESTING SHALL CONSIST OF PRESSURE TEST AND LEAKAGE TEST. PIPING AND APPURTENANCES TO BE TESTED SHALL BE WITHIN SECTIONS BETWEEN VALVES, NOT EXCEEDING 2,000 FEET, UNLESS ALTERNATE METHODS HAVE RECEIVED PRIOR APPROVAL FROM CITY OF APOPKA. TESTING SHALL NOT PROCEED UNTIL CONCRETE THRUST BLOCKS ARE IN PLACE AND CURED, OR OTHER RESTRAINING DEVICES INSTALLED.
- HYDROSTATIC TESTING SHALL BE PERFORMED AT 150 POUNDS PER SQUARE INCH PRESSURE, UNLESS OTHERWISE APPROVED BY CITY OF APOPKA, FOR A PERIOD OF NOT LESS THAN TWO (2) HOURS.
- THE ALLOWABLE RATE OF LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR DETERMINED BY THE FOLLOWING FORMULA:
 

$$L = \frac{SD \cdot \sqrt{P}}{148,000}$$

WHERE:  
 L = ALLOWABLE LEAKAGE, IN GALLONS PER HOUR  
 S = LENGTH OF PIPE TESTED, IN FEET  
 D = NOMINAL DIAMETER OF PIPE, IN INCHES  
 P = AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST.
- SHOULD THE TEST FAIL, NECESSARY REPAIRS SHALL BE FURNISHED BY THE CONTRACTOR AND THE TEST REPEATED UNTIL WITHIN PASSING LIMITS. THE CONTRACTOR SHALL FURNISH ALL THE NECESSARY LABOR, PUMPS, GAUGES AND ALL OTHER ITEMS NECESSARY TO CONDUCT THE REQUIRED WATER DISTRIBUTION SYSTEM TESTING AND PERFORM NECESSARY REPAIRS.

**SEWER SYSTEM TESTING REQUIREMENTS:**

- THE CONTRACTOR SHALL PERFORM TESTING OF ALL SANITARY SEWAGE GRAVITY COLLECTION SYSTEMS, AS SET FORTH IN THE FOLLOWING AND SHALL CONDUCT SAID TESTS IN THE PRESENCE OF REPRESENTATIVES FROM CITY OF APOPKA AND/OR OTHER AUTHORIZED AGENCIES. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE PRIOR TO TESTING OF THE WASTEWATER DISTRIBUTION SYSTEM.
- ALL TESTING REQUIRED BY CITY OF APOPKA SHALL BE PAID FOR BY THE DEVELOPER / CONTRACTOR.
- GRAVITY MAINS SHALL BE INSPECTED WITH CCTV FOR ALIGNMENT, GRADE VARIATIONS, SEPARATED PIPES, LEAKS, DEFLECTION, CRACKED, BROKEN OR OTHERWISE DEFECTIVE PIPE TO ENSURE OVERALL PIPE INTEGRITY. THE APPROVED CCTV INSPECTION CONTRACTOR SHALL SUBMIT THE REPORT TO THE UTILITIES DEPARTMENT AS REQUIRED.
- LEAKAGE TESTING FOR GRAVITY MAINS SHALL BE BY LOW-PRESSURE AIR TEST. LEAKAGE TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURE FOR "RECOMMENDED PRACTICE FOR LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" AS ESTABLISHED BY THE UNI-BELL PVC PIPE ASSOCIATION.
- EACH GRAVITY MAIN LEAKAGE TEST SECTION SHALL NOT EXCEED 400 FEET IN LENGTH AND SHALL BE TESTED BETWEEN ADJACENT MANHOLES.

**FDEP UTILITY CONSTRUCTION NOTES:**

- NOTE TO THE UTILITY: PURSUANT TO F.A.C. RULE 62-555.345; DO NOT PROVIDE WATER SERVICE TO THIS PROJECT (OTHER THAN FLUSHING/TESTING) UNTIL THE DEPARTMENT OF ENVIRONMENTAL PROTECTION HAS ISSUED A LETTER OF CLEARANCE OR THE UTILITY SHALL BE SUBJECT TO ENFORCEMENT ACTION.
- THE PERMITTEE WILL PROMPTLY NOTIFY THE DEPARTMENT UPON SALE OR LEGAL TRANSFER OF THE PERMITTED FACILITY.
- ALL WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH F.A.C. RULE 62-555.340.
- ALL WATER MAIN PIPE, INCLUDING FITTINGS SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLID-BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPES DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.

**FDEP UTILITY SEPARATION REQUIREMENTS:**

(F.A.C. 62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS)

- FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.
- HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
    - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
    - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
    - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
    - (d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-8.002, F.A.C.
  - VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
    - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
    - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
    - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORMWATERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
  - SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.
    - (a) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
    - (b) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.
  - SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN F.S. SECTION 381.0065(2), AND F.A.C. RULE 64E-8.002.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	Water Main 3 ft. minimum	Water Main 12 inches in the minimum, except for storm sewers, then 6 inches in the minimum and 12 inches is preferred	Water Main Alternate 3 ft. minimum
Vacuum Sanitary Sewer	Water Main 10 ft. preferred 3 ft. minimum	Water Main 12 inches preferred 6 inches minimum	Water Main Alternate 3 ft. minimum
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	Water Main 10 ft. preferred 6 ft. minimum (3)	Water Main 12 inches in the minimum, except for gravity sewer, then 6 inches in the minimum and 12 inches is preferred	Water Main Alternate 6 ft. minimum
On-Site Sewage Treatment & Disposal System	10 ft. minimum		

(1) Water main should cross above other pipe. When water main must be below other pipe, the minimum separation is 12 inches.  
 (2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.  
 (3) 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.  
 (4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.



SCALE: N.T.S.  
 PROJECT: ROY-001  
 SHEET: C.5.0

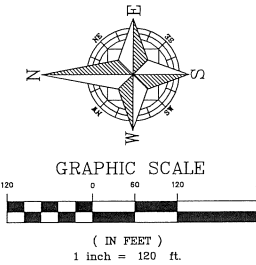
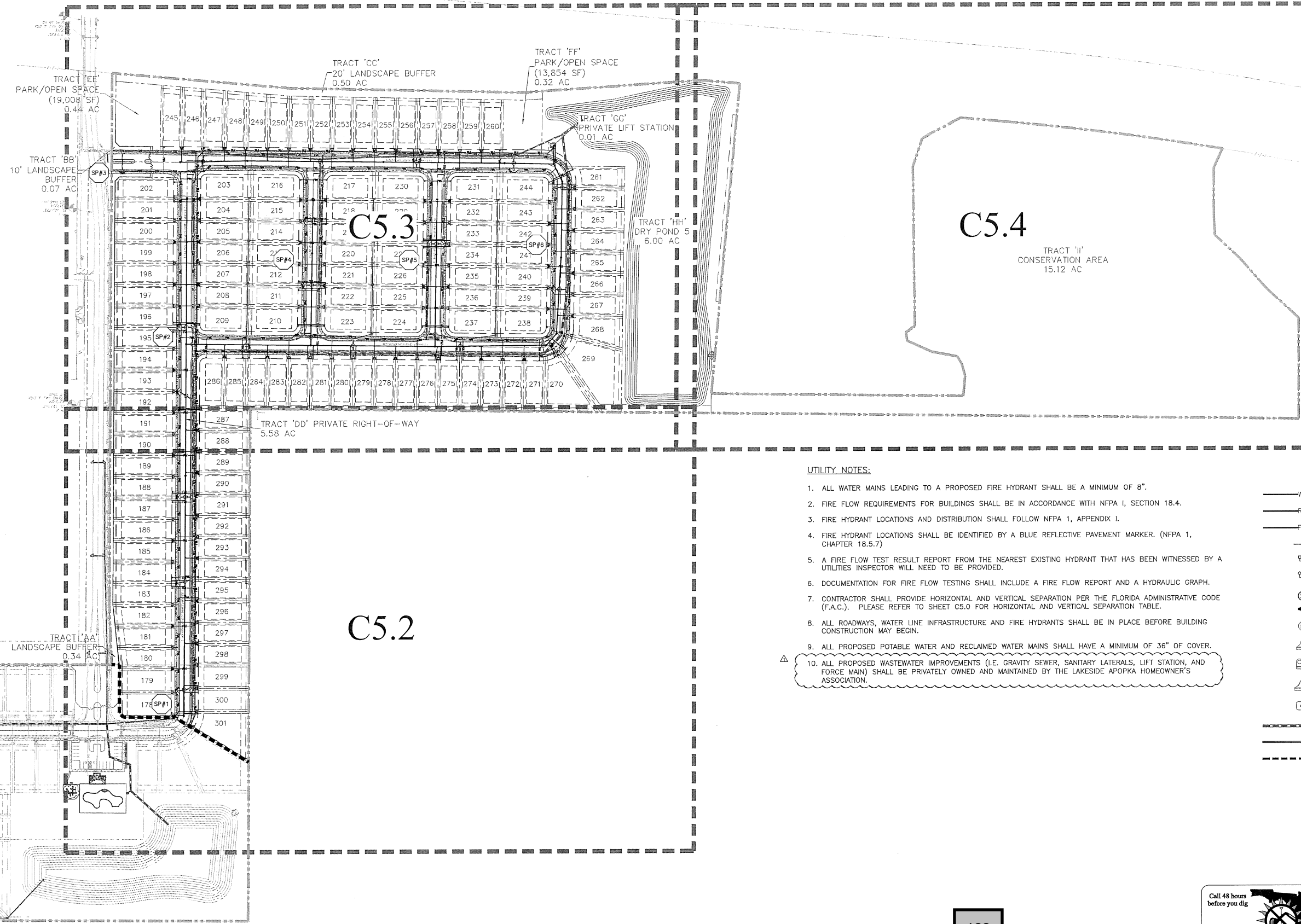
DRAWN: S. SIERRA-GILL  
 DESIGNED: O. SANCHEZ  
 CHECKED: L. GLASSON  
 DATE: 8/2/2018

UTILITY NOTES  
 FINAL DEVELOPMENT PLAN  
 LAKESIDE - PHASE 2  
 (FKA LAKE MARSHALL SUBDIVISION)  
 CITY OF APOPKA, FLORIDA

CIVIL ENGINEERING | LAND PLANNING  
**APPIAN ENGINEERING LLC.**  
 APPIANFL.COM • 407.960.9868  
 2321 Lee Road, Suite 17, Warner Oaks, Pomona, 32789

DATE: 8/23/18  
 REVISIONS: [Table with 3 columns: No., Description, Date]

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\30Civil\Novota\05 FINAL DEVELOPMENT PLAN - PHASE 2\Utility Notes.dwg Modified: 8/27/2018 By: aserrago



C5.3

C5.4

C5.2

**UTILITY NOTES:**

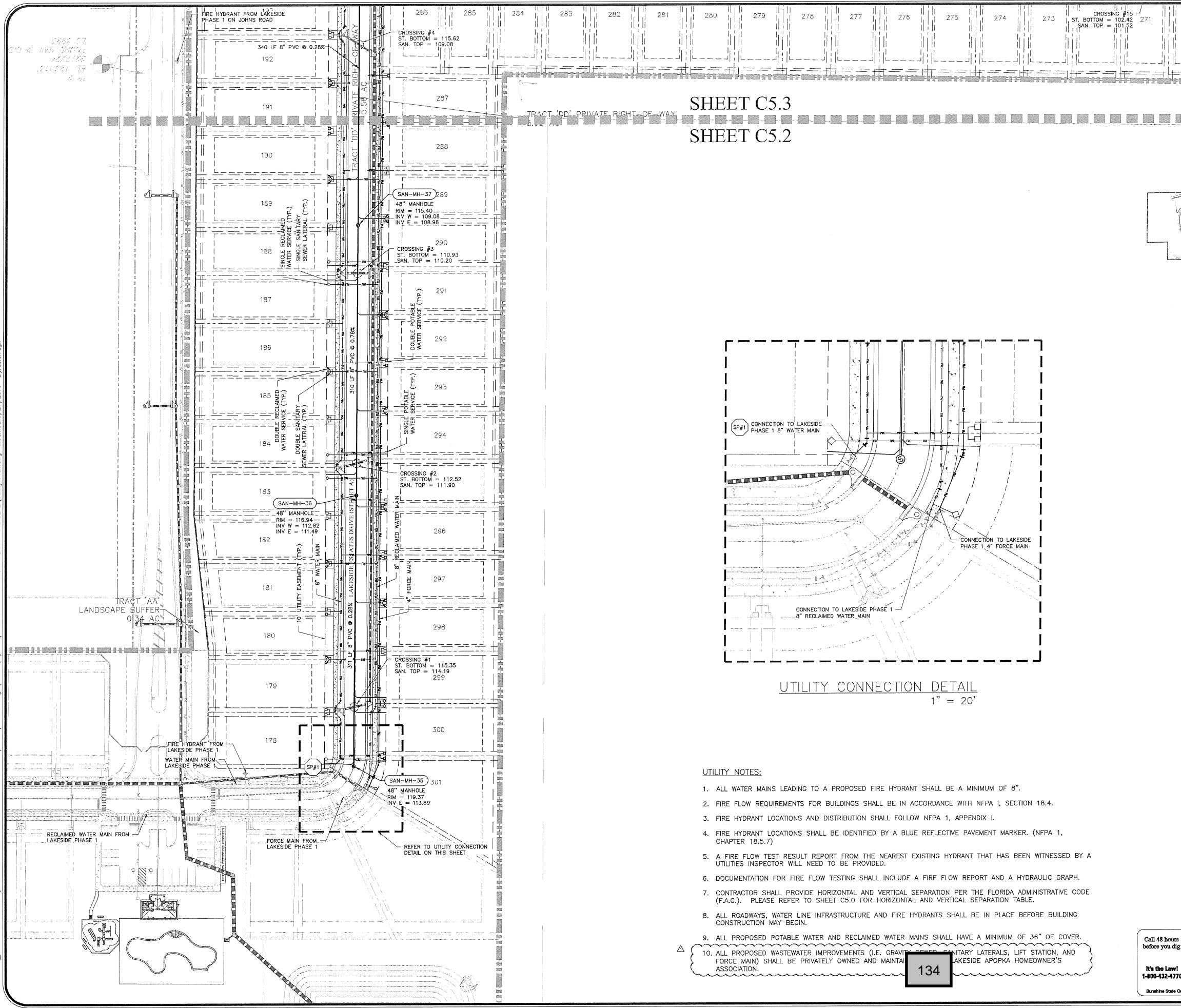
1. ALL WATER MAINS LEADING TO A PROPOSED FIRE HYDRANT SHALL BE A MINIMUM OF 8".
  2. FIRE FLOW REQUIREMENTS FOR BUILDINGS SHALL BE IN ACCORDANCE WITH NFPA I, SECTION 18.4.
  3. FIRE HYDRANT LOCATIONS AND DISTRIBUTION SHALL FOLLOW NFPA 1, APPENDIX I.
  4. FIRE HYDRANT LOCATIONS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1, CHAPTER 18.5.7)
  5. A FIRE FLOW TEST RESULT REPORT FROM THE NEAREST EXISTING HYDRANT THAT HAS BEEN WITNESSED BY A UTILITIES INSPECTOR WILL NEED TO BE PROVIDED.
  6. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW REPORT AND A HYDRAULIC GRAPH.
  7. CONTRACTOR SHALL PROVIDE HORIZONTAL AND VERTICAL SEPARATION PER THE FLORIDA ADMINISTRATIVE CODE (F.A.C.). PLEASE REFER TO SHEET C5.0 FOR HORIZONTAL AND VERTICAL SEPARATION TABLE.
  8. ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
  9. ALL PROPOSED POTABLE WATER AND RECLAIMED WATER MAINS SHALL HAVE A MINIMUM OF 36" OF COVER.
- △ 10. ALL PROPOSED WASTEWATER IMPROVEMENTS (I.E. GRAVITY SEWER, SANITARY LATERALS, LIFT STATION, AND FORCE MAIN) SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNER'S ASSOCIATION.

**LEGEND**

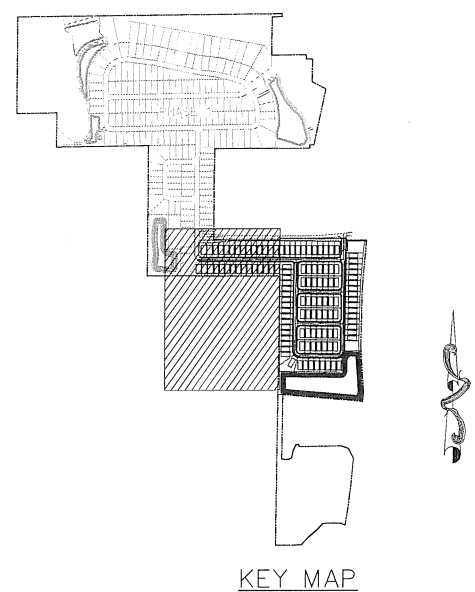
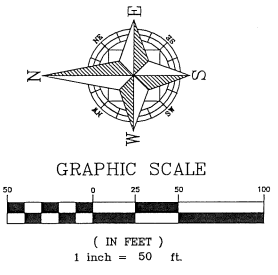
- WM — PROPOSED WATER MAIN
- RU — PROPOSED RECLAIM WATER MAIN
- FM — PROPOSED FORCE MAIN
- S — PROPOSED SANITARY SERVICE
- W — PROPOSED WATER SERVICE
- R — PROPOSED RECLAIM WATER SERVICE
- SM — SANITARY MANHOLE
- FH — FIRE HYDRANT
- DM — STORM MANHOLE
- CI — TYPE 3L CURB INLET
- CI — TYPE 3R CURB INLET
- CI — TYPE 4 CURB INLET
- ME — MITER END SECTION
- SS — PROPOSED STORM
- GS — PROPOSED GRAVITY SANITARY
- PL — PHASING LINE

<p style="font-size: small;">CIVIL ENGINEERING   LAND PLANNING</p> <p style="font-weight: bold; font-size: small;">APIAN ENGINEERING LLC.</p> <p style="font-size: x-small;">APPANL.COM - 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789</p>	<p style="font-size: small;">OVERALL UTILITY PLAN FINAL DEVELOPMENT PLAN</p> <p style="font-size: small;">LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA</p>	<p style="font-size: x-small;">DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. GLASSON DATE: 8/10/2018</p>	<p style="font-size: small;">SCALE: 1" = 120'</p> <p style="font-size: small;">PROJECT: ROY-001</p> <p style="font-size: small;">SHEET: C5.1</p>
<p style="font-size: small;">Call 48 hours before you dig It's the Law! 1-800-432-4770 Sunshine State One Call of Florida, Inc.</p>			
<p style="font-size: x-large; font-weight: bold;">SHEET 34 OF 90</p>			
<p style="font-size: x-small;">8/10/18</p>			

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\Drawings\SS\social\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Utility Plan.dwg Modified: 6/27/2018 By: salsaragi

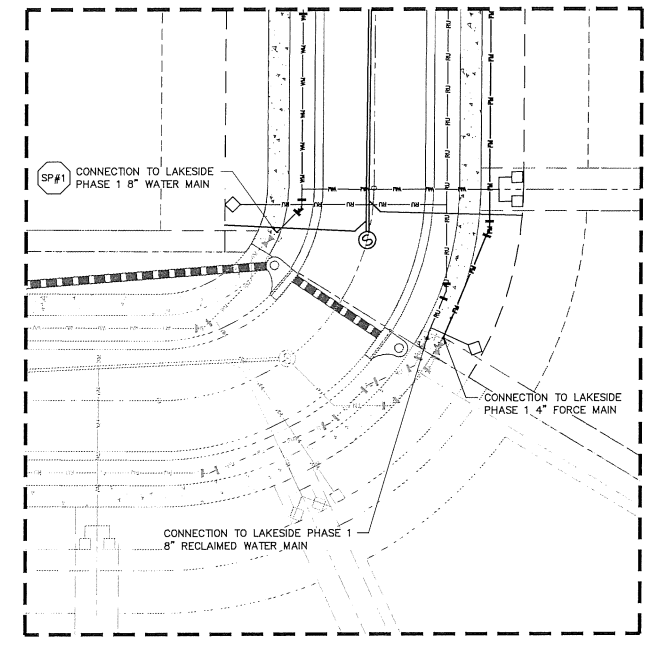


SHEET C5.3  
SHEET C5.2



LEGEND

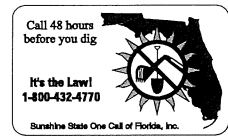
- WM PROPOSED WATER MAIN
- RU PROPOSED RECLAIM WATER MAIN
- FM PROPOSED FORCE MAIN
- PROPOSED SANITARY SERVICE
- PROPOSED WATER SERVICE
- PROPOSED RECLAIM WATER SERVICE
- SANITARY MANHOLE
- FIRE HYDRANT
- STORM MANHOLE
- TYPE 3L CURB INLET
- TYPE 3R CURB INLET
- TYPE 4 CURB INLET
- MITER END SECTION
- PROPOSED STORM
- PROPOSED GRAVITY SANITARY



UTILITY CONNECTION DETAIL  
1" = 20'

UTILITY NOTES:

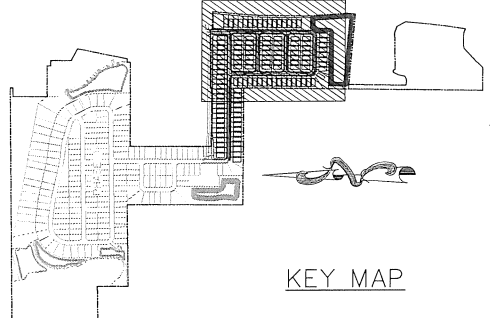
1. ALL WATER MAINS LEADING TO A PROPOSED FIRE HYDRANT SHALL BE A MINIMUM OF 8".
2. FIRE FLOW REQUIREMENTS FOR BUILDINGS SHALL BE IN ACCORDANCE WITH NFPA I, SECTION 18.4.
3. FIRE HYDRANT LOCATIONS AND DISTRIBUTION SHALL FOLLOW NFPA 1, APPENDIX I.
4. FIRE HYDRANT LOCATIONS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1, CHAPTER 18.5.7)
5. A FIRE FLOW TEST RESULT REPORT FROM THE NEAREST EXISTING HYDRANT THAT HAS BEEN WITNESSED BY A UTILITIES INSPECTOR WILL NEED TO BE PROVIDED.
6. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW REPORT AND A HYDRAULIC GRAPH.
7. CONTRACTOR SHALL PROVIDE HORIZONTAL AND VERTICAL SEPARATION PER THE FLORIDA ADMINISTRATIVE CODE (F.A.C.). PLEASE REFER TO SHEET C5.0 FOR HORIZONTAL AND VERTICAL SEPARATION TABLE.
8. ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
9. ALL PROPOSED POTABLE WATER AND RECLAIMED WATER MAINS SHALL HAVE A MINIMUM OF 36" OF COVER.
10. ALL PROPOSED WASTEWATER IMPROVEMENTS (I.E. GRAVITY FORCED SANITARY LATERALS, LIFT STATION, AND FORCE MAIN) SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNER'S ASSOCIATION.



CIVIL ENGINEERING   LAND PLANNING		APPLAN ENGINEERING LLC.	
UTILITY PLAN - WEST		LAKESIDE - PHASE 2	
FINAL DEVELOPMENT PLAN		(FKA LAKE MARSHALL SUBDIVISION)	
		CITY OF APOPKA, FLORIDA	
SCALE	1" = 50'	PROJECT	ROY-001
DRAWN	S. SIERRA-GIL	CHECKED	L. GLASSON
DESIGNED	O. SANCHEZ	DATE	8/10/2018
APPLAN ENGINEERING		APPLAN.COM - 407.960.3868	
		2221 Lee Road, Suite 117, Weirton Park, Pompano 33789	
		FLORIDA PROFESSIONAL ENGINEER LICENSE NO. 12483	
		FLORIDA PROFESSIONAL LAND PLANNER LICENSE NO. 12483	
		REV. DATE DESCRIPTION	
		BY	

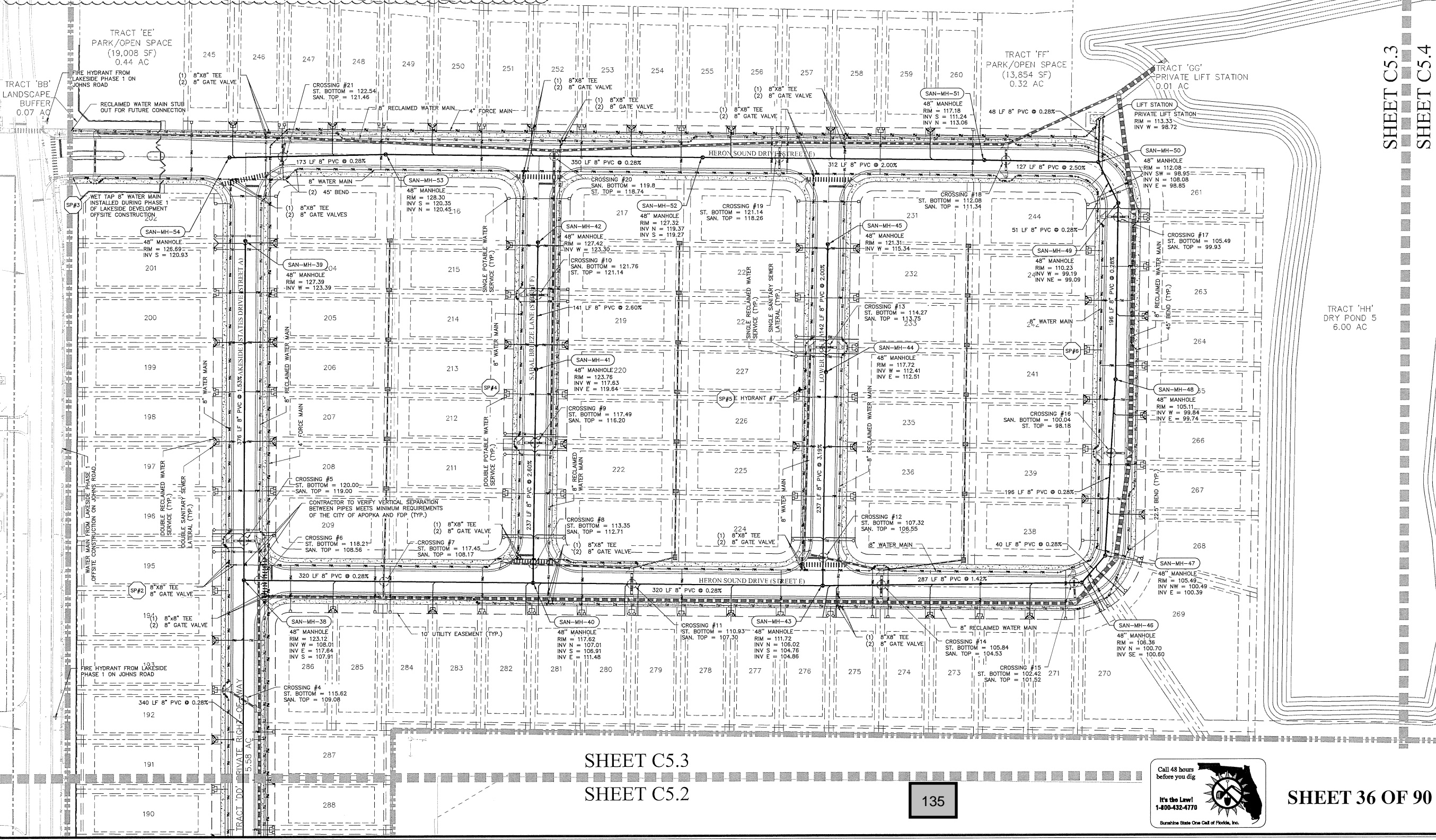
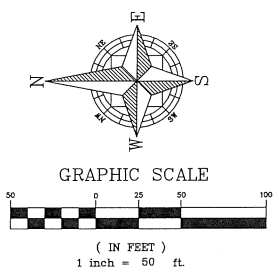
**UTILITY NOTES:**

1. ALL WATER MAINS LEADING TO A PROPOSED FIRE HYDRANT SHALL BE A MINIMUM OF 8".
2. FIRE FLOW REQUIREMENTS FOR BUILDINGS SHALL BE IN ACCORDANCE WITH NFPA I, SECTION 18.4.
3. FIRE HYDRANT LOCATIONS AND DISTRIBUTION SHALL FOLLOW NFPA 1, APPENDIX I.
4. FIRE HYDRANT LOCATIONS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1, CHAPTER 18.5.7)
5. A FIRE FLOW TEST RESULT REPORT FROM THE NEAREST EXISTING HYDRANT THAT HAS BEEN WITNESSED BY A UTILITIES INSPECTOR WILL NEED TO BE PROVIDED.
6. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW REPORT AND A HYDRAULIC GRAPH.
7. CONTRACTOR SHALL PROVIDE HORIZONTAL AND VERTICAL SEPARATION PER THE FLORIDA ADMINISTRATIVE CODE (F.A.C.). PLEASE REFER TO SHEET C5.0 FOR HORIZONTAL AND VERTICAL SEPARATION TABLE.
8. ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
9. ALL PROPOSED POTABLE WATER AND RECLAIMED WATER MAINS SHALL HAVE A MINIMUM OF 36" OF COVER.
10. ALL PROPOSED WASTEWATER IMPROVEMENTS (I.E. GRAVITY SEWER, SANITARY LATERALS, LIFT STATION, AND FORCE MAIN) SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNER'S ASSOCIATION.



**LEGEND**

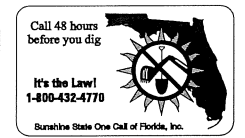
- WM — PROPOSED WATER MAIN
- RU — PROPOSED RECLAIM WATER MAIN
- FM — PROPOSED FORCE MAIN
- S — PROPOSED SANITARY SERVICE
- W — PROPOSED WATER SERVICE
- R — PROPOSED RECLAIM WATER SERVICE
- S — SANITARY MANHOLE
- F — FIRE HYDRANT
- ⊙ — STORM MANHOLE
- ⊙ — TYPE 3L CURB INLET
- ⊙ — TYPE 3R CURB INLET
- ⊙ — TYPE 4 CURB INLET
- — MITER END SECTION
- — PROPOSED STORM
- — PROPOSED GRAVITY SANITARY



**SHEET C5.3**  
**SHEET C5.4**

SHEET C5.3  
SHEET C5.2

135



SHEET 36 OF 90

<b>CIVIL ENGINEERING   LAND PLANNING</b> <b>APIAN ENGINEERING LLC.</b> APPIAN.COM - 407.960.5868 <small>2221 Lakewood Road, Suite 117, Winter Park, Florida 32789</small>	
UTILITY PLAN - NORTH FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	PROJECT: ROY-001 SHEET: C5.3 DATE: 8/10/2018
DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON	SCALE: 1" = 50' PROJECT: ROY-001 SHEET: C5.3

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\39civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Utility Plan.dwg Modified: 6/27/2018 By: salerajj

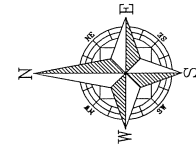
SHEET C5.3  
SHEET C5.4

UTILITY NOTES:

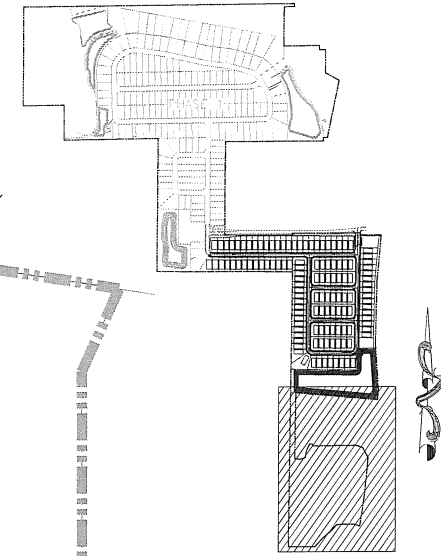
1. ALL WATER MAINS LEADING TO A PROPOSED FIRE HYDRANT SHALL BE A MINIMUM OF 8".
2. FIRE FLOW REQUIREMENTS FOR BUILDINGS SHALL BE IN ACCORDANCE WITH NFPA 1, SECTION 18.4.
3. FIRE HYDRANT LOCATIONS AND DISTRIBUTION SHALL FOLLOW NFPA 1, APPENDIX I.
4. FIRE HYDRANT LOCATIONS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1, CHAPTER 18.5.7)
5. A FIRE FLOW TEST RESULT REPORT FROM THE NEAREST EXISTING HYDRANT THAT HAS BEEN WITNESSED BY A UTILITIES INSPECTOR WILL NEED TO BE PROVIDED.
6. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW REPORT AND A HYDRAULIC GRAPH.
7. CONTRACTOR SHALL PROVIDE HORIZONTAL AND VERTICAL SEPARATION PER THE FLORIDA ADMINISTRATIVE CODE (F.A.C.). PLEASE REFER TO SHEET C5.0 FOR HORIZONTAL AND VERTICAL SEPARATION TABLE.
8. ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
9. ALL PROPOSED POTABLE WATER AND RECLAIMED WATER MAINS SHALL HAVE A MINIMUM OF 36" OF COVER.
10. ALL PROPOSED WASTEWATER IMPROVEMENTS (I.E. GRAVITY SEWER, SANITARY LATERALS, LIFT STATION, AND FORCE MAIN) SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNER'S ASSOCIATION.

LEGEND

- WM — PROPOSED WATER MAIN
- RU — PROPOSED RECLAIM WATER MAIN
- FM — PROPOSED FORCE MAIN
- S — PROPOSED SANITARY SERVICE
- W — PROPOSED WATER SERVICE
- R — PROPOSED RECLAIM WATER SERVICE
- ⊙ SANITARY MANHOLE
- ⊙ FIRE HYDRANT
- ⊙ STORM MANHOLE
- ⊙ TYPE 3L CURB INLET
- ⊙ TYPE 3R CURB INLET
- ⊙ TYPE 4 CURB INLET
- ⊙ MITER END SECTION
- — — — — PROPOSED STORM
- — — — — PROPOSED GRAVITY SANITARY



GRAPHIC SCALE  
( IN FEET )  
1 inch = 50 ft.



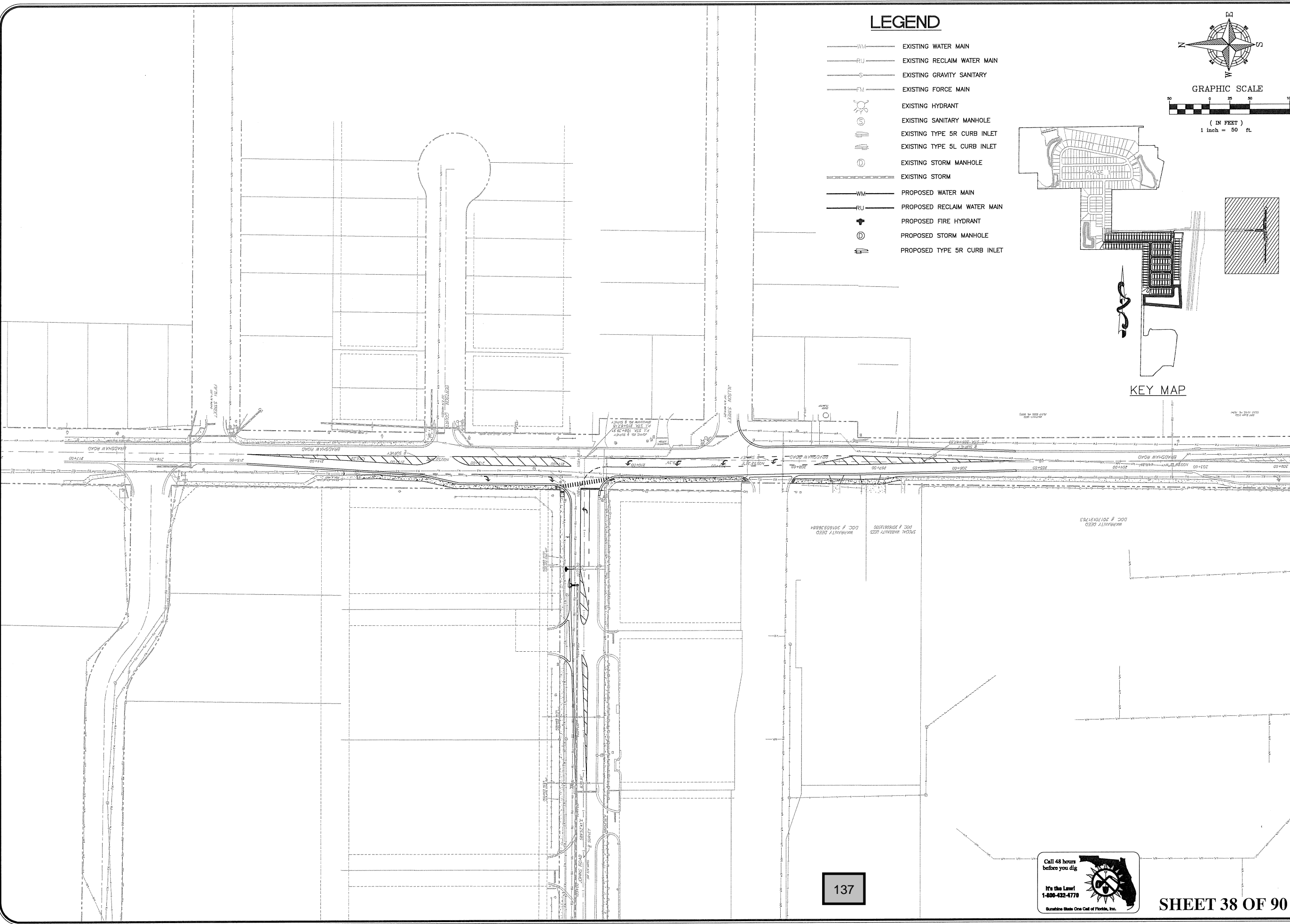
KEY MAP

TRACT 'I'  
CONSERVATION AREA  
15.12 AC

CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANE.COM - 407.960.5868 2221 Las Ruas, Suite 17, Verona Park, Florida 32789 <small>STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION NO. 0001</small>		UTILITY PLAN - SOUTH FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. GLASSON DATE: 8/10/2018	SCALE 1" = 50' PROJECT ROY-001 SHEET C5.4	
REV. DATE DESCRIPTION 1 07/20/18 CITY OF APOPKA COMMENTS DATED 07/23/18					

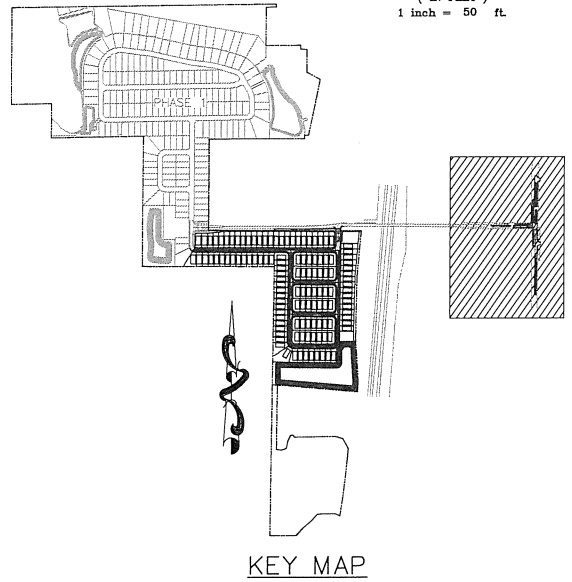
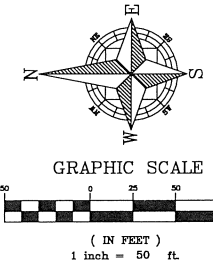




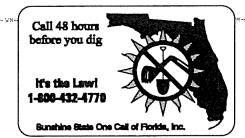


### LEGEND


- WM — EXISTING WATER MAIN
- RU — EXISTING RECLAIM WATER MAIN
- S — EXISTING GRAVITY SANITARY
- FM — EXISTING FORCE MAIN
- ☀ EXISTING HYDRANT
- ⊙ EXISTING SANITARY MANHOLE
- ⊙ EXISTING TYPE 5R CURB INLET
- ⊙ EXISTING TYPE 5L CURB INLET
- ⊙ EXISTING STORM MANHOLE
- EXISTING STORM
- WM — PROPOSED WATER MAIN
- RU — PROPOSED RECLAIM WATER MAIN
- ☀ PROPOSED FIRE HYDRANT
- ⊙ PROPOSED STORM MANHOLE
- ⊙ PROPOSED TYPE 5R CURB INLET



137



**SHEET 38 OF 90**

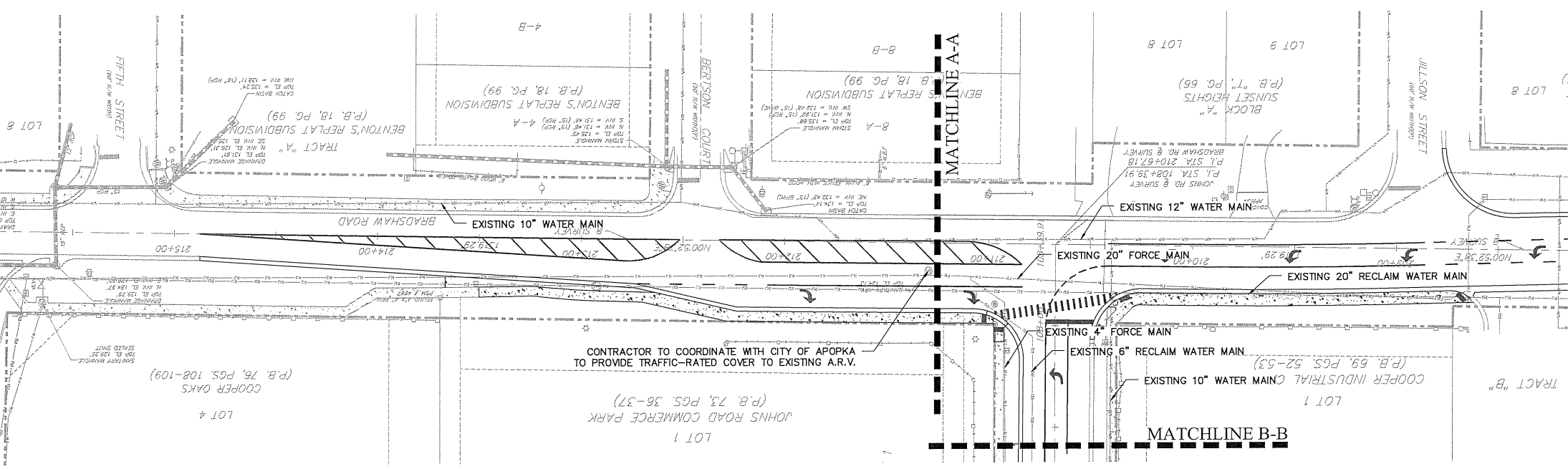
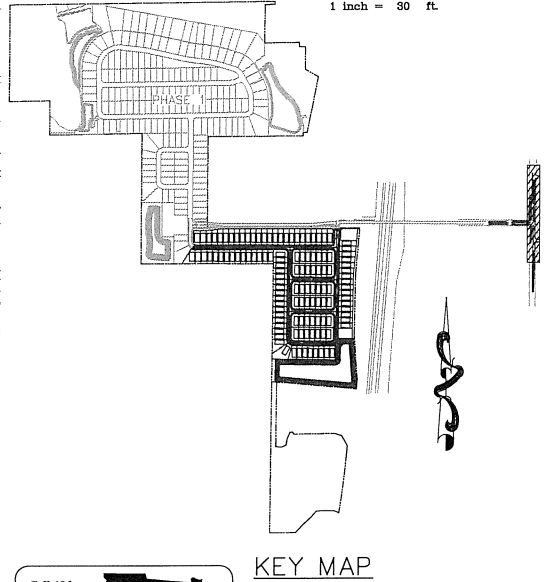
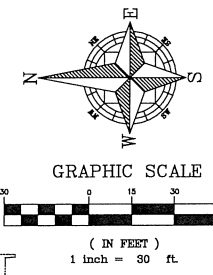
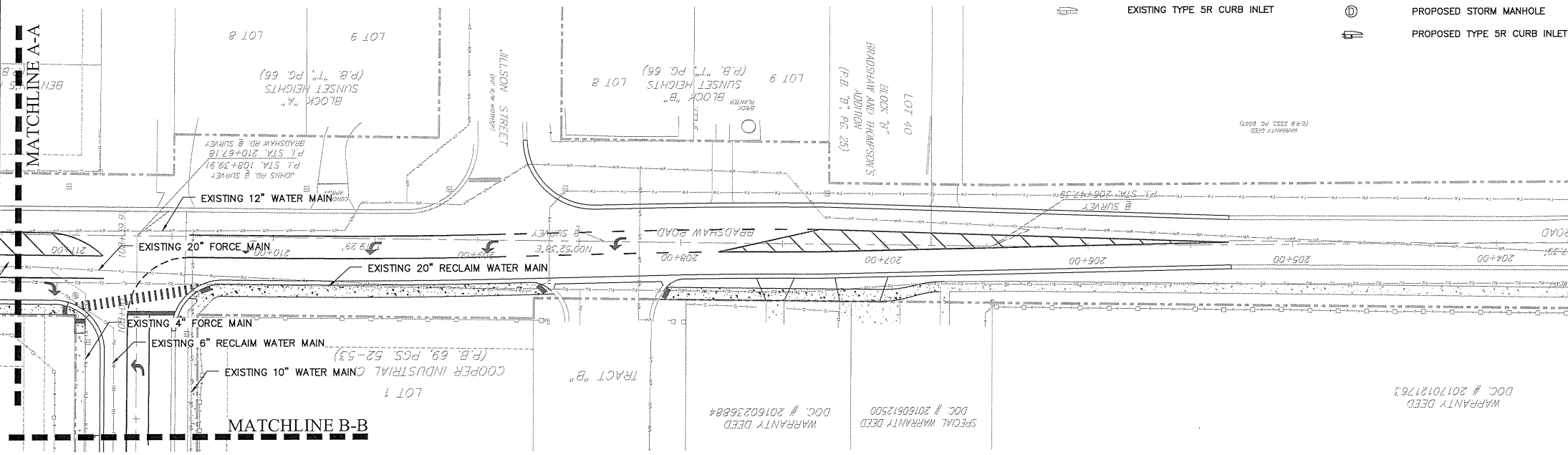
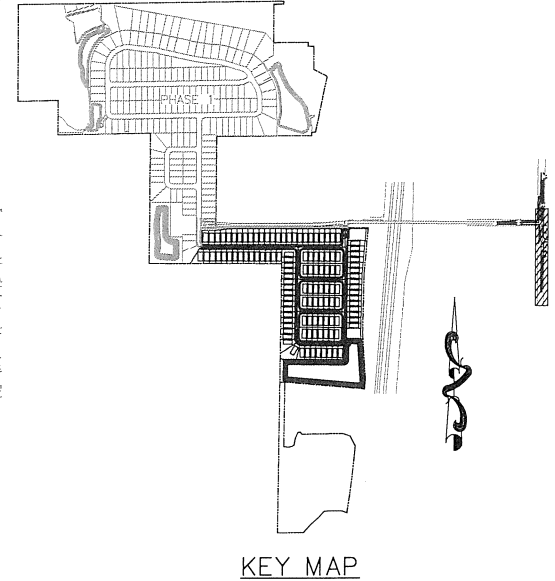
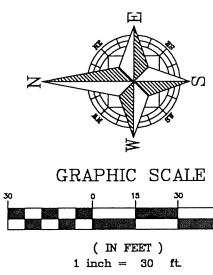
	SCALE <b>1" = 50'</b>	DRAWN: S. SIERRA-GIL	PROJECT ROY-001	SHEET C6.0	DATE 8/2/2018
OVERALL OFFSITE UTILITY & DRAINAGE PLAN FINAL DEVELOPMENT PLAN		CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2221 Lee Road, Suite 17, Warner Dale, Panama City, Florida 32789			
LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA		REV. DATE DESCRIPTION A 07/20/18 CITY OF APOPKA COMMENTS DATED 07/23/18 A 07/20/18 CITY OF APOPKA COMMENTS DATED 07/23/18			

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Offsite Utility and Drainage Plan.dwg Modified: 8/2/2018 By: asterrogil

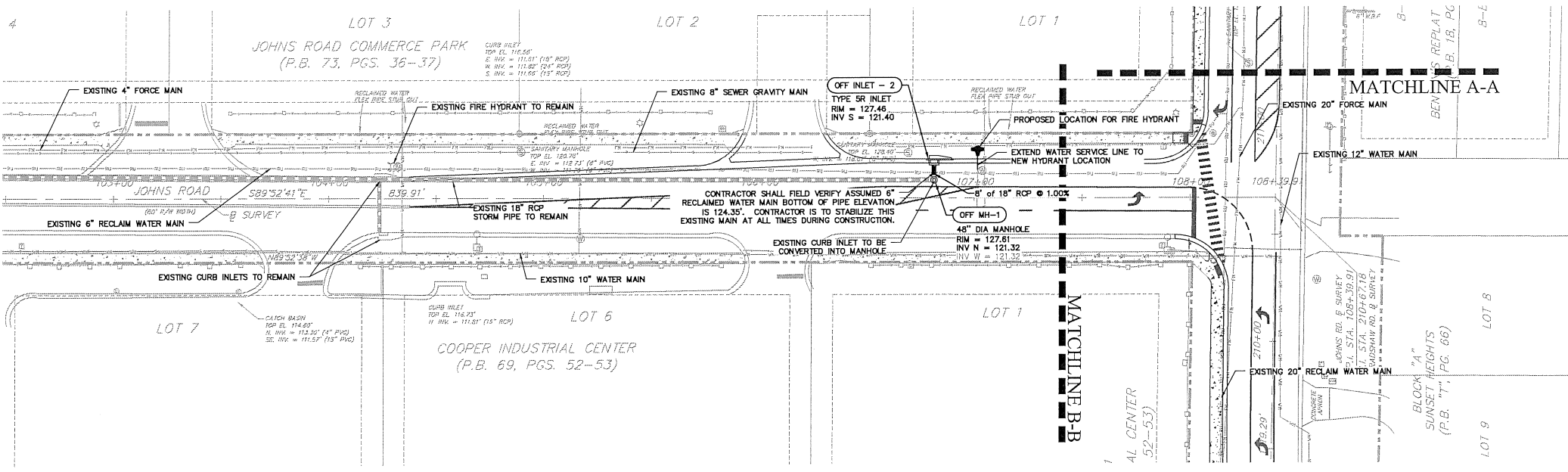
**NOTE:**  
BRADSHAW ROAD RIGHT-OF-WAY IMPROVEMENTS SHOWN FOR REFERENCE PURPOSES ONLY. ALL DEMOLITION AND PROPOSED IMPROVEMENTS WITHIN THE ORANGE COUNTY RIGHT-OF-WAY SHALL BE PERMITTED THROUGH THE COUNTY.

**LEGEND**

- WM — EXISTING WATER MAIN
- RU — EXISTING RECLAIM WATER MAIN
- S — EXISTING GRAVITY SANITARY
- FM — EXISTING FORCE MAIN
- ⊕ EXISTING HYDRANT
- ⊕ EXISTING SANITARY MANHOLE
- ⊕ EXISTING TYPE 5R CURB INLET
- ⊕ EXISTING TYPE 5L CURB INLET
- ⊕ EXISTING STORM MANHOLE
- WM — EXISTING STORM
- RU — PROPOSED WATER MAIN
- RU — PROPOSED RECLAIM WATER MAIN
- ⊕ PROPOSED FIRE HYDRANT
- ⊕ PROPOSED STORM MANHOLE
- ⊕ PROPOSED TYPE 5R CURB INLET

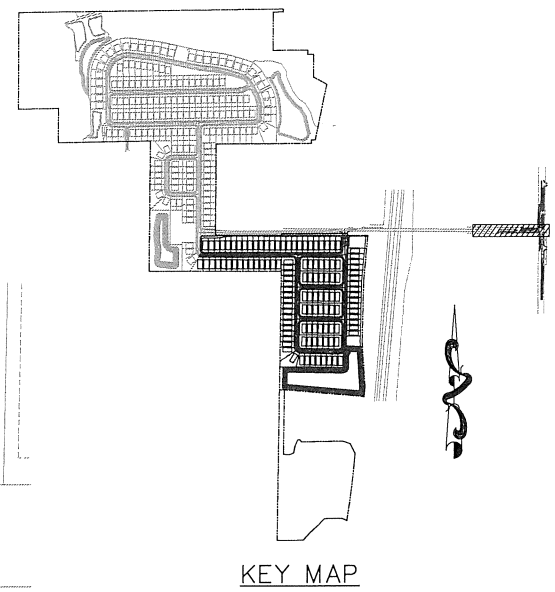
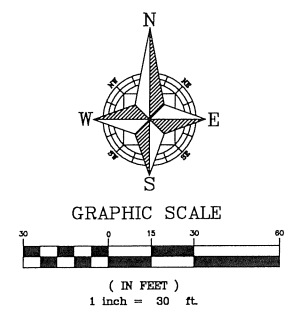


		CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2201 Lee Road, Suite 117, Winter Park, Florida 32789
SCALE: 1" = 30' PROJECT: ROY-001 SHEET: C6.1	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/2/2018	OFFSITE UTILITY & DRAINAGE PLAN - BRADSHAW RD FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA
PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Offsite Utility and Drainage Plan.dwg Modified: 8/2/2018 By: asterrogil		REV: DATE: DESCRIPTION:



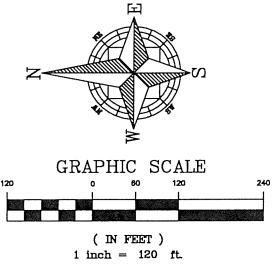
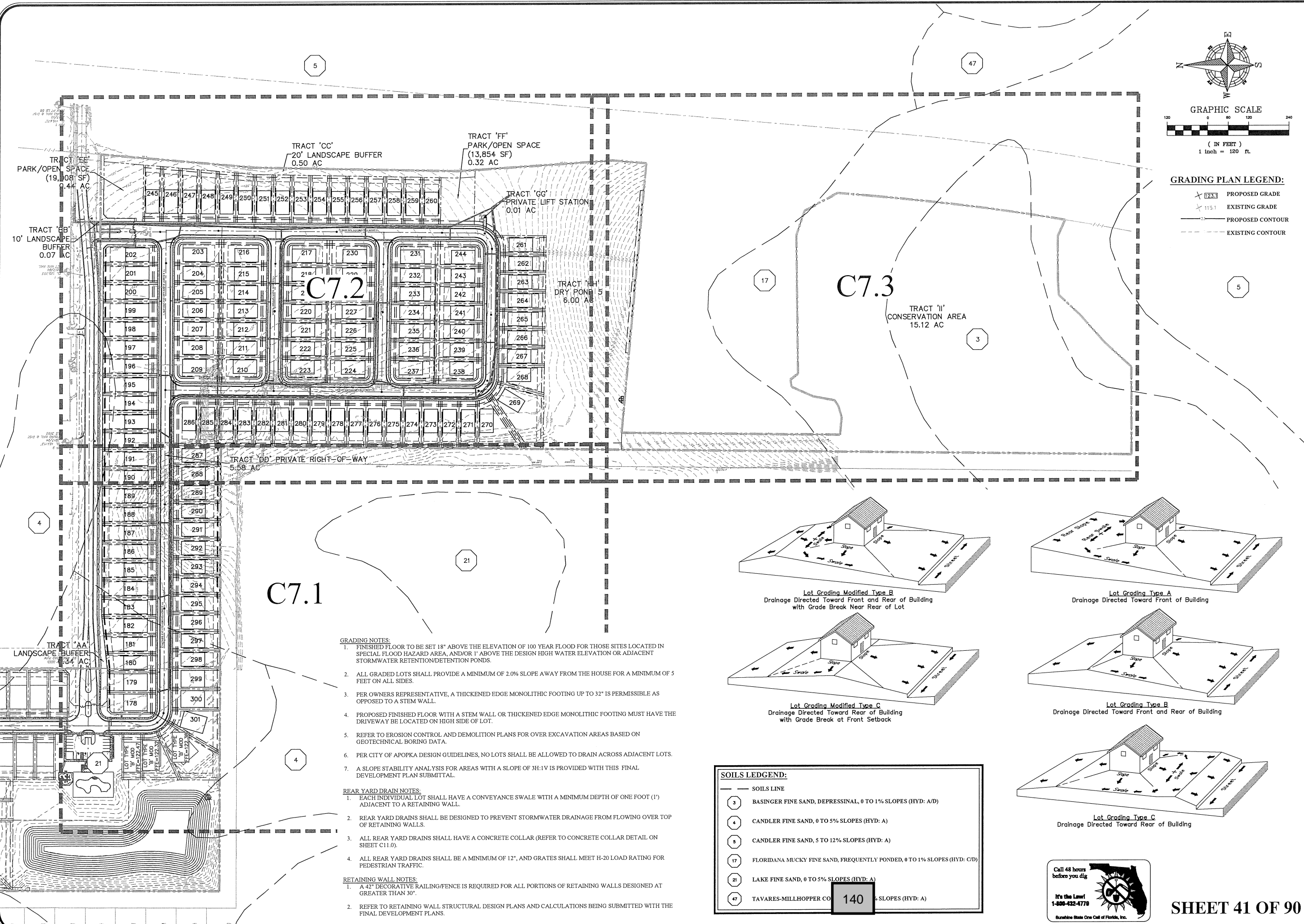
### LEGEND

- WM — EXISTING WATER MAIN
- RU — EXISTING RECLAIM WATER MAIN
- GS — EXISTING GRAVITY SANITARY
- FM — EXISTING FORCE MAIN
- ☼ EXISTING HYDRANT
- ⊕ EXISTING SANITARY MANHOLE
- ⊕ EXISTING TYPE 5R CURB INLET
- ⊕ EXISTING TYPE 5L CURB INLET
- ⊕ EXISTING STORM MANHOLE
- — EXISTING STORM
- WM — PROPOSED WATER MAIN
- RU — PROPOSED RECLAIM WATER MAIN
- ☼ PROPOSED FIRE HYDRANT
- ⊕ PROPOSED STORM MANHOLE
- ⊕ PROPOSED TYPE 5R CURB INLET



<p>SCALE 1" = 30'</p> <p>PROJECT ROY-001</p> <p>SHEET C6.2</p>	<p>DRAWN BY: S. SIERRA-GIL</p> <p>DESIGNED BY: O. SANCHEZ</p> <p>CHECKED BY: L. CLASSON</p> <p>DATE: 8/2/2018</p>	<h3>OFFSITE UTILITY &amp; DRAINAGE PLAN - JOHNS RD FINAL DEVELOPMENT PLAN</h3> <p>LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA</p>	<p>DATE: 07/23/18</p> <p>REV: A</p> <p>DESCRIPTION:</p>
<p>CIVIL ENGINEERING   LAND PLANNING</p> <h3>APIAN ENGINEERING LLC.</h3> <p>APPANFL.COM • 407.960.5868</p> <p>2211 Lake Road, Suite 117, Winter Park, Florida 32789</p>			

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\9.9\civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Paving & Grading.dwg Modified: 7/6/2018 By: salerogil

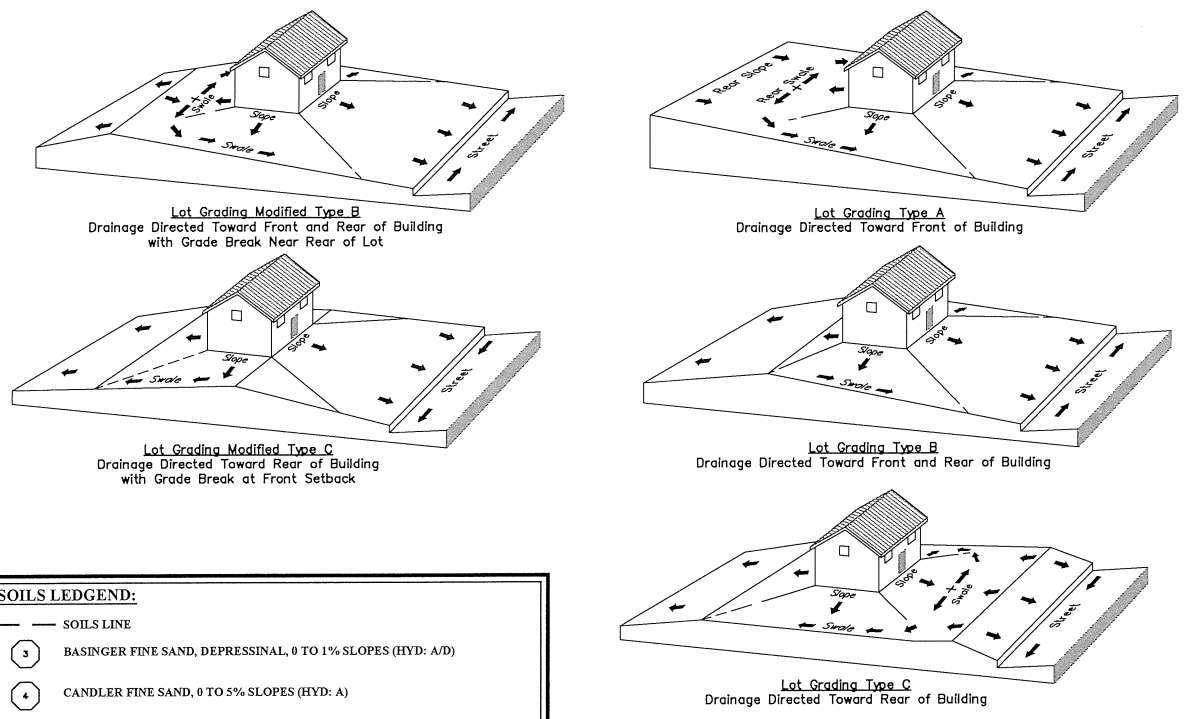


**GRADING PLAN LEGEND:**  
 x 0.2.1 PROPOSED GRADE  
 x 115.1 EXISTING GRADE  
 - - - PROPOSED CONTOUR  
 - - - EXISTING CONTOUR

C7.1

C7.3

- GRADING NOTES:**
1. FINISHED FLOOR TO BE SET 18" ABOVE THE ELEVATION OF 100 YEAR FLOOD FOR THOSE SITES LOCATED IN SPECIAL FLOOD HAZARD AREA, AND/OR 1' ABOVE THE DESIGN HIGH WATER ELEVATION OR ADJACENT STORMWATER RETENTION/DETENTION PONDS.
  2. ALL GRADED LOTS SHALL PROVIDE A MINIMUM OF 2.0% SLOPE AWAY FROM THE HOUSE FOR A MINIMUM OF 5 FEET ON ALL SIDES.
  3. PER OWNERS REPRESENTATIVE, A THICKENED EDGE MONOLITHIC FOOTING UP TO 32" IS PERMISSIBLE AS OPPOSED TO A STEM WALL.
  4. PROPOSED FINISHED FLOOR WITH A STEM WALL OR THICKENED EDGE MONOLITHIC FOOTING MUST HAVE THE DRIVEWAY BE LOCATED ON HIGH SIDE OF LOT.
  5. REFER TO EROSION CONTROL AND DEMOLITION PLANS FOR OVER EXCAVATION AREAS BASED ON GEOTECHNICAL BORING DATA.
  6. PER CITY OF APOPKA DESIGN GUIDELINES, NO LOTS SHALL BE ALLOWED TO DRAIN ACROSS ADJACENT LOTS.
  7. A SLOPE STABILITY ANALYSIS FOR AREAS WITH A SLOPE OF 3H:1V IS PROVIDED WITH THIS FINAL DEVELOPMENT PLAN SUBMITTAL.
- REAR YARD DRAIN NOTES:**
1. EACH INDIVIDUAL LOT SHALL HAVE A CONVEYANCE SWALE WITH A MINIMUM DEPTH OF ONE FOOT (1') ADJACENT TO A RETAINING WALL.
  2. REAR YARD DRAINS SHALL BE DESIGNED TO PREVENT STORMWATER DRAINAGE FROM FLOWING OVER TOP OF RETAINING WALLS.
  3. ALL REAR YARD DRAINS SHALL HAVE A CONCRETE COLLAR (REFER TO CONCRETE COLLAR DETAIL ON SHEET C11.0).
  4. ALL REAR YARD DRAINS SHALL BE A MINIMUM OF 12", AND GRATES SHALL MEET H-20 LOAD RATING FOR PEDESTRIAN TRAFFIC.
- RETAINING WALL NOTES:**
1. A 42" DECORATIVE RAILING/FENCE IS REQUIRED FOR ALL PORTIONS OF RETAINING WALLS DESIGNED AT GREATER THAN 30".
  2. REFER TO RETAINING WALL STRUCTURAL DESIGN PLANS AND CALCULATIONS BEING SUBMITTED WITH THE FINAL DEVELOPMENT PLANS.



**SOILS LEDGEND:**

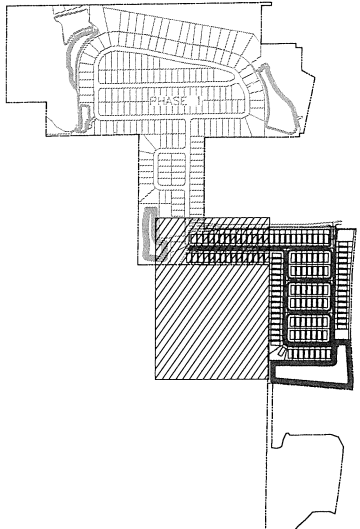
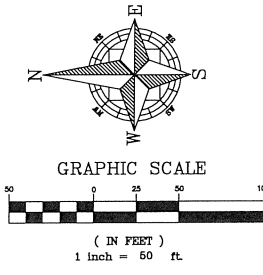
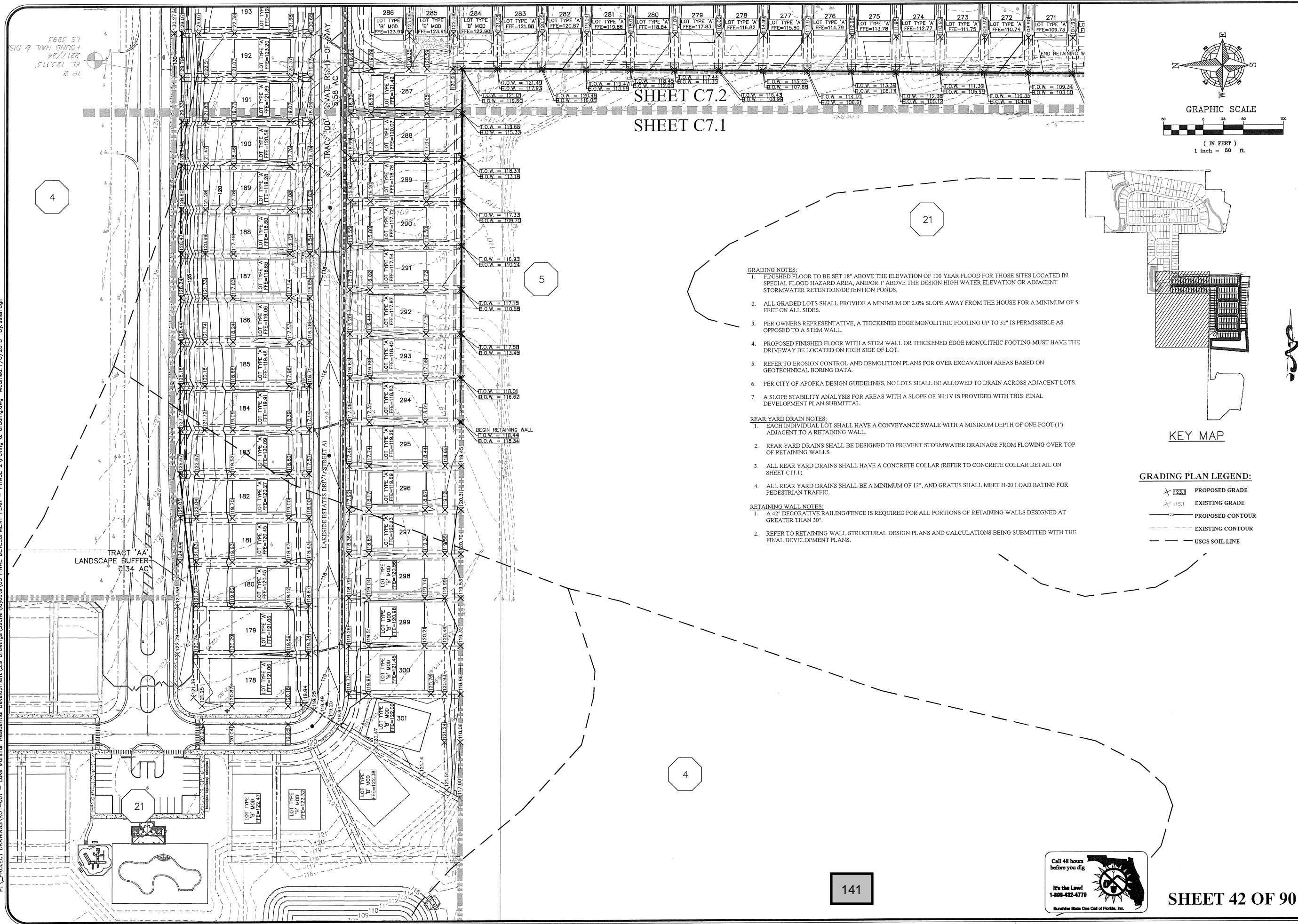
SOILS LINE	DESCRIPTION
3	BASINGER FINE SAND, DEPRESSINAL, 0 TO 1% SLOPES (HYD: A/D)
4	CANDLER FINE SAND, 0 TO 5% SLOPES (HYD: A)
5	CANDLER FINE SAND, 5 TO 12% SLOPES (HYD: A)
17	FLORIDANA MUCKY FINE SAND, FREQUENTLY PONDED, 0 TO 1% SLOPES (HYD: CD)
21	LAKE FINE SAND, 0 TO 5% SLOPES (HYD: A)
47	TAVARES-MILLHOPPER CO 140 SLOPES (HYD: A)



**SHEET 41 OF 90**

CIVIL ENGINEERING   LAND PLANNING	
APPIAN ENGINEERING LLC.	
APPIANFL.COM • 407.960.8868	
2211 Lee Road, Suite 17, Wynona Park, Florida, 32789	
DATE	07/25/18
REV	1
OVERALL PAVING & GRADING FINAL DEVELOPMENT PLAN	
LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	
DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ
CHECKED: L. CLASSON	DATE: 8/2/2018
SCALE: 1" = 120'	PROJECT: ROY-001
SHEET: C7.0	
8/2/18	

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5a\civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2 Paving & Grading.dwg Modified: 7/6/2018 By:stierrogil



KEY MAP

- GRADING PLAN LEGEND:**
- PROPOSED GRADE
  - EXISTING GRADE
  - PROPOSED CONTOUR
  - EXISTING CONTOUR
  - USGS SOIL LINE

- GRADING NOTES:**
- FINISHED FLOOR TO BE SET 18" ABOVE THE ELEVATION OF 100 YEAR FLOOD FOR THOSE SITES LOCATED IN SPECIAL FLOOD HAZARD AREA, AND/OR 1' ABOVE THE DESIGN HIGH WATER ELEVATION OR ADJACENT STORMWATER RETENTION/DETENTION PONDS.
  - ALL GRADED LOTS SHALL PROVIDE A MINIMUM OF 2.0% SLOPE AWAY FROM THE HOUSE FOR A MINIMUM OF 5 FEET ON ALL SIDES.
  - PER OWNERS REPRESENTATIVE, A THICKENED EDGE MONOLITHIC FOOTING UP TO 32" IS PERMISSIBLE AS OPPOSED TO A STEM WALL.
  - PROPOSED FINISHED FLOOR WITH A STEM WALL OR THICKENED EDGE MONOLITHIC FOOTING MUST HAVE THE DRIVEWAY BE LOCATED ON HIGH SIDE OF LOT.
  - REFER TO EROSION CONTROL AND DEMOLITION PLANS FOR OVER EXCAVATION AREAS BASED ON GEOTECHNICAL BORING DATA.
  - PER CITY OF APOPKA DESIGN GUIDELINES, NO LOTS SHALL BE ALLOWED TO DRAIN ACROSS ADJACENT LOTS.
  - A SLOPE STABILITY ANALYSIS FOR AREAS WITH A SLOPE OF 3H:1V IS PROVIDED WITH THIS FINAL DEVELOPMENT PLAN SUBMITTAL.

- REAR YARD DRAIN NOTES:**
- EACH INDIVIDUAL LOT SHALL HAVE A CONVEYANCE SWALE WITH A MINIMUM DEPTH OF ONE FOOT (1') ADJACENT TO A RETAINING WALL.
  - REAR YARD DRAINS SHALL BE DESIGNED TO PREVENT STORMWATER DRAINAGE FROM FLOWING OVER TOP OF RETAINING WALLS.
  - ALL REAR YARD DRAINS SHALL HAVE A CONCRETE COLLAR (REFER TO CONCRETE COLLAR DETAIL ON SHEET C11.1).
  - ALL REAR YARD DRAINS SHALL BE A MINIMUM OF 12", AND GRATES SHALL MEET H-20 LOAD RATING FOR PEDESTRIAN TRAFFIC.
- RETAINING WALL NOTES:**
- A 42" DECORATIVE RAILING/FENCE IS REQUIRED FOR ALL PORTIONS OF RETAINING WALLS DESIGNED AT GREATER THAN 30'.
  - REFER TO RETAINING WALL STRUCTURAL DESIGN PLANS AND CALCULATIONS BEING SUBMITTED WITH THE FINAL DEVELOPMENT PLANS.

SHEET C7.2  
SHEET C7.1

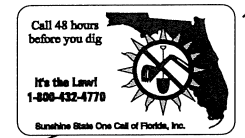
4

5

21

4

141



SHEET 42 OF 90

		CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANENGINEERING.COM • 407.960.5868 2221 Lee Road, Suite 17, Warner Dale, Florida 32789		DATE: 8/2/2018 SHEET: C7.1 PROJECT: ROY-001 SCALE: 1" = 50' DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON	DESCRIPTION: PAVING & GRADING - WEST FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA
REV	DATE	DESCRIPTION			
1	8/2/2018	CITY OF APOPKA COMMENTS DATED 07/23/18			

- REAR YARD DRAIN NOTES:**
1. EACH INDIVIDUAL LOT SHALL HAVE A CONVEYANCE SWALE WITH A MINIMUM DEPTH OF ONE FOOT (1') ADJACENT TO A RETAINING WALL.
  2. REAR YARD DRAINS SHALL BE DESIGNED TO PREVENT STORMWATER DRAINAGE FROM FLOWING OVER TOP OF RETAINING WALLS.
  3. ALL REAR YARD DRAINS SHALL HAVE A CONCRETE COLLAR (REFER TO CONCRETE COLLAR DETAIL ON SHEET C11.1).
  4. ALL REAR YARD DRAINS SHALL BE A MINIMUM OF 12", AND GRATES SHALL MEET H-20 LOAD RATING FOR PEDESTRIAN TRAFFIC.

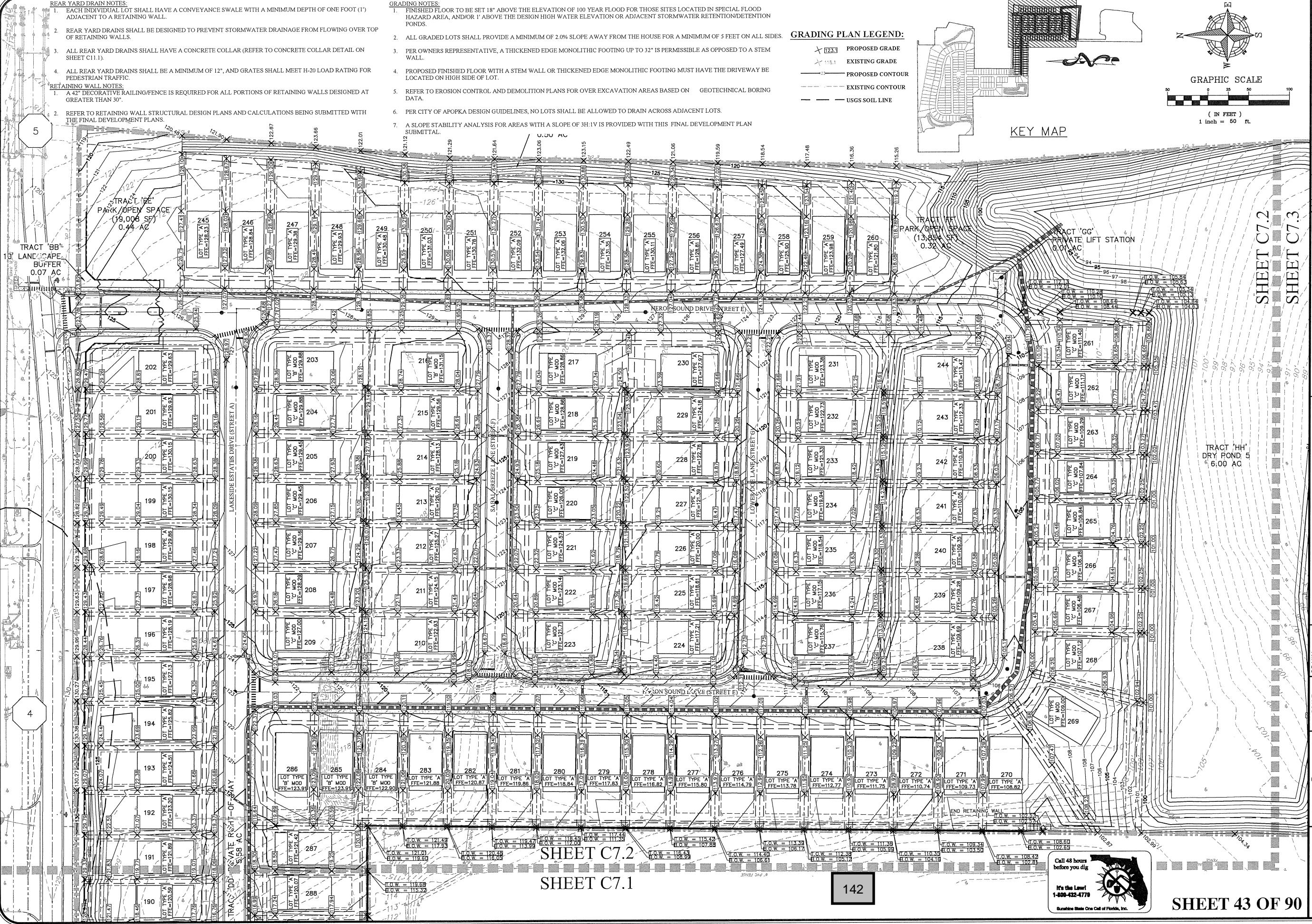
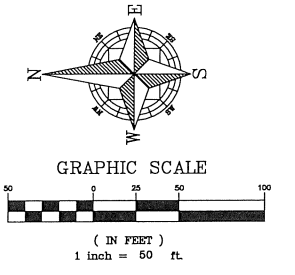
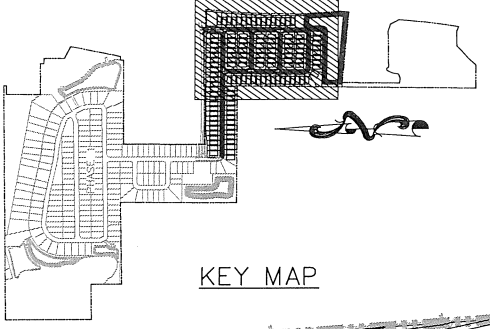
- RETAINING WALL NOTES:**
1. A 42" DECORATIVE RAILING/FENCE IS REQUIRED FOR ALL PORTIONS OF RETAINING WALLS DESIGNED AT GREATER THAN 30°.
  2. REFER TO RETAINING WALL STRUCTURAL DESIGN PLANS AND CALCULATIONS BEING SUBMITTED WITH THE FINAL DEVELOPMENT PLANS.

**GRADING NOTES:**

1. FINISHED FLOOR TO BE SET 18" ABOVE THE ELEVATION OF 100 YEAR FLOOD FOR THOSE SITES LOCATED IN SPECIAL FLOOD HAZARD AREA, AND/OR 1' ABOVE THE DESIGN HIGH WATER ELEVATION OR ADJACENT STORMWATER RETENTION/DETENTION PONDS.
2. ALL GRADED LOTS SHALL PROVIDE A MINIMUM OF 2.0% SLOPE AWAY FROM THE HOUSE FOR A MINIMUM OF 5 FEET ON ALL SIDES.
3. PER OWNERS REPRESENTATIVE, A THICKENED EDGE MONOLITHIC FOOTING UP TO 32" IS PERMISSIBLE AS OPPOSED TO A STEM WALL.
4. PROPOSED FINISHED FLOOR WITH A STEM WALL OR THICKENED EDGE MONOLITHIC FOOTING MUST HAVE THE DRIVEWAY BE LOCATED ON HIGH SIDE OF LOT.
5. REFER TO EROSION CONTROL AND DEMOLITION PLANS FOR OVER EXCAVATION AREAS BASED ON GEOTECHNICAL BORING DATA.
6. PER CITY OF APOPKA DESIGN GUIDELINES, NO LOTS SHALL BE ALLOWED TO DRAIN ACROSS ADJACENT LOTS.
7. A SLOPE STABILITY ANALYSIS FOR AREAS WITH A SLOPE OF 3H:1V IS PROVIDED WITH THIS FINAL DEVELOPMENT PLAN SUBMITTAL.

**GRADING PLAN LEGEND:**

- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- USGS SOIL LINE

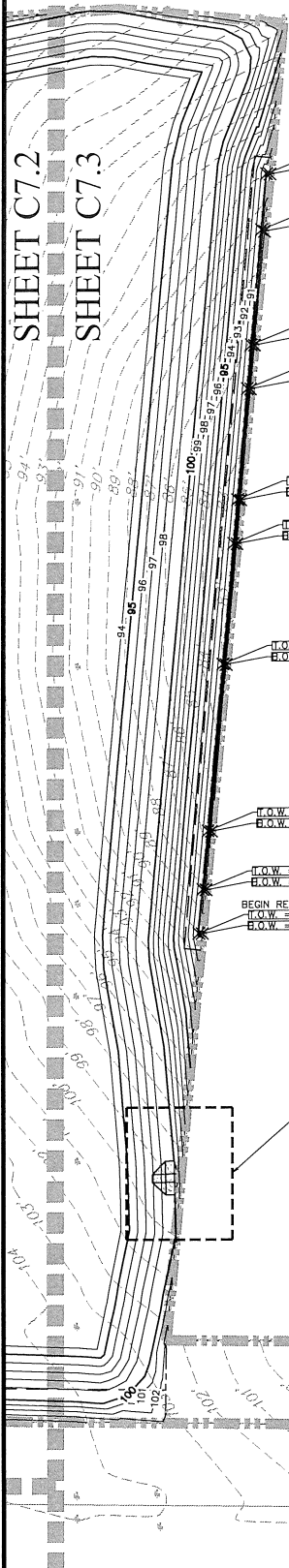


SHEET C7.2  
SHEET C7.3

TRACT 'HH'  
DRY POND 5  
6.00 AC

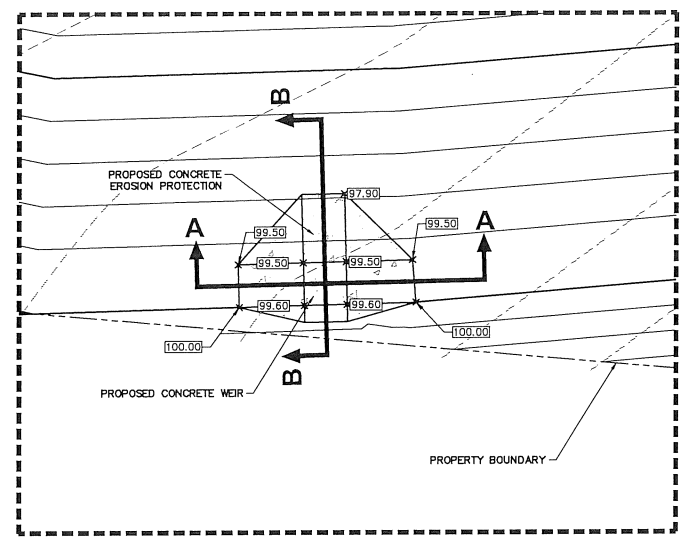
CIVIL ENGINEERING   LAND PLANNING	APPLAN ENGINEERING LLC.	APPLAN.COM - 407.960.9868	2221 Lee Road, Suite 17, Warner Park, Panama, 32789
PAVING & GRADING - NORTH	FINAL DEVELOPMENT PLAN	LAKESIDE - PHASE 2	(FKA LAKE MARSHALL SUBDIVISION)
CITY OF APOPKA, FLORIDA			
SCALE: 1" = 50'	PROJECT: ROY-001	SHEET: C7.2	DATE: 8/2/2018
DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ	CHECKED: L. CLASSON	DATE: 8/2/2018
<b>APPLAN ENGINEERING</b>			
It's the Level! 1-888-432-4770 Sunshine State One Call of Florida, Inc.			
SHEET 43 OF 90			

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\ paving & Grading.dwg Modified: 7/6/2018 By: salerogji

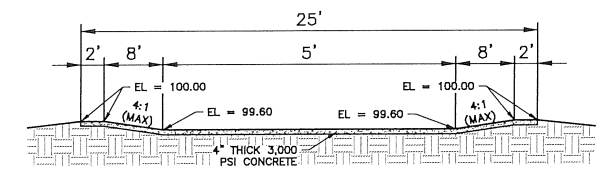


- END RETAINING WALL  
T.O.W. = 89.93  
B.O.W. = 89.93
- T.O.W. = 89.93  
B.O.W. = 89.02
- T.O.W. = 89.93  
B.O.W. = 84.69
- T.O.W. = 90.00  
B.O.W. = 84.00
- T.O.W. = 90.00  
B.O.W. = 82.21
- T.O.W. = 90.00  
B.O.W. = 82.77
- T.O.W. = 90.00  
B.O.W. = 85.51
- T.O.W. = 89.99  
B.O.W. = 88.00
- BEGIN RETAINING WALL  
T.O.W. = 89.99  
B.O.W. = 89.99

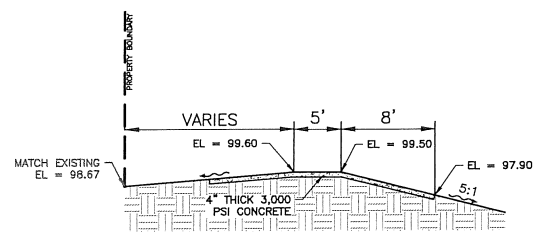
PLEASE REFER TO PROPOSED CONCRETE WEIR DETAIL ON THIS SHEET



CONCRETE WEIR DETAIL  
1"=10'

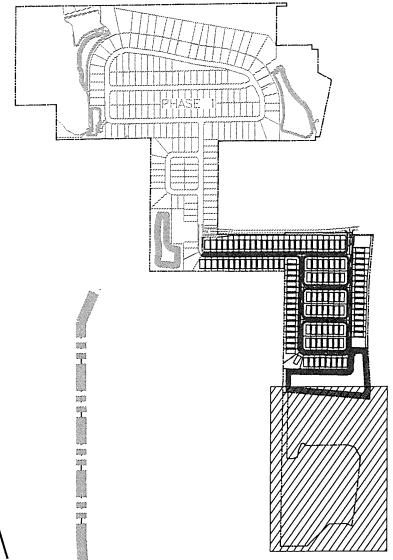
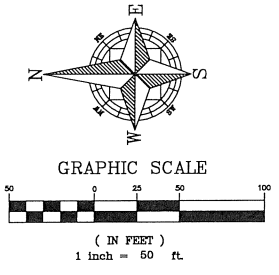


WEIR SECTION A-A  
N.T.S.



WEIR SECTION B-B  
N.T.S.

- GRADING PLAN LEGEND:
- PROPOSED GRADE
  - EXISTING GRADE
  - PROPOSED CONTOUR
  - EXISTING CONTOUR
  - USGS SOIL LINE



KEY MAP

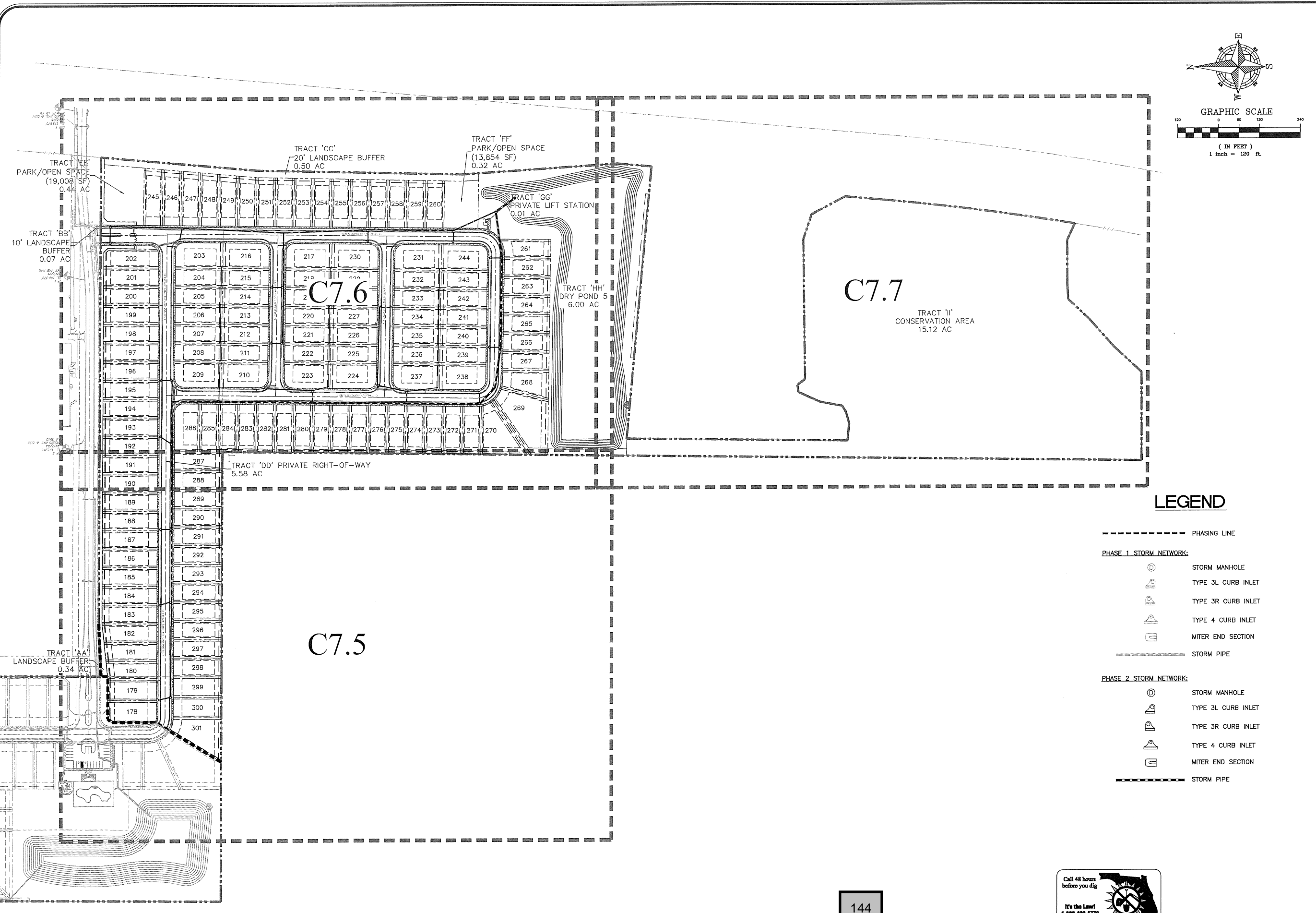
TRACT 'II'  
CONSERVATION AREA  
15.12 AC



It's the Law!  
1-800-432-4770  
Sunshine State One Call of Florida, Inc.

CIVIL ENGINEERING   LAND PLANNING		APPIAN ENGINEERING LLC.		APPIAN.COM • 407.960.8688		2211 Lee Road, Suite 17, Winter Park, Florida 32789		DATE	DESCRIPTION	BY
DRAWN: S. SIERRA-GIL		DESIGNED: O. SANCHEZ		CHECKED: L. CLASSON		DATE: 8/2/2018		REV		
SCALE: 1" = 50'		PROJECT: ROY-001		SHEET: C7.3						
PAVING & GRADING - SOUTH		FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)				
CITY OF APOPKA		CITY OF APOPKA		CITY OF APOPKA		CITY OF APOPKA				
8/2/18		SHEET 44 OF 90								

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\Drawings\99civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Drainage Plan.dwg Modified: 7/9/2018 By: asierrogil



**LEGEND**

- PHASING LINE
- PHASE 1 STORM NETWORK:**
  - ⊙ STORM MANHOLE
  - ⌒ TYPE 3L CURB INLET
  - ⌒ TYPE 3R CURB INLET
  - ⌒ TYPE 4 CURB INLET
  - ⌒ MITER END SECTION
  - ===== STORM PIPE
- PHASE 2 STORM NETWORK:**
  - ⊙ STORM MANHOLE
  - ⌒ TYPE 3L CURB INLET
  - ⌒ TYPE 3R CURB INLET
  - ⌒ TYPE 4 CURB INLET
  - ⌒ MITER END SECTION
  - STORM PIPE

144



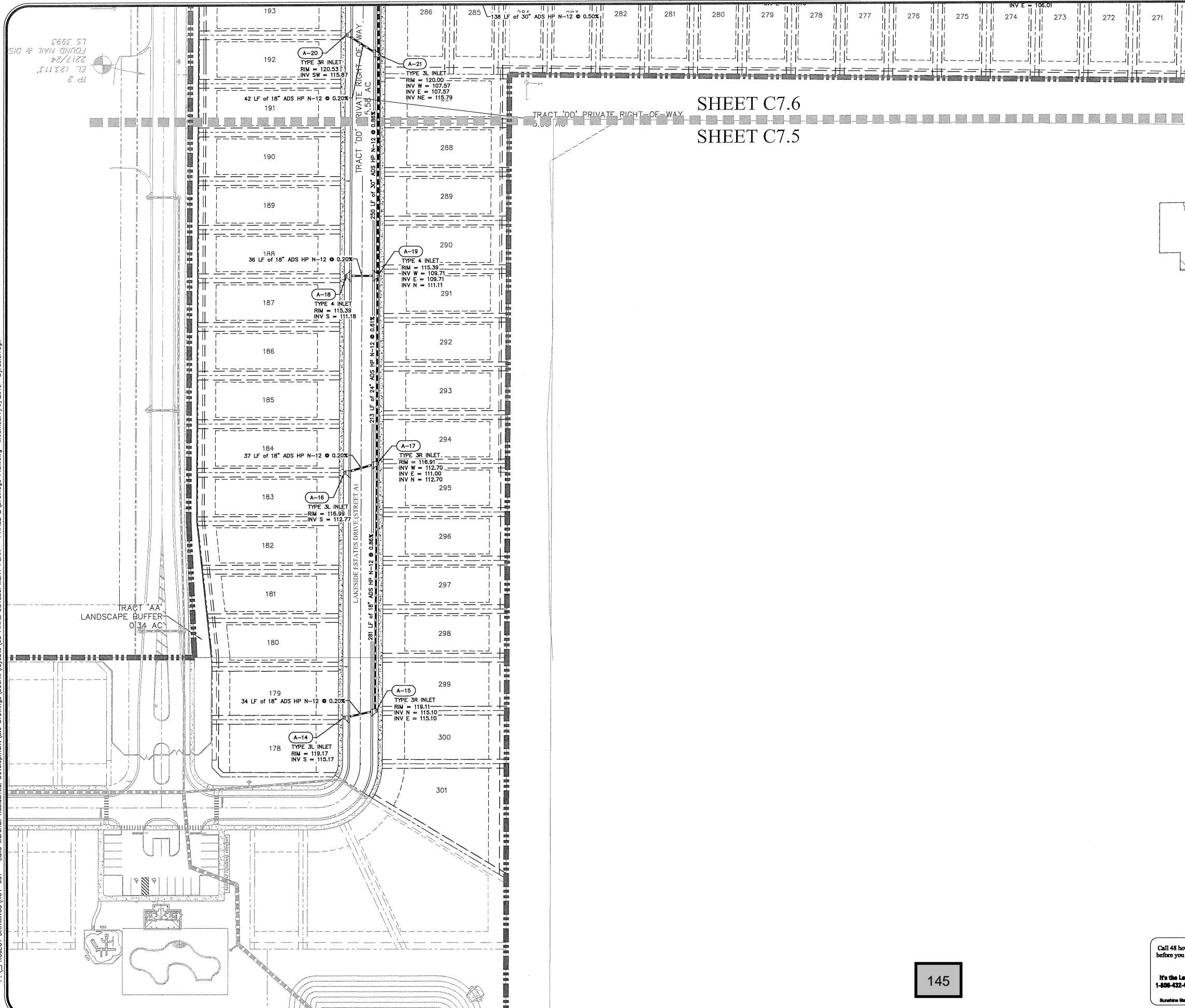
**SHEET 45 OF 90**

CIVIL ENGINEERING   LAND PLANNING		APPIAN ENGINEERING LLC.		APPIANFL.COM • 407.960.8688		2211 Lee Road, Suite 11, Winter Park, Florida 32789		STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS		REV		DATE		DESCRIPTION	
OVERALL DRAINAGE PLAN		FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)		CITY OF APOPKA, FLORIDA		BY		DATE		DESCRIPTION	
SCALE	1" = 120'	DRAWN	S. SIERRA-GIL	DESIGNED	O. SANCHEZ	CHECKED	L. GLASSON	DATE	8/2/2018	SHEET	C7.4				
PROJECT		ROY-001		PROJECT		ROY-001		PROJECT		PROJECT					
PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\Drawings\99civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Drainage Plan.dwg		Modified: 7/9/2018		By: asierrogil											

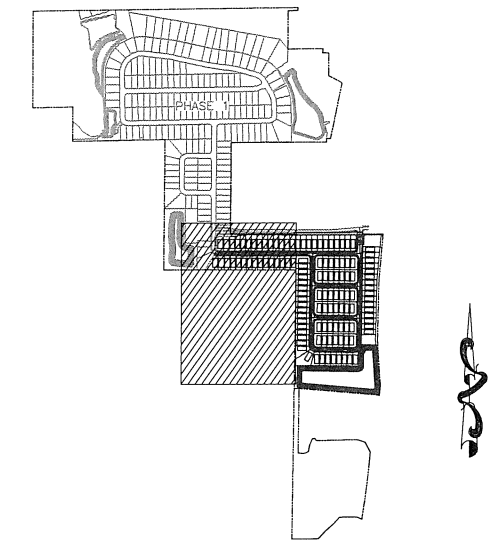
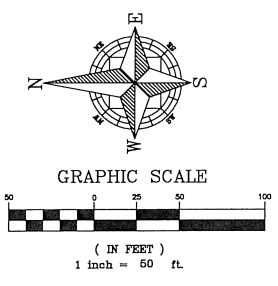
8/2/18



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Drainage Plan.dwg Modified: 7/9/2018 By: asterrogil



SHEET C7.6  
SHEET C7.5

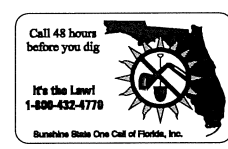


KEY MAP

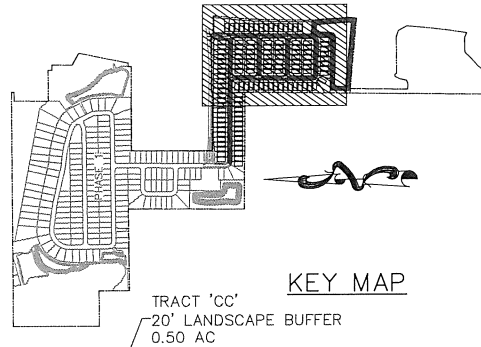
LEGEND

- PHASE 1 STORM NETWORK:
- STORM MANHOLE
  - TYPE 3L CURB INLET
  - TYPE 3R CURB INLET
  - TYPE 4 CURB INLET
  - MITER END SECTION
  - PROPOSED STORM
- PHASE 2 STORM NETWORK:
- STORM MANHOLE
  - TYPE 3L CURB INLET
  - TYPE 3R CURB INLET
  - TYPE 4 CURB INLET
  - MITER END SECTION
  - PROPOSED STORM

CIVIL ENGINEERING & LAND PLANNING		APPIAN ENGINEERING LLC.	
DRAWN: S. SIERRA-GIL		DESIGNED: O. SANCHEZ	
PROJECT: ROY-001		CHECKED: L. CLASSON	
SCALE: 1" = 50'		DATE: 8/2/2018	
SHEET: C7.5		PROJECT: LAKESIDE - PHASE 2	
PROJECT: LAKESIDE - PHASE 2		SUBDIVISION: (FKA LAKE MARSHALL SUBDIVISION)	
PROJECT: LAKESIDE - PHASE 2		CITY: CITY OF APOPKA, FLORIDA	
DATE	DESCRIPTION	BY	
7/25/19	APPROXIMATE COMMENTS DATED 07/25/19		

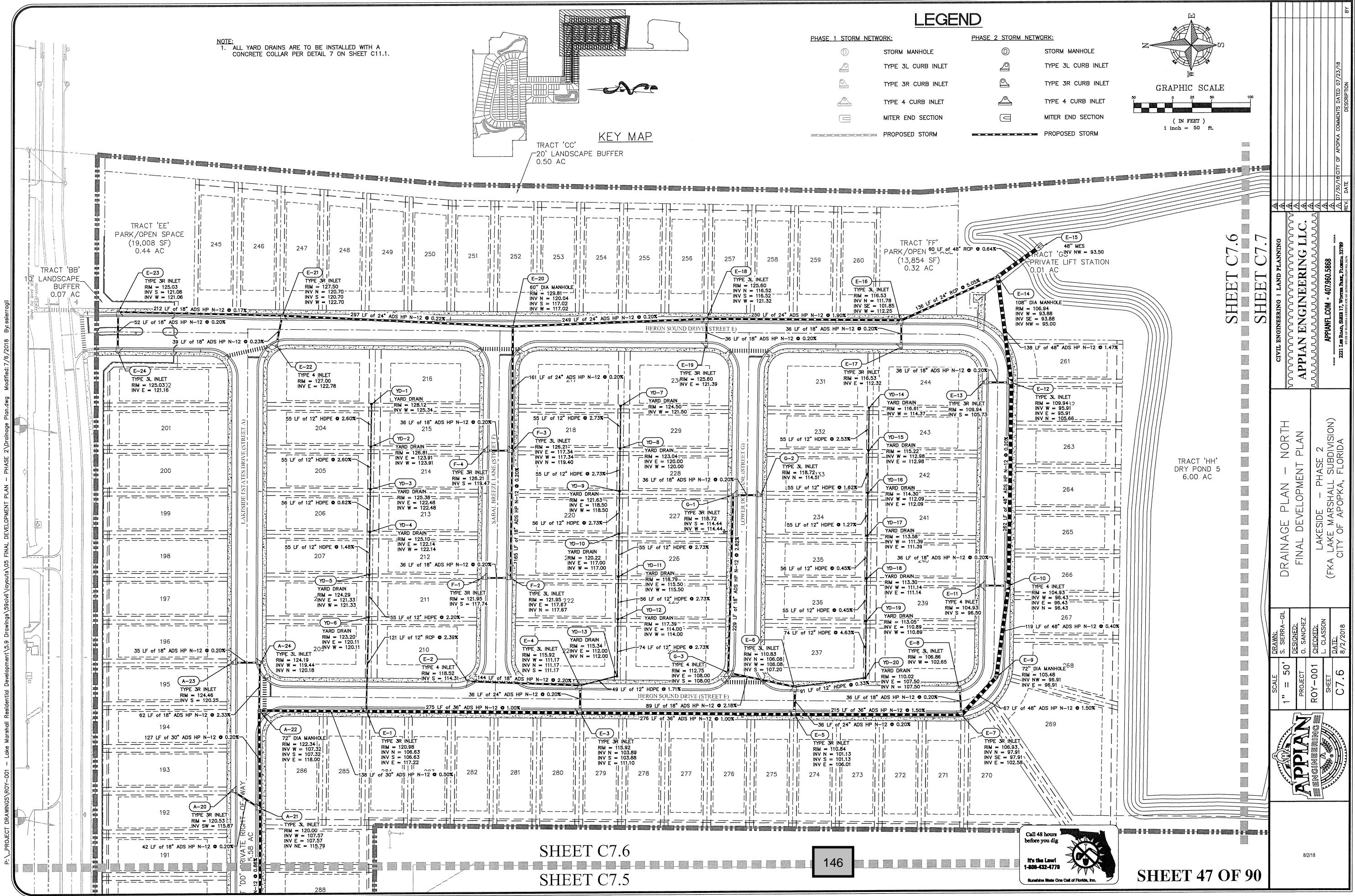
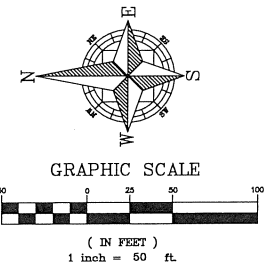


NOTE:  
1. ALL YARD DRAINS ARE TO BE INSTALLED WITH A CONCRETE COLLAR PER DETAIL 7 ON SHEET C11.1.



**LEGEND**

- |  |   |  |   |
|--|---|--|---|
|  | PHASE 1 STORM NETWORK:<br>STORM MANHOLE |  | PHASE 2 STORM NETWORK:<br>STORM MANHOLE |
|  | TYPE 3L CURB INLET                      |  | TYPE 3L CURB INLET                      |
|  | TYPE 3R CURB INLET                      |  | TYPE 3R CURB INLET                      |
|  | TYPE 4 CURB INLET                       |  | TYPE 4 CURB INLET                       |
|  | MITER END SECTION                       |  | MITER END SECTION                       |
|  | PROPOSED STORM                          |  | PROPOSED STORM                          |



SHEET C7.6  
SHEET C7.7

CIVIL ENGINEERING   LAND PLANNING	
APPIAN ENGINEERING LLC.	
APPANFL.COM • 407.960.5868	
2211 Lee Road, Suite 17, Winter Park, Florida 32789	
DATE	DESCRIPTION
8/2/2018	
DRAINAGE PLAN - NORTH	
FINAL DEVELOPMENT PLAN	
LAKESIDE - PHASE 2	
(FKA LAKE MARSHALL SUBDIVISION)	
CITY OF APOPKA, FLORIDA	
DRAWN: S. SIERRA-GIL	SCALE: 1" = 50'
DESIGNED: O. SANCHEZ	PROJECT: ROY-001
CHECKED: L. CLASSON	SHEET: C7.6
DATE: 8/2/2018	
<p>Call 48 hours before you dig It's the Law! 1-800-432-4770 Sunshine State One Call of Florida, Inc.</p>	
8/2/18	

SHEET C7.6  
SHEET C7.5

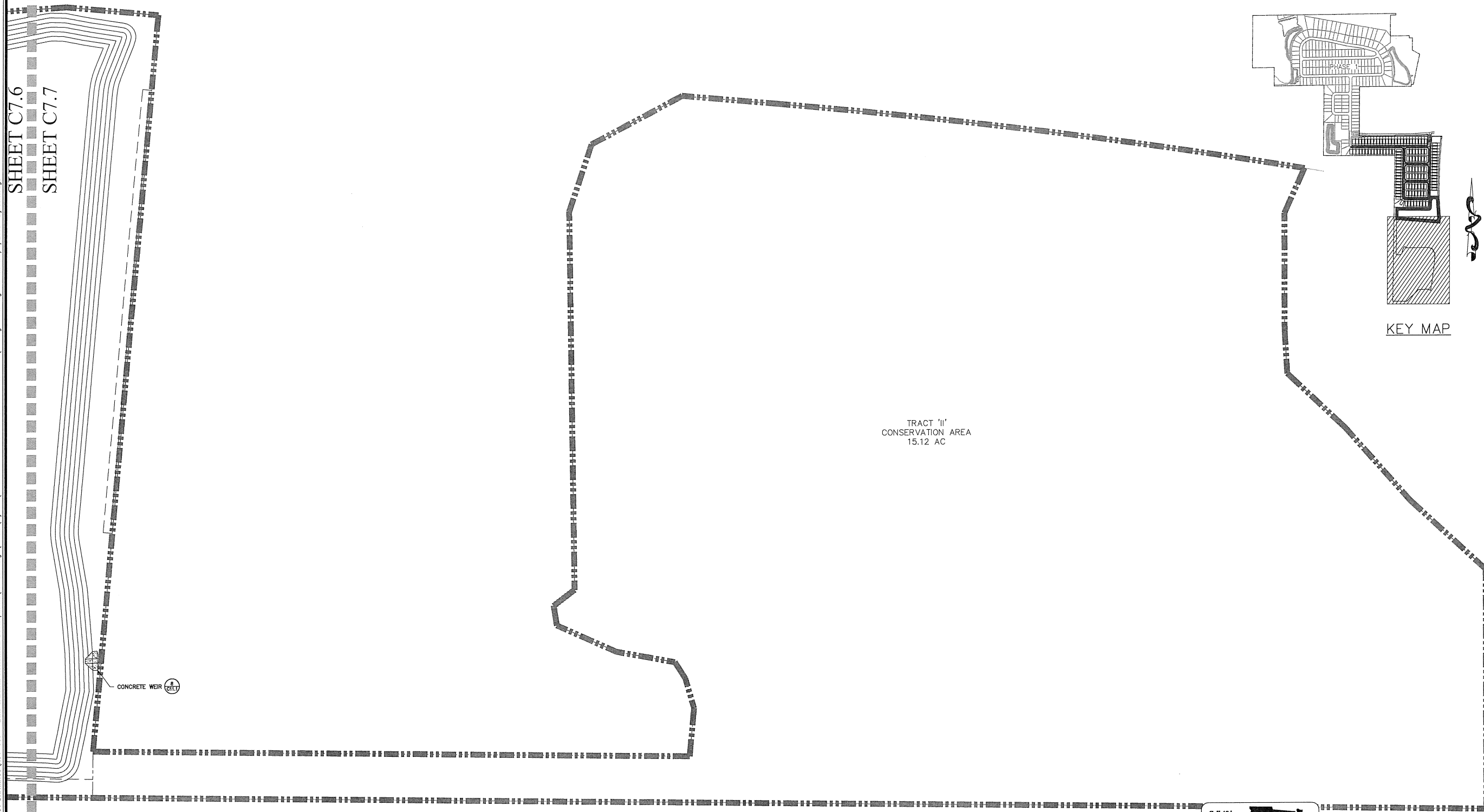
146

SHEET 47 OF 90

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\9.9 Drawings\9.9 Final Development Plan - PHASE 2 Drainage Plan.dwg Modified: 7/9/2018 By: asierrogil

SHEET C7.6

SHEET C7.7



### LEGEND

PHASE 1 STORM NETWORK:

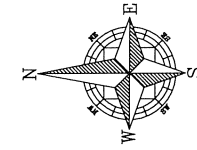
- STORM MANHOLE
- TYPE 3L CURB INLET
- TYPE 3R CURB INLET
- TYPE 4 CURB INLET
- MITER END SECTION

PROPOSED STORM

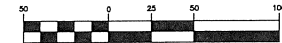
PHASE 2 STORM NETWORK:

- STORM MANHOLE
- TYPE 3L CURB INLET
- TYPE 3R CURB INLET
- TYPE 4 CURB INLET
- MITER END SECTION

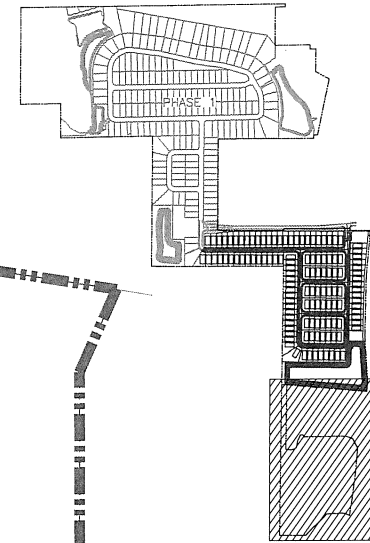
PROPOSED STORM



GRAPHIC SCALE



( IN FEET )  
1 inch = 60 ft.



KEY MAP

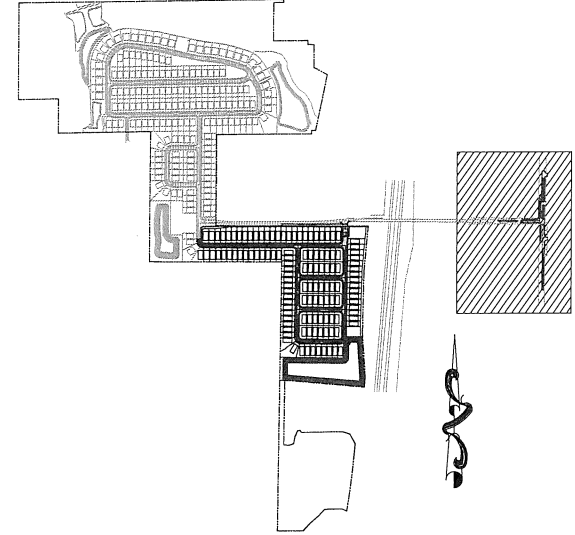
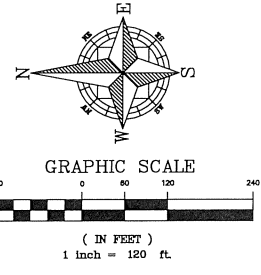
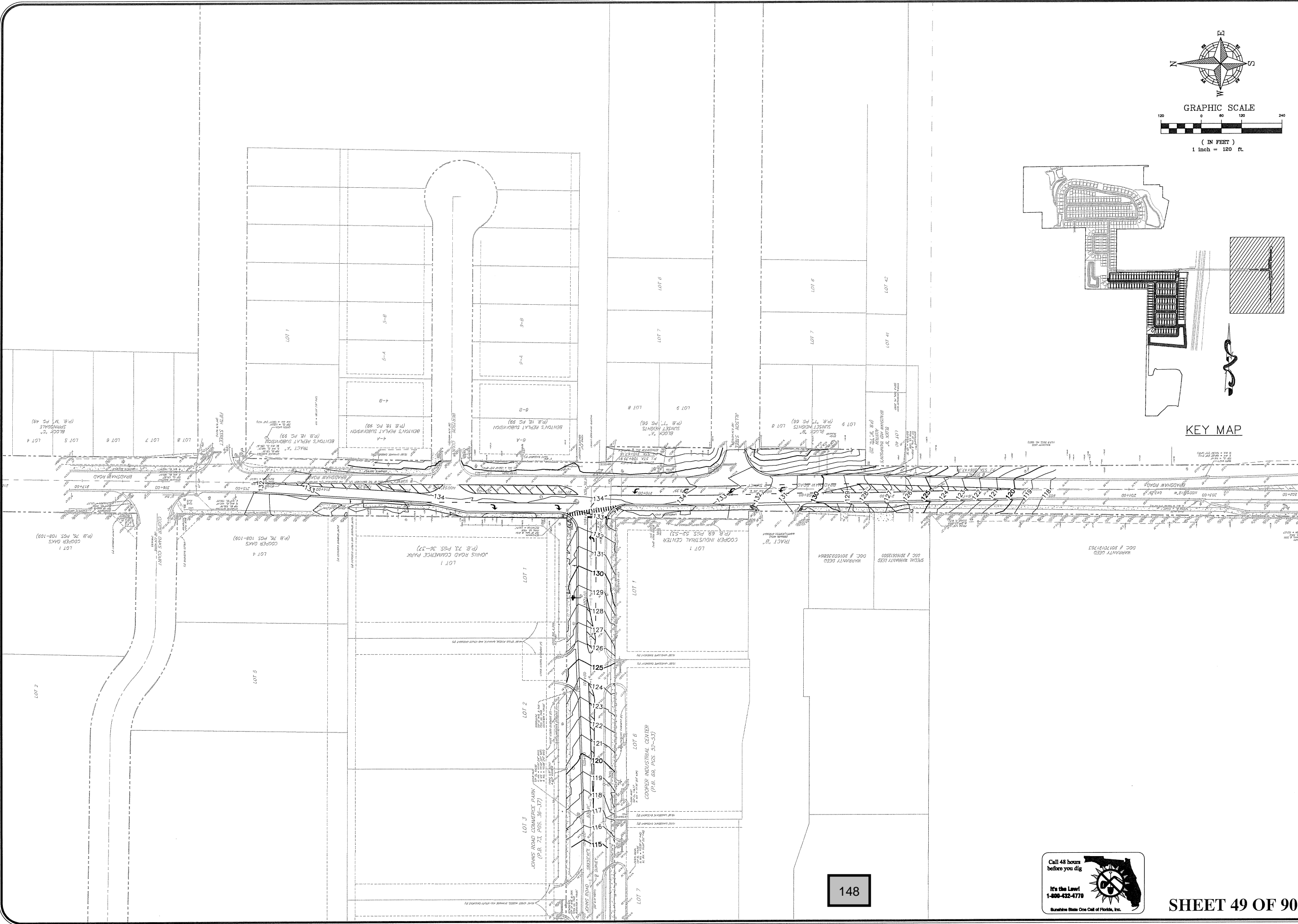
TRACT 'II'  
CONSERVATION AREA  
15.12 AC

CONCRETE WEIR

		SCALE 1" = 50' PROJECT ROY-001 SHEET C.7.7		DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/2/2018		DRAINAGE PLAN - SOUTH FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA		CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789 STATE OF FLORIDA LICENSE NO. 00000000000000000000	
REV	DATE	DESCRIPTION							
1	8/7/2018	CITY OF APOPKA COMMENTS DATED 07/25/18							
BY									



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5900civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\05site Roadway Grading.dwg Modified: 8/2/2018 By: slerragil



KEY MAP

148

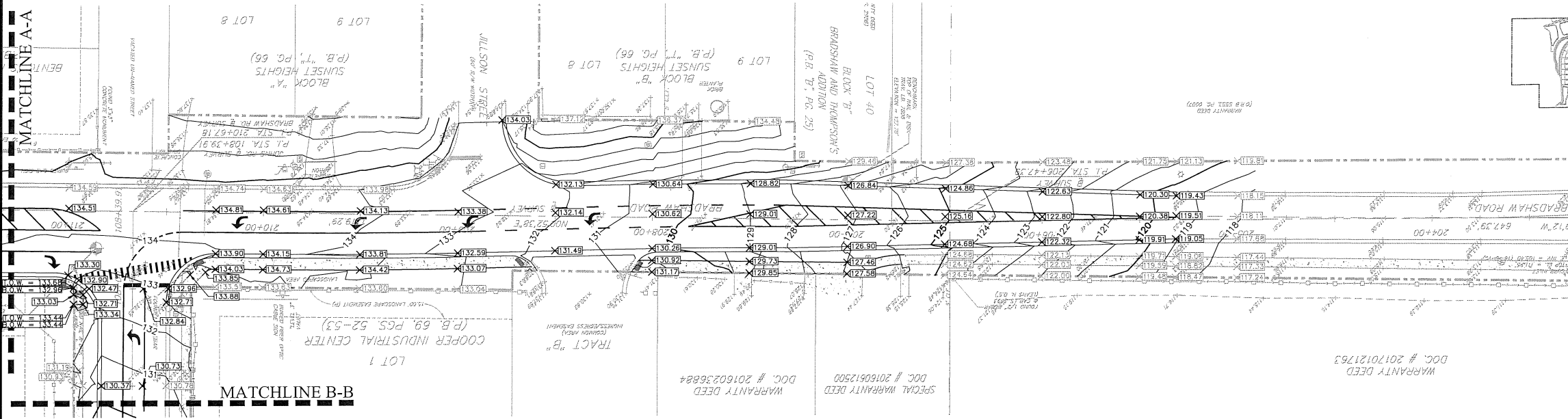
Call 48 hours before you dig  
 It's the Law!  
 1-800-432-4770  
 Sunshine State One Call of Florida, Inc.

SHEET 49 OF 90

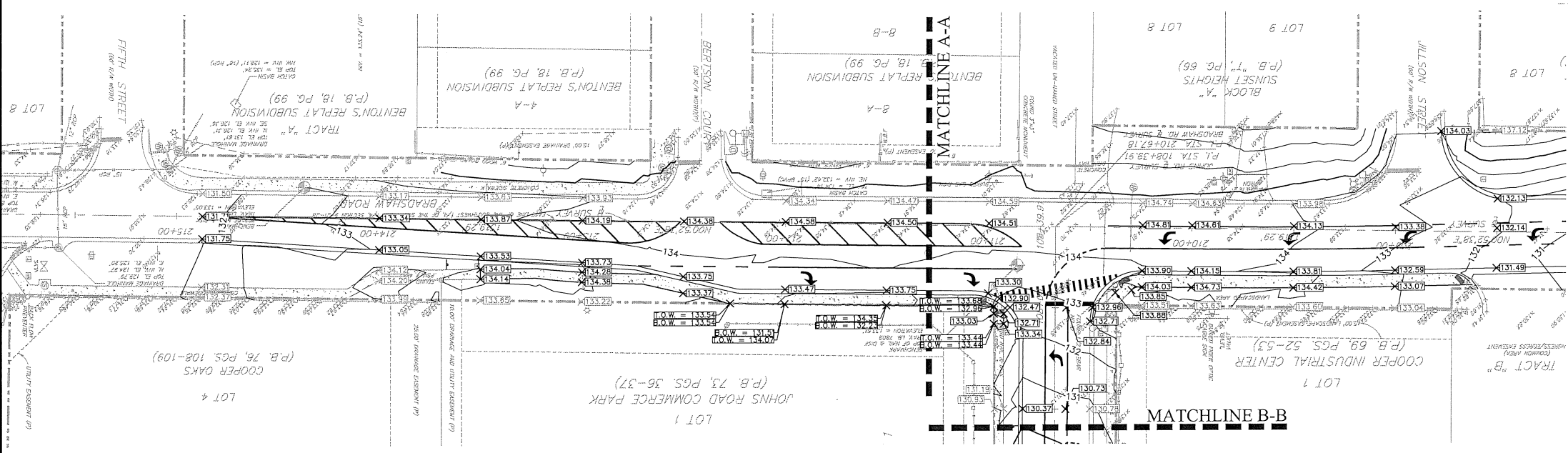
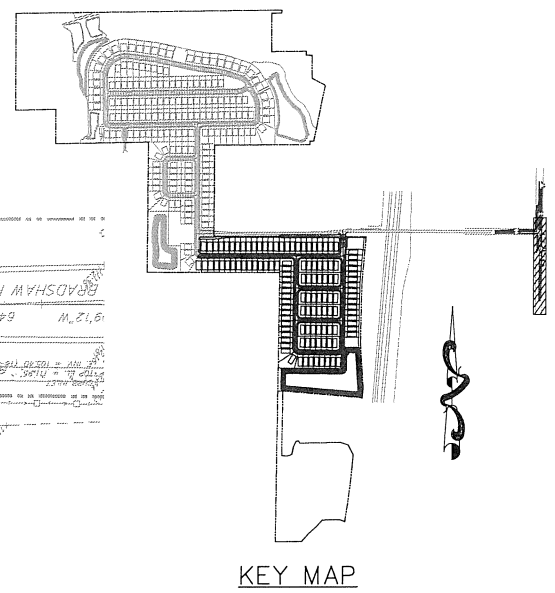
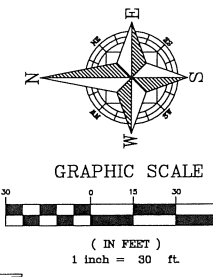
		DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/2/2018	SCALE: 1" = 50' PROJECT: ROY-001 SHEET: C8.0	CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789	OVERALL OFFSITE ROADWAY GRADING FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	DATE: 8/2/2018 COMMENTS DATED: 07/23/18	DESCRIPTION:
		CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789		CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2221 Lee Road, Suite 17, Winter Park, Florida 32789	OVERALL OFFSITE ROADWAY GRADING FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	DATE: 8/2/2018 COMMENTS DATED: 07/23/18	DESCRIPTION:

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\9.9 Drawings\99a\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Offsite Roadway Grading.dwg Modified: 8/2/2018 By: ssierragil

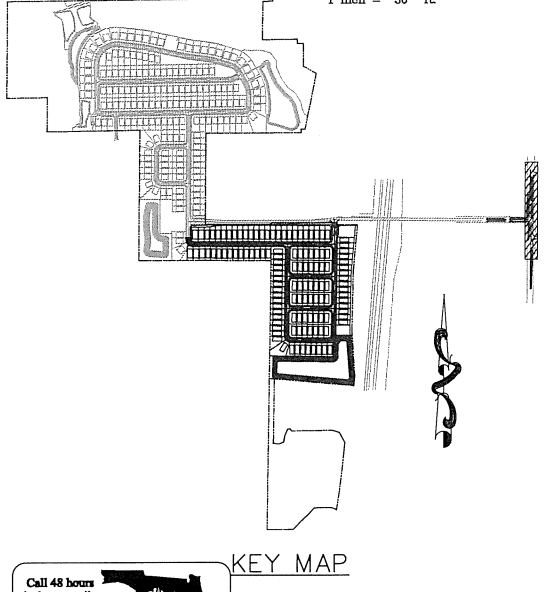
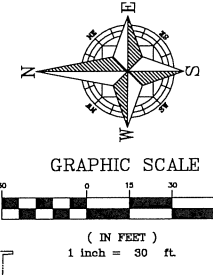
NOTE:  
BRADSHAW ROAD RIGHT-OF-WAY IMPROVEMENTS SHOWN FOR REFERENCE  
PURPOSES ONLY. ALL DEMOLITION AND PROPOSED IMPROVEMENTS WITHIN THE  
ORANGE COUNTY RIGHT-OF-WAY SHALL BE PERMITTED THROUGH THE COUNTY.



GRADING PLAN LEGEND:  
+ 123.3 PROPOSED GRADE  
+ 115.1 EXISTING GRADE  
- - - PROPOSED CONTOUR  
- - - EXISTING CONTOUR



GRADING PLAN LEGEND:  
+ 123.3 PROPOSED GRADE  
+ 115.1 EXISTING GRADE  
- - - PROPOSED CONTOUR  
- - - EXISTING CONTOUR

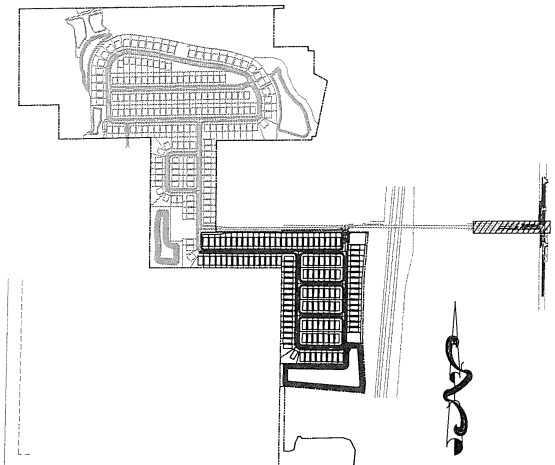
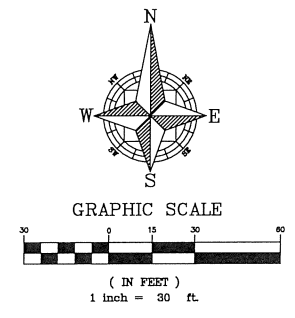
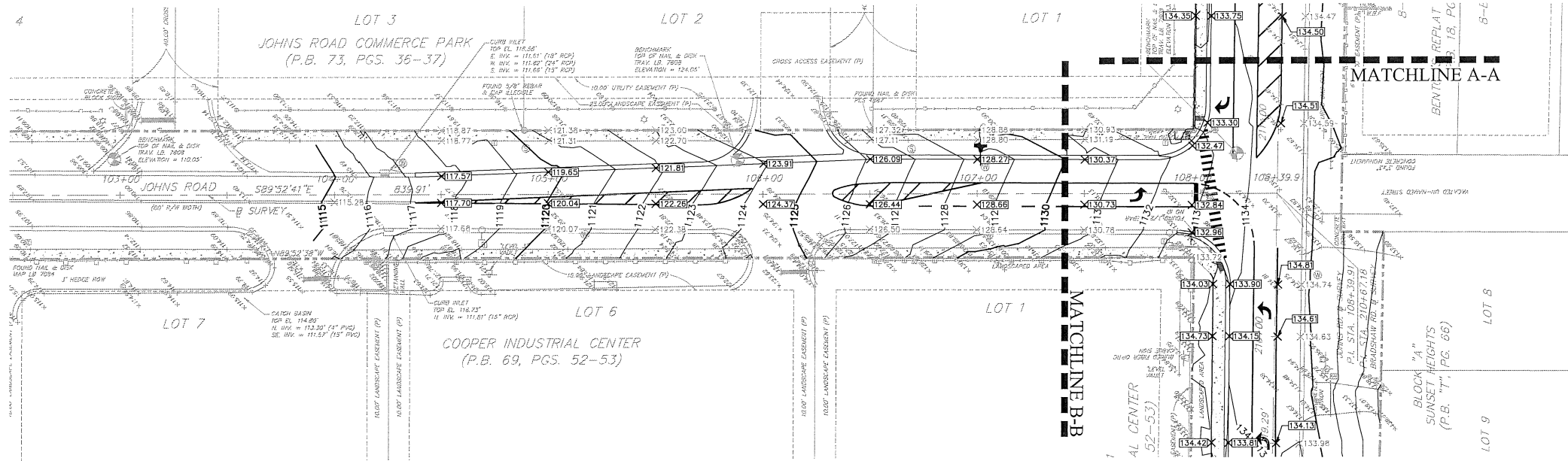


149



SHEET 50 OF 90

CIVIL ENGINEERING   LAND PLANNING		DATE	
APPIAN ENGINEERING LLC.		DATE	
APPIANFL.COM • 407.960.5868		DATE	
2211 Lee Road, Suite 17, Winter Park, Florida, 32789		DATE	
OFFSITE ROADWAY GRADING - BRADSHAW RD		DESCRIPTION	
FINAL DEVELOPMENT PLAN		DESCRIPTION	
LAKESIDE - PHASE 2		DESCRIPTION	
(FKA LAKE MARSHALL SUBDIVISION)		DESCRIPTION	
CITY OF APOPKA, FLORIDA		DESCRIPTION	
SCALE	1" = 30'	SHEET	C8.1
DESIGNED:	O. SANCHEZ	CHECKED:	L. CLASSON
PROJECT	ROY-001	DATE:	8/2/2018
DRAWN: S. SIERRA-GIL			
PROJECT: ROY-001			
DESIGNED: O. SANCHEZ			
CHECKED: L. CLASSON			
DATE: 8/2/2018			
SHEET: C8.1			
BY			

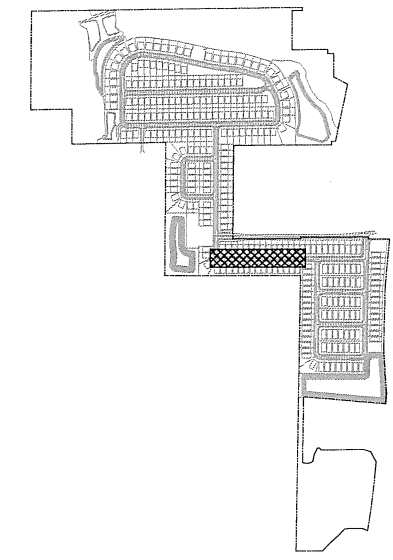
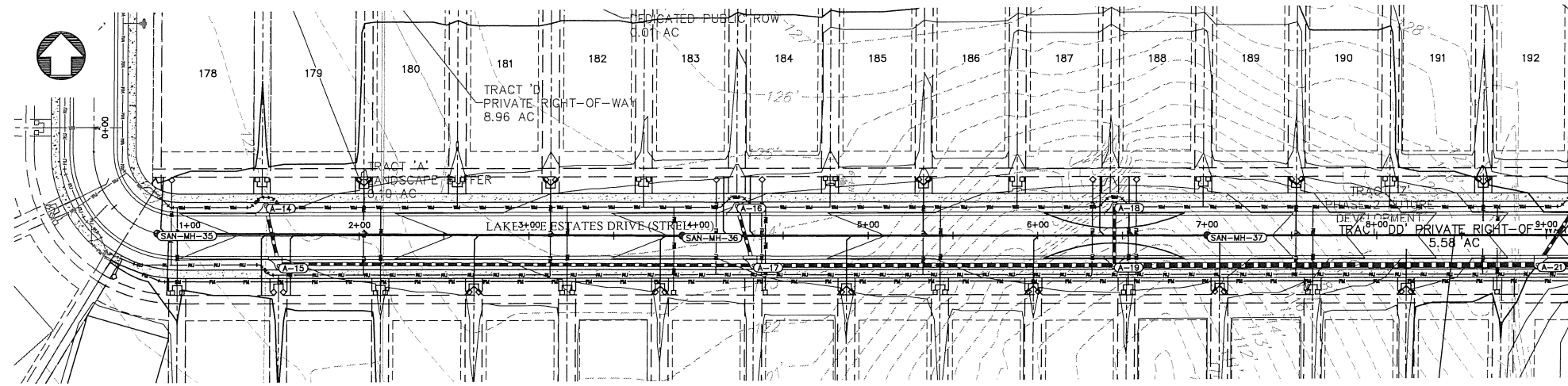


**GRADING PLAN LEGEND:**  
 ✕ 123.3 PROPOSED GRADE  
 ✕ 115.1 EXISTING GRADE  
 ——— PROPOSED CONTOUR  
 - - - - - EXISTING CONTOUR

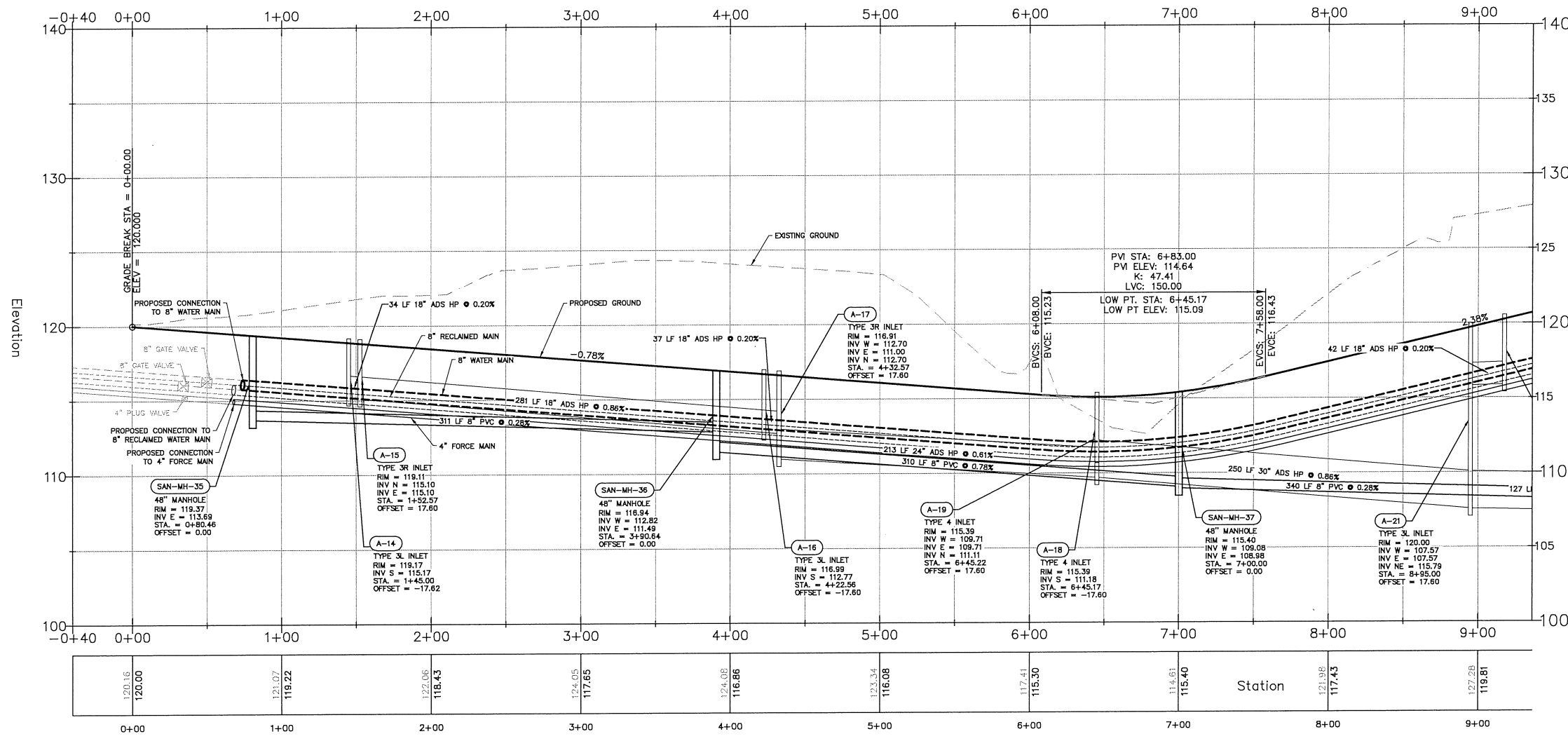
	SCALE 1" = 30' PROJECT ROY-001 SHEET C8.2	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/2/2018	OFFSITE ROADWAY GRADING - JOHNS RD FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	CIVIL ENGINEERING   LAND PLANNING APPIAN ENGINEERING LLC. APPIANENGINEERING.COM • 407.960.5868 2211 Lee Road, Suite 17, Winter Park, Florida 32789	REV. DATE DESCRIPTION 1 7/25/18 CITY OF APOPKA COMMENTS DATED 07/25/18 2 8/2/18
	150			SHEET 51 OF 90	8/2/18



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59a\1\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Plan & Profile.dwg Modified: 7/6/2018 By: seanahaz



KEY MAP



**PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314**

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

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

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

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

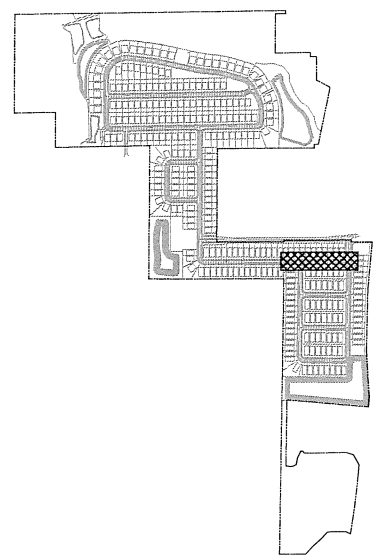
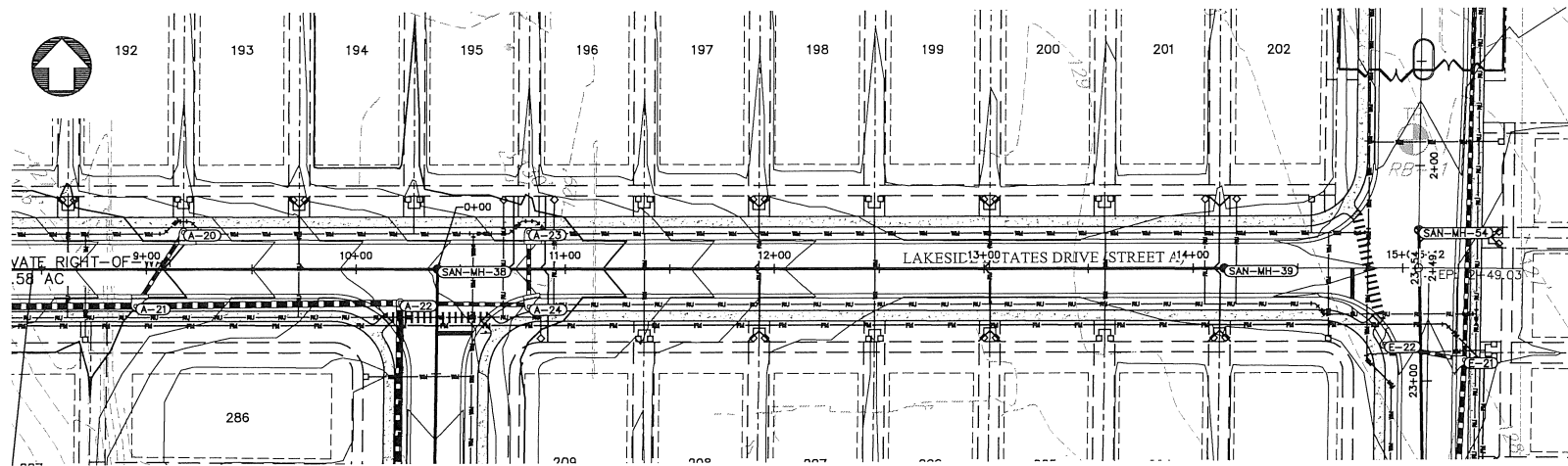
(c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

VERTICAL SCALE: 1" = 4'  
 HORIZONTAL SCALE: 1" = 40'

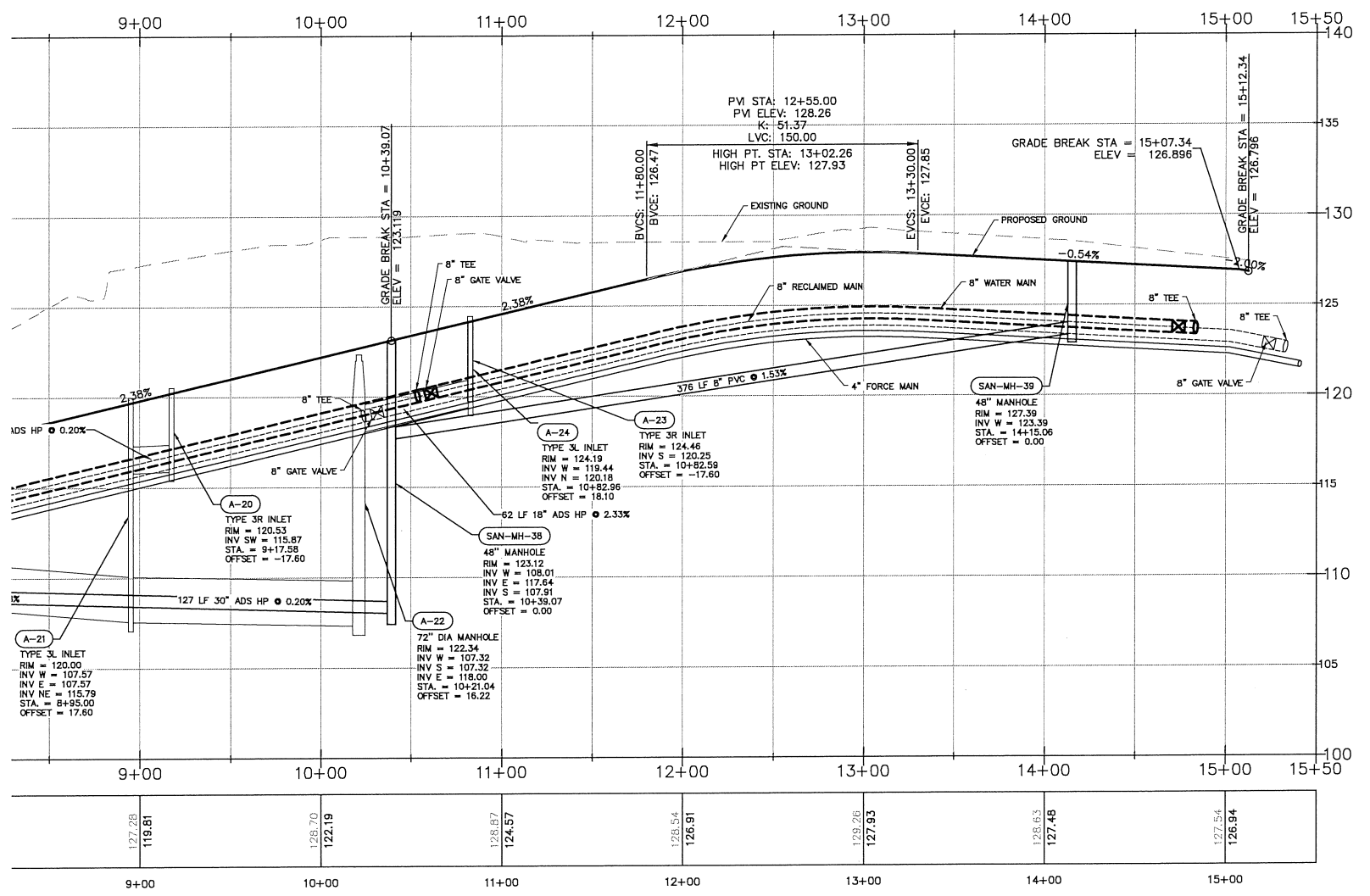


CIVIL ENGINEERING / LAND PLANNING		DATE: 8/2/2018	
APPLAN ENGINEERING LLC.		DESCRIPTION: 2211 Lakewood, Suite 17, Winter Park, Florida, 32789	
APPLANFL.COM • 407.960.5868		REV: A	
PLAN & PROFILE - STREET A		DATE: 8/2/2018	
STA. 0+00 TO STA. 9+00		SHEET: C9.0	
FINAL DEVELOPMENT PLAN		PROJECT: ROY-001	
LAKESIDE - PHASE 2		DRAWN: S. SIERRA-GIL	
(FKA LAKE MARSHALL SUBDIVISION)		DESIGNED: O. SANCHEZ	
CITY OF APOPKA, FLORIDA		CHECKED: L. CLASSON	

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2 Plan & Profile.dwg Modified: 7/6/2018 By: casonchz



KEY MAP

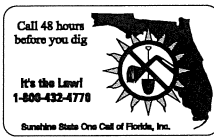


Elevation

PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
  - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
  - (d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(2), F.S., AND RULE 64C-6.002, F.A.C.
- (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

VERTICAL SCALE: 1" = 4'  
HORIZONTAL SCALE: 1" = 40'

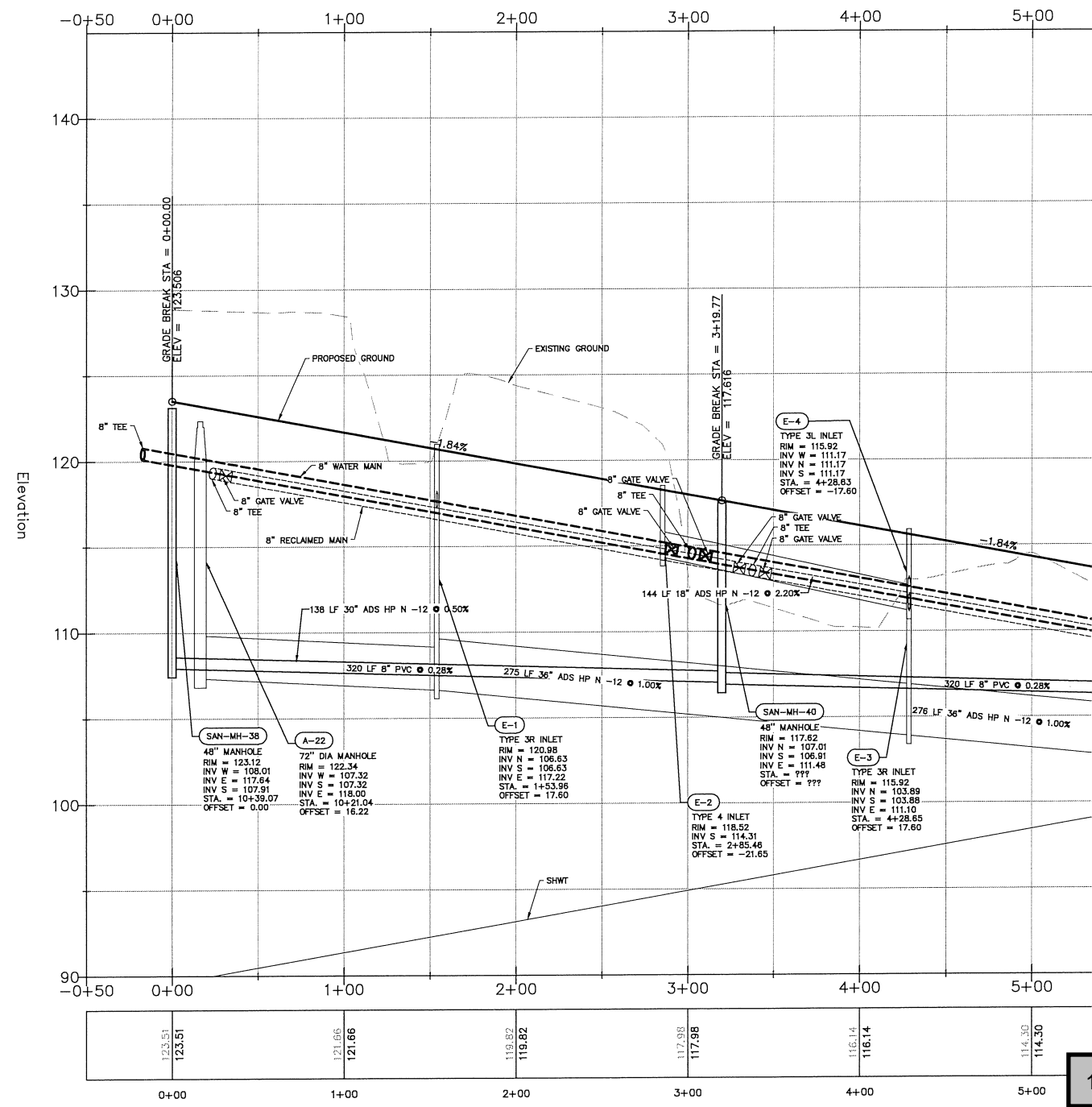
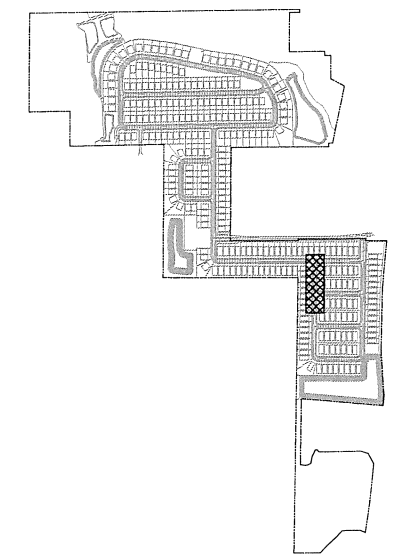
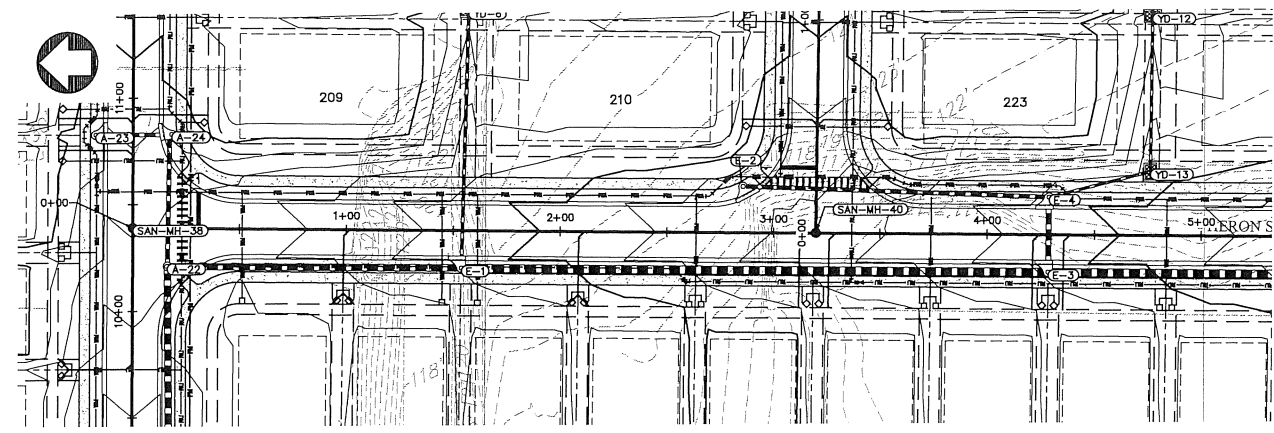


CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANENGINEERING.COM • 407.960.5868 2211 Lee Road, Suite 17, Winter Park, Florida 32789	DATE: 8/7/2018 REV: 07/23/18 CITY OF APOPKA COMMENTS DATED 07/23/18	DESCRIPTION:
	PLAN & PROFILE - STREET A STA. 9+00 TO STA. 15+12 FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/7/2018





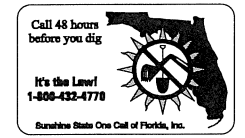
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\Social\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Plan & Profile.dwg Modified: 7/6/2018 By: casonchz



VERTICAL SCALE: 1" = 4'  
 HORIZONTAL SCALE: 1" = 40'

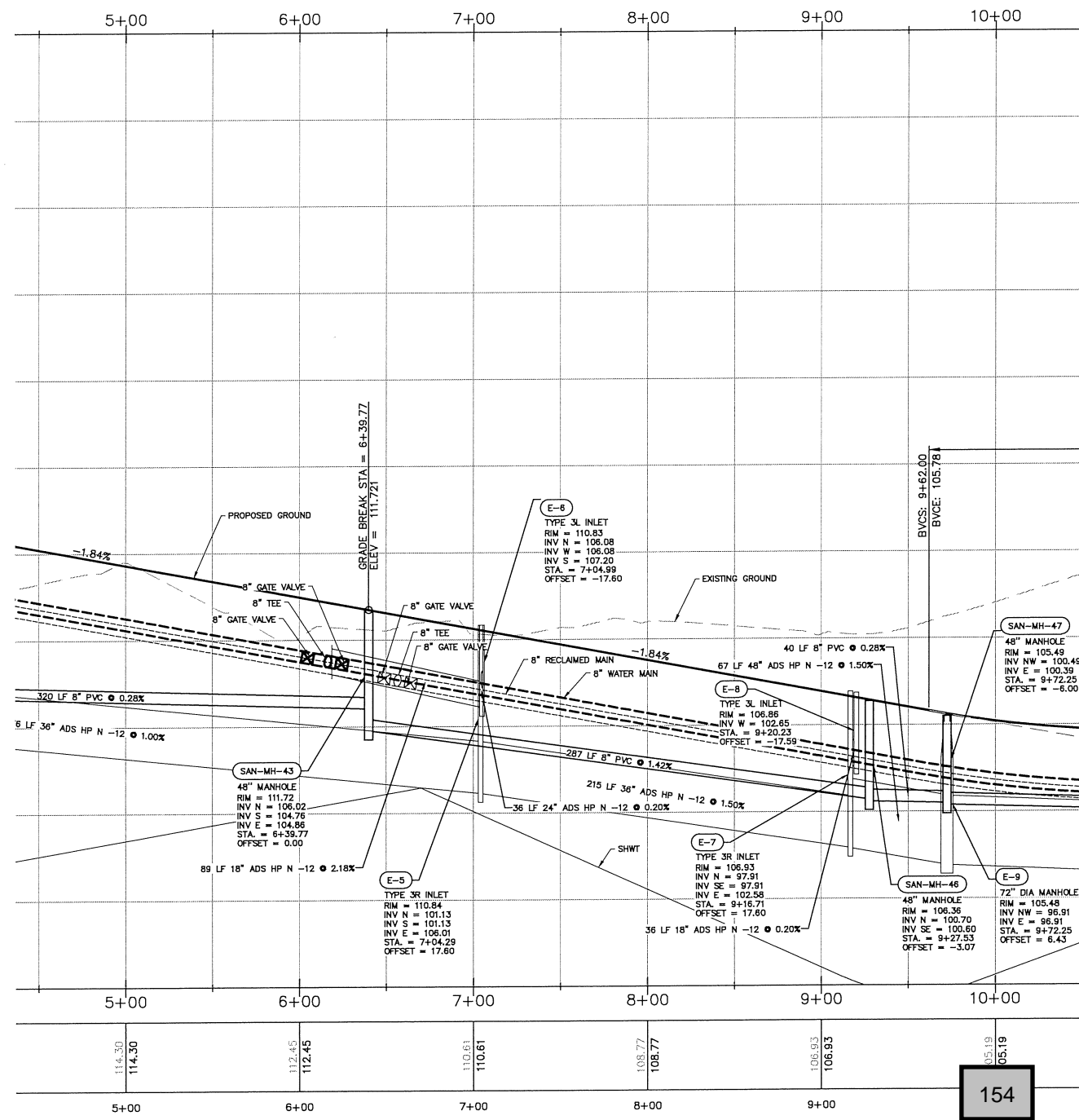
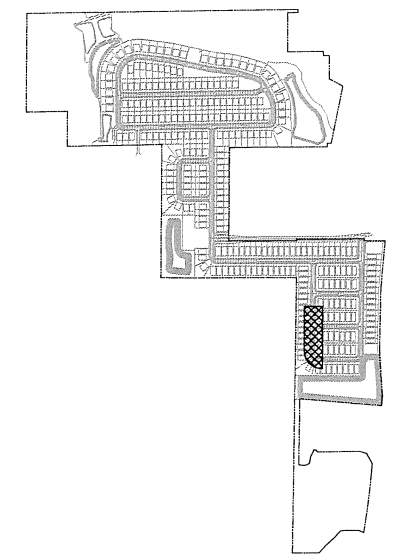
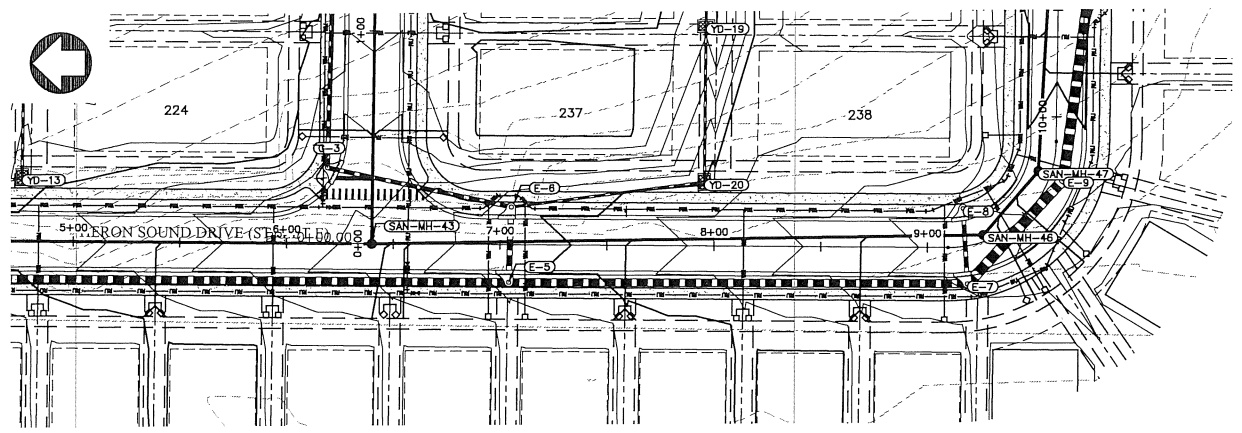
**PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314**

- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-810, F.A.C.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
  - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART II OF CHAPTER 62-810, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
  - (d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0085(2), F.S., AND RULE 64E-6.002, F.A.C.
- (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-810, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C.



CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2211 Lee Road, Suite 17, Winter Park, Florida 32789	PLAN & PROFILE - STREET E STA. 0+00 TO STA. 5+00 FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	DRAWN: S. SIERRA-GIL DESIGNED: O. SANCHEZ CHECKED: L. CLASSON DATE: 8/2/2018	SCALE: 1" = 40' PROJECT: ROY-001 SHEET: C9.2		8/2/18 SHEET 54 OF 90
COMMENTS DATED 07/25/18 DATE DESCRIPTION BY					

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9 Civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2 Plan & Profile.dwg Modified: 7/9/2018 By: cscnchez

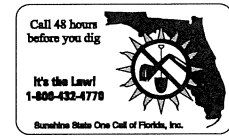


KEY MAP

PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

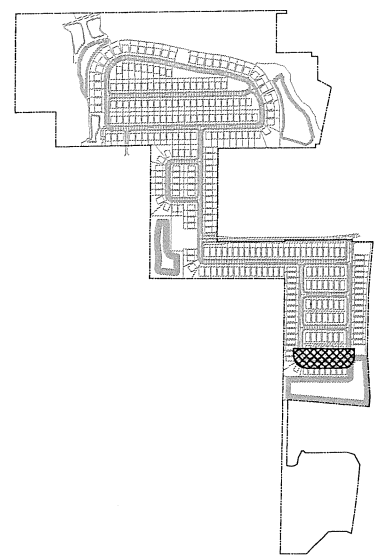
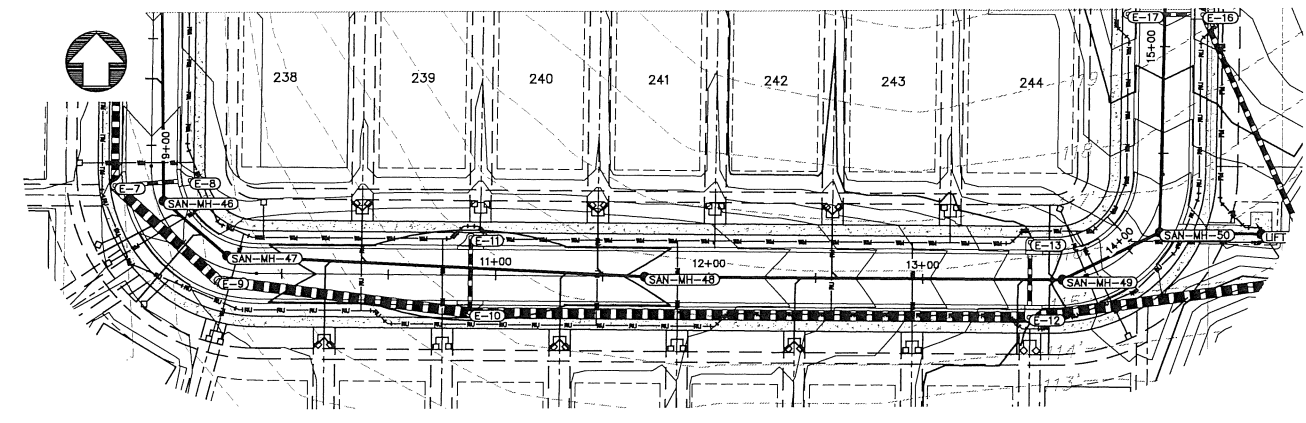
- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
  - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(2), F.S., AND RULE 64E-6.002, F.A.C.
- (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C. AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C.

VERTICAL SCALE: 1" = 4'  
HORIZONTAL SCALE: 1" = 40'

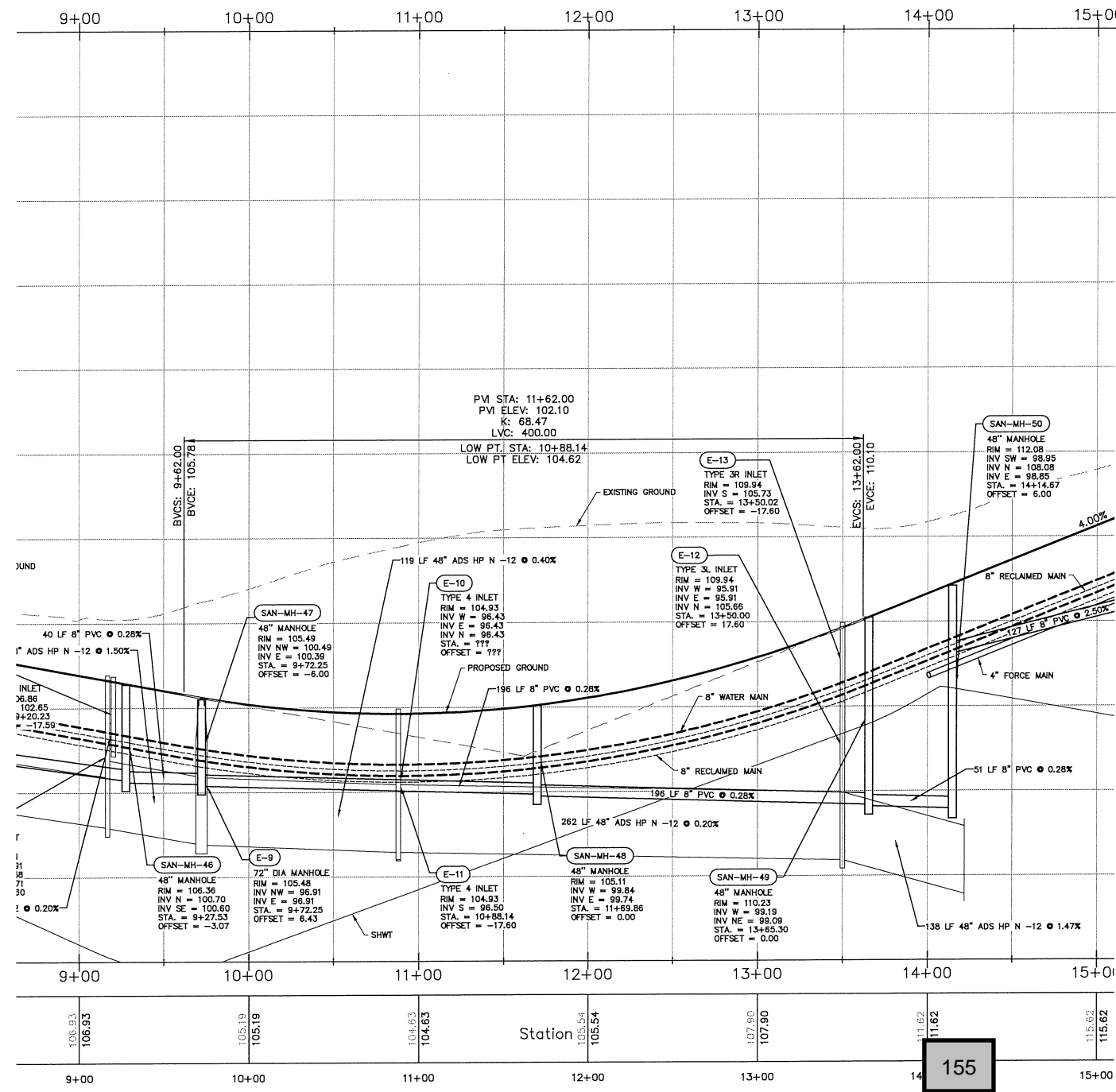


	<p><b>APPIAN ENGINEERING LLC.</b> CIVIL ENGINEERING   LAND PLANNING</p> <p>APPIANFL.COM • 407.960.5868</p> <p>221 Lee Road, Suite 17, Winter Park, Florida 32789</p>	<p>DATE: 07/23/18 REVISIONS:</p>
<p>SCALE: 1" = 40'</p>	<p>PROJECT: ROY-001</p>	<p>DATE: 8/2/2018</p>
<p>SHEET: C9.3</p>	<p>DESIGNED: O. SANCHEZ CHECKED: L. CLASSON</p>	<p>DESCRIPTION: LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA</p>
<p>PLAN &amp; PROFILE - STREET E STA 5+00 TO STA 9+50 FINAL DEVELOPMENT PLAN</p>		

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\Sheet\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Plan & Profile.dwg Modified: 7/6/2018 By: oconchey

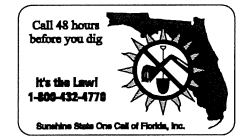


KEY MAP



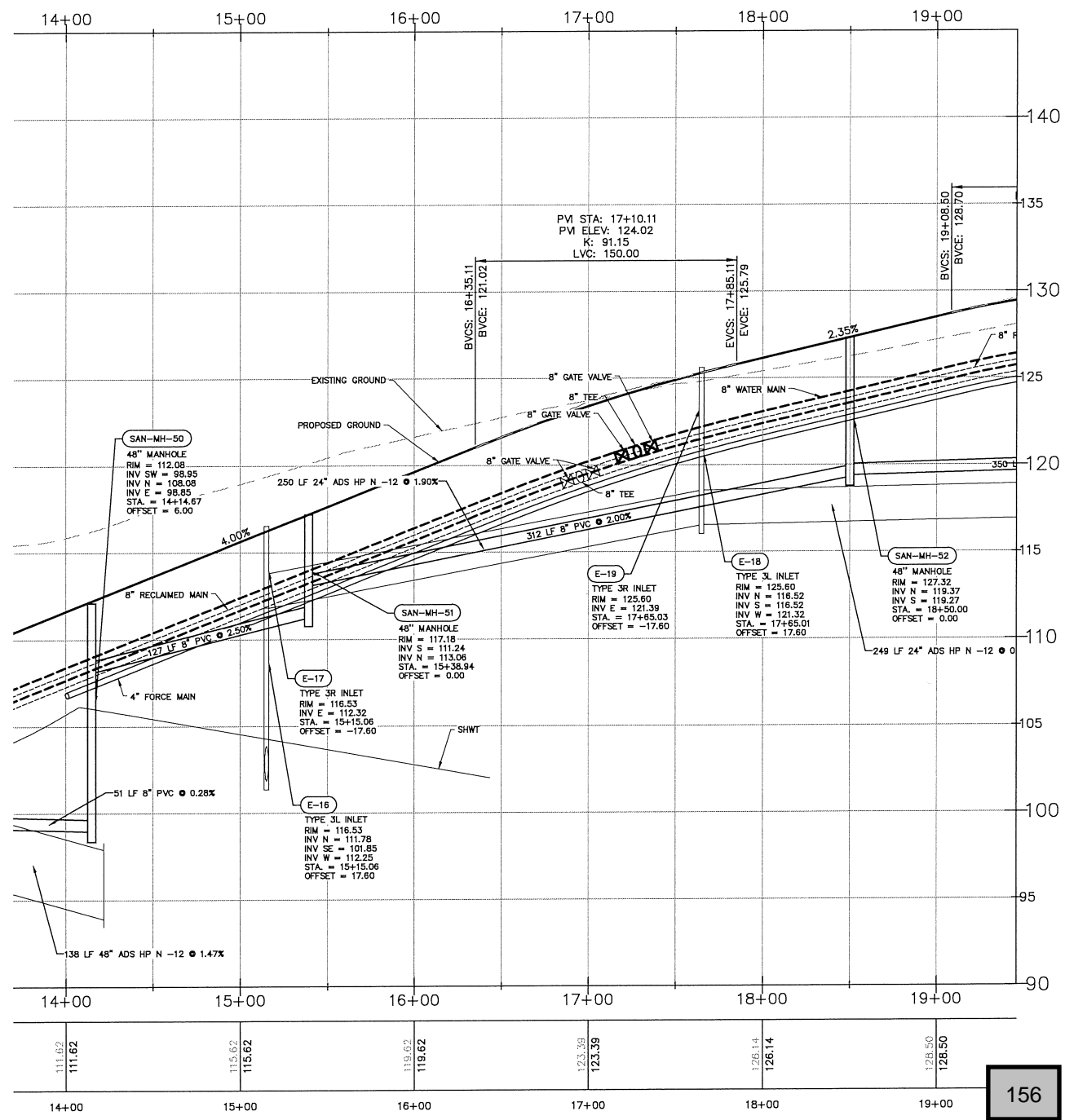
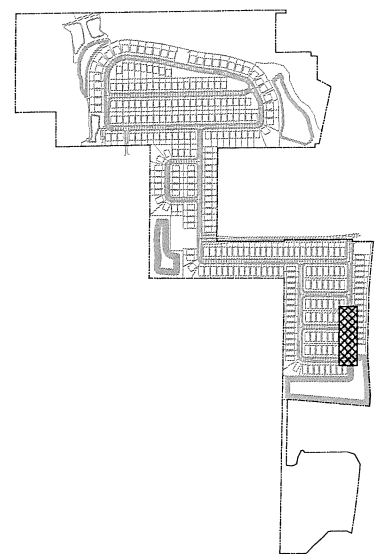
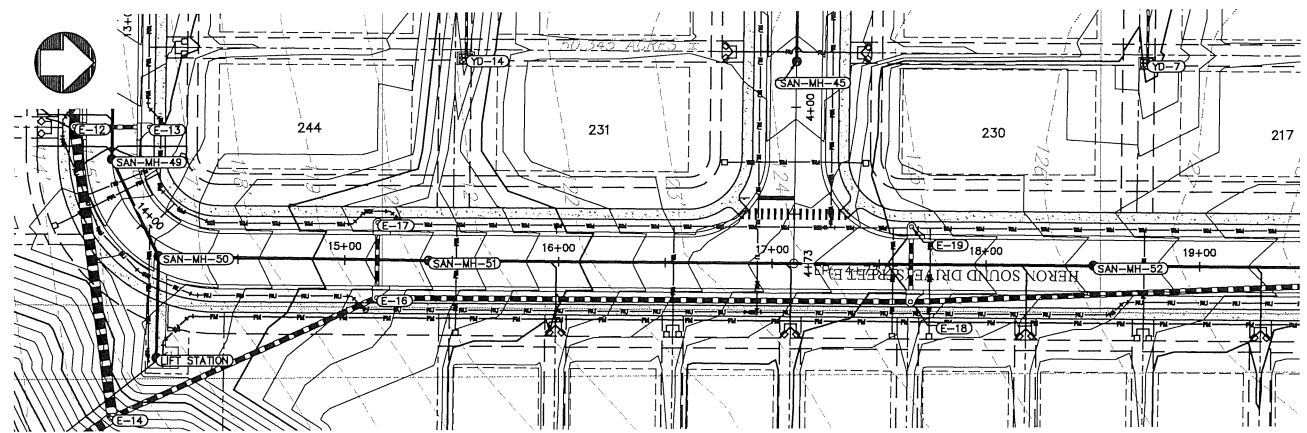
VERTICAL SCALE: 1" = 4'  
 HORIZONTAL SCALE: 1" = 40'

- PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314
- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
    - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C.
    - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
    - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
    - (d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.006(2), F.S., AND RULE 64E-6.002, F.A.C.
  - (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
    - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
    - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
    - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART II OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.



CIVIL ENGINEERING   LAND PLANNING		PLAN & PROFILE - STREET E	
APPIAN ENGINEERING LLC.		STA. 9+50 TO STA. 14+00	
APPIANENGINEERING.COM • 407.960.5868		FINAL DEVELOPMENT PLAN	
2211 Lee Road, Suite 17, Winter Park, Florida 32789		LAKESIDE - PHASE 2	
REV. DATE		CITY OF APOPKA, FLORIDA	
BY		(FKA LAKE MARSHALL SUBDIVISION)	
DESCRIPTION		DATE	
7/25/18 CITY OF APOPKA COMMENTS DATED 07/23/18		8/7/2018	
REV. DATE		8/7/2018	
DESCRIPTION		C9.4	
DRAWN: S. SIERRA-GIL		SCALE: 1" = 40'	
DESIGNED: O. SANCHEZ		PROJECT: ROY-001	
CHECKED: L. CLASSON		SHEET: C9.4	
DATE: 8/7/2018		APPIAN ENGINEERING	

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\Sheet\Drawings\5.9 Final Development Plan - PHASE 2\Plan & Profile.dwg Modified: 7/6/2018 By: osanchez

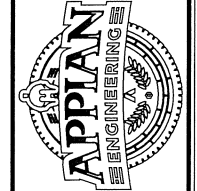


Elevation

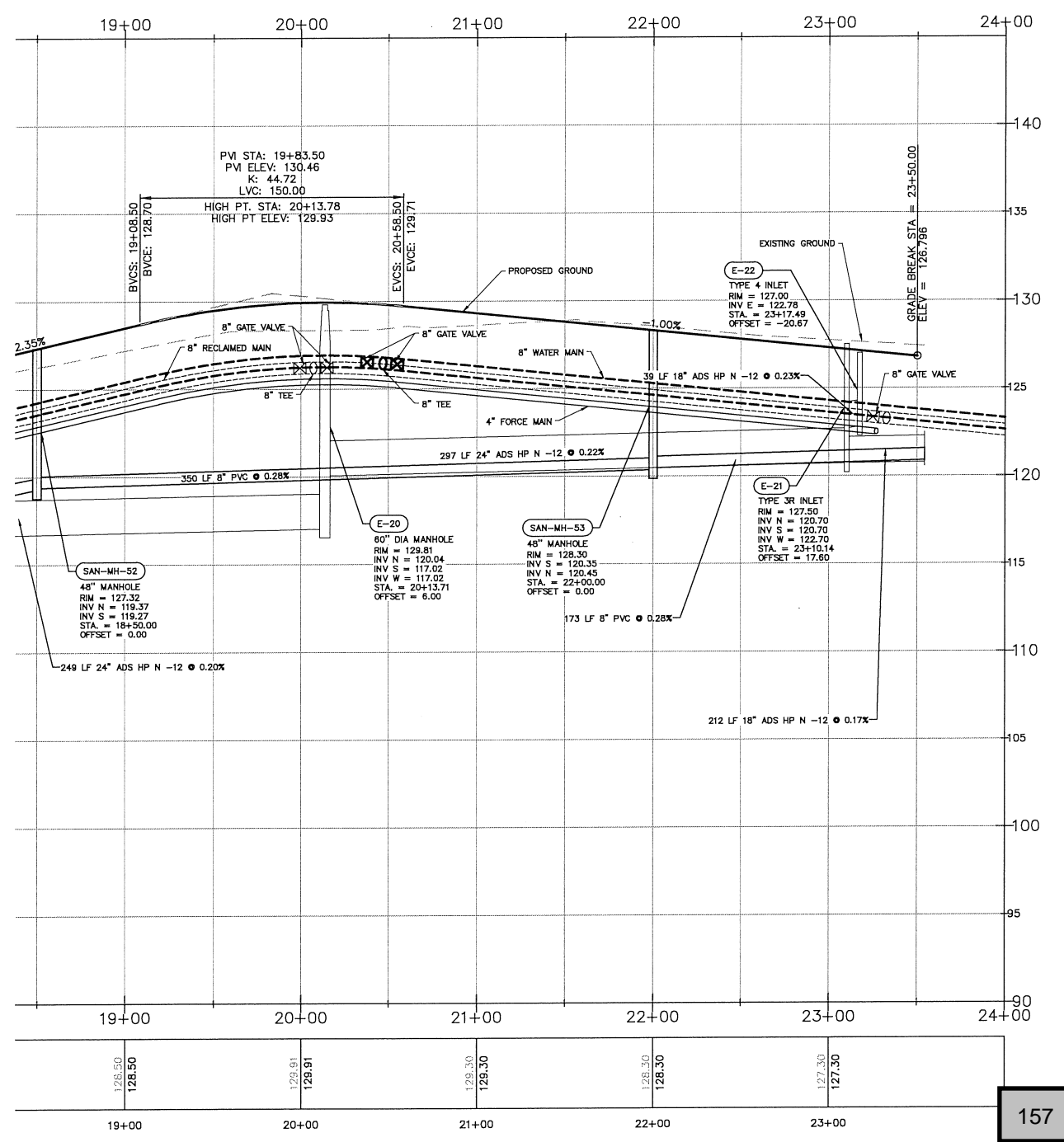
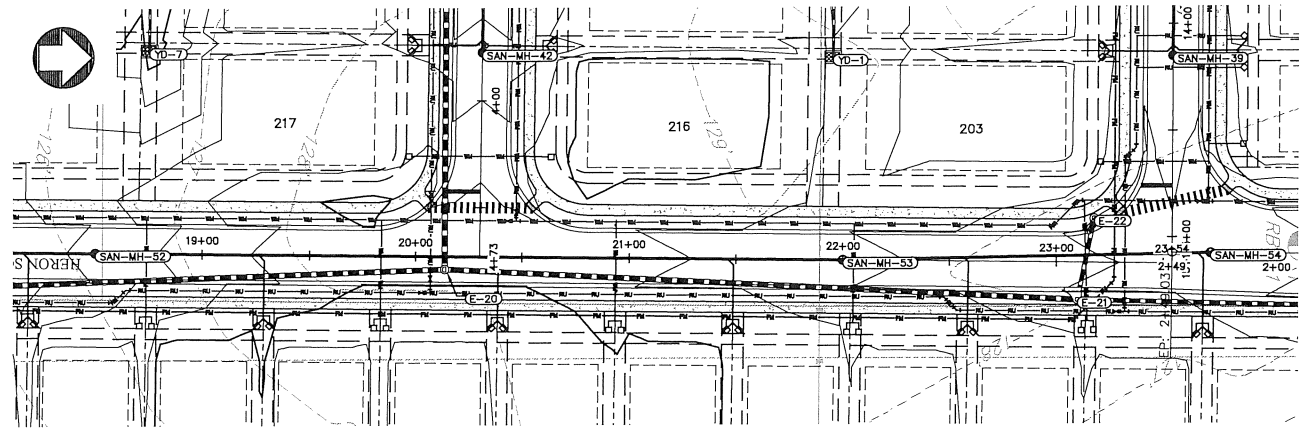
VERTICAL SCALE: 1" = 4'  
HORIZONTAL SCALE: 1" = 40'

- PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314**
- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
    - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
    - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
    - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
    - (d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-8.002, F.A.C.
  - (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
    - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
    - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
    - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST SIX FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

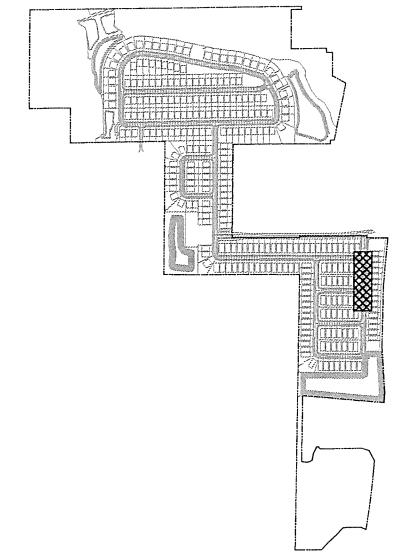
CIVIL ENGINEERING   LAND PLANNING		APPIAN ENGINEERING LLC.		APPIANFL.COM • 407.960.5868	2211 Lee Road, Suite 17, Winter Park, Florida 32789
PLAN & PROFILE - STREET E		STA. 14+00 TO STA. 19+00		LAKESIDE - PHASE 2	
SCALE		PROJECT		SHEET	
1" = 40'		ROY-001		C9.5	
DRAWN		DESIGNED		CHECKED	
S. SIERRA-GIL		O. SANCHEZ		L. CLASSON	
DATE		DATE		DATE	
8/7/2018		8/7/2018		8/7/2018	
REVISION		REVISION		REVISION	
DATE		DATE		DATE	
DESCRIPTION		DESCRIPTION		DESCRIPTION	
BY		BY		BY	
DATE		DATE		DATE	
DESCRIPTION		DESCRIPTION		DESCRIPTION	



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59a\civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Plan & Profile.dwg Modified: 7/6/2018 By: oasanchez



VERTICAL SCALE: 1" = 4'  
HORIZONTAL SCALE: 1" = 40'



KEY MAP

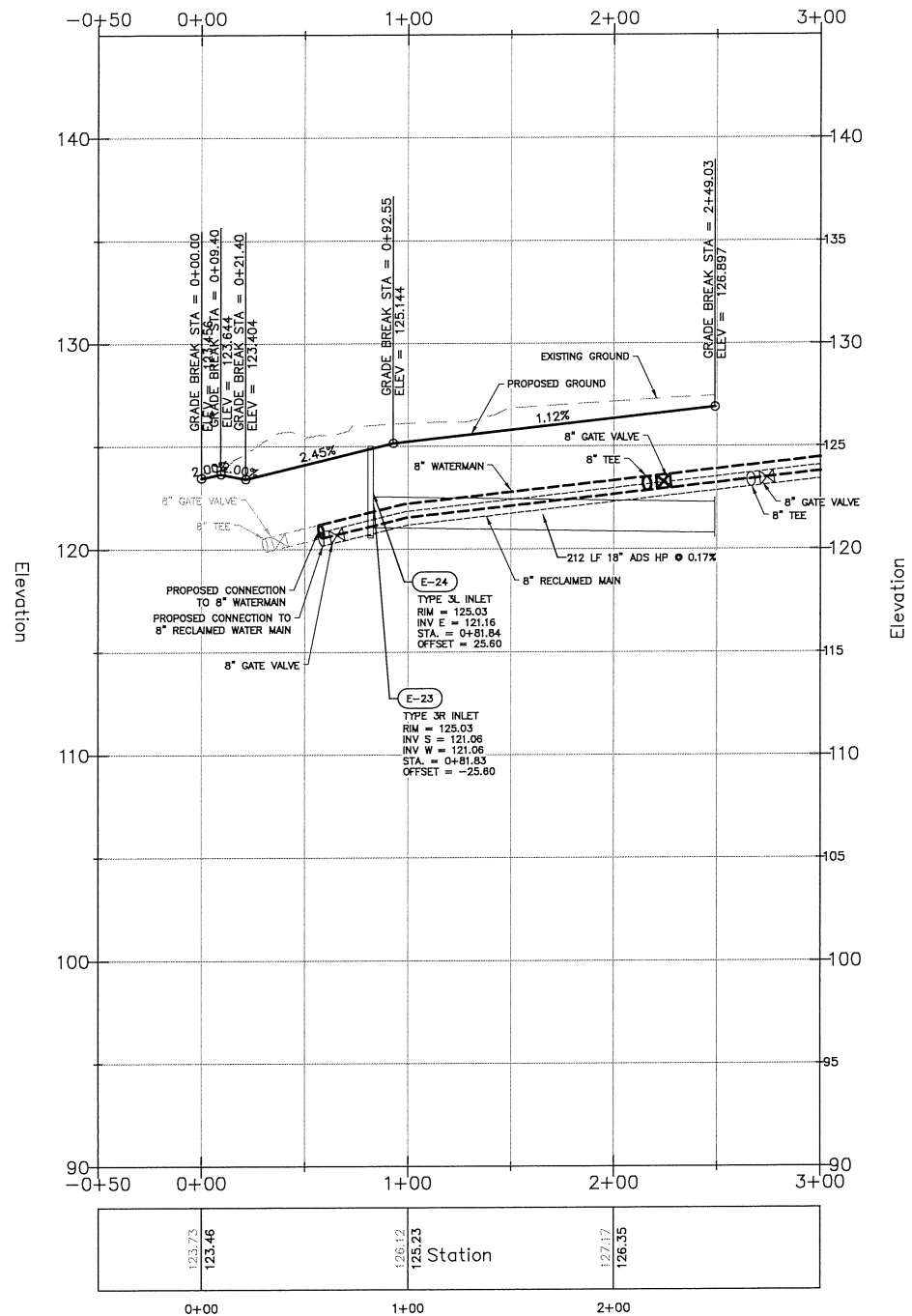
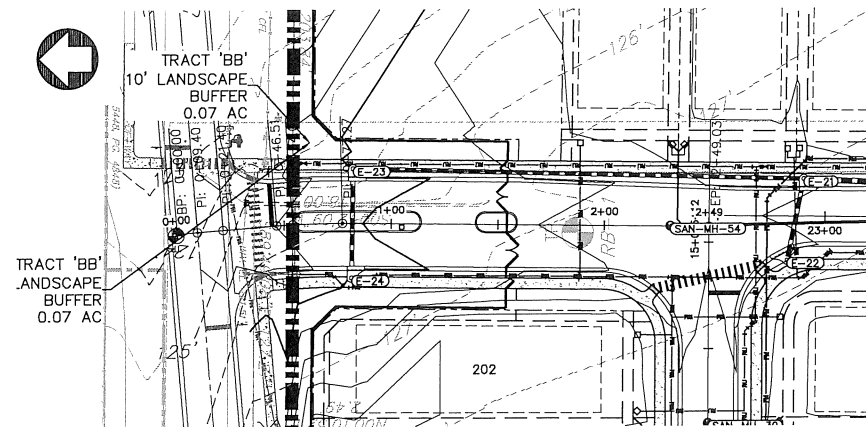
PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
  - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
  - (d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.
- (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

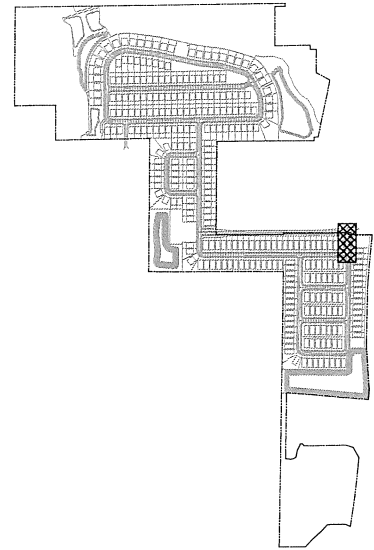
	<p><b>PLAN &amp; PROFILE - STREET E</b> STA. 19+00 TO 23+50 FINAL DEVELOPMENT PLAN</p> <p>LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA</p>	<p>SCALE: 1" = 40'</p> <p>PROJECT: ROY-001</p> <p>SHEET: C9.6</p>	<p>DRAWN: S. SIERRA-GIL</p> <p>DESIGNED: O. SANCHEZ</p> <p>CHECKED: L. CLASSON</p> <p>DATE: 8/2/2018</p>
<p>CIVIL ENGINEERING   LAND PLANNING</p> <p><b>APPLAN ENGINEERING LLC.</b></p> <p>APPLANFL.COM • 407.960.5868</p> <p>2221 Lee Road, Suite 17, Winter Park, Florida, 32789</p>		<p>REV. DATE DESCRIPTION</p> <p>1 07/23/18 CITY OF APOPKA COMMENTS DATED 07/23/18</p>	



P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9ch1\Novatus 05 FINAL DEVELOPMENT PLAN - PHASE 2\Plan & Profile.dwg Modified: 7/6/2018 By: csonchez



VERTICAL SCALE: 1" = 4'  
HORIZONTAL SCALE: 1" = 40'

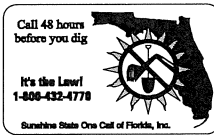


KEY MAP

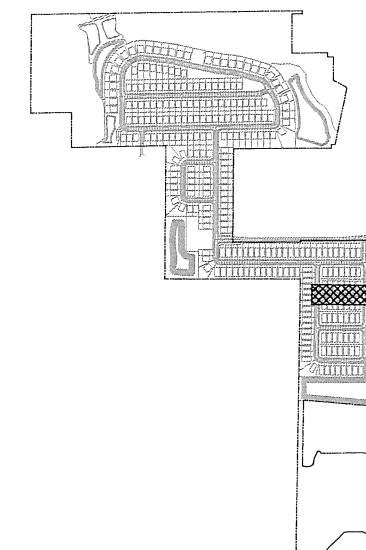
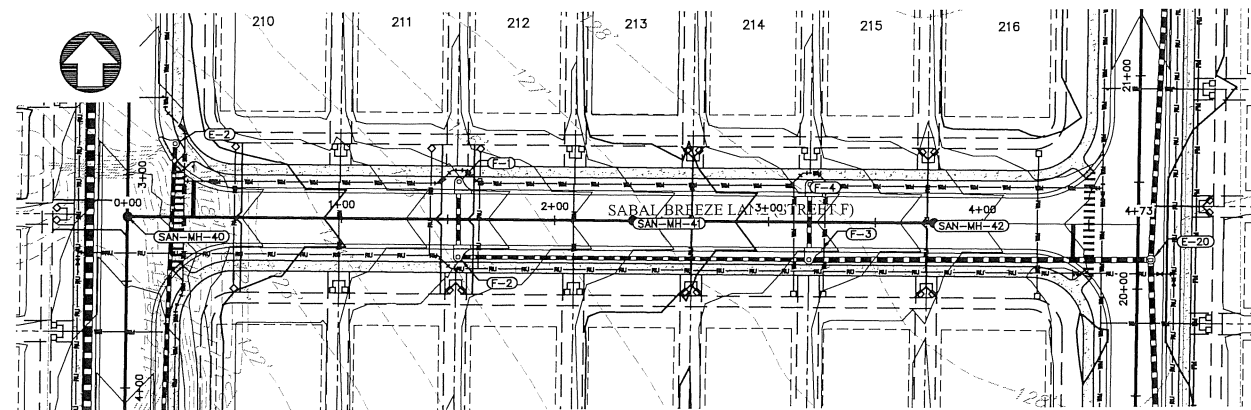
**PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314**

- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
  - (c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
  - (d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.
- (2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
  - (a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
  - (c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

<b>CIVIL ENGINEERING   LAND PLANNING</b>	
<b>APPIAN ENGINEERING LLC.</b>	
APPANFL.COM • 407.960.5868	
2211 Lee Road, Suite 17, Winter Park, Florida 32789	
DATE	DESCRIPTION
REV	DATE
A	07/25/18 CITY OF APOPKA COMMENTS DATED 07/23/18
A	
A	
A	
A	
A	
A	
A	
<b>PLAN &amp; PROFILE - STREET E ENTRANCE</b> STA. 0+00 TO STA. 2+49 <b>FINAL DEVELOPMENT PLAN</b> LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	
DRAWN: S. SIERRA-GIL	DESIGNED: O. SANCHEZ
CHECKED: L. CLASSON	DATE: 8/2/2018
SCALE 1" = 40'	PROJECT ROY-001
SHEET C9.7	DATE 8/2/2018



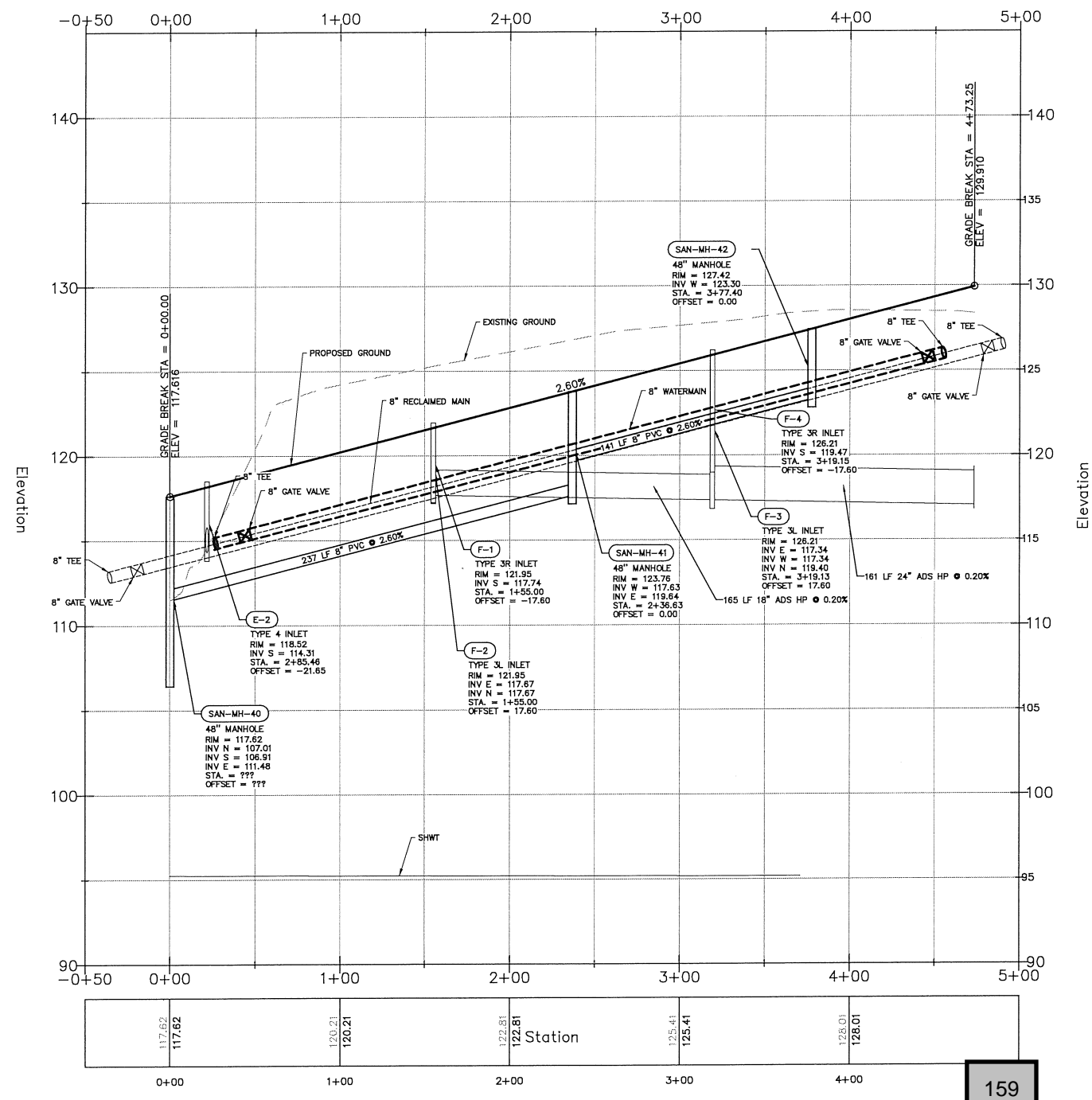
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\39civil\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Plan & Profile.dwg Modified: 7/6/2018 By: esanchez



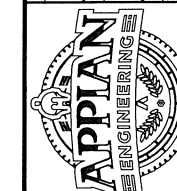
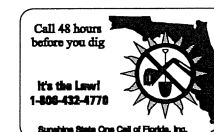
### KEY MAP

#### PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314

- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MANS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
- (2) NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C.
- (3) NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
- (4) NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MANS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
- (5) NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.
- (6) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MANS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
- (7) NEW OR RELOCATED, UNDERGROUND WATER MANS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- (8) NEW OR RELOCATED, UNDERGROUND WATER MANS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
- (9) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C.



VERTICAL SCALE: 1" = 4'  
 HORIZONTAL SCALE: 1" = 40'



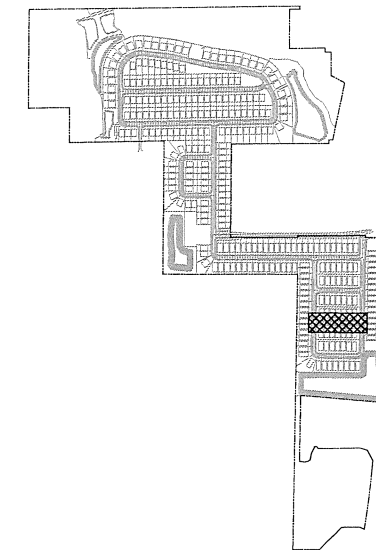
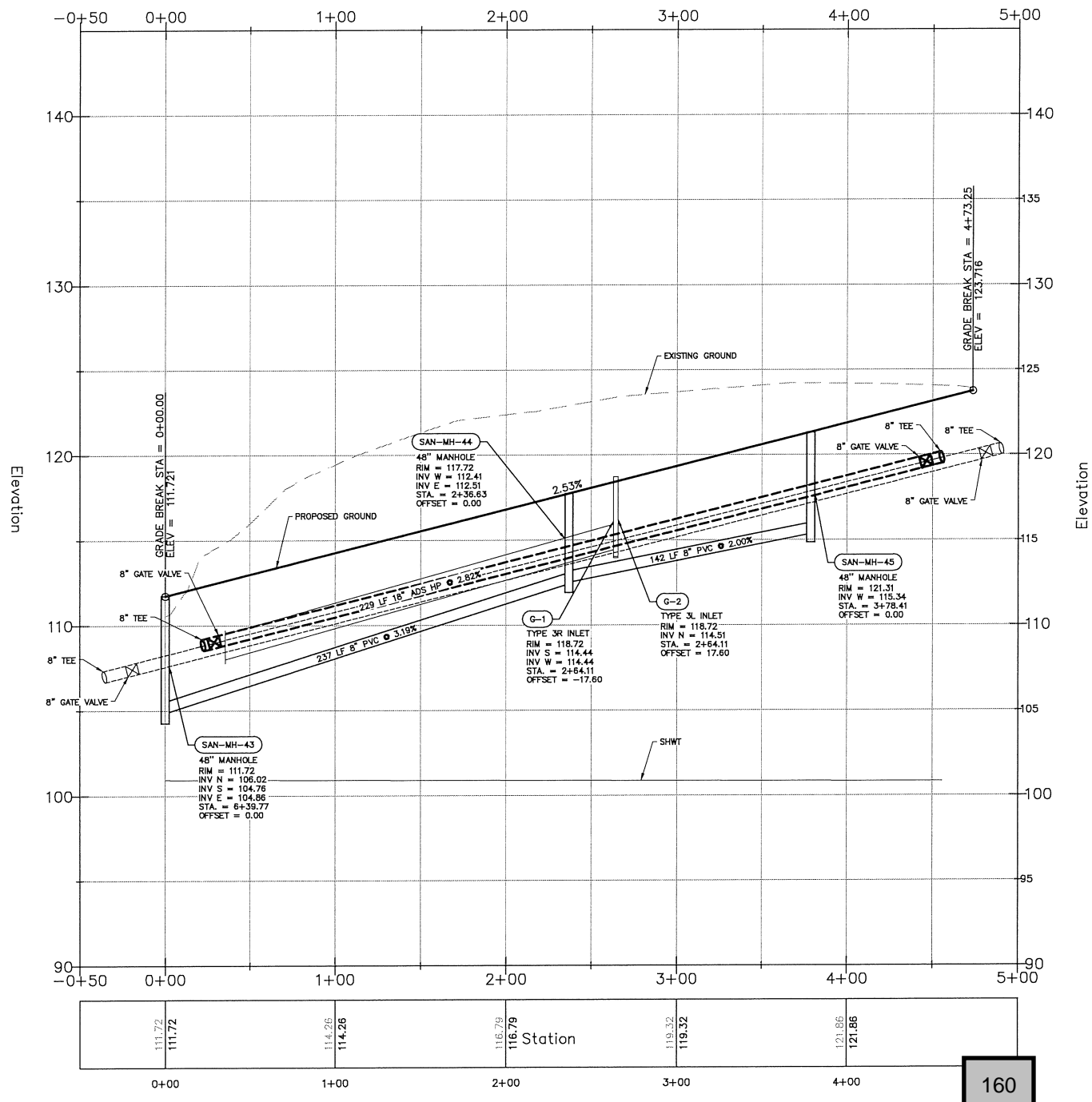
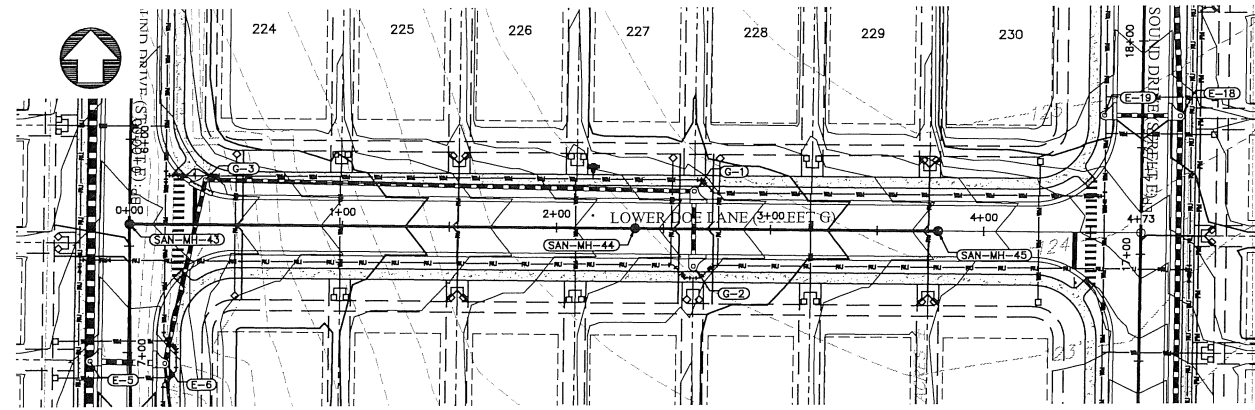
REV	DATE	DESCRIPTION
1	07/25/16	CITY OF APOPKA COMMENTS DATED 07/23/16
2		
3		
4		
5		
6		
7		
8		
9		

CIVIL ENGINEERING | LAND PLANNING  
 APPIAN ENGINEERING LLC.  
 APPANFL.COM • 407.960.5868  
 2211 Lee Road, Suite 17, Winter Park, Florida 32789

PLAN & PROFILE - STREET F  
 STA. 0+00 TO STA. 4+73  
 FINAL DEVELOPMENT PLAN  
 LAKESIDE - PHASE 2  
 (FKA LAKE MARSHALL SUBDIVISION)  
 CITY OF APOPKA, FLORIDA

SCALE	DRAWN	DESIGNED	CHECKED	DATE
1" = 40'	S. SIERRA-GIL	O. SANCHEZ	L. CLASSON	8/2/2018
PROJECT	ROY-001			
SHEET	C9.8			

8/2/18



KEY MAP

**PRESSURE PIPE NOTES PER F.A.C. RULE 62-55.314**

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

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.005(2), F.S., AND RULE 64E-8.002, F.A.C.

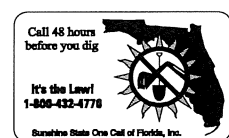
(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES:

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-810, F.A.C.

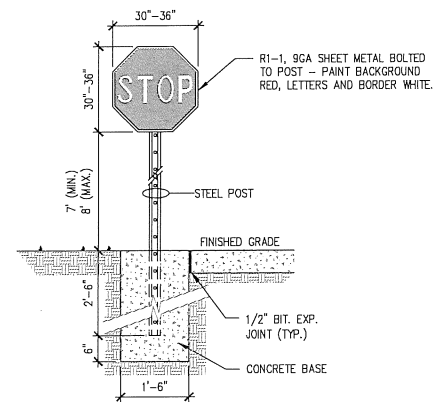
VERTICAL SCALE: 1" = 4'  
HORIZONTAL SCALE: 1" = 40'



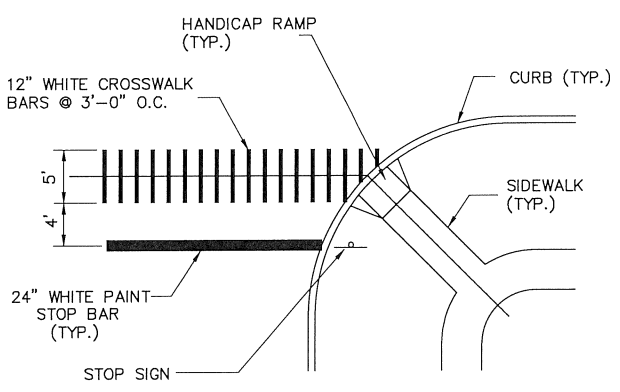
CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2211 Lee Road, Suite 17, Winter Park, Florida, 32789		DATE: 07/25/18 COMMENTS DATED: 07/25/18
PLAN & PROFILE - STREET G STA 0+00 TO STA 4+73 FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA
DRAWN: S. SIERRA-OIL DESIGNED: O. SANCHEZ PROJECT: ROY-001 SHEET: C9.9	CHECKED: L. CLASSON DATE: 8/2/2018	BY:



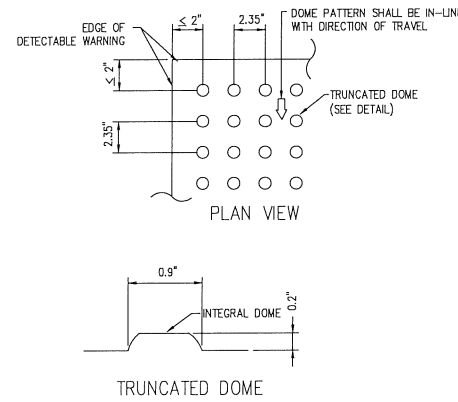




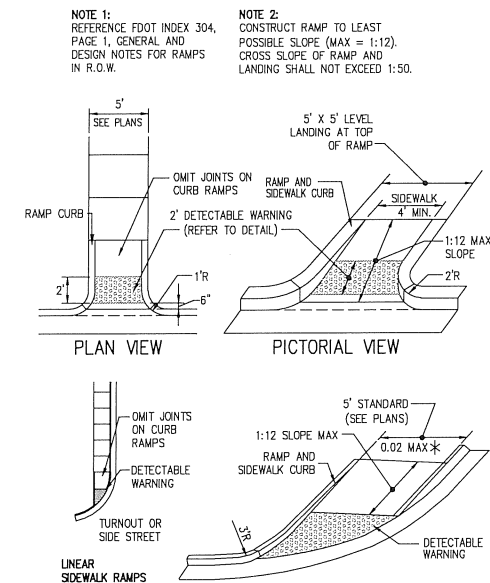
**1** STOP SIGN  
N.T.S.



**2** INTERSECTION CROSSWALK/  
STOP BAR DETAIL  
N.T.S.



**3** DETECTABLE WARNING  
N.T.S.

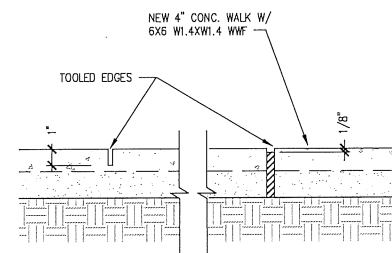


**4** HANDICAP END RAMP  
3000 PSI (MIN.) CONCRETE  
N.T.S.

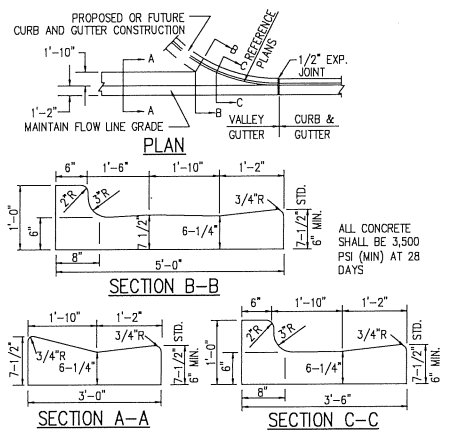
NOTE 1: REFERENCE FDOT INDEX 304, PAGE 1, GENERAL AND DESIGN NOTES FOR RAMPS IN R.O.W.

NOTE 2: CONSTRUCT RAMP TO LEAST POSSIBLE SLOPE (MAX = 1:12). CROSS SLOPE OF RAMP AND LANDING SHALL NOT EXCEED 1:50.

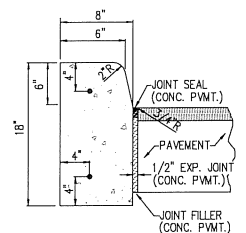
NOTE:  
1. CURB RAMP RUNNING SLOPES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER.  
2. DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING OR APPLYING A TRUNCATED DOME MATERIAL IN CONFORMANCE WITH THE U.S. DEPARTMENT OF JUSTICE A.D.A. STANDARDS FOR ACCESSIBLE DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.  
3. WHERE A CURB RAMP IS CONSTRUCTED WITHIN AN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5'.  
4. WHERE ADJACENT WALKING SURFACES ARE COLORED OR ARE CONSTRUCTED WITH MATERIALS OTHER THAN STANDARD CLASS I PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH SECTION 522 OF THE SPECIFICATIONS, THE PLAN MUST PROVIDE FOR DETECTABLE WARNING SURFACE COLORS OR MATERIALS THAT PROVIDE THE NECESSARY CONTRAST, EITHER DARK-ON-LIGHT OR LIGHT-ON-DARK. (SAFETY YELLOW OR BRICK RED)  
5. RECOMMENDED MANUFACTURER: ENGINEERED PLASTICS, INC. (ARMOR TILE) OLYMPIC TOWERS, 300 PEARL STREET, SUITE 200, BUFFALO, NY 14202. PHONE: (800) 682-2525



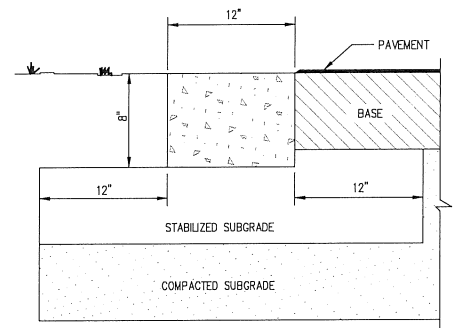
**5** CONCRETE WALK  
N.T.S.



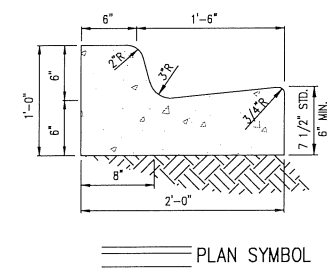
**10** VALLEY GUTTER  
N.T.S.  
(REFER TO F.D.O.T. INDEX 300)



**7** TYPE 'D' CURB  
(3,500 PSI (MIN))  
N.T.S.

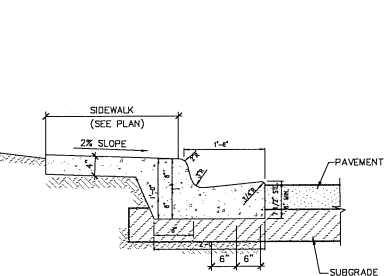


**8** RIBBON CURB  
3500 PSI (MIN.)  
N.T.S.

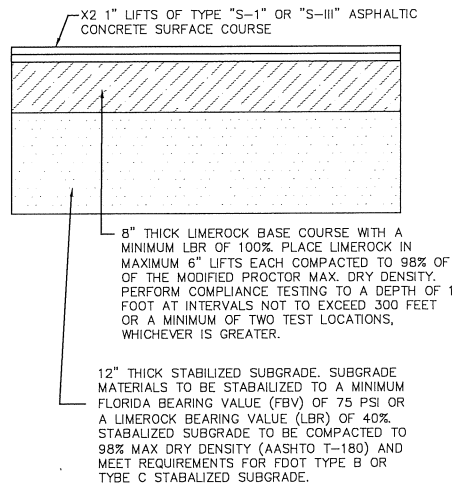


**9** TYPE 'F' CURB AND GUTTER  
N.T.S.

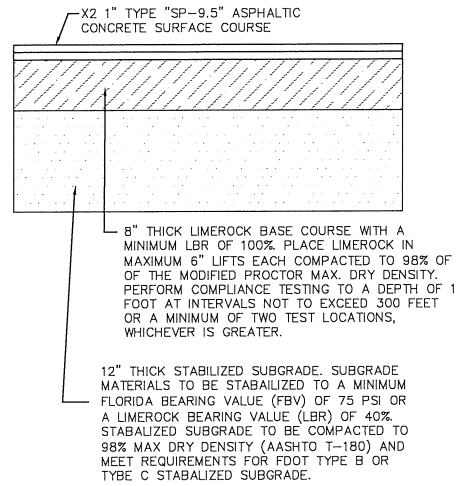
NOTE:  
WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.



**10** MONOLITHIC CURB AND SIDEWALK  
(REFER TO F.D.O.T. INDEX 515)  
N.T.S.



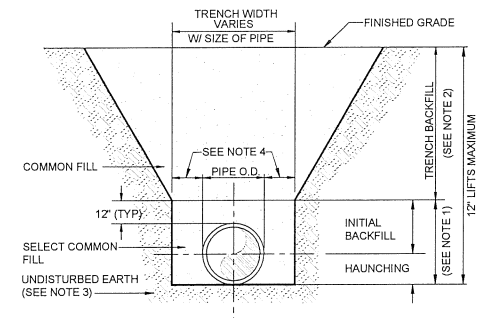
**11** TYPICAL PAVEMENT SECTION  
N.T.S.



**12** TYPICAL PAVEMENT SECTION FOR  
OFFSITE R.O.W. IMPROVEMENTS  
N.T.S.

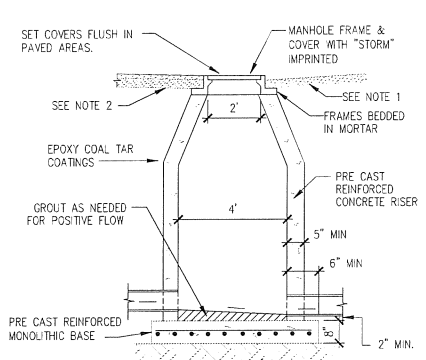
DATE	3/7/2018	DESCRIPTION	APPOPKA COMMENTS DATED 07/25/18
DATE	8/2/2018	DESCRIPTION	
CIVIL ENGINEERING 1 LAND PLANNING	APPIAN ENGINEERING LLC.		
CIVIL DETAILS	FINAL DEVELOPMENT PLAN		
SCALE	N.T.S.		
PROJECT	ROY-001		
SHEET	C10.0		
DRAWN:	S. SIERRA-GIL	DESIGNED:	O. SANCHEZ
CHECKED:	L. CLASSON	DATE:	8/2/2018
LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA			
APPIAN ENGINEERING			

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Drainage Details.dwg Modified: 7/6/2018 By: sleragol



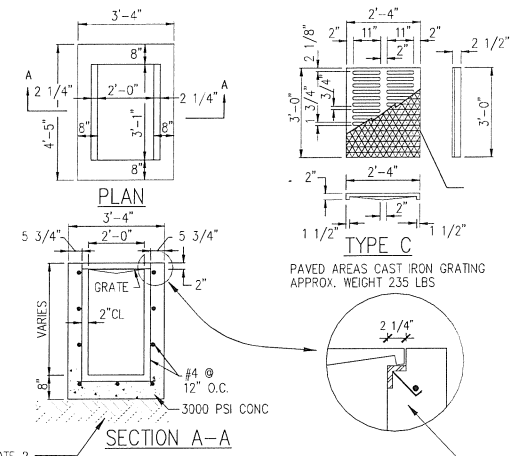
- NOTES:
- INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
  - TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
  - PIPE BEDDING SHALL BE COMPACTED TO 95% (MIN) OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. BEDDING ROCK CAN BE USED FOR BEDDING IF SUBGRADE SOILS ARE TOO WET TO COMPACT, OR AS DIRECTED BY THE ENGINEER.
  - 15" MAX (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN.) FOR PIPE DIAMETER 24" AND LARGER.
  - WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
  - ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
  - FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES.

1 TRENCH DETAIL N.T.S.



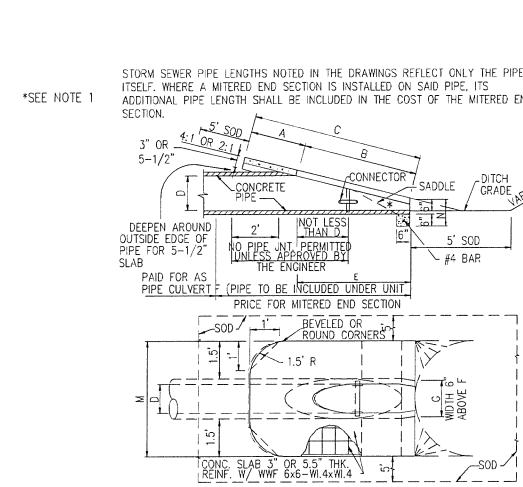
- NOTES:
- IN UNPAVED AREAS TOP OF FRAME SHALL BE 2" ABOVE FINISHED GRADE.
  - ALL IMPAVEMENT STRUCTURES MUST CONFORM TO H20 LOADING STANDARDS.
  - 12 INCHES OF STONE BEDDING (FDOT #57 STONE, NON-CALCAREOUS) CAN BE USED FOR BEDDING IF SUBGRADE SOILS ARE TOO WET TO COMPACT. (SEE NOTE 3)

2 MANHOLE N.T.S.



- NOTES:
- FOR PEDESTRIAN AND VEHICULAR USE, USE CAST IRON GRATE. FOR NON VEHICULAR USE, USE STEEL GRATE.
  - SUBGRADE SHALL BE COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.

3 TYPE "C" INLET N.T.S.

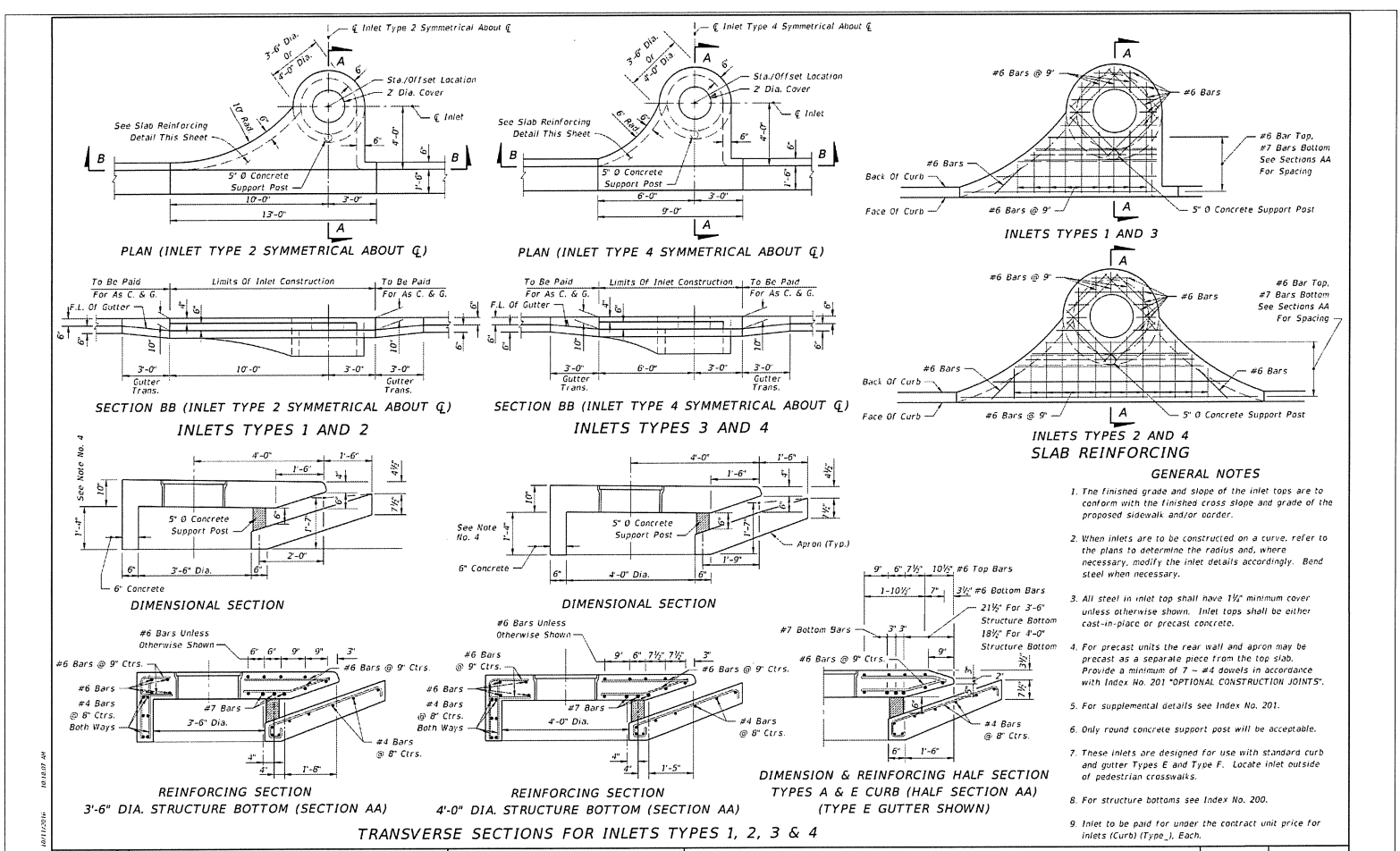


- NOTES:
- FOR PEDESTRIAN AND VEHICULAR USE, USE CAST IRON GRATE. FOR NON VEHICULAR USE, USE STEEL GRATE.
  - SUBGRADE SHALL BE COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.

4 MITERED END SECTION (RCP) N.T.S.

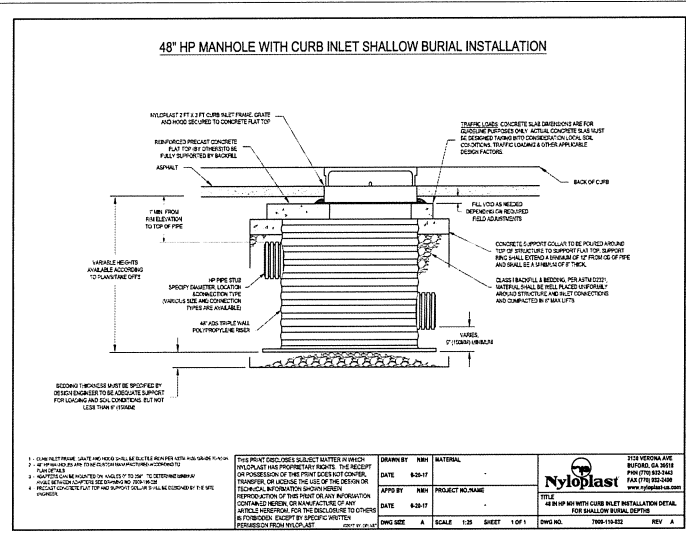
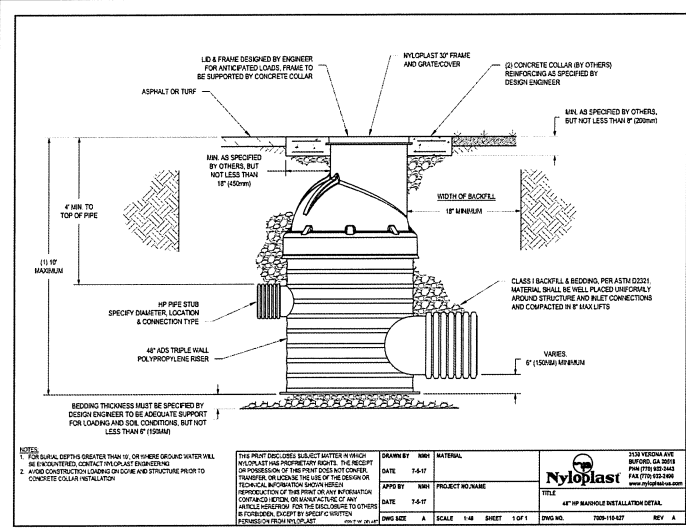
D	DIMENSIONS AND QUANTITIES													
	A	B	C	E	F	G	M							
	PIPE	DOUBLE	TRIPLE	QUAD										
15"	1.92	2.18	4.10	2.06	5	1.22	4.63	7.21	9.79	12.37				
18"	1.97	2.74	4.71	2.56	6	1.41	4.92	7.75	10.58	13.42				
24"	2.05	3.83	5.91	3.56	7	1.73	5.50	8.92	12.33	15.75				
30"	2.15	4.95	7.10	4.56	8	2.00	6.08	10.33	14.58	18.83				
36"	2.25	6.09	8.33	5.56	9	2.24	6.67	11.75	16.83	21.92				
42"	2.34	7.21	9.56	6.56	10	2.45	7.23	13.23	19.23	23.25				
48"	2.43	8.33	10.78	7.56	11	2.65	7.83	14.58	21.33	25.08				
54"	2.52	9.44	11.98	8.56	12	2.83	8.42	16.05	23.75	31.42				
60"	2.62	10.56	13.18	9.56	14	3.00	9.00	17.50	26.00	34.50				
66"	2.71	11.68	14.39	10.56	15	3.18	9.58	18.75	27.92	37.08				
72"	2.80	12.80	15.60	11.56	16	3.30	10.16	20.15	30.15	40.18				

- \*SLOPE - 4:1 MITER - TO Q PIPE FOR PIPES 18" AND SMALLER  
2:1 FOR PIPES 24" AND LARGER  
2:1 MITER - TO Q PIPE FOR PIPES 18" AND SMALLER  
1:1 FOR PIPES 24" AND LARGER



- GENERAL NOTES
- The finished grade and slope of the inlet tops are to conform with the finished cross slope and grade of the proposed sidewalk and/or border.
  - When inlets are to be constructed on a curve, refer to the plans to determine the radius and, where necessary, modify the inlet details accordingly. Bend steel when necessary.
  - All steel in inlet top shall have 1/2" minimum cover unless otherwise shown. Inlet tops shall be either cast-in-place or precast concrete.
  - For precast units the rear wall and apron may be precast as a separate piece from the top slab. Provide a minimum of 7 - #4 dowels in accordance with Index No. 201 "OPTIONAL CONSTRUCTION JOINTS".
  - For supplemental details see Index No. 201.
  - Only round concrete support post will be acceptable.
  - These inlets are designed for use with standard curb and gutter Types E and Type F. Locate inlet outside of pedestrian crosswalks.
  - For structure bottoms see Index No. 200.
  - Inlet to be paid for under the contract unit price for inlets (Curb) (Type), Each.

5 TYPE 1, 2, 3, AND 4 INLETS N.T.S.



6 ADS HP 48" MANHOLE N.T.S.

LAST REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	INDEX NO.	SHEET NO.
11/01/16			210	1 of 1

CIVIL ENGINEERING | LAND PLANNING

APPLAN ENGINEERING LLC.

APPLAN.COM • 407.960.5868

2211 Lee Road, Suite 17, West Palm Beach, Florida, 33419

DATE: 8/2/2018

DESCRIPTION: DRAINAGE DETAILS FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA

SCALE: N.T.S.

PROJECT: ROY-001

CHECKED: L. CLASSON

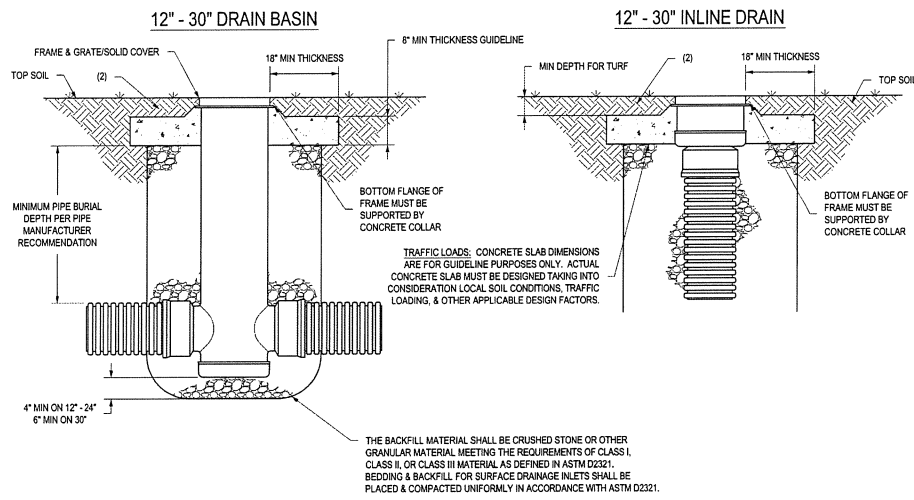
DATE: 8/2/2018

SHEET: C9.0

APPLAN ENGINEERING

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\99a\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Drainage Details.dwg Modified: 7/6/2018 By: ssierragj

**NYLOPLAST TURF TRAFFIC INSTALLATION**



- GRATES/SOLID COVERS SHALL MEET H-20 LOAD RATING FOR 30' PEDESTRIAN & 12' - 30' STANDARD & SOLID
- DESIGN SHOULD ACCOUNT FOR ROOT DEPTH TO ALLOW TURF TO GROW AND PREVENT EROSION AROUND GRATE SO THAT HAZARDS DO NOT FORM.

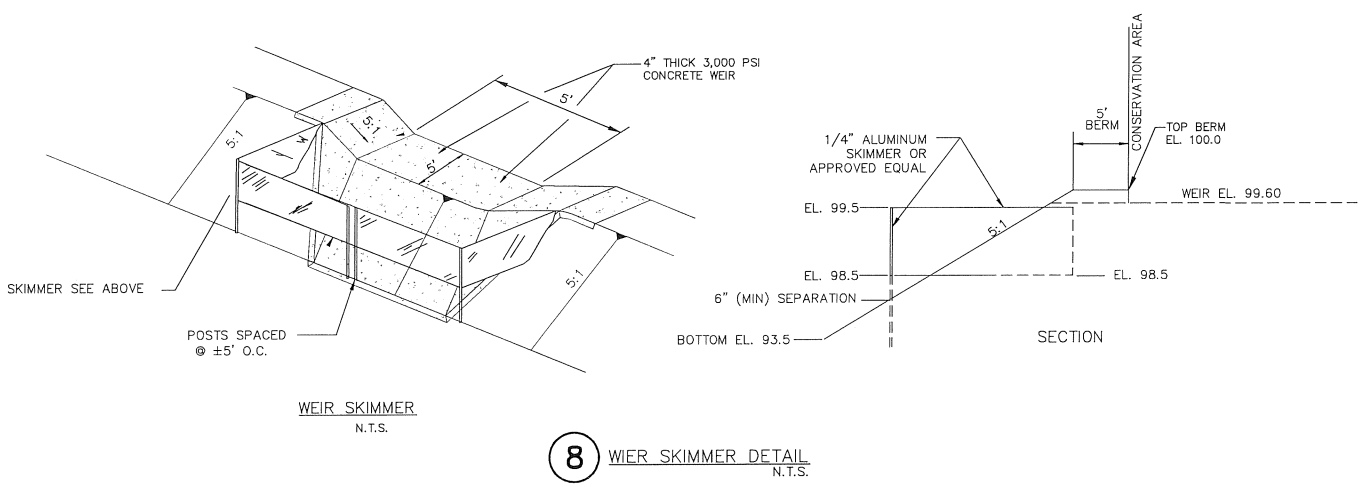
THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS PROHIBITED, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY	ESIC	MATERIAL
DATE	01-05-09	
REVISED BY	MMH	PROJECT NO./NAME
DATE	03-14-16	
DWG SIZE	A	SCALE 1:25 SHEET 1 OF 1

**Nyloplast**  
 3130 VERONA AVE  
 BUFORD, GA 30518  
 PHN (770) 932-2443  
 FAX (770) 932-2490  
 www.nyloplast-us.com

TITLE: 12 IN - 30 IN DRAIN BASIN & INLINE DRAIN TURF TRAFFIC INSTALLATION  
 DWG NO. 7001-110-340 REV F

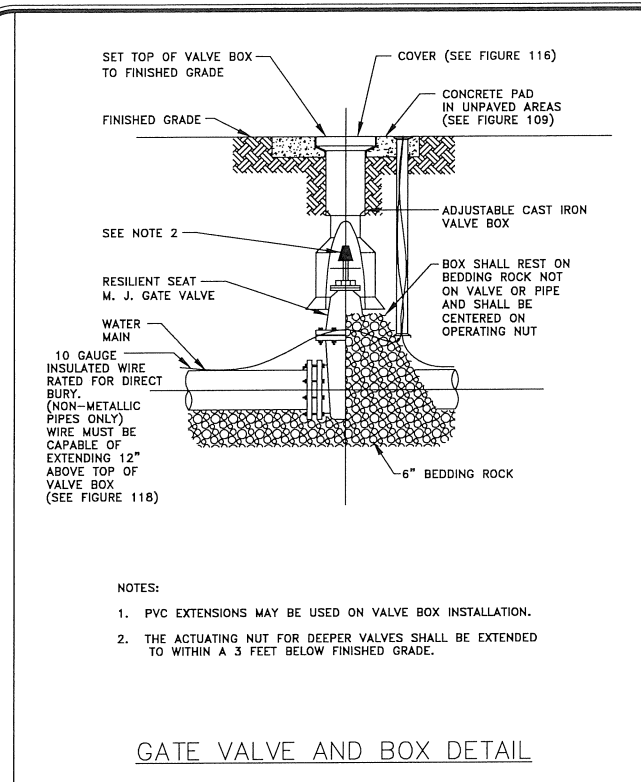
**7 CONCRETE COLLAR**  
N.T.S.



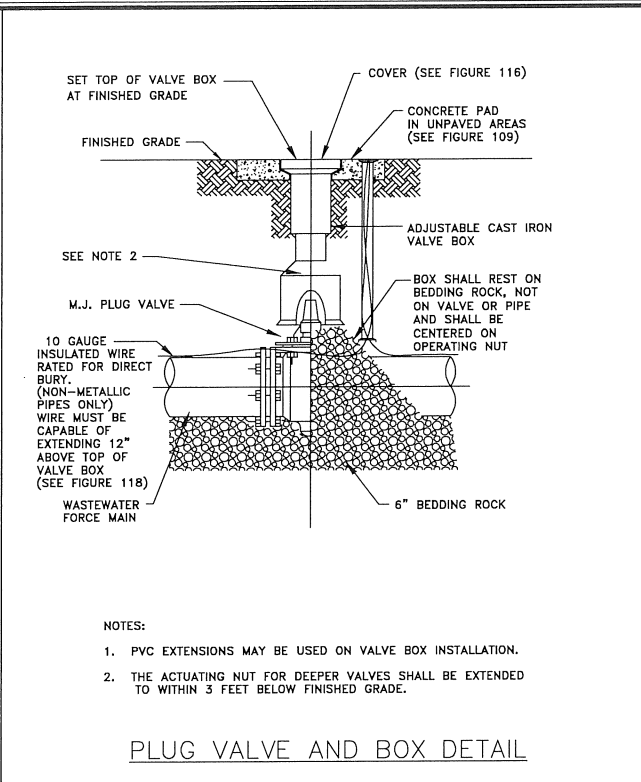
**8 WEIR SKIMMER DETAIL**  
N.T.S.

	SCALE	N.T.S.	DRAWN:	S. SIERRA-OIL	DRAINAGE DETAILS FINAL DEVELOPMENT PLAN LAKESIDE - PHASE 2 (FKA LAKE MARSHALL SUBDIVISION) CITY OF APOPKA, FLORIDA	CIVIL ENGINEERING   LAND PLANNING <b>APPIAN ENGINEERING LLC.</b> APPIANFL.COM • 407.960.5868 2221 Lee Road, Suite 117, Winter Park, Florida, 32789 <small>STATE OF FLORIDA LICENSE NO. CE00000001</small>	DATE	8/2/2018	BY	
	PROJECT	ROY-001	DESIGNED:	O. SANCHEZ			REVISION			
	SHEET	C11.1	CHECKED:	L. CLASSON						
			DATE:	8/2/2018						

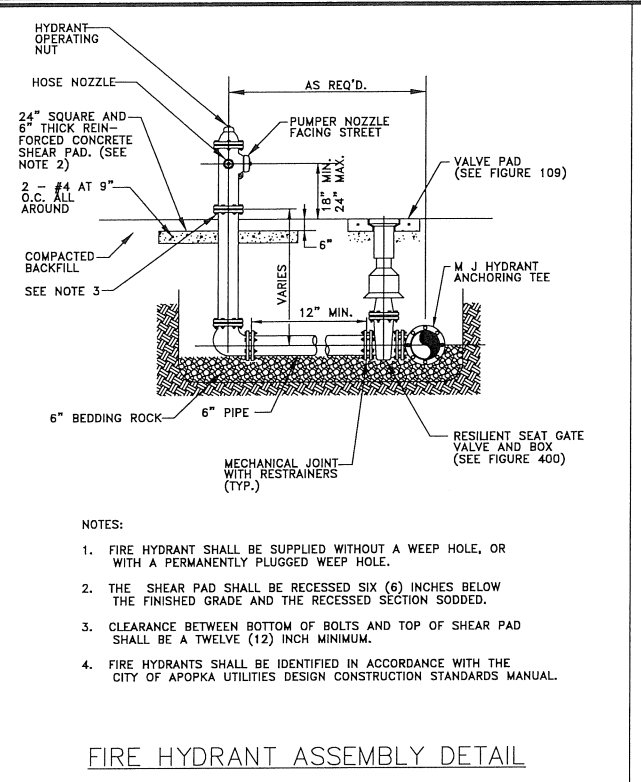
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\59civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Utility Details.dwg Modified: 7/5/2018 By: osanchez



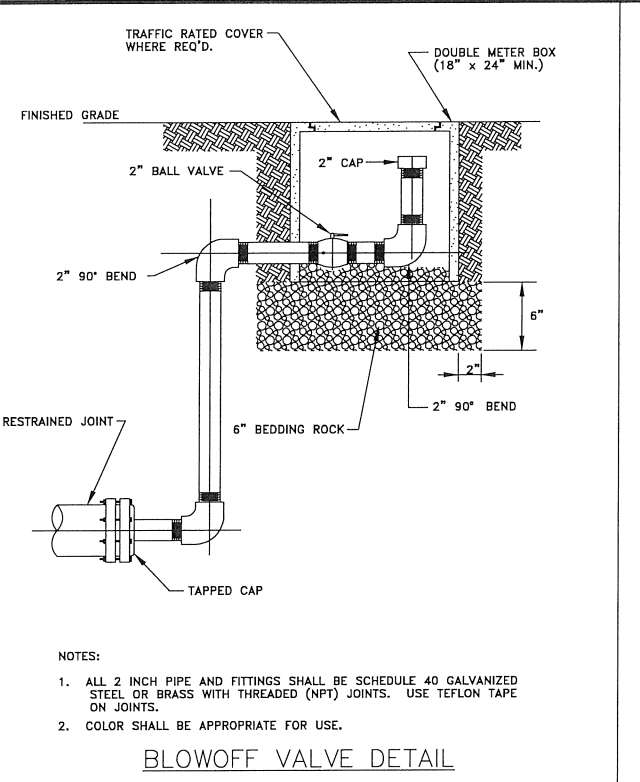
CITY OF APOPKA JANUARY 2014 FIG. 400  
DESIGN ENGINEERING DIVISION



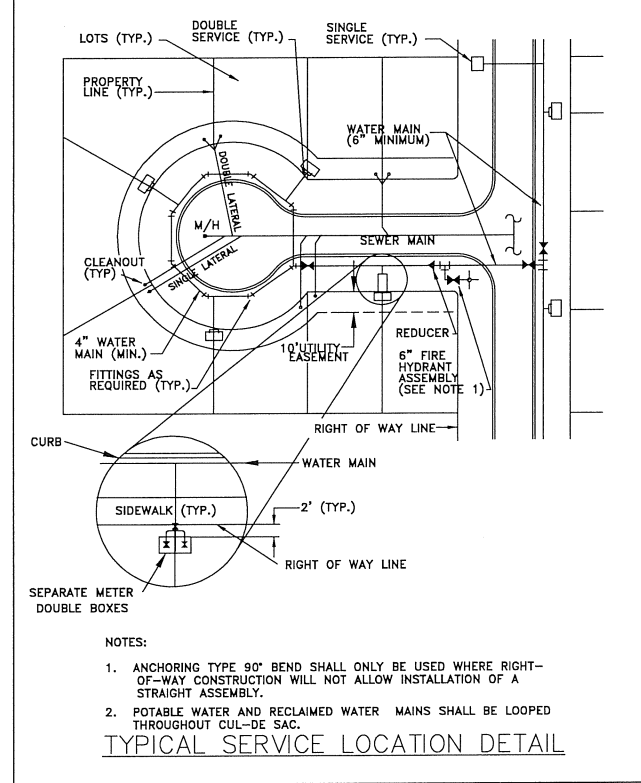
CITY OF APOPKA JANUARY 2014 FIG. 400 A  
DESIGN ENGINEERING DIVISION



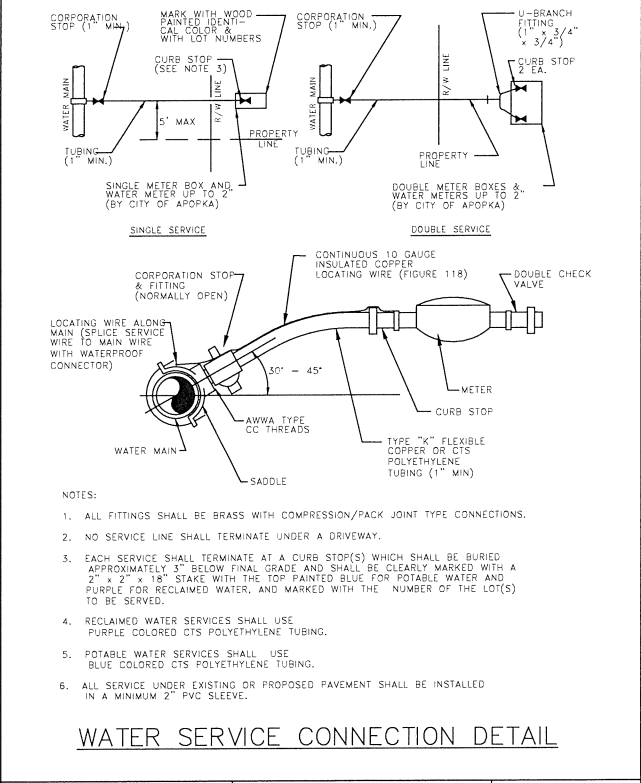
CITY OF APOPKA JANUARY 2014 FIG. 402  
DESIGN ENGINEERING DIVISION



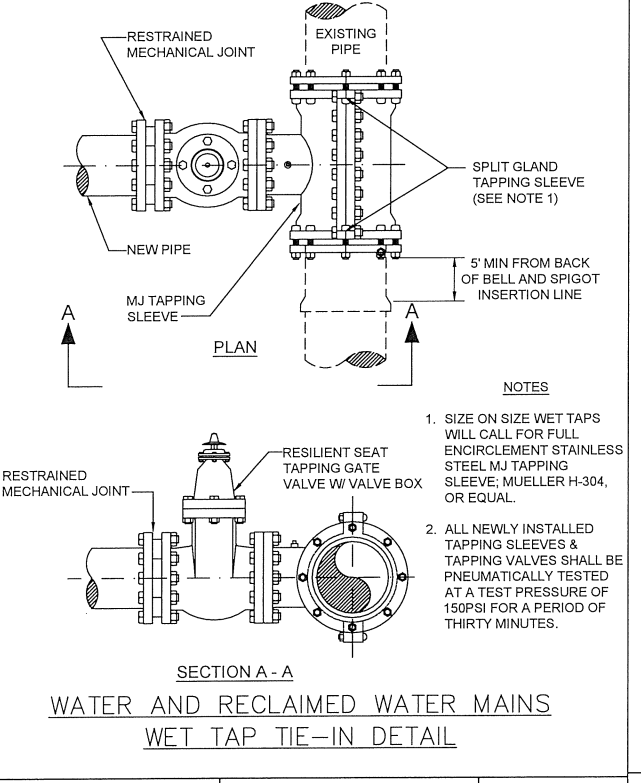
CITY OF APOPKA JANUARY 2014 FIG. 403  
DESIGN ENGINEERING DIVISION



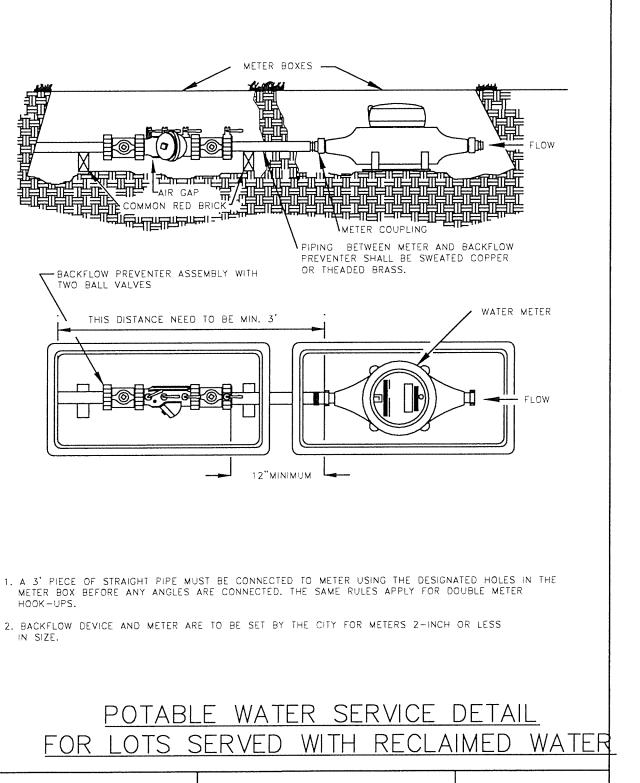
CITY OF APOPKA JANUARY 2014 FIG. 404  
DESIGN ENGINEERING DIVISION



CITY OF APOPKA JANUARY 2014 FIG. 405  
DESIGN ENGINEERING DIVISION



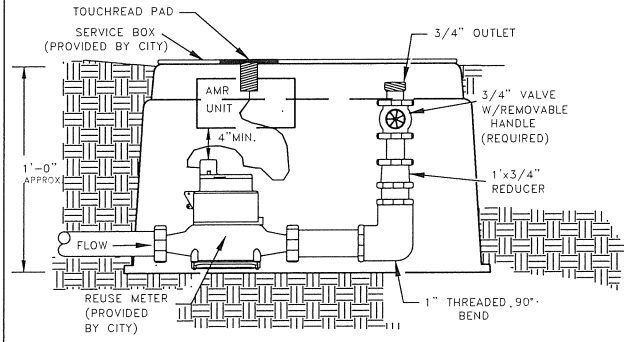
CITY OF APOPKA JANUARY 2014 FIG. 406  
DESIGN ENGINEERING DIVISION



CITY OF APOPKA JANUARY 2014 FIG. 505  
DESIGN ENGINEERING DIVISION

CIVIL ENGINEERING I LAND PLANNING		APPIAN ENGINEERING LLC.		APPIANFL.COM • 407.960.5868		2021 Lee Road, Suite 17, Winter Park, Florida, 32789		DATE: 07/23/18		BY: DESCRIPTION	
UTILITY DETAILS		FINAL DEVELOPMENT PLAN		LAKESIDE - PHASE 2		(FKA LAKE MARSHALL SUBDIVISION)		CITY OF APOPKA, FLORIDA		REVISIONS	
SCALE: N.T.S.	PROJECT: ROY-001	CHECKED: L. CLASSON	DATE: 8/2/2018	SHEET: C12.0		DRAWN: S. SIERRA-OIL		DESIGNED: O. SANCHEZ		PROJECT MANAGER: L. CLASSON	

P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5905\Layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Utility Details.dwg Modified: 7/5/2018 By: casonchez



RECLAIMED WATER SERVICE CONNECTION  
(FOR SERVICES W/O AN IRRIGATION SYSTEM)

CITY OF APOPKA JANUARY 2014 FIG. 506  
DESIGN ENGINEERING DIVISION

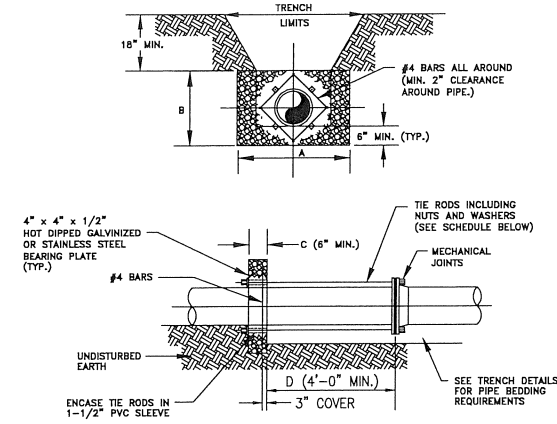
MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). \*

	PIPE SIZE										
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60							
45° BEND	14	18	22	25							
22-1/2° BEND	7	9	11	12							
11-1/4° BEND	4	5	6	6							
TEE**	1	7	24	44							
REDUCER (ONE SIZE SMALLER)		41	39	40							
DEAD END	74	96	115	136							

- \* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS  
\*\* LENGTH ALONG RUN ASSUMED TO BE 18'
- NOTES:
- FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
  - INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
  - WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
  - IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
  - LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:  
TYPE OF PIPE: PVC  
WORKING PRESSURE: 150 P.S.I.\*\* FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.  
SOIL DESIGNATION: SM(SAND SILT)  
LAYING CONDITIONS: 3
  - FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
  - VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA JANUARY 2014 FIG. 105  
DESIGN ENGINEERING DIVISION



SCHEDULE OF DIMENSIONS AND MATERIALS \*

PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
8	2.0	2.0	1.0		3/4"	2
10	2.5	2.5	1.0		3/4"	2
12	3.0	3.0	1.0		3/4"	4
16	4.0	4.0	1.5		3/4"	4
20	5.0	5.0	1.5		3/4"	6
24	6.0	6.0	1.5		3/4"	8

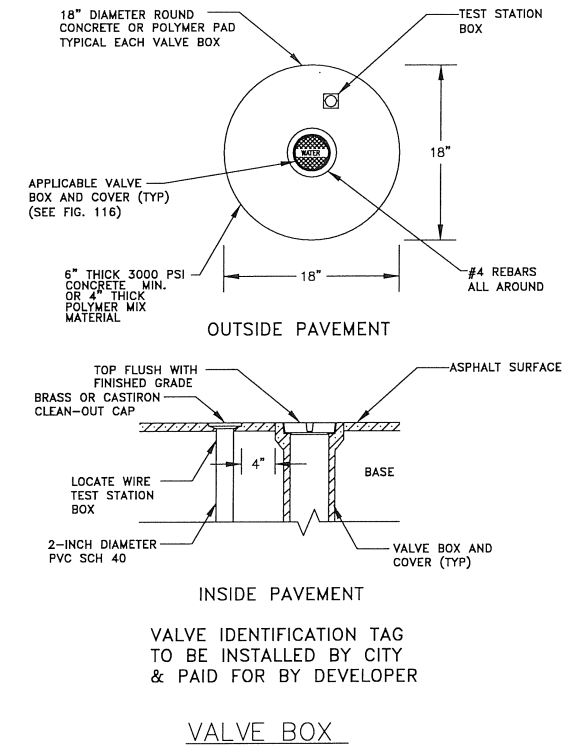
NOTES:

- ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
- MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 2500 P.S.I.
- BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
- ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
- NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
- DESIGN PRESSURE: 150 P.S.I.

NOTE: THRUST BLOCK AREA TO BE COMPUTED ON BASIS OF 2,000 LBS. PER SQ. FT. SOIL RESTRAINT (1,000 MIN) SEE NOTE 5  
\* TO BE COMPLETED BY ENGINEER.

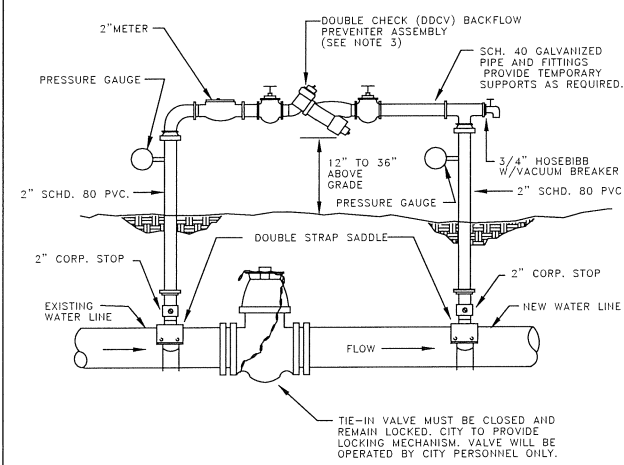
WATER MAIN THRUST COLLAR DETAIL

CITY OF APOPKA JANUARY 2014 FIG. 107  
DESIGN ENGINEERING DIVISION



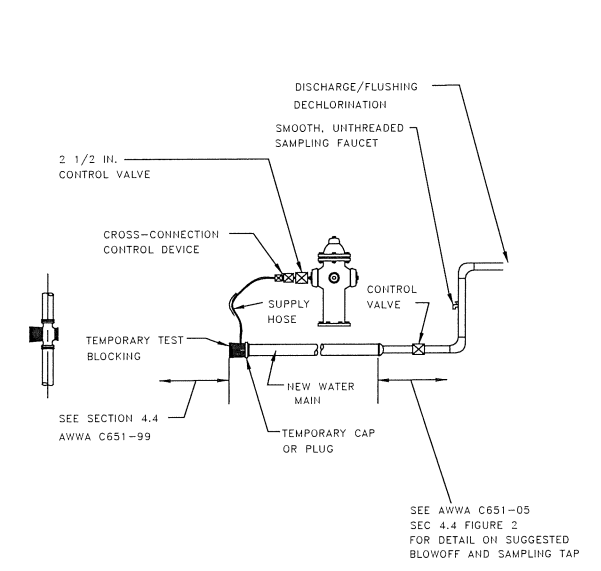
VALVE BOX  
VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

CITY OF APOPKA JANUARY 2014 FIG. 109  
DESIGN ENGINEERING DIVISION



TEMPORARY JUMPER CONNECTION

CITY OF APOPKA JANUARY 2014 FIG. 504 A  
DESIGN ENGINEERING DIVISION



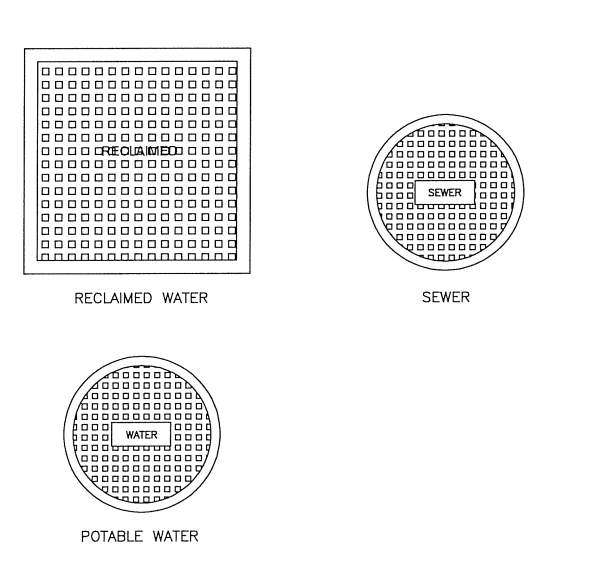
TEMPORARY JUMPER CONNECTION FROM FIRE HYDRANT

CITY OF APOPKA JANUARY 2014 FIG. 504 B  
DESIGN ENGINEERING DIVISION

- TEMPORARY JUMPER CONNECTION NOTES:
- A temporary jumper connection is required at all connections between existing active water mains and proposed new water main improvements.
  - Figures 504 A and 504 B to be used for filling any new water main of any size from existing active water mains and for flushing of new mains up to 8 inches in diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size. The jumper connection shall be maintained until after filling, flushing testing and disinfection of the new main has been successfully completed and cleared for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies have been received. The jumper connection shall also be used to maintain a minimum pressure of 20 psi in the new mains after disinfection and until the FDEP clearance letter is obtained. Thrust blocking and/or restraints shall be provided temporarily, as required. Pipes and fittings used for connecting the new pipes to the existing pipes shall be disinfected prior to installation in accordance with AWWA C651, 2005 edition. The tapping sleeves and the exterior of the main to be tapped shall be disinfected by spraying or swabbing per section II of AWWA C651-05.
  - Flushing of 10 inches in diameter and larger water mains may be done through the tie-in valve under very controlled conditions. The following procedures shall be followed:  
A. The tie-in valves shall be operated and pressure tested in the presence of the City engineer to verify water tightness prior to tie-in. Valves which are not water tight shall be replaced with a new valve installed immediately adjacent to the leaking valve.  
B. The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.  
C. Flushing shall not be attempted during peak demand hours of the existing water mains.  
D. All downstream valves in the system must be open prior to opening the tie-in valve.  
E. Provide for and monitor the pressure in the tie-in point. The pressure in the existing main must not drop below 35 psi.  
F. The tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is greater than 10 psi.  
G. The tie-in valve shall be locked closed by the City personnel until flushing begins.  
H. The tie-in valve shall be opened only for flushing of the new main. The procedure shall be directed by the City and observed by the engineer.  
I. After flushing, the tie-in valve shall be closed and locked in the closed position by the City personnel.
  - The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation.
  - Except as required to flush lines of greater than 8 inches in diameter, the tie-in valve shall remain closed and shall be locked in the closed position by the City. The tie-in valve shall remain locked closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
  - Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the temporary jumper connection. The corporation stops are to be closed and plugged with 2 inch brass plugs.
  - All installation and maintenance of the temporary jumper connection and associated backflow prevention device, fittings, valve, etc. shall be the responsibility of the contractor.

PROCEDURES FOR TEMPORARY JUMPER CONNECTION

CITY OF APOPKA JANUARY 2014 FIG. 504 C  
DESIGN ENGINEERING DIVISION



TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA JANUARY 2014 FIG. 116  
DESIGN ENGINEERING DIVISION

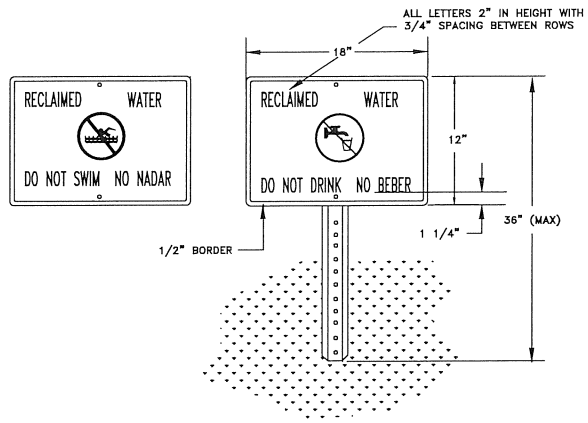
CIVIL ENGINEERING / LAND PLANNING  
APPLAN ENGINEERING LLC  
APPLAN.COM • 407.960.5868  
2211 Lee Road, Suite 17, Wrentham, MA, 01982  
DATE: 07/23/18  
DESCRIPTION: CITY OF APOPKA COMMENTS DATED 07/23/18

UTILITY DETAILS  
FINAL DEVELOPMENT PLAN  
LAKESIDE - PHASE 2  
(FKA LAKE MARSHALL SUBDIVISION)  
CITY OF APOPKA, FLORIDA

SCALE: N.T.S.  
PROJECT: ROY-001  
SHEET: C12.1  
DRAWN: S. SIERRA-GIL  
DESIGNED: O. SANCHEZ  
CHECKED: L. CLASSON  
DATE: 8/2/2018

APPLAN ENGINEERING

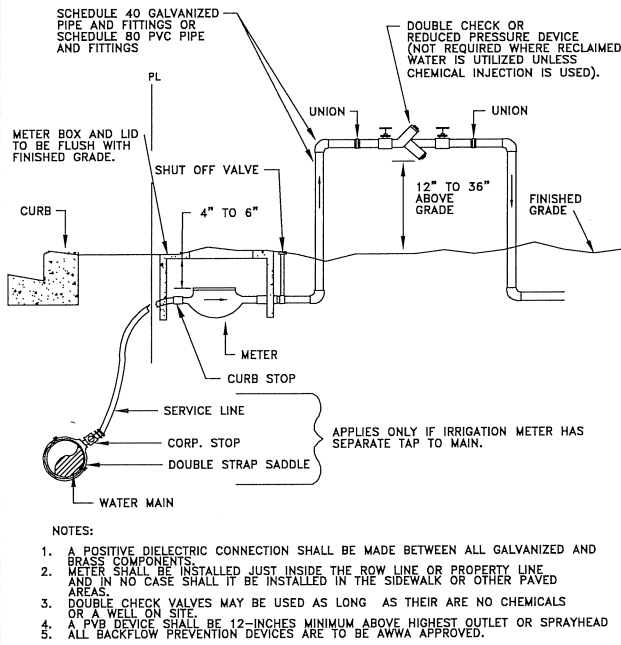
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\9.9 Drawings\99civil\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Utility Details.dwg Modified: 7/5/2018 By: csanchez



- NOTES:
- HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
  - BACKGROUND SHALL BE WHITE. LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
  - ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
  - POST SHALL BE U CHANNEL 12 FT, 2 LB. HOT ROLLED HIGH TENSILE RAIL OR BILLET STEEL, HOT DIP GALVANIZED PER ASTM A-123.
  - MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
  - SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

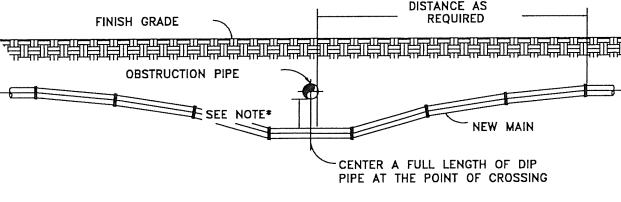
RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 115



IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

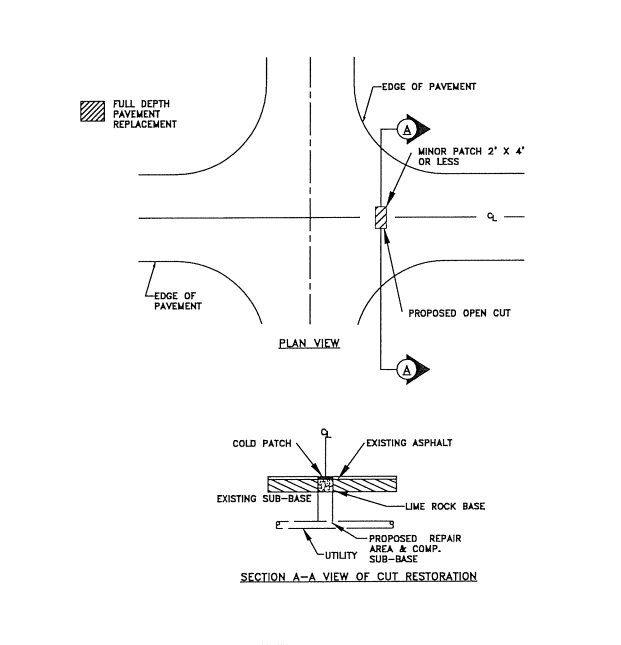
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 502



- NOTES:
- 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
  - 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
  - SEE ENCASEMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.
- CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

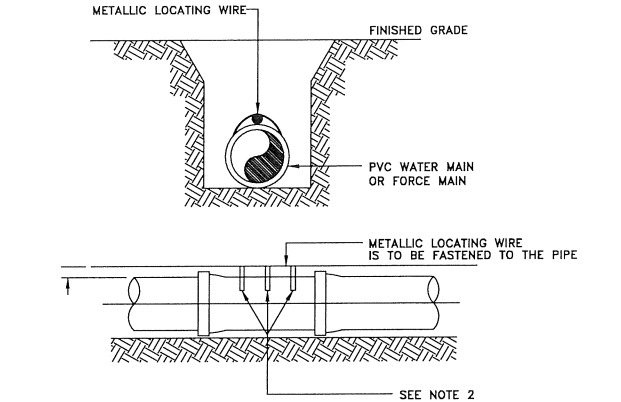
UTILITY CROSSING PIPE DEFLECTION DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 117



OPEN-CUT DETAIL - MINOR PATCH

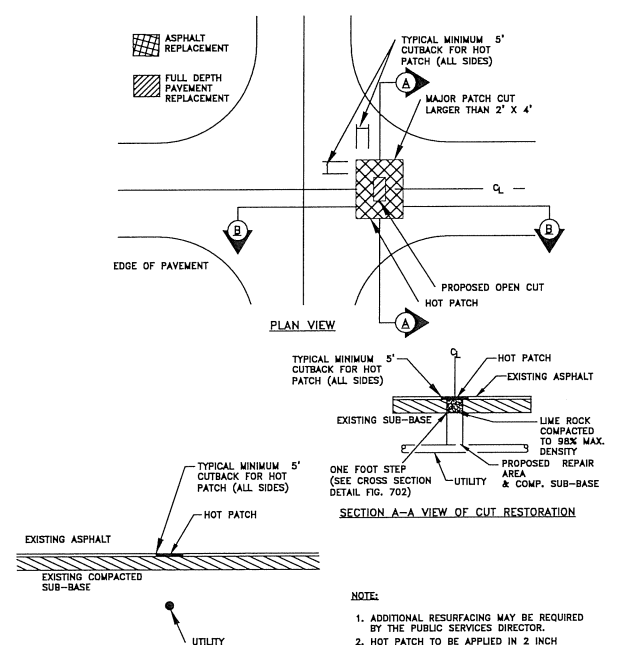
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 700



- NOTES:
- PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
  - SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
  - BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
  - SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
  - WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

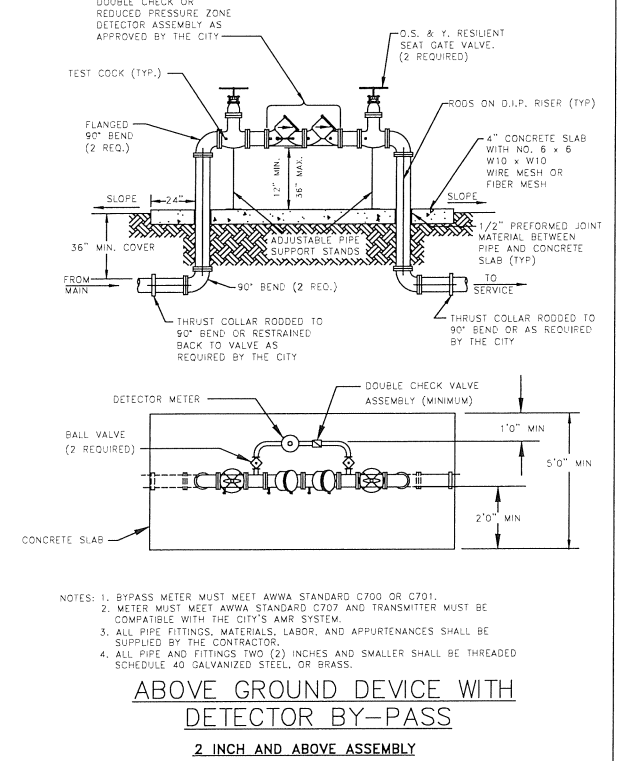
PVC PIPE LOCATING WIRE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 118



OPEN-CUT DETAIL - MAJOR PATCH

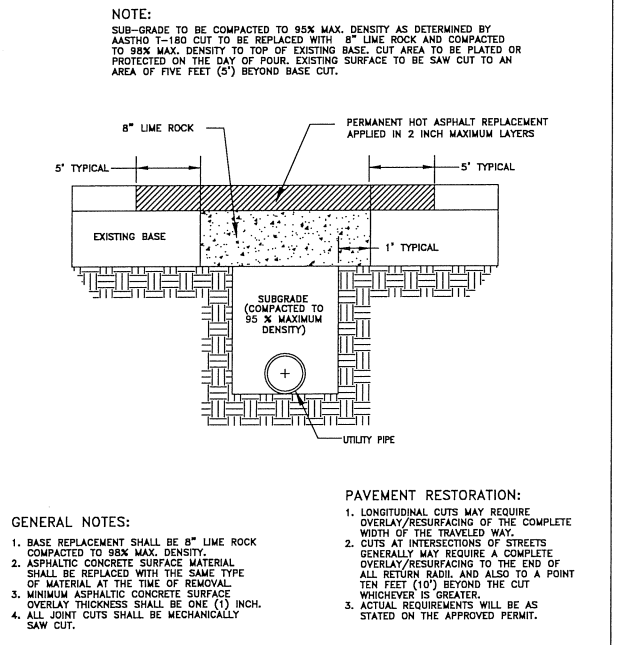
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 701



- NOTES:
- BY-PASS METER MUST MEET AWWA STANDARD C700 OR C701.
  - METER MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH THE CITY'S AMR SYSTEM.
  - ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
  - ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL, OR BRASS.

ABOVE GROUND DEVICE WITH DETECTOR BY-PASS 2 INCH AND ABOVE ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 500 B

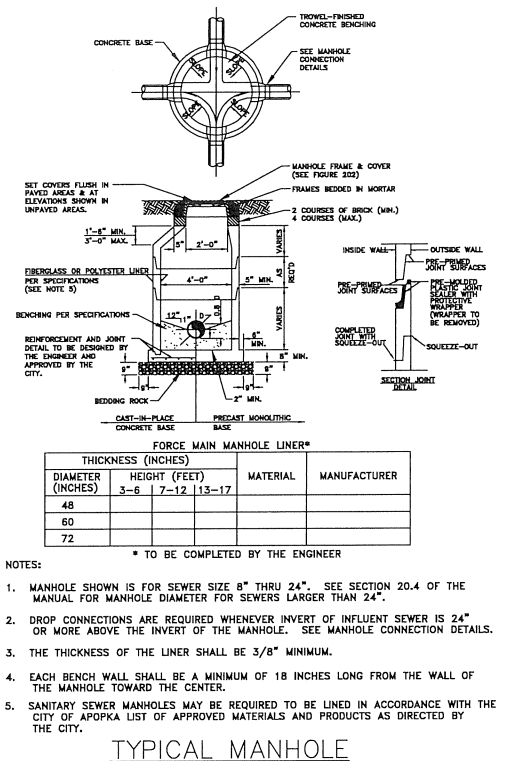


OPEN-CUT CROSS SECTION DETAIL

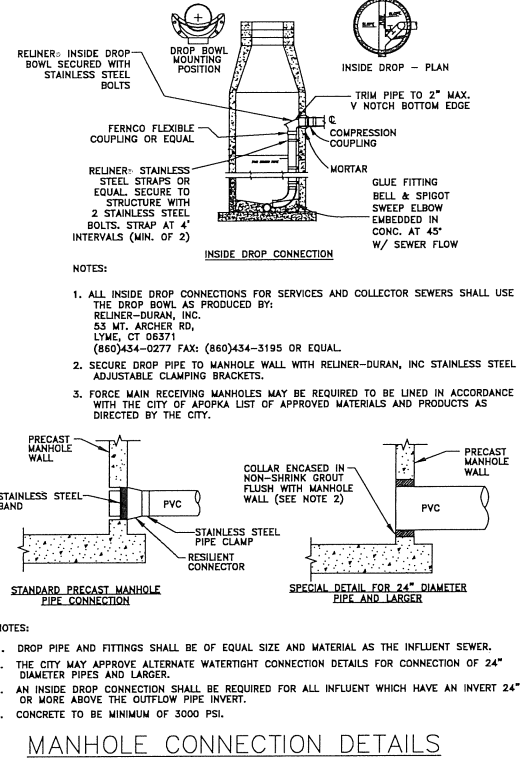
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 702

CIVIL ENGINEERING   LAND PLANNING	DATE	07/23/18	DESCRIPTION
APPIAN ENGINEERING LLC	REV.		
APPIANENGINEERING.COM • 407.960.5868			
2221 Lee Road, Suite 117, Wyomissing, PA 19381			
UTILITY DETAILS	DATE	8/2/2018	
FINAL DEVELOPMENT PLAN			
LAKESIDE - PHASE 2			
(FKA LAKE MARSHALL SUBDIVISION)			
CITY OF APOPKA, FLORIDA			
SCALE	PROJECT	CHECKED	SHEET
N.T.S.	ROY-001	L. CLASSON	C12.2

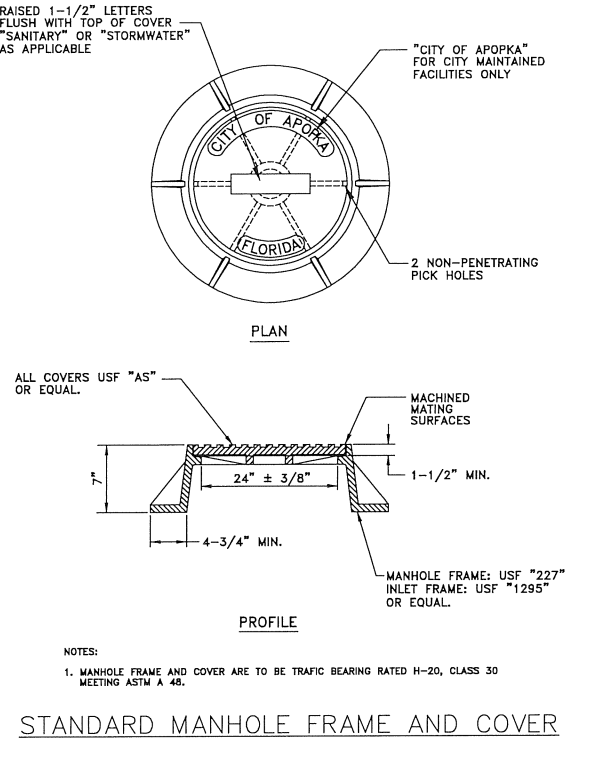
P:\PROJECT DRAWINGS\ROY-001 - Lake Marshall Residential Development\5.9 Drawings\5.9a\layouts\05 FINAL DEVELOPMENT PLAN - PHASE 2\Utility Details.dwg Modified: 7/5/2018 By: oasanchez



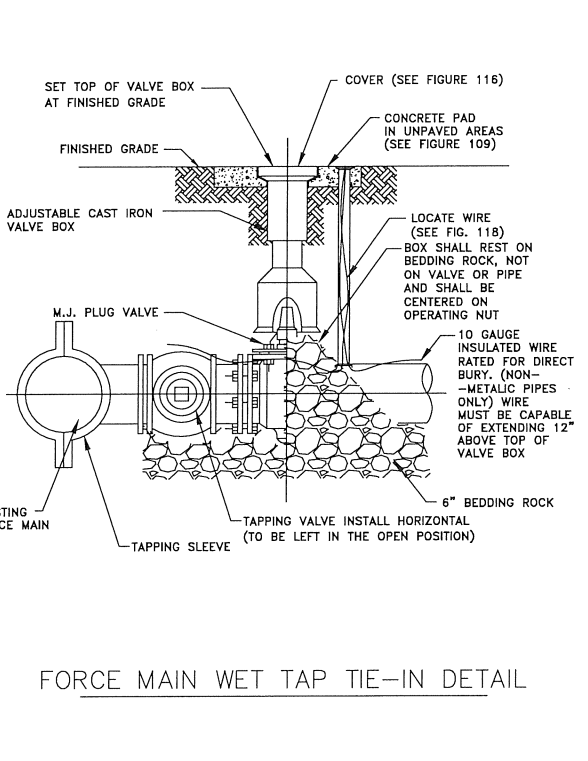
TYPICAL MANHOLE  
CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2015 FIG. 200



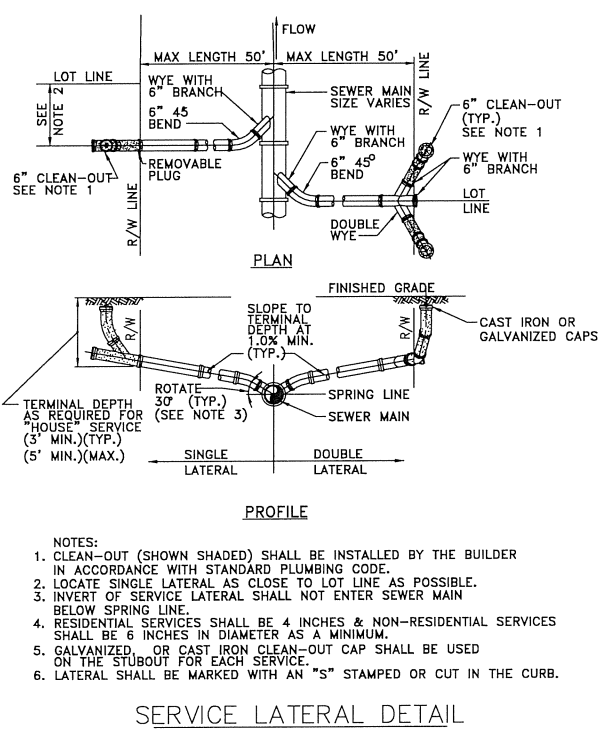
MANHOLE CONNECTION DETAILS  
CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2015 FIG. 201



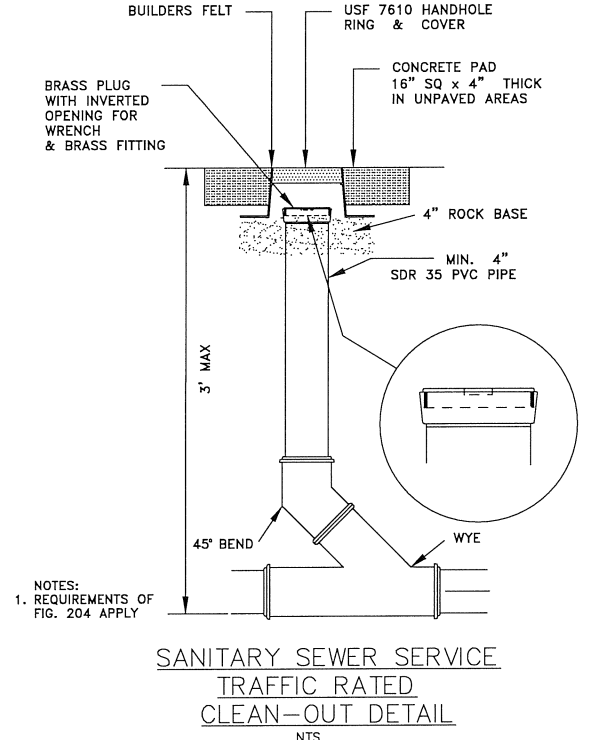
STANDARD MANHOLE FRAME AND COVER  
CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014 FIG. 202



FORCE MAIN WET TAP TIE-IN DETAIL  
CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014 FIG. 206



SERVICE LATERAL DETAIL  
CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014 FIG. 204



SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL  
CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014 FIG. 205

DATE	DESCRIPTION
07/23/18	APPOKA COMMENTS DATED 07/23/18
REV.	DATE
1	07/23/18
2	07/23/18
3	07/23/18
4	07/23/18
5	07/23/18
6	07/23/18
7	07/23/18
8	07/23/18
9	07/23/18
10	07/23/18
11	07/23/18
12	07/23/18
13	07/23/18
14	07/23/18
15	07/23/18
16	07/23/18
17	07/23/18
18	07/23/18
19	07/23/18
20	07/23/18
21	07/23/18
22	07/23/18
23	07/23/18
24	07/23/18
25	07/23/18
26	07/23/18
27	07/23/18
28	07/23/18
29	07/23/18
30	07/23/18

CIVIL ENGINEERING & LAND PLANNING  
**APPLAN ENGINEERING LLC.**  
 APPLANENGINEERING.COM • 407.960.5868  
 2221 Lee Road, Suite 117, Winter Park, Florida, 32789  
 STATE OF FLORIDA: CERTIFICATE OF AUTHORIZATION No. 1241

UTILITY DETAILS  
 FINAL DEVELOPMENT PLAN  
 LAKESIDE - PHASE 2  
 (FKA LAKE MARSHALL SUBDIVISION)  
 CITY OF APOPKA, FLORIDA

SCALE: N.T.S.  
 PROJECT: ROY-001  
 SHEET: C12.3

DRAWN: S. SIERRA-OIL  
 DESIGNED: O. SANCHEZ  
 CHECKED: L. CLASSON  
 DATE: 8/2/2018

# LAKESIDE PHASE II

SHEET 1 OF 5

## A REPLAT

### REPLATTING TRACT "Z", LAKESIDE PHASE I RECORDED IN PLAT BOOK \_\_\_\_\_, PAGES \_\_\_\_\_ SECTIONS 8 AND 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST CITY OF APOPKA, ORANGE COUNTY, FLORIDA

#### LEGAL DESCRIPTION

A TRACT OF LAND, BEING THE LANDS DESCRIBED IN THAT CERTAIN SPECIAL WARRANTY DEED, AS RECORDED IN DOCUMENT # 20180371602, DOCUMENT # 20180371656 AND TRACT "Z", LAKESIDE PHASE I, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK PAGES \_\_\_\_\_ THROUGH \_\_\_\_\_, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LYING IN SECTION 8 AND 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF TRACT "A", BRECKENRIDGE PHASE I, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 64, PAGES 74 THROUGH 81 OF SAID PUBLIC RECORDS; FOR A POINT OF BEGINNING; THENCE RUN NORTH 89°49'08" WEST, ALONG THE NORTH LINE OF SAID TRACT "A", A DISTANCE OF 910.14 FEET TO THE SOUTHWEST CORNER OF SAID TRACT "Z"; THENCE DEPARTING SAID NORTH LINE, RUN ALONG THE WESTERLY AND NORTHERLY LINES OF SAID TRACT "Z", THE FOLLOWING 8 COURSES: THENCE RUN NORTH 31°15'18" EAST, 176.46 FEET; THENCE RUN NORTH 31°48'11" EAST, 50.00 FEET TO A POINT LYING ON A NON-TANGENT CURVE, CONCAVE NORTHEASTERLY; THENCE RUN NORTHWESTERLY, ALONG SAID NON-TANGENT CURVE, HAVING A RADIUS OF 25.00 FEET, A CENTRAL ANGLE OF 05°19'52", AN ARC LENGTH OF 2.33 FEET, A CHORD LENGTH OF 2.33 FEET AND A CHORD BEARING OF NORTH 55°31'53" WEST; THENCE RUN NORTH 00°15'51" EAST, NON-TANGENT TO SAID CURVE, 127.37 FEET; THENCE RUN NORTH 45°10'52" EAST, 15.00 FEET; THENCE RUN SOUTH 89°49'08" EAST, 124.41 FEET; THENCE RUN NORTH 00°15'51" EAST, 20.00 FEET TO A POINT LYING ON THE SOUTH RIGHT-OF-WAY LINE OF JOHN'S ROAD; THENCE RUN ALONG SAID SOUTH RIGHT-OF-WAY LINE, THE FOLLOWING COURSES: NORTH 87°35'15" EAST, 154.70 FEET; SOUTH 89°49'08" EAST, 1165.19 FEET; SOUTH 89°49'08" EAST, 203.84 FEET TO A POINT LYING ON THE WESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF STATE ROAD 451. PER ORLANDO ORANGE COUNTY EXPRESSWAY AUTHORITY RIGHT-OF-WAY MAP, PROJECT NO. 75320-6460-604; THENCE RUN ALONG SAID WESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, THE FOLLOWING COURSES: SOUTH 05°01'30" WEST, 458.73 FEET; THENCE RUN SOUTH 01°12'39" WEST, 601.33 FEET; THENCE RUN SOUTH 03°49'01" EAST, 455.41 FEET; THENCE RUN SOUTH 05°01'32" WEST, 100.00 FEET; THENCE RUN NORTH 84°58'30" WEST, 801.32 FEET; THENCE RUN SOUTH 00°41'49" WEST, 645.63 FEET; THENCE RUN SOUTH 84°44'22" EAST, 52.19 FEET; THENCE RUN NORTH 73°48'49" EAST, 33.59 FEET; THENCE RUN NORTH 57°29'34" EAST, 21.16 FEET; THENCE RUN NORTH 10°24'19" EAST, 64.61 FEET; THENCE RUN NORTH 24°10'37" EAST, 70.40 FEET; THENCE RUN NORTH 81°03'59" EAST, 21.54 FEET; THENCE RUN SOUTH 37°36'17" EAST, 28.32 FEET; THENCE RUN NORTH 89°07'43" EAST, 410.24 FEET; THENCE RUN SOUTH 71°49'00" EAST, 76.48 FEET; THENCE RUN SOUTH 28°05'31" EAST, 110.79 FEET; THENCE RUN SOUTH 05°01'30" WEST, 104.77 FEET TO THE POINT OF CURVATURE OF A CURVE, CONCAVE NORTHWESTERLY; THENCE RUN SOUTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 749.44 FEET, A CENTRAL ANGLE OF 4°24'25.92", AN ARC LENGTH OF 573.01 FEET, A CHORD LENGTH OF 572.87 FEET AND A CHORD BEARING OF SOUTH 07°13'43" WEST; THENCE DEPARTING SAID WESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, RUN NORTH 65°58'01" WEST, NON-RADIAL TO SAID CURVE, 53.13 FEET; THENCE RUN SOUTH 89°43'43" WEST, 127.30 FEET; THENCE RUN SOUTH 86°22'15" WEST, 46.83 FEET; THENCE RUN SOUTH 43°11'29" WEST, 86.25 FEET; THENCE RUN SOUTH 48°18'50" WEST, 106.63 FEET; THENCE RUN SOUTH 42°29'39" WEST, 110.25 FEET TO A POINT LYING ON THE SOUTH LINE OF THE NORTHEAST QUARTER OF AFORESAID SECTION 17; THENCE RUN SOUTH 89°43'17" WEST, ALONG SAID SOUTH LINE, 259.84 FEET TO A POINT LYING ON THE EAST LINE OF AFORESAID TRACT "A", BRECKENRIDGE PHASE I; THENCE RUN NORTH 00°42'01" EAST, ALONG SAID EAST LINE, 2692.21 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED TRACT OF LAND LIES IN THE CITY OF APOPKA, ORANGE COUNTY, FLORIDA AND CONTAINS 49.807 ACRES MORE OR LESS.

#### LEGEND

- P.O.B. - POINT OF BEGINNING
- O.R.B. - OFFICIAL RECORDS BOOK
- PG(S) - PAGE(S)
- SEC. - SECTION
- RAD - RADIAL
- R/W - RIGHT-OF-WAY
- L.S. - LICENSED SURVEYOR
- L.B. - LICENSED BUSINESS
- P.R.M. - PERMANENT REFERENCE MONUMENT
- C.M. - CONCRETE MONUMENT
- R.W.M. - RETAINING WALL MAINTENANCE EASEMENT
- U.E. - UTILITY EASEMENT
- L.E. - LANDSCAPE EASEMENT
- U.D.E. - UTILITY AND DRAINAGE EASEMENT
- P.C. - POINT OF CURVATURE
- P.T. - POINT OF TANGENCY
- P.B. - PLAT BOOK
- (N.R.) - NON-RADIAL
- F.K.A. - FORMERLY KNOWN AS
- P.I. - POINT OF INTERSECTION
- TYP. - TYPICAL
- W.M.E. - WALL MAINTENANCE EASEMENT

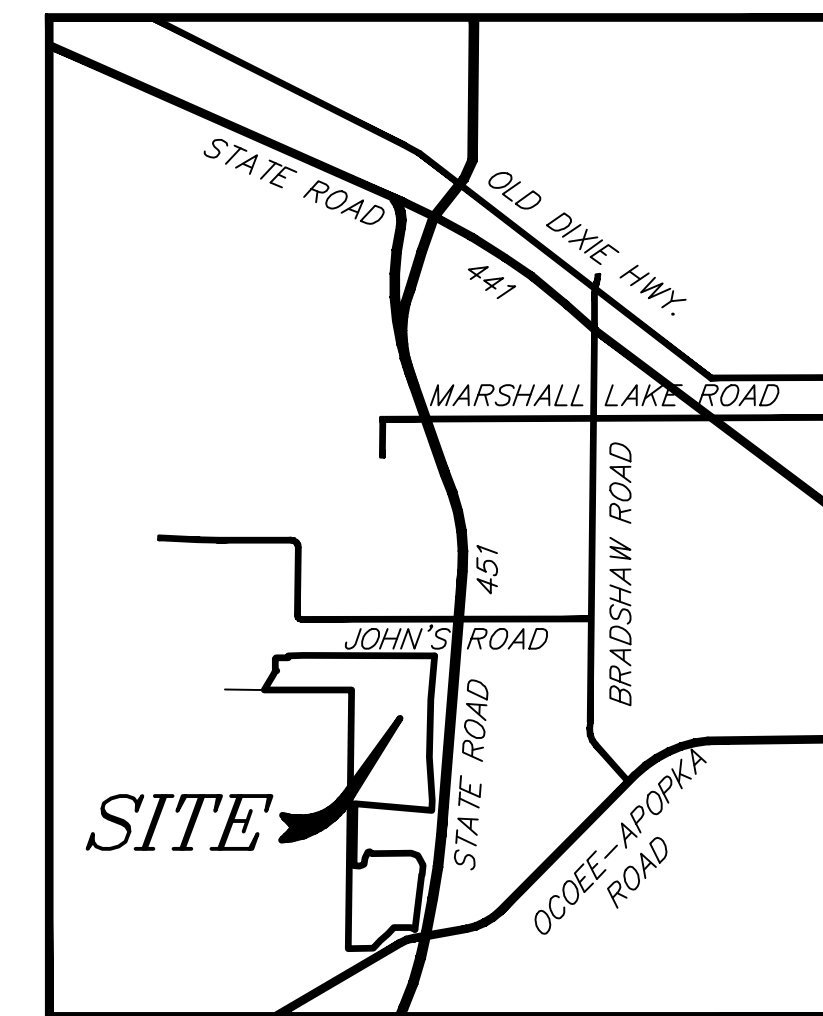
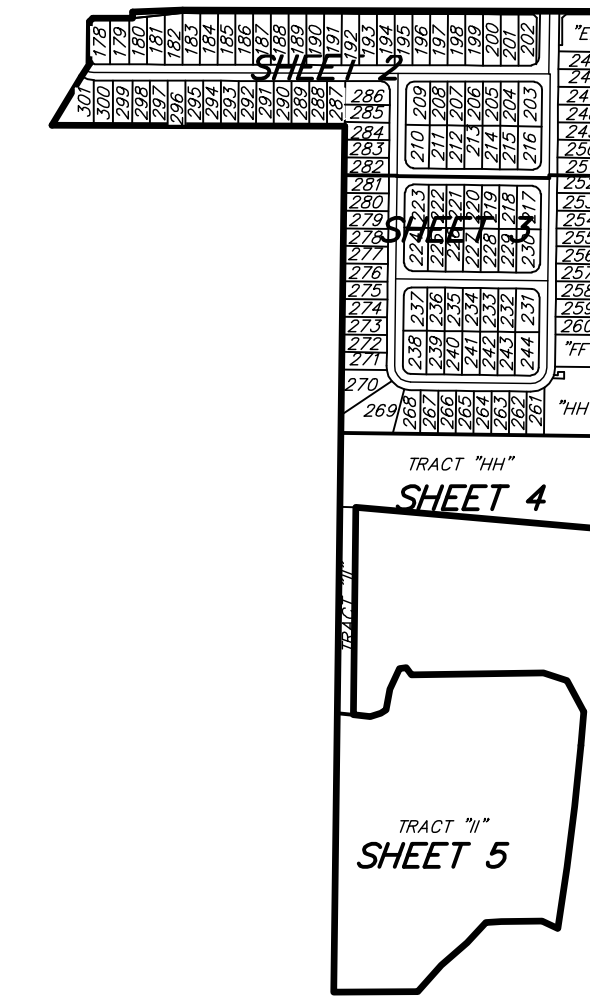
#### NOTICE:

"THIS PLAT, AS RECORDED IN ITS GRAPHIC FORM, IS THE OFFICIAL DEPICTION OF THE SUBDIVIDED LANDS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCES BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE PLAT.

THERE MAY BE ADDITIONAL RESTRICTIONS THAT ARE NOT RECORDED ON THIS PLAT THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY."

#### SURVEYOR'S NOTES:

- (1) BEARINGS SHOWN HEREON ARE RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM 1983 EAST ZONE, BASED ON GPS WITH L-NET CORRECTIONS. THE MONUMENTED SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 8, TOWNSHIP 21 SOUTH, RANGE 28 EAST. BEING NORTH 89°49'08" WEST.
- (2) — denotes a permanent reference monument (P.R.M.) A SET 4" X 4" CONCRETE MONUMENT STAMPED PRM. L.S. # 4044, UNLESS OTHERWISE NOTED.
- (3) — denotes a permanent control point (P.C.P.) A SET NAIL AND DISK STAMPED POP L.S. # 4044.
- (4) ALL PLATTED UTILITY EASEMENTS SHALL PROVIDE THAT SUCH EASEMENTS SHALL ALSO BE 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. IN THE EVENT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES.
- (5) ALL LINES INTERSECTING CURVES ARE RADIAL UNLESS OTHERWISE NOTED (N.R.).
- (6) TRACT "AA", (LANDSCAPE BUFFER AND WALL), AND TRACTS "BB" AND "CC", (LANDSCAPE BUFFER) SHALL BE OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNERS ASSOCIATION, INC.
- (7) TRACT "DD" (PRIVATE RIGHT-OF-WAY), SHALL BE OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNERS ASSOCIATION, INC.
- (8) TRACTS "EE" AND "FF" (PARK/OPEN SPACE), SHALL BE OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNERS ASSOCIATION, INC.
- (9) TRACT "GG" (LIFT STATION), SHALL BE OWNED AND MAINTAINED BY THE THE LAKESIDE APOPKA HOMEOWNERS ASSOCIATION, INC.
- (10) TRACT "HH" (DRY POND), SHALL BE OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNERS ASSOCIATION, INC.
- (11) TRACT "II" (CONSERVATION AREA), SHALL BE OWNED AND MAINTAINED BY THE LAKESIDE APOPKA HOMEOWNERS ASSOCIATION, INC., WITH DEVELOPMENT RIGHTS DEDICATED TO THE CITY OF APOPKA, FLORIDA. NO CONSTRUCTION, CLEARING, GRADING OR ALTERATION OF TRACT "II" IS ALLOWED UNLESS APPROVED BY THE CITY OF APOPKA AND THE OTHER APPLICABLE JURISDICTIONAL AGENCIES. TRACT "II" IS SUBJECT TO A CONSERVATION EASEMENT IN FAVOR OF THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PURSUANT TO SECTION 704.06, FLORIDA STATUTES, TO BE DEDICATED BY SEPARATE INSTRUMENT IN THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.
- (12) THE 20.00 FOOT WIDE ACCESS EASEMENT IS DEDICATED TO THE CITY OF APOPKA AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.



PLAT BOOK \_\_\_\_\_ PAGE \_\_\_\_\_  
LAKESIDE PHASE II

#### DEDICATION

KNOWN ALL MEN BY THESE PRESENTS, That the limited liability company named below, being the owner in fee simple of the lands described in the foregoing caption to this plat, hereby dedicates said lands and plat for the uses and purposes therein expressed and dedicates easements to the perpetual use of the public.  
Also dedicates a 20.00 foot wide access easement to the City of Apopka and St. Johns River Water Management District.

IN WITNESS WHEREOF, Avatar Properties Inc., a Florida corporation, has caused this Dedication to be executed in its name by the below-named officer thereto duly authorized this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

Signed, sealed and delivered in the presence of the following two witnesses:

By: \_\_\_\_\_  
AVATAR PROPERTIES INC.  
a Florida corporation

Print Name: \_\_\_\_\_ By: Ken Thiryacre  
(Witness) Division President

Print Name: \_\_\_\_\_  
(Witness)

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_

THIS IS TO CERTIFY that the foregoing Dedication was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by Ken Thiryacre, as Division President of Avatar Properties Inc., a Florida corporation. Said person did not take an oath and is personally known to me or has produced the following identification \_\_\_\_\_

Print Name: \_\_\_\_\_  
Notary Public - State of Florida  
Commission No.: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

#### CERTIFICATE OF SURVEYOR AND MAPPER

KNOWN ALL MEN BY THESE PRESENTS, that the undersigned, being a licensed and registered surveyor and mapper, does hereby certify that on \_\_\_\_\_

a survey of the lands shown in the foregoing plat was completed; that said plat is a true and correct representation of the lands surveyed; that the plat was prepared under my responsible direction and supervision, and that this plat complies with all the survey requirements of Chapter 177 and Chapter 95.361, Florida Statutes.

Date: \_\_\_\_\_  
LS 4044 Surveyor's Signature  
Surveyor's Registration Number: David A. White  
LB 7808 Surveyor's Name (printed)  
Certificate of Authorization Number \_\_\_\_\_  
PEC - Surveying and Mapping, LLC  
2100 Alafaya Trail, Suite 203, Oviedo, Florida, 32765

#### CERTIFICATE OF REVIEW BY CITY SURVEYOR

This plat has been reviewed for conformity with Chapter 95.361 and Chapter 177, Florida Statutes, as is appropriate.

By: \_\_\_\_\_  
Ralph A. Nieto, LS 6025

#### CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION

THIS IS TO CERTIFY, that on \_\_\_\_\_, 2018 the undersigned approved the foregoing plat.

By: \_\_\_\_\_  
Chairman

#### CERTIFICATE OF APPROVAL BY THE MAYOR

THIS IS TO CERTIFY, that on \_\_\_\_\_, 2018 the undersigned approved the foregoing plat.

By: \_\_\_\_\_  
Bryan Nelson, Mayor of the City of Apopka

Attest: \_\_\_\_\_  
Linda F. Goff, City Clerk

#### CERTIFICATE OF APPROVAL BY CITY ENGINEER

THIS IS TO CERTIFY, that on \_\_\_\_\_, 2018 the undersigned approved the foregoing plat.

By: \_\_\_\_\_  
Richard W. Earp, City Engineer

#### CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY, that the foregoing plat was recorded in the Orange County Official Records on \_\_\_\_\_ print \_\_\_\_\_

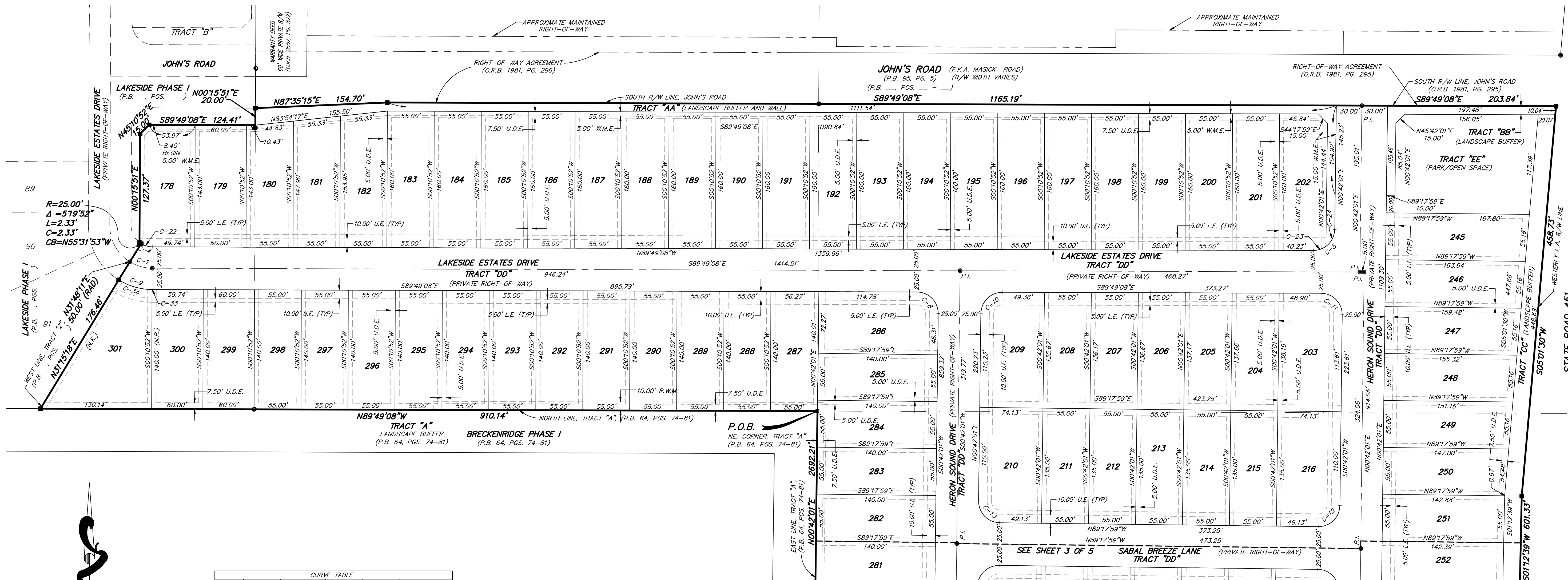
Comptroller in and for Orange County, Florida  
By: \_\_\_\_\_



# LAKESIDE PHASE II

## A REPLAT

REPLATTING TRACT "Z", LAKESIDE PHASE I  
 RECORDED IN PLAT BOOK \_\_\_\_\_, PAGES \_\_\_\_\_  
 SECTIONS 8 AND 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST  
 CITY OF APOPKA, ORANGE COUNTY, FLORIDA

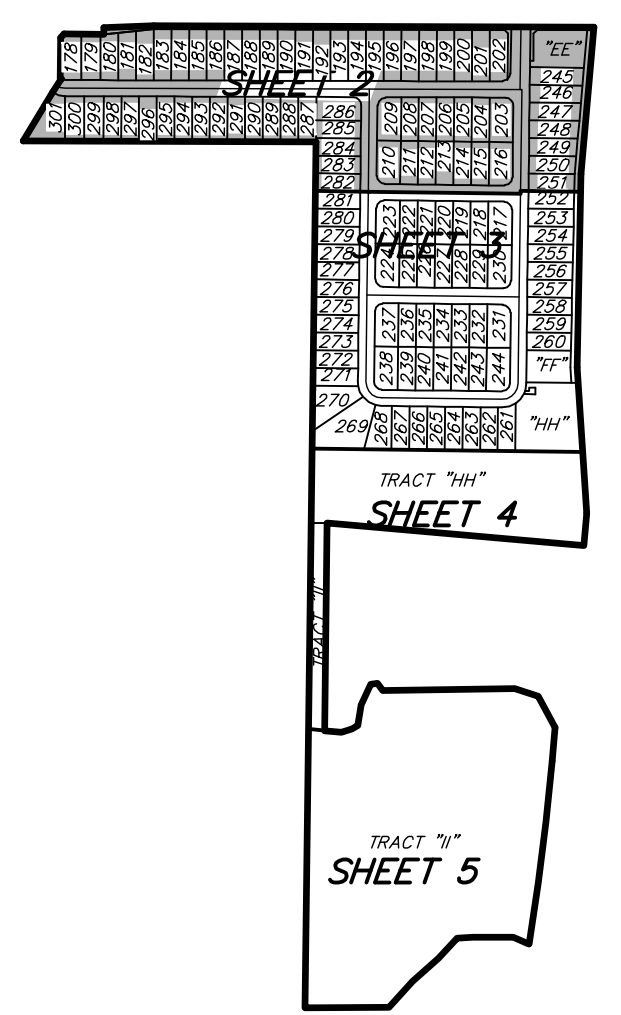


R=25.00'  
 Δ=519°52'  
 L=2.33'  
 CB=N55°31'53"W



SCALE 1"=60'

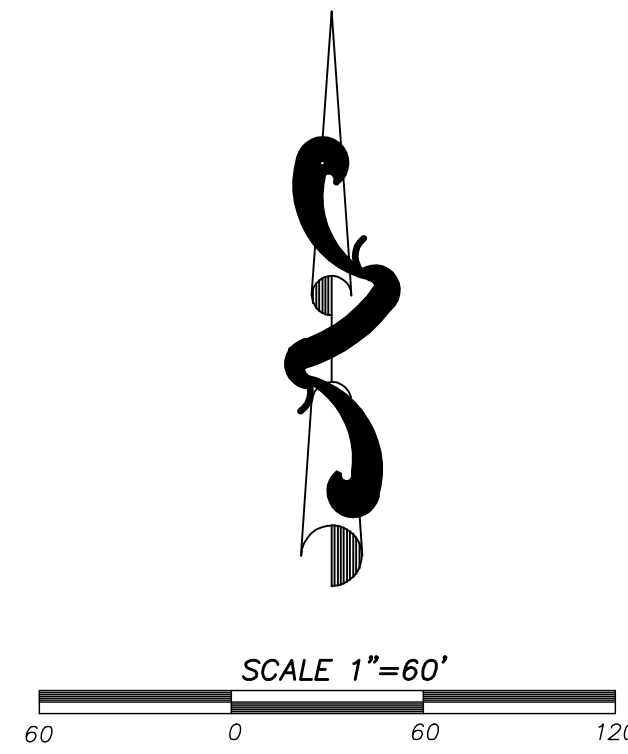
CURVE	RADIUS	DELTA	LENGTH	CHORD	CH. BEARING
C-1	50.00'	31°37'19"	27.60'	27.25'	S74°00'29"E
C-2	50.00'	90°00'00"	78.54'	70.71'	N45°42'01"E
C-3	50.00'	90°00'00"	78.54'	70.71'	S44°17'59"E
C-4	25.00'	31°37'19"	13.80'	13.62'	S74°00'29"E
C-5	25.00'	89°28'51"	39.04'	35.19'	N45°26'26"E
C-6	75.00'	90°00'00"	117.81'	106.07'	N45°42'01"E
C-7	75.00'	90°00'00"	117.81'	106.07'	S44°17'59"E
C-8	25.00'	90°31'09"	39.50'	35.52'	S44°33'34"E
C-9	75.00'	31°37'19"	41.39'	40.87'	S74°00'29"E
C-10	25.00'	89°28'51"	39.04'	35.19'	N45°26'26"E
C-11	25.00'	90°31'09"	39.50'	35.52'	S44°33'34"E
C-12	25.00'	90°00'00"	39.27'	35.36'	S45°42'01"W
C-13	25.00'	90°00'00"	39.27'	35.36'	N44°17'59"W
C-14	25.00'	90°00'00"	39.27'	35.36'	N45°42'01"E
C-15	25.00'	90°00'00"	39.27'	35.36'	S44°17'59"E
C-16	25.00'	90°00'00"	39.27'	35.36'	S45°42'01"W
C-17	25.00'	90°00'00"	39.27'	35.36'	N44°17'59"W
C-18	25.00'	90°00'00"	39.27'	35.36'	N45°42'01"E
C-19	25.00'	90°00'00"	39.27'	35.36'	S44°17'59"E
C-20	25.00'	90°00'00"	39.27'	35.36'	S45°42'01"W
C-21	25.00'	90°00'00"	39.27'	35.36'	N44°17'59"W
C-22	25.00'	36°27'11"	16.12'	15.85'	S71°20'33"E
C-23	25.00'	36°27'11"	15.86'	15.60'	N72°00'21"E
C-24	25.00'	53°07'48"	23.18'	22.36'	N27°15'55"E
C-25	75.00'	17°26'08"	22.82'	22.73'	N09°25'04"E
C-26	75.00'	8°11'31"	10.72'	10.71'	N22°13'54"E
C-27	75.00'	28°32'19"	37.36'	36.97'	N40°35'48"E
C-28	75.00'	35°50'03"	46.91'	46.15'	N72°46'59"E
C-29	75.00'	14°18'26"	16.73'	16.68'	S82°08'46"E
C-30	75.00'	36°31'09"	47.80'	47.00'	S36°43'39"E
C-31	75.00'	28°25'09"	37.20'	36.82'	S24°15'50"E
C-32	75.00'	10°45'16"	14.08'	14.06'	S04°40'37"E
C-33	75.00'	0°11'58"	0.26'	0.26'	S89°43'08"E
C-34	75.00'	31°25'20"	41.13'	40.62'	S73°54'29"E



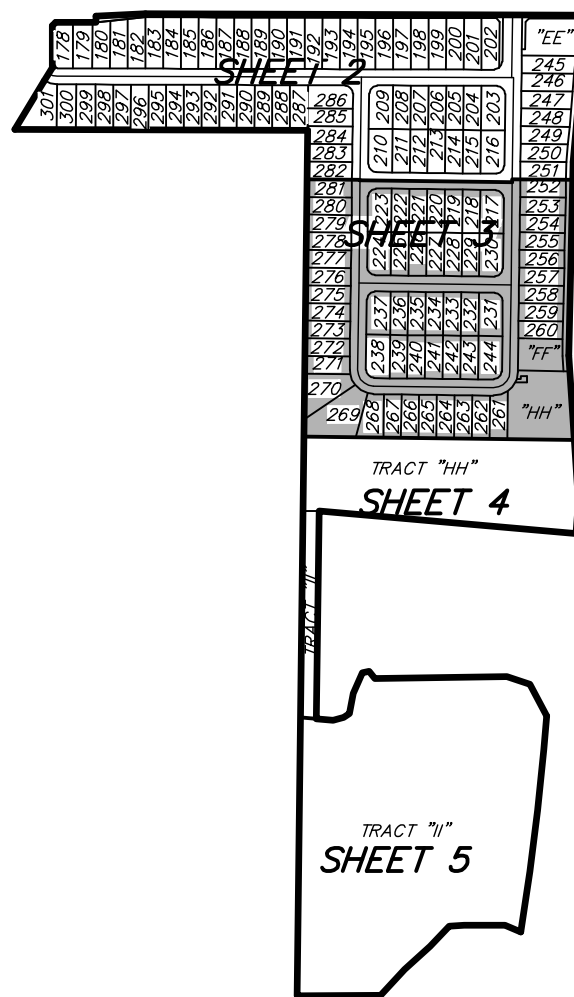
# LAKE SIDE PHASE II

## A REPLAT

REPLATTING TRACT "Z", LAKESIDE PHASE I  
RECORDED IN PLAT BOOK \_\_\_\_\_, PAGES \_\_\_\_\_  
SECTIONS 8 AND 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST  
CITY OF APOPKA, ORANGE COUNTY, FLORIDA



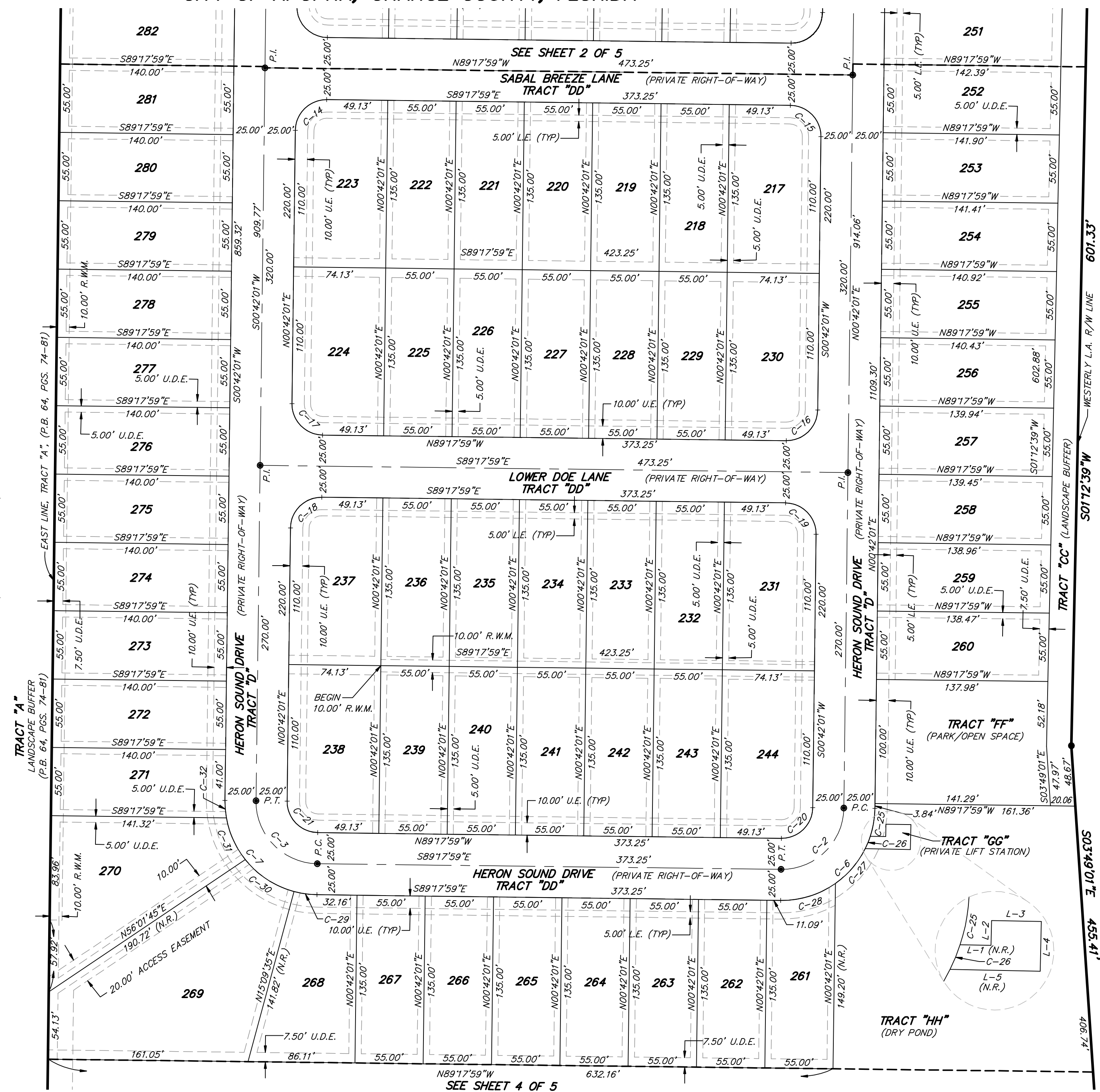
SCALE 1"=60'



KEY MAP  
NOT TO SCALE

LINE	BEARING	LENGTH
L-1	N88°48'13"W	12.42'
L-2	S01°11'42"W	10.00'
L-3	N88°48'13"W	20.00'
L-4	S01°11'42"W	20.00'
L-5	N88°48'13"W	36.27'

CURVE TABLE					
CURVE	RADIUS	DELTA	LENGTH	CHORD	CH. BEARING
C-1	50.00'	31.37°19"	27.60'	27.25'	S74°00'29"E
C-2	50.00'	90°00'00"	78.54'	70.71'	N45°42'01"E
C-3	50.00'	90°00'00"	78.54'	70.71'	S44°17'59"E
C-4	25.00'	31.37°19"	13.80'	13.62'	S74°00'29"E
C-5	25.00'	89°28'51"	39.04'	35.19'	N45°26'26"E
C-6	75.00'	90°00'00"	117.81'	106.07'	N45°42'01"E
C-7	75.00'	90°00'00"	117.81'	106.07'	S44°17'59"E
C-8	25.00'	90°31'09"	39.50'	35.52'	S44°33'34"E
C-9	75.00'	31.37°19"	41.39'	40.87'	S74°00'29"E
C-10	25.00'	89°28'51"	39.04'	35.19'	N45°26'26"E
C-11	25.00'	90°31'09"	39.50'	35.52'	S44°33'34"E
C-12	25.00'	90°00'00"	39.27'	35.36'	S45°42'01"W
C-13	25.00'	90°00'00"	39.27'	35.36'	N44°17'59"W
C-14	25.00'	90°00'00"	39.27'	35.36'	N45°42'01"E
C-15	25.00'	90°00'00"	39.27'	35.36'	S44°17'59"E
C-16	25.00'	90°00'00"	39.27'	35.36'	S45°42'01"W
C-17	25.00'	90°00'00"	39.27'	35.36'	N44°17'59"W
C-18	25.00'	90°00'00"	39.27'	35.36'	N45°42'01"E
C-19	25.00'	90°00'00"	39.27'	35.36'	S44°17'59"E
C-20	25.00'	90°00'00"	39.27'	35.36'	S45°42'01"W
C-21	25.00'	90°00'00"	39.27'	35.36'	N44°17'59"W
C-22	25.00'	36°57'11"	16.12'	15.85'	S71°20'33"E
C-23	25.00'	36°21'03"	15.86'	15.60'	N72°00'21"E
C-24	25.00'	53°07'48"	23.18'	22.36'	N27°15'55"E
C-25	75.00'	17°26'08"	22.82'	22.73'	N09°25'04"E
C-26	75.00'	8°11'31"	10.72'	10.71'	N22°13'54"E
C-27	75.00'	28°32'19"	37.36'	36.97'	N40°35'48"E
C-28	75.00'	35°50'03"	46.91'	46.15'	N72°46'59"E
C-29	75.00'	14°18'26"	18.73'	18.68'	S82°08'46"E
C-30	75.00'	36°31'09"	47.80'	47.00'	S56°43'59"E
C-31	75.00'	28°25'09"	37.20'	36.82'	S24°15'50"E
C-32	75.00'	10°45'16"	14.08'	14.06'	S04°40'37"E
C-33	75.00'	0°11'59"	0.26'	0.26'	S89°43'08"E
C-34	75.00'	31°25'20"	41.13'	40.62'	S73°54'29"E

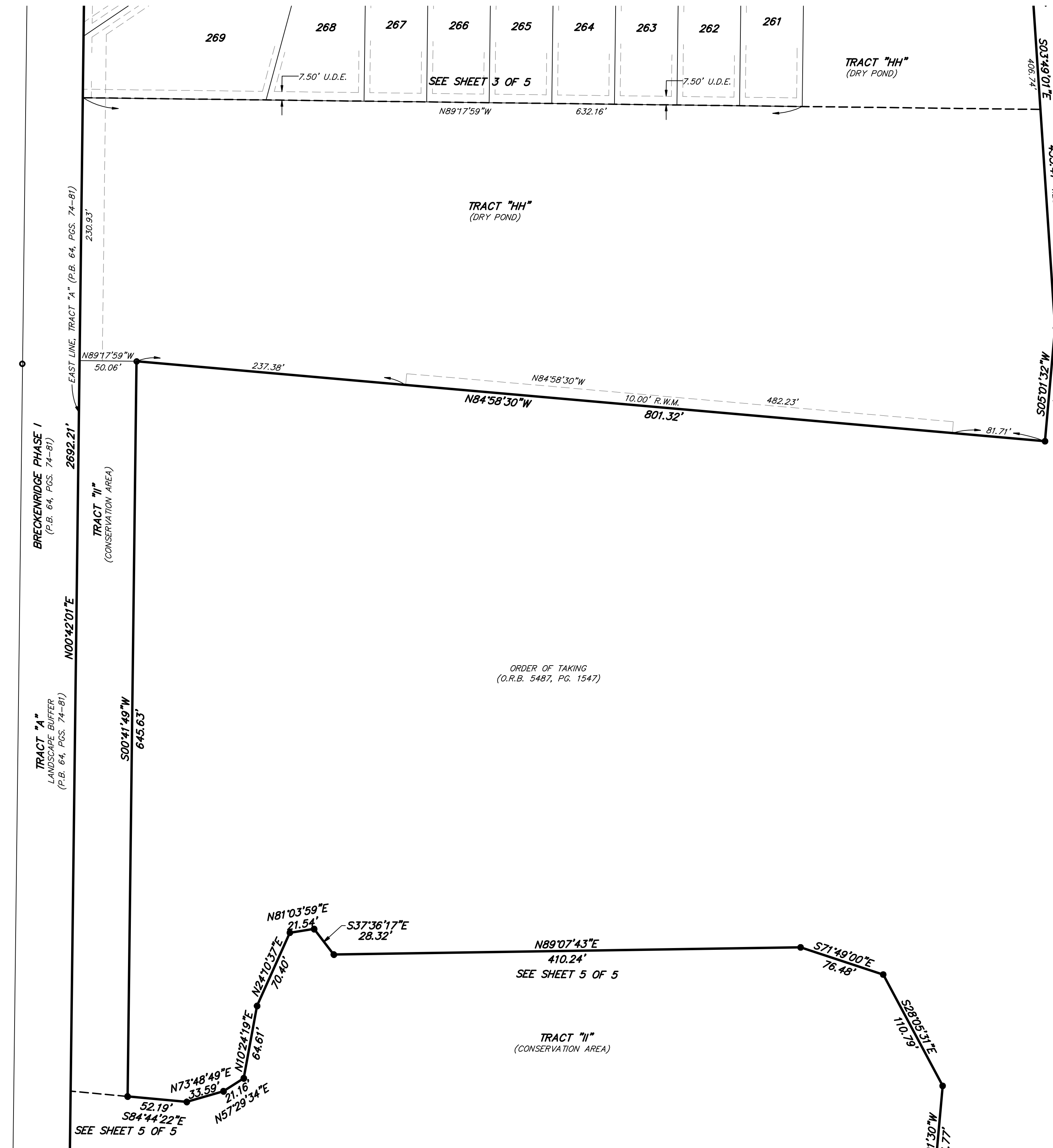


STATE ROAD 451  
PER ORLANDO - ORANGE COUNTY EXPRESSWAY AUTHORITY R/W MAP  
(PROJECT NO. 7530-6460-604)  
(R/W WIDTH VARIES)

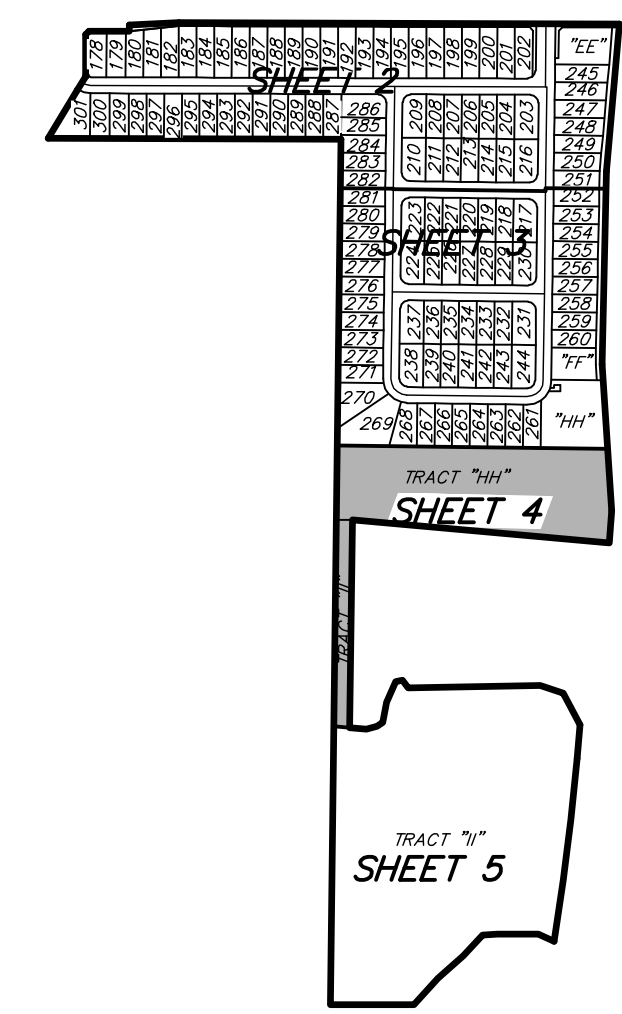
# LAKE SIDE PHASE II

## A REPLAT

REPLATTING TRACT "Z", LAKESIDE PHASE I  
 RECORDED IN PLAT BOOK \_\_\_\_\_, PAGES \_\_\_\_\_  
 SECTIONS 8 AND 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST  
 CITY OF APOPKA, ORANGE COUNTY, FLORIDA



SCALE 1"=60'



KEY MAP  
NOT TO SCALE

PER ORLANDO - ORANGE COUNTY EXPRESSWAY AUTHORITY R/W MAP  
 (PROJECT NO. 75320-6460-604)  
 (P/W WIDTH VARIES)

STATE ROAD 451

ORDER OF TAKING  
(O.R.B. 5487, PG. 1547)

# LAKE SIDE PHASE II

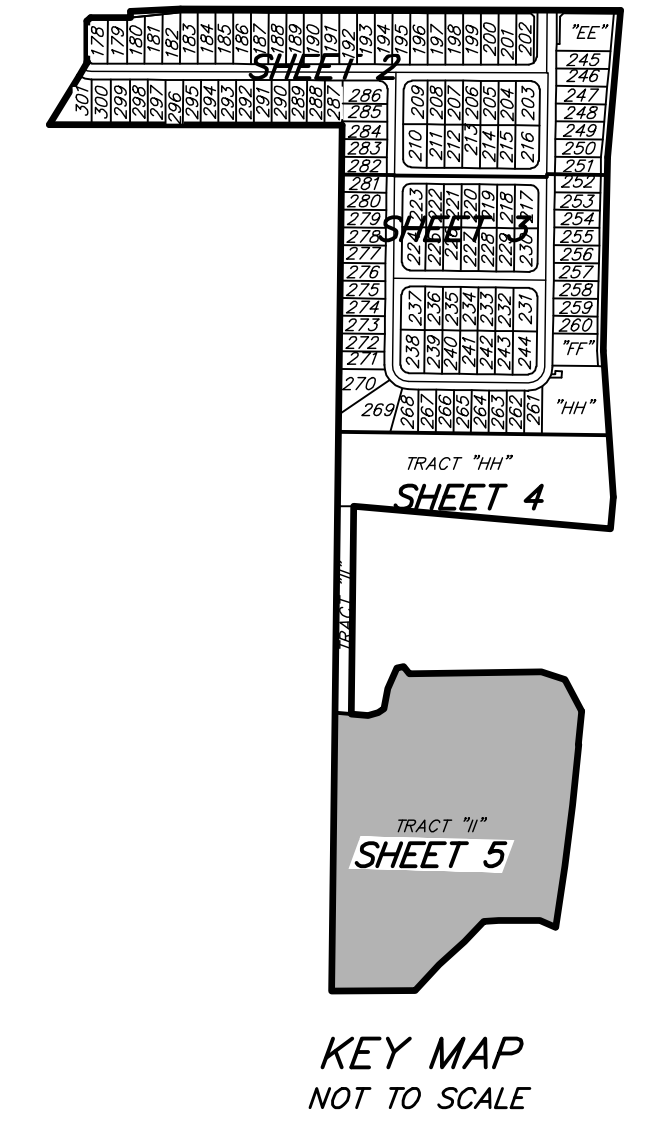
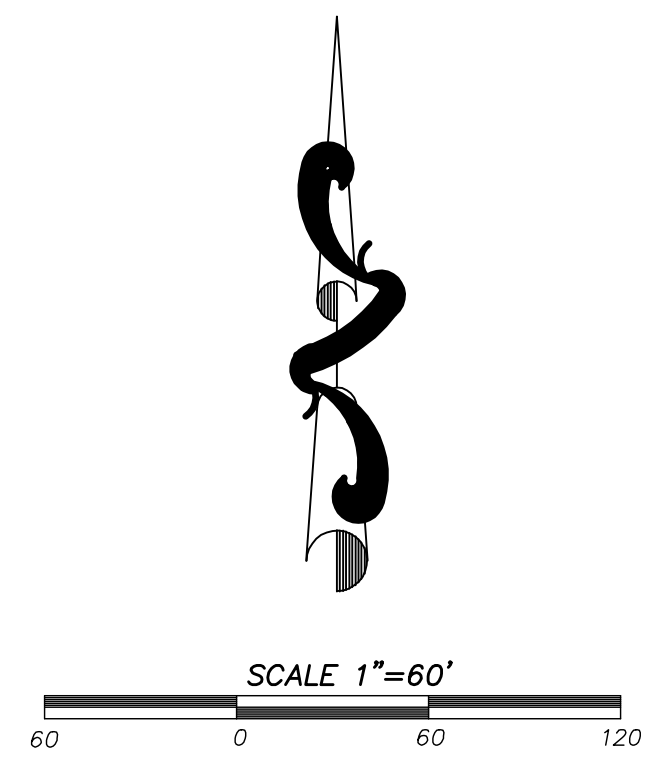
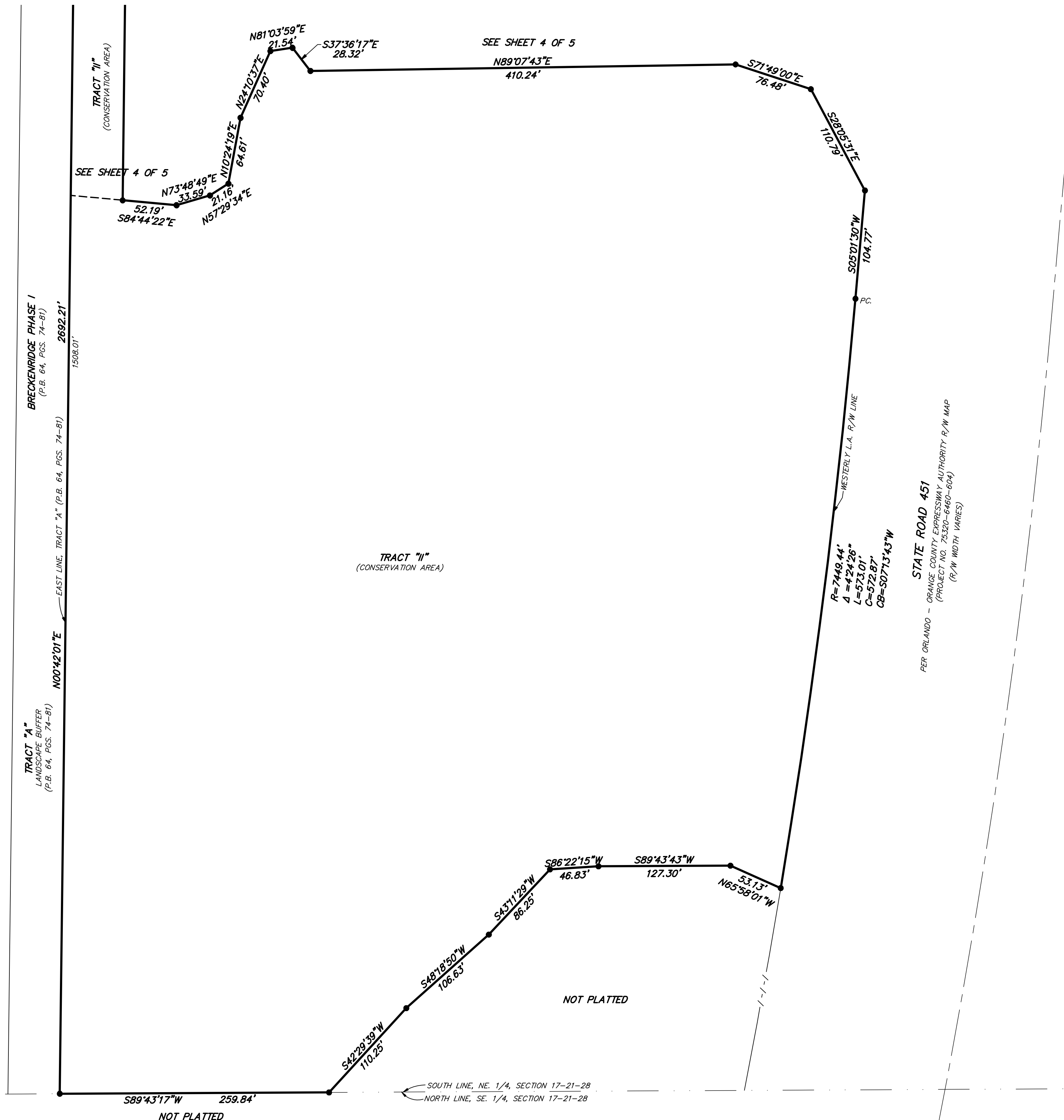
SHEET 5 OF 5

PLAT BOOK

PAGE

## A REPLAT

REPLATTING TRACT "Z", LAKESIDE PHASE I  
 RECORDED IN PLAT BOOK \_\_\_\_\_, PAGES \_\_\_\_\_  
 SECTIONS 8 AND 17, TOWNSHIP 21 SOUTH, RANGE 28 EAST  
 CITY OF APOPKA, ORANGE COUNTY, FLORIDA



**PEC** | SURVEYING AND MAPPING, LLC  
 CERTIFICATE OF AUTHORIZATION NUMBER LB 7808  
 2100 Alafaya Trail, Suite 203 • Oviedo, Florida 32765 • 407-542-4967



# CITY OF APOPKA CITY COUNCIL

CONSENT AGENA  
 PUBLIC HEARING  
 SPECIAL REPORTS  
 OTHER: Final Development Plan/Plat

MEETING OF: October 3, 2018  
FROM: Community Development  
EXHIBITS: Vicinity Map  
Final Development Plan  
Plat

**SUBJECT: VISTA RESERVE – FINAL DEVELOPMENT PLAN AND PLAT**

**REQUEST: APPROVE THE VISTA RESERVE FINAL DEVELOPMENT PLAN AND PLAT**

**SUMMARY:**

OWNER: Pulte Home Company, LLC  
APPLICANT: Pulte Home Corporation  
LOCATION: East side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road  
PARCEL ID NUMBERS: 29-20-28-0000-00-003  
EXISTING USE: Vacant  
FLUM DESIGNATION: Low Density Suburban Residential  
CURRENT ZONING: PUD (Planned Unit Development)  
PROPOSED DEVELOPMENT: 153 single family homes; developed in one phase  
TRACT SIZE: 61.1 +/- acres

**FUNDING SOURCE: N/A**

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**RELATIONSHIP TO ADJACENT PROPERTIES:**

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Low Density Suburban Residential (0-3.5 du/ac)	R-1AA	Vacant, Lake Merrill
East (City)	Low Density Suburban Residential (0-3.5 du/ac)	PUD	Oak Hill Reserve subdivision
South (City)	Low Density Suburban Residential (0-3.5 du/ac)	R-1AA, R-1	Carriage Hills subdivision (under construction), Vacant property
West (City)	Low Density Suburban Residential (0-3.5 du/ac)	R-1AA	Wekiva Run subdivision

Project Use: On August 1, 2018, the City Council approved a PUD Master Plan/Preliminary Development Plan for the Vista Reserve subdivision, which details the development of 153 single family residential lots in one phase. The subject property is located on the east side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road. The applicant is requesting approval of the Final Development Plan and Plat for Vista Reserve, which details 153 lots. Consistent with the approved PUD Master Plan/Preliminary Development Plan, lot widths of 65-feet and 90-feet are provided. The minimum living area is proposed at 2,190 square feet.

Access: Ingress/egress access points for the development are located via Rogers Road. Rogers Road will terminate at the main entrance of the development. The developer will be dedicating a 0.68 acre portion of right-of-way along Rogers Road to the City. The subdivision will consist of public roads and infrastructure that is owned and maintained by the City. Vehicular and pedestrian connections are provided to the property to the north and to the Carriage Hills subdivision located to the south.

Stormwater: Two tracts located on the northwestern and northeastern corners of the site are reserved for stormwater retention. The stormwater retention areas will be owned and maintained by the homeowners association.

Recreation: Consistent with the approved PUD Master Plan/Preliminary Development Plan, a 1.67 acre tract is reserved for the community recreation facility that will be owned and maintained by the homeowners association. Included within the recreation facility is a picnic area, pool, pool cabana building, play structure, open play area, bicycle parking, and a parking area for 8 cars.

Buffer/Tree Program: Consistent with the approved PUD Master Plan/Preliminary Development Plan, a continuous open space tract with is provided around the perimeter of the subdivision to buffer the homes from the surrounding existing subdivisions. Thirty percent of the site, or 18.13 acres of open space is provided, and will be owned and maintained by the homeowners association. Landscaping and a 6-foot high brick wall is provided along Rogers Road. Trees are located within the open space tract provided around the perimeter of the subdivision.

The applicant has agreed to pay a tree mitigation payment of \$56,143.06.

SCHOOL CAPACITY REPORT: The developer has obtained a school concurrency mitigation agreement with Orange County Public Schools to address school impacts generated by this residential development. The

schools zoned to receive students from this community are the following: Wolf Lake Elementary School, Wolf Lake Middle School and Apopka High School.

**ORANGE COUNTY NOTIFICATION:** The County was notified at the time of the subdivision plan and plat for this property through the DRC agenda distribution.

**PUBLIC HEARING SCHEDULE:**

September 11, 2018 - Planning Commission, 5:30 pm

October 3, 2018 - City Council, 1:30 pm

---

**RECOMMENDATION ACTION:**

The **Development Review Committee** recommends approval of the Vista Reserve Final Development Plan and Plat, subject to final review by the City surveyor and City Engineer prior to recording the plat.

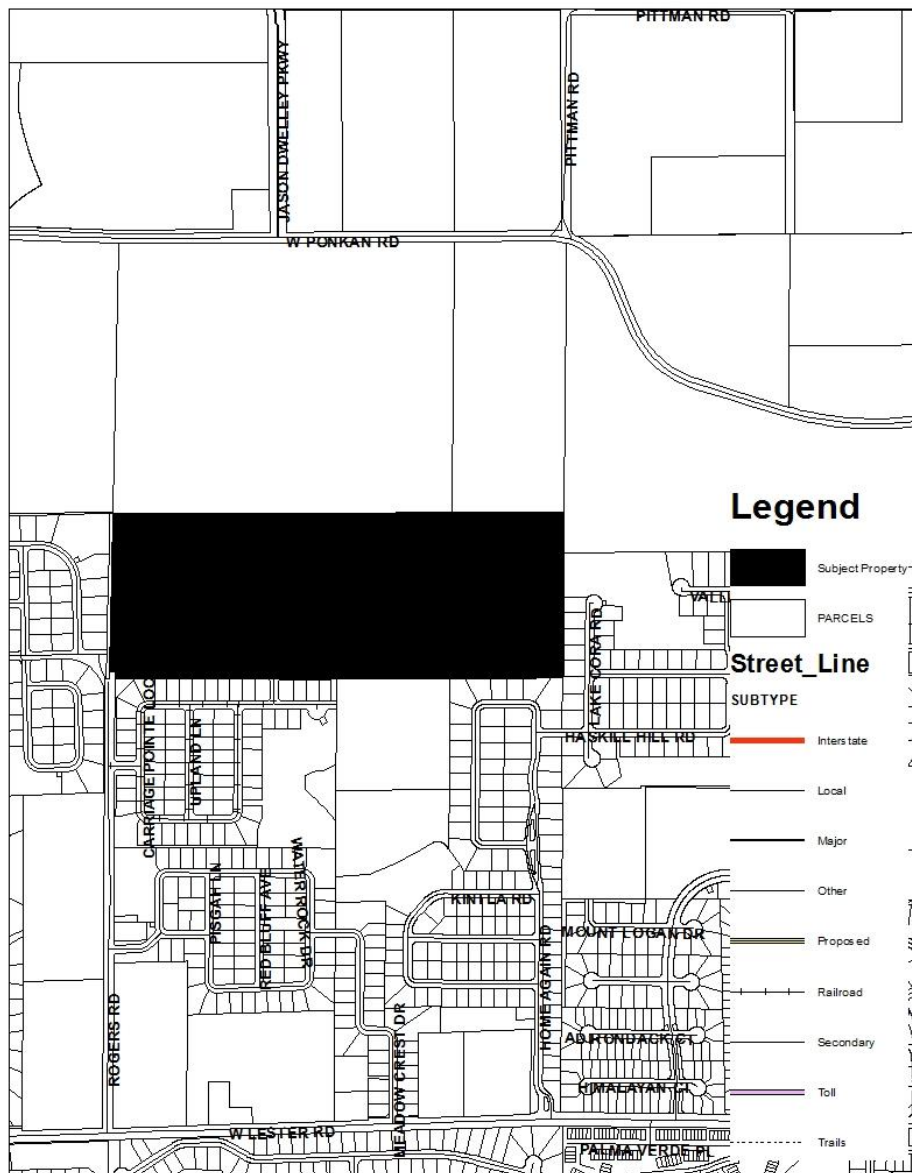
The **Planning Commission** at its meeting on September 11, 2018, found the plat of Vista Reserve consistent with the Comprehensive Plan and Land Development, and unanimously recommended approval of the Vista Reserve plat subject to the findings of this staff report.

**City Council:** Approve the Vista Reserve Final Development Plan and Plat.

**Project:** VISTA RESERVE  
**Owned by:** Pulte Home Company LLC  
**Located:** East side of Rogers Road, approximately one half mile north of the intersection of Rogers Road and Lester Road  
**Parcel ID#s:** 29-20-28-0000-00-003



## VICINITY MAP







# AERIAL MAP



# FINAL DEVELOPMENT PLAN FOR VISTA RESERVE

**PARCELS: 29-20-28-0000-00-003**  
**SECTIONS 29 AND 30, TOWNSHIP 20 SOUTH, RANGE 28 EAST**  
**501 OLD DIXIE HIGHWAY**  
**CITY OF APOPKA, FLORIDA**

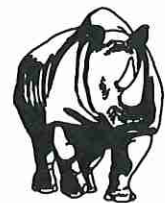
▲ NOTE: THIS PROPERTY IS ZONED PUD.  
ALL CONDITIONS OF APPROVAL APPLY.

## INDEX OF SHEETS

SHEET NO.	PLAN ID	ISSUE DATE	REV. NO.	REV. DATE	SHEET NAME
1	COV	06/22/18	-	08/23/18	COVER SHEET
2	1 of 1	06/22/18	-	-	TOPOGRAPHIC SURVEY
3	1 of 2	06/22/18	-	-	SPECIFIC PURPOSE SURVEY
4	2 of 2	06/22/18	-	-	SPECIFIC PURPOSE SURVEY
5	SY-1	06/22/18	-	-	SYMBOLS AND ABBREVIATIONS
6	NT-1	06/22/18	-	-	GENERAL NOTES
7	OV-1	06/22/18	1	08/23/18	OVERALL SITE PLAN
8	ST-1	06/22/18	1	07/27/18	SITE PLAN
9	ST-2	06/22/18	1	07/27/18	SITE PLAN
10	UT-1	06/22/18	1	07/27/18	UTILITY PLAN
11	UT-2	06/22/18	1	07/27/18	UTILITY PLAN
12	DR-1	06/22/18	1	07/27/18	DRAINAGE PLAN
13	DR-2	06/22/18	1	07/27/18	DRAINAGE PLAN
14	GR-1	06/22/18	-	-	GRADING PLAN
15	GR-2	06/22/18	2	08/23/18	GRADING PLAN
16	GR-3	06/22/18	-	-	GRADING PLAN
17	GR-4	06/22/18	1	08/23/18	GRADING PLAN
18	GR-5	06/22/18	-	-	GRADING PLAN
19	GR-6	06/22/18	-	-	GRADING PLAN
20	EC-1	06/22/18	-	-	EROSION CONTROL PLAN
21	PP-1	06/22/18	2	08/23/18	PLAN AND PROFILE
22	PP-2	06/22/18	1	07/27/18	PLAN AND PROFILE
23	PP-3	06/22/18	1	07/27/18	PLAN AND PROFILE
24	PP-4	06/22/18	1	07/27/18	PLAN AND PROFILE
25	PP-5	06/22/18	1	07/27/18	PLAN AND PROFILE
26	PP-6	06/22/18	1	07/27/18	PLAN AND PROFILE
27	PP-7	06/22/18	1	07/27/18	PLAN AND PROFILE
28	PP-8	06/22/18	-	-	PLAN AND PROFILE
29	PP-9	06/22/18	2	08/23/18	PLAN AND PROFILE
30	DT-1	06/22/18	1	08/23/18	CONSTRUCTION DETAILS
31	DT-2	06/22/18	-	-	CONSTRUCTION DETAILS
32	DT-3	06/22/18	-	-	CONSTRUCTION DETAILS
33	DT-4	06/22/18	2	08/23/18	CONSTRUCTION DETAILS
34	CD-1	06/22/18	-	-	APOPKA STANDARD DETAILS
35	CD-2	06/22/18	-	-	APOPKA STANDARD DETAILS
36	CD-3	06/22/18	-	-	APOPKA STANDARD DETAILS
37	CD-4	06/22/18	-	-	APOPKA STANDARD DETAILS
38	LS-1	06/22/18	1	08/23/18	LIFT STATION DETAILS
39	LS-2	06/22/18	-	-	LIFT STATION DETAILS
40	LP-001	04/05/18	-	-	KEY PLAN
41	LP-002	04/05/18	-	-	TREE MITIGATION PLAN
42	LP-003	04/05/18	-	-	TREE MITIGATION PLAN
43	LP-004	04/05/18	-	-	TREE MITIGATION PLAN
44	LP-005	04/27/18	2	06/27/18	RECREATION/OPEN SPACE PLAN
45	LP-100	04/05/18	1	04/30/18	LANDSCAPE PLAN
46	LP-101	04/05/18	1	04/30/18	LANDSCAPE PLAN
47	LP-102	04/05/18	1	04/30/18	LANDSCAPE PLAN
48	LP-103	04/05/18	1	04/30/18	LANDSCAPE PLAN
49	LP-104	04/05/18	2	06/27/18	LANDSCAPE PLAN
50	LP-105	04/05/18	1	04/30/18	LANDSCAPE NOTES & DETAILS
51	LP-200	04/05/18	3	07/27/18	HARDSCAPE DETAILS
52	LP-201	04/05/18	2	06/27/18	HARDSCAPE IMAGES
53	LP-300	04/05/18	1	04/30/18	IRRIGATION PLAN
54	LP-301	04/05/18	-	-	IRRIGATION PLAN
55	LP-302	04/05/18	-	-	IRRIGATION PLAN
56	LP-303	04/05/18	-	-	IRRIGATION PLAN
57	LP-304	04/05/18	1	04/30/18	IRRIGATION PLAN
58	LP-305	04/05/18	3	07/27/18	IRRIGATION NOTES AND DETAILS
59	LP-306	04/05/18	-	-	IRRIGATION DETAILS
60	LP-307	04/05/18	-	-	IRRIGATION DETAILS
61	LP-308	04/05/18	-	-	IRRIGATION DETAILS

## FOR THE PULTE GROUP

**4901 VINELAND ROAD, SUITE 500**  
**ORLANDO, FLORIDA 32811**  
**PHONE: (407) 661-1514**



**MADDEN**  
**MOORHEAD & STOKES, INC.**  
**CIVIL ENGINEERS**

**431 E. HORATIO AVENUE, SUITE 260**  
**MAITLAND, FLORIDA 32751**  
**PHONE (407) 629-8330**  
**FAX (407) 629-8336**

### PROJECT TEAM MEMBERS:

#### OWNER / DEVELOPER:

THE PULTE GROUP  
4901 VINELAND RD., SUITE 500  
ORLANDO, FL 32811  
PHONE: (407) 661-1514  
CONTACT: DOUG HOFFMAN

#### SURVEYOR:

ALLEN AND COMPANY, INC.  
16 EAST PLANT STREET  
ORLANDO, FL 32801  
PHONE: (407) 654-5355  
CONTACT: JIM ROCKMAN, PSM

#### LANDSCAPE ARCHITECT:

FOSTER, COHANT, & ASSOCIATES  
120 WEST ROBINSON STREET  
ORLANDO, FL 32801  
PHONE: (407) 648-2225  
CONTACT: RICK COHANT, PLA

#### ENGINEER:

MADDEN, MOORHEAD, & STOKES, INC.  
431 E HORATIO AVENUE, SUITE 260  
MAITLAND, FL 32751  
PHONE: (407) 629-8330  
CONTACT: CHAD MOORHEAD, PE

#### ENVIRONMENTAL:

ECO-TECH CONSULTING, INC.  
3025 S SOUTH STREET  
ORLANDO, FL 32803  
PHONE: (407) 894-5969  
CONTACT: MORGAN CLARK

#### GEOTECHNICAL:

NATIVE GEOSCIENCE  
2014 EDELMATER DR., SUITE 246  
ORLANDO, FL 32804  
PHONE: (407) 342-1443  
CONTACT: JOHN C DEER, PG

### UTILITY PROVIDERS:

#### WATER:

CITY OF APOPKA  
120 E. MAIN STREET  
APOPKA, FL 32704  
PHONE: (407) 703-1731  
CONTACT: JAY DAVOLL, PE

#### WASTE WATER:

CITY OF APOPKA  
120 E. MAIN STREET  
APOPKA, FL 32704  
PHONE: (407) 703-1731  
CONTACT: JAY DAVOLL, PE

#### PHONE:

CENTURY LINK  
33 NORTH MAIN STREET  
WINTER GARDEN, FL 34787  
PHONE: (407) 814-5351  
CONTACT: DAVID BYRNES

#### POWER:

DUKE ENERGY  
275 POKANAN ROAD  
APOPKA, FL 32712  
PHONE: (407) 836-6890  
CONTACT: ROB RODRIGUEZ

#### RECLAIMED WATER:

CITY OF APOPKA  
120 E. MAIN STREET  
APOPKA, FL 32704  
PHONE: (407) 703-1731  
CONTACT: JAY DAVOLL, PE

#### SOLID WASTE:

CITY OF APOPKA  
120 E. MAIN STREET  
APOPKA, FL 32704  
PHONE: (407) 703-1731  
CONTACT: JAY DAVOLL, PE

#### PHONE:

CHARTER SPECTRUM  
3767 ALL AMERICAN BLVD.  
ORLANDO, FL 32810  
PHONE: (407) 532-8511  
CONTACT: TRACY DOMOSTOY

#### GAS:

FLORIDA NATURAL GAS  
201 VINELAND RD.  
APOPKA, FL 32712  
PHONE: (407) 836-6890  
CONTACT: ROB RODRIGUEZ

### LEGAL DESCRIPTION:

BEGIN AT THE SOUTHWEST CORNER OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; RUN THENCE NORTH ALONG THE WEST LINE OF SAID NW 1/4 A DISTANCE OF 985.01 FEET TO THE NORTH LINE OF THE SOUTH 3/4 OF THE SOUTH 1/2 OF SAID NW 1/4; RUN THENCE N80°30'14"E ALONG SAID NORTH LINE A DISTANCE OF 2889.71 FEET TO THE NORTHEAST CORNER OF SAID SOUTH 3/4; RUN THENCE S00°48'05"E ALONG THE EAST LINE OF SAID NW 1/4 A DISTANCE OF 989.23 FEET TO THE SOUTHEAST CORNER OF SAID NW 1/4; RUN THENCE S88°43'54"W ALONG THE SOUTH LINE OF SAID NW 1/4 A DISTANCE OF 2703.46 FEET TO THE SOUTHWEST CORNER THEREOF, AND THE POINT OF BEGINNING. ALL BEING AND LYING IN THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA.

### ALSO DESCRIBED AS:

THE SOUTH 3/4 OF THE SOUTH 1/2 OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA.

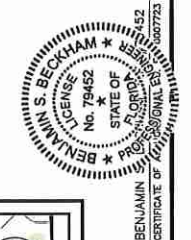
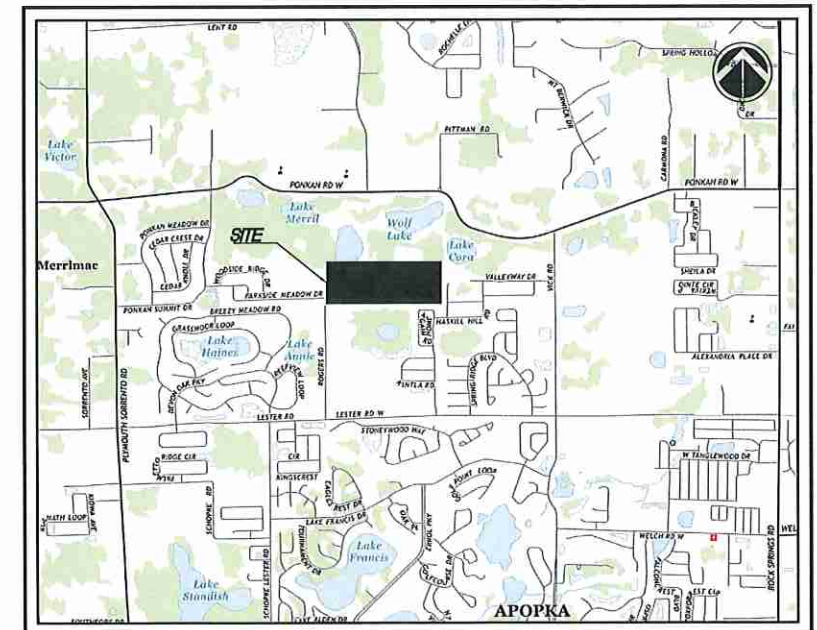
### ALSO DESCRIBED AS:

THE SOUTH SIXTY (60) ACRES OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA.

CONTAINING 2,661,310 SQUARE FEET (61.1 ACRES), MORE OR LESS.

## VICINITY MAP

1" = 2,000'

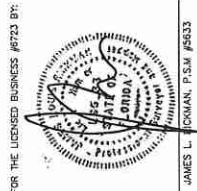




16 EAST PLANT STREET  
WINTER GARDEN, FLORIDA 34787  
407 654-5355 FAX 407 654-5356

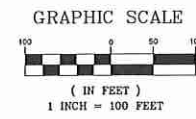
**TOPOGRAPHIC SURVEY**  
OF  
**2351 ROGERS ROAD, APOPKA, FL**  
SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST  
ORANGE COUNTY, FLORIDA

FOR:  
KB HOME ORLANDO, LLC



NO.	REVISIONS	DATE

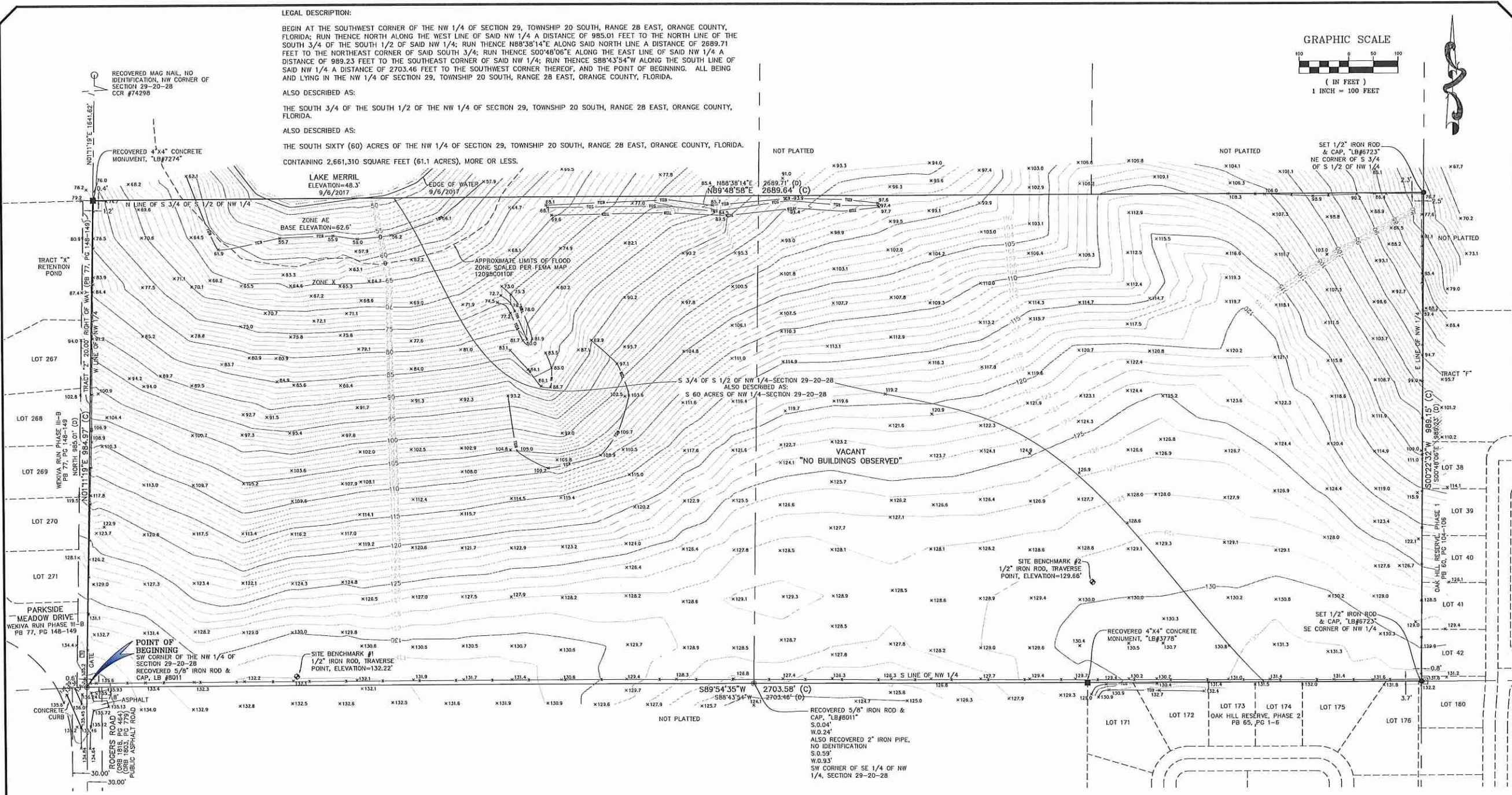
JOB # 20170463  
DATE: 9/26/2017  
SCALE: 1" = 100'  
CALC BY: JLR  
FIELD BY: JDS  
DRAWN BY: SMO  
CHECKED BY: MR



**LEGAL DESCRIPTION:**  
BEGIN AT THE SOUTHWEST CORNER OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; RUN THENCE NORTH ALONG THE WEST LINE OF SAID NW 1/4 A DISTANCE OF 985.01 FEET TO THE NORTH LINE OF THE SOUTH 3/4 OF THE SOUTH 1/2 OF SAID NW 1/4; RUN THENCE N88°38'14"E ALONG SAID NORTH LINE A DISTANCE OF 2689.71 FEET TO THE NORTHEAST CORNER OF SAID SOUTH 3/4; RUN THENCE S00°48'06"E ALONG THE EAST LINE OF SAID NW 1/4 A DISTANCE OF 989.23 FEET TO THE SOUTHEAST CORNER OF SAID NW 1/4; RUN THENCE S88°43'54"W ALONG THE SOUTH LINE OF SAID NW 1/4 A DISTANCE OF 2703.46 FEET TO THE SOUTHWEST CORNER THEREOF, AND THE POINT OF BEGINNING. ALL BEING AND LYING IN THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA.

**ALSO DESCRIBED AS:**  
THE SOUTH 3/4 OF THE SOUTH 1/2 OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA.

**ALSO DESCRIBED AS:**  
THE SOUTH SIXTY (60) ACRES OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA. CONTAINING 2,661,310 SQUARE FEET (61.1 ACRES), MORE OR LESS.



- SURVEYOR'S NOTES:**
1. THIS IS NOT A BOUNDARY SURVEY.
  2. BEARINGS SHOWN HEREON ARE ASSUMED BASED ON THE WEST LINE OF THE NORTHWEST 1/4, SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, AS BEING N01°11'19"E.
  3. THERE MAY BE EASEMENTS AND RESTRICTIONS OF RECORD AND/OR PRIVATE AGREEMENTS NOT FURNISHED TO THIS SURVEYOR OR SHOWN ON THIS BOUNDARY SURVEY THAT MAY AFFECT PROPERTY RIGHTS AND/OR LAND USE RIGHTS OF THE SUBJECT PROPERTY.
  4. THIS SURVEY WAS PERFORMED WITH THE BENEFIT OF AN INSURANCE TITLE COMMITMENT, PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, NUMBER 6504173, EFFECTIVE DATE JULY 31, 2017 @ 3:00 P.M..
  5. THE LEGAL DESCRIPTION HEREON IS IN ACCORD WITH THE DESCRIPTION FURNISHED BY THE CLIENT.
  6. THERE MAY BE ENVIRONMENTAL ISSUES AND/OR OTHER MATTERS REGULATED BY VARIOUS DEPARTMENTS OF FEDERAL, STATE OR LOCAL GOVERNMENTS AFFECTING THE SUBJECT PROPERTY NOT SHOWN ON THIS SURVEY.
  7. THIS SURVEY WAS PERFORMED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES LISTED HEREON AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOEVER.
  8. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
  9. UNLESS OTHERWISE NOTED OR SHOWN HEREON, APPARENT AND/OR UNOBSTRUCTED VISIBLE, ABOVE GROUND IMPROVEMENTS WERE LOCATED. UNDERGROUND IMPROVEMENTS, SUCH AS FOUNDATIONS AND UTILITIES, WERE NOT LOCATED.
  10. UNLESS OTHERWISE NOTED OR SHOWN HEREON, THERE ARE NO APPARENT AND/OR UNOBSTRUCTED, ABOVE GROUND ENCROACHMENTS. THE DISPOSITION OF ANY POTENTIAL ENCROACHING IMPROVEMENTS SHOWN IS BEYOND PROFESSIONAL PURVIEW AND SUBJECT TO LEGAL INTERPRETATION.
  11. SUBJECT PROPERTY SHOWN HEREON IS IN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, AND AE (BASE ELEVATION=62.6 NAVD 88), DEFINED AS AREAS OF SPECIAL FLOOD HAZARD WITH BASE FLOOD ELEVATIONS DETERMINED, ACCORDING TO FLOOD INSURANCE RATE MAP PANEL NUMBER 120950101F, MAP REVISED SEPTEMBER 25, 2009. THE ABOVE STATEMENT IS FOR INFORMATION ONLY AND THIS SURVEYOR ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP(S). IN ADDITION, THE ABOVE STATEMENT DOES NOT REPRESENT THIS SURVEYOR'S OPINION OF THE PROBABILITY OF FLOODING. THE LIMITS OF SAID ZONES ARE GRAPHICALLY SHOWN HEREON AS NEAR AS MAY BE SCALED FROM SAID MAP.
  12. LAST DATE OF FIELD SURVEY: 11/13/2017
  13. ELEVATIONS SHOWN HEREON ARE BASED ON ST. JOHNS RIVER WATER MANAGEMENT DISTRICT BENCHMARK #98-079-0-03, BOX CUT IN HEADWALL AT END OF CUL-DE-SAC ON CHAMPIONSHIP COURT, ELEVATION=59.619, NAVD 1988.

**LEGEND AND ABBREVIATIONS**

- (C) CALCULATED
- PB PLAT BOOK
- (D) DESCRIPTION
- ORB OFFICIAL RECORDS BOOK
- PG PAGE OR PAGES
- 4" WIRE FENCE
- LB LICENSED BUSINESS
- CCR CERTIFIED CORNER RECORDS
- NAVD NORTH AMERICAN VERTICAL DATUM OF 1988
- ☐ TELEPHONE RISER
- x1000 SPOT ELEVATION IN FEET
- TOB TOP OF BANK
- TOS TOE OF SLOPE

LEGAL DESCRIPTION:

BEGIN AT THE SOUTHWEST CORNER OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; RUN THENCE NORTH ALONG THE WEST LINE OF SAID NW 1/4 A DISTANCE OF 985.01 FEET TO THE NORTH LINE OF THE SOUTH 3/4 OF THE SOUTH 1/2 OF SAID NW 1/4; RUN THENCE N88°38'14"E ALONG SAID NORTH LINE A DISTANCE OF 2689.71 FEET TO THE NORTHEAST CORNER OF SAID SOUTH 3/4; RUN THENCE S00°48'06"E ALONG THE EAST LINE OF SAID NW 1/4 A DISTANCE OF 989.23 FEET TO THE SOUTHEAST CORNER OF SAID NW 1/4; RUN THENCE S88°43'54"W ALONG THE SOUTH LINE OF SAID NW 1/4 A DISTANCE OF 2703.46 FEET TO THE SOUTHWEST CORNER THEREOF, AND THE POINT OF BEGINNING. ALL BEING AND LYING IN THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA.

ALSO DESCRIBED AS:

THE SOUTH 3/4 OF THE SOUTH 1/2 OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA.

ALSO DESCRIBED AS:

THE SOUTH SIXTY (60) ACRES OF THE NW 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA. CONTAINING 2,661,310 SQUARE FEET (61.1 ACRES), MORE OR LESS.

GRAPHIC SCALE



( IN FEET )  
1 INCH = 100 FEET

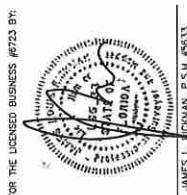


16 EAST PLANT STREET  
WINTER GARDEN, FLORIDA 34787  
407 654-5355 \*FAX 407 654-5356

SPECIFIC PURPOSE SURVEY  
OF  
2351 ROGERS ROAD, APOKA, FL  
SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST  
ORANGE COUNTY, FLORIDA

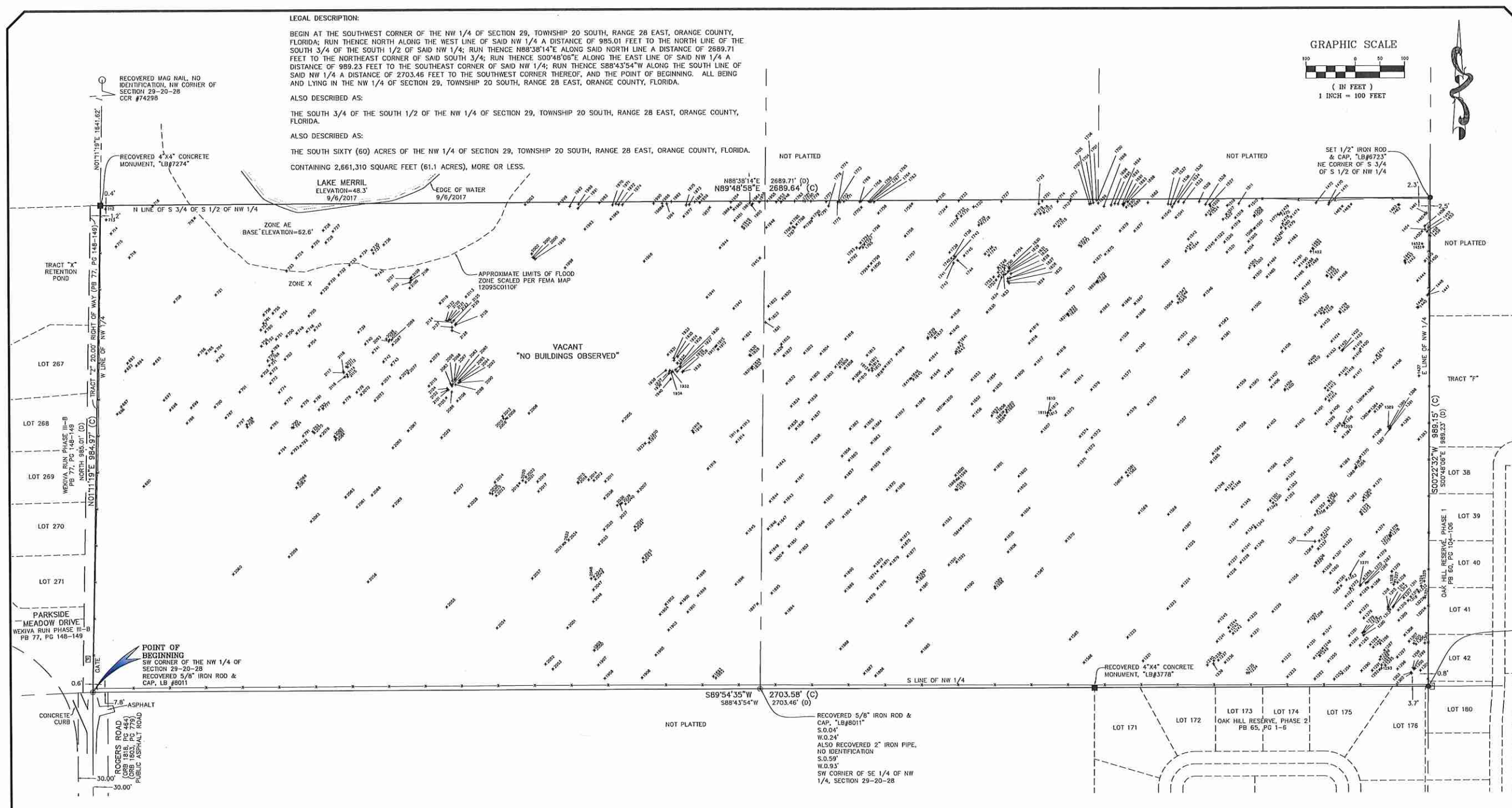
FOR:  
KB HOME ORLANDO, LLC

FOR THE LICENSED BUSINESS #8723 BY:



DATE REVISIONS

Table with columns for JOB #, DATE, SCALE, CALC BY, FIELD BY, DRAWN BY, and CHECKED BY.

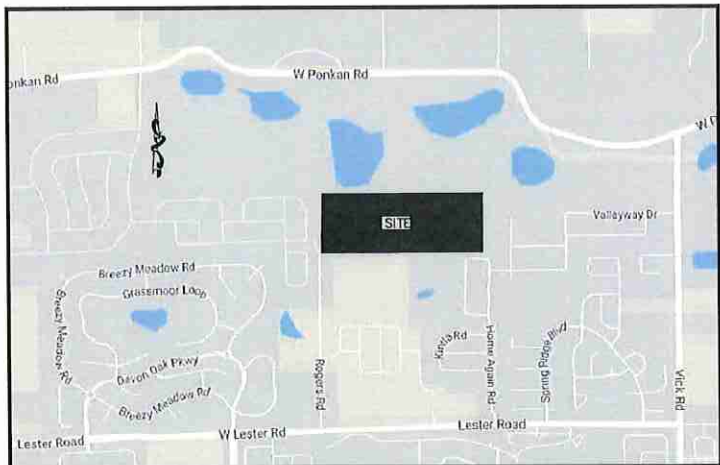


SURVEYOR'S NOTES:

- 1. BEARINGS SHOWN HEREON ARE ASSUMED BASED ON THE WEST LINE OF THE NORTHWEST 1/4, SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, AS BEING N01°11'19"E.
2. THE SPECIFIC PURPOSE OF THIS SURVEY IS TO SHOW THE TREES AS THEY RELATE TO THE LANDS HEREON.
3. THIS IS NOT A BOUNDARY SURVEY.
4. THE LEGAL DESCRIPTION HEREON IS IN ACCORD WITH THE DESCRIPTION FURNISHED BY THE CLIENT.
5. THIS SURVEY WAS PERFORMED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES LISTED HEREON AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.
6. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

LEGEND AND ABBREVIATIONS

- (C) CALCULATED
PB PLAT BOOK
(D) DESCRIPTION
ORB OFFICIAL RECORDS BOOK
PG PAGE OR PAGES
4" WIRE FENCE
LB LICENSED BUSINESS
CCR CERTIFIED CORNER RECORDS
NAVD NORTH AMERICAN VERTICAL DATUM OF 1988
TELEPHONE RISER
TREE LOCATION



VICINITY MAP  
NOT TO SCALE

POINT TABLE

POINT NUMBER	DESCRIPTION
580	10" OAK
586	16" OAK
587	10" OAK
592	7" OAK
593	13/8" OAK
594	12" OAK
595	15/10" OAK
597	10/10" OAK
598	12" OAK
599	8" OAK
700	8 1/2" OAK
701	19/17/16/12/11" OAK
702	7" OAK
703	24/17" OAK
704	11/9" OAK
705	31" OAK
708	39/21" OAK
712	17/15" OAK
713	14" OAK
714	12" PALM
715	12" PALM
716	10" OAK
718	8" OAK
719	36/21" OAK
721	14" PINE
723	25" OAK
724	11" OAK
725	48" OAK
726	11" OAK
727	19" OAK
728	13" PINE
730	6" PINE
731	13/11/11" OAK
732	8" OAK
733	11" OAK
734	11" OAK
735	8" OAK
736	10" OAK
737	15" PINE
739	28" OAK
740	9" OAK
741	13" OAK
742	9" OAK
743	11" OAK
745	20/17/12/7" OAK
747	18" OAK
748	11" OAK
749	10" OAK
750	11" OAK
751	15/9" OAK
752	14/12" OAK
754	11" OAK
755	15" PINE
756	15" OAK
757	8" OAK
759	6" OAK
760	8" OAK
761	8" OAK
763	20" OAK
764	8" OAK
765	11/8" OAK
766	9" OAK
768	13" OAK
769	6" OAK
770	13" OAK
771	7" OAK
772	9" OAK
773	14/10/10/10/8" OAK
774	8" OAK
775	8" OAK
776	12" OAK
777	11" OAK
778	10" OAK
779	7" OAK
781	15" OAK
782	11" OAK
783	36" OAK
784	12" OAK
785	9" OAK
786	34/31" OAK
787	8" OAK
788	33/21" OAK
790	7/7/8" OAK
791	9/8" OAK
792	15" OAK
793	7" OAK
794	24" OAK
798	18" OAK
797	10/7/8" OAK
1221	21" OAK
1222	22" OAK
1223	27" OAK
1224	27/10" OAK
1225	21" OAK
1226	24/10" OAK
1227	23/22/18" OAK
1228	14" OAK
1229	15" OAK
1230	15/10" OAK
1231	13" OAK
1232	20" OAK
1233	16" OAK
1234	18" OAK
1235	13/10" OAK
1236	12/9/8" OAK
1237	8" OAK
1238	8" OAK
1239	27/9" OAK
1240	14" OAK
1241	15" OAK
1242	11" OAK
1243	17" OAK
1244	14" OAK
1245	14" OAK
1247	12" OAK
1248	19" OAK
1249	11" OAK
1250	11" OAK
1251	12" OAK
1252	13/12/11/8" OAK
1253	18" OAK
1254	14/4" OAK
1255	7" OAK
1258	12/9/8" OAK
1257	9" OAK
1258	22" OAK
1259	10" OAK
1260	19" OAK
1261	7" OAK
1262	13" OAK
1263	7" OAK

1264	23" OAK
1265	11" OAK
1266	13/8" OAK
1267	9" OAK
1268	8/8" OAK
1269	9/8" OAK
1270	7" OAK
1271	7" OAK
1272	13" OAK
1273	6" OAK
1274	16/11" OAK
1275	18" OAK
1276	15" OAK
1277	11" OAK
1278	8" OAK
1279	8" OAK
1280	6" OAK
1281	8" OAK
1282	10" OAK
1283	15/12" OAK
1284	5" OAK
1285	8/8" OAK
1286	11" OAK
1287	11" OAK
1288	13" OAK
1289	6" OAK
1290	13" OAK
1291	14" OAK
1292	9" OAK
1293	15" OAK
1294	10" OAK
1295	10" OAK
1296	12/8" OAK
1297	12/8/6" OAK
1298	12/10/8" OAK
1299	16" OAK
1300	7" OAK
1301	13/11" OAK
1302	8" OAK
1303	8" OAK
1304	11/10/10" OAK
1305	12" OAK
1306	25" OAK
1307	18/7" OAK
1308	14/12" OAK
1309	13" OAK
1310	18" OAK
1311	13" OAK
1312	6" OAK
1313	7/5/6" OAK
1314	7" OAK
1315	7" OAK
1316	7" OAK
1317	15" OAK
1318	13" OAK
1319	20" OAK
1320	20" OAK
1321	11" OAK
1322	10" OAK
1323	9" OAK
1324	27" OAK
1325	13/12" OAK
1326	10" OAK
1327	13" OAK
1328	14/11" OAK
1329	6" OAK
1330	6" OAK
1331	19" OAK
1332	14" OAK
1333	11" OAK
1334	14" OAK
1335	14" OAK
1336	18" OAK
1337	11" OAK
1338	20" OAK
1339	12" OAK
1340	14/11" OAK
1341	25" OAK
1342	28" OAK
1343	22" OAK
1344	13" PALM
1345	9" OAK
1346	17/8" OAK
1347	14" OAK
1348	21" OAK
1349	27" OAK
1350	22" OAK
1351	14/8" OAK
1352	18" OAK
1353	17/12" OAK
1354	24/6" OAK
1355	19/14" OAK
1356	14" OAK
1357	14" OAK
1358	15" OAK
1359	12" OAK
1360	20" OAK
1361	21/17" OAK
1362	15" OAK
1363	12" OAK
1364	24/20" OAK
1365	9" OAK
1366	8" OAK
1367	11" OAK
1368	8" OAK
1369	13/13" OAK
1370	17" OAK
1371	13" OAK
1372	13" OAK
1373	13" OAK
1374	21/17" OAK
1375	18" OAK
1376	16" OAK
1377	13" OAK
1378	24" OAK
1379	12" OAK
1381	8" OAK
1382	10" OAK
1383	14" OAK
1384	12" OAK
1385	7" OAK
1386	21" OAK
1387	10" OAK
1388	9" OAK
1389	8" OAK
1390	13/14" OAK
1391	12" OAK
1392	9" OAK
1393	30" OAK
1394	7" OAK
1395	8" OAK
1396	10" OAK
1397	17" OAK
1398	14/12/11" OAK
1399	10" OAK

1400	8" OAK
1401	25" OAK
1402	9/7" OAK
1403	19/17" OAK
1404	14/11/10" OAK
1405	9" OAK
1406	21" OAK
1407	14" PALM
1408	10" OAK
1409	8/8" OAK
1410	9" OAK
1411	7" OAK
1412	16/13/11" OAK
1413	10" OAK
1414	15" OAK
1415	11/9/7" OAK
1416	6" OAK
1417	23" OAK
1418	13/10" OAK
1419	14/10" OAK
1420	18" OAK
1421	16" OAK
1422	15" OAK
1423	7" OAK
1424	18/7" OAK
1425	11" OAK
1426	15" OAK
1427	11" OAK
1428	9" OAK
1429	11" OAK
1430	12" OAK
1431	10" OAK
1432	16" OAK
1433	14" OAK
1434	17" OAK
1435	13" OAK
1436	28/18/15" OAK
1437	15" PALM
1441	9/8" OAK
1442	10/9" OAK
1443	8" OAK
1444	17" OAK
1445	9" OAK
1446	6" OAK
1447	6/5" OAK
1448	8" OAK
1449	12/10/10" OAK
1450	5" OAK
1451	9" OAK
1452	17" OAK
1453	7/8" OAK
1454	7" OAK
1455	9" OAK
1456	15" OAK
1457	7" OAK
1458	20" OAK
1459	10" OAK
1460	14" OAK
1461	7" OAK
1462	6" OAK
1463	15" OAK
1464	14" OAK
1465	18" OAK
1466	12" OAK
1467	14" OAK
1468	13" OAK
1469	24" OAK
1470	24" OAK
1471	13" OAK
1472	24" OAK
1473	12/8" OAK
1474	20" OAK
1475	20" OAK
1476	8" OAK
1477	10/9" OAK
1478	9" OAK
1479	14" OAK
1480	17" OAK
1481	8" OAK
1482	14" OAK
1483	16/8" OAK
1484	14" OAK
1485	11" OAK
1486	13/11" OAK
1487	14" OAK
1488	16" OAK
1489	10" OAK
1490	17/15" OAK
1491	10/6" OAK
1492	18" OAK
1493	8" OAK
1494	10" OAK
1495	14" PALM
1496	7" OAK
1497	13" OAK
1498	18" OAK
1499	12/11/7" OAK
1500	14" OAK
1501	18" OAK
1502	21" OAK
1503	20" OAK
1504	21" OAK
1505	18" OAK
1506	22" OAK
1507	9" OAK
1508	6" OAK
1509	9" OAK
1510	15" OAK
1511	14" OAK
1512	18" OAK
1513	10" OAK
1514	10/8" OAK
1515	11" OAK
1516	11" OAK
1517	10" OAK
1518	10" OAK
1519	11" OAK
1520	15" OAK
1521	8" OAK
1522	14/12" OAK
1523	14/10" OAK
1524	20" OAK
1525	19" OAK
1526	7" OAK
1527	18" OAK
1528	21" OAK
1529	20" OAK
1533	8/7" OAK
1534	12" OAK
1535	11" OAK
1536	13/6" OAK
1537	13" OAK
1538	8" OAK
1539	8" OAK
1540	24" OAK
1541	12/6" OAK
1542	20" OAK
1543	28" OAK
1544	8/8" OAK
1545	15" OAK
1546	18" OAK
1547	9" OAK
1548	9" OAK
1549	15" PALM
1550	21" OAK

1551	24" OAK
1552	42" OAK
1553	19" OAK
1554	32" OAK
1555	16" OAK
1556	17" OAK
1557	21" OAK
1558	11" OAK
1559	7" OAK
1560	19/18" OAK
1561	22" OAK
1562	17" OAK
1563	27" OAK
1564	21" OAK
1565	21" OAK
1566	21" OAK
1567	16" OAK
1568	15" PALM
1569	32" OAK
1570	34" OAK
1571	18" OAK
1572	26/17" OAK
1573	34" OAK
1574	11" OAK
1575	18" OAK
1576	24" OAK
1577	41" OAK
1578	29/7" OAK
1579	25" OAK
1580	22" OAK
1581	7" OAK
1582	7" OAK
1583	8/7" OAK
1584	7" OAK
1585	15" OAK
1586	14/12" OAK
1587	15" PALM
1588	14" PALM
1589	17" OAK
1590	17" OAK
1591	21" OAK
1592	28" OAK
1593	27" OAK
1594	16" OAK
1595	17" OAK
1596	19" OAK
1597	32" OAK
1598	6/5" OAK
1599	9/8/7" OAK
1600	12" OAK
1601	28" OAK
1602	20/12" OAK
1603	25/12" OAK
1604	24/18" OAK
1605	30" OAK
1606	23" OAK
1607	37" OAK
1608	11" OAK
1609	26" OAK
1610	8" OAK
1611	17" OAK
1612	17" OAK
1613	15" OAK
1614	24" OAK
1615	22/11" OAK
1616	22/9" OAK
1617	25/7" OAK
1618	27" OAK
1619	14" OAK
1620	20" OAK
1621	14/10" OAK
1622	9" OAK
1623	32/21" OAK
1624	7" OAK
1625	8" OAK
1626	9" OAK
1627	9" OAK
1628	7" OAK
1629	9" OAK
1630	8" OAK
1631	8" OAK
1632	13" OAK
1633	20" OAK
1634	11" PINE
1635	19" OAK
1636	14/12" OAK
1637	13" OAK
1638	18" OAK
1639	18" OAK
1640	

# ABBREVIATIONS

A	F	P
AB AREA	FA FRAME AND COVER	PC POINT OF CURVATURE
AC ANCHOR BOLT	FD FLOOR DRAIN	PCC POINT OF COMPOUND CURVATURE
AD ABANDONED	FDT FOUNDATION	PPFP POLYETHYLENE PIPE
AC FT ACRES	FDP FLORIDA DEPARTMENT OF TRANSPORTATION	PPGP PROFILE GRADE POINT
ACP ASPHALT CEMENT PIPE	FF FINISHED FLOOR	PI POINT OF INTERSECTION
ADL ADDITIONAL	FG FINISHED GRADE	P/L PROPERTY LINE
ADT AVERAGE DAILY TRAFFIC	FI FIRE HYDRANT	POB POINT OF BEGINNING
AL ALUMINUM	FJ FURNISH AND INSTALL	POJ PUSH ON JOINT
ALT ALTERNATE	FIQ FIGURE	PP POWER POLE
AM BEFORE NOON	FIH FINISHED	PR PHONE RISER
AMP AMPERE(S)	FIJ FITTING	PRC POINT OF REVERSE CURVATURE
APPROX APPROXIMATE	FL FENCE LINE	PRE PRESSURE
ARV AIR RELEASE VALVE	FLR FLOOR	PROJ PROJECT
ARVY AIR RELEASE VACUUM VALVE	FLX FLEXIBLE	PROP PROPOSED
ASPM ASPHALT	FLS FLANGE	PRVC POINT OF REVERSE VERTICAL CURVE
ASSY ASSEMBLY	FM FORCE MAIN	PSF POUNDS PER SQUARE FOOT
AVE AVENUE	FND FOUND	PSI POUNDS PER SQUARE INCH
AVG AVERAGE	FPH FEET PER HOUR	PT POINT OF TANGENCY
AZ AZIMUTH	FPM FEET PER MINUTE	PVC POLYVINYL CHLORIDE
	FFS FEET PER SECOND	PVM PAVEMENT
	FT FOOTING	PWR POWER

# EXISTING SYMBOLS

LINES			
	CENTER LINE		BUILDING LINE
	WIRE FENCE		CONTOURS
	CHAIN LINK FENCE		RAILROAD TRACKS
	WOOD FENCE		GAS MAIN
	GUARDRAIL		UNDERGROUND ELECTRIC
	EXISTING PLATS		UNDERGROUND TELEPHONE
	RETAINING WALL		OVERHEAD ELECTRIC
	RIGHT-OF-WAY LINE		OVERHEAD TELEPHONE
	SHORELINE		UNDERGROUND CABLE TELEVISION
	SWALE		EASEMENT

SANITARY			
	SANITARY SEWER LINE		FORCE MAIN
	CLEANOUT		MANHOLE

WATER & REUSE WATER			
	WATER MAIN PVC PIPE		WATER VALVE
	REUSE WATER MAIN		FIRE HYDRANT
	BACKFLOW PREVENTOR		WATER METER

STORM DRAIN			
	STORM SEWER		FDOT TYPE 1 INLET
	MANHOLE		FDOT TYPE 2 INLET
	MITERED END		FDOT TYPE 3 INLET
	STORM INLET		FDOT TYPE 4 INLET
	FDOT TYPE 6 INLET		FDOT TYPE 5 INLET

HIGHWAY & UTILITIES			
	BENCHMARK		GUY POLE
	RECOVERED 4x4 CM		WOOD UTILITY POLE
	SET 4x4 CM		CONCRETE UTILITY POLE
	SET IRON ROD		ELECTRIC MANHOLE
	RECOVERED IRON ROD		TELEPHONE MANHOLE
	CONCRETE		TELEPHONE RISER
	COUNTY ROADS		ELECTRIC BOX / TRANSFORMER
	INTERSTATE ROADS		WELL
	STATE ROADS		MONITORING WELL
	WOOD AND/OR METAL LIGHT POLE		DUMPSTER
	CONCRETE LIGHT POLE		RR CROSSING SIGN
	YARD LIGHT		RR CROSSING GATE
	MISCELLANEOUS SIGN		TRAFFIC SIGNAL POLE
	SECTION CORNER		SATellite DISH
	EDGE OF PAVEMENT W/O CURB		GUY WIRE
	EDGE OF PAVEMENT W/CURB		HANDICAP PARKING
			SPOT ELEVATION

# PROPOSED SYMBOLS

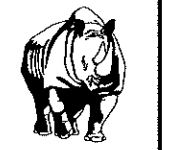
LINES		STORM DRAIN	
	BOUNDARY		100 LINEAR FEET STORM PIPE 24" HIGH PERFORMANCE POLYPROPYLENE PIPE @ 0.20%
	CONSERVATION SETBACK		100 LINEAR FEET STORM PIPE 24" HIGH DENSITY POLYPROPYLENE PIPE @ 0.20%
	CENTER LINE		UNDERDRAIN 6" HDPE PIPE
	CHAIN LINK FENCE		DRAINAGE FLOW DIRECTION
	CONTOUR		FDOT INLET TYPE 1
	EASEMENT		FDOT INLET TYPE 2
	LOT LINE		FDOT INLET TYPE 3
	PROPERTY LINE		FDOT INLET TYPE 4
	RETAINING WALL		FDOT INLET TYPE 5
	RIGHT-OF-WAY LINE		FDOT INLET TYPE 6
	SHORELINE		MANHOLE
	SWALE		MITERED END SECTION
	TREE LINE		SLOPE DIRECTION ARROW FOR POND SIDE SLOPE
	SANITARY SEWER LINE		SPOT ELEVATION
	FORCE MAIN		STORM INLET

HIGHWAY & UTILITIES	
	BOUND CORNER
	CONCRETE
	COUNTY ROADS
	DETAIL REFERENCE
	DUMPSTER PAD
	FINISHED FLOOR ELEVATION W/ FHA LOT TYPE
	GUY POLE
	HANDICAP PARKING
	INTERSTATE ROADS
	LIGHT POLE
	SIGNS
	SECTION CORNER
	STATE ROADS
	SILT FENCE
	TRAFFIC FLOW PAVEMENT MARKING
	UTILITY POLE
	BLDG OR STRUCTURE
	TYPE F CURB & GUTTER
	MIAMI CURB
	CROSS SECTION DETAIL

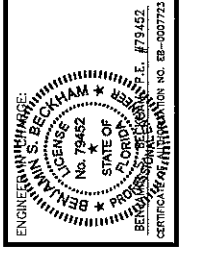
SANITARY		WATER & REUSE WATER	
	100 LF SAN 8 PVC 0.40%		100 LINEAR FEET SANITARY 8" PVC PIPE @ 0.40% SLOPE
	CLEANOUT		DOUBLE SANITARY SERVICE
	FORCE MAIN PVC PIPE		WATER VALVE
	MANHOLE		FIRE HYDRANT
	WATER METER		WATER METER



**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

SYMBOLS + ABBREVIATIONS FOR VISTA RESERVE FLORIDA

**THE PULTE GROUP**  
400 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 661-1514

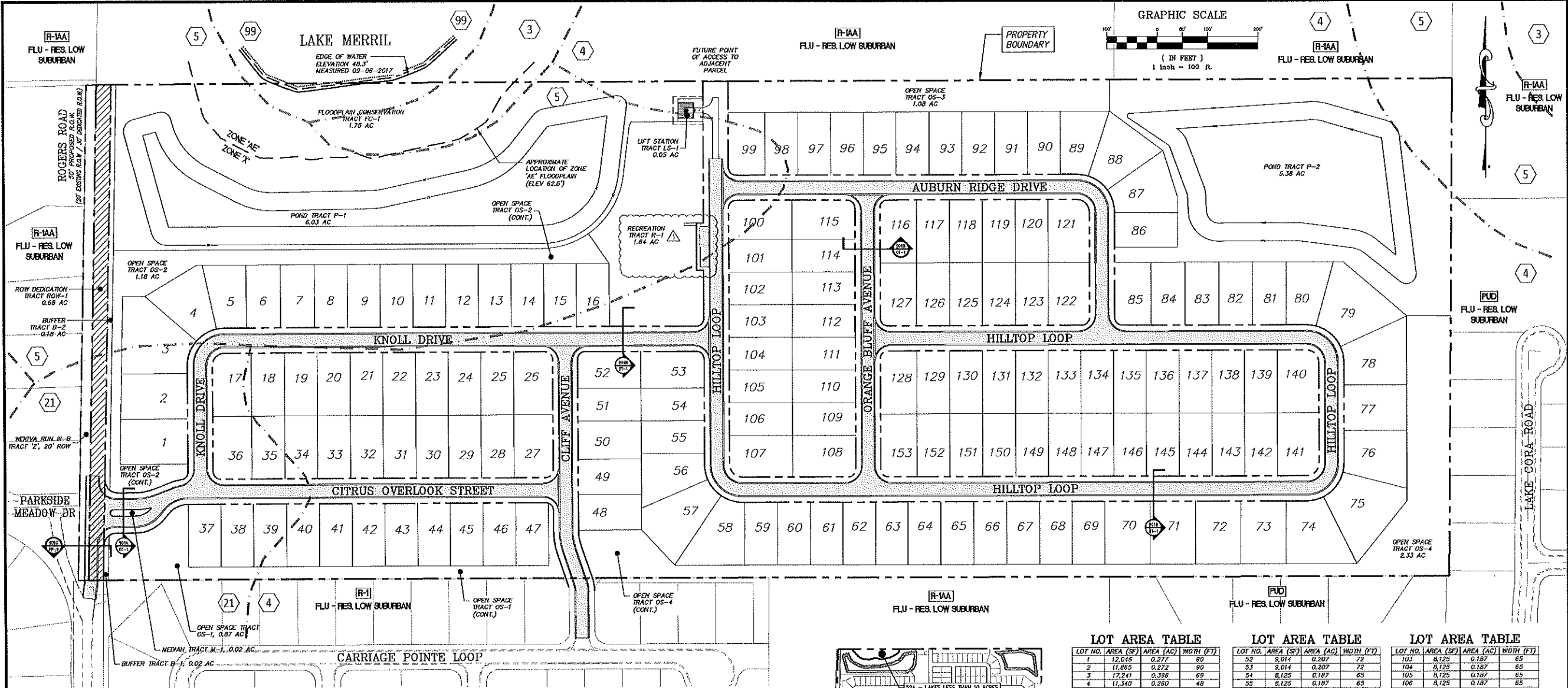


DATE	REVISIONS

JOB # 17051  
DATE 05/22/2018  
SCALE N.T.S.  
DESIGNED BY BSB  
DRANN BY BSB  
APPROVED BY BSB

SY-1  
5 of 39

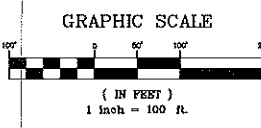




**MADDEN**  
 MOORHEAD & STORES, INC.  
 CIVIL ENGINEERS  
 431 E. Herotia Avenue  
 Suite 260  
 Maitland, Florida 32751  
 (407) 629-8330

OVERALL SITE PLAN  
 FOR  
**VISTA RESERVE**  
 CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
 4807 WINDLAND ROAD, SUITE 500  
 GRANDLAND, FLORIDA 32861  
 (407) 681-1514

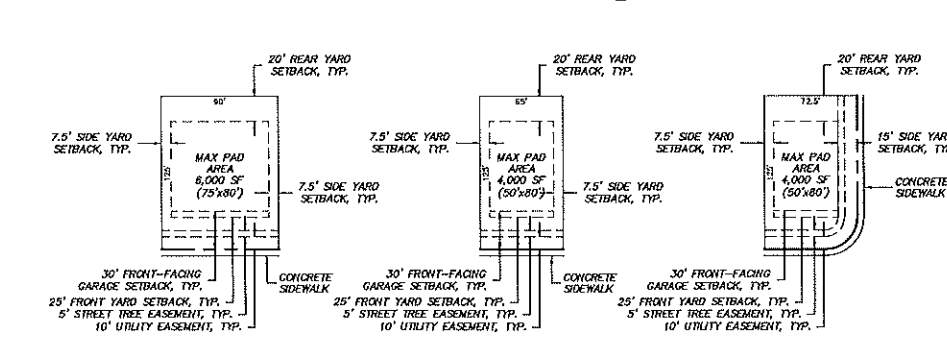


**PROJECT NOTES**

- THE PROJECT IS TO BE DEVELOPED IN ONE PHASE
- EXISTING FUTURE LAND USE: RESIDENTIAL LOW SUBURBAN
- EXISTING ZONING: PLANNED UNIT DEVELOPMENT (PUD)
- TOTAL DEVELOPABLE LAND AREA: 61.01 ACRES (2,661,310 SF)
- RIGHT-OF-WAY DEDICATION (TRACT ROW-1): 0.88 ACRES
- NET DEVELOPABLE LAND AREA: 60.42 ACRES
- MAXIMUM RESIDENTIAL DENSITY (ALLOWED): UP TO 3.5 DU/AC
- NET RESIDENTIAL DENSITY: 2.53 DU/AC
- PROPOSED SINGLE-FAMILY DETACHED LOTS: 153 LOTS
- 65'x125' LOT SIZE (MIN.): 140 LOTS (91.5%)
- 90'x125' LOT SIZE (MIN.): 13 LOTS (8.5%)
- MINIMUM LOT AREA: 8,125 SF
- MINIMUM LOT WIDTH: 65'
- MINIMUM LOT DEPTH: 125'
- MINIMUM LIVING AREA: 2,190 SF
- MAXIMUM BUILDING HEIGHT: 35'
- SETBACKS:
  - FROM NATURAL SURFACE WATER: 50'
  - FRONT PRIMARY: 25'
  - FRONT ENTRY GARAGE: 30'
  - REAR PRIMARY: 20'
  - SIDE: 7.5'
  - CORNER SIDE: 15'
  - ACCESSORY STRUCTURES: PER LDC SEC. 7.01.00
- RECREATION SPACE CALCULATIONS:
  - REQUIRED (153 UNITS x 2.6 POP/UNIT) x (3.6 ACRES / 1,000 POP) = 1.43 ACRES
  - PROVIDED: TRACT R-1 = 1.67 ACRES
- OPEN SPACE CALCULATIONS:
  - REQUIRED (60.42 ACRES x 30%) = 18.13 ACRES
  - PROVIDED: TRACTS P-1, P-2 (MAX 50% OF REQ.) = 9.06 AC.
  - TRACTS B-1, B-2, FC-1, M-1, OS-1, OS-2, OS-3, OS-4, R-1 = 9.10 AC.
- SCHOOLS:
  - ELEMENTARY: WOLF LAKE
  - MIDDLE: WOLF LAKE
  - HIGH: APOPKA
- STREET LIGHT POLES AND FIXTURES SHALL BE OF A DECORATIVE TYPE
- THE RECREATION TRACT AMENITIES ARE TO BE CONSTRUCTED PRIOR TO THE FIRST HOME CLOSING. AS AN ALTERNATE, A BOND WILL BE PERMITTED.

**TRACT TABLE**

TRACT	USAGE	OWNERSHIP	MAINTENANCE	AREA (AC)	
B-1	BUFFER	H.O.A.	H.O.A.	0.02	
B-2	BUFFER	H.O.A.	H.O.A.	0.18	
FC-1	FLOODPLAIN CONSERVATION	H.O.A.	H.O.A.	1.75	
LS-1	LIFT STATION	CITY OF APOPKA	CITY OF APOPKA	0.03	
M-1	MEDIAN	H.O.A.	H.O.A.	0.02	
OS-1	OPEN SPACE	H.O.A.	H.O.A.	0.87	
OS-2	OPEN SPACE	H.O.A.	H.O.A.	1.18	
OS-3	OPEN SPACE	H.O.A.	H.O.A.	1.09	
OS-4	OPEN SPACE	H.O.A.	H.O.A.	2.33	
P-1	STORMWATER POND	H.O.A.	H.O.A.	6.03	
P-2	STORMWATER POND	H.O.A.	H.O.A.	6.03	
R-1	RECREATION	H.O.A.	H.O.A.	1.64	
ROW-1	RIGHT-OF-WAY DEDICATION	CITY OF APOPKA	CITY OF APOPKA	0.88	
ROW-2	RIGHT-OF-WAY	CITY OF APOPKA	CITY OF APOPKA	8.51	
SINGLE-FAMILY LOTS				PRIVATE	31.38
GROSS LAND AREA:					61.10



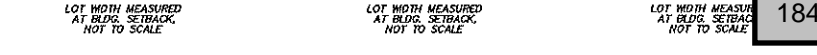
**LOT AREA TABLE**

LOT NO.	AREA (SF)	AREA (AC)	WIDTH (FT)
1	12,045	0.272	90
2	11,865	0.272	90
3	17,241	0.398	69
4	11,340	0.260	48
5	8,190	0.211	60
6	8,438	0.194	67
7	8,438	0.194	67
8	8,125	0.187	65
9	8,125	0.187	65
10	8,125	0.187	65
11	8,125	0.187	65
12	8,125	0.187	65
13	8,125	0.187	65
14	8,125	0.187	65
15	8,125	0.187	65
16	8,125	0.187	65
17	9,353	0.219	77
18	8,125	0.187	65
19	8,125	0.187	65
20	8,125	0.187	65
21	8,125	0.187	65
22	8,125	0.187	65
23	8,125	0.187	65
24	8,125	0.187	65
25	8,125	0.187	65
26	9,639	0.221	77
27	9,639	0.221	77
28	8,125	0.187	65
29	8,125	0.187	65
30	8,125	0.187	65
31	8,125	0.187	65
32	8,125	0.187	65
33	8,125	0.187	65
34	8,125	0.187	65
35	8,125	0.187	65
36	9,639	0.221	77
37	8,125	0.187	65
38	8,125	0.187	65
39	8,125	0.187	65
40	8,125	0.187	65
41	8,125	0.187	65
42	8,125	0.187	65
43	8,125	0.187	65
44	8,125	0.187	65
45	8,125	0.187	65
46	8,125	0.187	65
47	8,124	0.186	65
48	8,813	0.202	70
49	8,815	0.202	70
50	8,500	0.218	76
51	8,125	0.187	69
52	9,014	0.207	72
53	8,125	0.187	65
54	8,125	0.187	65
55	8,125	0.187	65
56	10,309	0.238	82
57	13,954	0.321	42
58	12,377	0.284	49
59	8,125	0.187	65
60	8,125	0.187	65
61	8,125	0.187	65
62	8,125	0.187	65
63	8,125	0.187	65
64	8,125	0.187	65
65	8,125	0.187	65
66	8,125	0.187	65
67	8,125	0.187	65
68	8,125	0.187	65
69	11,250	0.258	90
70	11,250	0.258	90
71	11,250	0.258	90
72	11,250	0.258	90
73	11,250	0.258	90
74	13,814	0.317	76
75	16,369	0.374	54
76	12,481	0.287	63
77	11,250	0.258	90
78	13,953	0.317	77
79	8,125	0.187	65
80	9,698	0.222	80
81	8,375	0.192	67
82	8,375	0.192	67
83	8,375	0.192	67
84	8,375	0.192	67
85	9,014	0.207	72
86	8,516	0.195	69
87	11,114	0.255	44
88	11,371	0.261	49
89	9,748	0.224	56
90	8,125	0.187	65
91	8,125	0.187	65
92	8,125	0.187	65
93	8,125	0.187	65
94	8,125	0.187	65
95	8,125	0.187	65
96	8,125	0.187	65
97	8,125	0.187	65
98	8,125	0.187	65
99	9,014	0.207	72
100	9,639	0.221	77
101	8,125	0.187	65
102	8,125	0.187	65
103	8,125	0.187	65
104	8,125	0.187	65
105	8,125	0.187	65
106	8,125	0.187	65
107	10,178	0.234	82
108	8,125	0.187	65
109	8,125	0.187	65
110	8,125	0.187	65
111	8,125	0.187	65
112	8,125	0.187	65
113	8,125	0.187	65
114	8,125	0.187	65
115	9,639	0.221	77
116	9,014	0.207	72
117	8,125	0.187	65
118	8,125	0.187	65
119	8,125	0.187	65
120	8,125	0.187	65
121	10,178	0.234	82
122	10,294	0.236	82
123	8,125	0.187	65
124	8,125	0.187	65
125	8,125	0.187	65
126	8,125	0.187	65
127	9,014	0.207	72
128	9,014	0.207	72
129	8,125	0.187	65
130	8,125	0.187	65
131	8,125	0.187	65
132	8,125	0.187	65
133	8,125	0.187	65
134	8,125	0.187	65
135	8,125	0.187	65
136	8,125	0.187	65
137	8,125	0.187	65
138	8,125	0.187	65
139	8,125	0.187	65
140	10,178	0.234	82
141	10,178	0.234	82
142	8,125	0.187	65
143	8,125	0.187	65
144	8,125	0.187	65
145	8,125	0.187	65
146	8,125	0.187	65
147	8,125	0.187	65
148	8,125	0.187	65
149	8,125	0.187	65
150	8,125	0.187	65
151	8,125	0.187	65
152	8,125	0.187	65
153	9,014	0.207	72

**TYPICAL 90'x125' LOT DIAGRAM**

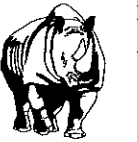
**TYPICAL 65'x125' LOT DIAGRAM**

**TYPICAL 65'x125' CORNER LOT D**



DATE: 06/22/2018  
 SCALE: 1" = 100'  
 DESIGNED BY: BSB  
 DRAWN BY: BSB  
 APPROVED BY: BSB



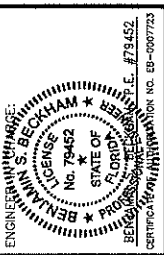


**MADDEN**  
HOORHEAD & STOKES, INC.  
CIVIL ENGINEERS

431 E. Horatio Avenue  
Suite 280  
Meltdon, Florida 32751  
(407) 629-8330

**SITE LAYOUT PLAN**  
 FOR  
**VISTA RESERVE**  
CITY OF APOPKA FLORIDA

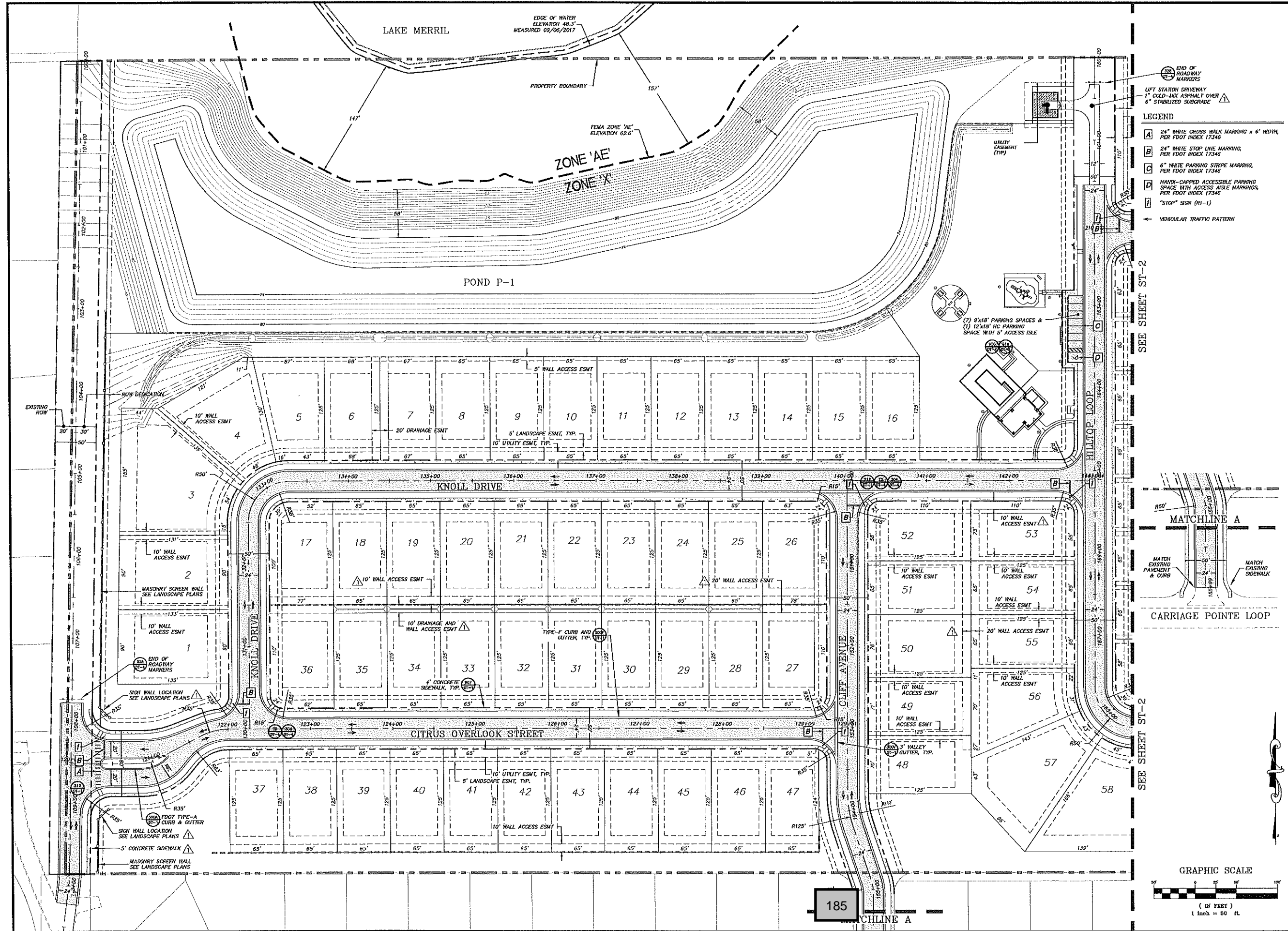
**THE PULTE GROUP**  
 490 WINDLAND ROAD, SUITE 500  
 WINDLAND COMMONS, JBR1  
 WINDLAND, FLORIDA 32759  
 (407) 667-1934

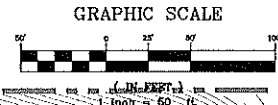
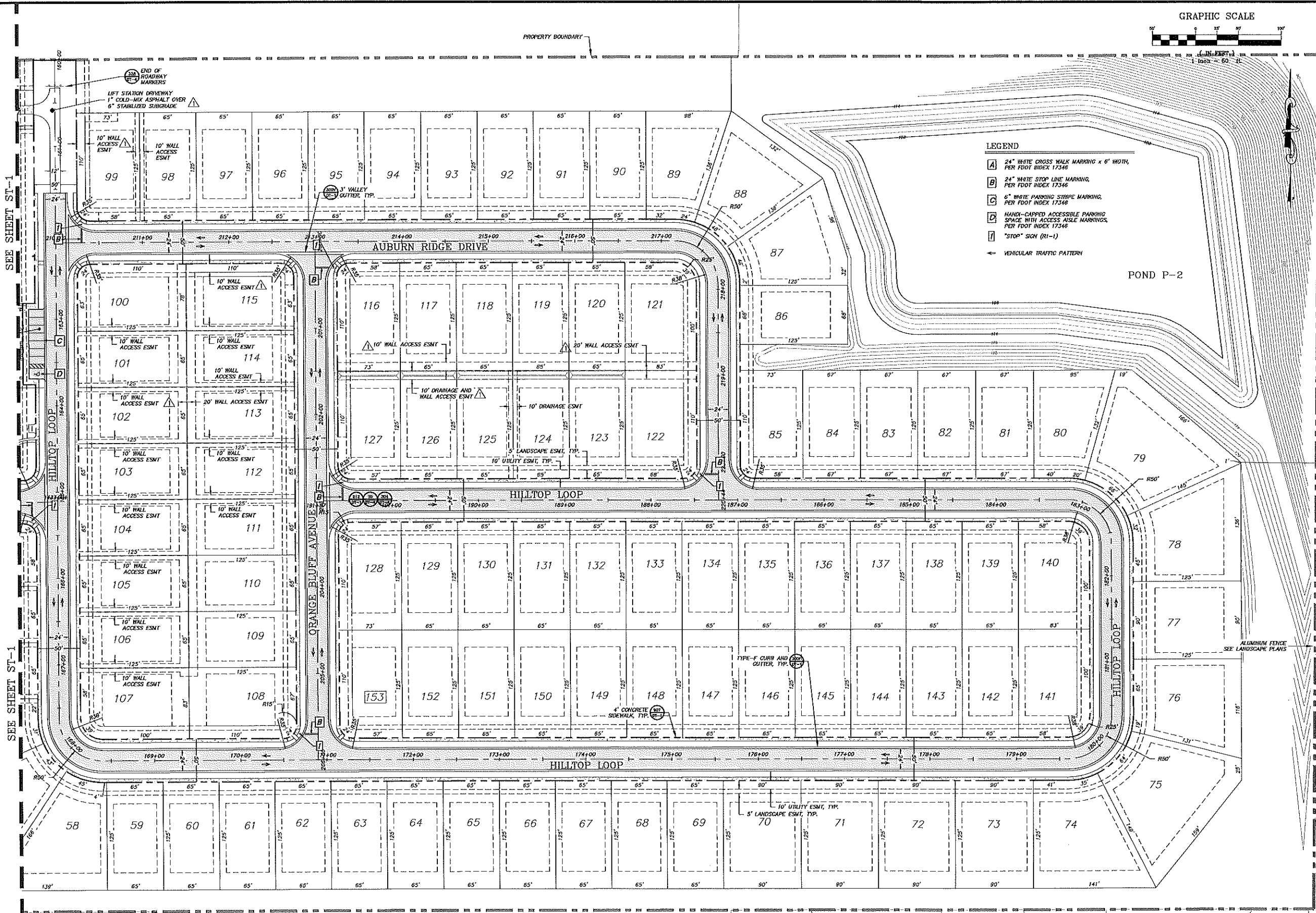


NO.	DESCRIPTION	DATE

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

17051/VISTA/VISTA/VISTA ST-1.dwg, Aug 22, 2018 - 11:39:43 am

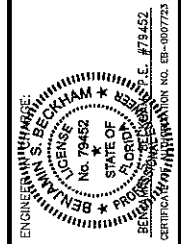




**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Haratio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

SITE LAYOUT PLAN  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

**THE PULTE GROUP**  
4801 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-1514



NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

GRAPHIC SCALE

(IN FEET)

LAKE MERRIL

EDGE OF WATER ELEVATION 46.3' MEASURED 09/06/2017

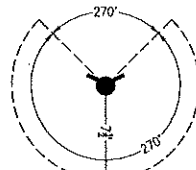
FDEP SEPARATION REQUIREMENTS UNDER 62-555.314 EFFECTIVE 8-28-2003				
HAZARD	HORIZONTAL SEPARATION	VERTICAL SEPARATION		JOINT SPACING
		WATER ABOVE	WATER BELOW	
STORM SEWER	3 FT MIN	12 IN PROF. BAY MIN	12 IN MIN	3 FT MIN
STORM FORCE MAIN	3 FT MIN	12 IN MIN	12 IN MIN	3 FT MIN
RECLAIMED WATER F. REGULATED UNDER 62-510	3 FT MIN	12 IN MIN	12 IN MIN	3 FT MIN
RECLAIMED WATER F. NOT REGULATED UNDER 62-510	10 FT PROF. 6 FT MIN	12 IN MIN	12 IN MIN	3 FT MIN
VALUAM SANITARY SEWER	10 FT PROF. 3 FT MIN	12 IN PROF. BAY MIN	12 IN MIN	3 FT MIN
GRAVITY SANITARY SEWER	10 FT PROF. 6 FT MIN. 3 FT MIN IF WATER MAIN IS 6 IN ABOVE GRAVITY SANITARY SEWER	12 IN PROF. BAY MIN	12 IN MIN	3 FT MIN
SANITARY SEWER FORCE MAIN	10 FT PROF. 6 FT MIN	12 IN MIN	12 IN MIN	3 FT MIN
SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT MIN	NONE	NONE	NONE

ZONE 'AE'  
ZONE 'X'

POND P-1

4" G.V. & 2" B.O.  
POZLS 57 LF  
SAN B PVC Ø 0.40E

1" WATER SERVICE TO LIFT STATION



FIRE HYDRANT CLEARANCE DETAIL

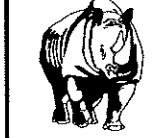
NO OBSTRUCTIONS SHALL BE PLACED WITHIN A 7' CLEARANCE DISTANCE FROM THE REAR AND SIDES OF A FIRE HYDRANT AND NO OBSTRUCTIONS SHALL BE PLACED OR GROWN IN FRONT OF A FIRE HYDRANT.

REMOVE EX BLOW-OFF VALVE AND CONNECT TO EX 30" RIM

REMOVE EX BLOW-OFF VALVE AND CONNECT TO EX 12" RIM

REMOVE EX BLOW-OFF VALVE AND CONNECT TO EX 8" RIM

REMOVE EX BLOW-OFF VALVE AND CONNECT TO EX 4" RIM

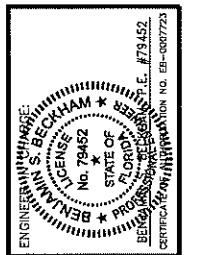


MADDEN MOORHEAD & STOKES, INC. CIVIL ENGINEERS

431 E. Horatio Avenue Suite 260 Maitland, Florida 32751 (407) 629-8330

UTILITY PLAN FOR VISTA RESERVE CITY OF APOPKA, FLORIDA

THE PULTE GROUP 480 WINDLAND ROAD, SUITE 300 ORLANDO, FLORIDA 32811 (407) 881-1514

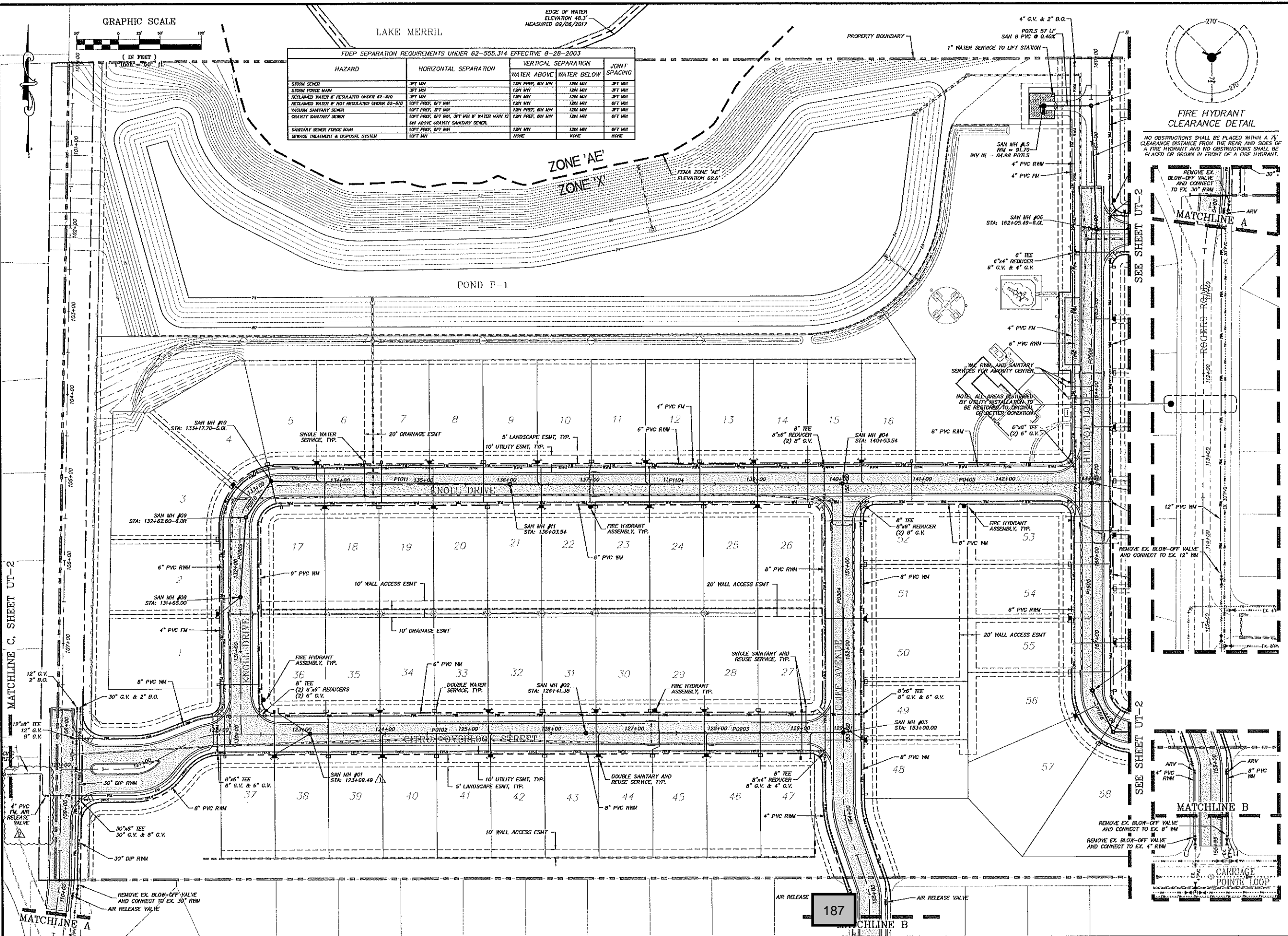


NO.	DATE	REVISIONS
1	06/22/2018	ISSUED FOR PER CITY COMMENTS
2	08/27/18	REVISED PER CITY COMMENTS

JOB # 17051  
DATE 06/22/2018  
SCALE 1" = 50'  
DESIGNED BY BSB  
DRAWN BY BSB  
APPROVED BY BSB

UT-1  
10 of 39

H:\Users\17051\OneDrive\Files\17051\UT-01.dwg Aug 22, 2018 11:37:18 am



MATCHLINE C. SHEET UT-2

MATCHLINE A

MATCHLINE B

SEE SHEET UT-2

SEE SHEET UT-2

CARRIAGE POINTE LOOP

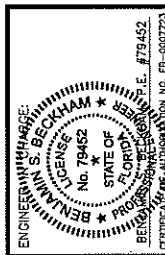
187



**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

UTILITY PLAN  
FOR  
**VISTA RESERVE**  
FLORIDA  
CITY OF APOPKA

THE PULTE GROUP  
4000 VINLAND ROAD, SUITE 600  
ORLANDO, FLORIDA 32811  
(407) 661-1514

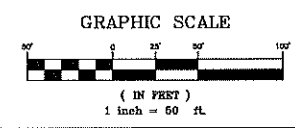
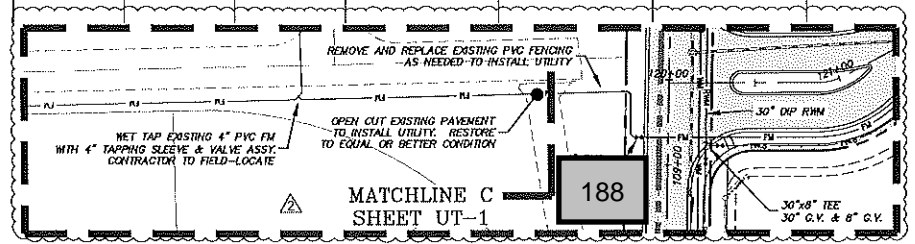
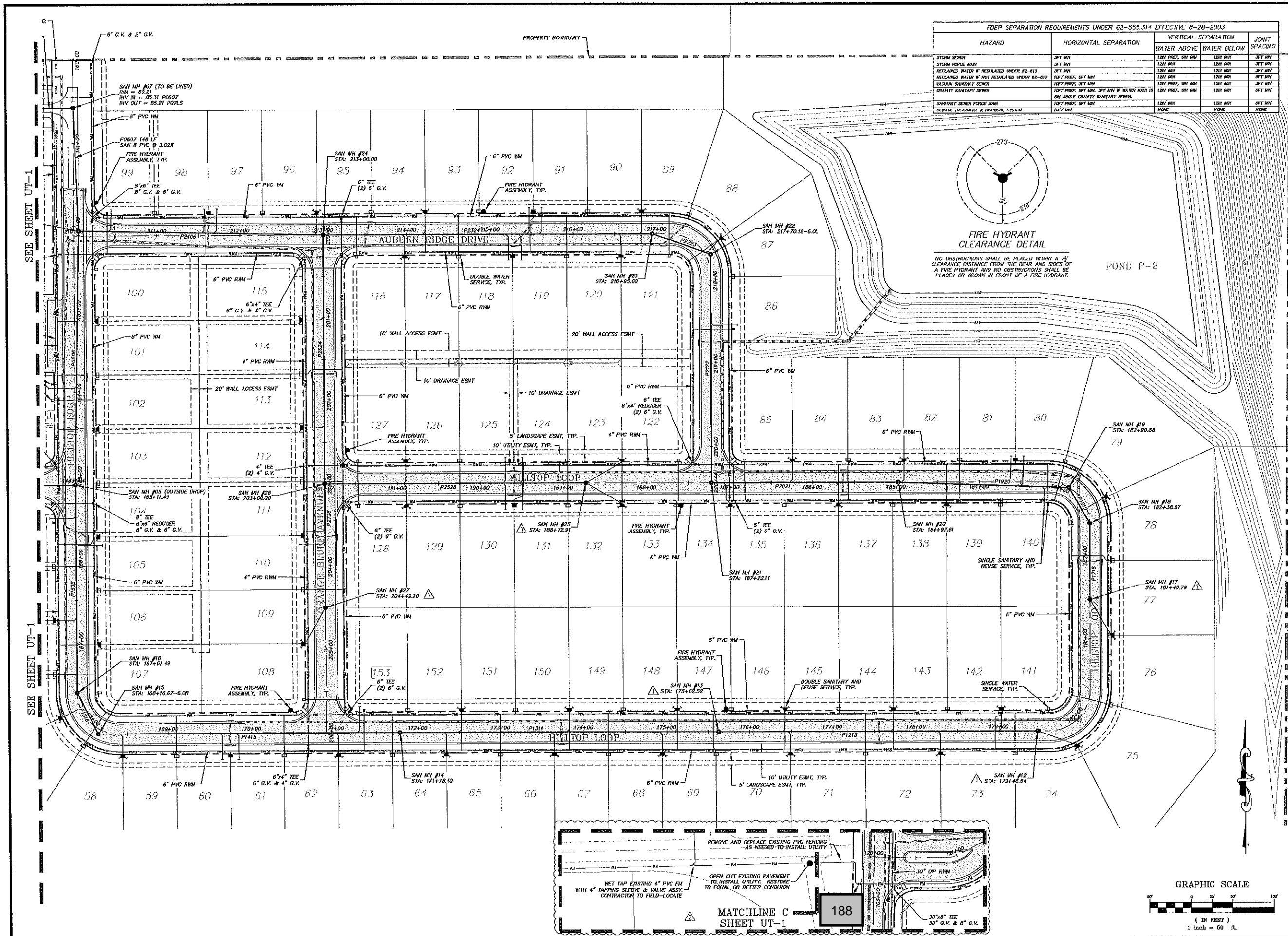
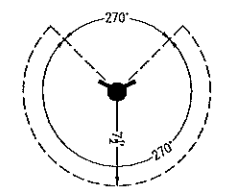


NO.	DATE	REVISIONS
1	06/22/2018	ISSUED FOR PER CITY COMMENTS
2	06/22/2018	REVISED PER CITY COMMENTS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

UT-2  
11 of 39

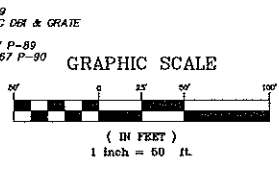
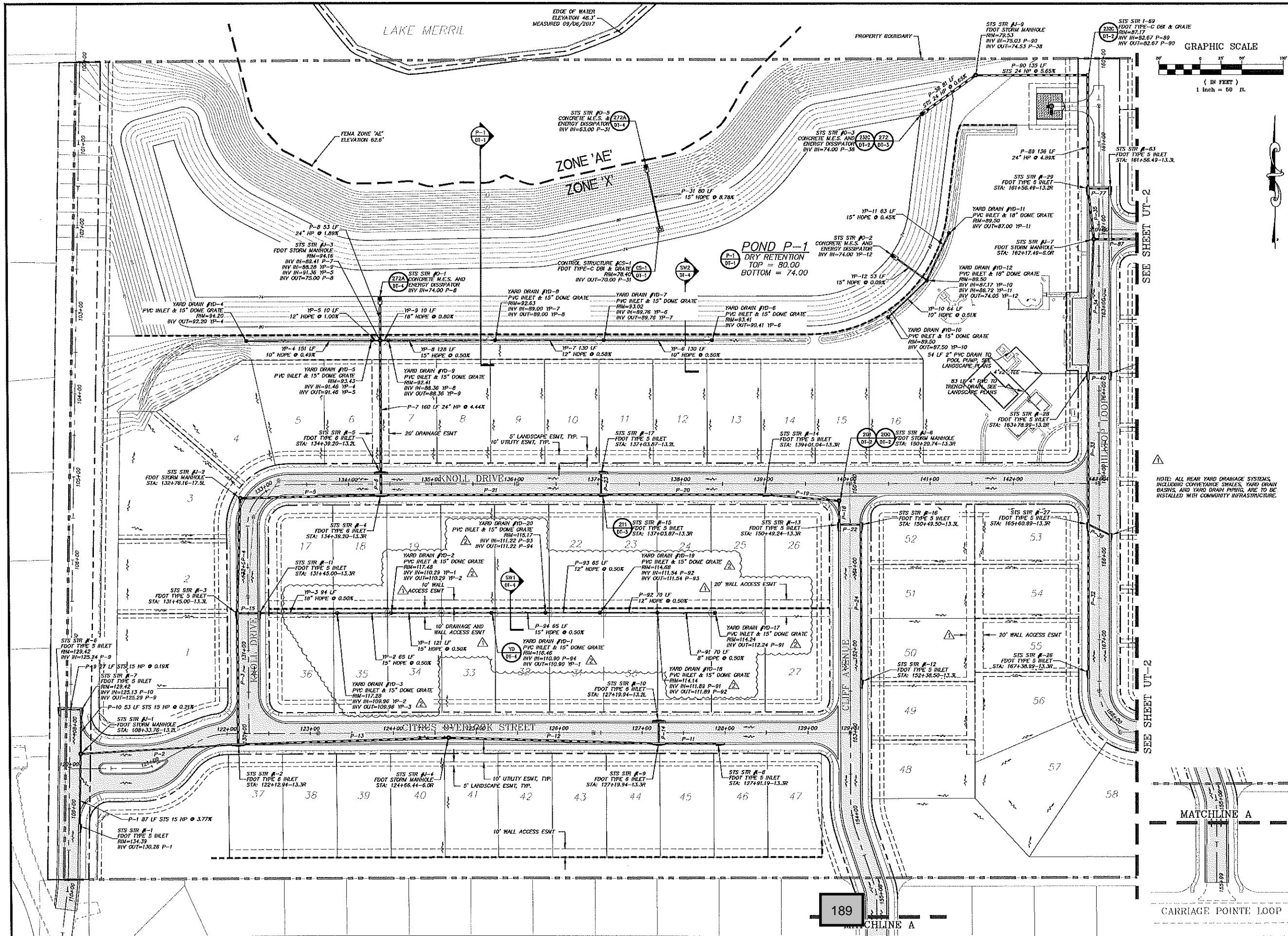
HAZARD	HORIZONTAL SEPARATION	VERTICAL SEPARATION		JOINT SPACING
		WATER ABOVE	WATER BELOW	
STORM SEWER	3 FT MIN	12 IN MIN	12 IN MIN	3 FT MIN
STORM FORCE MAIN	3 FT MIN	12 IN MIN	12 IN MIN	3 FT MIN
RECLAIMED WATER 8" REGULATED UNDER 62-610	3 FT MIN	12 IN MIN	12 IN MIN	3 FT MIN
RECLAIMED WATER 8" NOT REGULATED UNDER 62-610	10 FT MIN, 0 FT MAX	12 IN MIN	12 IN MIN	6 FT MIN
VALUON SANITARY SEWER	10 FT MIN, 0 FT MAX	12 IN MIN	12 IN MIN	3 FT MIN
GRAVITY SANITARY SEWER	10 FT MIN, 0 FT MAX, 3 FT MIN 6" WATER MAIN IS 6" ABOVE GRAVITY SANITARY SEWER	12 IN MIN	12 IN MIN	3 FT MIN
SANITARY SEWER FORCE MAIN	10 FT MIN, 0 FT MAX	12 IN MIN	12 IN MIN	6 FT MIN
SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT MIN	NONE	NONE	NONE



SEE SHEET UT-1

SEE SHEET UT-1

H:\Data\17051\Map\17051 UT.dwg Aug 22, 2018 11:37:22 am



**MADDEN**  
 MOORHEAD & STOKES, INC.  
 CIVIL ENGINEERS  
 431 E. Horatio Avenue  
 Suite 260  
 Maitland, Florida 32751  
 (407) 629-8330

FLORIDA  
 DRAINAGE PLAN  
 FOR  
**VISTA RESERVE**  
 CITY OF APOPKA

THE PULTE GROUP  
 4900 WINDLAND ROAD, SUITE 500  
 ORLANDO, FLORIDA 32811  
 (407) 661-1514

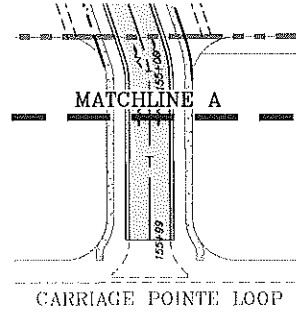
ENGINEER-IN-CHARGE:  
 M. S. BECKHAM \* 79465  
 STATE OF FLORIDA  
 BECKHAM ENGINEERING, INC. #73452  
 CERTIFICATE OF REGISTRATION NO. BE-000723

NO.	DATE	REVISIONS

JOB # 17051  
 DATE: 06/22/2018  
 SCALE: 1" = 50'  
 DESIGNED BY: BSB  
 DRAWN BY: BSB  
 APPROVED BY: BSB

NOTE: ALL REAR YARD DRAINAGE SYSTEMS, INCLUDING CONVEYANCE SHALES, YARD DRAIN BASINS, AND YARD DRAIN PERIMS, ARE TO BE INSTALLED WITH COMMUNITY INFRASTRUCTURE.

SEE SHEET UT-2

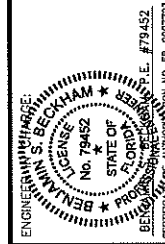




**MADDEN**  
 MOORHEAD & STOKES, INC.  
 CIVIL ENGINEERS  
 431 E. Horatio Avenue  
 Suite 280  
 Maitland, Florida 32751  
 (407) 629-8330

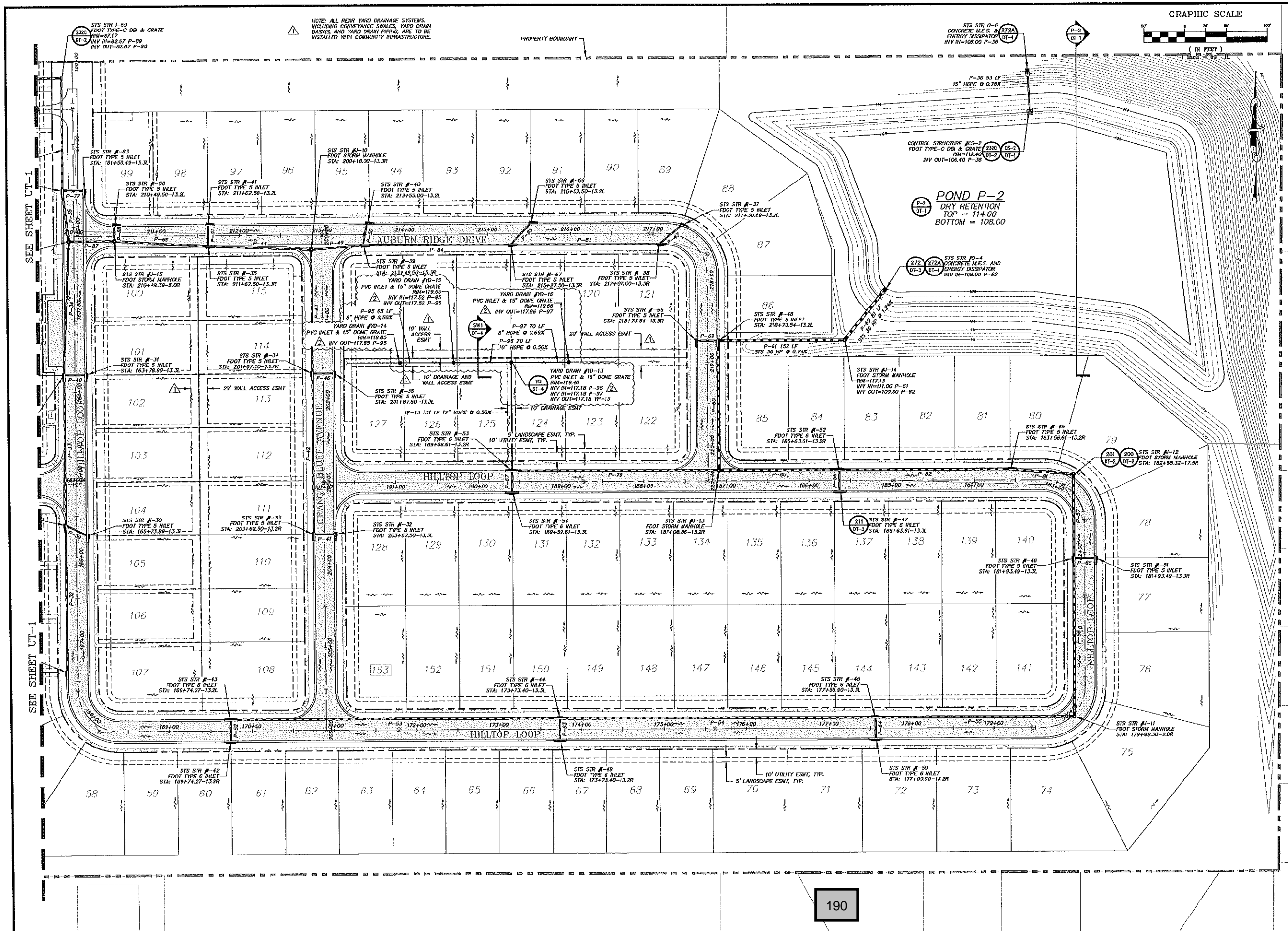
DRAINAGE PLAN  
 FOR  
**VISTA RESERVE**  
 CITY OF APOPKA, FLORIDA

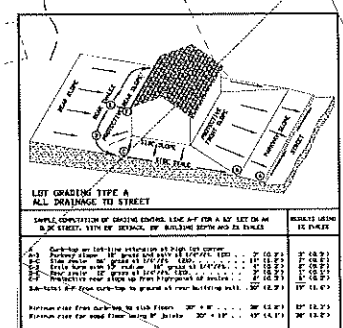
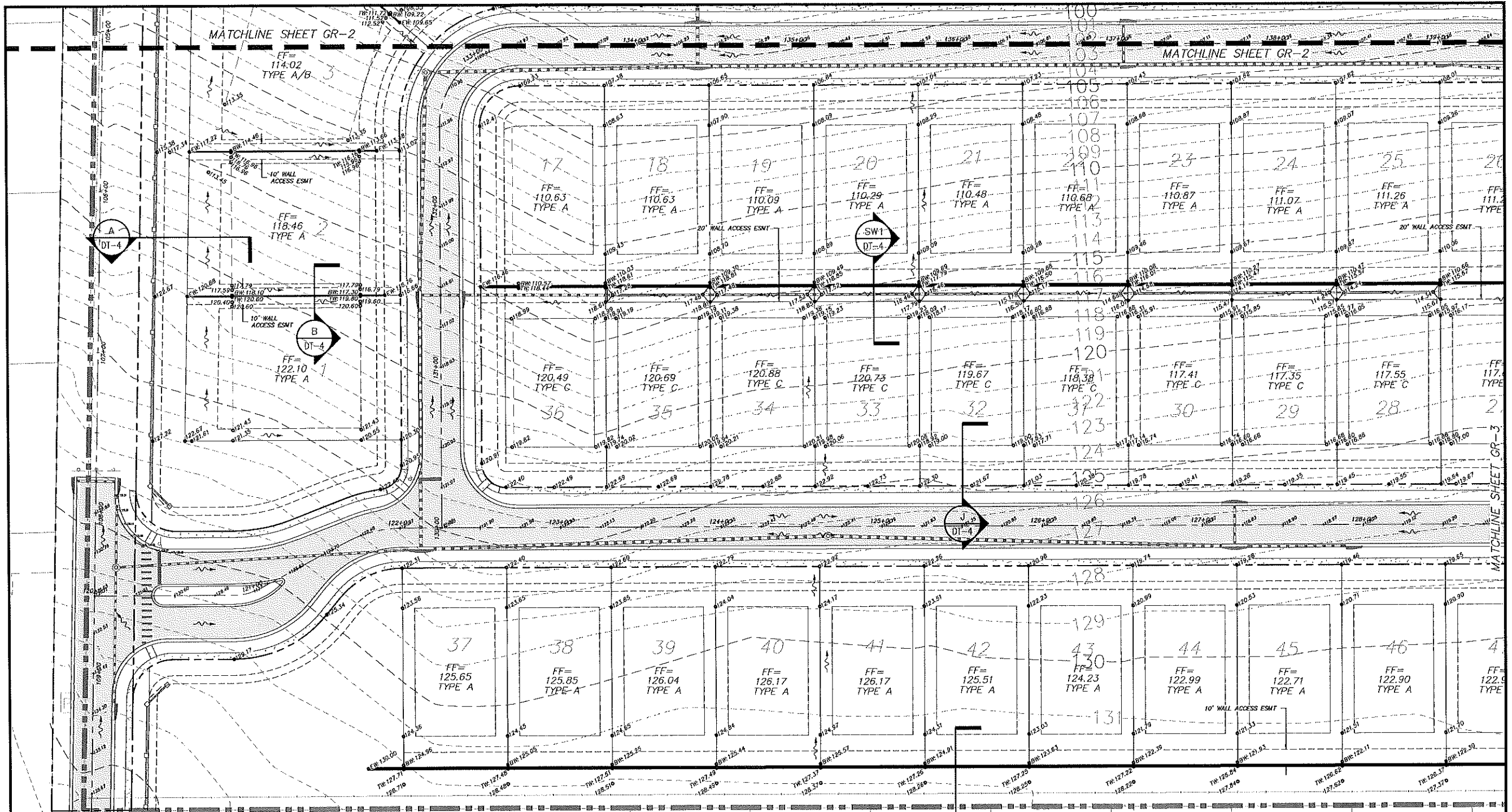
THE PULTE GROUP  
 400 WINDLAND ROAD, SUITE 600  
 ORLANDO, FLORIDA 32801  
 (407) 661-1514



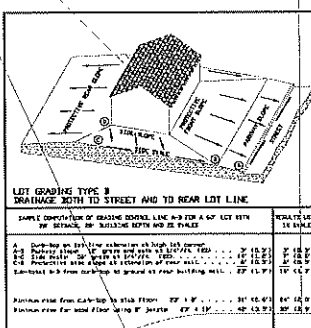
DATE	REVISIONS

JOB # 17051  
 DATE: 06/22/2018  
 SCALE: 1" = 50'  
 DESIGNED BY: BSB  
 DRAWN BY: BSB  
 APPROVED BY: BSB

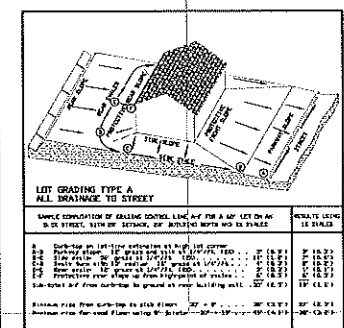




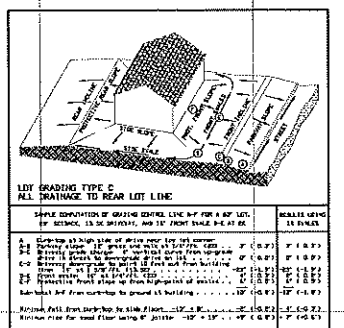
900A FHA TYPE 'A' LOT GRADING N.T.S.



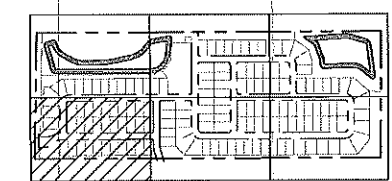
900B FHA TYPE 'B' LOT GRADING N.T.S.



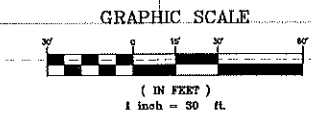
900AM FHA TYPE 'A' MOD. LOT GRADING N.T.S.



900C FHA TYPE 'C' LOT GRADING N.T.S.



KEYMAP, N.T.S.



**MADDEN**  
MOORHEAD & STORES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

GRADING PLAN  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA FLORIDA

THE PULTE GROUP  
4600 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 661-1514

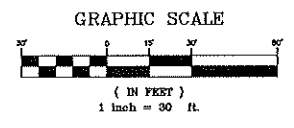
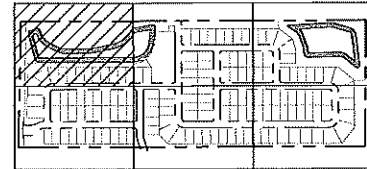
ENGINEER-IN-CHARGE:  
S. BECKHAM  
LICENSE NO. 79452  
STATE OF FLORIDA  
REGISTERED PROFESSIONAL ENGINEER  
COMMERCIAL REGISTRATION NO. BR-0007723

NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 30'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

GR-1  
14 of 39

H:\Data\17051\_Vista\_Village\_V7051\_Civil.dwg Aug. 22, 2018 - 11:30:14 AM



GRADING PLAN FOR VISTA RESERVE CITY OF APOPKA FLORIDA

THE PULTE GROUP 400 WINDLAND ROAD, SUITE 500 ORLANDO, FLORIDA 32811 (407) 881-1514

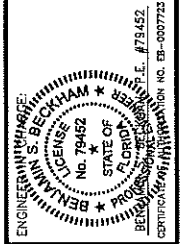
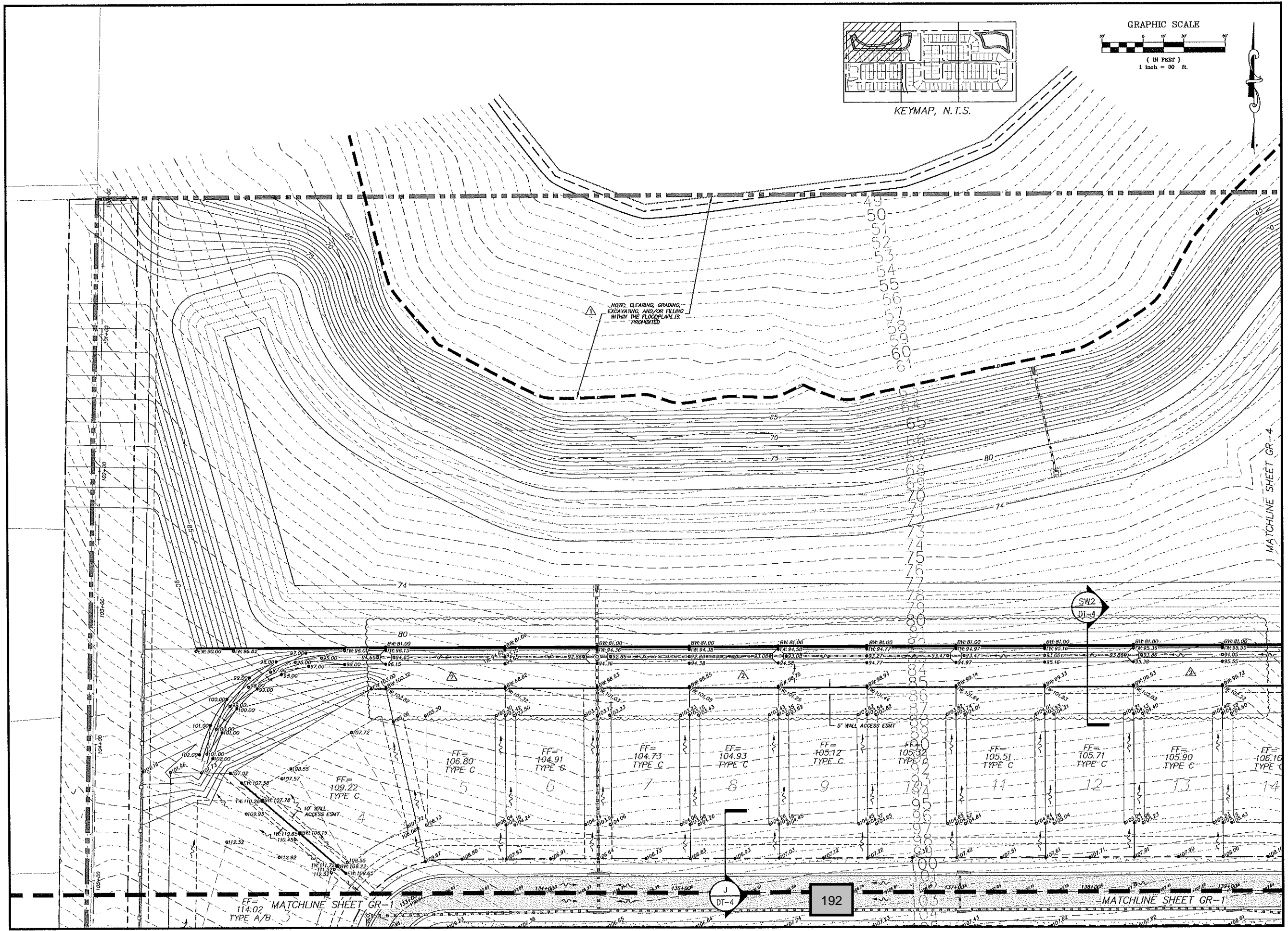


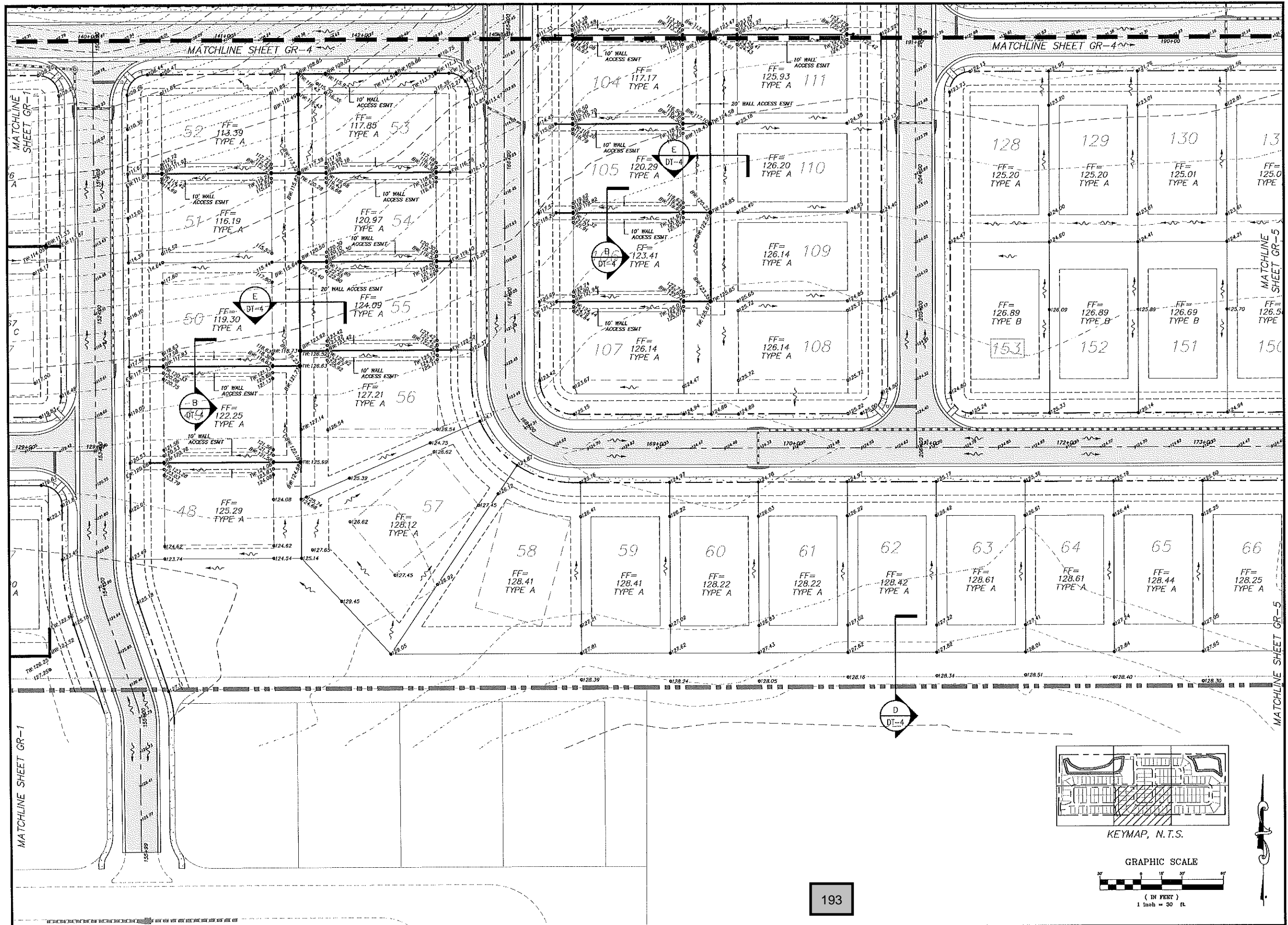
Table with 2 columns: DATE, REVISIONS. Contains a grid for tracking changes.

JOB # 17051 DATE 06/22/2018 SCALE 1" = 30' DESIGNED BY: BSB DRAWN BY: BSB APPROVED BY: BSB



H:\Users\17051\My Documents\17051\17051\_Vista\_Village\17051\_Vista\_Village\_Grading Aug 22, 2018-11:36:23.dwg





**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

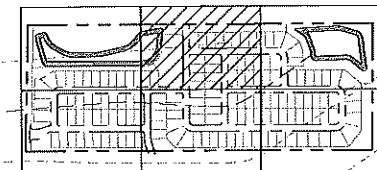
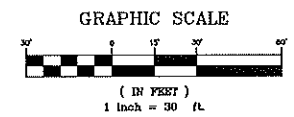
GRADING PLAN  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
400 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-1514

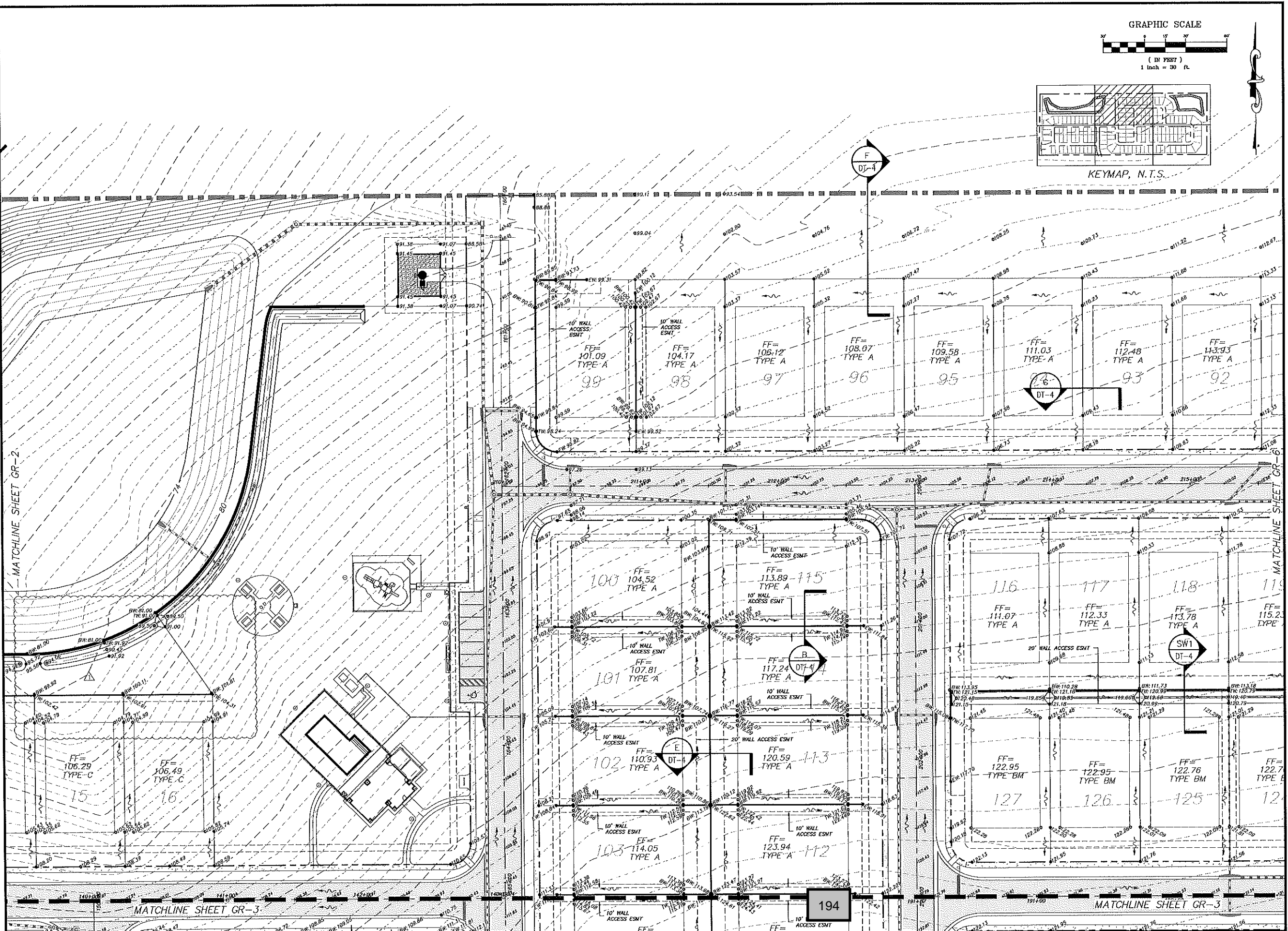
ENGINEER'S SIGNATURE: *Benjamin S. Richman*  
LICENSE NO. 79452  
STATE OF FLORIDA  
REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 12/31/2018

NO.	DATE	REVISIONS
1	06/22/2018	ISSUED FOR PERMIT
2	06/22/2018	ISSUED FOR PERMIT
3	06/22/2018	ISSUED FOR PERMIT
4	06/22/2018	ISSUED FOR PERMIT
5	06/22/2018	ISSUED FOR PERMIT
6	06/22/2018	ISSUED FOR PERMIT
7	06/22/2018	ISSUED FOR PERMIT
8	06/22/2018	ISSUED FOR PERMIT
9	06/22/2018	ISSUED FOR PERMIT
10	06/22/2018	ISSUED FOR PERMIT
11	06/22/2018	ISSUED FOR PERMIT

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 30'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB



KEYMAP, N.T.S.



**MADDEN**  
MOORHEAD & STORES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Meloland, Florida 32751  
(407) 629-8330

GRADING PLAN  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

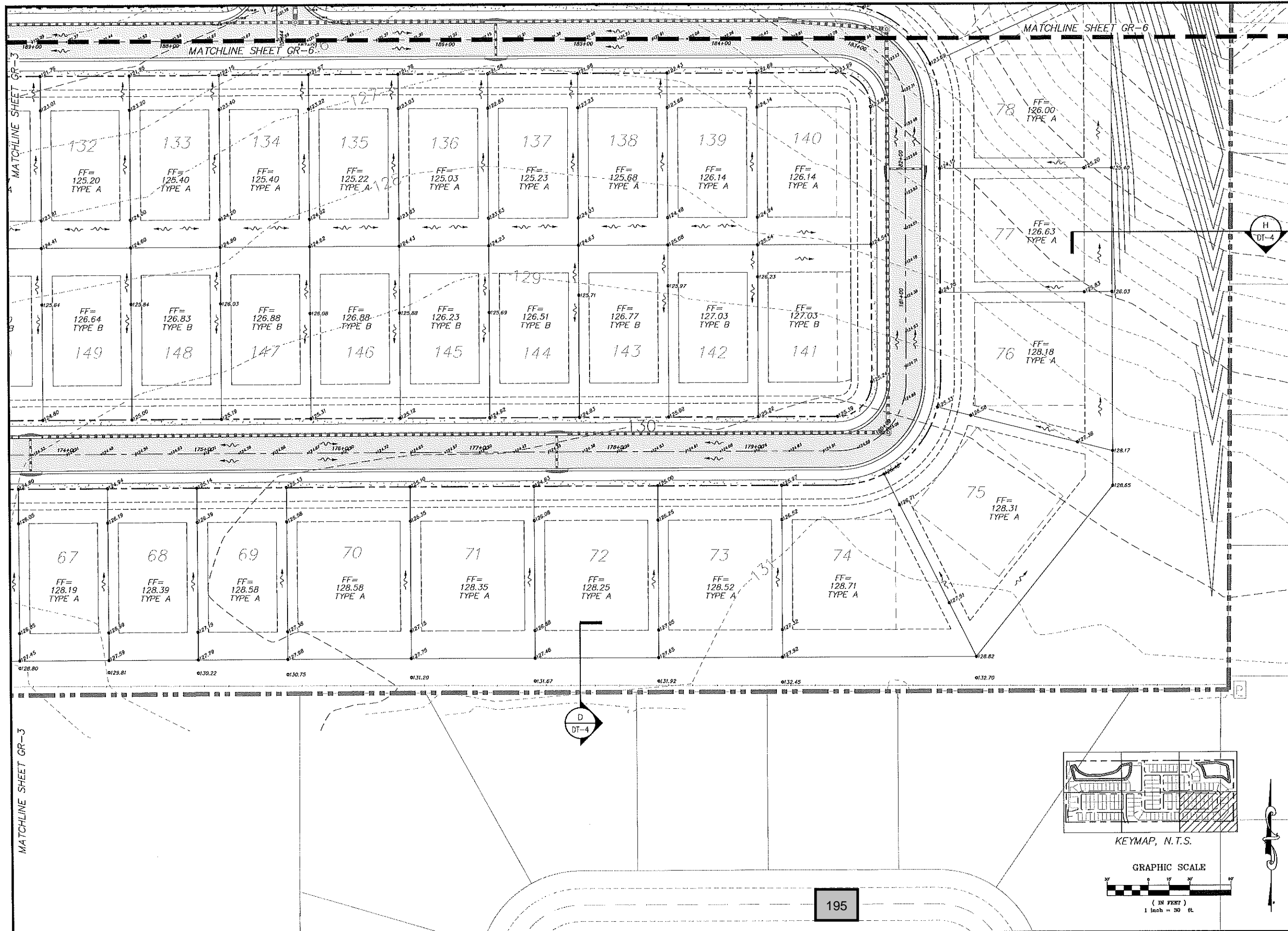
THE PULTE GROUP  
4903 WINDLAND ROAD, SUITE 300  
ORLANDO, FLORIDA 32811  
(407) 681-1544

ENGINEER  
BENJAMIN S. BECKHAM  
LICENSE NO. 79452  
STATE OF FLORIDA  
REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 12/31/2025  
CERTIFICATE OF REGISTRATION NO. BE-0007725

NO.	DATE	REVISIONS

JOB # 17051  
DATE 06/22/2018  
SCALE 1" = 30'  
DESIGNED BY BSB  
DRAWN BY BSB  
APPROVED BY BSB

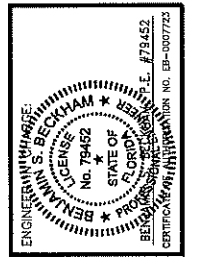
P:\Data\17051 Log\Yield\17051.dwg, Aug 22, 2018 11:38:39 am



**MADDEN**  
MODRHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 829-8330

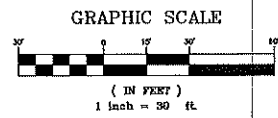
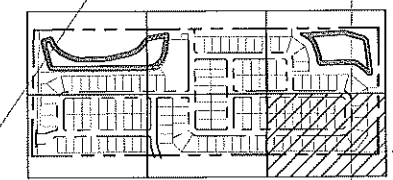
GRADING PLAN  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

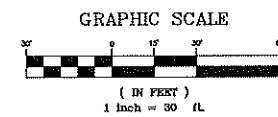
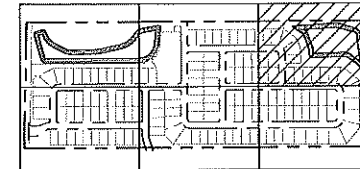
THE PULTE GROUP  
4601 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-1514



DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 30'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

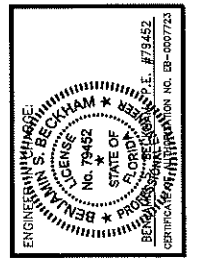




**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

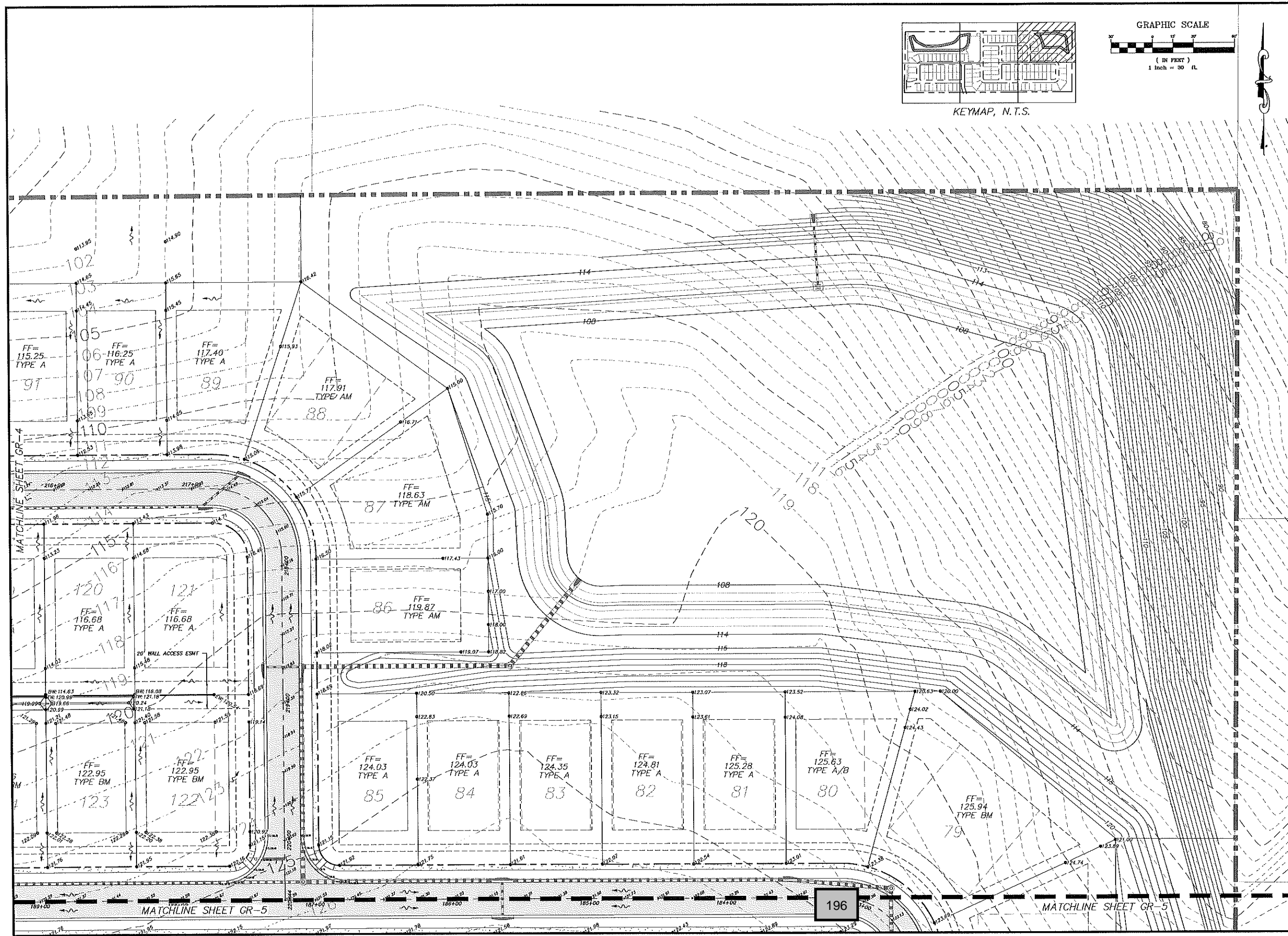
GRADING PLAN  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
490 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-1514

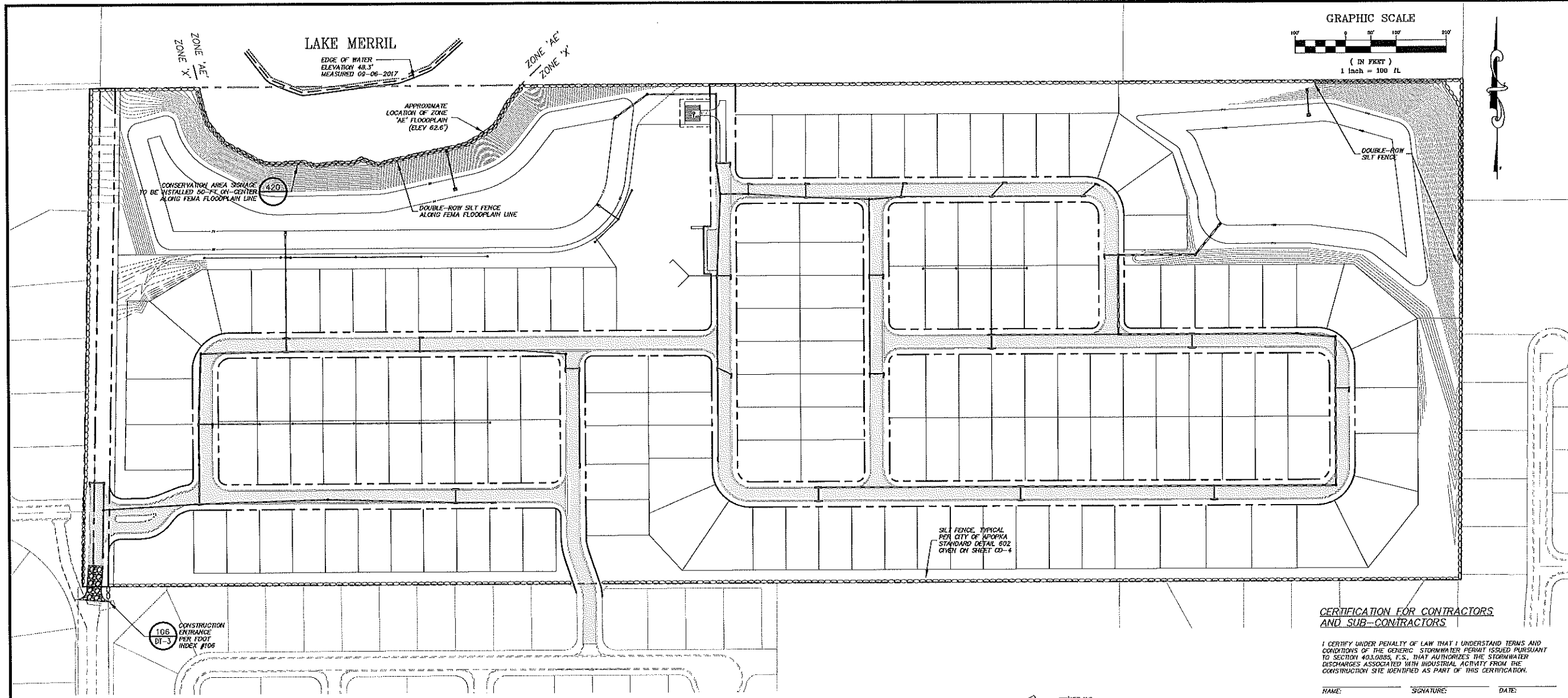


NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 30'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB



P:\Users\17051\My Files\17051\_Vista Reserve\Grading Aug 22, 2018-11:36:55 am



**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 829-8330

ENVIRONMENTAL PROTECTION PLAN  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
480 WINDLAND ROAD, SUITE 300  
ORLANDO, FLORIDA 32815  
(407) 681-1514

ENGINEER'S SEAL  
BENJAMIN S. BICKHAM  
No. 79452  
STATE OF FLORIDA  
REGISTERED PROFESSIONAL ENGINEER  
CERTIFICATE NO. 173462  
EXPIRES 12/31/2018

NO.	DATE	REVISIONS

JOB # 17051  
DATE 06/22/2018  
SCALE 1" = 100'  
DESIGNED BY BSB  
DRAWN BY BSB  
APPROVED BY BSB

EC-1  
20 of 39

**STORMWATER POLLUTION PREVENTION NOTES:**

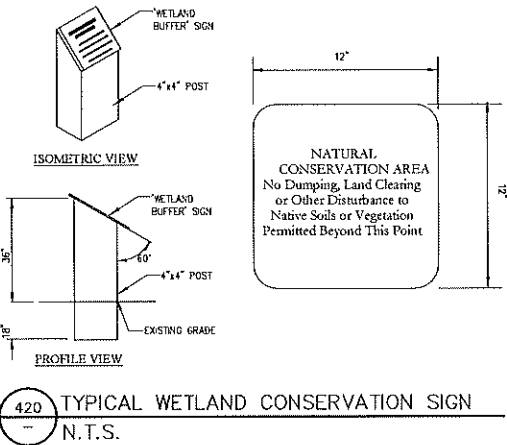
1. THE CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY OF SOIL PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION.
2. NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
3. THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL BE CONTROLLED, SO THAT THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
4. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
5. AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER. DURING THE SEASON BY WHICH IT IS PLANTED, TEMPORARY SEEDING SHALL BE CONTROLLED SO AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE 30 POUNDS PER ACRE.
6. THE SEEDS OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
7. IF AFTER 14 DAYS, THE TEMPORARY GRASSES ARE HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE RESEED AND ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION COVER.
8. ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.
9. ALL DISTURBED AREAS OUTSIDE THE EXCAVATION AND FILL LIMITS WILL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THEIR CONDITION PRIOR TO CONSTRUCTION.
10. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL NEWLY PLANTED GRASSES OR VEGETATION AND RETENTION/DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE CITY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF EMBANKMENTS AND SHALL REPLACE ANY PORTION, WHICH IN THE OPINION OF THE ENGINEER, HAS BECOME DISPLACED DUE TO EROSION OR DUE TO CARELESSNESS OR NEGLIGENCE ON THE PART OF THE CONTRACTOR.
12. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING POLLUTION OF THE ENVIRONMENT. MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO CONTROL EROSION AND SEDIMENT RUNOFF FROM THE SITE DURING CONSTRUCTION. SUCH METHODS SHALL BE IN ACCORDANCE WITH THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
13. ABSOLUTELY NO WORK WILL BE ALLOWED WITHIN ANY CONSERVATION AREA, BUFFER AREA, MITIGATION AREA OR DESIGNATED WETLAND AREA UNLESS SO SPECIFICALLY DESCRIBED BY THE PLANS AND GRANTED BY REASON OF PERMIT FROM THE GOVERNMENTAL ENTITY HAVING JURISDICTION OVER SAID AREA.
14. MARK TO CLEARING AND GRUBBING, THE LIMITS OF WETLANDS, BUFFERS WETLANDS, BUFFERS AND MITIGATION AREAS SHALL BE CLEARLY MARKED ALONG THE PROPOSED RIGHT OF WAY LINE TO PROTECT THESE AREAS FROM ENCROACHMENT FROM CONSTRUCTION ACTIVITIES.
15. ALL FILL EMBANKMENT AND GRADED AREAS SHALL BE PROTECTED AGAINST EROSION BY METHODS STATED IN SECTION 104, F.D.O.T. STANDARD SPECIFICATIONS FOR BRIDGE AND ROAD CONSTRUCTION. SOE SLOPE MAY BE SEED AND MULCHED, PROVIDED THAT THE MULCH MATERIAL IS DISC NARROWED AND THE SOE SLOPES ARE NEITHER GREATER THAN 3:1 NOR PART OF A DRAINAGE CONVEYANCE.
16. REFER TO POND DETAIL SHEETS FOR EROSION CONTROL MEASURES AT POND OUTFALLS.
17. EROSION CONTROL AT ALL INLET DRAINAGE STRUCTURES DURING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH FDOT INDEX NO. 102.
18. INSPECTIONS ON EROSION CONTROL MEASURES WILL BE PERFORMED BY THE CONTRACTOR ONCE PER WEEK AND WITHIN 24 HOURS AFTER 1/4 INCH OF RAINFALL. THE INSPECTIONS MUST BE LOGGED BY THE CONTRACTOR AND KEPT WITH THE APPROVED PLANS AND SWPPP.
19. GRAVEL CONSTRUCTION ENTRANCES SHALL BE PROVIDED TO MINIMIZE EXPORT OF ONSITE DIRT. IF GRAVEL IS NOT ALLOWED, THE CONSTRUCTION ENTRANCES SHALL BE SHEEP PERIODICALLY AND LOGGED BY THE CONTRACTOR.

**EROSION CONTROL:**

- THE CONTRACTOR SHALL PERFORM EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF APOPKA AND THE S.J.R.W.M.D., DETAILS CONTAINED IN THE PLANS, THE FOLLOWING NOTES AND AS DIRECTED BY THE ENGINEER.
1. TEMPORARY EROSION CONTROL
    1. STOCKPILE MATERIAL, NO EXCAVATING MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATERBODY OR STORMWATER COLLECTION FACILITY.
    2. INLET PROTECTION - INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT- LADEN STORM RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATERBODY OR STORMWATER COLLECTION FACILITY.
    3. TEMPORARY SEEDING / STRIP SOODING - AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE STRIP-SOODED ALONG ALL DESIGNATED ROW'S. THIS WILL PREVENT SEDIMENT RUNOFF FROM INDIVIDUAL LOTS INTO THE ROW AND DRAINAGE SYSTEMS, AND WILL NOT LATER COMPETE WITH THE PERMANENT LOT GRASSING.
    4. TEMPORARY SEEDING AND MULCHING - SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN NOTE 3 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES.
    5. TEMPORARY GRASSING - THE SEEDS OR THE SEEDS AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
    6. TEMPORARY REGRASSING - IF AFTER FOURTEEN DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE RESEED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATION COVER.
    7. THE CONTRACTOR SHALL PLACE HAY BALES AROUND ALL EXISTING AND NEWLY CONSTRUCTED INLETS TO CONTROL EROSION DURING CONSTRUCTION.
    8. MAINTENANCE - ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.
  2. PERMANENT EROSION CONTROL
 

THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON OFF-SITE FACILITIES. ALL STORMWATER DISCHARGE FROM THE PROJECT LIMITS SHALL BE ROUTED THROUGH DETENTION BASINS TO TRAP SUSPENDED SEDIMENTS AND DISCHARGE FACILITIES FROM THESE BASINS SHALL BE PROVIDED WITH A SKIMMER DEVICE TO TRAP FLOATABLE DEBRIS.

    1. PERMANENT SEEDING - ALL AREAS WHICH HAVE BEEN DISTURBED BY THE CONSTRUCTION WILL, AS A MINIMUM, BE FERTILIZED AND SEEDS.
    2. PERMANENT SEEDING AND MULCHING - SLOPES OF 6:1 TO 4:1 INCLUSIVE WILL BE MULCHED WITH A UNIFORM THICKNESS OF APPROXIMATELY TWO INCHES, LOOSE MEASURE, OF MULCH MATERIAL INCORPORATED INTO THE SOIL BY MOWING TO A DEPTH OF FOUR INCHES.
    3. PERMANENT SOODING - ALL RETENTION/DETENTION BASINS SHALL BE SOODED WITHIN THEIR LIMITS. ALL EXPOSED AREAS WITHIN PUBLIC RIGHT-OF-WAYS WILL BE SOOD SOODED. OTHER AREAS WITH AREAS WITH SLOPES STEEPER THAN 4:1 WILL BE SOODED.
    4. STRIP SOODING - STRIP SOO SHALL BE PLACED ADJACENT TO ALL CURBS, WALKS AND PAVEMENTS.
    5. REGRASSING - ALL GRASSED AREAS WILL BE MAINTAINED TO ASSURE A GOOD STAND AND SUFFICIENT GROUND COVER TO MINIMIZE EROSION. IF, AFTER 60 DAYS AN ADEQUATE GROUND COVER HAS NOT BEEN ESTABLISHED, THE AREA WILL BE REGRASSED.
    6. ADDITIONAL FERTILIZATION - GRASSED AREAS NOT ACCEPTED WITHIN 90 DAYS OF THEIR COMPLETION SHALL BE FERTILIZED.
    7. FOR ADDITIONAL SOODING REQUIREMENTS, REFER TO THE LANDSCAPE PLANS.



KEYMAP, N.T.S.

# CITRUS OVERLOOK STREET

GRAPHIC SCALE  
( IN FEET )  
1 inch = 50 ft.

NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.

**MADDEN**  
ENGINEERS

MORRHEAD & STORES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 280  
Maitland, Florida 32751  
(407) 629-8330

PLAN AND PROFILE  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
4895 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-5141

ENGINEER-IN-CHARGE: **BENJAMIN S. BECHAM**  
LICENSE NO. 79452  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
EXPIRES: 12/31/2018  
CERTIFICATE NO. 00007723  
P.E. #79452

NO.	DATE	BY	REVISIONS
1			
2			
3			
4			
5			

JOB # 17051  
DATE 06/22/2018  
SCALE 1" = 50'  
DESIGNED BY BSB  
DRAWN BY BSB  
APPROVED BY BSB

PP-1  
21 of 39

198



**MADDEN**  
 HODDGE & STOKES, INC.  
 CIVIL ENGINEERS  
 431 E. Horatio Avenue  
 Suite 260  
 Maitland, Florida 32751  
 (407) 629-8330

PLAN AND PROFILE  
 FOR  
**VISTA RESERVE**  
 CITY OF APOPKA, FLORIDA

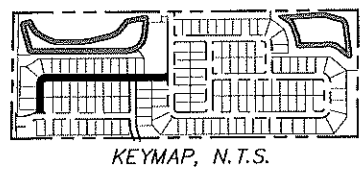
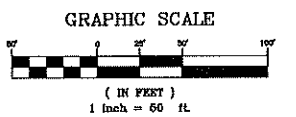
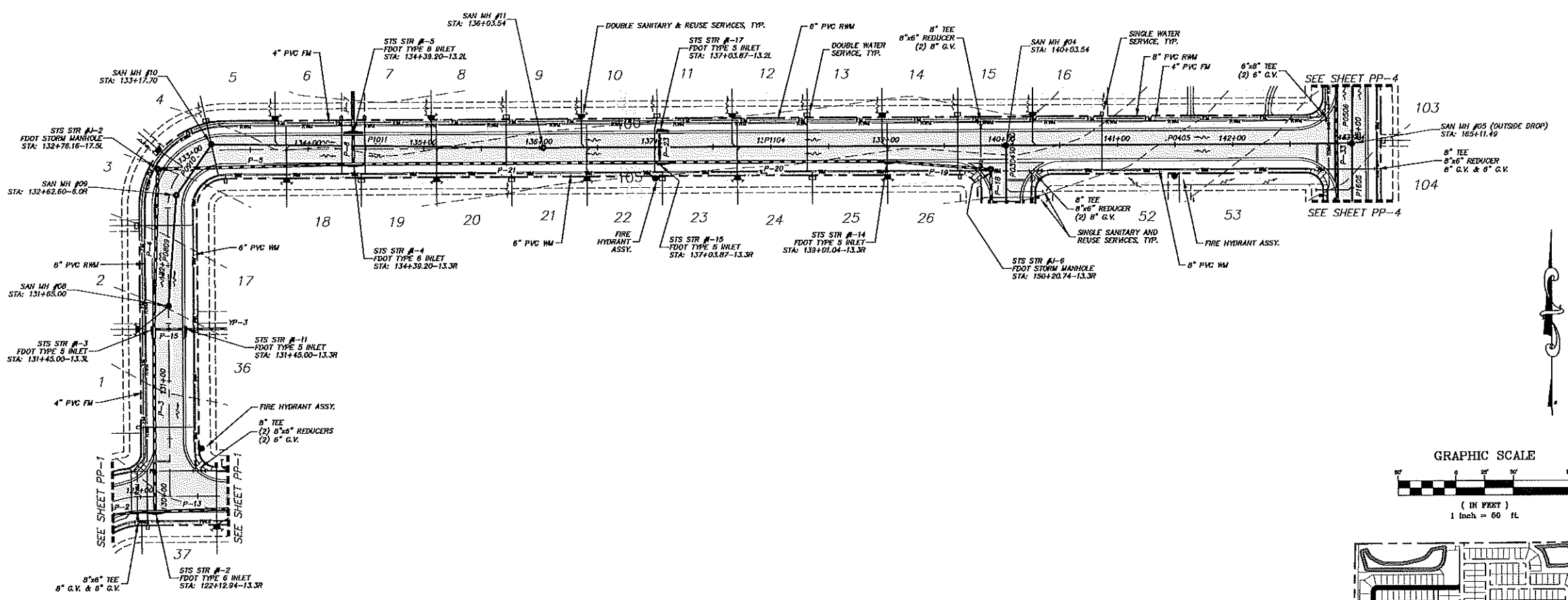
THE PULTE GROUP  
 4801 WINDLAND ROAD, SUITE 500  
 ORLANDO, FLORIDA 32811  
 (407) 681-1514

ENGINEER-IN-CHARGE: BENJAMIN S. BECKHAM  
 LICENSE NO. 79452  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 CERTIFICATE OF REGISTRATION NO. 01-0007723

NO.	DATE	REVISIONS

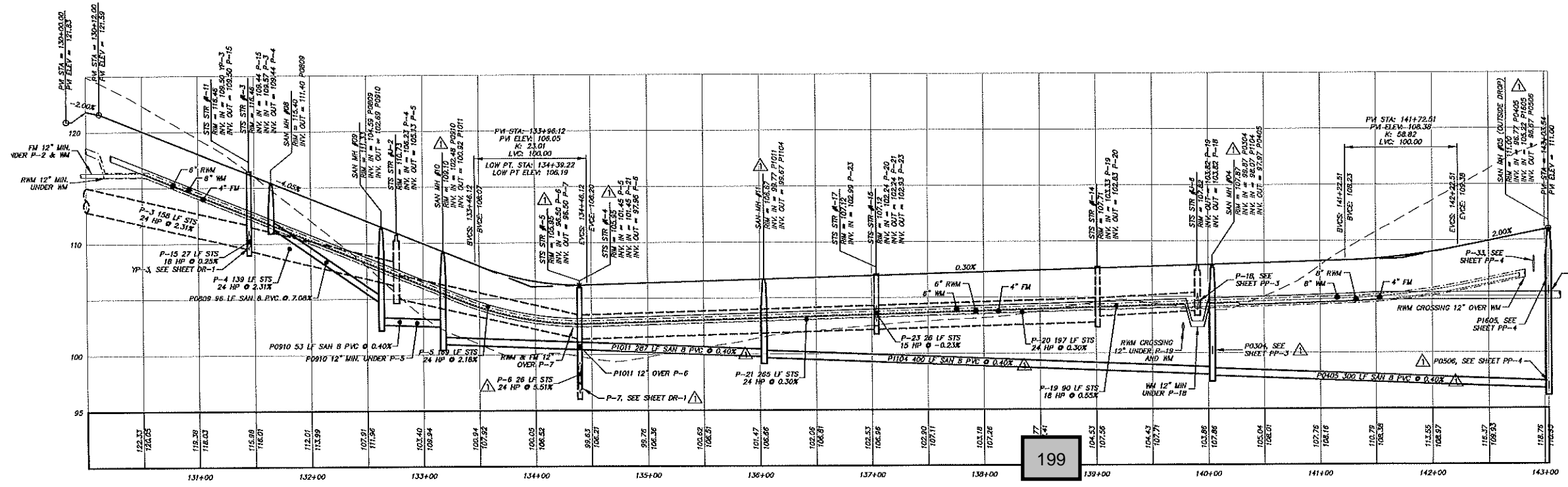
JOB # 17051  
 DATE: 06/22/2018  
 SCALE: 1" = 50'  
 DESIGNED BY: BSB  
 DRAWN BY: BSB  
 APPROVED BY: BSB

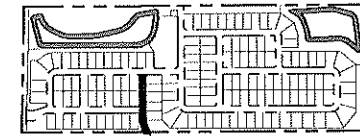
PP-2  
 22 of 39



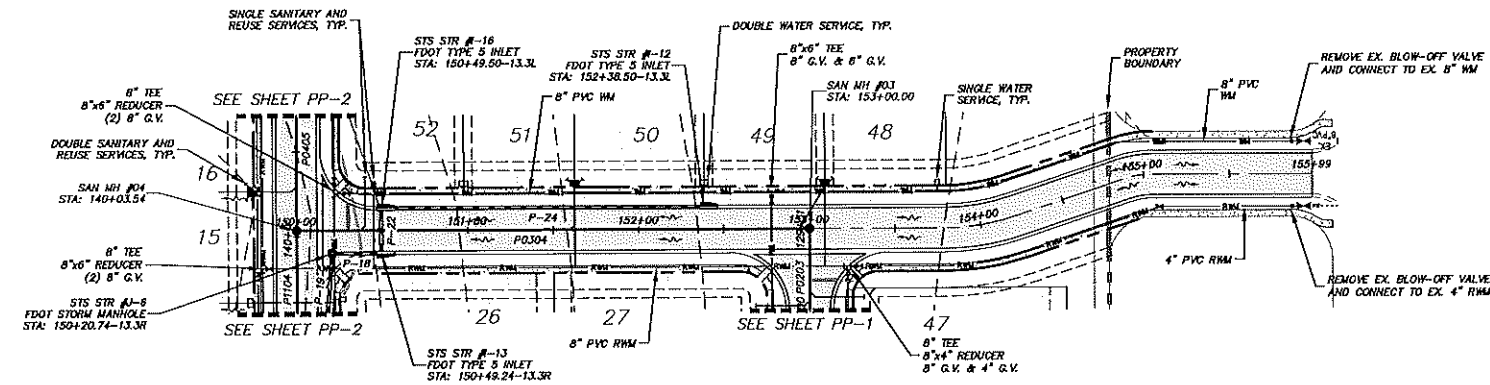
# KNOLL DRIVE

NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.



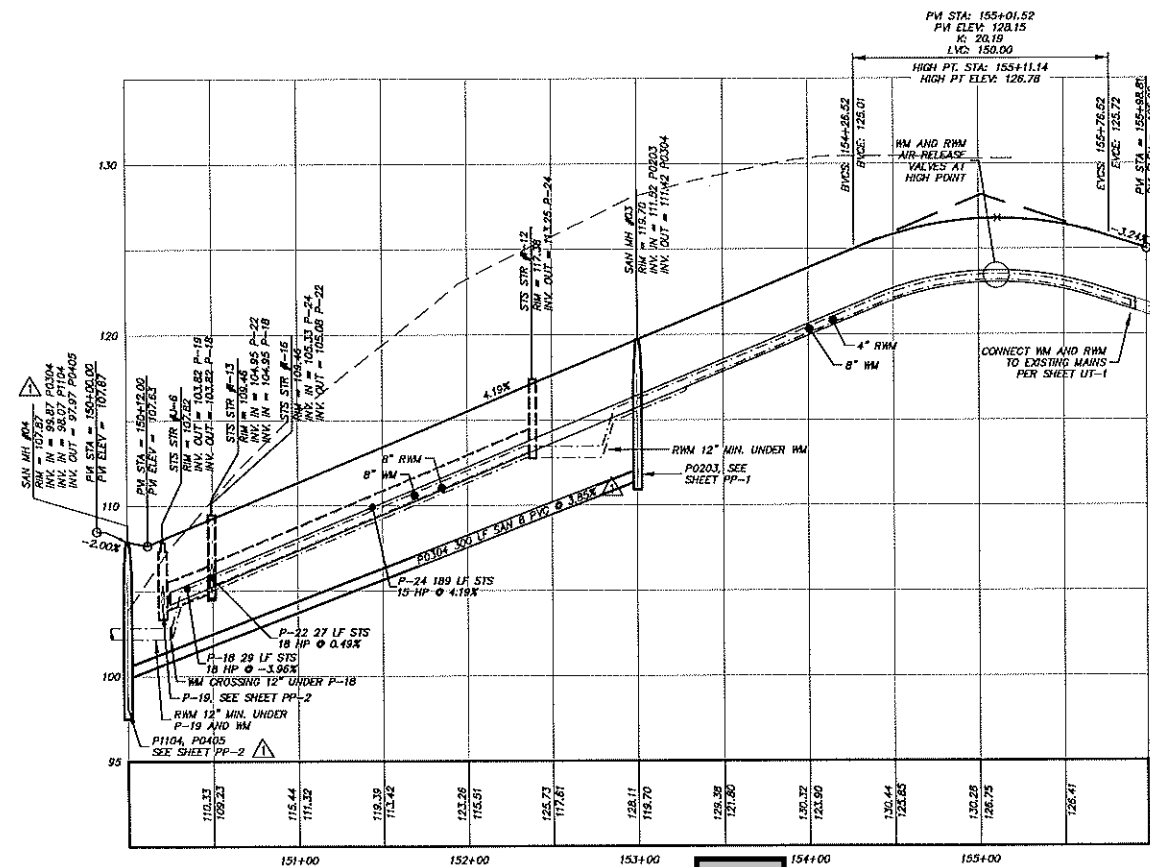


KEYMAP, N.T.S.



# CLIFF AVENUE

NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.



200

**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

PLAN AND PROFILE  
FOR  
**VISTA RESERVE**  
FLORIDA  
CITY OF APOPKA

THE PULTE GROUP  
4801 WISLAND ROAD, SUITE 300  
ORLANDO, FLORIDA 32811  
(407) 581-1514

ENGINEER  
BENJAMIN S. BLACKHAM  
STATE OF FLORIDA  
LICENSE NO. 79452  
EXPIRES 12/31/2018  
P.E. #79452

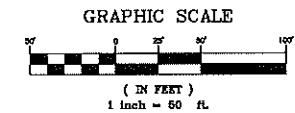
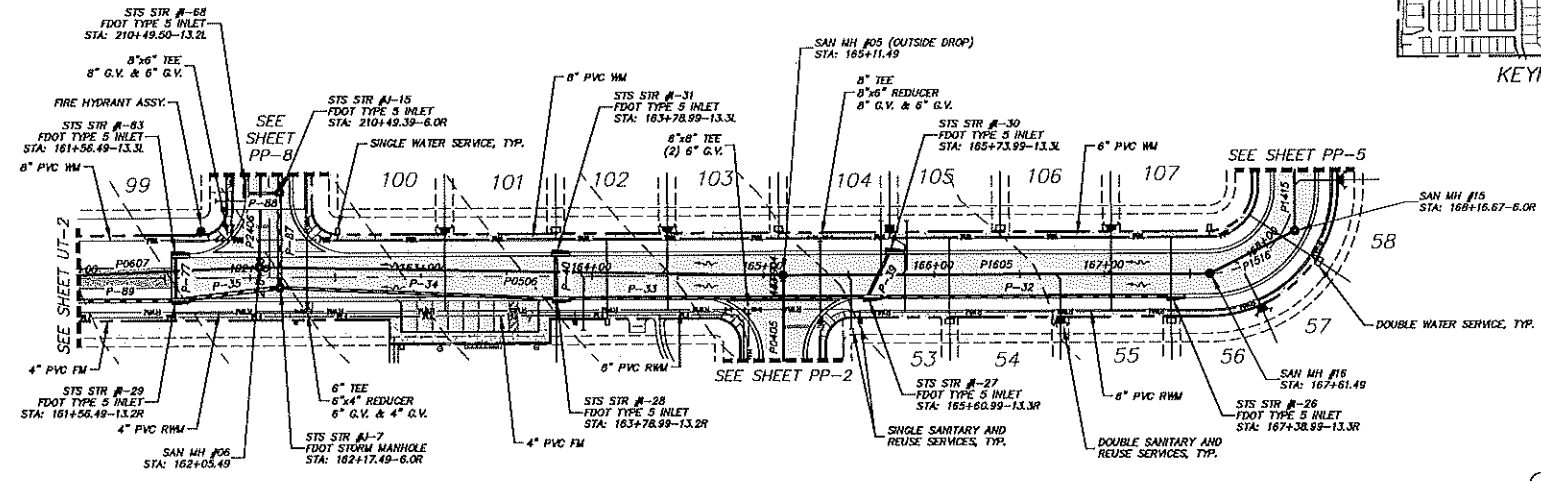
NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

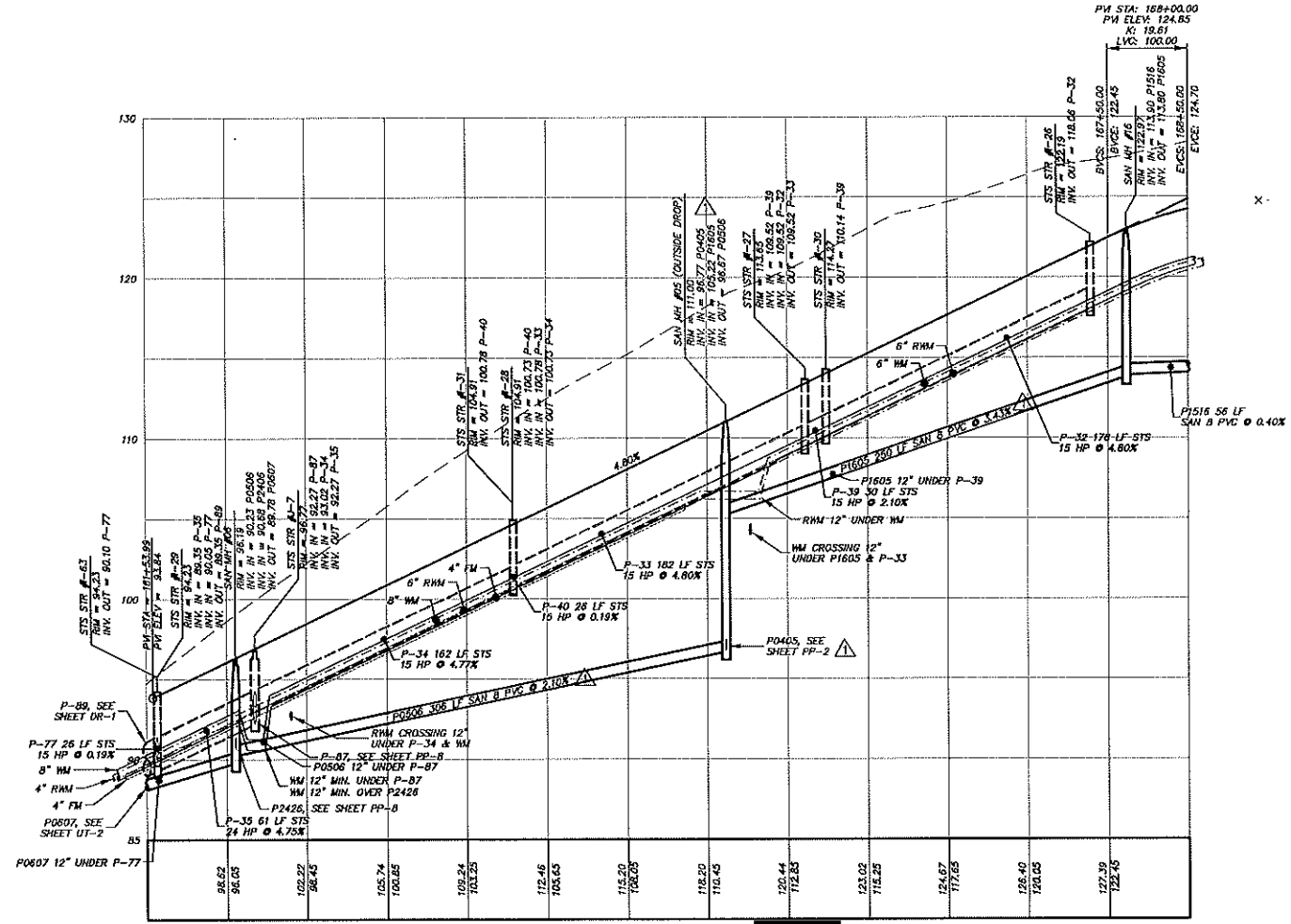
H:\Data\17051\eng\final\17051\_PP3.dwg Aug 22, 2018 - 11:40:31 am



# HILLTOP LOOP - STA. 161+50 TO 168+00



NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.



**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 829-8330

PLAN AND PROFILE  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

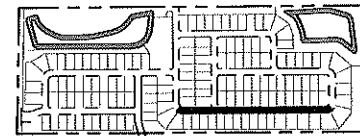
THE PULTE GROUP  
4035 WINDLAND ROAD, SUITE 300  
ORLANDO, FLORIDA 32811  
(407) 681-1514

ENGINEERING/ARCHITECTURE  
BENJAMIN S. BECKHAM  
No. 79452  
STATE OF FLORIDA  
P.E. #79452  
BENJAMIN S. BECKHAM  
CERTIFICATE #1997-1997-0012773

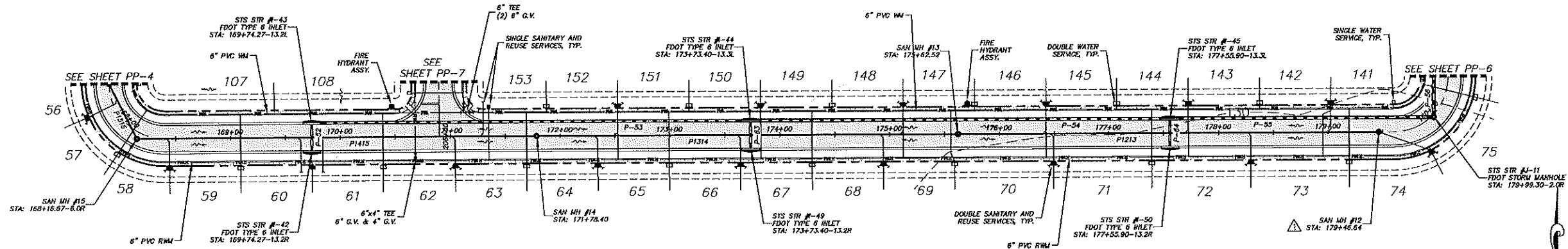
NO.	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

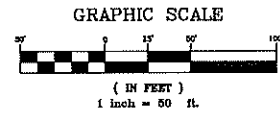
H:\Users\17051\OneDrive\17051\PP-4.rvt Aug 22, 2018 11:40:57 am



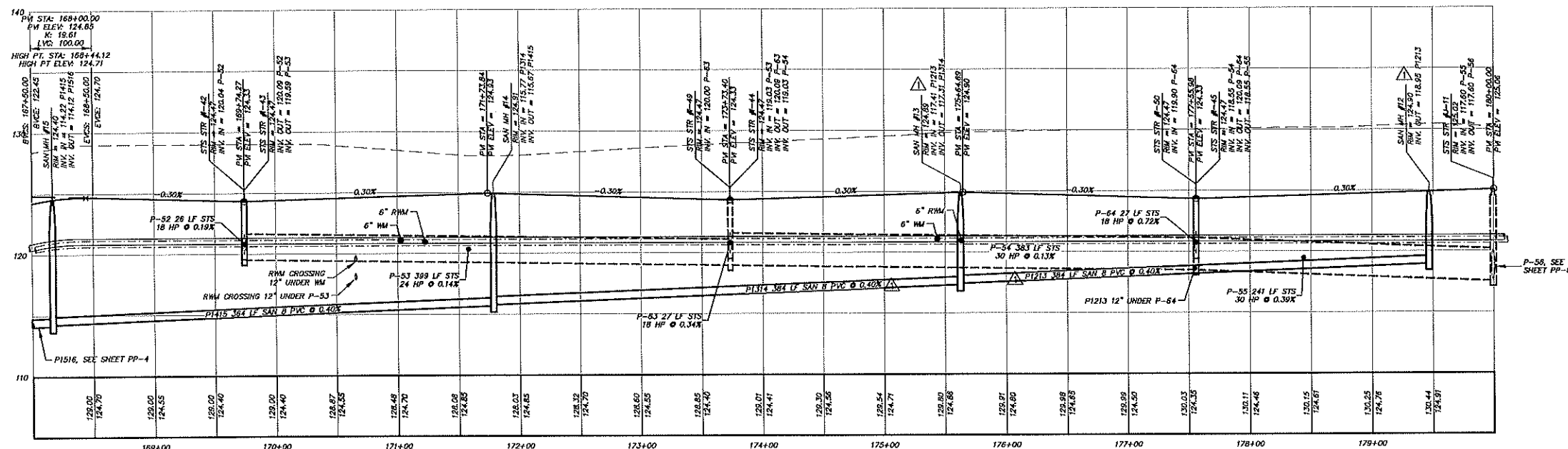
KEYMAP, N.T.S.



# HILLTOP LOOP - STA. 168+00 TO 180+00



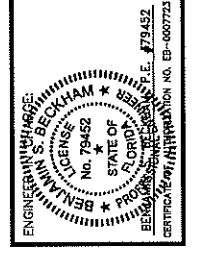
NOTE: UNLESS NOTED OTHERWISE WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.



**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 829-8330

PLAN AND PROFILE FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

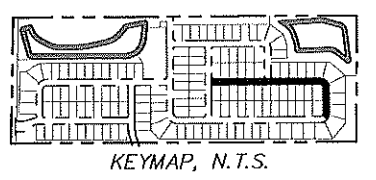
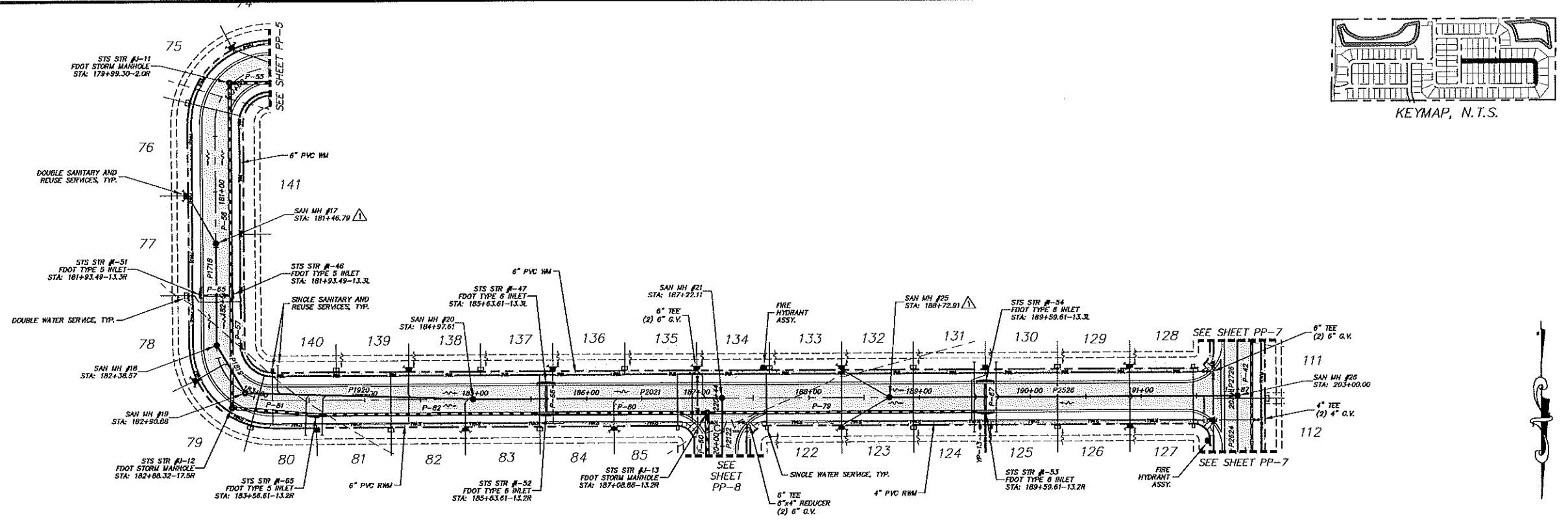
THE PULTE GROUP  
4801 WINDLAND ROAD, SUITE 300  
ORLANDO, FLORIDA 32811  
(407) 681-1514



NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

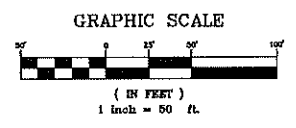
P:\Users\17051\OneDrive\17051\PP-5.dwg Aug 22, 2018 11:41:31 am



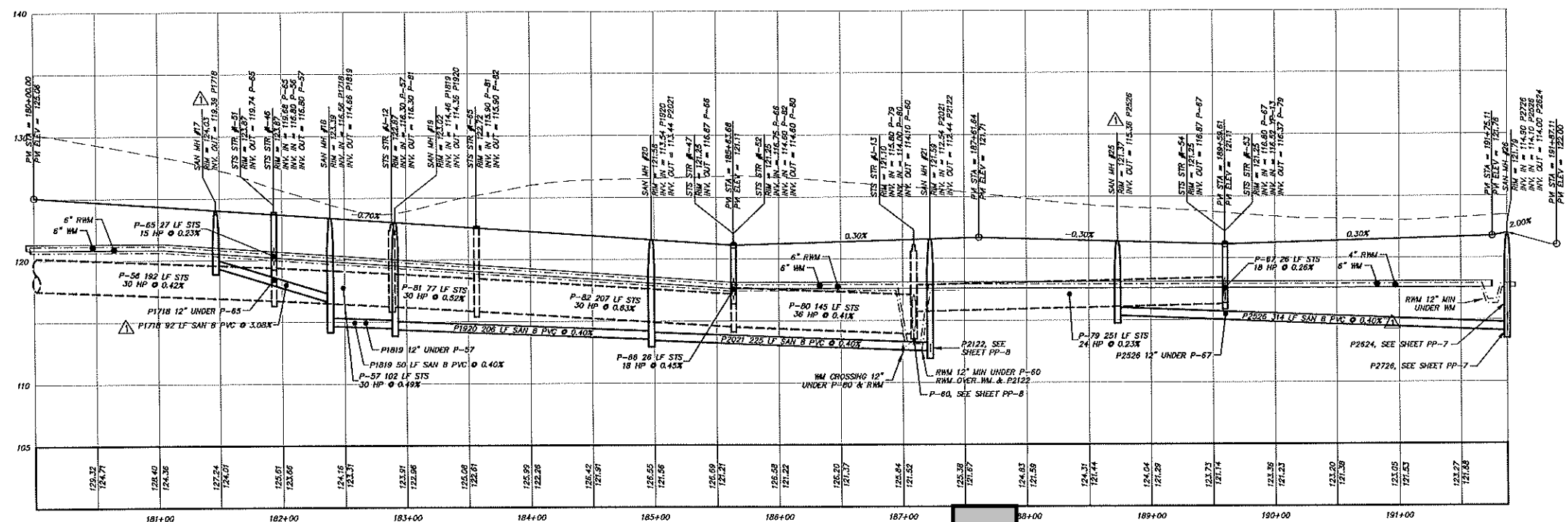
**MADDEN**  
 MOORHEAD & STOKES, INC.  
 CIVIL ENGINEERS  
 431 E. Horatio Avenue  
 Suite 260  
 Maitland, Florida 32751  
 (407) 629-8330

PLAN AND PROFILE  
 FOR  
**VISTA RESERVE**  
 CITY OF APOPKA  
 FLORIDA

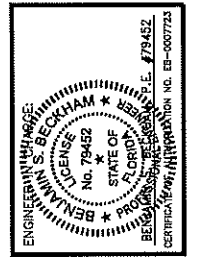
# HILLTOP LOOP - STA. 180+00 TO END



NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.

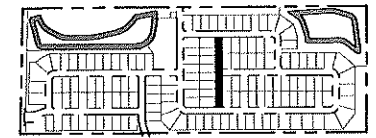


THE PULTE GROUP  
 4805 WINDLAND ROAD, SUITE 500  
 CHICAGO, ILLINOIS 60631  
 (407) 881-5154

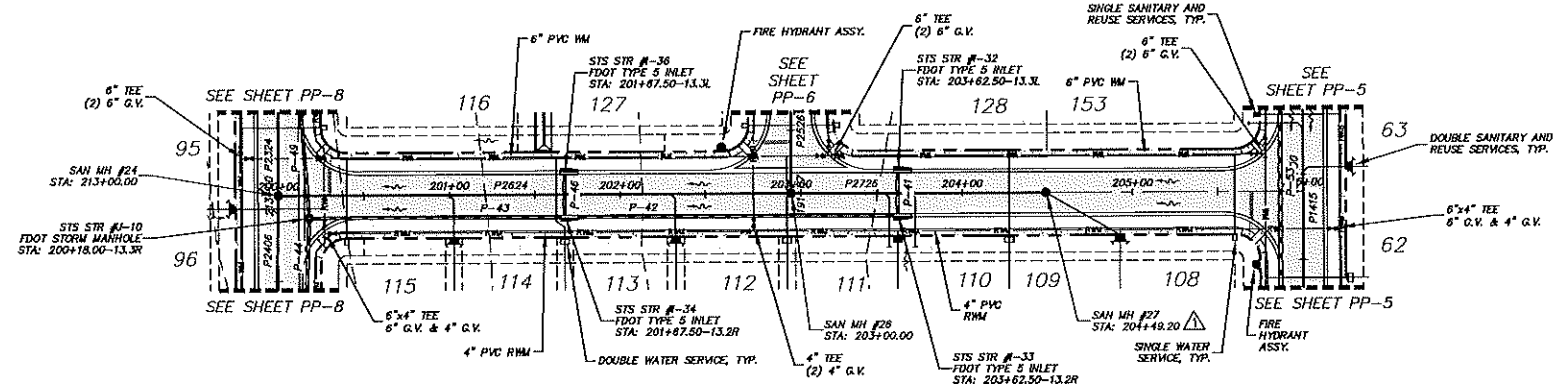


NO.	DATE	REVISIONS

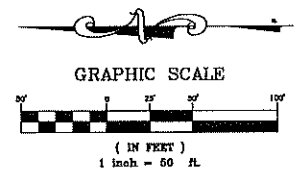
JOB # 17051  
 DATE: 06/22/2018  
 SCALE: 1" = 50'  
 DESIGNED BY: BSB  
 DRAWN BY: BSB  
 APPROVED BY: BSB



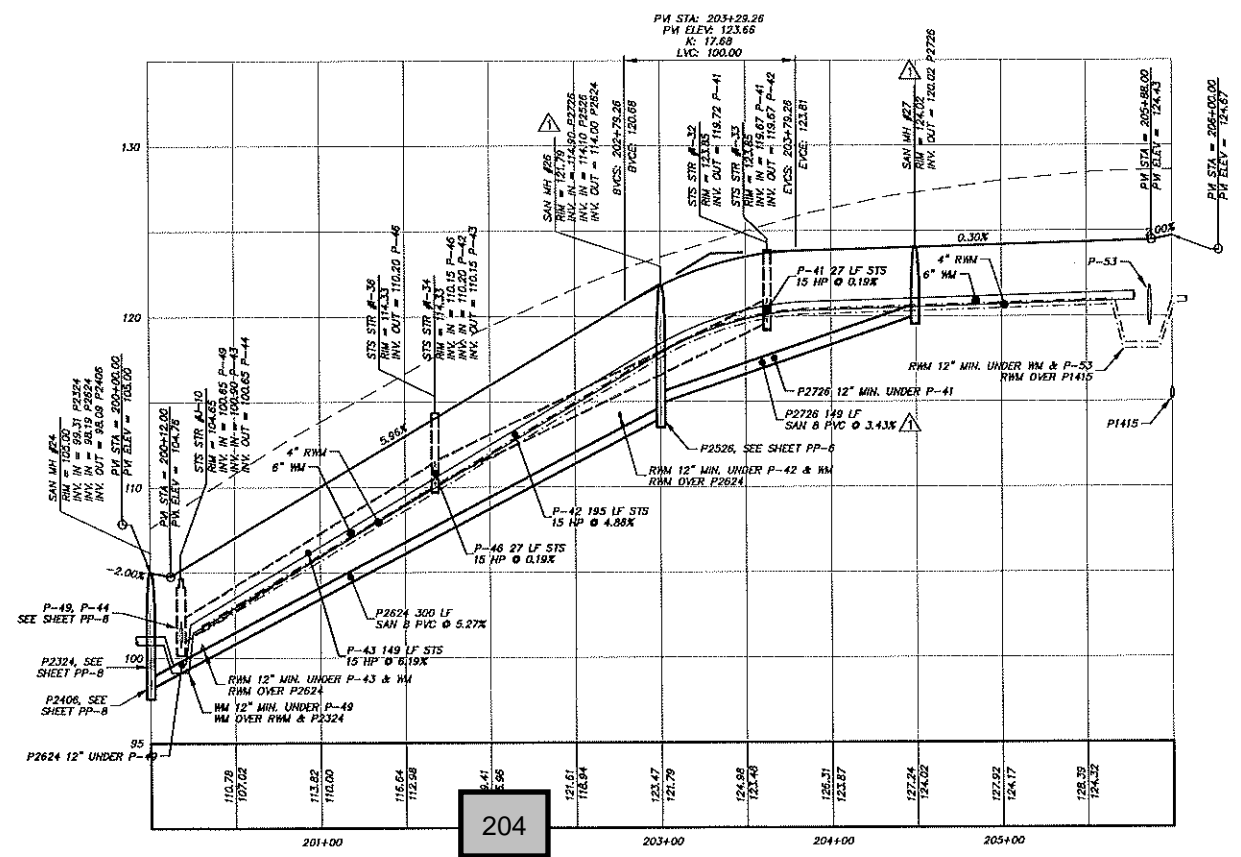
KEYMAP, N.T.S.



# ORANGE BLUFF AVENUE



NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.



**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

PLAN AND PROFILE  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

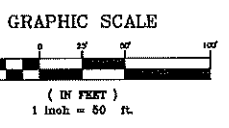
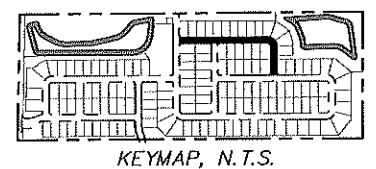
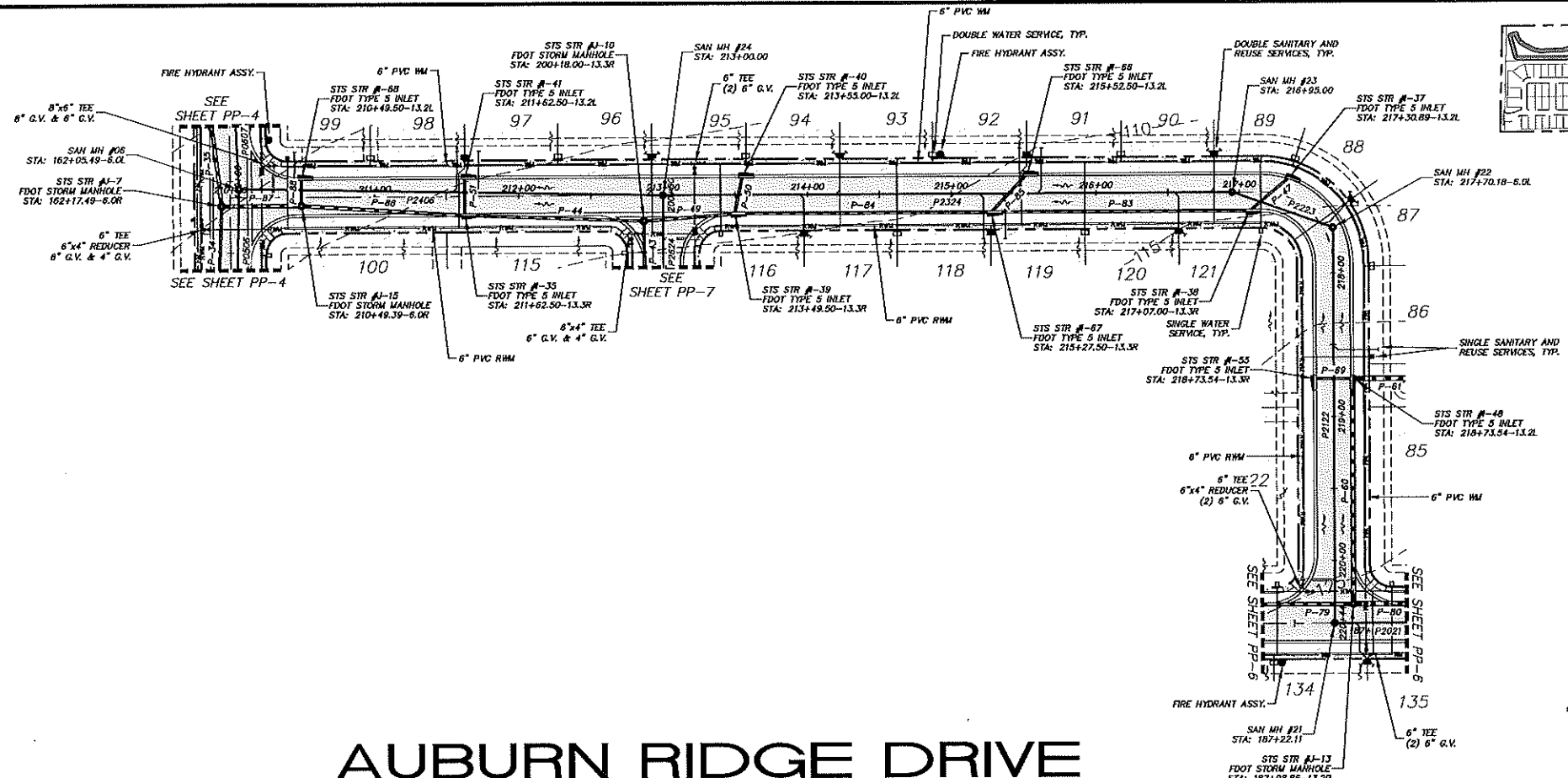
THE PULTE GROUP  
4805 WINDLAND ROAD, SUITE 300  
ORLANDO, FLORIDA 32811  
(407) 681-5144

ENGINEER-IN-CHARGE: **BENJAMIN STUBBS**  
LICENSE NO. 79452  
STATE OF FLORIDA  
REGISTERED PROFESSIONAL ENGINEER  
CERTIFICATE OF REGISTRATION NO. 03-0007723

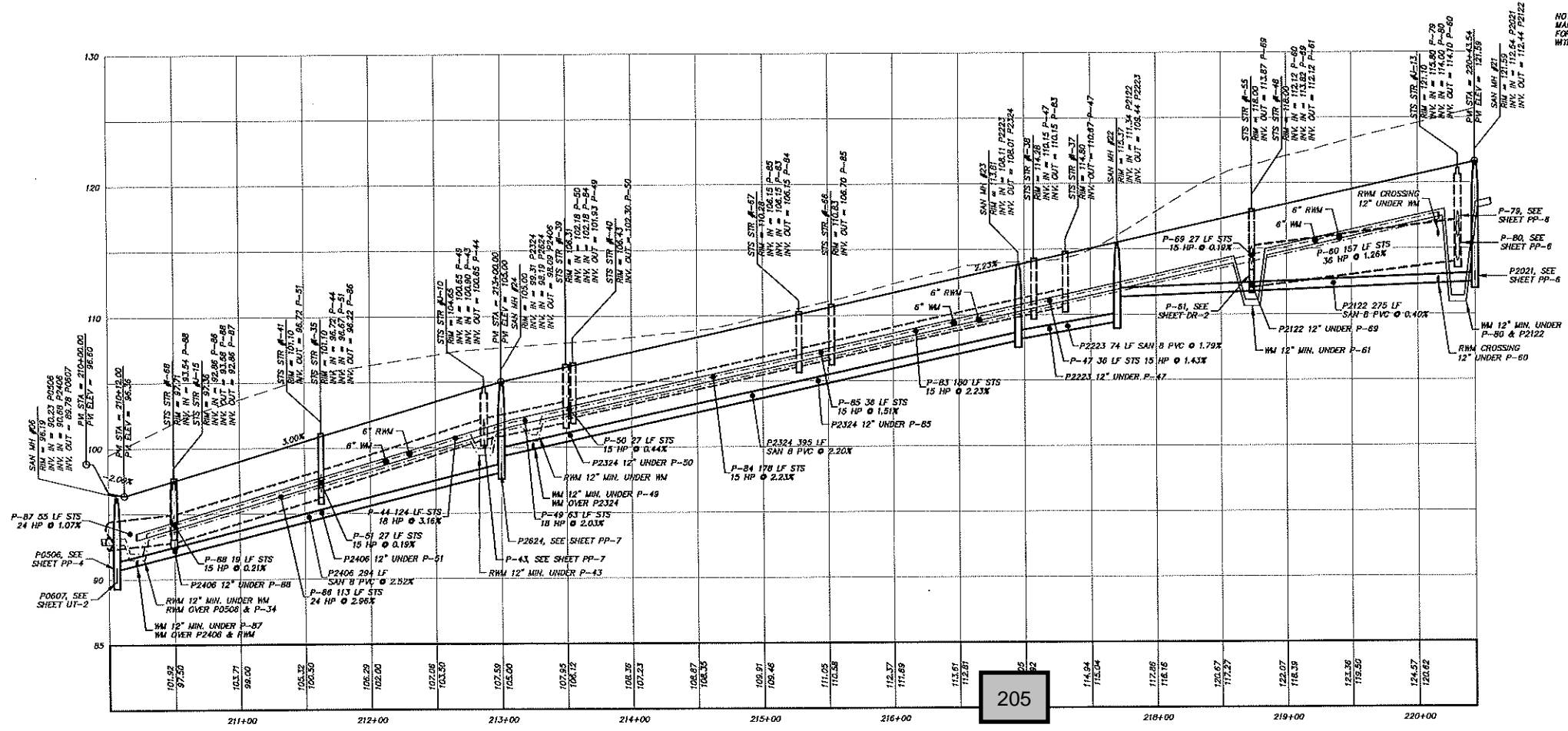
NO.	REVISIONS	DATE

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

H:\Users\j7551\OneDrive\Files\17051\PP7.dwg Aug 22, 2018 11:42:32 am



# AUBURN RIDGE DRIVE



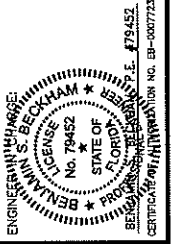
NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.



**MADDEN**  
ROOFHEAD & STORES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

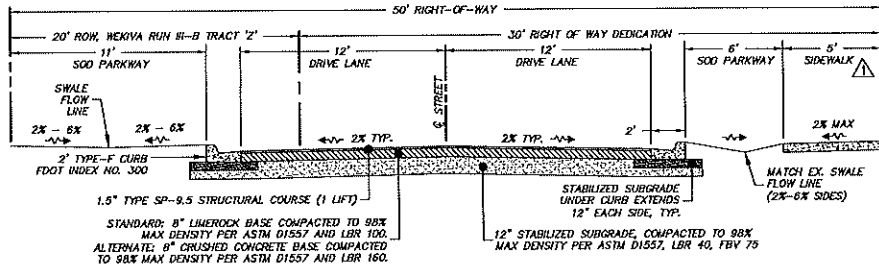
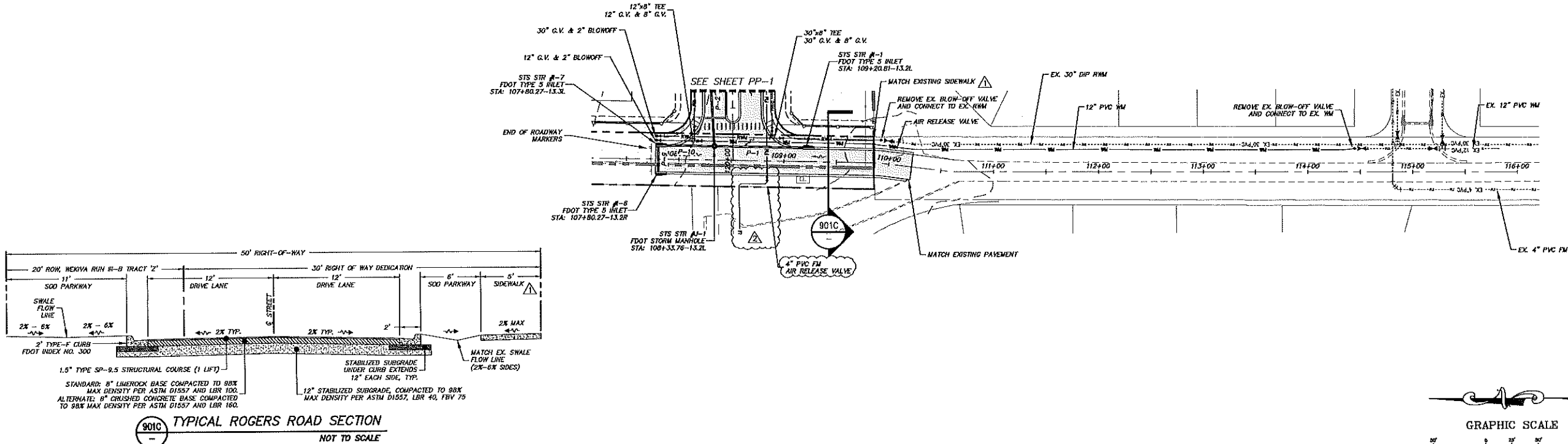
PLAN AND PROFILE  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA FLORIDA

THE PULTE GROUP  
4601 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-5114



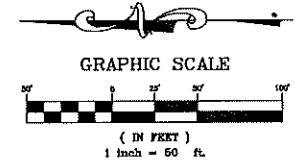
DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: 1" = 50'  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

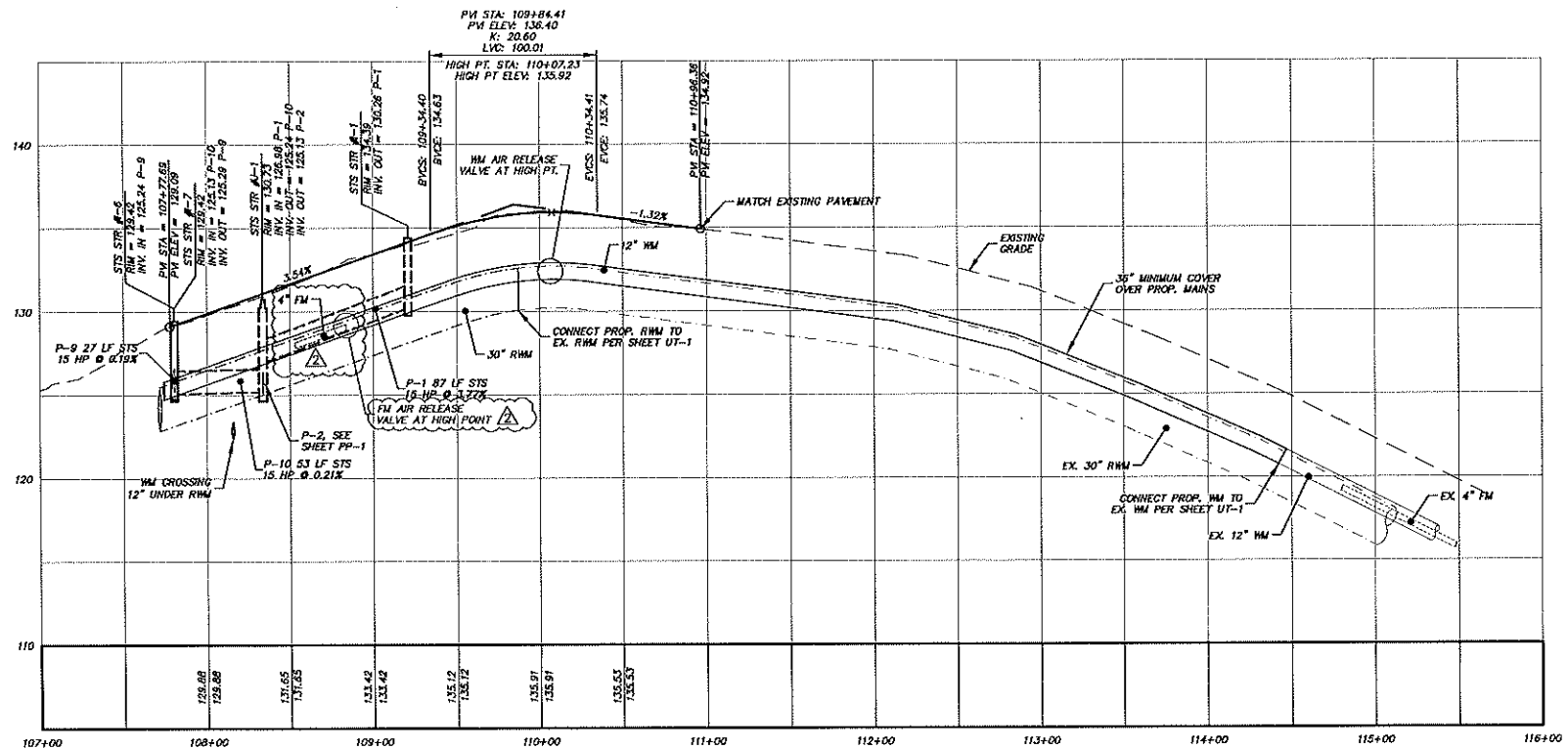


**901C** **TYPICAL ROGERS ROAD SECTION**  
NOT TO SCALE

**ROGERS ROAD**



NOTE: UNLESS NOTED OTHERWISE, WATER MAINS, RECLAIMED WATER MAINS, AND FORCE MAINS ARE TO BE INSTALLED WITH A MINIMUM OF 3 FEET OF COVER.



**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 280  
Maitland, Florida 32751  
(407) 629-8330

PLAN AND PROFILE  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
4901 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 981-7514

NO.	DESCRIPTION	DATE	REVISIONS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

JOB #	17051
DATE	06/22/2018
SCALE	1" = 50'
DESIGNED BY	BSB
DRAWN BY	BSB
APPROVED BY	BSB

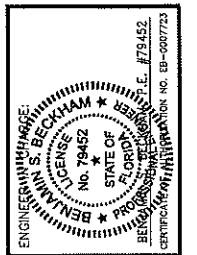
H:\Data\17051\_Eng\Plan\17051 PP-Bldg Aug 22, 2018-11:43:33 am



**MADDEN**  
MOORHEAD & STONES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

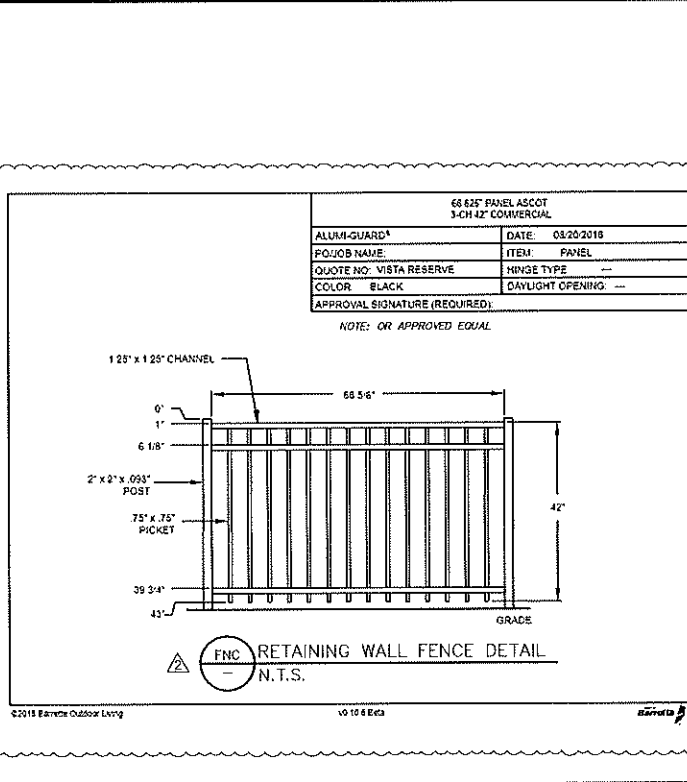
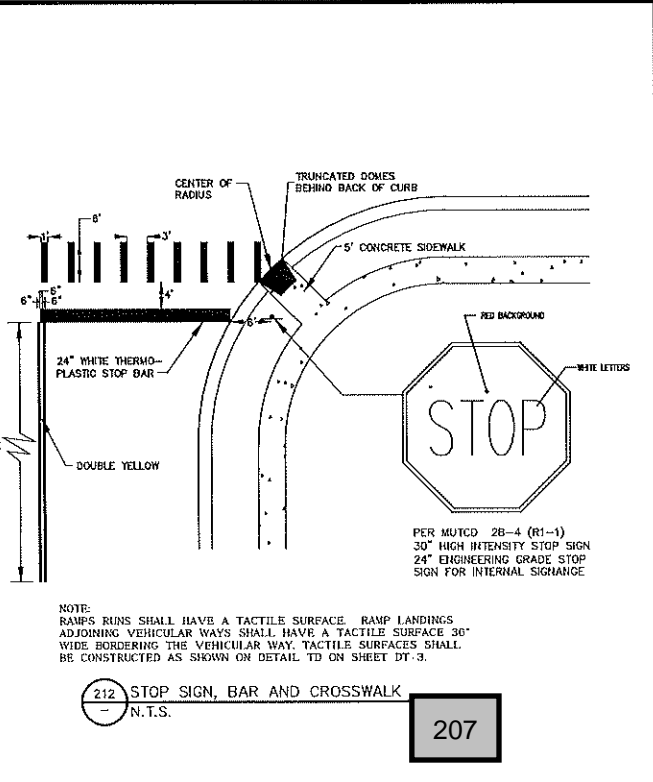
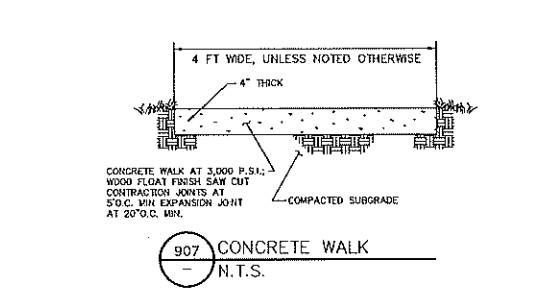
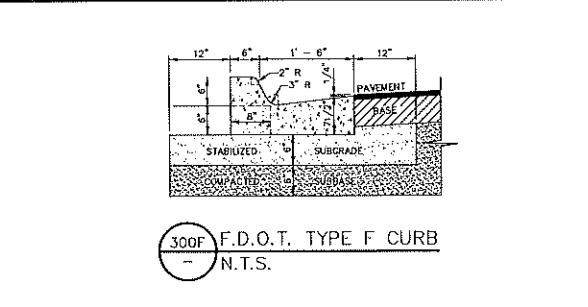
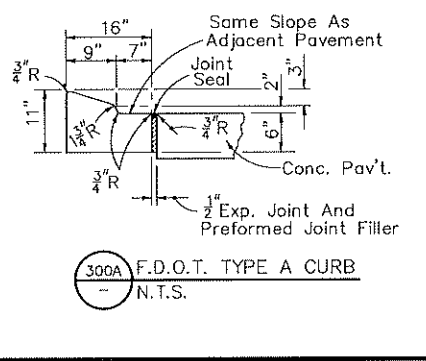
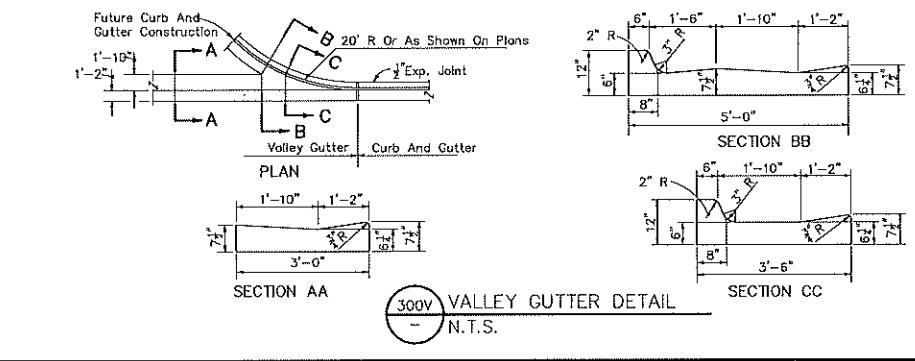
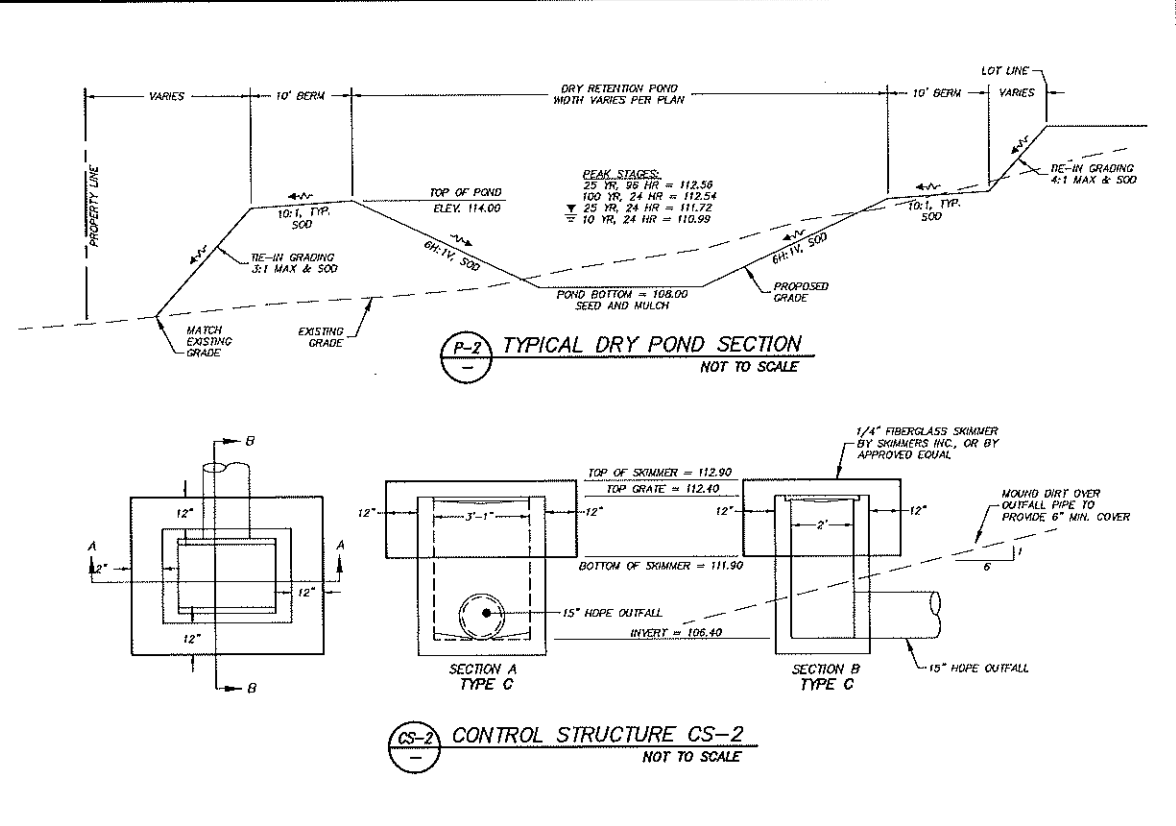
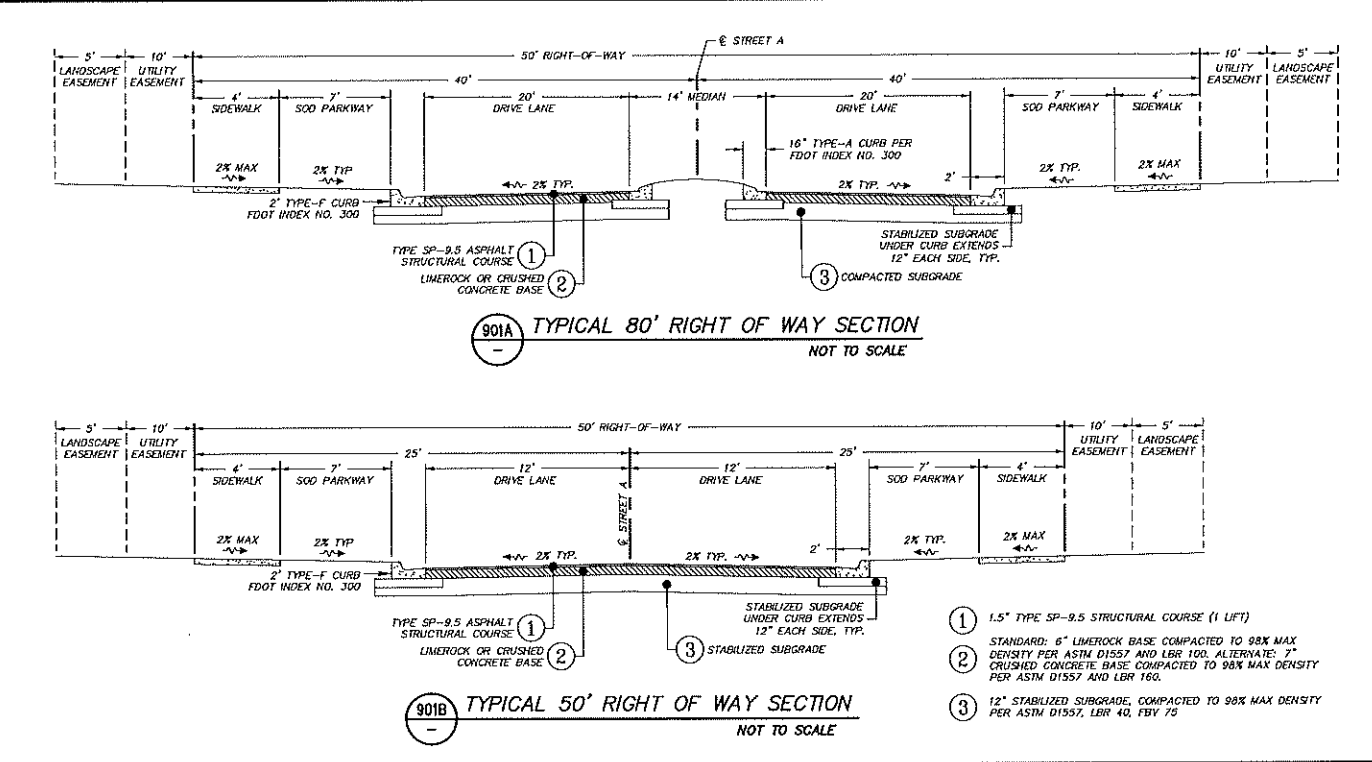
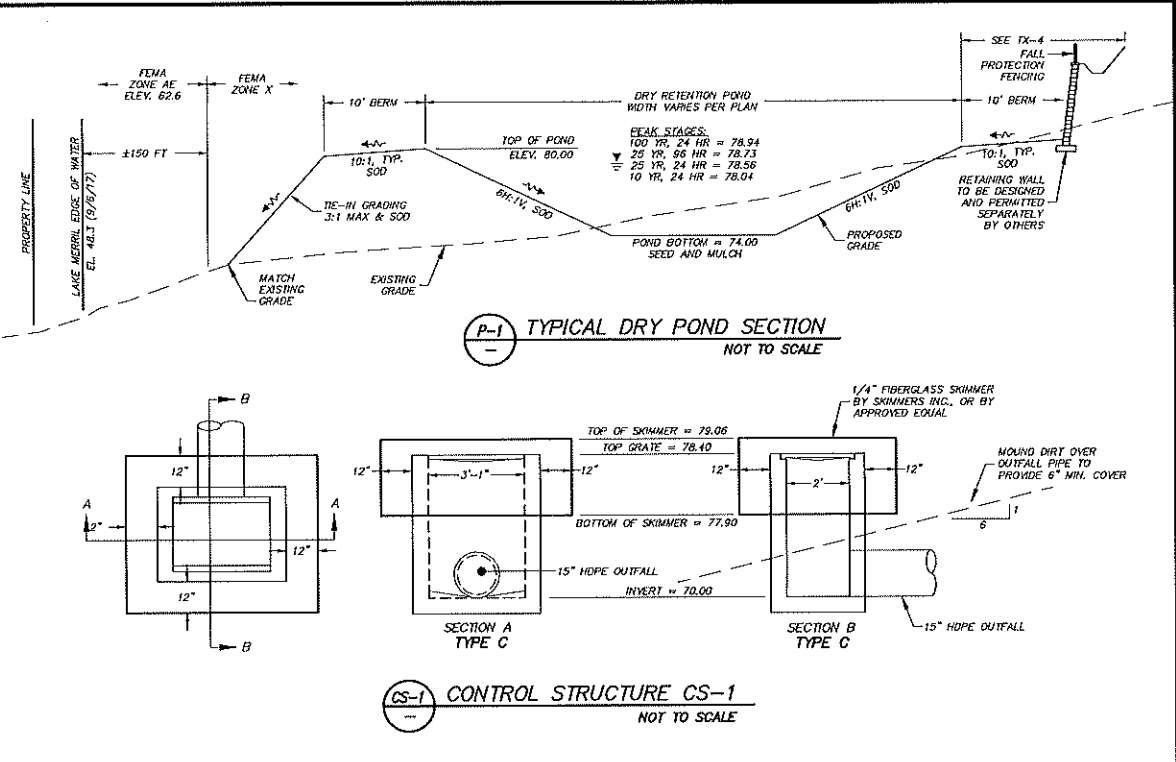
CONSTRUCTION DETAILS  
FOR  
**VISTA RESERVE**  
FLORIDA  
CITY OF APOPKA

THE PULTE GROUP  
4800 VINELAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-1514



NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: N.T.S.  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

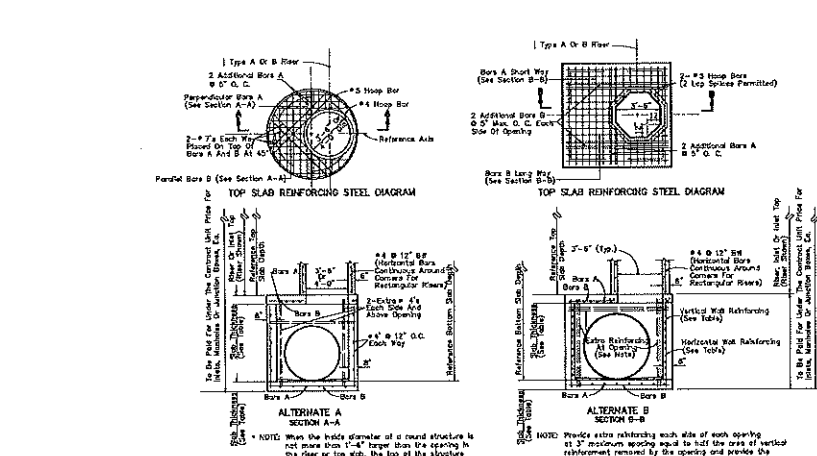
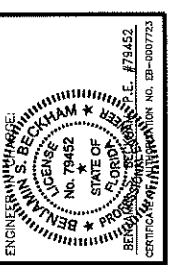




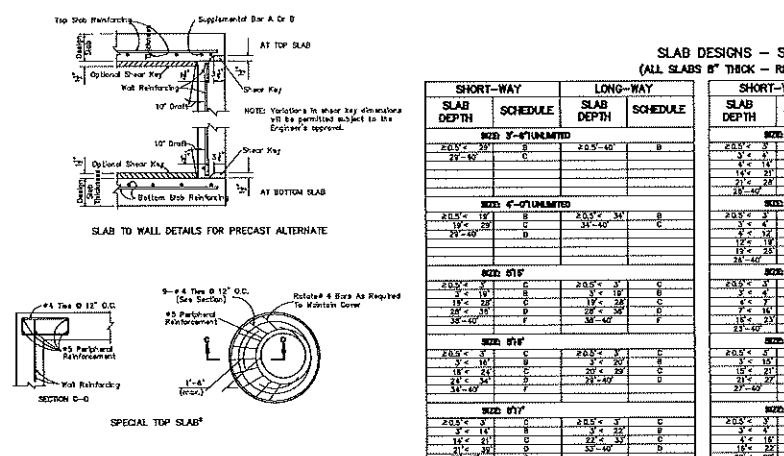
**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 829-8339

CONSTRUCTION DETAILS  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA  
FLORIDA

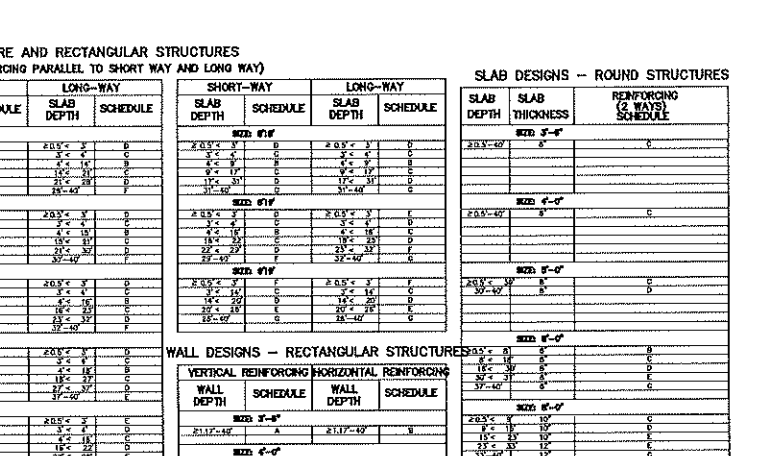
THE PULTE GROUP  
4601 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 881-1514



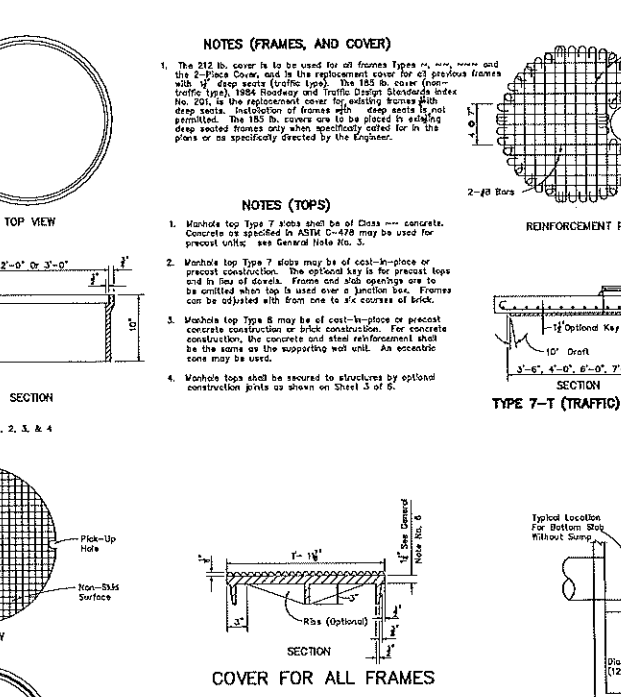
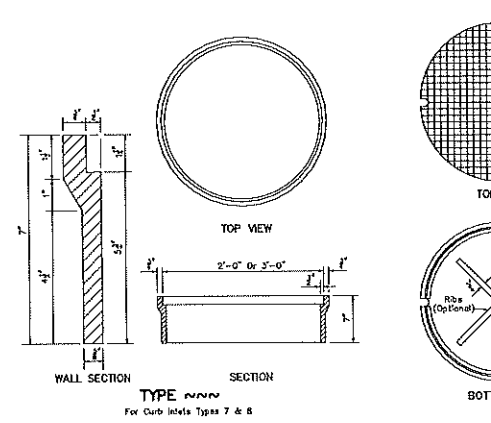
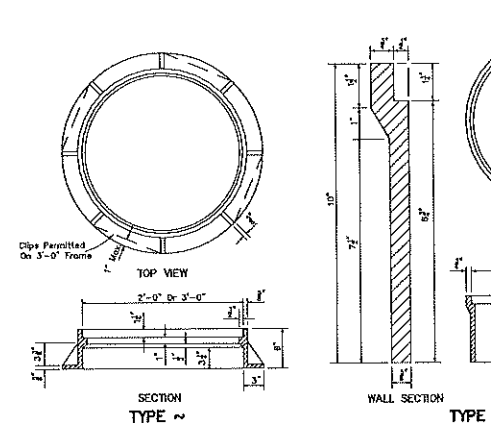
- GENERAL NOTES**
- Standard structure bottoms 4'-0" diameter and smaller (A1) and 6' structure bottoms may be used in conjunction with each level.
  - When the inside diameter of a round structure is not more than 14" larger than the opening in the floor or top slab, the top of the structure or floor slab is constructed directly to the inside top slab details on this sheet.
  - When the inside diameter of a round structure is not more than 14" larger than the opening in the floor or top slab, the top of the structure or floor slab is constructed directly to the inside top slab details on this sheet.
  - When the inside diameter of a round structure is not more than 14" larger than the opening in the floor or top slab, the top of the structure or floor slab is constructed directly to the inside top slab details on this sheet.
  - When the inside diameter of a round structure is not more than 14" larger than the opening in the floor or top slab, the top of the structure or floor slab is constructed directly to the inside top slab details on this sheet.
  - When the inside diameter of a round structure is not more than 14" larger than the opening in the floor or top slab, the top of the structure or floor slab is constructed directly to the inside top slab details on this sheet.



- GENERAL NOTES**
- Slab reinforcement is appropriate for top, intermediate, and bottom slabs.
  - Slab depth is measured from finished grade to top of slab.
  - Wall depth is measured to the top of the bottom slab for bases and to the top of the intermediate slab for bases.
  - Wall height is the distance between top of lower slab to bottom of upper slab.

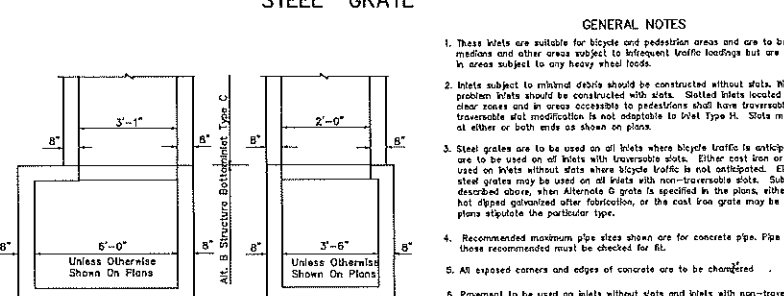
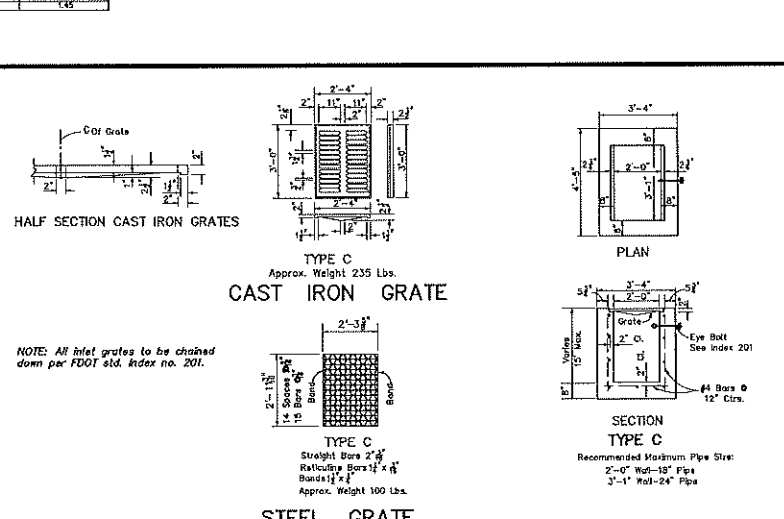
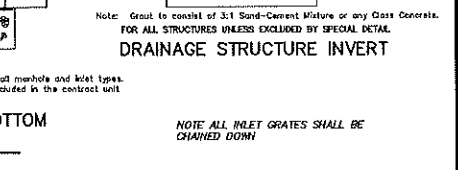


- GENERAL NOTES**
- Slab reinforcement is appropriate for top, intermediate, and bottom slabs.
  - Slab depth is measured from finished grade to top of slab.
  - Wall depth is measured to the top of the bottom slab for bases and to the top of the intermediate slab for bases.
  - Wall height is the distance between top of lower slab to bottom of upper slab.



**WEIGHT OF CASTINGS**

2" OPENING		3" OPENING	
Frame	Cover	Frame	2-Piece Cover
178 Lbs	212 Lbs	270 Lbs	312 Lbs
184 Lbs	212 Lbs	280 Lbs	312 Lbs
190 Lbs	212 Lbs	290 Lbs	312 Lbs
196 Lbs	212 Lbs	300 Lbs	312 Lbs
202 Lbs	212 Lbs	310 Lbs	312 Lbs
208 Lbs	212 Lbs	320 Lbs	312 Lbs
214 Lbs	212 Lbs	330 Lbs	312 Lbs
220 Lbs	212 Lbs	340 Lbs	312 Lbs
226 Lbs	212 Lbs	350 Lbs	312 Lbs
232 Lbs	212 Lbs	360 Lbs	312 Lbs
238 Lbs	212 Lbs	370 Lbs	312 Lbs
244 Lbs	212 Lbs	380 Lbs	312 Lbs
250 Lbs	212 Lbs	390 Lbs	312 Lbs
256 Lbs	212 Lbs	400 Lbs	312 Lbs
262 Lbs	212 Lbs	410 Lbs	312 Lbs
268 Lbs	212 Lbs	420 Lbs	312 Lbs
274 Lbs	212 Lbs	430 Lbs	312 Lbs
280 Lbs	212 Lbs	440 Lbs	312 Lbs
286 Lbs	212 Lbs	450 Lbs	312 Lbs
292 Lbs	212 Lbs	460 Lbs	312 Lbs
298 Lbs	212 Lbs	470 Lbs	312 Lbs
304 Lbs	212 Lbs	480 Lbs	312 Lbs
310 Lbs	212 Lbs	490 Lbs	312 Lbs
316 Lbs	212 Lbs	500 Lbs	312 Lbs
322 Lbs	212 Lbs	510 Lbs	312 Lbs
328 Lbs	212 Lbs	520 Lbs	312 Lbs
334 Lbs	212 Lbs	530 Lbs	312 Lbs
340 Lbs	212 Lbs	540 Lbs	312 Lbs
346 Lbs	212 Lbs	550 Lbs	312 Lbs
352 Lbs	212 Lbs	560 Lbs	312 Lbs
358 Lbs	212 Lbs	570 Lbs	312 Lbs
364 Lbs	212 Lbs	580 Lbs	312 Lbs
370 Lbs	212 Lbs	590 Lbs	312 Lbs
376 Lbs	212 Lbs	600 Lbs	312 Lbs
382 Lbs	212 Lbs	610 Lbs	312 Lbs
388 Lbs	212 Lbs	620 Lbs	312 Lbs
394 Lbs	212 Lbs	630 Lbs	312 Lbs
400 Lbs	212 Lbs	640 Lbs	312 Lbs
406 Lbs	212 Lbs	650 Lbs	312 Lbs
412 Lbs	212 Lbs	660 Lbs	312 Lbs
418 Lbs	212 Lbs	670 Lbs	312 Lbs
424 Lbs	212 Lbs	680 Lbs	312 Lbs
430 Lbs	212 Lbs	690 Lbs	312 Lbs
436 Lbs	212 Lbs	700 Lbs	312 Lbs
442 Lbs	212 Lbs	710 Lbs	312 Lbs
448 Lbs	212 Lbs	720 Lbs	312 Lbs
454 Lbs	212 Lbs	730 Lbs	312 Lbs
460 Lbs	212 Lbs	740 Lbs	312 Lbs
466 Lbs	212 Lbs	750 Lbs	312 Lbs
472 Lbs	212 Lbs	760 Lbs	312 Lbs
478 Lbs	212 Lbs	770 Lbs	312 Lbs
484 Lbs	212 Lbs	780 Lbs	312 Lbs
490 Lbs	212 Lbs	790 Lbs	312 Lbs
496 Lbs	212 Lbs	800 Lbs	312 Lbs
502 Lbs	212 Lbs	810 Lbs	312 Lbs
508 Lbs	212 Lbs	820 Lbs	312 Lbs
514 Lbs	212 Lbs	830 Lbs	312 Lbs
520 Lbs	212 Lbs	840 Lbs	312 Lbs
526 Lbs	212 Lbs	850 Lbs	312 Lbs
532 Lbs	212 Lbs	860 Lbs	312 Lbs
538 Lbs	212 Lbs	870 Lbs	312 Lbs
544 Lbs	212 Lbs	880 Lbs	312 Lbs
550 Lbs	212 Lbs	890 Lbs	312 Lbs
556 Lbs	212 Lbs	900 Lbs	312 Lbs



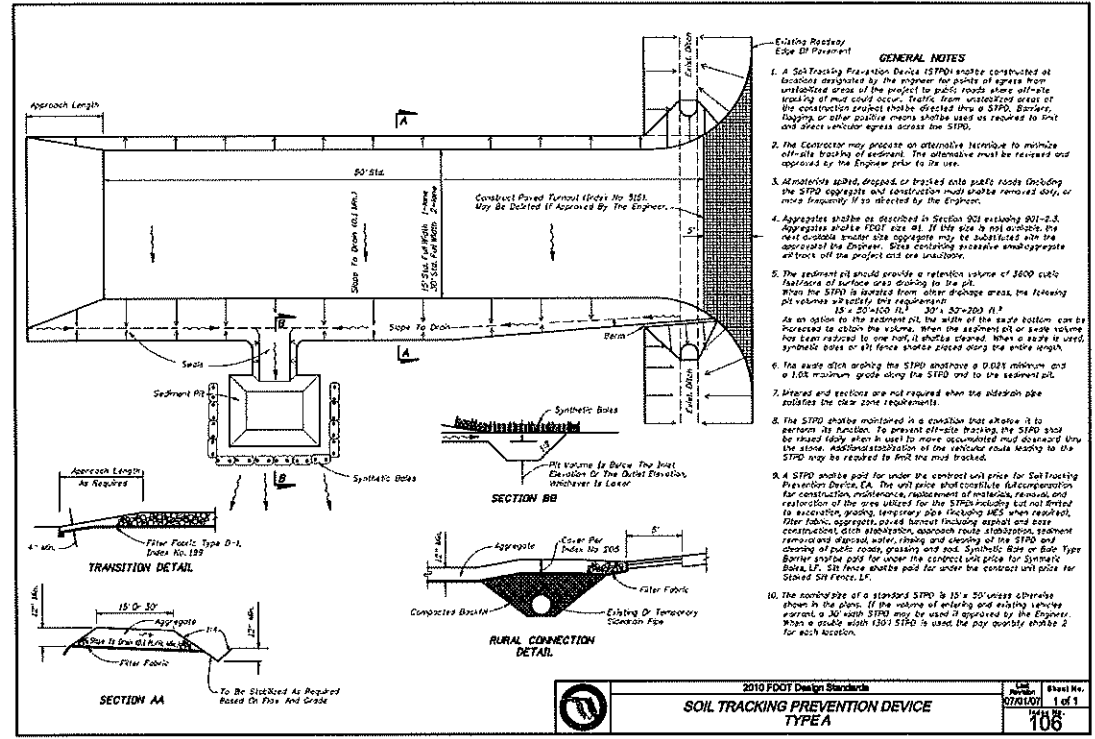
**GENERAL NOTES**

- These inlets are suitable for bicycle and pedestrian areas and are to be used in ditches, medians and other areas subject to frequent traffic loadings but are not to be placed in areas subject to any heavy wheel loads.
- Inlets are to be constructed without slats. Where details in a problem inlets should be constructed with slats. Slatted inlets located within roadway clear zones and in areas accessible to pedestrians shall have transverse slots. The transverse slot modification is not applicable to inlet Type H. Slats may be constructed at either or both ends as shown on plans.
- Steel grates are to be used on all inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with transverse slots. Either cast iron or steel grates may be used on all inlets with non-transverse slots. Subject to the selection described above, when Alternate D grate is specified in the plans, when the steel grate, hot dipped galvanized after fabrication, or the cast iron grate may be used, unless the plans stipulate the particular type.
- Recommended maximum pipe sizes shown are for concrete pipe. Pipe sizes larger than those recommended must be checked for fit.
- All exposed corners and edges of concrete are to be chamfered.
- Pavement to be used on inlets without slats and inlets with non-transverse slots only when called for in the plans; but required on all transverse slot inlets. Call to be included in contract unit price for inlets. Quantities shown are for information only.
- Transverse slots constructed in existing inlets shall be paid for on inlets portion, and shall include the cost for slat openings, paving and any required replacement grates.
- Sloping to be used on all inlets not located in paved areas and paid for under contract unit price for Sloping 3".
- For supplementary details see Detail No. 201.
- When used in traffic areas use four sided bearing grade, U.S. Foundry 84550 or equal.

208

DT-2  
31 of 39

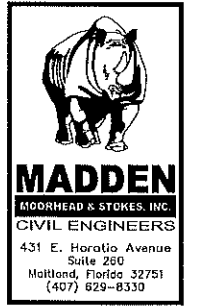
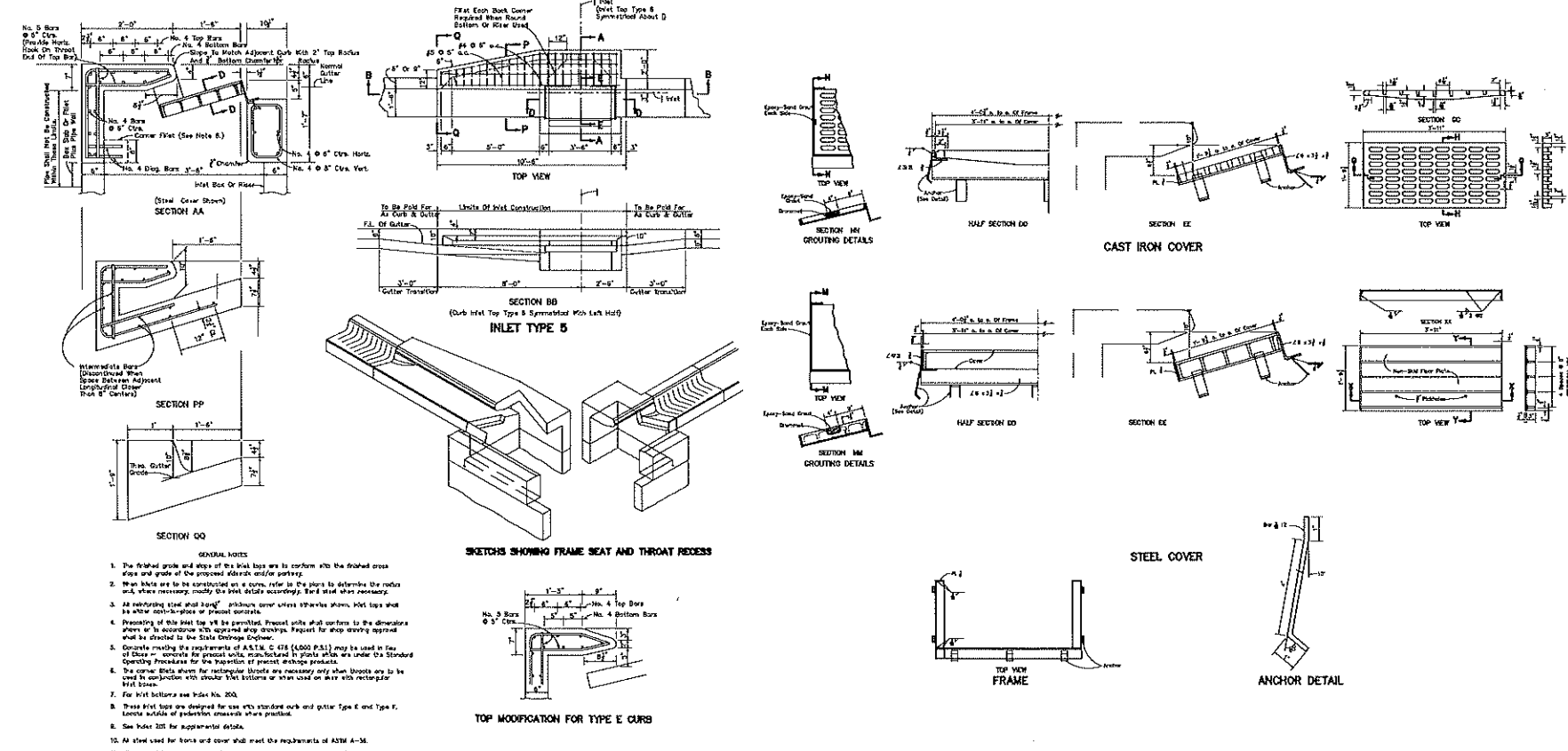
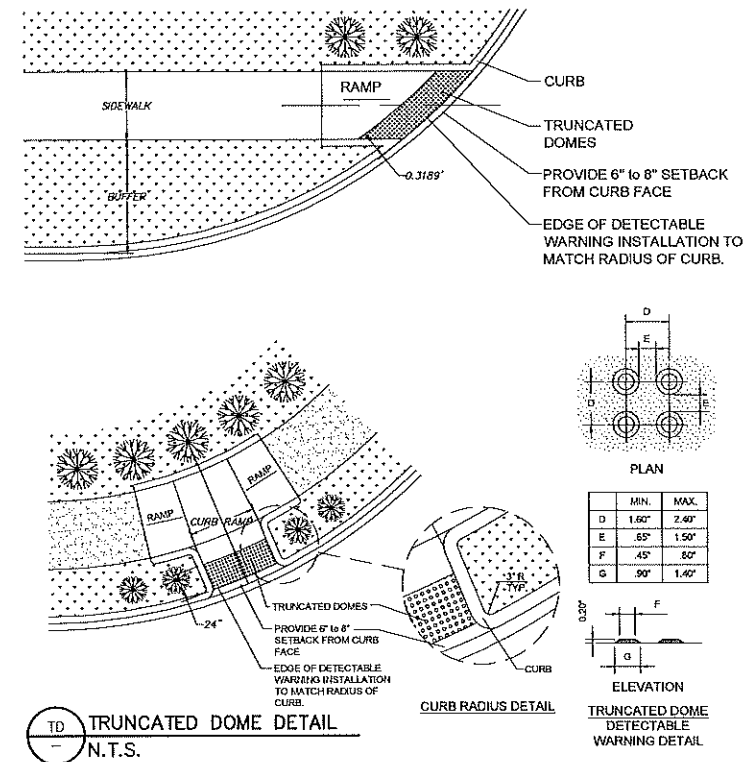
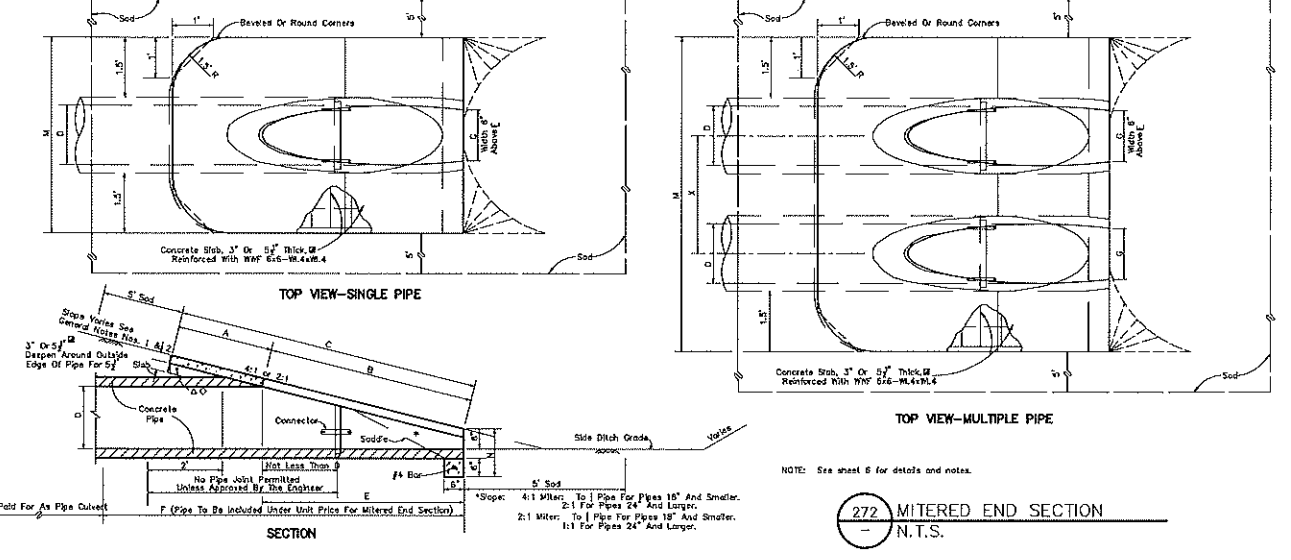




**DIMENSIONS AND QUANTITIES**

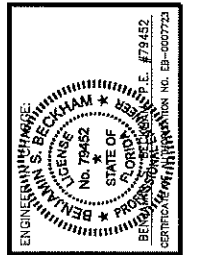
D	X	A	B	C	E	F	G	CONCRETE SLAB (CY) #				WOODING (SQ. YDS.)						
								Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe			
2:1 Slope	10'	10'	10'	10'	10'	10'	10'	1.22	4.63	7.91	12.37	11.9	0.58	0.77	0.96	1.15	1.34	1.53
4:1 Slope	10'	10'	10'	10'	10'	10'	10'	1.41	5.22	7.91	12.37	12.1	0.68	0.91	1.14	1.37	1.60	1.83

See General Note No. 3. See Sheet 5.01 5 For 3" Slab Quantities.



CONSTRUCTION DETAILS FOR  
**VISTA RESERVE**  
FLORIDA  
CITY OF APOPKA

THE PULTE GROUP  
4600 VINLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 681-1514



**REVISIONS**

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		

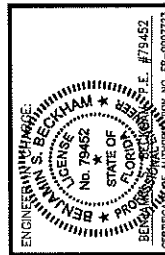
JOB # 17051  
DATE 06/22/2018  
SCALE N.T.S.  
DESIGNED BY BSB  
DRAWN BY BSB  
APPROVED BY BSB



**MADDEN**  
 MOORHEAD & STOKES, INC.  
 CIVIL ENGINEERS  
 431 E. Horatio Avenue  
 Suite 260  
 Maitland, Florida 32751  
 (407) 629-8330

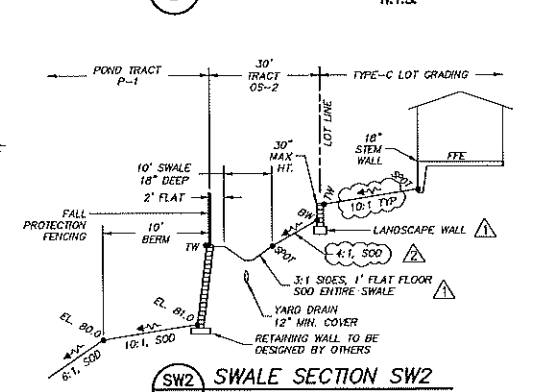
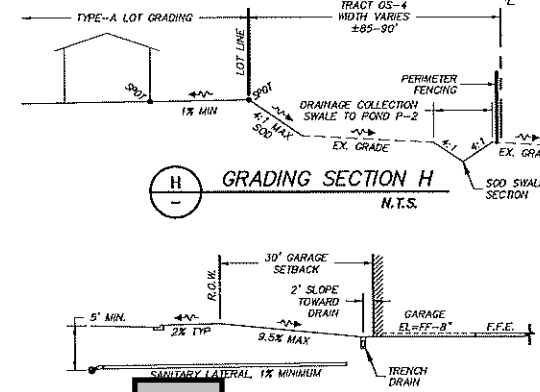
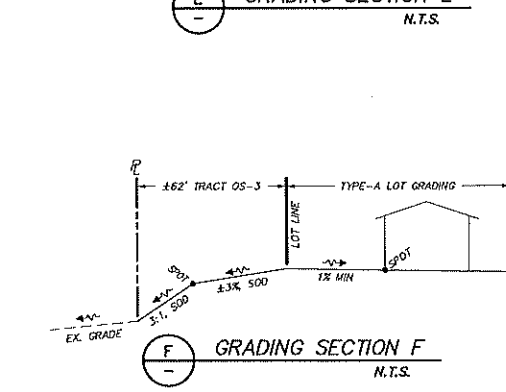
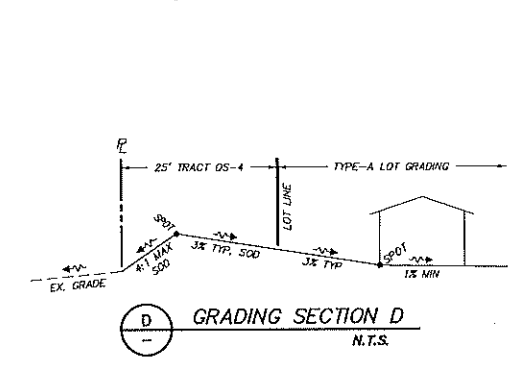
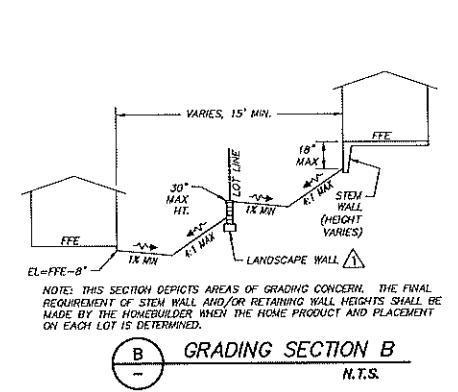
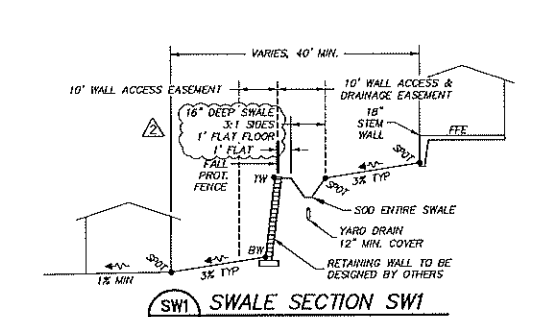
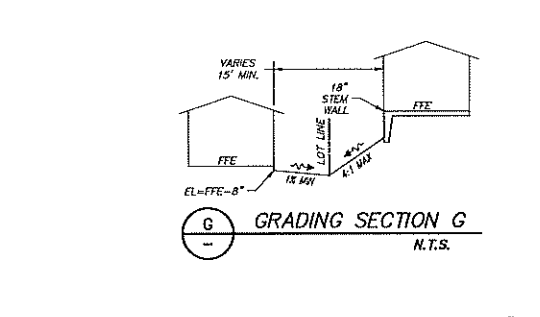
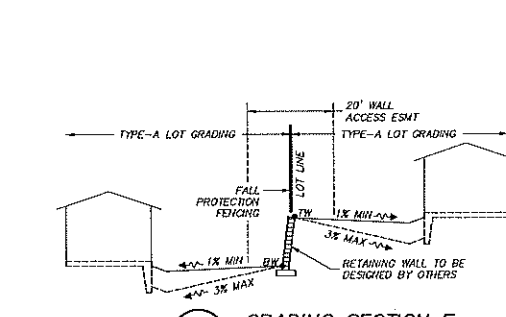
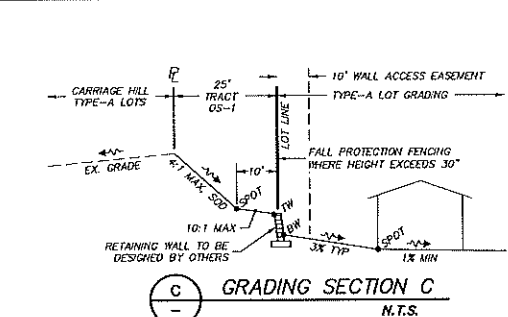
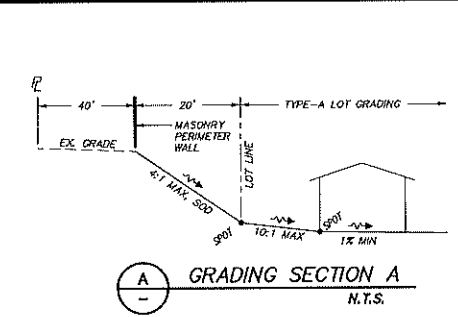
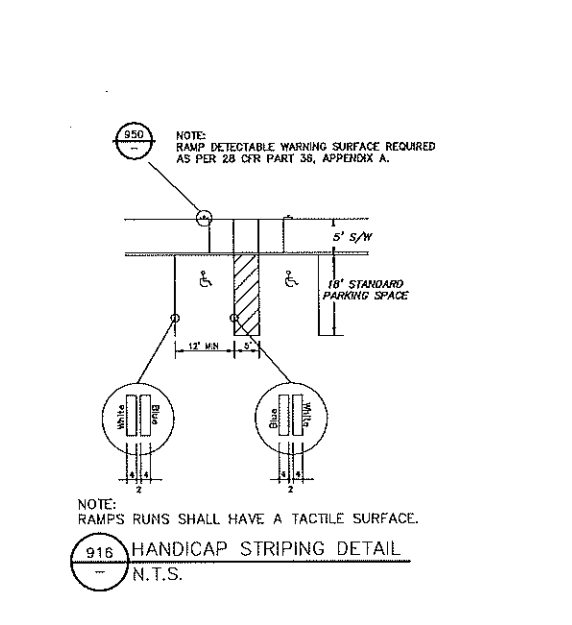
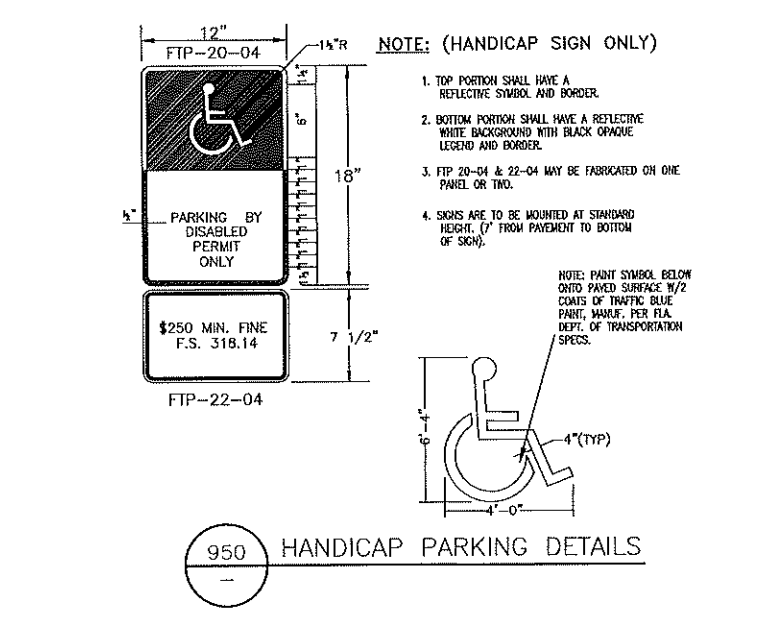
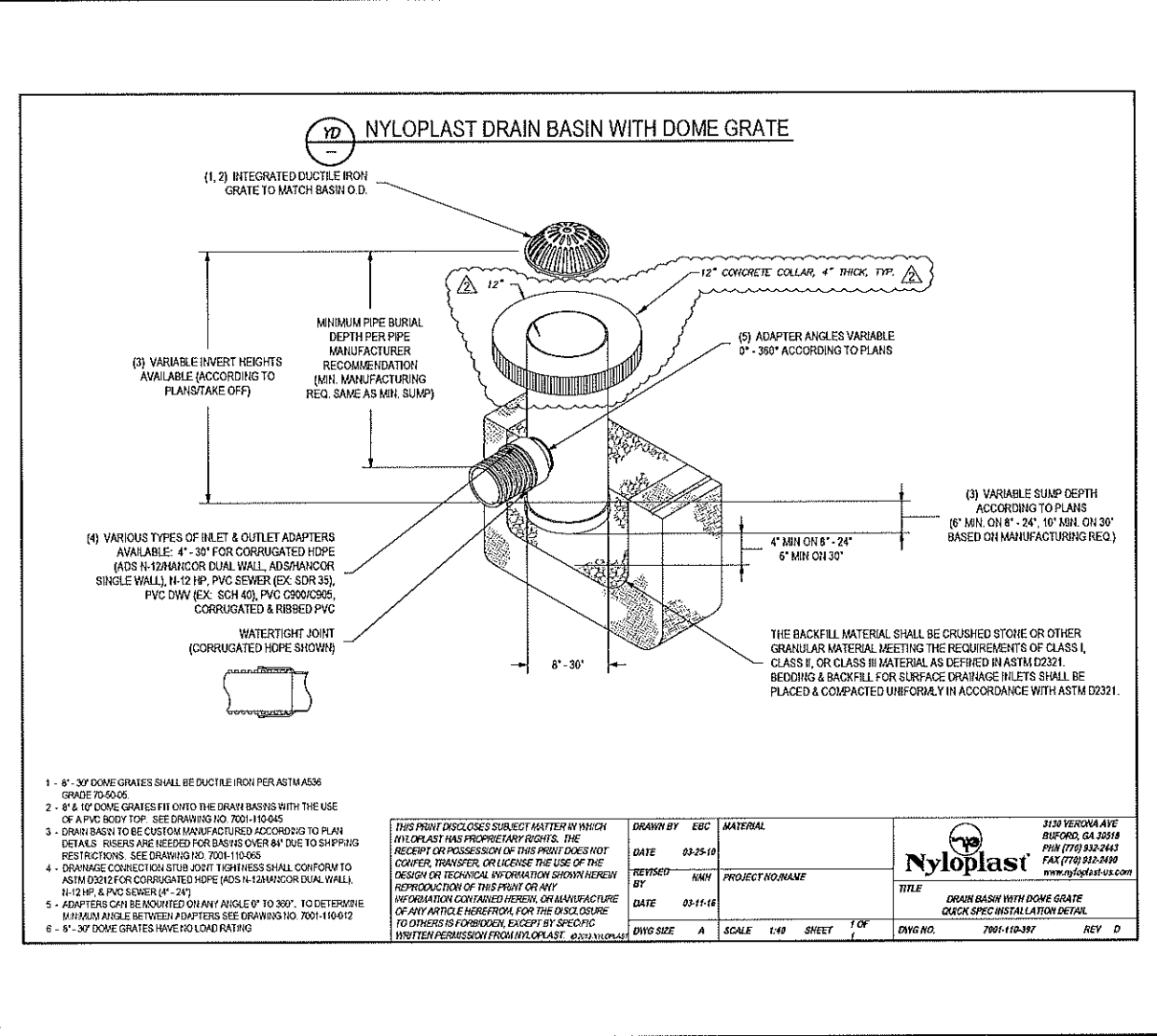
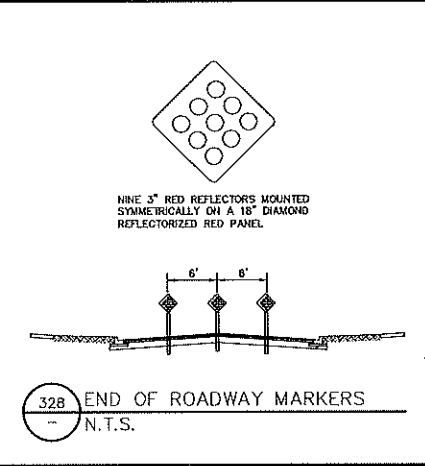
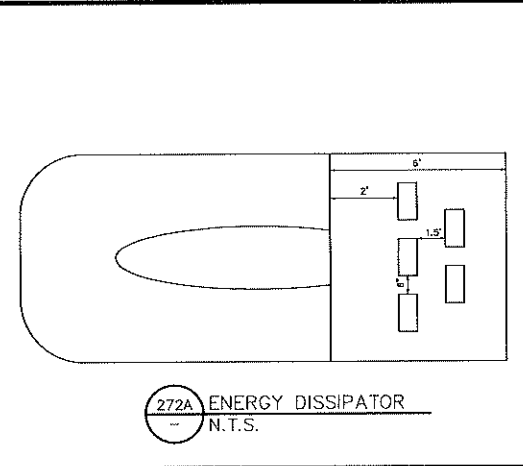
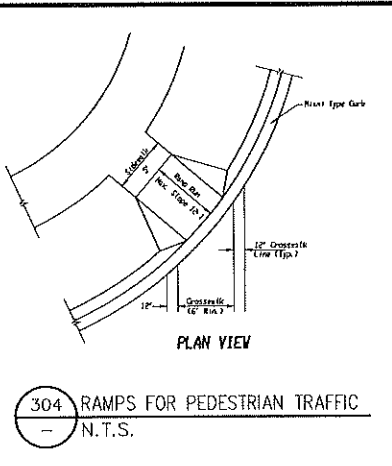
CONSTRUCTION DETAILS  
 FOR  
**VISTA RESERVE**  
 CITY OF AFOPCA, FLORIDA

THE PULTE GROUP  
 4800 WINDLAND ROAD, SUITE 500  
 ORLANDO, FLORIDA 32817  
 (407) 681-1514



REVISIONS	DATE	REVISIONS

JOB # 17051  
 DATE: 06/22/2018  
 SCALE: N.T.S.  
 DESIGNED BY: BSB  
 DRAWN BY: BSB  
 APPROVED BY: BSB





**MADDEN**  
MOORHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

CITY OF APOPKA DETAILS  
FOR  
**VISTA RESERVE**  
FLORIDA  
CITY OF APOPKA

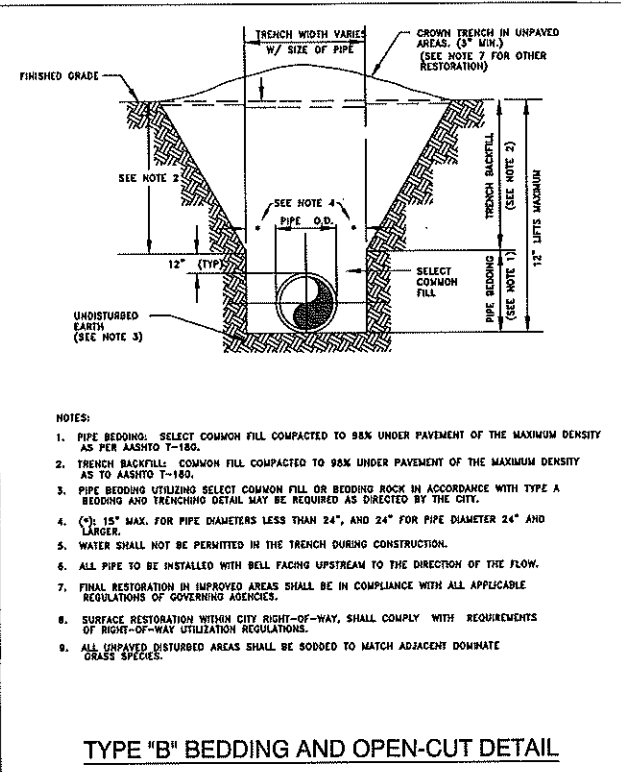
THE PULTE GROUP  
4605 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 661-1514



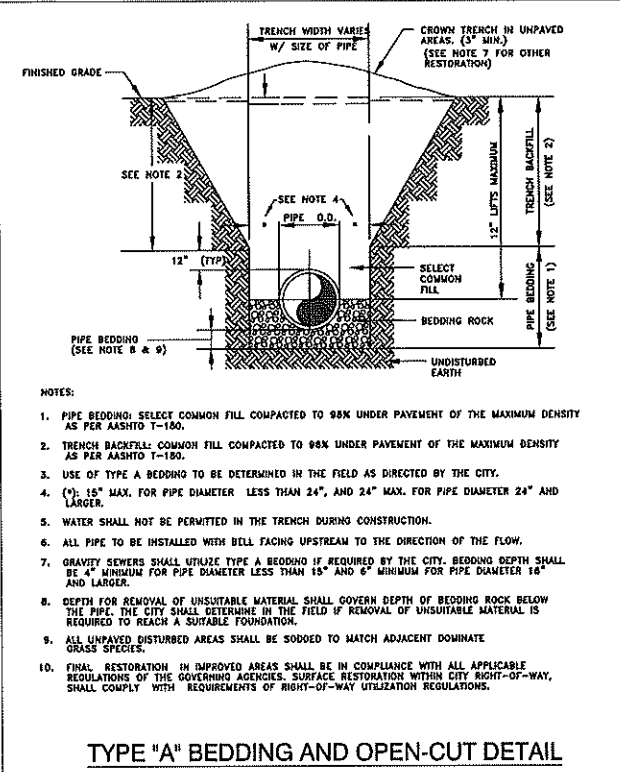
NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: N.T.S.  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

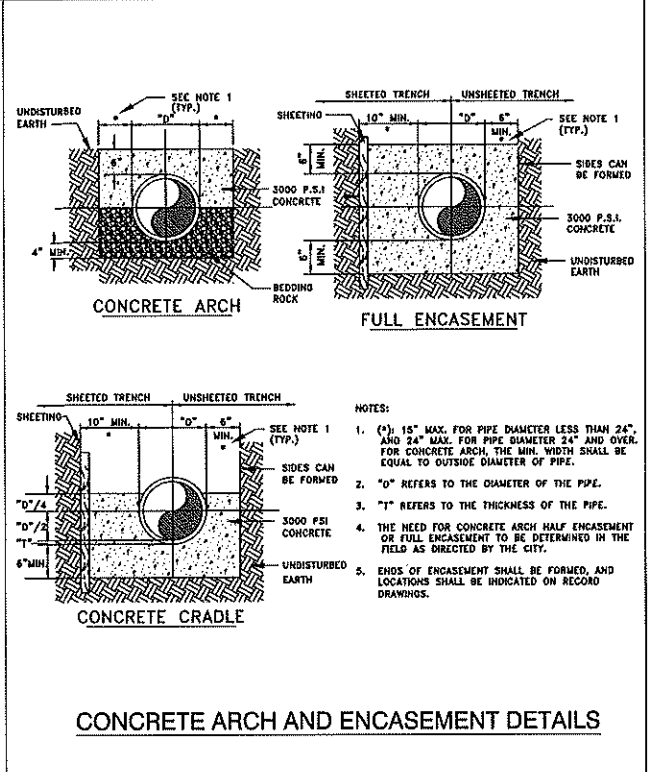
CD-1  
34 of 39



CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 100



CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 101



CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 102

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S), \*

	PIPE SIZE										
	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"	48"
90° BEND	33	43	51	60							
45° BEND	14	18	22	25							
22-1/2° BEND	7	9	11	12							
11-1/4° BEND	4	5	6	6							
TEE**	1	7	24	44							
REDUCER (ONE SIZE SMALLER)		41	39	40							
DEAD END	74	96	115	136							

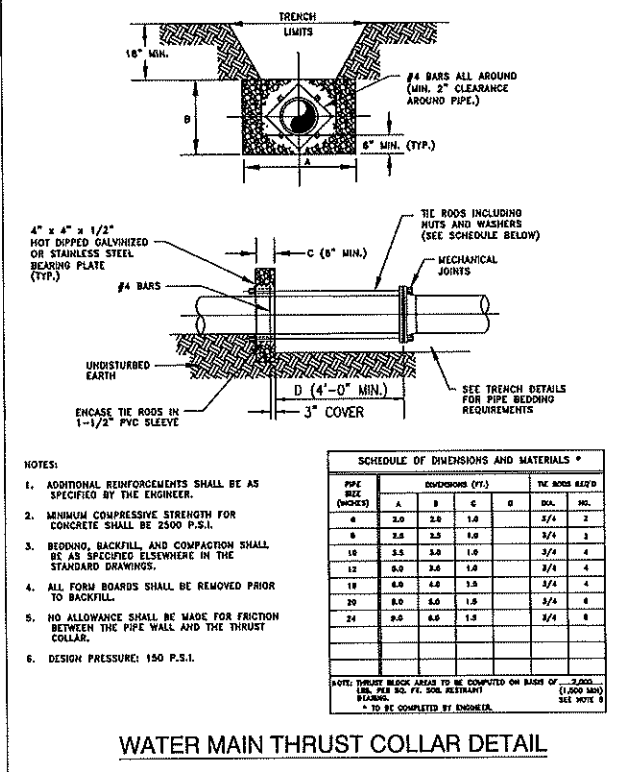
\* ONLY RESTRAIN BRANCH PIPE FOR TEES. ONLY RESTRAIN LARGER PIPE FOR REDUCERS  
\*\* LENGTH ALONG RUN ASSUMED TO BE 18'

NOTES:

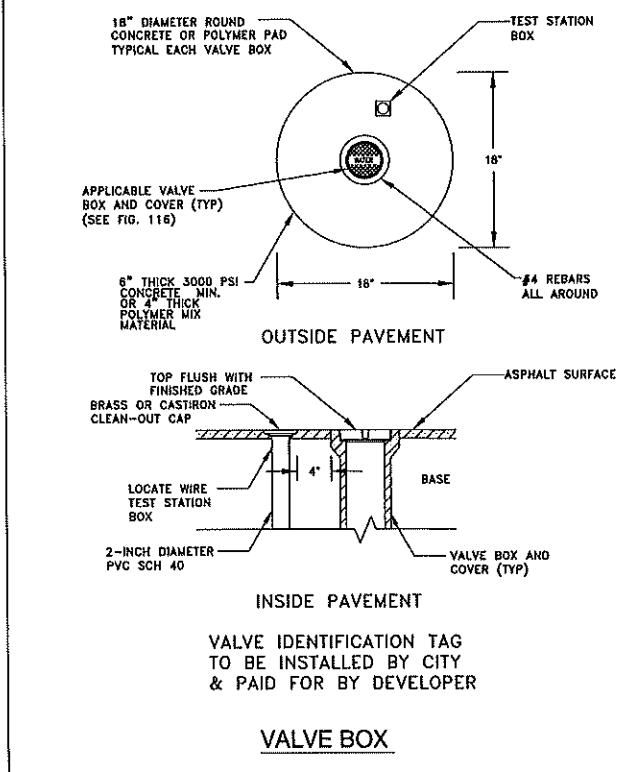
- FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
- INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
- WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
- IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
- LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, FOR PVC WITH THE FOLLOWING ASSUMPTIONS:  
TYPE OF PIPE: PVC  
WORKING PRESSURE: 150 P.S.I.\*\*  
SOIL DESIGNATION: SWS AND SBT  
LAYING CONDITIONS: 3  
\*\* FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
- FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
- VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

**RESTRAINED PIPE TABLE (PVC)**

CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 105



CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 107



CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 109

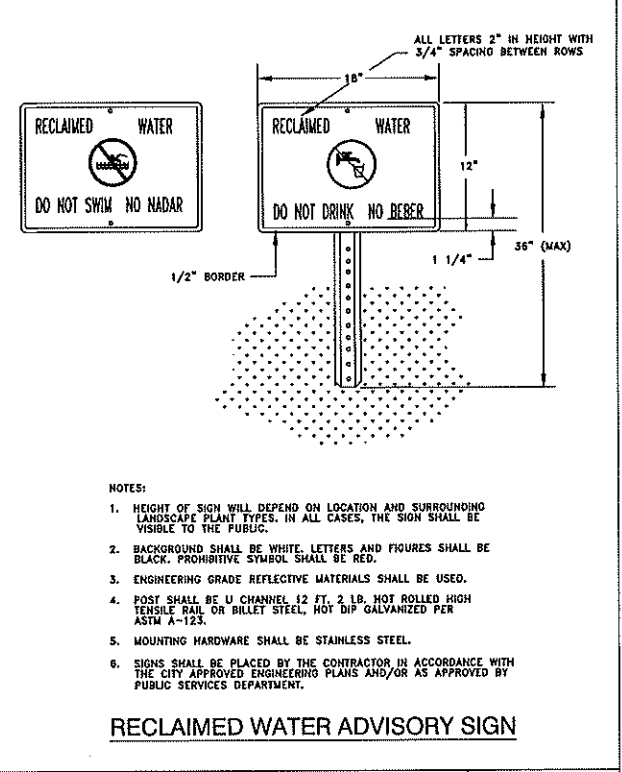
MINIMUM PRESSURE RATING

PSI	DI FITTINGS		PIPE MATERIAL*			GATE VALVE**		FORCEMAIN*	
	≤24"	>24"	PVC	DI	HDPE	≤12"	>12"	PVC	HDPE
100									
150									
200									
250									
350									

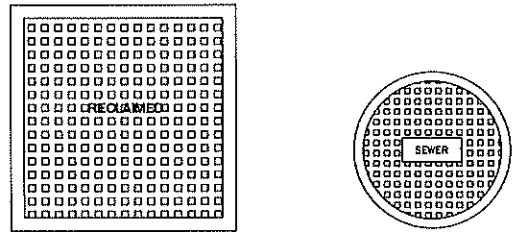
\* PVC SHALL HAVE A MAXIMUM DIMENSION RATIO (DR) OF 18 AND HDPE SHALL BE MAX DR11. FORCEMAIN: PVC SHALL BE MAX DR18 UNLESS DESIGN REQUIRES OTHERWISE AND HDPE SHALL BE MAX DR17.  
\*\* BUTTERFLY VALVES SHALL BE CLASS 150B

**PIPE AND APPURTENANCES PRESSURE RATING**

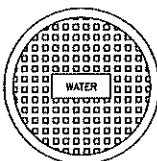
CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 110



CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 115

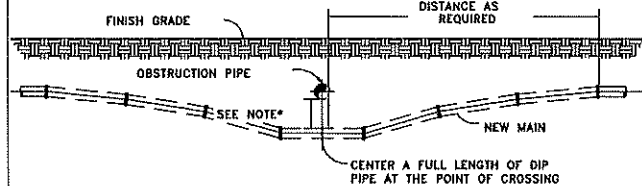


TYPICAL VALVE BOX COVER DETAILS



POTABLE WATER

TYPICAL VALVE BOX COVER DETAILS

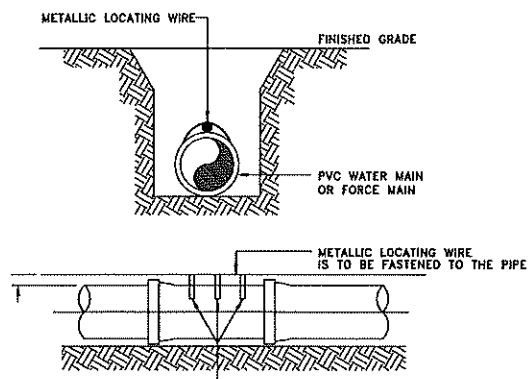


NOTES:

1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
3. SEE ENCASUREMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

\* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

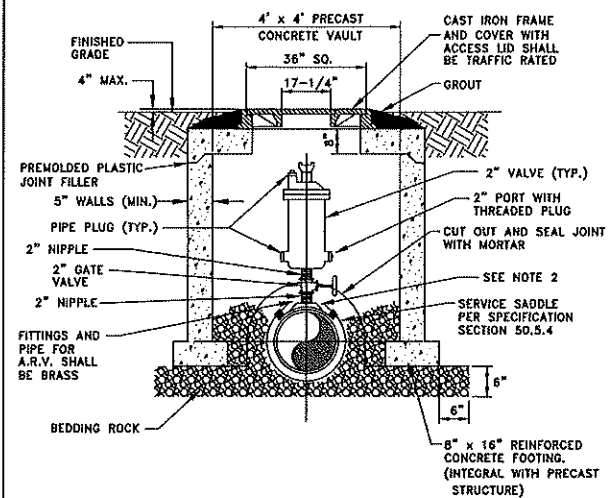
UTILITY CROSSING PIPE DEFLECTION DETAIL



NOTES:

1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL



NOTES:

1. ABOVE DETAIL IS BASED ON 2 INCH COMBINATION AIR/VACUUM RELEASE VALVE, CHANGE PIPE AND FITTINGS ACCORDINGLY FOR OTHER VALVE SIZES AND TYPES. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0 FEET.
3. ALL STRUCTURES TO BE TRAFFIC BEARING RATED.

AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - UNDERGROUND



CITY OF APOPKA DETAILS  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
4001 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 661-1514



NO.	DATE	REVISIONS

JOB # 17051  
DATE: 06/22/2018  
SCALE: N.T.S.  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

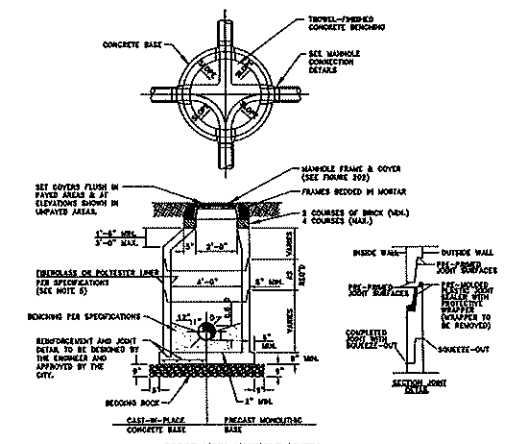
CD-2  
35 of 39

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 116

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 117

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 118

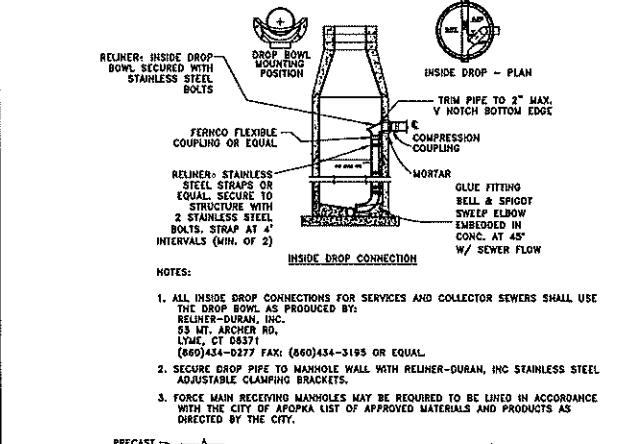
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 119



DIAMETER (INCHES)	THICKNESS (INCHES)	HEIGHT (FEET)	MATERIAL	MANUFACTURER
48	3-6	7-12		
60		13-17		
72				

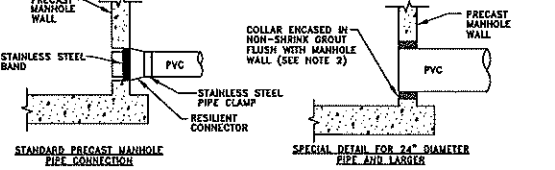
- NOTES:
1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
  2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
  3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
  4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
  5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LISTED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE



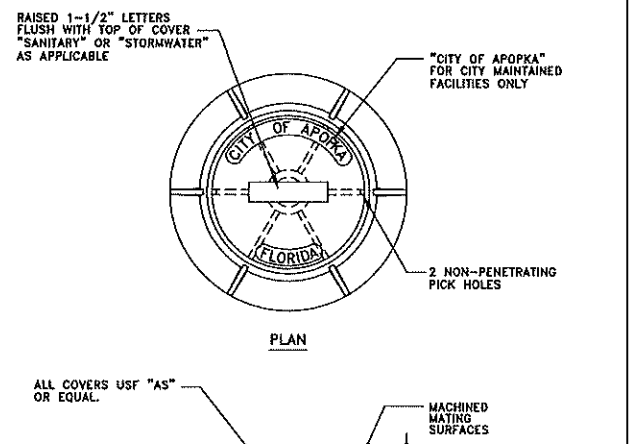
NOTES:

1. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY: RELINER-DURAN, INC. 55 MT. ARCHER RD. LYMA, CT 06371 (860)434-0277 FAX: (860)434-3195 OR EQUAL.
2. SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DURAN, INC. STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.
3. FORCE MAIN RECEIVING MANHOLES MAY BE REQUIRED TO BE LISTED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.



- NOTES:
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
  2. THE CITY MAY APPROVE ALTERNATE WATER TIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
  3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
  4. CONCRETE TO BE MINIMUM OF 3000 PSI.

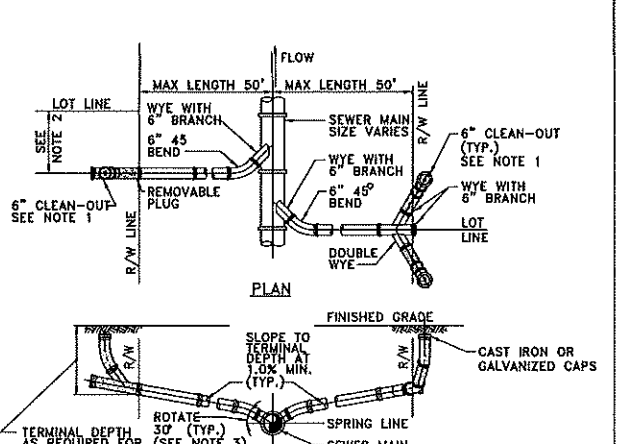
MANHOLE CONNECTION DETAILS



NOTES:

1. MANHOLE FRAME AND COVER ARE TO BE TRAFFIC BEARING RATED H-20, CLASS 30 MEETING ASTM A 48.

STANDARD MANHOLE FRAME AND COVER



NOTES:

1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
4. RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON-RESIDENTIAL SERVICES SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
5. GALVANIZED OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE.
6. LATERAL SHALL BE MARKED WITH AN "S" STAMPED OR CUT IN THE CURB.

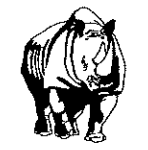
SERVICE LATERAL DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 200

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 201

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 202

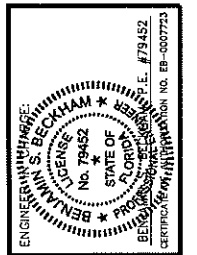
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 204



**MADDEN**  
MOORHEAD & STORES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 250  
Maitland, Florida 32751  
(407) 629-8330

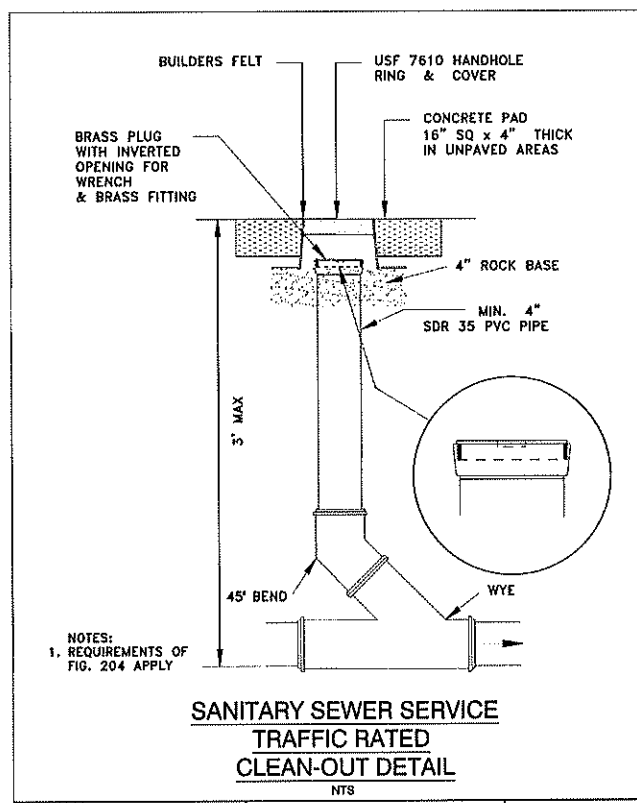
CITY OF APOPKA DETAILS  
FOR  
**VISTA RESERVE**  
FLORIDA  
CITY OF APOPKA

THE PULTE GROUP  
4901 VINELAND ROAD, SUITE 800  
ORLANDO, FLORIDA 32811  
(407) 681-1514

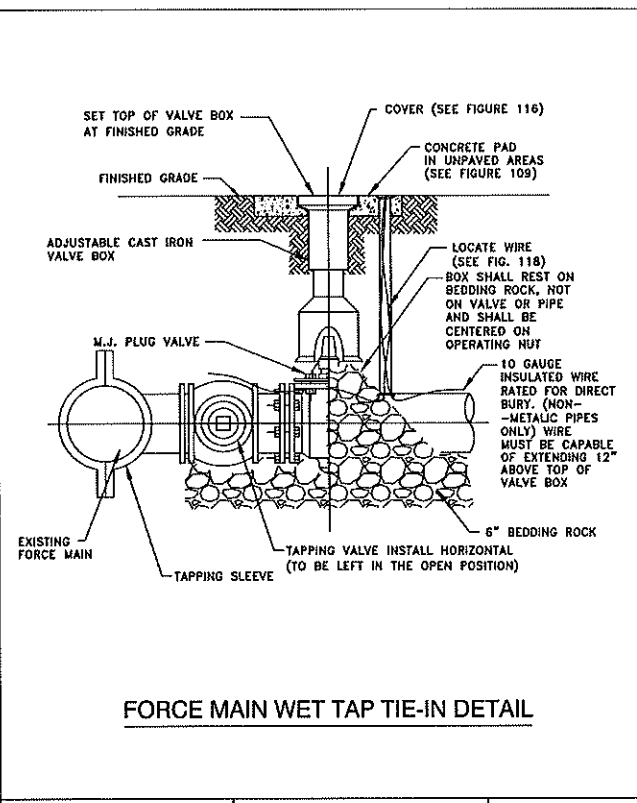


NO.	DATE	REVISIONS

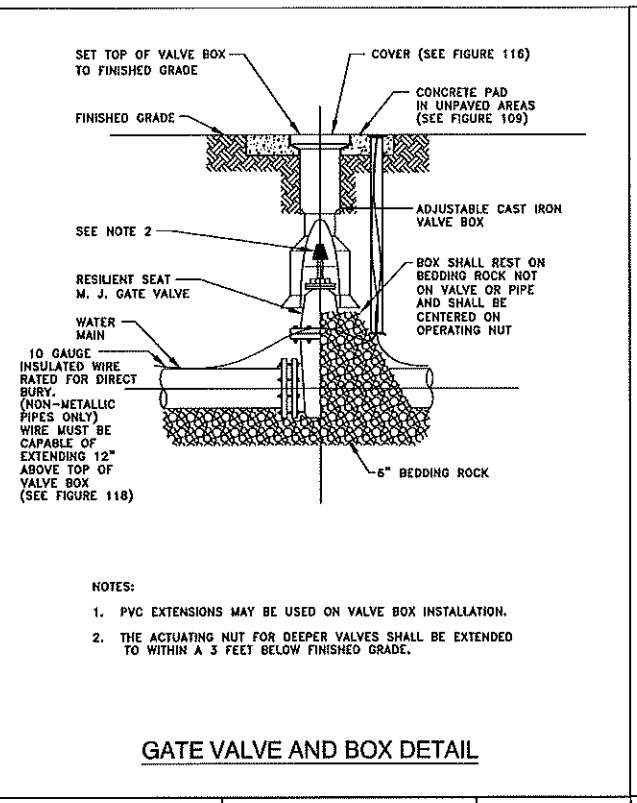
JOB # 17051  
DATE: 06/22/2018  
SCALE: N.T.S.  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB



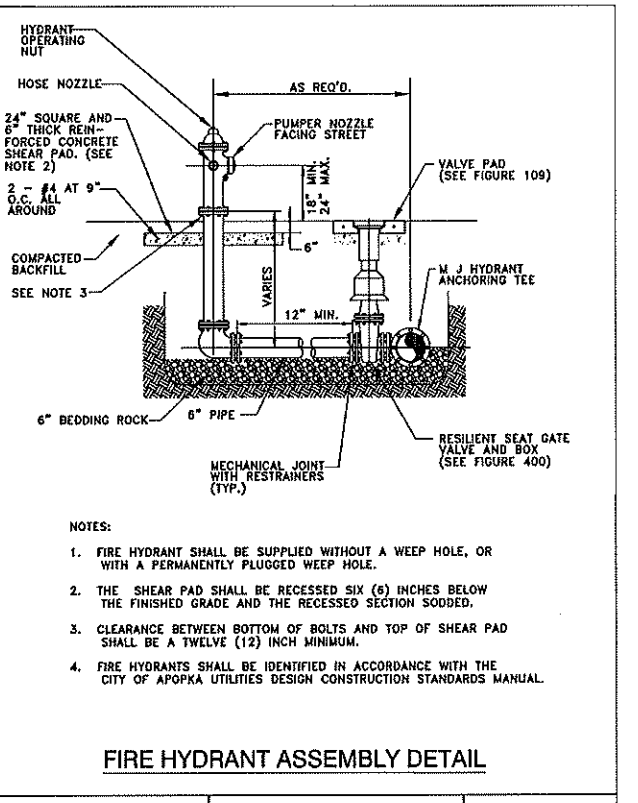
CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 205



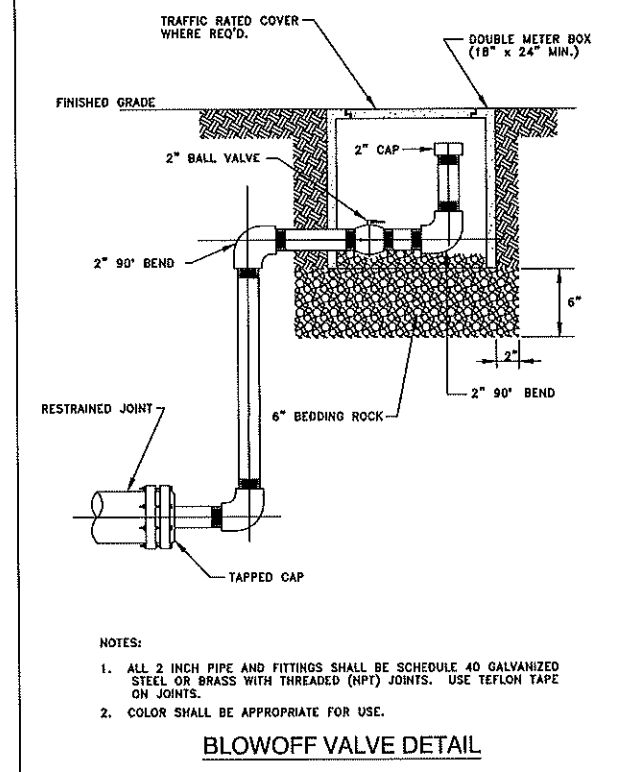
CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 206



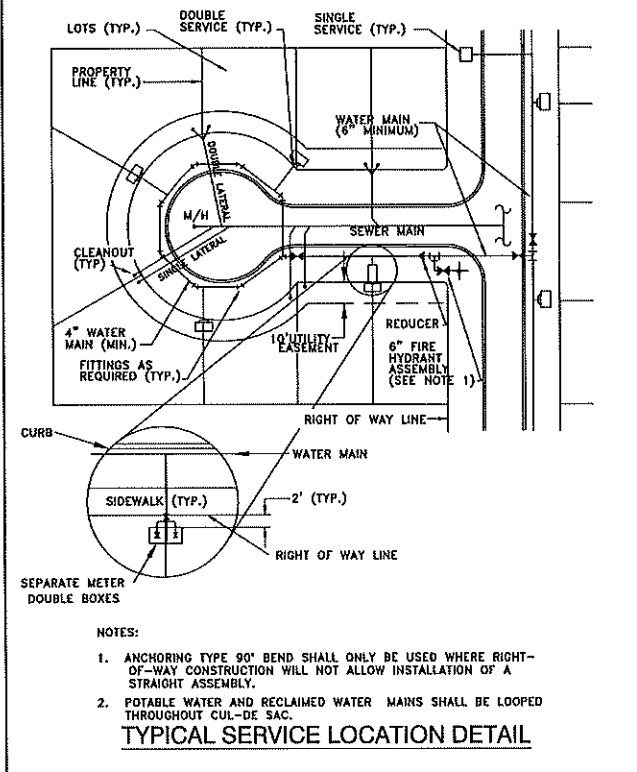
CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 400



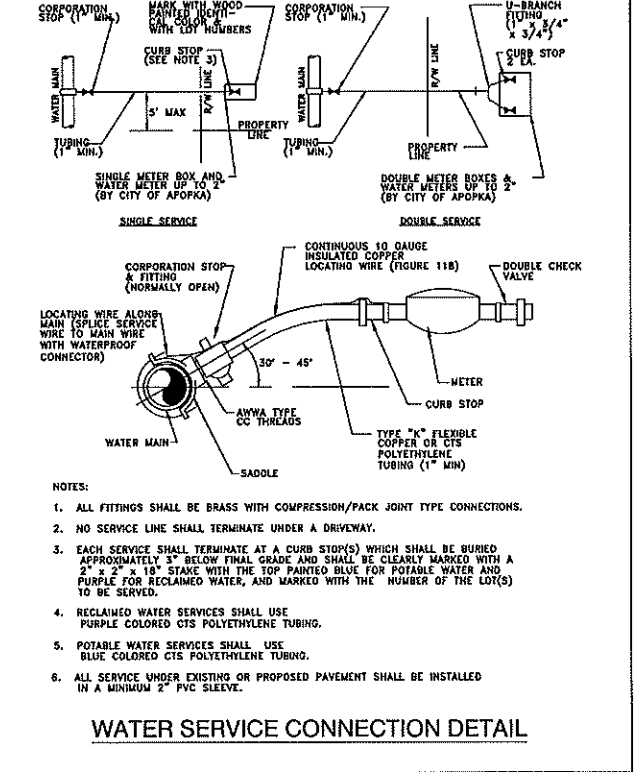
CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 402



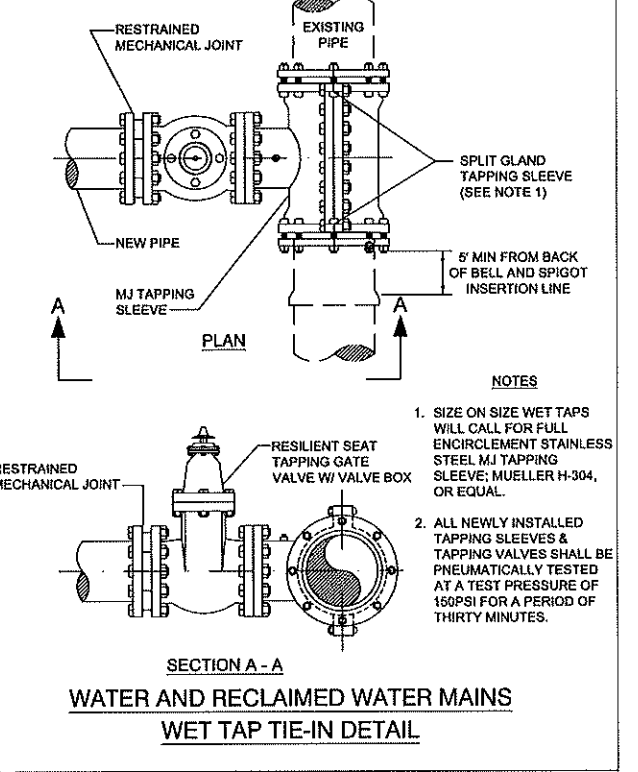
CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 403



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 404



CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 405



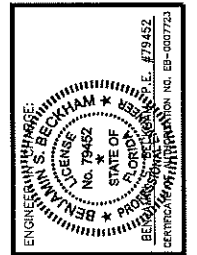
CITY OF APOPKA  
DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 406



**MADDEN**  
 MOORHEAD & STOKES, INC.  
 CIVIL ENGINEERS  
 431 E. Harallo Avenue  
 Suite 280  
 Maitland, Florida 32751  
 (407) 629-8330

CITY OF APOPKA DETAILS  
 FOR  
**VISTA RESERVE**  
 CITY OF APOPKA, FLORIDA

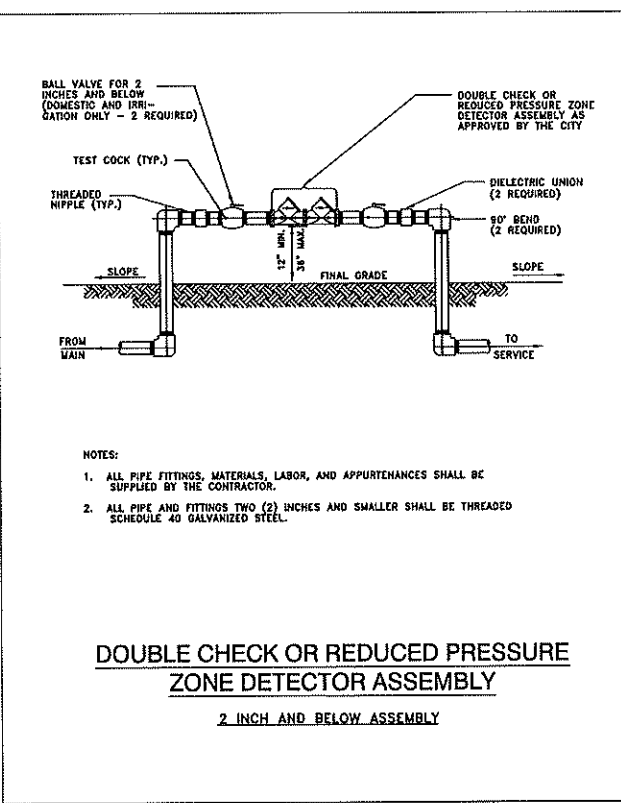
THE PULTE GROUP  
 4501 WINDLAND ROAD, SUITE 500  
 UNCLAM, FLORIDA 32811  
 (407) 681-5114



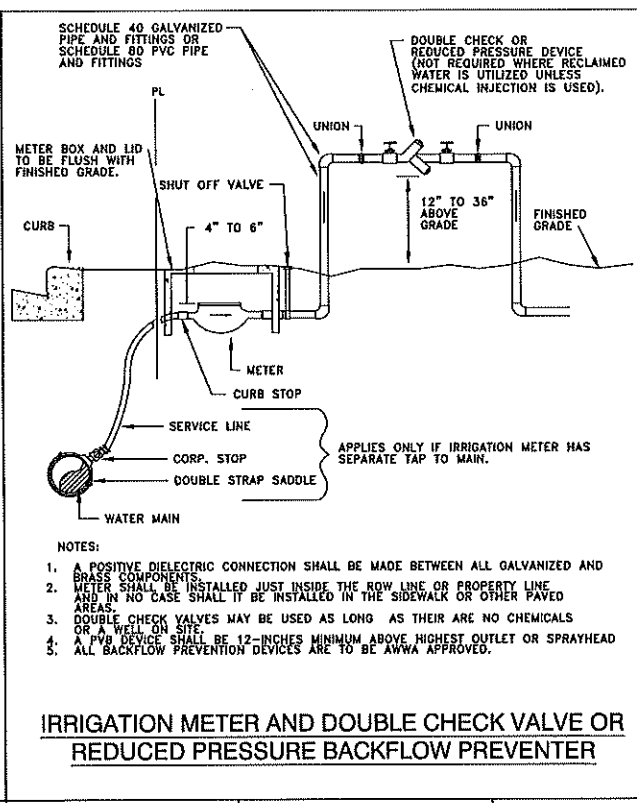
NO.	DATE	REVISIONS

JOB # 17051  
 DATE: 06/22/2018  
 SCALE: N.T.S.  
 DESIGNED BY: BSB  
 DRAWN BY: BSB  
 APPROVED BY: BSB

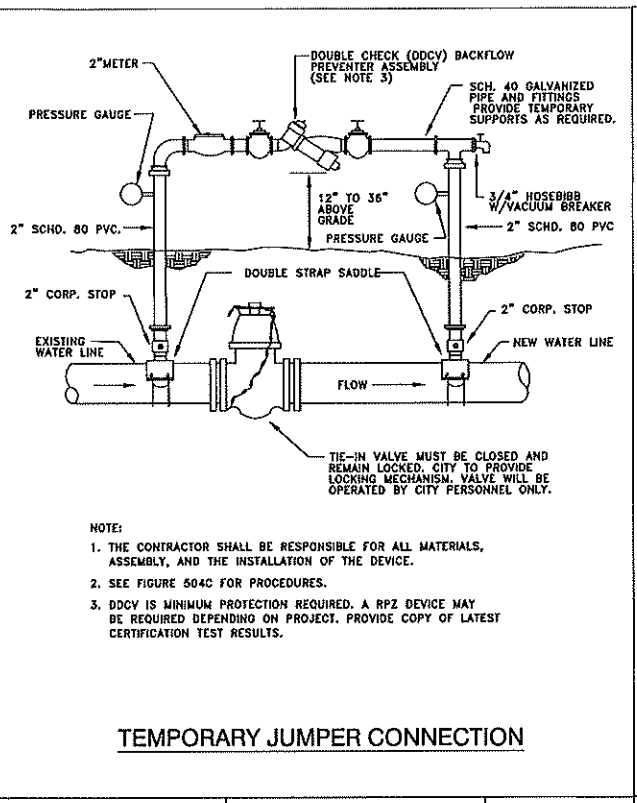
CD-4  
 37 of 39



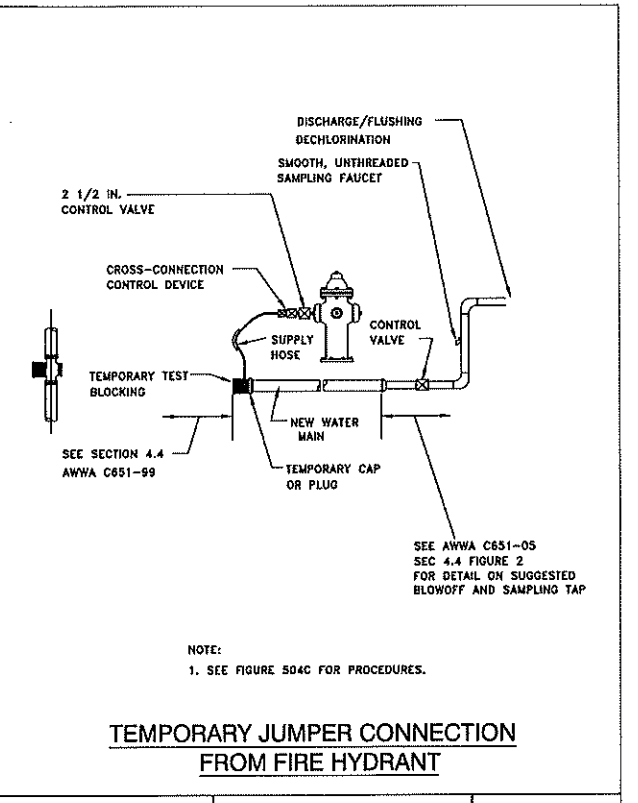
CITY OF APOPKA  
 DESIGN ENGINEERING DIVISION  
 JANUARY 2014  
 FIG. 500 A



CITY OF APOPKA  
 DESIGN ENGINEERING DIVISION  
 JANUARY 2014  
 FIG. 502



CITY OF APOPKA  
 DESIGN ENGINEERING DIVISION  
 JANUARY 2014  
 FIG. 504 A



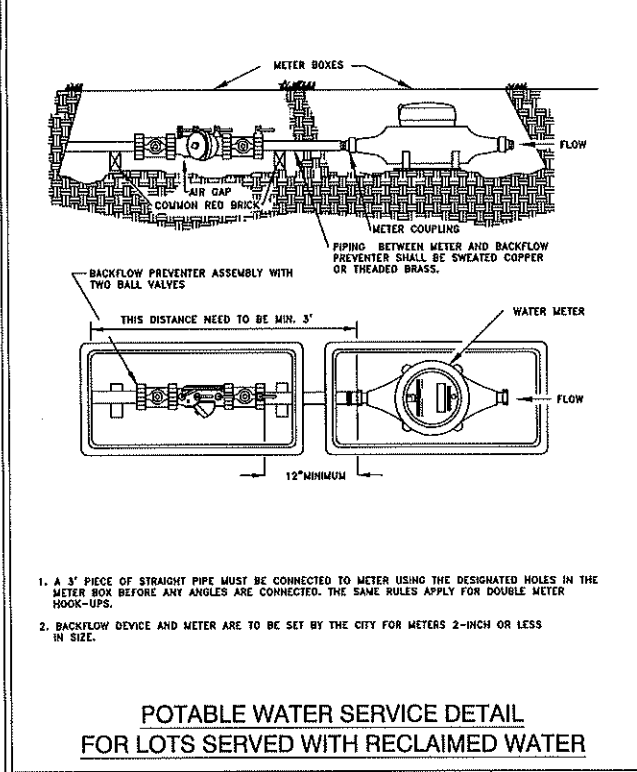
CITY OF APOPKA  
 DESIGN ENGINEERING DIVISION  
 JANUARY 2014  
 FIG. 504 B

**TEMPORARY JUMPER CONNECTION NOTES:**

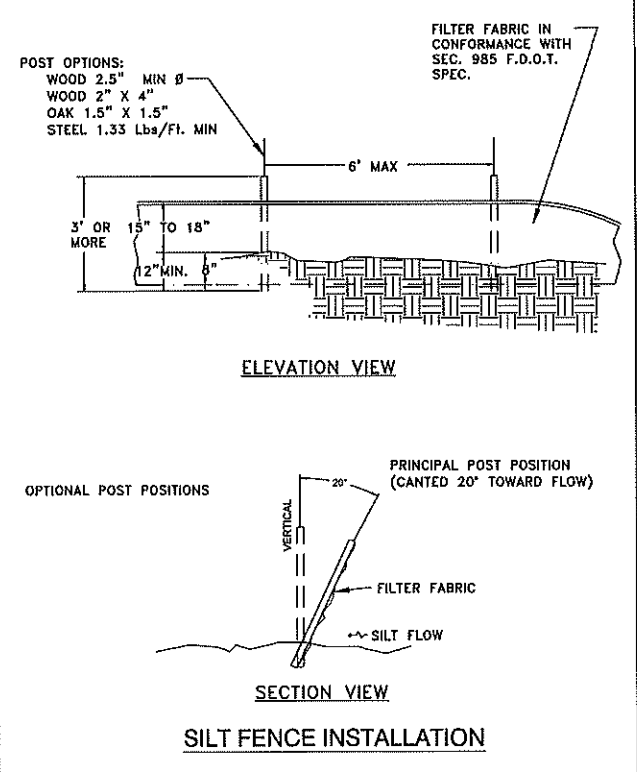
- A temporary jumper connection is required at all connections between existing active water mains and proposed new water main improvements.
- Figures 504 A and 504 B to be used for filling any new water main of any size from existing active water mains and for flushing of new mains up to 8 inches in diameter (2.5 FPS minimum velocity) and for pulling bacteriological samples from any new water main of any size. The jumper connection shall be maintained until after filling, flushing, testing and disinfection of the new main has been satisfactorily completed and cleared for use from the Florida Department of Environmental Protection (FDEP) and other pertinent agencies have been received. The jumper connection shall also be used to maintain a minimum pressure of 20 psi in the new main after disinfection and until the FDEP clearance letter is obtained. Thrust blocking and/or restraints shall be provided temporarily, as required. Pipe and fittings used for connecting the new pipe to the existing pipe shall be disinfected prior to installation in accordance with AWWA C651, 2005 edition. The lapping sleeve and the exterior of the main to be lapped shall be disinfected by spraying or recobbing per section 6 of AWWA C651-05.
- Flushing of 10 inches in diameter and larger water mains may be done through the tie-in valve under very controlled conditions. The following procedure shall be followed:
  - The tie-in valve shall be opened and pressure tested in the presence of the City engineer to verify water tightness prior to tie-in. Valves which are not water tight shall be replaced with a new valve installed immediately adjacent to the existing valve.
  - The temporary jumper connection shall be constructed as detailed. The jumper connection shall be used to fill the new water main and for providing water for bacteriological sampling of the new main as required by the FDEP permit.
  - Flushing shall not be attempted during peak demand hours of the existing water mains.
  - All downstream valves in the system must be open prior to opening the tie-in valve.
  - Provide for and monitor the pressure in the tie-in point. The pressure in the existing main must not drop below 35 psi.
  - The tie-in valve shall be opened a few turns only, ensuring a pressure drop across the valve is greater than 10 psi.
  - The tie-in valve shall be locked closed by the City personnel until flushing begins.
  - The tie-in valve shall be opened only for flushing of the new main. The procedure shall be directed by the City and observed by the engineer.
  - After flushing, the tie-in valve shall be closed and locked in the closed position by the City personnel.
- The contractor shall provide documentation demonstrating that the double check backflow prevention device has been tested and is in good working order at the time of installation.
- Except as required to flush lines of greater than 8 inches in diameter, the tie-in valve shall remain closed and shall be locked in the closed position by the City. The tie-in valve shall remain locked closed until the new system has been cleared for use by FDEP and all other pertinent agencies.
- Upon receipt of clearance for use from FDEP and all other pertinent agencies, the contractor shall remove the temporary jumper connection. The corporation steps are to be closed and plugged with 2 inch brass plugs.
- All installation and maintenance of the temporary jumper connection and associated backflow prevention device, fittings, valve, etc. shall be the responsibility of the contractor.

**PROCEDURES FOR TEMPORARY JUMPER CONNECTION**

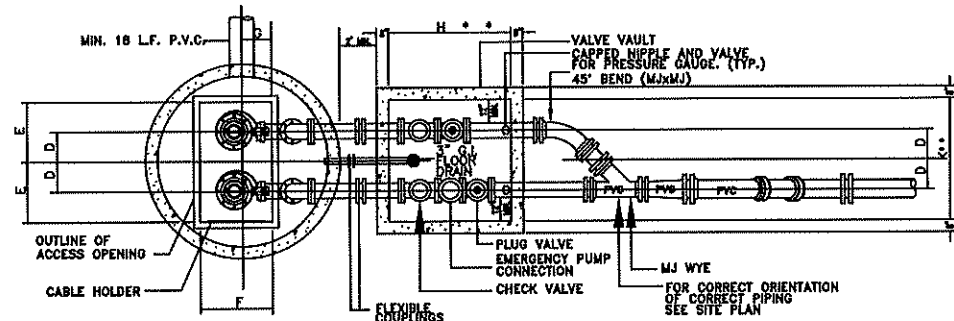
CITY OF APOPKA  
 DESIGN ENGINEERING DIVISION  
 JANUARY 2014  
 FIG. 504 C



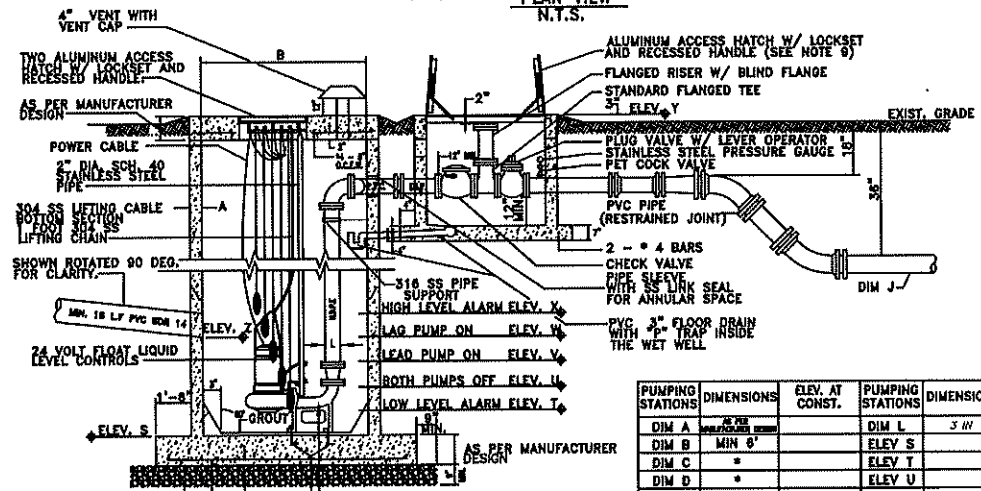
CITY OF APOPKA  
 DESIGN ENGINEERING DIVISION  
 JANUARY 2014  
 FIG. 505



CITY OF APOPKA  
 DESIGN ENGINEERING DIVISION  
 JANUARY 2014  
 FIG. 602



PLAN VIEW  
N.T.S.



PROFILE VIEW  
N.T.S.

PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.	PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.
DIM A	MIN 6'		DIM L	3' IN	
DIM B		79.98	ELEV S		
DIM C		89.98	ELEV T		
DIM D		91.48	ELEV U		
DIM E		83.58	ELEV V		
DIM F		84.08	ELEV W		
DIM G		84.58	ELEV X		
DIM H	6'-0" MIN.	91.70	ELEV Y		
DIM J	4' IN	84.98	ELEV Z		
DIM K					

\* PER PUMP MANUFACTURERS REQUIREMENT

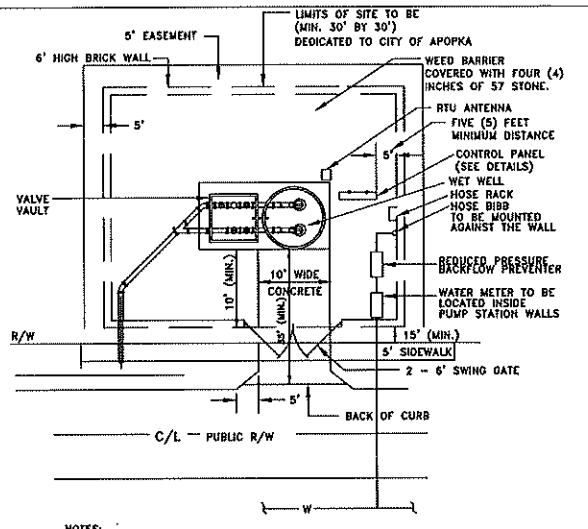
- GENERAL NOTES:
- VALVE VAULT AND WET WELL LIDS SHALL BE COATED WITH 1 COAT OF THEMEC SERIES 66, COLOR ENOS, (2-3 MILS), FOLLOWED BY TOP COAT OF THEMEC SERIES 73, COLOR ENOS, (2-3 MILS) OR EQUAL.
  - THE WET WELL SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYESTER (RFP) AND MANUFACTURED FROM COMMERCIAL GRADE POLYESTER RESIN OR VINYL ESTER RESIN, WITH FIBERGLASS REINFORCEMENTS. THE WET WELL SHALL BE A ONE PIECE UNIT AND MANUFACTURED BY L.F. MANUFACTURE, INC. OR EQUAL.
  - IN LIEU OF RFP THE WET WELL MAY BE CONSTRUCTED OF PRECAST CONCRETE HAVING A MINIMUM WALL THICKNESS OF 8 INCHES. THE INTERIOR WALLS SHALL BE LINED USING A HIGH DENSITY POLYETHYLENE PRODUCT AS MANUFACTURED BY AGRU SURE GRIP, OR EQUAL.
  - PIPING IN THE WET WELL TO BE HDPE WITH FUSED 45 DEGREE FITTINGS FROM WET WELL TO VALVE VAULT.
  - INTERIOR OF THE VALVE VAULT AND PIPING IN THE VALVE VAULT WITH ConSeal CS-55 (OR EQUAL), TWO COATS, 4 MILS EACH. PIPING SHALL BE COATED AFTER INSTALLATION.
  - VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 6" DIAMETER PIPE AND SMALLER. CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES.
  - VALVE VAULT SHALL HAVE SEALED FLOOR AND DRAIN.
  - ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE AND STAINLESS STEEL LINK SEAL.
  - THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
  - WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE LOCK BRACKET. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY THE CITY.
  - FLEXIBLE COUPLING SHALL BE SLEEVE TYPE, EPOXY COATED.
  - PUMPS SHALL BE:  
MANUFACTURER: FLYGT; MODEL: HP 3127 SH; DIA: 180 MM; SPEED: 3,000 RPM; DISCHARGE SIZE: 3.125 IN.; VOLTAGE: 480 V; HZ: 60 HZ; PHASES: 3 PHASE; MIN. SOLID SIZE: 3 IN.
  - OPERATING CONDITIONS SHALL BE 10' QPM AT 112 FEET TDH.
  - ALL HARDWARE IN WET WELL AND VALVE BOX TO BE 316 STAINLESS STEEL.
  - "P" TRAP TO BE INSTALLED IN WET WELL.
  - ALL PUBLIC LIFT STATIONS SHALL BE EQUIPPED WITH SCADA SYSTEM. THE DEVELOPER SHALL PAY THE CITY COST OF THE UNIT. THE CITY WILL BE RESPONSIBLE FOR INSTALLATION.
  - ALL LIFT STATIONS SHALL BE FENCED WITH DECORATIVE STONE OR BRICK OR AS DIRECTED BY THE CITY.
  - ALL LIFT STATIONS SHALL HAVE A 10 FEET WIDE CONCRETE ACCESS DRIVEWAY, 35' LONG FROM EDGE OF WET WELL TO BACK OF CURB.
  - ENGINEER SHALL PROVIDE A SCALED (1" = 20' MIN.) SITE SPECIFIC DETAIL.

### PUMP STATION DETAIL

CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 301



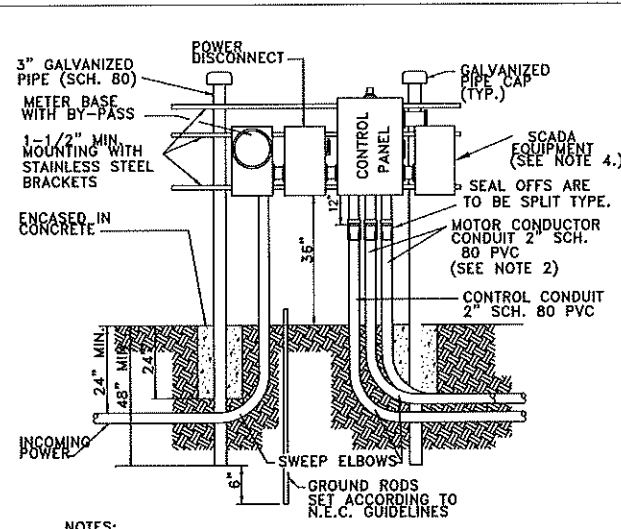
- NOTES:
- DRIVEWAY AND APRON SHALL BE SIX (6) INCH THICK, 3000 P.S.I. CONCRETE, WITH No. 6X6 WIRE MESH OR FIBER MESH.
  - POWER TO THE PUMP STATION SHALL BE THROUGH UNDERGROUND CONDUIT FROM SUPPLY SOURCE IN RIGHT-OF-WAY.
  - GATE TO BE DECORATIVE BLACK POWDER COATED ALUMINUM W/PICKET SPACING = OR < 4"
  - WALLS ARE TO BE BRICK OR DECORATIVE STONE.
  - WET WELL LID MUST OPEN TOWARD CONTROL PANEL (HINGE SIDE TOWARD PANEL).
  - LIFT STATION WALL TO BE PLACED AT LEAST 15FT. BEHIND THE R/W LINE.

PUMP STATION TYPICAL SITE PLAN

CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 300



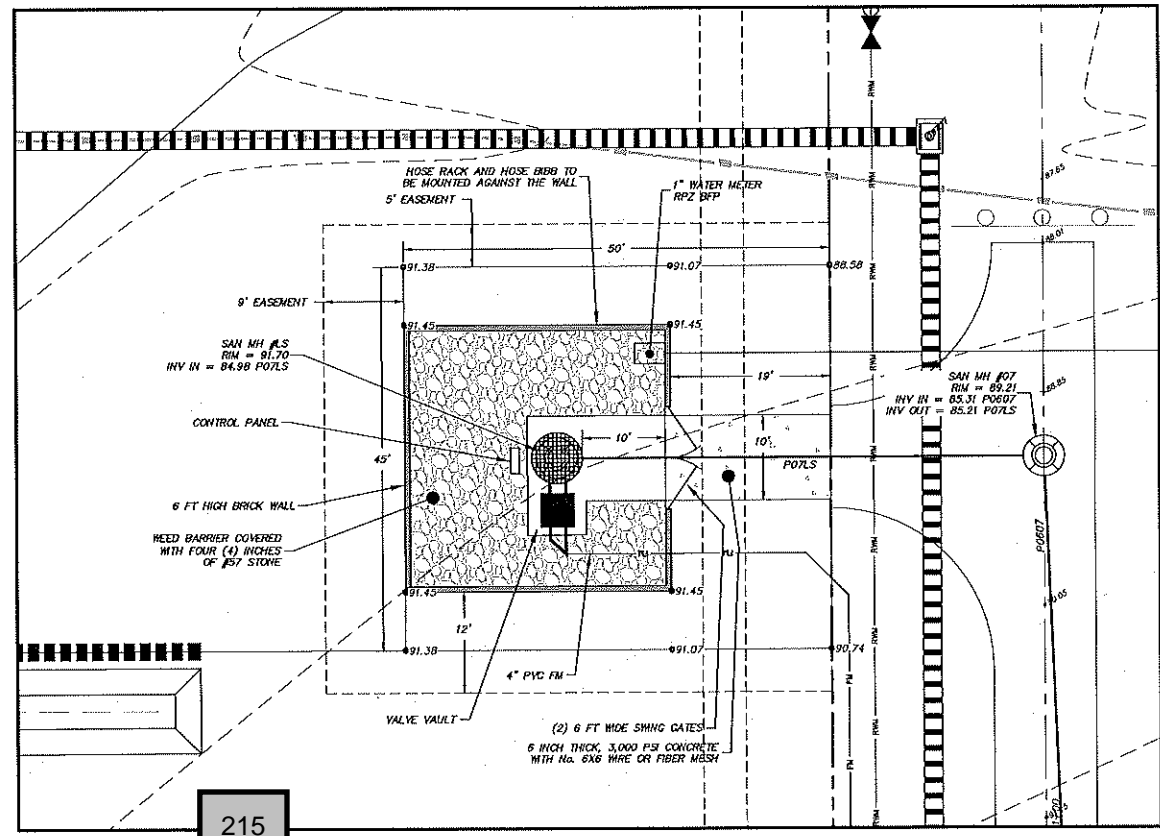
- NOTES:
- DRAWING IS SHOWN FOR 230 VOLT POWER SUPPLY. THE LOCATION OF METER AND MAIN POWER DISCONNECT SHALL BE REVERSED FOR 480 VOLT SUPPLY.
  - WHEN TWO (2) SEPARATE CONDUCTOR-TYPE MOTORS ARE USED, CONDUIT SHALL BE INCREASED TO THREE (3) INCH.
  - POWER SUPPLY SHALL BE UNDERGROUND TO THE PUMP STATION AND SHALL BE THREE (3) PHASE FROM A THREE (3) PHASE SOURCE ONLY.
  - STUB OUT UNISTRUT LONG ENOUGH TO ACCOMMODATE A 24"x24" SCADA EQUIPMENT CABINET. CITY TO INSTALL SCADA EQUIPMENT CABINET.

DUPLEX PUMP STATION CONTROL PANEL  
INSTALLATION DETAIL

CITY OF APOPKA  
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 302



215

**MADDEN**  
MODRHEAD & STOKES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 629-8330

LIFT STATION DETAILS  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
4601 WINDLAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32817  
(407) 681-1514

ENGINEER/ARCHITECT  
BENJAMIN S. BECHAM  
LICENSE No. 79452  
STATE OF FLORIDA  
REGISTERED PROFESSIONAL ENGINEER  
EXPIRES 12/31/2018  
CERTIFICATE No. EB-0007723

NO.	DATE	REVISIONS

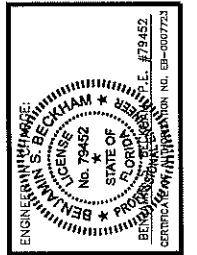
JOB # 17051  
DATE: 06/22/2018  
SCALE: N.T.S.  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB



**MADDEN**  
MOORHEAD & STORES, INC.  
CIVIL ENGINEERS  
431 E. Horatio Avenue  
Suite 260  
Maitland, Florida 32751  
(407) 829-8330

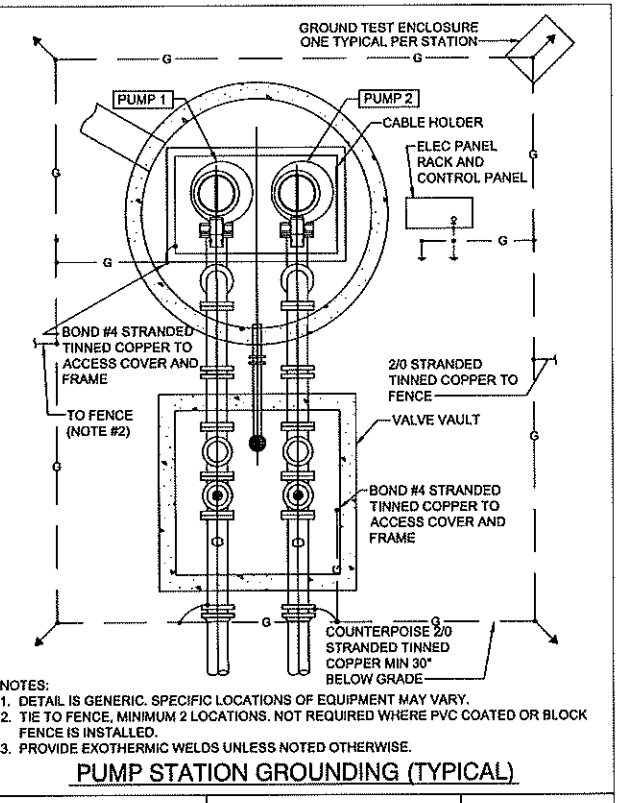
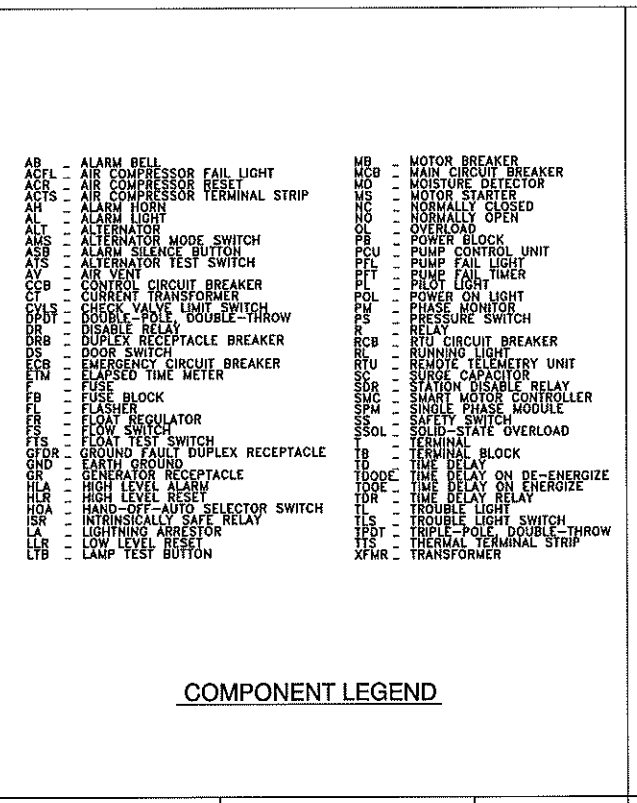
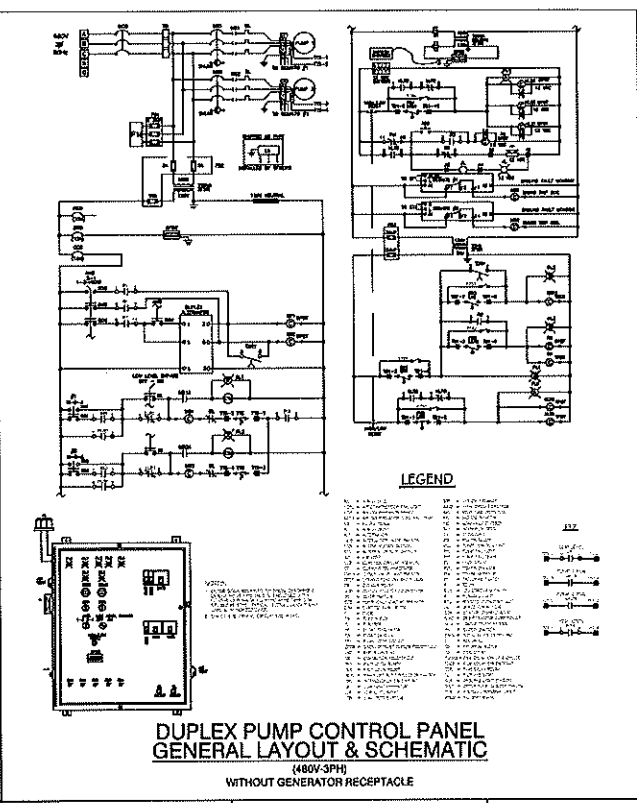
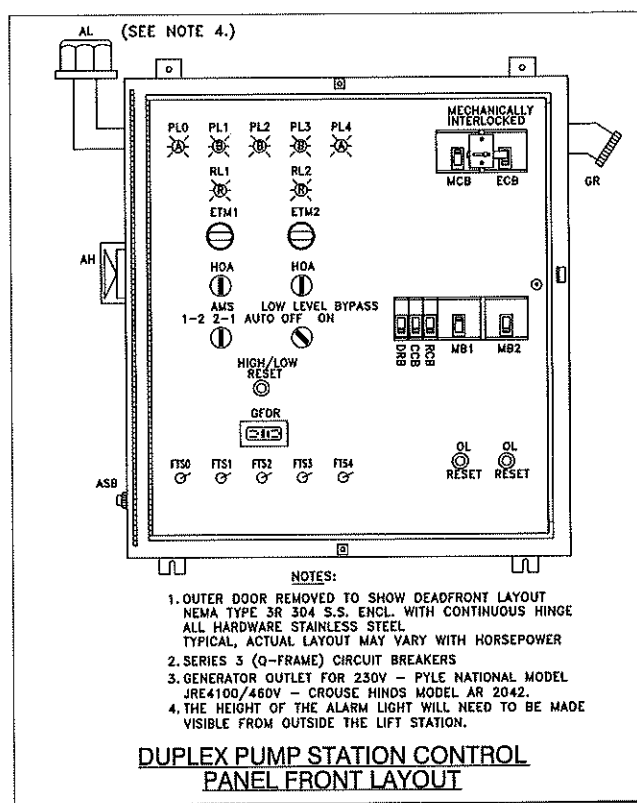
LIFT STATION DETAILS  
FOR  
**VISTA RESERVE**  
CITY OF APOPKA, FLORIDA

THE PULTE GROUP  
4801 WELAND ROAD, SUITE 500  
ORLANDO, FLORIDA 32811  
(407) 861-1514



NO.	DATE	REVISIONS

JOB # I7051  
DATE 06/22/2018  
SCALE: N.T.S.  
DESIGNED BY: BSB  
DRAWN BY: BSB  
APPROVED BY: BSB

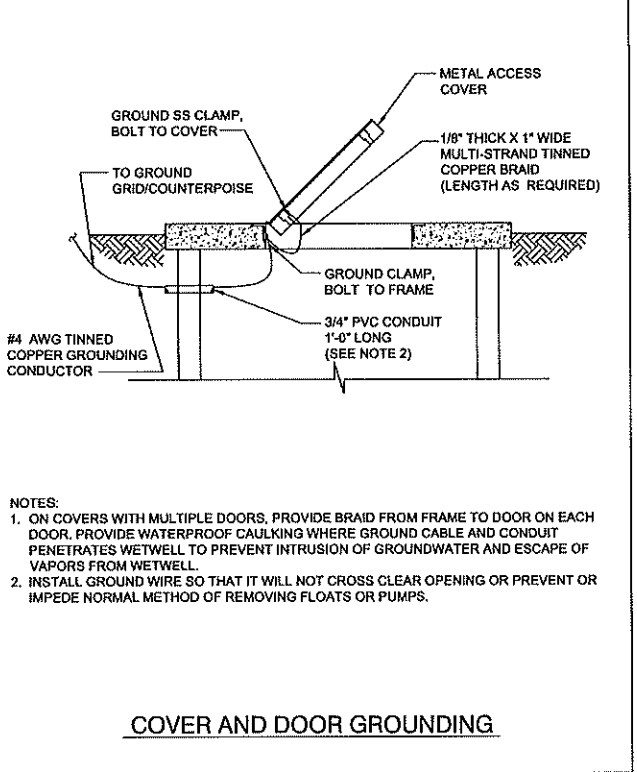
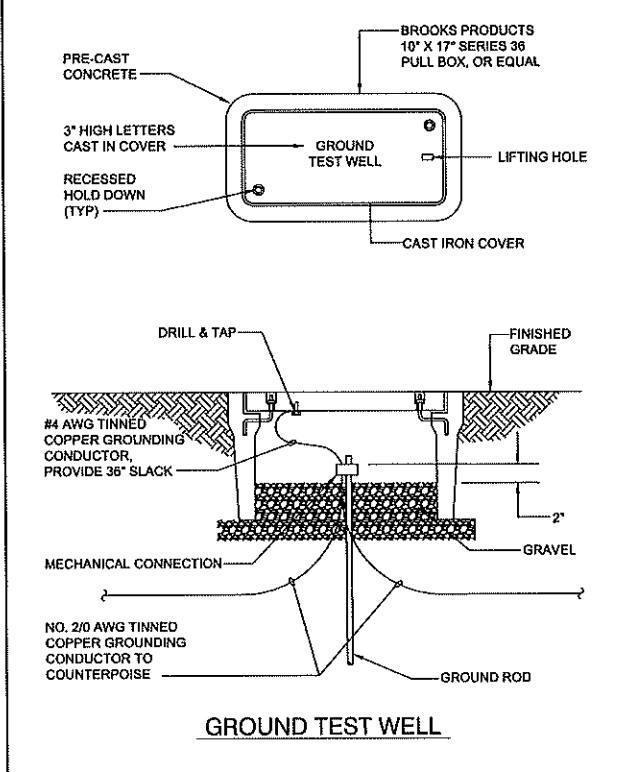
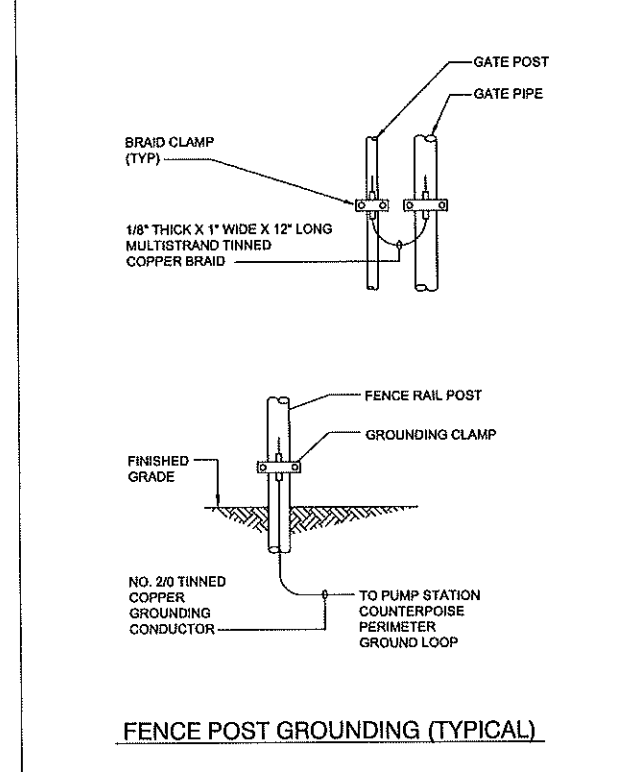


CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 303

CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 305 D

CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 306

CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 307



CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 307 A

CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 307 B

CITY OF APOPKA DESIGN ENGINEERING DIVISION  
JANUARY 2014  
FIG. 307 C



# VISTA RESERVE

CITY OF APOPKA, FLORIDA

## LANDSCAPE ARCHITECTURAL DRAWINGS

FINAL DEVELOPMENT PLAN <sup>△</sup>

ISSUED FOR PERMIT - 04.05.18

REVISED: 04.30.18

REVISED: 06.27.18

REVISED: 07.27.18

REVISED: 08.21.18

### VICINITY MAP



### INDEX OF DRAWINGS

SHT. NO.	ISSUE DATE	REV. NO.	REV. DATE	SHEET TITLE
LP-001	04/05/18	---	---	KEY PLAN
LP-002	04/05/18	---	---	TREE MITIGATION PLAN
LP-003	04/05/18	---	---	TREE MITIGATION PLAN
LP-004	04/05/18	---	---	TREE MITIGATION PLAN
LP-005	04/27/18	2	06.27.18	RECREATION/OPEN SPACE PLAN
LP-100	04/05/18	1	04.30.18	LANDSCAPE PLAN
LP-101	04/05/18	1	04.30.18	LANDSCAPE PLAN
LP-102	04/05/18	1	04.30.18	LANDSCAPE PLAN
LP-103	04/05/18	1	04.30.18	LANDSCAPE PLAN
LP-104	04/05/18	2	06.27.18	LANDSCAPE PLAN
LP-105	04/05/18	1	04.30.18	LANDSCAPE NOTES & DETAILS
LP-200	04/05/18	3	07.27.18	HARDSCAPE DETAILS
LP-201	04/05/18	2	06.27.18	HARDSCAPE IMAGES
LP-300	04/05/18	1	04.30.18	IRRIGATION PLAN
LP-301	04/05/18	---	---	IRRIGATION PLAN
LP-302	04/05/18	---	---	IRRIGATION PLAN
LP-303	04/05/18	---	---	IRRIGATION PLAN
LP-304	04/05/18	1	04.30.18	IRRIGATION PLAN
LP-305	04/05/18	3	07.27.18	IRRIGATION NOTES AND DETAILS
LP-306	04/05/18	---	---	IRRIGATION DETAILS
LP-307	04/05/18	---	---	IRRIGATION DETAILS
LP-308	04/05/18	---	---	IRRIGATION DETAILS

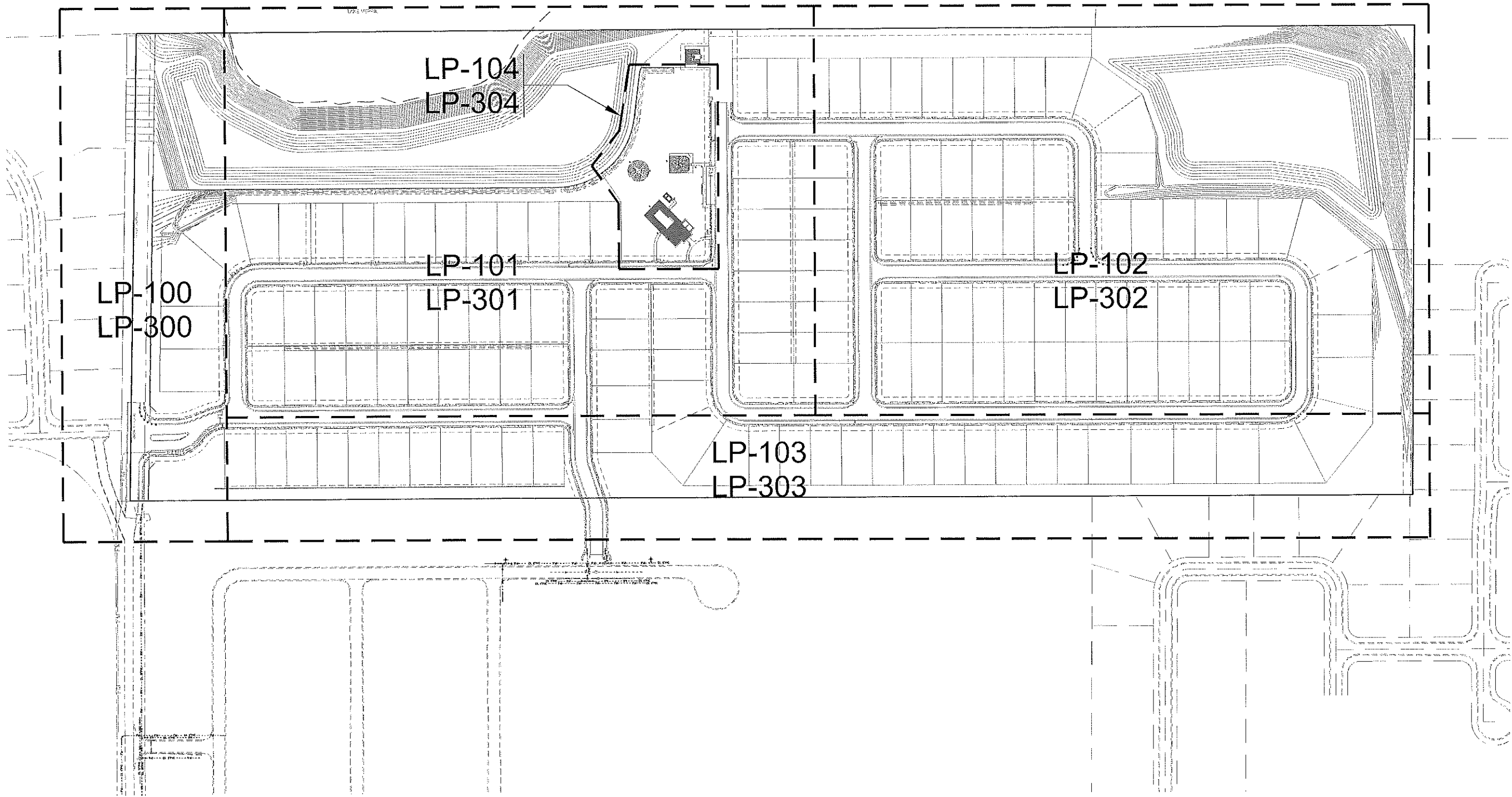


I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_



120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com



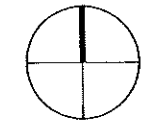
Key Plan table with multiple empty rows for notes or details.

VISTA RESERVE

CITY OF APOPKA, FL

KEY PLAN

Date: 04/05/18  
Scale: 1"=100'  
Drawn: CPB Checked: RRC  
File Name: SAMALPO01DWG



Sheet LP-001

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_







120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fostercconant.com



Sheet

VISTA RESERVE

CITY OF APOPKA, FL

TREE MITIGATION PLAN

Date: 04/03/18  
Scale: N/A  
Drawn: CFB  
Checked: RRC  
File Name: 581MALP004DWG

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE REG. NO. DATE

Sheet LP-004

POINT TABLE with columns for POINT NUMBER and DESCRIPTION. Contains entries from 680 to 1263.

Table with columns for POINT NUMBER and DESCRIPTION. Contains entries from 1264 to 1399.

Table with columns for POINT NUMBER and DESCRIPTION. Contains entries from 1400 to 1550.

Table with columns for POINT NUMBER and DESCRIPTION. Contains entries from 1551 to 1699.

Table with columns for POINT NUMBER and DESCRIPTION. Contains entries from 1700 to 1854.

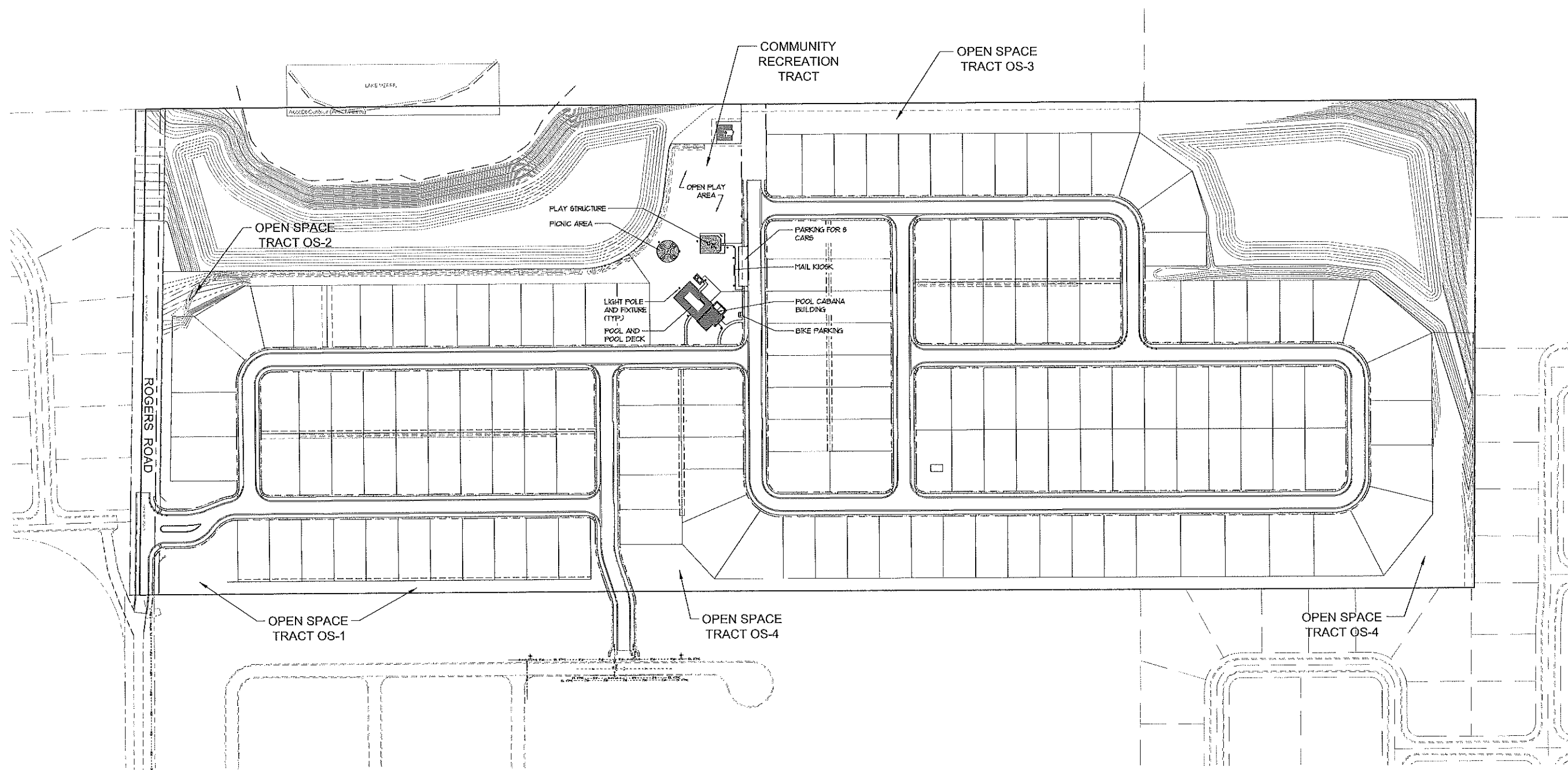
Table with columns for POINT NUMBER and DESCRIPTION. Contains entries from 1855 to 2008.

Table with columns for POINT NUMBER and DESCRIPTION. Contains entries from 2009 to 2129.

APPENDIX A - TREE MITIGATION PLAN  
FILE NAME: P:\PROJECTS\2018\581 MALP\004DWG.DWG  
DATE: 04/03/18  
TIME: 10:00 AM



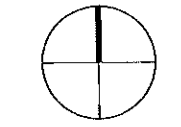
120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com



- △ 043018 - CITY CENTER (043330)
- △ 062718 - ADD MAIL KIOSK

VISTA RESERVE  
CITY OF APOPKA, FL  
RECREATION/OPEN SPACE PLAN

Date: 04/05/18  
Scale: 1"=100'  
Drawn: CPB Checked: RRC  
File Name: 51M1LP005.DWG



Sheet  
LP-005

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_





120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com

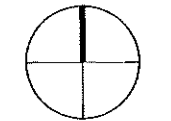
APPROVED BY CITY COMMISSIONERS (2-12-18)

VISTA RESERVE

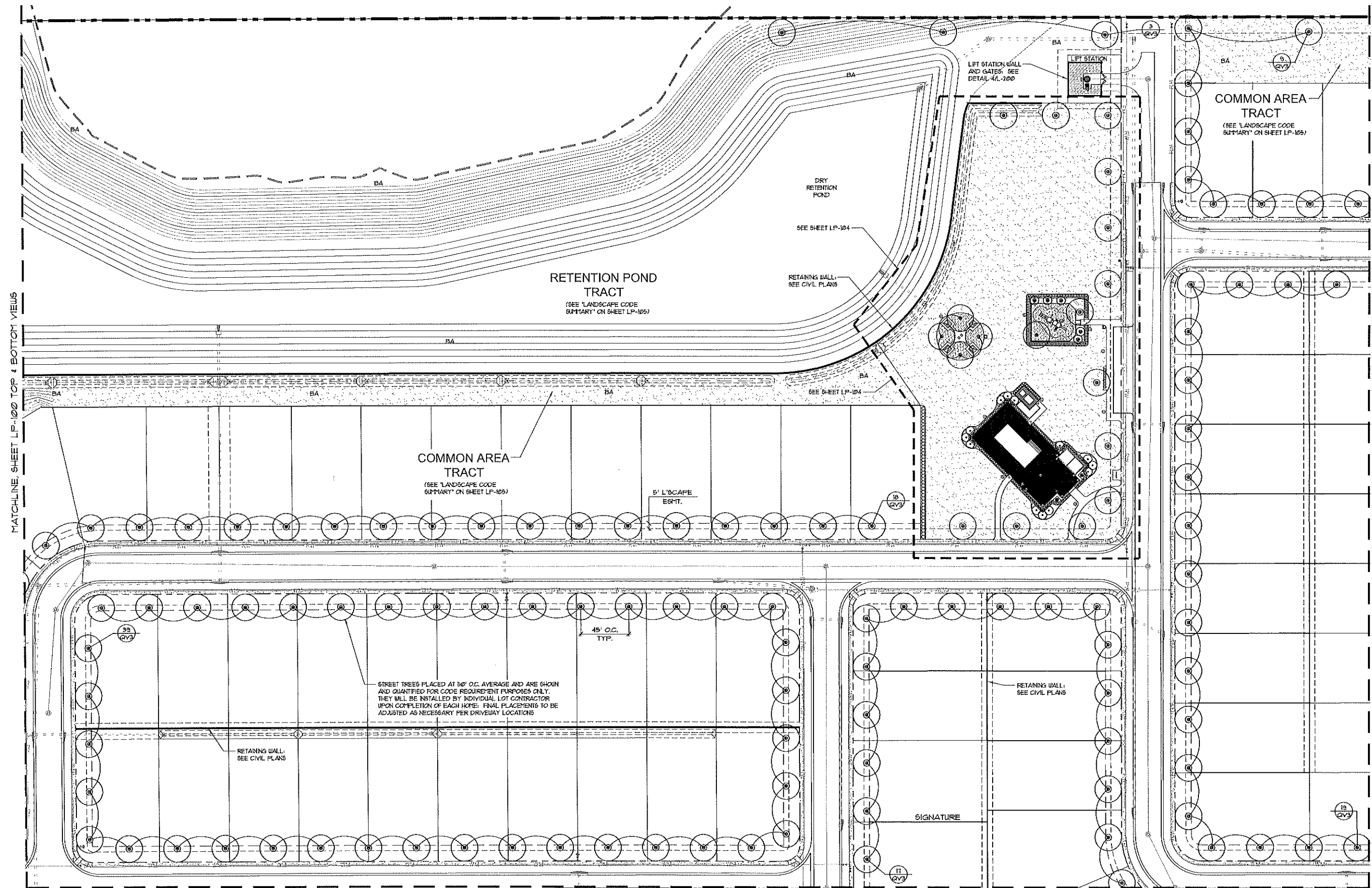
CITY OF APOPKA, FL

LANDSCAPE PLAN

Date: 04/05/18  
Scale: 1" = 40'  
Drawn: CPB Checked: RRC  
File No: 18AMALP101DUG  
North



Sheet  
**LP-101**



I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

224

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

DESIGN: C. BARNES  
 FILE NAME: 18AMALP101DUG  
 DATE: 04/05/18 11:17AM





120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com

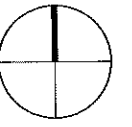


VISTA RESERVE

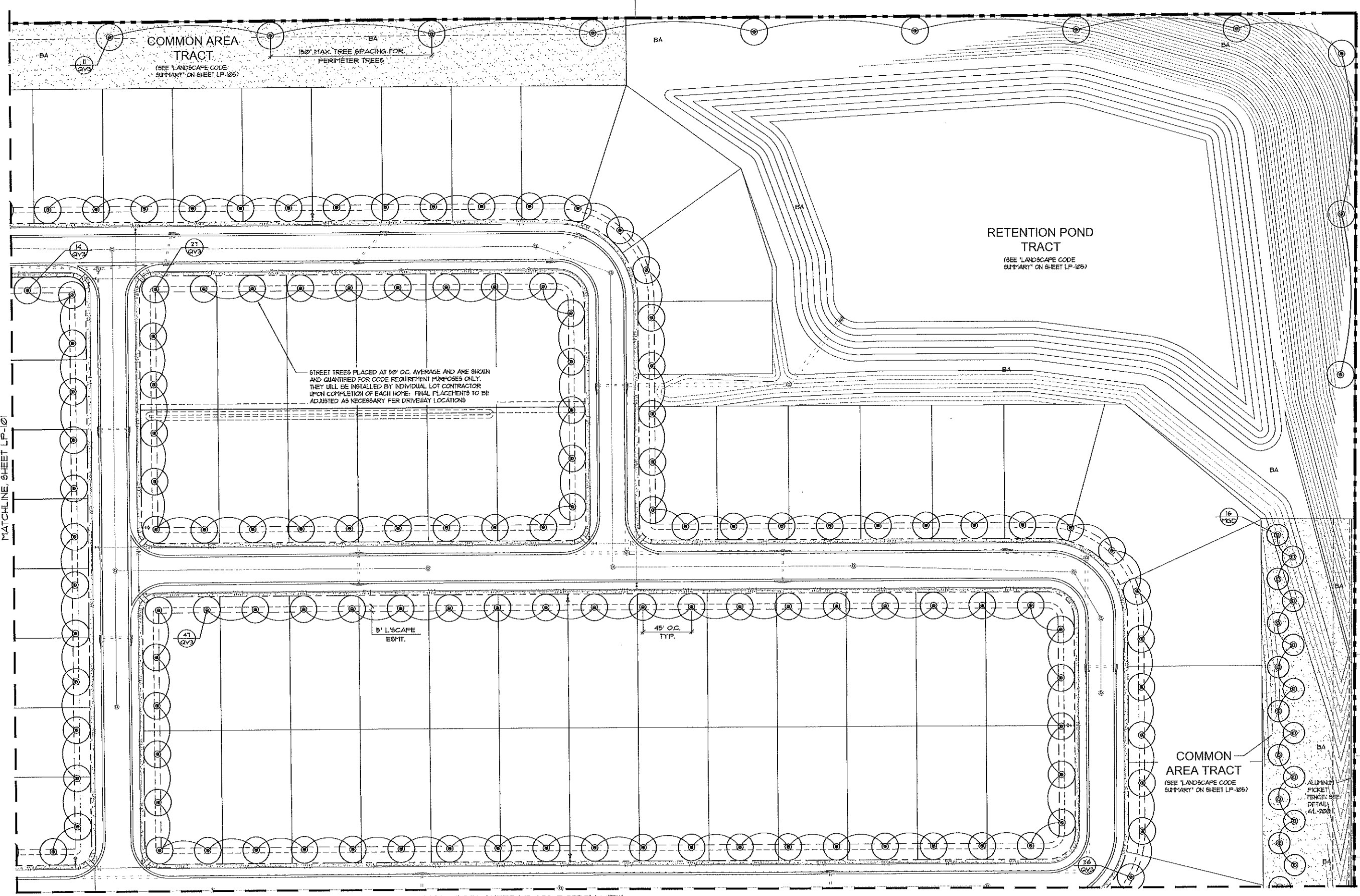
CITY OF APOPKA, FL

LANDSCAPE PLAN

Date: 04/05/13  
Scale: 1"=40'  
Drawn: CPB  
Checked: RRC  
File Name: 3A1ALP102.DWG



Sheet  
**LP-102**



MATCHLINE, SHEET LP-101

MATCHLINE, SHEET LP-103 BOTTOM VIEW

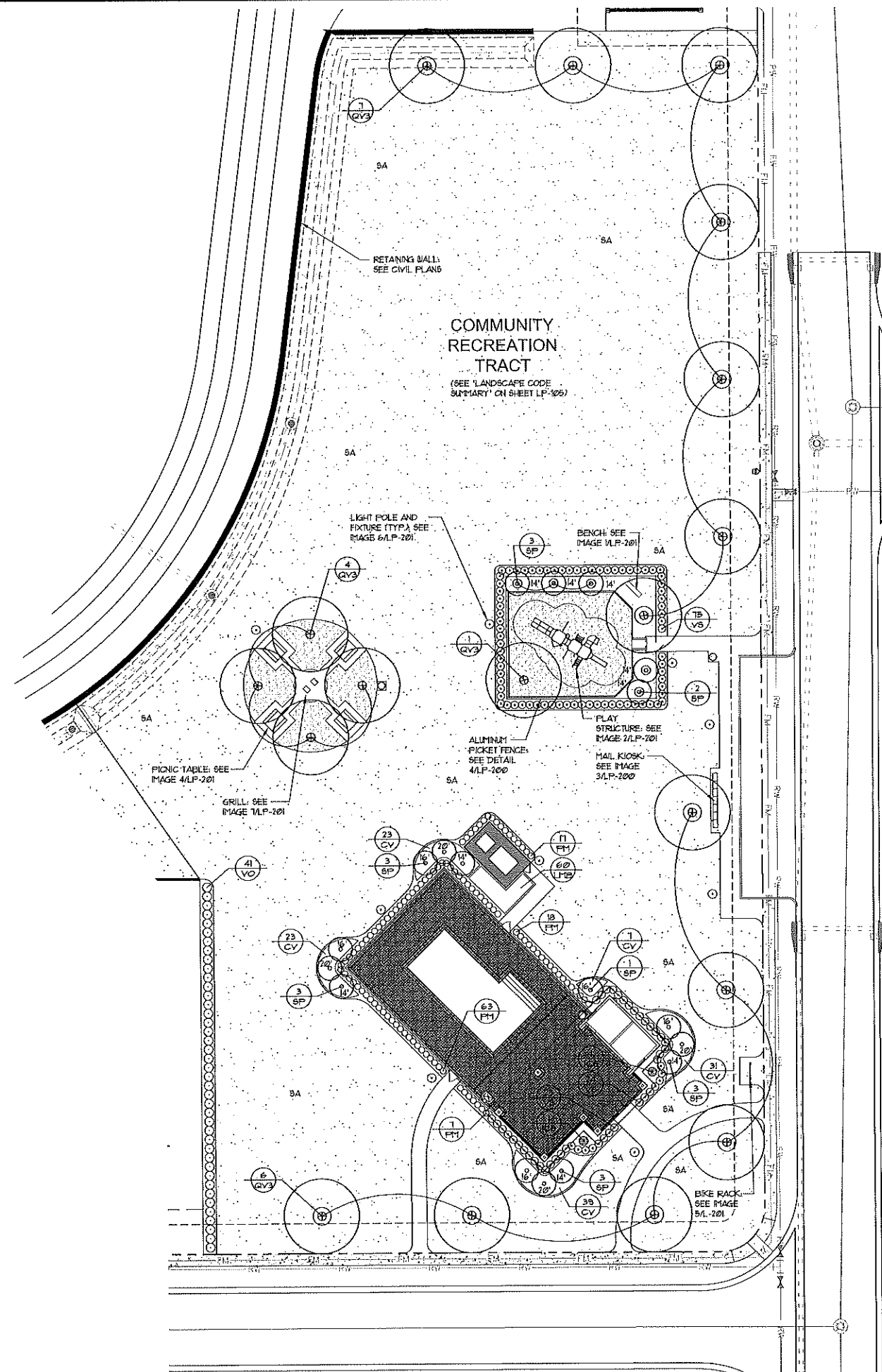
I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

225

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

USER: NW CHRISTOPHER  
DATE: 04/05/13 11:54 AM  
TIME: 28 JUN 2013 11:54 AM





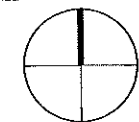
- △ 04303 - CITY COMMENTS (04338)
- △ 06318 - ADD MAIL KIOSK AREA

VISTA RESERVE

CITY OF APOPKA, FL

LANDSCAPE  
PLAN

Date: 04/05/13  
Scale: 1"=20'  
Drawn: CPB Checked: RRC  
File Name: SAMALP104.DWG  
User:



Sheet

**LP-104**

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2089 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

### CITY OF APOPKA CODE SUMMARY

REQUIREMENT	CODE REFERENCE	CALCULATION	REQUIRED	PROVIDED	SIZE
<b>ROGERS ROAD NORTH BUFFER TRACT</b>					
ONE CANOPY TREE PER 45' ALONG ROGERS ROAD R.O.W.	SEC. 5.01.06(G) OF APOPKA CODE OF ORDINANCES (ACOO)	778 L.F./45 = 17.3	17 CANOPY TREES	17 CANOPY TREES	MIN 2.5' DBH & 8' HT.
CONTINUOUS HEDGE ALONG ROGERS ROAD R.O.W.	SEC. 5.01.06(G) OF APOPKA CODE OF ORDINANCES (ACOO)	N/A	CONTINUOUS ALONG ROAD R.O.W.	CONTINUOUS ALONG ROAD R.O.W.	MIN 24" HT @ PLANTING & 36" O.C.
PROVIDE SCREEN WALL	SEC. 3.9 OF APOPKA DEVELOPMENT DESIGN GUIDELINES (ADOG)	N/A	CONTINUOUS ALONG ROAD R.O.W.	CONTINUOUS ALONG ROAD R.O.W.	MAX 6' HT. BRICK WALL
<b>ROGERS ROAD SOUTH BUFFER TRACT</b>					
ONE CANOPY TREE PER 25' ALONG ROGERS ROAD FRONTAGE R.O.W.	SEC. 2.02.1R(2)(1)(b) OF APOPKA CODE OF ORDINANCES (ACOO)	57 L.F./25 = 2.28	3 CANOPY TREES	3 CANOPY TREES	MIN 2.5' DBH & 8' HT.
CONTINUOUS HEDGE	SEC. 5.01.06(G) OF APOPKA CODE OF ORDINANCES (ACOO)	N/A	CONTINUOUS ALONG ROAD R.O.W.	CONTINUOUS ALONG ROAD R.O.W.	MIN 24" HT @ PLANTING & 36" O.C.
PROVIDE SCREEN WALL	SEC. 3.9 OF APOPKA DEVELOPMENT DESIGN GUIDELINES (ADOG)	N/A	CONTINUOUS ALONG ROAD R.O.W.	CONTINUOUS ALONG ROAD R.O.W.	MAX 6' HT. BRICK WALL
<b>OVERALL TREE REQUIREMENT</b>					
1 CANOPY TREE PER 8000 SQ. FT. OF SITE AREA	SEC. 5.01.06(A)	2,650,955 S.F./8000 = 332.62	333 CANOPY TREES	668 CANOPY TREES**	MIN 2.5' CAL. & 8' HT.
<b>PERIMETER TREE REQUIREMENT</b>					
1 CANOPY TREE PER 150 FT. OF SITE PERIMETER	SEC. 2.02.1R(2)(1)(b) OF APOPKA CODE OF ORDINANCES (ACOO)	6301 L.F./150 = 42.00	42 CANOPY TREES	80 CANOPY TREES	MIN 2.5' CAL. & 8' HT.
<b>COMMUNITY RECREATION TRACT</b>					
1 CANOPY TREE PER 4000 SQ. FT. OF TRACT AREA	SEC. 5.01.06(F) OF APOPKA CODE OF ORDINANCES (ACOO)	72,679 S.F./4000 = 18.16	18 CANOPY TREES	18 CANOPY TREES	MIN 2.5' CAL. & 8' HT.

\* Since a 6' wall is also being provided in this buffer, a 24" shrub height is being substituted for the normally required 36" high berm/hedge screen requirement  
 \*\* Prepared overall tree total consists of 249 canopy street trees, 111 canopy trees to be placed in common tract areas and 306 canopy trees at 2 trees per residential lot to be placed in single family lots.

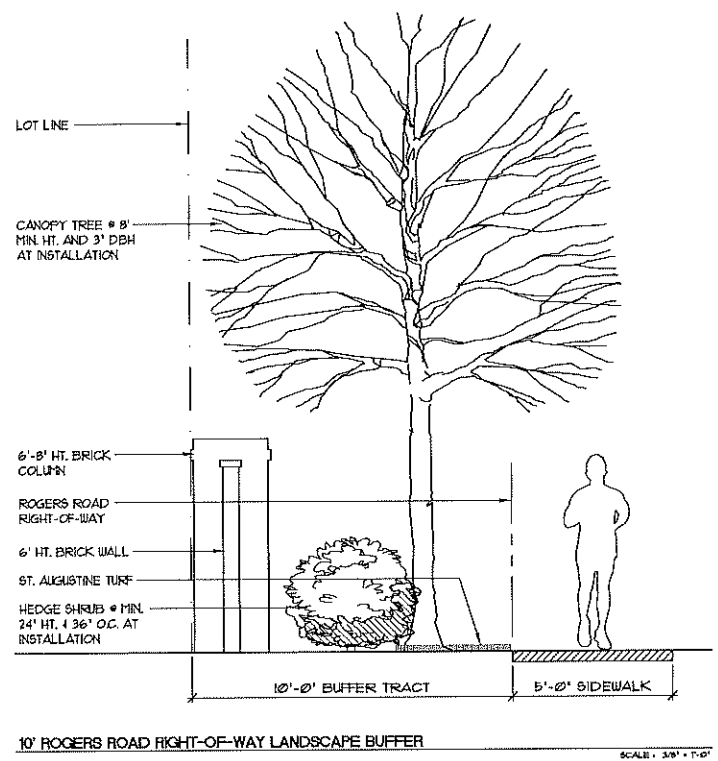
**NOTE:**  
 ALL SPECIFIED PLANTS IN THE PLANT LIST ARE 'FLORIDA FRIENDLY' AS LISTED IN THE FLORIDA FRIENDLY LANDSCAPING GUIDE AS PUBLISHED BY THE UNIVERSITY OF FLORIDA/FLORIDA EXTENSION SERVICE AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

### PLANT SCHEDULE

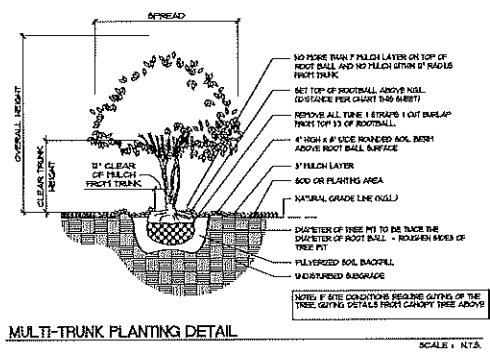
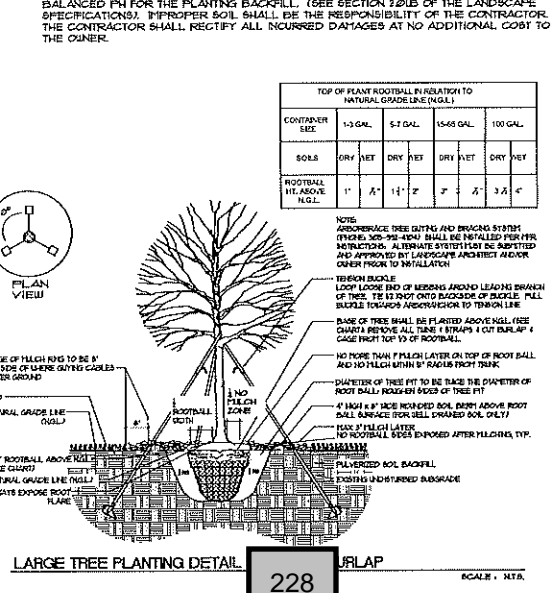
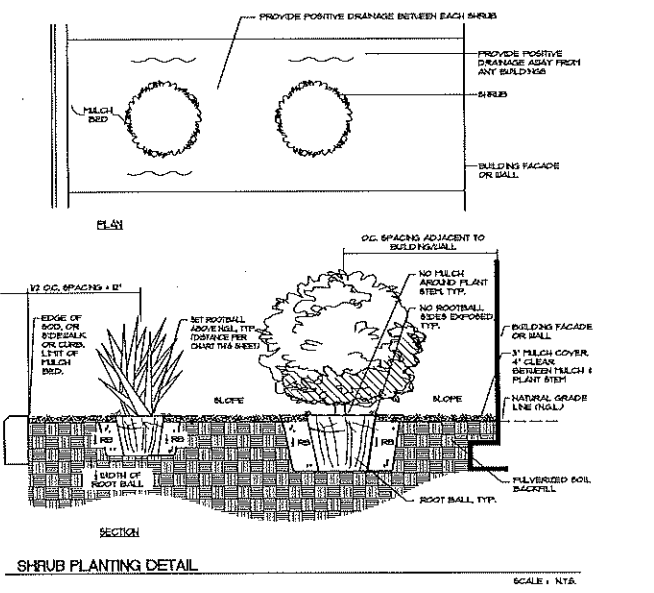
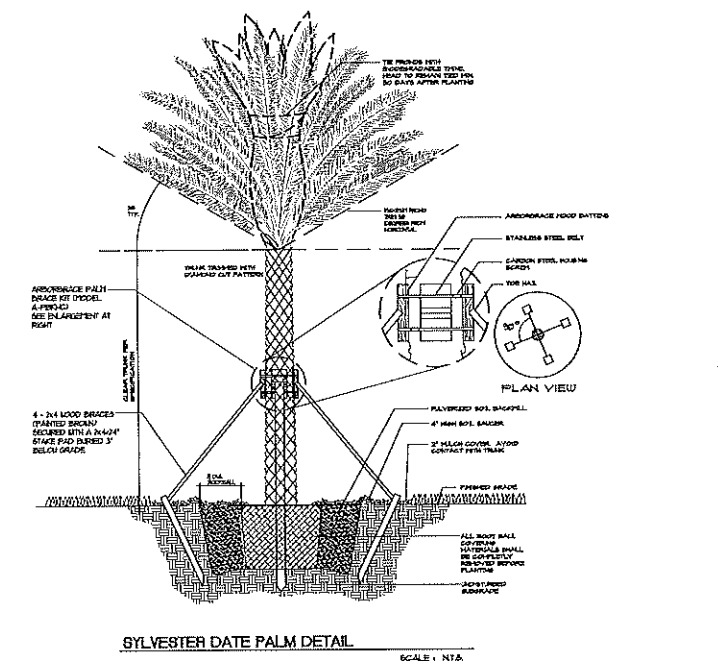
SYM	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATION	WATER USE	NATIVE
ED	8	ELEOCHARPUS DECIPENS	JAPANESE BLUEBERRY	MIN. 6' HT. & 3" MIN. CAL. FULL 3' C.T.	LOW	NO
LJ	2	LIGUSTRUM JAPONICUM	TREE LIGUSTRUM	MIN. 6' HT., FULL, MULTI-STEM	MEDIUM	NO
HGD	27	MAGNOLIA GRANDIFLORA 'D.D. BLANCHARD'	D.D. BLANCHARD MAGNOLIA	MIN. 6' HT. & 3" MIN. CAL., FULL, SYMMETRICAL FORM	MEDIUM	YES
QV3	359	QUERCUS VIRGINIANA	LIVE OAK	MIN. 6' HT. & 3" MIN. CAL., FULL, SYMMETRICAL FORM	LOW	YES
<b>PALMS</b>						
SYM	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATION	WATER USE	NATIVE
PS	3	PHOENIX SYLVESTRIS	SILVER DATE PALM	MIN. 10' C.T., DIAMOND-CUT TRUNK, SPECIMEN QUALITY	LOW	NO
SP	26	SABAL PALMETTO	CABBAGE PALM	REMOVE BOOTS, C.T. HT. AS NOTED ON PLANS, REGENERATED ROOTS	LOW	YES
<b>SHRUBS</b>						
SYM	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATION	WATER USE	NATIVE
CV	123	CALLISTEMON VIMINALIS 'LITTLE JOHN'	DIWARF BOTTLEBRUSH	3 GAL., 12"-14" HT. X 12"-14" SPRD, 24" O.C.	LOW	NO
DB	58	DIETES BICOLOR	YELLOW AFRICAN IRIS	1 GAL., 18"-24" HT., 3-4 PPP, 16" O.C.	MEDIUM	NO
ICS	2	LEX CRENATA 'SKY PENCIL'	SKY PENCIL HOLLY	3 GAL., 24"-28" HT. X 24"-28" SPRD, 30" O.C., FULL	MEDIUM	YES
LMB	60	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE BORDER GRASS	1 GAL., FULL IN POT, 18" O.C.	LOW	NO
MC	73	MILLENBERGIA CAPILLARIS	MIMLY GRASS	3 GAL., 24"-28" HT. X 24"-28" SPRD, 30" O.C., FULL	LOW	YES
PM	105	PODOCARPUS MACROPHYLLUS	YEW PODOCARPUS	3 GAL., 20"-24" HT. X 14"-18" SPRD, 24" O.C.	LOW	NO
RA	105	RHAPHOLEPIS INDIKA 'ALBA'	WHITE INDIAN HAWTHORN	3 GAL., 12"-14" HT. X 12"-14" SPRD, 24" O.C.	LOW	NO
VO	323	VIBURNUM ODORATISSIMUM	SWEET VIBURNUM	MIN. 24" HT., 3" O.C., FULL	MEDIUM	NO
VS	122	VIBURNUM SUSPENSUM	SANDWICKIA VIBURNUM	3 GAL., 18"-20" HT. X 16"-20" SPRD, 30" O.C., FULL	MEDIUM	NO
<b>GRASSES</b>						
SYM	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATION	WATER USE	NATIVE
BA	TBD	PASPALLUM NOTATUM 'ARGENTINE'	ARGENTINE BAMA	FULL, DENSE FOLIAGE, PEST AND DISEASE FREE	LOW	NO
SA	TBD	STENOTAPHRUM SECUNDATUM 'FLORATAM'	FLORATAM ST. AUGUSTINE	FULL, DENSE FOLIAGE, PEST AND DISEASE FREE	MEDIUM	NO

### GENERAL NOTES

- ALL UNPAVED AREAS NOT DESIGNATED AS A LANDSCAPE SHRUB BED SHALL BE COVERED WITH 60# AS INDICATED ON PLANS.
- ALL SHRUBS SHALL BE PLANTED 1-1/2' AND TREES AT HEIGHT SPECIFIED IN TREE PLANTING DETAIL ABOVE GRADE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER PLANT HEALTH IN ON-SITE SOILS.
- NEWLY INSTALLED TREES SHALL HAVE THEIR CALIPER MEASURED AT DIAMETER BREST HEIGHT (DBH) PER CITY OF APOPKA CODE.
- ALL PLANT MATERIAL SHALL MEET OR EXCEED THE GRADE STANDARDS OF FLORIDA NO. 1 AS PROVIDED IN 'GRADES AND STANDARDS FOR NURSERY PLANTS' (LATEST EDITION), STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE, AND ANY AMENDMENTS THERETO.
- THE LANDSCAPE ARCHITECT MAY REJECT ANY PLANT MATERIAL BROUGHT TO THE SITE WHICH HE DEEMES TO BE OF INFERIOR QUALITY, DOES NOT MEET FLORIDA NO. 1 GRADE OR THAT DOES NOT MEET SPECIFIED SIZE.
- ALL PLANT BEDS AND DESIGNATED 'MULCH' AREAS SHALL BE TOP-DRESSED WITH A MINIMUM OF 3" PINE BARK 'MINI-NUGGETS' MULCH.
- ALL TREES SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL INSPECTION.
- ALL TREES SHALL HAVE ALL SYNTHETIC BURLAP REMOVED FROM THE ENTIRE ROOT BALL. THE TOP THREE ROWS OF SQUARES ON ALL CAGES AROUND THE ROOT BALLS SHALL BE CLIPPED OFF AND REMOVED.
- THE CONTRACTOR SHALL READ AND ADHERE TO ALL WRITTEN SPECIFICATIONS.
- THE CONTRACTOR SHALL SUBMIT UNIT PRICES FOR ALL BID ITEMS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO LANDSCAPE INSTALLATION.
- THE CONTRACTOR SHALL VISUALLY INSPECT THE SOILS CONDITION OF THE SITE. HE SHALL DIG A MINIMUM OF 10 TEST HOLES 3 FEET DEEP RANDOMLY AROUND THE SITE. HE SHALL PERFORM PERCOLATION TESTS IN THESE HOLES FOR A PERIOD OF ONE HOUR EACH. THE HOLES SHALL BE FILLED WITH WATER AND IF THE HOLES HOLD MORE THAN 6" OF WATER AFTER ONE HOUR, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF THE PROBLEM. THE CONTRACTOR SHALL RECOMMEND SUBSTITUTIONS OF PLANT MATERIAL AND PLANTING INSTALLATION TO ACCOMMODATE POOR DRAINING SOILS.
- THE CONTRACTOR SHALL PROVIDE A SOIL TEST IN 4 LOCATIONS AND PROVIDE RECOMMENDATIONS FOR AMENDMENTS BASED ON THE RESULTS IN ORDER TO ACHIEVE A BALANCED PH FOR THE PLANTING BACKFILL. (SEE SECTION 5.01 OF THE LANDSCAPE SPECIFICATIONS). IMPROPER SOIL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL RECTIFY ALL INCURRED DAMAGES AT NO ADDITIONAL COST TO THE OWNER.
- SUCCESSFUL BIDDER SHALL LOOK UP ALL MATERIALS IMMEDIATELY AFTER CONTRACT ASSIGNMENT. PLANTS SHALL BE HELD DURING THE PERIOD FROM CONTRACT TO INSTALLATION TO ALLOW FOR ADDITIONAL GROWTH. ALL PLANTS WILL BE REQUIRED TO BE FULL AND HEALTHY. CONTRACTOR SHALL ARRANGE FOR PLANT APPROVAL PRIOR TO DELIVERY EITHER BY SAMPLES, PHOTOS OR NURSERY VISITS.
- THE CONTRACTOR SHALL REVIEW THE SOILS REPORT ON FILE WITH THE OWNER.
- THE INSTALLATION OF PLANT MATERIAL SHALL BE VIEWED AS ACCEPTANCE BY THE CONTRACTOR OF EXISTING GRADES AS GIVEN TO HIM.
- THE CONTRACTOR SHALL PROVIDE TO THE LANDSCAPE ARCHITECT A WRITTEN LETTER OF ACCEPTABILITY OF GRADES. FAILURE TO DO SO WILL BE VIEWED AS AN ACCEPTANCE OF EXISTING GRADES BY THE CONTRACTOR.
- IN THE EVENT OF A VARIATION BETWEEN THE PLANT LIST AND THE ACTUAL QUANTITY OF PLANTS SHOWN ON THE PLAN DRAWINGS, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING A QUANTITY COUNT AS A CHECK FOR DISCREPANCIES.
- WHERE LIGHT POLES AND TREES OR STREET SIGNS AND TREES OCCUR IN PROXIMITY TO EACH OTHER, A MINIMUM SEPARATION OF 10 FEET SHALL BE MAINTAINED.
- THE CONTRACTOR WILL BE REQUIRED TO SAND AREAS OF SOIL THAT ARE NOT SMOOTHLY APPLIED TO ELIMINATE SMALL IRREGULARITIES IN GRADES. LARGE GRADE IRREGULARITIES WILL REQUIRE REGRADING AND RESEEDING.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE SITE INCLUDING ALL MOWING, EDGING, TRIMMING, PRUNING AND SPRAYING OF PESTICIDES AND FUNGICIDES UNTIL THE TIME OF FINAL ACCEPTANCE BY THE OWNER. IF PROJECT IS INSTALLED IN PHASES, OWNER WILL PROVIDE PHASING INFORMATION AT TIME OF BIDDING PROCESS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING THE LANDSCAPE ARCHITECT'S APPROVAL OF ALL PLANT BED LAYOUTS AND TREE LOCATIONS PRIOR TO INSTALLATION. IF PLANT MATERIAL IS INSTALLED PRIOR TO LANDSCAPE ARCHITECT'S APPROVAL, CONTRACTOR WILL BE SUBJECT TO RELOCATING THE MATERIAL AT THE LANDSCAPE ARCHITECT'S REQUEST AND AT THE CONTRACTOR'S OWN EXPENSE.
- PRIOR TO THE REMOVAL OF ANY TREES, THE TREES TO BE RETAINED SHALL HAVE PROTECTIVE TREE BARRIERS PER THE TREE PROTECTION DETAIL.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE NORMAL HIGH WATER ELEVATION OF THE RETENTION POND(S) WITH THE CIVIL ENGINEER PRIOR TO PLANTING ANY SPECIFIED TREES OR LITTORAL PLANTINGS IN THE IMMEDIATE POND VICINITY. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IF THE NORMAL HIGH WATER ELEVATION IS NOT AS SHOWN ON THE LANDSCAPE PLANS SO THAT PROPER REVISIONS CAN BE MADE.
- CONTRACTOR IS EXPECTED TO CARRY OUT ALL RESPONSIBILITIES AS SET FORTH IN THESE LANDSCAPE NOTES AND IN THE LANDSCAPE SPECIFICATIONS. THEY WILL BE STRICTLY ENFORCED BY THE OWNER/LANDSCAPE ARCHITECT.



10' ROGERS ROAD RIGHT-OF-WAY LANDSCAPE BUFFER  
 SCALE: 1/8" = 1'-0"



I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

**FOSTER CONANT & ASSOCIATES**  
 120 West Robinson Street  
 Orlando, Florida 32801-1617  
 Phone (407) 648-2225  
 www.fosterconant.com

043038 - CITY COMMENTS (6/13/18)

VISTA RESERVE

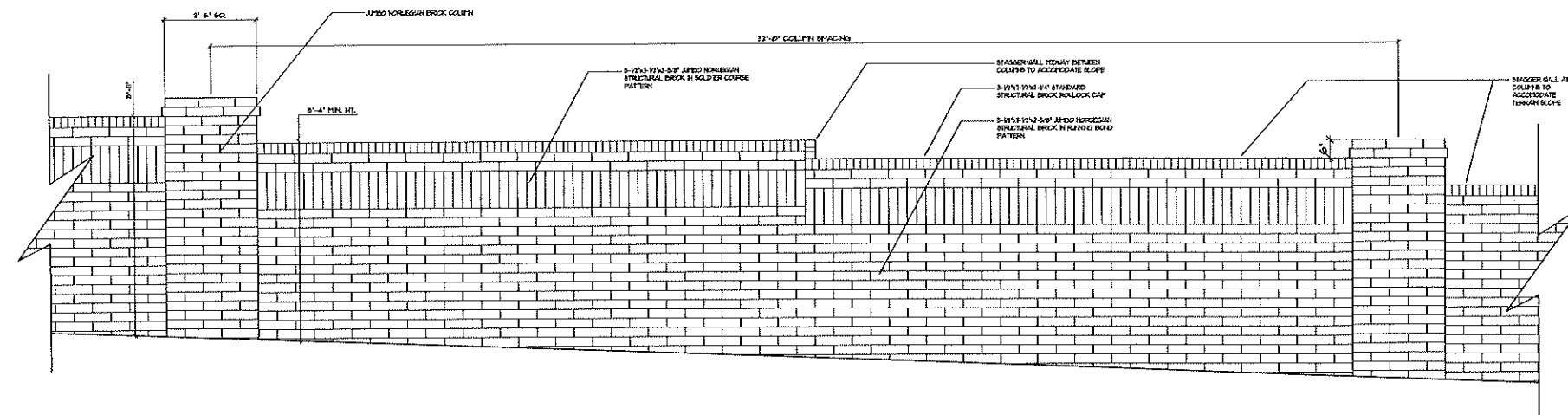
CITY OF APOPKA, FL  
 LANDSCAPE NOTES & DETAILS

Date: 04/05/18  
 Ssk: AS NOTED  
 Dwn: CFB, Dated: RRC  
 File Name: 3AMALP105.DWG  
 Nth:

Sheet: LP-105

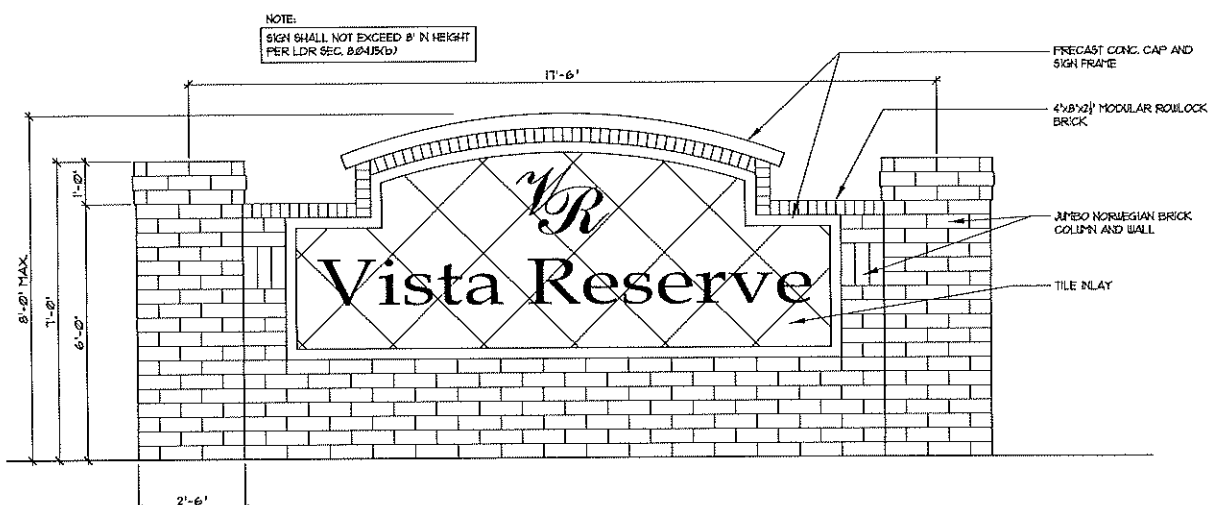
SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

DESIGN: CHERIE BRADSHAW  
 USER: MARIANNE BRADSHAW  
 PLOT: 04/05/18 10:51 AM  
 PLOT: 04/05/18 10:51 AM



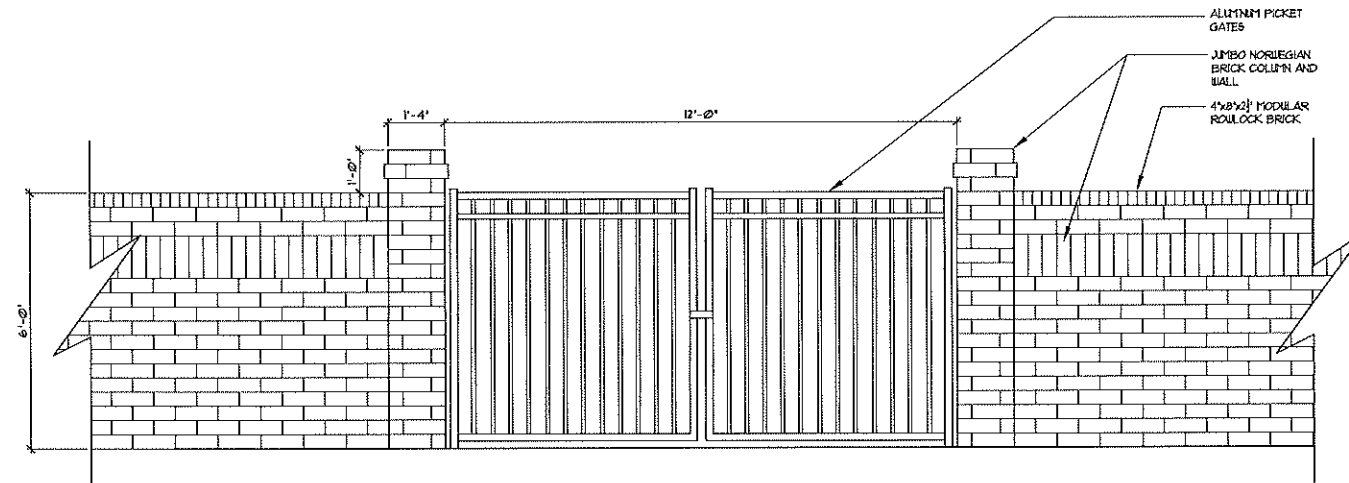
1 BUFFER WALL ELEVATION

SCALE: 1/2" = 1'-0"



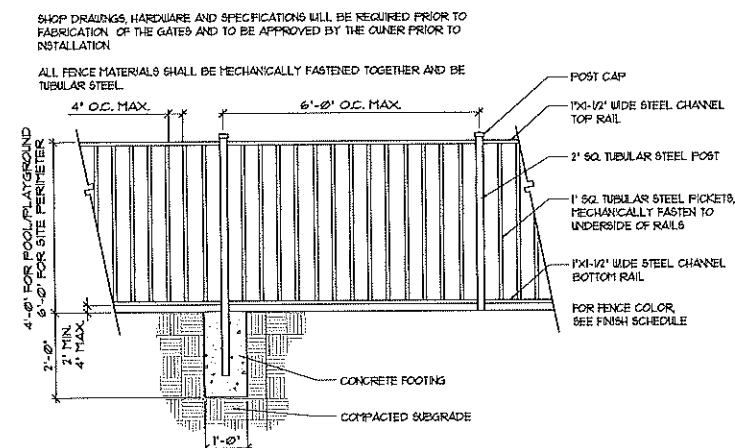
2 SIGN WALL ELEVATION

SCALE: 1/2" = 1'-0"



3 LIFT STATION WALL AND GATE ELEVATION

SCALE: 1/2" = 1'-0"



4 PLAYGROUND/SITE PERIMETER PICKET FENCE

SCALE: 1/2" = 1'-0"

APPROVED - CITY COMMENTS (04/18/18)  
APPROVED - CITY COMMENTS (07/16/18)

VISTA RESERVE

CITY OF APOPKA, FL.

HARDSCAPE  
DETAILS

Date: 04/05/18  
Scale: AS NOTED  
Drawn: CFB  
Checked: RRC  
File Name: E:\MHP\2018\04\18\LP-200.dwg  
User:

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

Sheet  
LP-200





120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 649-2225  
www.fosterconant.com

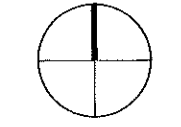
△ Inset  
△ 64309 - CITY CONNECTION (64339)

VISTA RESERVE

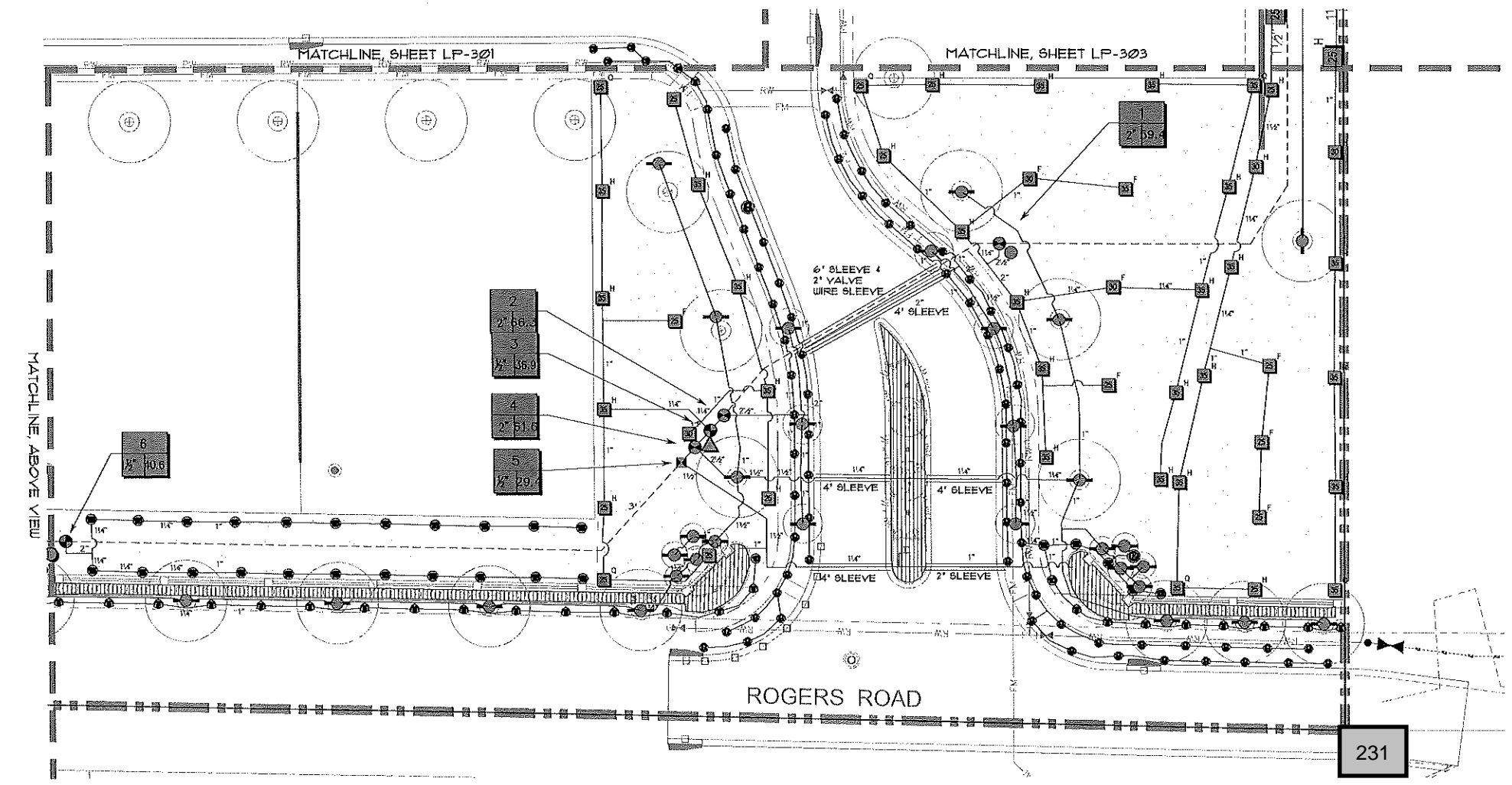
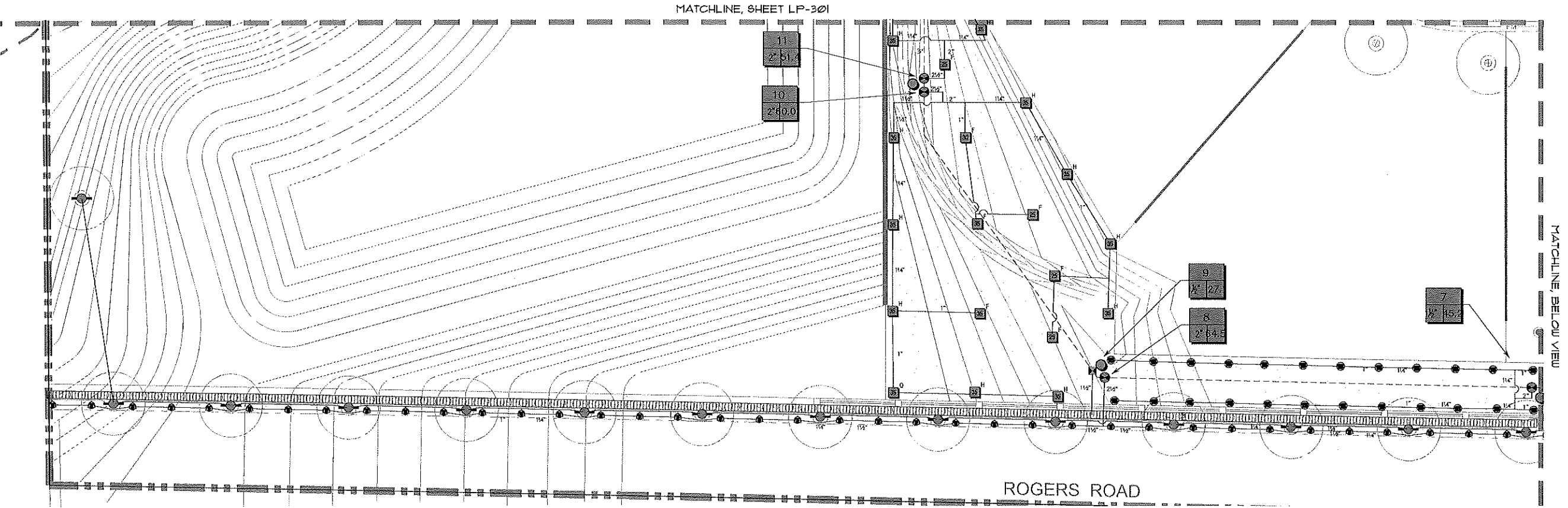
CITY OF APOPKA, FL

IRRIGATION PLAN

DATE: 04/05/18  
SCALE: 1"=20'  
DRAWN: CFB, Checked: RRC  
IN CHARGE: SAMALP300DIUG  
REV:



Sheet  
**LP-300**



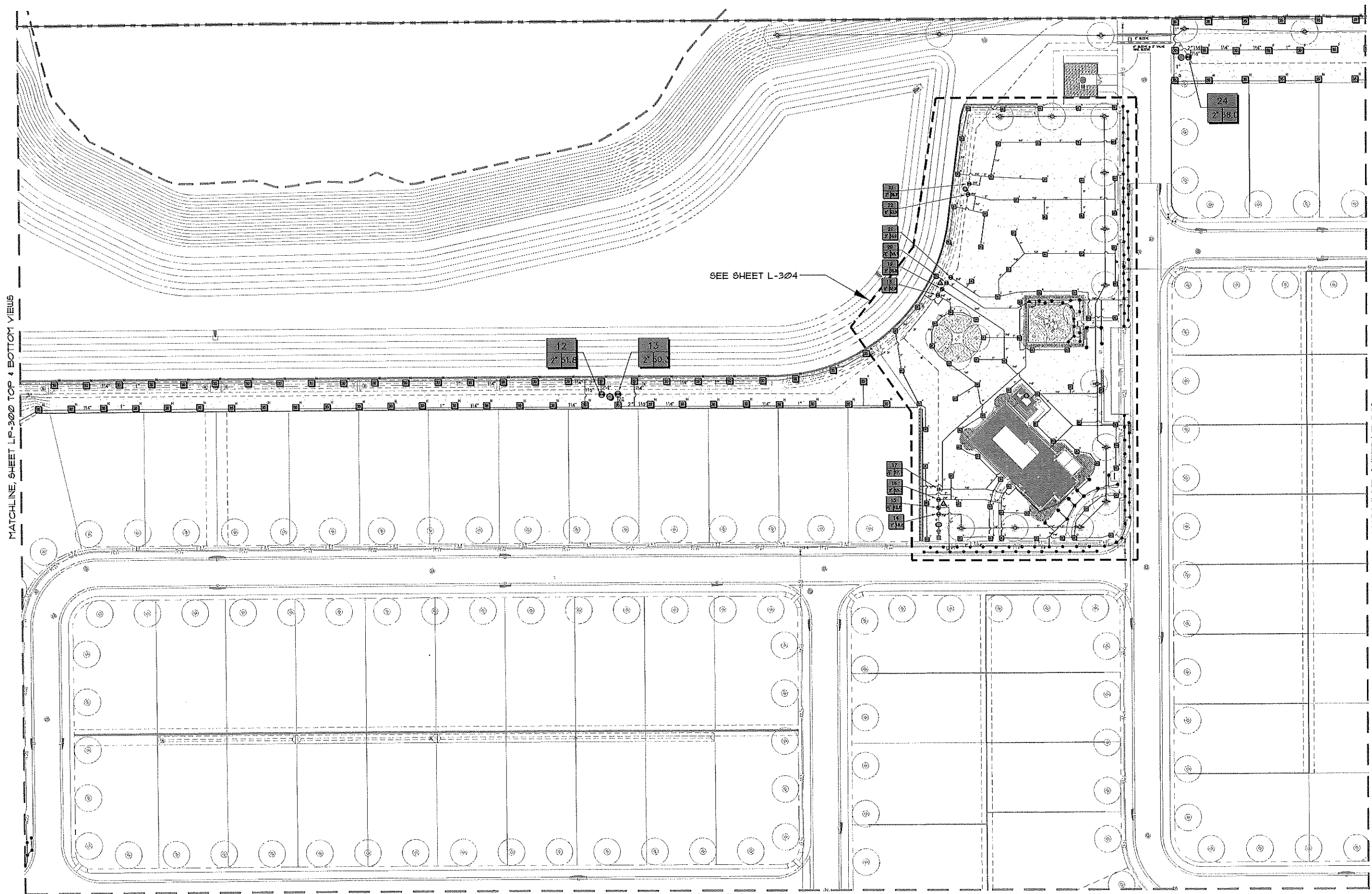
I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

USER: CFB  
 FILE NAME: F:\P\18 - SANTA MARINA\PP\DIUG\LP300.DWG  
 TIME: 27 JUN 2018 - 3:51 PM



120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com



SEE SHEET L-304

MATCHLINE, SHEET LP-300 TOP & BOTTOM VIEWS

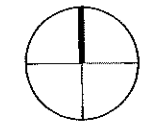
MATCHLINE, SHEET LP-302

MATCHLINE, SHEET LP-303 TOP VIEW

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

VISTA RESERVE  
CITY OF APOPKA, FL  
IRRIGATION PLAN

Date: 04/05/18  
Scale: 1"=40'  
Drawn: CPB Checked: RRC  
File No: 5AMALP301DWG



I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

232

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

LP-301

USER: PCHERRY003  
FILE NAME: F:\0117 - SANTA MARINA\IP\0117\DWG  
DATE: 04/05/18 10:25:04

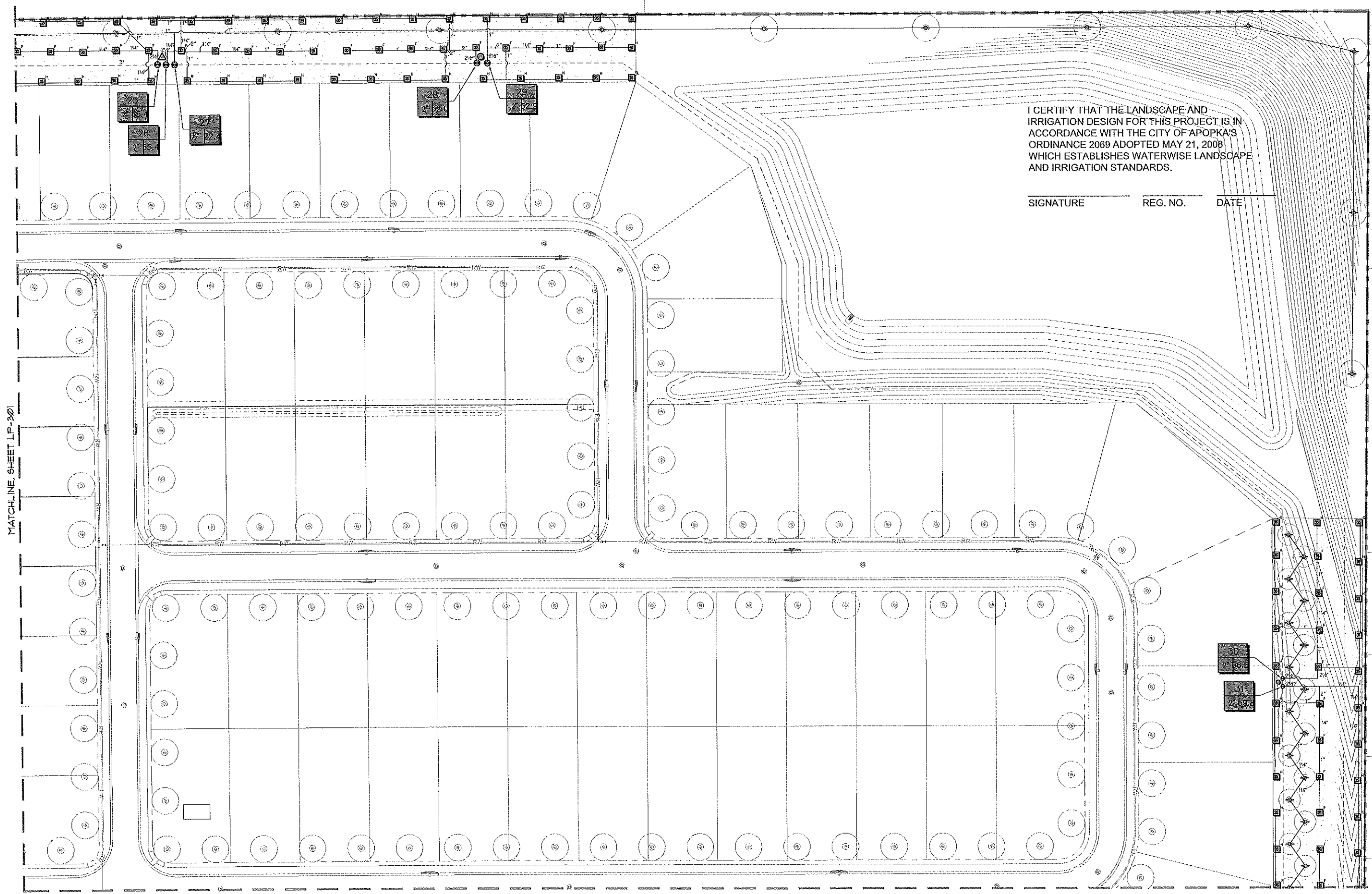




120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_



MATCHLINE, SHEET LP-301

MATCHLINE, SHEET LP-303 BOTTOM VIEW

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

233

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

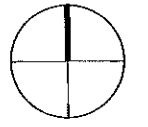
Table with 2 columns: Description, Quantity. Contains 10 rows of empty space for notes or quantities.

VISTA RESERVE

CITY OF APOPKA, FL

IRRIGATION PLAN

Date: 04/05/18  
Scale: 1" = 40'  
Drawn: CPB Checked: RRC  
File Name: SAMALP302.DWG  
Num: \_\_\_\_\_



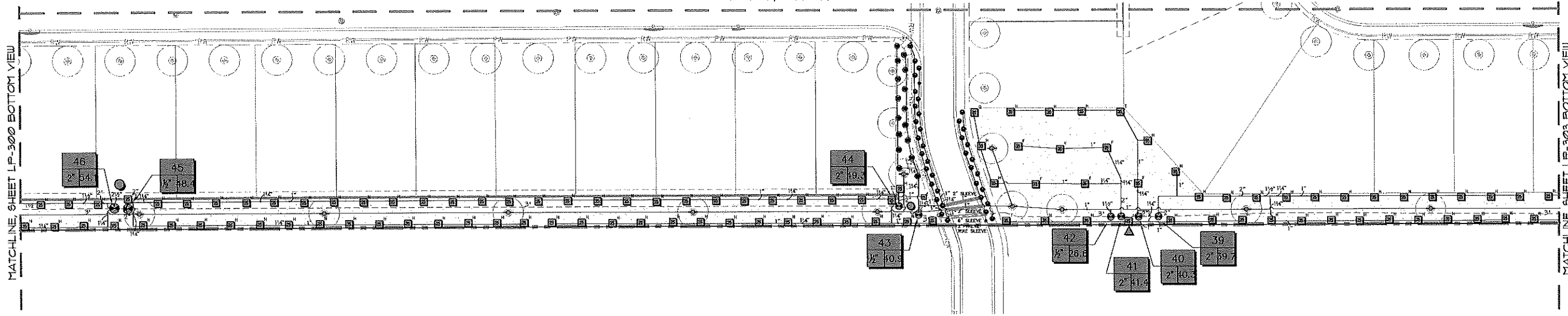
Sheet LP-302

USER: PINE CHRISTOPHER  
DATE: 04/05/18  
TIME: 2:14:30 PM

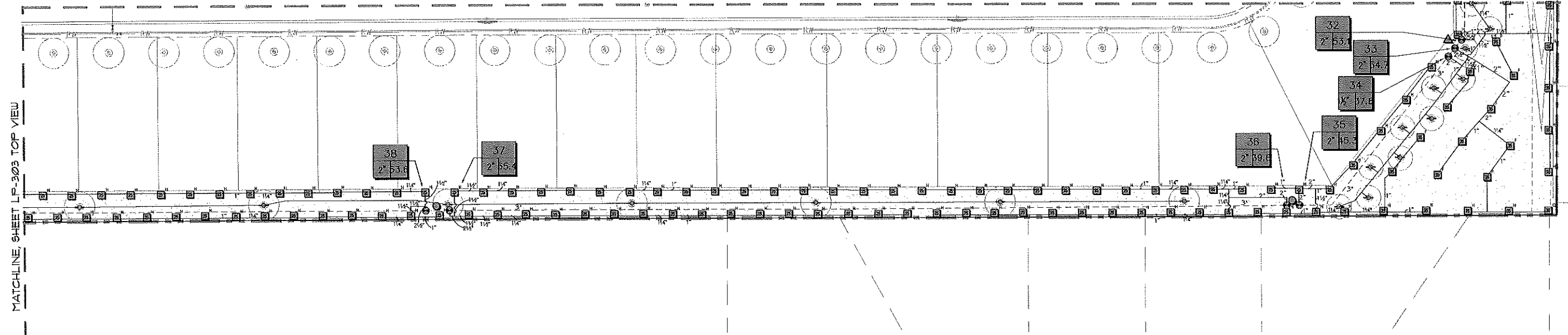


120 West Robberson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com

MATCHLINE, SHEET LP-301



MATCHLINE, SHEET LP-302



SOUTH PROPERTY BOUNDARY COMMON AREA TRACTS

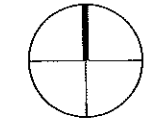
SCALE: 1"=40'

VISTA RESERVE

CITY OF APOPKA, FL

IRRIGATION PLAN

Date 04/05/18  
Scale 1"=40'  
Drawn CPB Checked RRC  
File Name SAMALP303.DWG  
Sheet



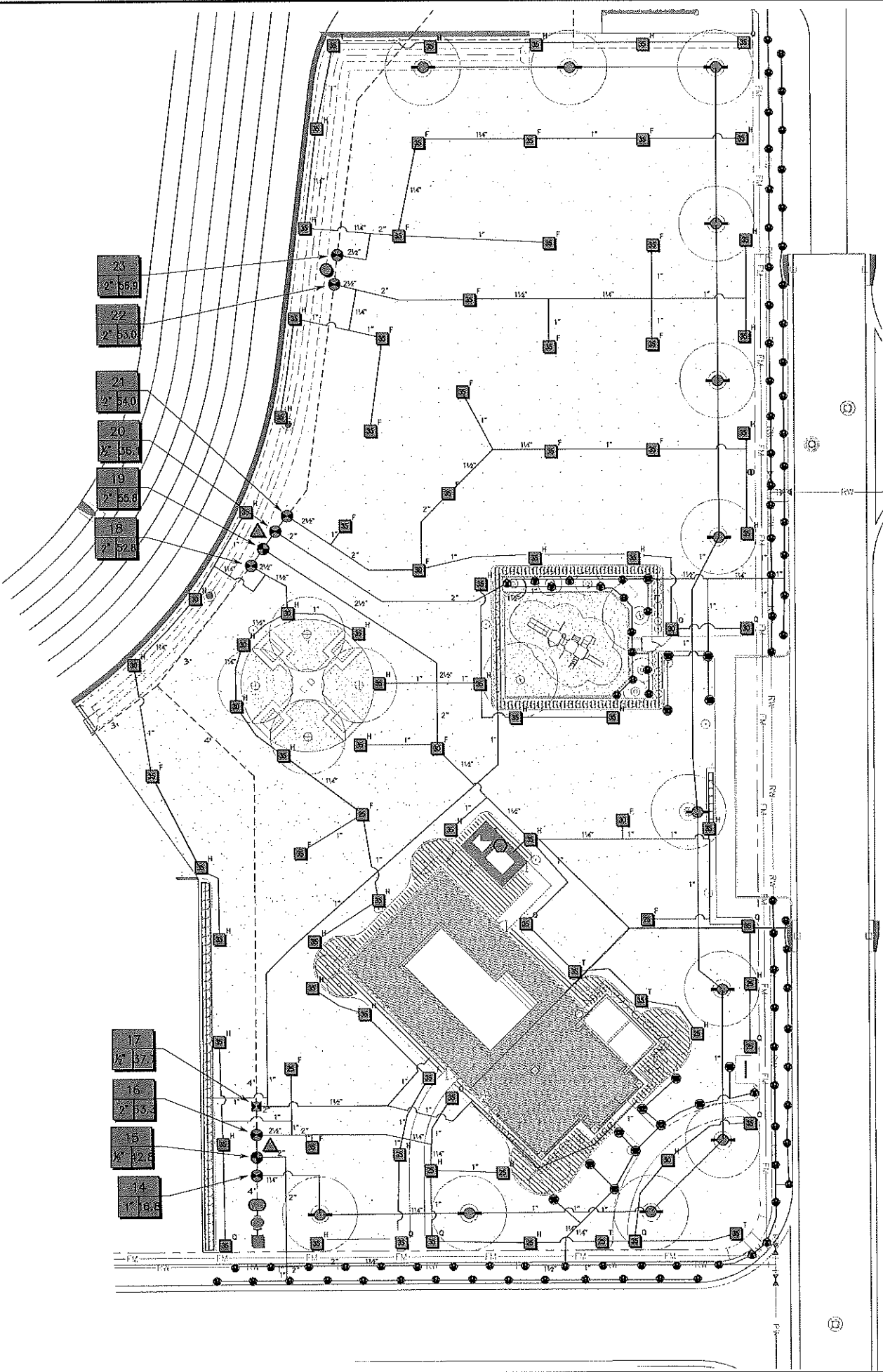
Sheet LP-303

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE REG. NO. DATE



120 West Robinson Street  
Orlando, Florida 32801-1617  
Phone (407) 648-2225  
www.fosterconant.com



- 23  
2' 58.9
- 22  
2' 53.0
- 21  
2' 54.0
- 20  
2' 56.4
- 19  
2' 55.8
- 18  
2' 52.8

- 17  
2' 57.4
- 16  
2' 53.3
- 15  
2' 52.8
- 14  
2' 56.8

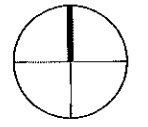
Revisions
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

VISTA RESERVE

CITY OF APOPKA, FL

IRRIGATION PLAN

Date: 04/05/18  
Scale: 1"=20'  
Drawn: CPB  
Checked: RRC  
File Name: 5AMALP304.DWG  
Sheet:



Sheet  
LP-304

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

235

USER: NWC, CHIEF: NWC, DATE: 04/05/18, TIME: 10:11:35 AM, PROJECT: 5AMALP304.DWG

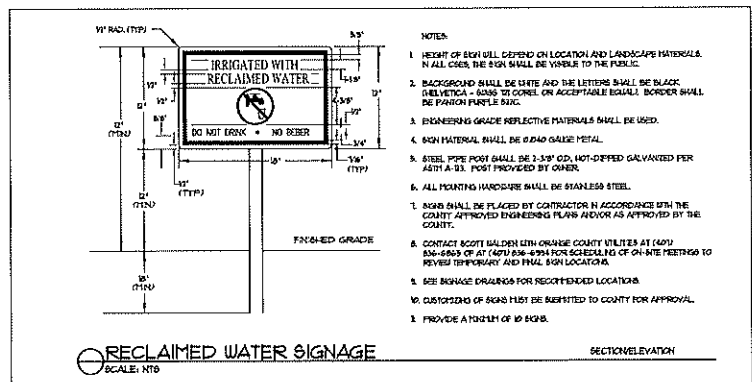


120 West Robinson Street
Orlando, Florida 32801-1617
Phone (407) 648-2225
www.foherconant.com

AP0303 - CITY COMMENTS (04/23/18)
AP1216 - CITY COMMENTS (07/16/18)

GENERAL NOTES

- 1) REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREE AND SHRUB LOCATIONS.
2) ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER AND ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
3) ALL POP-UP ROTOR AND SPRAY HEADS SHALL BE INSTALLED USING AN 8" PVC FLEX PIPE CONNECTION. CONTRACTOR SHALL NOT USE RUNNY PIPE.
4) PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. THE SMALLEST LATERAL PIPE SIZE TO A SINGLE SPRAY OR ROTOR HEAD SHALL BE 3/4".
5) ALL REMOTE CONTROL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES.
6) THE EXACT HEIGHT OF ANY 12" POP-UP THAT IS SHOWN IN A SHRUB BED SHALL BE DETERMINED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
7) CONTROL WIRE SHALL BE 7-WIRE AS SPECIFIED FOR USE WITH RAINEIRD LXD CONTROLLER BY MANUFACTURER. NO CROSS CONNECTION BETWEEN CONTROLLERS SHALL BE ALLOWED. WIRE SPLICES SHALL BE MADE ONLY IN VALVE BOXES USING RAINEIRD 'DBYR-6' CONNECTORS.
8) ANY PIPING OR VALVES SHOWN OUTSIDE THE PROPERTY LINE OR OUTSIDE OF A LANDSCAPE AREA IS SHOWN THERE FOR DESIGN CLARITY ONLY. ALL PIPING AND VALVES SHALL BE INSTALLED ON THE PROPERTY AND WITHIN LANDSCAPE AREAS.
9) IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH, AND EXERCISE CARE SO AS TO NOT DAMAGE ANY EXISTING BERMS, WALLS, STRUCTURES, PLANT MATERIALS AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIR OR REPLACEMENT OF ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF SLEEVES AND PIPING THROUGH WALLS, UNDER ROADWAYS AND PAVING, ETC.
10) DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS.
11) FINAL LOCATION OF THE AUTOMATIC CONTROLLER(S) SHALL BE APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION.
12) ELECTRICAL SERVICE TO ALL EQUIPMENT SHALL BE PROVIDED TO A JUNCTION BOX AT THE EQUIPMENT LOCATION (BY OTHERS, NOT A PART OF THIS CONTRACT) THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL CONNECTION FROM THE JUNCTION BOX TO ALL EQUIPMENT.
13) THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES TO REMOVE OBSTRUCTION WITH MANUAL OVERSPRAY ONTO WALKS, STREETS, WALLS, ETC. IN ORDER TO ACCOMPLISH THIS, THE CONTRACTOR MAY SUBSTITUTE VARIABLE ARC NOZZLES IN PLACE OF THE SPECIFIED FIXED ARC NOZZLES WHERE NECESSARY. PRESSURE COMPENSATING SCREENS MAY ALSO BE USED TO REDUCE SPRAY DISTANCE.
14) THE CONTRACTOR SHALL COMPLETE ALL WORK IN ACCORDANCE WITH ALL PREVAILING LAWS, CODES AND REGULATIONS.
15) ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
16) THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING ON A REPRODUCIBLE MYLAR SHOWING ALL IRRIGATION INSTALLATION. A MYLAR OF THE ORIGINAL PLAN MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT FOR A FEE. THE AS-BUILT DRAWING SHALL LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES.
17) ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.
18) SLEEVES SHALL BE PLACED UNDER PAVEMENT AS SHOWN ON PLANS AND SHALL BE A MINIMUM OF 2X THE SIZE OF THE IRRIGATION PIPE.
19) ALL SPRAY HEADS IN THE ROW SHALL BE EITHER 6" OR 12" POP-UP AS INDICATED ON THE PLANS. NO RISERS SHALL BE USED ON SITE PER OSCEOLA COUNTY CODE.
20) ALL EQUIPMENT SHALL BE PURPLE IN COLOR AS REQUIRED BY OSCEOLA COUNTY CODE INDICATING THE USE OF RECLAIM WATER FOR THE IRRIGATION SYSTEM.
20) CONTRACTOR SHALL PERFORM PRESSURE AND VOLUME TEST ON IRRIGATION WATER SOURCE OVER A CONTINUOUS 24 HOUR PERIOD PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORK. SHOULD THE AVAILABLE SUPPLY NOT BE ADEQUATE TO MEET THE DEMANDS OF THE IRRIGATION SYSTEM AS DESIGNED, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION FOR DESIGN MODIFICATIONS.
21) IN THE EVENT THAT A WELL IS USED AS THE WATER SOURCE FOR THE IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WATER SAMPLES FROM THE WELL. AT THE LANDSCAPE CONTRACTOR'S EXPENSE, HE SHALL HAVE A CERTIFIED LAB ANALYZE THE WATER QUALITY. THE LANDSCAPE CONTRACTOR SHALL REPORT TO THE LANDSCAPE ARCHITECT OR OWNER'S PROJECT MANAGER, ANY POTENTIAL ISSUES THAT MAY AFFECT THE HEALTH OF THE PLANT MATERIAL OR POTENTIAL STAINING TO SIDEWALKS AND BUILDINGS. REPORTING SHALL OCCUR BEFORE THE SYSTEM IS IN OPERATION. FAILURE TO REPORT SHALL PLACE LIABILITY ON THE LANDSCAPE CONTRACTOR.



I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE REG. NO. DATE

VISTA RESERVE

CITY OF APOPKA, FL

IRRIGATION NOTES & DETAILS

Date: 04/05/18
As Shown
Drawn: MJ
Checked: RRC
Title: SAMALP305.DWG

LP-305

VALVE SCHEDULE

Table with columns: NUMBER, MODEL, SIZE, TYPE, GPM, WIRE, PSI, PSI @ POC, PRECIP. Lists various valve models like Rain Bird PESBR and Turf Rotors with their specifications.

WATERING SCHEDULE

Table with columns: NUMBER, MODEL, TYPE, PRECIP, IN./WEEK, MIN./WEEK, GAL./WEEK, GAL./DAY. Lists watering schedules for different models like Rain Bird PESBR and Turf Rotors.

CRITICAL ANALYSIS

Table with columns: P.O.C. NUMBER, RECLAIM POC, FLOW AVAILABLE, WATER METER SIZE, FLOW AVAILABLE, PRESSURE AVAILABLE, STATIC PRESSURE AT POC, ELEVATION CHANGE, SERVICE LINE SIZE, LENGTH OF SERVICE LINE, PRESSURE AVAILABLE. Provides critical analysis data for the system.

Table with columns: DESIGN ANALYSIS, Maximum Station Flow, Flow Available at POC, Residual Flow Available, Critical Station, Design Pressure, Friction Loss, Fittings Loss, Elevation Change, Loss through Valve, Pressure Req. at Critical Station, Loss for Friction, Loss for Main Line, Loss for POC to Valve Elevation, Loss for Backflow, Loss for Master Valve, Loss for Water Meter, Critical Station Pressure at POC, Pressure Available, Residual Pressure Available. Provides design analysis data.

Table with columns: SYMBOL, MANUFACTURER/MODEL, ARC, PSI, GPM, RADIUS. Lists various Rain Bird models like 1806-U-SAM-PRS 15 Strip Series.

Table with columns: SYMBOL, MANUFACTURER/MODEL/DESCRIPTION, PSI, GPM, RADIUS. Lists Rain Bird 5006-NP-PC,FC-MPR models with detailed descriptions of their features.

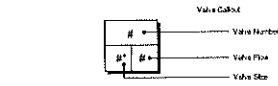
Area to Receive Dripline
Rain Bird XFD-09-12
XFD On-Surface Pressure Compensating
Landscape Dripline, 0.9 GPH emitters at 12" O.C.
Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.

Table with columns: SYMBOL, MANUFACTURER/MODEL/DESCRIPTION. Lists Rain Bird PESBR 1-1/2" and 2" models with descriptions of their features.

Rain Bird ESP-LXD-LXMSS-LXMMSPED
50 station 2-wire, exterior stainless steel pedestal. Flow sensing.
Rain Bird RSD-BEX
Rain Sensor, with metal latching bracket, extension wire.

Rain Bird FD-401TURF
Field Decoder for Two-Wire system. Install in valve box for valve. Operates up to four valve/solenoids. Use line surge protection as per manufacturer's directions.
Rain Bird FS-300-P
3" Flow Sensor for use with Rain Bird Maxicom, SiteControl, and ESP-LXD Central Control Systems. Plastic (PVC) Model. Suggested Operating Range of 20.0 GPM to 300.0 GPM. Sensors should be sized for flow rather than pipe size.

Water Meter 2"
RECLAIM POC
Irrigation Lateral Line: PVC Class 160 SDR 26-NP
SEE PLAN FOR PIPE SIZE.
Irrigation Mainline: PVC Class 200 SDR 21
SEE PLAN FOR PIPE SIZE.
Pipe Sleeve: PVC Schedule 40





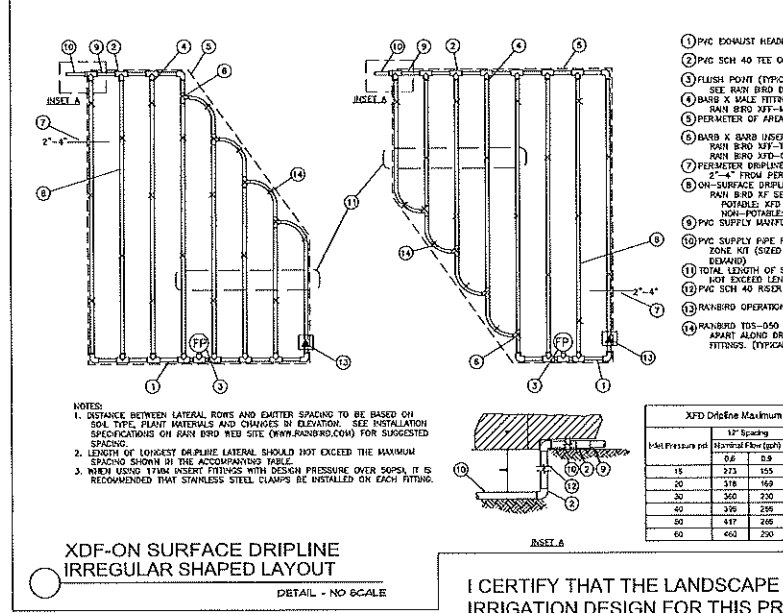
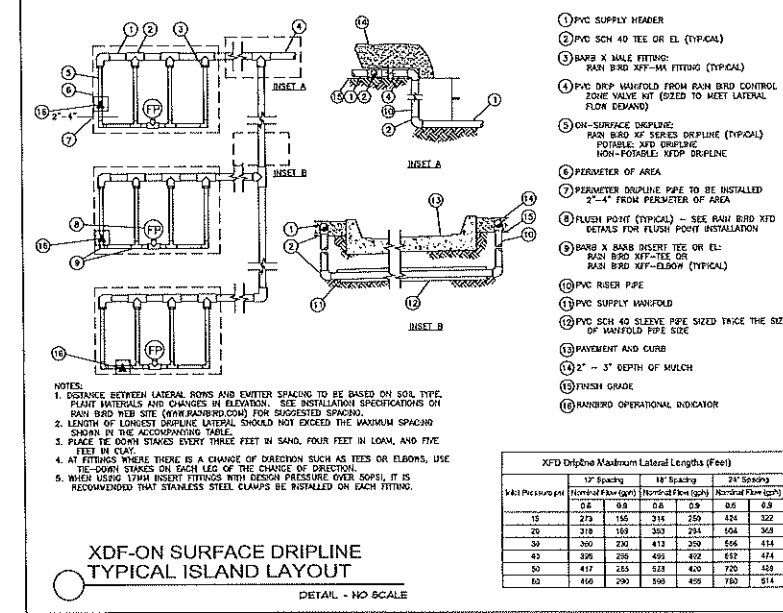
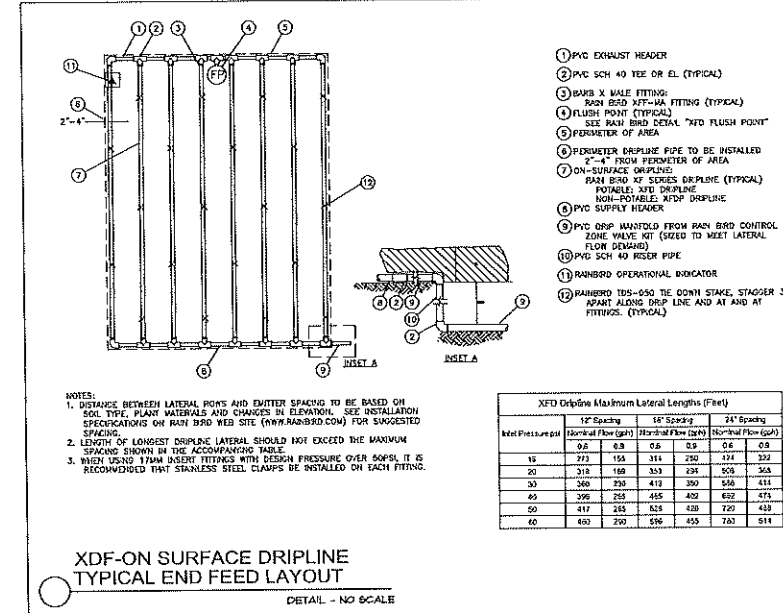
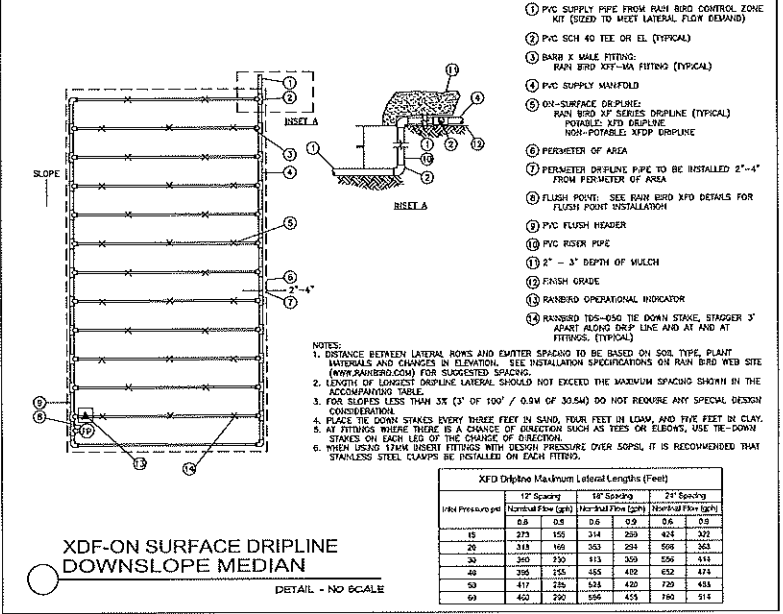
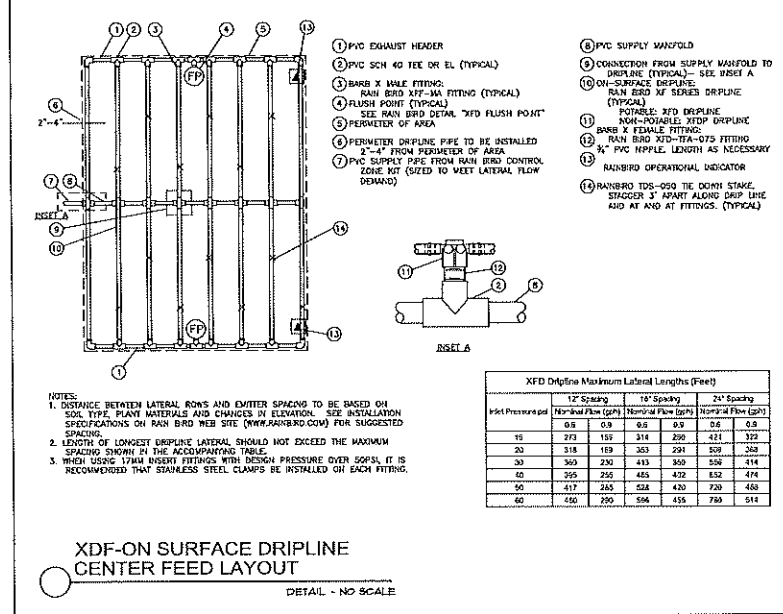
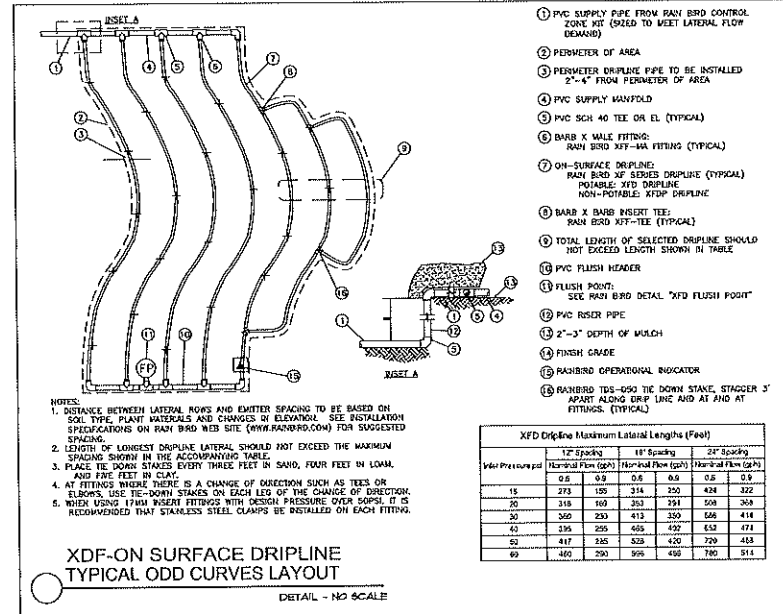
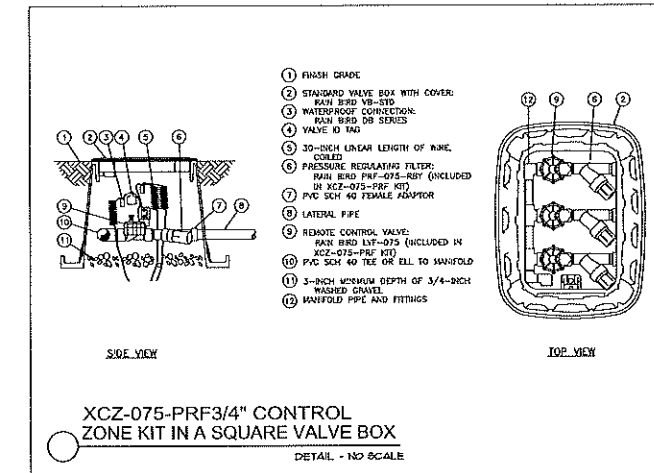
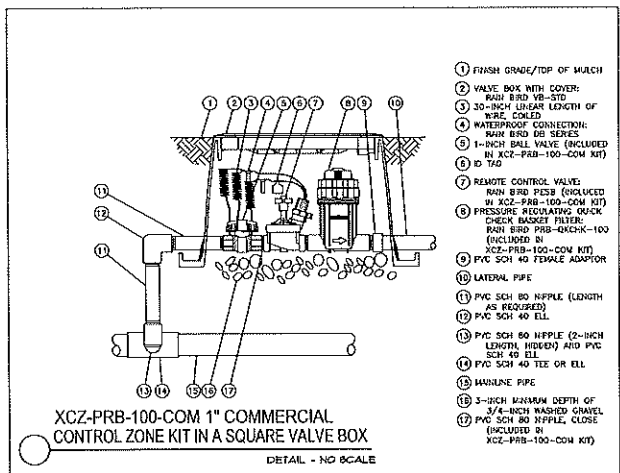
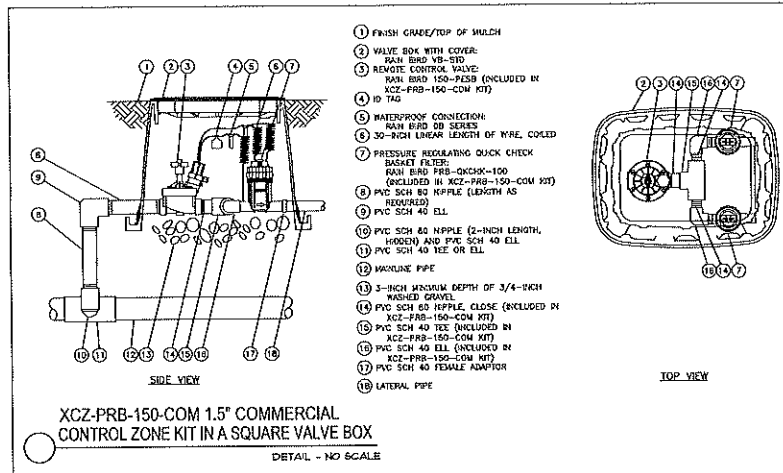


Table with 3 columns: 12" Spacing, 18" Spacing, 24" Spacing. Rows include flow rates and pressure drops for various pipe sizes.

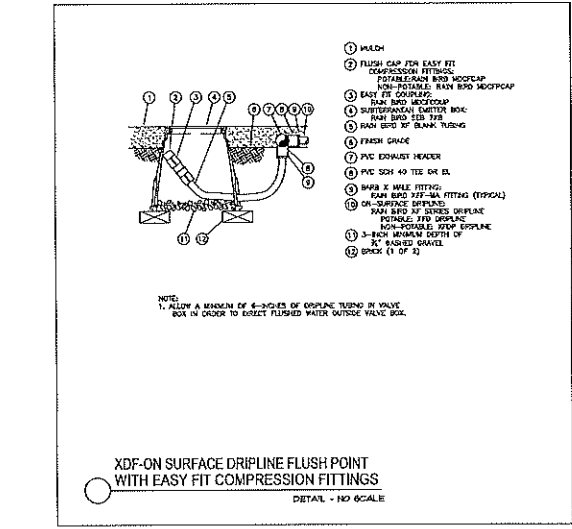
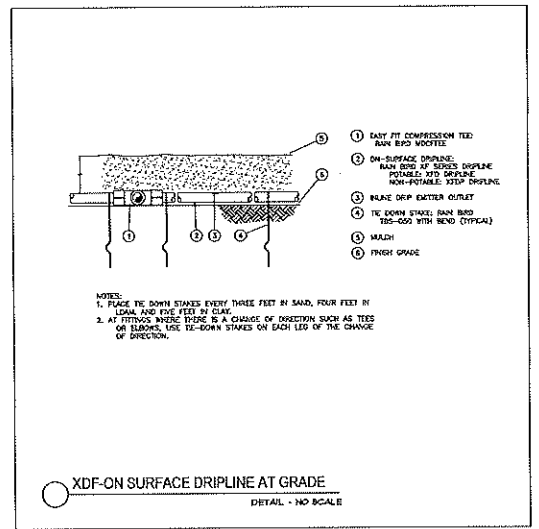
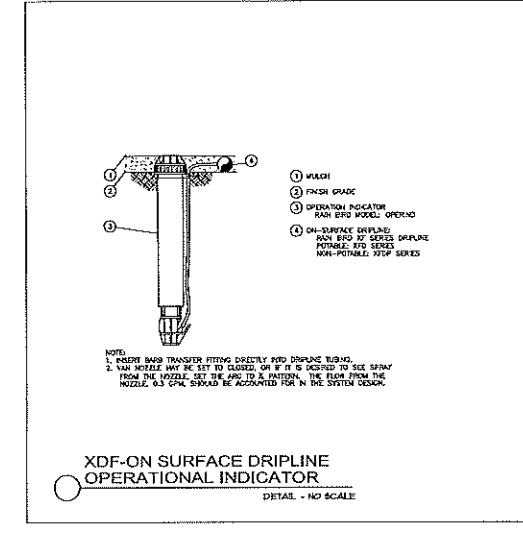
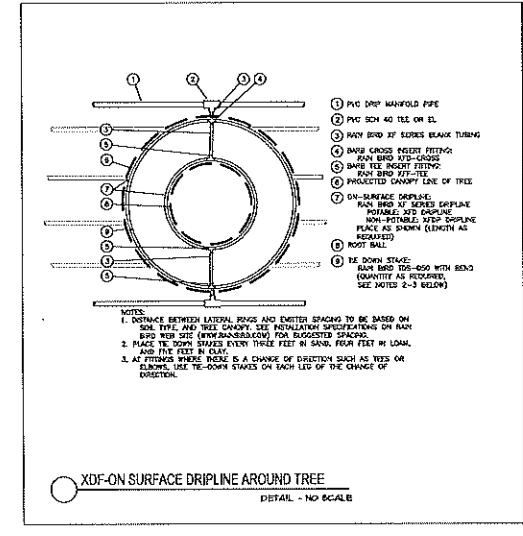
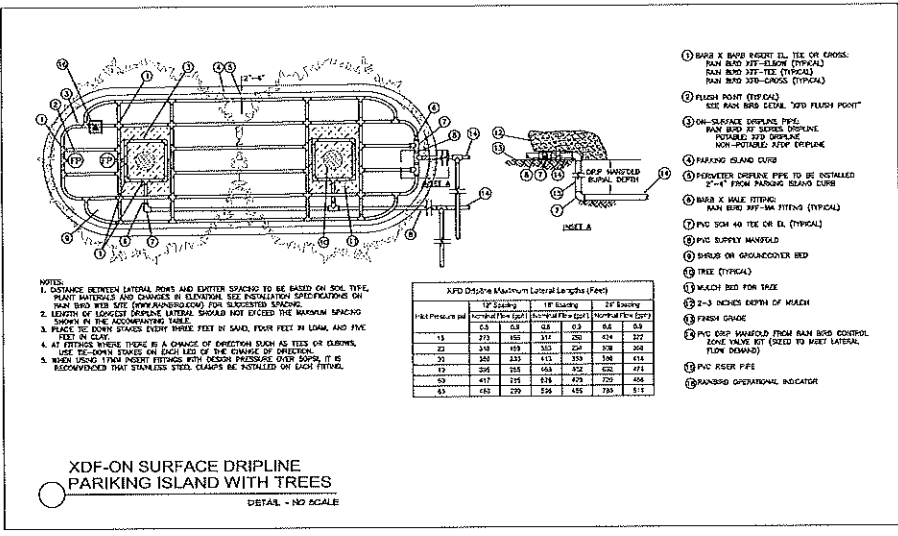
VISTA RESERVE  
CITY OF APOPKA, FL  
IRRIGATION DETAILS

Date: 04/05/18  
Scale: AS SHOWN  
Drawn: MJ, Ductal, RRC  
File Name: 5AMALP301DLUG

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

*Handwritten notes and lines on the right margin.*



I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE \_\_\_\_\_ REG. NO. \_\_\_\_\_ DATE \_\_\_\_\_

Sheet  
**LP-308**

# VISTA RESERVE

SHEET 1 OF 4

PLAT BOOK \_\_\_ PAGE \_\_\_

A PARCEL OF LAND LYING IN THE SOUTH 3/4 OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, CITY OF APOPKA, ORANGE COUNTY, FLORIDA

**LEGAL DESCRIPTION:**

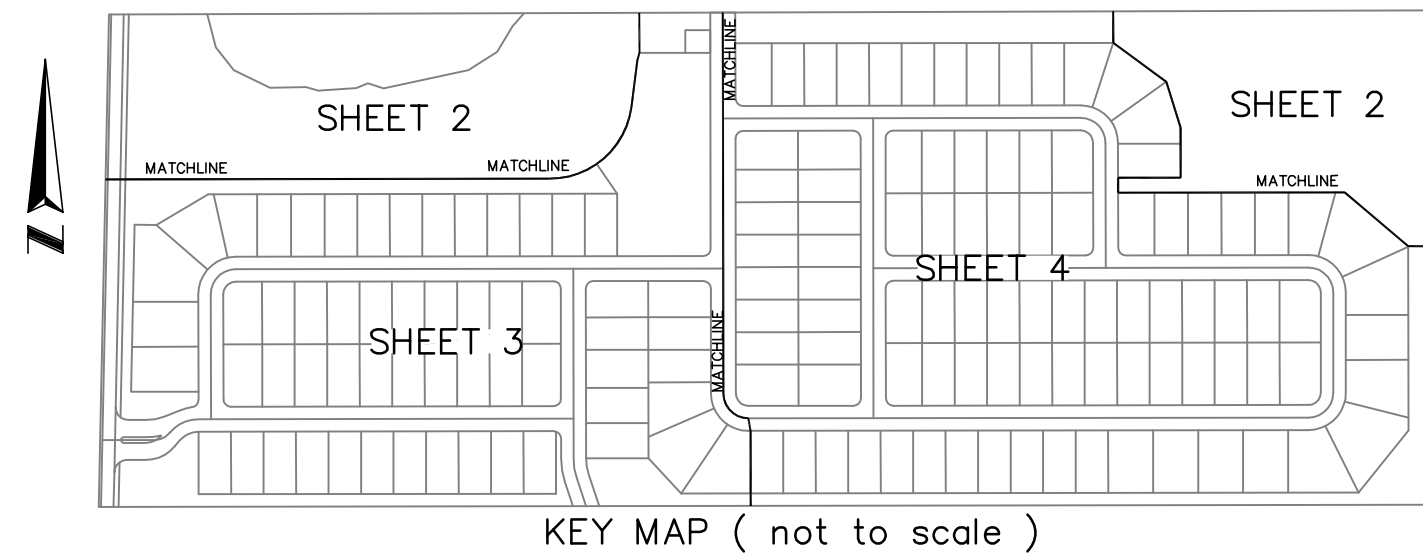
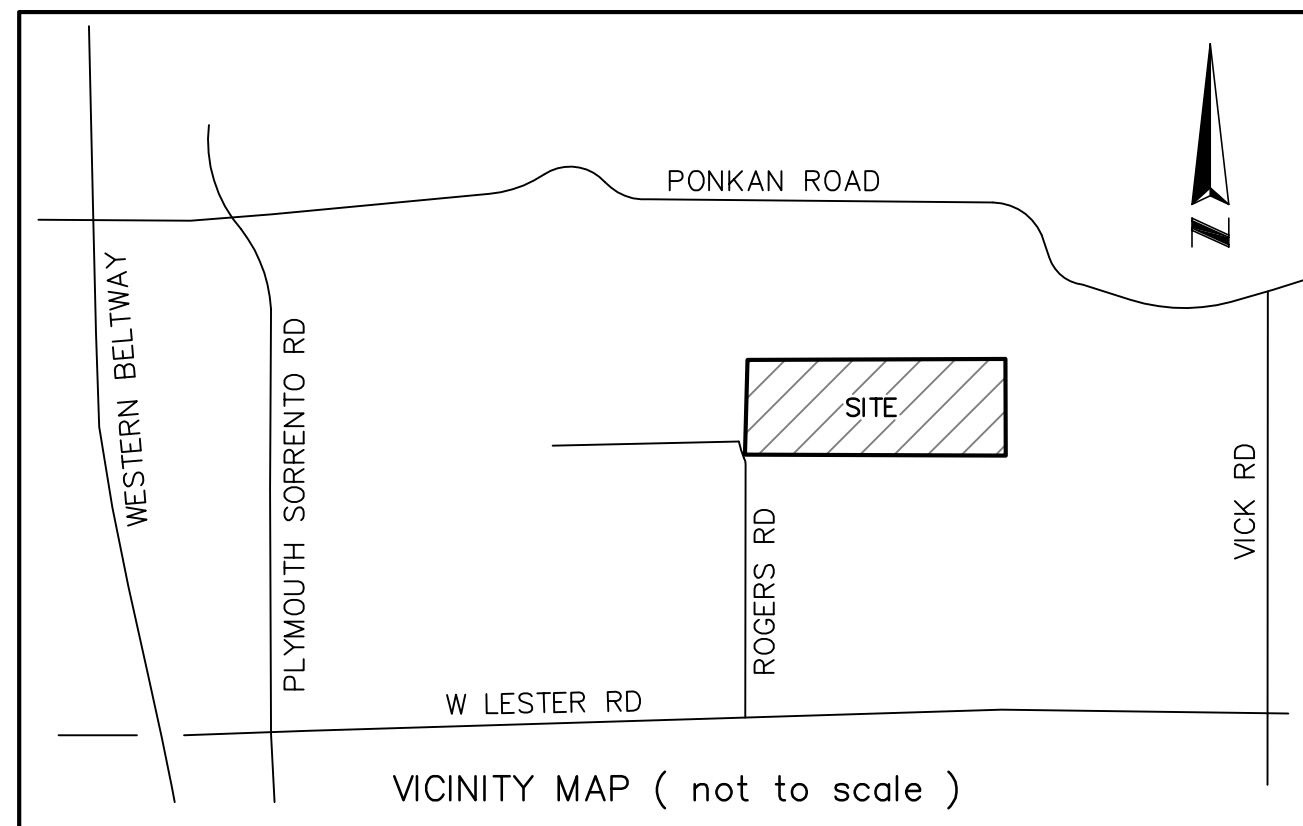
THE SOUTH THREE QUARTERS OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN NORTH 01°11'19" EAST ALONG THE WEST LINE OF SAID NORTHWEST QUARTER ALSO BEING THE EAST RIGHT-OF-WAY LINE OF ROGERS ROAD ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 77, PAGES 148-149 OF THE OFFICIAL RECORDS OF ORANGE COUNTY, FLORIDA, FOR A DISTANCE OF 984.97 FEET TO THE NORTHWEST CORNER OF THE SOUTH THREE QUARTERS OF THE SOUTH HALF OF SAID NORTHWEST QUARTER; THENCE RUN N89°48'58"E ALONG THE NORTH LINE OF SAID SOUTH THREE QUARTERS FOR A DISTANCE OF 2689.64 FEET TO THE NORTHEAST CORNER OF SAID SOUTH THREE QUARTERS; THENCE RUN S00°22'32"W ALONG THE EAST LINE OF SAID NORTHWEST QUARTER FOR A DISTANCE OF 989.15 FEET TO THE SOUTHEAST CORNER OF SAID NORTHWEST QUARTER; THENCE RUN S89°54'35"W ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER FOR A DISTANCE OF 2703.58 FEET TO THE SOUTHWEST CORNER THEREOF, AND THE POINT OF BEGINNING.

THE DESCRIBED PARCEL ALL LYING IN ORANGE COUNTY, FLORIDA CONTAINING 2,661,310 SQUARE FEET (61.1 ACRES), MORE OR LESS.

**SURVEYOR'S NOTES:**

- Bearings shown hereon are assumed and based on the South line of the Northwest Quarter of Section 29, Township 20 South, Range 28 East being an assumed bearing of South 89°54'35" West for angular designation only.
- All lot lines intersecting curves are radial, unless otherwise noted non-radial ( N.R. ).
- All platted utility easements shall also be easements for the construction, installation, maintenance, and operation of cable television and data 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. In the event a cable television company damages the facilities of a public utility, it shall be solely responsible for the damages. This section shall not apply to those private easements granted to or obtained by a particular electric, telephone, gas, or other public utility. Such construction, installation, maintenance, and operation shall comply with the National Electrical Safety Code as adopted by the Florida Public Service Commission.
- Tracts OS-1, OS-2, OS-3, OS-4 (Open Space), R-1 (Recreation Tract), Tracts B-1, B-2 (Buffer), Tract M-1 (Median), and Tracts P-1, P-2 (Stormwater Pond) shall be owned and maintained by the VISTA RESERVE Homeowners Association, Inc. (the Association).
- Tract FC-1 (Floodplain Conservation), shall be owned by the Association with development rights dedicated to the City of Apopka. No soil excavation, fill, or removal within the conservation shall be permitted. The removal of vegetation within the conservation is prohibited unless approval from the City of Apopka or any other applicable jurisdictional agency is granted to remove dead or damaged vegetation that poses a hazard or approval is granted to remove exotic or nuisance vegetation.
- This plat contains 153 Lots.
- The street tree easements, wall access easements, and drainage easements shown hereon shall be dedicated to and maintained by the Association.
- A utility easement is hereby dedicated to the perpetual use of the public over the entirety of Tracts B-1 and B-2 (Buffer).
- The Floodplain Conservation line shown hereon was established by the Federal Emergency Management Association, utilizing the Base Flood Zone Elevation (B.F.E.) for Zone AE as being an elevation of 62.60', North American Vertical Datum of 1988 (NAVD 88). The elevation used to establish the B.F.E. is based on the St. Johns River Water Management District Benchmark #98-079-0-03, box cut in headwall at end of cul-de-sac on Championship Court, Elevation 59.619' (NAVD 88).



**SHEET INDEX**

- SHEET 1 of 4 - legal description, Surveyor's notes, legend & dedication
- SHEET 2 OF 4 - boundary information
- 3 through 4 of 4 - geometry

Building setback information according to engineers plans prepared by Madden, Moorhead & Stokes, Inc.

- Front Primary.....25.00'
- Entry Garage.....30.00'
- Side.....7.50'
- Rear Primary.....20.00'
- Corner Side.....15.00'
- Natural Surface waterbody or wetland edge.....50.00'

**LEGEND:**

- LB denotes licensed business
- U.E. denotes utility easement
- R/W denotes right-of-way
- denotes change in direction along right-of-way lines
- C.C.R. # denotes Certified Corner Record Number
- N.R. denotes non-radial (see note 2)
- denotes set 4" x 4" concrete monument LB 6723 permanent reference monument (PRM)
- ▣ denotes recovered 4" x 4" concrete monument permanent reference monument (PRM)
- denotes recovered monumentation as labeled
- D.E. denotes drainage easement
- W.A.E. denotes wall access easement
- CR denotes County Road
- ORB denotes Official Records of Orange County, Florida
- P.R.C. denotes point of reverse curvature
- B.B. denotes basis of bearing
- S.T.E. denotes street tree easement
- N.T. denotes non tangent
- denotes set nail & disk LB 6723 permanent control point (PCP)
- ⊥ denotes centerline
- O.R. denotes Official Records of Orange County, Florida
- PG(S). denotes page(s)
- P.C. denotes point of curvature
- P.T. denotes point of tangency
- P.I. denotes point of intersection
- P.B. denotes Plat Book
- R.P. denotes
- R denotes radius
- Δ denotes central angle
- L denotes arc length
- CHD denotes chord length
- CHB denotes chord bearing
- P.C.C. denotes point of compound curvature
- P.S.M. denotes Professional Surveyor and Mapper
- ROW denotes right-of-way
- ▣ denotes area of W.A.E and U.E.



16 EAST PLANT STREET  
WINTER GARDEN, FLORIDA 34787  
(407) 654-5355

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

**CERTIFICATE OF REVIEW BY REVIEWING SURVEYOR**

Pursuant to Section 177.081, Florida Statutes, I have reviewed this plat for conformity to Chapter 177 Part 1 of the Florida Statutes and that said plat complies with the technical requirements of that chapter; provided however, that my review does not include field verification of any of the coordinates, points or measurements shown on this plat.

Signed: \_\_\_\_\_ Date \_\_\_\_\_

Printed Name: Timothy O. Mosby, PSM  
Registration Number 4732  
Southeastern Surveying and Mapping Corp

**QUALIFICATION STATEMENT OF SURVEYOR AND MAPPER**

KNOW ALL MEN BY THESE PRESENTS, that I the undersigned, being a licensed surveyor and mapper, do hereby certify that on April 13, 2016 I completed the survey of the lands as shown in the foregoing plat or plan: that said plat is a true and correct representation of the lands surveyed and platted and was prepared under my direction and supervision; that permanent reference monuments have been placed as shown thereon; and this plat complies with all the survey requirements of Chapter 177, Florida Statutes; and that said land is located in the City of Apopka, Orange County, Florida.

By: \_\_\_\_\_ Date: \_\_\_\_\_

James L. Rickman P.S.M. # 5633 Allen & Company Licensed Business # 6723  
16 East Plant Street, Winter Garden, Florida 34787

**VISTA RESERVE  
DEDICATION**

THIS is to certify that the undersigned, Pulte Home Corporation, a Michigan Corporation, hereafter referred to as "Owner" is the lawful owner of the lands described in the caption hereon, and that it has caused the same to be surveyed, and this plat, made in accordance with said survey, is hereby adopted as the true and correct plat of said lands.

The Owner hereby dedicates Tract ROW-1 (Additional Right-of-Way Dedication), Streets, and Utility easements to the perpetual use of the public.

Tract LS-1 (Lift Station) is hereby dedicated in fee simple to the City of Apopka without any restriction whatsoever. City ownership of said Tracts and any improvements thereon vests upon approval of the Plat by the Apopka Planning Commission and City Council of Apopka. Recording of this Plat shall act as conveyance to the City of Apopka and no further instrument shall be necessary to vest fee simple title.

IN WITNESS WHEREOF, the undersigned, PULTE HOME CORPORATION, a Michigan Corporation, has caused these presents to be executed and acknowledged by its undersigned Officer thereunto duly authorized on this \_\_\_ day of \_\_\_\_\_ 2018.

WITNESSES: PULTE HOME CORPORATION, a Michigan Corporation

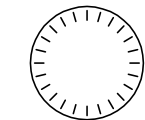
By: \_\_\_\_\_

Printed Name of Witness Printed name

Title

Printed Name of Witness (CORPORATE SEAL)

STATE OF FLORIDA  
COUNTY OF \_\_\_\_\_



I HEREBY CERTIFY, that on this day, before me personally appeared \_\_\_\_\_, as \_\_\_\_\_ of PULTE HOME CORPORATION, a Michigan Corporation who is ( ) personally known to me or ( ) produced \_\_\_\_\_ as identification, and did/did not take an oath, the individual and officer described in and who executed the foregoing conveyance and acknowledged the execution thereof to be his free act and deed as such officer thereunto duly authorized.

WITNESS my hand and official seal this \_\_\_ day of \_\_\_\_\_ 2018.

Signature of Notary Public

Printed Name of Notary Public

Notary Public state of Florida

My Commission Expires: \_\_\_\_\_

Commission Number: \_\_\_\_\_

**CERTIFICATE OF APPROVAL  
BY APOPKA PLANNING COMMISSION**

Examined and Approved \_\_\_\_\_  
Chairman Date

**CERTIFICATE OF APPROVAL  
BY CITY ENGINEER**

Examined and Approved \_\_\_\_\_  
Richard Earp Date

**CERTIFICATE OF APPROVAL BY MUNICIPALITY**

THIS IS TO CERTIFY, that on \_\_\_\_\_ the foregoing plat was approved by the Municipality.

Mayor

Attest: \_\_\_\_\_

City Clerk

**CERTIFICATE OF COUNTY COMPTROLLER**

I HEREBY CERTIFY, that the foregoing plat was recorded in the Orange County Official Records on \_\_\_\_\_ as File No. \_\_\_\_\_

County Comptroller in and for Orange County, Florida.

By \_\_\_\_\_

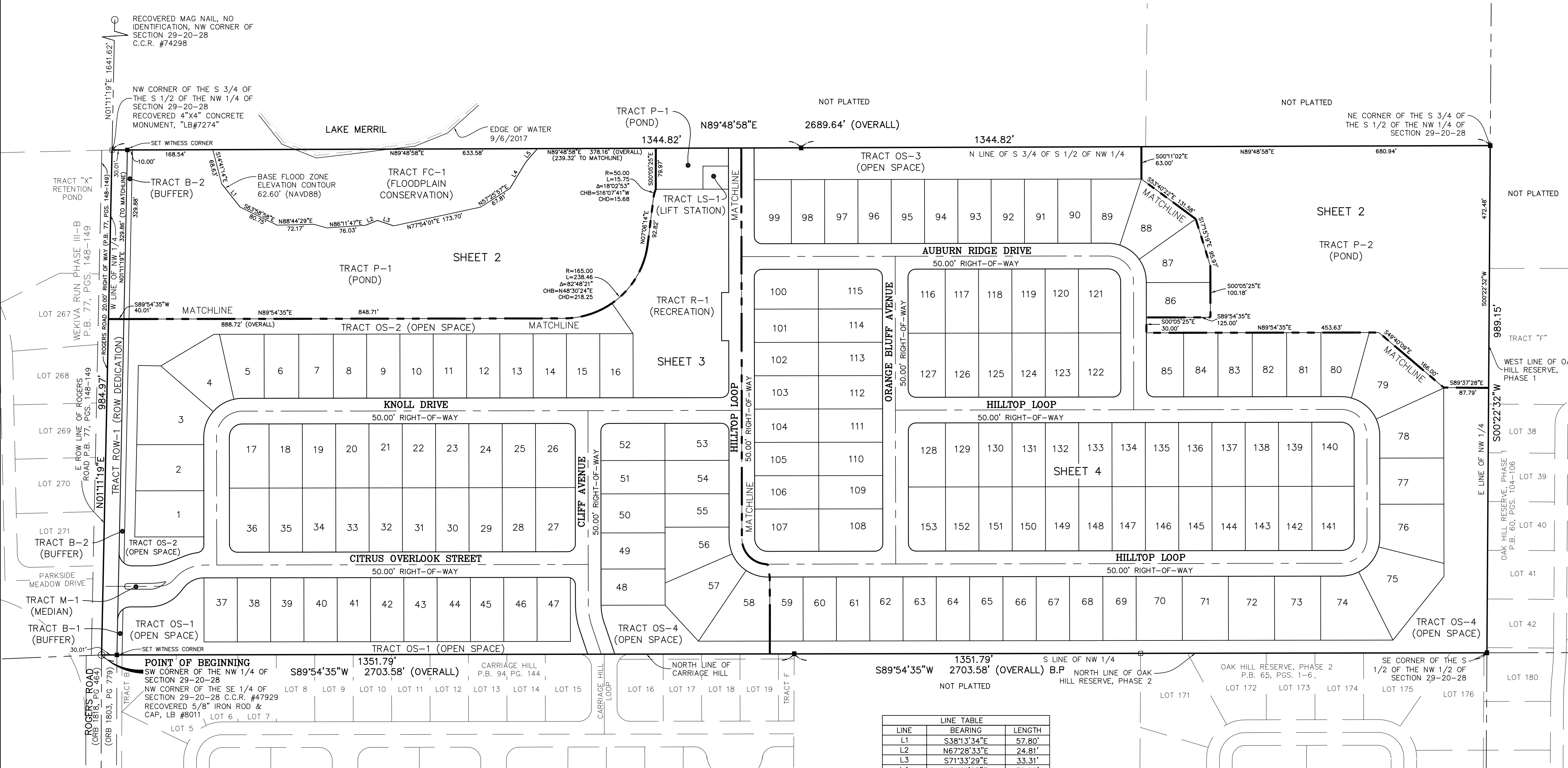
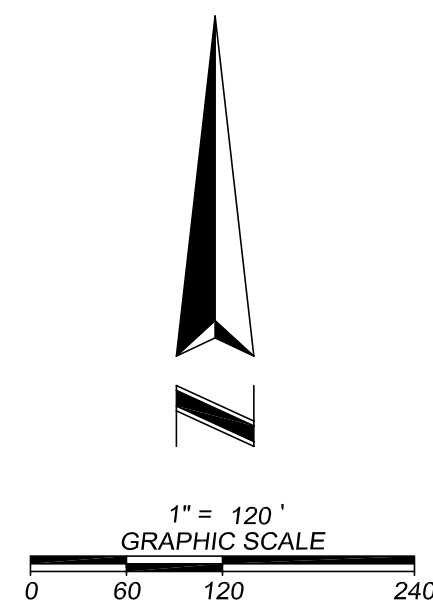


# VISTA RESERVE

A PARCEL OF LAND LYING IN THE SOUTH 3/4 OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, CITY OF APOPKA, ORANGE COUNTY, FLORIDA

SHEET 2 OF 4

PLAT BOOK \_\_\_\_\_ PAGE \_\_\_\_\_

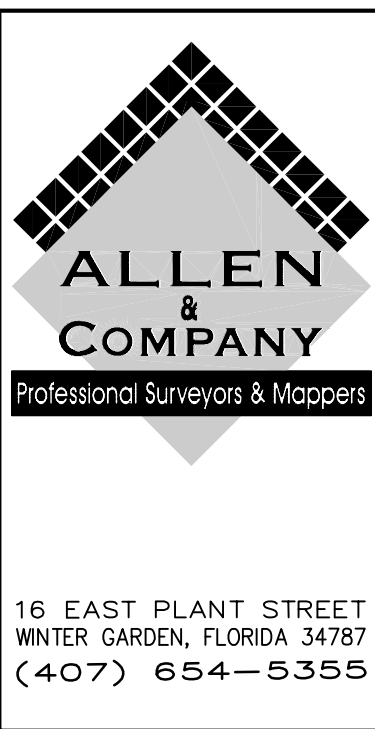


LINE	BEARING	LENGTH
L1	S38°13'34\"E	57.80'
L2	N67°28'33\"E	24.81'
L3	S71°33'29\"E	33.31'
L4	N31°01'25\"E	59.69'
L5	N40°48'54\"E	34.93'

**SHEET INDEX**  
 SHEET 1 of 4 – legal description, Surveyor's notes, legend & dedication  
 SHEET 2 OF 4 – boundary information  
 3 through 4 of 4 – geometry

**ALLEN & COMPANY**  
 Professional Surveyors & Mappers

16 EAST PLANT STREET  
 WINTER GARDEN, FLORIDA 34787  
 (407) 654-5355



# VISTA RESERVE

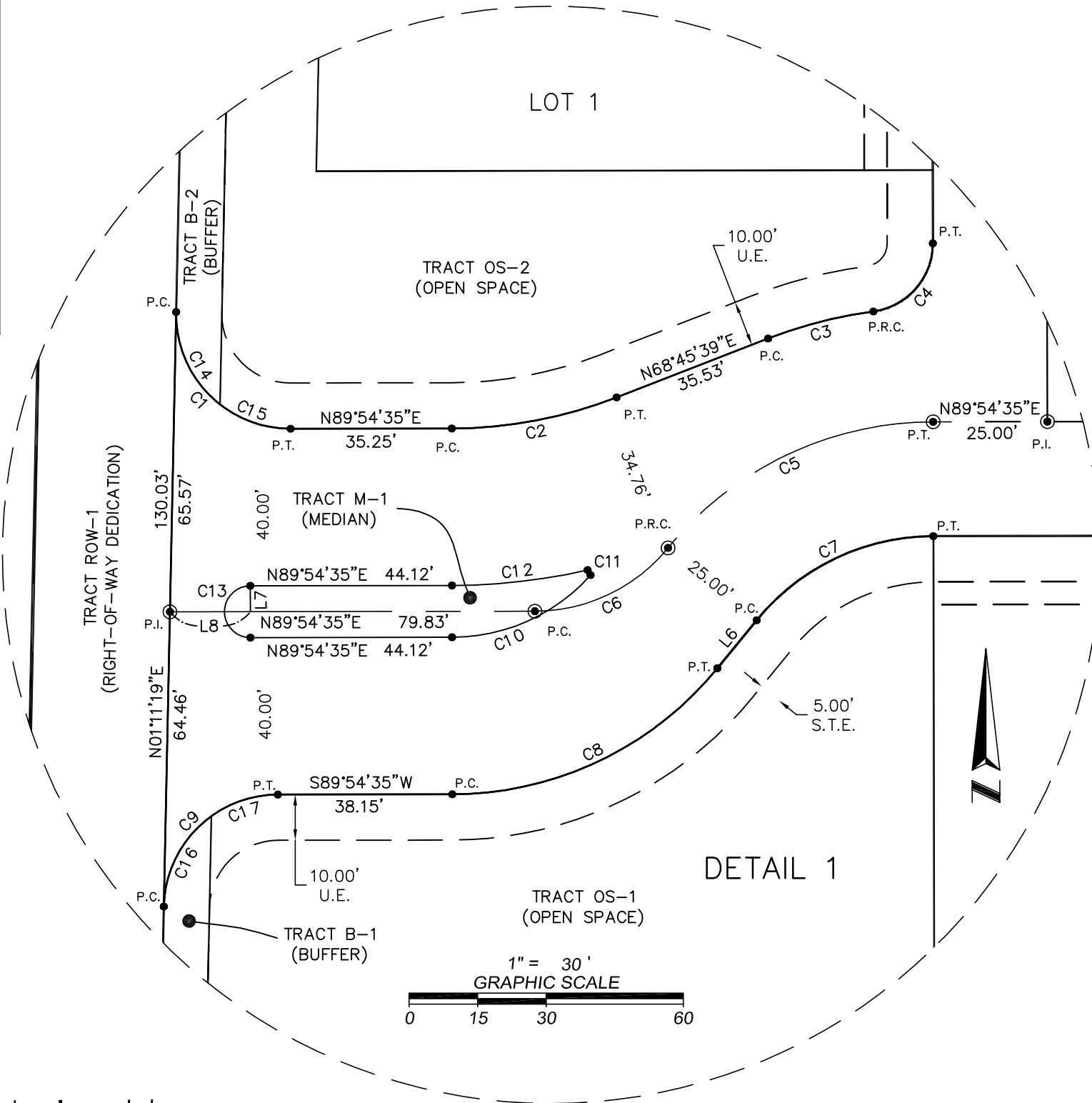
A PARCEL OF LAND LYING IN THE SOUTH 3/4 OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, CITY OF APOPKA, ORANGE COUNTY, FLORIDA

SHEET 3 OF 4

PLAT BOOK PAGE

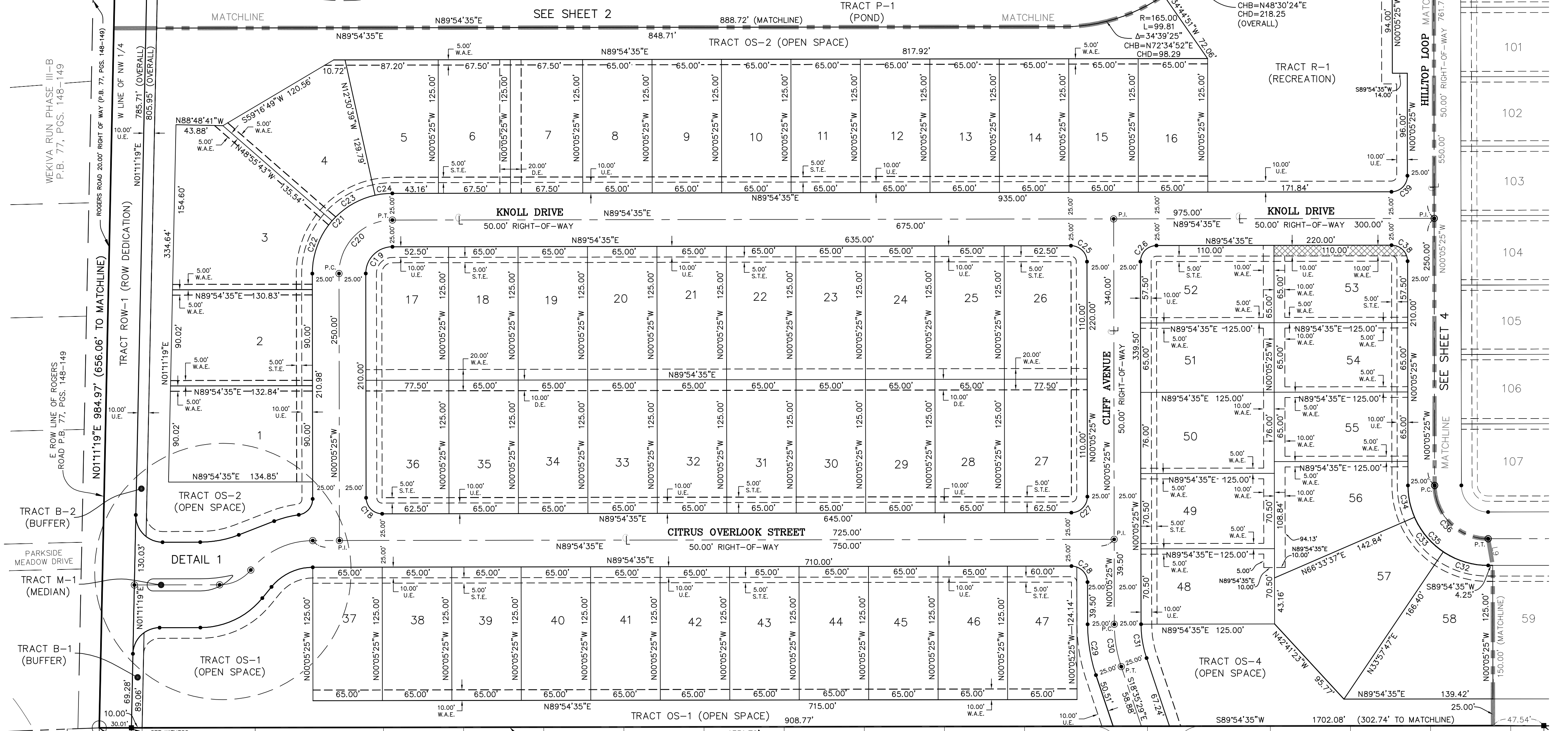
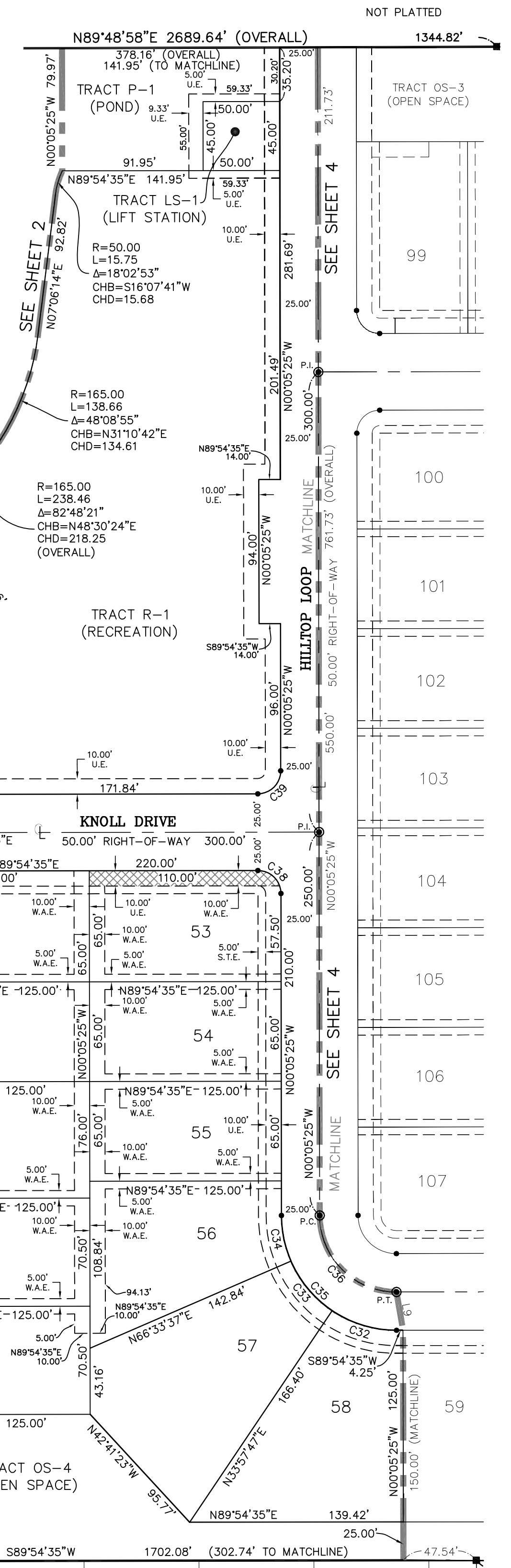
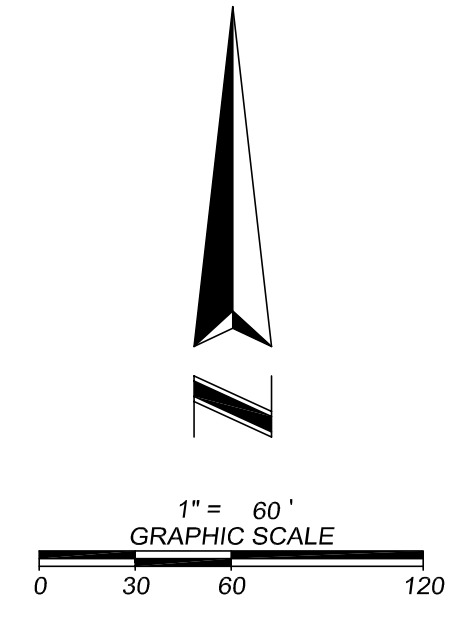
### SHEET INDEX

- SHEET 1 of 4 - legal description, Surveyor's notes, legend & dedication
- SHEET 2 of 4 - boundary information
- 3 through 4 of 4 - geometry



CURVE TABLE					
CURVE	RADIUS	CENTRAL ANGLE	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	25.00'	91°16'44"	39.83'	35.75'	S44°27'03"E
C2	100.00'	21°08'56"	36.91'	36.70'	N79°20'07"E
C3	100.00'	13°39'15"	23.83'	23.77'	S75°35'16"W
C4	15.00'	82°30'19"	21.60'	19.78'	N41°09'44"E
C5	75.00'	50°41'15"	66.35'	64.21'	S64°33'57"W
C6	37.68'	50°41'15"	33.33'	32.26'	N64°33'57"E
C7	50.00'	50°41'15"	44.23'	42.80'	S64°33'57"W
C8	75.00'	50°41'15"	66.35'	64.21'	N64°33'57"E
C9	25.00'	88°43'16"	38.71'	34.96'	S45°32'57"W
C10	40.67'	48°11'23"	34.21'	33.21'	N65°48'53"E
C11	0.67'	144°34'09"	1.69'	1.28'	N30°33'53"W
C12	134.33'	12°45'31"	29.91'	29.85'	N83°31'49"E
C13	5.67'	180°00'00"	17.81'	11.34'	S00°05'25"E
C14	25.00'	53°07'48"	23.18'	22.36'	S25°22'35"E
C15	25.00'	38°08'56"	16.65'	16.34'	S71°00'57"E
C16	25.00'	53°07'48"	23.18'	22.36'	S27°45'13"W
C17	25.00'	35°35'27"	15.53'	15.28'	S72°06'51"W
C18	15.00'	90°00'00"	23.56'	21.21'	S45°05'25"E
C19	25.00'	90°00'00"	39.27'	35.36'	S44°54'35"W
C20	50.00'	90°00'00"	78.54'	70.71'	S44°54'35"W
C21	75.00'	90°00'00"	117.81'	106.07'	S44°54'35"W
C22	75.00'	41°09'43"	53.88'	52.73'	S20°29'26"W
C23	75.00'	36°25'03"	47.67'	46.87'	S59°16'49"W
C24	75.00'	12°25'14"	16.26'	16.23'	S83°41'58"W
C25	15.00'	90°00'00"	23.56'	21.21'	N45°05'25"E
C26	15.00'	90°00'00"	23.56'	21.21'	S44°54'35"W
C27	15.00'	90°00'00"	23.56'	21.21'	N44°54'35"E
C28	15.00'	90°00'00"	23.56'	21.21'	N45°05'25"E
C29	150.00'	18°30'04"	48.44'	48.23'	S09°20'27"E
C30	125.00'	18°30'04"	40.36'	40.19'	S09°20'27"E
C31	100.00'	18°30'04"	32.29'	32.15'	S09°20'27"E
C32	75.00'	34°03'12"	44.58'	43.92'	S73°03'49"E
C33	75.00'	32°35'50"	42.67'	42.10'	S39°44'18"E
C34	75.00'	23°20'58"	30.86'	30.35'	S11°45'54"E
C35	75.00'	90°00'00"	117.81'	106.07'	S45°05'25"E
C36	50.00'	90°00'00"	78.54'	70.71'	S45°05'25"E
C38	15.00'	90°00'00"	23.56'	21.21'	N45°05'25"W
C39	15.00'	90°00'00"	23.56'	21.21'	N44°54'35"E

LINE TABLE		
LINE	BEARING	LENGTH
L6	S39°13'20"W	13.65'
L7	S00°05'25"E	5.67'
L8	S89°54'35"W	17.59'
L9	S09°43'58"E	25.36'



ROGERS ROAD (ORB 818, PG 494) (ORB 1603, PG 779) TRACT B-2 (BUFFER) TRACT M-1 (MEDIAN) TRACT B-1 (BUFFER) TRACT OS-1 (OPEN SPACE) TRACT OS-2 (OPEN SPACE) TRACT OS-3 (OPEN SPACE) TRACT OS-4 (OPEN SPACE) TRACT OS-1 (OPEN SPACE) TRACT OS-2 (OPEN SPACE) TRACT P-1 (POND) TRACT R-1 (RECREATION) TRACT OS-3 (OPEN SPACE) TRACT OS-4 (OPEN SPACE)

POINT OF BEGINNING SW CORNER OF THE NW 1/4 OF SECTION 29-20-28 NW CORNER OF THE SE 1/4 OF SECTION 29-20-28 C.C.R. #47929

LOT 5 LOT 6 LOT 7 LOT 8 LOT 9 LOT 10 LOT 11 LOT 12 LOT 13 LOT 14 LOT 15 LOT 16 LOT 17 LOT 18 LOT 19 TRACT F

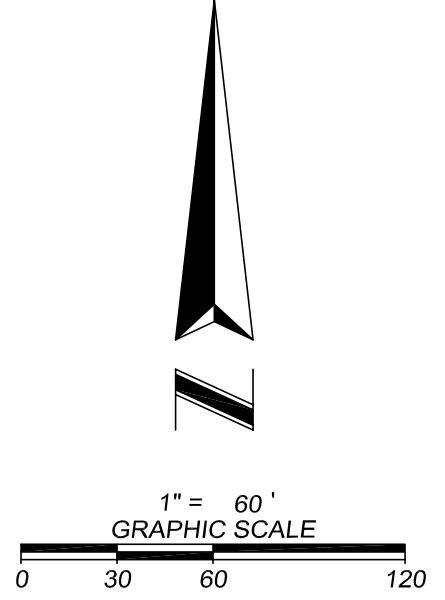
1351.79' 2703.58' (OVERALL) CARRIAGE HILL P.B. 94 PG. 144

S LINE OF NW 1/4

ROGERS ROAD (ORB 818, PG 494) (ORB 1603, PG 779) TRACT B-2 (BUFFER) TRACT M-1 (MEDIAN) TRACT B-1 (BUFFER) TRACT OS-1 (OPEN SPACE) TRACT OS-2 (OPEN SPACE) TRACT OS-3 (OPEN SPACE) TRACT OS-4 (OPEN SPACE) TRACT OS-1 (OPEN SPACE) TRACT OS-2 (OPEN SPACE) TRACT P-1 (POND) TRACT R-1 (RECREATION) TRACT OS-3 (OPEN SPACE) TRACT OS-4 (OPEN SPACE)



16 EAST PLANT STREET  
WINTER GARDEN, FLORIDA 34787  
(407) 654-5355



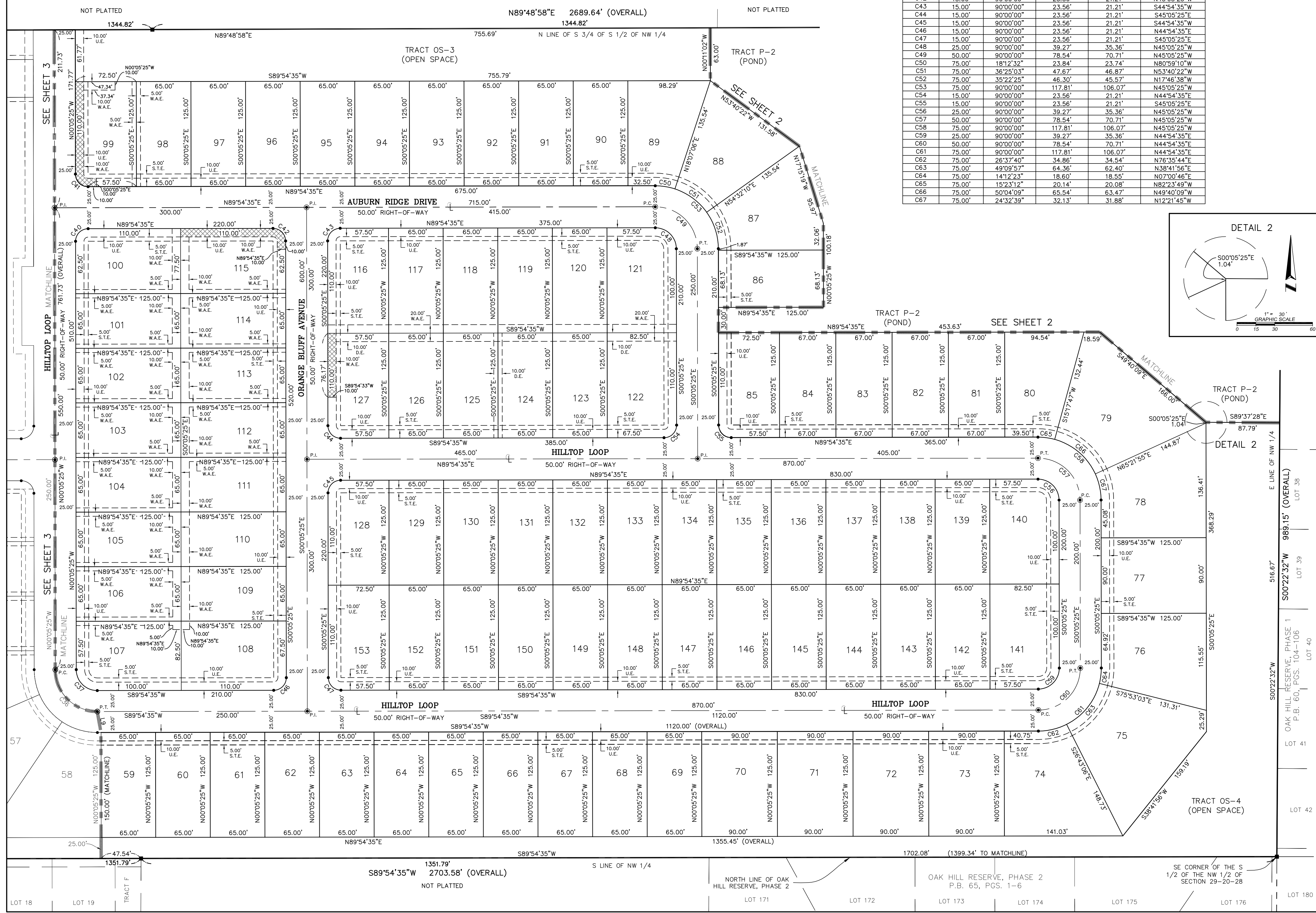
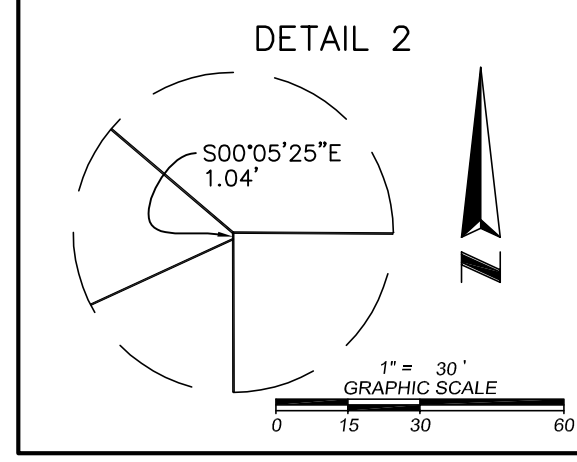
# VISTA RESERVE

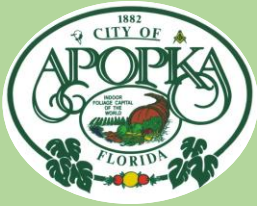
A PARCEL OF LAND LYING IN THE SOUTH 3/4 OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, CITY OF APOPKA, ORANGE COUNTY, FLORIDA

SHEET INDEX  
SHEET 1 of 4 - legal description, Surveyor's notes, legend & dedication  
SHEET 2 of 4 - boundary information  
3 through 4 of 4 - geometry

LINE	BEARING	LENGTH
L9	S09°43'56"E	25.36'

CURVE	RADIUS	CENTRAL ANGLE	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C36	50.00'	90°00'00"	78.54'	70.71'	S45°05'25"E
C37	25.00'	90°00'00"	39.27'	35.36'	S45°05'25"E
C40	15.00'	90°00'00"	23.56'	21.21'	S44°54'35"W
C41	15.00'	90°00'00"	23.56'	21.21'	S45°05'25"E
C42	15.00'	90°00'00"	23.56'	21.21'	N45°05'25"W
C43	15.00'	90°00'00"	23.56'	21.21'	S44°54'35"W
C44	15.00'	90°00'00"	23.56'	21.21'	S45°05'25"E
C45	15.00'	90°00'00"	23.56'	21.21'	S44°54'35"W
C46	15.00'	90°00'00"	23.56'	21.21'	N44°54'35"E
C47	15.00'	90°00'00"	23.56'	21.21'	S45°05'25"E
C48	25.00'	90°00'00"	39.27'	35.36'	N45°05'25"W
C49	50.00'	90°00'00"	78.54'	70.71'	N45°05'25"W
C50	75.00'	181°22'33"	23.84'	23.74'	N80°59'10"W
C51	75.00'	38°25'03"	47.87'	48.87'	N53°40'22"W
C52	75.00'	35°22'25"	46.30'	45.57'	N17°46'38"W
C53	75.00'	90°00'00"	117.81'	106.07'	N45°05'25"W
C54	15.00'	90°00'00"	23.56'	21.21'	N44°54'35"E
C55	15.00'	90°00'00"	23.56'	21.21'	S45°05'25"E
C56	25.00'	90°00'00"	39.27'	35.36'	N45°05'25"W
C57	50.00'	90°00'00"	78.54'	70.71'	N45°05'25"W
C58	75.00'	90°00'00"	117.81'	106.07'	N45°05'25"W
C59	25.00'	90°00'00"	39.27'	35.36'	N44°54'35"E
C60	50.00'	90°00'00"	78.54'	70.71'	N44°54'35"E
C61	75.00'	90°00'00"	117.81'	106.07'	N44°54'35"E
C62	75.00'	26°37'40"	34.86'	34.54'	N76°35'44"E
C63	75.00'	49°09'57"	64.36'	62.40'	N38°41'56"E
C64	75.00'	141°22'33"	18.60'	18.55'	N07°00'46"E
C65	75.00'	182°31'07"	20.14'	20.08'	N82°33'49"W
C66	75.00'	50°04'09"	65.54'	63.47'	N49°40'09"W
C67	75.00'	24°32'39"	32.13'	31.88'	N12°21'45"W





# CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Ordinance

MEETING OF: October 3, 2018  
 FROM: Community Development  
 EXHIBITS: Ordinance No. 2679  
 Appendix 7-1 – CIE – Five-Year CIP

**SUBJECT:** **ORDINANCE NO. 2679 - AMENDMENT TO THE CITY’S FIVE-YEAR CAPITAL IMPROVEMENTS PLAN TO ADD RECREATION IMPROVEMENTS, AND INCORPORATING INTO THE CITY OF APOPKA, COMPREHENSIVE PLAN, CAPITAL IMPROVEMENTS ELEMENT.**

**REQUEST:** **ORDINANCE NO. 2679 – SECOND READING -- AMENDMENT TO THE CITY OF APOPKA, FIVE-YEAR CAPITAL IMPROVEMENTS PLAN AND INCORPORATE INTO THE CITY OF APOPKA COMPREHENSIVE PLAN, CAPITAL IMPROVEMENT ELEMENT**

**SUMMARY:**

The City desires to conduct recreation improvements at Kit Land Nelson Park and at Northwest Recreation Complex to accommodate a need for additional and improved playground equipment and facilities for youth. To fund these recreation improvements, the City proposes to apply for available grant funds sponsored by the Florida Department of Environmental Project.

Eligibility requirements for the grant program require that the proposed recreation improvement must be recognized within the City’s capital improvement program (CIP) established in the Comprehensive Plan. Further, the City must proceed expeditiously at this time to meet grant application deadlines. Hence, the proposed update to the five-year CIP of the Comprehensive Plan at this time only addresses the new recreation improvements at Kit Land Nelson Park and at Northwest Recreation Complex.

After the Fiscal year 2018-19 budget has been approved by City Council, staff will conduct an annual update of the five-year CIP to address necessary to meet accepted levels of service (LOS), to maintain and repair failing facilities, and to provide additional infrastructure facilities and roads to meet demands generated by new growth and development. Typically, the five-year CIP within the Comprehensive Plan addresses the infrastructure needs related to transportation, water, sewer, reclaimed water, stormwater management, and recreation.

Exhibit ‘A’ of this report includes the updated CIP to be incorporated as Appendix 7-1 of the Capital Improvements Element. The proposed CIP changes (additions) are included in the ‘General Fund’ and ‘FDEP Grant Fund’ sections of the Recreation CIP (shown in Exhibit ‘A’). Funds appearing in the ‘General Fun’ serve as the local government match requirement per the conditions of the FDEP grant program.

Legislative changes in 2011 to Chapter 163, Florida Statutes allow local governments to update their five-year CIP by ordinance, and is not considered a comprehensive plan policy amendment. Therefore, incorporation of the updated CIP into the Capital Improvements Element does not require transmittal to the Florida Department of Economic Opportunity for state agency review.

**FUNDING SOURCE:** N/A

**DISTRIBUTION**

- |                                |                  |                          |
|--------------------------------|------------------|--------------------------|
| Mayor Nelson                   | Finance Director | Public Services Director |
| Commissioners                  | HR Director      | Recreation Director      |
| City Administrator             | IT Director      | City Clerk               |
| Community Development Director | Police Chief     | Fire Chief               |

**CITY COUNCIL – OCTOBER 3, 2018**  
**UPDATE TO THE FIVE-YEAR CAPITAL IMPROVEMENTS PLAN**  
**PAGE 2**

**PUBLIC HEARING SCHEDULE:**

September 11, 2018 – Planning Commission (5:30 pm)  
September 19, 2018 – City Council 1<sup>st</sup> Reading (7:00 pm)  
October 3, 2018 – City Council 2<sup>nd</sup> Reading (1:30 pm)

**DULY ADVERTISED:**

August 31, 2018 – Public Hearing Notice  
September 22, 2018 – Public Hearing Notice

---

**RECOMMENDATION ACTION:**

The **Development Review Committee** recommends approval of the update of the City of Apopka Five-Year Capital Improvements Plan to be incorporated into the Apopka Comprehensive Plan – Capital Improvements Element.

The **Planning Commission**, at its meeting on September 11, 2018, found the proposed amendment of the Apopka Five-Year Capital Improvements Plan consistent with the Apopka Comprehensive Plan; and unanimously recommended approval of the Five-Year Capital Improvements Plan amendment and the incorporation into the Capital Improvements Element of the Comprehensive Plan.

The **City Council**, at its meeting on September 19, 2018, accepted the First Reading of Ordinance No. 2679 and held it over for Second Reading and Adoption October 3, 2018.

Adopt Ordinance No. 2679.

**Note: This item is considered legislative and establishes general policy. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.**

**ORDINANCE NO. 2679**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING THE CAPITAL IMPROVEMENTS ELEMENT OF THE APOPKA COMPREHENSIVE PLAN OF THE CITY OF APOPKA; INCORPORATING AN AMENDMENT TO THE CITY'S FIVE YEAR CAPITAL IMPROVEMENTS PLAN; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the City Council of the City of Apopka, Florida, on October 2, 1991 adopted Ordinance No. 653 which adopted the Comprehensive Plan for the City of Apopka; and

**WHEREAS**, the City of Apopka has subsequently amended the Comprehensive Plan for the City of Apopka, most recently through Ordinance No. 2617; and

**WHEREAS**, the City of Apopka's Local Planning Agency and the City Council have conducted the prerequisite advertised public hearings, as per Chapter 163, Florida Statutes, relative to the adoption of this ordinance and the requirements for amendment to the Comprehensive Plan.

**NOW, THEREFORE, BE IT ORDAINED** by the City Council of the City of Apopka, Florida, as follows:

**SECTION I:** The City of Apopka hereby amends the Capital Improvements Element of the adopted Comprehensive Plan as follows:

The Capital Improvements Element is hereby amended to incorporate annual updates to the Five Year Capital Improvements plan and replaced in its entirety by Exhibit "A" of this Ordinance, and incorporated herein by reference.

**SECTION II:** If any section or portion of a section or subsection of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or portion of a section or subsection or part of this ordinance.

**SECTION III:** That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

**SECTION IV:** This Ordinance shall become effective upon adoption.

**ORDINANCE NO. 2679**  
**PAGE 2**

ADOPTED at a regular meeting of the City Council of the City of Apopka, Florida, this  
3<sup>rd</sup> day of October, 2018.

READ FIRST TIME: September 19, 2018

READ SECOND TIME  
AND ADOPTED: October 3, 2018

---

Bryan Nelson, Mayor

ATTEST:

---

Linda Goff, City Clerk

DULY ADVERTISED FOR PUBLIC HEARING: August 31, 2018; September 21, 2018

**APPENDIX 7-1: FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS - RECREATION**

**PROPOSED CHANGES - UNDERScoreD**

Comprehensive Plan Element/Project	Source of Funding	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Totals	
Concession, bathrooms, building and sidewalks at NWRC	General Fund		\$300,000			\$0		\$300,000	
Parking Lot-NWRC Little League Fields			\$510,000			\$0		\$510,000	
Picnic Pavilions			\$100,000		\$100,000	\$0	\$100,000	\$300,000	
NWRC Ball Field Renovations		\$23,900	\$50,000	\$50,000	\$50,000	\$0		\$173,900	
Fitness Equipment for Kit Land Nelson Park (with grant)						\$0		\$23,900	
Bleacher Covers Over Quad 3			\$60,000			\$0		\$60,000	
Tennis Court Resurfacing – NWRC					\$50,000	\$0		\$50,000	
Basketball Resurfacing – NWRC					\$50,000	\$0		\$50,000	
Lk. Ave. Park – Playground, Pavilion, Shade Structure				\$350,000			\$0		\$350,000
Old Little League Fields New Park					\$200,000	\$0			\$200,000
NWRC Scoreboards for (1) Quad				\$30,000	\$30,000		\$0		\$60,000
New ball fields (Baseball, soccer, etc.)					\$2,200,000		\$0		\$2,200,000
Alonzo Williams Park Improvements (Contingent upon CDBG grant award)				\$50,000			\$0		\$50,000
Kit Land Nelson Park Fitness (grant contingent)*				\$80,000			\$0		\$80,000
<u>Kit Land Nelson Park Playground (Grant Match)</u>				\$75,000			\$0		\$75,000
<u>Northwest Recreation Complex Playground (Grant Match)</u>			\$35,000			\$0		\$35,000	
<b>TOTAL GENERAL FUND</b>		<b>\$23,900</b>	<b>\$1,290,000</b>	<b>\$2,630,000</b>	<b>\$450,000</b>	<b>\$0</b>	<b>\$100,000</b>	<b>\$4,493,900</b>	
Recreation Splash Pad at NWRC	Recreation Impact Fund					\$400,000		\$400,000	
Skate Park			\$300,000					\$300,000	
Playground at Apopka Athletic Complex (AAC)				\$75,000					\$75,000
Splash Pad w/ Restrooms (Kit Land Nelson Park)		\$750,000							\$750,000
Park Lot - NWRC				\$267,000	\$865,000		\$1,165,000		\$2,297,000
<b>TOTAL RECREATION IMPACT FUND</b>		<b>\$750,000</b>	<b>\$375,000</b>	<b>\$267,000</b>	<b>\$865,000</b>	<b>\$400,000</b>	<b>\$1,165,000</b>	<b>\$3,822,000</b>	



**APPENDIX 7-1: FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS - RECREATION**

**PROPOSED CHANGES - UNDERScoreD**

Comprehensive Plan Element/Project	Source of Funding	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Totals
Alonzo Williams Community Center Bldg.	CDBG		\$750,000					\$750,000
<b>TOTAL CDBG</b>			<b>\$750,000</b>					<b>\$750,000</b>
Alonzo Williams Park[1] Renovations	FRDAP Grant	\$28,000						\$28,000
Alonzo Williams Park New Construction[2]		\$22,000						\$22,000
Kit Land Nelson Park Renovations[3]		\$3,700						\$3,700
Kit Land Nelson Park New Construction[4]		\$42,500						\$42,500
AAC Renovations[5]			\$17,000					\$17,000
AAC New Construction[6]			\$33,000					\$33,000
Old Little League Fields New Park Construction						\$200,000		
<b>TOTAL FRDAP GRANT FUNDS</b>		<b>\$96,200</b>	<b>\$50,000</b>	<b>\$0</b>	<b>\$200,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$346,200</b>

[1] Resurfacing, irrigation, drinking fountain, picnic facilities

[2] Playground, security lighting

[3] Resurfacing, tennis court maintenance, drinking fountain, picnic facilities, miscellaneous maintenance

[4] New playground, bike rack, picnic facilities

[5] Restrooms, playground surface materials, baseball dugout shelters, drinking fountain & picnic facilities

[6] Playground, landscaping, picnic facilities

Kit Land Nelson Park Fitness Track/Trail*	FDEP GRANT		\$200,000					\$200,000
<b>Kit Land Nelson Park Playground</b>				<b>\$75,000</b>				\$75,000
<b>Northwest Recreation Complex Playground</b>					<b>\$35,000</b>			\$35,000
<b>TOTAL FDEP GRANT FUNDS</b>		<b>\$310,000</b>	<b>\$200,000</b>	<b>\$110,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$310,000</b>
Gymnasium/Aquatic Center (GO Bond)	Other Funds		\$20,000,000					\$20,000,000
Fitness Equipment for Kit Land Nelson Park/Outdoor Fitness Grant		\$9,560						\$9,560
<b>TOTAL OTHER FUNDS</b>		<b>\$9,560</b>	<b>\$20,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$20,009,560</b>
Downtown Parking Lot	CRA	\$200,000						\$200,000
Downtown Park Lot Upgrades				\$500,000				\$500,000
<b>TOTAL CRA FUND</b>		<b>\$200,000</b>	<b>\$500,000</b>					<b>\$700,000</b>

**APPENDIX 7-1: FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS - RECREATION**

**PROPOSED CHANGES - UNDERScoreD**

Comprehensive Plan Element/Project	Source of Funding	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Totals
Brick Streets, Repair & Restoration	<b>Street Improvement Fund</b>		\$500,000					\$500,000
Equipment (3412 Streets-6400)		\$60,000	\$60,000	\$60,000	\$50,000	\$50,000	\$50,000	\$330,000
New Sidewalk & Curb Construction (3412 Streets-6304)		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$300,000
Paving & Resurfacing (3412 Streets-6304)		\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$3,000,000
8 <sup>th</sup> Street Complex (Renovation/or Relocate) Split with 3412/3513/3181)		\$300,000						\$300,000
<b>TOTAL STREET IMPROVEMENT FUND</b>		<b>\$1,010,000</b>	<b>\$1,210,000</b>	<b>\$710,000</b>	<b>\$700,000</b>	<b>\$700,000</b>	<b>\$100,000</b>	<b>\$4,430,000</b>
6 <sup>th</sup> Street Reconstruction & Downtown Related Street Improvements, Central Ave to US 441	<b>Traffic Impact Fee</b>	\$500,000	\$500,000	\$1,000,000				\$2,000,000
Bradshaw Rd US 441 Traffic Signal		\$400,000						\$400,000
Peterson Rd (End of pavement to Hermit Smirth Rd) 2 lanes				\$750,000				\$750,000
Maine Ave, Martin St to Old Dixie Hwy (2 lanes)					\$1,000,000			\$1,000,000
Martin St, Maine Ave between Park Ave					\$1,600,000			\$1,600,000
Marden Rd (Keene Rd to CR 437A) 2 lanes, Urban Section Improvement		\$500,000	\$500,000					\$1,000,000
New Sidewalks		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
Rogers Rd, Lester Rd to Ponkan Rd				\$1,400,000				\$1,400,000
Old Dixie (Hawthorne Ave to Schopke Lester Rd) turn lane, curb, gutter		\$1,000,000						\$1,000,000
Sheeler Ave/Cleveland St Intersection Improvement (turn lanes/traffic light)				\$500,000				\$500,000
Plymouth Rd/Yothers Rd Intersection Improvements		\$500,000						\$500,000
Piedmont-Wekiwa Rd/Greenacres Rd (Traffic Light)					\$350,000			\$350,000
<b>TOTAL TRAFFIC IMPACT FUND</b>			<b>\$2,950,000</b>	<b>\$1,550,000</b>	<b>\$3,550,000</b>	<b>\$2,650,000</b>	<b>\$50,000</b>	<b>\$0</b>
Drainage Upgrading – Citywide (6308)	<b>Stormwater Fund</b>	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$350,000	\$2,100,000
<b>TOTAL STORMWATER FUND</b>		<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$2,100,000</b>
Miscellaneous Water Mains (2)	<b>Water Impact Fee</b>	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$600,000
<b>TOTAL WATER IMPACT FUND</b>		<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$600,000</b>

**APPENDIX 7-1: FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS - RECREATION**

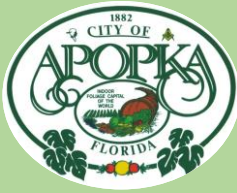
**PROPOSED CHANGES - UNDERScoreD**

Comprehensive Plan Element/Project	Source of Funding	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Totals
Binion Rd RWM, IFAS to Ocoee Apopka Rd, 5,329 LF,	Reclaim Fund				\$511,584			\$511,584
16" Golden Gem Reuse Station HSP						\$6,500,000		\$6,500,000
Keene Rd RWM, Marden Rd to Ocoee Apopka Rd, 4,413 LF, 36"		\$794,340						\$794,340
Kelly Park Rd RMW II, Jason Dwelley Pkwy to Rock Springs Rd 16", 8,801 LF (2)				\$705,000				\$705,000
Kelly Park Rd RWM, Golden Gem Rd to Round Lake Rd 24"			\$371,400					\$371,400
Miscellaneous RWM (5)		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$600,000
Northwest Reclaim Water Pump Station, 2 @ \$3,000				\$700,000				\$700,000
Northwest Reclaim Water Pond 2 & 3		\$250,000						\$250,000
Ocoee Apopka Rd, RWM, Harmon Rd to Alston Bay Blvd, 2,500 LF, 30"		\$412,500						\$412,500
Ocoee Apopka Rd RWM, Keene Rd to Alston Bay Blvd, 4,000 LF 30"		\$660,000						\$660,000
Plymouth Sorrento Rd RWM, Yothers Rd to Ponkan Rd, 4,654 LF 24" (2)			\$670,176					\$670,176
Ocoee Apopka Rd RWM, Keene Rd to Binion Rd, 3,500 LF 30"		\$308,000						\$308,000
Plymouth Sorrento Rd RWM, Ponkan Rd to Kelly Park Rd 2,745 LF, 20" (2)			\$645,000					\$645,000
<b>TOTAL RELAIM FUND</b>		<b>\$2,524,840</b>	<b>\$2,486,576</b>	<b>\$805,000</b>	<b>\$611,584</b>	<b>\$6,600,000</b>	<b>\$100,000</b>	<b>\$13,128,000</b>
Grossenbacher WTP, Replace Well	Water Impact Fee				\$910,000			\$910,000
Haas Rd WM, Mt. Plymouth Rd to Round Lake Rd, 22,708 LF 12" (1)					\$1,634,976			\$1,634,976
Kelly Park Rd WM, Golden Gem Rd to Round Lake Rd, 4,035 LF 16" (1)			\$387,360					\$387,360
Kelly Park Rd WM, Plymouth Sorrento Rd to Golden Gem, 6,672 LF 12" (1)		\$400,320						\$400,320
Miscellaneous Water Mains (2)		\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$600,000
Mt. Plymouth Water Plant (Well #1) modifications and improvements		\$700,000						\$700,000
Mt. Plymouth Water Plant (Well #4) modifications and improvements			\$900,000					\$900,000
NW WTP (1 MG Storage Tank) (1)				\$850,000				\$850,000
Plymouth Sorrento Rd WM Ponkan Rd to Kelly Park Rd, 10,720 LF 16" (1)				\$1,030,000				\$1,030,000
Plymouth Sorrento Rd WM, Yothers Rd to Ponkan Rd, 5,423 LF 12" (1)		\$390,456						\$390,456

**APPENDIX 7-1: FIVE-YEAR SCHEDULE OF CAPITAL IMPROVEMENTS - RECREATION**

**PROPOSED CHANGES - UNDERScoreD**

<b>Comprehensive Plan Element/Project</b>	<b>Source of Funding</b>	<b>FY 16-17</b>	<b>FY 17-18</b>	<b>FY 18-19</b>	<b>FY 19-20</b>	<b>FY 20-21</b>	<b>FY 21-22</b>	<b>Totals</b>
Plymouth Regional Water Plant, modifications and improvements Wells #1 & 2	<b>Water Impact Fee (Con't)</b>		\$900,000					<b>\$900,000</b>
Ponkan Rd, Ponkan Pines to Golden Gem 8,271 LF 12"			\$595,572					<b>\$595,572</b>
Sheeler Oaks WTP 65T .75 MG (1)			\$750,000					<b>\$750,000</b>
Southwest Water Plant (1)						\$4,500,000		<b>\$4,500,000</b>
US 441 WM, Roger Williams Rd to Sheeler Rd (1)					\$240,000			<b>\$240,000</b>
<b>TOTAL WATER IMPACT FUND</b>		<b>\$1,590,776</b>	<b>\$3,632,932</b>	<b>\$2,220,000</b>	<b>\$2,644,976</b>	<b>\$4,600,000</b>	<b>\$100,000</b>	<b>\$14,788,684</b>
Martin's Pond Improvements	<b>Other Funds (TBD)</b>							<b>TBD</b>
<b>TOTAL OTHER FUNDS</b>								<b>TBD</b>



# CITY OF APOPKA CITY COUNCIL

CONSENT AGENDA  
 PUBLIC HEARING  
 SPECIAL REPORTS  
 OTHER: PUD Master Plan/PDP/PSP

MEETING OF: October 3, 2018  
FROM: Community Development  
EXHIBITS: Zoning Report  
Vicinity Map  
Adjacent Zoning Map  
Aerial Map  
Ordinance No. 2678  
Ex. A – PUD Master Plan/PDP/PSP

**SUBJECT: ORDINANCE NO. 2678 - CHANGE OF ZONING; APPROVAL OF PUD MASTER PLAN/PRELIMINARY DEVELOPMENT PLAN/SUBDIVISION SITE PLAN FOR MID-FLORIDA LOGISITCS PARK**

**REQUEST: FIRST READING OF ORDINANCE NO. 2678 - CHANGE OF ZONING; APPROVAL OF PUD MASTER PLAN/PRELIMINARY DEVELOPMENT PLAN/SUBDIVISION SITE PLAN FOR MID-FLORIDA LOGISITCS PARK; AND HOLD OVER FOR SECOND READING & ADOPTION.**

**SUMMARY:**

OWNERS: Mid-Florida Freezer Warehouses LTD, Florida Express Trucking, Inc., Eagles Landing at Ocoee, LLC.  
APPLICANT: Dave Schmitt Engineering, Inc., c/o Bryan Gaines, AICP  
LOCATION: West side of SR 429, south of General Electric Road, and east of Hermit Smith Road  
PARCEL ID NUMBERS: 01-21-27-0000-00-060; 06-21-28-7172-12-020; 06-21-28-7172-12-041; 06-21-28-7172-12-060; 01-21-27-0000-00-030; 06-21-28-7172-13-000; 12-21-27-0000-00-010; 12-21-27-0000-00-018; 12-21-27-0000-00-015; 12-21-27-0000-00-017; 12-21-27-0000-00-021  
EXISTING USE: Vacant  
FLUM DESIGNATION: Industrial (adopted September 19, 2018)  
CURRENT ZONING: I-1 (Restricted Industrial District); Mixed-EC; R-1AA (Residential Single-Family District); AG (Agriculture District); and A-1 (ZIP)  
PROPOSED DEVELOPMENT: 2,406,095 sq. ft. industrial buildings; developed in multiple phases  
PROPOSED ZONING: Planned Unit Development (PUD)  
TRACT SIZE: 188.893 +/- acres

**FUNDING SOURCE: N/A**

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**SUMMARY:** The subject property is approximately 188.893 acres in size and is zoned I-1 (Restricted Industrial District), Mixed-EC, R-1AA (Residential Single-Family District), AG (Agriculture District), and A-1 (ZIP) and has a future land use designation of Industrial. The subject property is located west of SR 429, south of General Electric Road and east of Hermit Smith Road. The proposed change of zoning to PUD (Planned Unit Development) is being requested by the prospective developer, who proposes to construct a subdivision consisting of five industrial warehouse buildings totaling 2,406,095 on the property.

**ADDITIONAL APPROVALS:** A development agreement is required to address off-site infrastructure obligations placed on either the City or the Developer, land dedications, vacate of city right-of-way, timing of infrastructure, and special design or use standards. City staff and the city attorney’s office has worked with the applicant and its attorney to prepare the development agreement. At this time it is not complete, but is anticipated to be ready for City Council review and action at the second public hearing for the PUD zoning. If the development agreement is not ready for the October 17 City Council meeting, City staff will request a continuation of the second hearing to the November 7 City Council meeting date.

**PROJECT DESCRIPTION:** The PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan proposes a subdivision consisting of five industrial warehouse buildings totaling 2,406,095 square feet. Access to the site is proposed an ingress/egress point on Hermit Smith Road, two ingress/egress points on General Electric Road, and a yet to be constructed road that is dedicated to the public that is referred to as Fern Industrial Drive, which is proposed to be constructed in a north-south direction. In addition, three railroad spurs are proposed to lead into buildings 1A and 1B, 2, and 3. The railroad spurs will be located along the right-of-way of Fern Industrial Drive. Parking will be provided on each lot, and will be owned and maintained by each property owner.

Four Stormwater retention areas are proposed on site. Pond A (dry retention) is proposed south of Building 3, Pond B is proposed east of Building 1A and 1B and adjacent to SR 429, and Ponds C1 (dry retention) and C2 (wet detention) are proposed south and west of Building 5.

An unimproved platted right-of-way known as Peterson Road bisects the property in an east to west direction. This right-of-way is proposed to be vacated when the property is platted, and the right-of-way of Peterson Road will be relocated to the south to allow access to the property owners located to the south of the PUD. The proposed relocation of the Peterson Road right-of-way is shown on the PUD Master Plan in a “J” shaped configuration that extends from north to south and east to west. The new right-of-way of Peterson Road is proposed at 55-feet in width in the north/south direction. Adjacent to the east of the new Peterson Road right-of-way, the Central Florida Expressway Authority has 25-foot perpetual ingress/egress easement that allows access to the property to the south. This easement will not be included in the north/south portion of the right of way. 80-feet of right-of-way is proposed in the east/west direction.

In order accommodated the subdivision plan and site plan, a small area of right-of-way in the northwestern corner of the site that is referred to as Fronds Road must also be vacated.

**Deviations:** The applicant is requesting five deviations to the City’s required development standards. For a PUD Master Plan, a deviation from the City’s Land Development Code (LDC) does not represent a variance but a development standard or zoning condition unique to and approved as part of the Planned Unit Development zoning. PUD’s are required to satisfy the requirements of the Land Development Code unless the City Council finds that, based on substantial evidence, a proposed alternative development guideline is adequate to protect to the public health safety, and welfare. Any deviations must be consistent with the policies of the Comprehensive Plan.

1. LDC, Section 6.03.02.A. Number of parking spaces required (Wholesale, industrial, manufacture, processing or assembly uses) - 2 spaces per 1,000 square feet of gross floor area up to 150,000 square feet, plus 1 space per vehicle operating from premises or 1 space per 2 employees. 1 space per 1,000 square feet over 150,000 square feet of gross floor area.

The applicant is proposing 0.89 parking spaces per 1,000 square feet of gross floor area.

The following justification has been provided: “The ITE Parking Generation Manual, 4<sup>th</sup> Edition, 85<sup>th</sup> percentile parking requirement for warehouse use is 0.81 spaces per 1,000 square feet of gross floor area.”

2. LDC, Section 2.02.01.A. - Maximum building height for all zoning districts is 35-feet.

The applicant is proposing a maximum building height of 55-feet within the PUD.

The following justification has been provided: “The modern warehouses require 36-feet to 45-feet of clear space under roof to accommodate automated materials handling equipment and maximize storage.”

3. LDC, Section 2.02.15.F. Yard requirements - Front yard – 25-feet, side yard – 10-feet, Yards adjacent to road right-of-ways shall be a minimum of 25-feet, Rear Yard – 10-feet (30-feet adjacent to residential)

The applicant is proposing 15-foot setback on General Electric Road, Hermit Smith Road to main entrance, 0-feet to 10-feet adjacent to SR 429, 10-feet to 25-feet adjacent to Peterson Road, 10-feet adjacent to Fern Industrial Drive.

The following justification has been provided: “The northwestern portion of the site is constrained by the encroachment of General Electric Road. SR 429 has 300-feet of right-of-way, 6 lanes, and provides a 20-foot high barrier to adjacent property to the east.”

4. LDC, Section 2.02.01.b(8a) – Roof top equipment shall be completely screened from adjacent properties and rights-of-way to the maximum extent possible.

The applicant is proposing roof top equipment shall be screened from view from adjacent property lines and public right-of-way, with the exception of SR 429 due to the large elevation change of the roadway and the finished floor elevation of the building. SR 429 is at an elevation of 135-feet, approximately 20-feet above the finished floor height of Building 2. Screening shall be reviewed to be in conformance by the subdivision president and the City of Apopka. Screening shall be reviewed through a sight line document from the nearest adjacent property line and/or from the center line of the public right-of-way. The eye line shall be from the typical height of a person driving an automobile.

The following justification has been provided: “All buildings will have a site line evaluation to confirm that rooftop equipment will not be visible from adjacent properties and right-of-way.”

5. LDC, Section 6.02.08.B.2 – All subdivisions are required to have four-foot wide concrete sidewalks on both sides of all local and minor collector streets.

The applicant is proposing to construct a sidewalk along only one side of Fern Industrial Drive.

The following justification has been provided: “We are requesting that we do not place a sidewalk

the east side of the right-of-way proximate to the rail spurs. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving the entire site. The sidewalk on the west side of Fern Industrial is the spine connecting the southern end of the site with General Electric Road. All buildings are connected to this north/south spine and the appropriate crosswalks are provided when needed. We (BlueScope) remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the rail spurs to the east of Fern Industrial serving the site. The benefit of the additional sidewalk does not, in our opinion, warrant the risk of inadvertent interaction of pedestrians and rail vehicles.”

**TRANSPORTATION IMPACTS:**

**ACCESS:** Access to the site is provided from General Electric Road and Hermit Smith Road. Peterson Road is also a future access point for this project as well as for properties to the south of the Mid-Florida Logistics Park site. Peterson Road and Fronds Road are both proposed to be vacated at the request of the applicant and property owner. Peterson Road will be re-aligned to follow the south project/property line and intersect with Fern Industrial Drive. The vacated road right-of-way will become part of the development site, making it more compact and contiguous. Peterson Road access will serve as a future secondary access for emergency response. The proposed Peterson Road alignment will also create connection to Peterson Road east of SR 429, allowing residents of the proposed Avian Pointe residential development to reach the Logistics Park. The Peterson Road connection between the east and west side of SR 429 also allows another road connection besides using West Orange Avenue and Binion Road, thus allowing traffic to distribute over more routes.

A transportation impact analysis (TIA) was conducted for this project to assess its impacts on the surrounding roadway segments and intersections within a one-mile radius of the project per the City’s adopted TIA methodology. Included in the analysis were segments of US 441, General Electric Road, Binion Road, Hermit Smith Road and Hogshead Road. Intersections analyzed were General Electric Road and Orange Avenue, Hermit Smith Road and General Electric Road, Hermit Smith Road and US 441, SR 429 Connector Road and US 441, Orange Avenue and US 441, Plymouth Sorrento Road and US 441, Boy Scout Boulevard and US 441, General Electric Road and Site Access, and Hermit Smith Road and Site Access. Peterson Road connection requires additional right-of-way east of SR 429. In exchange for the City vacating Fronds Road and Peterson Road, Mid-Florida Freezer will be obligated to donate an additional 30-foot width of land along Peterson Road, east of SR 429, to create a 50-foot wide right-of-way.

The project will generate 3,444 daily trips and 246 P.M. Peak Hour trips. It is estimated that 20% of the total traffic generated by this project will be truck traffic. The nature of the land use supports the assumption that most of the truck traffic will leave the site and access SR 429 from US 441 and SR 429 Connector Road.

The addition of project trips to the study roadways will not cause the Level of Service (LOS) to fall below the City’s adopted LOS standard. The addition of project traffic to the intersection of Hermit Smith Road and US 441 will cause the intersection to fail. The applicant is required to design and construct a dedicated right turn lane on Hermit Smith Road to allow for safe access to US 441. The addition of project traffic to the other study intersections is not project to cause failures in the future.

The tenants of the Mid-Florida Logistics Park are unknown at this time, so trip generation is based on the best information currently available; however, it is possible that tenants occupying space at Mid-Florida Logistics Park will exceed the trip generation used to conduct the analysis. As the site develops and becomes occupied, the applicant must reassess the trip generation. If it exceeds the projected trip generation used in the analysis, an updated study is required and additional mitigation for roadway and intersection failures caused by the project traffic.



**PUD RECOMMENDATIONS:** That the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions subject to the following zoning provisions:

- A. The uses permitted within the PUD district shall be those described in C below.
- B. Terms of Expiration for this PUD shall be as follows:

If a Final Development Plan associated with the PUD district has not been approved by the City within three years, and site development has not commenced within four years after approval of these Master Plan provisions, the approval of the Master Plan provisions will expire. At such time, the City Council may:

- 1. Permit a single six-month extension for submittal of the required Final Development Plan;
- 2. Allow the PUD zoning designation to remain on the property pending resubmittal of new Master Plan provisions and any conditions of approval; or
- 3. Rezone the property to a more appropriate zoning classification.

C. Zoning Standards

- 1. Permitted Uses:
  - (a) All permitted uses allowed under I-1 zoning district;
  - (b) The uses allowed by the “Developer’s Agreement for Development of Copart, Inc. Apopka Property,” as recorded as document number 20160275220 within the official records of Orange County, Florida, shall be available uses within this PUD if the Copart Developer’s Agreement is terminated with the mutual consent of City Council and the property owner subject to the Copart Developer’s Agreement;
  - (c) Long-term outdoor vehicle (bus, car, cab, and truck) storage and terminal use is permitted within the PUD as an accessory use if said vehicle parking is associated with an enclosed building having a minimum floor area of 10,000 square feet and located within the same Lot or abutting lots. All vehicles stored outdoors must be operable.
  - (d) Prohibited Use: Flea markets; day-care centers except when provided solely for on-site employees; churches, public or private schools (k-12th grade) except when located within a stand-alone building; community residential homes; All prohibited uses for the I-1 zoning district.
  - (e) Special Exceptions: As set forth by the I-1 zoning district except if listed as a permitted or prohibited uses above.

**COMPREHENSIVE PLAN COMPLIANCE:** The proposed use of the property is consistent with the proposed Industrial Future Land Use designation and is consistent with the Land Development Code.

**ORANGE COUNTY NOTIFICATION:** Pursuant to Section 7 of the Joint Planning Area agreement notification to Orange County was provided on July 18, 2018.

**PUBLIC HEARING SCHEDULE:**

September 11, 2018 - Planning Commission (5:30 pm)  
October 3, 2018 - City Council (1:30 pm) - 1st Reading  
October 17, 2018 – City Council (7:00 pm) - 2nd Reading

**DULY ADVERTISED:**

August 24, 2018 – Public Notice (Apopka Chief); Letter, Poster  
October 5, 2018 – Public Notice (Apopka Chief)

---

**RECOMMENDATION ACTION:**

The **Development Review Committee** finds the proposed rezoning to Planned Unit Development (PUD), PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan consistent with the Comprehensive Plan and Land Development Code and recommends approval of the Mid-Florida Logistics Park PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan.

The **Planning Commission**, at its meeting on September 11, 2018, found the proposed zoning and PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan consistent with the Comprehensive Plan and Land Development Code, and unanimously recommended approval of the rezoning of the subject parcel from I-1 (Restricted Industrial District), Mixed-EC, R-1AA (Residential Single-Family District), AG (Agriculture District), and A-1 (ZIP) to PUD (Planned Unit Development), and approval of the PUD Master Plan/Preliminary Development Plan/Preliminary Site Plan based on the findings and facts presented in the staff report and exhibits, subject to City Council approving a Development Agreement.

**City Council:** Accept the First Reading of Ordinance No. 2678 and Hold it Over for Second Reading and Adoption on October 17, 2018.

**Note:** This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

**ZONING REPORT**

**RELATIONSHIP TO ADJACENT PROPERTIES:**

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Industrial (max FAR 0.60)	I-1	Transport/freight uses, Copart
East (City)	None assigned	N/A	SR 429 right-of-way
South (County)	Orange County Rural	AG	Vacant property
West (City)	Orange County Rural	AG	Lake Apopka Restoration Area

**LAND USE &**

**TRAFFIC COMPATIBILITY:**

The property is accessed via Hermit Smith Road and General Electric Road and a yet to be constructed public roadway referred to as Fern Industrial Drive, which will be owned and maintained by the City of Apopka. Future land use designations and zoning categories assigned to properties to the north, south, east, and west are predominantly Industrial and Rural.

**COMPREHENSIVE  
 PLAN COMPLIANCE:**

The proposed PUD zoning is compatible with policies set forth in the Comprehensive Plan.

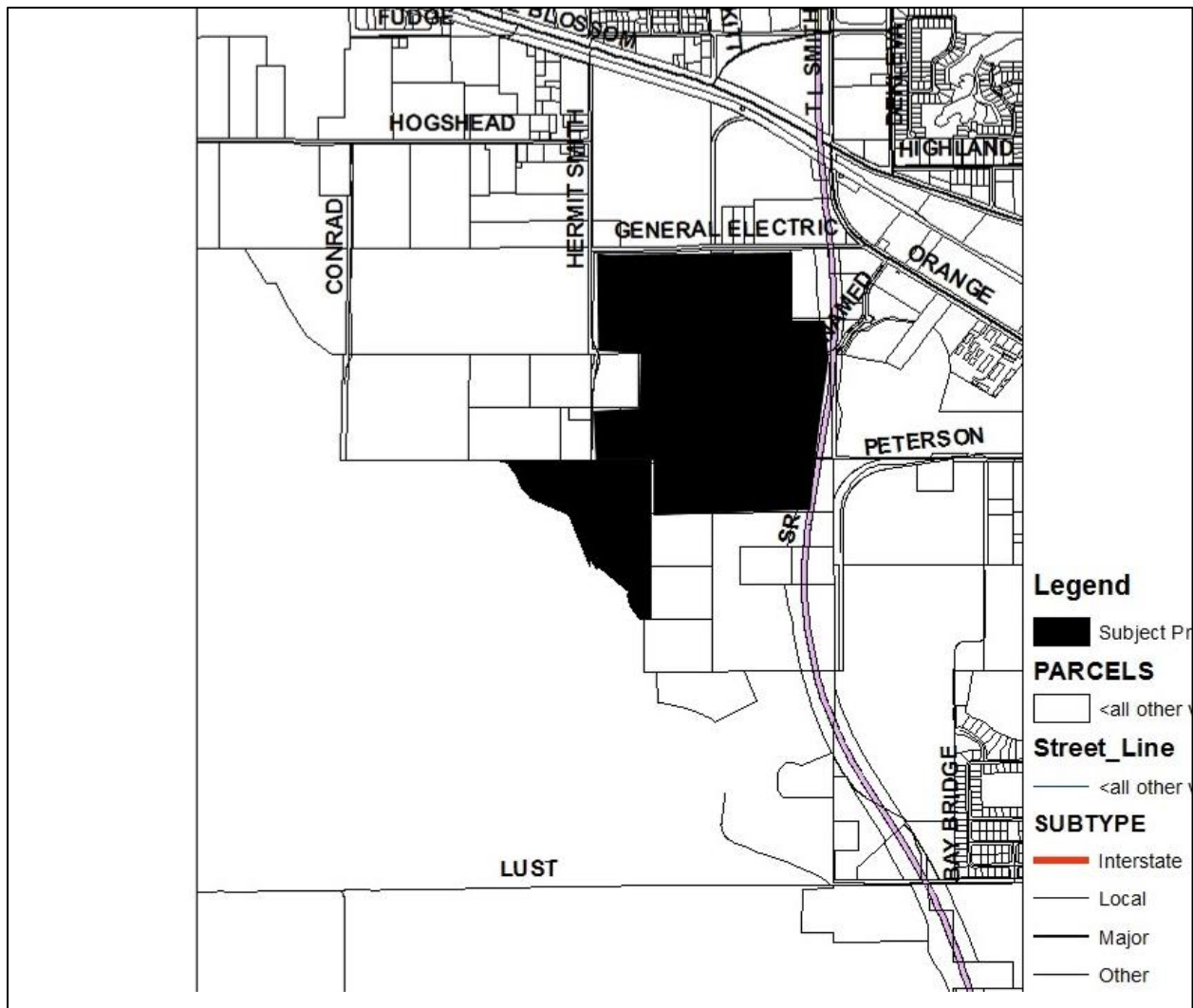
**ALLOWABLE  
 USES:**

Industrial uses as set forth within the Planned Unit Development Master Plan.

**Project:** MID-FLORIDA LOGISTICS PARK  
**Owned by:** Mid-Florida Freezer Warehouses, LTD, Florida Express Trucking, Inc. Eagles Landing at Ocoee, LLC  
**Located:** East side of Hermit Smith Road, South of General Electric Road, west of SR 429  
**Parcel ID#s:** 01-21-27-0000-00-060, 06-21-28-7172-12-020, 06-21-28-7172-12-041, 06-21-28-7172-12-060, 01-21-27-0000-00-030, 06-21-28-7172-13-000, 12-21-27-0000-00-010, 12-21-27-0000-00-018, 12-21-27-0000-00-015, 12-21-27-0000-00-017, 12-21-27-0000-00-021

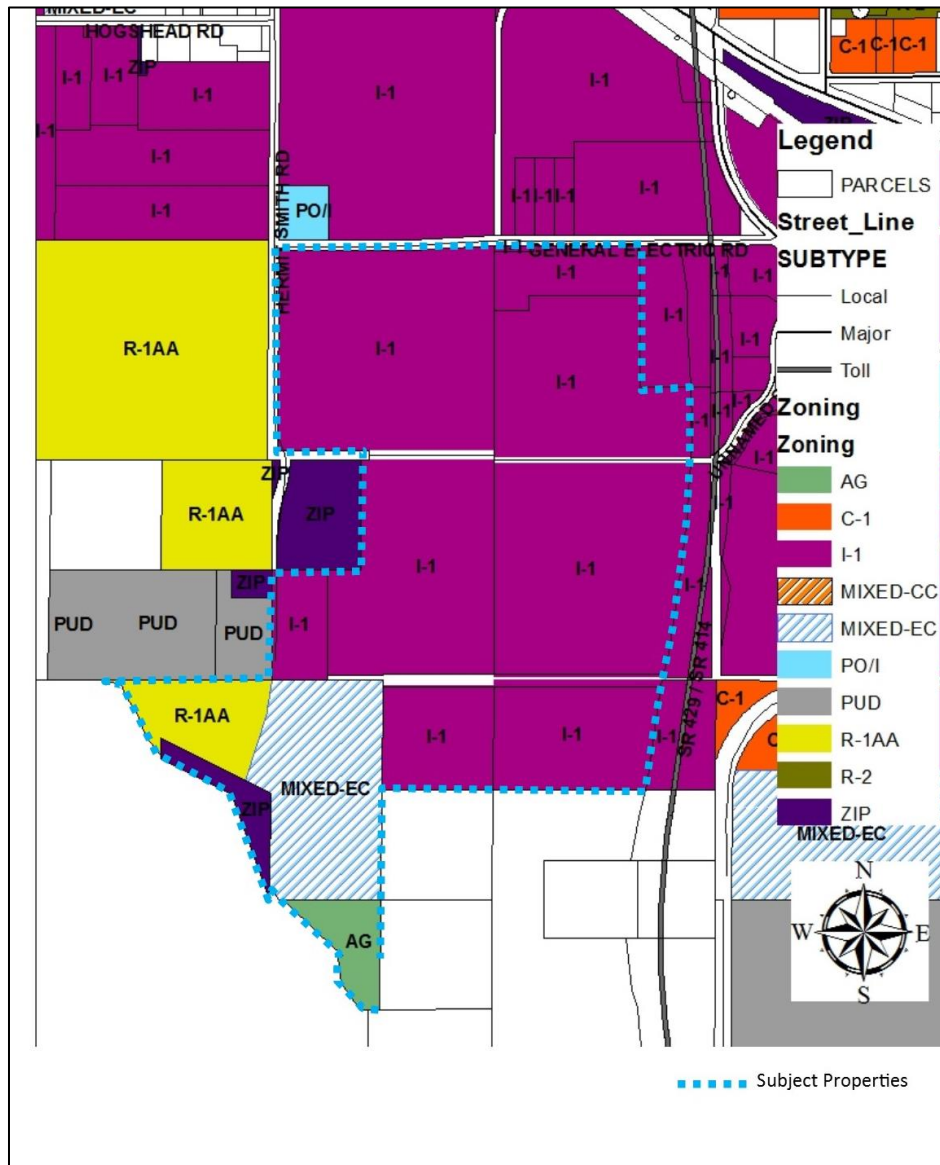


### VICINITY MAP





## ADJACENT ZONING



### AERIAL MAP



**ORDINANCE NO. 2678**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” A-1 (ZIP), “CITY” RESIDENTIAL SINGLE-FAMILY DISTRICT (R-1AA), “CITY” MIXED-EC (MIXED-USE), “CITY” AG (AGRICULTURE), AND “CITY” I-1 (RESTRICTED INDUSTRIAL DISTRICT) TO “CITY” PLANNED UNIT DEVELOPMENT (PUD), FOR CERTAIN REAL PROPERTY GENERALLY LOCATED ON THE WEST SIDE OF SR 429, SOUTH OF GENERAL ELECTRIC ROAD, AND EAST OF HERMIT SMITH ROAD, COMPRISING 186.03 ACRES MORE OR LESS, AND OWNED BY MID FLORIDA FREEZER WAREHOUSES LTD; AND EAGLES LANDING AT OCOEE, LLC; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.**

**WHEREAS**, to manage growth, the City of Apopka, Florida, finds it in the best interest of the public health, safety and welfare of its citizens to establish zoning classifications within the City; and

**WHEREAS**, Dave Schmitt Engineering, Inc. has requested a change in zoning on said property as identified in Section II of this ordinance; and

**WHEREAS**, the proposed Planned Unit Development (PUD) zoning has been found to be consistent with the City of Apopka Comprehensive Plan, and the City of Apopka Land Development Code.

**NOW THEREFORE, BE IT ORDAINED**, by the City Council of the City of Apopka, Florida, as follows:

**Section I.** That the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following development standards and provisions, and subject to the following zoning provisions:

- A. The following uses are permitted within the PUD district:
  - 1. All permitted uses allowed under I-1 zoning district;
  - 2. The uses allowed by the “Developer’s Agreement for Development of Copart, Inc. Apopka Property,” as recorded as document number 20160275220 within the official records of Orange County, Florida, shall be available uses within this PUD if the Copart Developer’s Agreement is terminated with the mutual consent of City Council and the property owner subject to the Copart Developer’s Agreement;
  - 3. Long-term outdoor vehicle (bus, car, cab, and truck) storage and terminal use is permitted within the PUD as an accessory use if said vehicle parking is associated with

an enclosed building having a minimum floor area of 10,000 square feet and located within the same Lot or abutting lots. All vehicles stored outdoors must be operable.

B. The following uses are Prohibited within the PUD district:

1. Flea markets
2. Day-care centers except when provided solely for on-site employees
3. Churches
4. Public or private schools (K-12th grade) except when located within a stand-alone building
5. Community residential homes
6. All prohibited uses for the I-1 zoning district

C. Special Exceptions: As set forth by the I-1 zoning district except if listed as a permitted or prohibited uses above.

D. Development of the property shall occur consistent with the Master Site Plan set forth in Exhibit “B”. Where any development standard conflicts between the Master Site Plan and the Land Development Code, the Master Site Plan shall preside. Any proposed revision to the Master Site Plan shall be evaluated and processed pursuant to Section 2.02.18.N. (Master plan revision), LDC

E. If a Final Development Plan associated with the PUD district has not been approved by the City within three years after approval of these Master Plan provisions, the approval of the Master Site Plan/PDP provisions will expire. At such time, the City Council may:

1. Permit a single six-month extension for submittal of the required Final Development Plan;
2. Allow the PUD zoning designation to remain on the property pending resubmittal of new Master Site Plan provisions and any conditions of approval; or
3. Rezone the property to a more appropriate zoning classification.

**Section II.** That the zoning classification of the following described Property, being situated in the City of Apopka, Florida, is hereby PUD as defined in the Apopka Land Development Code:

Legal Description: See Exhibit “A”

**Section III.** That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.



**ORDINANCE NO. 2678**

**PAGE 3**

**Section IV.** That the Community Development Director, or the Director's designee, is hereby authorized to amend, alter, and implement the official zoning maps of the City of Apopka, Florida, to include said designation.

**Section V.** That if any section or portion of a section or subsection of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force or effect of any other section or portion of section or subsection or part of this ordinance.

**Section VI.** That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

**Section VII.** That this Ordinance shall take effect upon the date of adoption.

READ FIRST TIME: October 3, 2018

READ SECOND TIME  
AND ADOPTED: \_\_\_\_\_

\_\_\_\_\_  
Bryan Nelson, Mayor

ATTEST:

\_\_\_\_\_  
Linda Goff, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Cliff Shepard, City Attorney

DULY ADVERTISED: August 24, 2018; October 5, 2018

**Exhibit "A" Legal Description**

THAT PART OF THE SOUTHEAST 1/4 OF SECTION 1, TOWNSHIP 21 SOUTH, RANGE 27 EAST AND THE NORTHEAST 1/4 OF SECTION 12, TOWNSHIP 21 SOUTH, RANGE 27 EAST, BEING DESCRIBED AS FOLLOWS; COMMENCE AT THE NORTHWEST CORNER OF THE SOUTHEAST 1/4 OF SAID SECTION 1; THENCE RUN S00°14'22"W ALONG THE WEST LINE OF SAID SOUTHEAST 1/4, 60.00 FEET TO A POINT 60.00 FEET SOUTH OF, WHEN MEASURED PERPENDICULAR TO, THE NORTH LINE OF SAID SOUTHEAST 1/4; THENCE RUN N89°59'32"E PARALLEL WITH SAID NORTH LINE, 30.00 FEET TO THE EAST RIGHT OF WAY LINE OF HERMIT SMITH ROAD BEING THE EAST LINE OF A 30.00 RIGHT OF WAY RECORDED IN DEED BOOK 633, PAGE 385, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, FOR THE POINT OF BEGINNING; THENCE CONTINUE N89°59'32"E ALONG THE SOUTH RIGHT OF WAY LINE OF GENERAL ELECTRIC ROAD, AS RECORDED IN DEED BOOK 966, PAGE 424, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, 800.00 FEET; THENCE CONTINUE ALONG SAID SOUTH RIGHT OF WAY LINE N86°30'41"E, 494.11 FEET TO THE NORTHWEST CORNER OF LOT 4, BLOCK "L", MAP OF PLYMOUTH, AS RECORDED IN PLAT BOOK B, PAGES 17-18, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE RUN N89°59'32"E ALONG THE NORTH LINE OF SAID BLOCK "L", 872.00 FEET TO THE NORTHWEST CORNER OF LOT 1 OF SAID BLOCK "L"; THENCE RUN S00°08'04"E ALONG THE WEST LINE OF LOT 1 AND LOT 8 OF SAID BLOCK "L", 852.07 FEET TO THE NORTHWEST CORNER OF LOT 9 OF SAID BLOCK "L"; THENCE RUN N89°59'14"E ALONG THE NORTH LINE OF SAID LOT 9, 305.56 FEET TO THE WEST RIGHT OF WAY LINE OF STATE ROAD 429 (WESTERN BELTWAY); THENCE RUN THE FOLLOWING SIX (6) COURSES ALONG SAID WEST RIGHT OF WAY LINE S03°11'39"E, 222.83 FEET TO A CURVE CONCAVE TO THE WEST; THENCE RUN SOUTHERLY ALONG SAID CURVE HAVING A CENTRAL ANGLE OF 06°55'43", A RADIUS OF 7850.00 FEET, AN ARC LENGTH OF 949.26 FEET, A CHORD BEARING OF S04°57'27"W AND A CHORD DISTANCE OF 948.68 FEET; S08°25'18"W, 432.58 FEET; S12°48'38"W, 196.00 FEET; S07°57'36"W, 604.02 FEET; S15°57'29"W, 30.55 FEET TO THE SOUTH LINE OF THE NORTH 1/2 OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 12; THENCE RUN S89°58'43"W ALONG SAID SOUTH LINE AND THE SOUTH LINE OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 12, 1583.51 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4; THENCE RUN S00°26'22"W ALONG THE EAST LINE OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 12, 1316.77 FEET TO THE SOUTH LINE OF SAID NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4; THENCE RUN S89°53'17"W ALONG THE SOUTH LINE OF SAID NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4, 124.64 FEET TO THE EASTERN BOUNDARY OF LANDS DEDICATED TO ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT PROPERTY PER OFFICIAL RECORDS BOOK 7711, PAGE 4081, OFFICIAL RECORDS BOOK 7786, PAGE 3958, AND OFFICIAL RECORDS BOOK 5586, PAGE 2510; THENCE RUN THE FOLLOWING FIFTEEN (15) COURSES ALONG SAID EASTERN BOUNDARY OF LANDS DEDICATED TO ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT; N34°51'34"W, 185.69 FEET; N09°14'28"W, 154.82 FEET;

**ORDINANCE NO. 2678**

**PAGE 5**

N57°52'23"E, 35.05 FEET; N47°21'45"W, 206.75 FEET; N46°03'10"W, 257.06 FEET; S64°40'44"W, 30.12 FEET; N33°59'32"W, 130.01 FEET; S00°32'05"W, 79.45 FEET; N19°49'43"W, 669.98 FEET; N63°05'41"W, 470.00 FEET; N00°32'05"E, 19.26 FEET; N38°59'11"W, 151.57 FEET; N20°38'44"W, 140.91 FEET; N32°02'37"W, 141.62 FEET; N24°49'10"W, 65.79 FEET; N77°14'37"W, 124.93 FEET TO THE NORTH LINE OF AFORESAID NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 12; THENCE RUN S89°54'33"E ALONG SAID NORTH LINE, 1028.15 FEET TO THE NORTHWEST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 12; THENCE RUN S89°58'53"E ALONG THE NORTH LINE OF THE NORTHEAST 1/4 OF SECTION 12, 333.31 FEET TO THE WEST LINE OF THE EAST 3/4 OF SAID SOUTHWEST 1/4 OF THE SOUTHEAST 1/4; THENCE RUN N00°11'01"E ALONG THE WEST LINE OF SAID EAST 3/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4, 659.17 FEET TO THE SOUTH LINE OF THE NORTH 660.00 FEET OF SAID EAST 3/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4; THENCE RUN S89°59'40"E, PARALLEL WITH SAID SOUTH LINE, 200.00 FEET TO A LINE 200.00 FEET EAST OF THE WEST LINE OF SAID EAST 3/4 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST 1/4; THENCE RUN N00°11'01"E PARALLEL WITH SAID WEST LINE, 720.00 FEET TO A LINE 30.00 FEET NORTH OF, WHEN MEASURED PERPENDICULAR TO, THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SAID SECTION 1, BEING THE NORTH LINE OF A 60.00 FOOT RIGHT OF WAY RECORDED IN OFFICIAL RECORDS BOOK 889, PAGE 331, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE RUN N89°59'40"W ALONG SAID NORTH LINE OF RIGHT OF WAY, 501.97 FEET TO A LINE 30.00 FEET EAST OF, WHEN MEASURED PERPENDICULAR TO, THE WEST LINE OF SAID NORTHEAST 1/4 OF THE SOUTHEAST 1/4, BEING THE EAST LINE OF A 30.00 RIGHT OF WAY RECORDED IN DEED BOOK 633, PAGE 385, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE RUN N00°14'22"E ALONG SAID EAST RIGHT OF WAY LINE, 1199.11 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL OF LAND CONTAINS 188.893 ACRES MORE OR LESS.

Parcel ID Numbers: 01-21-27-0000-00-030; 01-21-27-0000-00-060; 06-21-28-7172-12-020; 06-21-28-7172-12-041; 06-21-28-7172-12-060; 06-21-28-7172-13-000; 12-21-27-0000-00-010; 12-21-27-0000-00-015; 12-21-27-0000-00-017; 12-21-27-0000-00-018; 12-21-27-0000-00-021

Containing 188.893 +/- Acres

**Exhibit “B” – Mid-Florida Logistics Park PUD Master Plan**

# PUD MASTER PLAN for MID-FLORIDA LOGISTICS PARK APOPKA, FLORIDA

**ENGINEER / PLANNER:**

DAVE SCHMITT ENGINEERING, INC.  
12301 LAKE UNDERHILL ROAD SUITE 241.  
ORLANDO, FL 32828  
407-207-9088  
FAX 407-207-9089  
CONTACTS: DAVE SCHMITT, P.E.

**DEVELOPER:**

BlueScope Properties Group LLC  
1540 Genessee Street  
Kansas City, MO 64102  
Matt Roth, VP and General Counsel

**OWNER:**

Mid Florida Freezer Warehouse Ltd.  
2560 West Orange Blossom Trail  
Apopka, FL 32761  
Pat Lee

**Eagles Landing**

PO Box 770609  
Winter Garden, FL 34777-0609  
Randy June

**DEVIATIONS OF WAIVER REQUEST TABLE**

Code Number	Code Requirement	Requested Modification	Justification	Location
6.03.02 A	<b>Parking</b> 2 spaces per 1,000 sf of GFA up to 150,000 sf plus 1 space per vehicle operating on the premises or 2 spaces per employee and 1 space per 1,000 sf of over 150,000 sf of GFA.	0.89 Space per 1,000 sf of GFA	The ITE Parking Generation Manual, 4th Edition, 45th percentile parking requirement for warehouse use is 0.81 spaces per 1,000 sf of GFA.	Entire Site
2.02.01 A	<b>Building Height</b> Maximum Building Height 35'	Maximum Building Height 55'	The modern warehouses require 36' to 45' of clear space under roof to accommodate automated materials handling equipment and maximize storage.	All Buildings
2.02.15 F	<b>Buffer Yard</b> Front 25', Side 10', Rear 10' (30' Adjacent to Residential), 25' Road ROW	15' on GE Road, Hermit Smith Road to Main Entrance, 0/10' Adjacent to Peterson Road, 10' Adjacent to Fern Industrial	The northern portion of the site is constrained by the encroachment of GE Road, SR 429 has 300' of ROW, 6 lanes, and provides a 20' high barrier to adjacent property to the east.	North and East
2.02.01 BS (b)(4)	<b>Roof Top Screening</b> All roof top equipment shall be completely screened from adjacent properties and rights-of-way to the maximum extent possible.	Roof top equipment shall be screened from view from adjacent property line and public rights-of-way, with the exception of SR 429 due to the large elevation change of the roadway and the finished floor elevation of the building. SR 429 is at an elevation of 135', approximately 20' above the finished floor height of Building 2. Screening shall be reviewed to be in conformance by the Subdivision Plat and the City of Apopka. Screening shall be reviewed through a sight line document from the nearest adjacent property line and/or from the centerline of the public right-of-way. The eye line shall be from the typical height of a person driving an automobile.	All buildings will have a site line evaluation to confirm that rooftop equipment will not be visible from adjacent properties and ROW.	Entire Site
2.02.16 B2	<b>Outdoor Vehicle</b>	Long-term outdoor vehicle (bus, car, cab, and truck) storage and terminal is a permitted use within the PUD.	Increased business flexibility. Permitted vehicle storage will be screened from the ground.	Entire Site
6.02.08	<b>Sidewalk Location</b> Build sidewalks on both sides of public streets	Build sidewalk only on the west side of Fern Industrial Drive.	We are requesting that we do not place a sidewalk on the east side of the ROW proximate to the rail spurs. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving entire site. The sidewalk on the west side of Fern Industrial is the spine connecting the southern end of the site with GE Road. All buildings are connected to this north-south spine and the appropriate crosswalks are provided where needed. We remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the internal rail spurs east of Fern Industrial serving the site. The benefits of the additional sidewalk does not, in our opinion, warrant the risk of inadvertent interaction of pedestrians and rail vehicles.	Entire Site

NOTE: THIS PROJECT WILL CONFORM TO ALL REQUIREMENTS OF I-1 ZONING WITH THE EXCEPTION OF THE DEVIATIONS NOTED ON THE DEVIATION TABLE.

**PARCEL ID No.**  
#01-21-27-0000-00-060, #06-21-28-7172-12-020  
#06-21-28-7172-12-041, #06-21-28-7172-12-060  
#01-21-27-0000-00-030, #06-21-28-7172-13-000  
#12-21-27-0000-00-010, #12-21-27-0000-00-018  
#12-21-27-0000-00-015, #12-21-27-0000-00-017  
#12-21-27-0000-00-021

NOTE: THE TWENTY-FIVE FOOT WIDE PROPERTY WHICH IS THE SUBJECT OF OR BOOK 10014, PAGE 4293 IS NOT PROPOSED FOR DEDICATION OR INCLUSION IN THE RIGHT OF WAY FOR THE RE-ALIGNED PETERSON ROAD.



**Know what's below.  
Call before you dig.**  
FL STATUTE 553.851 (1979) REQUIRES  
MIN. OF 2 DAYS AND MAX. OF 5 DAYS  
NOTICE BEFORE YOU EXCAVATE.

**PREPARED FOR:  
BLUESCOPE PROPERTIES GROUP LLC**

**SITE DATA**

TOTAL SITE AREA	189.00 ACRES
TOTAL PUD AREA (SITE AREA LESS PETERSON ROW)	186.03 ACRES
FUTURE LAND USE	INDUSTRIAL, MIXED USE, AGRICULTURE
EXISTING ZONING	I-1, MIXED EC, R-1AA, AG, ZIP-(I-1)
PROPOSED ZONING	PUD
BUILDING HEIGHT	35' MAX (PROPOSED 55')
FLOOR AREA	60%
BUILDING AREA	
BUILDING 1A	330,565 SF
BUILDING 1B	324,000 SF
BUILDING 2	514,930 SF
BUILDING 3	399,000 SF
BUILDING 4	537,600 SF
BUILDING 5	300,000 SF
<b>TOTAL</b>	<b>2,406,095 SF</b>
<b>BUILDING SETBACKS</b>	
FRONT	25'
SIDE:	10'
CORNER:	25'
REAR:	10'
ADJACENT TO RESIDENTIAL USE:	30'
<b>LANDSCAPE BUFFER</b>	
FRONT:	25'
SIDE:	10'
REAR:	10'
CORNER:	25'
SR429:	25' (PROPOSED 0')
GE ROAD:	25' (PROPOSED 15' WEST OF MAIN ENTRANCE)
HERMIT SMITH ROAD	25'
FERN INDUSTRIAL ROAD	10'
PETERSON ROAD	25' (PROPOSED 10')
<b>PARKING PROPOSED:</b>	
1,579 REGULAR	
526 TRUCK	
36 HANDICAP	
<b>2,141 TOTAL (2141 REQUIRED)</b>	
<b>OPEN SPACE:</b>	48.34 AC
<b>POND TRACT AREA:</b>	42.87 AC
<b>IMPERVIOUS AREA:</b>	138.88 AC 74.65%
<b>PERVIOUS AREA:</b>	47.15 AC 25.35%
<b>TOTAL PUD AREA:</b>	186.03 AC 100.00%

**TABLE OF CONTENTS**

Sheet Number	Sheet Title
01	COVER SHEET
02	EXISTING CONDITION PLAN
03	PUD MASTER PLAN
04	PRELIMINARY DEVELOPMENT PLAN / SUBDIVISION PLAN
05	OWNERSHIP & MAINTENANCE PLAN
06	PEDESTRIAN ACCESS PLAN
07	LOT 1 PLAN
08	LOT 1 PRELIMINARY GRADING PLAN
09	LOT 2 PLAN
10	LOT 2 PRELIMINARY GRADING PLAN
11	LOT 3 PLAN
12	LOT 3 PRELIMINARY GRADING PLAN
13	LOT 4 PLAN
14	LOT 4 PRELIMINARY GRADING PLAN
15	LOT 5 PLAN
16	LOT 5 PRELIMINARY GRADING PLAN
17	PRELIMINARY STORMWATER POND PLAN
18	GE ROAD OFFSITE IMPROVEMENTS

PLANS BY OTHERS:  
LANDSCAPE PLAN



**SITE**

**SITE LOCATION**

SCALE = 1 MILE  
0 1/4 1/2 1



DAVE SCHMITT  
ENGINEERING, INC.  
12301 LAKE UNDERHILL RD, SUITE 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

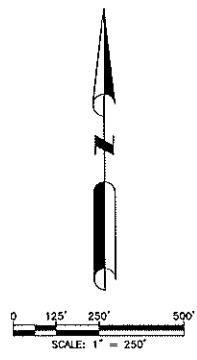
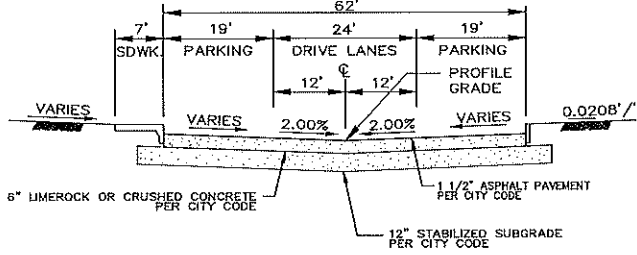
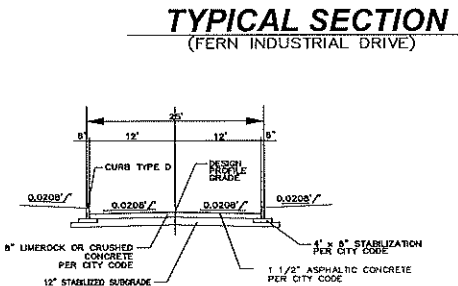
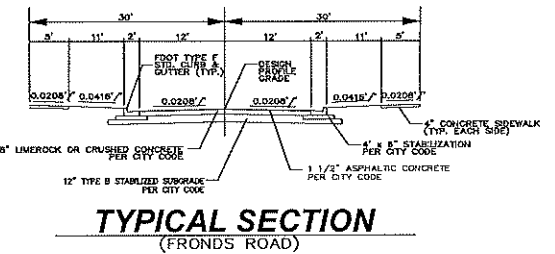
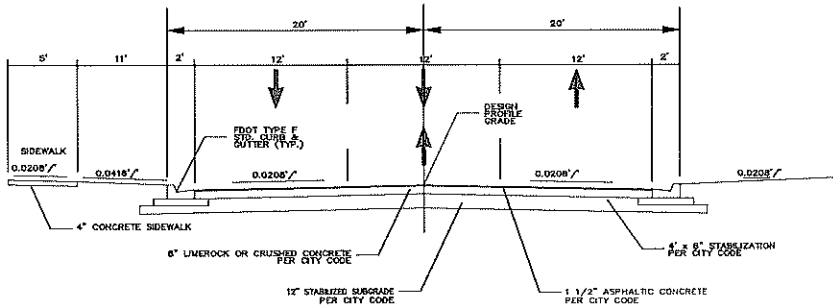
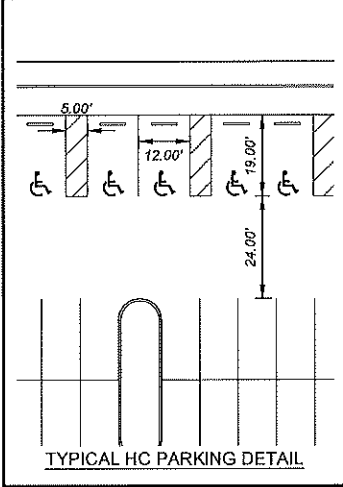
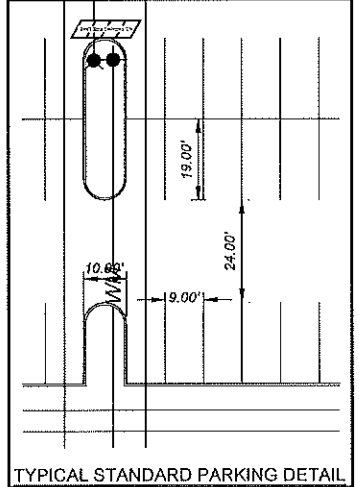
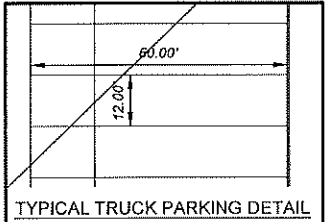
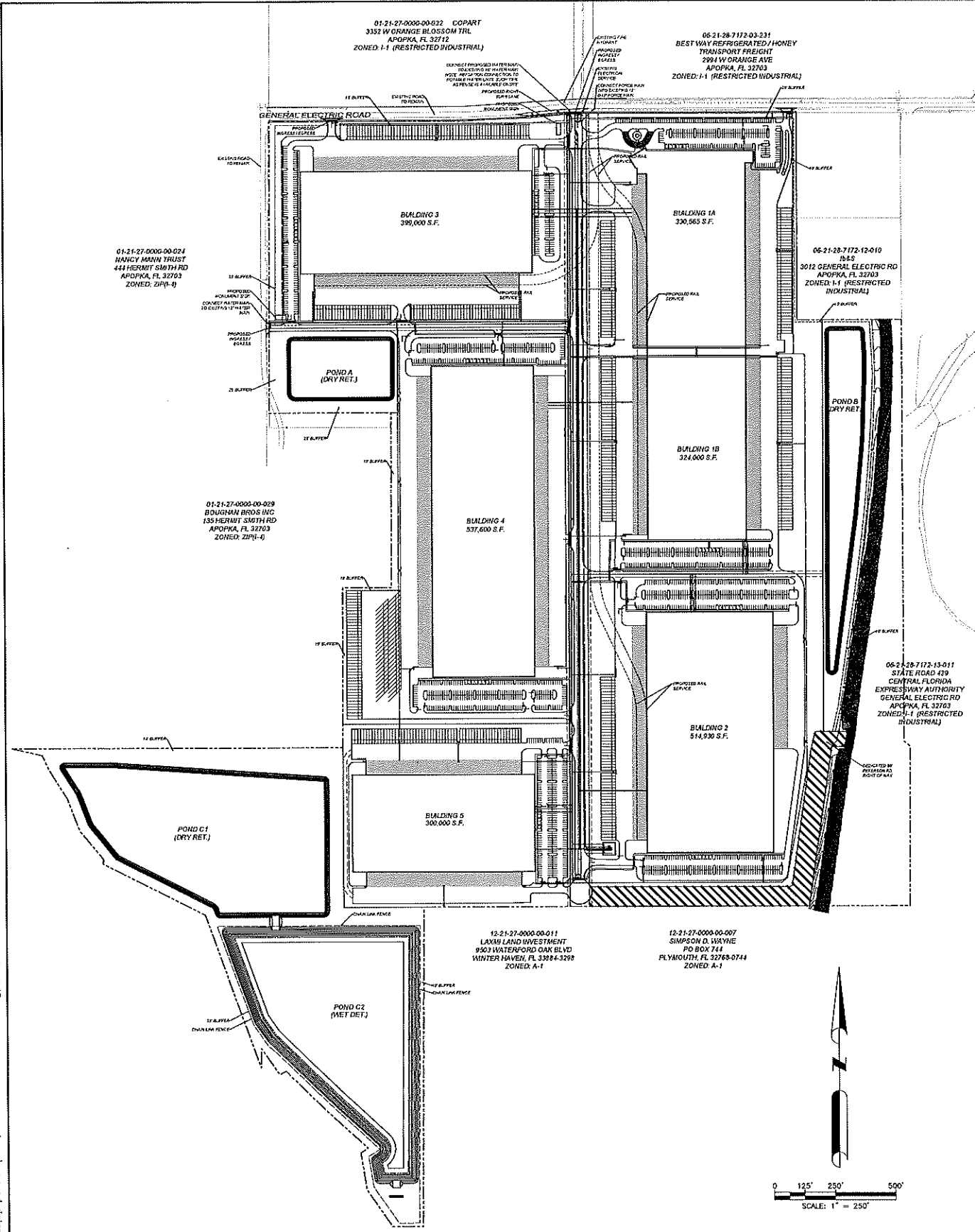
DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
45274

F:\ANC1\CAD\Plans\set\dp-pd-dev\plan\01 COVER SHEET.dwg, 8/31/2018 2:14:02 PM

THIS IS TO CERTIFY THAT THE ROADWAY CONSTRUCTION PLANS AND SPECIFICATIONS AS CONTAINED HEREIN WERE DESIGNED TO APPLY APPLICABLE STANDARDS AS SET FORTH IN THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION



F:\ANC1\CAD\Plan\set\dp-pd-dev-plan\03 PUD MASTER PLAN.dwg, 8/17/2018 3:01:23 PM



**DAVE SCHMITT ENGINEERING, INC.**  
 12301 Lake Underhill Road Suite 241  
 ORLANDO, FL 32828  
 407-207-9088 FAX 407-207-9089  
 Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"  
 I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
 Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Not valid without the signature and the original raised seal of a Florida Registered Engineer.

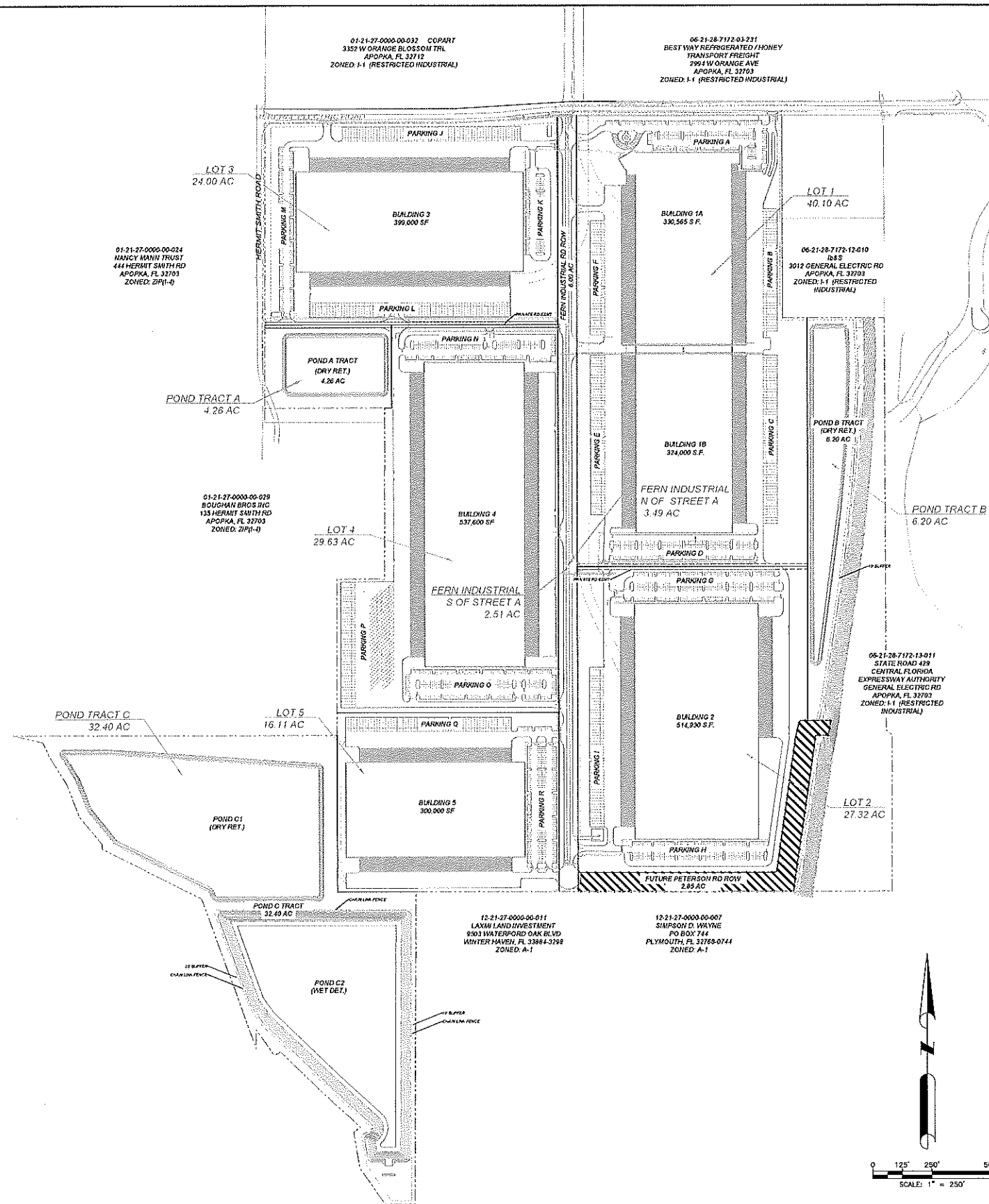
REVISIONS		REVISIONS	
DATE	BY	DATE	BY

DAVE M. SCHMITT  
 FLORIDA REG. NUMBER  
 48274

**PUD MASTER PLAN**  
**MID-FLORIDA LOGISTICS PARK**  
**APOPKA, FLORIDA**

DATE: JUNE 2018  
 PROJECT NO.: ANC-1  
 DRAWN BY: MTP  
 CHECKED BY: DSE  
 SCALE: 1"=250'  
 SHEET: 03 OF 18

F:\ANC1\CAD\PlanSet\dp-pd-dev-plan\04 SUBDIVISION & LOT PLANS.dwg, 8/31/2018 2:16:03 PM



**LOT AREAS**

LOT 1	40.10 ACRES
LOT 2	27.32 ACRES
LOT 3	24.00 ACRES
LOT 4	29.63 ACRES
LOT 5	16.11 ACRES
<b>TOTAL LOT AREA</b>	<b>137.16 ACRES</b>

**BUILDING AREAS**

BUILDING 1A	330,565 SF
BUILDING 1B	324,000 SF
BUILDING 2	514,930 SF
BUILDING 3	399,000 SF
BUILDING 4	537,600 SF
BUILDING 5	300,000 SF
<b>TOTAL BUILDING AREA</b>	<b>2,406,095 SF</b>

**POND TRACT AREAS**

POND A TRACT	4.26 ACRES
POND B TRACT	6.20 ACRES
POND C TRACT	32.41 ACRES
<b>TOTAL POND TRACT AREA</b>	<b>42.87 ACRES</b>

**PLANNED UNIT DEVELOPMENT AREA**

TOTAL LOT AREA	137.16 ACRES
TOTAL POND TRACT AREA	42.87 ACRES
<b>TOTAL PUD AREA</b>	<b>180.03 ACRES</b>

**TOTAL SITE AREA**

PUD AREA	180.03 ACRES
FERN INDUSTRIAL ROW	6.00 ACRES
PETERSON ROAD ROW	2.97 ACRES
<b>TOTAL SITE AREA</b>	<b>189.00 ACRES</b>

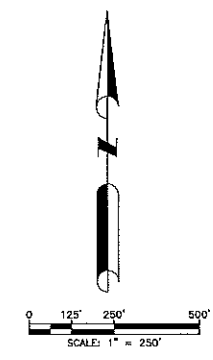
**OPEN SPACE**  
AREA REQUIRED: 20% OF TOTAL SITE AREA  
189.00 x 0.20 = 37.80 ACRES

**OPEN SPACE PROVIDED PER LOT: (FOR PONDS, 50% OF OPEN TRACT AREA)**

LOT 1 OPEN SPACE	8.55 ACRES
LOT 2 OPEN SPACE	6.03 ACRES
LOT 3 OPEN SPACE	4.78 ACRES
LOT 4 OPEN SPACE	3.05 ACRES
LOT 5 OPEN SPACE	2.38 ACRES
PETERSON ROAD ROW	2.97 ACRES
FERN INDUSTRIAL ROW	2.24 ACRES
POND A TRACT OPEN SPACE	2.04 ACRES
POND B TRACT OPEN SPACE	3.10 ACRES
POND C TRACT OPEN SPACE	16.20 ACRES
<b>TOTAL OPEN SPACE PROVIDED</b>	<b>48.34 ACRES</b>

**PRELIMINARY PHASING PLAN**

PHASE 1:	LOT 1	PETERSON RD DEDICATION POND B TRACT NORTHERN 1900' OF FERN INDUSTRIAL RD
PHASE 2:	LOT 2	REMAINDER OF FERN INDUSTRIAL RD POND C TRACT
PHASE 3:	LOT 3	POND A TRACT
PHASE 4:	LOT 4	
PHASE 5:	LOT 5	



**DAVE SCHMITT ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

**CONTRACTOR "AS-BUILTS"**  
I hereby state that these "As-Builts" were furnished to me by the contractor listed below, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

272

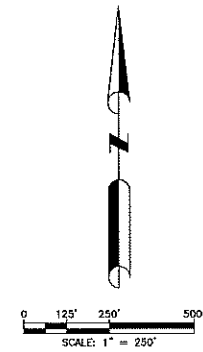
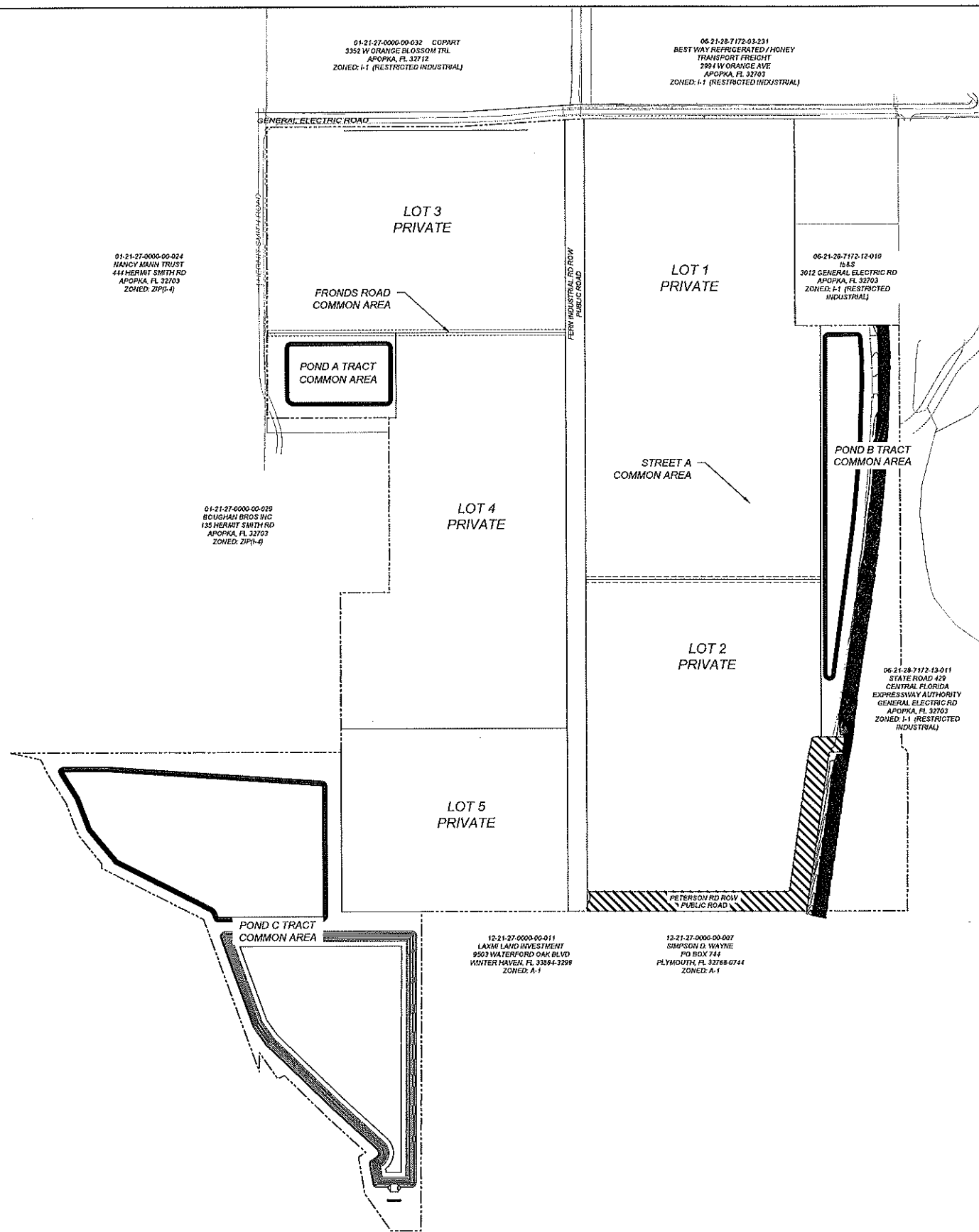
DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**PRELIMINARY DEVELOPMENT PLAN - SUBDIVISION PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE:	JUNE 2018
PROJECT NO.:	ANC-1
DRAWN BY:	MTP
CHECKED BY:	DSE
SCALE:	1"=250'
SHEET:	04 OF 18



F:\ANC1\CAD\Plan\set\dp-pc-dev-plan\05 OWNERSHIP AND MAINTENANCE PLAN.dwg, 8/17/2018 9:53:28 AM



**OWNERSHIP/MAINTENANCE:**

- A. PRIVATE LOTS: TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
- B. PUBLIC ROADWAYS: FERN INDUSTRIAL ROAD & PETERSON ROAD. TO BE OWNED AND MAINTAINED BY THE CITY OF APOPKA.
- C. PRIVATE ROADWAYS: FRONDS ROAD & STREET A. TO BE OWNED AND MAINTAINED BY THE POA.
- D. COMMON AREAS: POND TRACTS/OPEN SPACE TO BE OWNED AND MAINTAINED BY THE POA.



**DAVE SCHMITT ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

**CONTRACTOR "AS-BUILTS"**  
I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

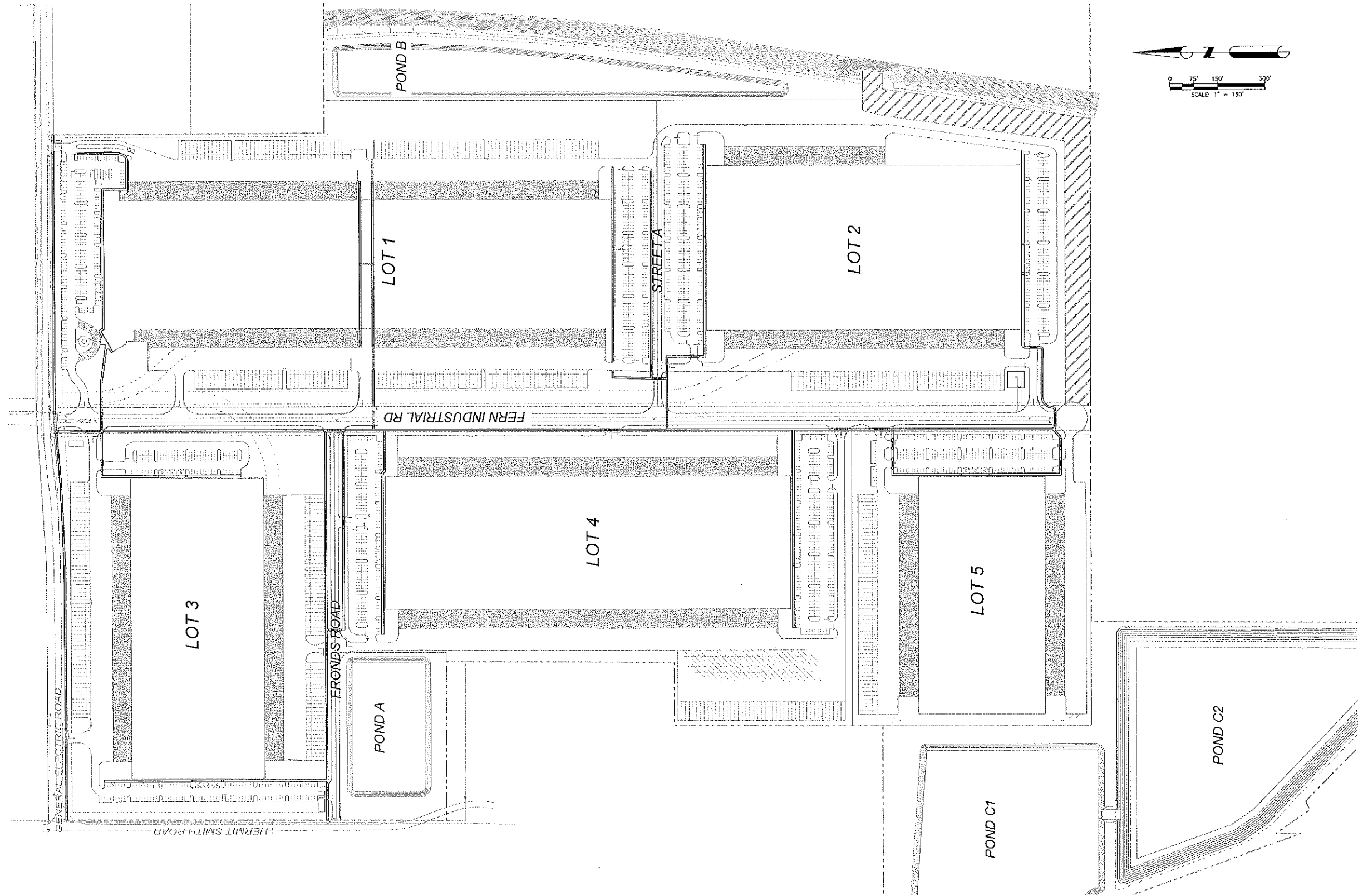
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**OWNERSHIP & MAINTENANCE PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=250'  
SHEET: 05 OF 18

F:\ANC1\CAD\Plan\set\p-pd-dev plan\06 PEDESTRIAN ACCESS PLAN.dwg,8/17/2018 9:57:55 AM



**DAVE SCHMITT ENGINEERING, INC.**  
 12301 Lake Underhill Road Suite 241  
 ORLANDO, FL 32828  
 407-207-9088 FAX 407-207-9089  
 Certification of Authorization #27471

**CONTRACTOR "AS-BUILTS"**

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Not valid without the signature and the original raised seal of a Florida Registered Engineer.

		REVISIONS			
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

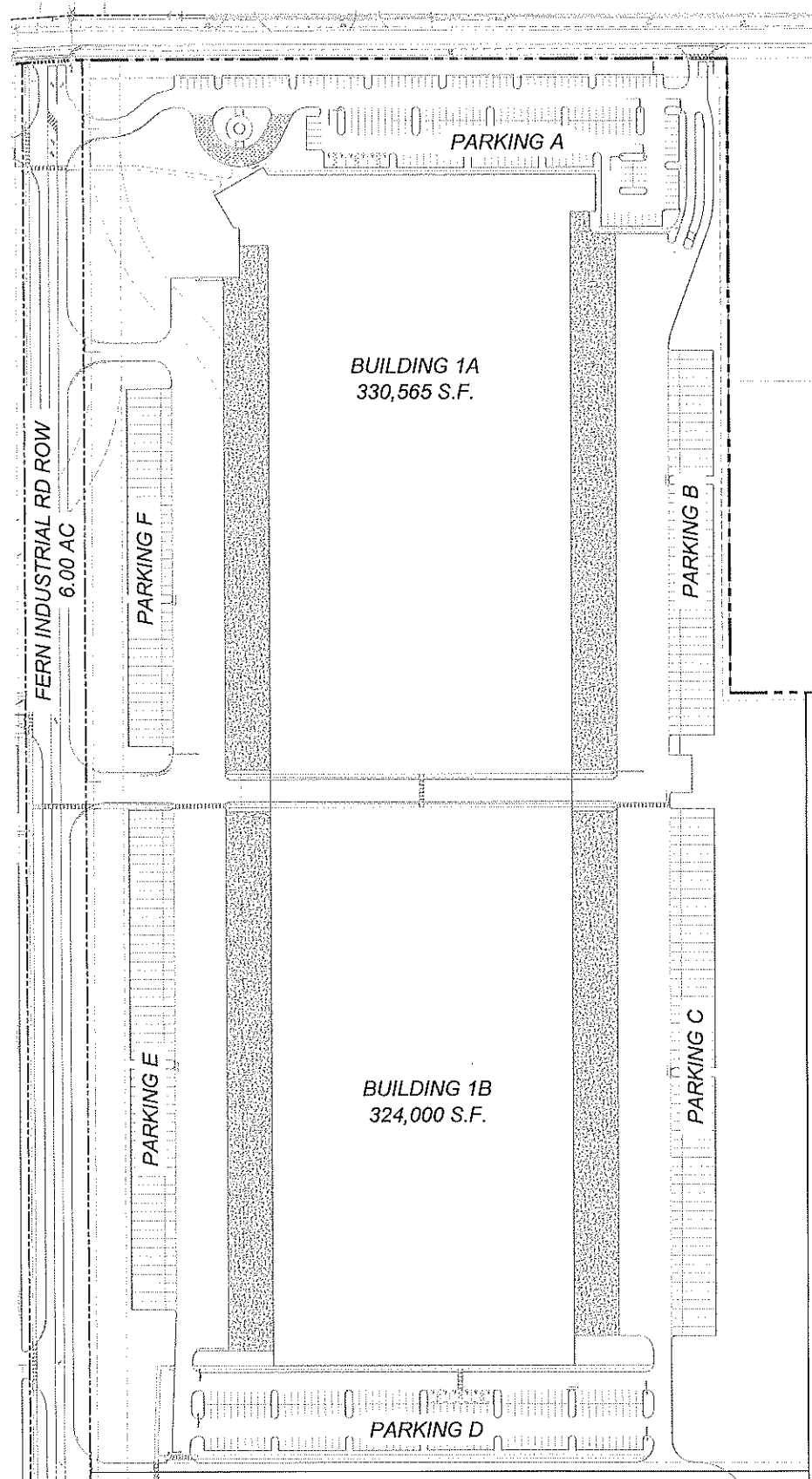
274

DAVE M. SCHMITT  
 FLORIDA REG. NUMBER  
 48274

**PEDESTRIAN ACCESS PLAN**  
 MID-FLORIDA LOGISTICS PARK  
 APOPKA, FLORIDA

DATE: JUNE 2018  
 PROJECT NO.: ANC-1  
 DRAWN BY: MTP  
 CHECKED BY: DSE  
 SCALE: 1"=250'  
 SHEET: 06 OF 18

F:\ANCI\CAD\Plan\set\dp-pd-dev plan\04 SUBDIVISION & LOT PLANS.dwg, 8/31/2018 2:16:03 PM



**LOT 1 PARCEL NUMBERS**  
 #06-21-28-7172-12-020  
 #06-21-28-7172-12-041  
 #06-21-28-7172-12-060

**LOT 1 AREA** 40.10 ACRES

**OPEN SPACE REQUIRED: 20 % OF LOT AREA**  
 40.10 x 0.20 = 8.02 ACRES

**OPEN SPACE PROVIDED**  
 LOT 1 OPEN SPACE 8.55 ACRES  
 POND B TRACT OPEN SPACE 3.10 ACRES

**TOTAL OPEN SPACE** 11.65 ACRES

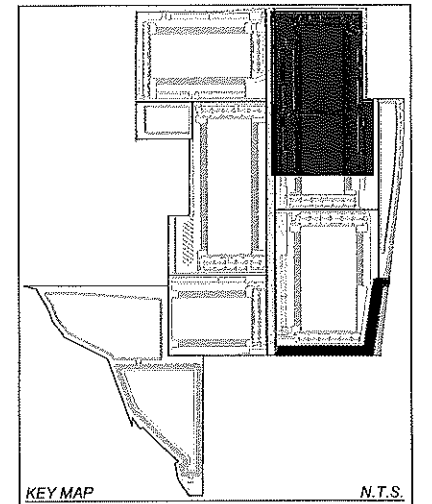
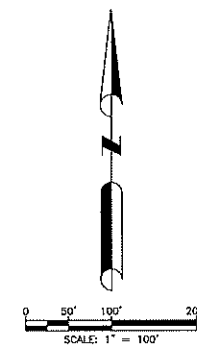
**BUILDING 1 AREA** 654,565 SF

**PARKING REQUIRED: 0.89 SPACE PER 1,000 SF OF GROSS FLOOR AREA**  
**PARKING SPACES REQUIRED** 583 SPACES

**PARKING PROVIDED:**

	PARKING AREA A	PARKING AREA B	PARKING AREA C	PARKING AREA D	PARKING AREA E	PARKING AREA F
STANDARD SPACES	205	0	0	168	0	0
HANDICAP SPACES	6	0	0	6	0	0
TRUCK SPACES	0	43	59	0	56	40
<b>SUBTOTAL</b>	<b>211</b>	<b>43</b>	<b>59</b>	<b>174</b>	<b>56</b>	<b>40</b>

**TOTAL PARKING SPACES** 583



**DEVIATIONS OF WAIVER REQUEST TABLE**

Code Number	Code Requirement	Requested Modification	Justification	Location
6.02.02 A	<b>Parking</b> 2 spaces per 1,000 sf of GFA up to 150,000 sf plus 1 space per vehicle operating on the premises or 2 spaces per employee and 1 space per 1,000 sf of over 150,000 sf of GFA	0.89 Space per 1,000 sf of GFA	The ITE Parking Generation Manual, 4th Edition, 85th percentile parking requirement for warehouse use is 0.81 spaces per 1,000 sf of GFA.	Entire Site
2.02.01 A	<b>Building Height</b> Maximum Building Height 35'	Maximum Building Height 55'	The modern warehouses require 36' to 45' of clear space under roof to accommodate a automated materials handling equipment and maximize storage.	All Buildings
2.02.15 F	<b>Buffer Yard</b> Front 25', Side 10', Rear 10' (30' Adjacent to Residential), 25' Road ROW	15' on GE Road, Hemet Smith Road to Main Entrance, 0710' Adjacent to SR 428, 10125' Adjacent to Peterson Road, 10' Adjacent to Fern Industrial	The northern portion of the site is constrained by the encroachment of GE Road. SR 428 has 300' of ROW, 6 lanes, and provides a ~20' high barrier to adjacent property to the east.	North and East
2.02.01 BS (1/9)	<b>Roof Top Screening</b> All roof top equipment shall be completely screened from adjacent properties and right-of-way to the maximum extent possible.	Roof top equipment shall be screened from view from adjacent property line and public rights-of-way, with the exception of SR 428 due to the large elevation change of the roadway and the finished floor elevation of the building. SR 428 is at an elevation of 135', approximately 20' above the finished floor height of Building 2. Screening shall be reviewed to be in conformance by the Subdivisor, President and the City of Apopka. Screening shall be reviewed through a sign line document from the nearest adjacent property line and/or from the centerline of the public right-of-way. The sign line shall be from the typical height of a person driving an automobile.	All buildings will have a site line evaluation to confirm that roof top equipment will not be visible from adjacent properties and ROW.	Entire Site
2.02.16 B2	<b>Outdoor Vehicle</b>	Long-term outdoor vehicle (van, car, cab, and truck) storage and terminal is a permitted use within the PUD.	Increased business flexibility. Permitted vehicle storage will be screened from the ground.	Entire Site
6.02.09	<b>Sidewalk Location</b> Build sidewalks on both sides of public streets	Build sidewalk only on the west side of Fern Industrial Drive.	We are requesting that we do not place a sidewalk on the east side of the ROW proximate to the rail spurs. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving entire site. The sidewalk on the west side of Fern Industrial is the spine connecting the southern end of the site with GE Road. All buildings are connected to this north-south spine and the appropriate crosswalks are provided where needed. We remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the internal rail spurs east of Fern Industrial serving the site. The benefit of the westward sidewalk does not, in our opinion, warrant the risk of inadvertent intersection of pedestrians and rail vehicles.	Entire Site

NOTE: THIS PROJECT WILL CONFORM TO ALL REQUIREMENTS OF I-1 ZONING WITH THE EXCEPTION OF THE DEVIATIONS NOTED ON THE DEVIATION TABLE.



**DAVE SCHMITT ENGINEERING, INC.**  
 12301 Lake Underhill Road Suite 241  
 ORLANDO, FL 32828  
 407-207-9088 FAX 407-207-9089  
 Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

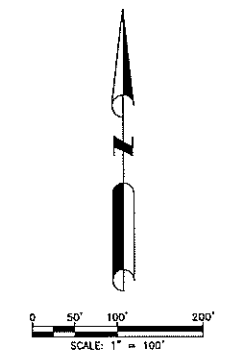
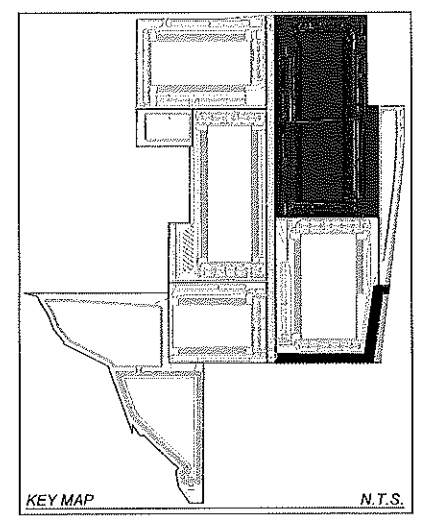
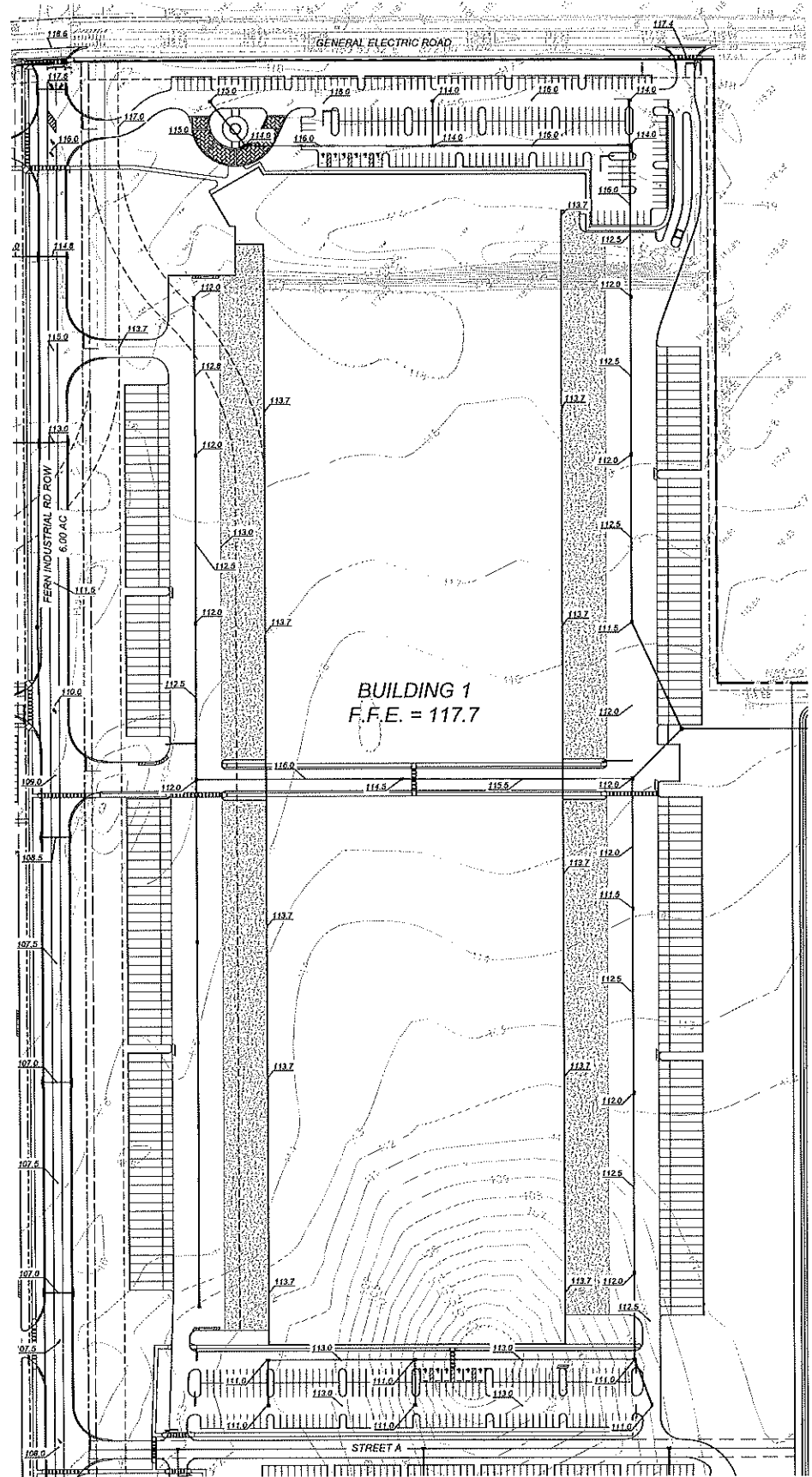
DAVE M. SCHMITT  
 FLORIDA REG. NUMBER  
 48274

275

**LOT 1 PLAN**  
 MID-FLORIDA LOGISTICS PARK  
 APOPKA, FLORIDA

DATE: JUNE 2018  
 PROJECT NO.: ANC-1  
 DRAWN BY: MTP  
 CHECKED BY: DSE  
 SCALE: 1"=100'  
 SHEET: 07 OF 18

F:\ANC1\CAD\Plan\set\dp-pc-dev plan\07 PRELIMINARY GRADING & STORMWATER PLANS.dwg,8/31/2018 11:43:03 AM



**DAVE SCHMITT  
ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

CONTRACTOR "AS-BUILT"  
I hereby state that these "As-Built" were furnished to me by the contractor listed below, or an employee under my direct supervision have reviewed these "As-Built" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
Contractor \_\_\_\_\_ Engineer \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

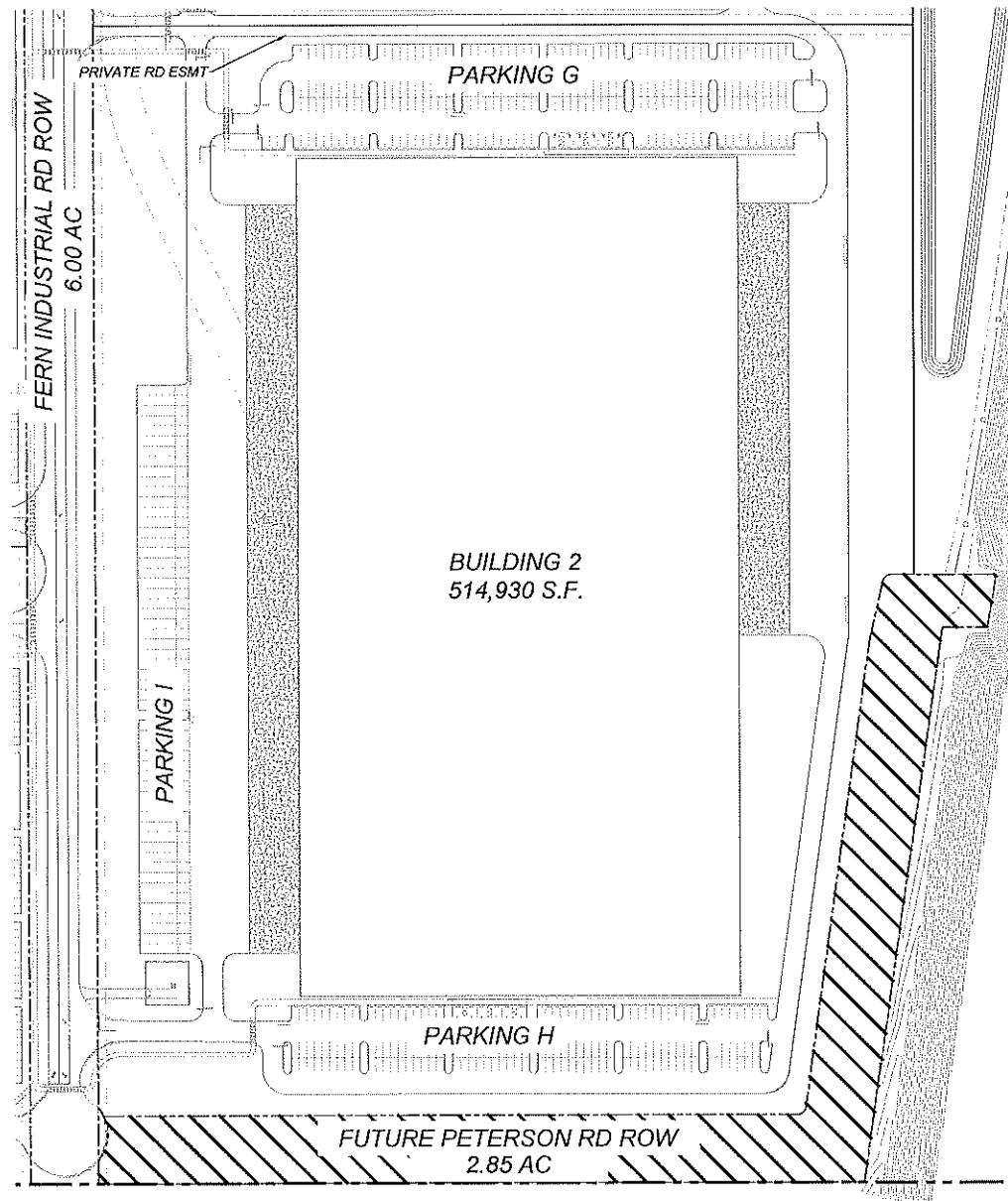
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**LOT 1 PRELIMINARY GRADING PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=100'  
SHEET: 08 OF 18

F:\ANCI\CAD\Plenisset\p-dp-dev plan\04 SUBDIVISION & LOT PLANS.dwg, 8/31/2018 2:16:03 PM



LOT 2 PARCEL NUMBERS  
#06-21-28-7172-12-060  
#06-21-28-7172-13-000

LOT 2 AREA 27.32 ACRES

OPEN SPACE REQUIRED: 20% OF USABLE LOT AREA  
27.32 x 0.20 = 5.46 ACRES

OPEN SPACE PROVIDED  
LOT 2 OPEN SPACE 6.03 ACRES  
1/3 OF POND C TRACT OPEN SPACE 5.40 ACRES

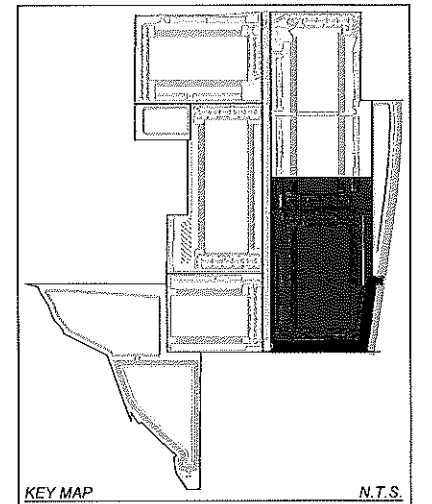
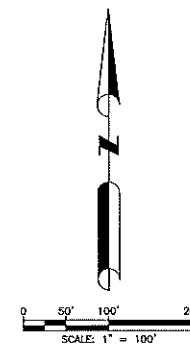
TOTAL OPEN SPACE 11.43 ACRES

BUILDING 2 AREA 514,930 SF

PARKING REQUIRED: 0.89 SPACE PER 1,000 SF OF GROSS FLOOR AREA  
PARKING SPACES REQUIRED 458 SPACES

PARKING PROVIDED:	PARKING AREA G	PARKING AREA H	PARKING AREA I
STANDARD SPACES	231	159	0
HANDICAP SPACES	6	6	0
TRUCK SPACES	0	0	56
SUBTOTAL	237	165	56

TOTAL PARKING SPACES 458



DEVIATIONS OF WAIVER REQUEST TABLE

Code Number	Code Requirement	Requested Modification	Justification	Location
6.03.02 A	Parking 2 spaces per 1,000 sf of GFA up to 150,000 sf plus 1 space per vehicle operating on the premises or 2 spaces per employee and 1 space per 1,000 sf of over 150,000 sf of GFA	0.89 Space per 1,000 sf of GFA	The ITE Parking Generation Manual, 4th Edition, 85th percentile parking requirement for warehouse use is 0.81 spaces per 1,000 sf of GFA.	Entire Site
2.02.01 A	Building Height Maximum Building Height 25'	Maximum Building Height 55'	The modern warehouses require 35' to 45' of clear space under roof to accommodate automated materials handling equipment and maximize storage.	All Buildings
2.02.15 F	Buffer Yard Front 25', Side 10', Rear 10' (30' Adjacent to Residential), 25' Road ROW	15' on GE Road, Hermit Smith Road to Main Entrance, 0710' Adjacent to SR 429, 10/25' Adjacent to Peterson Road, 10' Adjacent to Fern Industrial Road ROW	The northern portion of the site is constrained by the encroachment of GE Road. SR 429 has 300' of ROW, 6 lanes, and provides a ~20' high barrier to adjacent property to the east.	North and East
2.02.01 BS (b)(4)	Roof Top Screening All roof top equipment shall be completely screened from adjacent properties and right-of-way to the maximum extent possible.	Roof top equipment shall be screened from view from adjacent property line and public rights-of-way, with the exception of SR 429 due to the large elevation change of the roadway and the finished floor elevation of the building. SR 429 is at an elevation of 155', approximately 20' above the finished floor height of Building 2. Screening shall be reviewed to be in conformance by the Subdivision President and the City of Apopka. Screening shall be reviewed through a sight line declared from the nearest adjacent property line and/or from the centerline of the public right-of-way. The eye line shall be from the typical height of a person driving an automobile.	All buildings will have a site line evaluation to confirm that roof top equipment will not be visible from adjacent properties and ROW.	Entire Site
2.02.16 B2	Outdoor Vehicle	Long-term outdoor vehicle (van, car, cab, and truck) storage and terminal is a permitted use within the PUD.	Increased business flexibility. Permitted vehicle storage will be screened from the ground.	Entire Site
6.02.08	Sidewalk Location Build sidewalks on both sides of public streets	Build sidewalk only on the west side of Fern Industrial Drive.	We are requesting that we do not place a sidewalk on the east side of the ROW proximate to the rail spurs. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving entire site. The sidewalk on the west side of Fern Industrial is the spine connecting the southern end of the site with GE Road. All buildings are connected to this north-south spine and the appropriate crosswalks are provided where needed. We remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the internal rail spurs east of Fern Industrial serving the site. The benefit of the westward sidewalk does not, in our opinion, warrant the risk of inadvertent attraction of pedestrians and rail vehicles.	Entire Site

NOTE: THIS PROJECT WILL CONFORM TO ALL REQUIREMENTS OF I-1 ZONING WITH THE EXCEPTION OF THE DEVIATIONS NOTED ON THE DEVIATION TABLE.



DAVE SCHMITT ENGINEERING, INC.  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32826  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"  
I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

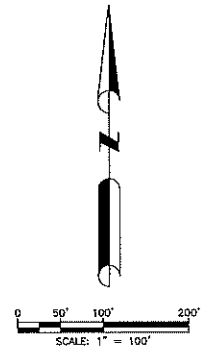
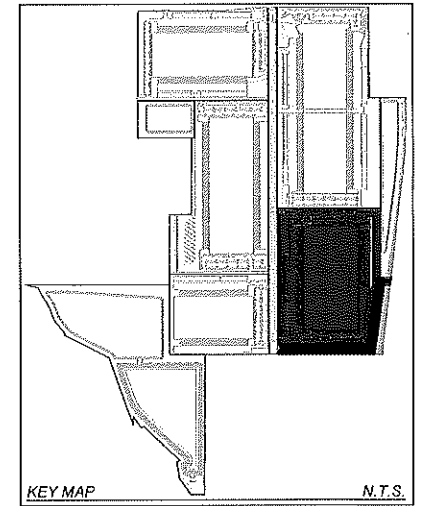
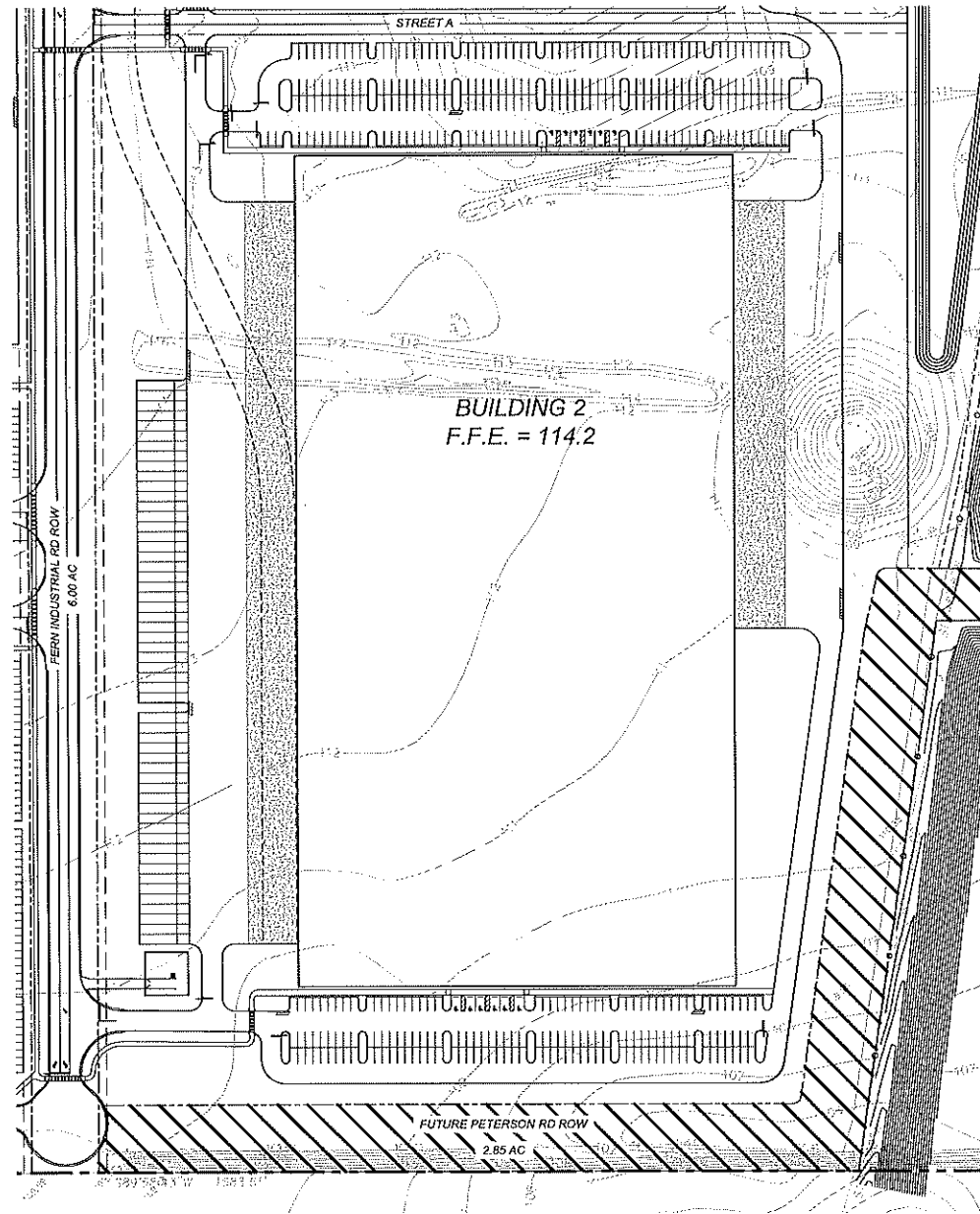
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**LOT 2 PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018
PROJECT NO.: ANC-1
DRAWN BY: MTP
CHECKED BY: DSE
SCALE: 1"=100'
SHEET: 09 OF 18

F:\ANC1\CAD\Plan\set\p-dp-dev-plan\07 PRELIMINARY GRADING & STORMWATER PLANS.dwg,8/31/2018 11:43:03 AM



**DAVE SCHMITT  
ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

**CONTRACTOR "AS-BUILTS"**

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor \_\_\_\_\_ Engineer \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

		REVISIONS			
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

278

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**LOT 2 PRELIMINARY GRADING PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=100'  
SHEET: 10 OF 18

F:\ANC1\CAD\PlanSet\dp-pd-dev-plan\04 SUBDIVISION & LOT PLANS.dwg,8/31/2018 2:16:03 PM

LOT 3 PARCEL NUMBERS  
#01-21-27-0000-00-060

LOT 3 AREA 24.00 ACRES

OPEN SPACE REQUIRED: 20% OF USABLE LOT AREA  
24.00 x 0.20 = 4.80 ACRES

OPEN SPACE PROVIDED  
LOT 3 OPEN SPACE 4.78 ACRES  
POND A TRACT OPEN SPACE 2.04 ACRES

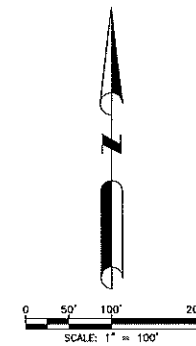
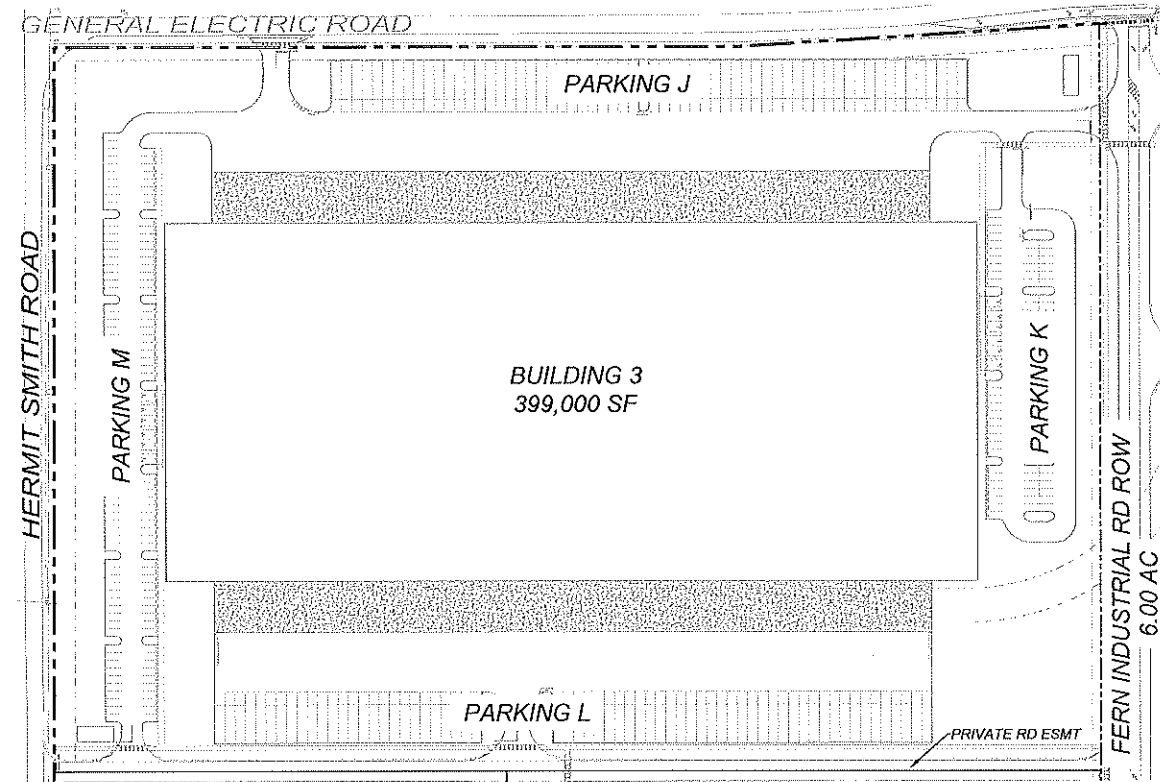
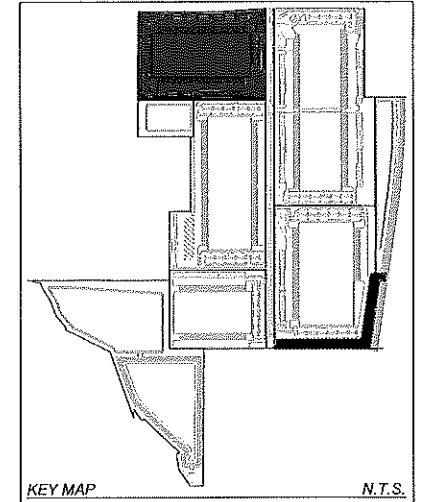
TOTAL OPEN SPACE 6.82 ACRES

BUILDING 3 AREA 399,000 SF

PARKING REQUIRED: 0.89 SPACE PER 1,000 SF OF GROSS FLOOR AREA  
PARKING SPACES REQUIRED 355 SPACES

PARKING PROVIDED:	PARKING AREA J	PARKING AREA K	PARKING AREA L	PARKING AREA M
STANDARD SPACES	0	90	0	128
HANDICAP SPACES	0	6	0	6
TRUCK SPACES	62	0	63	0
SUBTOTAL	62	96	63	134

TOTAL PARKING SPACES 355



DEVIATIONS OF WAIVER REQUEST TABLE

Code Number	Code Requirement	Requested Modification	Justification	Location
6.03.02 A	<b>Parking</b> 2 spaces per 1,000 sf of GFA up to 150,000 sf plus 1 space per vehicle operating on the premises or 2 spaces per employee and 1 space per 1,000 sf of over 150,000 sf of GFA.	0.89 Space per 1,000 sf of GFA	The ITE Parking Generation Manual, 4th Edition, 2009 percent parking requirement for warehouse use is 0.81 spaces per 1,000 sf of GFA.	Entire Site
2.02.01 A	<b>Building Height</b> Maximum Building Height 35'	Maximum Building Height 55'	The modern warehouses require 35' to 45' of clear space under roof to accommodate automated material handling equipment and maximize storage.	All Buildings
2.02.15 F	<b>Buffer Yard</b> Front 25', Side 10', Rear 10' (30' Adjacent to Residential, 25' Road ROW)	15' on GE Road, Hermit Smith Road to Main Entrance, 0/10' Adjacent to SR 429, 10/25' Adjacent to Peterson Road, 10' Adjacent to Fern Industrial	The northeastern portion of the site is constrained by the intersection of GE Road, SR 429 has 300' of ROW, 6 lanes, and provides a 20' high barrier to adjacent property to the east.	North and East
2.02.01 B5 (b)(6)	<b>Roof Top Screening</b> All roof top equipment shall be completely screened from adjacent properties and right-of-way to the maximum extent possible.	Roof top equipment shall be screened from view from adjacent property line and public rights-of-way, with the exception of SR 429 due to the large elevation change of the roadway and the finished floor elevation of the Building, SR 429 is at an elevation of 155', approximately 5' above the finished floor height of Building 2. Screening shall be reviewed to be in conformance by the Subdivision President and the City of Apopka. Screening shall be reviewed through a sight line document from the nearest adjacent property line and/or from the centerline of the public right-of-way. The eye line shall be from the typical height of a person driving an automobile.	All buildings will have a site line evaluation to confirm that rooftop equipment will not be visible from adjacent properties and ROW.	Entire Site
2.02.16 B2	<b>Outdoor Vehicle</b>	Long-term outdoor vehicle (bus, car, cab, and truck) storage and terminal is a permitted use within the PUD.	Increased business flexibility. Permitted vehicle storage will be screened from the ground.	Entire Site
6.02.00	<b>Sidewalk Location</b> Build sidewalks on both sides of public streets	Build sidewalk only on the west side of Fern Industrial Drive.	We are requesting that we do not place a sidewalk on the east side of the ROW/ easement to the rail spur. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving entire site. The sidewalk on the west side of Fern Industrial is the spine connecting the southern end of the site with GE Road. All buildings are connected to this north-south spine and the appropriate crosswalks are provided where needed. We remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the internal rail spurs east of Fern Industrial serving the site. The benefit of the additional sidewalk does not, in our opinion, warrant the risk of inadvertent interaction of pedestrians and rail vehicles.	Entire Site

NOTE: THIS PROJECT WILL CONFORM TO ALL REQUIREMENTS OF L-1 ZONING WITH THE EXCEPTION OF THE DEVIATIONS NOTED ON THE DEVIATION TABLE.



DAVE SCHMITT  
ENGINEERING, INC.  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32826  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

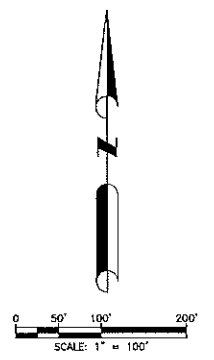
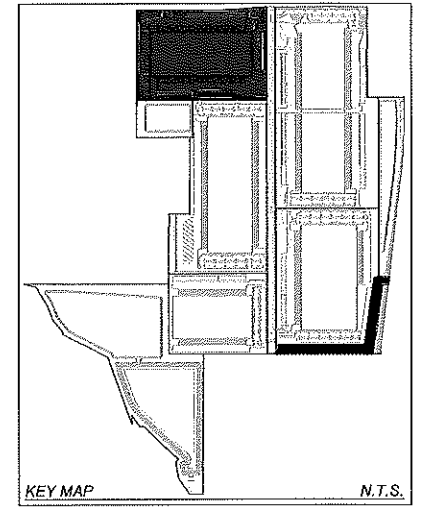
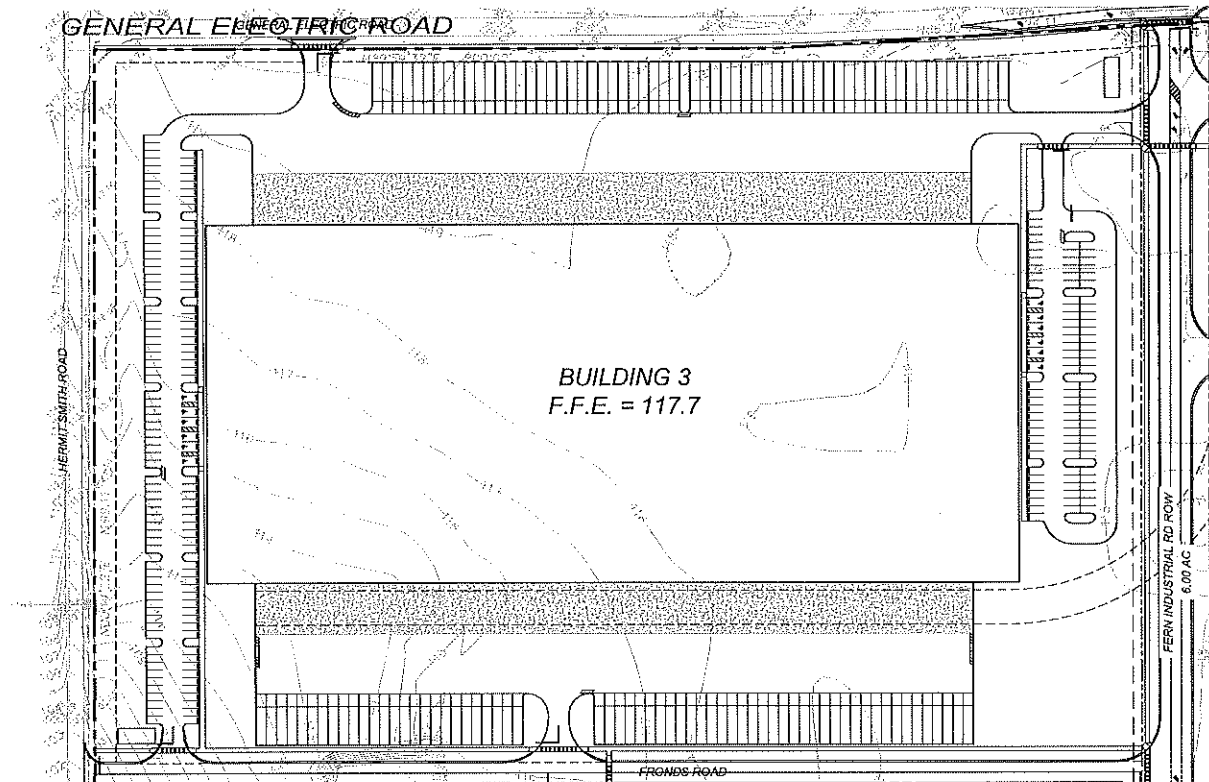
DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

279

LOT 3 PLAN  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=100'  
SHEET: 11 OF 18

F:\ANC1\CAD\Plan\set\dp-pd-dev-plan\07 PRELIMINARY GRADING & STORMWATER PLANS.dwg,8/31/2018 11:43:03 AM



**DAVE SCHMITT  
ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

**CONTRACTOR "AS-BUILTS"**  
I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
Contractor \_\_\_\_\_ Engineer \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

280

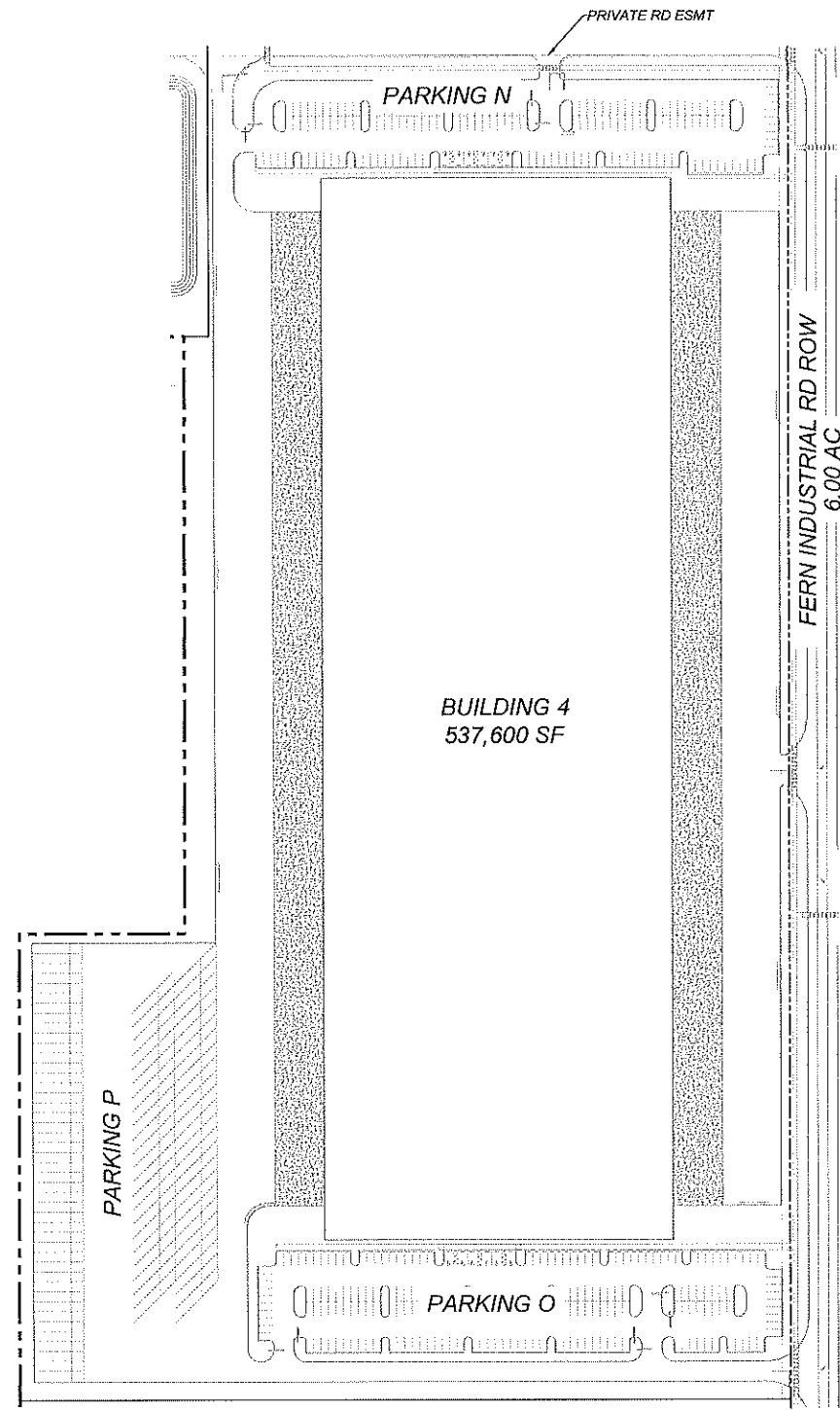
DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
45274

**LOT 3 PRELIMINARY GRADING PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=100'  
SHEET: 12 OF 18



F:\ANCI\CAD\Plans\set\dp-dev-plan\04 SUBDIVISION & LOT PLANS.dwg,8/31/2018 2:16:03 PM



LOT 4 PARCEL NUMBERS  
 #01-21-27-0000-00-060  
 #01-21-27-0000-00-030

LOT 4 AREA 29.63 ACRES

OPEN SPACE REQUIRED: 20% OF USABLE LOT AREA  
 29.63 x 0.20 = 5.93 ACRES

OPEN SPACE PROVIDED  
 LOT 4 OPEN SPACE 3.05 ACRES  
 1/3 OF POND 3 & 4 OPEN SPACE 5.40 ACRES

TOTAL OPEN SPACE 8.45 ACRES

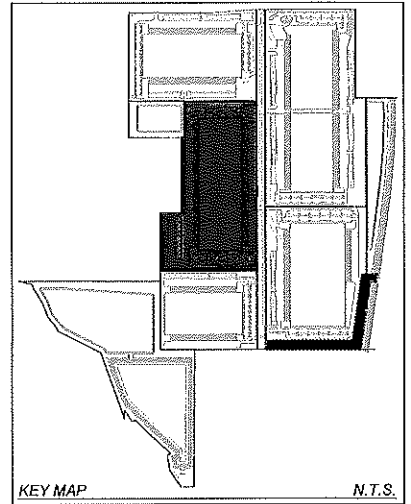
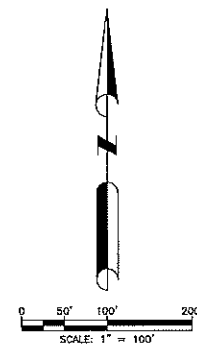
BUILDING 4 AREA 537,600 SF

PARKING REQUIRED: 0.89 SPACE PER 1,000 SF OF GROSS FLOOR AREA  
 PARKING SPACES REQUIRED 478 SPACES

PARKING PROVIDED:

	PARKING AREA N	PARKING AREA O	PARKING AREA P
STANDARD SPACES	160	216	0
HANDICAP SPACES	6	6	0
TRUCK SPACES	0	0	90
SUBTOTAL	166	222	90

TOTAL PARKING SPACES 478



DEVIATIONS OF WAIVER REQUEST TABLE

Code Number	Code Requirement	Requested Modification	Justification	Location
6.03.02 A	<b>Parking</b> 2 spaces per 1,000 sf of GFA up to 150,000 sf plus 1 space per vehicle operating on the premises or 2 spaces per employee and 1 space per 1,000 sf of GFA.	0.89 Space per 1,000 sf of GFA	The ITE Parking Generation Manual, 4th Edition, 836 permits parking requirements for warehouse sites is 0.81 spaces per 1,000 sf of GFA.	Entire Site
2.02.01 A	<b>Building Height</b> Maximum Building Height 35'	Maximum Building Height 55'	The modern warehouses require 36' to 45' of clear space under roof to accommodate automated materials handling equipment and maximize storage.	All Buildings
2.02.15 F	<b>Buffer Yard</b> Front 25', Side 10', Rear 10' (30' Adjacent to Residential), 25' Road ROW	15' on OE Road, Hemet South Road to Main Entrance, 0'10' Adjacent to SR 429, 10'15' Adjacent to Peterson Road, 10' Adjacent to Fern Industrial Road ROW	The northern portion of the site is controlled by the encroachment of OE Road. SR 429 has 300' of ROW, 6 lanes, and provides a ~20' high barrier to adjacent property to the east.	North and East
2.02.01 BS (b)(4)	<b>Roof Top Screening</b> All roof top equipment shall be completely screened from adjacent properties and right-of-way to the maximum extent possible.	Roof top equipment shall be screened from view from adjacent property line and public right-of-way, with the exception of SR 429 due to the large elevation change of the roadway and the finished floor elevation of the building. SR 429 is at an elevation of 135', approximately 20' above the finished floor height of Building 2. Screening shall be reviewed to be in conformance by the Subdivision President and the City of Apopka. Screening shall be reviewed through a sight line document from the nearest adjacent property line and/or from the centerline of the public right-of-way. The eye line shall be from the typical height of a person driving an automobile.	All buildings will have a site line evaluation to confirm that roofing equipment will not be visible from adjacent properties and ROW.	Entire Site
2.02.16 B2	<b>Outdoor Vehicle</b>	Longterm outdoor vehicle (bus, car, cab, and truck) storage and terminal is a permitted use within the PUD.	Increased business flexibility. Permitted vehicle storage will be screened from the ground.	Entire Site
6.02.02	<b>Sidewalk Location</b> Bulk sidewalks on both sides of public streets	Bulk sidewalk only on the west side of Fern Industrial Drive.	We are requesting that we do not place a sidewalk on the east side of the ROW proximate to the rail spurs. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving entire site. The sidewalk on the west side of Fern Industrial is the spine connecting the southern end of the site with OE Road. All buildings are connected to this north-south spine and the appropriate amenities are provided where needed. We remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the lateral rail spurs east of Fern Industrial serving the site. The benefit of the additional sidewalk does not, in our opinion, warrant the risk of inadvertent intrusion of pedestrians and rail vehicles.	Entire Site

NOTE:  
 THIS PROJECT WILL CONFORM TO ALL REQUIREMENTS OF I-4 ZONING WITH THE EXCEPTION OF THE DEVIATIONS NOTED ON THE DEVIATION TABLE.



DAVE SCHMITT  
 ENGINEERING, INC.  
 12301 Lake Underhill Road Suite 241  
 ORLANDO, FL 32828  
 407-207-9088 FAX 407-207-9089  
 Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"  
 I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
 Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

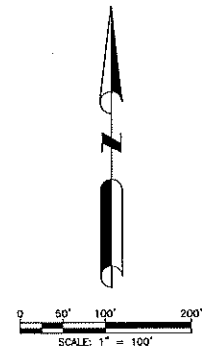
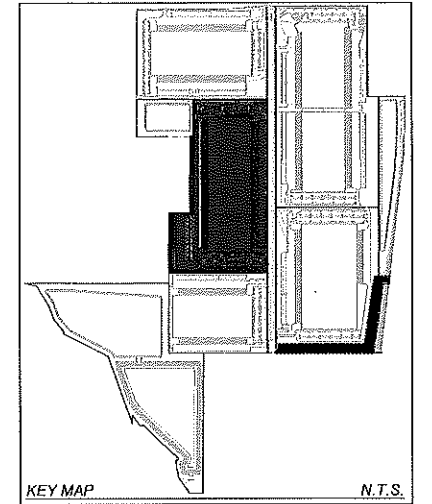
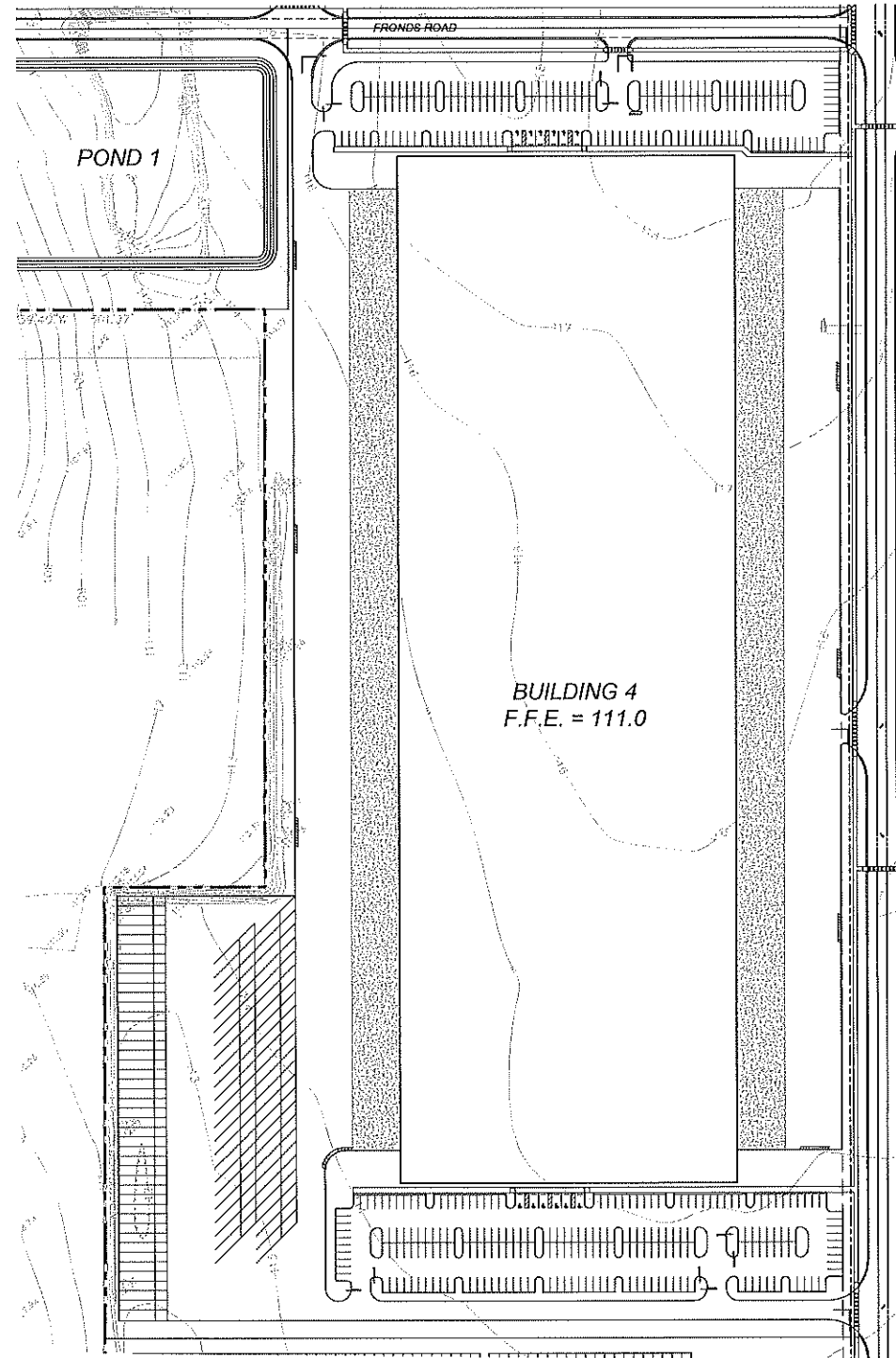
DAVE M. SCHMITT  
 FLORIDA REG. NUMBER  
 48274

281

LOT 4 PLAN  
 MID-FLORIDA LOGISTICS PARK  
 APOPKA, FLORIDA

DATE: JUNE 2018  
 PROJECT NO.: ANC-1  
 DRAWN BY: MTP  
 CHECKED BY: DSE  
 SCALE: 1"=100'  
 SHEET: 13 OF 18

F:\ANC1\CAD\PlanSet\dp-pc-dev plan\07 PRELIMINARY GRADING & STORMWATER PLANS.dwg,8/31/2018 11:43:03 AM



**DAVE SCHMITT  
ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #Z7471

**CONTRACTOR 'AS-BUILTS'**

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

		REVISIONS			
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

282

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**LOT 4 PRELIMINARY GRADING PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=100'  
SHEET: 14 OF 18

F:\ANC1\CAD\PlanSet\dp-pc-dev plan\04 SUBDIVISION & LOT PLANS.dwg, 8/31/2018 2:16:03 PM

LOT 5 PARCEL NUMBERS  
 #12-21-27-0000-00-010  
 #12-21-27-0000-00-0315

LOT 5 AREA 16.11 ACRES

OPEN SPACE REQUIRED: 20% OF USABLE LOT AREA  
 16.11 x 0.20 = 3.22 ACRES

OPEN SPACE PROVIDED  
 LOT 5 OPEN SPACE 2.37 ACRES  
 1/3 OF POND 3 & 4 OPEN SPACE 5.40 ACRES

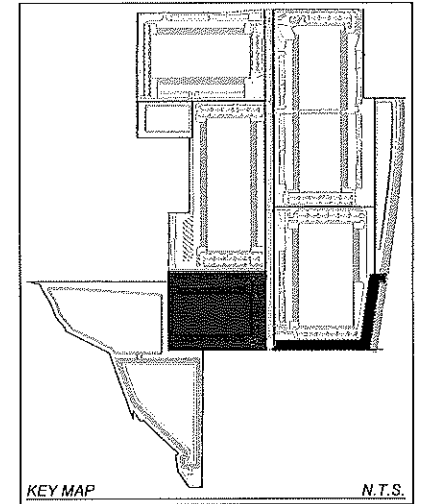
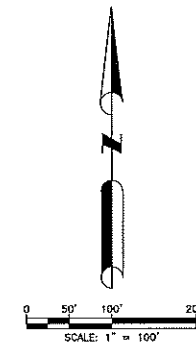
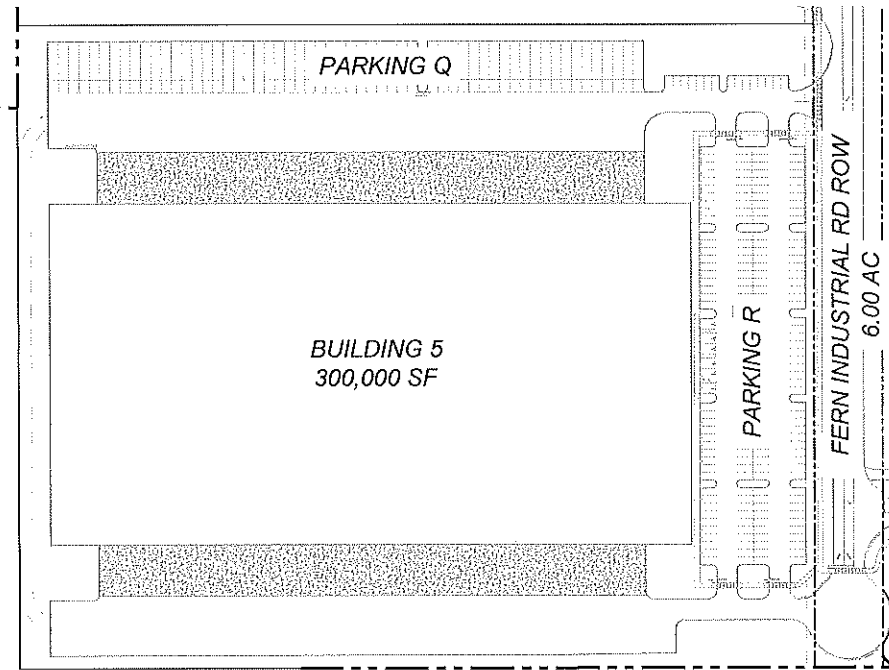
TOTAL OPEN SPACE 6.77 ACRES

BUILDING 5 AREA 300,000 SF

PARKING REQUIRED: 0.89 SPACE PER 1,000 SF OF GROSS FLOOR AREA  
 PARKING SPACES REQUIRED 267 SPACES

PARKING PROVIDED:	PARKING AREA Q	PARKING AREA R
STANDARD SPACES	0	203
HANDICAP SPACES	0	6
TRUCK SPACES	58	0
SUBTOTAL	58	209

TOTAL PARKING SPACES 267



DEVIATIONS OF WAIVER REQUEST TABLE

Code Number	Code Requirement	Requested Modification	Justification	Location
6.03.02.A	<b>Parking</b> 2 spaces per 1,000 sf of GFA up to 150,000 sf plus 1 space per vehicle operating on the premises or 2 spaces per employee and 1 space per 1,000 sf over 150,000 sf of GFA.	0.89 Space per 1,000 sf of GFA	The ITE Parking Generation Manual, 4th Edition, 85th percentile parking requirement for warehouse use is 0.81 spaces per 1,000 sf of GFA.	Entire Site
2.02.01.A	<b>Building Height</b> Maximum Building Height 35'	Maximum Building Height 55'	The modern warehouses require 35' to 45' of clear space under roof to accommodate automated materials handling equipment and maximize storage.	All Buildings
2.02.15.F	<b>Buffer Yard</b> Front 25', Side 10', Rear 10' (30' Adjacent to Residential, 25' Road ROW)	15' on GE Road, Hermit Smith Road to Main Entrance, 0710' Adjacent to SR 429, 10225' Adjacent to Pederson Road, 10' Adjacent to Fern Industrial	The northeastern portion of the site is constrained by the encroachment of SR 429. SR 429 has 300' of ROW, 6 lanes, and provides a ~20' high barrier to adjacent property to the east.	North and East
2.02.01.B5 (b)(6)	<b>Roof Top Screening</b> All roof top equipment shall be completely screened from adjacent properties and rights-of-way to the maximum extent possible.	Roof top equipment shall be screened from view from adjacent property line and public rights-of-way, with the exception of SR 429 due to the large elevation change of the roadway and the finished floor elevation of the building. SR 429 is at an elevation of 455' approximately 20' above the finished floor height of Building 2. Screening shall be reviewed through a sight line document from the northeast adjacent property line and/or from the centerline of the public right-of-way. The eye line shall be from the typical height of a person driving an automobile.	All buildings will have a site line installation to confirm that roof top equipment will not be visible from adjacent properties and ROW.	Entire Site
2.02.16.B2	<b>Outdoor Vehicle</b>	Longterm outdoor vehicle (bus, car, cab, and truck) storage and terminal (a permitted use within the PUD).	Increased business flexibility. Permitted vehicle storage will be screened from the ground.	Entire Site
6.02.08	<b>Sidewalk Location</b> Build sidewalks on both sides of public streets	Build sidewalk only on the east side of Fern Industrial Drive.	We are requesting that we do not place a sidewalk on the east side of the ROW proximate to the rail spurs. The pedestrian access plan provided on Sheet 6 of the PUD Master Plan shows a network of pedestrian facilities serving entire site. The sidewalk on the east side of Fern Industrial is the space connecting the southern end of the site with GE Road. All buildings are connected to this north-south spine and the appropriate crosswalks are provided where needed. We remain concerned that placement of a sidewalk will not increase the pedestrian connectivity over the current plan but will put pedestrians in close proximity to the internal rail spurs east of Fern Industrial serving the site. The benefit of the additional sidewalk does not, in our opinion, warrant the risk of inadvertent interaction of pedestrians and rail vehicles.	Entire Site

NOTE:  
 THIS PROJECT WILL CONFORM TO ALL REQUIREMENTS OF I-1 ZONING WITH THE EXCEPTION OF THE DEVIATIONS NOTED ON THE DEVIATION TABLE.



DAVE SCHMITT  
 ENGINEERING, INC.  
 12301 Lake Underhill Road Suite 241  
 ORLANDO, FL 32828  
 407-207-9088 FAX 407-207-9089  
 Certification of Authorization #Z7471

CONTRACTOR "AS-BUILT"  
 I hereby state that these "As-Built" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Built" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
 Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

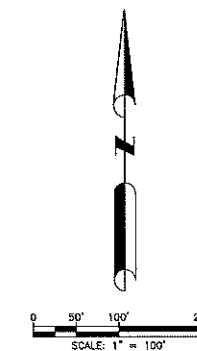
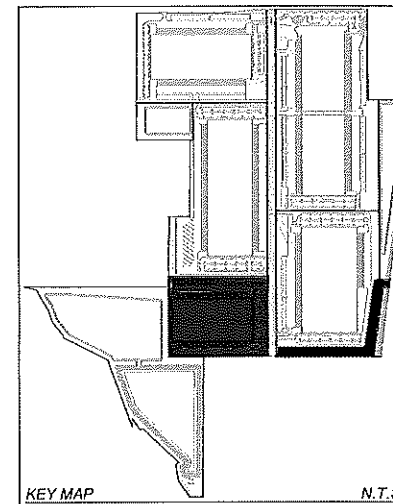
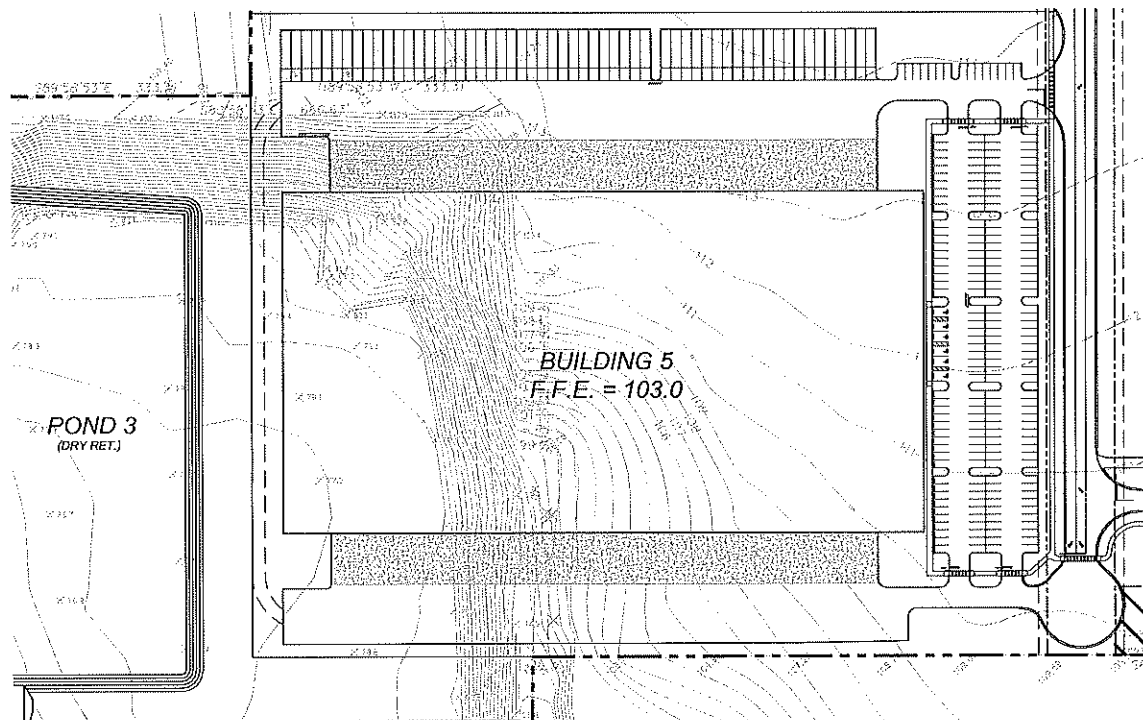
DAVE M. SCHMITT  
 FLORIDA REG. NUMBER  
 48274

283

LOT 5 PLAN  
 MID-FLORIDA LOGISTICS PARK  
 APOPKA, FLORIDA

DATE: JUNE 2018  
 PROJECT NO.: ANC-1  
 DRAWN BY: MTP  
 CHECKED BY: DSE  
 SCALE: 1"=10'  
 SHEET: 15 OF 18

F:\ANC1\CAD\PlanSet\dp-pc-dev-plan\07 PRELIMINARY GRADING & STORMWATER PLANS.dwg,8/31/2018 11:43:03 AM



**DAVE SCHMITT  
ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32826  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

**CONTRACTOR "AS-BUILTS"**

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

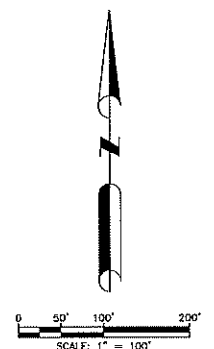
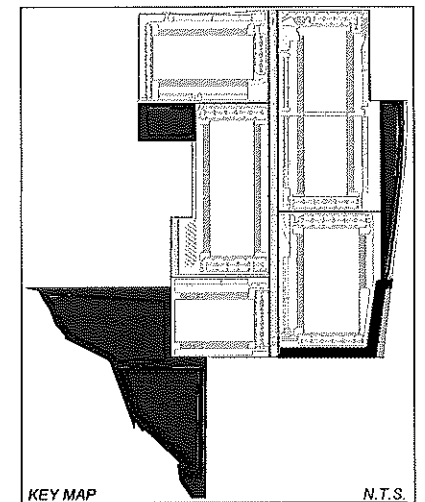
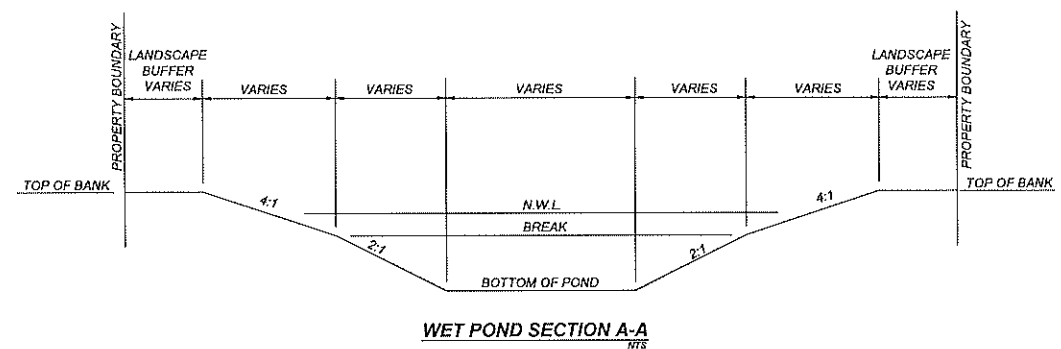
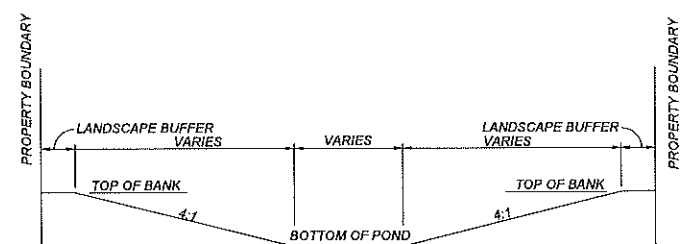
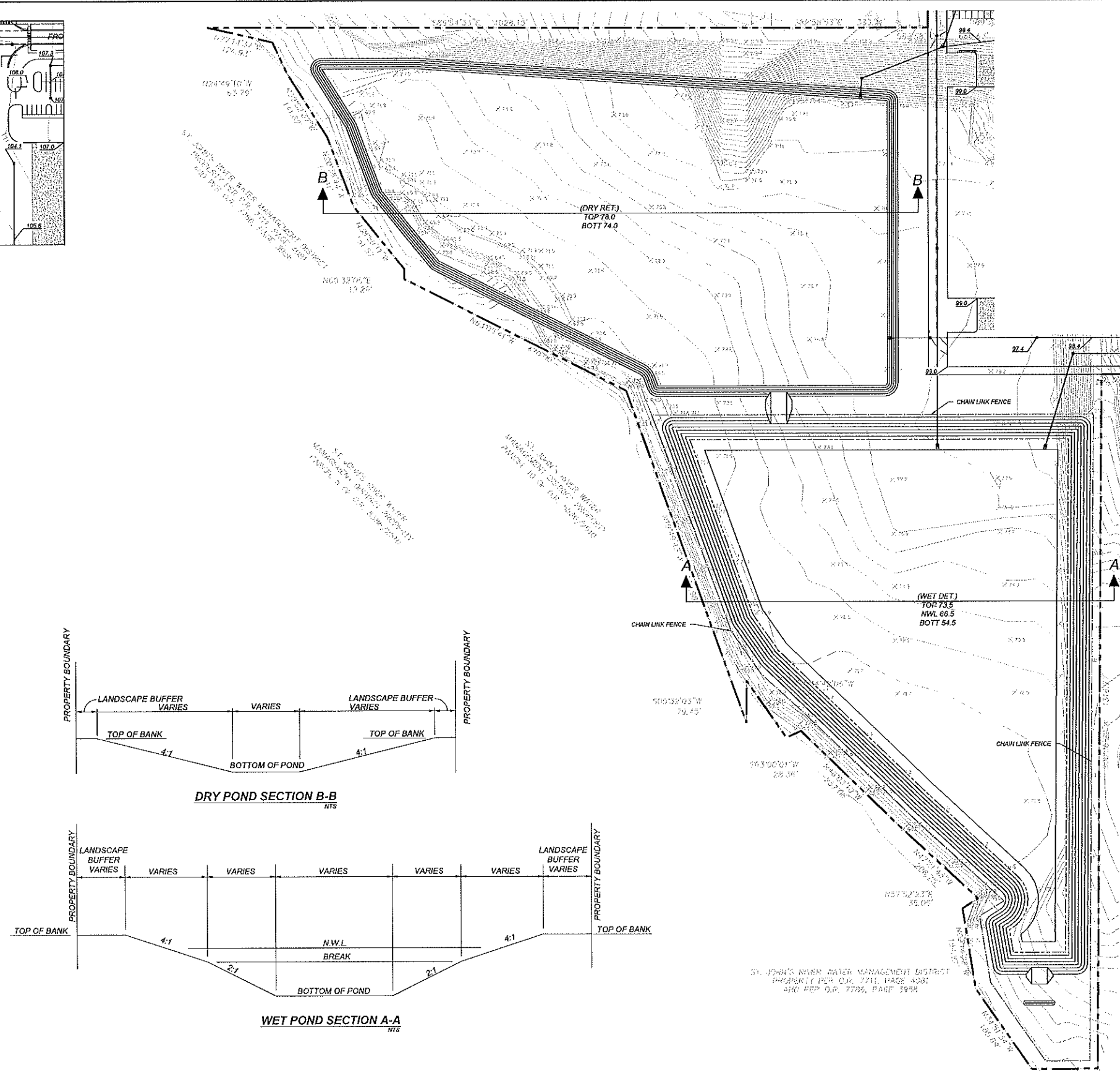
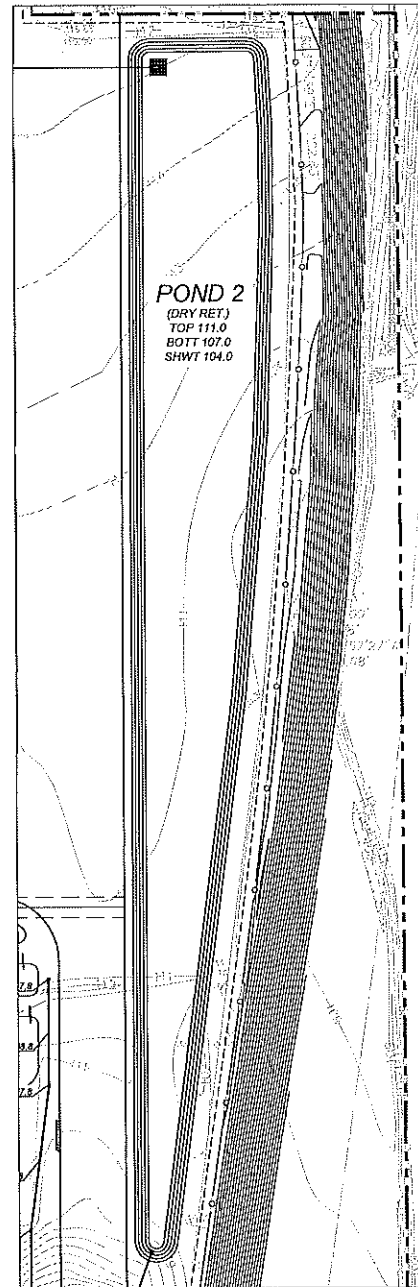
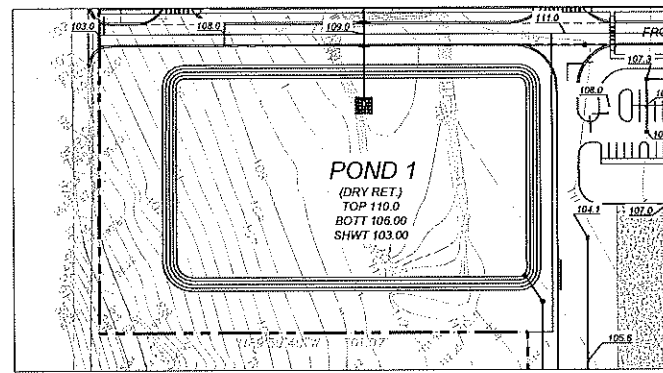
284

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**LOT 5 PRELIMINARY GRADING PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=100'  
SHEET: 16 OF 18

F:\ANC1\CAD\PlanSet\dp-pd-dev-plan\07 PRELIMINARY GRADING & STORMWATER PLANS.dwg,8/31/2018 11:43:03 AM



**DSE**

**DAVE SCHMITT ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"

I hereby state that these "As-Builts" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor \_\_\_\_\_ Engineer \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

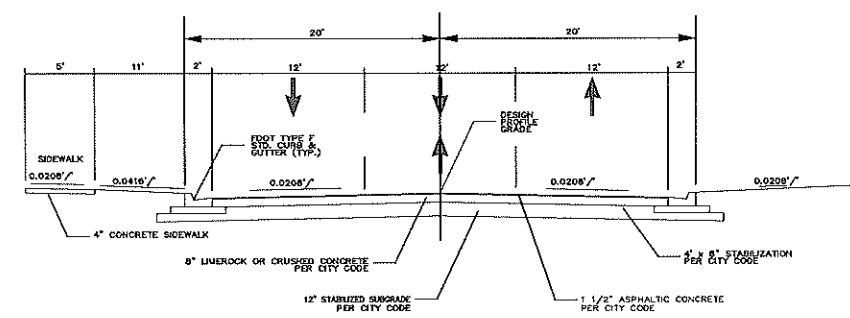
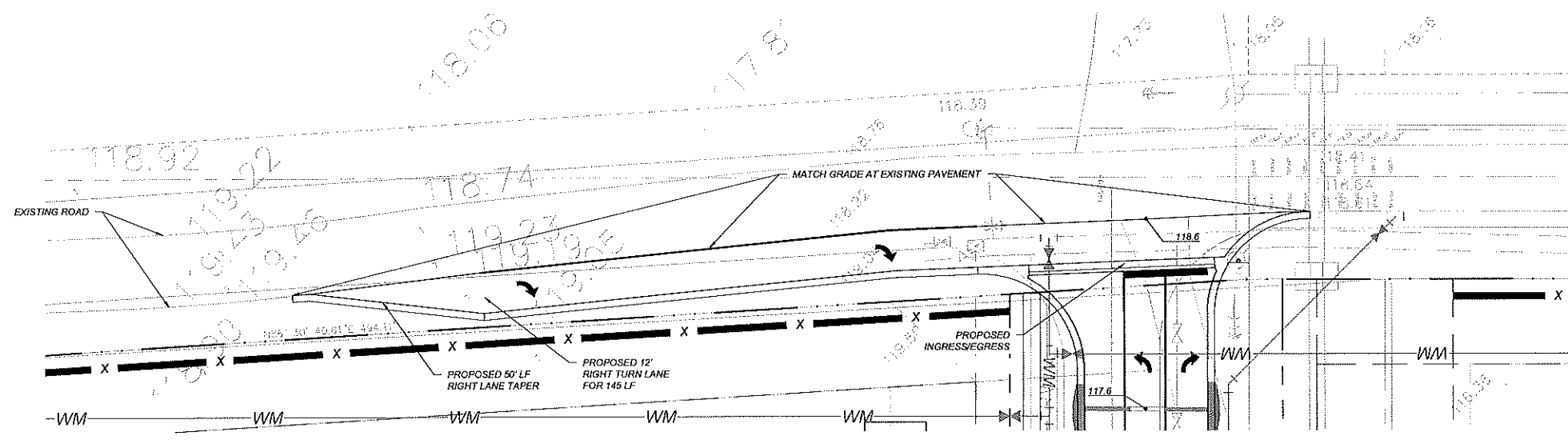
DATE		BY	DESCRIPTION	REVISIONS		DATE	BY	DESCRIPTION

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

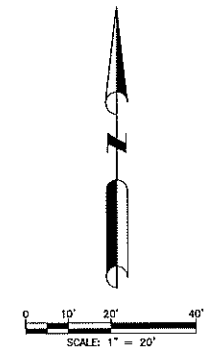
**PRELIMINARY STORMWATER POND PLAN**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=100'  
SHEET: 17 OF 18

F:\ANC1\CAD\Plan\set\dp-pd-dev\plan\18 GENERAL ELECTRIC ROAD OFFSITE IMPROVEMENTS.dwg, 8/16/2018 2:26:50 PM



**TYPICAL SECTION**  
(FERN INDUSTRIAL DRIVE)



**DAVE SCHMITT ENGINEERING, INC.**  
12301 Lake Underhill Road Suite 241  
ORLANDO, FL 32828  
407-207-9088 FAX 407-207-9089  
Certification of Authorization #27471

CONTRACTOR "AS-BUILT"

I hereby state that these "As-Built" were furnished to me by the contractor listed below, I, or an employee under my direct supervision have reviewed these "As-Built" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.

Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

286

DAVE M. SCHMITT  
FLORIDA REG. NUMBER  
48274

**GE ROAD OFFSITE IMPROVEMENTS**  
MID-FLORIDA LOGISTICS PARK  
APOPKA, FLORIDA

DATE: JUNE 2018  
PROJECT NO.: ANC-1  
DRAWN BY: MTP  
CHECKED BY: DSE  
SCALE: 1"=20'  
SHEET: 18 OF 18

PRELIMINARY LANDSCAPE PLANS

# MID-FLORIDA LOGISTICS PARK

CITY OF APOPKA, FLORIDA

SHEET INDEX

C-100	COVER SHEET	L-102	LANDSCAPE PLAN
K-100	MASTER KEY PLAN	L-103	LANDSCAPE PLAN
L-100	OVERALL BUFFER PLAN & DETAILS	L-104	LANDSCAPE PLAN
L-101	LANDSCAPE PLAN	L-105	LANDSCAPE PLAN
		L-106	RETENTION POND LANDSCAPE PLAN

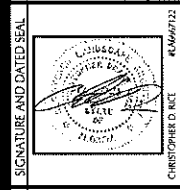
C-100

PROJECT NO.	PHASE	SCALE	FILE NAME	DRAWN BY	CHECKED BY	DATE
	PRELIMINARY	N.E.T.	18-03	JM	CR	08/23/18

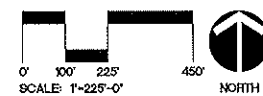
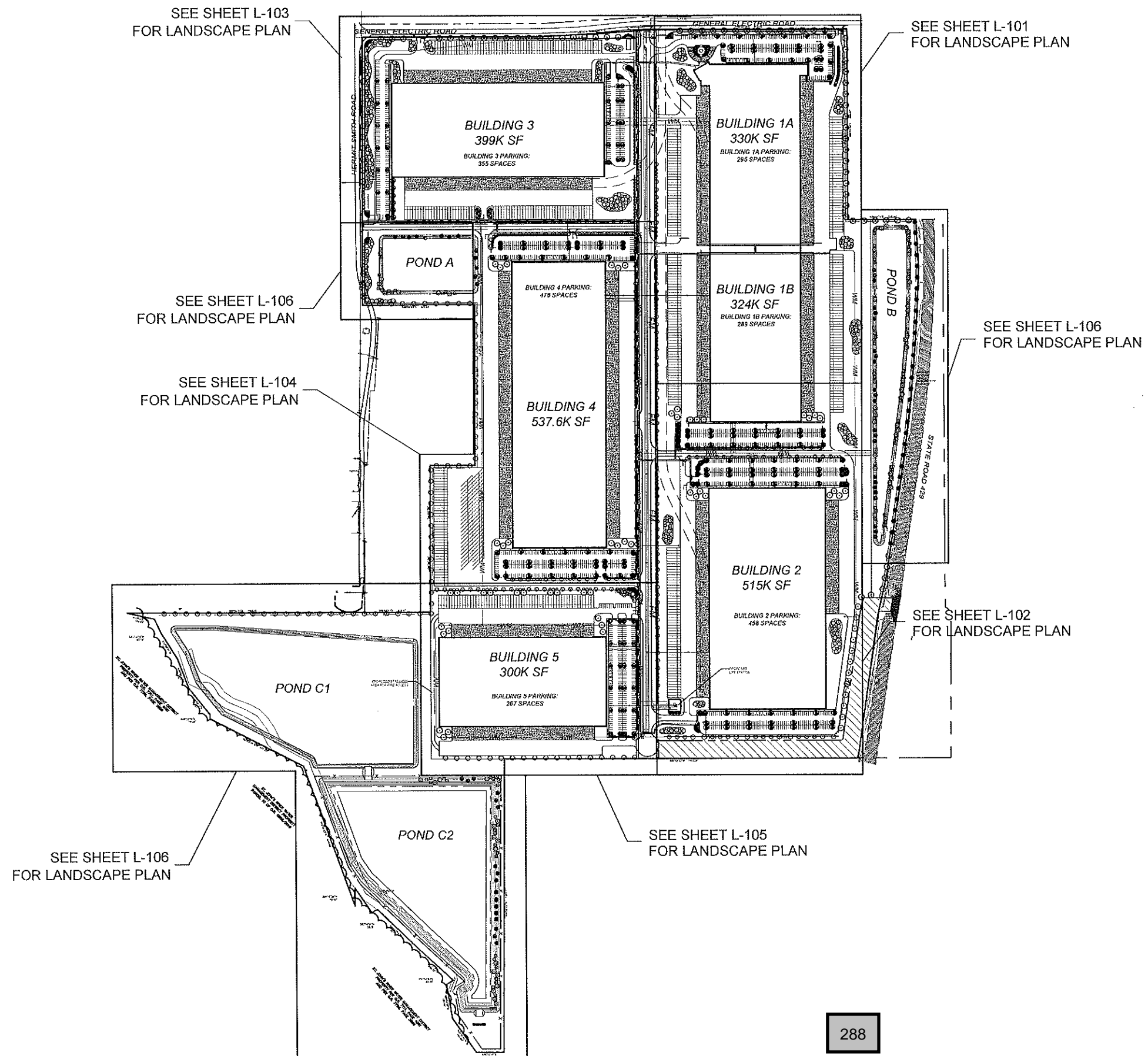
PROJECT ADDRESS: CITY OF APOPKA, FLORIDA  
OWNER NAME AND ADDRESS:

DRAWING TITLE: MID-FLORIDA LOGISTICS PARK

SEAL VERIFICATION



**BORRELLI + PARTNERS**  
ARCHITECTS PLANNERS ENGINEERS LANDSCAPE ARCHITECTS  
ORLANDO, FLORIDA 32819-4138  
CONTACT: 407.321.1111



**BORRELLI + PARTNERS**  
Landscape Architecture

ORLANDO, FLORIDA 32811-1138  
PH: 407.328.1138 FAX: 407.328.1139  
WWW.BORRELLIANDPARTNERS.COM

---

SEAL VERIFICATION

---

**MID-FLORIDA LOGISTICS PARK**

DRAWING TITLE

**MASTER KEY PLAN**

---

REV.	DESCRIPTION	DATE	PROJECT ADDRESS
			CITY OF WOPALA, FLORIDA OWNER NAME AND ADDRESS

---

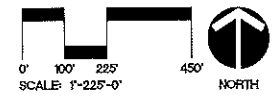
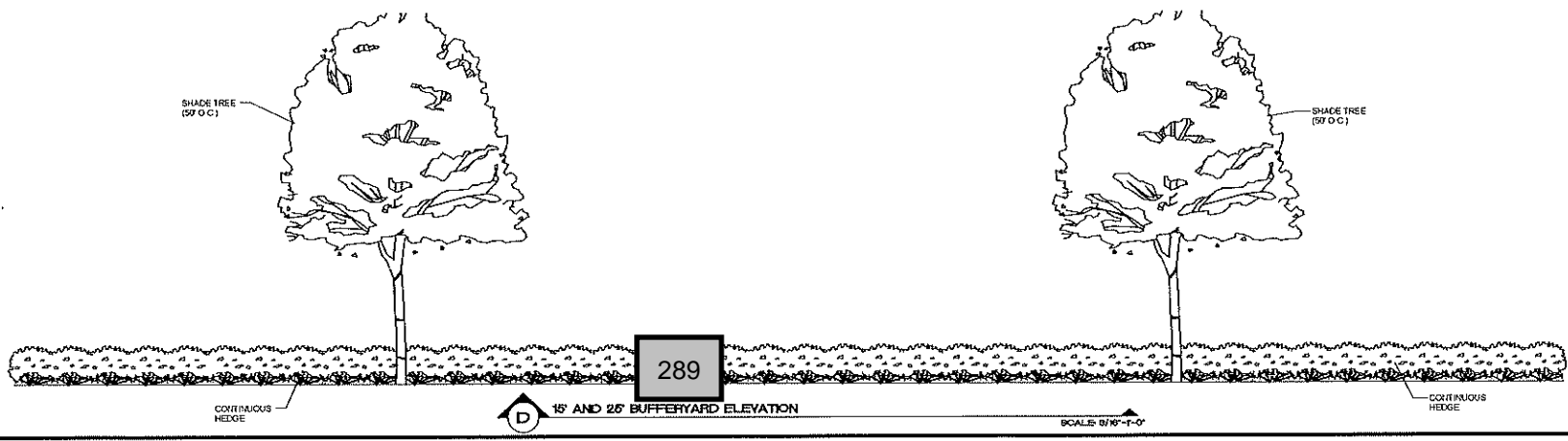
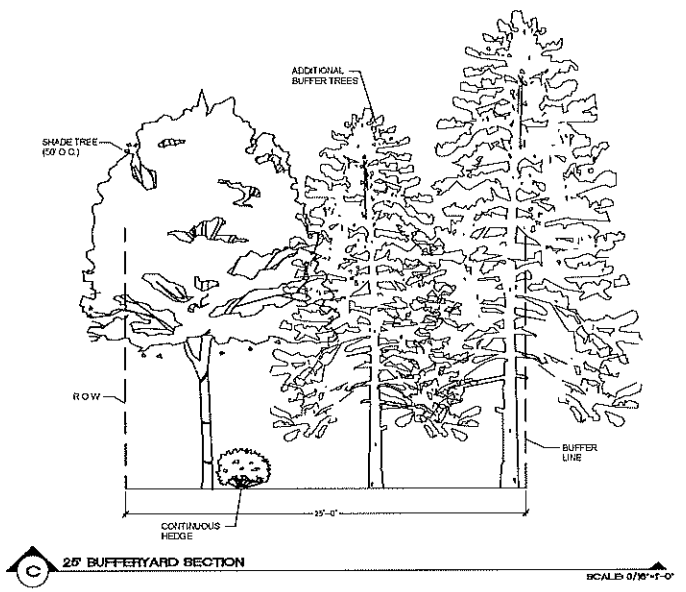
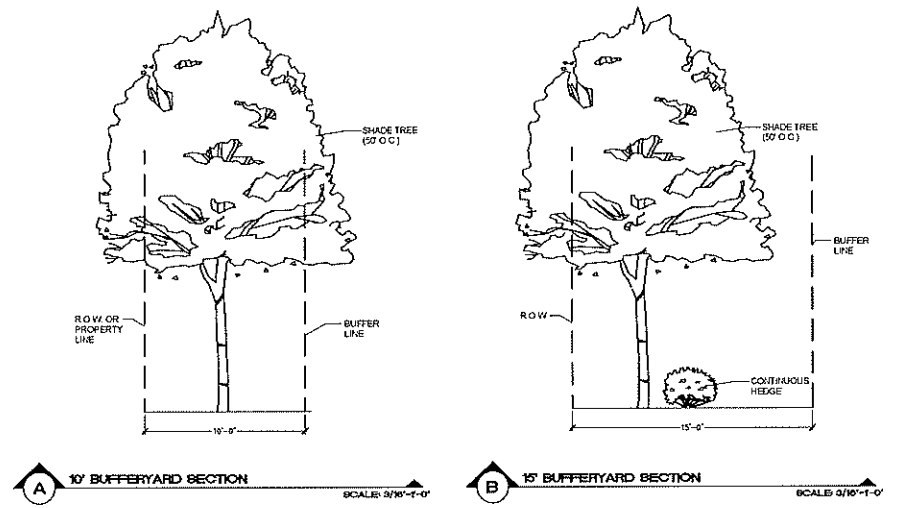
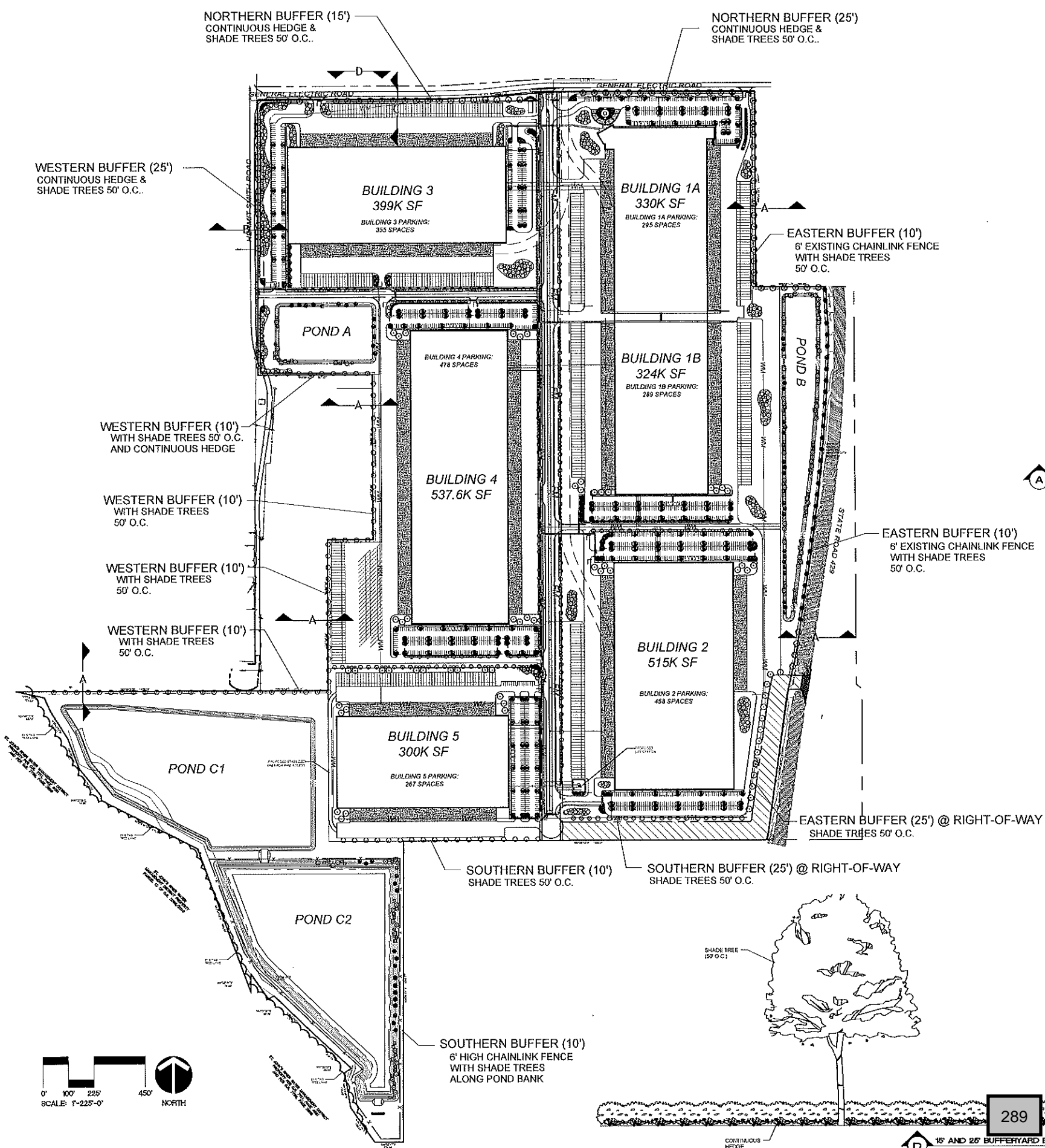
PROJECT NO.	PHASE	SCALE	FILE NAME	DRAWN BY	CHECKED BY	DATE
	PRELIMINARY	1"=225'	16-038	JM	CR	08/23/16

---

**K-100**



**SHADE TREE CALCULATIONS**  
 PER SECTION 5.01.08 A OF THE CITY OF APOPKA LDC  
 TOTAL SITE = 187.44 ACRES (8,164,886 S.F.)  
 SHADE TREES REQUIRED 1/8000S.F. = 1,020 TREES  
 SHADE TREES PROVIDED = 1,253 TREES



**BORRELLI + PARTNERS**  
 Landscape Architecture  
 3333 W. US HWY 1  
 SUITE 100  
 APOPKA, FL 32703  
 (407) 487-1138  
 www.borrelli.com



**MID-FLORIDA LOGISTICS PARK**

SEALED AND DATED SEAL  
 SEAL VERIFICATION  
 DRAWING TITLE

OVERALL LANDSCAPE BUFFER PLAN & DETAILS

PROJECT NO.	REV.	DESCRIPTION	DATE
PHASE	1/24/14		
SCALE	PRELIMINARY		
FILE NAME	1-225'		
DRAWN BY	JTB		
CHECKED BY	CR		
DATE	08/20/15		

**L-100**

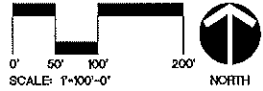
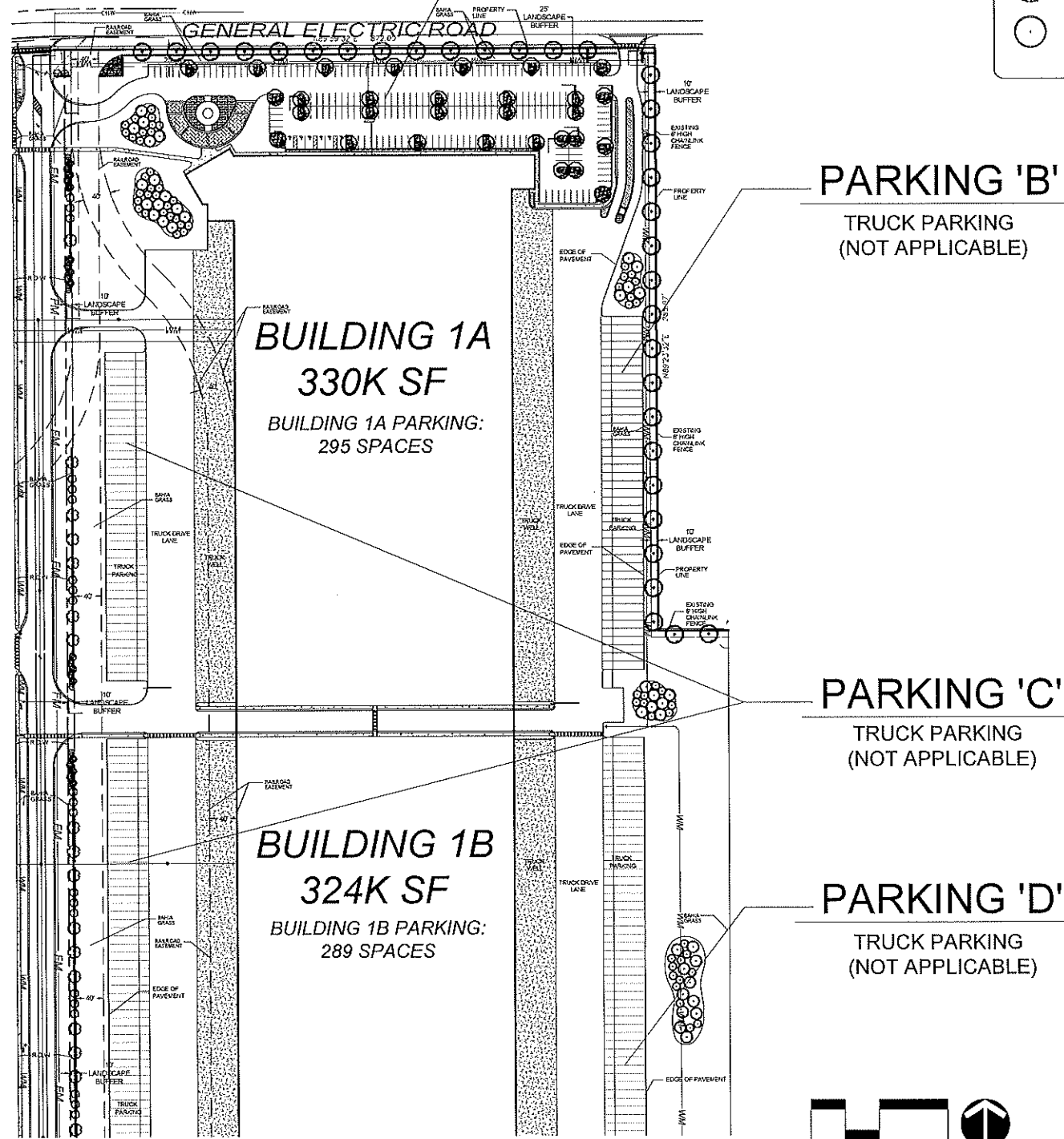
NOTE:  
 ALL TREE AND SHRUB ROOTBALLS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM ALL CITY MAINTAINED UTILITY LINES.  
 FINAL LANDSCAPE AND IRRIGATION PLANS TO BE DESIGNED IN ACCORDANCE WITH CITY OF AOPKA ORDINANCE NUMBER 2069 OR CURRENT CODE IN EFFECT AT TIME OF CONSTRUCTION PLAN SUBMITTAL.

**PARKING 'A'**

TOTAL 75,445 S.F.  
 LS ISLANDS 7,729.26 S.F.  
 % LS 10.25% (10% REQ.)  
 % SHADE 58.3% (30% REQ.)

### PLANT LEGEND

LARGE SHADE TREE	MEDIUM SHADE TREE	PALM TREE
<ul style="list-style-type: none"> <li>LYLE OAK - QUERCUS VIRGINIANA 3" DBH/14' SPRD./14' HT.</li> <li>BIGHORN LYE OAK - QUERCUS VIRGINIANA 3" DBH/14' SPRD./14' HT.</li> <li>ALICE OAK - QUERCUS AVERCANA 3" DBH/14' SPRD./14' HT.</li> <li>SWEETGUM - LIQUIDAMBAR STYRACIUM 3" DBH/14' SPRD./14' HT.</li> <li>RED MAPLE - ACER RUBRUM 3" DBH/15' SPRD./12' HT.</li> <li>SOUTHERN RED CEDAR - CYPRESSUS SENNARIENSIS 3" DBH/15' SPRD./12' HT.</li> </ul>	<ul style="list-style-type: none"> <li>SOUTHERN HANGOUTS - MAGNOLIA GRANDIFLORA 2" DBH/15' SPRD./12' HT.</li> <li>SLASH PINE - PINUS ELLIOTTII 2.5" DBH/14' SPRD./12' HT. 3" DBH/15' SPRD./12' HT.</li> <li>BALD CYPRESS - TAXODIUM DISTICHUM 2.5" DBH/14' SPRD./12' HT. 3" DBH/15' SPRD./12' HT.</li> <li>LIGUSTRUM TREE - LIGUSTRUM JAPONICUM 2" DBH/8' SPRD./6' HT. MULTI-TRUNKED</li> <li>CRAWFORD WATTLE - LAGERSTROEMIA INDICA 2" DBH/10' SPRD./10' HT.</li> </ul>	<ul style="list-style-type: none"> <li>SABAL PALM - SABAL PALMETTO 10", 14", 16" CT. / STRAIGHT TRUNK</li> </ul>
<b>SHRUBS / GROUND COVER</b> <ul style="list-style-type: none"> <li>WALTERS YEW, SWEET YEW, FLORIDA, AMARYLLIS GRASS, CORD GRASS, BURFORD HOLLY, PINEAPPLE GUAVA, HELIOPORTULACA, SAPPORO STIFFER, WILD COFFEE, FRIGULA, FLORIDA AMISE, CRODALIA, CARDUARD PALM, ANACARDIUM LEAF YEW.</li> <li>LIRIOPE, ASIAN JASMINE, HIBISCUS, COQUITE, BUBBLE, PERAZHAL PEANUT, JAFFER, BUCKWOOD, FLAX LILY, AFRICAN IRIS, SHALLOWS HOLLY.</li> </ul>		
<b>UNDERSTORY TREE</b> <ul style="list-style-type: none"> <li>LIGUSTRUM TREE - LIGUSTRUM JAPONICUM 2" DBH/8' SPRD./6' HT. MULTI-TRUNKED</li> <li>CRAWFORD WATTLE - LAGERSTROEMIA INDICA 2" DBH/10' SPRD./10' HT.</li> </ul>		



**MID-FLORIDA LOGISTICS PARK**

LANDSCAPE PLAN

PROJECT NO. 16-011

PHASE PRELIMINARY

SCALE 1"=80'-0"

FILE NAME 16-011

DRAWN BY JTD

CHECKED BY CR

DATE 06/23/16

PROJECT ADDRESS: CITY OF AOPKA, FLORIDA

OWNER NAME AND ADDRESS:

SIGNATURE AND DATED SEAL: BORRELLI + PARTNERS, LANDSCAPE ARCHITECTS, 1100 N. W. 11TH AVENUE, SUITE 200, MIAMI, FL 33136

SEAL VERIFICATION:

DRAWING TITLE:

DATE: 06/23/16

PROJECT NO. 16-011

PHASE PRELIMINARY

SCALE 1"=80'-0"

FILE NAME 16-011

DRAWN BY JTD

CHECKED BY CR

DATE 06/23/16

PROJECT ADDRESS: CITY OF AOPKA, FLORIDA

OWNER NAME AND ADDRESS:

SIGNATURE AND DATED SEAL: BORRELLI + PARTNERS, LANDSCAPE ARCHITECTS, 1100 N. W. 11TH AVENUE, SUITE 200, MIAMI, FL 33136

SEAL VERIFICATION:

DRAWING TITLE:

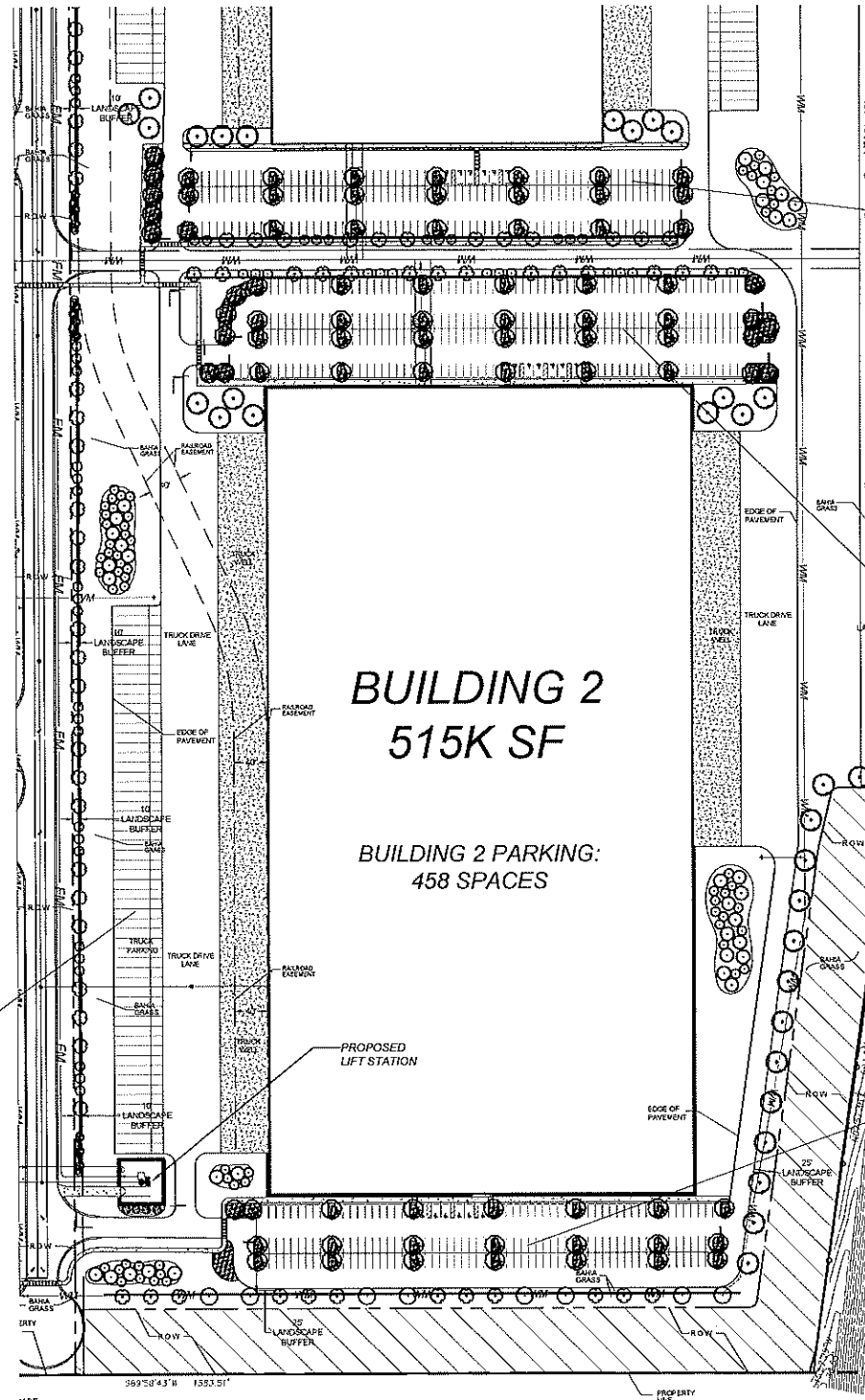
DATE: 06/23/16

NOTE:  
ALL TREE AND SHRUB ROOTBALLS  
SHALL BE PLACED WITH A MINIMUM OF  
5' HORIZONTAL SEPARATION FROM ALL  
CITY MAINTAINED UTILITY LINES.

FINAL LANDSCAPE AND IRRIGATION PLANS  
TO BE DESIGNED IN ACCORDANCE WITH  
CITY OF APOPKA ORDINANCE NUMBER 2069  
OR CURRENT CODE IN EFFECT AT TIME OF  
CONSTRUCTION PLAN SUBMITTAL.

PLANT LEGEND

<p><b>LARGE SHADE TREE</b></p> <ul style="list-style-type: none"> <li>LYLE OAK - QUERCUS VAGRIANA 3" DBH/15' SPAD./12' HT.</li> <li>BROOKSIDE LYLE OAK - QUERCUS VAGRIANA 3" DBH/15' SPAD./14' HT.</li> <li>ALLEE ELM - ULMUS AMERICANA 3" DBH/15' SPAD./14' HT.</li> <li>SWEETGUM - LIQUIDAMBAR STYRACIFLUA 3" DBH/15' SPAD./14' HT.</li> <li>RED MAPLE - ACER RUBRUM 3" DBH/15' SPAD./12' HT.</li> <li>SOUTHERN RED CEDAR - CUPRESSUS SENNERTENSIS 3" DBH/15' SPAD./12' HT.</li> </ul>	<p><b>MEDIUM SHADE TREE</b></p> <ul style="list-style-type: none"> <li>SOUTHERN MAGNOLIA - MAGNOLIA GRANDIFLORA 3" DBH/15' SPAD./12' HT.</li> <li>SLASH PINE - PINUS ELLIOTTII 2.5" DBH/14' SPAD./15' HT. 3" DBH/15' SPAD./12' HT.</li> <li>BAUD CYPRESS - TAXODIUM DISTICHUM 2.5" DBH/14' SPAD./10' HT. 3.5" DBH/16' SPAD./14' HT.</li> </ul> <p><b>UNDERSTORY TREE</b></p> <ul style="list-style-type: none"> <li>LIGUSTRUM TREE - LIGUSTRUM NAPHOECIA 2" DBH/12' SPAD./8' HT. (MULTI-TURNED)</li> <li>GRAPE HAVERTIE - LAGERSTROEMIA INKCA 2" DBH/15' SPAD./10' HT.</li> </ul>	<p><b>PALM TREE</b></p> <ul style="list-style-type: none"> <li>SABAL PALM - SABAL PALMETTO 10', 14', 16' CT. / STRAIGHT TRUNK</li> </ul> <p><b>SHRUBS / GROUNDCOVER</b></p> <ul style="list-style-type: none"> <li>WALTERS VIBURNUM, SWEET VIBURNUM, FLORADO, MUNLY GRASS, CORD GRASS, BURNING BUSH, FIREAPPLE GUAVA, PHILLODENDRON, SPOONWOOD STOPPER, WILD COFFEE, FIREBUSH, FLORIDA AZALEA, CROTON LILY, CARDBOARD PALM, MIRROR-LEAF VIBURNUM.</li> <li>IRIDIUM, ASIAN JASMINE, INDIAN HAWTHORN, COONHIE, BURBIE, PERENNIAL PEANUT, PURPER, BOXWOOD, FLAX LILY, AFRICAN IRIS, SHILLINGS HOLLY.</li> </ul>
--	---	--



**PARKING 'E'**

TOTAL 63,268 S.F.  
LS ISLANDS 6,445 S.F.  
% LS 10.19% (10% REQUIRED)  
% SHADE 51.67% (30% REQUIRED)

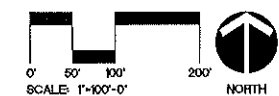
**PARKING 'F'**

TOTAL 77,739 S.F.  
LS ISLANDS 8,081 S.F.  
% LS 10.4% (10% REQUIRED)  
% SHADE 55.66% (30% REQUIRED)

**PARKING 'G'**

TOTAL 45,725 S.F.  
LS ISLANDS 4,579 S.F.  
% LS 10% (10% REQUIRED)  
% SHADE 50.97% (30% REQUIRED)

**PARKING 'H'**  
TRUCK PARKING  
(NOT APPLICABLE)



MID-FLORIDA LOGISTICS PARK

<p><b>BORRELLI PARTNERS</b> LANDSCAPE ARCHITECTS 3700 VILLAS STREET ORLANDO, FL 32824 (407) 418-1338</p>	
<p>SEAL VERIFICATION</p>	
<p>DRAWING TITLE</p> <p>LANDSCAPE PLAN</p>	
<p>PROJECT NO.</p>	<p>REV.</p>
<p>PHASE</p>	<p>DATE</p>
<p>SCALE</p>	<p>DESCRIPTION</p>
<p>FILE NAME</p>	<p>PROJECT ADDRESS</p>
<p>DRAWN BY</p>	<p>CITY OF APOPKA, FLORIDA</p>
<p>CHECKED BY</p>	<p>OWNER NAME AND ADDRESS</p>
<p>DATE</p>	<p>DATE</p>

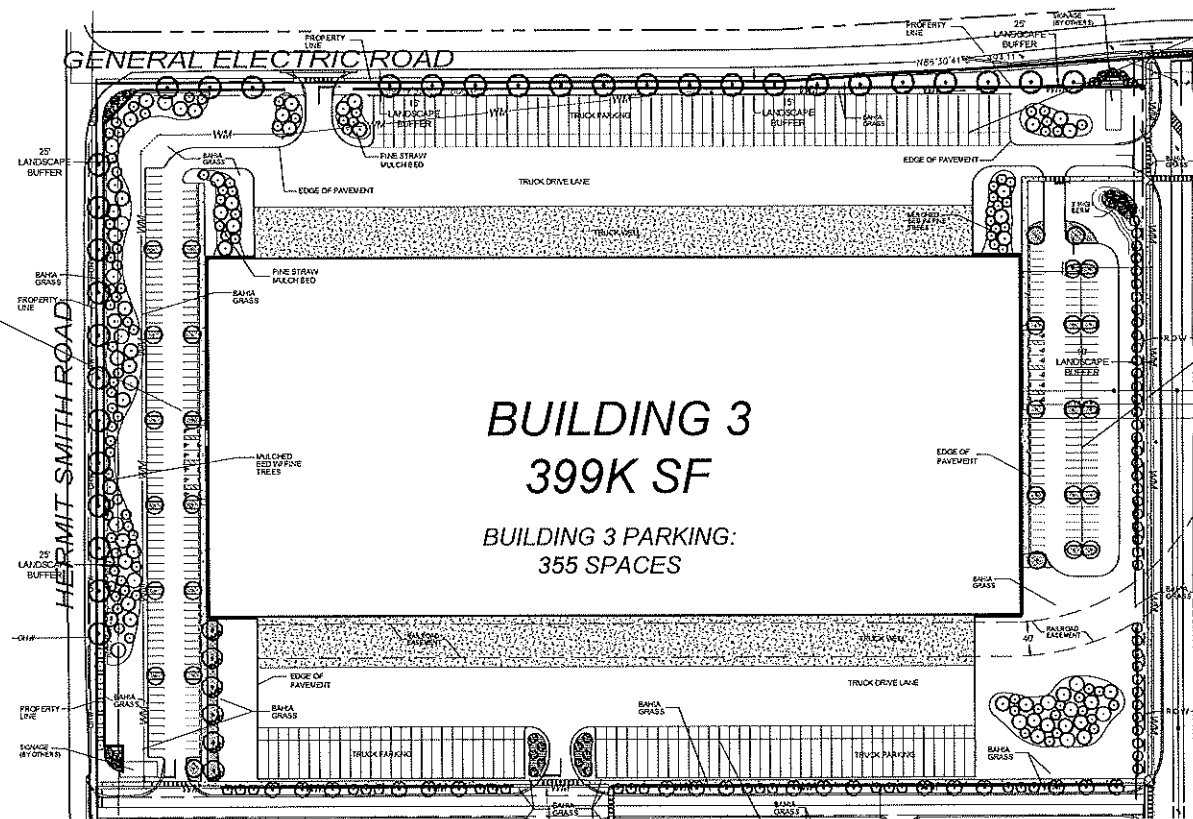
NOTE:  
 ALL TREE AND SHRUB ROOTBALLS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM ALL CITY MAINTAINED UTILITY LINES.  
 FINAL LANDSCAPE AND IRRIGATION PLANS TO BE DESIGNED IN ACCORDANCE WITH CITY OF APOPKA ORDINANCE NUMBER 2069 OR CURRENT CODE IN EFFECT AT TIME OF CONSTRUCTION PLAN SUBMITTAL.

PLANT LEGEND

LARGE SHADE TREE	MEDIUM SHADE TREE	PALM TREE
<ul style="list-style-type: none"> <li>LIVE OAK - QUERCUS VIRGINIANA 3" DBH / 8' SPAD / 14' HT.</li> <li>HIGHBUSH LIVE OAK - QUERCUS VIRGINIANA 3" DBH / 8' SPAD / 14' HT.</li> <li>ALLEE PALM - PALM AMERICANA 3" DBH / 8' SPAD / 14' HT.</li> <li>SWEETGUM - LIQUIDAMBAR STYRACIFLUA 3" DBH / 8' SPAD / 14' HT.</li> <li>RED MAPLE - ACER RUBRUM 3" DBH / 8' SPAD / 12' HT.</li> <li>SOUTHERN RED CEDAR - CUPRESSUS SENNARIENSIS 3" DBH / 8' SPAD / 12' HT.</li> </ul>	<ul style="list-style-type: none"> <li>SOUTHERN MAGNOLIA - MAGNOLIA GRANDIFLORA 3" DBH / 8' SPAD / 12' HT.</li> <li>SLASH PINE - PINUS ELLIOTTI 3" DBH / 8' SPAD / 12' HT.</li> <li>BALD CYPRESS - TAXODIUM DISTICHUM 3" DBH / 8' SPAD / 12' HT.</li> <li>UNDERSTORY TREE</li> <li>LYCOSTRUM TREE - LYCOSTRUM JAPONICUM 2" DBH / 5' SPAD / 8' HT. (MULCH-TREATED)</li> <li>CRAPPE MYRTLE - LAURUSTROBILUS HINCA 2" DBH / 5' SPAD / 10' HT.</li> </ul>	<ul style="list-style-type: none"> <li>SABAL PALM - SABAL PALMETTO 3" DBH / 8' SPAD / 12' HT.</li> </ul>
<b>SHRUBS / GROUND COVER</b> <ul style="list-style-type: none"> <li>WALTER'S YEW, SWEET YEW, PLUMBAGO, AMARYLLIS, CORD GRASS, BURFORD HOLLY, PINEAPPLE GUAVA, PHLOENICHOEN, SPADIFORM STOPPER, WILD COFFEE, FIREBUSH, FLORIDA ANISE, CORKBERRY, CARDONMO PALM, JACOB'S LACE, YEW.</li> <li>LOOSELY, ASIAN JASMINE, INDIAN HAWTHORN, COONIE, BLUEBERRY, FERRELLA, PEANUT, SWEET, BOXWOOD, FLAX LILY, AFRICAN IRIS, SHELLEYS HOLLY.</li> </ul>		

PARKING 'L'

TOTAL 40,672 S.F.  
 LS ISLANDS 4,417 S.F.  
 % LS 10.86% (10% REQUIRED)  
 % SHADE 50.39% (30% REQUIRED)



PARKING 'I'

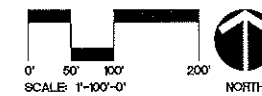
TRUCK PARKING  
 (NOT APPLICABLE)

PARKING 'J'

TOTAL 37,873 S.F.  
 LS ISLANDS 3,937 S.F.  
 % LS 10.4% (10% REQUIRED)  
 % SHADE 66% (30% REQUIRED)

PARKING 'K'

TRUCK PARKING  
 (NOT APPLICABLE)



MID-FLORIDA LOGISTICS PARK

DRAWING TITLE: LANDSCAPE PLAN

DRAWING NO. L-103

PROJECT NO. 16-034

PHASE PRELIMINARY

SCALE 1"=80'

FILE NAME 16-034

DRAWN BY JTB

CHECKED BY CR

DATE 09/2/18

PROJECT ADDRESS: CITY OF APOPKA, FLORIDA

OWNER NAME AND ADDRESS:

SEAL VERIFICATION:

SIGNATURE AND DATED SEAL:

ORLANDO, FL 32808 (407) 418-1138

BORRELLI + PARTNERS

Landscape Architecture

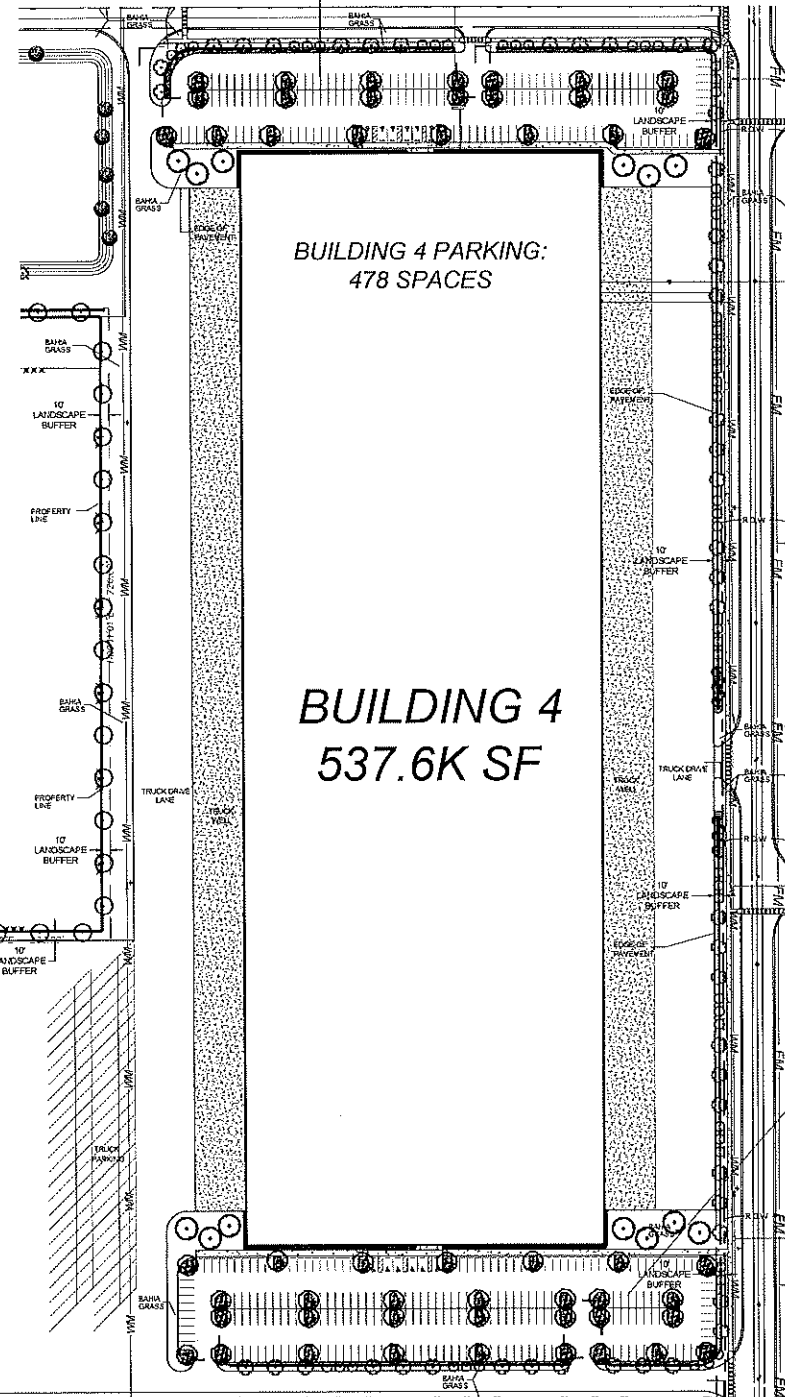
CHRISTOPHER D. BICE

FL 06000001

**NOTE:**  
 ALL TREE AND SHRUB ROOTBALLS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM ALL CITY MAINTAINED UTILITY LINES.  
 FINAL LANDSCAPE AND IRRIGATION PLANS TO BE DESIGNED IN ACCORDANCE WITH CITY OF APOPKA ORDINANCE NUMBER 2069 OR CURRENT CODE IN EFFECT AT TIME OF CONSTRUCTION PLAN SUBMITTAL.

### PARKING 'M'

TOTAL 62,919 S.F.  
 LS ISLANDS 6,980 S.F.  
 % LS 10% (10% REQUIRED)  
 % SHADE 62.16% (30% REQUIRED)



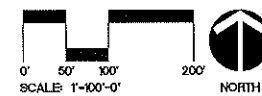
**PARKING 'O'**  
 TRUCK PARKING  
 (NOT APPLICABLE)

**BUILDING 4**  
 537.6K SF

**BUILDING 4 PARKING:**  
 478 SPACES

### PARKING 'N'

TOTAL 72,060 S.F.  
 LS ISLANDS 7,226 S.F.  
 % LS 10.03% (10% REQUIRED)  
 % SHADE 67.87% (30% REQUIRED)



### PLANT LEGEND

LARGE SHADE TREE	MEDIUM SHADE TREE	PALM TREE
LIVE OAK - QUERCUS VIRGINIANA 3" DBH / 6" SPRD / 14' HT.	SOUTHERN MAGNOLIA - MAGNOLIA GRANDIFLORA 3" DBH / 5" SPRD / 12' HT.	SERIAL PALM - SERIAL PALMETTO 10, 14, 16" CT / STRAIGHT TRUNK
HIGHBUSH LIVE OAK - QUERCUS VIRGINIANA 3" DBH / 6" SPRD / 14' HT.	SHADY PINE - PINUS ELKOTII 2.5" DBH / 4" SPRD / 12' HT. 3" DBH / 5" SPRD / 12' HT.	<b>SHRUBS / GROUND COVER</b>
ALICE ERM - MIMAS AMERICANA 3" DBH / 6" SPRD / 14' HT.	BALD CYPRESS - TAXODIUM DISTICHUM 2.5" DBH / 4" SPRD / 12' HT. 3" DBH / 5" SPRD / 12' HT.	WALTERS VIBURNUM, SWEET VIBURNUM, FLORADO, MURPHY GRASS, CORD GRASS, BURFORD HOLLY, WHEATLE GRASS, PHLOENIDRUM, SWISS STOPPER, WILD COFFEE, FIREBUSH, FLORESA ANISE, ERUMLIETY, CAROLINA PALM, ARBOR-LEAF VIBURNUM.
SWEETGUM - LIQUIDAMBAR SYRIACA 3" DBH / 6" SPRD / 14' HT.	<b>UNDERSTORY TREE</b>	LINDSEY, ASIAN BANYAN, INDIAN HANDBROOM, COONHIE, BULBINE, FEARDIAL PEANUT, JAZZIER, BOXWOOD, FLAX LILY, AFRICAN IRIS, SIBLING'S HOLLY.
RED MAPLE - ACER RUBRUM 3" DBH / 5" SPRD / 12' HT.	LIGNUM TREE - LIGUSTRUM JAPONICUM 2" DBH / 5" SPRD / 8' HT. ANA EL-TALHED	
SOUTHERN RED CEDAR - CYPRESSUS SEMPERVERENS 3" DBH / 5" SPRD / 12' HT.	GRAPE HURDLE - LAGERSTROMIA HONKA 2" DBH / 5" SPRD / 12' HT.	

**BORELLI & PARTNERS**  
 LANDSCAPE ARCHITECTS  
 10000 W. WINDY HILL BLVD. SUITE 100  
 ORLANDO, FL 32838 (407) 418-1138  
ORLANDO, FL 32838 (407) 418-1138  
 \*NOT FOR CONSTRUCTION PERMITS\*

CHRISTOPHER BKS  
 #14666722

SIGNATURE AND DATED SEAL

SEAL VERIFICATION

DRAWING TITLE

MID-FLORIDA LOGISTICS PARK

PROJECT ADDRESS

CITY OF APOPKA, FLORIDA

OWNER NAME AND ADDRESS

REV.	DESCRIPTION	DATE

PROJECT NO.	
PHASE	PRELIMINARY
SCALE	1"=80'-0"
FILE NAME	14-03
DRAWN BY	JTB
CHECKED BY	CRK
DATE	08/23/18

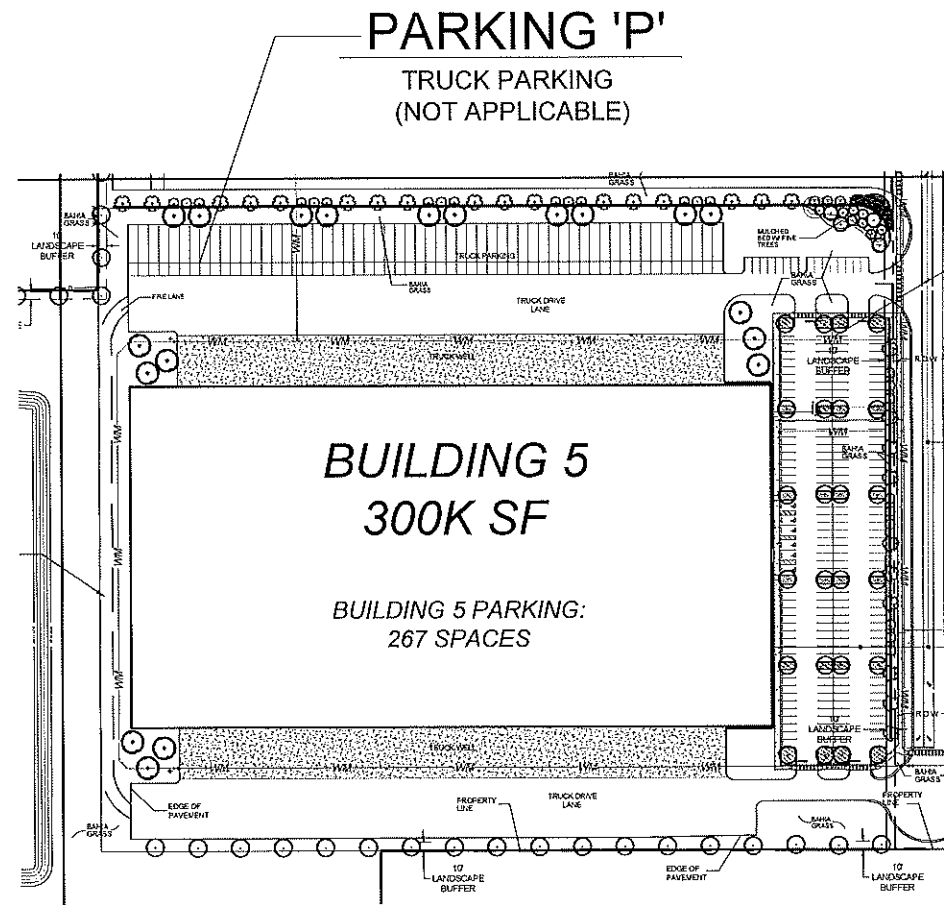
**L-104**

NOTE:  
ALL TREE AND SHRUB ROOTBALLS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM ALL CITY MAINTAINED UTILITY LINES.

FINAL LANDSCAPE AND IRRIGATION PLANS TO BE DESIGNED IN ACCORDANCE WITH CITY OF APOPKA ORDINANCE NUMBER 2069 OR CURRENT CODE IN EFFECT AT TIME OF CONSTRUCTION PLAN SUBMITTAL.

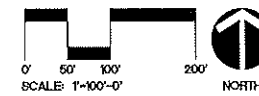
PLANT LEGEND

<p><b>LARGE SHADE TREE</b></p> <ul style="list-style-type: none"> <li>LIVE OAK - QUERCUS VIRGINIANA 3" DBH / 5' SPAD / 14' HT.</li> <li>HIGHBATE LIVE OAK - QUERCUS VIRGINIANA 3" DBH / 5' SPAD / 14' HT.</li> <li>ALICE ELM - ULMUS AMERICANA 3" DBH / 5' SPAD / 14' HT.</li> <li>SWIDEGERIA - LIQUIDAMBAR STRUCUTILIA 3" DBH / 5' SPAD / 14' HT.</li> <li>RED MAPLE - ACER RUBRUM 3" DBH / 5' SPAD / 12' HT.</li> <li>SOUTHERN RED CEDAR - CUPRESSUS SEMPERVIRENS 3" DBH / 5' SPAD / 12' HT.</li> </ul>	<p><b>MEDIUM SHADE TREE</b></p> <ul style="list-style-type: none"> <li>SOUTHERN MAGNOLIA - MAGNOLIA GRANDIFLORA 3" DBH / 5' SPAD / 12' HT.</li> <li>WASH PINE - PINUS ELIOTTI 2.5" DBH / 4' SPAD / 10' HT. 3" DBH / 5' SPAD / 12' HT.</li> <li>BALD CYPRESS - TAXODIUM DISTICHUM 2.5" DBH / 4' SPAD / 10' HT. 3" DBH / 5' SPAD / 12' HT.</li> </ul> <p><b>UNDERSTORY TREE</b></p> <ul style="list-style-type: none"> <li>LIGUSTRUM TREE - LIGUSTRUM JAPONICUM 2" DBH / 5' SPAD / 8' HT. (MULTI-TRUNKED)</li> <li>GRAPE HYDRANGEA - LAGARTIA ROEMANA INDICA 2" DBH / 5' SPAD / 10' HT.</li> </ul>	<p><b>PALM TREE</b></p> <ul style="list-style-type: none"> <li>SABAL PALM - SABAL PALMETTO 10, 14, 18, 21, 25 TRUNKS PER TREE</li> </ul> <p><b>SHRUBS / GROUND COVER</b></p> <ul style="list-style-type: none"> <li>WILTERS VIRGINIANA, SHEET VIRGINIANA, FLUMBAGO, HIGHLY GRASS, CORD GRASS, BURFORD HOLLY, PINEAPPLE GUAVA, PINKOCHORDON, STAPSON'S STOPPER, WILD COFFEE, FIREBUSH, FLORIDA ANISE, CRUCIFERA LILY, CAROLINA PALM, HERON-LEAF VIRGINIANA.</li> <li>EUROPE, ASIAN JASMINE, INDIAN Hawthorn, COONHOLE, BURNING BURENIA, PEADIT, SANDPAPER, BOXWOOD, FLAX LILY, AFRICAN IRIS, SHILLING'S HOLLY.</li> </ul>
---	--	--



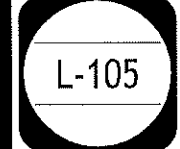
PARKING 'Q'

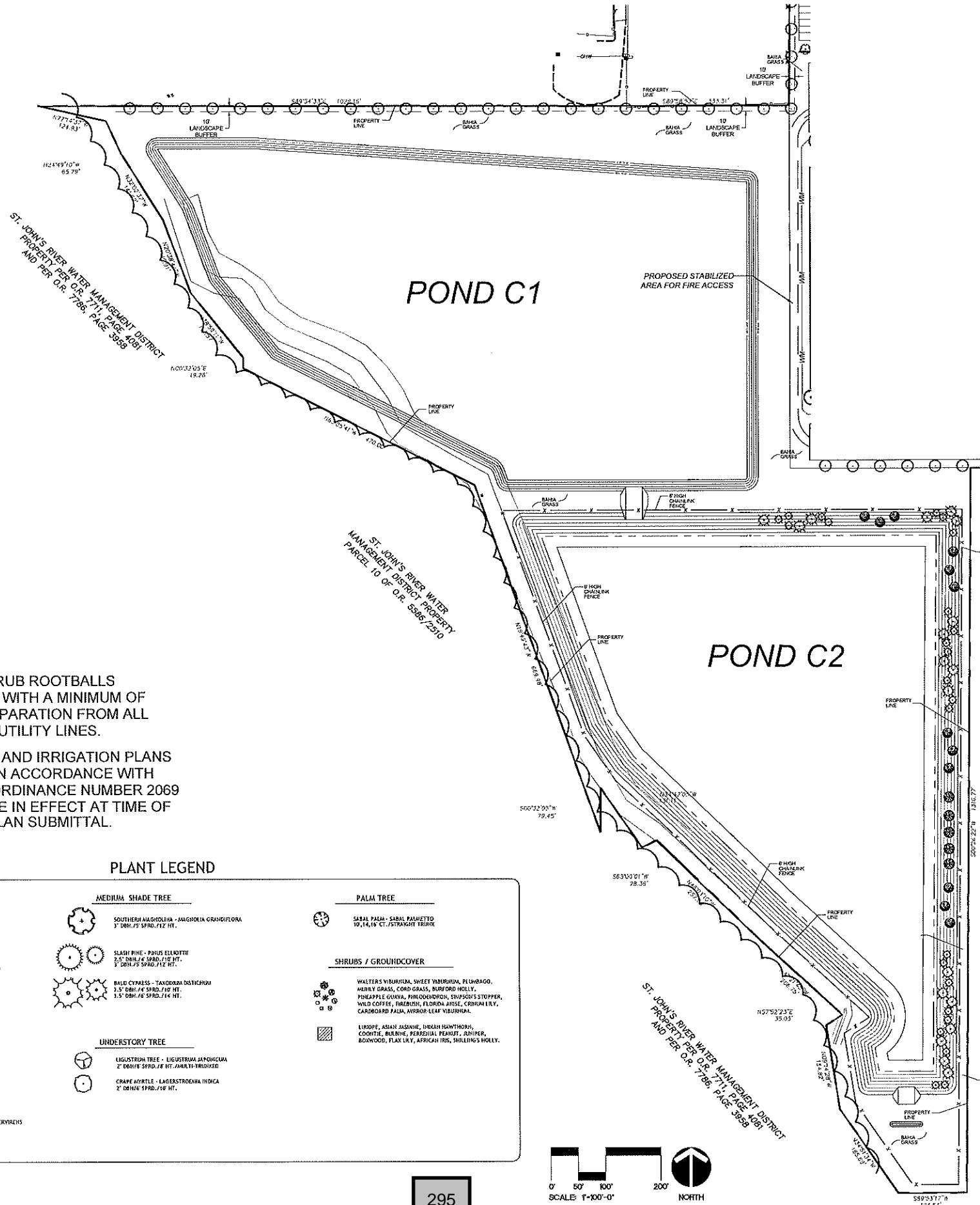
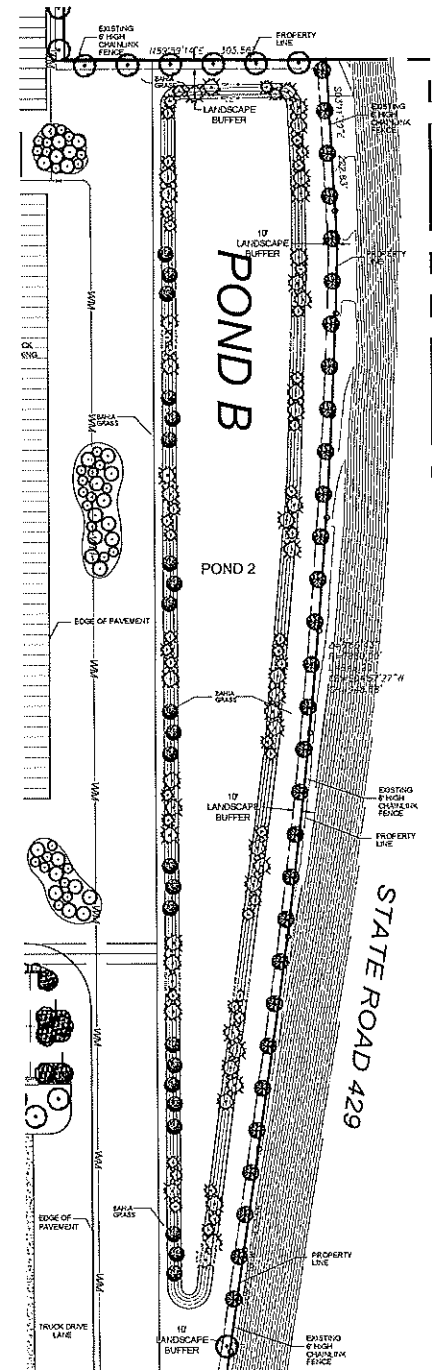
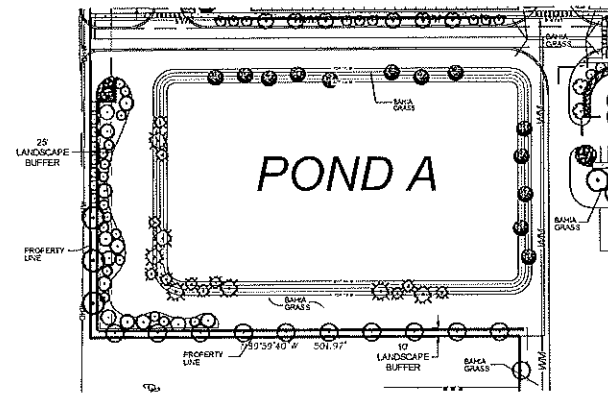
TOTAL 58,566 S.F.  
LS ISLANDS 5,876 S.F.  
% LS 10.03% (10% REQUIRED)  
% SHADE 57.6% (30% REQUIRED)



MID-FLORIDA LOGISTICS PARK  
 DRAWING TITLE  
 LANDSCAPE PLAN  
 SEAL VERIFICATION  
 SIGNATURE AND DATED SEAL

PROJECT NO.	18-03	REV.	DESCRIPTION	DATE	PROJECT ADDRESS	CITY OF APOPKA, FLORIDA
PHASE	PRELIMINARY					OWNER NAME AND ADDRESS
SCALE	1"=50'-0"					
FILE NAME	18-03					
DRAWN BY	JFD					
CHECKED BY	CR					
DATE	08/21/18					





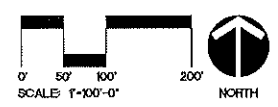
NOTE:  
 ALL TREE AND SHRUB ROOTBALLS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM ALL CITY MAINTAINED UTILITY LINES.

FINAL LANDSCAPE AND IRRIGATION PLANS TO BE DESIGNED IN ACCORDANCE WITH CITY OF APOPKA ORDINANCE NUMBER 2069 OR CURRENT CODE IN EFFECT AT TIME OF CONSTRUCTION PLAN SUBMITTAL.

PLANT LEGEND

LARGE SHADE TREE	MEDIUM SHADE TREE	PALM TREE
<ul style="list-style-type: none"> <li>LYLE OAK - QUERCUS VIRGINIANA 3" DBH, 7.5' SPAD, 114' HT.</li> <li>HIGHBUSH LYLE OAK - QUERCUS VIRGINIANA 3" DBH, 7.5' SPAD, 114' HT.</li> <li>ALLEE OLM - ULMUS AMERICANA 3" DBH, 7.5' SPAD, 114' HT.</li> <li>SWEETGUM - LIQUIDAMBAR STROBILIFERA 3" DBH, 7.5' SPAD, 114' HT.</li> <li>RED MAPLE - ACER RUBRUM 3" DBH, 7.5' SPAD, 112' HT.</li> <li>SOUTHERN RED CEDAR - CUPRESSUS SEMPERVIRENS 3" DBH, 7.5' SPAD, 112' HT.</li> </ul>	<ul style="list-style-type: none"> <li>SOUTHERN MAGNOLIA - MAGNOLIA GRANDIFLORA 3" DBH, 7.5' SPAD, 112' HT.</li> <li>SLASH PINE - PINUS ELIOTTI 2.5" DBH, 7.4' SPAD, 112' HT. 3" DBH, 7.5' SPAD, 112' HT.</li> <li>BALE CYPRESS - TAXODIUM DISTICHUM 2.5" DBH, 7.4' SPAD, 112' HT. 3" DBH, 7.5' SPAD, 112' HT.</li> <li>UNDERSTORY TREE</li> <li>LIGUSTRUM TREE - LIGUSTRUM JAPONICUM 2" DBH, 6' SPAD, 7.8' HT.</li> <li>CRAPE HORTLE - LAGERSTROEMIA INDICA 2" DBH, 6' SPAD, 7.8' HT.</li> </ul>	<ul style="list-style-type: none"> <li>SABAL PALM - SABAL PALMETTO 10, 14, 16" CT, STRANGIER TRUNK</li> </ul>
		SHRUBS / GROUND COVER
		<ul style="list-style-type: none"> <li>WALTERS VIRGINICA, SWEET VIRGINICA, PELICARGO, HENRY GRASS, CORN GRASS, BURNING BELL, PINEAPPLE GUMMA, PINE OGDONION, SWISS STOPPER, WILD COFFEE, FIBRUSH, FLORIDA JARSE, CRUUM ELY, CARDBOARD PALM, ANHOU-LEAF VIRGINICA.</li> <li>LIPOPE, ASIAN JASANIE, INKAKH HAWTHORN, COONIE, BURINE, PERSEVAL PEANUT, JUNIPER, BOUNWOOD, FLAT LILY, AFRICAN TRO, SHILLING'S HOLLY.</li> </ul>

295



**BORRELLI & PARTNERS**  
 LANDSCAPE ARCHITECTS  
 750 UNIVERSITY STREET  
 ORLANDO, FL 32804 (407) 418-1338

SEAL VERIFICATION  
 SIGNATURE AND DATED SEAL

**MID-FLORIDA LOGISTICS PARK**

DRAWING TITLE

RETENTION POND  
 LANDSCAPE PLAN

PROJECT NO. 16034

PHASE PRELIMINARY

SCALE 1"=100'-0"

FILE NAME 16034

DRAWN BY JTD

CHECKED BY CRB

DATE 08/23/16

REV. DESCRIPTION DATE

--	--	--

PROJECT ADDRESS  
 CITY OF APOPKA, FLORIDA

OWNER NAME AND ADDRESS

**L-106**

**MID-FLORIDA LOGISTICS PARK**

Project № 18008, v2.0  
August 2018

**TRAFFIC IMPACT ANALYSIS  
CITY OF AOPKA  
FLORIDA**

*Prepared by:*



**Traffic & Mobility Consultants**

3101 Maguire Boulevard, Suite 265  
Orlando, Florida 32803  
[www.trafficmobility.com](http://www.trafficmobility.com)  
(407) 531-5332

*Prepared for:*

BlueScope Properties Group  
1540 Genessee Street  
Kansas City, Missouri 64102

ARCO National Construction-KC  
5015 NW Canal Street, Suite 110  
Riverside, Missouri 64150

Dave Schmitt Engineering, Inc  
12301 Lake Underhill Road, Suite 241  
Orlando, Florida 32828



## EXECUTIVE SUMMARY

### **Project Information**

Name: Mid-Florida Logistics Park  
Location: South of General Electric Road, east of Hermit Smith Road and west of SR 429, in the City of Apopka, Florida.  
Description: 2,459,755 square feet of warehousing

### **Findings**

Trip Generation: 3,444 ADT / 246 PM Peak Hour Trips  
Approximately 20% of trips projected to be trucks.

Roadway Capacity: All study segments currently operate within their adopted capacity and are projected to continue to do so at project buildout.

Intersection Capacity: All study intersections operate at adequate LOS and are projected to continue to do so at project buildout. Except for US 441 & Hermit Smith Road.

Mitigation: The deficient intersection of US 441 and Hermit Smith Road will require a dedicated northbound right turn lane to more efficiently serve the projected traffic volume.  
A modified timing plan may be implemented in the future as vested and project traffic materialize on the minor approaches to the intersection.

## PROFESSIONAL ENGINEERING CERTIFICATION

I hereby certify that I am a Professional Engineer properly registered in the State of Florida practicing with Traffic & Mobility Consultants LLC, a corporation authorized to operate as an engineering business, CA-30024, by the State of Florida Department of Professional Regulation, Board of Professional Engineers, and that I have prepared or approved the evaluations, findings, opinions, conclusions, or technical advice attached hereto for:

**PROJECT:** Mid-Florida Logistics Park

**LOCATION:** City of Apopka, Florida

**CLIENT:** Dave Schmitt Engineering, Inc

I hereby acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of Transportation Engineering as applied through professional judgment and experience.

**NAME:** Mohammed N. Abdallah

**P.E. No.:** Florida P.E. No. 56169

**DATE:** August 30, 2018

**SIGNATURE:** \_\_\_\_\_

# TABLE OF CONTENTS

	Page
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
<b>2.0 EXISTING CONDITIONS ANALYSIS.....</b>	<b>3</b>
2.1 Roadway Segment Capacity .....	3
2.2 Intersection Capacity .....	4
<b>3.0 PROJECT TRAFFIC.....</b>	<b>6</b>
3.1 Trip Generation.....	6
3.2 Truck Traffic.....	6
3.3 Trip Distribution/Assignment.....	6
<b>4.0 PROJECTED CONDITIONS ANALYSIS .....</b>	<b>8</b>
4.1 Background Traffic Volumes .....	8
4.2 Roadway Segment Capacity .....	8
4.3 Intersection Capacity .....	9
4.4 Intersection Mitigation.....	11
<b>5.0 STUDY CONCLUSIONS .....</b>	<b>12</b>
<b>APPENDICES.....</b>	<b>13</b>
Appendix A Response to City of Apopka Comments	
Appendix B Preliminary Site Plan	
Appendix C Mid-Florida Logistics Park Methodology	
Appendix D City of Apopka CMS Data	
Appendix E Traffic Counts & FDOT Seasonal Factor Report	
Appendix F Existing Conditions Analysis Worksheets	
Appendix G Trip Generation Sheets	
Appendix H OUATS Model	
Appendix I Background & Projected Conditions Analysis Worksheets	
Appendix J Improved Intersection Analysis Worksheets	

## LIST OF TABLES

Table 1 Existing Roadway Capacity Analysis .....	3
Table 2 Existing Intersection Capacity Analysis .....	4
Table 3 Trip Generation Analysis.....	6
Table 4 Projected Roadway Capacity Analysis .....	8
Table 5 Background and Projected Intersection Capacity Analysis.....	9
Table 6 Review of Right Turn Warrant.....	<b>Error! Bookmark not defined.</b>

## LIST OF FIGURES

Figure 1 Site Location Map .....	2
Figure 2 Existing Intersection Volumes.....	5
Figure 3 Project Trip Distribution .....	7
Figure 4 Projected Intersection Volumes .....	10

## 1.0 INTRODUCTION

This traffic analysis was performed to assess the impact of the proposed Mid-Florida Logistics Park development located south of General Electric Road, east of Hermit Smith Road and west of SR 429, in the City of Apopka. **Figure 1** depicts the location of the project site and the surrounding roadway network.

The analysis was updated to address comments received by the City, included in **Appendix A** and to reflect the revised development plan, which includes a total of 2,459,755 square feet of warehousing at full buildout in the year 2022. A preliminary site plan is provided in **Appendix B**.

The following analysis was conducted in accordance with the approved methodology, included in **Appendix C**. The analysis considers the project's impacts on the following roadways and intersections, within the project's influence area:

### Roadway Segments

US 441 (Orange Blossom Trail)

- Yothers Road to SR 429 Connector
- SR 429 Connector to Plymouth Sorrento Road
- Plymouth Sorrento Road to Boy Scout Boulevard
- Boy Scout Boulevard to Errol Parkway
- General Electric Road
- Hermit Smith Road to Orange Avenue

Binion Road/Orange Avenue (CR 437)

- Boy Scout Boulevard to Lakeview Drive
- Lakeview Drive to US 441

Hermit Smith Road

- General Electric Road to US 441

Hogshead Road

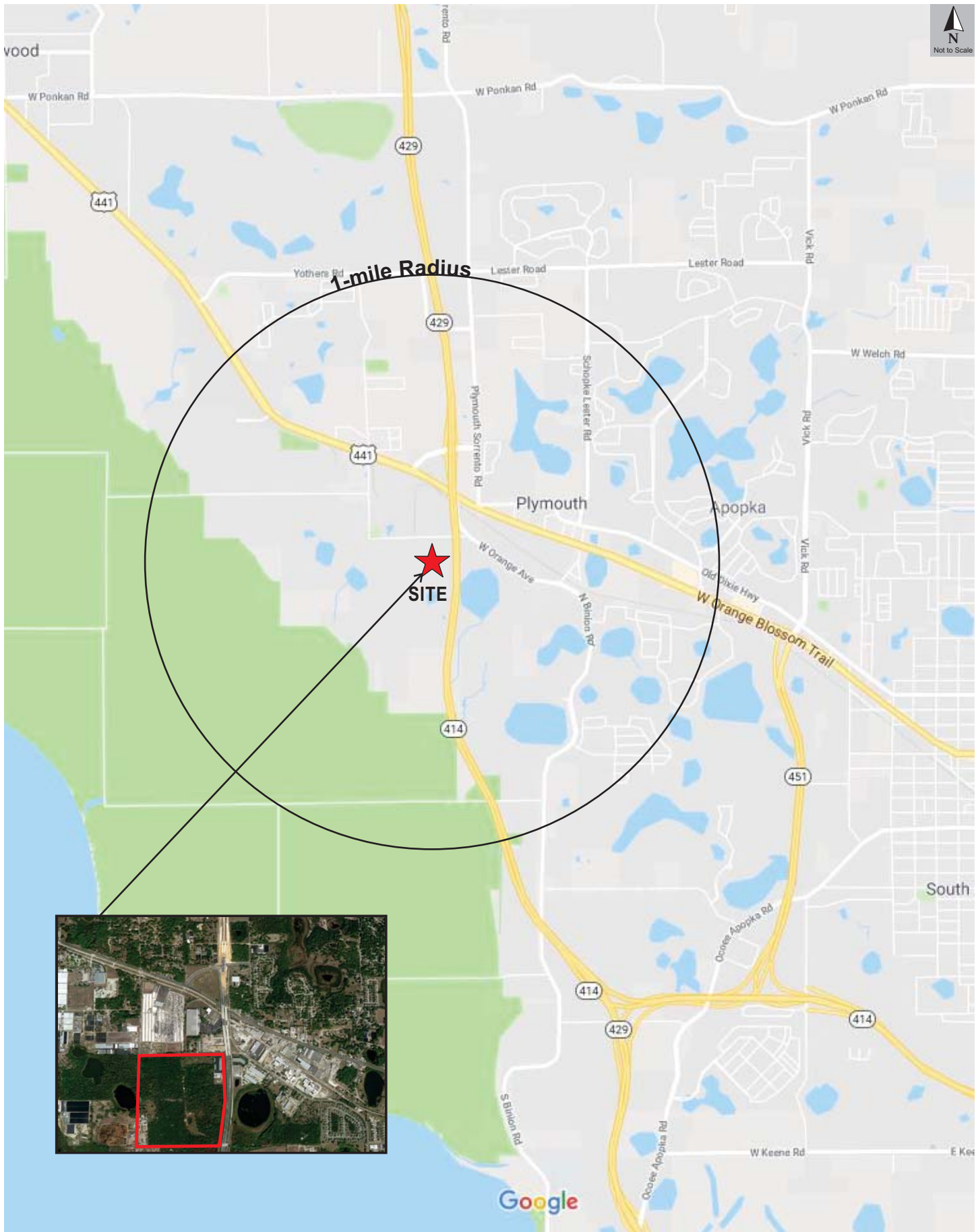
- Hermit Smith Road to Conrad Road

### Study Intersections

The following intersection will be analyzed for PM peak hour capacity and operations:

- General Electric Road & Orange Avenue
- Hermit Smith Road & General Electric Road
- Hermit Smith Road & US 441
- SR 429 Connector Road & US 441
- Orange Avenue & US 441
- Plymouth Sorrento Road & US 441
- Boy Scout Boulevard & US 441
- General Electric Road & Access
- Hermit Smith Road & Access

Data used in the analysis consisted of site plan/development information provided by the Project Engineers, PM peak hour traffic counts obtained by Traffic & Mobility Consultants LLC (TMC), road segment data obtained from the City of Apopka, and seasonal data obtained from Florida Department of Transportations (FDOT).



## 2.0 EXISTING CONDITIONS ANALYSIS

### 2.1 Roadway Segment Capacity

**Table 1** presents a summary of the existing conditions for the roadway segments examined in this study. Roadway segments were analyzed by comparing the existing Level of Service (LOS) for each roadway segment with the adopted LOS standard. Existing Daily and PM peak hour directional traffic volumes, capacities, and committed trips were obtained from the City of Apopka's *Encumbered Traffic Allocation Worksheets*, which are included in **Appendix D**.

**Table 1  
Existing Roadway Capacity Analysis**

Roadway Segment	No Lns	LOS Std	Daily					PM Peak Hour					
			Cap	Volume	Comm	Total	LOS	Cap	Volume	PD	Comm	Total	LOS
<b>US 441 (Orange Blossom Trail)</b>													
Yothers Road to SR 429 Connector Road	4	D	49,500	41,556	3,419	44,975	A	2,480	2,045	SB/WB	345	2,390	B
SR 429 Connector Road to Plymouth Sorrento Road	4	D	49,500	24,974	5,179	30,153	A	2,480	1,114	NB/EB	444	1,558	A
Plymouth Sorrento Road to Boy Scout Boulevard	4	D	49,500	28,506	1,956	30,462	A	2,480	1,310	NB/EB	260	1,570	A
Boy Scout Boulevard to Errol Parkway	4	D	55,400	29,279	659	29,938	A	2,600	1,179	SB/WB	58	1,237	A
<b>Binion</b>													
Boy Scout Boulevard to Lakeview Drive	2	E	17,700	4,774	1,669	6,443	C	880	278	NB/EB	141	419	C
Lakeview Drive to US 441	2	E	17,700	4,009	1,210	5,219	C	880	244	SB/WB	139	383	C
<b>General Electric Road</b>													
Hermit Smith Road to Orange Avenue	2	D	13,300	532	713	1,245	C	680	38	NB/EB	101	139	C
<b>Hermit Smith Road</b>													
General Electric Road to US 441	2	E	15,900	691	802	1,493	C	790	53	NB/EB	113	166	C
<b>Hogshead Road</b>													
Hermit Smith Road to Conrad Road	2	E	14,000	777	890	1,667	C	720	107	NB/EB	57	164	C

The existing conditions analysis reveals that the study roadway segments currently operate at satisfactory LOS.

## 2.2 Intersection Capacity

An intersection analysis was conducted using the Synchro Software and the methods of the *2010 Highway Capacity Manual (HCM)*. The capacity analysis was performed using the existing intersection geometries and traffic volumes during the PM peak hour. Based on the date of the data collection, a seasonal factor of 1.04 was applied to the traffic volumes to adjust for seasonal variation in traffic volumes. The field counts along with FDOT's 2017 Seasonal Factor report are included in **Appendix E**.

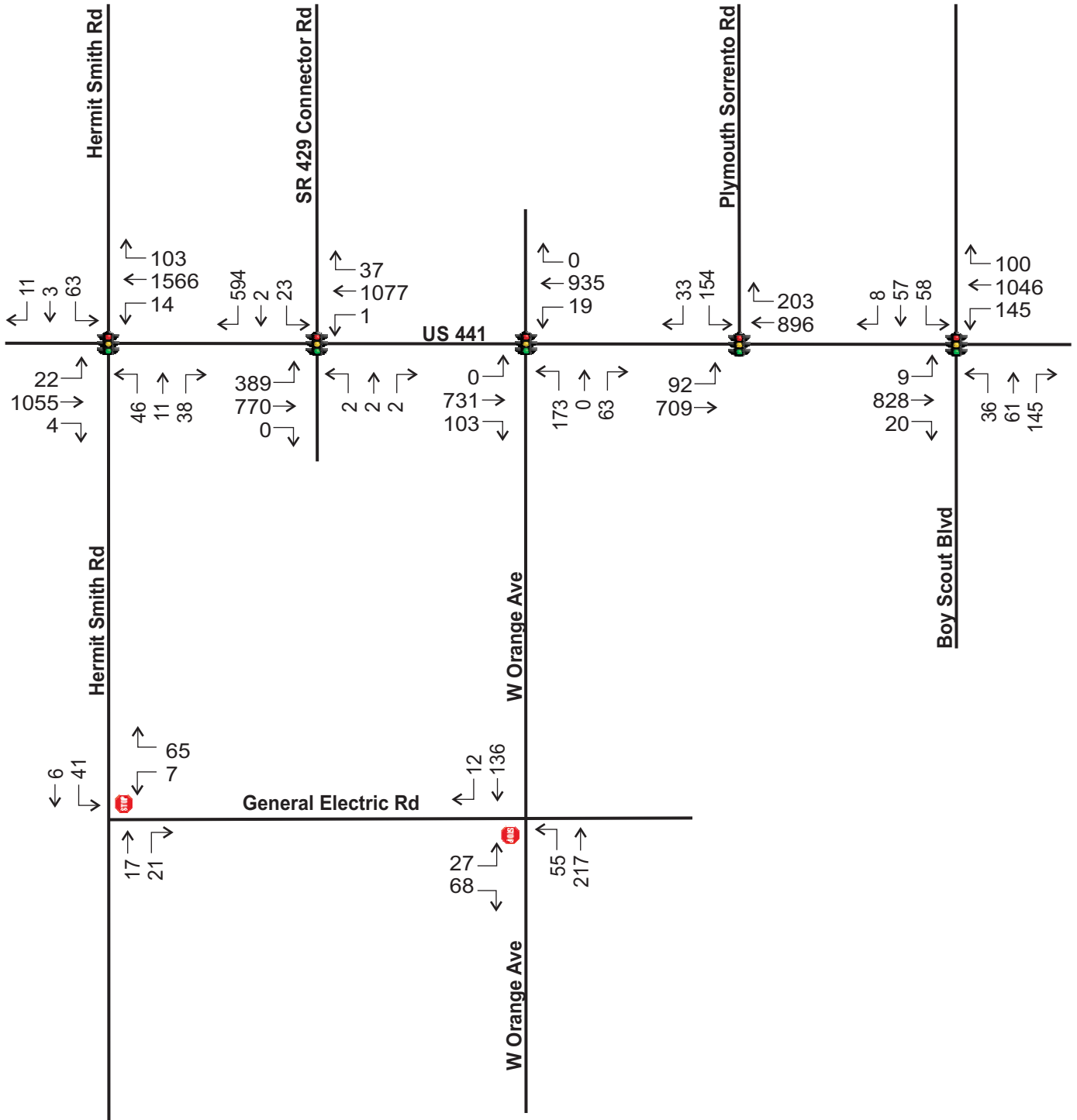
The existing intersection volumes are displayed in **Figure 2**. A summary of the intersection capacity analysis is shown in **Table 2**, which indicates that the study intersections currently operate at satisfactory LOS. Detailed analysis worksheets are included in **Appendix F**.

**Table 2**  
**Existing Intersection Capacity Analysis**

Intersection	Control	EB		WB		NB		SB		Overall	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 441 & Hermit Smith Rd	Signal	6.9	A	1.8	A	72.5	E	72.2	E	7.8	A
US 441 & SR 429 Connector Rd	Signal	26.1	C	4.0	A	98.4	F	48.0	D	21.0	C
US 441 & Orange Ave	Signal	0.5	A	6.9	A	68.9	E	--	--	13.4	B
US 441 & Plymouth Sorrento Rd	Signal	4.0	A	9.4	A	92.3	F	--	--	14.8	B
US 441 & Boy Scout Blvd	Signal	14.1	B	9.7	A	72.6	E	63.4	E	19.9	B
Hermit Smith Rd & General Electric Rd	TWSC	--	--	9.2	A	--	--	7.6	A	--	--
General Electric Rd & Orange Ave	TWSC	11.2	B	--	--	7.9	A	--	--	--	--

*Average delay is expressed seconds/vehicle*





### 3.0 PROJECT TRAFFIC

#### 3.1 Trip Generation

Information published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 10<sup>th</sup> Edition* was used to determine the trip generation of the proposed development as summarized in **Table 3**. ITE Code 154 for High-Cube Transload and Short-Term Storage Warehouse trip generation rates which were used in trip generation calculations. Detailed trip generation sheets are included in **Appendix G**.

**Table 3**  
**Trip Generation Analysis**

ITE Code	Land Use	Size	Daily		PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit
154	Warehouse	2,459.8 KSF	1.40	3,444	0.10	246	69	177

*Trip generation analysis based on ITE Trip Generation Manual, 10th Edition.*

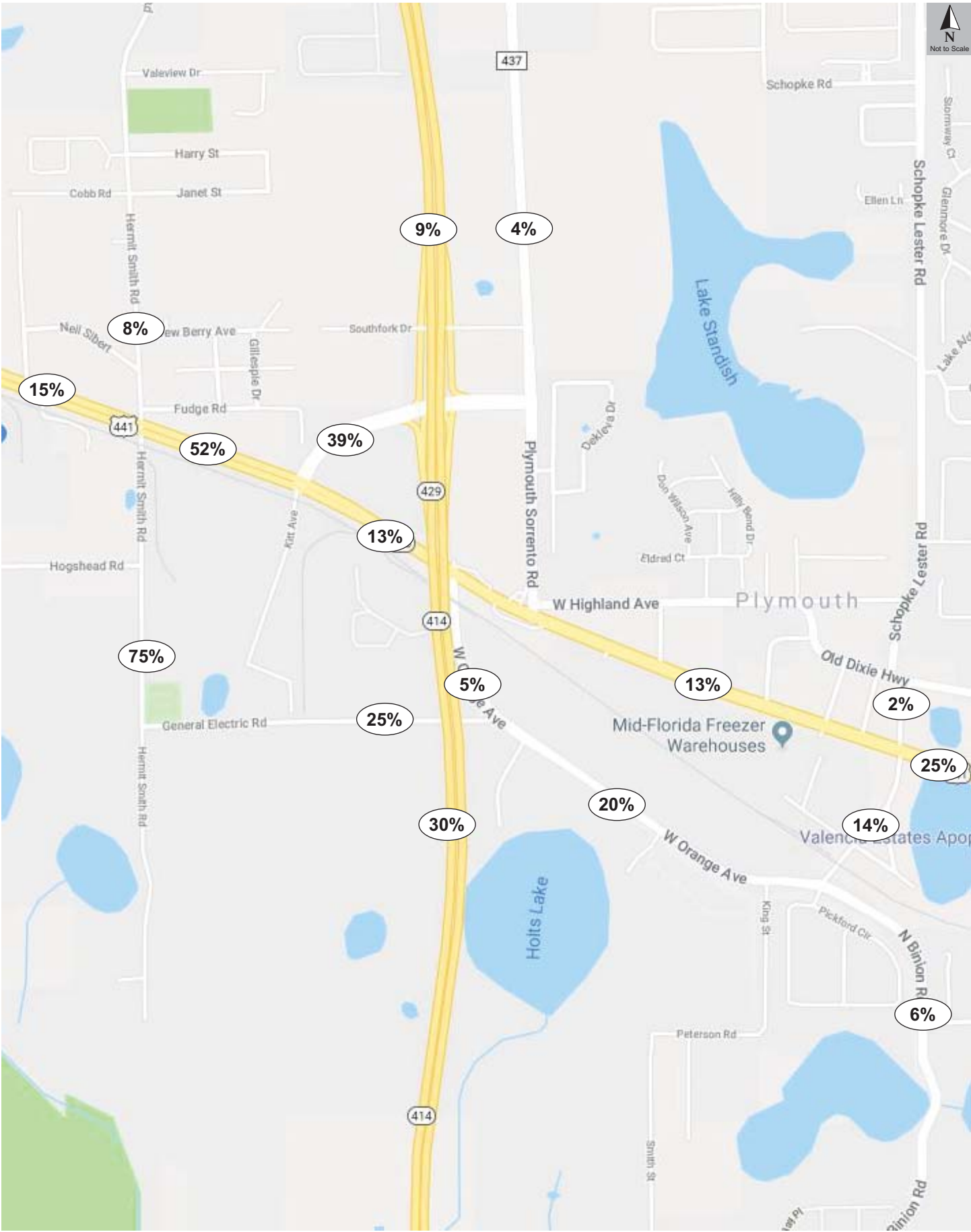
The proposed development generates a total of 3,444 trips per day, of which 246 trips will occur during the PM peak hour.

#### 3.2 Truck Traffic

Based on information from the ITE Trip Generation Manual, approximately 20% of the trips generated by the warehouse development are anticipated to be truck trips. The remaining trips are generated by employees, deliveries, visitors and other business activity that supports the truck transport activities at the warehouse. For the proposed development, it is expected that most truck traffic will use the newly completed expressway to access the regional transportation network, as will be reflected in the project's trip distribution pattern.

#### 3.3 Trip Distribution/Assignment

To assign the peak hour trips generated by the proposed development to the study roadways, a distribution pattern in the general vicinity of the project site was determined based on the OUATS model output, included in **Appendix H**, which was modified to reflect the local network and prevailing traffic patterns. The project's trip distribution pattern is provided in **Figure 3**.



Not to Scale

## 4.0 PROJECTED CONDITIONS ANALYSIS

Projected traffic conditions were analyzed for Daily and PM peak hour traffic for the anticipated buildout year 2022.

### 4.1 Background Traffic Volumes

The analysis of the background traffic was performed to ascertain the future conditions prior to the development of Mid-Florida Logistics Park. Background traffic consists of existing traffic and committed trips from approved developments in the area, which were obtained from the *City's Encumbered Traffic Allocation Worksheets*. Background traffic volumes were calculated by adding the existing volumes to the committed trips (E+C) for each of the study segments.

### 4.2 Roadway Segment Capacity

The roadway segment analysis was performed by comparing the projected LOS of the roadway with the adopted LOS standard. This analysis is summarized in **Table 4** for full buildout of the development, which reveals that the segments will continue to operate at satisfactory LOS in the projected condition.

**Table 4**  
**Projected Roadway Capacity Analysis**

Roadway Segment	No Lns	LOS Std	Daily							PM Peak Hour						
			Cap	Volume	Comm	Dist	Project	Total	LOS	Cap	Volume	PD	Comm	Project	Total	LOS
<b>US 441 (Orange Blossom Trail)</b>																
Yothers Road to SR 429 Connector Road	4	D	49,500	41,556	3,419	53%	1,825	44,975	A	2,480	2,045	SB/WB	345	94	2,390	B
SR 429 Connector Road to Plymouth Sorrento Road	4	D	49,500	24,974	5,179	11%	379	30,153	A	2,480	1,114	NB/EB	444	19	1,558	A
Plymouth Sorrento Road to Boy Scout Boulevard	4	D	49,500	28,506	1,956	11%	379	30,462	A	2,480	1,310	NB/EB	260	19	1,570	A
Boy Scout Boulevard to Errol Parkway	4	D	55,400	29,279	659	25%	861	29,938	A	2,600	1,179	SB/WB	58	44	1,237	A
<b>Binion</b>																
Boy Scout Boulevard to Lakeview Drive	2	E	17,700	4,774	1,669	6%	207	6,443	C	880	278	NB/EB	141	11	419	C
Lakeview Drive to US 441	2	E	17,700	4,009	1,210	20%	689	5,219	C	880	244	SB/WB	139	35	383	C
<b>General Electric Road</b>																
Hermit Smith Road to Orange Avenue	2	D	15,900	532	713	25%	861	1,245	C	680	38	NB/EB	101	44	139	C
<b>Hermit Smith Road</b>																
General Electric Road to US 441	2	E	15,900	691	802	75%	2,583	1,493	C	790	53	NB/EB	113	133	166	C
<b>Hogshead Road</b>																
Hermit Smith Road to Conrad Road	2	E	14,000	777	890	0%	0	1,667	C	720	58	NB/EB	126	0	184	C

### 4.3 Intersection Capacity

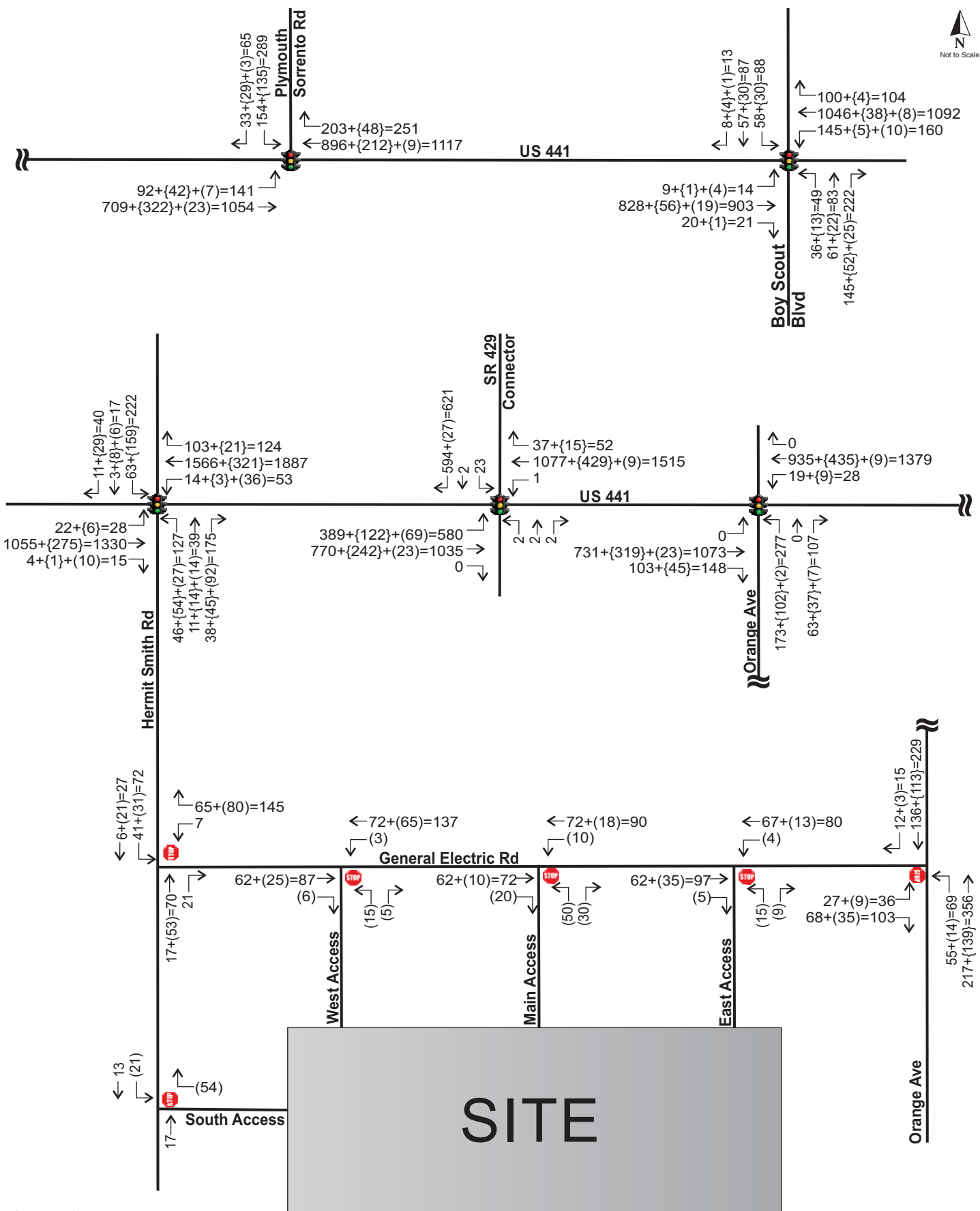
To assess the background and projected operating conditions at the study intersections, an intersection capacity analysis was conducted using background traffic volumes and projected traffic volumes. The intersection was analyzed using *Synchro Software*. Projected peak hour volumes were calculated by adding background traffic and project trips at the intersections.

The projected intersection volumes are shown in **Figure 4** and intersection analysis for both background and projected volumes are summarized **Table 5**. Detailed printouts of the analysis are included in **Appendix I**.

**Table 5**  
**Projected Intersection Capacity Analysis**

Intersection	Control	Scenario	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 441 & Hermit Smith Rd	Signal	Background	8.9	A	1.3	A	207.0	F	595.8	F	56.9	E
		Projected	9.7	A	2.6	A	536.7	F	709.1	F	98.5	F
US 441 & SR 429 Connector Rd	Signal	Background	53.5	D	18.2	B	98.4	F	47.7	D	37.3	D
		Projected	81.6	F	19.6	B	98.4	F	48.5	D	50.8	D
US 441 & Orange Ave	Signal	Background	0.2	A	0.3	A	113.3	F	--	--	14.5	B
		Projected	0.2	A	0.3	A	120.7	F	--	--	15.6	B
US 441 & Plymouth Sorrento Rd	Signal	Background	5.6	A	12.2	B	--	--	251.7	F	38.8	D
		Projected	5.7	A	12.4	B	--	--	250.2	F	38.5	D
US 441 & Boy Scout Blvd	Signal	Background	6.5	A	3.9	A	84.8	F	130.1	F	22.9	C
		Projected	6.6	A	4.0	A	100.1	F	141.4	F	26.0	C
Hermit Smith Rd & General Electric Rd	TWSC	Background	--	--	9.2	A	--	--	7.6	A	--	--
		Projected	--	--	10.6	B	--	--	7.9	A	--	--
General Electric Rd & Orange Ave	TWSC	Background	13.3	B	--	--	8.2	A	--	--	--	--
		Projected	14.3	B	--	--	8.2	A	--	--	--	--
General Electric Rd & West Access	TWSC	Projected	--	--	7.6	A	10.0	A	--	--	--	--
General Electric Rd & Main Access	TWSC	Projected	--	--	7.5	A	9.9	A	--	--	--	--
General Electric Rd & East Access	TWSC	Projected	--	--	7.6	A	9.6	A	--	--	--	--
Hermit Smith Rd & South Access	TWSC	Projected	--	--	8.8	A	--	--	7.5	A	--	--

The results of the background and projected analysis indicate that the intersections will continue to operate at satisfactory overall LOS, except for the intersection of Hermit Smith Road and US 441. This intersection is projected to become deficient on the side streets with the additional committed and project traffic.



**Legend**  
 Background + {Committed} + (Project) = Total

#### 4.4 Intersection Mitigation

In order to mitigate the projected deficiency at the intersection of Hermit Smith Road and US 441, additional capacity will be necessary to serve the minor approaches. The northbound and southbound approaches to the intersection are currently a single shared lane for all movements on each approach. The configuration results in a concurrent signal phase for all minor street movements. Additionally, the current timing plan at the intersection does not account for the significant number of committed and project trips that would be on the side streets in the long term. As vested and project traffic materialize on the minor approaches, it is reasonable to consider that the intersection timing plan would be modified to respond to the growing volumes in the future.

Therefore, to mitigate the project’s impact and improve the overall operations at the intersection, it is recommended that a dedicated northbound right turn lane is constructed. The additional lane will facilitate the movement of right turning traffic traveling from Hermit Smith Road toward the SR 429 expressway via US 441.

The results of the capacity analysis with the right turn lane and a slightly modified timing plan are summarized in **Table 5**. The worksheet is included in **Appendix J**.

**Table 5**  
**Improved Intersection Capacity Analysis**

Intersection	Control	Scenario	EB		WB		NB		SB		Overall	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
US 441 & Hermit Smith Rd	Signal	Improved	17.4	B	4.0	A	57.4	E	658.4	F	58.1	E

## 5.0 STUDY CONCLUSIONS

This traffic analysis was performed to assess the impact of the proposed Mid-Florida Logistics Park development. The site is located south of General Electric Road, east of Hermit Smith Road and west of SR 429, in the City of Apopka. The development will include a total of 2,459,755 square feet of warehousing at full buildout. The results of the analysis as documented herein are summarized below:

- The proposed development will generate a new daily traffic volume of 3,444 trips per day, of which 246 trips will occur during the PM peak hour. Approximately 20% of the total project traffic will be truck traffic.
- Analysis of roadway segment capacity reveals that all study segments currently operate within their adopted capacity and are projected to continue to do so at both project buildout phases.
- Analysis of the study intersections indicates that they currently operate at adequate LOS and are projected to continue to do so at buildout of the project, except for the intersection of US 441 and Hermit Smith Road.
- The intersection will require a dedicated northbound right turn lane to more efficiently serve traffic traveling toward SR 429 via eastbound US 441.
- A modified timing plan may be necessary in the future as vested and project traffic materialize on the minor approaches to intersection.



## APPENDICES

**Appendix A**  
Response to City of Apopka Comments

**CITY OF APOPKA  
DEVELOPMENT REVIEW COMMITTEE COMMENTS**

**DATE: July 25, 2018**

**NAME: Pamela Richmond, AICP - Senior Planner**

**DEPARTMENT: Community Development**

**TELEPHONE: 407-703-1764 FAX: 407-703-1686 Email: pricchmond@apopka.net**

**PROJECT: Mid-Florida Logistics Park**

**PLAN NO: SPR18-16 PUD Master Plan – 2<sup>nd</sup> submittal**

---

**Traffic Impact Analysis Comments:**

1. Revise the trip generation table to reflect the new site plan.
2. Revise Table 4, Projected Roadway Capacity Analysis, using the revised trip generation.
3. In Figure 4, there does not appear to be any committed trips represented on Hermit Smith Road or General Electric Road. However, committed trips are documented in Table 4. Please revise Figure 4 and any of the operational analyses included in the study that do not include the committed trips.
4. Table 5 shows the intersection of US 441 at Hermit Smith Rd not meeting the LOS standards for the approaching roadway segments. Specifically, the westbound direction is impacted dropping from an LOS C to an LOS F in the projected traffic conditions. This is in part due to changes in the signal timing assumptions between the existing, background and project traffic scenarios. Mitigation for the project traffic should not negatively impact the other approaches.

This study was done at a time when US 441 was under construction and before FDOT completed a signal timing study for the US 441 corridor. The current signal timing for signalized study intersections on US 441 should be revised using the new signal timing to ensure the analysis is consistent with the new coordinated signal plan.

5. The TIA does not outline the existing or proposed truck traffic percentages. The applicant should provide estimates of truck traffic and the ability of the surrounding roads (including General Electric Road, Orange Avenue, and Hermit Smith Road) to support the projected loads. If the roadway infrastructure is not suitable for proposed amount of truck travel, mitigation should be proposed.
6. Central Florida Expressway has provided comments on the TIA (see attached). Please address these comments and include as a part of your response to the City's comments.

800 N. Magnolia Ave., Suite 1000  
Orlando, FL 32803  
321.354.9687 Direct  
407.649.8664 Fax  
321.663.5663 Mobile  
[www.dewberry.com](http://www.dewberry.com)  
[kjackson@dewberry.com](mailto:kjackson@dewberry.com)

---

**From:** Bickar, Scott  
**Sent:** Thursday, July 19, 2018 11:03 AM  
**To:** Jackson, Raymond Keith <[kjackson@dewberry.com](mailto:kjackson@dewberry.com)>  
**Subject:** RE: TIA for Mid Florida Logistics Park

Keith,

A 2,561,800 warehouse development is being proposed in the southwest quadrant of the SR 429 interchange at US 441 and SR 429 Connector Road. The warehouse is projected to generate 3587 daily trips with 256 of them occurring during the PM Peak Hour. Full buildout of the development is anticipated in 2022. 41% of the trips generated will utilize SR 429 with 9% coming from the north and 33% coming from the south. The following comments were developed after reviewing FDOT TIA guidelines:

- Include analysis for the single point intersection at SR 429 (Ramps) and SR 429 Connector Road. The intersection is located within the 1 mile study area radius and will be impacted by 42% of the added trips from the development.
- Include analysis for the SR 429 Connector Road and Plymouth Sorrento Road intersection. The intersection is located within the 1 mile study area radius.
- Traffic patterns in the area have changed due to the opening of Wekiva Phase II at the end of March 2018. Existing traffic counts were taken March 13, 2018. Since there is significant change in traffic patterns consider obtaining new counts.
- The report only addresses the PM peak hour. Was the AM peak hour considered?
- Provide analysis for full buildout of the development in 2022.
- Include a future conditions analysis for a future horizon year. Typically 10 years from full buildout.
- Was mitigation considered for the SB SR 429 Connector Road approach to US 441. The projected SB delay is 121.5 seconds (F) which is a 25.3 second increase in delay from the existing condition.

Thanks

Scott Bickar, P.E.  
Project Engineer  
Transportation Services  
Dewberry  
800 North Magnolia Avenue  
Suite 1000  
Orlando, FL 32803  
321-354-9784  
[www.dewberry.com](http://www.dewberry.com)

---

**From:** Jackson, Raymond Keith  
**Sent:** Wednesday, July 18, 2018 9:04 AM  
**To:** Glenn Pressimone <[Glenn.Pressimone@cfxway.com](mailto:Glenn.Pressimone@cfxway.com)>  
**Cc:** Will Hawthorne <[Will.Hawthorne@cfxway.com](mailto:Will.Hawthorne@cfxway.com)>; Bickar, Scott <[sbickar@Dewberry.com](mailto:sbickar@Dewberry.com)>  
**Subject:** RE: TIA for Mid Florida Logistics Park

We will have this reviewed by Friday.



August 30, 2018

Ms. Pamela Richmond, AICP  
Community Development  
City of Apopka  
120 E Main Street  
Apopka, Florida 32703

Email: [prichmond@apopka.net](mailto:prichmond@apopka.net)

Re: Mid-Florida Logistics Park  
Response to Review Comments  
TMC Project № 18008  
City of Apopka, Florida

Ms. Richmond,

Please find below our response to the City of Apopka review comments dated July 25, 2018 and Central Florida Expressway comments dated July 19, 2018, regarding the above referenced Traffic Impact Analysis dated March 2018. The comments are listed in **bold** typeface and the TMC responses follow in *italic* typeface.

### **CITY OF APOPKA COMMENTS**

**1. Revise the trip generation table to reflect the new site plan.**

*TMC Response: The trip generation table has been revised to reflect the new plan.*

**2. Revise Table 4, Projected Roadway Capacity Analysis, using the revised trip generation.**

*TMC Response: Table 4 has been revised*

**3. In Figure 4, there does not appear to be any committed trips represented on Hermit Smith Road or General Electric Road. However, committed trips are documented in Table 4. Please revise Figure 4 and any of the operational analyses included in the study that do not include the committed trips.**

*TMC Response: Figure 4 and the intersection analyses have been revised to include the committed trips.*

**4. Table 5 shows the intersection of US 441 at Hermit Smith Rd not meeting the LOS standards for the approaching roadway segments. Specifically, the westbound direction is impacted dropping from an LOS C to an LOS F in the projected traffic conditions. This is in part due to changes in the signal timing assumptions between the existing, background and project traffic scenarios. Mitigation for the project traffic should not negatively impact the other approaches.**

**This study was done at a time when US 441 was under construction and before FDOT completed a signal timing study for the US 441 corridor. The current signal timing for signalized study intersections on US 441 should be revised using the new signal timing to ensure the analysis is consistent with the new coordinated signal plan.**

*TMC Response: The analysis was revised with the updated traffic volumes, committed trips, and newly implemented signal timing plans. The results indicate that the intersection will require a northbound right turn lane on Hermit Smith Road to adequately accommodate project trips.*

**5. The TIA does not outline the existing or proposed truck traffic percentages. The applicant should provide estimates of truck traffic and the ability of the surrounding roads (including General Electric Road, Orange Avenue, and Hermit Smith Road) to support the projected loads. If the roadway infrastructure is not suitable for proposed amount of truck travel, mitigation should be proposed.**

*TMC Response: The TIA has been updated to include a discussion of projected truck traffic volumes generated by the development on a daily basis. The structural capacity of the pavement on Hermit Smith Road and on General Electric Road will be addressed separately with the City outside of the TIA.*

**6. Central Florida Expressway has provided comments on the TIA (see attached). Please address these comments and include as a part of your response to the City's comments.**

*TMC Response: Noted. Please see responses to Central Florida Expressway comments below.*

### **CENTRAL FLORIDA EXPRESSWAY COMMENTS**

**1. Include analysis for the single point intersection at SR 429 {Ramps} and SR 429 Connector Road. The intersection is located within the 1 mile study area radius and will be impacted by 42% of the added trips from the development.**

*TMC Response: The interchange at SR 429 was recently completed based on design traffic volumes projected for the life of the facility. This development is a minor generator of traffic in comparison to the design traffic volumes for which the facility was designed.*

**2. Include analysis for the SR 429 Connector Road and Plymouth Sorrento Road intersection. The intersection is located within the 1 mile study area radius.**

*TMC Response: Based on a study methodology reviewed and approved by the City of Apopka, these facilities are not within the project's study area. This development is a minor generator of traffic in comparison to the design traffic volumes for which the facility was designed.*

**3. Traffic patterns in the area have changed due to the opening of Wekiva Phase II at the end of March 2018. Existing traffic counts were taken March 13, 2018. Since there is significant change in traffic patterns consider obtaining new counts.**

*TMC Response: Updated traffic counts were obtained within the study area on August 28, 2018.*

**5. The report only addresses the PM peak hour. Was the AM peak hour considered?**

*TMC Response: The City of Apopka requires PM peak hour analysis.*

**6. Provide analysis for full build out of the development in 2022.**

*TMC Response: The buildout analysis is provided.*

**7. Include a future conditions analysis for a future horizon year. Typically 10 years from full buildout.**

*TMC Response: An analysis of future horizon is not required or customary for development projects in the City of Apopka.*

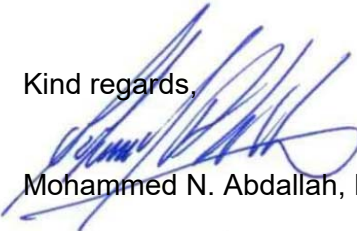
**8. Was mitigation considered for the SB SR 429 Connector Road approach to US 441. The projected SB delay is 121.5 seconds (F) which is a 25.3 second increase in delay from the existing condition.**

*TMC Response: The intersection is projected to operate adequately at project buildout. No additional mitigation is recommended.*

#### **END OF COMMENTS**

We trust these responses address the review comments. A revised analysis will be provided for your further review. We remain available to discuss this matter further or to answer any questions.

Kind regards,



Mohammed N. Abdallah, PE, PTOE





**Appendix B**  
Preliminary Site Plan

**Appendix C**  
Mid-Florida Logistics Park Methodology

## MEMORANDUM

February 28, 2018

**Re: Mid-Florida Logistics Park**  
Traffic Impact Analysis Methodology  
Project № 18008

The following is an outline of the methodology for the Traffic Impact Analysis (TIA) for the above referenced project.

### Project Description

The proposed development is approximately 2,562,800 square feet of the high-cube transload and short-term storage warehouse, which will include five buildings at full buildout. A conceptual site plan is included in the **Attachments**.

### Project Location

The site is located south of General Electric Road, east of Hermit Smith Road and west of the Western Beltway, in the City of Apopka, Florida, as illustrated in **Figure 1**.



**Figure 1 – Study Area**

Project Access

Access to the site will be provided via two access points on General Electric Road and one access point on Hermit Smith Road, as shown in the conceptual plan included in the **Attachments**.

Trip Generation

The trip generation analysis was conducted using information published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 10th Edition* for the High Cube Transload and Short-Term Storage Warehouse land use, which most accurately reflect the proposed use of the site. **Table 1** summarizes the results of the trip generation analysis for the development. The ITE information sheets are included in the **Attachments**.

**Table 1**  
**Trip Generation Summary**

ITE Code	Land Use	Size	Daily		PM Peak Hour			
			Rate	Trips	Rate	Total	Enter	Exit
154	Warehouse	2,562.8 KSF	1.40	3,588	0.10	256	69	187

*Trip generation analysis based on ITE Trip Generation Manual, 10th Edition.*

The proposed development is projected to generate 3,588 new daily trips of which 256 trips occur during the PM peak hour. It should be noted that approximately 33% of the total daily site-generated trips and 22% of PM peak hour project trips are anticipated to be truck traffic based on ITE information.

Trip Distribution

The Orlando Urban Area Transportation Study (OUATS) model was used to generate an areawide travel distribution pattern for the development. The model output is included in the **Attachments**.

The model shows that traffic using Binion Road will merge to SR 429 downstream, also more traffic is indicated to use SR 451 and Plymouth Sorrento Road rather than using SR 429 located east of the property. Manual modification and adjustments were made to reflect the nature of the proposed development, which includes moving all trips indicated on SR 451 on to SR 429, half the trips on Binion Road on to SR 429 and reducing the number of project trips on Plymouth Sorrento Road. Finally, these modifications placed approximately 42% of the project trips on SR 429, with the anticipated truck percentage and the likelihood of trucks using SR 429, the distribution pattern will reflect the proposed development. The proposed distribution pattern for use in this study is illustrated in **Figure 2**.



**Figure 2 – Proposed Distribution Pattern**

**Study Area**

**Study Segments**

The following roadway segments located within 1-mile of the site will be analyzed for Daily and PM peak hour capacity:

**US 441 (Orange Blossom Trail)**

- Yothers Road to SR 429 Connector Road
- SR 429 Connector Road to Plymouth Sorrento Road
- Plymouth Sorrento Road to Boy Scout Boulevard
- Boy Scout Boulevard to Errol Parkway

**Binion Road (CR 437)/Orange Avenue (CR 437)**

- Boy Scout Boulevard to Lakeview Drive
- Lakeview Drive to US 441

#### General Electric Road

- Hermit Smith Road to Orange Avenue

#### Hermit Smith Road

- General Electric Road to US 441

#### Hogshead Road

- Hermit Smith Road to Conrad Road

#### Study Intersections

The following intersection will be analyzed for PM peak hour capacity and operations:

- General Electric Road and Orange Avenue
- Hermit Smith Road and General Electric Road
- SR 429 Connector Road and US 441
- Hermit Smith Road and US 441
- Orange Avenue and US 441
- Boy Scout Boulevard and US 441
- Proposed access points and General Electric Road

#### Peterson Road

An existing public Right-of-way (ROW), known as Peterson Road, runs from Kings Street in the east, through the property east to the western boundary. The ROW varies in width and passes under SR 429 at an underpass. This ROW traverses the proposed development and bisects the planned 1,024,400 square foot warehouse building (Building 2 on the plans included in the **Attachments**). Therefore, the analysis will evaluate access conditions to the site without the need to connect Peterson Road through the property. If these currently proposed connections on General Electric Road and Hermit Smith Road are projected to adequately serve the property, then it will be determined that Peterson Road is not essential for access, which supports a request to vacate the existing ROW.

#### Documentation

A report documenting the methods, assumptions, and findings of the traffic analysis will be prepared for submittal to the City in support of the development application.

**Appendix D**  
City of Apopka CMS Data

**City of Apopka  
2014 Traffic Count Program  
Roadway Service Volumes (Capacities)**

Class Roadway Segment	No. of Lanes	Posted Speed Limit	A.M./P.M.					Daily Capacities <sup>1</sup>				
			Peak Hour Directional Capacities <sup>1</sup>					A	B	C	D	E
			A	B	C	D	E					
<b>Major Arterial</b>												
<b>SR 436 (Semoran Boulevard)</b>												
US 441 to Sheeler Rd	8LD	45	-	-	3,970	4,040	4,040	-	-	78,800	80,100	80,100
Sheeler Rd to Thompson Rd	8LD	45	-	-	3,970	4,040	4,040	-	-	78,800	80,100	80,100
Thompson Rd to Roger Williams Rd	8LD	45	-	-	3,970	4,040	4,040	-	-	78,800	80,100	80,100
Roger Williams Rd to Piedmont-Wekiva Rd	8LD	45	-	-	3,970	4,040	4,040	-	-	78,800	80,100	80,100
Piedmont-Wekiva Rd to Seminole County Line	6LD	45	-	-	2,940	3,020	3,020	-	-	58,400	59,900	59,900
<b>US 441 (Orange Blossom Trail)</b>												
Ponkan Rd to Yothers Rd	4LD	55	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
2 * Yothers Rd to SR 429 Connector Rd	4LD	55	2,370	2,480	2,480	2,480	2,480	47,200	49,500	49,500	49,500	49,500
2 * SR 429 Connector Rd to Plymouth Sorrento Rd	4LD	45	2,370	2,480	2,480	2,480	2,480	47,200	49,500	49,500	49,500	49,500
2 * Plymouth Sorrento Rd to Boy Scout Blvd	4LD	45	2,370	2,480	2,480	2,480	2,480	47,200	49,500	49,500	49,500	49,500
2 * Boy Scout Blvd to Errol Pkwy	4LD	45	2,270	2,520	2,600	2,600	2,600	48,300	53,600	55,400	55,400	55,400
2 * Errol Pkwy to SR 451	4LD	45	2,270	2,520	2,600	2,600	2,600	48,300	53,600	55,400	55,400	55,400
2 * SR 451 to Bradshaw Rd	4LD	45	2,270	2,520	2,600	2,600	2,600	48,300	53,600	55,400	55,400	55,400
2 * Bradshaw Rd to Hawthorne Ave	5L	45	1,980	2,160	2,160	2,160	2,160	52,500	57,100	57,100	57,100	57,100
2 * Hawthorne Ave to Central Ave	5L	35	1,980	2,160	2,160	2,160	2,160	52,500	57,100	57,100	57,100	57,100
2 * Central Ave to Park Ave	5L	35	1,980	2,160	2,160	2,160	2,160	52,500	57,100	57,100	57,100	57,100
2 * Park Ave to Highland Ave	5L	35	1,980	2,160	2,160	2,160	2,160	52,500	57,100	57,100	57,100	57,100
2 * Highland Ave to Alabama Ave	5L	35	1,980	2,160	2,160	2,160	2,160	52,500	57,100	57,100	57,100	57,100
2 * Alabama Ave to SR 436	4LD	35	1,980	2,160	2,160	2,160	2,160	52,500	57,100	57,100	57,100	57,100
SR 436 to Sheeler Rd	4LD	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
Sheeler Rd to Roger Williams Rd	4LD	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
Roger Williams Rd to Piedmont-Wekiva Rd	4LD	50	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
Piedmont-Wekiva Rd to Seminole County Line	4LD	50	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
<b>Minor Arterial</b>												
<b>CR 424 (Alabama Avenue/Apopka Boulevard)</b>												
US 441 to 8th St	2L	45	-	-	370	750	800	-	-	7,300	14,800	15,600
8th St to Sheeler Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
Sheeler Rd to Lakeville Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
Lakeville Rd to Hiawasse Rd	3L	45	-	-	870	920	920	-	-	17,600	18,600	18,600
Hiawasse Rd to Overland Rd	2L	35	-	-	370	750	800	-	-	7,300	14,800	15,600
Overland Rd to US 441	2L	35	-	-	370	750	800	-	-	7,300	14,800	15,600
<b>Minor Arterial</b>												
<b>CR 435 (Rock Spring Road/Park Avenue/Clarcona Road)</b>												
Kelly Park Rd to Ponkan Rd	5L	45	-	-	1,530	1,580	1,580	-	-	29,300	30,400	30,400
Ponkan Rd to Welch Rd	5L	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
Welch Rd to Sandpiper Rd	5L	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
Sandpiper Rd to Votaw Rd	5L	35	-	-	730	1,630	1,700	-	-	14,500	32,400	33,800
Votaw Rd to Orange St	5L	35	-	-	730	1,630	1,700	-	-	14,500	32,400	33,800
Orange St to US 441	5L	35	-	-	730	1,630	1,700	-	-	14,500	32,400	33,800
US 441 to Michael Gladden Blvd	3L	30	-	-	390	790	840	-	-	7,700	15,540	16,400
Michael Gladden Blvd to Cleveland St	2L	30	-	-	370	750	800	-	-	7,300	14,800	15,600
Cleveland St to Keene Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
Keene Rd to McCormick Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
McCormick Rd to Clarcona-Ocoee Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
<b>CR 437A (Ocoee-Apopka Road/Michael Gladden Boulevard/Central Avenue)</b>												
McCormick Rd to Binion Rd	2L	45	-	420	840	1,190	1,640	-	8,600	17,000	24,200	33,300
Binion Rd to SR 429	2L	45	-	420	840	1,190	1,640	-	8,600	17,000	24,200	33,300
SR 429 to Keene Rd	2L	45	-	420	840	1,190	1,640	-	8,600	17,000	24,200	33,300
Keene Rd to Boy Scout Rd	2L	45	-	420	840	1,190	1,640	-	8,600	17,000	24,200	33,300
Boy Scout Rd to Bradshaw Rd	2L	45	-	420	840	1,190	1,640	-	8,600	17,000	24,200	33,300
Bradshaw Rd to Central Ave	2L	30	-	-	370	750	800	-	-	7,300	14,800	15,600
Michael Gladden Blvd to US 441	2L	35	-	-	370	750	800	-	-	7,300	14,800	15,600
<b>Lakeville Road</b>												
Apopka Blvd to Wildwood St	2L	35	-	-	370	750	800	-	-	7,300	14,800	15,600
<b>Plymouth-Sorrento Road (CR 437)</b>												
County Line to Kelly Park Rd	2L	45	-	450	850	1,200	1,640	-	8,700	16,400	23,100	31,500
Kelly Park Rd to Ponkan Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
Ponkan Rd to Lester Rd/Yothers Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
Lester Rd/Yothers Rd to SR 429 Connector Rd	2L	45	-	-	870	920	920	-	-	17,600	18,600	18,600
SR 429 Connector Rd to US 441	2L	45	-	-	870	920	920	-	-	17,600	18,600	18,600



**City of Apopka  
2014 Traffic Count Program  
Roadway Service Volumes (Capacities)**

Class Roadway Segment	No. of Lanes	Posted Speed Limit	A.M./P.M.					Daily Capacities <sup>1</sup>				
			Peak Hour Directional Capacities <sup>1</sup>					A	B	C	D	E
			A	B	C	D	E					
<b>Sheeler Road</b>												
SR 436 to US 441	3L	35	-	-	390	790	840	-	-	7,700	15,540	16,400
US 441 to Apopka Blvd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
Apopka Blvd to Cleveland St	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
Cleveland St to Keene Rd	2L	45	-	-	830	880	880	-	-	16,800	17,700	17,700
<b>Wekiva Springs Road/Piedmont-Wekiwa Road/Hiawasse Road</b>												
Welch Rd to Votaw Rd	3L	45	-	470	890	1,260	1,720	-	9,100	17,200	24,300	33,100
Votaw Rd to SR 436	5L	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
SR 436 to Piedmont Lakes Blvd	5L	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
Piedmont Lakes Blvd to US 441	5L	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
US 441 to CR 424 (Apopka Blvd)	4LD	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
CR 424 (Apopka Blvd) to SR 414	4LD	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
SR 414 to Beggs Rd	4LD	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
Beggs Rd to Clarcona Ocoee Rd	4LD	45	-	-	1,910	2,000	2,000	-	-	37,900	39,800	39,800
<b>Minor Arterial</b>												
<b>Welch Road</b>												
Vick Rd to Rock Springs Rd	2L	35	-	-	390	790	840	-	-	7,700	15,540	16,400
Rock Springs Rd to Ustler Rd	3L	45	-	440	880	1,250	1,720	-	9,000	17,900	25,400	35,000
Ustler Road to Thompson Rd	2L	45	-	420	840	1,190	1,640	-	8,600	17,000	24,200	33,300
Thompson Rd to Wekiva Springs Rd	2L	45	-	420	840	1,190	1,640	-	8,600	17,000	24,200	33,300
<b>Minor Collector</b>												
<b>2nd Street (Monroe Avenue)</b>												
Central Ave to Park Ave	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>5th Street</b>												
Park Ave to Highland Ave	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>6th Street</b>												
Park Ave to Alabama Ave	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
Alabama Ave to US 441	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>8th Street</b>												
Park Ave to Highland Ave	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>9th Street</b>												
Central Ave to Park Ave	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
Alabama Ave to Sheeler Ave	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>13th Street</b>												
Ocoee-Apopka Rd to Park Ave	2L	25	-	-	240	490	520	-	-	4,700	9,600	10,100
Park Ave to Apopka Blvd	2L	25	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>Alabama Avenue</b>												
Monroe Ave to US 441	2L	25	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>Appy Lane</b>												
Plymouth-Sorrento Rd to Jason Dwelley Pkwy	2L	35	-	-	330	680	720	-	-	6,600	13,320	14,000
<b>Binion Road (CR 437)/Orange Avenue (CR 437)</b>												
Ocoee-Apopka Rd to Harmon Rd	2L	55	-	-	830	880	880	-	-	16,800	17,700	17,700
Harmon Rd to Boy Scout Rd	2L	55	-	-	830	880	880	-	-	16,800	17,700	17,700
Boy Scout Rd to Lakeview Dr	2L	40	-	-	830	880	880	-	-	16,800	17,700	17,700
Lakeview Dr to US 441	2L	40	-	-	830	880	880	-	-	16,800	17,700	17,700
<b>Boy Scout Road</b>												
Binion Rd to Ocoee-Apopka Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Bradshaw Road</b>												
Old Dixie Hwy to US 441	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Christiana Avenue</b>												
Monroe Ave to Votaw Rd	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>Cleveland Street</b>												
Park Ave to Sheeler Rd	2L	40	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Edgewood Drive</b>												
Monroe Ave to US 441	2L	30	-	-	240	490	520	-	-	4,700	9,600	10,100
<b>Minor Collector (Continued)</b>												
<b>Errol Parkway</b>												
Lake Francis Dr to Lake Alden Dr	2LD	25	-	-	350	710	760	-	-	6,900	13,990	14,700
Lake Alden Dr to Old Dixie Hwy	2L	25	-	-	330	680	720	-	-	6,600	13,320	14,000
Old Dixie Hwy to US 441	2LD	30	-	-	350	710	840	-	-	6,900	14,000	14,700
<b>General Electric Road</b>												
Hermit Smith Rd to Orange Ave	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Golden Gem Road</b>												
Kelly Park Rd to Ponkan Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Greenacre Road</b>												
Piedmont-Wekiwa Rd to Neil Rd	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Haas Road</b>												
Plymouth-Sorrento Rd to Mt Plymouth Rd	2L	40	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Harmon Road</b>												
Binion Rd to Ocoee-Apopka Rd	2L	40	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Hawthorne Avenue</b>												
US 441 to Ocoee-Apopka Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
Ocoee-Apopka Rd to 13th St	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000

**City of Apopka  
2014 Traffic Count Program  
Roadway Service Volumes (Capacities)**

Class Roadway Segment	No. of Lanes	Posted Speed Limit	A.M./P.M.					Daily Capacities <sup>1</sup>				
			Peak Hour Directional Capacities <sup>1</sup>					A	B	C	D	E
			A	B	C	D	E	A	B	C	D	E
<b>Hermit Smith Road</b>												
General Electric Rd to US 441	2L	40	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Highland Avenue</b>												
Monroe Ave to US 441	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
US 441 to 6th St	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Hogshead Road</b>												
Hermit Smith Rd to Conrad Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Jason Dwelley Parkway</b>												
Kelly Park Rd to Ponkan Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Keene Road</b>												
Ocoee-Apopka Rd to Marden Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
Marden Rd to Clarcona Rd (CR 435)	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
Clarcona Rd (CR 435) to Sheeler Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Kelly Park Road</b>												
Round Lake Rd to Plymouth-Sorrento Rd	2L	55	-	450	850	1,200	1,640	-	8,700	16,400	23,100	31,500
Plymouth-Sorrento Rd to Jason Dwelley Pkwy	2L	55	-	450	850	1,200	1,640	-	8,700	16,400	23,100	31,500
Jason Dwelley Pkwy to Mt. Plymouth Rd	2L	40	-	450	850	1,200	1,640	-	8,700	16,400	23,100	31,500
Mt. Plymouth Rd to Rock Springs Rd	2L	40	-	450	850	1,200	1,640	-	8,700	16,400	23,100	31,500
<b>Lake Avenue/Marvin C Zanders Avenue</b>												
Martin St to Orange St	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
Orange St to US 441	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
US 441 to 4th St	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Lake Cortez Drive</b>												
SR 436 to Evelyn Dr	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Minor Collector (Continued)</b>												
<b>Lake Doe Boulevard</b>												
US 441 to Dunn Cove Dr	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Lake Francis Drive</b>												
Schopke Lester Rd to Errol Pkwy	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
Errol Pkwy to Vick Rd	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Lakeville Road</b>												
Wildwood St to Beggs Rd	2L	50	-	-	750	790	790	-	-	15,100	15,900	15,900
Beggs Rd to Clarcona Ocoee Rd	2L	50	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Lester Road</b>												
Vick Rd to Schopke Lester Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
Schopke Lester Rd to Plymouth Sorrento Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Marden Road</b>												
Ocoee Apopka Rd to Keene Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Martin Street</b>												
Park Ave to Lake Ave	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
Maine Ave to Vick Rd	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>McCormick Road</b>												
Ocoee-Apopka Rd to Clarcona Rd (CR 435)	2L	50	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Midland Avenue</b>												
US 441 to 6th St	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Monroe Avenue</b>												
Park Ave to Alabama Ave	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
Alabama Ave to Sheeler Rd	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Mt. Plymouth Road</b>												
Kelly Park Rd to Haas Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
Haas Rd to Lake County Line	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>North Maine Avenue</b>												
Martin St to Old Dixie Hwy	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Old Dixie Highway/West Highland Avenue/Orange Street</b>												
Plymouth-Sorrento Rd to Boy Scout Blvd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
Boy Scout Blvd to Errol Pkwy	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
Errol Pkwy to Vick Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
Vick Rd to Bradshaw Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
Bradshaw Rd to Hawthorne Ave	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
Hawthorne Ave to Park Ave	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Ondich Road</b>												
Round Lake Rd to Plymouth-Sorrento Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Ponkan Road</b>												
Round Lake Rd to Plymouth-Sorrento Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
Plymouth-Sorrento Rd to Vick Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
Vick Rd to Rock Springs Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Rock Ridge Boulevard</b>												
Rock Springs Rd to Haddington Ct	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000

**City of Apopka**  
**2014 Traffic Count Program**  
**Roadway Service Volumes (Capacities)**

Class Roadway Segment	No. of Lanes	Posted Speed Limit	A.M./P.M.					Daily Capacities <sup>1</sup>				
			Peak Hour Directional Capacities <sup>1</sup>					A	B	C	D	E
			A	B	C	D	E	A	B	C	D	E
<b>Minor Collector</b>												
<b>Roger Williams Road</b>												
US 441 to SR 436	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Round Lake Road</b>												
Ponkan Rd to Sadler Ave	2L	50	-	-	750	790	790	-	-	15,100	15,900	15,900
Sadler Ave to Kelly Park Rd	2L	50	-	-	750	790	790	-	-	15,100	15,900	15,900
Kelly Park Rd to Lake County Line	2L	50	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Sandpiper Road</b>												
Park Ave to Ustler Rd	2L	40	-	-	750	790	790	-	-	15,100	15,900	15,900
Ustler Rd to Thompson Rd	2L	40	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Schopke-Lester Road</b>												
Lester Rd to Old Dixie Hwy	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Sheeler Oaks Drive</b>												
Sheeler Rd to Saddleback Ridge	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Summit Street</b>												
Rock Springs Rd to Lake Ave	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Tanglewild Street</b>												
Rock Springs Rd to Ulster Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Thompson Road</b>												
Welch Rd to Votaw Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
Votaw Rd to SR 436	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Ustler Road</b>												
Sandpiper Rd to Welch Rd	2L	30	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Vick Road</b>												
US 441 to Old Dixie Hwy	4LD	35	-	-	730	1,630	1,700	-	-	14,500	32,400	33,800
Old Dixie Hwy to Martin St	2LD	35	-	-	390	790	840	-	-	7,700	15,500	16,400
Martin St to Welch Rd	2LD	35	-	-	390	790	840	-	-	7,700	15,500	16,400
Welch Rd to Lake Francis Dr	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
Lake Francis Dr to Lester Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
Lester Rd to Ponkan Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Votaw Road</b>												
Park Ave to Christiana Ave	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
Christiana Ave to Thompson Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
Thompson Rd to Wekiva Springs Rd	2L	45	-	-	750	790	790	-	-	15,100	15,900	15,900
<b>Woodfield Oaks Drive</b>												
Arbor Way to Regal St	2L	25	-	-	330	680	720	-	-	6,600	13,300	14,000
<b>Yothers Rd/Church Drive</b>												
US 441 to Plymouth Sorrento Rd	2L	35	-	-	330	680	720	-	-	6,600	13,300	14,000

## Notes:

- 1** - Based on capacities from the Florida DOT 2013 Quality/Level of Service Handbook, Florida DOT ArtPlan2012 Software or Orange County.
- 2** - Roadway capacities calculated using ArtPlan updated with 2012 software
- \* - These segments of US 441 OBT are Constrained.

Source: 2014 Traffic Counts from **Luke Transportation Engineering Consultants, Inc.**

**City of Apopka CMS  
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets  
FINAL REPORT**

Base Traffic Volume: 2015

Revision Date: 2/9/2016

Roadway Section	# of Lanes	LOS	Adopted Standard Roadway Capacity		Applicant Inventory	Encumbered Trips		Daily Traffic		PM PH/PD Traffic		
			Daily	PHPD		Daily	PM PH/PD	Base Volume	Available Capacity	Base Volume	Available Capacity	Peak Direction
<b>Major Arterials</b>												
<b>SR 436 (Semoran Avenue)</b>												
US 441 to Sheeler Rd	8LD	D	80,100	4,040				24,039	56,061	987	3,053	NB/EB
					Development Name	0	0		69.99%		75.57%	
					Applicant Inventory Total	0	0					
Sheeler Rd to Thompson Rd	8LD	D	80,100	4,040				33,464	46,636	1,438	2,602	SB/WB
					Development Name	0	0		58.22%		64.41%	
					Applicant Inventory Total	0	0					
Thompson Rd to Roger Williams Rd	8LD	D	80,100	4,040				43,213	35,988	1,877	2,036	NB/EB
					Apopka Gateway Center	170	7		44.93%		50.40%	
					North Park (FF Rests)	729	120					
					Applicant Inventory Total	899	127					
Roger Williams Rd to Piedmont-Wekiwa Rd	8LD	D	80,100	4,040				42,004	37,108	1,810	2,099	SB/WB
					Apopka Gateway Center	259	11		46.33%		51.96%	
					North Park (FF Rests)	729	120					
					Applicant Inventory Total	988	131					
Piedmont Wekiwa Rd to Seminole County Line	6LD	D	59,900	3,020				58,406	916	2,507	488	SB/WB
					Apopka Gateway Center	578	25		1.53%		16.16%	
					Applicant Inventory Total	578	25					
<b>US 441 (Orange Blossom Trail)</b>												
Yothers Rd to SR 429 Connector Rd	4LD	D	49,500	2,480				41,556	4,525	2,045	90	SB/WB
					Avion Point	1,361	64		9.14%		3.63%	
					Avion Point West	1,782	252					
					Chandler Estates	238	25					
					Orlando Country Airport	38	4					
					Applicant Inventory Total	3,419	345					
SR 429 Connector Rd to Plymouth Sorrento Rd	4LD	D	49,500	2,480				24,974	19,347	1,114	922	SB/WB
					Apopka Expressway Commerce	156	11		39.08%		37.18%	
					Avion Point	2,643	124					
					Avion Point West	1,782	252					
					Chandler Estates	318	34					
					Clearlake Landing	213	16					
					Maudehelen, Phase 1, 2, & 3	32	3					
					Orlando Country Airport	35	4					
					Applicant Inventory Total	5,179	444					
Plymouth Sorrento Rd to Boy Scout Blvd	4LD	D	49,500	2,480				28,506	19,038	1,310	910	NB/EB
					Apopka Expressway Commerce	104	8		38.46%		36.69%	
					Avion Point West	1,692	239					
					Clearlake Landing	142	11					
					Maudehelen, Phase 1, 2, & 3	18	2					
					Applicant Inventory Total	1,956	260					
Boy Scout Blvd to Errol Parkway	4LD	D	55,400	2,600				29,279	25,462	1,179	1,363	NB/EB
					Clearlake Landing	355	27		45.96%		52.42%	
					Maudehelen, Phase 1, 2, & 3	97	10					
					Poe Reserve	207	21					
					Applicant Inventory Total	659	58					
Errol Parkway to SR 451	4LD	D	5,009 <sup>1</sup>	230 <sup>1</sup>				N/A	4,553	N/A	184	SB/WB
					Poe Reserve	456	46		90.90%		80.00%	
					Applicant Inventory Total	456	46					

City of Apopka CMS  
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets  
FINAL REPORT

Base Traffic Volume: 2015

Revision Date: 2/9/2016

Roadway Section	# of Lanes	LOS	Adopted Standard		Applicant Inventory	Encumbered Trips		Daily Traffic		PM PH/PD Traffic		
			Roadway Capacity Daily	PHPD		Daily	PM PH/PD	Base Volume	Available Capacity	Base Volume	Available Capacity	Peak Direction
<b>Minor Arterials (Continued)</b>												
<b>Wekiva Springs Road/Piedmont-Wekiwa Road/Hiawassee Road</b>												
Votaw Rd to SR 436	5L	E	39,800	2,000								
					Apopka Gateway Center	50	2	23,591	16,078	1,304	690	NB/EB
					North Park (FF Rests)	81	4		40.40%		34.50%	
					Applicant Inventory Total	131	6					
SR 436 to Piedmont Lakes Blvd	5L	E	39,800	2,000				26,964	12,276	1,423	542	NB/EB
					Apopka Gateway Center	269	12		30.84%		27.10%	
					North Park (FF Rests)	291	23					
					Applicant Inventory Total	560	35					
Piedmont Lakes Blvd to US 441	5L	E	39,800	2,000				28,809	10,700	1,772	205	NB/EB
					North Park (FF Rests)	291	23		26.88%		10.25%	
					Applicant Inventory Total	291	23					
US 441 to CR 424 (Apopka Blvd)	4LD	E	39,800	2,000				23,571	16,229	1,111	889	NB/EB
					Development Name	0	0		40.78%		44.45%	
					Applicant Inventory Total	0	0					
CR 424 (Apopka Blvd) to SR 414	4LD	E	39,800	2,000				19,336	20,464	864	1,136	NB/EB
					Development Name	0	0		51.42%		56.80%	
					Applicant Inventory Total	0	0					
SR 414 to Beggs Rd	4LD	E	39,800	2,000				21,460	18,340	908	1,092	NB/EB
					Development Name	0	0		46.08%		54.60%	
					Applicant Inventory Total	0	0					
<b>Welch Road</b>												
Vick Rd to Rock Springs Rd (CR 435)	2L	E	16,400	840				10,312	5,861	518	298	NB/EB
					Ladybird Academy	72	8		35.74%		35.48%	
					Sanctuary Golf Estates (fka Apopka Golf Residence)	155	16					
					Applicant Inventory Total	227	24					
Rock Springs Rd (CR 435) to Ustler Rd	3L	E	35,000	1,720				16,707	18,222	774	938	SB/WB
					Ladybird Academy	71	8		52.06%		54.53%	
					Applicant Inventory Total	71	8					
Ustler Rd to Thompson Rd	2L	E	33,300	1,640				16,277	17,023	845	795	NB/EB
					Development Name	0	0		51.12%		48.48%	
					Applicant Inventory Total	0	0					
<b>Minor Collectors</b>												
<b>6th Street</b>												
Park Avenue to Alabama Ave	2L	D	9,600	490				1,963	7,637	155	335	SB/WB
					Development Name	0	0		79.55%		68.37%	
					Applicant Inventory Total	0	0					
<b>Binion Road (CR 437)/Orange Avenue (CR 437)</b>												
Ocoee-Apopka Rd to Harmon Rd	2L	E	17,700	880				3,580	12,086	242	486	NB/EB
					Apopka Woods	67	7		68.28%		55.23%	
					Breckenridge (fka Pines of Lake Apopka)	21	1					
					Clearlake Landing	284	21					
					Clear Lake Reserve	21	2					
					Florida Hospital Replacement	1,109	66					
					Magnolia Park Estates (fka Park Place)	87	8					
					Maudehelen, Phase 1, 2, & 3	63	7					
					Old Palm Center PUD (fka, Thompson Hills Estates)	382	40					
					Applicant Inventory Total	2,034	152					
Harmon Rd to Boy Scout Rd	2L	E	17,700	880				3,899	11,615	227	493	NB/EB
					Apopka Woods	67	7		65.62%		56.02%	
					Breckenridge (fka Pines of Lake Apopka)	21	1					
					Clearlake Landing	284	21					
					Clear Lake Reserve	21	2					
					Florida Hospital Replacement	1,261	74					
					Magnolia Park Estates (fka Park Place)	87	8					
					Maudehelen, Phase 1, 2, & 3	63	7					
					Old Palm Center PUD (fka, Thompson Hills Estates)	382	40					
					Applicant Inventory Total	2,186	160					

**City of Apopka CMS  
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets  
FINAL REPORT**

Base Traffic Volume: 2015

Revision Date: 2/9/2016

Roadway Section	# of Lanes	LOS	Adopted Standard Roadway Capacity		Applicant Inventory	Encumbered Trips		Daily Traffic		PM PH/PD Traffic		
			Daily	PHPD		Daily	PM PH/PD	Base Volume	Available Capacity	Base Volume	Available Capacity	Peak Direction
<b>Minor Collectors (Continued)</b>												
<b>Binion Road (CR 437)/Orange Avenue (CR 437) (Continued)</b>												
Boy Scout Rd to Lakeview Dr	2L	E	17,700	880								
					Apopka Expressway Commerce	130	10	4,774	11,257	278	461	NB/EB
					Breckenridge (fka Pines of Lake Apopka)	5	0		63.60%		52.39%	
					Clearlake Landing	852	64					
					Clear Lake Reserve	43	5					
					Lake Doe Reserve (fka Lake Doe Cove, Phase 5)	178	19					
					Maudehelen, Phase 1, 2, & 3	255	27					
					Oakmont Industrial	206	16					
					Applicant Inventory Total	1,669	141					
Lakeview Dr to US 441	2L	E	17,700	880				4,009	12,481	244	497	SB/WB
					Apopka Expressway Commerce	312	23		70.51%		56.48%	
					Avion Point West	624	88					
					Chandler Estates	79	8					
					Clearlake Landing	32	3					
					Lake Doe Reserve (fka Lake Doe Cove, Phase 5)	119	12					
					Maudehelen, Phase 1, 2, & 3	44	5					
					Applicant Inventory Total	1,210	139					
<b>Boy Scout Road</b>												
Binion Rd to Ocoee-Apopka Rd	2L	E	15,900	790				1,062	13,659	58	644	NB/EB
					Breckenridge (fka Pines of Lake Apopka)	64	4		85.91%		81.52%	
					Clearlake Landing	284	22					
					Florida Hospital Replacement	434	26					
					Maudehelen, Phase 1, 2, & 3	191	20					
					Oakmont Industrial	206	16					
					Applicant Inventory Total	1,179	88					
<b>Bradshaw Road</b>												
US 441 to Ocoee-Apopka Rd	2L	E	15,900	790				3,458	9,715	183	345	NB/EB
					Cooper Oak (fka Bradshaw Commerce Park)	179	34		61.10%		43.67%	
					Cooper Palms	605	87					
					Emerson Point	408	25					
					Faircloth Lakes	290	29					
					Florida Hospital Replacement	806	48					
					Johns Road Commerce Center	259	25					
					Oakmont Industrial	180	14					
					Applicant Inventory Total	2,727	262					
<b>Christiana Ave</b>												
Votaw Rd to Monroe Ave	2L	E	10,100	520				2,149	7,951	157	363	NB/EB
					Development Name	0	0		78.72%		69.81%	
					Applicant Inventory Total	0	0					
<b>Cleveland Street</b>												
Park Ave to Sheeler Rd	2L	E	15,900	790				2,279	13,621	99	691	SB/WB
					Development Name	0	0		85.67%		87.47%	
					Applicant Inventory Total	0	0					
<b>Errol Parkway</b>												
Lake Francis Dr to Lake Alden Dr	2L	D	13,990	710				2,762	11,097	148	547	NB/EB
					Errol Clubhouse Villas	131	15		79.32%		77.04%	
					Applicant Inventory Total	131	15					
Lake Alden Dr to Old Dixie Hwy	2L	D	13,320	680				7,633	4,560	424	126	NB/EB
					Dixie Manor @ Errol	41	2		34.23%		18.53%	
					Errol Clubhouse Villas	1,086	128					
					Applicant Inventory Total	1,127	130					
Old Dixie Hwy to US 441	2L	D	14,000	710				8,186	4,898	452	157	NB/EB
					Dixie Manor @ Errol	67	3		34.99%		22.11%	
					Errol Clubhouse Villas	724	85					
					Poe Reserve	125	13					
					Applicant Inventory Total	916	101					

City of Apopka CMS  
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets  
FINAL REPORT

Base Traffic Volume: 2015

Revision Date: 2/9/2016

Roadway Section	# of Lanes	LOS	Adopted Standard		Applicant Inventory	Encumbered Trips		Daily Traffic		PM PH/PD Traffic		
			Roadway Capacity Daily	PHPD		Daily	PM PH/PD	Base Volume	Available Capacity	Base Volume	Available Capacity	Peak Direction
<b>Minor Collectors (Continued)</b>												
<b>General Electric Road</b>												
Hermit Smith Rd to Orange Ave	2L	D	15,900	790				532	14,655	38	651	NB/EB
					Avion Point West	713	101					
					Applicant Inventory Total	713	101		92.17%		82.41%	
<b>Golden Gem Road</b>												
Kelly Park Rd to Ponkan Rd	2L	D	13,300	680				716	12,584	27	653	SB/WB
					Development Name	0	0		94.62%		96.03%	
					Applicant Inventory Total	0	0					
<b>Haas Road</b>												
Plymouth-Sorrento Rd to Mt Plymouth Rd	2L	D	15,900	790				677	15,223	48	742	NB/EB
					Development Name	0	0		95.74%		93.92%	
					Applicant Inventory Total	0	0					
<b>Harmon Road</b>												
Ocoee-Apopka Rd to Binion Rd	2L	D	15,900	790				552	12,971	31	619	SB/WB
					Florida Hospital Replacement	2,377	140		81.58%		78.35%	
					Applicant Inventory Total	2,377	140					
<b>Hawthorne Avenue</b>												
US 441 to Ocoee-Apopka Rd	2L	D	13,300	680				1,252	12,048	71	609	SB/WB
					Development Name	0	0		90.59%		89.56%	
					Applicant Inventory Total	0	0					
Ocoee-Apopka Rd to 13th St	2L	D	13,300	680				1,403	11,897	66	614	SB/WB
					Development Name	0	0		89.45%		90.29%	
					Applicant Inventory Total	0	0					
<b>Hermit Smith Road</b>												
General Electric Rd to US 441	2L	E	15,900	790				691	14,407	53	624	NB/EB
					Avion Point West	802	113		90.61%		78.99%	
					Applicant Inventory Total	802	113					
US 441 to Yothers Rd	2L	E	15,900	790				1,425	12,783	109	442	NB/EB
					Avion Point West	1,692	239		80.40%		55.95%	
					Applicant Inventory Total	1,692	239					
<b>Hogshead Road</b>												
Hermit Smith Rd to Conrad Rd	2L	E	14,000	720				777	12,333	58	536	NB/EB
					Avion Point West	890	126		88.09%		74.44%	
					Applicant Inventory Total	890	126					
<b>Jason Dwelley Parkway</b>												
Kelly Park Rd to Ponkan Rd	2L	E	14,000	720				2,089	11,127	107	556	NB/EB
					Appy Lane Subdivision	161	17		79.48%		77.22%	
					Orchid Estates (fka J.B. Nurseries)	623	40					
					Applicant Inventory Total	784	57					
<b>Keene Road</b>												
Ocoee-Apopka Rd to Marden Rd	2L	E	15,900	790				2,841	12,078	168	577	NB/EB
					Emerson Point	68	4					
					Florida Hospital Replacement	31	2					
					Magnolia Park Estates (fka Park Place)	58	6					
					Marden Ridge Apartments	704	24					
					Oakmont Industrial	120	9					
					Applicant Inventory Total	981	45					
Marden Rd to Clarcona Rd (CR 435)	2L	E	15,900	790				4,202	10,021	205	496	NB/EB
					Alicante Subdivision	58	6		63.03%		62.78%	
					Circle K Retail	570	22					
					Emerson Point	476	29					
					Magnolia Park Estates (fka Park Place)	58	6					
					Marden Ridge Apartments	352	12					
					Oakmont Industrial	120	9					
					Silver Oaks	43	5		47.99%		46.08%	
					Applicant Inventory Total	1,677	89					
Clarcona Rd (CR 435) to Sheeler Rd	2L	D	15,900	790				7,784	7,630	399	364	NB/EB
					Circle K Retail	351	13		47.99%		46.08%	
					Silver Oaks	135	14		47.99%		46.08%	
					Applicant Inventory Total	486	27					

City of Apopka CMS  
Daily and PM Peak Hour/Peak Direction (PH/PD) Encumbered Traffic Allocation Worksheets  
FINAL REPORT

Base Traffic Volume: 2015

Revision Date: 2/9/2016

Roadway Section	# of Lanes	LOS	Adopted Standard		Applicant Inventory	Encumbered Trips		Daily Traffic		PM PH/PD Traffic		
			Roadway Capacity	PHPD		Daily	PM PH/PD	Base Volume	Available Capacity	Base Volume	Available Capacity	Peak Direction
<b>Minor Collectors (Continued)</b>												
<b>Mt. Plymouth Road</b>												
Kelly Park Rd to Haas Rd	2L	D	15,900	790				7,506	8,394	465	325	NB/EB
					Development Name	0	0				41.14%	
					Applicant Inventory Total	0	0		52.79%			
Haas Rd to Lake County Line	2L	D	15,900	790				5,346	10,554	309	481	NB/EB
					Development Name	0	0				60.89%	
					Applicant Inventory Total	0	0		66.38%			
<b>North Maine Avenue</b>												
Martin St to Old Dixie Hwy	2L	D	13,300	680				1,875	11,425	110	570	NB/EB
					Development Name	0	0				83.82%	
					Applicant Inventory Total	0	0		85.90%			
<b>Old Dixie Highway/West Highland Avenue/Orange Street</b>												
Plymouth Sorrento Rd to Boy Scout Blvd	2L	E	14,000	720				2,154	11,846	119	601	NB/EB
					Development Name	0	0				83.47%	
					Applicant Inventory Total	0	0		84.61%			
Boy Scout Blvd to Errol Pkwy	2L	E	14,000	720				3,857	9,817	191	512	NB/EB
					Dixie Manor @ Errol	326	17				71.11%	
					Applicant Inventory Total	326	17		70.12%			
Errol Pkwy to Vick Rd	2L	E	14,000	720				7,118	6,665	344	365	SB/WB
					Dixie Manor @ Errol	217	11				50.69%	
					Applicant Inventory Total	217	11		47.61%			
Vick Rd to Bradshaw Rd	2L	E	14,000	720				7,707	6,293	364	356	NB/EB
					Development Name	0	0				49.44%	
					Applicant Inventory Total	0	0		44.95%			
Bradshaw Rd to Hawthorne Ave	2L	E	14,000	720				3,964	10,036	232	488	NB/EB
					Development Name	0	0				67.78%	
					Applicant Inventory Total	0	0		71.69%			
Hawthorne Ave to Park Ave	2L	E	14,000	720				2,345	11,640	111	608	NB/EB
					Park Ave Professional Center	15	1				84.44%	
					Applicant Inventory Total	15	1		83.14%			
<b>Ponkan Road</b>												
Round Lake Rd to Plymouth-Sorrento Rd	2L	E	14,000	720				3,830	10,170	179	541	NB/EB
					Development Name	0	0				75.14%	
					Applicant Inventory Total	0	0		72.64%			
Plymouth-Sorrento Rd to Vick Rd	2L	E	15,900	790				5,063	9,836	355	361	SB/WB
					Appy Lane Subdivision	46	5				45.70%	
					Hillside at Wekiva (fka Ponkan Reserve - North)	122	13					
					Oak Ridge Subdivision	186	12					
					Orchid Estates (fka J.B. Nurseries)	565	36					
					Ponkan Reserve - South	79	8					
					Rock Springs Ridge	3	0					
					Applicant Inventory Total	1,001	74					
Vick Rd to Rock Springs Rd	2L	E	15,900	790				3,756	11,078	208	489	NB/EB
					Appy Lane Subdivision	115	12				61.90%	
					Hillside at Wekiva (fka Ponkan Reserve - North)	293	31					
					Orchid Estates (fka J.B. Nurseries)	462	29					
					Ponkan Reserve - South	190	20					
					Rock Springs Ridge	6	1					
					Applicant Inventory Total	1,066	93					



**Appendix E**  
Traffic Counts & FDOT Seasonal Factor Report

**TURNING MOVEMENT COUNT ANALYSIS**  
AUTOS & TRUCKS

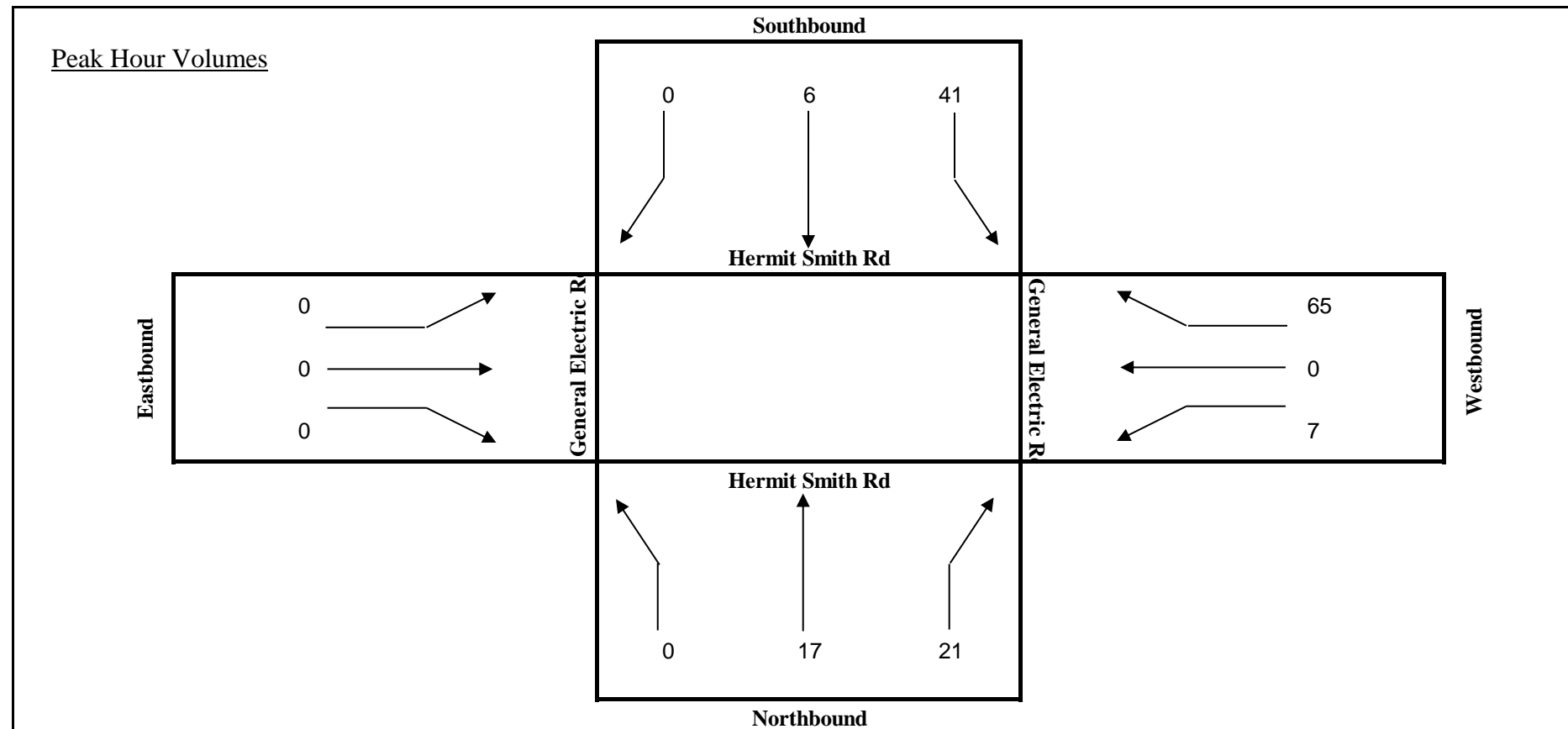
Intersection (N/S): Hermit Smith Rd

Intersection (E/W): General Electric Rd

Date: 3/13/2018

Start	End	Hermit Smith Rd			Hermit Smith Rd			General Electric Rd			General Electric Rd			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	0	5	3	3	4	0	0	0	0	1	0	7	23
4:15 PM	4:30 PM	0	4	5	5	2	0	0	0	0	4	0	11	31
4:30 PM	4:45 PM	0	8	5	4	4	0	0	0	0	2	0	12	35
4:45 PM	5:00 PM	0	1	5	4	0	0	0	0	0	2	0	18	30
5:00 PM	5:15 PM	0	6	6	23	2	0	0	0	0	1	0	19	57
5:15 PM	5:30 PM	0	2	5	10	0	0	0	0	0	2	0	16	35
5:30 PM	5:45 PM	0	2	0	3	1	0	0	0	0	0	0	13	19
5:45 PM	6:00 PM	0	6	3	3	2	0	0	0	0	1	0	5	20

<b>Total for:</b>	4:00 PM	5:00 PM	0	18	18	16	10	0	0	0	0	9	0	48	119
<b>Total for:</b>	5:00 PM	6:00 PM	0	16	14	39	5	0	0	0	0	4	0	53	131
<b>Tota Peak Hour:</b>	4:30 PM	5:30 PM	0	17	21	41	6	0	0	0	0	7	0	65	157
<b>Overall PHF:</b>	0.69														

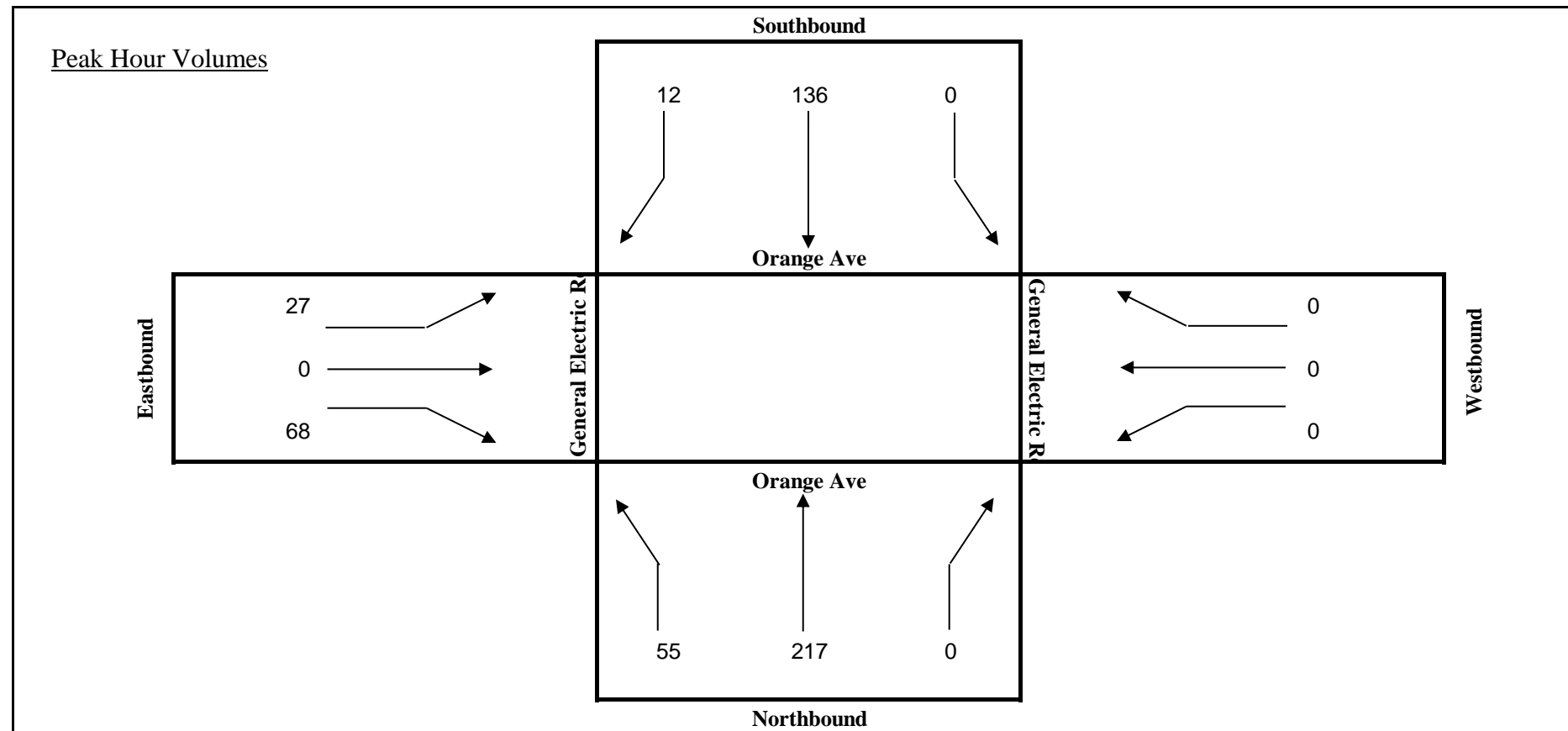


**TURNING MOVEMENT COUNT ANALYSIS**  
AUTOS & TRUCKS

Intersection (N/S): Orange Ave  
Intersection (E/W): General Electric Rd  
Date: 3/13/2018

Start	End	Orange Ave			Orange Ave			General Electric Rd			General Electric Rd			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	8	41	0	0	28	3	4	0	6	0	0	0	90
4:15 PM	4:30 PM	7	50	0	0	35	3	3	0	10	0	0	0	108
4:30 PM	4:45 PM	12	62	0	0	28	2	6	0	11	0	0	0	121
4:45 PM	5:00 PM	14	48	0	0	27	4	6	0	12	0	0	0	111
5:00 PM	5:15 PM	12	52	0	0	34	4	8	0	31	0	0	0	141
5:15 PM	5:30 PM	17	55	0	0	47	2	7	0	14	0	0	0	142
5:30 PM	5:45 PM	11	65	0	0	30	0	1	0	8	0	0	0	115
5:45 PM	6:00 PM	6	31	0	0	29	1	4	0	5	0	0	0	76

<b>Total for:</b>	4:00 PM	5:00 PM	41	201	0	0	118	12	19	0	39	0	0	0	430
<b>Total for:</b>	5:00 PM	6:00 PM	46	203	0	0	140	7	20	0	58	0	0	0	474
<b>Tota Peak Hour:</b>	4:30 PM	5:30 PM	55	217	0	0	136	12	27	0	68	0	0	0	515
<b>Overall PHF:</b>	0.91														



**TURNING MOVEMENT COUNT ANALYSIS  
AUTOS & TRUCKS**

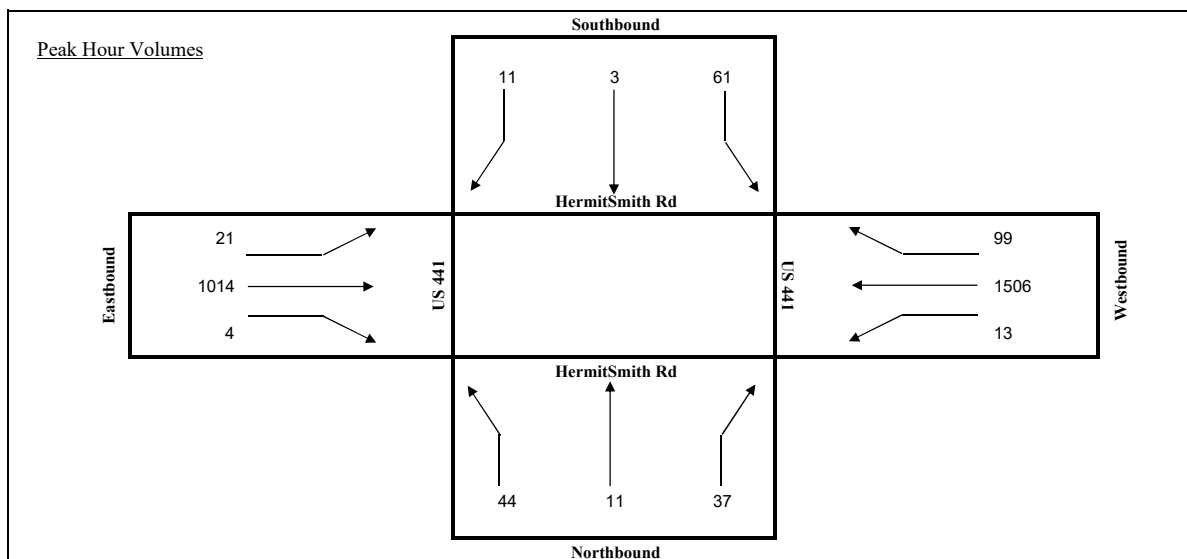
Intersection (N/S): HermitSmith Rd

Intersection (E/W): US 441

Date: 8/28/2018

Start	End	HermitSmith Rd			HermitSmith Rd			US 441			US 441			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	7	3	13	14	1	3	1	179	7	7	252	20	507
4:15 PM	4:30 PM	8	0	5	10	1	3	3	215	1	3	348	22	619
4:30 PM	4:45 PM	7	0	10	8	1	5	9	224	2	4	394	27	691
4:45 PM	5:00 PM	11	1	5	18	0	1	4	237	1	5	349	21	653
5:00 PM	5:15 PM	16	7	18	21	1	1	4	273	0	2	392	22	757
5:15 PM	5:30 PM	10	3	4	14	1	4	4	280	1	2	371	29	723
5:30 PM	5:45 PM	5	2	4	17	0	3	4	245	0	3	366	17	666
5:45 PM	6:00 PM	10	2	3	18	1	1	3	220	1	4	329	28	620

<b>Total for:</b>	4:00 PM	5:00 PM	33	4	33	50	3	12	17	855	11	19	1343	90	2470
<b>Total for:</b>	5:00 PM	6:00 PM	41	14	29	70	3	9	15	1018	2	11	1458	96	2766
<b>Tota Peak Hour:</b>	4:30 PM	5:30 PM	44	11	37	61	3	11	21	1014	4	13	1506	99	2824
<b>Overall PHF:</b>	0.93														



**TURNING MOVEMENT COUNT ANALYSIS  
AUTOS & TRUCKS**

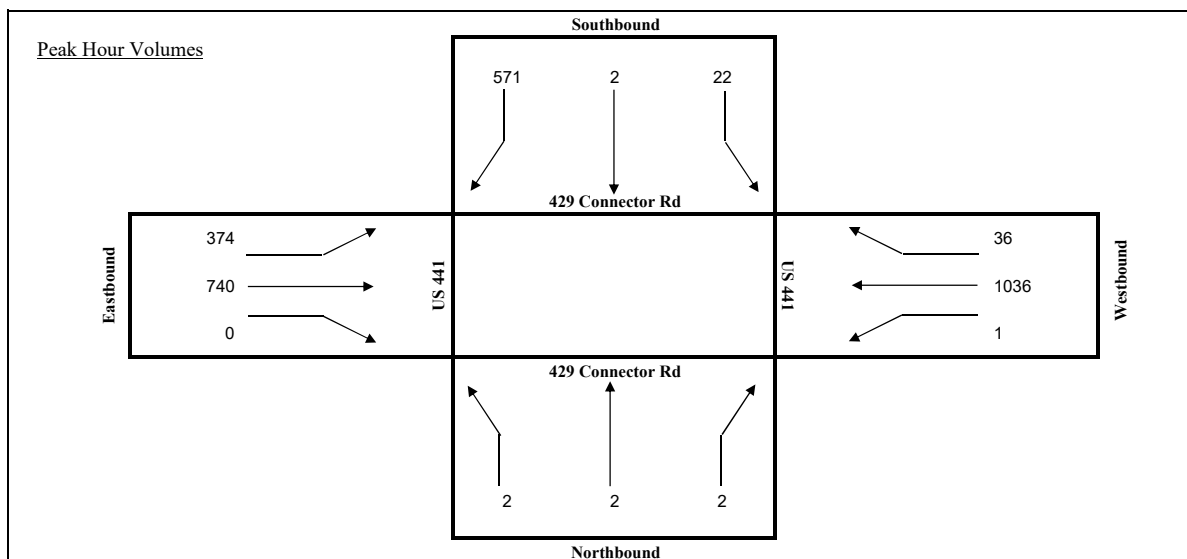
Intersection (N/S): 429 Connector Rd

Intersection (E/W): US 441

Date: 8/28/2018

Start	End	429 Connector Rd			429 Connector Rd			US 441			US 441			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	0	1	1	3	0	90	76	128	0	0	188	10	497
4:15 PM	4:30 PM	2	4	0	2	1	119	90	135	0	0	250	8	611
4:30 PM	4:45 PM	0	1	0	13	1	148	86	153	0	0	273	8	683
4:45 PM	5:00 PM	1	1	1	4	0	134	97	164	0	0	234	9	645
5:00 PM	5:15 PM	1	0	1	3	1	138	91	225	0	0	277	9	746
5:15 PM	5:30 PM	0	0	0	2	0	151	100	198	0	1	252	10	714
5:30 PM	5:45 PM	0	0	1	2	0	138	79	184	0	0	256	10	670
5:45 PM	6:00 PM	1	1	0	3	0	124	73	172	0	1	240	8	623

<b>Total for:</b>	4:00 PM	5:00 PM	3	7	2	22	2	491	349	580	0	0	945	35	2436
<b>Total for:</b>	5:00 PM	6:00 PM	2	1	2	10	1	551	343	779	0	2	1025	37	2753
<b>Tota Peak Hour:</b>	4:30 PM	5:30 PM	2	2	2	22	2	571	374	740	0	1	1036	36	2788
<b>Overall PHF:</b>	0.93														

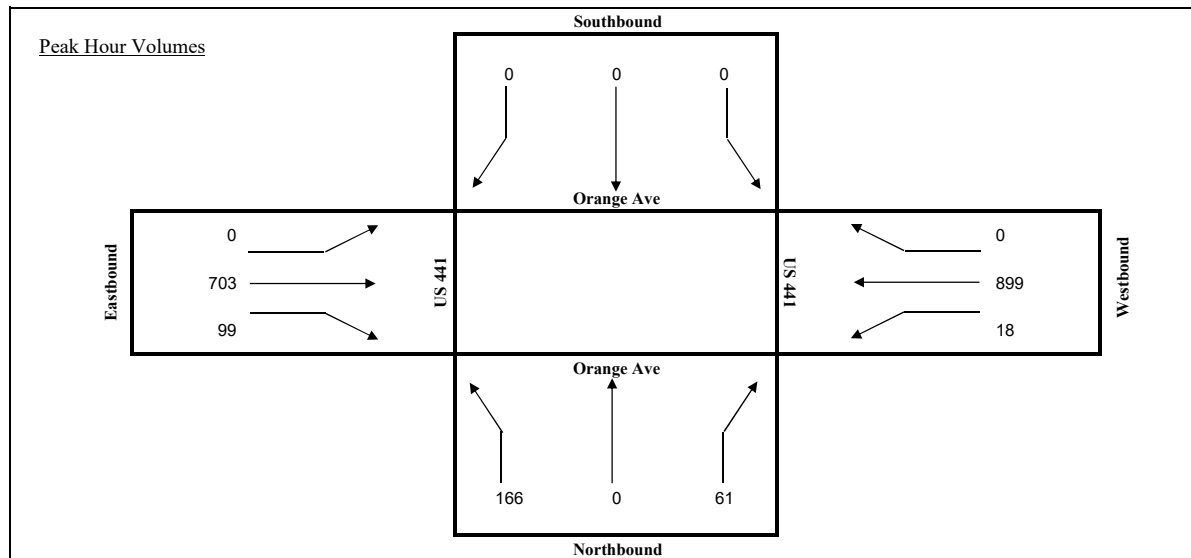


**TURNING MOVEMENT COUNT ANALYSIS  
AUTOS & TRUCKS**

Intersection (N/S): Orange Ave  
 Intersection (E/W): US 441  
 Date: 8/28/2018

Start	End	Orange Ave			Orange Ave			US 441			US 441			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	28	0	12	0	0	0	0	117	15	5	171	0	348
4:15 PM	4:30 PM	47	0	9	0	0	0	0	124	13	7	211	0	411
4:30 PM	4:45 PM	38	0	20	0	0	0	0	136	30	6	243	0	473
4:45 PM	5:00 PM	43	0	15	0	0	0	0	150	18	3	200	0	429
5:00 PM	5:15 PM	38	0	29	0	0	0	0	194	37	4	249	0	551
5:15 PM	5:30 PM	43	0	10	0	0	0	0	178	22	7	220	0	480
5:30 PM	5:45 PM	59	0	13	0	0	0	0	180	15	6	207	0	480
5:45 PM	6:00 PM	26	0	9	0	0	0	0	151	25	1	223	0	435

<b>Total for:</b>	4:00 PM	5:00 PM	156	0	56	0	0	0	0	527	76	21	825	0	1661
<b>Total for:</b>	5:00 PM	6:00 PM	166	0	61	0	0	0	0	703	99	18	899	0	1946
<b>Tota Peak Hour:</b>	5:00 PM	6:00 PM	166	0	61	0	0	0	0	703	99	18	899	0	1946
<b>Overall PHF:</b>			0.88												



**TURNING MOVEMENT COUNT ANALYSIS  
AUTOS & TRUCKS**

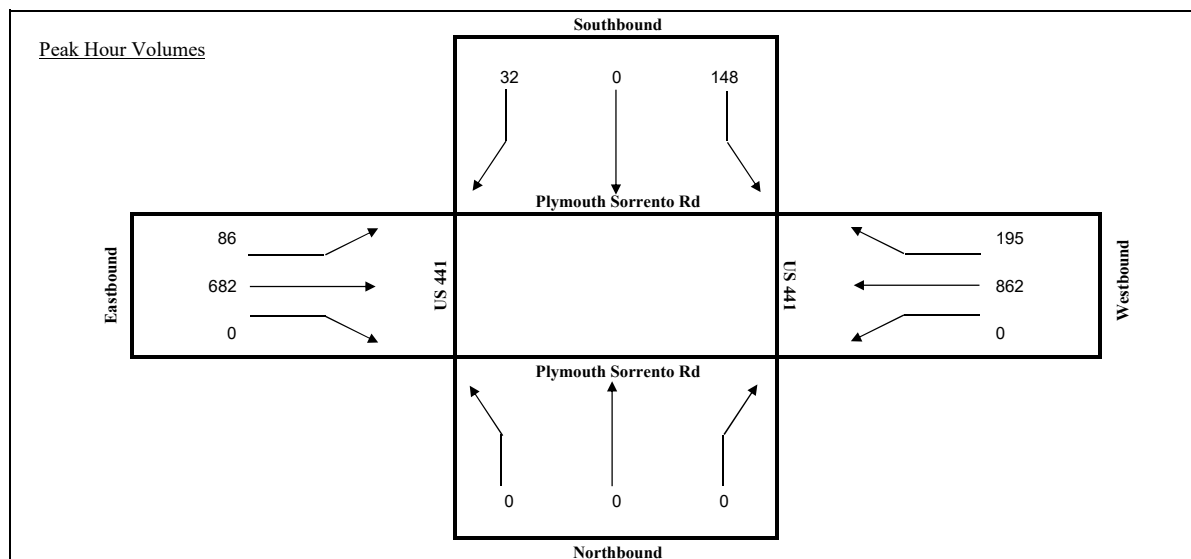
Intersection (N/S): Plymouth Sorrento Rd

Intersection (E/W): US 441

Date: 8/28/2018

Start	End	Plymouth Sorrento Rd			Plymouth Sorrento Rd			US 441			US 441			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	0	0	0	31	0	7	20	111	0	0	166	46	381
4:15 PM	4:30 PM	0	0	0	39	0	6	15	119	0	0	200	45	424
4:30 PM	4:45 PM	0	0	0	36	0	8	18	140	0	0	236	47	485
4:45 PM	5:00 PM	0	0	0	29	0	3	14	152	0	0	195	46	439
5:00 PM	5:15 PM	0	0	0	36	0	4	29	197	0	0	245	43	554
5:15 PM	5:30 PM	0	0	0	33	0	11	19	172	0	0	211	49	495
5:30 PM	5:45 PM	0	0	0	40	0	7	21	169	0	0	196	55	488
5:45 PM	6:00 PM	0	0	0	39	0	10	17	144	0	0	210	48	468

<b>Total for:</b>	4:00 PM	5:00 PM	0	0	0	135	0	24	67	522	0	0	797	184	1729
<b>Total for:</b>	5:00 PM	6:00 PM	0	0	0	148	0	32	86	682	0	0	862	195	2005
<b>Tota Peak Hour:</b>	5:00 PM	6:00 PM	0	0	0	148	0	32	86	682	0	0	862	195	2005
<b>Overall PHF:</b>	0.90														



**TURNING MOVEMENT COUNT ANALYSIS  
AUTOS & TRUCKS**

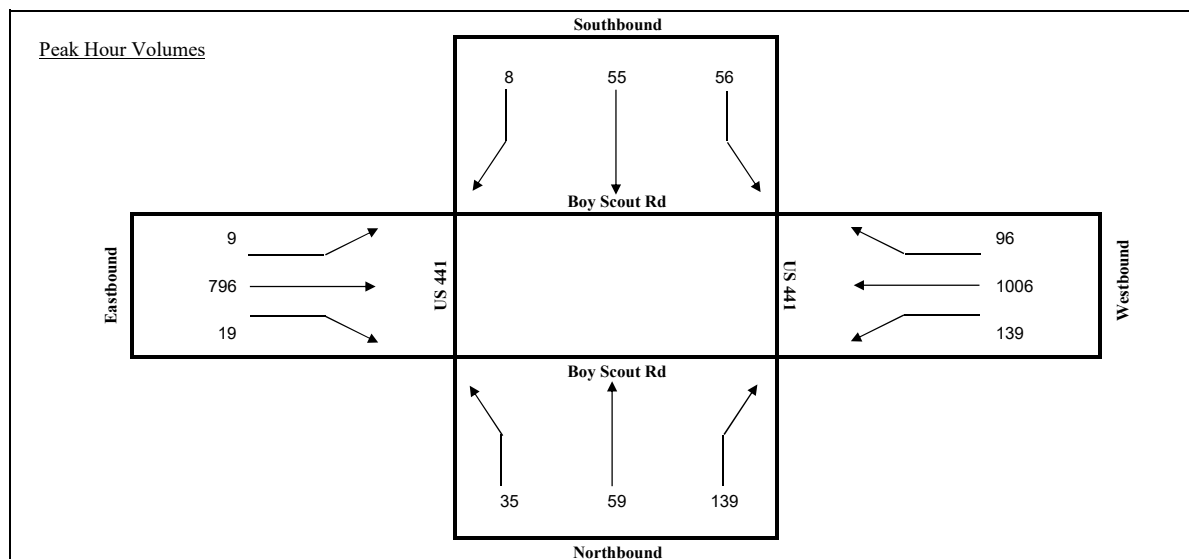
Intersection (N/S): Boy Scout Rd

Intersection (E/W): US 441

Date: 8/28/2018

Start	End	Boy Scout Rd			Boy Scout Rd			US 441			US 441			TOTAL
		L	T	R	L	T	R	L	T	R	L	T	R	
4:00 PM	4:15 PM	6	8	22	5	8	2	1	137	2	15	201	10	417
4:15 PM	4:30 PM	9	13	26	8	14	3	3	145	3	22	230	12	488
4:30 PM	4:45 PM	10	22	54	7	7	0	4	168	2	15	276	14	579
4:45 PM	5:00 PM	8	27	31	14	6	2	1	166	12	20	224	14	525
5:00 PM	5:15 PM	9	17	46	10	16	1	3	221	7	34	276	24	664
5:15 PM	5:30 PM	9	18	34	20	17	4	2	203	3	28	243	28	609
5:30 PM	5:45 PM	8	14	35	9	9	2	1	203	3	32	235	18	569
5:45 PM	6:00 PM	9	10	24	17	13	1	3	169	6	45	252	26	575

<b>Total for:</b>	4:00 PM	5:00 PM	33	70	133	34	35	7	9	616	19	72	931	50	2009
<b>Total for:</b>	5:00 PM	6:00 PM	35	59	139	56	55	8	9	796	19	139	1006	96	2417
<b>Tota Peak Hour:</b>	5:00 PM	6:00 PM	35	59	139	56	55	8	9	796	19	139	1006	96	2417
<b>Overall PHF:</b>	0.91														





2017 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 7500 ORANGE COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.98 PSCF
1	01/01/2017 - 01/07/2017	1.01	1.03
2	01/08/2017 - 01/14/2017	1.03	1.05
3	01/15/2017 - 01/21/2017	1.04	1.06
4	01/22/2017 - 01/28/2017	1.03	1.05
5	01/29/2017 - 02/04/2017	1.02	1.04
6	02/05/2017 - 02/11/2017	1.00	1.02
7	02/12/2017 - 02/18/2017	0.99	1.01
8	02/19/2017 - 02/25/2017	0.99	1.01
* 9	02/26/2017 - 03/04/2017	0.98	1.00
*10	03/05/2017 - 03/11/2017	0.98	1.00
*11	03/12/2017 - 03/18/2017	0.97	0.99
*12	03/19/2017 - 03/25/2017	0.97	0.99
*13	03/26/2017 - 04/01/2017	0.97	0.99
*14	04/02/2017 - 04/08/2017	0.97	0.99
*15	04/09/2017 - 04/15/2017	0.97	0.99
*16	04/16/2017 - 04/22/2017	0.97	0.99
*17	04/23/2017 - 04/29/2017	0.97	0.99
*18	04/30/2017 - 05/06/2017	0.98	1.00
*19	05/07/2017 - 05/13/2017	0.98	1.00
*20	05/14/2017 - 05/20/2017	0.98	1.00
*21	05/21/2017 - 05/27/2017	0.99	1.01
22	05/28/2017 - 06/03/2017	1.00	1.02
23	06/04/2017 - 06/10/2017	1.00	1.02
24	06/11/2017 - 06/17/2017	1.01	1.03
25	06/18/2017 - 06/24/2017	1.01	1.03
26	06/25/2017 - 07/01/2017	1.01	1.03
27	07/02/2017 - 07/08/2017	1.01	1.03
28	07/09/2017 - 07/15/2017	1.02	1.04
29	07/16/2017 - 07/22/2017	1.01	1.03
30	07/23/2017 - 07/29/2017	1.00	1.02
31	07/30/2017 - 08/05/2017	1.00	1.02
32	08/06/2017 - 08/12/2017	0.99	1.01
33	08/13/2017 - 08/19/2017	0.99	1.01
34	08/20/2017 - 08/26/2017	1.01	1.03
35	08/27/2017 - 09/02/2017	1.04	1.06
36	09/03/2017 - 09/09/2017	1.06	1.08
37	09/10/2017 - 09/16/2017	1.09	1.11
38	09/17/2017 - 09/23/2017	1.07	1.09
39	09/24/2017 - 09/30/2017	1.05	1.07
40	10/01/2017 - 10/07/2017	1.03	1.05
41	10/08/2017 - 10/14/2017	1.01	1.03
42	10/15/2017 - 10/21/2017	0.99	1.01
43	10/22/2017 - 10/28/2017	0.99	1.01
44	10/29/2017 - 11/04/2017	0.99	1.01
45	11/05/2017 - 11/11/2017	1.00	1.02
46	11/12/2017 - 11/18/2017	1.00	1.02
47	11/19/2017 - 11/25/2017	1.00	1.02
48	11/26/2017 - 12/02/2017	1.01	1.03
49	12/03/2017 - 12/09/2017	1.01	1.03
50	12/10/2017 - 12/16/2017	1.01	1.03
51	12/17/2017 - 12/23/2017	1.02	1.04
52	12/24/2017 - 12/30/2017	1.03	1.05
53	12/31/2017 - 12/31/2017	1.04	1.06

\* PEAK SEASON

02-MAR-2018 15:35:06

830UPD

5\_7500\_PKSEASON.TXT

**ORANGE COUNTY TRAFFIC SIGNAL TIMING SHEET**

Intersection: US 441 & Boy Scout Blvd/Lake View Dr  
 Equipment: Eagle ATCnx

Int. # 20 Node 37  
 Date: 5/1/2018 Address:

**BASIC TIMING**

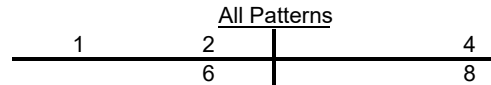
Phase	1	2	3	4	5	6	7	8
Direction	WBL	EB		SB		WB		NB
Min Green (sec)	5	15		5		15		5
Vehicle Gap (sec)	2.0	3.0		3.0		3.0		3.0
Max Green 1 (sec)	15	50		25		50		15
Max Green 2 (sec)	15	50		25		50		25
Yellow Change Interval (sec)	4.8	5.2		3.7		4.8		3.9
Red Clearance Interval (sec)	2.3	2.0		2.8		2.0		2.9
Walk (sec)		7		7		7		
Flash Don't Walk (sec)		13		31		15		
Min Split (sec)	13	28		45		29		12
Recall/Memory	NL	SF/LK		NL		SF/LK		NL
Detector Delay (sec)	5			5				
Detector Switching	1>6							
Dual Entry		Y		Y		Y		Y
Overlap								
Flash		Y		R		Y		R
Speed (mph)	45	45		30		45		30
Approach Grades (%)	2.2%	-3.5%		0.4%		2.2%		-3.6%
Veh Traversed Distance (ft)	98	113		147		135		148
Ped Crossing Distance (ft)		43		108		50		
Ped Clearance (sec)		13		31		15		
Ped-button to curb (ft)		25		16		16		
Ped-button to far curb (ft)		68		124		66		
Ped Clearance to far curb (sec)		23		42		22		

**COORDINATION PLANS**

Coordination Pattern	1/1/1	2/1/1	3/1/1	3/2/2	Day	Time	Pattern	
Cycle	150	140	150	140	1	0:01	FREE	
Split 1	18	23	19	20	1	9:45	2/1/1	
Split 2	97	87	91	85	1	19:00	FREE	
Split 3	0	0	0	0	2	0:01	FREE	
Split 4	35	30	40	35	2	6:30	1/1/1	
Split 5	18	0	0	0	2	9:30	2/1/1	
Split 6	97	110	110	105	2	14:00	3/1/1	
Split 7	0	0	0	0	2	18:00	2/1/1	
Split 8	35	30	40	35	2	20:00	FREE	
Offset	91	87	102	109	7	0:01	FREE	
Lagging Phases	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	7	9:30	2/1/1	
Source Day	Equate 1	Equate 2	Equate 3	Equate 4	Equate 5	7	19:30	FREE
(Sunday) 1								
(Monday) 2	3	4	5	6				
(Saturday) 7								

Notes:

- Offset referenced to start of mainstreet green
- Use Plan Force-offs
- Use Max Inhibit during coordination



## ORANGE COUNTY TRAFFIC SIGNAL TIMING SHEET

**Intersection:** US 441 & Plymouth Sorrento Rd      **Int. #** 21      **Node** 202  
**Equipment:** Eagle ACTnx      **Date:** 5/1/2018      **Address:**

### BASIC TIMING

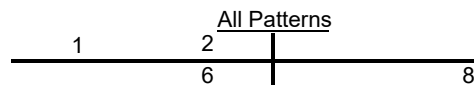
Phase	1	2	3	4	5	6	7	8
<b>Direction</b>	EBL	WB				EB		SB
<b>Min Green (sec)</b>	5	15				15		5
<b>Vehicle Gap (sec)</b>	1.8	3.0				3.0		4.0
<b>Max Green 1 (sec)</b>	25	35				35		30
<b>Max Green 2 (sec)</b>	25	35				35		30
<b>Yellow Change Interval (sec)</b>	4.9	4.8				4.9		4.8
<b>Red Clearance Interval (sec)</b>	2.9	2.0				2.0		2.0
<b>Walk (sec)</b>								
<b>Flash Don't Walk (sec)</b>								
<b>Min Split (sec)</b>	13	22				22		12
<b>Recall/Memory</b>	NL	SF/LK				SF/LK		NL
<b>Detector Delay (sec)</b>								
<b>Detector Switching</b>	1>6							
<b>Dual Entry</b>		Y				Y		
<b>Overlap</b>								
<b>Flash</b>		Y				Y		R
<b>Speed (mph)</b>	45	45				45		45
<b>Approach Grades (%)</b>	-1.0%	0.1%				-1.0%		0.2%
<b>Veh Traversed Distance (ft)</b>	122	136				141		119
<b>Ped Crossing Distance (ft)</b>								
<b>Ped Clearance (sec)</b>								
<b>Ped-button to curb (ft)</b>								
<b>Ped-button to far curb (ft)</b>								
<b>Ped Clearance to far curb (sec)</b>								

### COORDINATION PLANS

Coordination Pattern	1/1/1	2/1/1	3/1/1	3/2/2	Day	Time	Pattern	
<b>Cycle</b>	150	140	150	140	1	0:01	FREE	
<b>Split 1</b>	18	18	20	20	1	9:45	2/1/1	
<b>Split 2</b>	107	101	110	100	1	19:00	FREE	
<b>Split 3</b>	0	0	0	0	2	0:01	FREE	
<b>Split 4</b>	0	0	0	0	2	6:30	1/1/1	
<b>Split 5</b>	0	0	0	0	2	9:30	2/1/1	
<b>Split 6</b>	125	119	130	120	2	14:00	3/1/1	
<b>Split 7</b>	0	0	0	0	2	18:00	2/1/1	
<b>Split 8</b>	25	21	20	20	2	20:00	FREE	
<b>Offset</b>	66	69	31	106	7	0:01	FREE	
<b>Lagging Phases</b>	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	7	9:30	2/1/1	
<b>Source Day</b>	<b>Equate 1</b>	<b>Equate 2</b>	<b>Equate 3</b>	<b>Equate 4</b>	<b>Equate 5</b>	7	19:30	FREE
(Sunday) 1								
(Monday) 2	3	4	5	6				
(Saturday) 7								

**Notes:**

1. Offset referenced to start of mainstreet green
2. Use Plan Force-offs
3. Use Max Inhibit during coordination



**ORANGE COUNTY TRAFFIC SIGNAL TIMING SHEET**

Intersection: US 441 & Orange Ave /T. L. Smith Rd  
 Equipment: Siemens m50

Int. # 22 Node 247  
 Date: 5/1/2018 Address:

**BASIC TIMING**

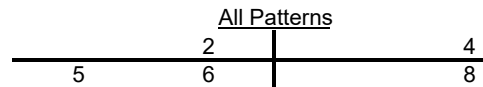
Phase	1	2	3	4	5	6	7	8
Direction		WB		NB	WBL	EB		SB
Min Green (sec)		20		5	5	15		5
Vehicle Gap (sec)		3.0		3.0	3.0	3.0		3.0
Max Green 1 (sec)		67		18	14	45		18
Max Green 2 (sec)		67		18	14	45		18
Yellow Change Interval (sec)		4.9		4.4	4.9	4.8		3.4
Red Clearance Interval (sec)		2.0		2.1	3.0	2.0		4.1
Walk (sec)								
Flash Don't Walk (sec)								
Min Split (sec)		27		12	13	22		13
Recall/Memory		NL		NL	NL	SF/LK		NL
Detector Delay (sec)								
Detector Switching								
Dual Entry		Y		Y		Y		Y
Overlap								
Flash		Y		R	Y	Y		R
Speed (mph)		45		40	45	45		25
Approach Grades (%)		-1.0%		-0.4%	-1.0%	-0.6%		-2.3%
Veh Traversed Distance (ft)		168		160	125	162		167
Ped Crossing Distance (ft)								
Ped Clearance (sec)								
Ped-button to curb (ft)								
Ped-button to far curb (ft)								
Ped Clearance to far curb (sec)								

**COORDINATION PLANS**

Coordination Pattern	1/1/1	2/1/1	3/1/1	3/2/2	Day	Time	Pattern	
Cycle	150	140	150	140	1	0:01	FREE	
Split 1	0	0	0	0	1	9:45	2/1/1	
Split 2	130	120	108	100	1	19:00	FREE	
Split 3	0	0	0	0	2	0:01	FREE	
Split 4	20	20	42	40	2	6:30	1/1/1	
Split 5	20	18	18	18	2	9:30	2/1/1	
Split 6	110	102	90	82	2	14:00	3/1/1	
Split 7	0	0	0	0	2	18:00	2/1/1	
Split 8	20	20	42	40	2	20:00	FREE	
Offset	64	66	43	51	7	0:01	FREE	
Lagging Phases	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	7	9:30	2/1/1	
Source Day	Equate 1	Equate 2	Equate 3	Equate 4	Equate 5	7	19:30	FREE
(Sunday) 1								
(Monday) 2	3	4	5	6				
(Saturday) 7								

Notes:

- Offset referenced to start of mainstreet green
- Use Plan Force-offs
- Use Max Inhibit during coordination



**ORANGE COUNTY TRAFFIC SIGNAL TIMING SHEET**

Intersection: US 441 & SR 429 Connector Rd      Int. #      23      Node      624  
 Equipment: Siemens m50      Date:      5/1/2018      Address:

**BASIC TIMING**

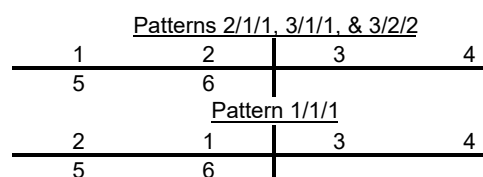
Phase	1	2	3	4	5	6	7	8
Direction	EBL	WB	SB	NB	WBL	EB		
Min Green (sec)	5	20	20	5	5	20		
Vehicle Gap (sec)	3.0	3.0	3.0	3.0	3.0	3.0		
Max Green 1 (sec)	30	77	40	17	21	77		
Max Green 2 (sec)	45	55	50	17	30	60		
Yellow Change Interval (sec)	4.8	4.8	4.2	3.4	4.8	4.8		
Red Clearance Interval (sec)	5.2	2.2	4.4	4.3	3.4	2.3		
Walk (sec)		7		7		7		
Flash Don't Walk (sec)		35		34		17		
Min Split (sec)	15	49	29	49	14	32		
Recall/Memory	NL	MIN/LK	NL	NL	NL	MIN/LK		
Detector Delay (sec)			CDR 5	CD 5	CD 5			
Detector Switching								
Dual Entry		Y				Y		
Overlap								
Flash	R	Y	R	R	R	Y		
Speed (mph)	45	45	35	25	45	45		
Approach Grades (%)	0.4%	0.1%	-2.1%	0.4%	0.1%	0.4%		
Veh Traversed Distance (ft)	207	191	175	172	139	192		
Ped Crossing Distance (ft)		121		119		58		
Ped Clearance (sec)		35		34		17		
Ped-button to curb (ft)		8		13		13		
Ped-button to far curb (ft)		129		132		71		
Ped Clearance to far curb (sec)		43		44		24		

**COORDINATION PLANS**

Coordination Pattern	1/1/1	2/1/1	3/1/1	3/2/2	Day	Time	Pattern	
Cycle	150	140	150	140	1	0:01	FREE	
Split 1	56	30	30	28	1	9:45	2/1/1	
Split 2	47	63	70	64	1	19:00	FREE	
Split 3	29	29	32	30	2	0:01	FREE	
Split 4	18	18	18	18	2	6:30	1/1/1	
Split 5	18	18	18	18	2	9:30	2/1/1	
Split 6	85	75	82	74	2	14:00	3/1/1	
Split 7	0	0	0	0	2	18:00	2/1/1	
Split 8	0	0	0	0	2	20:00	FREE	
Offset	16	29	45	59	7	0:01	FREE	
Lagging Phases	1/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	7	9:30	2/1/1	
Source Day	Equate 1	Equate 2	Equate 3	Equate 4	Equate 5	7	19:30	FREE
(Sunday) 1								
(Monday) 2	3	4	5	6				
(Saturday) 7								

Notes:

- Offset referenced to start of mainstreet green
- Use Cycle Force-offs
- Use Max II during coordination



**ORANGE COUNTY TRAFFIC SIGNAL TIMING SHEET**

Intersection: US 441 & Hermit Smith Rd      Int. #      24      Node      672  
 Equipment: Siemens m50      Date:      5/1/2018      Address:

**BASIC TIMING**

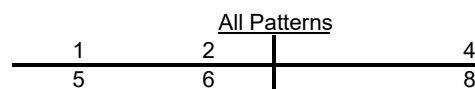
Phase	1	2	3	4	5	6	7	8
Direction	EBL	WB		NB	WBL	EB		SB
Min Green (sec)	5	17		5	5	17		5
Vehicle Gap (sec)	3.0	3.0		3.0	4.0	3.0		3.0
Max Green 1 (sec)	25	77		25	25	77		25
Max Green 2 (sec)	30	50		50	30	50		50
Yellow Change Interval (sec)	4.9	4.8		4.0	4.8	4.9		4.1
Red Clearance Interval (sec)	3.7	2.0		3.0	2.8	2.0		3.1
Walk (sec)		7		7		7		7
Flash Don't Walk (sec)		14		37		17		37
Min Split (sec)	14	28		51	13	31		52
Recall/Memory	NL	MIN/LK		NL	NL	MIN/LK		NL
Detector Delay (sec)				CD 5				CD 5
Detector Switching								
Dual Entry		Y		Y		Y		Y
Overlap								
Flash	4-SECTION	Y		R	4-SECTION	Y		R
Speed (mph)	45	45		35	45	45		35
Approach Grades (%)	-1.6%	0.5%		1.0%	0.5%	-1.6%		-1.0%
Veh Traversed Distance (ft)	151	157		182	116	153		187
Ped Crossing Distance (ft)		46		127		59		128
Ped Clearance (sec)		14		37		17		37
Ped-button to curb (ft)		13		9		11		9
Ped-button to far curb (ft)		59		136		70		137
Ped Clearance to far curb (sec)		20		46		24		46

**COORDINATION PLANS**

Coordination Pattern	1/1/1	2/1/1	3/1/1	3/2/2	Day	Time	Pattern	
Cycle	150	140	150	140	1	0:01	FREE	
Split 1	18	18	18	18	1	9:45	2/1/1	
Split 2	112	104	111	102	1	19:00	FREE	
Split 3	0	0	0	0	2	0:01	FREE	
Split 4	20	18	21	20	2	6:30	1/1/1	
Split 5	18	18	18	18	2	9:30	2/1/1	
Split 6	112	104	111	102	2	14:00	3/1/1	
Split 7	0	0	0	0	2	18:00	2/1/1	
Split 8	20	18	21	20	2	20:00	FREE	
Offset	35	36	39	53	7	0:01	FREE	
Lagging Phases	0/0/0/0	0/0/0/0	0/0/0/0	0/0/0/0	7	9:30	2/1/1	
Source Day	Equate 1	Equate 2	Equate 3	Equate 4	Equate 5	7	19:30	FREE
(Sunday) 1								
(Monday) 2	3	4	5	6				
(Saturday) 7								

Notes:




















- Offset referenced to start of mainstreet green
- Use Plan Force-offs
- Use Max Inhibit during coordination
- 4-section heads for PH 1 & PH 5 shall operate in protected/permissive mode
- Rail Road Preemption



**Appendix F**  
Existing Conditions Analysis Worksheets

# HCM 6th Signalized Intersection Summary

## 3: Hermit Smith Rd & US 441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1055	4	14	1566	103	46	11	38	63	3	11
Future Volume (veh/h)	22	1055	4	14	1566	103	46	11	38	63	3	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1678	1678	1796	1796	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	23	1088	4	14	1614	106	47	11	39	65	3	11
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	7	15	15	7	7	15	15	15	15	15	15
Cap, veh/h	296	2587	1078	370	2425	158	89	21	50	118	7	13
Arrive On Green	0.02	0.76	0.76	0.03	1.00	1.00	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1781	3413	1422	1598	3252	212	648	252	605	898	90	160
Grp Volume(v), veh/h	23	1088	4	14	842	878	97	0	0	79	0	0
Grp Sat Flow(s),veh/h/ln	1781	1706	1422	1598	1706	1758	1506	0	0	1148	0	0
Q Serve(g_s), s	0.5	17.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Cycle Q Clear(g_c), s	0.5	17.0	0.1	0.3	0.0	0.0	9.3	0.0	0.0	10.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.12	0.48		0.40	0.82		0.14
Lane Grp Cap(c), veh/h	296	2587	1078	370	1272	1311	160	0	0	138	0	0
V/C Ratio(X)	0.08	0.42	0.00	0.04	0.66	0.67	0.61	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	371	2587	1078	458	1272	1311	175	0	0	150	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.66	0.66	0.66	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.2	6.4	4.4	5.1	0.0	0.0	67.4	0.0	0.0	67.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	1.8	1.8	5.1	0.0	0.0	4.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	8.7	0.0	0.2	1.1	1.2	7.0	0.0	0.0	5.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.3	6.9	4.4	5.1	1.8	1.8	72.5	0.0	0.0	72.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h		1115			1734			97			79	
Approach Delay, s/veh		6.9			1.8			72.5			72.2	
Approach LOS		A			A			E			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.7	118.7		19.6	9.8	120.6		19.6				
Change Period (Y+Rc), s	* 8.6	* 6.9		* 7.2	* 7.6	6.9		7.2				
Max Green Setting (Gmax), s	* 9.4	* 1E2		* 14	* 10	104.1		13.8				
Max Q Clear Time (g_c+I1), s	2.5	2.0		11.3	2.3	19.0		12.4				
Green Ext Time (p_c), s	0.0	18.7		0.0	0.0	8.6		0.0				

### Intersection Summary

HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



# HCM 6th Signalized Intersection Summary

## 7: US 441 & SR 429 Connector Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗		↕		↖	↗	↔↔
Traffic Volume (veh/h)	389	770	0	1	1077	37	2	2	2	23	2	594
Future Volume (veh/h)	389	770	0	1	1077	37	2	2	2	23	2	594
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1796
Adj Flow Rate, veh/h	418	828	0	1	1158	40	2	2	2	26	0	478
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	7
Cap, veh/h	454	2132	990	2	1647	765	4	4	4	556	0	875
Arrive On Green	0.26	1.00	0.00	0.00	0.97	0.97	0.01	0.01	0.01	0.16	0.00	0.16
Sat Flow, veh/h	3456	3413	1585	1781	3413	1585	579	579	579	3563	0	3045
Grp Volume(v), veh/h	418	828	0	1	1158	40	6	0	0	26	0	478
Grp Sat Flow(s),veh/h/ln	1728	1706	1585	1781	1706	1585	1737	0	0	1781	0	1522
Q Serve(g_s), s	17.6	0.0	0.0	0.1	5.5	0.1	0.5	0.0	0.0	0.9	0.0	19.9
Cycle Q Clear(g_c), s	17.6	0.0	0.0	0.1	5.5	0.1	0.5	0.0	0.0	0.9	0.0	19.9
Prop In Lane	1.00		1.00	1.00		1.00	0.33		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	454	2132	990	2	1647	765	13	0	0	556	0	875
V/C Ratio(X)	0.92	0.39	0.00	0.41	0.70	0.05	0.47	0.00	0.00	0.05	0.00	0.55
Avail Cap(c_a), veh/h	461	2132	990	116	1647	765	119	0	0	556	0	875
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.5	0.0	0.0	74.7	1.4	1.4	74.2	0.0	0.0	53.8	0.0	45.2
Incr Delay (d2), s/veh	22.3	0.5	0.0	85.3	2.5	0.1	24.3	0.0	0.0	0.2	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	22.3	0.3	0.0	0.2	2.3	0.1	0.6	0.0	0.0	0.8	0.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.8	0.5	0.0	160.0	4.0	1.5	98.4	0.0	0.0	54.0	0.0	47.6
LnGrp LOS	E	A	A	F	A	A	F	A	A	D	A	D
Approach Vol, veh/h		1246			1199			6			504	
Approach Delay, s/veh		26.1			4.0			98.4			48.0	
Approach LOS		C			A			F			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	100.8			8.8	29.7	79.5		32.0				
Change Period (Y+Rc), s	8.2	* 7.1		* 7.7	10.0	* 7.1		8.6				
Max Green Setting (Gmax), s	8	* 75		* 10	20.0	* 63		23.4				
Max Q Clear Time (g_c+1/2), s	2.0			2.5	19.6	7.5		21.9				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.1	10.4		0.4				

### Intersection Summary

HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C





















### Notes

User approved volume balancing among the lanes for turning movement.

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

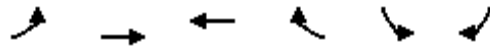
# HCM 6th Signalized Intersection Summary

## 6: Orange Ave & US 441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	731	103	19	935	0	173	0	63	0	0	0
Future Volume (veh/h)	0	731	103	19	935	0	173	0	63	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1796	1796	1796	1796	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	778	110	20	995	0	184	0	67	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	7	7	7	7	7	2	2	2	2	2	2
Cap, veh/h	48	2038	909	522	2448	0	242	0	73	0	351	0
Arrive On Green	0.00	1.00	1.00	0.07	0.72	0.00	0.19	0.00	0.19	0.00	0.00	0.00
Sat Flow, veh/h	566	3413	1522	1711	3503	0	1069	0	389	0	1870	0
Grp Volume(v), veh/h	0	778	110	20	995	0	251	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	566	1706	1522	1711	1706	0	1459	0	0	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.6	17.5	0.0	25.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.6	17.5	0.0	25.3	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	0.73		0.27	0.00		0.00
Lane Grp Cap(c), veh/h	48	2038	909	522	2448	0	315	0	0	0	351	0
V/C Ratio(X)	0.00	0.38	0.12	0.04	0.41	0.00	0.80	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	48	2038	909	522	2448	0	387	0	0	0	430	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.92	0.89	0.89	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	7.9	8.5	0.0	59.8	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.3	0.1	0.4	0.0	9.1	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.3	0.1	0.4	9.7	0.0	15.3	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.5	0.3	8.0	8.9	0.0	68.9	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	E	A	A	A	A	A
Approach Vol, veh/h		888			1015			251				0
Approach Delay, s/veh		0.5			8.9			68.9				0.0
Approach LOS		A			A			E				
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		114.4		35.6	18.0	96.4		35.6				
Change Period (Y+Rc), s		* 6.8		* 7.5	7.9	6.8		7.5				
Max Green Setting (Gmax), s		* 1E2		* 36	10.1	83.2		34.5				
Max Q Clear Time (g_c+I1), s		19.5		27.3	2.6	2.0		0.0				
Green Ext Time (p_c), s		8.2		0.8	0.0	6.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

# HCM 6th Signalized Intersection Summary

## 17: US 441 & Plymouth Sorrento



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↙	↑↑	↑↑		↙	↗	
Traffic Volume (veh/h)	92	709	896	203	154	33	
Future Volume (veh/h)	92	709	896	203	154	33	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	95	731	924	209	159	34	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	401	2878	2096	474	181	161	
Arrive On Green	0.03	0.81	0.73	0.73	0.10	0.10	
Sat Flow, veh/h	1781	3647	2973	651	1781	1585	
Grp Volume(v), veh/h	95	731	570	563	159	34	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1753	1781	1585	
Q Serve(g_s), s	2.0	7.6	19.9	20.0	13.6	3.1	
Cycle Q Clear(g_c), s	2.0	7.6	19.9	20.0	13.6	3.1	
Prop In Lane	1.00			0.37	1.00	1.00	
Lane Grp Cap(c), veh/h	401	2878	1293	1276	181	161	
V/C Ratio(X)	0.24	0.25	0.44	0.44	0.88	0.21	
Avail Cap(c_a), veh/h	484	2878	1293	1276	207	184	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.91	0.91	0.87	0.87	1.00	1.00	
Uniform Delay (d), s/veh	6.2	3.5	8.4	8.5	68.7	63.9	
Incr Delay (d2), s/veh	0.3	0.2	1.0	1.0	29.6	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(95%),veh/ln	1.1	3.6	11.3	11.2	12.3	5.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	6.4	3.7	9.4	9.4	98.2	64.6	
LnGrp LOS	A	A	A	A	F	E	
Approach Vol, veh/h		826	1133		193		
Approach Delay, s/veh		4.0	9.4		92.3		
Approach LOS		A	A		F		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				132.4	22.6	12.7	119.7
Change Period (Y+Rc), s				6.9	6.8	7.8	* 6.9
Max Green Setting (Gmax), s				123.1	18.0	12.2	* 1E2
Max Q Clear Time (g_c+I1), s				9.6	15.6	4.0	22.0
Green Ext Time (p_c), s				4.9	0.1	0.1	8.9
<b>Intersection Summary</b>							
HCM 6th Ctrl Delay			14.8				
HCM 6th LOS			B				
<b>Notes</b>							
User approved pedestrian interval to be less than phase max green.							
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.							

# HCM 6th Signalized Intersection Summary

## 12: US 441 & Boy Scout Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	828	20	145	1046	100	36	61	145	58	57	8
Future Volume (veh/h)	9	828	20	145	1046	100	36	61	145	58	57	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	10	881	21	154	1113	106	38	65	154	62	61	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	316	2213	53	435	2338	222	59	82	169	97	86	11
Arrive On Green	0.64	0.64	0.64	0.04	0.73	0.73	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	458	3463	83	1739	3201	305	178	463	958	351	489	61
Grp Volume(v), veh/h	10	441	461	154	603	616	257	0	0	132	0	0
Grp Sat Flow(s),veh/h/ln	458	1735	1811	1739	1735	1771	1599	0	0	901	0	0
Q Serve(g_s), s	1.4	18.5	18.5	4.4	21.5	21.6	0.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.3	18.5	18.5	4.4	21.5	21.6	23.6	0.0	0.0	23.0	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.17	0.15		0.60	0.47		0.07
Lane Grp Cap(c), veh/h	316	1108	1157	435	1267	1293	310	0	0	194	0	0
V/C Ratio(X)	0.03	0.40	0.40	0.35	0.48	0.48	0.83	0.00	0.00	0.68	0.00	0.00
Avail Cap(c_a), veh/h	316	1108	1157	497	1267	1293	380	0	0	260	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.1	13.1	13.1	9.5	8.4	8.4	60.5	0.0	0.0	59.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.0	1.0	0.5	1.3	1.3	12.1	0.0	0.0	4.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	11.0	11.4	2.9	12.1	12.2	16.0	0.0	0.0	8.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	14.1	14.1	10.0	9.6	9.6	72.6	0.0	0.0	63.4	0.0	0.0
LnGrp LOS	B	B	B	A	A	A	E	A	A	E	A	A
Approach Vol, veh/h		912			1373			257			132	
Approach Delay, s/veh		14.1			9.7			72.6			63.4	
Approach LOS		B			A			E			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	33.7	103.1		33.3		116.7		33.3				
Change Period (Y+Rc), s	7.1	7.2		6.8		* 7.2		* 6.8				
Max Green Setting (Gmax), s	33.8	83.8		33.2		* 1E2		* 34				
Max Q Clear Time (g_c+1), s	20.5	20.5		25.6		23.6		25.0				
Green Ext Time (p_c), s	0.2	5.7		0.9		10.0		0.4				

### Intersection Summary

HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC  
 15: Hermit Smith Rd & General Electric Rd

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	7	65	17	21	41	6
Future Vol, veh/h	7	65	17	21	41	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	20	20	20	20	20	20
Mvmt Flow	10	94	25	30	59	9

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	167	40	0	0	55
Stage 1	40	-	-	-	-
Stage 2	127	-	-	-	-
Critical Hdwy	6.6	6.4	-	-	4.3
Critical Hdwy Stg 1	5.6	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-
Follow-up Hdwy	3.68	3.48	-	-	2.38
Pot Cap-1 Maneuver	783	982	-	-	1442
Stage 1	938	-	-	-	-
Stage 2	856	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	751	982	-	-	1442
Mov Cap-2 Maneuver	751	-	-	-	-
Stage 1	900	-	-	-	-
Stage 2	856	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	6.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	953	1442
HCM Lane V/C Ratio	-	-	0.109	0.041
HCM Control Delay (s)	-	-	9.2	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1

HCM 6th TWSC  
 16: Orange Ave & General Electric Rd

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	27	68	55	217	136	12
Future Vol, veh/h	27	68	55	217	136	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	20	20	20	2	2	20
Mvmt Flow	30	75	60	238	149	13

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	514	156	162	0	0
Stage 1	156	-	-	-	-
Stage 2	358	-	-	-	-
Critical Hdwy	6.6	6.4	4.3	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-
Follow-up Hdwy	3.68	3.48	2.38	-	-
Pot Cap-1 Maneuver	490	845	1314	-	-
Stage 1	830	-	-	-	-
Stage 2	669	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	464	845	1314	-	-
Mov Cap-2 Maneuver	464	-	-	-	-
Stage 1	786	-	-	-	-
Stage 2	669	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	1.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1314	-	685	-	-
HCM Lane V/C Ratio	0.046	-	0.152	-	-
HCM Control Delay (s)	7.9	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

**Appendix G**  
Trip Generation Sheets

# High-Cube Transload and Short-Term Storage Warehouse (154)

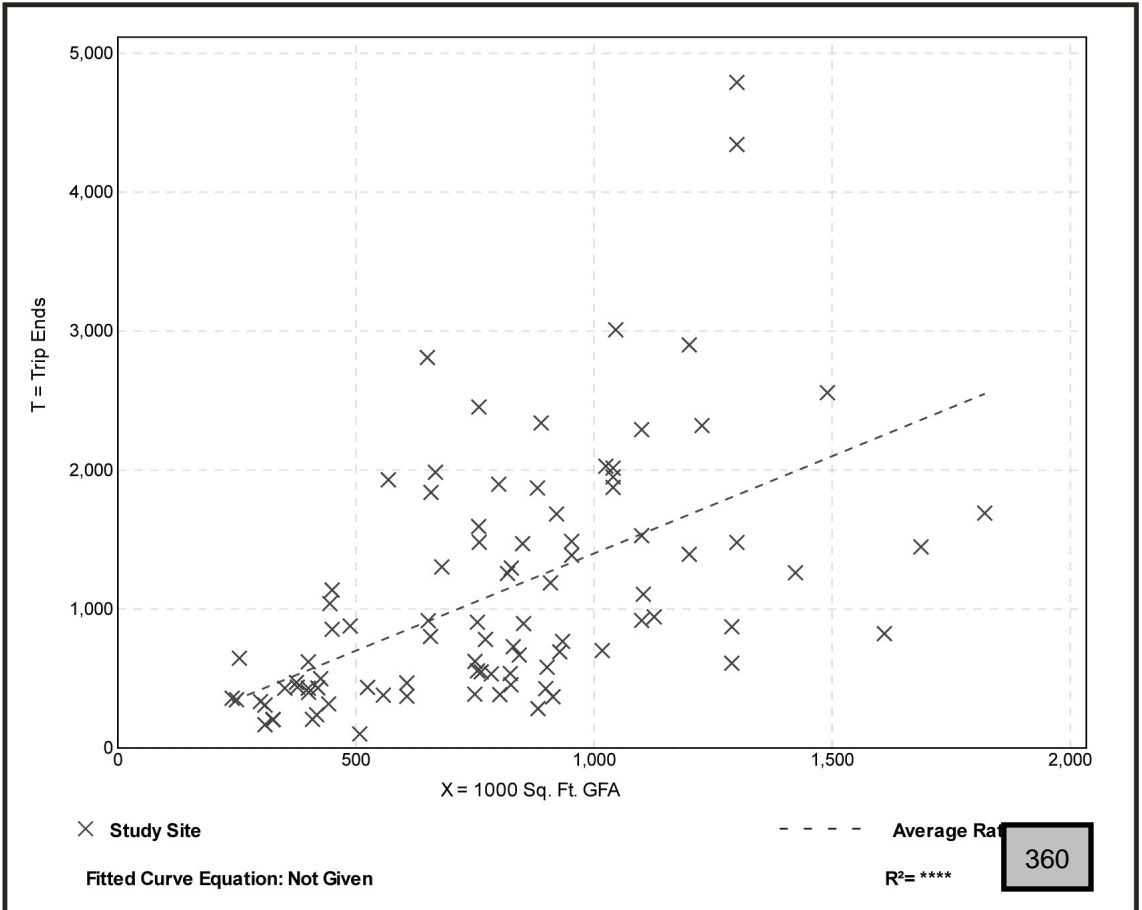
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA  
On a: Weekday

Setting/Location: General Urban/Suburban  
Number of Studies: 91  
1000 Sq. Ft. GFA: 798  
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.40	0.20 - 4.32	0.86

## Data Plot and Equation





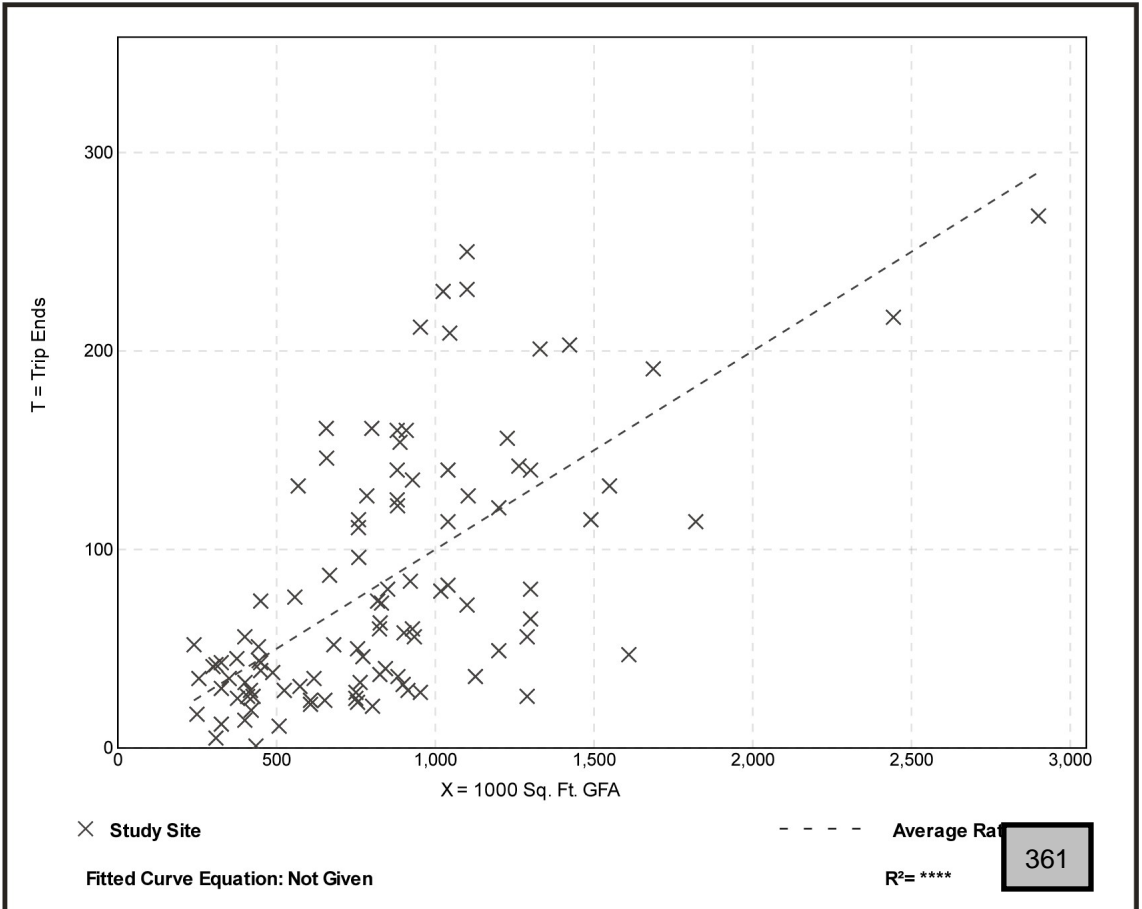
# High-Cube Transload and Short-Term Storage Warehouse (154)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**  
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 103  
 1000 Sq. Ft. GFA: 840  
 Directional Distribution: 28% entering, 72% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

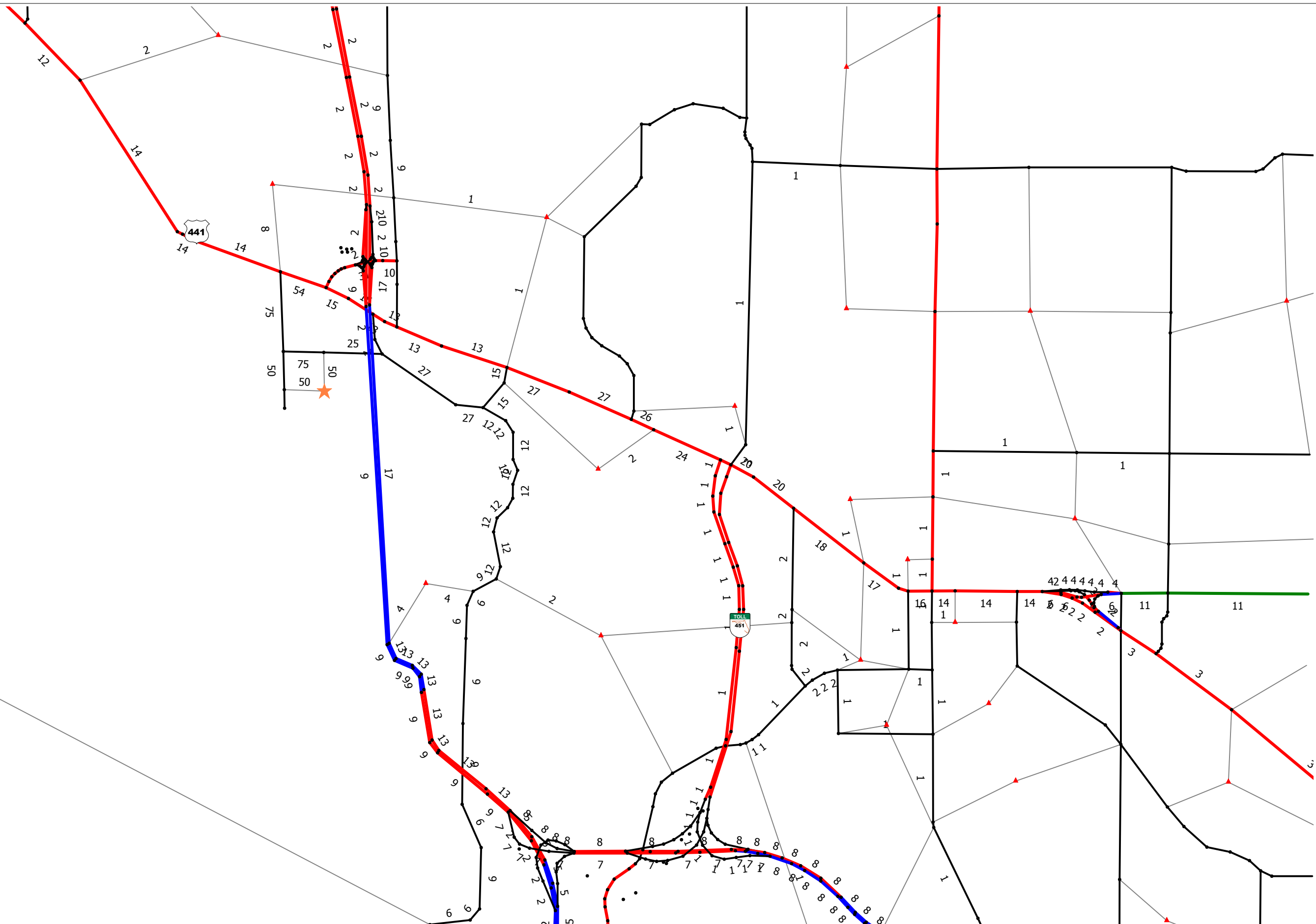
Average Rate	Range of Rates	Standard Deviation
0.10	0.00 - 0.25	0.06

## Data Plot and Equation
























**Appendix H**  
OUATS Model

- Legend:
- 1 lane per direction
  - 2 lanes per direction
  - 3 lanes per direction
  - 4 lanes per direction
  - 5 lanes per direction
  - 6+ lanes per direction
  - Centroid connector



**Appendix I**  
Background & Projected Conditions Analysis Worksheets

### HCM 6th Signalized Intersection Summary 3: Hermit Smith Rd & US 441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1330	15	53	1887	124	127	39	175	222	17	40
Future Volume (veh/h)	28	1330	15	53	1887	124	127	39	175	222	17	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1678	1678	1796	1796	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	29	1371	15	55	1945	128	131	40	180	229	18	41
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	7	15	15	7	7	15	15	15	15	15	15
Cap, veh/h	236	2498	1041	289	2381	155	86	16	73	106	5	11
Arrive On Green	0.02	0.73	0.73	0.06	1.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1781	3413	1422	1598	3253	212	572	175	786	671	53	120
Grp Volume(v), veh/h	29	1371	15	55	1010	1063	351	0	0	288	0	0
Grp Sat Flow(s),veh/h/ln	1781	1706	1422	1598	1706	1758	1532	0	0	843	0	0
Q Serve(g_s), s	0.6	27.0	0.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	27.0	0.4	1.3	0.0	0.0	14.0	0.0	0.0	14.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.12	0.37		0.51	0.80		0.14
Lane Grp Cap(c), veh/h	236	2498	1041	289	1249	1287	176	0	0	122	0	0
V/C Ratio(X)	0.12	0.55	0.01	0.19	0.81	0.83	2.00	0.00	0.00	2.36	0.00	0.00
Avail Cap(c_a), veh/h	306	2498	1041	352	1249	1287	176	0	0	122	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.18	0.18	0.18	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.6	9.0	5.4	7.0	0.0	0.0	69.3	0.0	0.0	70.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.9	0.0	0.1	1.1	1.2	467.4	0.0	0.0	638.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	13.3	0.2	0.6	0.7	0.8	46.5	0.0	0.0	42.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.8	9.9	5.5	7.1	1.1	1.2	536.7	0.0	0.0	709.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	A	F	A	A
Approach Vol, veh/h		1415			2128			351			288	
Approach Delay, s/veh		9.7			1.3			536.7			709.1	
Approach LOS		A			A			F			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.1	116.7		21.2	12.1	116.7		21.2				
Change Period (Y+Rc), s	* 8.6	* 6.9		* 7.2	* 7.6	6.9		7.2				
Max Green Setting (Gmax), s	* 9.4	* 1E2		* 14	* 10	104.1		13.8				
Max Q Clear Time (g_c+I1), s	2.6	2.0		16.0	3.3	29.0		16.0				
Green Ext Time (p_c), s	0.0	32.0		0.0	0.1	12.8		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				97.8								
HCM 6th LOS				F								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

# HCM 6th Signalized Intersection Summary

## 6: Orange Ave & US 441



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1073	148	28	1379	0	277	0	107	0	0	0
Future Volume (veh/h)	0	1073	148	28	1379	0	277	0	107	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1796	1796	1796	1796	1796	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1141	157	30	1467	0	295	0	114	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	7	7	7	7	7	2	2	2	2	2	2
Cap, veh/h	48	3263	1455	548	3672	0	291	0	96	0	443	0
Arrive On Green	0.00	1.00	1.00	0.07	1.00	0.00	0.24	0.00	0.24	0.00	0.00	0.00
Sat Flow, veh/h	361	3413	1522	1711	3503	0	1053	0	407	0	1870	0
Grp Volume(v), veh/h	0	1141	157	30	1467	0	409	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	361	1706	1522	1711	1706	0	1461	0	0	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	35.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	35.5	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	0.72		0.28	0.00		0.00
Lane Grp Cap(c), veh/h	48	3263	1455	548	3672	0	387	0	0	0	443	0
V/C Ratio(X)	0.00	0.35	0.11	0.05	0.40	0.00	1.06	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	48	3263	1455	548	3672	0	387	0	0	0	443	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.82	0.79	0.79	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	59.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.2	0.3	0.0	61.6	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.2	0.1	0.0	0.2	0.0	30.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.1	0.2	0.3	0.0	120.7	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	A	A	A	A
Approach Vol, veh/h		1298			1497			409				0
Approach Delay, s/veh		0.2			0.3			120.7				0.0
Approach LOS		A			A			F				
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		170.0		43.0	18.0	152.0		43.0				
Change Period (Y+Rc), s		* 6.8		* 7.5	7.9	6.8		7.5				
Max Green Setting (Gmax), s		* 1E2		* 36	10.1	83.2		34.5				
Max Q Clear Time (g_c+I1), s		2.0		37.5	2.0	2.0		0.0				
Green Ext Time (p_c), s		16.2		0.0	0.0	11.1		0.0				

### Intersection Summary

HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# HCM 6th Signalized Intersection Summary

## 7: US 441 & SR 429 Connector Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↖	↑↑	↗		↕		↖	↗	↔↔
Traffic Volume (veh/h)	580	1035	0	1	1515	52	2	2	2	23	2	621
Future Volume (veh/h)	580	1035	0	1	1515	52	2	2	2	23	2	621
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1796	1870	1870	1796	1870	1870	1870	1870	1870	1870	1796
Adj Flow Rate, veh/h	624	1113	0	1	1629	56	2	2	2	26	0	507
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	7	2	2	7	2	2	2	2	2	2	7
Cap, veh/h	461	2132	990	2	1640	762	4	4	4	556	0	881
Arrive On Green	0.27	1.00	0.00	0.00	0.96	0.96	0.01	0.01	0.01	0.16	0.00	0.16
Sat Flow, veh/h	3456	3413	1585	1781	3413	1585	579	579	579	3563	0	3045
Grp Volume(v), veh/h	624	1113	0	1	1629	56	6	0	0	26	0	507
Grp Sat Flow(s),veh/h/ln	1728	1706	1585	1781	1706	1585	1737	0	0	1781	0	1522
Q Serve(g_s), s	20.0	0.0	0.0	0.1	61.1	0.2	0.5	0.0	0.0	0.9	0.0	21.3
Cycle Q Clear(g_c), s	20.0	0.0	0.0	0.1	61.1	0.2	0.5	0.0	0.0	0.9	0.0	21.3
Prop In Lane	1.00		1.00	1.00		1.00	0.33		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	461	2132	990	2	1640	762	13	0	0	556	0	881
V/C Ratio(X)	1.35	0.52	0.00	0.41	0.99	0.07	0.47	0.00	0.00	0.05	0.00	0.58
Avail Cap(c_a), veh/h	461	2132	990	116	1640	762	119	0	0	556	0	881
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.00	0.73	0.73	0.73	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.0	0.0	0.0	74.7	2.7	1.5	74.2	0.0	0.0	53.8	0.0	45.4
Incr Delay (d2), s/veh	170.7	0.7	0.0	65.9	17.4	0.1	24.3	0.0	0.0	0.2	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	17.8	0.4	0.0	0.1	8.3	0.2	0.6	0.0	0.0	0.8	0.0	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	225.7	0.7	0.0	140.6	20.1	1.7	98.4	0.0	0.0	54.0	0.0	48.2
LnGrp LOS	F	A	A	F	C	A	F	A	A	D	A	D
Approach Vol, veh/h		1737			1686			6			533	
Approach Delay, s/veh		81.6			19.6			98.4			48.5	
Approach LOS		F			B			F			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	100.8		8.8	30.0	79.2		32.0				
Change Period (Y+Rc), s	8.2	* 7.1		* 7.7	10.0	* 7.1		8.6				
Max Green Setting (Gmax), s	8	* 75		* 10	20.0	* 63		23.4				
Max Q Clear Time (g_c+1), s	12	2.0		2.5	22.0	63.1		23.3				
Green Ext Time (p_c), s	0.0	9.7		0.0	0.0	0.0		0.0				

### Intersection Summary

HCM 6th Ctrl Delay	50.8
HCM 6th LOS	D

### Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

# HCM 6th Signalized Intersection Summary

## 12: US 441 & Boy Scout Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	903	21	160	1092	104	49	83	222	88	87	13
Future Volume (veh/h)	14	903	21	160	1092	104	49	83	222	88	87	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826	1826
Adj Flow Rate, veh/h	15	961	22	170	1162	111	52	88	236	94	93	14
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	371	2628	60	478	2695	257	67	93	223	95	84	11
Arrive On Green	0.76	0.76	0.76	0.04	0.84	0.84	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	435	3467	79	1739	3200	305	178	415	999	267	378	48
Grp Volume(v), veh/h	15	481	502	170	629	644	376	0	0	201	0	0
Grp Sat Flow(s),veh/h/ln	435	1735	1812	1739	1735	1771	1592	0	0	693	0	0
Q Serve(g_s), s	1.4	13.9	13.9	3.1	13.5	13.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	13.9	13.9	3.1	13.5	13.5	33.5	0.0	0.0	33.5	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.17	0.14		0.63	0.47		0.07
Lane Grp Cap(c), veh/h	371	1315	1373	478	1461	1491	383	0	0	190	0	0
V/C Ratio(X)	0.04	0.37	0.37	0.36	0.43	0.43	0.98	0.00	0.00	1.06	0.00	0.00
Avail Cap(c_a), veh/h	371	1315	1373	553	1461	1491	383	0	0	190	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.2	6.1	6.1	4.5	2.9	2.9	59.1	0.0	0.0	59.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.6	0.6	0.4	0.9	0.9	41.1	0.0	0.0	81.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	7.2	7.4	1.6	6.1	6.2	26.0	0.0	0.0	17.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	6.7	6.6	4.9	3.9	3.9	100.1	0.0	0.0	141.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	F	A	A	F	A	A
Approach Vol, veh/h		998			1443			376			201	
Approach Delay, s/veh		6.6			4.0			100.1			141.4	
Approach LOS		A			A			F			F	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.5	121.7		40.3		134.2		40.3				
Change Period (Y+Rc), s	7.1	7.2		6.8		* 7.2		* 6.8				
Max Green Setting (Gmax), s	83.8			33.2		* 1E2		* 34				
Max Q Clear Time (g_c+1/2), s	15.9			35.5		15.5		35.5				
Green Ext Time (p_c), s	0.2	6.6		0.0		10.8		0.0				

### Intersection Summary

HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

### Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



HCM 6th TWSC  
 15: Hermit Smith Rd & General Electric Rd

Intersection						
Int Delay, s/veh	6.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	145	70	21	72	27
Future Vol, veh/h	7	145	70	21	72	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	69	69	69	69
Heavy Vehicles, %	20	20	20	20	20	20
Mvmt Flow	10	210	101	30	104	39

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	363	116	0	0	131
Stage 1	116	-	-	-	-
Stage 2	247	-	-	-	-
Critical Hdwy	6.6	6.4	-	-	4.3
Critical Hdwy Stg 1	5.6	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-
Follow-up Hdwy	3.68	3.48	-	-	2.38
Pot Cap-1 Maneuver	602	890	-	-	1350
Stage 1	866	-	-	-	-
Stage 2	754	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	554	890	-	-	1350
Mov Cap-2 Maneuver	554	-	-	-	-
Stage 1	798	-	-	-	-
Stage 2	754	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	5.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	866	1350
HCM Lane V/C Ratio	-	-	0.254	0.077
HCM Control Delay (s)	-	-	10.6	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.3

HCM 6th TWSC  
 16: Orange Ave & General Electric Rd

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	36	103	69	356	229	15
Future Vol, veh/h	36	103	69	356	229	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	20	20	20	10	10	20
Mvmt Flow	40	113	76	391	252	16

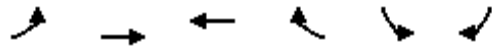
Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	803	260	268	0	0
Stage 1	260	-	-	-	-
Stage 2	543	-	-	-	-
Critical Hdwy	6.6	6.4	4.3	-	-
Critical Hdwy Stg 1	5.6	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-
Follow-up Hdwy	3.68	3.48	2.38	-	-
Pot Cap-1 Maneuver	329	737	1198	-	-
Stage 1	743	-	-	-	-
Stage 2	548	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	302	737	1198	-	-
Mov Cap-2 Maneuver	302	-	-	-	-
Stage 1	683	-	-	-	-
Stage 2	548	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1198	-	537	-	-
HCM Lane V/C Ratio	0.063	-	0.284	-	-
HCM Control Delay (s)	8.2	0	14.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.2	-	-

# HCM 6th Signalized Intersection Summary

## 17: US 441 & Plymouth Sorrento



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖	↑↑	↗		↙	↘	
Traffic Volume (veh/h)	141	1054	1117	251	289	65	
Future Volume (veh/h)	141	1054	1117	251	289	65	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	145	1087	1152	259	298	67	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	306	2827	2049	457	207	184	
Arrive On Green	0.04	0.80	0.71	0.71	0.12	0.12	
Sat Flow, veh/h	1781	3647	2981	644	1781	1585	
Grp Volume(v), veh/h	145	1087	706	705	298	67	
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1754	1781	1585	
Q Serve(g_s), s	3.3	14.0	29.6	30.3	18.0	6.0	
Cycle Q Clear(g_c), s	3.3	14.0	29.6	30.3	18.0	6.0	
Prop In Lane	1.00			0.37	1.00	1.00	
Lane Grp Cap(c), veh/h	306	2827	1261	1245	207	184	
V/C Ratio(X)	0.47	0.38	0.56	0.57	1.44	0.36	
Avail Cap(c_a), veh/h	383	2827	1261	1245	207	184	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.76	0.76	0.82	0.82	1.00	1.00	
Uniform Delay (d), s/veh	10.4	4.7	10.8	10.9	68.5	63.2	
Incr Delay (d2), s/veh	0.9	0.3	1.5	1.5	223.5	1.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(95%),veh/ln	2.2	6.7	15.9	16.0	32.7	9.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	11.2	5.0	12.3	12.5	292.0	64.4	
LnGrp LOS	B	A	B	B	F	E	
Approach Vol, veh/h		1232	1411		365		
Approach Delay, s/veh		5.7	12.4		250.2		
Approach LOS		A	B		F		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				130.2	24.8	13.3	116.9
Change Period (Y+Rc), s				6.9	6.8	7.8	* 6.9
Max Green Setting (Gmax), s				123.1	18.0	12.2	* 1E2
Max Q Clear Time (g_c+I1), s				16.0	20.0	5.3	32.3
Green Ext Time (p_c), s				8.5	0.0	0.2	13.3

### Intersection Summary

HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

### Notes

User approved pedestrian interval to be less than phase max green.

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th TWSC  
 19: Hermit Smith Rd & Access

Intersection						
Int Delay, s/veh	6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	0	54	17	0	21	13
Future Vol, veh/h	0	54	17	0	21	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	20	2	2	20	2
Mvmt Flow	0	57	18	0	22	14

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	76	18	0	0	18
Stage 1	18	-	-	-	-
Stage 2	58	-	-	-	-
Critical Hdwy	6.42	6.4	-	-	4.3
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.48	-	-	2.38
Pot Cap-1 Maneuver	927	1011	-	-	1489
Stage 1	1005	-	-	-	-
Stage 2	965	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	913	1011	-	-	1489
Mov Cap-2 Maneuver	913	-	-	-	-
Stage 1	990	-	-	-	-
Stage 2	965	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	4.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1011	1489
HCM Lane V/C Ratio	-	-	0.056	0.015
HCM Control Delay (s)	-	-	8.8	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 6th TWSC  
21: West Access & General Electric Rd

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	87	6	3	137	15	5
Future Vol, veh/h	87	6	3	137	15	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	10	20	20	10	20	20
Mvmt Flow	92	6	3	144	16	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	98	0	245 95
Stage 1	-	-	-	-	95 -
Stage 2	-	-	-	-	150 -
Critical Hdwy	-	-	4.3	-	6.6 6.4
Critical Hdwy Stg 1	-	-	-	-	5.6 -
Critical Hdwy Stg 2	-	-	-	-	5.6 -
Follow-up Hdwy	-	-	2.38	-	3.68 3.48
Pot Cap-1 Maneuver	-	-	1390	-	706 914
Stage 1	-	-	-	-	886 -
Stage 2	-	-	-	-	836 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1390	-	705 914
Mov Cap-2 Maneuver	-	-	-	-	705 -
Stage 1	-	-	-	-	884 -
Stage 2	-	-	-	-	836 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	748	-	-	1390	-
HCM Lane V/C Ratio	0.028	-	-	0.002	-
HCM Control Delay (s)	10	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC  
 23: Main Access & General Electric Rd

Intersection						
Int Delay, s/veh	3.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	72	20	10	90	50	30
Future Vol, veh/h	72	20	10	90	50	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	10	20	10	20	10	20
Mvmt Flow	76	21	11	95	53	32

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	97	0	204
Stage 1	-	-	-	-	87
Stage 2	-	-	-	-	117
Critical Hdwy	-	-	4.2	-	6.5
Critical Hdwy Stg 1	-	-	-	-	5.5
Critical Hdwy Stg 2	-	-	-	-	5.5
Follow-up Hdwy	-	-	2.29	-	3.59
Pot Cap-1 Maneuver	-	-	1448	-	767
Stage 1	-	-	-	-	917
Stage 2	-	-	-	-	889
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1448	-	761
Mov Cap-2 Maneuver	-	-	-	-	761
Stage 1	-	-	-	-	910
Stage 2	-	-	-	-	889

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	815	-	-	1448	-
HCM Lane V/C Ratio	0.103	-	-	0.007	-
HCM Control Delay (s)	9.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th TWSC  
 25: East Access & General Electric Rd

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	97	5	4	80	15	9
Future Vol, veh/h	97	5	4	80	15	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	10	20	20	10	20	20
Mvmt Flow	100	5	4	82	15	9

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	105	0	193
Stage 1	-	-	-	-	103
Stage 2	-	-	-	-	90
Critical Hdwy	-	-	4.3	-	6.6
Critical Hdwy Stg 1	-	-	-	-	5.6
Critical Hdwy Stg 2	-	-	-	-	5.6
Follow-up Hdwy	-	-	2.38	-	3.68
Pot Cap-1 Maneuver	-	-	1381	-	757
Stage 1	-	-	-	-	878
Stage 2	-	-	-	-	890
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1381	-	755
Mov Cap-2 Maneuver	-	-	-	-	755
Stage 1	-	-	-	-	875
Stage 2	-	-	-	-	890























Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	805	-	-	1381	-
HCM Lane V/C Ratio	0.031	-	-	0.003	-
HCM Control Delay (s)	9.6	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

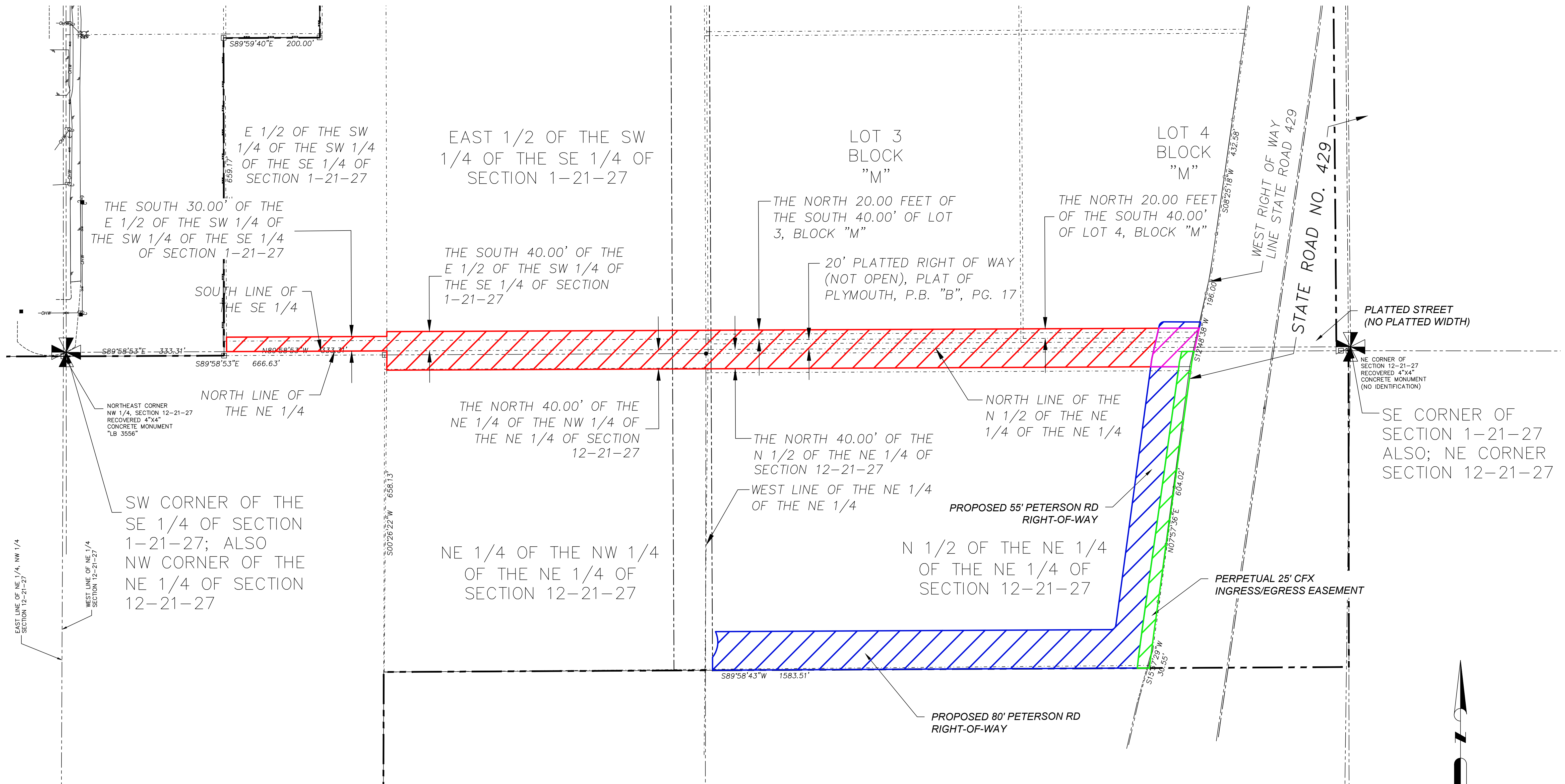
**Appendix J**  
Improved Intersection Analysis Worksheets



### HCM 6th Signalized Intersection Summary 3: Hermit Smith Rd & US 441

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1330	15	53	1887	124	127	39	175	222	17	40
Future Volume (veh/h)	28	1330	15	53	1887	124	127	39	175	222	17	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1678	1678	1796	1796	1678	1678	1678	1678	1678	1678
Adj Flow Rate, veh/h	29	1371	15	55	1945	128	131	40	103	229	18	41
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	7	15	15	7	7	15	15	15	15	15	15
Cap, veh/h	218	2184	910	235	2082	135	241	61	264	111	5	12
Arrive On Green	0.02	0.64	0.64	0.06	1.00	1.00	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1781	3413	1422	1598	3253	212	1073	328	1422	364	29	65
Grp Volume(v), veh/h	29	1371	15	55	1010	1063	171	0	103	288	0	0
Grp Sat Flow(s),veh/h/ln	1781	1706	1422	1598	1706	1758	1401	0	1422	458	0	0
Q Serve(g_s), s	0.8	36.3	0.6	1.8	0.0	0.0	0.0	0.0	9.5	10.8	0.0	0.0
Cycle Q Clear(g_c), s	0.8	36.3	0.6	1.8	0.0	0.0	17.0	0.0	9.5	27.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.12	0.77		1.00	0.80		0.14
Lane Grp Cap(c), veh/h	218	2184	910	235	1092	1125	302	0	264	128	0	0
V/C Ratio(X)	0.13	0.63	0.02	0.23	0.92	0.94	0.57	0.00	0.39	2.25	0.00	0.00
Avail Cap(c_a), veh/h	288	2184	910	298	1092	1125	304	0	265	128	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.18	0.18	0.18	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.6	16.2	9.8	13.2	0.0	0.0	56.7	0.0	53.7	71.4	0.0	0.0
Incr Delay (d2), s/veh	0.3	1.4	0.0	0.1	3.3	4.2	2.4	0.0	0.9	587.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	18.9	0.3	1.0	1.7	2.1	10.3	0.0	6.3	43.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	17.6	9.9	13.3	3.3	4.2	59.1	0.0	54.6	658.4	0.0	0.0
LnGrp LOS	A	B	A	B	A	A	E	A	D	F	A	A
Approach Vol, veh/h		1415			2128			274			288	
Approach Delay, s/veh		17.4			4.0			57.4			658.4	
Approach LOS		B			A			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.1	102.9		35.0	12.1	102.9		35.0				
Change Period (Y+Rc), s	* 8.6	* 6.9		* 7.2	* 7.6	6.9		7.2				
Max Green Setting (Gmax), s	* 9.4	* 90		* 28	* 10	90.1		27.8				
Max Q Clear Time (g_c+I1), s	2.8	2.0		19.0	3.8	38.3		29.8				
Green Ext Time (p_c), s	0.0	31.1		0.6	0.1	12.4		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				58.1								
HCM 6th LOS				E								
<b>Notes</b>												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

F:\ANC1\Exhibits\2018-08-08 ANC-1 Peterson Rd ROW Exhibit\2018-08-07 ANC-1\_PETERSON ROW EXHIBIT.dwg,8/24/2018 5:35:29 PM



**LEGEND**

EXISTING PETERSON RD RIGHT-OF-WAY (TO BE VACATED)	
EXISTING PETERSON RD RIGHT-OF-WAY (TO REMAIN)	
EXISTING CFX 25' INGRESS/EGRESS EASEMENT	
PROPOSED PETERSON RD RIGHT-OF-WAY	

**DAVE SCHMITT ENGINEERING, INC.**  
 12301 Lake Underhill Road Suite 241  
 ORLANDO, FL 32828  
 407-207-9088 FAX 407-207-9089  
 Certification of Authorization #27471

CONTRACTOR "AS-BUILTS"  
 I hereby state that these "As-Builts" were furnished to me by the contractor listed below. I, or an employee under my direct supervision have reviewed these "As-Builts" and believe them to be in compliance with my knowledge of what was actually constructed. This statement is based upon site observations of the construction.  
 Contractor \_\_\_\_\_ Engineer \_\_\_\_\_  
 Not valid without the signature and the original raised seal of a Florida Registered Engineer.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVE M. SCHMITT  
 FLORIDA REG. NUMBER  
 48274

**RE-ALIGNED PETERSON RD ROW**

APOPKA, FLORIDA

DATE: AUG 08 2018
PROJECT NO.: ANC-1
DRAWN BY: MTP
CHECKED BY: BG
SCALE: 24"=36'
SHEET: 01 OF 01

August 23, 2018

David B. Moon, AICP  
Planning Manager  
Community Development Department, Planning and Zoning Division  
City of Apopka  
120 E. Main Street  
Apopka, Florida 32703

Sent via email to: [dmoon@apopka.net](mailto:dmoon@apopka.net)

Dear Mr. Moon:

This letter is regarding the current development plans submitted by Mid-Florida Freezer Warehouse Ltd. to the City of Apopka. First, we would like to express our appreciation to Mid-Florida Freezer, as well as the City, for hearing our concerns related to the original project plans which included a request to vacate Peterson Road.

With the increase in development in the area, we believe that traffic will increase, thus requiring road expansions and/or additional access points. The unpaved portions of Peterson Road can provide future access points to neighboring developments and property. Additionally, the expansion of Peterson Road could also impact long-term property values in the area and future uses of nearby undeveloped property.

As owners and developers of neighboring property, we strongly believe that Peterson Road could become a vital transportation artery for the area, especially as development continues to increase. Going forward, we ask that Peterson Road remain in the forefront as the City considers plans for future development in the area.

We all are proud to have a presence in Apopka and to play a role in its bright future. We appreciate your consideration of our request and look forward to hearing from you.

Sincerely,



Eric T. Bennett  
General Manager, Flavor Manufacturing Apopka  
The Coca-Cola Company

**ROBERT NAMOFF - PRES**

Print Name & Title  
Developers Unlimited



Print Name & Title  
Apopka Clear Lake Investments LLC, F. Bombeeck, Managing Member

September 26, 2018

Mr. David B. Moon, AICP Planning Manager  
Community Development Department, Planning and Zoning Division  
City of Apopka  
120 East Main Street  
Apopka, Florida 32703

*Sent via email to:* dmoon@apopka.net

Dear Mr. Moon:

This letter is regarding the current development plans submitted by Mid-Florida Freezer Warehouse Ltd. and BlueScope Properties Group LLC to the City of Apopka. We understand that the Planning Commission recommended approval of the PUD zoning and the Master Plan. The project will now be submitted to the Apopka City Council for review and approval.

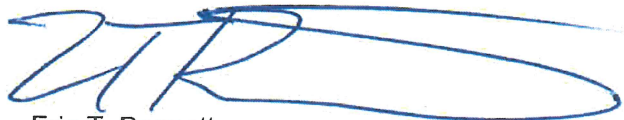
First, we would like to express our thanks to the City, as well as to the developers, for hearing our concerns related to the potential impact on traffic as well as addressing the request to vacate Peterson Road contained in the original project plan. With respect to our letter of August 23, 2018, we appreciate that a new route is designed for Peterson Road to jog south, cross the bottom of the development, and connect to Fern Industrial Road. This should accommodate future access to our property east of the proposed development.

With our continued significant investments in the three strategic production and development operations along Orange Avenue, our history of providing high paying jobs, as well as our desire to market a large undeveloped parcel serviced by Peterson Road we have a vested interest to ensure the continued viability and value of our investments. With the ongoing development in the area, we believe that traffic will increase, thus requiring road expansions and/or additional access points. Thus, we have an interest in provisions ensuring that the traffic generated by this project does not have a deleterious impact on our business.

We therefore request that there be language added to approval of the project to ensure the continued smooth flow of traffic. Specifically, we request that the easement for Peterson Road as indicated on the drawing set ANC-1 dated June 2018 as submitted by Dave Schmidt Engineering and BlueScope Properties be written into the approval documents. Additionally, we request that a mitigation strategy be developed and submitted to address potential traffic delays when traveling North on Orange Avenue and turning onto 441. If there is an increase of greater than 25% in the stoppage time at peak hours as measured in the traffic study submitted by the developer, the mitigation strategy would be required to be implemented. This not only provides reasonable assurance of business continuity to The Coca-Cola Company but also protects the ability of Apopka Fire Station Four, 2750 West Orange Avenue, to respond to emergencies.

We are proud to have a presence in Apopka and to play a role in its bright future. We appreciate your consideration of our request and look forward to hearing from you.

Sincerely,



Eric T. Bennett  
General Manager, Flavor Manufacturing Apopka  
The Coca-Cola Company

CC: Mr. James Hitt, Community Development Director  
Ms. Lynne O'Brien, Director Corporate Real Estate  
Ms. Shannon Sellman, Director East Region PAC



# CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Annexation

MEETING OF: October 3, 2018  
 FROM: Community Development  
 EXHIBITS: Ordinance No. 2681  
 Annexation Case Table  
 Vicinity Map  
 Aerial Map

**SUBJECT: 2018 ANNEXATION – CYCLE 5**

**REQUEST: ORDINANCE NO. 2681 – FIRST READING – ANNEXATION OF PROPERTY OWNED BY CONSTRUESSE USA, INC., LOCATED AT 2600 ROCK SPRINGS ROAD, PARCEL I.D. 28-20-28-0000-00-024.**

**SUMMARY:**

OWNER: Construesse USA, Inc.  
 APPLICANT; Terra-Max Engineering, Inc.  
 LOCATION: 2600 Rock Springs Road  
 PARCEL ID NO.: 28-20-28-0000-00-024  
 EXISTING USE: Vacant  
 TRACT SIZE: 9.59 +/- acres

**FUNDING SOURCE: N/A**

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**ADDITIONAL COMMENTS:** Abutting current boundaries of the City of Apopka, the subject site is consistent with Florida Statutes addressing annexation of unincorporated lands into a municipality. The proposed annexation shall be on the basis of the existing County Future Land Use and Zoning Designations. Assignment of a City Future Land Use and Zoning designation will occur at a later date, and through action by the City Council.

**ORANGE COUNTY NOTIFICATION:** The JPA requires the City to notify Orange County 15 days prior to the first reading of any annexation ordinance. The City provided notification to the County on September 13, 2018.

**DULY ADVERTISED:**

September 21, 2018 (Apopka Chief)

September 28, 2018 (Apopka Chief)

**PUBLIC HEARING SCHEDULE:**

October 3, 2018 (1:30 PM) - City Council 1<sup>st</sup> Reading

October 17, 2018 (7:00 PM) - City Council 2<sup>nd</sup> Reading and Adoption

---

**RECOMMENDATION ACTION:**

The **Development Review Committee** recommends approval of the annexation for property owned by Construesse USA, Inc.

Accept the First Reading of Ordinance No. 2681, and Hold it Over for Second Reading and Adoption on October 17, 2018.

CITY OF APOPKA  
2018 ANNEXATION CYCLE # 5

TOTAL ACRES: 9.59 +/-

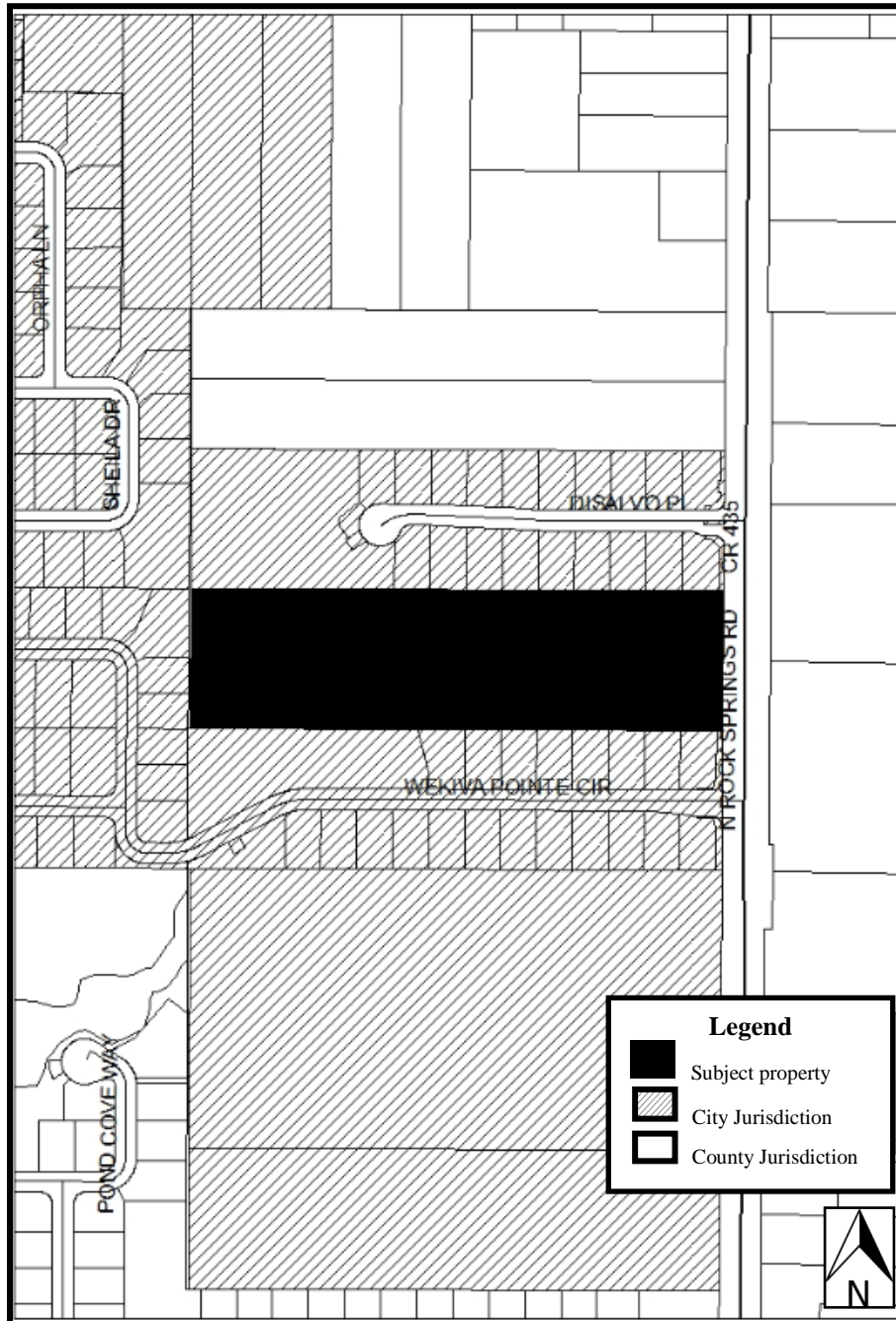
ORD. NO.	ITEM NO.	OWNER'S NAME	LOCATION	PARCEL ID NUMBER	ACRES +/-	EXISTING USE	FUTURE LAND USE (COUNTY)
2681	1	Construesse USA, Inc.	2600 Rock Springs Road	28-20-28-0000-00-024	9.59	Vacant	Low Density Residential



**ANNEXATION**  
**Construesse USA, Inc.**  
**2600 Rock Springs Road**

**Property Description:** N1/2 OF S1/2 OF SE1/4 OF NE1/4 (LESS E 50 FT FOR R/W) SEC 28-20-28  
**Parcel ID No.:** 28-20-28-0000-00-024  
**Total Acres:** 9.59 +/-

**Vicinity Map**



(THIS MAP IS FOR REFERENCE PURPOSES ONLY AND IS NOT TO SCALE)

### Aerial Map



**ORDINANCE NO. 2681**

**AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, TO EXTEND ITS TERRITORIAL AND MUNICIPAL LIMITS TO ANNEX PURSUANT TO FLORIDA STATUTE 171.044 THE HEREINAFTER DESCRIBED LANDS SITUATED AND BEING IN ORANGE COUNTY, FLORIDA, OWNED BY CONSTRUESSE USA, INC. AND LOCATED AT 2600 ROCK SPRINGS ROAD, PROVIDING FOR DIRECTIONS TO THE CITY CLERK, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.**

WHEREAS, Construesse USA, Inc. owner thereof, has petitioned the City Council of the City of Apopka, Florida, to annex the property located at 2600 Rock Springs Road; and

WHEREAS, Florida Statute 171.044 of the General Laws of Florida provide that a municipal corporation may annex property into its corporate limits upon voluntary petition of the owners, by passing and adopting a non-emergency ordinance to annex said property; and

WHEREAS, the City Council of the City of Apopka, Florida is desirous of annexing and redefining the boundaries of the municipality to include the subject property pursuant to Florida Statute 171.044.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Apopka, Florida, as follows:

SECTION I: That the following described properties, being situated in Orange County, Florida, totaling **9.59 +/- acres**, and graphically depicted by the attached Exhibit "A", is hereby annexed into the City of Apopka, Florida, pursuant to the voluntary annexation provisions of Chapter 171.044, Florida Statutes, and other applicable laws:

Property Description:

N1/2 OF S1/2 OF SE1/4 OF NE1/4 (LESS E 50 FT FOR R/W) SEC 28-20-28  
Parcel ID No.: 28-20-28-0000-00-024

SECTION II: That the corporate territorial limits of the City of Apopka, Florida, are hereby redefined to include said land herein described and annexed.

SECTION III: That the City Council will designate the land use classification and zoning category of these annexed lands in accordance with applicable City ordinances and State laws.

SECTION IV: That the land herein described and future inhabitants of the land herein described shall be liable for all debts and obligations and be subject to all species of taxation, laws, ordinances and regulations of the City.

SECTION V: That if any section or portion of a section or subsection of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or portion of a section or subsection or part of this ordinance.

**ORDINANCE NO. 2681**

**PAGE 2**

SECTION VI: That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION VII: That this ordinance shall take effect upon passage and adoption, thereafter the City Clerk is hereby directed to file this ordinance with the Clerk of the Circuit Court in and for Orange County, Florida; the Orange County Property Appraiser; and the Department of State of the State of Florida.

READ FIRST TIME: October 3, 2018

READ SECOND TIME  
AND ADOPTED: October 17, 2018

---

Bryan Nelson, Mayor

ATTEST:

---

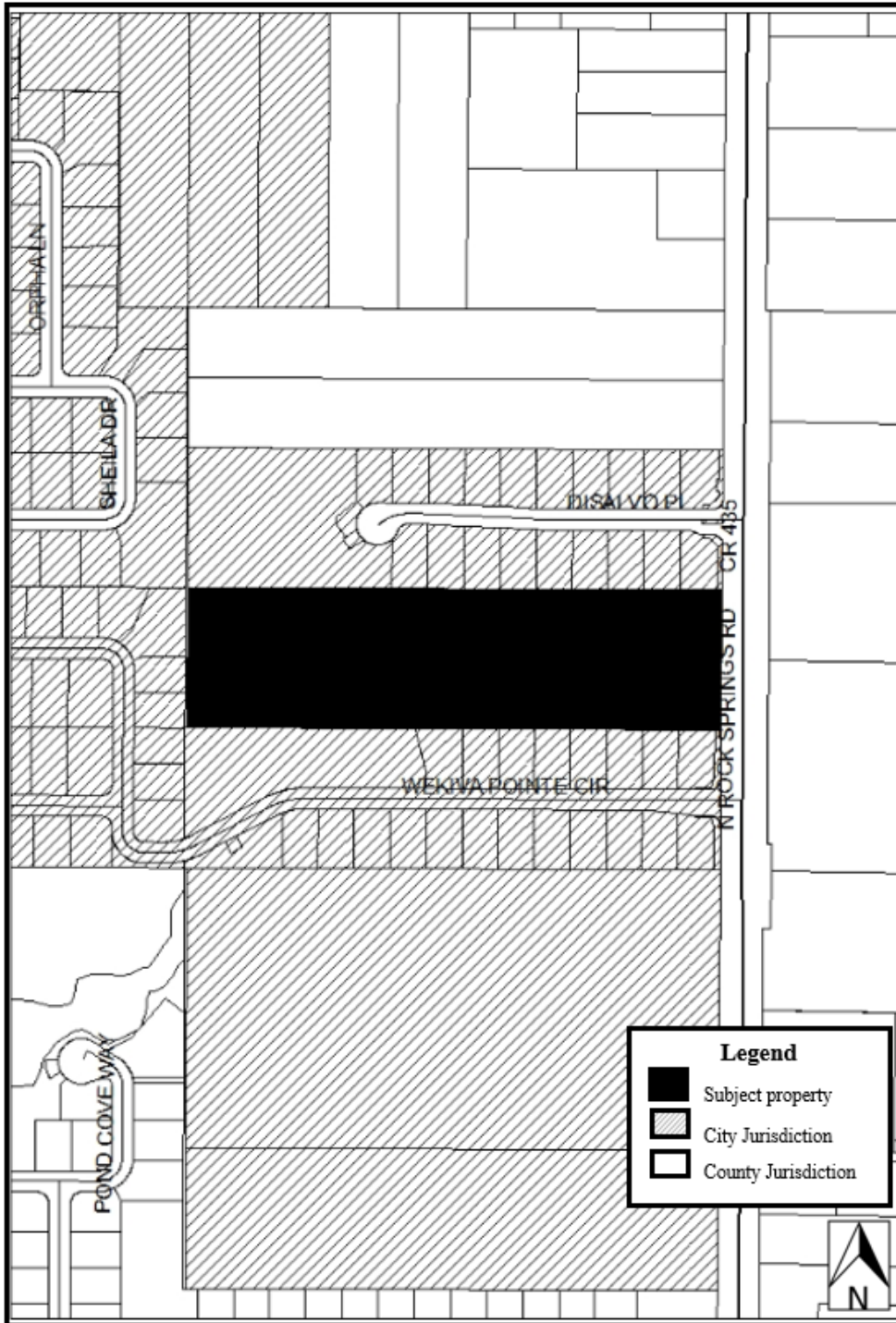
Linda Goff, City Clerk

DULY ADVERTISED FOR PUBLIC HEARING: September 21, 2018 and September 28, 2018

**ANNEXATION**  
**Construesse USA, Inc.**  
**2600 Rock Springs Road**

**Property Description:** N1/2 OF S1/2 OF SE1/4 OF NE1/4 (LESS E 50 FT FOR R/W) SEC 28-20-28  
**Parcel ID No.:** 28-20-28-0000-00-024  
**Total Acres:** 9.59 +/-

**VICINITY MAP**



(THIS MAP IS FOR REFERENCE PURPOSES ONLY AND IS NOT TO SCALE)



# CITY OF APOPKA CITY COUNCIL

CONSENT AGENDA  
 PUBLIC HEARING  
 SPECIAL REPORTS  
 OTHER:

MEETING OF: October 3, 2018  
FROM: Administration  
EXHIBITS: Resolution 2018-20  
Interlocal Agreement

**SUBJECT: INTERLOCAL AGREEMENT ON WASTE MANAGEMENT, INC. BONDS**

**REQUEST: ADOPT RESOLUTION NO. 2018-20 & HOLD A TEFRA HEARING TO GIVE PUBLIC NOTICE AS REQUIRED**

**SUMMARY:**

The City of Apopka is required, under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and under the provisions of Section 147(f) of the Internal Revenue Code of 1986, to hold a public hearing and provide approval for Waste Management, Inc. to accept Solid Waste Disposal Revenue Bonds.

Waste Management, Inc. has requested Miami-Dade County Industrial Development Authority to issue its Solid Waste Disposal Revenue Bonds in an aggregate principal amount not to exceed \$70,000,000 and Solid Waste Disposal Refunding Revenue Bonds in an aggregate principal amount not to exceed \$23,000,000. The Bonds to Waste Management, Inc. will finance and refinance solid waste disposal capital expenditures at various locations, including the City of Apopka. The solid waste facility in the City, located at 242 West Keene Road, would receive improvements from a portion of the proceeds of the Bonds. Therefore, the City, as a political jurisdiction, is required to hold a public TEFRA hearing with respect to the issuance of the Bonds and provide a reasonable opportunity for individuals to express their views on the bonds and how the funds will be allocated.

**The City will have absolutely no liability to pay principal of or interest on the Bonds and the issuance of the Bonds will have no financial impact on the City.** The Bonds will be limited obligations of the Authority, payable solely from the revenue derived from the Company and pledged to the payment of the Bonds.

**FUNDING SOURCE:**

N/A

**RECOMMENDATION ACTION:**

The recommended action is to approve Resolution No. 2018-20. Secondly, approve the Interlocal Agreement, which includes, but is not limited to the City’s consent to the use of Bond proceeds to finance the Apopka Project and authorize the Mayor or his designee to sign.

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

RESOLUTION NO. 2018-20

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF APOPKA, FLORIDA, APPROVING, PURSUANT TO SECTION 147(f) OF THE INTERNAL REVENUE CODE OF 1986, THE ISSUANCE OF NOT TO EXCEED \$70,000,000 MIAMI-DADE COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY SOLID WASTE DISPOSAL REVENUE BONDS (WASTE MANAGEMENT, INC. PROJECT), AND THE ISSUANCE OF NOT TO EXCEED \$23,000,000 SOLID WASTE DISPOSAL REFUNDING REVENUE BONDS (WASTE MANAGEMENT, INC. PROJECT), EACH ISSUED IN ONE OR MORE SERIES FOR PROJECTS IN VARIOUS LOCATIONS, INCLUDING THE CITY OF APOPKA, FLORIDA; PROVIDING CERTAIN OTHER MATTERS IN CONNECTION THEREWITH; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Miami Dade County Industrial Development Authority (the "Authority") has considered the application of Waste Management, Inc., a Delaware corporation, and/or one or more related and/or affiliated entities (collectively, the "Borrower"), which provides a full range of waste and environmental services to approximately 21 million municipal, commercial and industrial customers, and currently operates in a variety of locations in the State of Florida (the "State"), including Miami-Dade County, Florida and the City of Apopka, Florida (the "City"); and

WHEREAS, the Borrower is requesting the issuance of not to exceed \$70,000,000 Solid Waste Disposal Revenue Bonds (Waste Management, Inc. Project) (the "New Money Bonds") and not to exceed \$23,000,000 Solid Waste Disposal Refunding Revenue Bonds (Waste Management, Inc. Project) (the "Refunding Bonds", and together with the New Money Bonds, the "Bonds"), issued in one or more series; and

WHEREAS, the New Money Bonds are to be issued to provide funds for the financing of solid waste disposal capital expenditures for the Borrower at facilities located as set forth on Exhibit A hereto and the Refunding Bonds are to be issued to provide funds for the refinancing of solid waste disposal capital expenditures for the Borrower at facilities located as set forth on Exhibit A (collectively, the "Locations"), including one (1) in the City at 242 West Keene Road, City of Apopka, Florida (the "Apopka Facility" and together with the solid waste improvements financed thereon, the "Apopka Project"), and certain bond issuance costs (collectively, the "Project"); and

WHEREAS, the Authority desires to issue the Bonds and to allow the Apopka Project to be financed with a portion of the Bond proceeds; and

WHEREAS, Section 147(f) of the Internal Revenue Code of 1986, as amended (the "Code"), requires as a condition of exclusion from gross income for federal income tax

purposes of the interest on private activity bonds (as defined in Section 141(a) of the Code), that the issuance of private activity bonds, such as the Bonds, be approved after a public hearing following reasonable public notice, by the governmental unit having jurisdiction over the area in which the private activity bond-financed facility is located; and

WHEREAS, the City Council of the City (the "City Council") constitutes the elected legislative body of the City and the governmental unit having jurisdiction over the area in which the Apopka Project is located and must approve the issuance of the Bonds prior to issuance; and

WHEREAS, the City, on September 14, 2018, published a notice of a public hearing in *The Apopka Chief* (the "Newspaper"), a newspaper of general circulation in the City, to be held on October 3, 2018, at 1:30 p.m., in the City Council Chambers, City Hall, 120 East Main Street, Apopka, Florida, to consider the use of a portion of the Bond proceeds to finance the Apopka Project; and

WHEREAS, pursuant to Section 147(f) of the Code, the City Council has duly held such public hearing, following notice, as indicated by the affidavit of the publisher of the Newspaper attached hereto as Exhibit B, and now desires to approve the issuance of the Bonds to finance the Apopka Project; and

WHEREAS, the Authority has requested the City execute an interlocal agreement, in substantially the form attached hereto as Exhibit C, which includes, but is not limited to, the City's consent to the use of Bond proceeds to finance the Apopka Project; and

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF APOPKA:**

Section 1. The issuance by the Miami-Dade County Industrial Development Authority of its not to exceed \$70,000,000 Solid Waste Disposal Revenue Bonds (Waste Management, Inc. Project), and it not to exceed \$23,000,000 Solid Waste Disposal Refunding Revenue Bonds (Waste Management, Inc. Project), each issued in one or more series, to provide funds for the financing and refinancing of solid waste disposal capital expenditures for the Borrower at its various Locations, including the Apopka Project, is hereby approved pursuant to and in accordance with Section 147(f) of the Code.

Section 2. The Interlocal Agreement by and between the Authority and the City, in substantially the form attached hereto as Exhibit C, is approved, with such changes as shall be approved by the Mayor or Vice-Mayor of the City Council (the "Mayor"), and the Mayor is authorized to execute it on behalf of the City, to be attested and sealed by the Clerk of the City (the "Clerk"). Execution and delivery by the Mayor and attestation and seal by the Clerk shall constitute conclusive evidence of such officers' approval and the approval of the Interlocal Agreement in final form.

Section 3. Such approval by the City Council does not constitute an endorsement to a prospective purchaser of the Bonds of the credit worthiness of the Borrower or the Project, and the



Bonds shall not constitute an indebtedness or obligation of the City, the State or of any county, municipal corporation or any other political subdivision thereof, but the Bonds shall be limited obligations of the Authority payable solely from the revenue derived from the Borrower and pledged to the payment thereof, and no owner of any of the Bonds shall ever have the right to compel any exercise of the taxing power of the State or of any county, municipal corporation or political subdivision thereof, nor to enforce the payment thereof against any property of the State or of any such county, municipal corporation or any other political subdivision.

Section 4. All acts and doing of the officers and Commissioners of the City Council, which are in conformity with the purposes and intent of this Resolution, shall be, and the same hereby are, in all respects approved and confirmed.

Section 5. This resolution shall take effect immediately upon its passage and adoption.  
ADOPTED this 3<sup>rd</sup> day of October 2018.

CITY OF APOPKA, FLORIDA

\_\_\_\_\_  
Bryan Nelson, Mayor

ATTEST:

\_\_\_\_\_  
Linda F. Goff, City Clerk

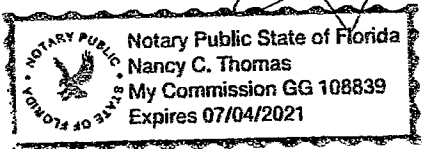
**PUBLISHER'S AFFIDAVIT OF PUBLICATION**  
 STATE OF FLORIDA  
 COUNTY OF ORANGE

Before the undersigned, personally appeared JOHN E. RICKETSON who is personally known to me and who on oath says he is PUBLISHER of THE APOPKA CHIEF, a weekly newspaper published at Apopka, in Orange County, Florida, that the attached copy of advertisement was published in said newspaper in the issues of: **September 14, 2018**, as well as being posted online at [www.theapokkachief.com](http://www.theapokkachief.com) and [www.floridapublicnotices.com](http://www.floridapublicnotices.com)

Affiant further says that the said APOPKA CHIEF is a newspaper published at Apopka, in said Orange County, Florida, and that said newspaper has heretofore been continuously published in said Orange County, Florida, each week and has been entered as periodical\* class mail matter (\*second class as renamed by USPS 7/1/96) at the post office in Apopka, in said Orange County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any discount, rebate commission or refund for the purpose of securing this advertisement for publication in said newspaper.

*John E. Ricketson*  
 Sworn and subscribed before me this  
**14 day of September, 2018**, by John E. Ricketson,  
 who is personally known to me.

*Nancy C. Thomas*  
 Nancy C. Thomas  
 Notary Public, State of Florida  
 My Commission GG 108839  
 Expires July 04, 2021



The Miami-Dade County Industrial Development Authority (the "Authority") has been requested to issue its Solid Waste Disposal Revenue Bonds (Waste Management Inc. Project), in one or more series in an aggregate principal amount not to exceed \$70,000,000 (the "New Money Bonds"), the proceeds of which will provide financing for (i) solid waste disposal capital expenditures in the City of Apopka, Florida (the "City") and other jurisdictions located throughout the State of Florida and (ii) to pay for certain bond issuance costs (collectively, the "2018 Project"). The 2018 Project will be financed as part of an ongoing plan of financing for the 2018 Project and will be owned and operated by Waste Management, Inc., a Delaware corporation, and/or one or more related and/or affiliated entities (collectively, the "Company").

The 2018 Project consists of financing and refinancing, including through reimbursement, (a) improvements to existing landfill facilities, including improvements to permitted landfill facilities, including but not limited to (i) construction of new disposal cells and liners within currently permitted acreage, (ii) additions and improvements to the leachate collection and treatment system, including leachate trenching, (iii) additions and improvements to the methane gas system, (iv) installation of new liners for intermittent and final closure of completed sections of the landfill facilities, (v) site improvements, (vi) building construction; and (vii) acquisition of equipment to be used at the landfill facilities, (b) improvements to existing collection (hauling) and transfer station facilities, including (i) acquisition of solid waste disposal trucks and support vehicles, (ii) acquisition of solid waste disposal containers and related equipment, (iii) acquisition of solid waste sorting and processing equipment, (iv) site improvements and (v) building construction, and (c) acquisition of other equipment and assets necessary to support the foregoing improvements and to place them in to service. The 2018 Project locations are at existing facilities, owned or managed by the Company. The addresses and expected aggregate principal amounts of the New Money Bonds to be issued to finance improvements at each location are as follows:

Address	Amount
1. 2700 Wiles Road, Pompano Beach, Florida	\$29,000,000
2. 14415 County Road 39, Duette, Florida	\$10,000,000
3. 9350 NW 89th Avenue, Medley, Florida	\$8,500,000
4. 10800 NE 128th Avenue, Okeechobee, Florida	\$14,000,000
5. 242 Keene Road West, Apopka, Florida	\$5,000,000
6. 1940 East State Road 78 NW, Moore Haven, Florida	\$3,500,000

The Authority has also been requested to issue its Solid Waste Disposal Refunding Revenue Bonds (Waste Management Inc. Project), in one or more series in an aggregate principal amount not to exceed \$23,000,000 (the "Refunding Bonds" and together with the New Money Bonds, the "Bonds"), the proceeds of the various series of which will provide refinancing for (i) solid waste disposal capital expenditures in the City and other jurisdictions located throughout the State of Florida (shown below), and (ii) to pay for certain bond issuance costs (collectively, the "Refunding Project" and together with the 2018 Project, the "Project").

The Refunding Project will be refinanced and will be owned and operated by the Company. The Refunding Project consists of refinancing (a) improvements to permitted landfill facilities, including but not limited to (i) construction of disposal cells and liners within currently permitted acreage, (ii) additions and improvements to the leachate collection and treatment system, including leachate trenching, (iii) additions and improvements to the methane gas system, (iv) installation of liners for intermittent and final closure of completed sections of the landfill facilities, (v) site improvements, (vi) building construction; and (vii) acquisition of equipment to be used at the landfill facilities, (b) improvements to existing collection (hauling) and transfer station facilities, including (i) acquisition of solid waste disposal trucks and support vehicles, (ii) acquisition of solid waste disposal containers and related equipment, (iii) acquisition of solid waste sorting and processing equipment, (iv) site improvements and (v) building construction, (c) acquisition of other equipment and assets necessary to support the foregoing improvements and to place them in to service. The Refunding Project is being refinanced through the refunding of all or a portion of the Miami Dade County Industrial Development Authority Solid Waste Disposal Revenue Bonds (Waste Management, Inc. Project), Series 2004. The Refunding Project locations are at existing facilities and are owned or managed by the Company. The addresses and expected aggregate principal amounts of Refunded Project expenditures from the Refunding Bonds to be issued to refinance improvements at each location are as follows:

Address	Not to Exceed Amount
1. 5000 NW 37th Avenue, Hialeah, Florida	\$ 1,000,000
2. 9350 NW 89th Avenue, Medley, Florida	\$ 7,500,000
3. 8801 NW 91st Street, Medley, Florida	\$ 2,938,000
4. 3831 NW 21st Avenue, Pompano Beach, Florida	\$ 1,560,000
5. 2700 Wiles Road, Pompano Beach, Florida	\$ 9,960,000
6. 20701 Pembroke Road, Pembroke Pines, Florida	\$ 42,000

The Bonds shall not be a debt, liability or obligation of the Authority or the City or of the State of Florida, or of any political subdivision thereof, but shall be payable solely from payments derived from the Company and its operation of the facilities or the security instruments for the Bonds.

Please take note that the City Council of the City will hold a public hearing on the Project, its nature and location and associated issues regarding the Bonds in the City Council Chambers, City Hall, 120 East Main Street, Apopka, Florida 32703, on Wednesday, October 3, 2018, commencing at 1:30 p.m. or shortly thereafter, at which time any person may be heard regarding the proposed issuance of said Bonds and the Project.

**Publish: The Apopka Chief**  
**September 14, 2018**

Once recorded please return to: Grace E. Dunlap, Esq.  
Bryant Miller Olive  
One Tampa City Center, Suite 2700  
Tampa, Florida 33602

### INTERLOCAL AGREEMENT

THIS INTERLOCAL AGREEMENT, dated as of \_\_\_\_\_, 2018 (the "Agreement"), is by and between Miami-Dade County Industrial Development Authority (the "Issuer"), an industrial development authority created and existing under the laws and Constitution of the State of Florida (the "State"), and the City of Apopka, Florida (the "City"), a municipal corporation of the State with powers under Chapter 166, Florida Statutes, and is to be effective upon the filing hereof with the Clerk of the Circuit Court for Miami-Dade County, Florida and with the Clerk of the Circuit Court for Orange County, Florida as provided in Section 7 below.

### RECITALS

Waste Management, Inc., a Delaware corporation, and/or one or more related and/or affiliated entities (the "Borrower"), has requested the issuance of not to exceed \$70,000,000 Solid Waste Disposal Revenue Bonds (Waste Management Inc. Project) and not to exceed \$23,000,000 Solid Waste Disposal Refunding Revenue Bonds (Waste Management Inc. Project) (collectively, the "Bonds") and loan the proceeds from the sale thereof to the Borrower for the principal purpose of financing and refinancing the costs of improving certain existing solid waste facilities, all as described in Exhibit A to this Agreement (collectively, the "Project").

Various portions of the Project is located outside of the geographic boundaries of Miami-Dade County, Florida, the Issuer's area of jurisdiction, and a portion is located in the City, as further described in Exhibit A. According to representations of the Borrower, no portion of the Project has been financed with revenue bonds previously issued by the City.

It is necessary that the Issuer and the City enter into this Interlocal Agreement in order to enable the Issuer to issue the Bonds to finance and refinance the Project and thereby assist the Borrower.

The Bonds shall not be an obligation of the City and neither the City nor any other political subdivision of the State nor any agency thereof, other than the Issuer, shall in any way be obligated to pay the principal of, premium, if any, or interest on the Bonds as the same become due and the Bonds shall be limited obligations of the Issuer, payable solely from funds provided by the Borrower for that purpose, and the issuance of the Bonds shall not directly, indirectly or contingently obligate the Issuer to use any Issuer funds, other than funds provided by the Borrower for their payment.

In consideration of the mutual agreements contained in this Agreement and upon the further consideration of the recitals set forth above, the Issuer and the City agree as follows:

Section 1. Should the Issuer determine to do so, the Issuer may issue the Bonds for the benefit of the Borrower to finance and refinance the Project notwithstanding that a portion of the Project is located in the City and not within the Issuer's area of jurisdiction.

Section 2. This Interlocal Agreement shall in no way be interpreted as a delegation or abrogation of any powers of the City concerning the Project, including but not limited to zoning, building, land use or any other powers that the City would have in the absence of this Interlocal Agreement, the sole purpose of the Interlocal Agreement being to enable the Issuer to participate in the financing and refinancing of the Project as described herein.

Section 3. Neither the provisions, covenants or agreements contained in this Interlocal Agreement, nor the Bonds issued pursuant to this Interlocal Agreement shall constitute an indebtedness, liability or pledge of the faith and credit of the City. The issuance of the Bonds pursuant to this Interlocal Agreement shall not directly, indirectly or contingently obligate the City to levy or to pledge any form of taxation whatsoever thereof, or to make any appropriation for their payment.

Section 4. No covenant or agreement contained in this Interlocal Agreement shall be deemed to be a covenant or agreement of any member, officer, agent or employee of the City or the Issuer in his or her individual capacity, and no member, officer, agent or employee of the City or the Issuer shall be liable personally on this Interlocal Agreement or be subject to any personal liability or accountability by reason of the execution of this Interlocal Agreement.

Section 5. This Interlocal Agreement is being delivered and is intended to be performed in the State, and shall be construed and enforced in accordance with, and the rights of the parties shall be governed by the laws of the State. Venue for any legal action related to this Interlocal Agreement shall be in Orange, County, Florida.

Section 6. This Interlocal Agreement does not obligate the Issuer to issue the Bonds.

Section 7. Upon execution hereof by the Issuer and the City, the Issuer shall cause this Interlocal Agreement to be filed with the Clerk of the Circuit Court for Miami-Dade County, Florida and with the Clerk of the Circuit Court for Orange County, Florida as provided in Section 163.01(11), Florida Statutes.

[Signatures appear on following pages]

IN WITNESS WHEREOF, the parties have entered into this Interlocal Agreement as of the day and year first written above.

**MIAMI-DADE COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY**

(SEAL)

By: \_\_\_\_\_  
Robert Pelaez, Chairman

ATTEST:

\_\_\_\_\_  
James D. Wagner, Jr., Secretary  
Ex Officio

STATE OF FLORIDA            )  
  ) ss:  
COUNTY OF MIAMI-DADE )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of September, 2018, by Robert Pelaez, Chairman, and by James D. Wagner, Jr., Secretary Ex Officio, of the Miami-Dade County Industrial Development Authority. They are personally known to me or have produced \_\_\_\_\_ and \_\_\_\_\_, respectively, as identification.

\_\_\_\_\_  
Notary Public - State of Florida

My Commission Expires:

[Signatures continue on following page]

CITY OF APOPKA, FLORIDA

By: \_\_\_\_\_  
Bryan Nelson, Mayor  
City of Apopka

(SEAL)

ATTEST:

By: \_\_\_\_\_  
Linda F. Goff, City Clerk

## EXHIBIT A

### DESCRIPTION OF THE PROJECT

A portion of the Project (the "2018 Project") consists of financing and refinancing, including through reimbursement, (a) improvements to existing landfill facilities, including (a) improvements to permitted landfill facilities, including but not limited to (i) construction of new disposal cells and liners within currently permitted acreage, (ii) additions and improvements to the leachate collection and treatment system, including leachate trenching, (iii) additions and improvements to the methane gas system, (iv) installation of new liners for intermittent and final closure of completed sections of the landfill facilities, (v) site improvements, (vi) building construction; and (vii) acquisition of equipment to be used at the landfill facilities, (b) improvements to existing collection (hauling) and transfer station facilities, including (i) acquisition of solid waste disposal trucks and support vehicles, (ii) acquisition of solid waste disposal containers and related equipment, (iii) acquisition of solid waste sorting and processing equipment, (iv) site improvements and (v) building construction, and (c) acquisition of other equipment and assets necessary to support the foregoing improvements and to place them into service. The 2018 Project locations are at existing facilities, owned or managed by the Borrower as follows:

1. 2700 Wiles Road, Pompano Beach, Florida
2. 14415 County Road 39, Duette, Florida
3. 9350 NW 89<sup>th</sup> Avenue, Medley, Florida
4. 10800 NE 128<sup>th</sup> Avenue, Okeechobee, Florida
5. 242 Keene Road West, Apopka, Florida
6. 1940 East State Road 78 NW, Moore Haven, Florida

A portion of the Project (the "Refunding Projects") consist of refinancing (a) improvements to permitted landfill facilities, including but not limited to (i) construction of disposal cells and liners within currently permitted acreage, (ii) additions and improvements to the leachate collection and treatment system, including leachate trenching, (iii) additions and improvements to the methane gas system, (iv) installation of liners for intermittent and final closure of completed sections of the landfill facilities, (v) site improvements, (vi) building construction; and (vii) acquisition of equipment to be used at the landfill facilities, (b) improvements to existing collection (hauling) and transfer station facilities, including (i) acquisition of solid waste disposal trucks and support vehicles, (ii) acquisition of solid waste disposal containers and related equipment, (iii) acquisition of solid waste sorting and processing equipment, (iv) site improvements and (v) building construction, and (c) acquisition of other equipment and assets necessary to support the foregoing improvements and to place them in to service.

The Refunding Projects are being refinanced through the refunding of all or a portion of the Miami-Dade County Industrial Development Authority Solid Waste Disposal Revenue Bonds (Waste Management Inc. of Florida Project), Series 2004. The Refunding Projects are located at existing facilities and are owned or managed by the Company. The locations where the Refunding Projects are located are:

1. 8801 NW 91<sup>st</sup> Street, Medley, Florida
2. 9350 NW 89<sup>th</sup> Avenue, Medley, Florida
3. 3831 NW 21<sup>st</sup> Avenue, Pompano Beach, Florida
4. 2700 Wiles Road, Pompano Beach, Florida
5. 20701 Pembroke Road, Pembroke Pines, Florida
6. 5000 NW 37<sup>th</sup> Avenue, Hialeah, Florida



**APPROVAL AND ACKNOWLEDGMENT OF WASTE MANAGEMENT INC.**

In consideration of the sum of \$10.00 together with other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, Waste Management Inc., a Delaware corporation (the "Borrower"), by and through its undersigned authorized officer, hereby approves the Interlocal Agreement to which this document is attached and, by causing this Approval and Acknowledgment to be executed by its proper officer and its seal to be affixed hereto all as of the date of said Interlocal Agreement, hereby agrees as follows:

The fees and expenses of the City of Apopka, Florida (the "City") shall be paid by the Borrower in the manner and to the extent mutually agreed upon by the officials of the City and the Borrower at or prior to issuance of the Bonds.

The Borrower agrees to indemnify and hold harmless the City, and its respective officers, employees and agents, from and against any and all losses, claims, damages, liabilities or expenses, of every conceivable kind, character and nature whatsoever (including reasonable fees and expenses of attorneys, accountants, consultants and other experts) arising out of, resulting from, or in any way connected with the Interlocal Agreement or the issuance of the Bonds, other than any such losses, damages, liabilities or expenses arising from the willful misconduct of the City.

Capitalized terms used herein and not defined herein shall have the meanings given such terms in the Interlocal Agreement to which this document is attached.

WASTE MANAGEMENT INC., a Delaware Corporation

(SEAL)

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_

[Notary's acknowledgment appears on following page]

STATE OF \_\_\_\_\_ )  
 ) ss:  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by \_\_\_\_\_, the \_\_\_\_\_ of Waste Management, Inc., on behalf of said corporation. He/she is personally known to me or has produced \_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public - State of \_\_\_\_\_

My Commission Expires:

SCHEDULE II – NOTICE OF PUBLIC HEARING

THE CITY OF APOPKA, FLORIDA CITY COUNCIL  
TEFRA/PUBLIC HEARING

The Miami-Dade County Industrial Development Authority (the "Authority") has been requested to issue its Solid Waste Disposal Revenue Bonds (Waste Management Inc. Project), in one or more series in an aggregate principal amount not to exceed \$70,000,000 (the "New Money Bonds"), the proceeds of which will provide financing for (i) solid waste disposal capital expenditures in the City of Apopka, Florida (the "City") and other jurisdictions located throughout the State of Florida and (ii) to pay for certain bond issuance costs (collectively, the "2018 Project"). The 2018 Project will be financed as part of an ongoing plan of financing for the 2018 Project and will be owned and operated by Waste Management, Inc., a Delaware corporation, and/or one or more related and/or affiliated entities (collectively, the "Company").

The 2018 Project consists of financing and refinancing, including through reimbursement, (a) improvements to existing landfill facilities, including (a) improvements to permitted landfill facilities, including but not limited to (i) construction of new disposal cells and liners within currently permitted acreage, (ii) additions and improvements to the leachate collection and treatment system, including leachate trenching, (iii) additions and improvements to the methane gas system, (iv) installation of new liners for intermittent and final closure of completed sections of the landfill facilities, (v) site improvements, (vi) building construction; and (vii) acquisition of equipment to be used at the landfill facilities, (b) improvements to existing collection (hauling) and transfer station facilities, including (i) acquisition of solid waste disposal trucks and support vehicles, (ii) acquisition of solid waste disposal containers and related equipment, (iii) acquisition of solid waste sorting and processing equipment, (iv) site improvements and (v) building construction, and (c) acquisition of other equipment and assets necessary to support the foregoing improvements and to place them in to service. The 2018 Project locations are at existing facilities, owned or managed by the Company. The addresses and expected aggregate principal amounts of the New Money Bonds to be issued to finance improvements at each location are as follows:

Address	Amount
1. 2700 Wiles Road, Pompano Beach, Florida	\$29,000,000
2. 14415 County Road 39, Duette, Florida	\$10,000,000
3. 9350 NW 89 <sup>th</sup> Avenue, Medley, Florida	\$8,500,000
4. 10800 NE 128 <sup>th</sup> Avenue, Okeechobee, Florida	\$14,000,000
5. 242 Keene Road West, Apopka, Florida	\$5,000,000
6. 1940 East State Road 78 NW, Moore Haven, Florida	\$3,500,000

The Authority has also been requested to issue its Solid Waste Disposal Refunding Revenue Bonds (Waste Management Inc. Project), in one or more series in an aggregate principal amount not to exceed \$23,000,000 (the "Refunding Bonds" and

together with the New Money Bonds, the "Bonds"), the proceeds of the various series of which will provide refinancing for (i) solid waste disposal capital expenditures in the City and other jurisdictions located throughout the State of Florida (shown below), and (ii) to pay for certain bond issuance costs (collectively, the "Refunding Project" and together with the 2018 Project, the "Project").

The Refunding Project will be refinanced and will be owned and operated by the Company. The Refunding Project consists of refinancing (a) improvements to permitted landfill facilities, including but not limited to (i) construction of disposal cells and liners within currently permitted acreage, (ii) additions and improvements to the leachate collection and treatment system, including leachate trenching, (iii) additions and improvements to the methane gas system, (iv) installation of liners for intermittent and final closure of completed sections of the landfill facilities, (v) site improvements, (vi) building construction; and (vii) acquisition of equipment to be used at the landfill facilities, (b) improvements to existing collection (hauling) and transfer station facilities, including (i) acquisition of solid waste disposal trucks and support vehicles, (ii) acquisition of solid waste disposal containers and related equipment, (iii) acquisition of solid waste sorting and processing equipment, (iv) site improvements and (v) building construction, (c) acquisition of other equipment and assets necessary to support the foregoing improvements and to place them in to service. The Refunding Project is being refinanced through the refunding of all or a portion of the Miami Dade County Industrial Development Authority Solid Waste Disposal Revenue Bonds (Waste Management, Inc. Project), Series 2004. The Refunding Project locations are at existing facilities and are owned or managed by the Company. The addresses and expected aggregate principal amounts of Refunded Project expenditures from the Refunding Bonds to be issued to refinance improvements at each location are as follows:

Address	Not to Exceed Amount
1. 5000 NW 37 <sup>th</sup> Avenue, Hialeah, Florida	\$ 1,000,000
2. 9350 NW 89 <sup>th</sup> Avenue, Medley, Florida	\$ 7,500,000
3. 8801 NW 91 <sup>st</sup> Street, Medley, Florida	\$ 2,938,000
4. 3831 NW 21st Avenue, Pompano Beach, Florida	\$ 1,560,000
5. 2700 Wiles Road, Pompano Beach, Florida	\$ 9,960,000
6. 20701 Pembroke Road, Pembroke Pines, Florida	\$ 42,000

The Bonds shall not be a debt, liability or obligation of the Authority or the City or of the State of Florida, or of any political subdivision thereof, but shall be payable solely from payments derived from the Company and its operation of the facilities or the security instruments for the Bonds.

Please take note that the City Council of the City will hold a public hearing on the Project, its nature and location and associated issues regarding the Bonds in the City

Council Chambers, City Hall, 120 East Main Street, Apopka, Florida, on Wednesday, October 3, 2018, commencing at 1:30 p.m. or shortly thereafter, at which time any person may be heard regarding the proposed issuance of said Bonds and the Project.

## EXHIBIT A

### LOCATIONS OF THE PROJECT

#### PROJECTS FINANCED WITH NEW MONEY BONDS

1. 2700 Wiles Road, Pompano Beach, Florida
2. 14415 County Road 39, Duette, Florida
3. 9350 NW 89<sup>th</sup> Avenue, Medley, Florida
4. 10800 NE 128<sup>th</sup> Avenue, Okeechobee, Florida
5. 242 Keene Road West, Apopka, Florida
6. 1940 East State Road 78 NW, Moore Haven, Florida

#### PROJECTS REFINANCED WITH REFUNDING BONDS

1. 5000 NW 37<sup>th</sup> Avenue, Hialeah, Florida
2. 8801 NW 91<sup>st</sup> Street, Medley, Florida
3. 9350 NW 89<sup>th</sup> Avenue, Medley, Florida
4. 3831 NW 21<sup>st</sup> Avenue, Pompano Beach, Florida
5. 2700 Wiles Road, Pompano Beach, Florida
6. 20701 Pembroke Road, Pembroke Pines, Florida

**EXHIBIT B**

**AFFIDAVIT OF PUBLICATION OF NOTICE OF HEARING**

[Follows]



EXHIBIT C

FORM OF INTERLOCAL AGREEMENT

[Follows]



# CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Resolution No. 2018-21

MEETING OF: October 3, 2018  
FROM: Fire Department  
EXHIBITS: Agreement

---

**SUBJECT: STATEWIDE MUTUAL AID AGREEMENT FOR CATASTROPHIC DISASTER RESPONSE AND RECOVERY.**

**REQUEST: ADOPT RESOLUTION NO. 2018-21**

---

**SUMMARY:**

The Emergency Management Act, Chapter 252, provides each local government of the state the authority to develop and enter into mutual aid agreements within the state for reciprocal emergency aid and assistance in case of emergencies too extensive to be dealt with unassisted. The agreement will ensure the timely reimbursement of costs incurred by the local governments which render such assistance.

Pursuant to Chapter 252, the City of Apopka may enter into this agreement with the Florida Emergency Management Division, who has the authority to coordinate assistance between local governments during emergencies and to concentrate available resources when needed.

---

**FUNDING SOURCE:**

N/A

---

**RECOMMENDATION ACTION:**

Adopt Resolution No. 2018-21

---

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief

**RESOLUTION NO. 2018-21**

**A RESOLUTION OF THE CITY OF APOPKA, FLORIDA,  
APPROVING ENTERING INTO A STATEWIDE  
MUTUAL AID AGREEMENT FOR CATASTROPHIC  
DISASTER RESPONSE AND RECOVERY.**

WHEREAS, the State of Florida Emergency Management Act, Chapter 252, Florida Statutes, authorizes the State and its political subdivisions to enter into mutual aid agreements to provide emergency aid and assistance in the event of a disaster or emergency; and

WHEREAS, the statutes also authorize the State to coordinate the provision of any equipment, services, or facilities owned or organized by the State or its political subdivisions for use in the affected area upon the request of the duly constituted authority of the area; and

WHEREAS, this Resolution authorizes the request, provision, and receipt of interjurisdictional mutual assistance in accordance with the Emergency Management Act, Chapter 252, Florida Statutes, among political subdivisions within the State.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF APOPKA, FLORIDA AS FOLLOWS:

Section 1: On the \_\_\_\_ day of \_\_\_\_\_, 2018, in order to maximize the prompt, full and effective use of resources of all participating governments in the event of an emergency or disaster we hereby adopt the Statewide Mutual Aid Agreement, Exhibit A, which is attached hereto and incorporated by reference.

PASSED AND ADOPTED THIS \_\_\_\_ day of \_\_\_\_\_, 2018.

\_\_\_\_\_  
**Bryan Nelson, Mayor**

**ATTEST:**

\_\_\_\_\_  
**Linda F. Goff, City Clerk**



STATE OF FLORIDA

## DIVISION OF EMERGENCY MANAGEMENT

RICK SCOTT  
Governor

WESLEY MAUL  
Director

### STATEWIDE MUTUAL AID AGREEMENT

This Agreement is between the FLORIDA DIVISION OF EMERGENCY MANAGEMENT (“Division”) and the local government signing this Agreement (the “Participating Parties”). This agreement is based on the existence of the following conditions:

A. The State of Florida is vulnerable to a wide range of disasters that are likely to cause the disruption of essential services and the destruction of the infrastructure needed to deliver those services.

B. Such disasters are likely to exceed the capability of any one local government to cope with the emergency with existing resources.

C. Such disasters may also give rise to unusual technical needs that the local government may be unable to meet with existing resources, but that other local governments may be able to offer.

D. The Emergency Management Act, Chapter 252, provides each local government of the state the authority to develop and enter into mutual aid agreements within the state for reciprocal emergency aid and assistance in case of emergencies too extensive to be dealt with unassisted, and through such agreements to ensure the timely reimbursement of costs incurred by the local governments which render such assistance.

E. Pursuant to Chapter 252, the Division has the authority to coordinate assistance between local governments during emergencies and to concentrate available resources where needed.

Based on the existence of the foregoing conditions, the parties agree to the following:

#### ARTICLE I.

**Definitions.** As used in this Agreement, the following expressions shall have the following meanings:

A. The “Agreement” is this Agreement, which shall be referred to as the Statewide Mutual Aid Agreement (“SMAA”).

B. The “Division” is the Division of Emergency Management

C. The “Participating Parties” to this Agreement are the Division and any and all special districts, educational districts, and other local and regional governments signing this Agreement.

D. The “Requesting Parties” to this Agreement are Participating Parties who request assistance during an emergency.

E. The “Assisting Parties” to this Agreement are Participating Parties who render assistance in an emergency to a Requesting Party.

F. The “State Emergency Operations Center” is the facility designated by the State Coordinating Officer to manage and coordinate assistance to local governments during an emergency.

G. The “Comprehensive Emergency Management Plan” is the biennial Plan issued by the Division in accordance with § 252.35(2)(a), Florida Statutes.

H. The “State Coordinating Officer” is the official whom the Governor designates, by Executive Order, to act for the Governor in responding to a disaster, and to exercise the powers of the Governor in accordance with the Executive Order, Chapter 252, Florida Statutes, and the State Comprehensive Emergency Management Plan.

I. The “Period of Assistance” is the time during which any Assisting Party renders assistance to any Requesting Party in an emergency, and shall include both the time necessary for the resources and personnel of the Assisting Party to travel to the place specified by the Requesting Party and the time necessary to return them to their place of origin or to the headquarters of the Assisting Party.

J. A “special district” is any local or regional governmental entity which is an independent special district within the meaning of section 189.012(3), Florida Statutes, regardless of whether established by local, special, or general act, or by rule, ordinance, resolution, or interlocal agreement.

K. An “educational district” is any school district within the meaning of section 1001.30, Florida Statutes and any community school and state university within the meaning of section 1000.21, Florida Statutes.

L. An “interlocal agreement” is any agreement between local governments within the meaning of section 163.01(3)(a), Florida Statutes.

M. A “local government” is any educational district or any entity that is a “local governmental entity” within the meaning of section 11.45(1)(e), Florida Statutes.

N. Any expressions not assigned definitions elsewhere in this Agreement shall have the definitions assigned them by the Emergency Management Act.

## ARTICLE II.

**Applicability of the Agreement.** A Participating Party may request assistance under this Agreement for a “major” or “catastrophic disaster” as defined in section 252.34, Florida Statutes. If the Participating Party has no other mutual aid agreement that covers a “minor” disaster or other emergencies too extensive to be dealt with unassisted, it may also invoke assistance under this Agreement for a “minor disaster” or other such emergencies.

## ARTICLE III.

**Invocation of the Agreement.** In the event of an emergency or threatened emergency, a Participating Party may invoke assistance under this Agreement by requesting it from any other Participating Party, or from the Division if, in the judgment of the Requesting Party, its own resources are inadequate to meet the emergency.

A. Any request for assistance under this Agreement may be oral, but within five (5) calendar days must be confirmed in writing by the County Emergency Management Agency of the Requesting Party, unless the State Emergency Operations Center has been activated in response to the emergency for which assistance is requested.

B. All requests for assistance under this Agreement shall be transmitted by County Emergency Management Agency of the Requesting Party to either the Division, or to another Participating Party. If the Requesting Party transmits its request for Assistance directly to a Participating Party other than the Division, the Requesting Party and Assisting Party shall keep the Division advised of their activities.

C. The Division shall relay any requests for assistance under this Agreement to such other Participating Parties as it may deem appropriate, and shall coordinate the activities of the Assisting Parties so as to ensure timely assistance to the Requesting Party. All such activities shall be carried out in accordance with the State's Comprehensive Emergency Management Plan.

D. Nothing in this Agreement shall be construed to allocate liability for the costs of personnel, equipment, supplies, services and other resources that are staged by the Division, or by other agencies of the State of Florida, for use in responding to an emergency pending the assignment of such personnel, equipment, supplies, services and other resources to an emergency support function/mission. The documentation, payment, repayment, and reimbursement of all such costs shall be rendered in accordance with the Comprehensive Emergency Management Plan, and general accounting best practices procedures and protocols.

#### ARTICLE IV.

**Responsibilities of Requesting Parties.** To the extent practicable, all Requesting Parties seeking assistance under this Agreement shall provide the following information to the Division and the other Participating Parties. In providing such information, the Requesting Party may use Form B attached to this Agreement, and the completion of Form B by the Requesting Party shall be deemed sufficient to meet the requirements of this Article:

A. A description of the damage sustained or threatened;

B. An identification of the specific Emergency Support Function or Functions for which such assistance is needed;

C. A description of the specific type of assistance needed within each Emergency Support Function;

D. A description of the types of personnel, equipment, services, and supplies needed for each specific type of assistance, with an estimate of the time each will be needed;

E. A description of any public infrastructure for which assistance will be needed;

F. A description of any sites or structures outside the territorial jurisdiction of the Requesting Party needed as centers to stage incoming personnel, equipment, supplies, services, or other resources;

G. The place, date and time for personnel of the Requesting Party to meet and receive the personnel and equipment of the Assisting Party; and

H. A technical description of any communications or telecommunications equipment needed to ensure timely communications between the Requesting Party and any Assisting Parties.

#### **ARTICLE V.**

**Responsibilities of Assisting Parties.** Each Participating Party shall render assistance under this Agreement to any Requesting Party to the extent practicable that its personnel, equipment, resources and capabilities can render assistance. If a Participating Party which has received a request for assistance under this Agreement determines that it has the capacity to render some or all of such assistance, it shall provide the following information to the Requesting Party and shall transmit it without delay to the Requesting Party and the Division. In providing such information, the Assisting Party may use Form B attached to this Agreement, and the completion of Form B by the Assisting Party shall be deemed sufficient to meet the requirements of this Article:

A. A description of the personnel, equipment, supplies and services it has available, together with a description of the qualifications of any skilled personnel;

B. An estimate of the time such personnel, equipment, supplies, and services will continue to be available;



C. An estimate of the time it will take to deliver such personnel, equipment, supplies, and services at the date, time and place specified by the Requesting Party;

D. A technical description of any communications and telecommunications equipment available for timely communications with the Requesting Party and other Assisting Parties; and

E. The names of all personnel whom the Assisting Party designates as Supervisors.

F. The estimated costs of the provision of assistance (use FEMA's Schedule of Equipment Rates spreadsheet attached to Form B.)

#### ARTICLE VI.

**Rendition of Assistance.** After the Assisting Party has delivered its personnel, equipment, supplies, services, or other resources to the place specified by the Requesting Party, the Requesting Party shall give specific assignments to the Supervisor(s) of the Assisting Party, who shall be responsible for directing the performance of these assignments. The Assisting Party shall have authority to direct the manner in which the assignments are performed. In the event of an emergency that affects the Assisting Party, all personnel, equipment, supplies, services and other resources of the Assisting Party shall be subject to recall by the Assisting Party upon not less than five (5) calendar days' notice or, if such notice is impracticable, as much notice as is practicable under the circumstances.

A. For operations at the scene of *catastrophic* and *major* disasters, the Assisting Party shall to the fullest extent practicable give its personnel and other resources sufficient equipment and supplies to make them self-sufficient for food, shelter, and operations unless the Requesting Party has specified the contrary. For *minor* disasters and other emergencies, the Requesting Party shall be responsible to provide food and shelter for the personnel of the Assisting Party unless the Requesting Party has specified the contrary. In its request for assistance the Requesting Party may specify that Assisting Parties send only self-sufficient personnel or self-sufficient resources.

B. Unless the Requesting Party has specified the contrary, it shall to the fullest extent practicable,

coordinate all communications between its personnel and those of any Assisting Parties, and shall determine all frequencies and other technical specifications for all communications and telecommunications equipment to be used.

C. Personnel of the Assisting Party who render assistance under this Agreement shall receive their usual wages, salaries and other compensation, and shall have all the duties, responsibilities, immunities, rights, interests, and privileges incident to their usual employment. If personnel of the Assisting Party hold local licenses or certifications limited to the county or municipality of issue, then the Requesting Party shall recognize and honor those licenses or certifications for the duration of the support.

#### ARTICLE VII.

**Procedures for Reimbursement.** Unless the Division or the Assisting Party, as the case may be, state the contrary in writing, the ultimate responsibility for the reimbursement of costs incurred under this Agreement shall rest with the Requesting Party, subject to the following conditions and exceptions:

A. In accordance with this Agreement, the Division shall pay the costs incurred by an Assisting Party in responding to a request that the Division initiates on its own, and not for another Requesting Party.

B. An Assisting Party shall bill the Division or other Requesting Party as soon as practicable, but not later than thirty (30) calendar days after the Period of Assistance has closed. Upon the request of any of the concerned Participating Parties, the State Coordinating Officer may extend this deadline for cause.

C. If the Division or the Requesting Party protests any bill or item on a bill from an Assisting Party, it shall do so in writing as soon as practicable, but in no event later than thirty (30) calendar days after the bill is received. Failure to protest any bill or billed item in writing within thirty (30) calendar days shall constitute agreement to the bill and the items on the bill and waive the right to contest the bill.

D. If the Division protests any bill or item on a bill from an Assisting Party, the Assisting Party shall have thirty (30) calendar days from the date of protest to present the bill or item to the original

Requesting Party for payment, subject to any protest by the Requesting Party.

E. If the Assisting Party cannot reach a mutual agreement with the Division or the Requesting Party to the settlement of any protested bill or billed item, the Division, the Assisting Party, or the Requesting Party may elect binding arbitration to determine its liability for the protested bill or billed item in accordance with Section F of this Article.

F. If the Division or a Participating Party elects binding arbitration, it may select as an arbitrator any elected official of another Participating Party, or any other official of another Participating Party whose normal duties include emergency management, and the other Participating Party shall also select such an official as an arbitrator, and the arbitrators thus chosen shall select another such official as a third arbitrator.

G. The three (3) arbitrators shall convene by teleconference or videoconference within thirty (30) calendar days to consider any documents and any statements or arguments by the Department, the Requesting Party, or the Assisting Party concerning the protest, and shall render a decision in writing not later than ten (10) business days after the close of the hearing. The decision of a majority of the arbitrators shall bind the parties, and shall be final.

H. If the Requesting Party has not forwarded a request through the Division, or if an Assisting Party has rendered assistance without being requested to do so by the Division, the Division shall not be liable for the costs of any such assistance. All requests to the Federal Emergency Management Agency (FEMA) for the reimbursement of costs incurred by any Participating Party shall be made by and through the Division.

I. If FEMA denies any request for reimbursement of costs which the Division has already advanced to an Assisting Party, the Assisting Party shall repay such costs to the Division, but the Division may waive such repayment for cause.

#### **ARTICLE VIII.**

**Costs Eligible for Reimbursement.** The costs incurred by the Assisting Party under this Agreement shall be reimbursed as needed to make the Assisting Party whole to the fullest extent practicable.

A. Employees of the Assisting Party who render assistance under this Agreement shall be entitled to receive from the Assisting Party all their usual wages, salaries, and any and all other compensation for mobilization, hours worked, and demobilization. Such compensation shall include any and all contributions for insurance and retirement, and such employees shall continue to accumulate seniority at the usual rate. As between the employees and the Assisting Party, the employees shall have all the duties, responsibilities, immunities, rights, interests and privileges incident to their usual employment. The Requesting Party shall reimburse the Assisting Party for these costs of employment.

B. The costs of equipment supplied by the Assisting Party shall be reimbursed at the rental rate established in FEMA's Schedule of Equipment Rates (attached to Form B), or at any other rental rate agreed to by the Requesting Party. In order to be eligible for reimbursement, equipment must be in actual operation performing eligible work. The labor costs of the operator are not included in the rates and should be approved separately from equipment costs. The Assisting Party shall pay for fuels, other consumable supplies, and repairs to its equipment as needed to keep the equipment in a state of operational readiness. Rent for the equipment shall be deemed to include the cost of fuel and other consumable supplies, maintenance, service, repairs, and ordinary wear and tear. With the consent of the Assisting Party, the Requesting Party may provide fuels, consumable supplies, maintenance, and repair services for such equipment at the site. In that event, the Requesting Party may deduct the actual costs of such fuels, consumable supplies, maintenance, and services from the total costs otherwise payable to the Assisting Party. If the equipment is damaged while in use under this Agreement and the Assisting Party receives payment for such damage under any contract of insurance, the Requesting Party may deduct such payment from any item or items billed by the Assisting Party for any of the costs for such damage that may otherwise be payable.

C. The Requesting Party shall pay the total costs for the use and consumption of any and all consumable supplies delivered by the Assisting Party for the Requesting Party under this Agreement. In the case of perishable supplies, consumption shall be deemed to include normal deterioration, spoilage and damage notwithstanding the exercise of reasonable care in its storage and use. Supplies remaining unused shall be returned to the Assisting Party in usable condition upon the close of the Period of Assistance, and the Requesting Party may deduct the cost of such returned supplies from the total costs billed by the Assisting Party for such supplies. If the Assisting Party agrees, the Requesting Party may also replace any and all used consumable supplies with like supplies in usable condition and of like grade, quality and quantity within the time allowed for reimbursement under this Agreement.

D. The Assisting Party shall keep records to document all assistance rendered under this Agreement. Such records shall present information sufficient to meet the audit requirements specified in the regulations of FEMA and any applicable circulars issued by the State of Florida Office of Management and Budget. Upon reasonable notice, the Assisting Party shall make its records available to the Division and the Requesting Party for inspection or duplication between 8:00 a.m. and 5:00 p.m. on all weekdays, except for official holidays.

#### **ARTICLE IX.**

**Insurance.** Each Participating Party shall determine for itself what insurance to procure, if any. With the exceptions in this Article, nothing in this Agreement shall be construed to require any Participating Party to procure insurance.

A. Each Participating Party shall procure employers' insurance meeting the requirements of the Workers' Compensation Act, as amended, affording coverage for any of its employees who may be injured while performing any activities under the authority of this Agreement, and shall file with the Division a certificate issued by the insurer attesting to such coverage.

B. Any Participating Party that elects additional insurance affording liability coverage for any

activities that may be performed under the authority of this Agreement shall file with the Division a certificate issued by the insurer attesting to such coverage.

C. Any Participating Party that is self-insured with respect to any line or lines of insurance shall file with the Division copies of all resolutions in current effect reflecting its determination to act as a self-insurer.

D. Subject to the limits of such liability insurance as any Participating Party may elect to procure, nothing in this Agreement shall be construed to waive, in whole or in part, any immunity any Participating Party may have in any judicial or quasi-judicial proceeding.

E. Each Participating Party which renders assistance under this Agreement shall be deemed to stand in the relation of an independent contractor to all other Participating Parties, and shall not be deemed to be the agent of any other Participating Party.

F. Nothing in this Agreement shall be construed to relieve any Participating Party of liability for its own conduct and that of its employees.

G. Nothing in this Agreement shall be construed to obligate any Participating Party to indemnify any other Participating Party from liability to third parties.

#### ARTICLE X.

**General Requirements.** Notwithstanding anything to the contrary elsewhere in this Agreement, all Participating Parties shall be subject to the following requirements in the performance of this Agreement:

A. To the extent that assistance under this Agreement is funded by State funds, the obligation of any statewide instrumentality of the State of Florida to reimburse any Assisting Party under this Agreement is contingent upon an annual appropriation by the Legislature.

B. All bills for reimbursement under this Agreement from State funds shall be submitted in detail sufficient for auditing purposes. To the extent that such bills represent costs incurred for travel, such bills shall be submitted in accordance with section 112.061, Florida Statutes, and any applicable

requirements for the reimbursement of state employees for travel costs.

C. All Participating Parties shall allow public access to all documents, papers, letters or other materials subject to the requirements of the Public Records Act, as amended, and made or received by any Participating Party in conjunction with this Agreement.

D. No Participating Party may hire employees in violation of the employment restrictions in the Immigration and Nationality Act, as amended.

E. No costs reimbursed under this Agreement may be used directly or indirectly to influence legislation or any other official action by the Legislature of the State of Florida or any of its agencies.

F. Any communication to the Division under this Agreement shall be sent to the Director, Division of Emergency Management, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399-2100. Any communication to any other Participating Party shall be sent to the official or officials specified by that Participating Party on Form C attached to this Agreement. For the purpose of this Section, any such communication may be sent by the U.S. Mail, e-mail, or by facsimile.

#### ARTICLE XI.

**Effect of Agreement.** Upon its execution by a Participating Party, this Agreement shall have the following effect with respect to that Participating Party:

A. The execution of this Agreement by any Participating Party which is a signatory to the Statewide Mutual Aid Agreement of 1994 shall terminate the rights, interests, duties, and responsibilities and obligations of that Participating Party under that agreement, but such termination shall not affect the liability of the Participating Party for the reimbursement of any costs due under that agreement, regardless of whether billed or unbilled.

B. The execution of this Agreement by any Participating Party which is a signatory to the Public Works Mutual Aid Agreement shall terminate the rights, interests, duties, responsibilities and obligations of that Participating Party under that agreement, but such termination shall not affect the liability of the

Participating Party for the reimbursement of any costs due under that agreement, regardless of whether billed or unbilled.

C. Upon the activation of this Agreement by the Requesting Party, this Agreement shall supersede any other existing agreement between it and any Assisting Party to the extent that the former may be inconsistent with the latter.

D. Unless superseded by the execution of this Agreement in accordance with Section A of this Article, the Statewide Mutual Aid Agreement of 1994 shall terminate and cease to have legal existence after June 30, 2001.

E. Upon its execution by any Participating Party, this Agreement will continue in effect for one (1) year from its date of execution by that Participating Party, and it shall automatically renew each year after its execution, unless within sixty (60) calendar days before that date the Participating Party notifies the Division, in writing, of its intent to withdraw from the Agreement.

F. The Division shall transmit any amendment to this Agreement by sending the amendment to all Participating Parties not later than five (5) business days after its execution by the Division. Such amendment shall take effect not later than sixty (60) calendar days after the date of its execution by the Division, and shall then be binding on all Participating Parties. Notwithstanding the preceding sentence, any Participating Party who objects to the amendment may withdraw from the Agreement by notifying the Division in writing of its intent to do so within that time in accordance with Section E of this Article.

## ARTICLE XII.

**Interpretation and Application of Agreement.** The interpretation and application of this Agreement shall be governed by the following conditions:

A. The obligations and conditions resting upon the Participating Parties under this Agreement are not independent, but dependent.

B. Time shall be of the essence of this Agreement, and of the performance of all conditions,



obligations, duties, responsibilities, and promises under it.

C. This Agreement states all the conditions, obligations, duties, responsibilities, and promises of the Participating Parties with respect to the subject of this Agreement, and there are no conditions, obligations, duties, responsibilities, or promises other than those expressed in this Agreement.

D. If any sentence, clause, phrase, or other portion of this Agreement is ruled unenforceable or invalid, every other sentence, clause, phrase, or other portion of the Agreement shall remain in full force and effect, it being the intent of the Division and the other Participating Parties that every portion of the Agreement shall be severable from every other portion to the fullest extent practicable. The Division reserves the right, at its sole and absolute discretion, to change, modify, add, or remove portions of any sentence, clause, phrase, or other portion of this Agreement that conflicts with state law, regulation, or policy. If the change is minor, the Division will notify the Participating Party of the change and such changes will become effective immediately; therefore, please check these terms periodically for changes. If the change is substantive, the Participating Party may be required to execute the Agreement with the adopted changes. Your continued or subsequent use of this Agreement following the posting of minor changes to this Agreement will mean you accept those changes.

E. The waiver of any obligation or condition in this Agreement by a Participating Party shall not be construed as a waiver of any other obligation or condition in this Agreement.

***NOTE: On February 26, 2018, this Agreement was modified by the Division of Emergency Management. This document replaces the August 20, 2007 edition of the Statewide Mutual Aid Agreement; however, any and all Agreements previously executed shall remain in full force and effect. Any local government, special district, or educational institution which has yet to execute this Agreement should use the February 26, 2018 edition for the purposes of becoming a signatory.***

IN WITNESS WHEREOF, the Participating Parties have duly executed this Agreement on the date specified below:

**FOR ADOPTION BY A COUNTY**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_  
Director

Date: \_\_\_\_\_

---

ATTEST:  
CLERK OF THE CIRCUIT COURT

BOARD OF COUNTY COMMISSIONERS  
OF \_\_\_\_\_ COUNTY,  
STATE OF FLORIDA

By: \_\_\_\_\_  
Deputy Clerk

By: \_\_\_\_\_  
Chairman

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
County Attorney

**FOR ADOPTION BY A CITY**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_  
Director

Date: \_\_\_\_\_

---

ATTEST:  
CITY CLERK

CITY OF \_\_\_\_\_  
STATE OF FLORIDA

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
City Attorney

**FOR ADOPTION BY AN EDUCATIONAL DISTRICT**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_  
Director

Date: \_\_\_\_\_

---

\_\_\_\_\_  
SCHOOL DISTRICT,  
STATE OF FLORIDA

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
Attorney for District

**FOR ADOPTION BY A COMMUNITY COLLEGE OR STATE UNIVERSITY**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_  
Director

Date: \_\_\_\_\_

ATTEST:

BOARD OF TRUSTEES  
OF \_\_\_\_\_  
COMMUNITY COLLEGE, STATE OF FLORIDA

BOARD OF TRUSTEES  
OF \_\_\_\_\_  
UNIVERSITY, STATE OF FLORIDA

By: \_\_\_\_\_  
Clerk

By: \_\_\_\_\_  
Chairman

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
Attorney for Board

**FOR ADOPTION BY A SPECIAL DISTRICT**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Director

\_\_\_\_\_

\_\_\_\_\_ SPECIAL DISTRICT,  
STATE OF FLORIDA

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
Attorney for District

**FOR ADOPTION BY AN AUTHORITY**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_  
Director

Date: \_\_\_\_\_

ATTEST:

BOARD OF TRUSTEES OF  
\_\_\_\_\_  
AUTHORITY, STATE OF FLORIDA

By: \_\_\_\_\_  
Clerk

By: \_\_\_\_\_  
Chairman

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
Attorney for Board

**FOR ADOPTION BY A NATIVE AMERICAN TRIBE**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_  
Director

Date: \_\_\_\_\_

ATTEST:

TRIBAL COUNCIL OF THE

\_\_\_\_\_  
TRIBE OF FLORIDA

By: \_\_\_\_\_  
Council Clerk

By: \_\_\_\_\_  
Chairman

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
Attorney for Council



**FOR ADOPTION BY A COMMUNITY DEVELOPMENT DISTRICT**

STATE OF FLORIDA  
DIVISION OF EMERGENCY MANAGEMENT

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Director

---

\_\_\_\_\_  
COMMUNITY DEVELOPMENT DISTRICT,  
STATE OF FLORIDA

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

Date: \_\_\_\_\_

Approved as to Form:

By: \_\_\_\_\_  
Attorney for District

Date: \_\_\_\_\_

**FORM C**

**CONTACT INFORMATION FOR AUTHORIZED REPRESENTATIVES**

New or Updated: \_\_\_\_\_

Type: County      Municipality      Independent      University      School      Community

Name: \_\_\_\_\_

Name of Government: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

**AUTHORIZED REPRESENTATIVE CONTACT INFORMATION**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Day Phone: \_\_\_\_\_      Night Phone: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

**\*\*\*PLEASE UPDATE ANNUALLY OR AS ELECTIONS OR APPOINTMENTS OCCUR\*\***

**\*FDEM USE ONLY\***

Date Received: \_\_\_\_\_      Personnel Signature \_\_\_\_\_

**STATEWIDE MUTUAL AID AGREEMENT**  
Type or print all information except signatures  
Form B

**PART I****TO BE COMPLETED BY THE REQUESTING PARTY**

Date:		Time:		HRS	Mission No:
		(local)			
Point of Contact:		Telephone No:		E-mail address:	
Requesting Party:		Assisting Party:			
Incident Requiring Assistance:					
Type of Assistance/Resources Needed (use Part IV for additional space)					
Date & Time Resources Needed:		Location (address):			
Approximated Date/Time Resources Released:					
Authorized Official's Name:		Signature:			
Title:		Agency:			

**PART II****TO BE COMPLETED BY THE ASSISTING PARTY**

Contact Person:		Telephone No:		E-mail address:	
Type of Assistance Available:					
Date & Time Resources Available		To:			
Location (address):					
Approximate Total cost for mission:	\$				
Travel: \$	Personnel: \$	Equipment & Materials: \$	Contract Rental: \$		
Logistics Required from Requesting Party	Yes <input type="checkbox"/>	(Provide information on attached Part IV)		No <input type="checkbox"/>	
Authorized Official's Name:		Title:			
Date:		Signature:		Local Mission No:	

**PART III****TO BE COMPLETED BY THE REQUESTING PARTY**

Authorized Official's Name:		Title:			
Signature:		Agency:			

**PART IV**

**STATEWIDE MUTUAL AID AGREEMENT**  
Type or print all information except signatures  
Form B (continued)

**MISCELLANEOUS ITEMS / OTHER MISSION INFORMATION**

FEMA's SCHEDULE OF EQUIPMENT RATES

DEPARTMENT OF HOMELAND SECURITY  
 FEDERAL EMERGENCY MANAGEMENT AGENCY  
 RECOVERY DIRECTORATE  
 PUBLIC ASSISTANCE DIVISION  
 WASHINGTON, DC 20472

The rates on this Schedule of Equipment Rates are for applicant owned equipment in good mechanical condition, complete with all required attachments. Each rate covers all costs eligible under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5121, et seq., for ownership and operation of equipment, including depreciation, overhead, all maintenance, field repairs, fuel, lubricants, tires, OSHA equipment and other costs incidental to operation. Standby equipment costs are not eligible.

Equipment must be in actual operation performing eligible work in order for reimbursement to be eligible. LABOR COSTS OF OPERATOR ARE NOT INCLUDED in the rates and should be approved separately from equipment costs.

Information regarding the use of the Schedule is contained in 44 CFR § 206.228 Allowable Costs. Rates for equipment not listed will be furnished by FEMA upon request. Any appeals shall be in accordance with 44 CFR § 206.206 Appeals.

THESE RATES ARE APPLICABLE TO MAJOR DISASTERS AND EMERGENCIES  
 DECLARED BY THE PRESIDENT ON OR AFTER SEPTMBER 1, 2017.

FEMA Code ID		Equipment Description					2017 Rate
Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	
8010	Air Compressor	Air Delivery	41 CFM	to 10	Hoses included.	hour	\$1.51
8011	Air Compressor	Air Delivery	103 CFM	to 30	Hoses included.	hour	\$8.84
8012	Air Compressor	Air Delivery	130 CFM	to 50	Hoses included.	hour	\$11.14
8013	Air Compressor	Air Delivery	175 CFM	to 90	Hoses included.	hour	\$18.39
8014	Air Compressor	Air Delivery	400 CFM	to 145	Hoses included.	hour	\$30.47
8015	Air Compressor	Air Delivery	575 CFM	to 230	Hoses included.	hour	\$48.71
8016	Air Compressor	Air Delivery	1100 CFM	to 355	Hoses included.	hour	\$92.88
8017	Air Compressor	Air Delivery	1600 CFM	to 500	Hoses included.	hour	\$96.96
8040	Ambulance			to 150		hour	\$28.00
8041	Ambulance			to 210		hour	\$40.50
8050	Board, Arrow			to 8	Trailer Mounted.	hour	\$4.43
8051	Board, Message			to 5	Trailer Mounted.	hour	\$11.61
8060	Auger, Portable	Hole Diameter	16 In	to 6		hour	\$2.14
8061	Auger, Portable	Hole Diameter	18 In	to 13		hour	\$4.30
8062	Auger, Tractor Mntd	Max. Auger Diameter	36 In	to 13	Includes digger, boom and mounting hardware.	hour	\$3.16
8063	Auger, Truck Mntd	Max. Auger Size	24 In	to 100	mounting hardware. Add this rate to tractor rate for total	hour	\$34.28
8064	Hydraulic Post Driver					hour	\$35.10
8065	Auger	Horizontal Directional Boring Machine	250 X 100	300	DD-140B YR-2003	hour	\$169.40
8066	Auger	Horizontal Directional Boring Machine	50 X 100			hour	\$31.95
8067	Auger, Directional Boring Machine	Auger, Directional Boring Machine				hour	\$36.97
8070	Automobile			to 130	Transporting people.	mile	\$0.535
8071	Automobile			to 130	Transporting cargo.	hour	\$12.32
8072	Automobile, Police			to 250	Patrolling.	mile	\$0.535
8073	Automobile, Police			to 250	Stationary with engine running.	hour	\$15.69
8075	Motorcycle, Police					mile	\$0.505
8076	Automobile - Chevy Trailblazer	6 or 8 cl		285 to 300		hour	\$22.00
8077	Automobile - Ford Expedition	Fire Command Center				hour	\$19.00
8080	All Terrain Vehicle (ATV)	Engine 110cc, 4-Wheel; 20" tyre		6.5-7.5		hour	\$8.20
8081	All Terrain Vehicle (ATV)	Engine 125cc, 4-Wheel; 21" tyre		7.6-8.6		hour	\$8.50
8082	All Terrain Vehicle (ATV)	Engine 150cc, 4-Wheel; 22" tyre		9.0-10.0		hour	\$8.51
8083	All Terrain Vehicle (ATV)	Engine 200cc, 4-Wheel; 24" tyre		12-14.0		hour	\$9.00
8084	All Terrain Vehicle (ATV)	Engine 250cc, 4-Wheel; 24" tyre		15-17		hour	\$9.40

8085	All Terrain Vehicle (ATV)	Engine 300cc, 4-Wheel; 24" tyre		18-20		hour	\$10.20
8086	All Terrain Vehicle (ATV)	Engine 400cc, 4-Wheel; 25" tyre		26-28		hour	\$11.64
8087	All Terrain Vehicle (ATV)	Engine 450cc, 4-Wheel; 25" tyre		26-28		hour	\$12.40
8088	All Terrain Vehicle (ATV)	Engine 650cc, 4-Wheel; 25" tyre		38-40		hour	\$13.20
8089	All Terrain Vehicle (ATV)	Engine 750cc, 4-Wheel; 25" tyre		44-46		hour	\$14.00
8110	Barge, Deck	Size	50'x35'x7.25'			hour	\$49.10
8111	Barge, Deck	Size	50'x35'x9'			hour	\$58.70
8112	Barge, Deck	Size	120'x45'x10'			hour	\$109.50
8113	Barge, Deck	Size	160'x45'x11"			hour	\$133.75
8120	Boat, Tow	Size	55'x20'x5'	to 870	Steel.	hour	\$317.54
8121	Boat, Tow	Size	60'x21'x5'	to 1050	Steel.	hour	\$358.65
8122	Boat, Tow	Size	70'x30'x7.5'	to 1350	Steel.	hour	\$569.00
8123	Boat, Tow	Size	120'x34'x8'	to 2000	Steel.	hour	\$1,094.24
8124	Airboat	815AGIS Airboat w/spray unit	15'x8'	400		hour	\$31.00
8125	Airboat	815AGIS Airboat w/spray unit	15'x8'	425		hour	\$31.95
8126	Swamp Buggy	Conquest		360		hour	\$39.25
8129	Compactor -2-Ton Pavement Roller	2 ton				hour	\$28.25
8130	Boat, Row				Heavy duty.	hour	\$1.44
8131	Boat, Runabout	Size	13'x5'	to 50	Outboard.	hour	\$12.00
8132	Boat, Tender	Size	14'x7'	to 100	Inboard with 360 degree drive.	hour	\$16.50
8133	Boat, Push	Size	45'x21'x6'	to 435	Flat hull.	hour	\$217.20
8134	Boat, Push	Size	54'x21'x6'	to 525	Flat hull.	hour	\$267.35
8135	Boat, Push	Size	58'x24'x7.5'	to 705	Flat hull.	hour	\$325.35
8136	Boat, Push	Size	64'x25'x8'	to 870	Flat hull.	hour	\$358.50
8140	Boat, Tug	Length	16 Ft	to 100		hour	\$42.60
8141	Boat, Tug	Length	18 Ft	to 175		hour	\$62.55
8142	Boat, Tug	Length	26 Ft	to 250		hour	\$78.95
8143	Boat, Tug	Length	40 Ft	to 380		hour	\$196.50
8144	Boat, Tug	Length	51 Ft	to 700		hour	\$271.85
8147	Boat, Inflatable Rescue Raft	Zodiac				hour	\$1.10
8148	Boat, Runabout	1544 lbs	11 passenger capacity	190-250		hour	\$62.55
8149	Boat, removable engine	2000 Johnson Outboard Motor w 15" shaft		15		hour	\$1.50
8150	Broom, Pavement	Broom Length	72 In	to 35		hour	\$24.50
8151	Broom, Pavement	Broom Length	96 In	to 100		hour	\$27.60
8153	Broom, Pavement, Mntd	Broom Length	72 In	to 18	Add Prime Mover cost for total rate	hour	\$6.20
8154	Broom, Pavement, Pull	Broom Length	84 In	to 20	Add Prime Mover cost for total rate	hour	\$20.77
8157	Sweeper, Pavement			to 110		hour	\$76.70
8158	Sweeper, Pavement			to 230		hour	\$96.80
8180	Bus			to 150		hour	\$20.95
8181	Bus			to 210		hour	\$25.45
8182	Bus			to 300		hour	\$38.35
8183	Blower	Gasoline powered Toro Pro Force		27		hour	\$15.37
8184	Back-Pack Blower			to 4.4		hour	\$1.50
8185	Walk-Behind Blower			13		hour	\$6.50
8187	Chainsaw	20" Bar, 3.0 cu in				hour	\$1.40
8188	Chainsaw	20" Bar 5.0 cu in				hour	\$2.45
8189	Chainsaw	20" Bar 6.0 cu in				hour	\$2.65
8190	Chain Saw	Bar Length	16 In			hour	\$1.70
8191	Chain Saw	Bar Length	25 In			hour	\$3.45
8192	Chain Saw, Pole	Bar Size	18 In			hour	\$1.25
8193	Skidder	model 748 E		to 173		hour	\$52.70
8194	Skidder	model 648 G11		to 177		hour	\$104.30
8195	Cutter, Brush	Cutter Size	8 ft	to 150		hour	\$115.35
8196	Cutter, Brush	Cutter Size	8 ft	to 190		hour	\$129.35
8197	Cutter, Brush	Cutter Size	10 ft	to 245		hour	\$136.30

8198	Bruncher Cutter	Cutter, Brush - 247 hp, 1997 Model 511 Feller		to 247		hour	\$187.75
8199	Log Trailer	40 ft				hour	\$9.90
8200	Chipper, Brush	Chipping Capacity	6 In	to 35	Trailer Mounted.	hour	\$8.60
8201	Chipper, Brush	Chipping Capacity	9 In	to 65	Trailer Mounted.	hour	\$16.86
8202	Chipper, Brush	Chipping Capacity	12 In	to 100	Trailer Mounted.	hour	\$24.31
8203	Chipper, Brush	Chipping Capacity	15 In	to 125	Trailer Mounted.	hour	\$35.00
8204	Chipper, Brush	Chipping Capacity	18 In	to 200	Trailer Mounted.	hour	\$50.10
8208	Loader - Tractor - Knuckleboom	model Barko 595 ML		to 173		hour	\$161.89
8209	Loader - Wheel	model 210 w/ Buck Saw 50 inch Bar		to 240		hour	\$97.00
8210	Clamshell & Dragline, Crawler		149,999 lbs	to 235	Bucket not included in rate.	hour	\$127.40
8211	Clamshell & Dragline, Crawler		250,000 lbs	to 520	Bucket not included in rate.	hour	\$166.20
8212	Clamshell & Dragline, Truck			to 240	Bucket not included in rate.	hour	\$145.00
8220	Compactor			to 10		hour	\$15.10
8221	Compactor, towed, Vibratory Drum			to 45		hour	\$31.70
8222	Compactor, Vibratory, Drum			to 75		hour	\$22.30
8223	Compactor, pneumatic, wheel			to 100		hour	\$26.00
8225	Compactor, Sanitation			to 300		hour	\$92.75
8226	Compactor, Sanitation			to 400		hour	\$152.30
8227	Compactor, Sanitation			535		hour	\$249.75
8228	Compactor, towed, Pneumatic, Wheel		10000 lbs		Include prime mover rate	hour	\$17.00
8229	Compactor, towed, Drum Static		20000 lbs		Include prime mover rate	hour	\$15.80
8240	Feeder, Grizzly			to 35		hour	\$22.20
8241	Feeder, Grizzly			to 55		hour	\$32.45
8242	Feeder, Grizzly			to 75		hour	\$64.25
8250	Dozer, Crawler			to 75		hour	\$51.30
8251	Dozer, Crawler			to 105		hour	\$38.30
8252	Dozer, Crawler			to 160		hour	\$93.74
8253	Dozer, Crawler			to 250		hour	\$149.75
8254	Dozer, Crawler			to 360		hour	\$201.10
8255	Dozer, Crawler			to 565		hour	\$311.80
8256	Dozer, Crawler			to 850		hour	\$294.10
8260	Dozer, Wheel			to 300		hour	\$61.00
8261	Dozer, Wheel			to 400		hour	\$94.10
8262	Dozer, Wheel			to 500		hour	\$178.65
8263	Dozer, Wheel			to 625		hour	\$239.60
8269	Box Scraper	3 hitch attach for tractor; 2007 Befco				hour	\$3.50
8270	Bucket, Clamshell	Capacity	1.0 CY		Includes teeth. Does not include Clamshell & Dragline	hour	\$4.62
8271	Bucket, Clamshell	Capacity	2.5 CY		Includes teeth. Does not include Clamshell & Dragline	hour	\$8.73
8272	Bucket, Clamshell	Capacity	5.0 CY		Includes teeth. Does not include Clamshell & Dragline	hour	\$13.10
8273	Bucket, Clamshell	Capacity	7.5 CY		Includes teeth. Does not include Clamshell & Dragline	hour	\$22.40
8275	Bucket, Dragline	Capacity	2.0 CY		Does not include Clamshell & Dragline	hour	\$3.96
8276	Bucket, Dragline	Capacity	5.0 CY		Does not include Clamshell & Dragline	hour	\$9.90
8277	Bucket, Dragline	Capacity	10 CY		Does not include Clamshell & Dragline	hour	\$14.10
8278	Bucket, Dragline	Capacity	14 CY		Does not include Clamshell & Dragline	hour	\$18.65
8280	Excavator, Hydraulic	Bucket Capacity	0.5 CY	to 45	Crawler, Truck & Wheel. Includes bucket.	hour	\$18.00
8281	Excavator, Hydraulic	Bucket Capacity	1.0 CY	to 90	Crawler, Truck & Wheel. Includes bucket.	hour	\$34.20
8282	Excavator, Hydraulic	Bucket Capacity	1.5 CY	to 160	Crawler, Truck & Wheel. Includes bucket.	hour	\$52.70
8283	Excavator, Hydraulic	Bucket Capacity	2.5 CY	to 265	Crawler, Truck & Wheel. Includes bucket.	hour	\$153.00

8284	Excavator, Hydraulic	Bucket Capacity	4.5 CY	to 420	Crawler, Truck & Wheel. Includes bucket.	hour	\$264.50
8285	Excavator, Hydraulic	Bucket Capacity	7.5 CY	to 650	Crawler, Truck & Wheel. Includes bucket.	hour	\$223.70
8286	Excavator, Hydraulic	Bucket Capacity	12 CY	to 1000	Crawler, Truck & Wheel. Includes bucket.	hour	\$455.00
8287	Excavator	2007 model Gradall XL3100 III		184		hour	\$105.46
8288	Excavator	2003 model Gradall XL4100 III		238		hour	\$113.20
8289	Excavator	2006 model Gradall XL5100		230		hour	\$88.80
8290	Trowel, Concrete	Diameter	48 In	to 12		hour	\$4.80
8300	Fork Lift	Capacity	6000 Lbs	to 60		hour	\$13.00
8301	Fork Lift	Capacity	12000 Lbs	to 90		hour	\$18.50
8302	Fork Lift	Capacity	18000 Lbs	to 140		hour	\$24.00
8303	Fork Lift	Capacity	50000 Lbs	to 215		hour	\$51.40
8306	Fork Lift Material handler	Diesel, CAT TH360B	6600-11500 gwvr lbs	99.9		hour	\$27.90
8307	Fork Lift Material handler	Diesel, CAT TH460B		99.9		hour	\$30.15
8308	Fork Lift Material handler	Diesel, CAT TH560B		99.9		hour	\$35.80
8309	Fork Lift Accessory	2003 ACS Paddle Fork				hour	\$3.46
8310	Generator	Prime Output	5.5 KW	to 10		hour	\$3.35
8311	Generator	Prime Output	16 KW	to 25		hour	\$7.45
8312	Generator	Prime Output	43 KW	to 65		hour	\$15.00
8313	Generator	Prime Output	100 KW	to 125		hour	\$34.95
8314	Generator	Prime Output	150 KW	to 240		hour	\$50.00
8315	Generator	Prime Output	210 KW	to 300		hour	\$62.45
8316	Generator	Prime Output	280 KW	to 400		hour	\$80.40
8317	Generator	Prime Output	350 KW	to 500		hour	\$90.50
8318	Generator	Prime Output	530 KW	to 750		hour	\$153.30
8319	Generator	Prime Output	710 KW	to 1000		hour	\$222.00
8320	Generator	Prime Output	1100 KW	to 1500	Open	hour	\$349.00
8321	Generator	Prime Output	2500 KW	to 3000		hour	\$533.75
8322	Generator	Prime Output	1,000 KW	to 1645	Enclosed	hour	\$403.30
8323	Generator	Prime Output	1,500 KW	to 2500	Enclosed	hour	\$511.22
8324	Generator	Prime Output	1100KW	2500	Enclosed	hour	\$495.80
8325	Generator	Prime Output	40KW	60		hour	\$14.80
8326	Generator	Prime Output	20KW	40		hour	\$13.32
8330	Graders	Moldboard Size	10 Ft	to 110	Includes Rigid and Articulate equipment.	hour	\$43.30
8331	Graders	Moldboard Size	12 Ft	to 150	Includes Rigid and Articulate equipment.	hour	\$46.50
8332	Graders	Moldboard Size	14 Ft	to 225	Includes Rigid and Articulate equipment.	hour	\$67.50
8350	Hose, Discharge	Diameter	3 In		Per 25 foot length. Includes couplings.	hour	\$0.15
8351	Hose, Discharge	Diameter	4 In		Per 25 foot length. Includes couplings.	hour	\$0.24
8352	Hose, Discharge	Diameter	6 In		Per 25 foot length. Includes couplings.	hour	\$0.60
8353	Hose, Discharge	Diameter	8 In		Per 25 foot length. Includes couplings.	hour	\$0.60
8354	Hose, Discharge	Diameter	12 In		Per 25 foot length. Includes couplings.	hour	\$0.90
8355	Hose, Discharge	Diameter	16 In		Per 25 foot length. Includes couplings.	hour	\$1.70
8356	Hose, Suction	Diameter	3 In		Per 25 foot length. Includes couplings.	hour	\$0.30
8357	Hose, Suction	Diameter	4 In		Per 25 foot length. Includes couplings.	hour	\$0.35
8358	Hose, Suction	Diameter	6 In		Per 25 foot length. Includes couplings.	hour	\$1.15
8359	Hose, Suction	Diameter	8 In		Per 25 foot length. Includes couplings.	hour	\$1.10
8360	Hose, Suction	Diameter	12 In		Per 25 foot length. Includes couplings.	hour	\$1.70
8361	Hose, Suction	Diameter	16 In		Per 25 foot length. Includes couplings.	hour	\$3.15
8380	Loader, Crawler	Bucket Capacity	0.5 CY	to 32	Includes bucket.	hour	\$14.66



8381	Loader, Crawler	Bucket Capacity	1 CY	to 60	Includes bucket.	hour	\$34.30
8382	Loader, Crawler	Bucket Capacity	2 CY	to 118	Includes bucket.	hour	\$68.10
8383	Loader, Crawler	Bucket Capacity	3 CY	to 178	Includes bucket.	hour	\$101.30
8384	Loader, Crawler	Bucket Capacity	4 CY	to 238	Includes bucket.	hour	\$120.00
8390	Loader, Wheel	Bucket Capacity	0.5 CY	to 38		hour	\$20.10
8391	Loader, Wheel	Bucket Capacity	1 CY	to 60		hour	\$36.90
8392	Loader, Wheel	Bucket Capacity	2 CY	to 105	CAT-926	hour	\$35.50
8393	Loader, Wheel	Bucket Capacity	3 CY	to 152		hour	\$43.85
8394	Loader, Wheel	Bucket Capacity	4 CY	to 200		hour	\$59.30
8395	Loader, Wheel	Bucket Capacity	5 CY	to 250		hour	\$64.00
8396	Loader, Wheel	Bucket Capacity	6 CY	to 305		hour	\$104.00
8397	Loader, Wheel	Bucket Capacity	7 CY	to 360		hour	\$124.50
8398	Loader, Wheel	Bucket Capacity	8 CY	to 530		hour	\$171.40
8401	Loader, Tractor, Wheel	Bucket Capacity	0.87 CY	to 80	Case 580 Super L	hour	\$33.73
8410	Mixer, Concrete Portable	Batching Capacity	10 Cft			hour	\$3.05
8411	Mixer, Concrete Portable	Batching Capacity	12 Cft	11		hour	\$4.00
8412	Mixer, Concrete, Trailer Mntd	Batching Capacity	11 Cft	to 10		hour	\$12.70
8413	Mixer, Concrete, Trailer Mntd	Batching Capacity	16 Cft	to 25		hour	\$19.60
8419	Breaker, Pavement Hand-Held	Weight	25-90 Lbs			hour	\$1.10
8420	Breaker, Pavement			to 70		hour	\$57.45
8423	Spreader, Chip	Spread Hopper Width	12.5 Ft	to 152		hour	\$85.85
8424	Spreader, Chip	Spread Hopper Width	16.5 Ft	to 215		hour	\$116.60
8425	Spreader, Chip, Mntd	Hopper Size	8 Ft	to 8	Trailer & truck mounted.	hour	\$4.60
8430	Paver, Asphalt, Towed				Does not include Prime Mover.	hour	\$12.40
8431	Paver, Asphalt			to 50	Includes wheel and crawler equipment.	hour	\$73.76
8432	Paver, Asphalt			to 125	Includes wheel and crawler equipment.	hour	\$95.10
8433	Paver, Asphalt			to 175	Includes wheel and crawler equipment.	hour	\$126.80
8434	Paver, Asphalt		35,000Lbs & Over	to 250	Includes wheel and crawler equipment.	hour	\$209.65
8436	Pick-up, Asphalt			to 110		hour	\$96.85
8437	Pick-up, Asphalt			to 150		hour	\$135.00
8438	Pick-up, Asphalt			to 200		hour	\$93.50
8439	Pick-up, Asphalt			to 275		hour	\$204.00
8440	Striper	Paint Capacity	40 Gal	to 22		hour	\$16.20
8441	Striper	Paint Capacity	90 Gal	to 60		hour	\$22.90
8442	Striper	Paint Capacity	120 Gal	to 122		hour	\$42.60
8445	Striper, Truck Mntd	Paint Capacity	120 Gal	to 460		hour	\$78.60
8446	Striper, Walk-behind	Paint Capacity	12 Gal			hour	\$4.00
8447	Paver accessory -Belt Extension	2002 Leeboy Conveyor Belt Extension			crawler	hour	\$32.50
8450	Plow, Snow, Grader Mntd	Width	to 10 Ft		Include Grader for total cost	hour	\$28.00
8451	Plow, Snow, Grader Mntd	Width	to 14 Ft		Include Grader for total cost	hour	\$32.90
8452	Plow, Truck Mntd	Width	to 15 Ft		Include truck for total cost	hour	\$24.35
8453	Plow, Truck Mntd	Width	to 15 Ft		With leveling wing. Include truck for total cost	hour	\$40.80
8455	Spreader, Sand	Mounting	Tailgate, Chassis			hour	\$7.35
8456	Spreader, Sand	Mounting	Dump Body			hour	\$10.45
8457	Spreader, Sand	Mounting	Truck (10yd)			hour	\$13.15
8458	Spreader, Chemical	Capacity	5 CY	to 4	Trailer & truck mounted.	hour	\$6.00
8469	Pump - Trash Pump	10 MTC	2" Pump	to 7	10,000 gph	hour	\$7.25
8470	Pump	Centrifugal, 8M pump	2" - 10,000 gal/hr.	to 4.5	Hoses not included.	hour	\$6.10
8471	Pump	Diaphragm pump	2" - 3,000 gal/hr.	to 6	Hoses not included.	hour	\$6.75
8472	Pump	Centrifugal, 18M pump	3" - 18,000 gal/hr. pump	to 10	Hoses not included.	hour	\$7.99
8473	Pump			to 15	Hoses not included.	hour	\$10.30
8474	Pump			to 25	Hoses not included.	hour	\$13.60
8475	Pump			to 40	Hoses not included.	hour	\$16.65
8476	Pump	4" - 40,000 gal/hr.	4" - 40,000 gal/hr.	to 60	Hoses not included.	hour	\$27.10

8477	Pump			to 95	Hoses not included.	hour	\$32.00
8478	Pump			to 140	Hoses not included.	hour	\$41.50
8479	Pump			to 200	Hoses not included.	hour	\$49.90
8480	Pump			to 275	Does not include Hoses.	hour	\$66.85
8481	Pump			to 350	Does not include Hoses.	hour	\$82.00
8482	Pump			to 425	Does not include Hoses.	hour	\$96.60
8483	Pump			to 500	Does not include Hoses.	hour	\$114.00
8484	Pump			to 575	Does not include Hoses.	hour	\$133.30
8485	Pump			to 650	Does not include Hoses.	hour	\$154.70
8486	Aerial Lift, Truck Mntd	Max. Platform Height	40 Ft		Add this rate to truck rate for total lift and truck rate	hour	\$11.38
8487	Aerial Lift, Truck Mntd	Max. Platform Height	61 Ft		Add this rate to truck rate for total lift and truck rate	hour	\$20.54
8488	Aerial Lift, Truck Mntd	Max. Platform Height	80 Ft		Add this rate to truck rate for total lift and truck rate	hour	\$39.00
8489	Aerial Lift, Truck Mntd	Max. Platform Load - 600Lbs	81 Ft -100 Ft. Ht.		Add this rate to truck rate for total lift and truck rate	hour	\$39.50
8490	Aerial Lift, Self-Propelled	Max. Platform Height	37 Ft. Ht.	to 15	Articulated, Telescoping, Scissor.	hour	\$8.95
8491	Aerial Lift, Self-Propelled	Max. Platform Height	60 Ft. Ht.	to 30	Articulated, Telescoping, Scissor.	hour	\$16.10
8492	Aerial Lift, Self-Propelled	Max. Platform Height	70 Ft. Ht.	to 50	Articulated, Telescoping, Scissor.	hour	\$29.26
8493	Aerial Lift, Self-Propelled	Max. Platform Height	125 Ft. Ht.	to 85	Articulated and Telescoping.	hour	\$55.65
8494	Aerial Lift, Self-Propelled	Max. Platform Height	150 Ft. Ht.	to 130	Articulated and Telescoping.	hour	\$70.15
8495	I.C. Aerial Lift, Self-Propelled	Max. Platform Load - 500 Lbs	75"x155", 40Ft Ht.	to 80	2000 Lbs Capacity	hour	\$28.95
8496	Crane, Truck Mntd	Max. Lift Capacity	24000 Lbs		Include truck rate for total cost	hour	\$14.90
8497	Crane, Truck Mntd	Max. Lift Capacity	36000 Lbs		Include truck rate for total cost	hour	\$22.40
8498	Crane, Truck Mntd	Max. Lift Capacity	60000 Lbs		Include truck rate for total cost	hour	\$36.50
8499	Pump - Trash-Pump	CPB Rating - 10MTC	10000 gal/Hr	7	Self- Priming Trash Pump	hour	\$7.55
8500	Crane	Max. Lift Capacity	8 MT	to 80		hour	\$38.70
8501	Crane	Max. Lift Capacity	15 MT	to 150		hour	\$66.90
8502	Crane	Max. Lift Capacity	50 MT	to 200		hour	\$90.00
8503	Crane	Max. Lift Capacity	70 MT	to 300		hour	\$178.60
8504	Crane	Max. Lift Capacity	110 MT	to 350		hour	\$243.20
8510	Saw, Concrete	Blade Diameter	14 In	to 14		hour	\$7.20
8511	Saw, Concrete	Blade Diameter	26 In	to 35		hour	\$12.00
8512	Saw, Concrete	Blade Diameter	48 In	to 65		hour	\$25.10
8513	Saw, Rock			to 100		hour	\$33.50
8514	Saw, Rock			to 200		hour	\$63.00
8517	Jackhammer (Dry)	Weight Class	25-45 Lbs			hour	\$1.66
8518	Jackhammer (Wet)	Weight Class	30-55 Lbs			hour	\$1.84
8521	Scraper	Scraper Capacity	16 CY	to 250		hour	\$107.15
8522	Scraper	Scraper Capacity	23 CY	to 365		hour	\$155.50
8523	Scraper	Scraper Capacity	34 CY	to 475		hour	\$270.00
8524	Scraper	Scraper Capacity	44 CY	to 600		hour	\$265.70
8540	Loader, Skid-Steer	Operating Capacity	1000 Lbs	to 35		hour	\$14.15
8541	Loader, Skid-Steer	Operating Capacity	2000 Lbs	to 65		hour	\$37.00
8542	Loader, Skid-Steer	Operating Capacity	3000 Lbs	to 85		hour	\$36.05
8550	Snow Blower, Truck Mntd	Capacity	600 Tph	to 75	Does not include truck	hour	\$34.60
8551	Snow Blower, Truck Mntd	Capacity	1400 Tph	to 200	Does not include truck	hour	\$94.00
8552	Snow Blower, Truck Mntd	Capacity	2000 Tph	to 340	Does not include truck	hour	\$142.50
8553	Snow Blower, Truck Mntd	Capacity	2500 Tph	to 400	Does not include truck	hour	\$154.80
8558	Snow Thrower, Walk Behind	Cutting Width	25 in	to 5		hour	\$2.80
8559	Snow Thrower, Walk Behind	Cutting Width	60 in	to 15		hour	\$14.10
8560	Snow Blower	Capacity	2,000 Tph	to 400		hour	\$234.00
8561	Snow Blower	Capacity	2,500 Tph	to 500		hour	\$255.00
8562	Snow Blower	Capacity	3,500 Tph	to 600		hour	\$284.00

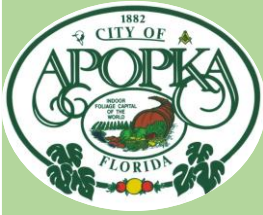
8569	Dust Control De-Ice Unit	1300-2000 gal	173"Lx98"Wx51"H	5.5	Hydro Pump w/100' 1/2" hose	hour	\$3.45
8570	Loader-Backhoe, Wheel	Loader Bucket Capacity	0.5 CY	to 40	Loader and Backhoe Buckets included.	hour	\$22.15
8571	Loader-Backhoe, Wheel	Loader Bucket Capacity	1 CY	to 70	Loader and Backhoe Buckets included.	hour	\$29.50
8572	Loader-Backhoe, Wheel	Loader Bucket Capacity	1.5 CY	to 95	Loader and Backhoe Buckets included.	hour	\$38.60
8573	Loader-Backhoe, Wheel	Loader Bucket Capacity	1.75 CY	to 115	Loader and Backhoe Buckets included.	hour	\$47.77
8580	Distributor, Asphalt	Tank Capacity	500 Gal		burners, insulated tank, and circulating spray bar.	hour	\$14.76
8581	Distributor, Asphalt	Tank Capacity	1000 Gal		burners, insulated tank, and circulating spray bar. Include	hour	\$21.30
8582	Distributor, Asphalt	Tank Capacity	4000 Gal		burners, insulated tank, and circulating spray bar. Include	hour	\$30.15
8583	Distributor	ETNYRE Oil Distributor Model - PB348		300		hour	\$41.60
8584	Distributor	ETNYRE Quad Chip Spreader		280		hour	\$83.20
8590	Trailer, Dump	Capacity	20 CY		Does not include Prime Mover.	hour	\$11.36
8591	Trailer, Dump	Capacity	30 CY		Does not include Prime Mover.	hour	\$13.10
8600	Trailer, Equipment	Capacity	30 Tons			hour	\$14.15
8601	Trailer, Equipment	Capacity	40 Tons			hour	\$15.50
8602	Trailer, Equipment	Capacity	60 Tons			hour	\$18.85
8603	Trailer, Equipment	Capacity	120 Tons			hour	\$28.35
8610	Trailer, Water	Tank Capacity	4000 Gal		with sump and a rear spraybar.	hour	\$13.50
8611	Trailer, Water	Tank Capacity	6000 Gal		with sump and a rear spraybar.	hour	\$16.55
8612	Trailer, Water	Tank Capacity	10000 Gal		with sump and a rear spraybar.	hour	\$19.20
8613	Trailer, Water	Tank Capacity	14000 Gal		with sump and a rear spraybar.	hour	\$23.77
8614	Truck- Water Tanker	1000 gal. tank		175		hour	\$33.35
8620	Tub Grinder			to 440		hour	\$95.35
8621	Tub Grinder			to 630		hour	\$143.65
8622	Tub Grinder			to 760		hour	\$183.60
8623	Tub Grinder			to 1000		hour	\$322.00
8627	Horizontal Grinder	Model HG6000		630		hour	\$57.36
8628	Stump Grinder	1988 Vermeer SC-112		102		hour	\$47.00
8629	Stump Grinder	24" grinding wheel		110		hour	\$45.00
8630	Sprayer, Seed	Working Capacity	750 Gal	to 30	Does not include Prime Mover.	hour	\$14.00
8631	Sprayer, Seed	Working Capacity	1250 Gal	to 50	Trailer & truck mounted. Does not include Prime Mover.	hour	\$19.80
8632	Sprayer, Seed	Working Capacity	3500 Gal	to 115	Does not include Prime Mover.	hour	\$29.25
8633	Mulcher, Trailer Mntd	Working Capacity	7 TPH	to 35		hour	\$14.10
8634	Mulcher, Trailer Mntd	Working Capacity	10 TPH	to 55		hour	\$20.80
8635	Mulcher, Trailer Mntd	Working Capacity	20 TPH	to 120		hour	\$29.45
8636	Scraper	Soil Recycler WR 2400	w 317 gal fuel tank	563		hour	\$239.85
8637	Trailer CAT	Double Belly Bottom-dump Trailer	26 CY of soil in one dump	330	13 CY of soil each berry	hour	\$92.33
8638	Rake	Barber Beach Sand Rake 600HDR, towed				hour	\$15.40
8639	Chipper	Wildcat 626 Cougar Trommel Screen chipper w belt		125		hour	\$34.30
8640	Trailer, Office	Trailer Size	8' x 24'		Cargo Size 16ft	hour	\$1.95
8641	Trailer, Office	Trailer Size	8' x 32'		Cargo Size 24ft	hour	\$2.30
8642	Trailer, Office	Trailer Size	10' x 32'		Cargo Size 20ft	hour	\$2.65
8643	Trailer	Haz-Mat Equipment trailer	8'x18'			hour	\$37.75
8644	Trailer, Covered Utility Trailer	(7' X 16')				hour	\$5.65
8645	Trailer, Dodge Ram	8' x 24' shower trailer- 12 showers		101		hour	\$29.45
8646	Trailer, Dodge	32' flatbed water				hour	\$27.90
8650	Trencher			to 40	Wheel Mounted. Chain and Wheel.	hour	\$16.30

8651	Trencher			to 85	Wheel Mounted, Chain and Wheel.	hour	\$24.70
8654	Trencher accessories	2008 Griswold Trenchbox				hour	\$1.90
8660	Plow, Cable	Plow Depth	24 in	to 30		hour	\$12.00
8661	Plow, Cable	Plow Depth	36 in	to 65		hour	\$37.45
8662	Plow, Cable	Plow Depth	48 in	to 110		hour	\$41.25
8670	Derrick, Hydraulic Digger	Max. Boom Length	60 Ft		alignment attachment. Include truck rate	hour	\$34.15
8671	Derrick, Hydraulic Digger	Max. Boom Length	90 Ft		alignment attachment. Include truck rate	hour	\$54.66
8680	Truck, Concrete Mixer	Mixer Capacity	13 CY	to 300		hour	\$82.35
8684	Truck, Fire	100 Ft Ladder				hour	\$100.00
8690	Truck, Fire	Pump Capacity	1000 GPM			hour	\$68.00
8691	Truck, Fire	Pump Capacity	1250 GPM			hour	\$72.25
8692	Truck, Fire	Pump Capacity	1500 GPM			hour	\$78.90
8693	Truck, Fire	Pump Capacity	2000 GPM			hour	\$81.40
8694	Truck, Fire Ladder	Ladder length	75 FT			hour	\$117.10
8695	Truck, Fire Ladder	Ladder length	150 FT			hour	\$142.75
8696	Truck, Fire	No Ladder		330	Rescure Equipment	hour	\$93.47
8700	Truck, Flatbed	Maximum Gvw	15000 Lbs	to 200		hour	\$20.60
8701	Truck, Flatbed	Maximum Gvw	25000 Lbs	to 275		hour	\$35.00
8702	Truck, Flatbed	Maximum Gvw	30000 Lbs	to 300		hour	\$27.10
8703	Truck, Flatbed	Maximum Gvw	45000 Lbs	to 380		hour	\$44.70
8708	Trailer, semi	48ft to 53ft, flat-bed, freight, two axle	50,000+ gwvr			hour	\$8.45
8709	Trailer, semi	enclosed 48 ft to 53 ft, two axles	50,000+ gwvr			hour	\$9.50
8710	Trailer, semi	28ft, single axle, freight	25,000 gwvr			hour	\$9.70
8711	Flat bed utility trailer	6 ton				hour	\$3.10
8712	Cleaner, Sewer/Catch Basin	Hopper Capacity	5 CY		Truck Mounted.	hour	\$24.80
8713	Cleaner, Sewer/Catch Basin	Hopper Capacity	14 CY		Truck Mounted.	hour	\$31.30
8714	Vactor	800 Gal Spoils/400 Gal Water	500/800 gal	49		hour	\$82.75
8715	Truck, Hydro Vac	model LP555DT				hour	\$18.00
8716	Leaf Vac	Tow by Truck 22,000 cfm capacity		85	Leaf Vac + Truck Code 8811	hour	\$51.25
8717	Truck, Vacuum	60,000 GVW		400		hour	\$74.20
8719	Litter Picker	model 2007 Barber			towed by tractor	hour	\$9.60
8720	Truck, Dump	Struck Capacity	8 CY	to 220		hour	\$48.90
8721	Truck, Dump	Struck Capacity	10 CY	to 320		hour	\$60.77
8722	Truck, Dump	Struck Capacity	12 CY	to 400		hour	\$67.70
8723	Truck, Dump	Struck Capacity	18 CY	to 400		hour	\$75.50
8724	Truck, Dump, Off Highway	Struck Capacity	28 CY	to 450		hour	\$121.20
8725	Truck, Dump	Struck Capacity	14 CY	to 400		hour	\$77.80
8730	Truck, Garbage	Capacity	25 CY	to 255		hour	\$48.50
8731	Truck, Garbage	Capacity	32 CY	to 325		hour	\$55.90
8733	E-BAM Services	Environmental Beta Attenuation Air Monitor			Powered by Solar System	hour	\$3.00
8734	Attenuator, safety	that can stop a vehicle at 60 mph				hour	\$5.50
8735	Truck, Attenuator	2004 Truck Mounted for 60 mph				hour	\$3.85
8736	Truck, tow	1987 Chevy Kodiak 70		175		hour	\$27.70
8744	Van, Custom	Special Service Canteen Truck		350		hour	\$18.00
8745	Van, step	model MT10FD		300		hour	\$21.25
8746	Van-up to 15 passenger	light duty, class 1		225-300		hour	\$20.00
8747	Van-up to 15 passenger	light duty, class 2		225-300		hour	\$20.15
8748	Van-cargo	light duty, class 1		225 - 300		hour	\$22.25
8749	Van-cargo	light duty, class 2		225-300		hour	\$22.25
8750	Vehicle, Small			to 30		hour	\$6.40
8753	Vehicle, Recreational			to 10		hour	\$2.80
8755	Golf Cart	Capacity	2 person			hour	\$3.75
8761	Vibrator, Concrete			to 4		hour	\$1.60
8770	Welder, Portable			to 16	Includes ground cable and lead cable.	hour	\$3.10

8771	Welder, Portable			to 34	Includes ground cable and lead cable.	hour	\$6.80
8772	Welder, Portable			to 50	Includes ground cable and lead cable.	hour	\$10.00
8773	Welder, Portable			to 80	Includes ground cable and lead cable.	hour	\$13.76
8780	Truck, Water	Tank Capacity	2500 Gal	to 175	Include pump and rear spray system.	hour	\$28.70
8781	Truck, Water	Tank Capacity	4000 Gal	to 250	Include pump and rear spray system.	hour	\$50.00
8788	Container & roll off truck	30 yds				hour	\$23.05
8789	Truck, Tractor	1997 Freightliner F120		430		hour	\$54.90
8790	Truck, Tractor	4 x 2	25000 lbs	to 210		hour	\$42.40
8791	Truck, Tractor	4 x 2	35000 lbs	to 330		hour	\$46.00
8792	Truck, Tractor	6 x 2	45000 lbs	to 360		hour	\$52.75
8794	Truck, freight	Enclosed w/lift gate. Medium duty class 5	gvwr 16000-19500 Lbs			hour	\$23.25
8795	Truck, backhoe carrier	Three axle, class 8, heavy duty	over 33000Lbs			hour	\$34.50
8796	Truck, freight	Enclosed w/lift gate. Heavy duty, class	7, 26,001 to 33,000 lbs gvwr			hour	\$31.00
8798	Truck	Tilt and roll-back, two axle, class 7 heavy duty,	to 33,000 gvwr			hour	\$32.00
8799	Truck,	Tilt and roll back, three axle. class 8 heavy duty	over 33,001+ gvwr			hour	\$40.60
8800	Truck, Pickup				When transporting people.	mile	\$0.54
8801	Truck, Pickup	1/2-ton Pickup Truck	4x2-Axle	160		hour	\$12.30
8802	Truck, Pickup	1-ton Pickup Truck	4x2-Axle	234		hour	\$17.65
8803	Truck, Pickup	1 1/4-ton Pickup Truck	4x2-Axle	260		hour	\$19.85
8804	Truck, Pickup	1 1/2-ton Pickup Truck	4x2-Axle	300		hour	\$22.25
8805	Truck, Pickup	1 3/4-ton Pickup Truck	4x2-Axle	300		hour	\$23.10
8806	Truck, Pickup	3/4-ton Pickup Truck	4x2-Axle	165		hour	\$13.40
8807	Truck, Pickup	3/4-ton Pickup Truck	4x4-Axle	285	Crew	hour	\$20.80
8808	Truck, Pickup	1-ton Pickup Truck	4x4-Axle	340	Crew	hour	\$22.85
8809	Truck, Pickup	1 1/4-ton Pickup Truck	4x4-Axle	360	Crew	hour	\$26.40
8810	Truck, Pickup	1 1/2-ton Pickup Truck	4x4-Axle	362	Crew	hour	\$26.75
8811	Truck, Pickup	1 3/4-ton Pickup Truck	4x4-Axle	362	Crew	hour	\$27.50
8820	Skidder accessory	2005 JCB Grapple Claw				hour	\$1.75
8821	Forklift, accessory	2005 ACS Grapple Bucket				hour	\$1.50
8822	Truck, Loader	Debris/Log (Knuckleboom Loader/Truck)		230		hour	\$52.26
8823	Chipper- Wood Recycler	Cat 16 engine		700		hour	\$115.00
8824	Skidder	model Cat 525B		up to 160		hour	\$62.90
8825	Skidder	40K lbs- model Cat 525C		161 and up		hour	\$118.77
8840	Truck, service	fuel and lube	up to 26,000 gvwr	215-225		hour	\$38.65
8841	Truck, fuel	2009 International 1,800 gal. storage tank		200		hour	\$30.50
8842	Mobile Command Trailer	(8' X 28') with 7.5 KW Generator				hour	\$14.66
8843	Mobile Response Trailer	(8' X 31') with 4.5 KW Generator?				hour	\$13.60
8844	Mobile Command Center	(unified) (RV) Ultimaster MP-35	43 FT Long with Generator	400		hour	\$75.00
8845	Mobile Command Post Vehicle	(RV) (In- Motion)	22-Ft Long	340		hour	\$31.00
8846	Mobile Command Post Vehicle	(RV) (Stationary) w/9.6 KW Generator	22-Ft Long	340		hour	\$19.25
8847	Mobile Command Center (Trailer)	48'x8' Trailer, Fully Equiped Mobile Command Center	48-Ft Long			hour	\$29.45
8848	Mobile Command Center (Trailer)	48'x8' When being Moved w/Truck Tractor		310		hour	\$48.90
8849	Mobile Command Center	43'x8.5' x 13.5'H with self 30kw Generator				hour	\$52.00
8850	Mobile Command Center	2007-Freightliner MT-55, (RV)		260		hour	\$45.50
8851	Mobile Command Van	1990- Ford Econoline-Communication Van		230		hour	\$41.00
8852	Mobile Command Center	47.5' X 8.75 Fully Equip' (In motion) (RV)		410		hour	\$65.30
8853	Mobile Command Center	47.5' X 8.75 Fully Equip' (Stationary)		410		hour	\$45.00

8854	Mobile Command Vehicle	53' X 8.75 Fully Equip		480-550		hour	\$96.20
8870	Light Tower	Terex/Amida AL 4000. with (4) 500 watt lights	w/10kw power unit	13.5		hour	\$10.68
8871	Light Tower	2004 Allmand				hour	\$6.30
8872	SandBagger Machine	(Spider) automatic		4.5		hour	\$48.75
8900	Helicopter	OH-58 KIOWA (Military) is the same as "Bell-206B3		420		hour	\$474.00
8901	Helicopter	OH-58 KIOWA (Military) is the same as "Bell-206BR		420		hour	\$496.00
8902	Helicopter	Model Bell 206-L3 Jet Range Helicopter		650	Jet Range III-Helicopter	hour	\$582.00
8903	Helicopter	Model Bell 206L1 Long Ranger		650	Long Ranger	hour	\$596.00
8904	Helicopter	Model Bell 206LT Long Range Twinranger		450	Twinranger	hour	\$780.00
8905	Helicopter	Model Bell 407 EMS- Ambulance		250		hour	\$626.00
8906	Piper-Fixed wing	Model Navajo PA-31		310		hour	\$456.00
8907	Piper-Fixed wing	PA-31-350, Navajo Chieftn twin engine		350		hour	\$487.00
8908	Sikorsky Helicopter	Model UH-60 (Blackhawk) medium lift	Medium Lift	1890	Fire Fighter Same as S70C	hour	\$2,945.00
8909	Helicopter	Model UH-A (Blackhawk) Medium lift	Medium Lift	1890	Fire Fighter	hour	\$5,504.00
8910	Boeing Helicopter	Model CH-47 (Chinook) heavy lift	Heavy Lift	2850	Fire Fighter	hour	\$10,750.00
8911	Helicopter- light utility	Model Bell 407GX - 7 seater	7-Seaters	675	Passenger Aircraft	hour	\$621.00
8912	Helicopter- light utility	Model Bell 206L- 7 seater	7-Seaters	420	Passenger Aircraft	hour	\$596.00
8913	Helicopter	Model Bell-206L4		726		hour	\$576.00
8914	King Air 200 Turboprop Aircraft	Blackhawk King Air B200XP61		669		hour	\$1,316.00
8915	Turboprops Blackhawk Aircraft	Blackhawk Caravan XP42 A		850		hour	\$897.00
8916	Turboprops Blackhawk Aircraft	King Air C90 XP135 A		550		hour	\$1,075.00
8917	Aerostar Piston Aircraft	Aerostar 601P		290		hour	\$447.00
8943	Wire Puller Machine	Overhead Wire Pulling Machine		30	Overhead/Underground Wire Pulling Machine	hour	\$19.85
8944	Wire Tensioning Machine	3000 Lbs			Overhead Wire Tensioning Machine	hour	\$14.50
8945	Aerial Lift	model 2008 Genie Scissor Lift				hour	\$6.30





# CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Resolution 2018-22

MEETING OF: October 3, 2018  
 FROM: Public Services  
 EXHIBITS: Resolution 2018-22,  
 Agreement

**SUBJECT: RAILROAD REIMBURSEMENT AGREEMENT FOR THE CONSTRUCTION OF GRADE CROSSINGS AND TRAFFIC CONTROL DEVICES ON EAST 8<sup>th</sup> STREET**

**REQUEST: ADOPT RESOLUTION NO. 2018-22**

**SUMMARY:**

The Florida Department of Transportation (FDOT) and the Florida Central Railroad Company are currently under construction to improve safety on East 8<sup>th</sup> Street. The full cost of the installation for the crossing upgrade will be paid by FDOT. Per the agreement, the City will pay for fifty percent (50%) of the annual maintenance cost equaling \$3,600 per year.

Resolution No. 2018-22 authorizes the Mayor to sign the agreement with FDOT and the Florida Central Railroad Company, Inc. for the East 8<sup>th</sup> Street grade crossing and traffic control devices construction and maintenance.

**FUNDING SOURCE:**

Fund 101 – Six Cents Gas Tax

**RECOMMENDATION ACTION:**

Adopt Resolution No. 2018-22

**DISTRIBUTION**

Mayor Nelson	Finance Director	Public Services Director
Commissioners	HR Director	Recreation Director
City Administrator	IT Director	City Clerk
Community Development Director	Police Chief	Fire Chief



**RESOLUTION NO. 2018-22**

**A RESOLUTION OF CITY OF APOPKA, FLORIDA, AUTHORIZING THE MAYOR TO SIGN A RAILROAD REIMBURSEMENT AGREEMENT FOR THE CONSTRUCTION OF RAILROAD GRADE CROSSINGS, INSTALLATION OF TRAFFIC CONTROL DEVICES RAILROAD GRADE CROSSINGS, AND FUTURE MAINTENANCE AND ADJUSTMENT OF SAID CROSSINGS AND DEVICES; PROVIDING FOR THE EXPENDITURE OF FUNDS; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, the State of Florida Department of Transportation is constructing, reconstructing or otherwise changing a portion of the Public Road System, on East 8<sup>th</sup> Street, which shall call for the installation and maintenance of railroad grade crossing traffic control devices for railroad grade crossing over or near said highway.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF APOPKA, FLORIDA, AS FOLLOWS:**

SECTION I. That the City of Apopka enter into a RAILROAD REIMBURSEMENT AGREEMENT with the State of Florida Department of Transportation and the Florida Central Railroad Company, Inc. for the installation and maintenance of certain grade crossings and traffic control devices for grade crossings designated as Financial Project ID 44235915701, on E. 8<sup>th</sup> Street which crosses the right-of-way and tracks of the Company's milepost number ST 802.22, at Railroad Crossing No. 625271-J located in Apopka, Florida; and

SECTION II. That the City of Apopka assume its share of the costs for future maintenance and adjustment of said grade crossing traffic control devices as designated in the RAILROAD REIMBURSEMENT AGREEMENT; and

SECTION III. The Mayor is hereby authorized to enter into such agreement with the State of Florida Department of Transportation and the Florida Central Railroad Company, Inc., as herein described.

SECTION IV. This Resolution shall become effective immediately upon approval and adoption.

**APPROVED AND ADOPTED** by the City Council of the City of Apopka, Florida, this 3rd day of October, 2018.

CITY OF APOPKA, FLORIDA

\_\_\_\_\_  
Bryan Nelson, Mayor

ATTEST:

\_\_\_\_\_  
Linda F. Goff, City Clerk



*Florida Department of Transportation*

**RICK SCOTT  
GOVERNOR**

719 S. Woodland Boulevard  
DeLand, Florida 32720-6834

**MIKE DEW  
SECRETARY**

August 10, 2018

Mr. Jay Davoll  
City of Apopka Engineer  
120 East Main Street  
Apopka, FL 32703

Subject: ***RAILROAD REIMBURSEMENT AGREEMENT  
GRADE CROSSING TRAFFIC CONTROL DEVICES-MUNICIPAL***

FM No. 442359-1-57-01  
E. 8<sup>th</sup> Street  
City of Apopka

Railroad Crossing No. 625271-J  
Railroad Milepost Number: ST 802.22  
Orange County

Dear Jay,

Annually, the Department of Transportation assembles a District Diagnostic Team to conduct on-site evaluations of railroad crossings that have been identified as potentially hazardous. Representatives from the Department's Safety and Rail Offices and Florida Central Railroad, Inc. evaluated the above rail-highway grade crossing in Apopka. The Department proposes to install (2) flashing lights & gates, (2) pedestrian gates, Constant Warning Time, conduit, power and a signal cabinet.

The purpose of this letter is to advise you that the safety improvements identified for this crossing have been included in the Department's Adopted Work Program. The installation of the recommended signal improvements will be at the Department's expense using Federal Safety Funds, which will be encumbered after October 1, 2018.

Enclosed is one copy of the Department's standard ***RAILROAD REIMBURSEMENT AGREEMENT, GRADE CROSSING TRAFFIC CONTROL DEVICES-MUNICIPAL*** for your signature.

A copy of the fully executed Agreement will be returned to you once all parties have signed.

If you have any questions, please feel free to contact me.

Sincerely,

Jim Ganey  
District Railroad Coordinator  
719 S. Woodland Blvd. – MS 3-562  
DeLand, FL 32720  
386-943-5331

cc: Laura Miller - FDOT

**RAILROAD REIMBURSEMENT AGREEMENT  
GRADE CROSSING TRAFFIC CONTROL DEVICES - MUNICIPAL**

FINANCIAL PROJECT NO.	ROAD NAME OR NUMBER	COUNTY NAME	PARCEL & R/W NUMBER	FAP NUMBER
44235915701	E. 8th STREET	ORANGE	1(75000-SIGG)	

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by and between the STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, hereinafter called the DEPARTMENT, and FLORIDA CENTRAL RAILROAD COMPANY, INC., a corporation organized and existing under the laws of FLORIDA, with its principal place of business in the City of PLYMOUTH, County of ORANGE, State of FLORIDA, hereinafter called the COMPANY; and the City of APOPKA, a municipal corporation, hereinafter called the CITY.

WITNESSETH:

WHEREAS, the DEPARTMENT is constructing, reconstructing or otherwise changing a portion of the Public Road System, designated by the Financial Project ID 442359-1-57-01, on E. 8th STREET, which crosses at grade the right of way and tracks of the COMPANY'S Milepost ST-802.22, FDOT/AAR Crossing Number 625271-J, at or near APOPKA, as shown on DEPARTMENT'S Plan Sheet No. 509-100, attached hereto as a part hereof; and

NOW, THEREFORE, in consideration of the mutual undertakings as herein set forth, the parties hereto agree as follows:

- The COMPANY shall furnish the necessary materials and install Automatic Grade Crossing Signals Type III Class III and/or other traffic control devices at said location on an actual cost basis and in accordance with (1) the attached detailed statement of the work, plans, and specifications; and (2) the DEPARTMENT'S Plans and Standard Index Number 17882 attached hereto and made a part hereof.
- After installation of said signals is completed, fifty (50%) percent of the expense thereof in maintaining the same shall be borne by the CITY and fifty (50%) percent shall be borne by the COMPANY, as enumerated by the Schedule of Annual Cost of Automatic Highway Grade Crossing Devices attached hereto and by this reference made a part hereof and subject to future revision.
- After said signals have been installed and found to be in satisfactory working order by the parties hereto, the same shall be immediately put into service, operated and maintained by the COMPANY so long as said COMPANY or its successors or assigns shall operate the said signals at said grade crossing; or until it is agreed between the parties hereto that the signals are no longer necessary or until the said crossing is abandoned; or legal requirements occur which shall cease operation of signals thereat.

The COMPANY agrees that any future relocation or adjustment of said signals shall be performed by the COMPANY, but at the expense of the party initiating such relocation. Upon relocation the maintenance responsibilities shall be in accordance with the provisions of this agreement. It is further agreed that the cost of maintaining any additional or replacement signal equipment at the same location will be shared as provided under Paragraph 2. above.

4. Unless otherwise agreed upon herein, the CITY agrees to ensure that at the crossing the advance warning signs and railroad crossing pavement markings will conform to the U.S. Department of Transportation Manual on Uniform Traffic Control Devices within 30 days of notification that the railroad signal improvements have been completed and that such signs and pavement markings will be continually maintained at an acceptable level.

5. The COMPANY hereby agrees to install and/or adjust the necessary parts of its facilities along said road in accordance with the provisions set forth in the:

- (a) DEPARTMENT Procedure No. 725-080-002 Appendix D.4, and Rule 14.57.011 "Public Railroad-Highway Grade Crossing Costs", Florida Administrative Code.
- (b) Federal Highway Administration Federal-Aid Policy Guide, 23 C.F.R. Subchapter G, Part 646, Subpart B, and 23 C.F.R., Subchapter B, Part 140, Subpart I,

and any supplements thereto or revisions thereof, which, by reference hereto, are made a part hereof. The COMPANY further agrees to do all of such work, with its own forces or by a contractor paid under a contract let by the COMPANY, all under the supervision and approval of the DEPARTMENT and the Federal Highway Administration, when applicable.

6. The DEPARTMENT hereby agrees to reimburse the COMPANY for all costs incurred by it in the installation and/or adjustment of said facilities, in accordance with the provisions of Procedure No. 725-080-002 Appendix D-4 "Billing Requirements," and any supplements thereto or revisions thereof. It is understood and agreed by and between the parties hereto that preliminary engineering costs not incorporated within this agreement shall not be subject to payment by the DEPARTMENT.

7. Attached hereto, and by this reference made a part hereof, are plans and specifications of the work to be performed by the COMPANY pursuant to the terms hereof, and an itemized estimate of the cost thereof in the amount of \$ 243,971.00 . All work performed by the COMPANY pursuant hereto, shall be performed according to these plans and specifications as approved by the DEPARTMENT and the Federal Highway Administration if federal aid participating; and all subsequent plan changes shall likewise be approved by the DEPARTMENT and the Federal Highway Administration, when applicable.

8. All labor, services, materials, and equipment furnished by the COMPANY in carrying out the work to be performed hereunder shall be billed by the COMPANY direct to the DEPARTMENT. Separate records as to the costs of

contract bid items and force account items performed for the COMPANY shall also be furnished by the COMPANY to the DEPARTMENT.

9. The COMPANY has determined that the method to be used in developing the relocation or installation cost shall be as specified for the method checked and described hereafter:

- (a) Actual and related indirect costs accumulated in accordance with a work order accounting procedure prescribed by the applicable Federal or State regulatory body.
- (b) Actual and related indirect costs accumulated in accordance with an established accounting procedure developed by the COMPANY and approved by the DEPARTMENT.
- (c) An agreed lump sum \$ \_\_\_\_\_, as supported by a detail analysis of estimated cost attached hereto. (NOTE: This method is not applicable where the estimated cost of the proposed adjustment exceeds \$100,000.)

10. The installation and/or adjustment of the COMPANY'S facility as planned  will  will not involve additional work over and above the minimum reimbursable requirements of the DEPARTMENT. (If upgrading and/or nonreimbursable work is involved at the option of the COMPANY, then credit against the cost of the project is required and will be governed by the method checked and described hereafter):

- (a) \_\_\_\_\_ % will be applied to the final billing of work actually accomplished to determine required credit for (betterment) and/or (expired service life) and/or (nonreimbursable segments).
- (b) All work involving nonreimbursable segments will be performed by special COMPANY work or job order number apart and separate from the reimbursable portion of the work; such work or job order number to be \_\_\_\_\_. The COMPANY further agrees to clearly identify such additional work areas in the COMPANY'S plans and estimates for the total work covered by this Agreement.
- (c) \$ \_\_\_\_\_ credited for  betterment  expired service life  
 nonreimbursable segments in accord with Article 9.(c) hereinabove.

11. It is specifically agreed by and between the DEPARTMENT and the COMPANY that the DEPARTMENT shall receive fair and adequate credit for any salvage which shall accrue to the COMPANY as a result of the above installation and/or adjustment work.

12. It is further agreed that the cost of all improvements made during this adjustment work shall be borne by the COMPANY, subject only to the DEPARTMENT bearing such portion of this cost as represents the cost of adjustment of previously existing facility, less salvage credit as set forth in the immediately preceding paragraph.

13. Upon completion of the work the COMPANY shall, within one hundred eighty (180) days, furnish the DEPARTMENT with two (2) copies of its final and complete billing of all costs incurred in connection with the work performed hereunder, such statement to follow as closely as possible the order of the items contained in the estimate attached hereto. The totals for labor, overhead, travel expense, transportation, equipment, material and supplies, handling costs and other services shall be shown in such a manner as will permit ready comparison with the approved plans and estimates. Materials shall be itemized where they represent major components of cost in the relocation following the pattern set out in the approved estimate as closely as is possible. Salvage credits from recovered and replaced permanent and recovered temporary materials shall be reported in said bills in relative position with the charge for the replacement or the original charge for temporary use.

The final billing shall show the description and site of the Project; the date on which the first work was performed, or, if preliminary engineering or right-of-way items are involved, the date on which the earliest item of billed expense was incurred; the date on which the last work was performed or the last item of billed expense was incurred; and the location where the records and accounts billed can be audited. Adequate reference shall be made in the billing to the COMPANY'S records, accounts and other relevant documents. All cost records and accounts shall be subject to audit by a representative of the DEPARTMENT. Upon receipt of invoices, prepared in accordance with the provisions of the above indicated Reimbursement Policy, the DEPARTMENT agrees to reimburse the COMPANY in the amount of such actual costs as approved by the DEPARTMENT'S auditor.

14. Payment shall be made only after receipt and approval of goods and services unless advance payments are authorized by the DEPARTMENT's Comptroller under Section 334.044(29), F.S., or by the Department of Financial Services under Section 215.422(14), Florida Statutes (F.S.).

15. In accordance with Section 287.058, Florida Statutes, the following provisions are in this Agreement: If this Contract involves units of deliverables, then such units must be received and accepted in writing by the Contract Manager prior to payments. Bills for fees or other compensation for services or expenses shall be submitted in detail sufficient for a proper preaudit and postaudit thereof.

16. Bills for travel expenses specifically authorized in this agreement shall be submitted and paid in accordance with DEPARTMENT Rule 14-57.011 "Public Railroad-Highway Grade Crossing Costs" and the Federal Highway Administration Federal-Aid Policy Guide, Subchapter B, Part 140, Subpart I "Reimbursement for Railroad Work."

17. In accordance with Section 215.422, Florida Statutes, the following provisions are in this Agreement: Contractors providing goods and services to the Department should be aware of the following time frames. Upon receipt, the Department has five (5) working days to inspect and approve the goods and services, unless the Agreement specifies otherwise. The Department has 20 days to deliver a request for payment (voucher) to the Department of Financial Services. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.

If a payment is not available within 40 days, a separate interest penalty at a rate as established pursuant to Section 215.422(3)(b), Florida Statutes, will be due and payable, in addition to the invoice amount, to the Contractor. Interest penalties of less than one (1) dollar will not be enforced unless the Contractor requests payment. Invoices which have to be returned to a Contractor because of Contractor preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.

A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this individual include acting as an advocate for contractors/vendors who may be experiencing problems in obtaining timely payment(s) from a state agency. The Vendor Ombudsman may be contacted at (850) 413-5516 or by calling the Division of Consumer Services at 1-877-693-5236.

18. In the event this contract is for services in excess of TWENTY FIVE THOUSAND DOLLARS (\$25,000.00) and a term for a period of more than one year, the provisions of Section 339.135(6)(a), Florida Statutes, are hereby incorporated:

The Department, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The Department shall require a statement from the Comptroller of the Department that such funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years; and this paragraph shall be incorporated verbatim in all contracts of the Department which are for an amount in excess of TWENTY FIVE THOUSAND DOLLARS (\$25,000.00) and which have a term for a period of more than one year.

19. In accordance with Section 287.133 (2)(a), Florida Statutes, the following provisions are included in this Agreement:

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s.287.017 for CATEGORY TWO for a period of 36 months following the date of being placed on the convicted vendor list.

20. In accordance with Section 287.134(2)(a), Florida Statutes, the following provisions are included in this Agreement:

An entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity.

21. In accordance with Section 287.0582, Florida Statutes, the following provision is included in this Agreement:

The Department's obligation to pay under this section is contingent upon an annual appropriation by the Florida Legislature.

22. The COMPANY covenants and agrees that it will indemnify and hold harmless the DEPARTMENT and all of the DEPARTMENT'S officers, agents, and employees from any claim, loss, damage, cost charge, or expense arising out of any act, action, neglect, omission or delay by the COMPANY during the performance of the contract,



whether direct or indirect, and whether to any person or property to which the DEPARTMENT or said parties may be subject, except that neither the COMPANY nor any of its sub-contractors will be liable under this section for damages arising out of injury or damage to persons or property directly caused or resulting from the sole negligence of the DEPARTMENT or any of its officers, agents, or employees.

23. COMPANY shall:

1. utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the COMPANY during the term of the contract; and
2. expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

24. It is understood and agreed by the parties to this Agreement that if any part, term, or provision of this Agreement is held illegal by the courts or in conflict with any law of the State of Florida, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provision held to be invalid.

25. Any questions or matters arising under this Agreement as to validity, construction, enforcement, performance, or otherwise, shall be determined in accordance with the laws of the State of Florida. Venue for any action arising out of or in any way related to this Agreement shall lie exclusively in a state court of appropriate jurisdiction in Leon County, Florida.

26. The parties agree to bear their own attorney's fees and costs with respect to this Agreement.

27. The parties agree that this Agreement is binding on the parties, their heirs-at-law, and their assigns and successors in interest as evidenced by their signatures and lawful executions below.

28. A modification or waiver of any of the provisions of this Agreement shall be effective only if made in writing and executed with the same formality as this Agreement.

29. Upon execution of this agreement by all parties and after all signal improvements have been placed in service, the Signal Agreement dated October 19, 1981 shall be terminated (Copy attached).

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their duly authorized officers, the day and year first above written.

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

BY: \_\_\_\_\_  
(TITLE: Director of Transportation Operations )

---

---

COMPANY: Florida Central Railroad Company, Inc.

BY: \_\_\_\_\_  
(TITLE: \_\_\_\_\_ )

---

---

CITY OF Apopka , FLORIDA

BY: \_\_\_\_\_  
(TITLE: \_\_\_\_\_ )

---

---

Legal Review  
BY: \_\_\_\_\_  
Attorney - DOT                      Date

Approved as to Funds Available  
BY: \_\_\_\_\_  
Comptroller - DOT                      Date

Approved as to FAPG Requirements  
BY: \_\_\_\_\_  
FHWA                                      Date

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES**  
**ANNUAL MAINTENANCE COSTS**

725-090-41  
RAIL  
OGC - 07/16

FINANCIAL PROJECT NO.	ROAD NAME OR NUMBER	COUNTY NAME	PARCEL & R/W NUMBER	FAP NUMBER
44235915701	E. 8th STREET	ORANGE	1(75000-SIGG)	

COMPANY NAME: FLORIDA CENTRAL RAILROAD COMPANY, INC.

A. FDOT/AAR XING NO.: 625271-J RR MILE POST TIE: ST-802.22

B. TYPE SIGNALS PROPOSED III CLASS III DOT INDEX: 509-100

**SCHEDULE OF ANNUAL COST OF AUTOMATIC  
HIGHWAY GRADE CROSSING TRAFFIC CONTROL DEVICES**

Annual Maintenance Cost Exclusive of Installation

<u>CLASS</u>	<u>DESCRIPTION</u>	<u>COST*</u>
I	2-Quadrant Flashing Lights with One Track	\$2,386.00
II	2-Quadrant Flashing Lights with Multiple Tracks	\$3,158.00
III	2-Quadrant Flashing Lights and Gates with One Track	\$3,600.00
IV	2-Quadrant Flashing Lights and Gates with Multiple Tracks	\$4,520.00
V	3 or 4-Quadrant Flashing Lights and Gates with One Track	\$7,116.00
VI	3 or 4-Quadrant Flashing Lights and Gates with Multiple Tracks	\$8,930.00

AUTHORITY: FLORIDA ADMINISTRATIVE RULE 14-57.011  
Public Railroad-Highway Grade Crossing Costs

EFFECTIVE DATE: July 22, 1982

GENERAL AUTHORITY: 334.044, F.S.

SPECIFIC LAW IMPLEMENTED: 335.141, F.S.

\*This schedule will become effective July 1, 2016 and will be reviewed every 5 years and revised as appropriate based on the Consumer Price Index for all Urban Consumers published by the U.S. Department of Labor.

Crossing Name	FDOT #	Scope Of Work	Price
Emerald Rd (Ocala) FN	DOT# 627225P	Material, labor, expenses and equipment to <b>replace and install (2) new gate mechanisms and replace SCX with PMD-3.</b> Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, and all other miscellaneous materials to complete the new signal system.	\$77,750.17
Oak Rd. (Ocala)	DOT# 627226W	Material, labor, expenses and equipment to <b>replace SCX with PMD-3.</b> Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, and all other miscellaneous materials to complete the new signal system.	\$42,572.47
S. Mt. Homer Rd. (Tavares)	DOT# 622004V	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using a <b>XP-4</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$191,815.24
CR-452/Lake Dora Dr. (Tavares)	DOT# 621998L	Material, labor, expenses and equipment to <b>install (3) new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells and <b>(3) Ped gates.</b> Price includes a new factory wired shelter using a <b>XP-4</b> with remote for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$294,970.83
West Ponkan Rd. (Apopka)	DOT# 625260K	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using a <b>XP-4</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$191,815.24
Bethune Ave. (Winter Garden)	DOT# 621887U	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using <b>T-Boss with remote</b> for train detection equipment and <b>(1) pedestrian gate.</b> Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system. <b>Reuse existing short concrete power pole.</b>	\$184,275.41
SR-438/AV. Silverstar (Winter Garden)	DOT# 621879C	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using a <b>PMD-3</b> for train detection equipment. Price to include <b>one pedestrian gate.</b> Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system. <b>Includes removal of existing (2) cantilevers.</b>	\$200,466.16
Gilliam Rd. (Winter Garden)	DOT# 621861S	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using a <b>PMD-3 with shunt enhancer</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$178,997.67
W. 4th St. (Apopka)	DOT# 625266M	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using a <b>XP-4</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$181,815.24
E. 8th St. (Apopka)	DOT# 625271J	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using <b>XP-4</b> for train detection equipment. Price includes <b>(2) ped gates</b> and all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system. <b>Remove existing 8th St. equipment from the nearby Orange Trail bungalow.</b>	\$243,970.93
S. Highland Ave. (Apopka)	DOT# 625273X	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using <b>XP-4</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$191,815.24
Vulcan Rd. (Apopka)	DOT# 625278G	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using a <b>XP-4 with remote</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$191,815.24
US-441/Orange Blossom (Orlando)	DOT# 622365A	Material, labor, expenses and equipment to <b>remove and replace (2) cantilevers with (2) new cantilevers</b> equipped with 12" LED light units. Price to include <b>(1) pedestrian gate</b> equipped. Price includes all required field materials consisting of the cable, conduits, ac meter service and all other miscellaneous materials to complete the new signal system. Price to include <b>upgrading of existing shelf relays to plug in relays.</b>	\$187,522.55
W. New Hampshire St (Orlando)	DOT# 622360R	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells. Price includes a new factory wired shelter using <b>T-Boss with remote</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system. <b>Add sidelights and new curb in S.W. quad.</b>	\$177,888.50
NW 1st St (Newberry)	DOT# 622497K	Material, labor, expenses and equipment to <b>install new flasher and gate type signals</b> equipped with 12" LED light units and pole mounted bells with side lights. Price includes a new factory wired shelter using a <b>PMD-3 with remote</b> for train detection equipment. Price includes all required field materials consisting of the cable, conduits, rail bonds, track connection kits, ac meter service and all other miscellaneous materials to complete the new signal system.	\$177,134.04

52,470,564.00

Crossing No: 625271J    Roadway: E 8TH ST    RR Street:    District: 5    County: Orange  
 PUBLIC HWY    AT GRADE Industrial    City: Apopka    IN CITY    OPEN--TRACK ACTIVE

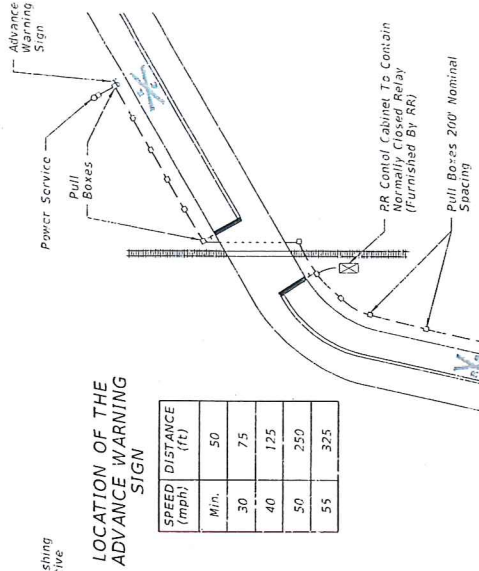
Rank 2016:	SR No.:	RR Company:	FCEN	Date: 03/21/2017 Team Members: Allbritton Ganey Iacono Regalado
Rank 2015: 2200	CR No.:	Division Name:	TAMPA	
Rank 2014:	US No.:	Subdivision Name:	ORLANDO	
	Latitude: 28.668200	Branch Name:	ST 830	
	Longitude: -81.510000	RR Milepost:	802.22	

Field Review Comments: Upgrade from FL's to FL&G's

Team Recommendations: 2-FL&G's, a cabinet, CWT, 2- ped gates, cable, conduit & power.

Highway Speed:	30	<input type="checkbox"/>	Train Speed Range:	5-25	<input type="checkbox"/>
Crossing Angle:	30-59 DEG	<input type="checkbox"/>	Max Time Table Speed:	25	<input type="checkbox"/>
AADT:	6873 (2008)	<input type="checkbox"/>	Day Thru/Switch:	0/2	<input type="checkbox"/>
Percent Trucks:	14 (2009)	<input type="checkbox"/>	Night Thru/Switch:	0/0	<input type="checkbox"/>
School Buses:	1 (2016)	<input type="checkbox"/>	Train Service: Freight		<input type="checkbox"/>
Street Types:	Two-Way Street	<input type="checkbox"/>	Passenger Count/Day:	0	<input type="checkbox"/>
Thru Lanes:	2	<input type="checkbox"/>	Train Count Date:	10/17/2011	<input type="checkbox"/>
Aux Lanes:	0	<input type="checkbox"/>	Main Tracks:	1	<input type="checkbox"/>
Hazmat Route?	NO	<input type="checkbox"/>	Other Tracks:		<input type="checkbox"/>
Emergency Services Route?	YES	<input type="checkbox"/>	Train Signals?	NO	<input type="checkbox"/>
Emergency Notification Signs:	NO	<input type="checkbox"/>	Train Signal Proximity:	NO	<input type="checkbox"/>
Crossbuck(4x4 post):	0	<input type="checkbox"/>	Train Detection:	Constant Warning Time	<input type="checkbox"/>
Crossbuck Sign:	2	<input type="checkbox"/>	Event Recorder?		<input type="checkbox"/>
Stop Sign:	0	<input type="checkbox"/>	Number of Bells:	2	<input type="checkbox"/>
Yield Sign:	0	<input type="checkbox"/>	Post Mounted Flashing Lights:	2	<input type="checkbox"/>
Low Ground Clearance Signs:	0	<input type="checkbox"/>	Backlights, Incandescent		<input type="checkbox"/>
Exempt Signs:	NO	<input type="checkbox"/>	Roadway Gate Count:	0	<input type="checkbox"/>
Trespass Signs:	NO	<input type="checkbox"/>	Pedestrian Gate Count:	0	<input type="checkbox"/>
W10-1	2	R10-6a	0	W8-1	0
W10-2	0	R11-2	0	W10-8	0
W10-3	0	R15-2P	0	W10-9	0
W10-4	0	R15-6	0	W10-9P	0
W10-11	0	R15-6a	0	W10-11a	0
W10-12	0	R15-7	0	W10-11b	0
R3-1a	0	R15-7a	0	W10-13P	0
R3-2a	0	R15-8	0	W10-14P	0
R8-8	0	Pvt Crossing	0	W10-14aP	0
R8-9	0	Look Out	0	W10-15P	0
R8-10	0	R8-8 w/Beacon	0	Slow	0
R8-10a	0	W3-1		W10-1w/Beacon	0
R10-6	0	W3-3		LED Signs	0
Surface Installment Date:		<input type="checkbox"/>	LED Count:	0	<input type="checkbox"/>
Surface Type:	RUBBER	<input type="checkbox"/>	Install - Upgrade:	-- 01/18/1983	<input type="checkbox"/>
Pvmt Mrk:	STOPLINES AND XING SYMBOLS	<input type="checkbox"/>	Maintenance Responsibility:	CITY	<input type="checkbox"/>
Surface Condition:	EXCELLENT	<input type="checkbox"/>	Roadway Paved:	YES	<input type="checkbox"/>
Approach:	LOS B = Uneven	<input type="checkbox"/>	Tracks run down street?	NO	<input type="checkbox"/>
Vehicle Reaction:	LOS B = Vibrating	<input type="checkbox"/>	Sidewalks on Crossing Approach?	YES	<input type="checkbox"/>
Driver Reaction:	LOS A = No reaction	<input type="checkbox"/>	Sidewalks Thru Crossing?	YES	<input type="checkbox"/>
Rail/Pad Movement:	LOS A = Smooth	<input type="checkbox"/>	Crossing illuminated?	YES	<input type="checkbox"/>
Incident History:			Commerical Power?	YES	<input type="checkbox"/>
			Alternative Power?	NO	<input type="checkbox"/>
			Recommended Warning Device:	FL & G	

The Distance Is Measured Along Right Edge Of Pavement From RR Stop Bar To Sign Advance Warning Sign.

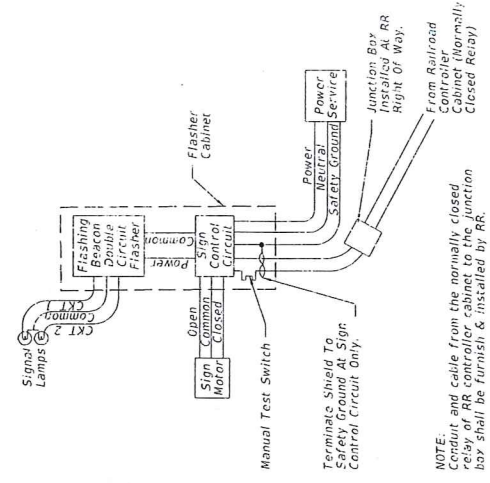


TYPICAL PLAN

LOCATION OF THE ADVANCE WARNING SIGN

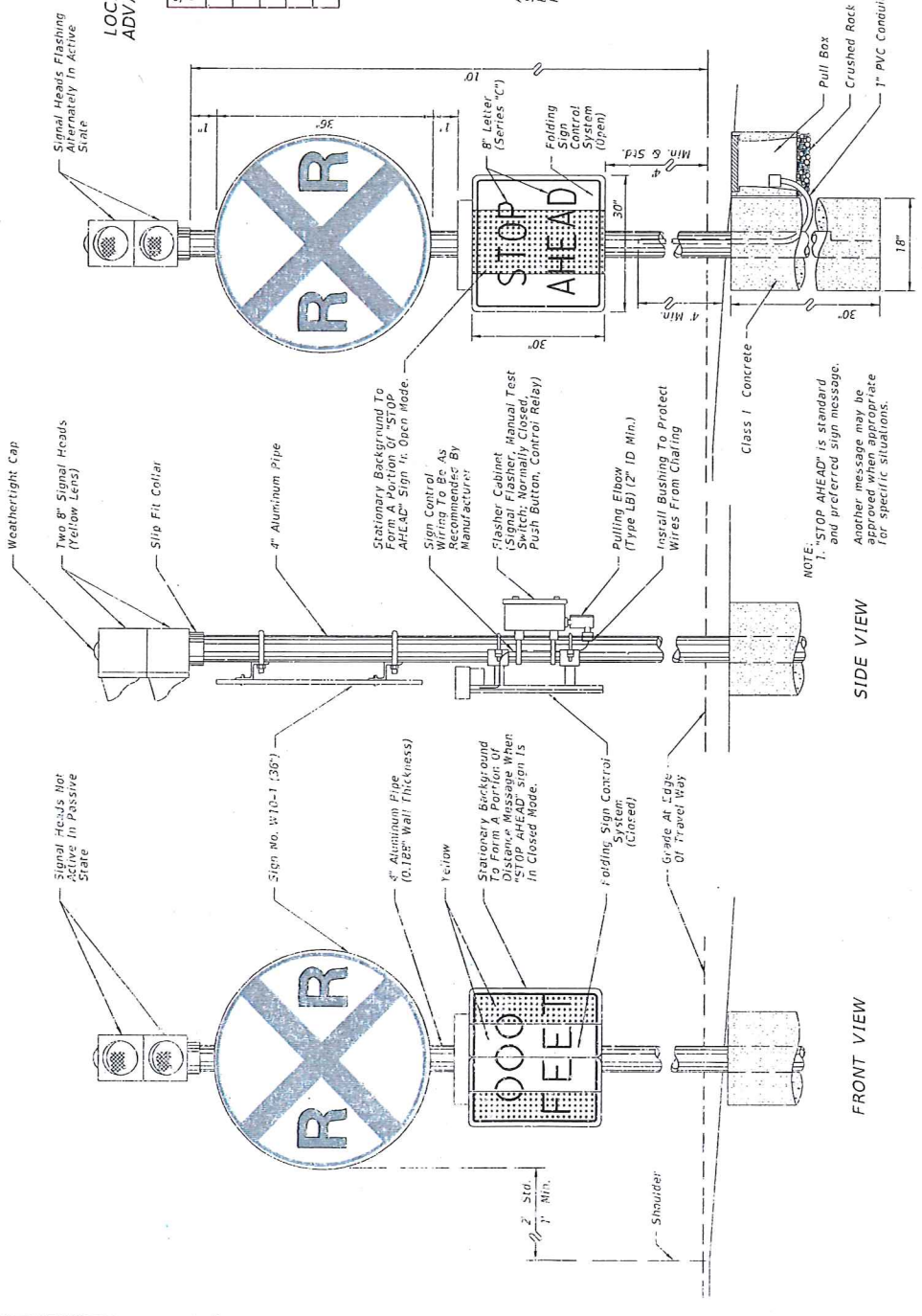
SPEED (mph)	MIN.	50	75	125	250	325
Distance (ft)						

Advance Warning Sign Location May Be Adjusted To Fit Field Conditions.



FUNCTIONAL BLOCK DIAGRAM

NOTE: Conduct and cable from the normally closed relay of RR controller cabinet to the junction box shall be furnished & installed by RR.



FRONT VIEW  
ACTIVE STATE  
(TRAIN CIRCUIT ACTUATED)

FRONT VIEW  
PASSIVE STATE  
(TRAIN CIRCUIT NOT ACTUATED)

SIDE VIEW

NOTE:  
1. "STOP AHEAD" is standard and preferred sign message. Another message may be approved when appropriate for specific situations.

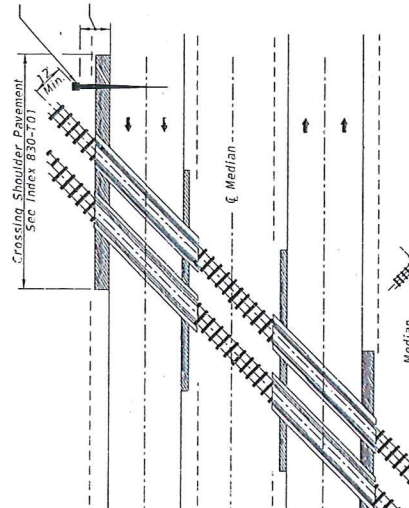
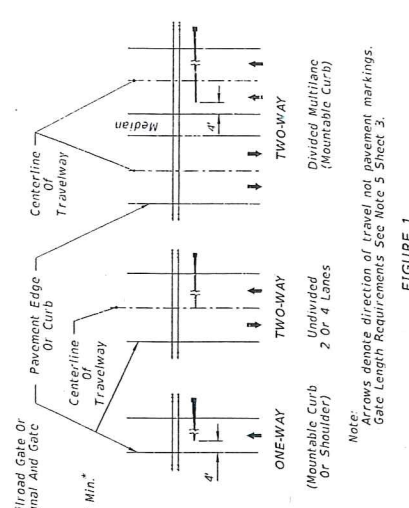
ADVANCE WARNING FOR R/R CROSSING

DESCRIPTION:  
REVISION  
LAST REVISION  
11/01/17

INDEX  
509-100

SHEET  
1 OF 1

OLD # 17881



ONE-WAY  
 (Mountable Curb Or Shoulder)  
 TWO-WAY  
 Undivided  
 2 Or 4 Lanes  
 TWO-WAY  
 Divided Multilane  
 (Mountable Curb)

Note: Arrows denote direction of travel not pavement markings.  
 Gate Length Requirements See Note 5 Sheet 3.

FIGURE 1

Note: Two separate foundations may be required (one for signals, one for gate), depending on type of equipment used.

\* When 10' is deemed impracticable the control device can be located as close as 2' from the edge of a paved shoulder but not less than 6' from the edge of the near traffic lane.

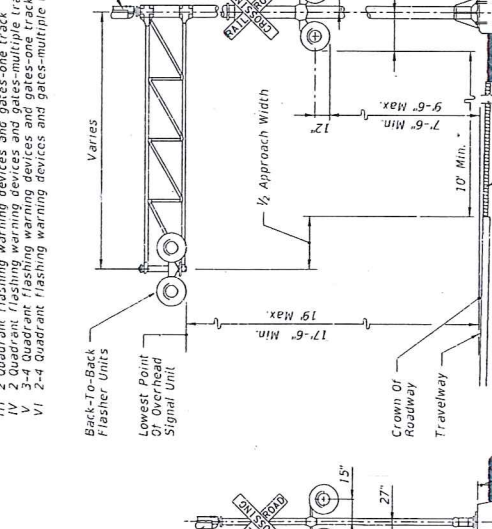
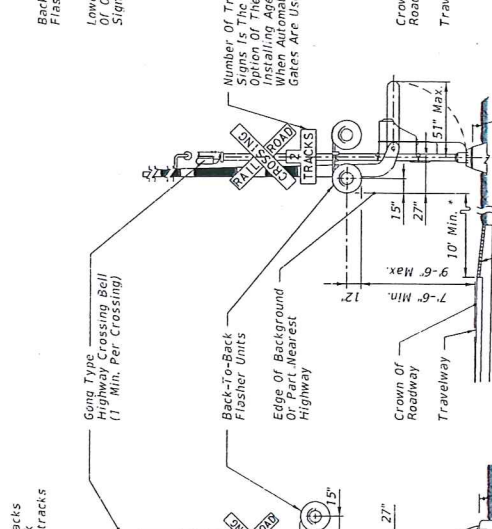
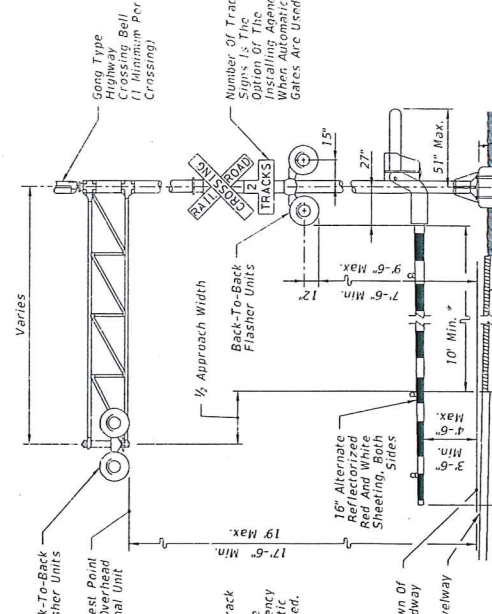


SIGNAL PLACEMENT AT RAILROAD CROSSING  
 (4 - LANE DESIGN)

GENERAL NOTES:

1. No quadrant is proposed for signals; however, some form of impact attenuation device may be specified for certain locations.
2. Advance flasher to be installed when and if called for in plans or specifications.
3. Top of foundation shall be no higher than 4" above finished shoulder grade.

4. Type of traffic control device
  - I Flashing warning devices with cantilever
  - II Flashing warning devices with gate
  - III Flashing warning devices with cantilever and gate
  - IV Gate
5. Class of traffic control devices (Not Shown)
  - I 2 Quadrant flashing devices-one track
  - II 2 Quadrant flashing devices-multiple tracks
  - III 2 Quadrant flashing warning devices-one track
  - IV 2 Quadrant flashing warning devices and gates-multiple tracks
  - V 3-4 Quadrant flashing warning devices and gates-one track
  - VI 2-4 Quadrant flashing warning devices and gates-multiple tracks



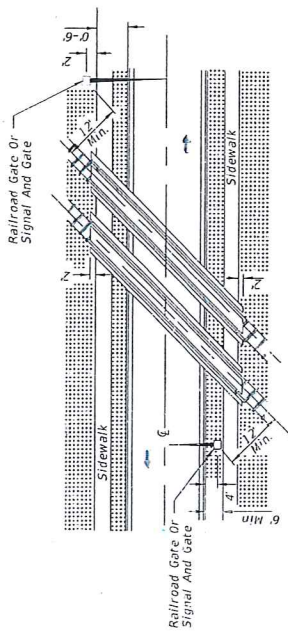
TYPE I  
 TYPE II  
 TYPE III AND TYPE V  
 TYPE IV AND TYPE VI

DESCRIPTION:  
 RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES FOR FLUSH SHOULDER ROADWAY

INDEX  
 509-070

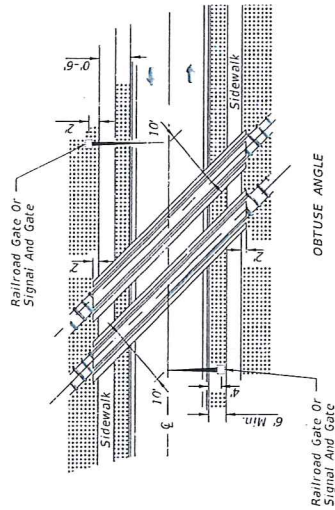
REVISION  
 II/01/17

LAST REVISION  
 II/01/17



ACUTE ANGLE (AND RIGHT ANGLE)

SIGNAL PLACEMENT AT RAILROAD CROSSING  
(2 LANES, CURB & GUTTER)



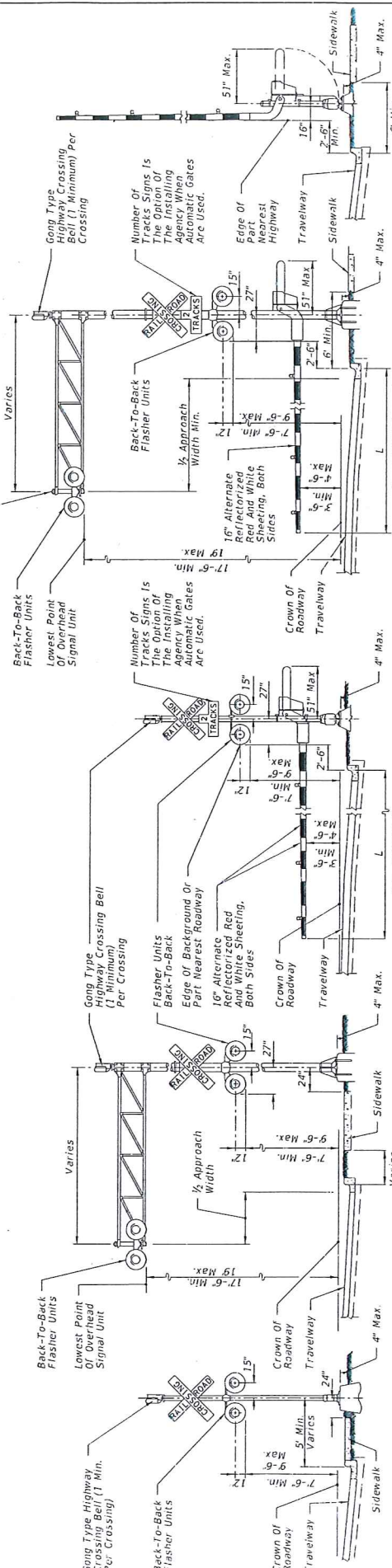
OBTUSE ANGLE

SIGNAL PLACEMENT AT RAILROAD CROSSING  
(2 LANES, CURB & GUTTER)

NOTES:

1. The location of flashing warning devices and stop lines shall be established based on future (or present) installation of gate with appropriate track clearances.
2. Where plans call for railroad traffic control devices to be installed in curved medians, the minimum median width shall be 12'-6".
3. Location of railroad traffic control device is based on the distance available between face of curb & sidewalk, or to 6' - sidewalk, over 6' - locate device between face of curb and sidewalk.
4. Stop line to be perpendicular to edge of roadway, approx. 15' from nearest rail; or 8' from and parallel to gate when present.
5. When a cantilevered-arm flashing warning device is used, the minimum vertical clearance shall be 17'-6" from above the Crown of Roadway to the Lowest Point of the Overhead Signal Unit.

As A Minimum, Position One Flasher Unit Over Lane Separation Lines (More Than One Flasher Unit If There Are More Than 2 Approach Lanes).



TYPE I

TYPE II

TYPE III

TYPE IV

TYPE V

TRAFFIC CONTROL DEVICES FOR CURBED ROADWAY

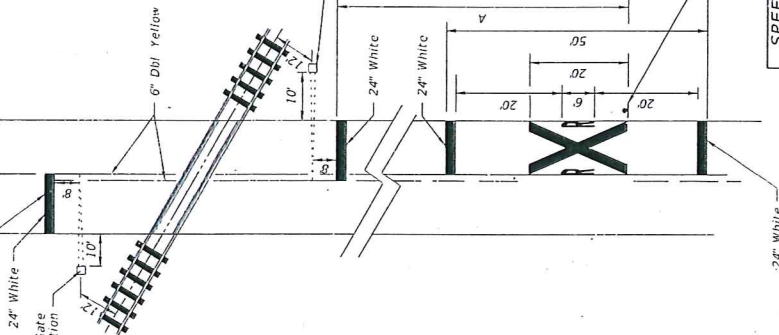
DESCRIPTION:	RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES		SHEET
REVISION	509-070		2 of 4
LAST REVISION 11/01/17	INDEX		
	FY 2018-19 STANDARD PLANS		

OLD # 11882



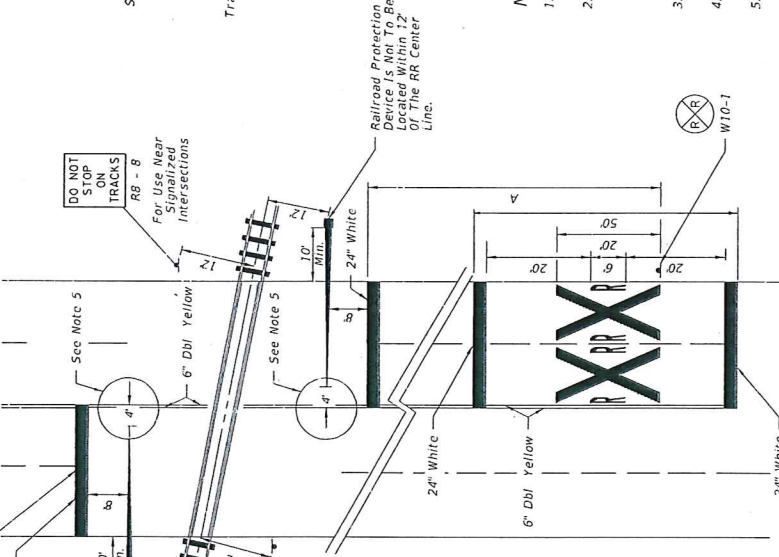
RAILROAD CROSSING AT TWO (2)-LANE ROADWAY

Stop Bar Perpendicular to Edge of Travel Way or 8' From & Parallel To Gate When Present.



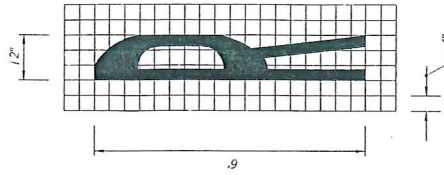
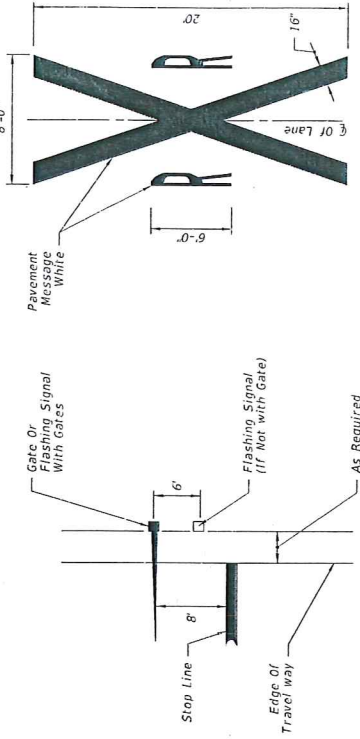
RAILROAD CROSSING AT MULTILANE ROADWAY

DO NOT STOP TRUCKS RR - B For Use Near Signalized Intersections



SPEED (mph)	" A " (ft)
60	400
55	325
50	250
45	175
40	125
35	100
URBAN	85 MIN.

RELATIVE LOCATION OF CROSSING TRAFFIC CONTROL DEVICES



NOTES:

- When computing pavement message, quantities do not include traverse lines.
- Placement of sign W10-1 in a residential or business district, where low speeds are prevalent, the W10-1 sign may be placed within a distance of 100 feet from the crossing. Where street intersections occur from RR tracks, the W10-1 sign and the message should be used.
- A portion of the pavement markings symbol should be directly opposite the W10-1 sign.
- Recommended location for FTP-61-06 or FTP-62-06 signs, 100' urban and 300' rural. See Index 700-102 for sign details.
- Gate Length Requirements:  
For two-way undivided sections:  
The gate should extend to within 1' of the center line. On multiple approaches the maximum gate length may not reach to within 1' of the center line. For these cases, the distance from the gate to the center line shall be a maximum of 4'.  
For one-way or divided sections:  
The gate shall be of sufficient length such that the distance from the gate tip to the inside edge of pavement is a maximum of 4'.

DESCRIPTION:  
REVISION  
LAST REVISION II/01/17

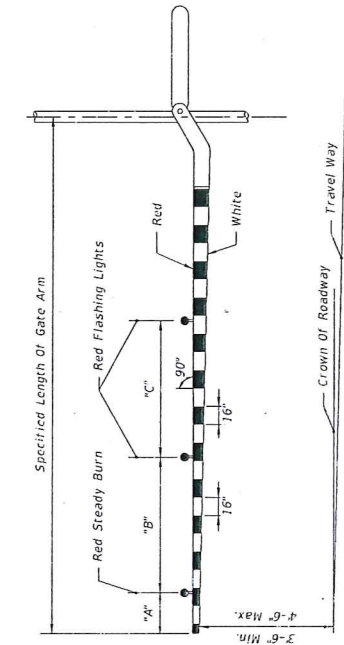
FY 2018-19  
STANDARD PLANS



RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES

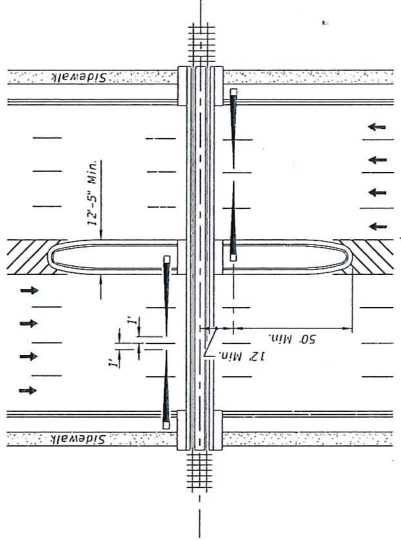
INDEX SHEET  
509-070 3 of 4

OLD # 17882

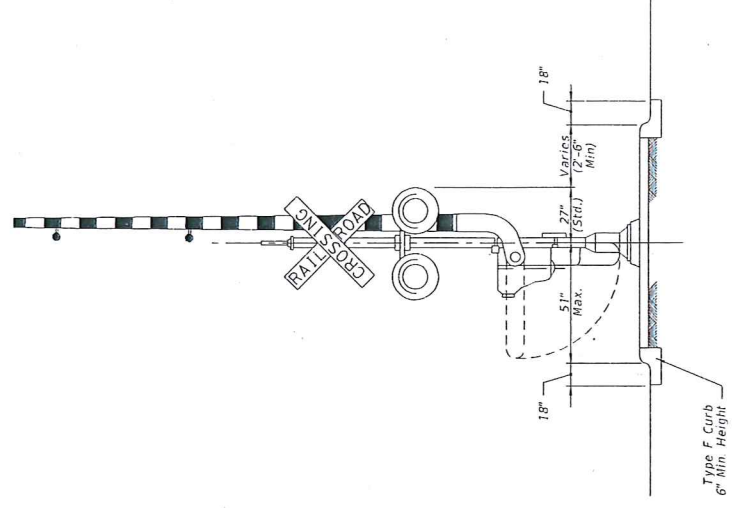


RAILROAD GATE ARM LIGHT SPACING

Specified Length Of Gate Arm	Dimension "A"	Dimension "B"	Dimension "C"
14 Ft.	6"	36"	5'
15 Ft.	18"	36"	5'
16-17 Ft.	24"	36"	5'
18-19 Ft.	28"	41"	5'
20-23 Ft.	28"	4'	5'
24-28 Ft.	28"	5'	5'
29-31 Ft.	36"	6'	7'
32-34 Ft.	36"	9'	9'
35-37 Ft.	36"	10'	10'
38 And Over	36"		



PLAN



MEDIAN SECTION AT SIGNAL GATES

NOTE:  
For additional information see the "Manual On Uniform Traffic Control Devices", Part 8; The "Traffic Control Handbook", Part VIII; and AASHTO "A Policy On Geometric Design Of Streets And Highways".

MEDIAN SIGNAL GATES FOR  
MULTILANE UNDIVIDED URBAN SECTIONS  
(THREE OR MORE DRIVING LANES IN ONE DIRECTION, 45 MPH OR LESS)

LAST REVISION 11/01/17	DESCRIPTION:	FDOT FY 2018-19 STANDARD PLANS	INDEX 509-070	SHEET 4 of 4
---------------------------	--------------	--------------------------------------	------------------	-----------------

OLD # 17882

625271 J

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
DIVISION OF ROAD OPERATIONS

RAILROAD REIMBURSEMENT AGREEMENT  
GRADE CROSSING TRAFFIC CONTROL DEVICES  
AND FUTURE RESPONSIBILITY  
(Municipal)

Drawn	Posting
<i>(Signature)</i>	08
Status	06

COUNTY	SECTION	UTILITY JOB NO.	STATE ROAD NO.	COUNTY NAME	PARCEL & R/W JOB NO.	F A P N	File
75	000	<del>6952</del> 6960	8th St.	Orange	1 (Sig-B)	RHS-005(256) RRP-0005-(102)	

Contract # 5530

THIS AGREEMENT, made and entered into this 19<sup>th</sup> day of October, 1981, by and between the STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, hereinafter called the DEPARTMENT, and SEABOARD COAST LINE RAILROAD COMPANY, a corporation, with its principal place of business in the City of JACKSONVILLE, County of DUVAL, State of FLORIDA, hereinafter called the COMPANY; and APOPKA, FLORIDA, a municipal corporation, hereinafter called the CITY.

WITNESSETH:

WHEREAS, the DEPARTMENT is constructing, reconstructing or otherwise changing a portion of the State Highway System, designated by the DEPARTMENT as Job No. 75000-6952, between SCL RAILROAD and 8th STREET, which crosses at grade the right-of-way and tracks of the COMPANY at a point 1061' feet SOUTHEAST from the COMPANY'S Milepost ST-802, FDOT/AAR Crossing Number 625271-J, at or near APOPKA, FLA., as shown on DEPARTMENT'S Plan Sheet No. ONE (1), attached hereto as a part hereof; and

WHEREAS, the work contemplated hereunder is subject to the provisions of the Federal Highway Administration Federal Aid Highway Program Manual, Volume 1, Chapter 4, Section 3 (FHPM 1-4-3), as amended, and Federal Aid Highway Program Manual, Volume 6, Chapter 6, Section 2, Subsection 1 (FHPM 6-6-2-1), as amended, and DEPARTMENT'S Rule 14-46.02, Florida Administrative Code, as amended.

NOW, THEREFORE, in consideration of the mutual undertakings as herein set forth, the parties hereto agree as follows:

A. The COMPANY shall:

1. Install by its own forces, with supervision and approval of the DEPARTMENT, at an estimated cost of \$42,800.00, itemization of which is attached hereto, automatic railroad grade crossing traffic control devices, hereinafter called "Devices", at said location, in accordance with (1) the attached detailed statement of the work, plans and specifications; (2) the DEPARTMENT'S Plans and Standards Index Number 17882, and (3) FHPM 1-4-3 and FHPM 6-6-2-1, or Rule 14-46.02, all of which by reference are made a part hereof.

2. Provide protective services in accordance with U. S. Department of Transportation Manual of Uniform Traffic Control Devices during the performance of the work, as indicated in the attached plans and specifications, the cost of which is included in the attached cost estimate.

3. Render the DEPARTMENT a final bill, in accordance with applicable Federal or State regulations, within one hundred eighty (180) days from the completion date of the project, for all actual reimbursable identified charges including credits for salvage or betterments, if any, attributable to the project; and itemize all substantial charges in a form comparable to the charges contained in the cost estimate.

4. Operate and maintain said devices and perform any adjustment, relocation or replacement of said devices; the cost therefor shall be assumed or apportioned in accordance with Paragraph C. below.

B. The DEPARTMENT shall:

1. Promptly reimburse the COMPANY for all actual costs attributable to the project, pursuant to Paragraph A.1., as billed by the COMPANY, pursuant to Paragraph A.3.

2. Retain ten per cent from any progress payment.

C. The PARTIES agree:

1. That the cost for the operation and maintenance of the devices by the COMPANY shall be shared as follows:

(a) Fifty percent (50%) shall be borne by the CITY and fifty percent (50%) shall be borne by the COMPANY, in accordance with the attached Schedule of Annual Cost of Automatic Highway Grade Crossing Traffic Control Devices, subject to future revision.

2. The cost of any adjustment, relocation or replacement of said devices shall be assumed by the party initiating such action, unless otherwise provided for in this contract, existing contracts between the parties, or in existing contracts between one of the parties and a third party.

3. Each party does hereby indemnify and hold harmless each other from all liability, claims and judgments (including attorney's fees) arising out of work undertaken by any such party pursuant to this agreement, due to the negligent acts or omissions of their contractors, subcontractors, employees, agents or representatives, respectively, except as otherwise covered by bonds or insurance. This provision is a reciprocal covenant and in the event any portion hereof is found by a court of competent jurisdiction to be unenforceable, then this entire Article C.3. shall thereafter be unenforceable in all respect.

4. Any provision contained in any existing contract relating to said crossing, whether between the parties hereto and/or third parties, shall be, and does, remain in full force and effect, except as otherwise provided herein.

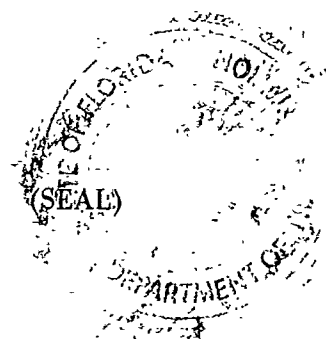
IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their duly authorized officers, and their official seals hereto affixed, the day and year first above written.

IN PROS AVAILABLE  
APPROVED  
OCT 16 1981

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

BY: Jacob J. Van  
Deputy Secretary for Administration

ATTEST: Joyce A. Gawn  
Executive Secretary

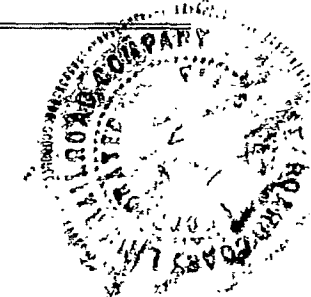


COMPANY: SEABOARD COAST LINE RAILROAD COMPANY

BY: R. Frame  
Chief Engineering Officer

(SEAL)

ATTEST: R. Munnay  
Assistant Secretary



CITY OF APOPKA, FLORIDA

BY: John J. Smith  
(Title: Mayor)

(SEAL)

ATTEST: Bonnie A. Bray



Approved as to Form, Legality and Execution  
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

Examined and Approved: 11-20-81  
Date

BY: [Signature]  
Assistant Attorney

[Signature]  
Division Administrator  
Federal Highway Administration

RESOLUTION NO. 8107

A RESOLUTION AUTHORIZING EXECUTION OF A RAILROAD REIMBURSEMENT AGREEMENT FOR FUTURE RESPONSIBILITY OF GRADE CROSSING TRAFFIC CONTROL DEVICES WITHIN THE RIGHT-OF-WAY LIMITS HEREINAFTER DESCRIBED AND PROVIDING WHEN THIS RESOLUTION SHALL TAKE EFFECT.

On motion of Councilman Alonzo Williams, Jr., seconded by Councilman Richard L. Mark, the following Resolution was adopted:

WHEREAS, the State of Florida Department of Transportation is constructing, reconstructing or otherwise changing a portion of the State Highway System, between SCL Railroad and 8th Street, which shall call for the installation and maintenance of railroad grade crossing traffic control devices for railroad grade crossings over or near said highway.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF APOPKA, FLORIDA:

That the City of Apopka enter into a RAILROAD REIMBURSEMENT AGREEMENT with the State of Florida Department of Transportation and the SCL Railroad Company for the maintenance of certain grade crossing traffic control devices designated as Job No. 75000-6952 on 8th Street, which crosses the right-of-way and tracks of the Company at FDOT/AAR Crossing Number 625271-J located near Apopka, Florida; and

That the City assume its share of the costs for future maintenance and adjustment of said grade crossing traffic control devices as designated in Paragraph c-1-a of the Railroad Reimbursement Agreement; and

That the Mayor and City Clerk be authorized to enter into such agreements with the State of Florida Department of Transportation and the SCL Railroad Company as herein described; and

That this RESOLUTION shall take effect immediately upon adoption.

INTRODUCED AND PASSED by the City Council of the City of Apopka, Florida, in regular session this 2nd day of September, 1981.



# THE FAMILY LINES RAIL SYSTEM

COMMUNICATIONS AND SIGNALS DEPARTMENT  
500 Water Street  
Jacksonville, Florida 32202

ROBERT D. LIGGETT  
Chief Communications and Signals Officer

Telephone (904) 359-1314

February 17, 1982

12-Apopka, Fla. (8th Street) ELJ

*Send  
To JDA  
CLP*

Mr. J. M. Haynie  
District Utility Engineer  
Florida Department of Transportation  
P. O. Box 47  
DeLand, Florida 32720

Dear Mr. Haynie:

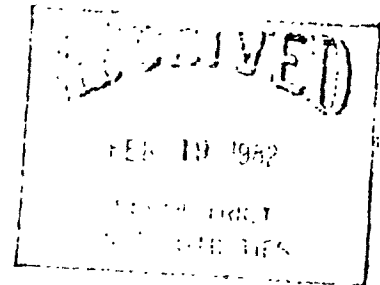
Reference your Section 75000-6952 concerning installation of grade crossing warning devices at 8th Street, Milepost ST-802.22, Crossing 625271 J, Apopka, Fla.

Per your request, the signal located in the southwest quadrant will be relocated to twelve (12) feet from edge of travelway instead of ten (10) feet as shown on the preliminary drawing.

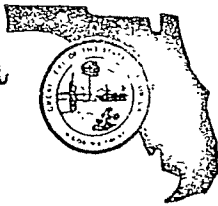
The final plans will so indicate.

Yours very truly,

*J. P. Powell*  
Chief Engineer Signals



Florida



Department of Transportation

BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

P.O. Box 47  
DeLand, FL 32720  
January 26, 1982

Mr. R. D. Liggett  
Chief Communications and Signals Officer  
Seaboard Coast Line Railroad Company  
500 Water Street  
Jacksonville, FL 32202

Attn: Mr. E. L. Johnson

Re: Section 75000-6960; State Road (8th Street)  
75000-6952;  
Orange County ; Parcel #1 (R/W Sig-B)  
Crossing No. 625271-J; M.P. No. ST-802.22  
FAP No. RHS-000S(256); W.P. No. 524119

Dear Mr. Liggett:

Referring to my telephone conversation on January 25, 1982, with Mr. E. L. Johnson, we are requesting that you revise your plans and drawings to show the Signal in the S.W. quadrant of the above referenced project at twelve feet (12') from edge of pavement and twenty-four feet (24') from center line of tracks, in lieu of ten feet (10') from edge of pavement as originally shown.

This change was necessary to gain authorization from F.H.W.A.

Thank you for your cooperation in handling this matter.

Yours truly,

J. M. Haynie  
District Utility Engineer

*C. L. Fordham*

C. L. Fordham  
Ass't. District Railroad Coordinator

JMH/CLF/11b

cc: Mr. E. M. Salley, P. E. State Utility Engineer.

RECEIVED  
JAN 27 1982  
STATE DEPARTMENT OF TRANSPORTATION  
JACKSONVILLE, FLORIDA

*LL*  
*ABG*  
*JMH*



SEABOARD COAST LINE RAILROAD COMPANY

To: Florida Department of Transportation.

Project Ref. 75000-6952

County: Orange

Location: Apopka, Fla.

SCL Mile Post: ST-802.22

Drawing No.

Route: 8th Street

Crossing Inv. No. 625271 J

Description: Install highway crossing flashing light signals and bell.

	<u>Estimated Cost</u>	
Material Cost	\$22,700	
Sales Tax	908	
Handling	1,135	
Transportation to Project	50	
Total Material Cost	\$24,793	
Credit for Released Material	00	
Net Material Cost		\$24,793
Engineering	970	
Plus Composite Additive	533	
Total Engineering		1,503
Construction Labor	6,310	
Plus Composite Additive	2,968	
Total Construction Labor		9,278
Supplemental Annuity on Labor		77
Meal Allowance and Lodging		1,722
Transportation of Equipment to Project		120
Equipment Rental		1,416
Estimated Material and Labor Cost		\$38,909
Contingencies		3,891
TOTAL ESTIMATED COST		\$42,800
Railroad Portion		00
Outside Party Estimated Cost		\$42,800

Office of Chief Communications and Signals Officer  
 Jacksonville, Fla. Date: 7-27-81-cvs

SEABOARD COAST LINE RAILROAD COMPANY

To: Florida Department of Transportation.

Project Ref.: 75000-6952

County: Orange

Location: Apopka, Fla.

SCL Mile Post: ST-802.22

Drawing No.

Route: 8th Street

Crossing Inv. No. 625271 J

Description: Install highway crossing flashing light signals and bell.

Estimate of Signal Material and Cost

1 - Lot Control Equipment, including cases, control apparatus, rectifiers, lightning protective devices, etc.	\$8,778
1 - Lot Field Materials, including foundations, pipe, cables, battery battery boxes, insulated rail joints, etc.	11,349
2 - Signal Assembly, complete with 4 lamp units	<u>2,573</u>
Material Cost	\$22,700

Office of Chief Communications and Signals Officer

Jacksonville, Fla. Date 7-27-81-cvs

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
DIVISION OF ROAD OPERATIONS  
**RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES**

COUNTY	SECTION	UTILITY JOB NO.	STATE ROAD NO.	COUNTY NAME	PARCEL & R/W JOB NO.	F A P NO
75	000	6952	8th Street	Orange	1 (Sig-B)	RRP-000S-(102)
AGENCY						
SEABOARD COAST LINE RAILROAD COMPANY						

- A. JOB DESCRIPTION & LOCATION: Railroad Signal Installation: (.1 Mile E. of SR 435, (in Apopka, Fla.)
- B. TYPE OF ROADWAY FACILITY: 2-Lane Rural
- C. FDOT/AAR XING NO.: 625271-J RR MILE POST TIE: SI-802.22
- D. TYPE SIGNALS PROPOSED: I CLASS I INDEX: 17882

**SCHEDULE OF ANNUAL COST OF AUTOMATIC  
HIGHWAY GRADE CROSSING TRAFFIC CONTROL DEVICES**

W.P.#524119

Annual Maintenance Cost Exclusive of Installation

<u>CLASS</u>	<u>DESCRIPTION</u>	<u>COST*</u>
I	Flashing Signals - One Track	\$ 650.00
II	Flashing Signals - Multiple Tracks	\$ 860.00
III	Flashing Signals and Gates - One Track	\$ 980.00
IV	Flashing Signals and Gates - Multiple Tracks	\$1,230.00

\*Effective February 3, 1971

AUTHORITY: FLORIDA ADMINISTRATIVE RULE 014-46.02  
Responsibility for the Cost of Automatic Highway  
Grade Crossing Traffic Control Devices

EFFECTIVE DATE: February 3, 1971

GENERAL AUTHORITY: 20.05, F.S.

SPECIFIC LAW IMPLEMENTED: 338.21, F.S.