



APOPKA CITY COUNCIL AGENDA
June 06, 2018 1:30 PM
APOPKA CITY HALL COUNCIL CHAMBERS

CALL TO ORDER
INVOCATION
PLEDGE

APPROVAL OF MINUTES:

1. City Council special meeting April 11, 2018.
2. City Council regular meeting May 16, 2018.

AGENDA REVIEW

PUBLIC COMMENT; STAFF RECOGNITION AND ACKNOWLEDGEMENT

Employee Recognition:

1. Ten Year Service Award - Kenneth Krouse – Public Services/Water Plants
Thirty Year Service Award - Kevin Kwader – Fire Department/EMS

Presentations:

1. Sunshine Law Review. City Attorney Cliff Shepard
2. Presentation on the final report from Woodard & Curran on the Management Assessment of the Apopka Water Metering & Billing Systems. Kevin Burgess

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. Authorize the sale of Alcohol at the 4th of July City Event.
2. Approve the appointment of a new Planning Commission member.
3. Approve the appointment of a new Fire Department Pension member.
4. Authorize a private street agreement for traffic control with the Townhomes at Wekiva Park.
5. Authorize the disposal of Jet A fuel as surplus property.
6. Award a contract for the construction of a Reclaim Water System Extension on Golden Gem Road.
7. Approve the extension of the Piggybacking Agreement for Disaster Recovery and Debris Removal Services with CrowderGulf.
8. Accept and update signatories with Florida Community Bank.

BUSINESS (Action Item)

1. Designate an official voting delegate for the Florida League of Cities. Edward Bass
2. Approve the issuance of a blanket purchase order for the purchase of utility commodities. Kevin Burgess
3. Approve a budget amendment for the Public Services Water Maintenance Division. Kevin Burgess
4. Award a contract for a Capital Improvement Revenue Note. Edward Bass
5. Authorize the replacement of the Fire Department Tower Truck. Chief Carnesale
6. Authorize the construction of a life support ambulance for the Fire Department. Chief Carnesale
7. Final Development Plan – Carter Electric Jean Sanchez
Project: Carter Land Development, LLC
Location: Southwest corner of Marshall Lake Road and Bradshaw Road.

8. Final Development Plan – Church's Chicken
Project: CHC-845 S Orange Blossom Trail Apopka FL LLC – Location: 845 South Orange Blossom Trail Jean Sanchez

9. PUD Master Plan - Final Development Plan – RaceTrac
Project: Zellwood Properties, LLC – Location: Northwest corner of Hermit Smith Road and US 441 Jean Sanchez

PUBLIC HEARINGS/ORDINANCES/RESOLUTION (Action Item)

1. Ordinance No. 2646 – Second Reading - Comp Plan Amendment
Project: Lynn R. Fontaine – Location: 4353 McDonald Gley Road Phil Martinez

2. Ordinance No. 2647 – Second Reading – Change of Zoning
Project: Lynn R. Fontaine – Location: 4353 McDonald Gley Road Phil Martinez

3. Ordinance No. 2648 – Second Reading - Comp Plan Amendment
Project: Janine and Richard Edmondson – Location: 3904 Plymouth Sorrento Road Phil Martinez

4. Ordinance No. 2649 – Second Reading - Change of Zoning
Project: Janine and Richard Edmondson – Location: 3904 Plymouth Sorrento Road Phil Martinez

5. Ordinance No. 2650 – Second Reading – Comp Plan Amendment
Project: SunTrust Bank – Location: 920 East Semoran Boulevard Phil Martinez

6. Ordinance No. 2651 – Second Reading – Change of Zoning
Project: SunTrust Bank – Location: 920 East Semoran Boulevard Phil Martinez

7. Ordinance No. 2653 - Second Reading – Change of Zoning
Project: Laura R. Murphy – Location: 359 W. Lester Road Phil Martinez

8. Ordinance No. 2656 – First Reading - Change of Zoning & Master Plan
Project: AHIFO-18, LLC (Bridle Path Subdivision) – Location: West of Plymouth-Sorrento Road;
east of SR 429 approximately ½ mile north of the intersection of Kelly Park Road and Plymouth-Sorrento Road. Bobby Howell

9. Ordinance No. 2658 – First Reading - Comp Plan Amendment
Project: Eagles Landing at Ocoee, LLC – Location: South of Peterson Road, west of SR 429 Phil Martinez

10. Resolution No. 2018-08 – Vacate – Stanton Ridge Plat
Project: Central Florida Expressway Authority – Location: West side of SR 429, west of the
intersection of Belgian Street and Plymouth Sorrento Road Bobby Howell

CITY COUNCIL REPORTS

MAYOR’S REPORT

1. Appointment of Finance Director.
2. Community Center acknowledgement and dedication discussion.

ADJOURNMENT

MEETINGS AND UPCOMING EVENTS

DATE	TIME	EVENT
June 6, 2018	1:30pm –	City Council Meeting
June 7, 2018	5:30pm –	Food Truck Round Up
June 11, 2018	6:30pm –	CONA Meeting – UCF Apopka Business Incubator
June 12, 2018	5:30pm – 7:30pm	Planning Commission Meeting
June 16, 2018	11:00am – 12:00pm	Cookies & Milk with a Cop – NW Orange/Apopka Library
June 20, 2018	7:00pm –	City Council Meeting
June 25, 2018	10:00am –	Lake Apopka Natural Gas District Board Meeting: Winter Garden
July 4, 2018	-	Independence Day – City Offices Closed

July 4, 2018	6:00pm – 9:00pm	July 4 th Event – Entertainment, Food & Fireworks – NW Recreation Complex
July 5, 2018	5:30pm –	Food Truck Round Up
July 5, 2018	1:30pm –	City Council Meeting is cancelled however a Budget Workshop will take its place.
July 9, 2018	6:30pm –	CONA Meeting – UCF Apopka Business Incubator
July 10, 2018	5:30pm – 7:30pm	Planning Commission Meeting
July 11, 2018	6:00pm –	Tentative Budget Workshop
July 18, 2018	7:00pm –	City Council Meeting
July 21, 2018	11:00am – 12:00pm	Cookies & Milk with a Cop – NW Orange/Apopka Library
July 23, 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.

CITY OF APOPKA

Minutes of the special City Council meeting held on April 11, 2018, at 5:30 p.m., at the Apopka Community Center.

PRESENT: Mayor Joe Kilsheimer
Commissioner Billie Dean
Commissioner Diane Velazquez
Commissioner Kyle Becker
Commissioner Doug Bankson
City Attorney Cliff Shepard

PRESS PRESENT: John Perry - The Apopka Chief
Reggie Connell, The Apopka Voice

INVOCATION: - Mayor Kilsheimer introduced Reverend John Fisher, First United Methodist Church, who gave the invocation.

PLEDGE OF ALLEGIANCE: Mayor Kilsheimer led in the Pledge of Allegiance.

PUBLIC HEARING/ORDINANCES/RESOLUTION

David Moon, Planning Manager, said the three items for public hearing this evening are the New Errol Future Land Use Amendment, the PUD rezoning and Master Plan, and the Development Agreement. He advised the recommendations from the Development Review Committee (DRC) is to adopt Ordinance No. 2581 for the future land use amendment. The recommendation is to adopt Ordinance No. 2638 for the change of zoning and Master Plan, subject to the effective date of Ordinance No. 2581. The third item is the New Errol Development Agreement which only requires one public hearing. The recommendation is to approve the New Errol Development Agreement and authorize the Mayor to execute the agreement subject to final review by the City Attorney for format and content. He advised over the last few weeks city staff and the applicant's attorney have been ironing out the details of the Development Agreement and there may be some new issues identified to be addressed. He affirmed this condition authorizes the City Attorney to make minor changes to the Development Agreement without coming back to City Council.

Mr. Moon said to summarize the Development Agreement, the first key item is transportation of the spine road, also known as Staghorn Drive where the entire right-of-way must be dedicated by the first residential permit. The developer is responsible for design, planning, and permitting of the spine road. The first phase of the construction from Errol Parkway to Golf Course Drive is required to occur prior to issuance of the first vertical permit and the second phase from Golf Course Drive to Vick Road is to be completed prior to issuance of the thirty-fourth vertical building permit. The developer is also required to place a performance bond for the construction of the road in the event they are unable to complete the road, the City can rely on the bond to finish construction. An updated Traffic Impact Analysis is required at the time of the first Preliminary Development Plan and this analysis is to cover all of the New Errol development project. He said an onsite circulation plan has to be presented to the City to address bike trails, golf cart paths, etc. Dedication of right-of-way on the east side of the New Errol property is

necessary to accommodate future expansion of Vick Road right-of-way. He advised there is a phasing plan for the development.

Mr. Moon advised after the last public hearing, there was new language in terms of the buffers that has been placed in the Development Agreement. He stated at the time of Preliminary Development Plan, there can be adjustments made to the landscaping to accommodate additional screening and buffering adjacent to existing residential areas if it is determined the existing buffers are not sufficient. The location of the perimeter walls within the buffer will be determined at the Preliminary Development Plan and shall provide sufficient setback of the perimeter wall from the property boundary, not to exceed three feet to allow for installation and maintenance of the wall. One master association will be developed for all of New Errol and there is assignment which means the developer cannot transfer the development agreement and master plan over to another entity unless it is approved in writing by the City.

Commissioner Becker inquired regarding assignment concerning transfer of the development agreement subject to council approval and how this would support or affect section three where it discusses the developer will have the right to develop improved market and/or sell phases or portions of the property.

City Attorney Shepard said typically with developments like this they will have different builders, but they are not the developer.

Commissioner Bankson discussed the Traffic Impact Analysis and the Transportation Capacity Study and inquired about transportation mitigation for a signal at Vick Road was required for the future, stating it seems to be represented differently throughout the documents. Mr. Moon said an updated Traffic Impact Analysis will be required at the time of the first development application. He spoke of how close the wall will be to some of the existing homes stating there are two people who have to maintain, both the developer and the homeowner. The homeowners of properties extremely close need to be able to maintain their property stating the four to one rule is a good rule that for every four feet up you go one foot out for placement of a ladder. He stated he discussed this with the attorney and said he would like to see a minimum of five feet setback in to the buffer for these existing structures. He said the purpose of the PUD zoning procedures is to encourage imaginative and innovative design for tracts of land, stating this gives the ability to be creative and change density, which has been done for them. He pointed out that on the other side, the code states the location and arrangement of structures shall be designed to ensure the proposed uses are not detrimental to existing or committed surrounding land uses or neighborhoods and shall include buffers, access controls, setbacks, etc. He said there are some extenuating circumstances for existing structures they have to consider.

City Attorney Shepard with regards to the request that a fence being placed further into the property or buffer of the developer would create a taking, in his opinion, if that were the case, anytime you were asked to setback your home from a property line, you would have a taking. He declared we all know there are reasons for setbacks and certain zoning categories and a PUD is a negotiated zoning category. He said the developer may have legitimate concerns such as once the wall or perimeter buffer is up, it makes it more difficult for the developer to maintain the other side of the wall and it also creates a liability hazard. He stated the issue here is one for both parties to have an ability to maintain their structure, stating some existing structures will have

difficulty in maintaining their property. He suggested, as a possible solution, an easement for maintenance purposes or a cross access easement where the developer would grant additional space. He said this could be worked into the development agreement.

Helmut Wyzisk, III of Signature H property Group, said it was brought to their attention yesterday that certain unverified information collected from the internet was distributed to City Council concerning Jonathan Leinwand, an attorney with Greenspoon Marder Law Firm that previously assisted Signature H with legal representation on a business deal for the New Errol project. He advised Mr. Leinwand's involvement with New Errol was strictly as an attorney at the very early stages of the project. He is not a partner, principal or participant in Signature H. They do not believe the truth or veracity of the information provided to Council, or believe it has any relevancy to the decisions before Council tonight, they would like to state on the record for affirmative steps they will immediately take to prevent this issue from potentially serving as a distraction from the evaluation of the merits of this project. Mr. Leinwand will no longer be involved in any capacity with New Errol. To that end, any future legal work on the project will be handled from different attorneys from a different law firm. Additionally, the registered agent designated for Signature H will be immediately transferred to the Lowndes Law Firm. It is their hope these actions will be met with Council's approval and remove this issue from further discussion at this public forum.

Mr. Wyzisk said at the last hearing they had an opportunity to introduce their team and tonight they are here to specifically address the Development Agreement, the phasing plan, and provide more information on assurances they have in place. He advised they have incorporated some items in the development agreement that were requested at the last meeting, as well as specifications requested. He reviewed the timeline from the introduction of this project. He advised they held meetings with the Villas HOA Board and worked with them, stating he felt very confident in their relationship with the Villas. He advised they have expedited the beginning of removal of debris and fallen trees around the golf course.

Jonathan Huels, representing Signature H, said this was the second reading from the March 27, 2018, meeting and they will have a much shorter presentation. He said they will be focusing on the Master Development Agreement and if approved by City Council, this is a legal binding contract between Signature H and the City of Apopka that assures this project will be developed in a manner as presented to the community and the City with contractual obligations. He said as they move forward, with each phase in this project a Preliminary Development Plan will be put together with much more detail that will be reviewed by City Staff, DRC, and then by City Council for final review and decision. He reviewed the development standards and the phasing plan with conditions and the development timeline. He advised other transportation obligations include dedication of land adjacent to Vick Road for future road widening, construction of a northbound left turn lane from Vick Road on to the spine road, and he stated internal streets will be privately owned and maintained. He advised the spine road will serve as the primary construction access into the project. The perimeter walls will be setback sufficient distance from the property boundary, and the location of the perimeter wall will be determined during the Preliminary Development Plan. He spoke of requests from the Errol Estate Property Owners Association (EEPOA) and most of these concerns being addressed. He spoke of Commissioner Bankson's comments concerning the perimeter wall and said they can work on a compromise by adding a condition to setback the perimeter wall a minimum of five feet from any adjacent

structure on a third parties private property. He said they recognize those issues and they want to work through them. He said they would require it be subject to a mutually agreeable access easement with full indemnification to their property owner and feel it would make most sense to have an easement with the EEPOA or a sub-association rather than negotiating with each property owner. He advised their recommendation is to approve the Comprehensive Plan Amendment, PUD Rezoning and Master Development Agreement consistent with recommendations of the Planning Commission and City Staff.

Commissioner Becker said his comments are in line with Ordinance 2581 regarding the Comprehensive Plan Amendment. He stated the biggest gap in his opinion is the idea of finances. He reviewed the timeline starting on August 3rd when he met with Signature H Group and his questioning the funding and being told it would be through equity financing. At the August 22nd public meeting he was told they had selected a finance partner investor and it would be made public within two weeks. He affirmed that was never made public. He declared he had a meeting on February 19th with Signature H and members from Developer Capital at City Hall where he asked for two outputs; any sort of referenceable projects or material Developer Capital had done previously; and if they had letter of intents, what are some of the terms within those letters. He said there was pause regarding wanting to divulge company information and he was fine with that if they wanted to redact that information. He stated to this date he has not seen anything in terms of any letter of intent of any investor that wants to invest in this project. He stated at the last meeting on March 27th, Mr. Carmichael highlighted some past projects he has done with Developer Capital and Mr. Wyzisk said they had multiple letter of intents. He had a scheduled meeting this past Monday at 8:00 a.m. at City Hall with them and he was not met with any financial information. He affirmed that five different times he asked for financial detail of how they would go through with this project and to date he does not have any information. He spoke of comments made previously regarding Mr. Leinwand and replacing him as the registered agent for Signature H and asked if they had done projects with him previously and why this would happen this late in the process.

Mr. Huels said he wanted on the record that this was a private development project and this line of questioning is outside the scope of the criteria before them of how they should be looking at a Comprehensive Plan Amendment, a rezoning, and development agreement. He stated if this was a joint venture with the City, if the City was contributing land, or if they were going to be a partner, then they could ask those questions. He stated Signature H was not asking for any funding from the City to do this project, and they were not asking for impact fee credits. He declared if this were denied on this basis, and had to go to appeal, it would not survive through the judicial process.

Bob Carmichael, Developer Capital, said as it relates to the project financing, this is a project with multiple phases and it will be financed under multiple phases. He declared they had letters of intent for each phase of the project. He advised that once there was a project, then full underwriting will occur and they will be seeing commitment letters and a closing. He said they have a letter of intent for \$20 million for all infrastructure; they have a letter of intent for \$15-17.5 million for outside project equity and advised they were looking at 50% of the equity coming from the developer based on what has been done and land contribution; he stated they have a \$14 million construction revolver and he has worked with the lenders on a five year program; there is a \$20 million construction mini-permanent on the clubhouse area; and a \$20

million letter of intent for the building of the first phase of the assisted living facility. He advised they are also in discussion with one of their hedge funds wanting to fund all aspects of the project, but he stated he was not sure that would be best for their client. He said he envisions specialty lenders in the various aspects of this project. He declared confidentiality was very critical to lenders and investors and they do not want their names divulged. He stated it will be announced at the right time and right place.

Commissioner Becker said he wants this to happen for the residents of Errol Estates and he does support it, however, he feels he has an obligation to ask these questions and protect the residents. He stated Signature H has not done this before and he was trying to vet this to the best ability he can to make sure it is fiscally sound to come to fruition and property values go up. He said they need to be accountable for what they say they are going to do.

Commissioner Bankson said in the staff report the future land-use map shows the golf course green space as PUD and felt this was in error since the golf course is not subject to the PUD.

Commissioner Velazquez said she met with Mr. Hitt and Mr. Moon to review the Development Agreement and said she was satisfied with this after meeting with staff.

In response to Commissioner Becker asking if the City was comfortable with the language in section three regarding amenities, City Attorney Shepard advised he was satisfied with the language in terms of protecting the resident. He declared that he represents the City and said that nothing Commissioner Becker said was unfair or unusual. He stated this agreement does not stop ill intent on either side, but the goal is to express the intentions of the parties. He said in terms of the task to provide the most protection he could in a contract form to get the citizens in Errol Estates what they are promised and to commit the developer on the path to do that, with incentives and the path for the developer to make a profit. He stated regardless of what they think of the questions being asked here, they are being asked to benefit the residents.

Commissioner Becker said to better qualify his questions, the waterpark is to consist of a splash pad, water slides, lazy river, and swimming lanes. As written the language states “at minimum, but not limited to uses” and stating if they are talking the same language, he will have more comfort. He spoke of discrepancies in the Master Plan and the Development Agreement.

City Attorney Shepard said the Master Plan was drafted looking at the big picture and the Development Agreement is drilled down to specifics. He advised there is a statement that in a conflict, the Development Agreement controls.

Mr. Huels based on the meeting on Monday, he worked with the City Attorney to put in a clause that states if there is a conflict between the two documents, the Development Agreement controls.

He stated with regards to Commissioner Becker’s question regarding the waterpark, those are the minimums and they have obligated themselves contractually that the waterpark will contain those elements.

Commissioner Becker said he understands no preliminary or final design required for the golf course of the Highlands section, but why is there no final required for the section of the course that will materially change.

Mr. Hitt said when the golf course comes in for review, any of the water courses do have to be reviewed by SJWMD and the City Engineer. He advised they would get something to City Council.

Commissioner Becker spoke of concerns regarding soil contamination and asked if the level one study will be applicable to the golf course as well as the residential area.

Mr. Hitt responded in the affirmative.

In response to Commissioner Becker, Mr. Huels advised the construction access will be part of the Final Development Plan for each phase of construction.

Commissioner Becker said he agreed with Commissioner Bankson's concern regarding the buffer and he supported expansion of that.

1. Ordinance No. 2581 – Second Reading - Comprehensive Plan Amendment – Large Scale – Project: New Errol - Apopka - Signature H Group LLC – Located north of Old Dixie Highway, south of Lester Road, west of Vick Road. The City Clerk read the title as follows:

ORDINANCE NO. 2581

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 PARKS AND RECREATION TO RESIDENTIAL MEDIUM LOW (0-7.5 DU/AC), RESIDENTIAL LOW (0-5 DU/AC), RESIDENTIAL LOW SUBURBAN (0-3.5 DU/AC), COMMERCIAL (MAXIMUM 0.25 FAR) FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF VICK ROAD, SOUTH OF WEST LESTER ROAD, AND NORTH OF OLD DIXIE HIGHWAY, COMPRISING APPROXIMATELY 75.06 +/- ACRES, MORE OR LESS AND OWNED BY 5TH HOLE INVESTMENTS LLC; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE

Mayor Kilsheimer opened the meeting to a public hearing. He advised this public hearing would be for all three items on the agenda. The title of Ordinance No. 2638 was also read into the record.

Eric Wynot, Esquire, representing the EEPOA, said the EEPOA as a fiduciary obligation to its members to protect and preserve the welfare and property values of the residents. He said the tough questions are for the benefit of the residents, as previously pointed out by Attorney Shepard. As stated at previous presentations, the EEPOA does not disagree with the view of this beautiful project that Signature H has proffered. What they do disagree with is certain items they

feel should be included in the Development Agreement. He stated the EEPOA has had one request, that City Council mitigate the negative impacts of this project on the current Errol residents. He declared a number of those issues have been handled, but they do have two items that remain. First is to limit construction traffic on public streets where there is a high risk to pedestrian safety and property damage. The second is to ensure sufficient setback of the buffer walls in order to allow the New Errol owner, as well as the subsequent HOA to properly maintain the buffer walls and to allow the neighboring residents to maintain their own property. He stated there are two particular issues they have been hitting on with regards to the construction traffic. First is the use of Errol Parkway and second is the use of Lexington Parkway. Errol Parkway is an island divided roadway that contains no sidewalks and there are significant safety concerns of its use as a primary construction entrance. However, it is going to be unavoidable, so a portion of Errol Parkway will need to be used for the development of Phase 1 of this project. The performance bond offered is great for the City, but there is no protection for the pedestrians that share the road or property damage that is likely to occur and gave examples of waterlines and irrigation in the median that will be at the expense of the EEPOA and Errol residents. The EEPOA asks that an alternative baseline construction entrance be provided for Phase I so that use of Errol Parkway from 441 not be utilized and that this be contained in the Development Agreement. He said Lexington Parkway was a bigger concern, stating Signature H will be using Lexington Parkway for access to and development of Neighborhood F. He declared this posed more safety concerns than Errol Parkway with Lexington Parkway being a two way in and out road to the existing neighborhoods, particularly The Courtyards. The EEPOA requests that the Development Agreement specifically provide alternatives at a minimum be considered or that Lexington Parkway be specifically excluded from use that would force the developer to explore alternatives. With regards to the buffers, the proposed Development Agreement does provide that the Preliminary Development Plan shall provide for sufficient setback of the perimeter wall, but as written now, limits it to three feet. He stated there were representations made today by Signature H similar to representations made in the past, that they will agree to a five foot setback, which is appreciated by the EEPOA. He stated if this gets added to the Development Agreement, the EEPOA considers that a win, but it needs to be added to the Development Agreement which, explained by Mr. Huels, controls all the other documents. He affirmed that Commissioner Bankson touched on Section 2.0218, subsection D(5) of the Apopka Land Development Code that states “ the location and arrangement of structures shall be designed to ensure that the proposed uses are not detrimental to existing neighborhoods”. He stated this is a detriment and the setbacks need to be expanded beyond the three feet and this needs to be added into the Development Agreement. He stated these mitigation actions can only be implemented by the City Council since they are not necessarily required by the City Code or Florida Statutes. He said this can be done as the Development Agreement is a negotiable document between two parties that, one is negotiating for the protection of residents and the other is negotiating for the protection of themselves to make money. He stated these requests will not negatively affect the success of the project and stated that they urge Council amend the proposed Development Agreement to include these two mitigation actions.

The following people spoke in favor of the project and requested approval:

Victoria Davies
Tom Watson
Christina Angott

Joyce Clark
Jean Swette
Barbara McLeod

Greg Zbylet

Clarence Hodges

The following people spoke not against the project, but requested conditions such as requesting the perimeter wall be setback five feet into the buffer to allow for ongoing access for maintenance and repair, alternative routes be utilized for the construction.

Dale Fenwick

Robert Goff

Frank Maxwell

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

Mr. Huels clarified the condition being proposed to be added to the Development Agreement is that would modify the Agreement would further advise the setback of the perimeter wall to be a setback up to three feet for maintenance of the wall or up to five feet from a structure on an adjacent property, whichever is greater.

City Attorney Shepard said he has the suggested language and he would like the opportunity to wordsmith this language.

Commissioner Becker said they do not know how many homes come into play with this condition, but from the public comments there seems to be three main areas of concern expressed. Along the Villas on the west side of hole number nine seems to be problematic where the berm is being proposed, the south side of Neighborhood E and the north side of Neighborhood F.

Mr. Huels said this is a perimeter wall and when it is setback it creates issues with liability, control, and security. He said they cannot agree to a one size fits all, but they hear the issues and are willing to, when appropriate, accommodate in order to allow room for existing homeowners to be able to move around their property to conduct necessary maintenance without a wall up against their current structure.

Commissioner Becker said when this comes before Council during Preliminary Development Plan there will be an opportunity for vetting of the placement to make sure this condition is adhered to.

Mayor Kilsheimer said the watchword of the night has been in terms of safeguards. He stated all of the questions have been appropriate and have been with an eye toward safeguarding the existing residents of Errol. He said this is a redevelopment project of a golf course and there are very few successful models of redevelopment of golf courses across the United States. He said this is a very unique project with the existing homes in a historic community for the City of Apopka.

MOTION by Commissioner Bankson, and seconded by Commissioner Dean to adopt Ordinance No. 2581 for the Comprehensive Plan Amendment for the New Errol project. Motion carried 4-1 with Mayor Kilsheimer, and Commissioners Dean, Velazquez, and Bankson voting aye, and Commissioner Becker voting nay.

2. Ordinance No. 2638 – Second Reading - Change of Zoning & Master Plan – Project: New Errol - Apopka - Signature H Group LLC – Located north of Old Dixie Highway, south of Lester Road, west of Vick Road. The City Clerk read the title as follows prior to the public hearing:

ORDINANCE NO. 2638

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM PARKS AND RECREATION AND PLANNED UNIT DEVELOPMENT TO PLANNED UNIT DEVELOPMENT (NEW ERROL); FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF VICK ROAD, SOUTH OF WEST LESTER ROAD, AND NORTH OF OLD DIXIE HIGHWAY, COMPRISING APPROXIMATELY 75.06 +/- ACRES, MORE OR LESS AND OWNED BY 5TH HOLE INVESTMENTS LLC; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

MOTION by Commissioner Velazquez, and seconded by Commissioner Bankson, to adopt Ordinance No. 2638. Motion carried unanimously with Mayor Kilsheimer, and Commissioners Dean, Velazquez, Bankson, and Becker voting aye.

3. Development Agreement – New Errol - Project: Signature H Group LLC – Located north of Old Dixie Highway, south of Lester Road, west of Vick Ro

MOTION by Commissioner Bankson, and seconded by Commissioner Velazquez to approve the Development Agreement with the contingency of where applicable that the wall be setback five feet from the existing property. Motion carried unanimously with Mayor Kilsheimer, and Commissioners Dean, Velazquez, Bankson, and Becker voting aye.

ADJOURNMENT – There being no further business the meeting adjourned at 7:54 p.m.

ATTEST:

Bryan Nelson, Mayor

Linda F. Goff, City Clerk

CITY OF APOPKA

Minutes of the regular City Council meeting held on May 16, 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 Glenn Irby
City Administrator Edward Bass

PRESS PRESENT: Teresa Sargeant - The Apopka Chief
Reggie Connell, The Apopka Voice

INVOCATION: - Mayor Nelson introduced Reverend John Fisher, First Methodist Church of Apopka, who gave the invocation.

PLEDGE OF ALLEGIANCE: Mayor Nelson called on Dixie Kepler, Lovell Elementary School student who led in the Pledge of Allegiance. She said May 16, 1866, the U.S. Congress approved the Shield Nickel. It was called the Shield nickel because of its design and being made out of copper-nickel. The Shield nickel came into circulation because of gold and silver coins being hoarded or exported after the Civil War.

APPROVAL OF MINUTES:

1. City Council special meeting March 27, 2018.
2. City Council regular meeting May 2, 2018.

Commissioner Nolan noted a correction to the May 2, 2018, minutes wherein Commissioner Nolan moved to appoint Commissioner Bankson as the Vice Mayor.

MOTION by Commissioner Nolan and seconded by Commissioner Smith to approve the minutes of March 27, 2018, and May 2, 2018, with the correction as noted. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan and Smith voting aye.

AGENDA REVIEW – City Administrator Irby advised there were no changes.

PUBLIC COMMENT; STAFF RECOGNITION AND ACKNOWLEDGEMENT

Proclamations:

1. National Police Week Proclamation presented to Chief Mike McKinley.
Mayor Nelson read a proclamation recognizing National Police Week and presented it to Chief McKinley.

Presentations:

1. Police Department Certificate of Appreciation.

Chief McKinley and Deputy Chief Fernandez recognized Makayla Kepler for painting Cops Rock rocks and handing them out to police. He said her small token of support has reached officers from several agencies. She dreams of becoming a K-9 handler one day and he was sure she would reach that goal. He then presented her with a Certificate of Appreciation.

Public Comment Period: There were no speakers.

CONSENT

1. Approve the re-appointment of James Greene & Linda Laurendeau to the Planning Commission.

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

BUSINESS

1. PLAT – Binion Reserve Subdivision - Project: Gail W. Brown – Location: 1078 South Binion Road

Jean Sanchez, Planner, presented the Binion Reserve Subdivision Plat. She reviewed the location on a map and aerial photo. There are 44 single family residential lots proposed. The proposed PLAT/FDP meets the Land Development Code. The developer proposes active/passive recreation space and an 11-foot wide walking/bike trail adjacent to Binion Road that will connect to the regional trail system. The Planning Commission met on March 13, 2018 and recommended approval.

Randy June, June Engineering, was present for any questions.

MOTION by Commissioner Becker, and seconded by Commissioner Smith to approve the Binion Reserve Subdivision Final Development Plan and Plat as presented. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan, and Smith voting aye.

PUBLIC HEARINGS/ORDINANCES/RESOLUTION (Action Item)

1. Ordinance No. 2591 – Second Reading – Comp Plan Amendment - Large Scale
Project: Chul Lee Et. Al. – Located at 2309 & 2405 West Kelly Park Road. The City Clerk read the title as follows:

ORDINANCE 2591

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 TO “CITY” MIXED USE - INTERCHANGE FOR CERTAIN REAL PROPERTY GENERALLY LOCATED NORTH OF WEST KELLY PARK ROAD AND WEST OF JASON DWELLEY PARKWAY, OWNED BY WON CHUL LEE; BONG JIN CHOE; SOON CHONG; WON CHUL LEE; AND SEA MYOG; COMPRISING 39.48 ACRES, MORE OR LESS, PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

Phil Martinez, Planner, provided a brief lead-in and reviewed the location. He advised this was a request to change the future land use designation from “County” Rural to “City” Mixed Use Interchange. The subject property straddles the one-mile radius from Wekiva Parkway interchange at Kelly Park Road and is eligible to be within the Kelly Park Crossing Form Based Code Area. He advised the property is compatible with the character of the surrounding area and consistent with the Mixed Use Interchange Land Use designation. This ordinance was before Council for a First Reading on December 6, 2017, and was transmitted to the state. There were no comments or objections from the state agencies. It is now back for Second Reading and adoption.

Geoff Summit, applicant, was present for any questions.

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 Becker to adopt Ordinance No. 2591. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

2. Ordinance No. 2611 – Second Reading – Comp Plan Amendment - Large Scale
Project: AHIFO-18 LLC – Located on the north side of West Kelly Park Road, west of Plymouth Sorrento Road. The City Clerk read the title as follows:

ORDINANCE 2611

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 SETTLEMENT TO “CITY” MIXED USE - INTERCHANGE FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF PLYMOUTH SORRENTO ROAD AND EAST OF THE PROPOSED 429, OWNED BY AHIFO-18 LLC; COMPRISING 51.0 ACRES, MORE OR LESS, PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

Mr. Martinez provided a brief lead-in for Ordinance 2611, explaining that this was before Council on December 6, 2017 for First Reading and transmittal to the state. There were no objections from the state. There have been no changes since the First Reading and the recommendation is to adopt Ordinance No. 2611.

Jim Hall, representing the applicant, said this will be back before Council in June with details. This ordinance is for the future land use and they request approval.

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 adopt Ordinance No. 2611. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

3. Ordinance No. 2644 – Second Reading - Change of Zoning - Project: Spirit SPE Portfolio CA C-Stores, LLC – Location: 1305 West Orange Blossom Trail. The City Clerk read the title as follows:

ORDINANCE NO. 2644

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, AMENDING ORDINANCE 2292, WHICH AMENDS THE ADOPTED “RACETRAC PLANNED UNIT DEVELOPMENT (PUD) MASTER PLAN” FOR CERTAIN REAL PROPERTY LOCATED AT 1305 WEST ORANGE BLOSSOM TRAIL, COMPRISING 2.94 ACRES MORE OR LESS; OWNED BY SPIRIT SPE PORTFOLIO CA C-STORES, LLC; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

Bobby Howell, Senior Planner, advised Ordinance No. 2644 was before Council May 2, 2018 for First Reading and there have been no changes. The recommendation is to approve at Second Reading and adoption.

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 Becker to adopt Ordinance No. 2644. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

4. Ordinance No. 2645 – First Reading - Comp Plan Amendment – Large Scale - Project: Kent Greer – Location: South of West Kelly Park Road, East of Round Lake Road. The City Clerk read the title as follows:

ORDINANCE NO. 2645

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 RURAL SETTLEMENT TO MIXED USE – INTERCHANGE FOR CERTAIN REAL PROPERTY GENERALLY LOCATED SOUTH OF WEST KELLY PARK ROAD AND EAST OF ROUND LAKE ROAD, OWNED BY KENT GREER; COMPRISING 39.6 ACRES, MORE OR LESS, PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

Mr. Martinez provided a brief lead-in reviewing the location of the project. He reviewed the surrounding land uses and advised this is in compliance with the comprehensive plan. The Planning Commission and DRC recommend approval of the First Reading and authorize transmittal to the state agencies.

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. 2645 at First Reading and authorize transmittal to the state. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

5. Ordinance No. 2646 – First Reading - Comp Plan Amendment – Small Scale - Project: Lynn R. Fontaine – Location: 4353 McDonald Gley Road. The City Clerk read the title as follows:

ORDINANCE 2646

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 TO “CITY” RESIDENTIAL LOW SUBURBAN FOR CERTAIN REAL PROPERTY GENERALLY LOCATED NORTH OF CHANDLER ESTATES DRIVE AND EAST OF WEST ORANGE BLOSSOM TRAIL, COMPRISING 5.2 ACRES, MORE OR LESS AND OWNED BY LYNN R. FONTAINE; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

Mr. Martinez advised this was amending the future land use designation from County Rural to City Residential Low Suburban for property north of Chandler Estates Drive and east of West Orange Blossom Trail. He reviewed the surrounding land use and advised this is in compliance with the comprehensive plan. Planning Commission and DRC recommend approval at First Reading and carry it over for a Second Reading and adoption.

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

MOTION by Commissioner Becker, and seconded by Commissioner Nolan, to approve Ordinance No. 2646 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

6. Ordinance No. 2647 – First Reading – Change of Zoning - Project: Lynn R. Fontaine – Location: 4353 McDonald Gley Road. The City Clerk read the title as follows:

ORDINANCE 2647

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” A-1 AGRICULTURE TO “CITY” RESIDENTIAL COUNTRY ESTATES FOR CERTAIN REAL PROPERTY GENERALLY LOCATED NORTH OF CHANDLER ESTATES DRIVE AND EAST OF WEST ORANGE BLOSSOM TRAIL, COMPRISING 5.2 ACRES MORE OR LESS, AND OWNED BY LYNN R. FONTAINE; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

Mr. Martinez advised this Ordinance was in conjunction with the prior ordinance wherein this ordinance changes the zoning from “County” Agriculture to “City” Residential Country Estates. The recommendation is to approve at First Reading and carry it over for a Second Reading and adoption.

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 approve Ordinance No. 2647 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

7. Ordinance No. 2648 – First Reading - Comp Plan Amendment – Small Scale - Project: Janine and Richard Edmondson – Location: 3904 Plymouth Sorrento Road. The City Clerk read the title as follows:

ORDINANCE 2648

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 TO “CITY” RESIDENTIAL VERY LOW SUBURBAN FOR CERTAIN REAL PROPERTY GENERALLY LOCATED EAST OF PLYMOUTH

**SORRENTO ROAD AND SOUTH OF WEST KELLY PARK ROAD,
COMPRISING 1.0 ACRES, MORE OR LESS AND OWNED BY JANINE
AND RICHARD EDMONDSON; PROVIDING FOR SEVERABILITY;
AND PROVIDING FOR AN EFFECTIVE DATE.**

David Moon, Planning Manager said Ordinance 2648 and Ordinance 2649 are on the same property and will be presented together. Ordinance 2648 changes the future land use designation to City Residential Very Low Suburban. This property was recently annexed in to the City of Apopka. The next case involves the same property to change zoning to “City” R-1AA. The intent is to use the property for residential. He advised this property is in transition as Apopka grows in the future. The recommendation is to approve at First Reading and carry over for Second Reading and adoption.

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. 2648 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

8. Ordinance No. 2649 – First Reading - Change of Zoning - Project: Project: Janine and Richard Edmondson – Location: 3904 Plymouth Sorrento Road. The City Clerk read the title as follows:

ORDINANCE 2649

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” A-2 AGRICULTURE TO “CITY” R-1AA FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF PLYMOUTH SORRENTO ROAD AND SOUTH OF WEST KELLY PARK ROAD, COMPRISING 1.0 ACRES MORE OR LESS, AND OWNED BY JANINE AND RICHARD EDMONDSON; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

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 Bankson, to approve Ordinance No. 2649 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

9. Ordinance No. 2650 – First Reading – Comp Plan Amendment – Small Scale - Project: SunTrust Bank – Location: 920 East Semoran Boulevard. The City Clerk read the title as follows:

ORDINANCE 2650

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” COMMERCIAL TO “CITY” COMMERCIAL FOR CERTAIN REAL PROPERTY GENERALLY LOCATED EAST OF SOUTH SHEELER ROAD AND SOUTH OF EAST SEMORAN BOULEVARD, COMPRISING 0.37 ACRES, MORE OR LESS AND OWNED BY SUNTRUST BANK; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

Mr. Martinez advised this was the same situation where this ordinance and the next are on the same property, this one being the future land use amendment from “County” Commercial to “City” Commercial. The next ordinance is the zoning ordinance changing from “County” R-2 to “City” C-1. The Planning Commission recommends approval and the DRC recommends approval at First Reading and carry it 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 Bankson, and seconded by Commissioner Smith, to approve Ordinance No. 2650 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

10. Ordinance No. 2651 – First Reading – Change of Zoning - Project: SunTrust Bank – Location: 920 East Semoran Boulevard. The City Clerk read the title as follows:

ORDINANCE 2651

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” R-2 TO “CITY” C-1 FOR CERTAIN REAL PROPERTY GENERALLY LOCATED EAST OF SOUTH SHEELER ROAD AND SOUTH OF EAST SEMORAN BOULEVARD, COMPRISING 0.37 ACRES, MORE OR LESS AND OWNED BY SUNTRUST BANK; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

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. 2651 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

11. Ordinance No. 2653 – First Reading – Change of Zoning - Project: Laura R. Murphy – Location: 359 W. Lester Road. The City Clerk read the title as follows:

ORDINANCE 2653

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM AGRICULTURE TO R-1 SINGLE FAMILY RESIDENTIAL FOR CERTAIN REAL PROPERTY GENERALLY LOCATED NORTH OF WEST LESTER ROAD AND EAST OF VICK ROAD, COMPRISING 19.94 ACRES MORE OR LESS, AND OWNED BY LAURA R. MURPHY; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

Mr. Martinez reviewed the location on a map and advised this was a request to change the zoning from Agriculture to R-1 Single Family Residential. The proposed zoning is compatible with the surrounding land use. The recommendation is to approve at First Reading and carry it over for a Second Reading and adoption.

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

MOTION by Commissioner Becker, and seconded by Commissioner Nolan, to approve Ordinance No. 2653 at First Reading and carry it over for a Second Reading. Motion carried unanimously with Mayor Nelson, and Commissioner Bankson, Becker, Nolan, and Smith voting aye.

CITY COUNCIL REPORTS

Commissioner Bankson said the Firefighter Challenge was a great success, in spite of the weather, and the Apopka firefighters did a great job.

Mayor Nelson had a banner that was presented to the Apopka Fire Department for the second annual Scott's Safety Firefighter Challenge drawing over 80 participants from all over. He said Apopka did very well placing second and third in many categories. The Apopka Fire Department Explorers took overall first and second place.

Commissioner Smith inquired what the appropriate action or steps were to name a street after someone, stating he would like to have a street or portion of a street names after Commissioner Bill Arrowsmith and Commissioner Billie Dean.

Mayor Nelson said he was supportive but they needed to first research as to the appropriate steps required.

Commissioner Smith said with the budget workshops, he would like them to be setup so that the public can have input.

MAYOR'S REPORT

1. Appointment of two representatives to the Lake Apopka Natural Gas District Board.

Commissioner Nolan said Bill Arrowsmith has served on the LANGD board and is interested in being a representative.

Commissioner Becker said he was interested in serving on the LANGD board and felt his financial background would serve well in this capacity.

MOTION: Commissioner Nolan nominated Bill Arrowsmith to be a representative to the LANGD board, seconded by Commissioner Bankson. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan, and Smith voting aye.

MOTION: Commissioner Nolan moved to appoint Commissioner Becker to the LANGD board, seconded by Commissioner Bankson. Motion carried unanimously with Mayor Nelson, and Commissioners Bankson, Becker, Nolan, and Smith voting aye.

ADJOURNMENT – There being no further business the meeting adjourned at 7:57 p.m.

Bryan Nelson, Mayor

ATTEST;

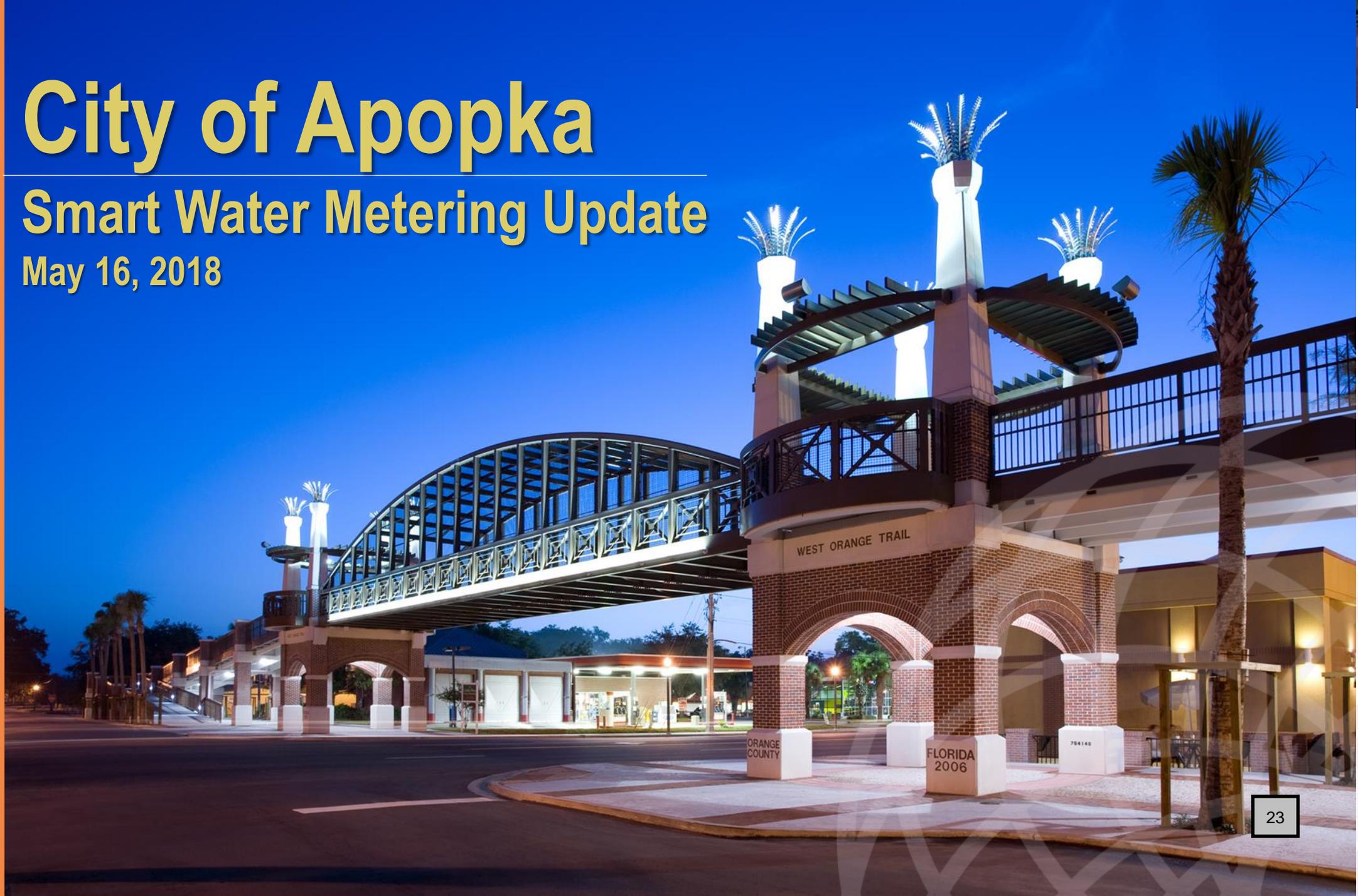
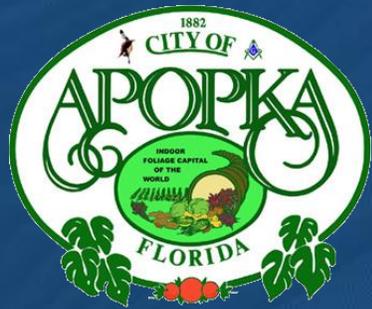
Linda F. Goff, City Clerk



City of Apopka

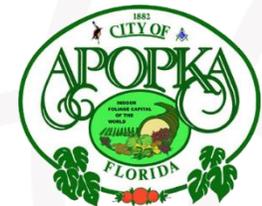
Smart Water Metering Update

May 16, 2018



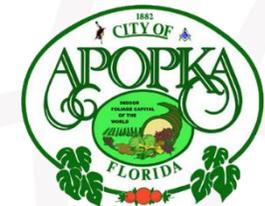
The Challenge...

- Apopka water system:
 - ~3 Billion gallons of water/year
 - 350 miles water pipe, 160 miles reclaimed pipe
 - 22,200 meters
 - Meters measure potable, reclaimed & sewer
- 2007
 - “Unaccounted-for” water reported at 2-4%
 - City introduced AMI technology for meter reading efficiency (radio-read)
- 2016
 - “Unaccounted-for” water is 26% (750MG)
 - Represents \$1,200,000 revenue loss
 - Affects both Water & Sewer revenues



About the City's Water Meter System...

- Existing Advanced Metering Infrastructure
 - 22,200 radio read meters
 - Radios transmit to a central system
 - Reading system (Sensus) sends data to billing system (Edmunds)
 - City Customer Service can see meter usage to address customer inquiries
 - Management can see meter reading errors & deploy staff to resolve
- Great baseline technology
 - Meter age & City resources limit effectiveness...



The City's Plan for Better Understanding the Challenge...

- Woodard & Curran hired to review situation & provide recommendations
 - Woodard & Curran retained this Winter
 - Draft report February, revised report April 2018
- Recommendations
 - Short-term – immediate action has started
 - Mid-term – Summer/Fall 2018
 - Long-term – TBD



Benchmarking: Apopka vs Other Water Utilities

2017 SmartWater Survey of Water Utilities

- 100% of utilities believe AMR & AMI is critical
 - Only 32% have AMR
 - Only 17% have AMI
 - 62% of AMR is > 5-years-old
- 98% believe data management & reducing water loss is critical to their utility
 - Only 13% are doing meter data management or analytics
 - Only 15% do leak detection

Other Utility Survey Facts

Less than half of utilities:

- Have formal Work Order management systems

More than half:

- Agree their Staff is not trained well in SmartWater tech
- Will spend > \$500K on SmartWater tech in 2018

➤ ***Apopka is not unique & is appropriately tackling this issue!***



Benchmarking: Apopka vs Other Water Utilities

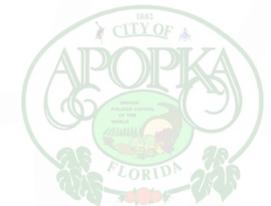
2017 SmartWater Survey

- 100% of utilities believe AMR is critical to their utility
 - Only 32% have AMR
 - Only 17% have AMI
 - 62% of AMR is > 5-years-old
 - 98% believe data management is critical to their utility
 - Only 49% crediting meter
 - Only 15% leak detection
- Baltimore is now referencing the Apopka Water Study!**
- Apopka is not unique & is

The screenshot shows a news article from 'WATER ONLINE' dated April 30, 2018. The article is titled 'Baltimore Releases New Non-Revenue Water Figures' and is written by Sara Jerome (@sarmje). The text reports that Baltimore has released new figures showing significant water loss, with 35.1% of water released from treatment plants being 'lost' before reaching customers. It quotes Mayor Catherine Pugh and the Board of Estimates, as well as a Department of Public Works audit from 2015. A photo shows a worker in a yellow safety vest near a large water leak. The article also mentions that Apopka, FL, a city of around 40,000, recently became available for comparison.

Other Utility Survey Facts

- Less than half of utilities:
- Have formal Work Order management systems
- More than half:
- Agree their Staff is not trained well in SmartWater tech
 - Will spend > \$500K on SmartWater tech in 2018



Notable Initial Facts & Findings...

- 1/3 of the “unaccounted-for” water is from old & under-registering meters
 - “Apparent Losses”
- Under-registering meters represent ~260 MG/year
- Other significant loss
 - Leaks/breaks in the distribution system
 - Under-estimating non-revenue usage (~490 MG/year)
 - “Real Losses”
- Bench-marking challenge
 - Imprecise use of “unaccounted-for” makes comparing past & present difficult, but a problem does exist now

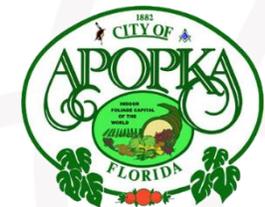
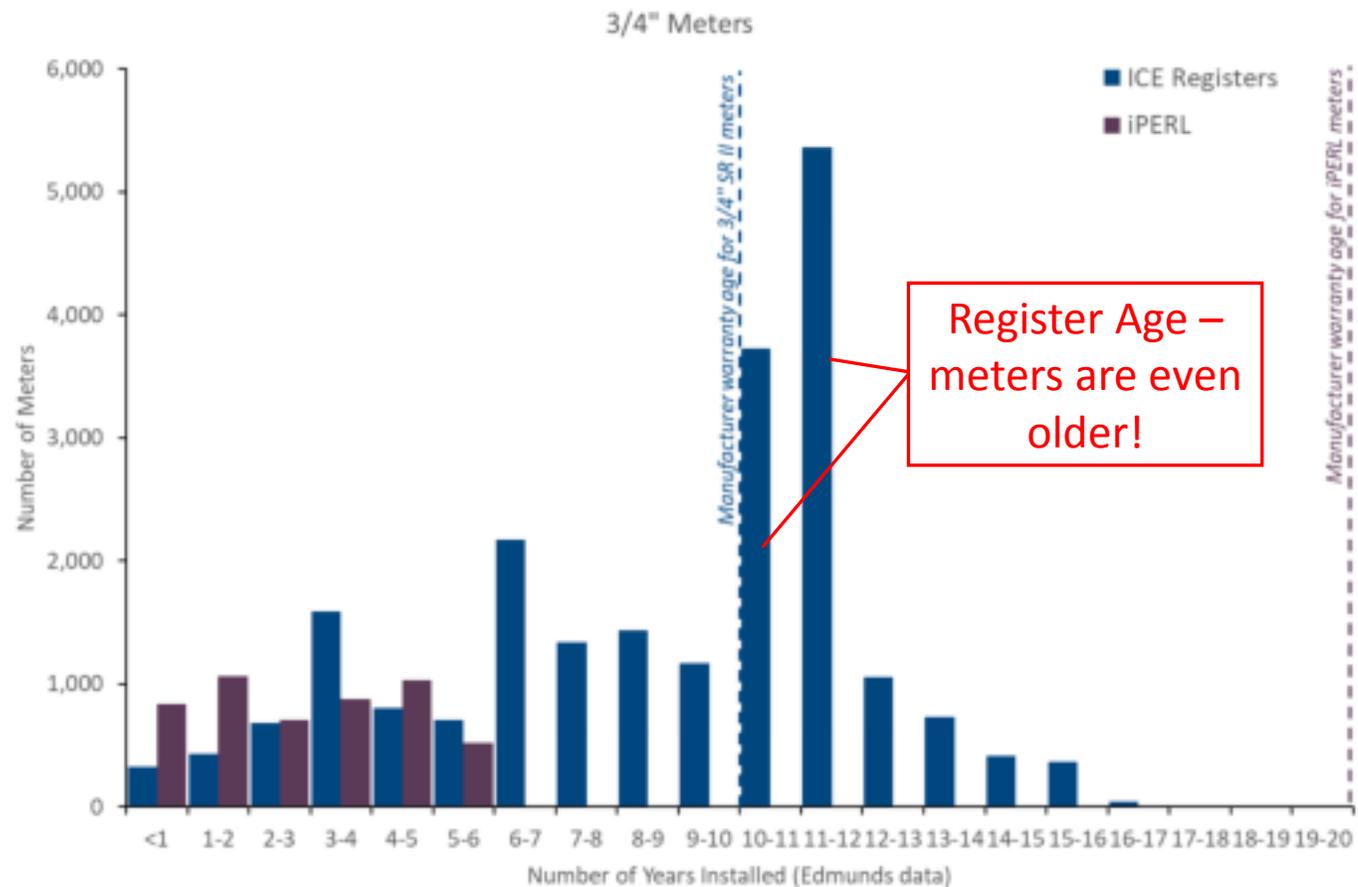
Water Terms & Definitions

- “Unaccounted-for” Water
 - Outdated term, widely used but imprecisely applied
 - Inaccurate performance indicator
- Non-revenue Water
 - Authorized, but unbilled (hydrant flushing)
- Apparent Losses (meters)
- Real Losses (leaks)
- *Future audits will use consistent terminology!*



The Aging Meter Infrastructure Challenge...

Sample Meter Register Age Distribution



Findings Regarding Current Metering System

■ Meter Program

- Inventory is not tracked in an easy way
- Database setup makes auditing very difficult
- The City does not test for meter accuracy

■ Metering Equipment

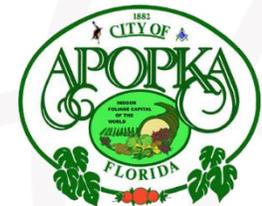
- Most meters are residential (95%)
- Most equipment is old & beyond warranty

■ Utility Challenges (not unique to Apopka!)

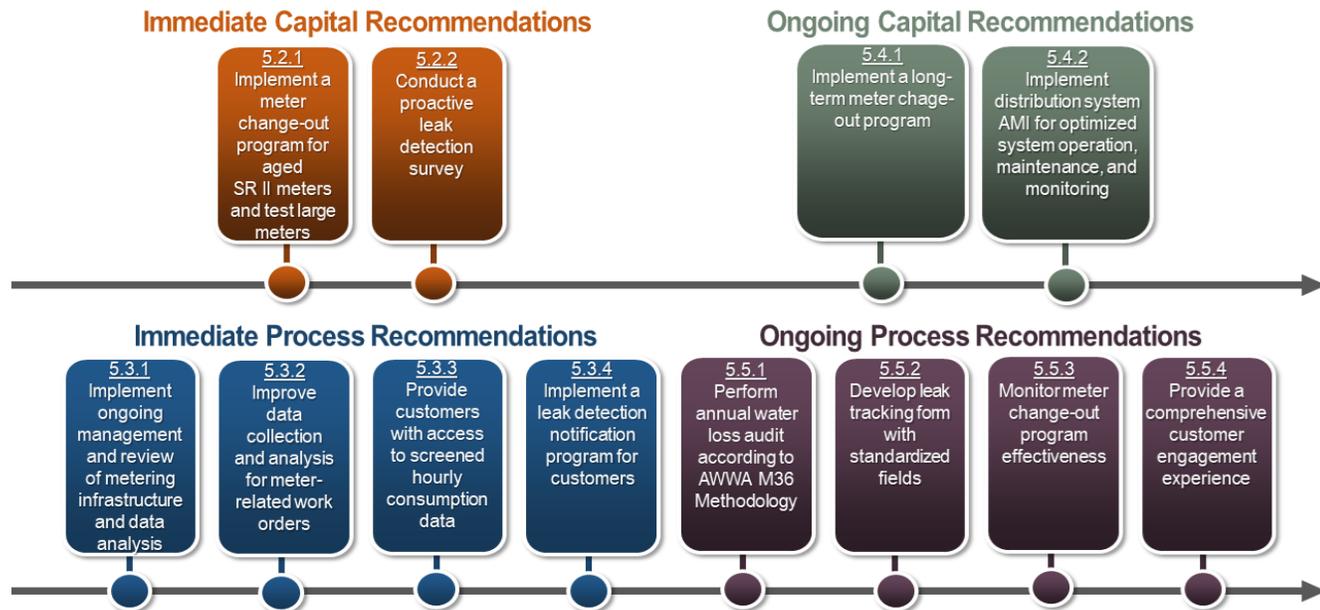
- Billing staff are very busy with customers (no extra time)
- Billing staff mails notices midway thru monthly billing cycles for high-water (>15,000 gallons in 2 weeks)
- Prior to 2 new Service Workers, water staff often taken off meter work to handle emergencies
- Maintenance work orders are not tracked systematically
- City doesn't have the capacity nor expertise to fully analyze meter data

New Metering Facts

- The City recently began replacing meters at an accelerated rate
- Testing of 10 recently replaced meters found:
 - 5 “almost accurate”
 - 2 “stopped”
 - 3 “almost stopped”



Recommendations to Move Forward



Recommendation Summary

- Get outside help to proactively move program to:
 - return revenue
 - gain compliance
 - leverage technology
 - environmental stewardship



Next steps...

- Keep the momentum for improvement!
 1. Council to authorize staff to engage professional services for assistance with in-house programs & capital procurement (“Service Contract” RFQ, etc.)
 2. Staff to report back to Council regularly on progress, challenges, next steps, etc.

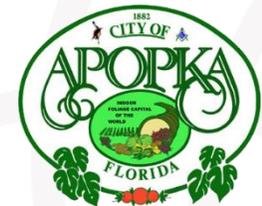
**ACTION
PLAN**



How much for the next steps?

- Former Metering Program (2012)
 - \$3,034,000 for 22,500 meters (18,000 register only)
 - \$265,902 for meter installation
 - ~\$12/meter
- New Metering Program (2018/2019)
 - Estimated \$4,600,000 for total potable water meter replacement (capital)
 - Estimated \$700,000 for contracted meter replacement
 - Additional support services (training, data support, etc.) to be included

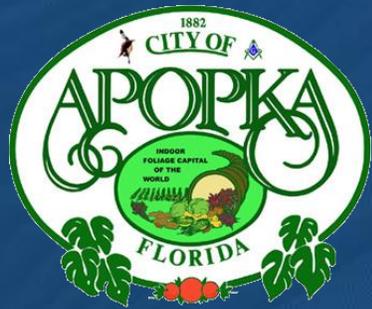
➤ ***City has adequate funding in current utility reserves
– no rate increase is needed!***

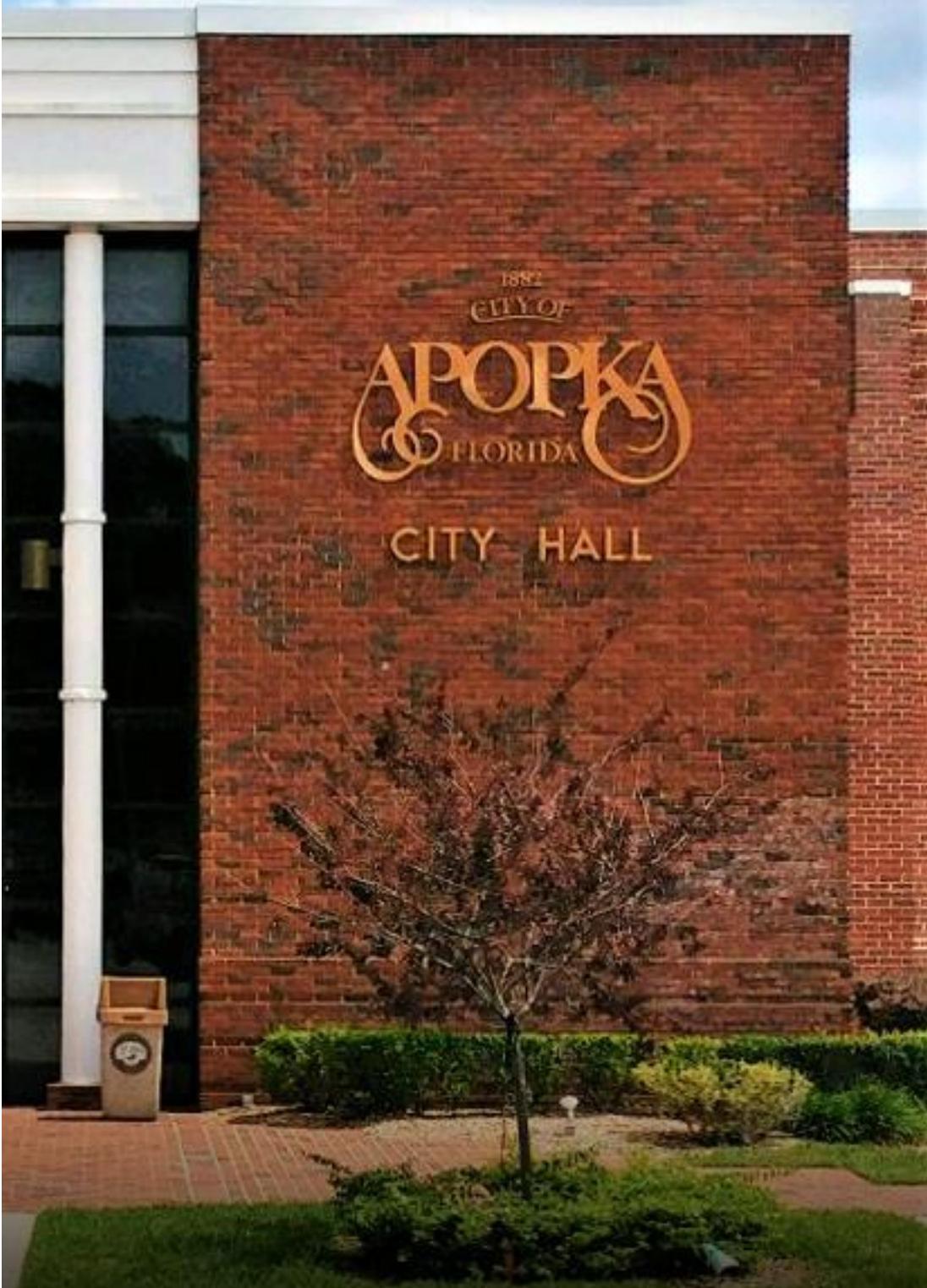




Thank you!

Discussion...





MANAGEMENT ASSESSMENT OF THE APOPKA WATER METERING AND BILLING SYSTEMS

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

0214493.00

City of Apopka

April 2018

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APPENDICES

Appendix A: Estimation Calculations of Apparent Losses

Appendix B: Calculation of Retail and Production Rates

EXECUTIVE SUMMARY

Woodard & Curran conducted a Management Assessment of the existing Customer Service & Water Meter Reading hardware, software, and management systems of the City of Apopka. This included a detailed review of the Advanced Metering Infrastructure (AMI) hardware and software programs currently being utilized. Each program was reviewed for City usage, current challenges, capacity for expanded program usage, , opportunities for efficiency, and implementation considerations during program improvements. Additional areas of improvement were identified that will:

- Enhance and/or improve customer service operations;
- Optimize the water system through water loss reductions;
- Improve asset management;
- Review end-of-life meter replacement management;
- Identify “smart water” improvements that modernize system operations and management; and
- Review related administrative policies.

In 2016, the City calculated that 26.1% of potable water was unaccounted-for, amounting to approximately 750 million gallons (MG). This is equivalent to the volume of water needed to fill approximately 1,136 Olympic-sized swimming pools (which are 660,000 gallons each or 0.66 MG). Unaccounted-for potable water in Apopka was reported by the City to be 2-4% annually prior to 2007, which coincided with the implementation of AMI technology. The current level of unaccounted-for water represents a substantial revenue loss for the City, approximately \$1,200,000 (including both water and sewer revenue based on metered water usage). The City expressed a concern that a significant portion of unaccounted-for water is could be from meter malfunctions.

Challenges in Apopka:

26.1% Unaccounted-for water

Annual Revenue losses estimated at \$1.2M

Approximately 1/3 of water could be meter related

Based on our review of data provided by the City (described fully in Section 4.4.2), we estimate that roughly one third of the City’s unaccounted-for water is likely due to old and under-registering meters, which have continued to degrade since 2007. These under-registering meters are estimated to amount to approximately 260 MG per year. In addition, a significant component of water loss could be due to leaks and breaks in the distribution system (approximately 490 MG), with a smaller percentage attributed to expected background leakage and under-accounting of known non-metered water uses, such as hydrant testing and fire protection. Some component could also be due to incorrectly sized meters, but that analysis was beyond the scope of this report and would be corrected if the recommendations of this report are implemented.

Other key findings from our review of the City’s metering infrastructure are as follows:

- Meter inventory is not tracked in a way that is easy to understand system assets
- Most water meters are residential usage meters (3/4” meters are 95% of system total)
- Most meters, registers, and wireless transmitters are older, beyond warranty period
- The City does not test its meters for accuracy
- Billing staff are very busy assisting customers with inquiries for high water usage, bill adjustments, and basic payment tasks
- Billing staff send out postal notices midway through monthly billing cycles for high water usage

- Prior to the addition of 2 new Service Workers who are focused on meter replacements, distribution maintenance staff are often taken off meter maintenance work to address leaks and more immediate system issues
- Distribution maintenance staff work orders are not tracked in a systematic way that is easy to query/report
- Billing and meter management systems provide the City with a lot of data that the City doesn't have the capacity nor expertise to analyze effectively
- The City began replacing meters at an accelerated rate during the preparation of this report. The City does not have a formal program for handling the new meter data, updating the database fields to capture more installation data, communicating meter replacements with impacted customers, testing meters removed from the system, or monitoring replacement program effectiveness.

We developed our recommendations with the goal of reducing unaccounted-for water based on a detailed review of the City's Metering, Billing, and Distribution Maintenance Systems. The recommendations were categorized by their relative impact on reducing the City's unaccounted-for water into immediate recommendations and ongoing recommendations, and then further by whether they are capital improvements or processes that the City should implement. Our recommendations are summarized in Table ES-1, with detailed discussion in their respective report sections.

Table ES-1: Recommendations Summary

Category	Section Number	Recommendation
Immediate Capital Recommendations	5.2.1	Implement a meter change-out program for aged SR II meters and test large meters
	5.2.2	Conduct a proactive leak detection survey
Immediate Process Recommendations	5.3.1	Implement ongoing management and review of metering infrastructure and data analysis
	5.3.2	Improve data collection and analysis for meter-related work orders
	5.3.3	Provide customers with access to screened hourly consumption data
	5.3.4	Implement a leak detection notification program for customers
Ongoing Capital Recommendations	5.4.1	Implement a long-term meter change-out program, including large meter maintenance program
	5.4.2	Implement distribution system AMI for optimized system operation, maintenance, and monitoring
Ongoing Process Recommendations	5.5.1	Perform annual water loss audit according to AWWA M36 Methodology
	5.5.2	Develop a leak tracking form with standardized fields
	5.5.3	Monitor meter change-out program effectiveness
	5.5.4	Provide a comprehensive customer engagement experience

The recommendations were developed with the following intent:

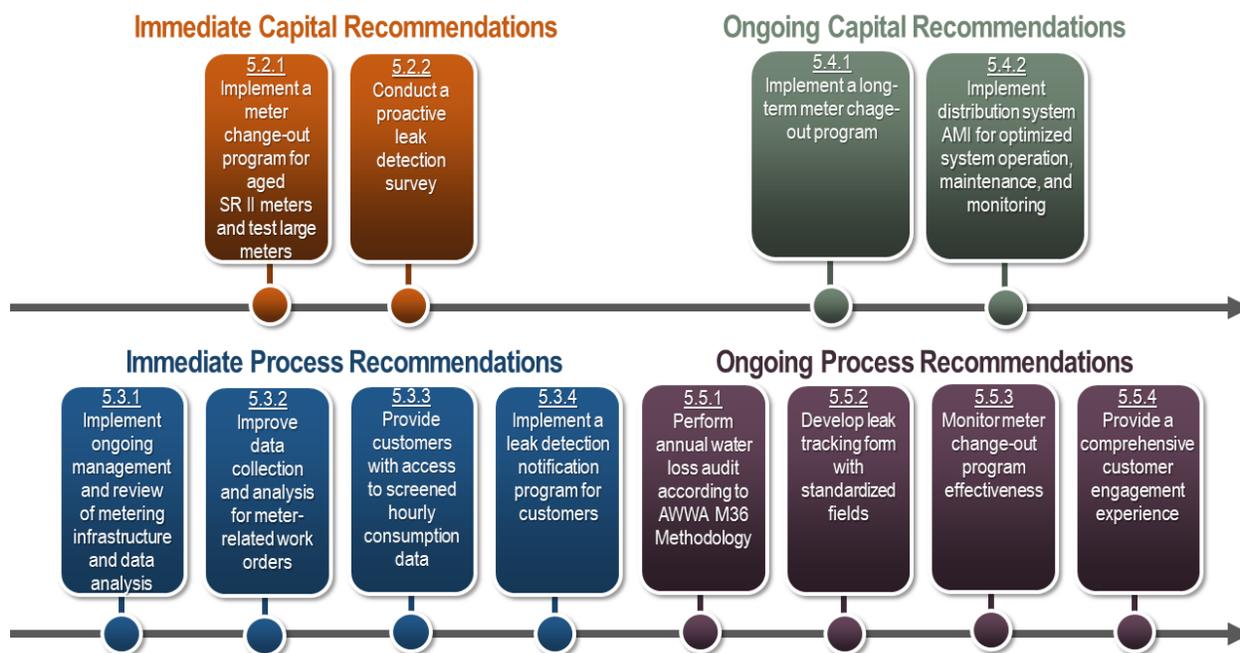
1. Establish firm control of water loss and recovery of lost water revenue through meter replacements, testing, and leak detection;
2. Maintain control of the system through an ongoing, proactive meter replacement program and water audits;
3. Improve system management and reporting;
4. Improve public confidence through data availability and transparency;

5. Expand “smart water” technology tools to maximize the City’s investment in AMI infrastructure and the value of the data for water system planning and optimization; and
6. Monitor progress through data analysis and reporting.

The City can implement these recommendations through internal staff, or with a combination of internal and outside resources. We strongly recommend that the City continue to seek outside consulting support during its assessment and planning for making these improvements, as the considerations and decision making are broader than the scope of this report. Outside consulting support will be valuable to the City for the following reasons:

1. Design and management of a meter replacement program and the volume of data it produces will put a significant strain on City staff resources;
2. Water meter replacements are complex, and experience with meter replacement projects is instrumental in avoiding pitfalls and costly mistakes; and
3. Advances in “smart water” technology require new skill sets and knowledge that City staff does not currently have.

Figure ES-1: Report Recommendations Flow Chart



1. BACKGROUND AND PURPOSE

The City of Apopka (City) is within Orange County, Florida, about 16 miles northwest of downtown Orlando. The City is approximately 34 square miles in size with a 2016 estimated population of 49,458 people. The population is growing rapidly from the 2010 census population of 41,542 (US Census Bureau, 2016).

The City's Water Resources Division, a component of the Public Services Department, provides potable water, wastewater treatment, and reclaimed water for irrigation for homes and businesses throughout Apopka and portions of unincorporated Orange County.

1.1 Water System Summary

The City's water supply comes entirely from the Lower Floridan Aquifer through thirteen groundwater wells ranging from 483-1,400 feet in depth. The water is treated at one of five water treatment plants and distributed to customers through 350 miles of potable distribution mains up to 30" large in diameter. In total, the average daily potable water flow is 7.9 MGD from the water treatment plants (City of Apopka, 2016). The City supplies potable water through approximately 22,200 meters, averaging 5.7 MGD metered through customer meters (City of Apopka, 2016). The city also supplies water for fire services which are typically unmetered, with the exception of approximately 150 fire service meters.

The City built the Apopka Regional Reuse of Water (ARROW) reclamation facility in 1990 which provides treated reclaimed water to two golf courses, a horticultural nursery, an agricultural grower, and over 5,000 residents for irrigation needs (City of Apopka Public Services Department, 2016). The reclamation facility supplies an average daily flow of 7.0 MGD. Reclaimed water is distributed to customers through 160 miles of reclaimed distribution mains up to 48" in diameter and approximately 7,600 reclaimed water meters.

Reclaimed water meters are treated similarly to potable water meters in terms of equipment used, maintenance, inventory tracking, and billing practices. Both potable and reclaimed water metering practices were reviewed to develop this report, but with a focus on data analysis for potable meters as it related to unaccounted-for water.

1.2 Unaccounted-For / Non-Revenue Water

The City prepares a potable water system audit report annually by calendar year to calculate unaccounted-for water. Unaccounted-for water is typically defined as the difference between water supplied and all known uses of water (billed consumption and estimated unmetered uses). The "unaccounted-for" portion is assumed to be a mixture of physical leaks in the system or meter under-registration or failure. The American Water Works Association (AWWA) has adopted the term "non-revenue water" instead of "unaccounted-for water". Non-revenue water accounts for unbilled but authorized consumption (both metered and unmetered) as well as all water losses which are further separated into two categories: (1) apparent losses and (2) real losses (AWWA, 2009). Apparent Losses are nonphysical losses that occur when water is delivered to a customer but is not measured or recorded accurately, such as under-recording meters. Real Losses consist of all the unexpected physical losses of water from the distribution system, such as breaks and leaks from mains, service lines, etc.

For the purposes of this report, the term "unaccounted-for" water will be used because this is what the city is familiar with and has been calculating annually. In the future, the City should consider splitting "unaccounted-for" water into apparent and real losses, as well as conform to the AWWA standards for defining authorized vs unauthorized unmetered consumption which differ from how they are used in the City's current water loss audit. In our analysis, we also used the terms "apparent losses" and "real losses" where they could be accurately applied.

For the City's analysis of unaccounted-for water, the following values are added on a monthly basis for use in the calculations:

- Metered Finished Water Entering the Distribution System (from water treatment plants)
- Metered Consumption (City Facilities, Commercial, and Residential) from Edmunds billing system
- Unmetered Consumption, with best estimates calculated using the experience of the techs in the field performing work:
 - Meter Change Out Consumption
 - Fire Services
 - Water Quality Flushing
 - Fire Department Flow Testing (based on pressure and flow rate calculations)
 - Hydrant Maintenance
 - Leaks and Repairs
- Unmetered Consumption, with estimates calculated using the capacity of the water tanks on the sewer truck and street sweeper multiplied by the number of fills:
 - Storm/Sewer Cleaning
 - Street Sweeping (technically use a metered facility to fill up trucks, but still calculated by number of truck tank fills)

Unaccounted-for water is calculated as a percent of total water supplied using the formula below:

$$\text{Unaccounted For Water \%} = \frac{\text{Water Supplied} - (\text{Metered} + \text{Unmetered Consumption})}{\text{Water Supplied}}$$

In 2016, the City calculated that 26.1% of potable water was unaccounted-for, amounting to 750 MG. This is equivalent to the volume of water needed to fill approximately 1,136 Olympic-sized swimming pools (which are 660,000 gallons each or 0.66 MG). Unaccounted-for potable water was reported to be approximately 2-4% annually prior to 2007. Around 2007 (about the same time as implementation of Advanced Metering Infrastructure [AMI]), it began to increase, rising above 10% unaccounted-for water starting in 2014. The City notes that production from the treatment plants has not changed substantially during this time. The City also stated that its production meters are calibrated regularly. An analysis of potable water use trends relative to water conservation, reclaimed water consumption, and growth in system population was outside the scope of this report.

The 26.1% unaccounted-for water percentage is significantly higher than the City's own reported past performance. This level of unaccounted-for water represents a substantial revenue loss for the City. The City expressed a concern that a significant portion of unaccounted-for water could be from meter malfunctions. Section 4.4.2 provides a conservative estimate of apparent losses from under-registering meters and compares it to the 2016 calculations of unaccounted-for water. Note that the 26.1% unaccounted-for water does not appear to be exclusively from under-registering meters. To estimate the financial impact of unaccounted-for water, apparent losses were valued by a weighted customer retail rate and real losses were valued by a variable production rate (e.g. the cost of pumping, treating, and distributing water), as described in Section 4.4.2.

1.3 Report Scope

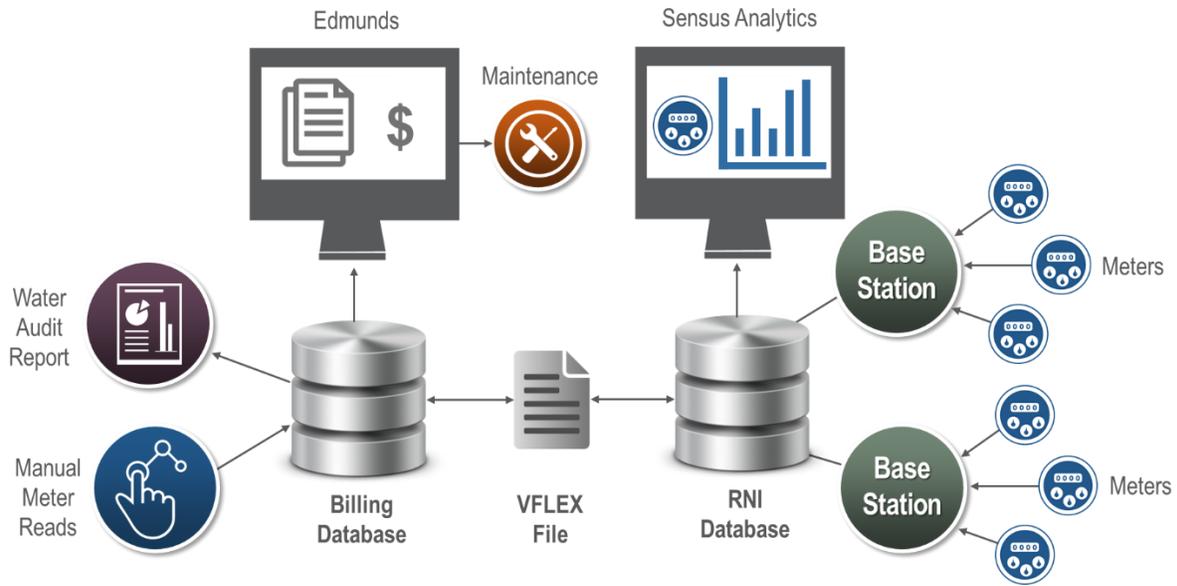
Woodard & Curran conducted a Management Assessment of the existing Customer Service & Meter Reading hardware, software, and management systems of the City of Apopka. This included a detailed review of the Advanced

Metering Infrastructure (AMI) hardware and software programs currently being utilized. Each program was evaluated to show City usage, capacity for expanded program usage, additional efficiencies, and the associated costs and benefits of implementing these efficiencies. Additional areas of improvement were identified that will enhance and/or improve customer service operations, optimize the water system through water loss reductions, improve asset management, review end-of-life meter replacement management, identify improvements that present better compliance with regulatory standards, and review related administrative policies.

It should be noted that this analysis is inherently backward-looking, and that changes are occurring to the meter infrastructure as this report is being prepared. Calendar year 2016 was used to provide a complete set of water meter consumption data in alignment with the most recent full water audit report prepared by the City, which was for calendar year 2016. While the billing and water consumption data analyzed in this report was for calendar year 2016, the inventory of meters in the distribution system analyzed in this report was a current snapshot as of the data export received from the City in January 2018. Meter error reporting and Sensus Analytics information was analyzed as of that database snapshot export in December 2017. The newly-available full year of 2017 billing and water audit data can be used by the City for comparison with the 2016 data analyzed in this report.

We note that since our initial meetings and discussions with the City, they have implemented several updates to their procedures, some of which were in process but not implemented prior to our initial report drafts, including meter change-outs by additional City staff, updating their work order procedures for better tracking, and sending meters that are being replaced out for accuracy testing. We commend the City for taking these actions, which are consistent with our recommendations. Since these actions are being taken during the writing of this report, we have left our recommendations unchanged, as it is important to reinforce that these measures continue to be implemented moving forward. We have made mention of these ongoing actions within the report text. We stress that while there is action being taken, it is important that the City take the time to carefully and thoughtfully plan and coordinate these activities to achieve the broadest possible efficiency and performance outcomes and avoid unintended consequences. These actions have significant impact on many parts of the water metering, billing, and distribution systems, and it is important that they be coordinated with all parts of the water system administration and operation, have a defined activity purpose, specific and measurable goals, are developed with input from all appropriate stakeholders, and there is defined responsibility for actions required to achieve the desired outcomes.

Figure 1-1: Metering System Schematic



2. METERING SYSTEMS

The City implemented Advanced Metering Infrastructure (AMI) technology in 2007 to automate meter reading activities that are required to produce monthly bills. In 2007, approximately 2,000 meter bodies with registers were fully replaced and AMI technology was fully implemented. The remaining meters (approximately 27,000 in the current billing system) were retrofitted with a new electronic encoder register and a wireless transmitter without replacing the meter body itself. The current existing meter bodies, registers, wireless transmitters, and network infrastructure are described in Section 2.1. The AMI software packages that process meter readings and consumption are described in Section 2.2. A breakdown of the various types of alerts provided by the AMI software packages is described in Section 2.3.

2.1 Metering Hardware

2.1.1 Metering Infrastructure

The City's meter population consists of approximately 29,700 meters, which can be broken into three categories described in the sections below: (1) Sensus SR II Meters, (2) Sensus iPERL Small Meters, and (3) Sensus W-Series and OMNI Meters. The quantity of each meter type is an approximation based on available meter installation records described later in this section.

SR II Meters

About 23,300 (79%) of the total meter population consists of 3/4" or 1" Sensus meter model SR II. The Sensus SR II is a magnetic-drive, positive-displacement meter that uses an oscillating piston (Sensus, 2017). Per City staff, the 3/4" Sensus SR II (which accounts for approximately 76% of the City's meter population) has a lifetime of 750,000 gallons registered or 10 years per Sensus warranty.



Figure 2-1: Typical SR II Meter

All SR II meters were retrofitted with Intelligent Communications Encoder (ICE) registers during the initial AMI deployment in 2007. The City stopped replacing ICE registers in early to mid-2016. There are two types of ICE registers that were produced by Sensus: ICE registers (using magnetic field position sensing technology) and ICE-opto registers (using absolute optical encoder technology). Currently, when a meter is stopped, the City replaces the entire meter body and ICE register with a new iPERL meter as well as an upgraded two-way wireless transmitter (described in more detail in Section 2.1.2).

iPERL Small Meters

Approximately 5,200 (17% of the total meter population) new 3/4" or 1" Sensus iPERL® meters have been installed over the last 10 years, including the initial 2,000 full meter replacements during the AMI deployment in 2007. The Sensus iPERL meters contain solid state magnetic technology with no moving parts and are made of a composite alloy with no metal material (Sensus, 2017). iPERL registers are electronic and contained within the body of the device. iPERL meters have a 20-year accuracy warranty and a 20-year battery life guarantee (Sensus, 2017). Since the initial AMI deployment of 2007, iPERL meters have continued to be installed on new services as well as occasional meter replacements of existing meters.



Figure 2-2: Typical iPERL Meter

W-Series and OMNI Meters

The City uses the term “Large Meters” to describe meters 4” and larger (approximately 67 meters). Between 2012-2017, most large meters have been replaced from aging Sensus W-Series to Sensus OMNI compound meters by Water Distribution Maintenance staff. Additionally, some 1 1/2”, 2” and 3” small meters have been or continue to be targeted for meter replacement with a Sensus OMNI meter. Sensus OMNI meters use a Floating Ball Technology (impeller) to measure flow (Sensus, 2017).



Figure 2-3: Typical OMNI Meter

The OMNI and W-series meters use the same ICE registers as the SR II meters (described above).

Meter Installation Records

The City records the following information in the Edmunds billing system (described later in Section 3.2) related to metering hardware:

- Meter Number (physical badge number stamped on meter body)
- Serial Number (serial number printed on the register; register serial numbers match the meter badge number when installed as new, but can be replaced separately from the meter body)
- Sensus Meter Transceiver [MXU] (serial number of the wireless transmitter)
- Meter Description (Water [potable], Irrigation, Fireline, Reuse)
- Pipe Size (meter size)
- Install Date (date when meter was installed, but can be overwritten when a new register or transmitter is put on the same meter – this field is regarded with low accuracy by City staff)
- Status Date (date when new account was created)
- Status (Read, Retired, or Do Not Read)

Note that meter model is not a characteristic that is stored in the Edmunds billing system. City staff can make an educated guess about the type of meter installed in the field based on the formatting or range of numbers used for the Meter Number field, but there is an acknowledged uncertainty around meter model installation records.

Meter installation records are connected directly to an account with its associated physical address. Edmunds does not audit inventory, so it is possible to have records of the same active equipment installed on multiple accounts. Edmunds also allows for more than one meter to be listed under each account (Meter 1, Meter 2, etc.). If an account has both a potable and reclaimed service, Meter 1 is typically used for the potable meter while Meter 2 is used for the reclaimed meter. However, Meter 2 (or higher) may be used to store a record of a retired meter that is no longer in the field.

A database export from the Edmunds billing system was obtained from the City on January 22, 2018 and contains about 30,900 rows of account information with 2016 monthly consumption. Numerous duplicates were observed; these were expected based on the nature of the account-based export of historical consumption from 2016. For example,

accounts that existed with valid water consumption in 2016 but were closed as of the database export in 2018 would show up in the report, but the meter badge number would be set to “Do Not Read”. The same meter badge number would also exist on row for the current active account. To filter the data to display only one row per current physical meter, the following processing was performed:

- Removed 4 rows with blank meter numbers
- Where there were rows with duplicate meter numbers, 1,349 rows with Meter Status = Do Not Read were removed first. For any remaining duplicates with Meter Status = Read, the extra rows were removed (14 instances).
- Removed 88 duplicate meter numbers where there was both a Meter Number beginning with a “B” and an “M”. Only the “B” was kept, which is an indication that that wireless transmitter has been installed and confirmed.

A database export from the Regional Network Interface (RNI, see later Section 2.2.1) was obtained from the City on January 12, 2018 containing approximately 30,000 records of wireless transmitters programmed in the RNI. Each wireless transmitter is programmed to a specific meter badge number. The RNI export included a “Meter Model” field with one of two options: “Sensus Touchcouple (ICE/ICE opto/ER)” or “Iperl (Touchcouple)”. This field was matched by Meter Number to the Edmunds billing extract to identify and distinguish between iPERL meters vs meters that have ICE registers. 98% of the Edmunds meter population was accounted for in the RNI export by Meter Number. Out of the remaining 2% (531 meters) that were not in the RNI:

- 66 have a Meter Number beginning with “M”, indicating a manual meter read for new installations where the meter doesn’t have an installed wireless transmitter yet
- Of the remaining 465, approximately 46% have a Meter Number with the first number of “8” or “9”, which suggests it is more likely to be a newer iPERL meter, while 54% have a Meter Number with the first number of 3, 5, 6, or 7 which suggests it is more likely to be an older non-iPERL meter.

For the summary Table 2-1 and Table 2-2 below, the unknown meter types were categorized as “Unknown”.

Overall, there is still a discrepancy between the number of unique meter numbers recorded in Sensus and Edmunds that could not be resolved fully. There are 557 unique meter badge numbers in the Sensus RNI that were not recorded in any of the Edmunds billing system extracts obtained for this study. Of these, 438 (79%) have confirmed ICE registers (older meters), 71 (13%) are iPERL meters, and 48 (9%) are unknown. These meters are not included in the summary tables below. Resolving the discrepancy between the RNI and the Edmunds billing system would require an investigative effort that is beyond the scope of work for this Report.

Summary of Meters

Table 2-1 and Figure 2-4 show a breakdown of meter type by meter size. 81% of the City’s meters have an ICE register (on an SR II smaller meter or OMNI/W-series larger meter), while 18% are an iPERL meter. The vast majority (95%) of the City’s meters are 3/4” size. Table 2-2 and Figure 2-5 show that approximately 75% of meters are for the potable system with 25% for the reclaimed water system.

Table 2-1: Type of Meters by Meter Size as of January 2018

Meter Size	Meter Type			Total	% of Total
	ICE Register (SR II/W-series/OMNI)	iPERL	Unknown		
3/4"	22,583	5,071	490	28,144	95%
1"	718	69	6	793	3%
1.5"	208	0	2	210	1%
2"	317	0	2	319	1%
3"	17	0	0	17	<1%
4"	27	0	3	30	<1%
6"	15	0	4	19	<1%
8"	5	0	6	11	<1%
10"	4	0	1	5	<1%
12"	1	0	0	1	<1%
14"	0	0	1	1	<1%
Unknown	2	103	16	121	<1%
Total	23,897	5,243	531	29,671	
% of Total	81%	18%	2%		

Figure 2-4: Distribution of Meters by Size and Type

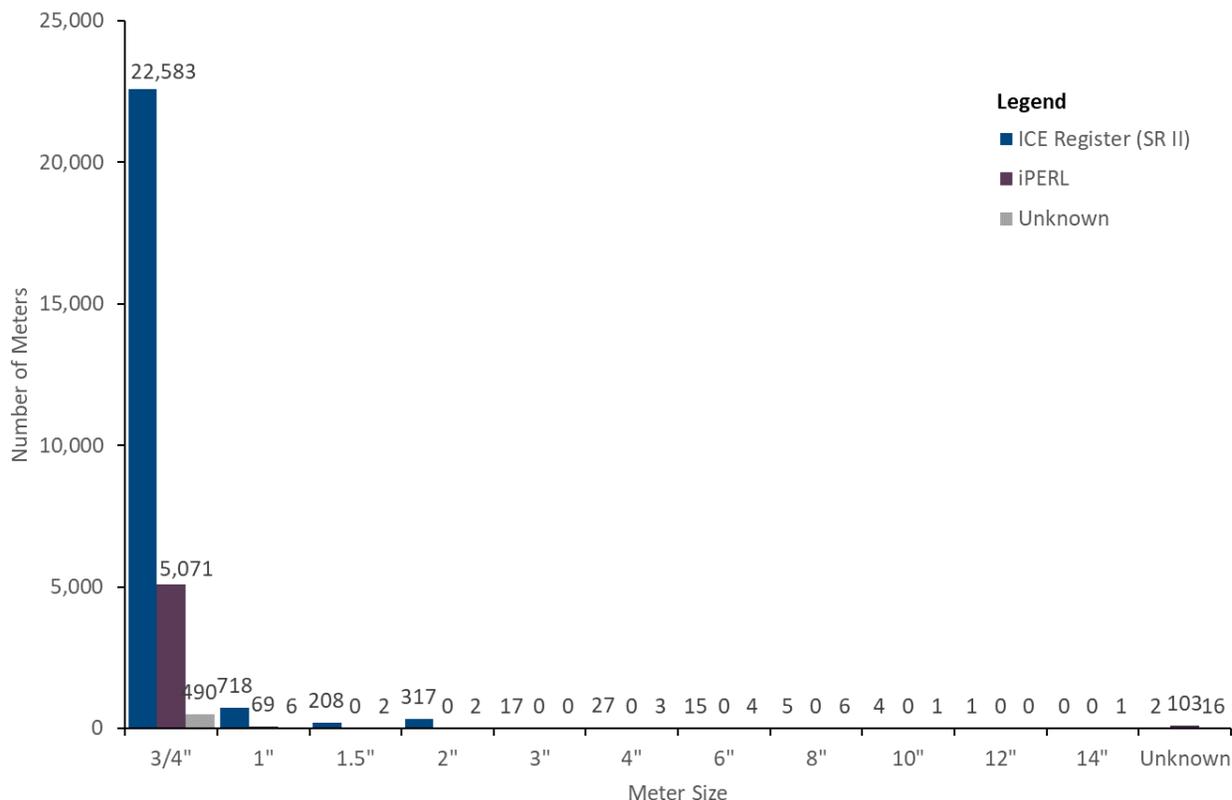


Table 2-2: Type of Meters by Service Type as of January 2018

Service Type	Meter Type			Total	% of Total
	ICE Register (SR II/W-series/OMNI)	iPERL	Unknown		
Potable ¹	18,390	3,438	389	22,215	75%
Reuse	5,507	1,805	144	7,456	25%
Total	23,897	5,243	531	29,671	
% of Total	81%	18%	2%		

Table 2-2 Notes

1. 157 fire meters were categorized as "Potable" for the purposes of distinguishing potable vs reuse meters.

Figure 2-5: Distribution of Meters by Service Type and Meter Type

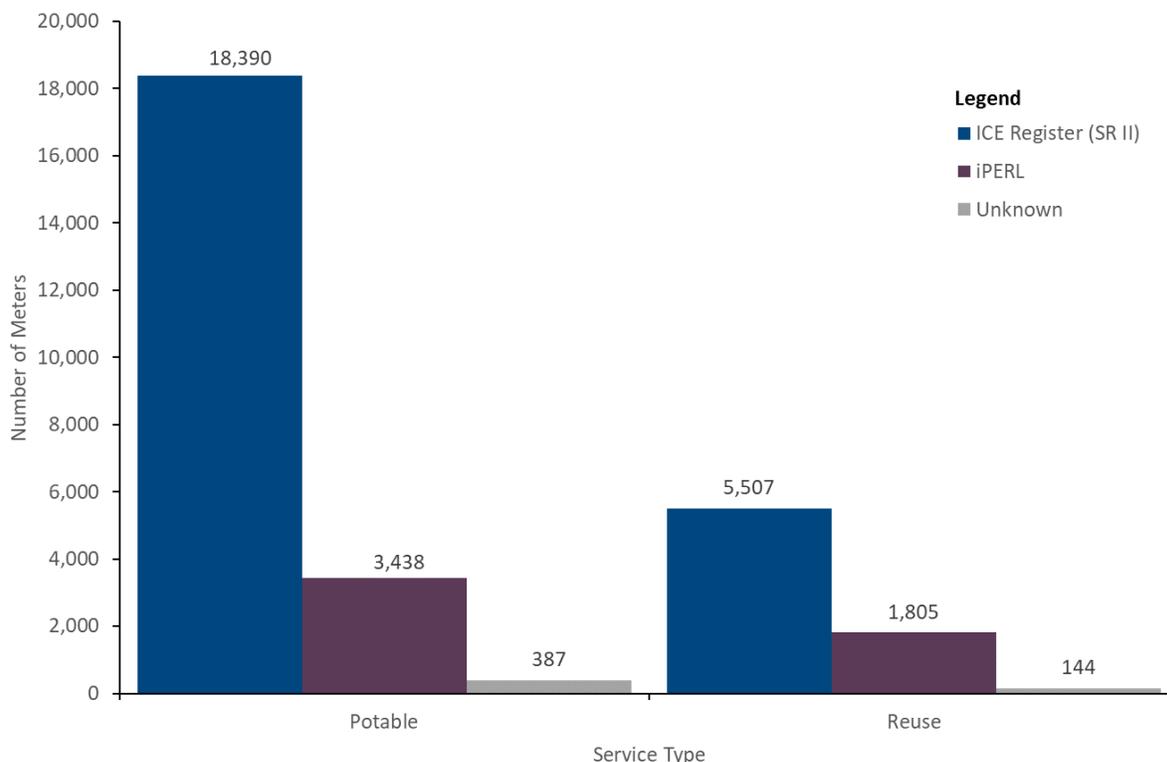


Figure 2-6 through Figure 2-11 show histograms with the age distribution of various subsets of meters. Note that the “Number of Years Installed” is based on the Install Date in Edmunds which is originally populated with the date that the meter was installed but can be overwritten when a new register or transmitter is put on the same meter body. Additionally, when the billing system transitioned from Information Management Services (IMS) to Edmunds in 2016, many records were copied over where the “install date” for the meter number was actually the date on which the existing account was first opened. Overall, the Install Date field is regarded with low accuracy by City staff as an indicator of actual meter installation date.

Since most SR II meters were retrofitted with AMI equipment in 2007, it is known that the meter bodies must be at least 10 years old. Per City staff, the 3/4" Sensus SR II (which accounts for approximately 76% of the City's meter population) has a lifetime of 750,000 gallons registered or 10 years per Sensus warranty. Thus, most meters with ICE registers are known to be well beyond their expected lifetime and could be expected to under-register.

Figure 2-6: Age Distribution for Meters with ICE Registers as of January 2018 (all sizes)

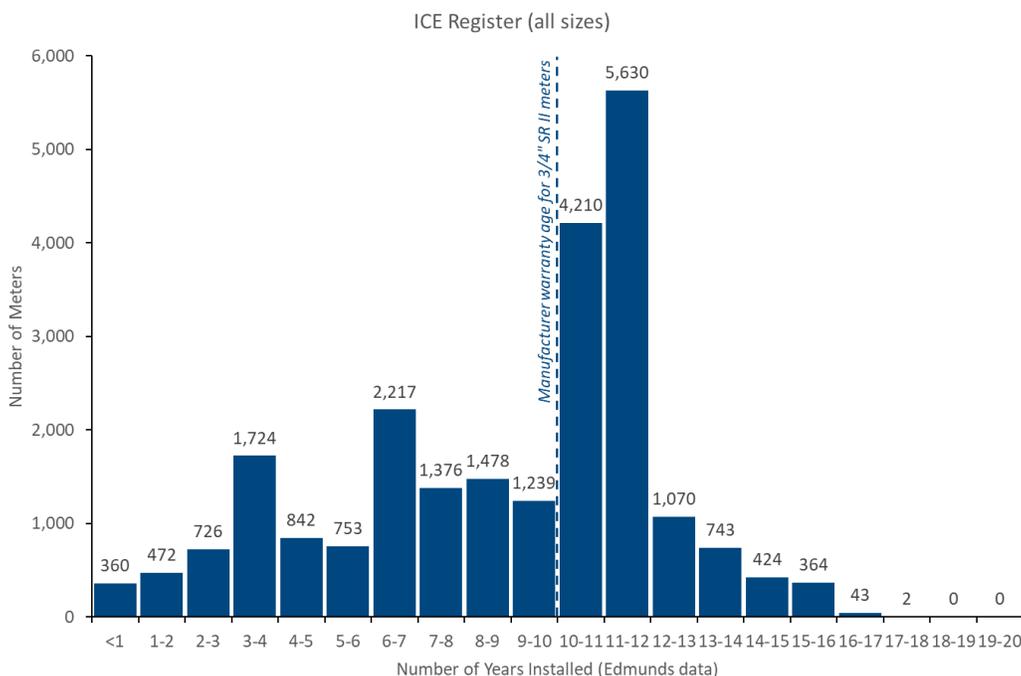


Figure 2-6 Notes:

1. Warranty cycles for meters other than 3/4" SR II or iPERL were not provided by Apopka. Warranty period is provided by manufacturer; bench testing should be used to confirm meter performance accuracy.

Figure 2-7: Age Distribution for iPERL Meters as of January 2018 (3/4" and 1")

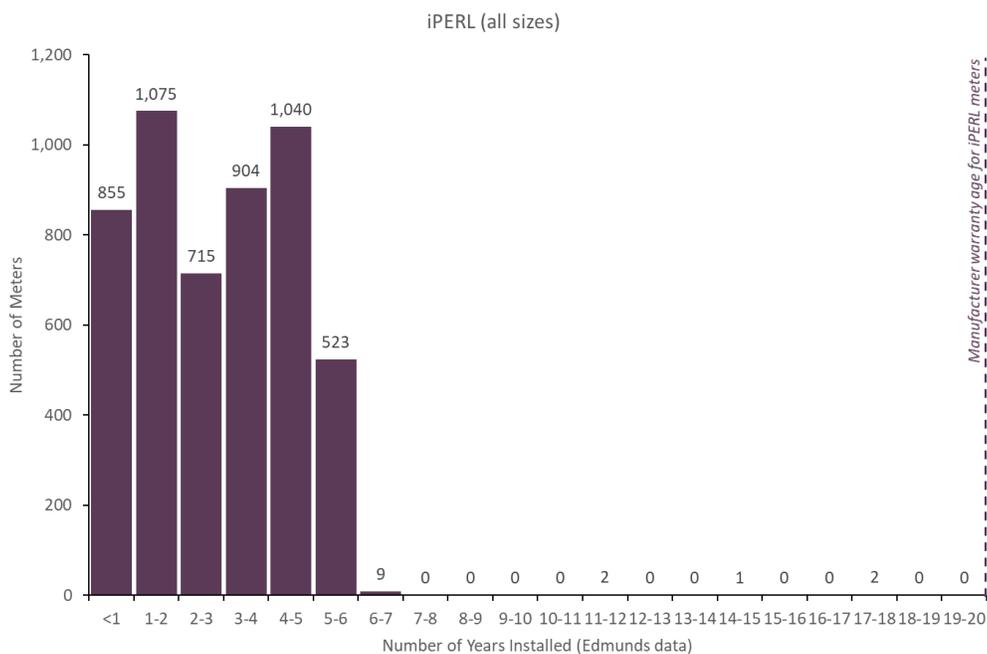


Figure 2-7 Notes:

1. Warranty cycles for meters other than 3/4" SR II or iPERL were not provided by Apopka. Warranty period is provided by manufacturer; bench testing should be used to confirm meter performance accuracy.

Figure 2-8: Age Distribution for 3/4" Meters as of January 2018

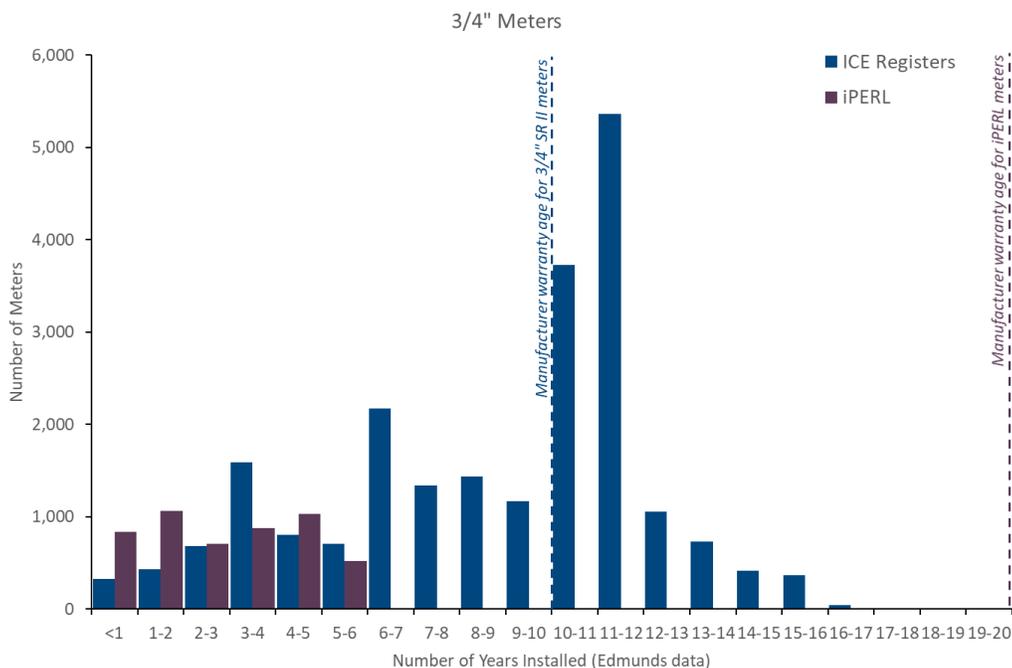


Figure 2-8 Notes:

- Warranty cycles for meters other than 3/4" SR II or iPERL were not provided by Apopka. Warranty period is provided by manufacturer; bench testing should be used to confirm meter performance accuracy.

Figure 2-9: Age Distribution for 1" Meters as of January 2018

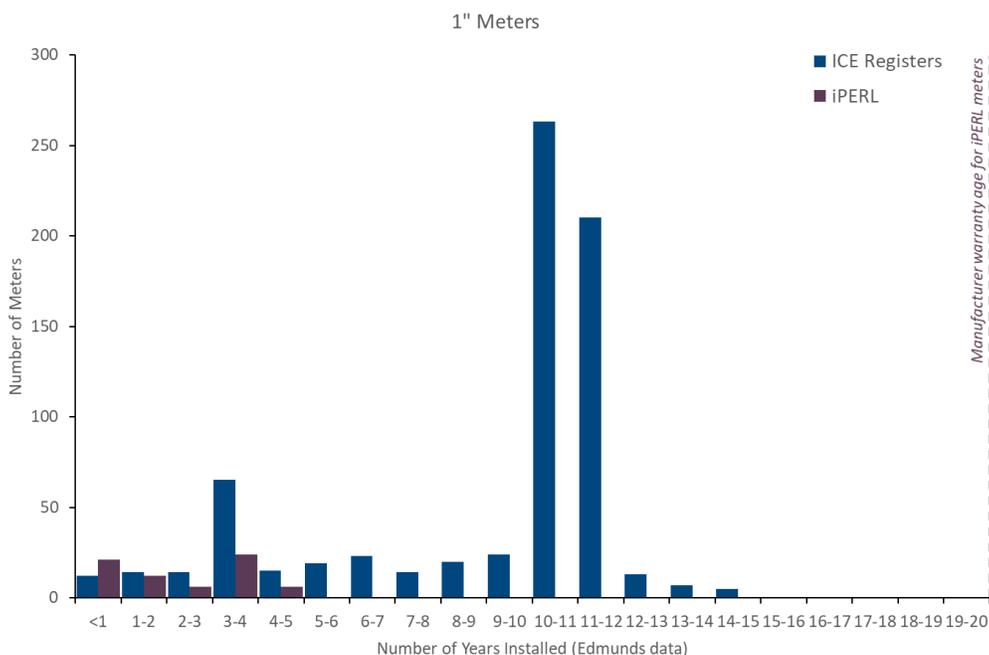


Figure 2-9 Notes:

- Warranty cycles for meters other than 3/4" SR II or iPERL were not provided by Apopka. Warranty period is provided by manufacturer; bench testing should be used to confirm meter performance accuracy.

Figure 2-10: Age Distribution for 1.5" – 3" Meters as of January 2018 (all ICE registers)

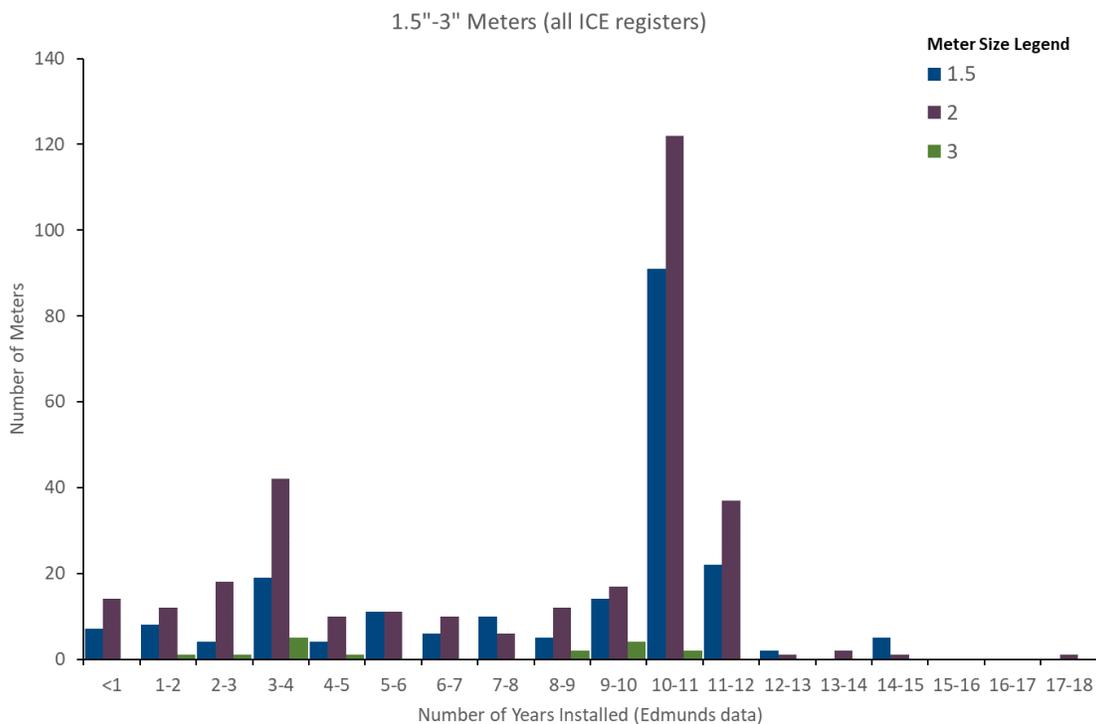
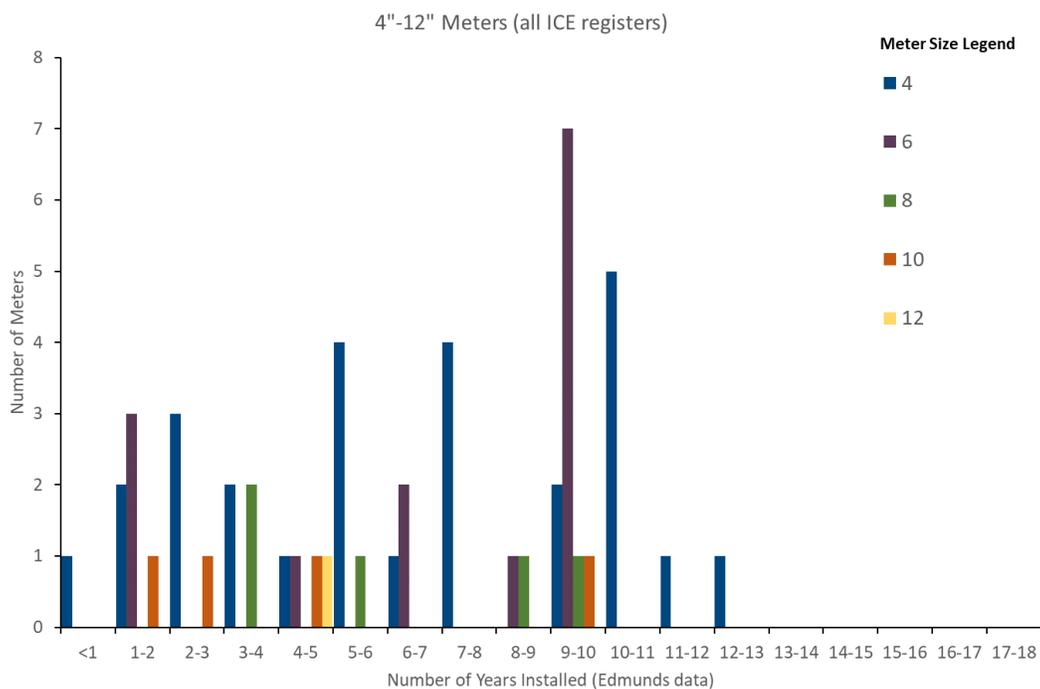


Figure 2-11: Age Distribution for 4" – 12" Meters as of January 2018 (all ICE registers)



2.1.2 Wireless Transmitter Infrastructure

Every meter has a dedicated radio transmitter which provides wireless one-way (outbound) or two-way (outbound and inbound) communication consisting of meter reads and other diagnostic information (e.g. tamper alarms). The radio is physically connected directly to the encoder register (for meters with ICE registers) or the enclosed meter casing (for iPERL meters).

Similar to meter model records, the wireless transmitter type is not a characteristic that is stored in Edmunds. City staff are able to make an educated guess about the type of meter transmitter installed based on the range of numbers used for the “MXU ID” field. Staff indicated that meter transmitter IDs beginning with “8” were of the two-way variety and the rest were of the one-way variety.

Using this assumption, Table 2-3 shows a count of wireless transmitter types broken down by meter type. 23,638 transmitters are of the one-way variety (model 520X) that have a 10-year vendor battery warranty. Most of these were installed in 2007 and their 10-year warranty is expired. 5,918 transmitters are of the two-way variety (model 520M) that have been installed recently and have a 20-year vendor battery warranty. The City started installing two-way equipment in early to mid-2016, both for new water service installation as well as replacements for existing faulty equipment. The two-way MXUs are compatible with ICE registers on the existing older SR II meters as well as the iPERL and OMNI meters.

Table 2-3: One-Way vs Two-Way MXUs as of January 2018

Meter Size	Meter Type			Total	% of Total
	ICE Register (SR II/W-series/OMNI)	iPERL	Unknown		
One-Way	22,021	1,379	238	23,638	80%
Two-Way	1,874	3,851	193	5,918	20%
No MXU	2	13	100	115	<1%
Total	23,897	5,243	531	29,671	
% of Total	81%	18%	2%		

The benefits of two-way transmitters over one-way transmitters, and the associated caveats, include:

- Ability to transmit a remote shut-off of water
 - Requires a meter that has an automated shut-off valve. iPERL meters do not have this functionality. This feature has an associated increase in cost for the meter. The City does not currently have any meters with this functionality.
- On-demand meter reads from billing office or distribution yard (e.g. outside of the regular hourly transmission)
 - Can be useful for faster move-in/out start/end reads but reads are already transmitted and available in the RNI or Sensus Analytics on an hourly basis
- Over-the-air firmware upgrades without a site visit (e.g. enabling additional native functionality or software bug fixes)
 - These are likely to be infrequent, but the ability to make any such changes over-the-air without a physical field visit is useful and efficient for use of staff when they do occur.

- Change device configuration over-the-air when utility decides to change operational features, such as reading resolution (1 gal to 0.1 gal), meter units (gal to CF), transmission rate (every 1 hour to every 4 hours to save battery life), or alarm thresholds for leak detection, backflow, or broken pipe.
 - Changes in billing operational features are likely infrequent, but remotely changing alarm thresholds based on system-wide analysis of typical AMI field issues may be useful.

2.1.3 Network Infrastructure

The City utilizes two Sensus FlexNet Base Stations (Model S50) which collect transmissions from the radios located with each meter. The two base stations were purchased and implemented in 2007 during the initial AMI deployment for one-way AMI communications. The firmware for these base stations was recently upgraded to incorporate the functionality of two-way AMI communications (e.g. the ability to transmit requests back to the radio transmitters).

2.2 Metering Software

The Sensus FlexNet system consists of two pieces of software used for different purposes, described in the sections below.

2.2.1 Regional Network Interface (RNI)

The RNI is functionally the direct interface to raw data from the wireless transmitters throughout the system, as well as a monitor of overall network health. Information is reported to the RNI from the Base Stations and then processed and stored in a database. The data and software are hosted on offsite servers. The RNI is the combination of hardware (servers), databases, and software applications. The RNI provides the following features (Sensus, 2017):

- Track installation of wireless transmitters
- View meters with missing read data
- View meters with missing manufacturing information or rate codes
- Track service losses (house-side leaks, theft)
- View quality of RF signal and network communications
- View unauthorized access attempts
- Import/export reports

2.2.2 Sensus Analytics

Sensus Analytics is a data analytics software with Meter Data Management (MDM) functionality. MDMs provide screening and long-term data storage from AMI networks and are typically used for meter asset management, review of customer consumption patterns, and interfacing for customer billing reads. Sensus Analytics functionally takes the raw data from the RNI and displays long-term consumption patterns. Sensus Analytics has four main components (Sensus, 2017):

- The Device Access application presents detailed meter usage as well as alerts (tamper, leaks, etc.)
- The Billing Access application provides the basis for an interface between AMI reads and a utility’s billing system
- The Report Access Application is a management tool that offers multiple reports that summarize system diagnostic information or provide detailed device-level reports (e.g. consumption validation, alarms, etc.)
- The Meter Insight Application is a data validation tool that serves two purposes:
 - Summary of incoming network meter data
 - Identifies reliability issues



Figure 2-12: Sample Sensus Analytics Screen

The City also has access to the Enhanced version of Sensus Analytics which includes additional applications:

- The Alarm Insight application – summary reports and drill-down lists of alarms triggered by the system (e.g. Leak Detected, Low Battery, Empty iPERL pipe, etc.)
- Alert Manager – allows for preconfigured alerts to be sent to users when triggered by the system



Figure 2-13: Sample Sensus Analytics Meter Insight Screen

The City does not use the Alarm Insight or Alert Manager applications. Limited use of the Meter Insight application is used to review specific meters, but ultimately it is not used to review system health or dispatch follow-up work orders.

2.3 Alerts from Sensus Analytics Software

Meter badge numbers were exported from Sensus Analytics in various lists from the Meter Insight (December 29, 2017) and Alarm Insight (on December 11, 2017) applications. These were matched up by meter badge number to the Edmunds billing system export described in Section 2.1.1. The alert lists are listed below, followed by a count of instances in Table 2-4.

- Meter Insight
 - Inactive Usage
 - Meter that has device status = inactive and consumption measured during the last day (Sensus Analytics software, 2017)
 - Almost Stale (not included in export)
 - 48-72 hours with no reads (Sensus Analytics software, 2017)
 - Stale (not included in export)
 - 72+ hours with no reads (Sensus Analytics software, 2017)
 - No Read Available

- List of active meters that have no read data. The AMI system has no readings for this Device ID. A possible cause could be the meter ID is not correct in the VFLEX file. (Sensus Analytics software, 2017)
 - Orphaned Meter
 - Meter ID not found in the VFLEX file. Will not appear in the Active Meters list. (Sensus Analytics software, 2017)
 - Unknown Radio
 - Mismatch in Radio ID between the RNI and VFLEX file for the active meter. (Will not impact Billing) (Sensus Analytics software, 2017)
 - Alarm Insight
 - iPERL Empty Pipe
 - Leak Detected
 - Latched Leak
 - Low Battery/Smartpoint Low Battery
 - Magnetic Latched

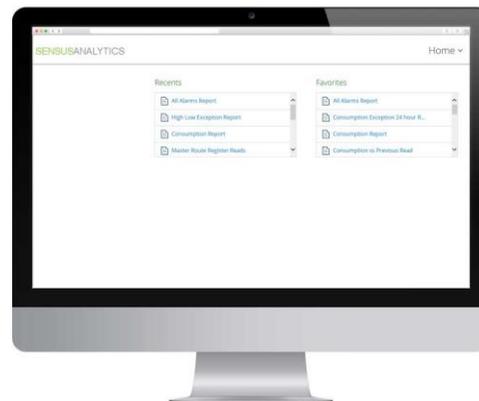


Figure 2-14: Sample Sensus Analytics Reports Screen

Table 2-4: Sensus Analytics Insights and Alarms – December 2017

Sensus Analytics Type	Sensus Analytics Category	Meter Type			Total
		ICE Register (SR II/W-series/OMNI)	iPERL	Unknown	
Meter Insight	Inactive Usage	122	37	8	167
	No Read Available	1,573	200	334	2,107
	Orphaned Meter	9	66	1	76
	Unknown Radio	90	115	0	205
Alarm Insight	iPERL empty pipe	N/A	30	0	30
	Latched Leak	214	12	1	227
	Leak Detected	617	47	0	664
	Low Battery	0	3	0	3
	Magnetic Latched	0	19	0	19
	Smartpoint Low Battery	0	1	0	1

Table 2-5 shows a breakdown by meter size and meter type for the Sensus Analytics Meter Insight error of “No Read Available” which is the error category with the largest number of meters. “No Read Available” means there is an active meter that has no readings in the Sensus system. These 2,107 meters represent 7% of the total meter population.

When comparing meter types, a slightly higher percentage of ICE register meters (7% of total ICE register population) are on the “No Read Available” list vs iPERL meters (4% of total iPERL population), but the distinction is not very significant.

Meters with “No Read Available” are likely requiring manual meter re-reads (see Section 3.2.4) and/or estimation of bills by utility staff. A detailed review of reasons for “No Read Available” reports in the City system was beyond the scope of this report. These should be monitored as meter replacements are made to confirm that there isn’t an underlying programming issue with these meters that was not found during our review.

Table 2-5: Breakdown of Meter Size and Type for Sensus Analytics “No Read Available” – December 2017

Meter Size	ICE Register (SR II/W-series/OMNI)	% of total in Size Class and Meter Type ¹	iPERL	% of total in Size Class and Meter Type ¹	Unknown	% of total in Size Class and Meter Type ¹	Total
3/4"	1,463	6%	192	4%	313	64%	1,968
1"	54	8%	2	2%	3	50%	59
1.5"	21	10%	0	n/a	1	50%	22
2"	28	9%	0	n/a	1	50%	29
3"	2	12%	0	n/a	0	n/a	2
4"	1	4%	0	n/a	0	0%	1
6"	2	13%	0	n/a	0	0%	2
8"	1	20%	0	n/a	3	50%	4
Unknown	1	n/a	6	n/a	13	n/a	20
Total	1,573	7%	200	4%	334	63%	2,107

Table 2-5 Notes:

1. E.g. 6% of 3/4" meters with ICE registers have a No Read error and 4% of all 3/4" iPERL meters have a No Read error.

3. UTILITY BILLING

3.1 Summary

Utility Billing is a division of the City of Apopka that is responsible for billing and receiving payments for potable water, sewer, reclaimed water, and garbage service. Utility Billing has five staff members, consisting of:

- Two cashiers who interact with customers at a walk-up or drive-by window
- Two customer service representatives who answer phone calls and generate bills
- One manager

At the time of writing, one additional full-time staff member was being hired to do manual meter reading (meter re-reads, described later in Section 3.2.4).

Typical Utility Billing staff procedures (for water and reclaimed water) are described in Section 3.2, followed by the use of metering data in Section 3.3. Impacts on unaccounted-for water are described in Section 3.4.

3.2 Billing Procedures & Software

Utility Billing uses Edmunds MCSJ (Edmunds) as the billing system of record. The Edmunds software was implemented in December 2016 as a replacement for Information Management Services (IMS) software. Edmunds is used for the purposes described in sections 3.2.1, 3.2.2, 3.2.3, and 3.2.4.

3.2.1 Monthly customer billing and payment tracking

Customers are billed monthly using tiered rates by customer class. There are four grouped cycles that distribute the customer bills throughout the month. Customers are billed in discrete units of 1,000 gallons but meters are read down to the gallon. The interface by which Edmunds receives monthly meter reads from the AMI system is described further in Section 3.3 - Use of Metering Data.

Edmunds also provides validation auditing of meter reads (i.e. high compared to previous months, negative consumption, and zero consumption). Utility Billing staff presently take follow-up actions to review flagged accounts, dispatch work orders as appropriate, and/or make billing adjustments. However, it appears the volume of these follow-ups exceed existing staff production capabilities.

3.2.2 Mid-Month Notices

Fifteen days after the regular monthly meter cycle reads and billing processing, Utility Billing staff execute a Mid-Month Notices process which notifies customers via postcard about excessive use halfway through the month.

Meter reads are again imported from Sensus to Edmunds (described further in Section 3.3 - Use of Metering Data). Customers who have used 15,000 gallons or more in the first half of their cycle ("mid-month") are flagged. A manual review is conducted to remove accounts with negative consumption, questionable large spikes in usage, or other suspected erroneous readings. The remaining accounts are added to a postcard mail merge file and an outside vendor prints and sends the postcards. Postcards are only printed in English.

Utility Billing Staff estimate that they send approximately 800-1,000 Mid-Month Notices per month. A handful of accounts that regularly receive this notice are noted to be customers who typically use a lot of water for irrigation.

The Mid-Month Notices process was implemented after a previous rate study implemented 30,000 gallons as the highest tier for billed potable or reclaimed consumption. The 15,000 gallon cutoff trigger for Mid-Month Notices is half of the highest tier. The mid-month notices program is estimated to have begun in 2011, which corresponds with when meter reads started being recorded twice per month in Edmunds instead of once per month.

3.2.3 Meter Installation Records

Meter badge number and radio transmitter number are recorded under the customer account, as well as several other characteristics such as meter size and service type. Meter Type/Model (e.g. Sensus iPERL, OMNI, or SR II) is not stored in Edmunds. Meter Installation records are described in greater detail in Section 2.1.1.

3.2.4 Work Order Dispatch

All meter-related work orders are dispatched and managed out of Edmunds. Utility Billing staff create a work order through Edmunds that is associated with a specific account and choose the correct work order type (e.g. exchange meter, read meter, etc.). Work orders are generally scheduled for the next day. Work orders are usually printed on paper by the department performing the work which is typically Water Distribution Maintenance staff for meter-related work orders. Work Order completion information is written on the paper sheet and then delivered or scanned/faxed back to Utility Billing. Utility Billing staff interpret the notes and make the appropriate changes directly in the account records (e.g. if a meter was exchanged, staff would need to manually input the meter information under the account and “retire” the record for the old meter).

Utility Billing does not use the Alert Manager in Sensus Analytics to proactively choose locations to dispatch work orders to resolve meter tamper or no reception issues. Work orders are manually dispatched at the account level when an issue arises that interferes with billing.

During the course of report preparation, the City began to use electronic work orders on tablet computers, and is in the process of training staff and rolling out the program. This is expected to improve the administrative efficiency of the work orders and work order tracking.

Meter Re-Reads

Meter Re-Reads are a specific sub-set of work orders that consume a significant amount of City staff time. Approximately 3,500-4,000 meters per month are not reading regularly through the AMI system. There are no official tracked metrics describing the breakdown of reasons for no available AMI reads, but typical reasons based on City experience include cut wires, cars parked over meter box or other reception issues, stopped meters, or dead transmitters.

Once reads have been imported from Sensus Analytics to Edmunds (see Section 3.3), Edmunds will flag the meters that have no read. Utility Billing staff create and dispatch a meter “re-read” work order request for field staff to obtain a manual meter reading in the field. Currently, meter re-reads are performed by Water Distribution Maintenance staff. Utility Billing also hires temporary outside help from a utility services company to assist with meter reading. Out of several hundred per week, about 100 are typically successfully re-read, with about half being completed by Water Distribution Staff and the other half by outside help. The field staff hand-write the meter reads on a sheet of paper next to the meter badge in a list of requested meter re-reads.

For the meters that are unable to be re-read, Edmunds will estimate the read and generate a bill for the customer. During the next month, the process repeats. No filtering is available to identify and prioritize re-reading of meters that have been estimated for longer periods of time.

At the time of writing, one full-time meter reader is being hired to work directly with Utility Billing.

3.3 Use of Metering Data

Utility Billing staff use Sensus Analytics software to:

1. Transfer AMI meter reads into the billing system
 - Sensus Analytics makes use of a manual flat file (referred to as the “VFLEX” file) interface to keep account information up to date and to transfer meter reads into Edmunds
 - In Edmunds, staff select the meter cycle or route of interest. A VFLEX file is generated with the latest account information. This file is imported through a tool in Sensus Analytics and account information is updated in the Sensus database. By matching up the meter badge number and wireless transmitter number, Sensus Analytics appends the latest meter read to the file (typically takes about 2 minutes). The updated VFLEX file is then re-imported back into Edmunds with the single added meter read per meter.
2. Review consumption alerts upon customer request
 - Customers do not have access to consumption values outside of the monthly value that appears on their bill.
 - If a customer receives a high bill or has other questions about their consumption, they will typically call Utility Billing or visit the physical office window to ask for more information.
 - Utility Billing staff regularly log into Sensus Analytics, pull up the account, and review consumption patterns and share observations with the customer (e.g. an ongoing leak where hourly consumption never drops to 0 gal).

3.4 Impact on Unaccounted-For Water

3.4.1 Zero Consumption from Stopped Meters

Stopped meters are meters where water is typically still flowing through the meter and being used by the customer, but the meter is not registering consumption due to age-based wear and tear or damage. These meters may or may not have a working wireless transmitter providing hourly reads. A working transmitter would still provide the same meter register read every hour, making it appear that no water is being used.

Utility Billing provided an export of all the zero consumption meters on January 2, 2018. The list contained 2,284 meters of which 85 were fire meters. 2,280 meter numbers were matched up with Edmunds billing export data. It is important to note that presence on the zero consumption report does not necessarily indicate a stopped meter; it is perfectly acceptable that a meter might not register consumption for several months, such as if it serves a seasonal home, an irrigation line that is inactive in winter, or other vacant property.

For 3/4"-2" meters with ICE registers, a consistent 9-10% of each meter size class is present on the zero consumption report. Conversely, a smaller percentage (2-6%) of the iPERL meter population is present on the zero consumption report. Only 249 out of 2,280 meters (11% of total zero consumption report) were also present on the Sensus Analytics No Reads report (see Section 2.3). This indicates that the vast majority of meters on the zero consumption report are successfully communicating zero quantity readings via actual radio or manual reads and are not being classified as zero consumption due to no available meter readings (i.e. not communicating).

Table 3-1: Breakdown of Meter Size and Type for Zero Consumption in January 2018

Meter Size	ICE Register (SR II/W-series/OMNI)	% of total in Size Class and Meter Type ¹	iPERL	% of total in Size Class and Meter Type ¹	Unknown	Total
3/4"	1,966	9%	93	2%	81	2,140
1"	73	10%	4	6%	0	77
1.5"	19	9%	0	n/a	0	19
2"	31	10%	0	n/a	1	32
4"	2	7%	0	n/a	0	2
8"	2	40%	0	n/a	2	4
Unknown	0	n/a	3	n/a	3	6
Total	2,093		100		87	2,280

Table 3-1 Table 3-1 Notes:

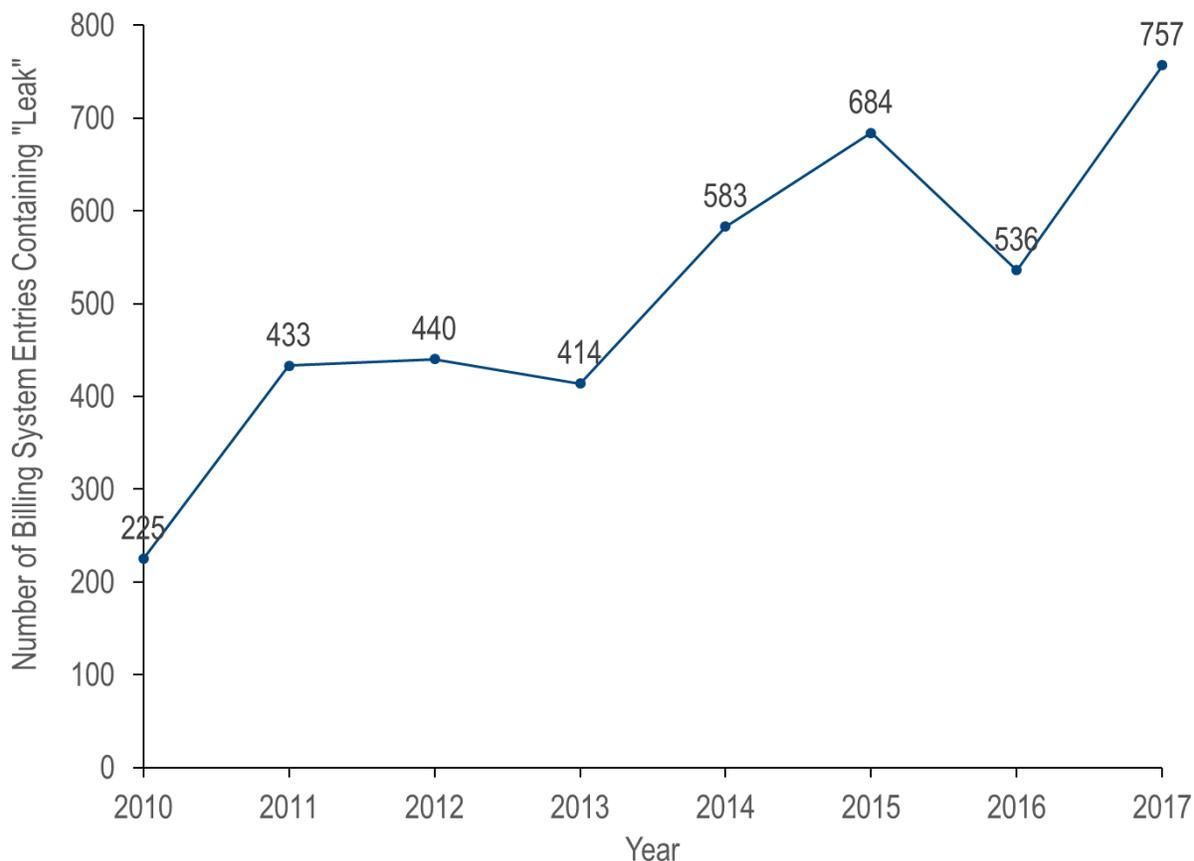
- 1) Percentages are out of total meters in size class, e.g. 9% of all 3/4" meters with ICE registers are on the zero consumption report and 2% of all 3/4" iPERL meters are on the zero consumption report.

3.4.2 High Bill Allowances

Utility Billing has a High Bill Allowance program where customers are allowed two adjustments (credits) within a 12-month period. A credit will be applied to an account with a high bill if the customer can provide records of leak repairs made and staff are able to verify a reduction in hourly/daily consumption in Sensus Analytics. The credit back to the customer is calculated by subtracting (1) a newly calculated bill based on an average of the customer's previous 12 months of consumption from (2) the high bill.

The number and dollar value of High Bill Allowances is not tracked with a specific field in Edmunds, but an estimate of the number of high bill allowances per year was calculated by exporting all billing system entries containing the word "leak". The count of billing system entries per year from 2010-2017 is shown in Figure 3-1. In 2017, there were 757 entries. The overall trend 2010-2017 suggests an increase in high bill adjustments through time, but it's possible this may be due to more consistent note-taking by Utility Billing staff or greater program awareness and use by customers.

Figure 3-1: Number of Billing System Entries Containing “Leak” 2010-2017



The High Bill Allowance program provides financial relief for customers facing a large water bill and is meant to incentivize the professional repair of leaks. However, it is a revenue loss to the City because water is being used that is ultimately not paid for. If customers were aware of excessive water use sooner than looking at a monthly bill or getting a mid-month notice, they would be able to respond and resolve the issue significantly sooner. In most cases, this should reduce the number and magnitude of requests for high bill allowances, decrease time spent by City staff resolving requests, and improve satisfaction with City services.

4. WATER DISTRIBUTION MAINTENANCE

4.1 Summary

Water Distribution Maintenance is a division of the City of Apopka's Public Services Department that is responsible for operating the City's distribution system. Water Distribution Maintenance has fourteen staff members, consisting of:

- One foreman
- 2 staff responsible for Turn Ons/Cut Offs
- 3 staff responsible for utility location/markout requests
- 2 staff responsible for hydrant maintenance
- 2 staff responsible for leaks/repairs
- 2 staff responsible for new meter sets and programming
- 2 additional service workers focused on meter change-outs (started during the course of report preparation)
- Currently the City is not using outside support or consulting in any significant way

Typical Water Distribution Maintenance staff processes and responsibilities are described in Section 4.2, and a discussion on the use of metering data can be found in Section 4.3. Impacts on unaccounted-for water are described in Section 4.4.

4.2 Water Distribution Maintenance Processes and Responsibilities

The Water Distribution Maintenance Division is responsible for many processes needed to operate the City's distribution system, including:

- Operation and maintenance of transmission and distribution mains
- Meter box installation, meter sets, and wireless transmitter programming for new services (about 30 per month)
- Service cut-ons/cut-offs (e.g. for new services, delinquency, or vacant properties)
- Underground utility location and markout (dig safe)
- Backflow prevention device inspection and installation (required for all 7,600 reclaimed water connections; for residential reclaimed, Water Distribution Maintenance makes the actual device installation as well)
- Leak repairs on mains and services
- Hydrant maintenance
- Manual meter reads for meters not on AMI (20-30 per week)
- Manual meter reads (re-reads) for AMI meters reported by Utility Billing (several hundred per week)

- This includes AMI system maintenance, such as fixing cut wires, replacing broken registers, etc. as discovered during re-reads
- Other customer requests (e.g. leak inspection due to high bill)
- Meter replacements
 - Recent focus on large meters (4"+), followed by 2", with smaller customer meters being exchanged only as reported and able to get to them
 - Two new Service Workers were added during the preparation of this report, who are focused on meter replacements. It is our understanding that these staff are replacing approximately 100 residential meters per week. Details of this program and integration of the new meters with the billing systems, were not available.

Meter replacements were noted by City staff as the lowest priority item among the list of other responsibilities which often take priority to their emergency nature (e.g. – water main breaks).

4.3 Use of Metering Data

Water Distribution Maintenance staff primarily use the Sensus Regional Network Interface (RNI) software to look at raw data (reads displayed in a table) rather than Sensus Analytics consumption graphs:

- The RNI is used to review work completed (only if needed, it is not a standard practice)
- Review of issues reported by customers through Utility Billing (e.g. if there is a question about why a customer has a high bill and a field visit is requested, staff might preview consumption for patterns such as real irrigation usage vs a leak that needs to be fixed)
- If more than one leak complaint is received for a particular street in the same day or week, the RNI is often used to look at consumption patterns of other services on the same street.

4.4 Impact on Unaccounted-For Water

4.4.1 Stopped Meters

Stopped meters and zero consumption are described more fully in Section 3.4.1.

4.4.2 Under-Registering Meters

Under-registering meters occur where water is still flowing through the meter and being used by the customer, but the meter is not registering consumption at 100% accuracy due to age-based wear and tear or damage. Typically, the accuracy of meters is expected to decrease throughout the life of the meter, rather than increase, due to the tendency for increased friction and drag forces (due to wear and tear) on the meter components at low flow (Barfuss, Johnson, & Neilsen, 2011). When meters under-register, a utility loses revenue because customers are using more water than they are being billed for.

The City does not regularly test meters for accuracy. Past practice involved only testing meters upon customer request, but staff initially indicated that no meters had been sent to a third-party for testing in several years. No testing is done on site. During preparation of this report, the City sent 10 recently-removed meters out for testing. Results were not available as of this writing.

Table 4-1 shows potable consumption broken down by meter size and type for calendar year 2016. This information came from a database export from the Edmunds billing system obtained January 22, 2018 containing about 30,900 rows of account information with 2016 monthly consumption. The "Meter Descript" field was used as an identifier of service type and was recategorized to separate "reuse" services from all other potable services ("water", "potable", "fireline", or "irrigation").

Table 4-1: 2016 Consumption by Meter Size and Type (potable only)

Meter Size	Consumption (MG) by Meter Type			Total	% of Total
	ICE Register (SR II/W-series/OMNI)	iPERL	Unknown		
3/4"	1,223	133	40	1,396	69%
1"	105	6	1	112	6%
1.5"	65	n/a	0	65	3%
2"	130	n/a	1	131	6%
3"	22	n/a	0	22	1%
4"	68	n/a	5	73	4%
6"	21	n/a	27	49	2%
8"	85	n/a	0	85	4%
10"	87	n/a	0	87	4%
Total	1,804	139	74	2,018	
% of total	89%	7%	4%		

Table 4-2 shows a comparison of 2016 consumption vs count of meters per meter size class. Additionally, it shows the average consumption per meter per month. While 3/4" meters account of 95% of the meter population by count of meters, they only account for 69% of consumption since large meters use significantly more water per meter. However, while the accuracy of the larger meters plays a significant role in revenue to the city, the sheer number of small meters means that they still represent the majority of revenue and must be maintained to ensure a reliable revenue stream for the City.

Table 4-2: Comparison of 2016 Consumption vs Count of Meters per Size Class (potable only)

Meter Size	Consumption (MG)	% of Total Consumption	Count of Meters	% of Total Count of Potable Meters	Gallons per Meter per Month
3/4"	1,223	69%	20,984	95%	5,544
1"	105	6%	732	3%	12,716
1.5"	65	3%	164	1%	33,028
2"	130	6%	226	1%	48,121
3"	22	1%	13	<1%	138,121
4"	68	4%	16	<1%	378,584
6"	21	2%	8	<1%	505,304
8"	85	4%	9	<1%	783,543
10"	87	4%	5	<1%	1,456,037
Total	2,018	100%	22,157	100%	

Table 4-3 shows the comparison of counts of meters vs consumption attributable to 3/4" and 1" meters by type. It shows that 81% of potable meters (by count) are SR IIs, while 18% are iPERLs. This is in contrast to 88% of 2016 actual water consumption by SR II meters vs 9% by iPERLs. Based on this 2016 billed consumption, SR II meters account for a larger share of consumption than they do by count of meters.

Table 4-3: Breakdown of Count of Meters and 2016 Consumption (Potable 3/4" & 1" only) by Meter Type

Meter Type	Count of 3/4" & 1" Potable Meters ¹	% of Total Potable Meters	Sum of 2016 Consumption by 3/4" and 1" potable meters (MG) ²	% of Total Potable Consumption
ICE Register (SR II/W-series/OMNI)	23,301	81%	1,328	88%
iPERL	5,140	18%	139	9%
Unknown	496	2%	41	3%
Total	28,937	100%	1,508	100%

Table 4-3 Notes:

- 1) Meter count is based on January 2018 data
- 2) Potable consumption is based on 2016 data

If SR II meters were under-registering as a whole, it is expected that they would have a smaller average consumption per meter than iPERL meters (which are newer and expected to be registering nearer to 100%). However, in 2016, the median 2016 annual potable consumption for 3/4" meters with non-zero consumption was 60,003 gallons for SR II meters vs 49,367 gallons for iPERL meters. Three factors that could contribute to this difference include:

- A large share of iPERL meters have been installed at new or remodeled properties that are more likely to have modern, low-flow fixtures.

- Newer properties are more likely to have both iPERL meters and both potable and reuse service lines. 31% of 3/4" potable SR II meters (17,294 meters total) have a 3/4" reuse meter (iPERL or SR II) at the same property address, while 48% of 3/4" potable iPERL meters (3,324 meters total) have a 3/4" reuse meter (iPERL or SR II) at the same property address. Therefore, SR II meters are more likely to have greater consumption per meter because they are more likely to capture both indoor consumption and outdoor irrigation water use under a single meter, rather than separately under two separately metered services for the same property.
- There are a greater number of iPERL meters in the 2018 billing system export than would be captured in the 2016 consumption data, due to new installations and replacements.

Figure 4-1, Figure 4-2, and Figure 4-3 show histograms of the distribution of annual consumption by individual potable meters by size class. Meters with zero consumption are not included. 3/4" is the largest size class by number of meters and by total volume of consumption. Out of the 8 meters that have an annual 2016 consumption over 1 MG, most were between 1-2 MG, while two major outliers of 10.0 MG and 29.2 MG. Monthly or yearly review of consumption distribution by size class may flag meter right-sizing issues, meter size misclassification issues in the billing system, and/or meter replacements needed due to volume of use.

Figure 4-1: Histogram Showing Distribution of 3/4" Potable Meter Consumption for 2016

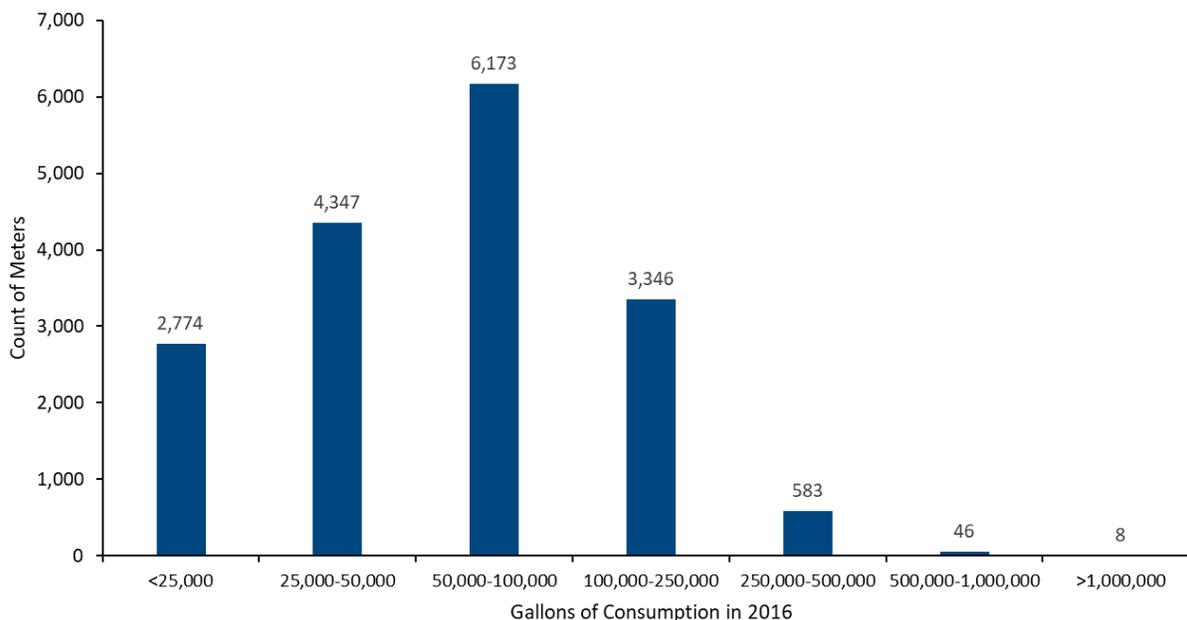


Figure 4-2: Histogram Showing Distribution of 1"-3" Potable Meter Consumption for 2016

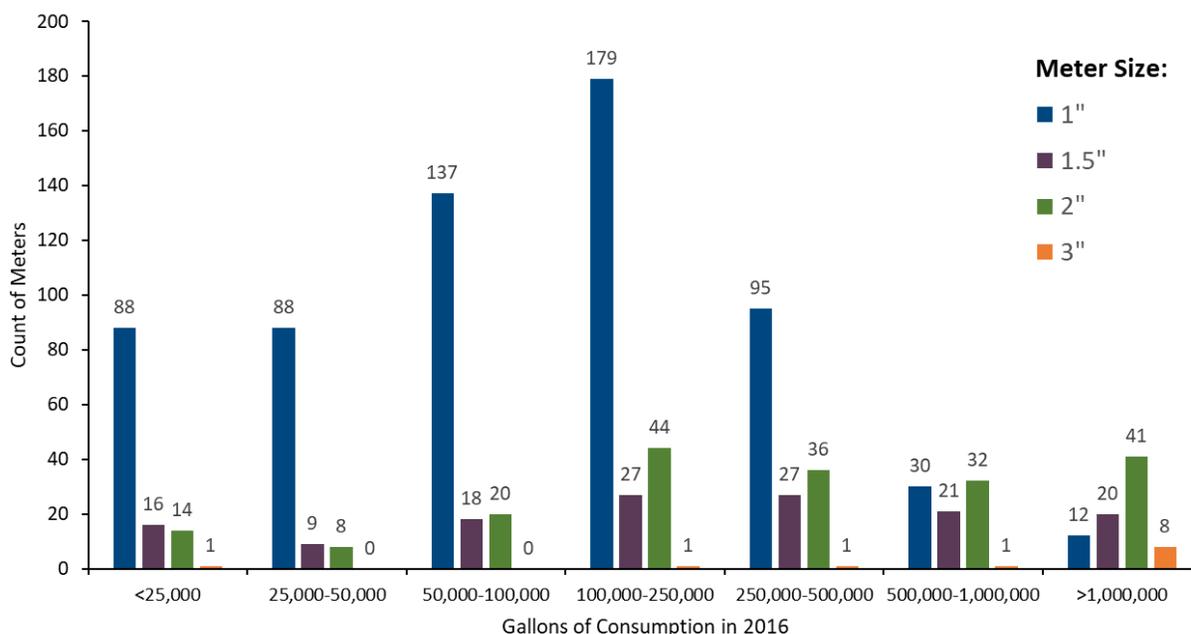
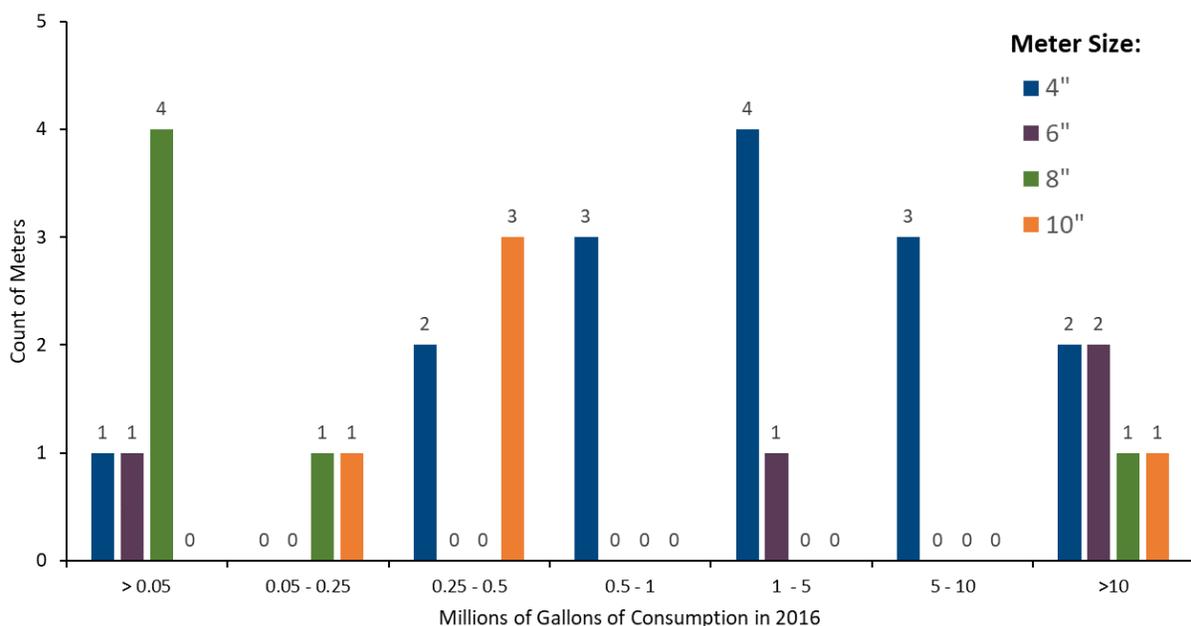


Figure 4-3: Histogram Showing Distribution of 4"-10" Potable Meter Consumption 2016



Comparison of Estimated Apparent Losses to Unaccounted-For Water

To provide a sensitivity analysis on the impact of under-reading or zero consumption meters on unaccounted-for water, we developed an estimate of Apparent Losses, which is presented in Appendix A. Using that methodology, Apparent

Losses from potable meters were estimated at 262 MG. The valuation of Apparent Losses uses both water and wastewater rates, since wastewater usage fees are billed based on volumetric potable water consumption. The dollar value of these Apparent Losses can be calculated by multiplying by the average rate at which customers pay for water and wastewater combined (\$1.81 per 1,000 gal for potable water + \$2.36 per 1,000 gal for wastewater = \$4.17 per 1,000 gal combined rate, see calculation in Appendix B) since Apparent Losses represent water used by customers but not paid for. The Apparent Losses of 262 MG are estimated to be valued at \$1,100,000.

Since the City has no formal meter accuracy testing program, the potable meter population was divided into several categories and each was assigned an estimated percent registration accuracy:

- Potable meters on the zero consumption report were assumed (very conservatively) to all be stopped meters with a 0% accuracy. This means average consumption flowed through the meter but was not registered or billed.
- The remaining meters not on the zero consumption report were conservatively assumed to have the following percent accuracy:
 - Small meters with ICE registers (3/4" – 3") were assigned an arbitrary 95% (3.5% lower than 98.5% minimum allowable overall registration by American Water Works Association [AWWA] standards)
 - iPERL meters (3/4" & 1") were assigned an accuracy of 98.5% which is the minimum allowable overall registration by AWWA
 - Large meters with ICE registers (4"+) were assigned an accuracy of 98.5% which is the minimum allowable overall registration by AWWA

The estimate of 262 MG is based on an assumed loss of accuracy over time. If each meter was registering at 100% accuracy, 262 MG of additional consumption would be registered by the metering infrastructure. This is a conservative estimate of meter accuracy, and the actual accuracy could be less. We have made this conservative assumption to avoid over-estimating the anticipated revenue that could be recovered if the meters were performing at their original accuracy.

The 262 MG of estimated apparent losses can be subtracted from the 750 MG of unaccounted-for water in calendar year 2016 (see the City's calculation of unaccounted-for water in Section 1.2). This leaves 488 MG that can attributed to real losses, or physical leaks and breaks in the distribution system, or under-accounting of estimated water uses.

The AWWA Water Loss Audit Methodology offers a basic calculation that estimates the Unavoidable Annual Real Losses (UARL) in a system, defined as a theoretical reference value representing the technical low limit of leakage that could be achieved if all of today's best leak detection and repair technology could be successfully applied. It is based on the distribution system's key characteristics, such as length of water mains, number of service connections, and pressure. The equation used for UARL is based on leakage data gathered from well-maintained and managed systems internationally:

$$UARL (gal/day) = (5.4 * L_m + 0.15 * N_c + 7.5 * L_c) * P$$

Where:

L_m = length of water mains (miles)

N_c = Number of service connections

L_c = Total length of private pipe (miles) = N_c * average distance from curb stop to customer meter

P = average pressure in the system (psi)

For Apopka:

UARL (gal/day) = $[5.4 * 356 \text{ miles} + 0.15 * 22,215 \text{ potable service connections} + 7.5 * 0 \text{ miles (all meters assumed to be at curb)}] * 70 \text{ psi} = 367,826 \text{ gal/day} = 134 \text{ MG/yr}$

This means that out of 488 MG of estimated real losses, 134 MG (~30%) can be considered expected system leakage that would be infeasible to fix. 134 MG is 4.7% of total system production. This leaves approximately 353 MG of “Avoidable Real Losses” that could be managed through proactive leak detection, pressure management, or other distribution system leakage management control practices. Table 4-4 shows a summary of calculations.

The dollar value of 353 MG of Avoidable Real Losses can be calculated by multiplying by the average production rate (\$299.21/MG, see calculation in Appendix B), which is estimated based on the variable cost of chemicals and electricity to treat and distribute water. The Avoidable Real Losses of 353 MG are estimated to be valued at \$110,000.

Ultimately, while based on many estimations, the calculation of apparent losses and subsequent estimation of real losses provides insight into the fact that the City’s unaccounted-for water is likely due to a roughly equal combination of losses from old and under-registering meters (262 MG, or 9% of total system production) as well as leaks and breaks in the distribution system (353 MG, or 12% of total system production).

Table 4-4: Comparison of Apparent Losses to Unaccounted-For Water for 2016

	Component	Volume (MG)	% of Total System Production	Dollar Value	Valued Using
A	Unaccounted-For Water	750	26%	\$1,200,000	Sum of Apparent Losses and Real Losses ¹
B	Apparent Losses	262	9%	\$1,100,000	Customer retail rate for water and wastewater
C = A - B	Real Losses	488	17%	\$150,000	Water production rate
D	Unavoidable Annual Real Losses	134	5%	\$40,000	Water production rate
E = C - D	Avoidable Real Losses	353	12%	\$110,000	Water production rate

Table 4-4 Notes:

1. Summed using unrounded values

4.4.3 Leaks and Breaks in the Distribution System

Leaks in the street are reported by customers or other city employees through dispatch or Public Services. Because leak work is not tracked in a central database, there are limited metrics available. Staff report that there are no distinct patterns that stand out, but leaks can happen naturally on old pipes, when a water hammer occurs due to contractors

or fire department operation of valves, or when a contractor ignores a line locate and hits a main directly. Leaks also happen when contractors damage service lines. According to the City, leaks occur more frequently on older cast iron and asbestos-cement pipes than on newer ductile iron pipes. Leaks also occur at customer meters due to fatigue of older meters and pipes or when customers tamper with valves or connections in their meter box. Everyone on Water Distribution Maintenance staff works on leaks and breaks when they occur, regardless of their typical job assignment.

5. RECOMMENDATIONS

5.1 Summary and Discussion

The recommendations address the goal of reducing unaccounted-for water and are based on the findings of our review of the City’s Metering, Billing, and Distribution Maintenance Systems. The recommendations were categorized by their relative impact on reducing the City’s unaccounted-for water into immediate recommendations and ongoing recommendations, and then further by whether they are capital improvements or processes that the City should implement. Our recommendations are summarized in Table 5-1 and Figure 5-1, with detailed discussion in their respective following sections.

Table 5-1: Recommendations Summary

Category	Section Number	Recommendation
Immediate Capital Recommendations	5.2.1	Implement a meter change-out program for aged SR II meters and test large meters
	5.2.2	Conduct a proactive leak detection survey
Immediate Process Recommendations	5.3.1	Implement ongoing management and review of metering infrastructure and data analysis
	5.3.2	Improve data collection and analysis for meter-related work orders
	5.3.3	Provide customers with access to screened hourly consumption data
	5.3.4	Implement a leak detection notification program for customers
Ongoing Capital Recommendations	5.4.1	Implement a long-term meter change-out program, including large meter maintenance program
	5.4.2	Implement distribution system AMI for optimized system operation, maintenance, and monitoring
Ongoing Process Recommendations	5.5.1	Perform annual water loss audit according to AWWA M36 Methodology
	5.5.2	Develop a leak tracking form with standardized fields
	5.5.3	Monitor meter change-out program effectiveness
	5.5.4	Provide a comprehensive customer engagement experience

The recommendations were developed with the following intent:

1. Establish firm control of water loss and recovery of lost water revenue through meter replacements, testing, and leak detection;
2. Maintain control of the system through an ongoing, proactive meter replacement program and water audits;
3. Improve system management and reporting;
4. Improve public confidence through data availability and transparency;
5. Expand “smart water” technology tools to maximize the City’s investment in AMI infrastructure and the value of the data for water system planning and optimization; and
6. Monitor progress through data analysis and reporting.

The 2007 City of Apopka conversion to an AMI system mainly consisted of retrofitting old meters with transmitters which are now at the end of their lifecycle. This, along with a majority of meter bodies now reaching the end of their lifecycle, is likely contributing to a decline in revenue for the City. To improve meter reading accuracy and reliability, reduce metering costs, and maintain a steady cash flow into the system, immediate capital recommendations are based

around establishing firm control of the metering system. The meter change-out program in Recommendation 5.2.1 is the first and most critical step to recovering lost water system revenue and builds on the City's prior investments in AMI technology.

Once these immediate improvements are made, future capital recommendations will complete the vision for a "Smart Water" infrastructure to improve the financial position of the water utility and serve the residents of Apopka. These improvements include distribution system monitoring, which adds value and context to the water meter data and enables the City to better localize water loss in real time (Recommendation 5.4.2). Sophisticated data analysis (Recommendation 5.3.1) of combined flow and meter data can identify areas with atypical use patterns and losses due to unauthorized use and leaks.

The ongoing process recommendations will help the City use AMI system data to implement a coordinated, disciplined, and data-driven approach to its metering system infrastructure. This will reduce the difference between produced and metered water volumes, improving the system's revenue recovery rate. Improved system finances can then be leveraged to finance infrastructure replacement, maintenance, and enhancement, which are critical to achieve sustained operational efficiency in a city with a rapid growth rate like Apopka.

Currently, the data from the City's existing AMI system is difficult to analyze, has insufficient or inconsistent information, and does not easily allow for complex system assessments, troubleshooting, or system optimization. The ability to easily analyze water use on a full system, street/neighborhood/district, and individual customer level is important to track water usage across the system, deploy resources to problem areas, and promote customer conservation through education and leak detection. The City's existing system has some of these capabilities, but the data quality presents issues in doing so, in addition to limited staff expertise and available time.

Beyond the simple recovery of lost revenue from under-registering meters, the Recommendations in this report will provide the City with additional quantifiable and non-quantifiable benefits. For example, with better data and more expertise in managing system operations using AMI data, the City can achieve cost savings through reduction of manpower and fuel for manual meter reading, quicker detection of leaks and flow anomalies which reduce non-revenue water and energy usage from pumps, and supporting conservation which then reduces costs from both water production and wastewater treatment.

In addition to proactive management of the City's water system, these Recommendations can also impact the reclaimed water system, and provide value for the management of the City's new wastewater treatment plant through recovery of lost revenue from the water meters, and the data for performance optimization. As an example, water consumption data can be used to predict wastewater flows, allowing more active management of treatment operation scaling and thereby optimizing energy usage.

Beyond water usage data, additional AMI-enabled sensors can be added to the City's distribution system to provide for more integrated system awareness, alarming, and data for operator use. Manpower and energy are typically the top two costs for water and wastewater utilities, so active management using the rich data that can be provided by an updated AMI system is critical to reducing operating costs.

The non-quantifiable benefits from implementing these Recommendations include improved customer confidence in the efficient operation of both the water utility and city-wide services, demonstrated stewardship of Florida's water resources, and facilitate detection of potential water quality impacts. A fully-implemented AMI system with service line meters that have reverse-flow detection and can assist operators with the detection of pipeline breaks that cause backflow events. Distribution system monitors can be used to detect system pressure and even water quality parameters to rapidly detect situations that require operator attention to manage water quality.

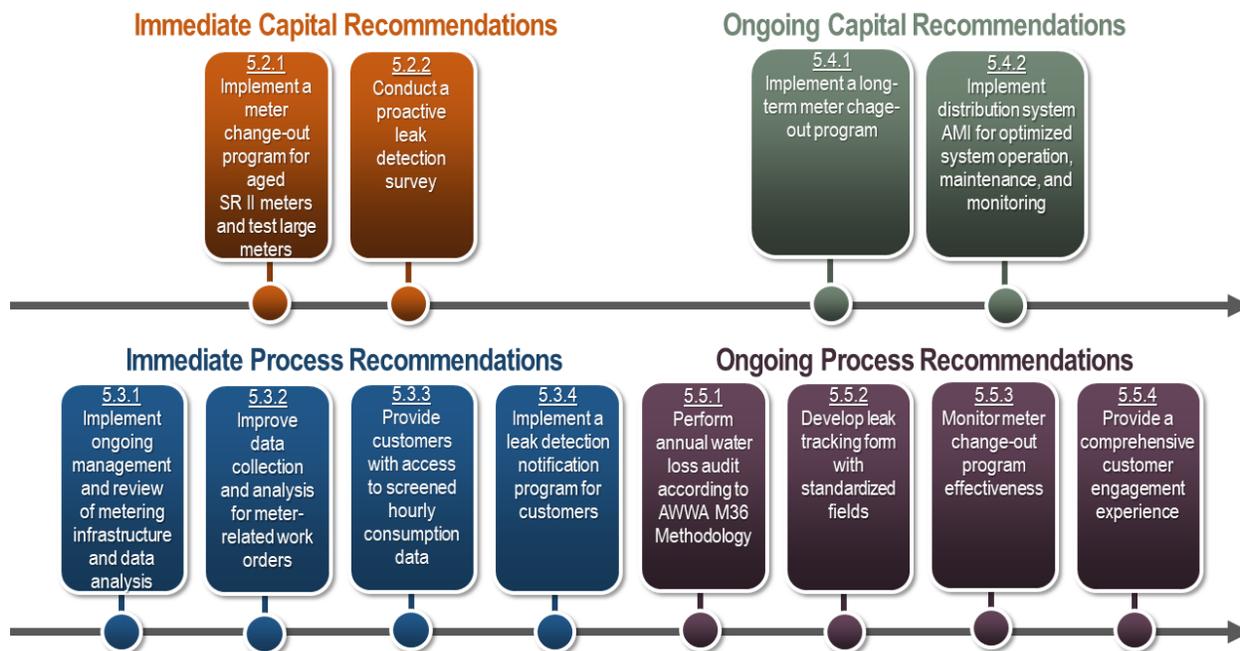
These recommendations are best implemented with a combination of City and outside resources. The City is replacing meters currently, but its capacity to do so is limited and there are aspects of the meter replacement program which are not optimal, such as the setup of inventory tracking in the billing system. Before meter replacements by City staff proceed further, a comprehensive approach to meter replacement (Recommendation 5.2.1) should be developed and implemented to make sure the City is setting the system up correctly for future management and quickly improving its revenue recovery. An outside service provider for metering system integration can be utilized to swiftly implement the meter changeout program and provide a clear point of accountability for program performance. These “systems integrators” can provide a full range of meter installation and maintenance program services, from “a la carte” service offerings to full “turnkey” solutions that incorporate material acquisition, installation, lifecycle management, and even funding options for program implementation.

While AMI systems have user-friendly tools for routine tasks, the rapid change in technology and sophistication of data analysis mean that an outside service provider is likely better suited to work with City staff rather than having this performed in-house. Professionals skilled at interpreting “Smart Water” data can develop analyses, reports, and mapping products that can be used by City staff to provide actionable insight into system operations, revenue forecasting, rapid leak detection and resolution, meter maintenance, cost-benefit projections for infrastructure renewal, and verification of program effectiveness. Additional opportunities for “Smart Water” infrastructure exist in combining the water metering system with the City’s SCADA system, which further increases data value towards measuring and optimizing the performance of the City’s infrastructure. This requires a sophisticated implementation to extract the value from the information while maintaining the security and integrity of the systems.

Implementation considerations such as these are incorporated into the discussion of each Recommendation. There are a wide variety of ways the implementation of these recommendations can proceed. We strongly recommend that the City continue to seek outside consulting support during its assessment and planning for making these improvements, as the details, opportunities, and challenges of these implementation options can be better presented in future analyses and discussions with the City rather than attempting to cover all possibilities in this Report. Outside consulting support will be valuable to the City for the following reasons:

1. Design and management of a meter replacement program and the volume of data it produces will put a significant strain on City staff resources;
2. Water meter replacements are complex, and experience with meter replacement projects is instrumental in avoiding pitfalls and costly mistakes; and
3. Advances in “smart water” technology require new skill sets and knowledge that City staff does not currently have.

Figure 5-1: Report Recommendations Flow Chart



5.2 Immediate Capital Recommendations

5.2.1 Implement a meter change-out program for aged SR II meters and test large meters

The City's high unaccounted-for water, significant percentage of zero-consumption meters, and lack of an ongoing meter accuracy testing program lead us to conclude that a comprehensive meter replacement program is needed for aged SR II meters along with testing and sizing confirmation for large meters. Based on our review of existing billing system records::

- 1) 23,843 small meters (3/4" – 3") are very likely SR II meters that were retrofitted with AMI technology in 2007; meter bodies are thus beyond the expected 10-year lifetime warranty and are likely much older than 10 years with associated declining accuracy.
 - While the 750 MG of unaccounted-for water is for the potable system only, approximately 23% of these 23,843 aged SR II meters are a reuse service type and this same meter change-out recommendation applies.
 - The vast majority of the wireless transmitters on SR II meters are one-way with a 10 year warranty and are also beyond their expected lifetime.
- 2) 9% of 3/4" SR II meters vs 2% of 3/4" iPERL meters are on a zero consumption report. A significant portion of these meters are likely stopped meters, with a much larger percentage of the SR II meter population under-registering due to age-based wear and tear.
- 3) Large meters account for 14% of metered flow and <1% of meter installations. Accuracy testing of these meters is not performed regularly.

- While the population of large meters is generally younger than the ¾” SR II meters, they represent a significant portion of metered consumption given the small number of large meters, and can be tested readily to determine if there is significant under-reading
- Testing can also be done along with meter right-sizing, to confirm the correct size meter is installed for the use pattern of the customer.

A meter replacement program for the aged SR II meters would have multiple benefits, including:

- Reduction in apparent losses (and thus unaccounted-for water) due to expected stopped meters and meter under-registration
- Provide an opportunity to carefully plan a clean-up of the billing system with accurate and validated records of meter installations which would help future planning efforts be more strategic and less capital-intensive (e.g. for future long-term meter maintenance and change-out), as well as allow for more accurate auditing and system monitoring
 - This would resolve the current discrepancy of meter badge numbers between the RNI and the billing system
 - This would also allow confirmation of “final reads” and corresponding addresses and account numbers
- The upgrade of SR II to iPERL meters provides greater low-flow accuracy and access to additional leak and theft alarms
- Resolution of approximately 1,500 No Read reception issues on SR II meters
- Provide an opportunity to establish a meter right-sizing program to ensure that meters are appropriately sized for the consumptive patterns of individual properties
- Testing a sample of removed meters could provide insight into historic inaccuracies and the opportunity to increase revenue

5.2.1.1 Implementation Considerations

Transmitter Type

In replacing the aged SR II meters, the City should analyze the cost difference of one-way vs two-way transmitters (see Section 2.1.2 for additional discussion). If there is no significant cost difference, then there may be some ancillary benefits that are useful today and it would allow the City to efficiently make future firmware upgrades. However, if there is a major cost difference, it may not be worth it to implement the technology across the City. This should be evaluated as part of the meter replacement program development.

Deployment Method

In implementing a meter replacement program, the following steps would be needed:

- Implement best practices for inventory management (tracking of meter model and installation date), including billing system functionality or database upgrades
- Design a workflow to manage meter replacement work orders with a high level of quality control

- Integrate meter tracking and replacement program into a formal Asset Management program

Meter replacements can be handled either in-house or through the use of an outside contractor. Each method has its pros and cons, as follows:

1. *In-house, multi-year deployment:* The City has begun a meter replacement program with additional staff, but without a formal program that meets the above objectives. While immediately starting to install new meters is a common response to aging meter infrastructure, a piecemeal replacement program over several years means that the loss of revenue is extended over that extended period, along with continued high unaccounted-for water levels. Without a formal program, meter replacements can happen inequitably in a community, leading to public perception issues about who is paying for increased water usage first. Additionally, the multi-year deployment can be difficult to manage as the system is always “in flux” with a mix of old and new equipment, making transparency, reporting, and resiliency more difficult. Lastly, there is also the risk of the replacement program can stall if funds are not allocated on an ongoing basis.

If the City manages the deployment in-house, the City would need a deployment manager to coordinate the activities of the Utility Billing and Water Distribution Maintenance departments, and oversee the program rollout. This individual would need to have the following technical qualifications:

- Knowledge of Utility Information Systems, such as: Customer Information Systems (CIS), IP-based Automated Call Distribution (ACD) systems, Interactive Voice Response (IVR) systems, Meter Data Management Systems (MDMS), Advanced Metering Infrastructure (AMI) systems, Geographic Information Systems (GIS) and Outage Management Systems (OMS).
- Knowledge of utility information system functions and processes, such as: utility billing processes, notifications and collections processes, cash updates, electronic payments processing, cashiering, accounting, reconciliations, reporting, and month-end processes.
- Ability to provide assistance and support to end users of managed systems with the ability to communicate effectively with end users and recommend system modifications to meet their needs and create actionable plans to maintain and improve system operations.

It is possible that existing City staff have some, of these qualifications, but the ability to use existing City staff should be considered in light of existing workload and responsibilities.

2. *Outside contractor:* While the use of an outside vendor can take many forms, including a multi-year deployment, the biggest advantage to using an outside contractor is the ability to conduct an intensive, rapid deployment of meters and system updates by a well-trained service provider that is experienced in the engineering, installation, and management of a metering system replacement and public water systems overall. An outside contractor can provide:
 - Program development, material acquisition, installation, funding options support, and completion of the AMI update
 - Quicker implementation to expedite the recovery of lost revenue due to aging meters
 - End-to-end management and responsibility for the program’s success
 - Comprehensive funding options
 - Long-term maintenance and support services to maintain the health of the City’s investment

The use of an outside contractor would allow the City staff to remain focused on customer service and existing responsibilities during the rapid period of equipment replacement. A comprehensive meter change-out program will involve both engineering and management teams from the outside service provider to be in regular communication with the City's staff to coordinate activities and ensure that the deployment goes smoothly, adjusts to field conditions, and sets the system up to provide the City with reliable and actionable data after deployment. Training and support services for ongoing maintenance and system updates can also be provided.

5.2.2 Conduct a proactive leak detection survey

The City does not currently conduct proactive leak detection survey activities given that current field efforts with existing staff are focused on responding to known reported leaks or other distribution system maintenance tasks. Given that unaccounted-for water is estimated to be distributed roughly equally between both real losses (physical leaks and breaks) in addition to apparent losses (nonphysical, such as meter under-registration), there is a significant opportunity to target real losses through proactive leak detection.

Although the City currently conducts leak detection activities, we recommend that an outside services contractor be engaged for a system-wide check.

5.3 Immediate Process Recommendations

5.3.1 Implement ongoing management and review of metering infrastructure and data analysis

The City's existing investment in metering and billing infrastructure can be leveraged with a focus on proactive asset management and planning. Once unaccounted-for water is reduced through other recommendations, ongoing management and review of metering infrastructure and data analysis will maintain low levels of unaccounted-for water, minimize potential revenue loss, proactively maintain water distribution system performance, and plan for future upgrades as the City grows. The significant amount of data being provided by the City's metering and billing systems can be analyzed to optimize the deployment of staff resources to address unaccounted-for water, plan and execute future meter replacements in a measured and purposeful manner, and provide accurate and up-to-date information for use by City planners and utility managers.

Unaccounted-for water will be reduced by actively managing issues with the metering and billing systems in a more organized and proactive way. Some examples of how the data could be leveraged for the City's benefit for reducing issues and therefore unaccounted-for water include:

- Use Sensus Analytics to monitor and manage AMI field maintenance as well as audit billing records
 - The Sensus Analytics Meter Insight and Alarm Insight Applications provide an effective way to monitor and track AMI maintenance issues. The Report Access Application has the ability to provide access to the alerts through automated reports and can provide system-wide diagnostic information. The City is not currently using these tools to track AMI system health or manage device-specific alarms and follow-up field work because so much effort is required to keep up with regular monthly billing (e.g. meter re-reads due to no reception or checking up on zero consumption meters). If staff are not familiar with how to use these tools, Sensus offers education and training documentation for existing customers.
- Look at Consumption by meter type and meter size (such as in Section 4.4.2) to identify outlier properties needing special attention and/or data errors
- Map reported leaks or other customer complaints in GIS to study geographic patterns of issues

- e.g. future customer complaints about pressure or water taste might indicate that focused attention should be given to this area by water system staff.
- Project how many and which meters will need upcoming replacement based on actual age, usage, and performance test results. This will bring more certainty to utility budgeting for meter replacements and focus on those with the highest potential for revenue loss.
- Production data and usage trends can be used for predictive maintenance and targeting future infrastructure investments and repairs before they become critical and emergency needs.
 - e.g. pump bearing maintenance, water main extension sizing, and prioritization for expanding the reclaimed water distribution system
- As additional data gathering systems are deployed and connected to the AMI and/or SCADA systems, the health of the production and distribution system can be assessed and managed more proactively to reduce unaccounted-for water.
 - e.g. continuous leak detection acoustic monitoring or real-time non-revenue water estimation
- Budgeting for infrastructure expansions, repairs, and rehabilitation can be more accurately based on the return on investment and desired level-of-service using accurate performance metrics, accurate assessment of past project performance, and accurate cost of production and revenue recovery estimates.

This effort can be started immediately but will be greatly improved once the meter and billing system records have been cleaned up as part of a meter replacement program. While it was clear during our visit that City staff are dedicated to maintaining high levels of performance, their focus on daily duties may not give them adequate time to step back, assess their data, and perform additional analysis. The accuracy and usefulness of the analyses can be improved with input from water industry partners with broader experience in system planning and assessment, water system engineering and operations, as well as data mining, statistics, and sophisticated analytical approaches.

5.3.2 Improve data collection and analysis for meter-related work orders

The City's work order dispatch system (currently operating out of Edmunds) does not provide visibility of the history of reading issues for each meter, such as meter re-reads or estimated bills. Additionally, it does not allow for tracking or reporting on AMI-related issues discovered in the field, such as reasons discovered after follow-up visits for "No Read Available" (smashed wireless transmitter, car parked over box, etc.). A review of the work order process is recommended to improve:

- Dispatch of work (based on Sensus Analytics alarms or billing oddities)
- Inventory tracking and auditing (to reflect equipment changes made in the field)
- Reporting on field issues (e.g. rate of equipment damage vs battery failure or other environmental factors)
- Tracking of number of estimated bills to prioritize maintenance dispatch for longer-term persistent issues

Additionally, the City has work order systems outside of the Edmunds software platform, and the integration or management of tasks between manual/paper work orders, Edmunds-based work orders, and other work order systems should be evaluated. It is our understanding that modifications to the work order system are currently underway by City staff.

5.3.3 Provide customers with access to screened hourly consumption data

Providing customers with hourly consumption data is one of the significant advantages of implementing AMI. Currently, customers only have access to monthly consumption via regular utility billing. Providing a customer-facing portal to monitor hourly water usage has the following benefits:

- Fewer customer calls about water consumption (resolves billing questions more efficiently)
- Customers that know about and understand their usage are more likely to conserve
- Low income customers can better manage their usage and costs
- Customers can identify leaks or unexpected patterns of water consumption more quickly

According to City staff, Sensus provides a certain number of free licenses for customers to access an online portal showing hourly consumption and trends, but the cost is on the order of \$2 per account per year after a certain cap of free licenses is reached. It is possible that this feature would pay for itself relatively quickly through fewer high-bill adjustments, as customers would be more quickly aware of potential leaks and could address them more proactively.

Additionally, implementing a customer portal would eliminate the need to process, review, and mail mid-month notices alerting customers of high usage because they would already have access to hourly consumption and can set their own custom electronic alert notifications for unexpected usage.

Additional benefits of the Sensus Customer Portal include (Sensus, 2016):

- Ability to offer tips for conservation and savings
- Communicate with customers in their preferred language
- Email or SMS text usage alerts and notifications

5.3.4 Implement a leak detection notification program for customers

The City is already ahead of many of its peers with the mid-month notices program which alerts customers of high consumption halfway through the billing month. However, its effectiveness for identifying leaks is limited by:

- High usage is not specific to leaks (e.g. could be due to a heavy irrigation month where the customer already knows they're using a lot of water)
- Mid-month meter reads have to be manually imported from Sensus to Edmunds and then sent via USPS mail to customers; this likely involves a delay of several days in which a leak would continue running
- The mid-month notices program has only one threshold (15,000 gallons). A customer may have a 10 gal/hr leak for 15 days (totaling 3,600 gallons) but would not receive a mid-month notice because the threshold was not met.

A leak detection and notification program is typically based on ongoing analysis of continuous hourly consumption above a certain threshold (e.g. usage of at least 10 gal/hr for a continuous 72 hour period). With the ability to notify customers via a Customer Portal, customers would be notified immediately via email or SMS text, with the option of sending a follow-up postcard or letter as well if no other contact information is available. The Sensus Customer Portal

(described in the recommendation in Section 5.3.3) already includes an automated leak detection tool that would fit the needs of this recommendation.

The cost of implementing this tool (e.g. via the Sensus Customer Portal) would be mitigated by avoiding revenue loss from fewer High Bill Allowance refunds due to leaks. Additionally, the mid-month notices could be phased out or scaled back significantly, reducing the cost of staff time and postage.

Note that alerting customers about leaks in homes and businesses is important for water conservation and improved customer service but will not necessarily impact unaccounted-for water directly. However, City staff indicated that customers have been known to frequently tamper with their own meters and connections within the meter box, often causing a leak at the meter which does impact unaccounted-for water. Providing customers with access to their hourly consumption as well as alerts for leaks may help reduce instances of customer-induced leaks at the meter due to tampering with physical equipment.

5.4 Ongoing Capital Recommendations

5.4.1 Implement a long-term meter change-out program

Building on the initial meter replacement program in Recommendation 5.2.1, the City should develop and/or update a formal meter replacement program as meters will need to be replaced on an ongoing basis. Specific tracking will be required to identify and monitor meter groups which will age out on different timelines:

- iPERL meters currently up to halfway through their 20-year expected lifecycle
- SR II meters currently at the end of their lifecycle
- OMNI meters near the beginning of their lifecycle

All meters have a warranted flow (in addition to age). Meters may not need to be replaced at the end of their warranty period; replacement can be determined by performance testing.

Water Distribution Maintenance staff indicated that they would find it useful to have access to ongoing tracking of meter age (installation date) as well as total consumption flowed through a given meter. This information is not currently stored anywhere in the billing system, making asset tracking and management very difficult.

5.4.1.1 Implementation Considerations

Similar to the approaches discussed in Recommendation 5.2.1, the City can manage future replacements either with in-house staff or through the use of an outside vendor. In either case, the City should develop a formal program that establishes clearly defined outcomes and coordination between the various City stakeholders.

If the City manages the future meter change-outs, the City should establish a formal program that includes regular training for City staff and assess the ongoing effectiveness of the meter replacement program (see Recommendation 5.5.3). By keeping this program in-house, the City's staff can be trained to the specific needs that the City has, and the City can ensure that they are trained to the appropriate level, with performance and deployment managed in-house. However, building and training in-house services can be costly and time-consuming, and there is risk of losing these skill sets if key individuals retire or leave the City.

Using an outside vendor could provide more scalability and redundancy of resources as workload varies, and can provide outside input on industry best practices and experience. The use of an outside services provider could provide a "subscription program" for the meters that could provide some advantages to the City including:

- Reducing utility staff workload, allowing them to focus on distribution system and other maintenance tasks;

- Having meters installed and programmed by trained technicians experienced in replacement programs;
- Reducing technology risk;
- Reducing warranty risk;
- Customizing technology, reporting measures, and training to meet current and future departmental needs;
- Optimizing data analysis to help prevent system issues/failures;
- Annual meter testing and accuracy verification;
- Planning for future end-of-life meter deployment strategies to better manage capital expenditures needed for meter infrastructure; and
- Supporting the implementation of “Smart Water” infrastructure components.

5.4.2 Implement distribution system AMI for optimized system operation, maintenance, and monitoring

Investment in the existing AMI infrastructure would allow for monitoring the distribution system between the source (water treatment plants) and customer service connections. The City should evaluate the feasibility of implementing one or both of the two strategies toward achieving a more advanced “Smart Water” infrastructure:

- 1) Acoustic monitoring sensors that monitor distribution lines and locate leaks using sound waves overnight, such as the Sensus Permalog+ sensors which are compatible with the City’s existing FlexNet AMI.
- 2) District Meter Areas (DMAs) would involve splitting the City’s distribution system into several small discrete zones to monitor flows in (via a newly installed, AMI-compatible district flowmeter) vs flows out (sum of customer metered consumption). Discrepancies between total inflow vs outflow can then be used to isolate leak locations or water theft in smaller geographic areas.
 - a. DMA analysis requires the ability to section off the City’s distribution system into discrete zones with separate inflow meters, which would require a feasibility and impacts analysis before implementation to examine costs and potential impacts.
 - b. The City already has the base physical infrastructure (AMI base stations to collect district meter reads) and database software to collect reads and calculate consumption (Sensus RNI) but would require separate software to separate and then aggregate inflows and outflows for each applicable metered zone.
 - c. DMA data can be used in conjunction with the City’s hydraulic model to analyze existing and future capacity requirements and plan for capital upgrades.
 - d. DMAs are typically established using magnetic flow meters, which allow water to move freely in both directions. This is done to not hinder fire protection or water quality in the distribution system.

5.5 Ongoing Process Recommendations

5.5.1 Perform annual water loss audit according to AWWA M36 Methodology

The AWWA M36 Methodology and associated AWWA Free Water Audit Software version 5 is recommended as a current best management practice by the AWWA Water Loss Control Committee (AWWA, 2009) and should be used for completing the City’s annual potable water loss audit. The AWWA Water Loss Audit calculates “Total Water Losses” (which is very similar to the calculation for “unaccounted-for water”) and then further splits it into apparent losses and real losses such that the two types of losses are “accounted for”. Apparent Losses are nonphysical losses that occur

when water is delivered to a customer but is not measured or recorded accurately, such as under-recording meters. Real Losses consist of all the physical losses of water from the distribution system, such as breaks and leaks from mains, service lines, etc. The software also guides users to constructively “self-grade” the validity of various data inputs, such that improvements can be made from year-to-year. Finally, the software also provides a number of performance indicators to measure progress beyond the familiar percent unaccounted-for water or volume of non-revenue water as a percent of water supplied. These metrics provide a superior means for internal assessment of water loss performance from year-to-year as well as externally between other peer utilities.

Consistent leak and break record-keeping (see Recommendation in Section 5.5.2) can be used with the Water Research Foundation Component Analysis of Real Losses (another piece of free software) to estimate the volume of losses in the system due to tracked leaks of various types. The “bottom-up” calculation of real losses from the Component Analysis software can be compared to the “top-down” calculation of real losses from the AWWA Water Loss Audit to ultimately quantify the volume of Hidden Losses: detectable leaks that are not being identified because they have not been captured by the utility’s current leakage management policy (Water Research Foundation, 2014). This provides even more information to help strategically plan for reduction of distribution system leakage through the four major tools for controlling leakage: pressure management, proactive leak detection, speed and quality of repairs, and pipeline/asset management.

The City should also review the process and accuracy of estimating consumption from unmetered uses and document these while conducting the AWWA Water Loss Audit.

Additionally, the City should consider conducting the AWWA Water Loss Audit for the reclaimed water system to start tracking metrics given that there are a significant number of meters and miles of pipeline in this system.

5.5.2 Develop a leak tracking form with standardized fields

The City currently has no formal metrics on the number of leaks or breaks in the distribution system. Implementing a standardized leak tracking form that is filled out every time a leak is reported would provide transparent visibility and metrics on the rate of leaks and breaks occurring through time. This would help inform calculations of real losses (physical losses) when performing an annual water loss audit.

Suggested standardized fields to collect would include:

- Location (street address) – for geographic analyses and input into a GIS
- Leak source (confirmed potable or reclaimed, no leak found, other source [e.g. sewer or rainwater])
- Cause of Leak (hit pipe, natural, etc.)
- Size of pipe
- Pipe material
- Leak characterization (full break, pin hole, leaky joint, meter box, customer house pipe, etc.)
- Repair performed
- Repair time (hours, days, etc.)
- Shutdown required (Y/N)
 - If Yes, location of isolation valves used
- Event reported by customer, city/county staff, or discovered on another site visit

A business process would need to be developed and implemented to input leak tracking form information into an electronic database.

5.5.3 Monitor meter change-out program effectiveness

Proper tracking and testing of the meter replacements as part of the Capital Recommendations will allow the City to confirm that the metering systems are meeting its goals for accuracy, fairness, and revenue stability.

A meter testing program is recommended to keep track of the accuracy of the meter population. This could take the form of acquiring a meter test bench internally and/or or sending meters to a third party for accuracy testing for small meters, and a preventative maintenance program for large meters is recommended to track when large meters have been visited and what field calibration efforts were conducted.

Monitoring of the meter change-out program effectiveness can be done by internal City staff with proper and ongoing training, or as part of outside services by a qualified third party.

5.5.4 Provide a comprehensive customer engagement experience

To reduce workload on existing staff due to customer phone calls, provide a comprehensive and transparent customer engagement experience regarding any meter change-out program, making water consumption data available, and/or new leak detection notification tools. This may look something like:

- Easily accessible and customer-friendly webpage describing meter change out program expectations (e.g. how long will water be shut off to complete meter exchange, what changes can be expected on a monthly bill), how consumption is calculated from meter reads, and how to access hourly consumption or adjust leak detection communication settings.
- Door hangers or other print materials to post at customer property immediately prior to a meter exchange field visit and post field visit
- Education about meter reads and how to avoid estimated reads
- Program updates through printed bill inserts

6. REFERENCES

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APPENDIX A: ESTIMATION CALCULATIONS OF APPARENT LOSSES

To estimate the impact of Apparent Losses from under-registering meters, a sample calculation was prepared. Table A-1 breaks up the potable meter population into several categories and assigns an estimated percent registration accuracy, since the City has no formal meter accuracy testing program:

- Potable meters on the zero consumption report were assumed (very conservatively) to all be stopped meters with a 0% accuracy. This means average consumption flowed through the meter but was not registered or billed.
- The remaining meters not on the zero consumption report were assumed to have the following percent accuracy:
 - Small meters with ICE registers (3/4" – 3") were assigned an arbitrary 95% (3.5% lower than 98.5% minimum allowable overall registration by American Water Works Association [AWWA] standards)
 - iPERL meters (3/4" & 1") were assigned an accuracy of 98.5% which is the minimum allowable overall registration by AWWA
 - Large meters with ICE registers (4"+) were assigned an accuracy of 98.5% which is the minimum allowable overall registration by AWWA
 - Unknown meter type: assumed to be same as size counterparts with ICE registers (see bullets above)

Table A-1: Estimated Percent Accuracy for All Meter Types and Sizes

Meter Size	Meter Type						
	ICE Register (SR II/W-series/OMNI)			iPERL			Unknown
	% of potable meters on zero consumption report (0% accuracy)	% remaining meters not on zero consumption report	% Accuracy for remaining meters	% of potable meters on zero consumption report (0% accuracy)	% remaining meters not on zero consumption report	% Accuracy for remaining meters	Assumed % accuracy
3/4"	8%	92%	95%	2%	98%	98.5%	95%
1"	9%	91%	95%	6%	94%	98.5%	95%
1.5"	10%	90%	95%	n/a	n/a	98.5%	95%
2"	7%	93%	95%	n/a	n/a	98.5%	95%
3"	0%	100%	95%	n/a	n/a	98.5%	95%
4"	0%	100%	98.5%	n/a	n/a	98.5%	98.5%
6"	0%	100%	98.5%	n/a	n/a	98.5%	98.5%
8"	40%	60%	98.5%	n/a	n/a	98.5%	98.5%
10"	0%	100%	98.5%	n/a	n/a	98.5%	98.5%

Table A-2 calculates the apparent losses for the meter categories described above. Apparent losses are nonphysical losses that occur when water is delivered to a customer but is not measured or recorded accurately.

The formula for calculating the volume of apparent losses due to meter under-registration is:

$$\text{Volume of Apparent Losses} = \frac{\text{uncorrected metered volume}}{\text{percent accuracy}} - \text{uncorrected metered volume}$$

As an example, the calculation for the volume of apparent losses for 3/4" ICE register meters would be:

$$\text{Volume of Apparent Losses} = \frac{1,123 \text{ MG}}{95\%} - 1,123 \text{ MG} = 59 \text{ MG}$$

The 1,123 MG input was calculated via:

(Total 3/4" consumption of 1,223 MG in Table 4-1) x (92% of 3/4" meters which were not on the zero consumption report) = 1,123 MG.

This means that the 3/4" meters that were not on the zero consumption report are expected to have under-registered by about 59 MG. This represents water that was delivered to customers, but not paid for.

In total, this value was calculated to be 262 MG across the entire potable meter population. The estimate of 262 MG is based on an assumed loss of accuracy over time. If each meter was registering at 100% accuracy, 262 MG of additional consumption would be registered by the metering infrastructure.

262 MG of apparent losses is a very rough estimate based on assumptions without actual meter accuracy testing data, but it provides a ballpark estimate of how much unaccounted-for water may be attributable to the under-registration of meters. The discussion of the relationship between apparent losses, real losses, and unaccounted-for water can be found in Section 4.4.2 of the main report.

Table A-2: Estimated Apparent Losses for All Meter Types and Sizes

Meter Size	Apparent Losses (MG) by Meter Categorization					Total	% of total
	ICE Register (SR II/W-series/OMNI)		iPERL		Unknown		
	Zero Consumption Meters	Regular Consumption Meters	Zero Consumption Meters	Regular Consumption Meters	All Unknown Meters		
3/4"	100	59	2	2	2	165	63%
1"	14	5	0	0	0	20	7%
1.5"	9	3	n/a	n/a	0	13	5%
2"	15	6	n/a	n/a	0	21	8%
3"	1	1	n/a	n/a	0	2	1%
4"	1	1	n/a	n/a	0	2	1%
6"	0	0	n/a	n/a	0	1	0%
8"	35	1	n/a	n/a	0	35	13%
10"	1	1	n/a	n/a	0	3	1%
Total	177	78	3	3	3	262	
% of total	67%	30%	1%	1%	1%		

APPENDIX B: CALCULATION OF RETAIL AND PRODUCTION RATES

Variable Production Rate

The variable cost of producing and distributing potable water is estimated by dividing the total variable operating expenses for the potable water system (Table B-1) by the total production volume in 2016 (City of Apopka, 2016):

$$\$861,042 / 2,878 \text{ MG} = \$299.21/\text{MG}$$

This value is meant to represent the cost of producing the next million gallons of water, based on volumetric electrical or chemical charges needed to treat and pump water.

Table B-1: Variable Operating Expenses for Potable Water System

Source	Expense	Value (\$)
WATER PLANT	Operating Supplies	\$150,000
	Utility Services	\$440,000
WATER MAINTENANCE	Operating Supplies	\$264,059
	Utility Services	\$6,983
Total		\$861,042

Source: Table 3-9, Projected Water System Operating Expenses, for 2016 (Public Resources Management Group, Inc., 2016)

Variable Retail Rate

Potable water is sold at different variable (volumetric) rates according to tiered monthly consumption and customer type (residential vs commercial). To calculate an average retail rate weighted by all tiers and customer types, total revenue from volumetric water sales was divided by total water sales, projected for 2016 based on 2014 actuals, as shown in Table B-2. The average variable retail rate for potable water is \$1,812/MG (or \$1.81/1000 gal).

Since the City also bills for wastewater which is calculated based on metered water consumption, a similar process was used to calculate average wastewater retail rate. The average variable retail rate for wastewater is \$2,361/MG (or \$2.36/1000 gal). Combined with the potable water retail rate, the total customer variable retail rate is \$4,173/MG (or \$4.17/1000 gal).

Table B-2: Variable Retail Rate Calculation

	Expense	Value
Water	System-Wide Volumetric Charge Revenue	\$4,088,165
	Total System-Wide Water Sales	2,255,738,000 gallons
	Retail Rate	\$1,812/MG (or \$1.81/1000 gal)
Wastewater	System-Wide Volumetric Charge Revenue	\$2,940,254
	Total System-Wide Wastewater Sales	1,245,588,000
	Retail Rate	\$2,361/MG (or \$2.36/1000 gal)
	Total Combined Average Retail Rate	\$4,173/MG (or \$4.17/1000 gal)

Source: (Public Resources Management Group, Inc., 2016)

Table 2-1, Summary of Historical and Projected Water Customer Sales and Usage, Projected for 2016

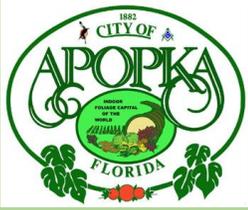
Table 2-2, Summary of Historical and Projected Wastewater Customer Sales and Usage, Projected for 2016

Table 2-4, Summary of Historical and Projected Water Revenue, Projected for 2016

Table 2-5, Summary of Historical and Projected Wastewater Revenue, Projected for 2016



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CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Recreation
 EXHIBITS:

SUBJECT: ALCOHOL SALES AT CITY EVENTS

Request: Approval

SUMMARY:

On September 3, 2014, City Council adopted Ordinance No. 2376 which requires City Council approval for the sale, consumption and carrying of alcoholic beverages on City-owned property during events or programs.

Staff is requesting approval for sale of alcoholic beverages at the following City sponsored event being held at the Northwest Recreation Complex.

- July 4, 2018 – 4th of July: Activities include live musical entertainment, kids bounce house area, face painting, food and beverage vendors and fireworks.

FUNDING SOURCE:

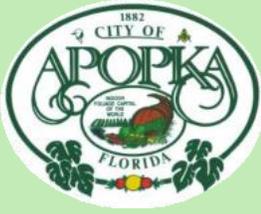
N/A

RECOMMENDATION ACTION:

Approve the distribution and sale of alcohol at the 4th of July Apopka event at the Northwest Recreation Complex.

DISTRIBUTION

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



CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBIT(S): LDC 11.05.00 Planning Commission
 Planning Commission List
 Application & Resume

SUBJECT: APPOINTMENT OF A MEMBER TO THE APOPKA PLANNING COMMISSION

REQUEST: APPROVE APPOINTMENT OF MEMBERS TO THE PLANNING COMMISSION FOR A THREE (3) YEAR TERM

SUMMARY:

The City of Apopka’s Planning Commission is established as a citizen board to review and recommend to the City Council, approval or denial of development plans, amendments to the zoning map, amendments to the Land Development Code, proposed subdivision plats, proposed site plans, and future land use map amendments.

In accordance with Florida Statutes, the Planning Commission serves as the City’s “Local Planning Agency” when reviewing and recommending to the City Council, any future land use amendments to the Comprehensive Plan and Future Land Use Map.

There are seven members that are appointed by the Mayor and approved by the City Council. Members are appointed to three-year terms and must reside within the city limits. The Planning Commission normally meets on the second Tuesday of each month at 5:30 P.M. Additional meetings are scheduled depending on the subject or volume of applications.

At this time one member is due for re-appointment in order to fill the place of Tony Foster who has resigned. Mayor Nelson has appointed Benjamin Stanley, legal resident, to the Planning Commission for a three-year term ending June 6, 2021. Pursuant to §11.05.00 B.1., City of Apopka Code of Ordinances, this mayoral appointment requires approval by City Council.

RECOMMENDATION ACTION:

Approve appointment of Butch Stanley as a Planning Commission Member for a three year term.

FUNDING SOURCE:

N/A

DISTRIBUTION

Mayor Nelson
 Commissioners
 City Administrator
 Community Development Director

Finance Director
 HR Director
 IT Director
 Police Chief

Public Services Director
 Recreation Director
 City Clerk
 Fire Chief

11.05.00 - THE PLANNING COMMISSION

- A. *Establishment.* The Apopka Planning Commission is hereby established as a citizen board to review and recommend to city council approval or denial of development plans and other land development procedures submitted under this Code and to review and approve special exception and zoning variances. The Planning Commission shall be designated the City's Local Planning Agency, which duties include amendments and evaluations to the City's Comprehensive Plan.
- B. *Membership and officers:*
1. The Commission shall have seven members appointed by the mayor and approved by city council. An additional member shall be a non-voting, ex officio representative of the Orange County School Board.
 2. The Planning Commission membership makeup shall be as follows: Seven members shall reside in the city limits. One member shall be a non-voting, ex officio representative of the Orange County School Board.
 3. Each member shall be appointed to a three-year term. Any member may be reappointed by the City Council from term to term.
 4. Any interested citizen may be appointed to the board, but those with experience or interest in the field of land use regulation shall receive special consideration. Whenever possible, the Commission shall include at least one each of the following:
 - a. An architect or landscape architect.
 - b. An engineer.
 - c. A person engaged in real estate sales or development.
 - d. A natural or environmental scientist.
 5. When a position becomes vacant before the end of the term, the city council shall appoint a substitute member to fill the vacancy for the duration of the vacated term. A member whose term expires may continue to serve until a successor is appointed and qualified.
 6. Members may be removed without notice and without assignment of cause by a majority vote of the city council.
 7. The members of the Commission shall annually elect, during the first regularly scheduled meeting of each calendar year, a chairman and vice-chairman from among the members and may create and fill other officers as the Commission deems needed.
 8. The Commission may create whatever subcommittees it deems needed to carry out the purposes of the Commission.
 9. The chairman of the Commission may appoint as needed, the membership of each subcommittee from the members of the Commission.
 10. The city council shall provided clerical and administrative support to the Commission as may be reasonably required to complete the functions of the Commission.
 11. The city shall provide a city employee to serve as secretary to the Commission, recorder and custodian of all Commission records.
 12. Members shall not be compensated, but may be paid for travel and other expenses incurred on commission business under procedures prescribed in advance by the city council.
 13. The city council shall appropriate funds to permit the Commission to perform its prescribed functions.
 14. If any member fails to attend two successive meetings without cause and without prior consent of the chairman, the Commission shall formally consider the status of said Commission position at the next meeting immediately following the second consecutive unexcused absence.

C. *Commission procedures:*

1. The Commission shall meet at least once each calendar month, unless canceled by the Commission or its chairman, and more often at the call of the chairman or the city council.
2. The Commission shall keep minutes of its proceedings, indicating the attendance of each member, and the decision on every question.
3. Four members shall constitute a quorum.
4. Each decision of the Commission must be approved by a majority vote of the members present at a meeting in which a quorum is in attendance and voting.

D. *General functions, powers and duties:*

1. The Commission shall review and act upon applications for special exceptions in accord with article II, of this Code. In granting any special exception, the Commission may prescribe appropriate conditions and safeguards in conformity with this Code to ensure compliance with the intent of all city codes and regulations.
2. The Commission shall conduct development review pursuant to this Code, and present recommendations to and otherwise advise the city council on amendments to the zoning map, amendments to the Land Development Code, and proposed subdivision plats, and proposed site plans, and Future Land Use map amendments. In connection with any recommendation by the Commission, it may include any conditions, requirements or limitations to be attached to the use which the commission may believe to be necessary and desirable to protect adjacent properties and the surrounding neighborhood, and to carry out the purposes and objectives of this Code.
3. The Commission will review and act upon all requests for zoning variances as defined by this Code. In granting any variance, the Commission may prescribe appropriate conditions and safeguards in conformity with this Code to ensure compliance with the intent of all city codes and regulations.
4. Pursuant to F.S. ch. 163, pt. II, the Commission is hereby designated to be the land development regulation commission and shall perform the duties and functions prescribed in the statute.
5. The Commission shall, with advice from the development review committee, monitor and oversee the operation, effectiveness and status of this Code and recommend amendments to the city council that are consistent with the Comprehensive Plan.
6. The Commission shall keep the council and the general public informed and advised on the development policies of the city.
7. The Commission shall conduct public hearings to gather information necessary for the drafting, establishment, amendment, and maintenance of the various articles of this Code and shall conduct public hearings on all applicable and development reviews and decisions for which it is responsible as enumerated herein.
8. Each action of the Commission, except for special exceptions and variances, is advisory to the city council, and the commission may not in any manner obligate the city.
9. Pursuant to, and in accordance with F.S. ch. 163, the Planning Commission is hereby designated and established as the Local Planning Agency for the City, created as a citizens board to present recommendations to and otherwise advise the City Council of land use and comprehensive plan issues.
10. The local planning agency, in accordance with F.S. ch. 163 shall, through the Apopka Community Development Department:
 - a. Prepare the Comprehensive Plan and any amendments to the Comprehensive Plan for the incorporated territory of the city;

- b. Monitor and oversee the effectiveness and status of the Comprehensive Plan and recommend to the city council such changes in the Comprehensive Plan as may be required from time to time;
- c. Recommend said Comprehensive Plan or elements or portions thereof to the city council for adoption; and
- d. Conduct public hearings on proposed amendments to and evaluation of the Comprehensive Plan.
- e. Seek, through the Commission, to obtain citizen and public input into all phases and elements of the development of the Comprehensive Plan and amendments.
- f. Prepare, through the Apopka Community Development Department any studies required by the city council with respect to the Comprehensive Plan.
- g. The Commission shall perform such other duties as from time to time may be assigned by the City Council.

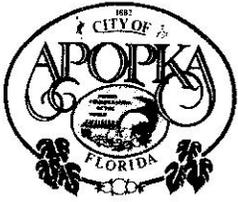
Note: The Planning Commission functions include being designated the City's Local Planning Agency.

- E. *Appeals.* Appeals to any decision issued by the Commission shall be filed in accordance with the procedures outlined in article 12.05.00 of this Code.
- F. *Conflict of interest.* Conflict of interest provisions shall apply to members of the Planning Commission pursuant to Florida Statutes.

(Ord. No. 1228, § 1, 12-1-99; Ord. No. 2137, § I(Exh. A), 11-18-09)

PLANNING COMMISSION
HELD THE 2nd TUESDAY OF THE MONTH AT 5:30 P.M.

RESIGNED – 05-22-18 APPOINTED - 04-01-2015 PC	John Antonio (Tony) Foster
RE-APPOINTED – 05-16-18 PC RE-APPOINTED - 04-15-2015 PC APPOINTED - 09-01-2010 PC	James Greene, Chairperson
RE-APPOINTED – 05-16-18 PC APPOINTED - 04-15-2015 PC	Linda Laurendeau, Vice-Chairperson
APPOINTED – 05-18-16 PC	Jose Molina
APPOINTED – 12-06-17 PC	Patrice Phillips
APPOINTED - 04-20-16 PC	Roger M. Simpson, III
APPOINTED – 11-02-16 PC	John Sprinkle
12-08-2009	Orange County School Board (Non-Voting)



CITY OF APOPKA BOARD APPOINTMENT INFORMATION FORM

Please type if possible, or print clearly

Date: May 31, 2018

Board(s) Desired:
1. PLANNING COMMISSION
2. _____
3. _____

Name: BUTCH STADLEY

Address: (Home) _____
(Business) _____
Phone: (Home) _____

Employer: AGENCY FOR HEALTH CARE ADMINISTRATION (STATE OF FLORIDA)

Position: FIRE PROTECTION SPECIALIST

Education:
High School MAYNARD GRASS Years Comp. 3 Degree GENERAL
College VALENCIA Years Comp. 2 Degree ASSOCIATE

1. Are you a City of Apopka resident? Yes No _____
2. Are you a registered voter? Yes No _____
3. Do you own property in Apopka? Yes No _____
4. Are you currently serving on a City Board? Yes _____ No
5. Have you ever served on a City Board? Yes _____ No

If yes, when and which Board? _____

6. How long have you lived in Central Florida? Years 62 1/2 yrs

7. References:

Name	Address	Phone No.
<u>JIM CARMICELLA</u>	[REDACTED]	[REDACTED]
<u>RICHARD FIRSTNER</u>		
<u>STEVE BUCKNER</u>		

**City of Apopka
Board Appointment Information Form - Page 2**

Work Experience:

WORKED IN THE FIRE SERVICE FOR 31 YEARS. RETIRED DEPUTY FIRE CHIEF IN 2011. HAVE WORKED IN CITY AND STATE GOVERNMENT FOR OVER 35 YEARS.

Community Involvement:

CURRENTLY THE PRESIDENT OF THE EMERSON PARK HOMEOWNERS ASSOCIATION (500 HOMES)

Interests/Activities:

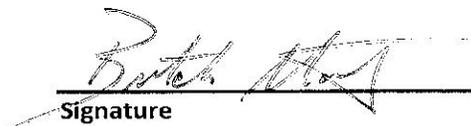
GOLF, FISHING AND HUNTING. OUTDOOR ACTIVITIES

Why do you want to serve on this/these Board(s)?

I HAVE A INTEREST AS TO WHAT IS BEING BUILT IN AND AROUND MY COMMUNITY AS WELL AS IN THE CITY IN GENERAL.

A resume or separate sheet with additional information may be included.

I understand the responsibilities associated with being a Board member, and I have adequate time to serve on the above Board(s).


Signature

If you have questions, please call the Community Development Department at (407) 703-1712.

Return this form to: Mayor's Office
120 E. Main Street
P. O. Box 1229
Apopka, Florida 32704-1229

*****NOMINATING BOARD USE ONLY*****

AIF Received _____
AIF Acknowledged _____
Forwarded to Mayor _____
Council Action _____

Info to Staff _____
Mayor's Letter _____
Other _____

Benjamin L. Stanley

Apopka, FL 32703 * Cell:

PROFESSIONAL EXPERIENCE

State of Florida - Agency for Health Care Administration

5/2013 - Present

Fire Protection Specialist

- Provide life safety inspection expertise for the licensure and certification of health care facilities (Hospital, Ambulatory Surgical, Skilled Nursing, Birth Centers)
- Team leader duties as assigned
- Understanding and enforcement of national, state, and local life safety codes
- Prepare applicable reports upon completion of inspections and investigations
- Knowledge of the principles of administration and management
- Knowledge of CMS, NFPA, OSHA, and other safety standards

BELFOR Property Restoration

10/2011 – 2/2013

Safety Coordinator

- Interact with Insurance Adjusters, City Government Departments, and Fire/Rescue Agencies to ensure compliance and a safe workplace
- Review and maintain all safety records for local office
- Conduct site inspections at facilities and job sites in order to maintain safe working environment
- Worked closely with OSHA and NFPA to ensure safety standards were in place
- Responsible for coordinating with outside agencies, as well as the Regional Safety Director

Ocoee Fire Department

9/1999 – 6/2011

Deputy Fire Chief

(Retired)

- Assist the Fire Chief in the direction and coordination of all department activities including the departments \$5M budget and 60 personnel
- Served as Acting Fire Chief as needed
- Oversaw all department functions, purchasing of fire and ambulance apparatus
- Determine the needs of the department, such as personnel, equipment, facilities, safety, training and implement action plans to assure department goals are met
- Manage all internal disciplinary investigations and coordinate testing procedures for promotions
- Responsible for the City Code Enforcement Department
- Served as Safety Coordinator for the City of Ocoee

Division Chief

5/2007– 12/2009

- Investigate all suspicious fires and coordinate the efforts with the State Fire Marshal's office
- Assist Special Investigations Unit as needed
- Manage the Office of the Fire Marshal which included fire inspections and public education
- Manage the Code Enforcement Division which is responsible for administering all city codes and ordinances
- Approve and adjusts divisional budget to maximize efficiency and effectiveness of the departmental division

Fire Marshal

10/2004– 5/2007

- Manage the day to day operations of the Fire Prevention Bureau which included fire inspections and plans review
- Investigate all suspicious fires and assist the State Fire Marshals office as needed
- Manage all activities of the Public Education Division

Fire Inspector

9/1999– 10/2004

- Responsible for annual business inspections
- Plans review for existing and new construction
- Investigate all suspicious fires and assist the State Fire Marshals office as needed
- Perform activities within the Public Education Division
- Perform fire suppression duties as needed

Casselberry Fire Department

4/1986 - 2/1998

Lieutenant/Emergency Medical Technician

- Responsible for managing shift personnel, as well as responding to all emergency calls
- Responsible for training of shift personnel
- Responsible for managing and scheduling of building inspections assigned to the shift
- Responsible for completing all pre-fire plans

Altamonte Springs Fire Department

8/1981 - 12/1984

Engineer/Emergency Medical Technician

- Responsible for the safety of all fire personnel when responding to emergency calls
- Responsible for the operations of fire apparatus
- Responsible for managing shift personnel when Lieutenant was out

EDUCATION

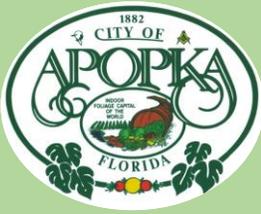
Valencia Community College - Orlando, Florida
National Fire Academy – Emmitsburg, Maryland
Florida State Fire College – Ocala, Florida
Central Florida Fire Academy - Orlando, Florida

RELATED COURSEWORK

Emergency Management	Fire Officer Management
Certified Safety Officer	Fire Department Budget Practices
Fire Investigations	Emergency Management Grant Reviewer
Certified Fire Inspector	Code Enforcement
Building Construction	Fire Science
Emergency Medical Technician	Microsoft Computer programs
OSHA	Art of Interrogations
Independent Adjuster All Lines	Certified Critical Voice Stress Examiner
Incident Command System	Certified Fire & Explosion Investigator
National Fire Protection Association	

MEMBERSHIPS/AWARDS

Firefighter of the Year for 2002
Firefighter of the Year for 2008
Member of the Central Florida Fire Chiefs Association
Member of the Florida Fire Chiefs Association
Member of the Florida Fire Marshals and Inspectors Association
Member of the National Fire Protection Association
Member of the City of Ocoee Police and Fire Pension Board
Member of Orange County Citizens Review Board (2007 - 2010)
Member of Orange County Life Safety Appeals Board (2004 – 2010)
Member of the Florida Life Safety and Health Care Association (2012 – Present)



CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Mayor
 EXHIBITS: Resignation Letter

SUBJECT: APPROVE A NEW MEMBER AS A RESIDENT TRUSTEE TO THE FIREFIGHTERS’ RETIREMENT SYSTEM BOARD OF TRUSTEES.

REQUEST: APPOINTMENT OF STEVE HOOKS

SUMMARY:

On, May 15, 2018, former Mayor Joe Kilsheimer submitted his resignation as the Resident Trustee from the Firefighters’ Retirement System Board of Trustees. Accordingly Mayor Nelson has appointed Steve Hooks, legal resident, to the Firefighters’ Retirement System Board of Trustees for the remaining term ending May 4, 2019.

FUNDING SOURCE:

N/A

RECOMMENDATION ACTION:

Approve appointment of Steve Hooks to the Firefighters’ Retirement System Board of Trustees for the remaining Resident Trustee term.

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

May 15, 2018

Mayor Bryan Nelson
City of Apopka
120 E. Main Street
Apopka, FL 32703

Dear Mayor Nelson

Please accept this as my resignation from the City of Apopka's Firefighters Pension Board as the Resident Trustee, effective immediately.

My understanding is that the position of Resident Trustee on the Firefighters Pension Board is traditionally held by the Mayor, who also traditionally serves as chair of the General Employees Pension Board of Trustees.

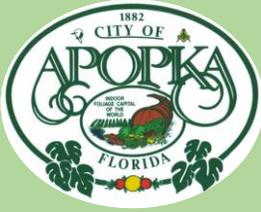
Hope you and everyone at the City of Apopka are well.

Regards



Joe Kilsheimer

████████████████████
Apopka, FL 32712



CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 06, 2018
 FROM: Police Department
 EXHIBITS: Agreement

SUBJECT: PRIVATE STREET AGREEMENT FOR TOWNHOMES AT WEKIVA PARK

REQUEST: AUTHORIZE THE POLICE CHIEF TO EXECUTE A TRAFFIC ENFORCEMENT AGREEMENT WITH THE TOWNHOMES AT WEKIVA PARK HOMEOWNER’S ASSOCIATION TO ENFORCE TRAFFIC LAWS PURSUANT TO FLORIDA STATUTE.

SUMMARY:

The Police Department has been approached by the Townhomes at Wekiva Park Homeowner’s Association controlling the private roads within the neighborhood, to enforce municipal and state traffic codes and laws within the gated neighborhood. Florida State Statute 316.006(2)(b) allows for a municipality to exercise jurisdiction over any private road within its boundaries if the municipality and party owning such road enter into a written agreement approved by the City Council. A copy of the agreement has been executed by the Homeowner’s Association and is attached.

FUNDING SOURCE:

Not Applicable.

RECOMMENDATION ACTION:

Ratify the agreement and authorize the Police Chief to execute the agreement on behalf of the City.

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

**AGREEMENT FOR
TRAFFIC CONTROL ON PRIVATE ROADS**

This Agreement for Traffic Control on Private Roads located in the community of TOWNHOMES AT WEKIVA PARK ASSOCIATION INC. is entered into by and between the City of Apopka, Florida (hereinafter referred to as the "City"), and TOWNHOMES AT WEKIVA PARK ASSOCIATION INC., (hereinafter referred to as "TOWNHOMES AT WEKIVA PARK").

WITNESSETH:

WHEREAS, TOWNHOMES AT WEKIVA PARK owns fee simple title to all the private roadways lying within the community (hereinafter "Private Roads") more specifically described in a sketch of the property to be provided to the City of Apopka Police Department. These private roadways are located within the corporate limits of the City of Apopka; and

WHEREAS, pursuant to state statute, the City does not have traffic control jurisdiction over private roads such as those owned by TOWNHOMES AT WEKIVA PARK, and

WHEREAS, Section 316.006(2)(b), *Florida Statutes*, provides that a city may exercise jurisdiction over any private roads if the city and the party owning such roads provide for city traffic control jurisdiction by a written agreement approved by the City Council; and

WHEREAS, TOWNHOMES AT WEKIVA PARK wants the City to exercise traffic control jurisdiction over traffic offenses upon the Private Roads; and

WHEREAS, the City of Apopka Police Department is willing to exercise traffic control jurisdiction over traffic offenses upon the Private Roads; and

WHEREAS, the City of Apopka believes that a public purpose is served by enforcing traffic laws within the private roads owned by TOWNHOMES AT WEKIVA PARK and

WHEREAS, the parties desire to set forth the terms and conditions required for such an agreement.

NOW, THEREFORE, in consideration of the covenants and conditions herein, the City and TOWNHOMES AT WEKIVA PARK hereby agree as follows:

1. **RECITALS.** The above recitals are true and correct, and are incorporated herein by reference and form a material part of this Agreement.

2. **TRAFFIC CONTROL JURISDICTION.** The City agrees to exercise jurisdiction over traffic offenses upon the Private Roads pursuant to the terms and conditions expressed in Section 316.006(2)(b), *Florida Statutes* and as amended. The foregoing shall not be construed to require any minimum level of staffing or create any priority for traffic enforcement on the Private Roads. All decisions regarding the level of traffic enforcement on the Private Roads and staffing related thereto shall be within the sole discretion of the Chief of Police.

3. **TRAFFIC CONTROL SIGNAGE.** TOWNHOMES AT WEKIVA PARK shall establish the speed limit for the Private Roads and shall be responsible for posting the speed limit by appropriate signage along said roads. Such signage must comply with Department of Transportation requirements prior to any enforcement action. The City shall enforce the speed limits consistent with Section 316.183, *Florida Statutes*.

4. **AUTHORITY IN ADDITION TO EXISTING AUTHORITY.** The City's exercise of traffic control jurisdiction pursuant to this Agreement shall be in addition to the authority presently exercised by the City over the Private Roads, and nothing herein shall be construed to limit or restrict any such authority. The City agrees to continue to provide such police services as are required by law.

5. **COMPENSATION.** Pursuant to Florida Statute 316.006(2)(b)1), TOWNHOMES AT WEKIVA PARK shall compensate the City of Apopka Police Department for the actual costs of traffic control and enforcement performed under this Agreement.

6. **CITY TO RETAIN REVENUES.** All revenue from the fines, costs, and penalties imposed by the traffic citations issued for violation of traffic laws as described above on the Private Roads shall be retained by the City and apportioned in the manner set forth in applicable statutes.

7. **LIABILITY NOT INCREASED.** Neither the existence of this Agreement nor anything contained herein shall give rise to any greater liability on the part of the City than that which the City would ordinarily be subjected to when providing its normal police services.

8. **INDEMNIFICATION.** To the fullest extent permitted by law, TOWNHOMES AT WEKIVA PARK shall indemnify, defend, and hold the City harmless from any loss, cost, damage or expense, including attorney's fees, for any action arising out of, related to, or stemming from, either directly or indirectly, the maintenance, repair and/or reconstruction of any roads, road drainage or signage or any matter related to providing traffic control enforcement pursuant to this Agreement. To ensure its ability to fulfill its obligation under this paragraph, TOWNHOMES AT WEKIVA PARK shall maintain General Liability insurance in the minimum amount of One Million Dollars (\$1,000,000.00), and shall file with the City current certificates of the required insurance providing a 30-day advance written notice of cancellation. Such insurance shall (a) name the City as and additional insured as it relates to activities conducted pursuant to this contract and (b) be issued by companies authorized to do business under the laws of the State of Florida and acceptable to the City. No claims whatsoever shall be made or asserted against the City by the Association for or on account of anything done or as a result of anything omitted to be done in connection with this Agreement.

9. **ROAD MAINTENANCE.** Neither the existence of the Agreement nor anything contained herein shall impose any obligation or duty upon the City to provide maintenance on and/or related drainage of the Private Roads. The maintenance, repair and construction or reconstruction of all roads, drainage and signage within TOWNHOMES AT WEKIVA PARK shall at all times be solely and exclusively the responsibility of the TOWNHOMES AT WEKIVA PARK.

10. **TERM.** The term of this Agreement shall commence on the Date approved by the Apopka city council and continue through one year from such date and shall thereafter automatically continue for successive one year terms unless terminated by either party by thirty (30) days written notice to the other parties. The provisions of Paragraph 8 herein shall survive the termination of this Agreement.

11. **APPLICABLE LAW.** This agreement and the provision contained herein shall be construed and interpreted according to the laws of the State of Florida.

12. **ENTIRE AGREEMENT.** This Agreement, including all Exhibits attached hereto, constitutes the entire understanding and agreement between the parties and may not be changed, altered, or otherwise modified except when reduced to writing and executed in the same manner, with the approval of the City Council.

13. **NOTICE.** All notices to be given shall be in writing and sent by certified mail, return receipt requested, to the following:

AS TO THE CITY: Chief of Police
Apopka Police Department 112 E 6th
St
Apopka, Fl. 32703

AS TO: TOWNHOMES AT WEKIVA PARK ASSOCIATION INC.:
c/o
Hara Community 1ST Advisors
760 Florida Central Parkway
Ste. 200
Longwood, FL 32750

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates indicated below.

ATTEST:

CITY OF APOPKA

By: _____ Linda
Goff, City Clerk

By: _____
Michael McKinley, Chief of Police

Date: _____

APPROVED BY THE CITY OF APOPKA CITY COUNCIL AT A
MEETING HELD ON THE _____ DAY OF
_____ 2018

TOWNHOMES AT WEKIVA PARK

By: Beverley Mignott
BEVERLEY M. GNOTT, V.P.

Printed Name/Title

Date: March 8, 2018

WITNESS:

[Signature]
Signature

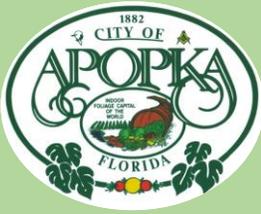
Date: March 8, 2018

Janine De Iesso
Name Printed

[Signature]
Signature

Date: 3/8/18

N. R. Parsons
Name Printed



CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Administration
 EXHIBITS: None

SUBJECT: OLD JET A FUEL DISPOSAL

REQUEST: TO DECLARE OLD FUEL AS SURPLUS

SUMMARY:

The City owns a storage tank at the airport dedicated to Jet A fuel. Several months ago the pump on this tank stopped working and the fuel is no longer usable in aircraft. What was unknown to most if not all employees is this fuel can be used as a substitute for off-road diesel and it does have value. Because the fuel has taken on water, the City’s Fleet Superintendent does not want to use it in any City off road equipment or generators. At least two parties have shown interest in acquiring the fuel. Because it has been established the fuel has monetary value, it is an asset of the City and to dispose of it, the Council must declare it an unneeded and/or unusable asset. If such a declaration is made, staff will list the fuel as an open bid on the City’s website and notify the two individuals showing interest.

It is believed there is currently 2,166 gallons of fuel in the tank. There will be approximately 166 gallons of fuel completely lost because not all of it can be pumped out using the tanks electric pump. Staff would like to have the tank overhauled and put back in service since the airport is seeing a great deal of increased jet traffic and interest by jet owners to relocate to this airport. It is believed the sale of the fuel will come close to offsetting the cost of the necessary overhaul. The person purchasing the fuel must pay State sales tax of 6.5% to the City, which will then remit same to the State. Purchaser will be required to sign they understand the fuel has water in it and the City assumes no responsibility for its use.

FUNDING SOURCE:

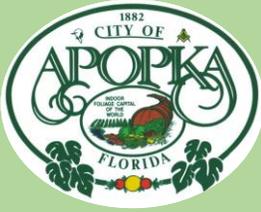
N/A

RECOMMENDATION ACTION:

Declare old unusable Jet A fuel as surplus and direct staff to place a bid announcement on the City’s website to sell it to the highest bidder. Once bids are in, allow staff to sell the fuel to the highest bidder without bringing the topic back to the Council for award.

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 AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER:

MEETING OF: June 6, 2018
 FROM: Public Services
 EXHIBITS:

SUBJECT: RECLAIMED WATER SYSTEM EXTENSION GOLDEN GEM RD.

REQUEST: AWARD A CONTRACT TO ATLANTIC CONCRETE & MECHANICAL INC. IN THE AMOUNT OF \$133,000

SUMMARY:

Public Services received sealed bids from nine (9) companies to perform the installation of the Reclaimed Water Main Extension along Golden Gem Rd. The bids are as follows:

Company Name	Bid Amount
Atlantic Concrete & Mechanical, Inc.	\$133,000
DB Civil Construction, LLC	\$149,925
Cathcart Construction Company	\$174,600
Valencia Construction Group, Inc.	\$185,460
TB Landmark Construction	\$240,850
Providence Construction & Development	\$249,099
Schuller Contractors Inc.	\$300,001
Masci Corporation	\$441,249
Sanpik Inc.	\$457,350

Project consists of installing approximately 2,700 linear feet of 24” pipe within the right-of-way. The project further consists of furnishing all transportation, equipment, labor, services and supplies necessary to install the pipe. The City will purchase and furnish pipe, fittings and misc. appurtenances for the project.

FUNDING SOURCE:

Fund 403 – Reclaimed Water Impact Fees

RECOMMENDATION ACTION:

Approve the award of a contract to Atlantic Concrete & Mechanical Inc. in the amount of \$133,000 plus a 10% project contingency of \$13,300 for a total amount of \$146,300.

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 AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER:

MEETING OF: June 6, 2018
FROM: Public Services
EXHIBITS: Extension Agreement

SUBJECT: CONTRACT EXTENSION FOR DISASTER RECOVERY AND DEBRIS REMOVAL

Request: APPROVE PIGGYBACKING OF THE ORANGE COUNTY CONTRACT #Y15-1022-CH – DISASTER RECOVERY AND DEBRIS REMOVAL WITH CROWDERGULF

SUMMARY:

On September 22, 2017, the City entered into an agreement with CrowderGulf piggybacking the terms of Orange County Contract #Y15-1022-CH for Disaster Recovery and Debris Removal following Hurricane Irma. The Orange County contract has been extended through November 30, 2018.

Staff requests approval to extend the piggybacking agreement with CrowderGulf of the Orange County Contract Y15-1022-CH through November 30, 2018.

FUNDING SOURCE:

N/A

RECOMMENDATION ACTION:

Approve the piggybacking of the Orange County Contract #Y15-1022-CH with CrowderGulf for the 2018 Disaster Recovery and Debris Removal Services.

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

CrowderGulf

Disaster Recovery and Debris Management

5435 Business Parkway
Theodore, Alabama 36582

Office: (800) 992-6207
Fax: (251) 459-7433

May 29, 2018

Mr. Josh Robinson
Solid Waste Operations Manager
City of Apopka
748 E Cleveland Street
Apopka, FL 32703

via email: jrobinson@apopka.net

Re: Contract Extension Disaster Recovery & Debris Removal

Dear Mr. Robinson:

Please allow this letter to serve as CrowderGulf's commitment to extend the contract for Disaster Recovery & Debris Removal to the City of Apopka under the same terms and conditions of the Orange County contract #Y15-1022-CH Disaster Recovery & Debris Removal. The County's contract began on June 1, 2015 for a three (3) year term, with a renewal clause for two (2) additional one (1) year terms. The County has extended this contract through November 30, 2018. The City of Apopka has also requested to extend the contract through November 30, 2018.

The City of Apopka will receive the same level of support and pricing as stated in the Orange County contract. The City's contract will be administrated independently of Orange County and all issues will be handled direct with CrowderGulf. Please acknowledge the City of Apopka's acceptance of this agreement by signing and returning a copy of this letter for our files.

Thank you for this opportunity and we look forward to working with you in the future if our services are requested. If you have any questions, or if we can be of any further assistance, please do not hesitate to contact me or Ashley Ramsay at the CrowderGulf Disaster Administration Office 800-992-6207 or by e-mail at jramsay@crowdergulf.com.

Best regards,



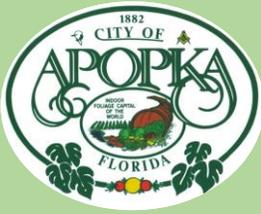
John Ramsay
President

Extension Agreement: City of Apopka, FL

Signature: _____

Name/Title: _____

Date: _____



CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Administration
 EXHIBITS:

SUBJECT: DESIGNATION OF ACCOUNT SIGNATORIES FOR FLORIDA COMMUNITY BANK

REQUEST: UPDATE SIGNATORIES TO INCLUDE CITY ADMINISTRATOR, EDWARD BASS AT FLORIDA COMMUNITY BANK

SUMMARY:

The newly appointed City Administrator, Edward Bass requires an update to Florida Community Bank to become an authorized signatory. The banking authorization forms contain confidential information that the City Clerk will provide after the City Council meeting for signature.

FUNDING SOURCE:

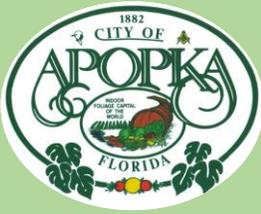
N/A

RECOMMENDATION ACTION:

Vote to accept an update to include City Administrator Edward Bass as an authorized signatory at Florida Community Bank.

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 AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- Other: Business

MEETING OF: June 6, 2018
 FROM: Administration
 EXHIBITS: Florida League of Cities Letter

SUBJECT: FLORIDA LEAGUE OF CITIES REQUEST

REQUEST: APPOINTMENT OF COUNCIL PERSON TO ACT AS A VOTING DELEGATE AT THE ANNUAL CONFERENCE

SUMMARY:

Each year the Florida League of Cities requests member cities designate one council person to be a voting delegate at the annual conference. This designation is done by nomination of the Council. The selected person will vote on new League leadership and resolutions as presented at the conference. The conference this year is August 16 – 18 and will be held at the Diplomat Beach Resort in Hollywood, FL.

FUNDING SOURCE:

The conference is funded within the Mayor’s budget for Council to attend.

RECOMMENDATION ACTION:

Council to select a voting delegate from among its members.

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



TO: Municipal Key Official

FROM: Michael Sittig, Executive Director

DATE: May 7, 2018

SUBJECT: 92nd Annual FLC Conference
VOTING DELEGATE INFORMATION
August 16-18, 2018 – The Diplomat Beach Resort, Hollywood

The Florida League of Cities' Annual Conference will be held at The Diplomat Beach Resort, Hollywood, Florida on August 16-18. This conference will provide valuable educational opportunities to help Florida's municipal officials serve their citizenry more effectively.

It is important that each municipality designate one official to be the voting delegate. Election of League leadership and adoption of resolutions are undertaken during the business meeting. One official from each municipality will make decisions that determine the direction of the League.

In accordance with the League's by-laws, each municipality's vote is determined by population, and the League will use the Estimates of Population from the University of Florida for 2017.

Conference registration materials will be sent to each municipality in the month of June. Materials will also be posted on-line. Call us if you need additional copies.

If you have any questions on voting delegates, please call Gail Dennard at the League (850) 701-3619 or (800) 616-1513, extension 3619. **Voting delegate forms must be received by the League no later than August 10, 2018.**

Attachments: Form Designating Voting Delegate

**92nd Annual Conference
Florida League of Cities, Inc.
August 16-18, 2018
Hollywood, Florida**

It is important that each member municipality sending delegates to the Annual Conference of the Florida League of Cities, designate one of their officials to cast their votes at the Annual Business Session. League By-Laws requires that each municipality select one person to serve as the municipalities voting delegate. *Municipalities do not need to adopt a resolution to designate a voting delegate.*

Please fill out this form and return it to the League office so that your voting delegate may be properly identified.

Designation of Voting Delegate

Name of Voting Delegate: _____

Title: _____

Municipality of: _____

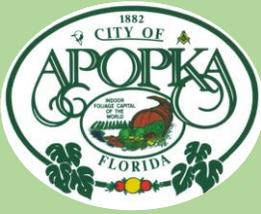
AUTHORIZED BY:

Name

Title

Return this form to:

Gail Dennard
Florida League of Cities, Inc.
Post Office Box 1757
Tallahassee, FL 32302-1757
Fax to Gail Dennard at (850) 222-3806 or email gdennard@flcities.com



CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Public Services
 EXHIBITS:

SUBJECT: PURCHASE OF UTILITY COMMODITIES

REQUEST: APPROVE THE ISSUANCE OF A BLANKET PURCHASE ORDER FOR THE PURCHASE OF UTILITY COMMODITIES FOR THE REMAINDER OF FISCAL YEAR 2017/2018

SUMMARY:

The Public Services Department purchases large amounts of various commodities in its daily operations including pipe, fittings, safety equipment, and chemicals throughout the year. This purchasing is accomplished through piggybacking other municipalities and state contracts, which has provided the best cost savings for the quantities that are utilized.

In accordance with Section 107.3.1.2(IV)(A), of the City’s Purchasing Policy, Staff requests approval to issue a blanket purchase order to the following vendor for the purchase of the referenced commodities. On October 18, 2017, the City Council previously approved the issuance of a blanket purchase order to the referenced vendor in the amount of \$1,000,000, however, due to increased spending in water meter replacements, it has become necessary to request approval for the additional funding to complete the fiscal year.

Division	Vendor	Commodity	Amount	Municipal Contract
Warehouse Inventory	Core & Main	Pipe, Fittings, Accessories	\$300,000	Pinellas County

FUNDING SOURCE:

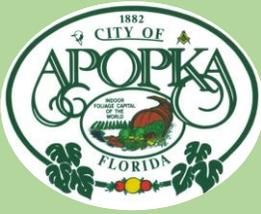
Fund 401- Utility Operating Fund

RECOMMENDATION ACTION:

Approve the issuance of a blanket purchase order to the referenced vendor for the purchase of the commodities listed.

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 AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Business

MEETING OF: June 6, 2018
 FROM: Public Services
 EXHIBITS:

SUBJECT: BUDGET AMENDMENT FOR THE PUBLIC SERVICES WATER MAINTENANCE DIVISION OPERATING SUPPLIES BUDGET

REQUEST: APPROVE THE BUDGET AMENDMENT FOR THE PUBLIC SERVICES WATER MAINTENANCE DIVISION METER REPLACEMENT BUDGET IN THE AMOUNT OF \$455,210

SUMMARY:

In 2017, a Potable Water Audit was conducted in accordance with requirements with the City’s Consumptive Use Permit with the St. Johns River Water Management District, yielding an unaccounted for water/non-revenue water loss of 26.5%. In January 2018, the Public Services Water Maintenance Division began a meter replacement program at an accelerated rate. The meter replacement program is managed through work orders from Utility Billing that are supplied through the City’s utility warehouse inventory. Meters and transmitters that are issued by the warehouse inventory are entered into the Edmunds financial management system manually which can create or accept a budget exceedence within any budget line item. As a result of the accelerated rate of water meter replacements to correct the excessive unaccounted for/non-revenue water loss percentage, the Public Services Water Maintenance Division has experienced a deficit of its adopted budget line in the amount of \$173,343. The division budgeted for a total of 726 meter replacements this year, and to date have replaced in excess of 2,000 meters.

Currently, the Division is replacing zero reading water meters at a rate in excess of 100 meters per week. At this rate, it is anticipated that the Division will require an additional \$281,867 in funding to continue with the meter replacements for the remainder of the fiscal year.

Staff respectfully requests approval of a budget amendment for the Public Services Water Maintenance Budget line 401-3141-533.5200 in the amount of \$455,210. This amount will correct the existing budget deficit and provide adequate funding to continue the meter replacements at an accelerated rate through the end of the fiscal year.

FUNDING SOURCE:

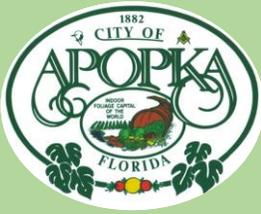
Fund 401- Utility Reserves Fund

RECOMMENDATION ACTION:

Approve the budget amendment for the Public Services Water Maintenance Division line 401-3141-533.5200 in the amount of \$455,210.

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 AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER:

MEETING OF: June 6, 2018
 FROM: Finance
 EXHIBITS: FA Recommendation

SUBJECT: AUTHORIZING THE ISSUANCE AND EXECUTION OF A CAPITAL IMPROVEMENT REVENUE NOTE WITH ZIONS BANK IN AN AGGREGATE PRINCIPAL AMOUNT OF NOT TO EXCEED \$2,817,000 FOR THE ACQUISITION OF VARIOUS PUBLIC SAFETY VEHICLES AND OTHER CAPITAL EQUIPMENT FOR THE CITY.

REQUEST: REQUEST COUNCIL AWARD THE FINANCING TO ZIONS BANK.

SUMMARY:

The City has determined it is in need of various vehicles and equipment throughout the city and it is in the City’s best interest to acquire these vehicles using proceeds of tax exempt debt.

Fire Dept. Vehicles and Equipment	\$2,476,000
Police Dept. Vehicles	670,000
Recreation/Athletic Complexes Equipment	13,000
Less: Insurance proceeds	(393,175)
Equipment Total	\$2,765,825

The City’s Financial Advisor assisted staff in soliciting proposals from financial institutions in an estimated principal amount of \$2,817,000 to finance these purchases. On May 10, 2018, the City received ten (10) bids. After reviewing the proposals it was determined that Zions Bank provided the most favorable proposal. The loan agreement provides a 7-year term with a fixed interest rate of 2.90%.

In anticipation of securing this loan, many of the vehicle purchases have already taken place. Resolution #2017-26 was approved on November 1, 2017 which allows for reimbursement of certain costs relating to the acquisition of vehicles and other capital equipment. The proceeds from this loan will be used to reimburse the City, as well as fund the purchases of the specifically identified vehicles and capital equipment included in the FY18 Budget.

FUNDING SOURCE:

The approved FY 2018 General Fund identified and included provisions for acquiring these vehicles and capital equipment using tax exempt debt.

RECOMMENDATION ACTION:

Award the financing to Zions Bank.

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 |

Mark P. Galvin

Director

Angela Singleton

Assistant Vice President

Date: May 25, 2018

To: Edward Bass, City Manager

Subject: City of Apopka , Florida
Capital Improvement Revenue Note, Series 2018 – Bank Loan RFP

Hilltop Securities Inc. (“Hilltop”) in our role as Financial Advisor, assisted the City of Apopka (the “City”), Florida in issuing a Request for Proposals (“RFP”) to financial institutions in an amount of \$2,817,000. The City, under purchasing guidelines, advertised and posted the RFP on its website along with making it available to bidders on www.demandstar.com on April 26, 2018. The purpose of the RFP is to provide a bank qualified, tax-exempt loan to finance various capital improvements including police vehicles, fire equipment and other associated equipment. The Series 2018 Note will be secured by a covenant to annually budget and appropriate non-ad valorem revenues.

The objective of the RFP was to obtain financing at the lowest overall interest cost while providing future financing flexibility to the City. The RFP requested a 7-year loan with an average weighted life of approximately 3.18 years and with interest rates held for 30 days. The RFP also requested the ability to prepay the loan at any time without a prepayment penalty. Other provisions of the RFP prohibited the ability of the bank to raise interest rates due to changes in corporate tax law.

On May 10, 2018 the City received ten (10) bids by the stated 2:00 pm deadline. Proposals were received from the entities listed below and are summarized in the attached table:

Responsive Bids:

- Branch Banking and Trust Company (BB&T)
- City National Bank
- Hancock Bank
- JP Morgan Chase Bank, N.A.
- Pinnacle Public Finance
- PNC Equipment Finance LLC
- Sterling National Bank
- SunTrust Equipment Finance & Leasing Corp.
- US Bancorp
- Zions Bank

Recommendation

The City received interest rate proposals ranging from a low of 2.85%* to 3.45%. After reviewing the RFP responses and after discussions with City staff, it is Hilltop's opinion that the Zions Bank proposal is the best overall proposal. The Zions proposal had the lowest overall interest rate of 2.90% locked for 60 days, with the least restrictive loan requirements and the ability to be prepaid at any time without a penalty. While the JP Morgan Chase proposal rate of 2.85% was lower, the City would have had to award them the bid by May 11th. So this rate is only an indicative rate and subject to change. In addition their proposal does not allow the City the ability to prepay the loan prior to maturity. In finalizing our review we asked the City's Bond Counsel, Akerman LLP for any potential legal issues associated with the Zion Bank proposal.

Therefore based on the above considerations, it's our recommendation that the City award the financing to Zions Bank.

Attachment:

Proposal Response Summary Table

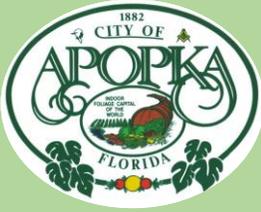
* Indicative and subject to change

City of Apopka, Florida
 Capital Improvement Revenue Note, Series 2018
 Proposal Responses
 May 10, 2018

Bank:	Branch Banking & Trust Company	City National Bank	Hancock Whitney Bank	JPMorgan Chase Bank, N.A.	Pinnacle Public Finance
Size	\$2,817,000	\$2,817,000	\$2,817,000	\$2,817,000	\$2,817,000
Final Maturity	June 1, 2025	June 1, 2025	June 1, 2025	June 1, 2025	June 1, 2025
Tax Status	Bank Qualified	Bank Qualified	Bank Qualified	Bank Qualified	Bank Qualified
Call Feature / Penalty	Option 1: Prepayable in whole at any time with a 1% prepayment penalty. Option 2: Noncallable prior to 12/1/21 then prepayable any time in whole without penalty thereafter.	Prepay in whole, but not in part, on any payment date with a 45 day advance written notice without penalty	May be prepaid in whole and in part on any date with 10 days advance notice without prepayment penalty.	Option A: Noncallable Option B: Optional redemption, in whole or part and without penalty subsequent to 6/1/2020.	Subject to prepayment in whole anytime at a price equal to par plus accrued interest
Fixed Rate	3.05%	3.08%	2.95%	Option A - 2.85%, no optional redemption Option B - 2.98% optional redemption after 6/1/20	3.455%
Date Rate held until	Held for a closing no later than June 22, 2018	Held until June 8, 2018 if awarded by May 16, 2018.	Rate will be held until no later than 40 days from the date of the proposal if the City accepts the proposal no later than 6 days of the proposal date.	Rate may be held through closing if awarded to the bank by 4 pm May 11, 2018 and closing occurs on or before June 8, 2018	Held through June 15, 2018
Tax Information	Determination of Taxability	No	Gross Up Provision	No	Gross Up Provision
Other Covenant Requirements	Subject to final credit approval -- Audited financial statements within 270 days of FYE -- Default rate equal to the rate on the note plus 2% per annum from and after five days after the due date -- Lender reserves the right to terminate its interest in the bid or negotiate a mutually acceptable rate if the financing is deemed not a qualified tax-exempt financing	Subject to final credit approval -- Proceeds of the loan will be deposited into an escrow account held at the bank at no cost to the borrower -- Lender may sell, assign, or encumber all or any part of its right title and interest in any or all the loan; however, in no event shall the lender assign this agreement as a public offer of participation -- Proposal will expire if the loan is not closed by July 30, 2018	Credit has been approved -- Proposed structure is based on the final amortization of principal not having an average life that exceeds 3.25 years. -- Exception to Section F, paragraph L "Documentation - the bank will depend on the accuracy and completeness of the legal documents and states that the City and the financial advisor bear some responsibility to the information provided -- A reserve fund is not required for the loan, however, a debt service account is required to make monthly proportionate deposits. -- Default rate of 6% or any statutory interest rate limitation imposed by the State of Florida, whichever is less. -- The bank would want to insure that no provisions allow for other obligations secured by CB&A to accelerate its loan -- Audited financial statements within 270 days of FYE -- Lender reserves the right to assign, transfer, or convey the loan	Subject to credit approval -- Audited financial statements within 270 days of FYE -- Default rate of interest rate on the 2018 Note plus 3%	Subject to final credit approval -- Gross up provision should the loan become taxable. Rate will increase to 4.38% effective as of the date of determination -- Default rate of 6% with an increase to 7% should the loan become taxable -- Lender prefers the proceeds to be deposited with a third-party escrow provider during construction. -- Audited financial statements within 210 days of FYE -- Lender reserves the right to assign, transfer, or convey the loan -- Lender requires complete executed copy of the transcript by noon the day prior to funding
Legal Expense / Underwriting Fee	\$5,000	\$0	\$5,000	\$7,500	\$5,000
Main Contact	Andrew Smith	Michael Horkey	Steven Singleterry	Rebecca Reynolds-Russell	Blair Swain
	Senior Vice President	Senior Vice President	Vice President	Vice President	Senior Vice President
	(803) 251-1328	(410) 864-8304	(601) 981-3894	(407) 236-7074	(480) 419-3634

City of Apopka, Florida
 Capital Improvement Revenue Note
 Proposal Responses
 May 10, 2018

Bank:	PNC Equipment Finance LLC	Sterling National Bank	SunTrust Equipment Finance & Leasing Corp.	U.S. Bancorp Government Leasing and Finance, Inc.	Zions Bank
Size	\$2,817,000	\$2,817,000	\$2,817,000	\$2,817,000	\$2,817,000
Final Maturity	June 1, 2025	June 1, 2025	June 1, 2025	June 1, 2025	June 1, 2025
Tax Status	Bank Qualified	Bank Qualified	Bank Qualified	Bank Qualified	Bank Qualified
Call Feature / Penalty	Following the 2nd anniversary of the lease and absent any defaults, the lessee shall have the option to purchase all the equipment financed by paying all rent payments and other amounts due plus termination value of the principal balance plus 3% premium.	Years 1 and 2 are noncallable. Prepayable in whole or in part on any payment date during years 3 and 4 at 101% and par thereafter	Prepayable in whole on any payment date at a premium of 3% in year 1; 2% in year 2; and 1% in year 3.	Permitted after 13 months on any payment date at the lower of a standard make whole provision or 103% of outstanding balance.	Callable any time a par plus accrued interest with 30 days' notice
Fixed Rate	3.22%	3.040%	3.189% Indicative Rate	3.253%	2.90%
Date Rate held until	Held until May 18, 2018. After this time the rate shall be indexed to the 5 yr. interest rate swap and set 3 business days prior to funding.	Held for a closing within 31 days of the date of the term sheet (June 8, 2018). Should the date elapse, the rate is subject to adjustment 5 days prior to the closing date.	Not held. Upon award the rate shall be set and honored for a closing on or before June 21, 2018	Held until June 30, 2018	Held for 60 days from the bid date. Should 60 days elapse rate would reset to the prevailing market rate.
Tax Information	No	No	After-Tax Yield	No	No
Other Covenant Requirements	<p>Subject to final credit approval</p> <p>--</p> <p>Issuer to pay a \$250 set up fee at closing for the escrow account</p> <p>--</p> <p>Lessee shall have the option to purchase all equipment for \$1.00 upon performance of the terms and conditions of the lease agreement</p> <p>--</p> <p>Proposal shall expire on June 30, 2018 unless accepted in writing.</p>	<p>Subject to final credit approval</p> <p>--</p> <p>Proceeds can be funded into an escrow account at no cost so long as the proceeds do not require collateralization other than the use of a surety bond</p> <p>--</p> <p>Lender reserves, without consent, but with notice to the right to assign, transfer, or convey the loan</p>	<p>Subject to final credit approval</p> <p>--</p> <p>An escrow account shall be established at SunTrust Bank if applicable to hold financing proceeds</p> <p>--</p> <p>Issuer to pay a \$250 set up fee at closing for the escrow account</p> <p>--</p> <p>Proposal expires on May 17, 2018 if not awarded in writing on or before the 17th</p>	<p>Subject to final credit approval</p> <p>--</p> <p>Funds will be deposited in a no fee U.S. Bank N.A. escrow account at closing</p> <p>--</p> <p>Standard USBGLF provisions pertaining to events of default and remedies available upon default.</p>	<p>Proposal has been credit reviewed, but is subject to final credit approval</p> <p>--</p> <p>Audited financial statements within 270 days of FYE</p>
Legal Expense / Underwriting Fee	\$0	\$0	\$2,500	\$0	\$0
Main Contact	Bryce Conway	Mark Cargo	Dennis McDermott	Denise Beauchamp	Jonathan Baker
	Associate Relationship Manager	Managing Director	Director	Vice President	Senior Vice President
	(614) 463-6569	(704) 287-4493	(404) 658-4751	(904) 284-3520	(801) 844-7159



CITY OF APOPKA CITY COUNCIL

CONSENT AGENDA
 PUBLIC HEARING
 SPECIAL REPORTS
 OTHER: Business

MEETING OF: June 6, 2018
FROM: Fire Department
EXHIBITS: Statements
Truck Pricing
Truck Specifications

SUBJECT: FIRE DEPARTMENT TOWER TRUCK REPLACEMENT

REQUEST: ALLOW STAFF TO;

- (1) SECURE FINANCING FOR A REPLACEMENT TOWER TRUCK**
- (2) SIGN A CONSTRUCTION CONTRACT WITH ROSENBAUER AMERICA PRIOR TO JUNE 30TH TO RETAIN 2017 PRICING**

SUMMARY:

In June of 2017, a hydraulic leak was discovered in the main lift cylinder of the Department's only tower truck. The necessary repairs were beyond the capabilities of our Fleet Maintenance Division. Arrangements were made to have the repairs completed at Rev Technical Center (formally Hall-Mark Fire Apparatus) in Ocala.

On August 28th, Rev TC contacted the Fire Department and reported that a "catastrophic" failure had occurred during testing of their repairs to the lift cylinders. The 95' ladder section was fully extended at a 45 degree angle while rotated out 90 degrees. At this point the ladder experienced a violent and uncontrolled retraction of all three ladder sections, in the process twisting the ladder, destroying the bucket and damaging all the ladder stops. Other unforeseen damage was suspected with the turntable and frame of the truck.

In mid-November, the City's insurance adjuster met with the inspector and Rev TC's adjuster, and a discussion was concluded that with the age of the truck and the amount of damage sustained, that it may be in the best interest of both parties to total the vehicle. Replacement parts for any repairs would need to be salvaged from other trucks or fabricated as the manufacture is no longer in business.

The Fire Department is requesting to secure financing for the amount not off-set by insurance. Staff has been working with Rosenbauer America since November, 2017 to design a replacement tower truck with the same capabilities as our previous tower truck. Rosenbauer has been awarded the Florida State Sheriff's contract for this type of vehicle and is currently honoring last year's reduced pricing until the end of June 2018. The Fire Department has standardized their inventory of new fire engines and specialty rescue vehicles with Rosenbauer apparatus. We are pleased with their product, pricing and service and wish to continue to standardize our fleet with a Rosenbauer tower truck.

The total cost for the truck and all associated equipment, before any insurance money received, is \$1.1 million. The City has already received an insurance check in the amount of \$100,000, with an additional amount of \$293,175 agreed upon. This \$393,175 subtracted from the cost of the truck will leave the balance of \$706,825 to be financed.

FUNDING SOURCE:

Capital Improvement Revenue Note 2018

RECOMMENDATION ACTION:

Allow staff to sign the contract to order a replacement tower truck and establish funding for the construction.

DISTRIBUTION

Mayor Nelson
Commissioners
City Administrator
Community Development Director

Finance Director
HR Director
IT Director
Police Chief

Public Services Director
Recreation Director
City Clerk
Fire Chief

Sworn Statement in Proof of Loss

\$25,000,000.00	“Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing false, incomplete or misleading information is guilty of a felony of the third degree.”	D37363133 009
AMOUNT OF POLICY AT TIME OF LOSS		POLICY NUMBER
6/1/2017		Orlando, FL
DATE ISSUED		AGENCY AT
6/1/2018		World Risk Management
DATE EXPIRES		AGENT

To the WESTCHESTER SURPLUS LINES
 At time of loss, by the above indicated policy of insurance you insured Public Risk Management of Florida, 3434 Hancock Bridge Parkway, Suite 203 N. Ft. Myers, FL 33903, and their associated members

against loss by Comprehensive Vehicle Damage to the property described under Schedule "A", according to the terms and conditions of the said policy of and all forms, endorsements, transfers and assignments attached thereto.

1. **Time and origin:** A Vehicle Damage loss occurred about the hour of n/a o'clock n/a M. on the 28th day of August, 2017. The cause and origin of the said loss were: Repair facility extended ladder which fell due to a failure of repairs made.

2. **Occupancy:** The building described, or containing the property described, was occupied at the time of loss as follows, and for no other purpose whatever: A fire truck with ladder extension

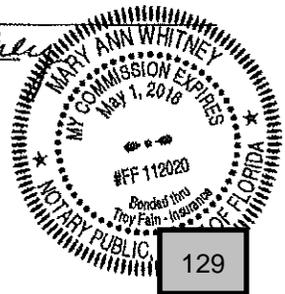
3. **Title and interest:** At the time of the loss the interest of your insured in the property described therein was The owner thereof
The owner thereof No other person or persons had any interest therein or encumbrance thereon, except None

4. **Changes:** Since the said policy was issued there has been no assignment thereof, or change of interest, use, occupancy, possession, location or exposure of the property described, except: None

5. Total Insurance: The total amount of insurance upon the property described by this policy was, at the time of the loss was.....	\$ 670,000.00
6. The Negotiated Agreed Actual Cash Value Loss including Loss of Use is.....	\$ 393,175.00
7. Less Amount of Deductible and/or participation by the insured.....	\$- 100,000.00
8. The Net Advance Payment Claim after Deductible is.....	\$ 293,175.00
9. The Amount Claimed under the above numbered policy is 20% of the net RC of claim.....	\$ 58,635.00

The said loss did not originate by any act, design or procurement on the part of your insured, or this affiant; nothing has been done by or with the privity or consent of your insured or this affiant, to violate the conditions of the policy, or render it void; no articles are mentioned herein or in annexed schedules but such as were destroyed or damaged at the time of said loss; no property save has in any manner been concealed, and no attempt to deceive the said company, as to the extent of said loss, has in any manner been made. Any other information that may be required will be furnished and considered a part of this proof. The furnishing of this form or the preparation of proofs by a representative of the above insurance company is not a waiver of any of its rights. **FLORIDA STATUTE 627.425 Forms for proof of loss to be furnished.** An insurer shall furnish, upon written request of any person claiming to have proof of loss under an insurance contract issued by such insurer, forms of proof of loss for completion by such person, but such insurer shall not, by reason of the requirement so to furnish forms, have any responsibility for or with reference to the completion of such proof or the manner of any such completion or attempted completion.

State of FLORIDA Insured: _____
 County of LEE Notary Public: Mary Ann Whitney
 Subscribed and sworn before me this 13th day of MARCH, 2018 Notary Seal



Sworn Statement in Proof of Loss

42-PRP-000318-04

"Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing false, incomplete or misleading information is guilty of a felony of the third degree."

\$25,000,000.00
 AMOUNT OF POLICY AT TIME OF LOSS
6/1/2017
 DATE ISSUED
6/1/2018
 DATE EXPIRES

POLICY NUMBER
Orlando, FL
 AGENCY AT
World Risk Management
 AGENT

To the NATIONAL FIRE & MARINE INSURANCE COMPANY

At time of loss, by the above indicated policy of insurance you insured Public Risk Management of Florida, 3434 Hancock Bridge Parkway, Suite 203 N. Ft. Myers, FL 33903, and their associated members

against loss by Comprehensive Vehicle Damage to the property described under Schedule "A", according to the terms and conditions of the said policy of and all forms, endorsements, transfers and assignments attached thereto.

1. **Time and origin:** A Vehicle Damage loss occurred about the hour of n/a o'clock n/a M. on the 28th day of August, 2017. The cause and origin of the said loss were: Repair facility extended ladder which fell due to a failure of repairs made.

2. **Occupancy:** The building described, or containing the property described, was occupied at the time of loss as follows, and for no other purpose whatever: A fire truck with ladder extension

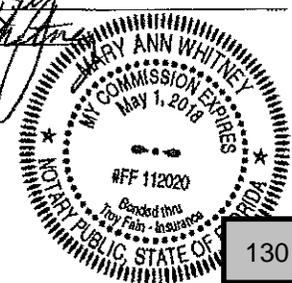
3. **Title and Interest:** At the time of the loss the interest of your insured in the property described therein was The owner thereof
The owner thereof No other person or persons had any interest therein or encumbrance thereon, except None

4. **Changes:** Since the said policy was issued there has been no assignment thereof, or change of interest, use, occupancy, possession, location or exposure of the property described, except: None

5. Total Insurance: The total amount of insurance upon the property described by this policy was, at the time of the loss was.....	\$ 670,000.00
6. The Negotiated Agreed Actual Cash Value Loss including Loss of Use Is.....	\$ 393,175.00
7. Less Amount of Deductible and/or participation by the insured.....	\$- 100,000.00
8. The Net Advance Payment Claim after Deductible is.....	\$ 293,175.00
9. The Amount Claimed under the above numbered policy is 5% of the net RC of claim.....	\$ 14,658.75

The said loss did not originate by any act, design or procurement on the part of your insured, or this affiant; nothing has been done by or with the privity or consent of your insured or this affiant, to violate the conditions of the policy, or render it void; no articles are mentioned herein or in annexed schedules but such as were destroyed or damaged at the time of said loss; no property save has in any manner been concealed, and no attempt to deceive the said company, as to the extent of said loss, has in any manner been made. Any other information that may be required will be furnished and considered a part of this proof. The furnishing of this form or the preparation of proofs by a representative of the above insurance company is not a waiver of any of its rights. **FLORIDA STATUTE 627.425 Forms for proof of loss to be furnished.** An insurer shall furnish, upon written request of any person claiming to have proof of loss under an insurance contract issued by such insurer, forms of proof of loss for completion by such person, but such insurer shall not, by reason of the requirement so to furnish forms, have any responsibility for or with reference to the completion of such proof or the manner of any such completion or attempted completion.

State of FLORIDA Insured: [Signature]
 County of LEE Notary Public: [Signature]
 Subscribed and sworn before me this 13TH day of MARCH, 2018 Notary Seal



Sworn Statement in Proof of Loss

B130AP00750B17

\$25,000,000.00
 AMOUNT OF POLICY AT TIME OF LOSS

6/1/2017
 DATE ISSUED

6/1/2018
 DATE EXPIRES

“Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing false, incomplete or misleading information is guilty of a felony of the third degree.”

POLICY NUMBER
Orlando, FL.
 AGENCY AT
World Risk Management
 AGENT

To the CERTAIN UNDERWRITERS AT LLOYDS

At time of loss, by the above indicated policy of insurance you insured Public Risk Management of Florida, 3434 Hancock Bridge Parkway, Suite 203 N. Ft. Myers, FL 33903, and their associated members

against loss by Comprehensive Vehicle Damage to the property described under Schedule "A", according to the terms and conditions of the said policy of and all forms, endorsements, transfers and assignments attached thereto.

1. **Time and origin:** A Vehicle Damage loss occurred about the hour of n/a o'clock n/a M. on the 28th day of August, 2017. The cause and origin of the said loss were: Repair facility extended ladder which fell due to a failure of repairs made.

2. **Occupancy:** The building described, or containing the property described, was occupied at the time of loss as follows, and for no other purpose whatever: A fire truck with ladder extension

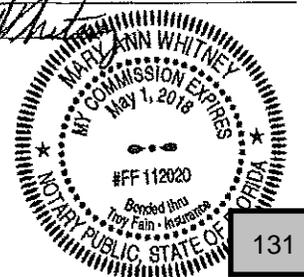
3. **Title and interest:** At the time of the loss the interest of your insured in the property described therein was The owner thereof
The owner thereof No other person or persons had any interest therein or encumbrance thereon, except None

4. **Changes:** Since the said policy was issued there has been no assignment thereof, or change of interest, use, occupancy, possession, location or exposure of the property described, except: None

5. Total Insurance: The total amount of insurance upon the property described by this policy was, at the time of the loss was.....	\$ 670,000.00
6. The Negotiated Agreed Actual Cash Value Loss including Loss of Use is.....	\$ 393,175.00
7. Less Amount of Deductible and/or participation by the insured.....	\$- 100,000.00
8. The Net Advance Payment Claim after Deductible is.....	\$ 293,175.00
9. The Amount Claimed under the above numbered policy is 20% of the net RC of claim.....	\$ 58,635.00

The said loss did not originate by any act, design or procurement on the part of your insured, or this affiant; nothing has been done by or with the privity or consent of your insured or this affiant, to violate the conditions of the policy, or render it void; no articles are mentioned herein or in annexed schedules but such as were destroyed or damaged at the time of said loss; no property save has in any manner been concealed, and no attempt to deceive the said company, as to the extent of said loss, has in any manner been made. Any other information that may be required will be furnished and considered a part of this proof. The furnishing of this form or the preparation of proofs by a representative of the above insurance company is not a waiver of any of its rights. **FLORIDA STATUTE 627.425 Forms for proof of loss to be furnished.** An insurer shall furnish, upon written request of any person claiming to have proof of loss under an insurance contract issued by such insurer, forms of proof of loss for completion by such person, but such insurer shall not, by reason of the requirement so to furnish forms, have any responsibility for or with reference to the completion of such proof or the manner of any such completion or attempted completion.

State of FLORIDA Insured: [Signature]
 County of LEE Notary Public: [Signature]
 Subscribed and sworn before me this 13th day of MARCH, 2018 Notary Seal



Sworn Statement in Proof of Loss

“Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing false, incomplete or misleading information is guilty of a felony of the third degree.”

B130AP00750A17

\$25,000,000.00
 AMOUNT OF POLICY AT TIME OF LOSS
6/1/2017
 DATE ISSUED
6/1/2018
 DATE EXPIRES

POLICY NUMBER
 Orlando, FL
 AGENCY AT
 World Risk Management
 AGENT

To the LEXINGTON INSURANCE COMPANY

At time of loss, by the above indicated policy of insurance you insured Public Risk Management of Florida, 3434 Hancock Bridge Parkway, Suite 203 N. Ft. Myers, FL 33903, and their associated members

against loss by Comprehensive Vehicle Damage to the property described under Schedule "A", according to the terms and conditions of the said policy of and all forms, endorsements, transfers and assignments attached thereto.

1. **Time and origin:** A Vehicle Damage loss occurred about the hour of n/a o'clock n/a M. on the 28th day of August, 2017. The cause and origin of the said loss were: Repair facility extended ladder which fell due to a failure of repairs made.

2. **Occupancy:** The building described, or containing the property described, was occupied at the time of loss as follows, and for no other purpose whatever: A fire truck with ladder extension

3. **Title and Interest:** At the time of the loss the interest of your insured in the property described therein was The owner thereof
The owner thereof No other person or persons had any interest therein or encumbrance thereon, except None

4. **Changes:** Since the said policy was issued there has been no assignment thereof, or change of interest, use, occupancy, possession, location or exposure of the property described, except: None

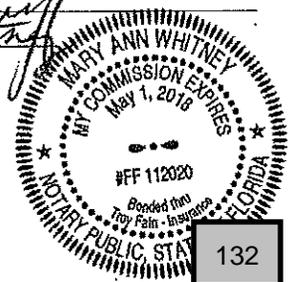
5. Total Insurance: The total amount of insurance upon the property described by this policy was, at the time of the loss was.....	\$ 670,000.00
6. The Negotiated Agreed Actual Cash Value Loss including Loss of Use is.....	\$ 393,175.00
7. Less Amount of Deductible and/or participation by the insured.....	\$- 100,000.00
8. The Net Advance Payment Claim after Deductible is.....	\$ 293,175.00
9. The Amount Claimed under the above numbered policy is 30% of the net RC of claim.....	\$ 87,952.50

The said loss did not originate by any act, design or procurement on the part of your insured, or this affiant; nothing has been done by or with the privity or consent of your insured or this affiant, to violate the conditions of the policy, or render it void; no articles are mentioned herein or in annexed schedules but such as were destroyed or damaged at the time of said loss; no property save has in any manner been concealed, and no attempt to deceive the said company, as to the extent of said loss, has in any manner been made. Any other information that may be required will be furnished and considered a part of this proof. The furnishing of this form or the preparation of proofs by a representative of the above insurance company is not a waiver of any of its rights. **FLORIDA STATUTE 627.425 Forms for proof of loss to be furnished.** An insurer shall furnish, upon written request of any person claiming to have proof of loss under an insurance contract issued by such insurer, forms of proof of loss for completion by such person, but such insurer shall not, by reason of the requirement so to furnish forms, have any responsibility for or with reference to the completion of such proof or the manner of any such completion or attempted completion.

State of FLORIDA
 County of LEE

Insured: [Signature]
 Notary Public: [Signature]

Subscribed and sworn before me this 13TH day of MARCH, 2018 Notary Seal



Sworn Statement in Proof of Loss

\$25,000,000.00	"Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing false, incomplete or misleading information is guilty of a felony of the third degree."	ESP30000343300
AMOUNT OF POLICY AT TIME OF LOSS		POLICY NUMBER
6/1/2017		Orlando, FL
DATE ISSUED		AGENCY AT
6/1/2018		World Risk Management
DATE EXPIRES		AGENT

To the ENDURANCE AMERICAN SPECIALTY
 At time of loss, by the above indicated policy of insurance you insured Public Risk Management of Florida, 3434 Hancock Bridge Parkway, Suite 203 N. Ft. Myers, FL 33903, and their associated members

against loss by Comprehensive Vehicle Damage to the property described under Schedule "A", according to the terms and conditions of the said policy of and all forms, endorsements, transfers and assignments attached thereto.

1. **Time and origin:** A Vehicle Damage loss occurred about the hour of n/a o'clock n/a M. on the 28th day of August, 2017. The cause and origin of the said loss were: Repair facility extended ladder which fell due to a failure of repairs made.

2. **Occupancy:** The building described, or containing the property described, was occupied at the time of loss as follows, and for no other purpose whatever: A fire truck with ladder extension

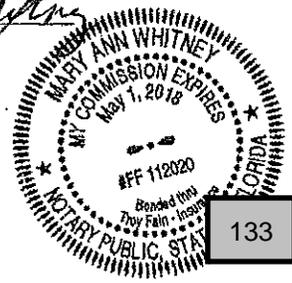
3. **Title and interest:** At the time of the loss the interest of your insured in the property described therein was The owner thereof
The owner thereof No other person or persons had any interest therein or encumbrance thereon, except None

4. **Changes:** Since the said policy was issued there has been no assignment thereof, or change of interest, use, occupancy, possession, location or exposure of the property described, except: None

5. Total Insurance: The total amount of insurance upon the property described by this policy was, at the time of the loss was.....	\$ 670,000.00
6. The Negotiated Agreed Actual Cash Value Loss Including Loss of Use is.....	\$ 393,175.00
7. Less Amount of Deductible and/or participation by the insured.....	\$- 100,000.00
8. The Net Advance Payment Claim after Deductible is.....	\$ 293,175.00
9. The Amount Claimed under the above numbered policy is 10% of the net RC of claim.....	\$ 29,317.50

The said loss did not originate by any act, design or procurement on the part of your insured, or this affiant; nothing has been done by or with the privity or consent of your insured or this affiant, to violate the conditions of the policy, or render it void; no articles are mentioned herein or in annexed schedules but such as were destroyed or damaged at the time of said loss; no property save has in any manner been concealed, and no attempt to deceive the said company, as to the extent of said loss, has in any manner been made. Any other information that may be required will be furnished and considered a part of this proof. The furnishing of this form or the preparation of proofs by a representative of the above insurance company is not a waiver of any of its rights. **FLORIDA STATUTE 627.425 Forms for proof of loss to be furnished.** An insurer shall furnish, upon written request of any person claiming to have proof of loss under an insurance contract issued by such insurer, forms of proof of loss for completion by such person, but such insurer shall not, by reason of the requirement so to furnish forms, have any responsibility for or with reference to the completion of such proof or the manner of any such completion or attempted completion.

State of FLORIDA Insured: _____
 County of LEE Notary Public: Mary Ann Whitney
 Subscribed and sworn before me this 13TH day of MARCH, 2018 Notary Seal



Sworn Statement in Proof of Loss

\$25,000,000.00
 AMOUNT OF POLICY AT TIME OF LOSS
6/1/2017
 DATE ISSUED
6/1/2018
 DATE EXPIRES

"Any person who knowingly and with intent to injure, defraud, or deceive any insurer files a statement of claim or an application containing false, incomplete or misleading information is guilty of a felony of the third degree."

EAF781214-17
 POLICY NUMBER
 Orlando, FL
 AGENCY AT
 World Risk Management
 AGENT

To the AXIS INSURANCE COMPANY

At time of loss, by the above indicated policy of insurance you insured Public Risk Management of Florida, 3434 Hancock Bridge Parkway, Suite 203 N. Ft. Myers, FL 33903, and their associated members

against loss by Comprehensive Vehicle Damage to the property described under Schedule "A", according to the terms and conditions of the said policy of and all forms, endorsements, transfers and assignments attached thereto.

1. **Time and origin:** A Vehicle Damage loss occurred about the hour of n/a o'clock n/a M. on the 28th day of August, 2017. The cause and origin of the said loss were: Repair facility extended ladder which fell due to a failure of repairs made.

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4. **Changes:** Since the said policy was issued there has been no assignment thereof, or change of interest, use, occupancy, possession, location or exposure of the property described, except: None

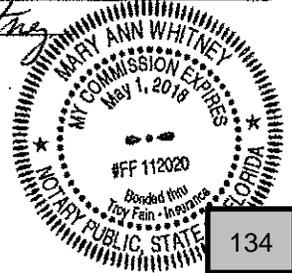
5. Total Insurance: The total amount of insurance upon the property described by this policy was, at the time of the loss was.....	\$ 670,000.00
6. The Negotiated Agreed Actual Cash Value Loss Including Loss of Use is.....	\$ 393,175.00
7. Less Amount of Deductible and/or participation by the insured.....	\$- 100,000.00
8. The Net Advance Payment Claim after Deductible is.....	\$ 293,175.00
9. The Amount Claimed under the above numbered policy is 5% of the net RC of claim.....	\$ 14,658.75

The said loss did not originate by any act, design or procurement on the part of your insured, or this affiant; nothing has been done by or with the privity or consent of your insured or this affiant, to violate the conditions of the policy, or render it void; no articles are mentioned herein or in annexed schedules but such as were destroyed or damaged at the time of said loss; no property save has in any manner been concealed, and no attempt to deceive the said company, as to the extent of said loss, has in any manner been made. Any other information that may be required will be furnished and considered a part of this proof. The furnishing of this form or the preparation of proofs by a representative of the above insurance company is not a waiver of any of its rights. **FLORIDA STATUTE 627.425 Forms for proof of loss to be furnished.** An insurer shall furnish, upon written request of any person claiming to have proof of loss under an insurance contract issued by such insurer, forms of proof of loss for completion by such person, but such insurer shall not, by reason of the requirement so to furnish forms, have any responsibility for or with reference to the completion of such proof or the manner of any such completion or attempted completion.

State of FLORIDA
 County of LEE

Insured: [Signature]
 Notary Public: [Signature]

Subscribed and sworn before me this 13th day of MARCH, 2018 Notary Seal



Sworn Statement in Proof of Loss

ESP7300139-04

POLICY NUMBER

Orlando, FL

AGENCY AT

World Risk Management

AGENT

\$670,000.00
AMOUNT OF POLICY AT TIME OF LOSS

6/1/2017
DATE ISSUED

6/1/2018
DATE EXPIRES

To the ARCH INSURANCE GROUP

At time of loss, by the above indicated policy of insurance you insured Public Risk Management of Florida, 3434 Hancock Bridge Parkway, Suite 203 N. Ft. Myers, FL 33903, and their associated members

against loss by Comprehensive Vehicle Damage to the property described under Schedule "A", according to the terms and conditions of the said policy of and all forms, endorsements, transfers and assignments attached thereto.

1. **Time and origin:** A Vehicle Damage loss occurred about the hour of n/a o'clock n/a M. on the 28th day of August, 2017. The cause and origin of the said loss were: Repair facility extended ladder which fell due to a failure of repairs made.

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8. The Net Advance Payment Claim after Deductible is.....	\$ 293,175.00
9. The Amount Claimed under the above numbered policy is 10% of the net RC of claim.....	\$ 29,317.50

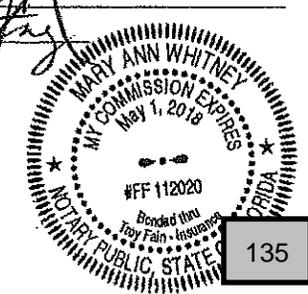
The said loss did not originate by any act, design or procurement on the part of your insured, or this affiant; nothing has been done by or with the privity or consent of your insured or this affiant, to violate the conditions of the policy, or render it void; no articles are mentioned herein or in annexed schedules but such as were destroyed or damaged at the time of said loss; no property save has in any manner been concealed, and no attempt to deceive the said company, as to the extent of said loss, has in any manner been made. Any other information that may be required will be furnished and considered a part of this proof. The furnishing of this form or the preparation of proofs by a representative of the above insurance company is not a waiver of any of its rights. **FLORIDA STATUTE 627.425 Forms for proof of loss to be furnished.** An insurer shall furnish, upon written request of any person claiming to have proof of loss under an insurance contract issued by such insurer, forms of proof of loss for completion by such person, but such insurer shall not, by reason of the requirement so to furnish forms, have any responsibility for or with reference to the completion of such proof or the manner of any such completion or attempted completion.

State of FLORIDA
County of LEE

Insured: [Signature]
Notary Public: [Signature]

Subscribed and sworn before me this 13th day of MARCH, 2018

Notary Seal





March 28, 2018

Deputy Chief Ray Thompson
Apopka Fire Department

Chief Thompson,

Attached are the specifications for a new Rosenbauer 100' Mid Mount Platform.

This pricing is based on the current Florida Sheriff's Contract #FSA16-VEF12.0.

Specification #12 – Mid Mount Aerial Platform Base Price	\$812,095.00
• Fire Department selected options	\$198,301.00
• Delivery and Training	included
Unit cost as specified	<u>\$1,010,396.00</u>

I have attached the vehicle specifications and engineering drawings.

Please feel free to contact me with any questions regarding our proposal.

Regards,

Paul Stephenson

Rosenbauer Direct - Florida

www.rosenbaueramerica.com

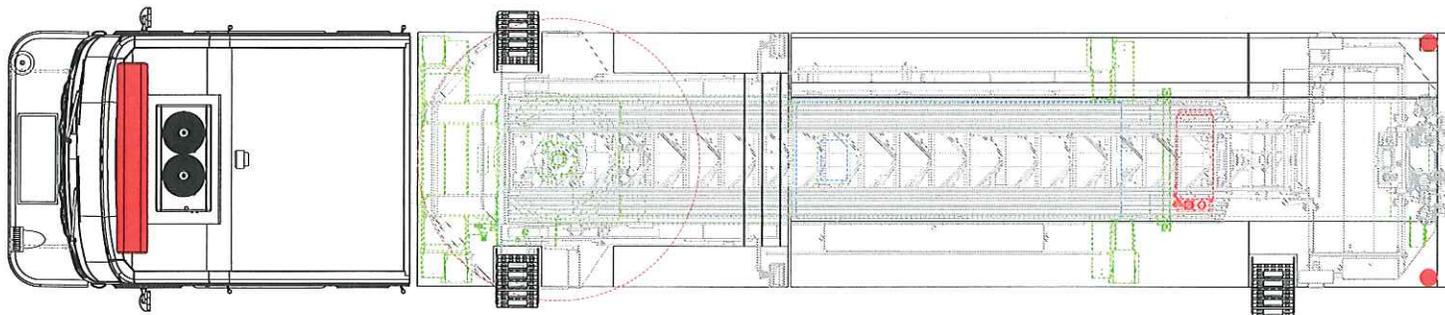
info@rosenbaueramerica.com

ROSENBAUER SOUTH DAKOTA, LLC.
100 THIRD STREET
P.O. BOX 57
LYONS, SOUTH DAKOTA 57041
P: 605.543.5591

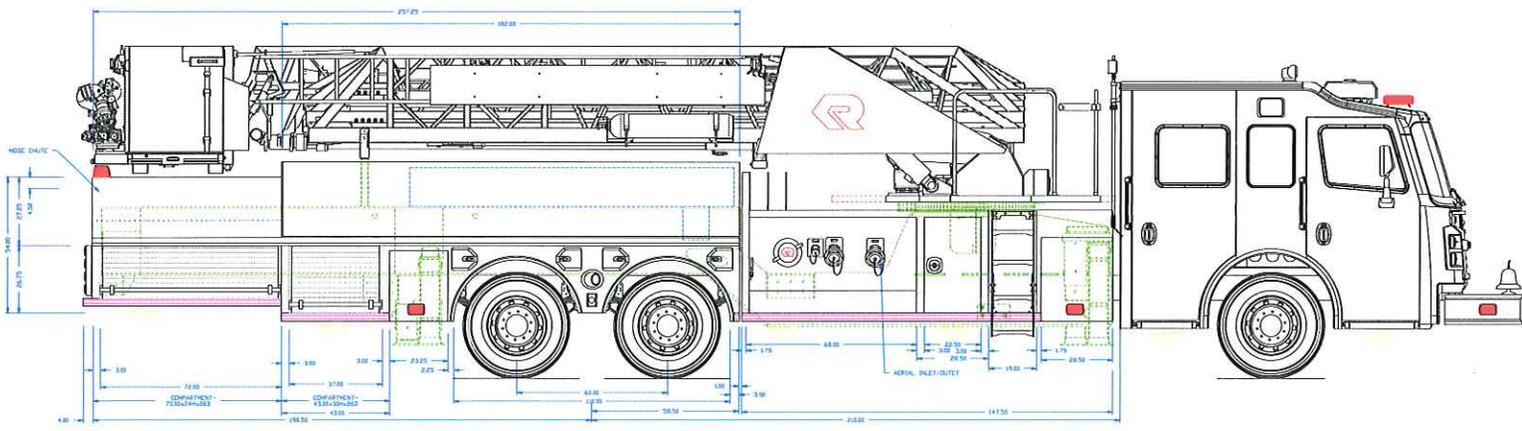
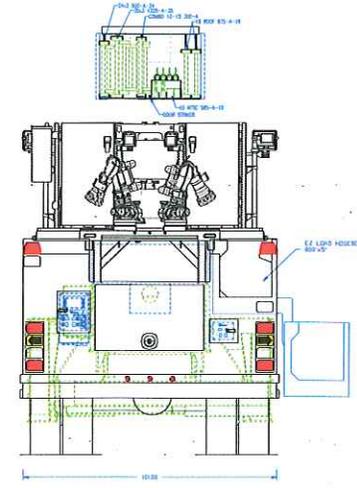
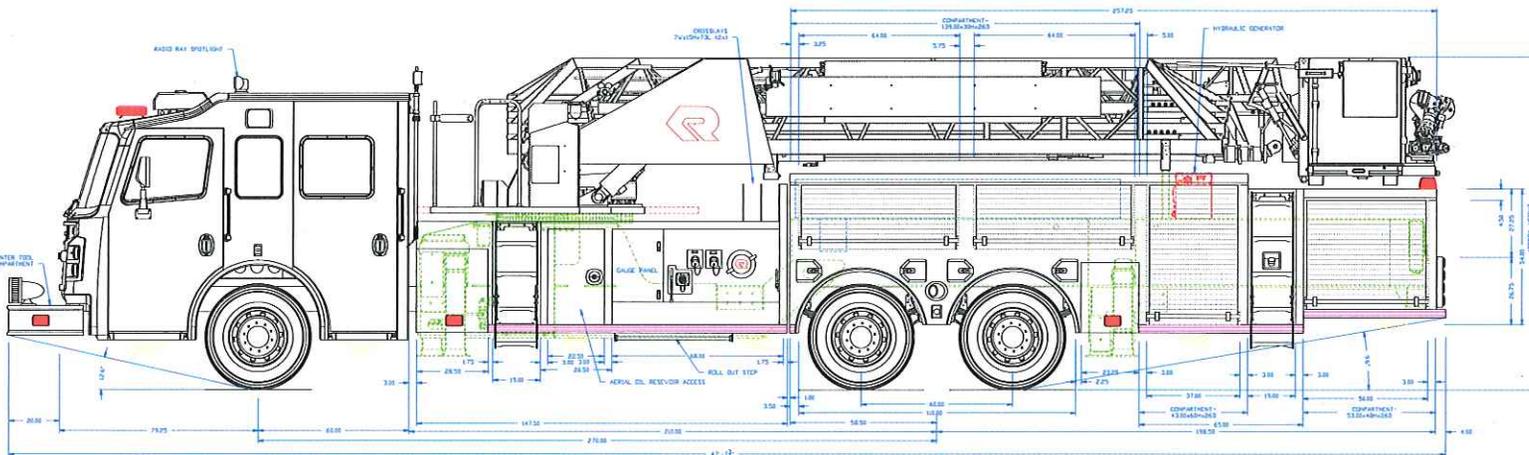
ROSENBAUER MINNESOTA, LLC.
5181 260TH STREET
P.O. BOX 549
WYOMING, MINNESOTA 55092
P: 651.462.1000

ROSENBAUER MOTORS, LLC.
5190 260TH STREET
P.O. BOX 549
WYOMING, MINNESOTA 55092
P: 651.462.1000

ROSENBAUER AERIALS, LLC.
870 SOUTH BROAD STREET
FREMONT, NEBRASKA 68025
P: 402.721.7622



- NOTES:
- OVERALL HEIGHT IS IN LOADED CONDITION. UNLOADED HEIGHTS MAY BE 4" ABOVE HEIGHTS SHOWN.
 - DO NOT SCALE DRAWING.
 - ALL DIMENSIONS ARE APPROXIMATE AND SUBJECT TO ENGINEERING CHANGES.
 - DRAWING MAY OR MAY NOT SHOW ALL ITEMS AS DESCRIBED IN THE WRITTEN DETAIL SPECIFICATIONS.
 - INCLUSION OF AN ITEM ON THE DRAWING DOES NOT CONSTITUTE INCLUSION OF THAT ITEM WITH THE FINAL DELIVERED UNIT.
 - THE EFFECTIVE DOOR OPENINGS WILL BE APPROX. 2" LESS THAN THE NOTED COMPARTMENT OPENING FOR ROLL UP DOORS AND UP TO APPROX. 4" LESS FOR HINGED DOORS



APPROVED BY:

CHASSIS:	COMMANDER 6011
PUMP:	HALE 2000 GPM
TANK:	POLY/300
PANEL MATL:	BLACK THERMO
COMP INTERIOR:	SWIRL
MAXIMUM HEIGHT:	NONE
MAXIMUM LENGTH:	NONE
BODY WIDTH:	101"

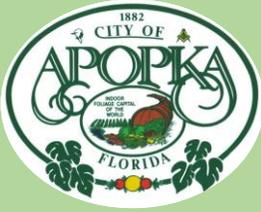
REVISOR: - DATE: -
 REVISION: SBN DATE: 1/23/18
 DRAWN: SBN DATE: 12/26/17

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ROSENBAUER. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ROSENBAUER IS PROHIBITED.

APOPKA, FL
 100' MM COBRA



APPOPKA, FL
 100' MM COBRA 2



CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Fire Department
 EXHIBITS: Proposal

SUBJECT: CONSTRUCTION OF ONE LIFE SUPPORT AMBULANCE FOR THE FIRE DEPARTMENT

REQUEST: AUTHORIZE THE CONSTRUCTION OF ONE LIFE SUPPORT AMBULANCE TO HALL-MARK, RTC.

SUMMARY:

On January 14, 2018, while responding to a 911 call, ambulance 4 was involved in a motor vehicle accident. The vehicle was considered a total loss by the City’s insurance adjuster and has valued the loss of the vehicle at \$129,000.00. The cost to purchase a new Life Support Ambulance is \$175,695.00, resulting in a balance of \$46,695.00.

The loss of this vehicle leaves the Fire Department short an ambulance and we currently have additional ambulances undergoing major repairs. The replacement of this ambulance is vital to our day to day operations of providing emergency medical services throughout the City.

Pricing for the Life Support Ambulance, with Department specific options, was obtained from the Florida Sheriff’s Association Bid #FSA16-VEF12.0, Specification #01, Addendum #1. The Fire Department will piggy-back on this contract.

FUNDING SOURCE:

\$129,000 from the City’s insurance carrier and \$46,695 from the General Fund Reserves.

RECOMMENDATION ACTION:

The Fire Department requests council award the construction of this Life Support Ambulance to Hall-Mark RTC, in the amount of \$175,695.00.

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



725 SW 46th Avenue
 Ocala, Florida 34474
 T (352) 629-6305
 M (352) 239-2928
 F (352) 629-2018

Ambulance Proposal

DATE: April 5, 2018

The Proposal has been prepared for:

**Wil Sanchez, EMS Captain
 City of Apopka Fire Department
 175 E. 5th Street
 Apopka, FL 32703**

Hall-Mark RTC (REV Technical Center) is pleased to submit this offer to the City of Apopka Fire Department to purchase off of the Florida Sheriffs Association Bid # FSA16-VEF12.0, Specification # 01, Addendum #1, for the following ambulance proposal:

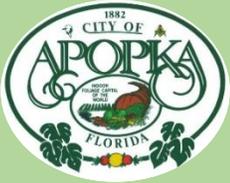
2018 Ford F-450 6.7L 193"WB/Wheeled Coach Industries Firemedic 1170 custom ambulance as per base FSA specification:	\$139,021.00 each FOB Apopka	(1)	\$139,021.00
Fire Department Selected Options:	\$ 36,674.00 each FOB Apopka	(1)	\$ 36,674.00
TOTAL PROPOSAL PRICE			<u>\$175,695.00</u>

This quote is valid for sixty (60) days. Proposed unit will be completed within 90 calendar days after receipt of chassis and confirmation of order.

We appreciate the opportunity to submit this proposal and compete for your valued business. Should you have any questions, or wish to review this proposal in detail, please contact me at 407-782-4120.

Bill McCorkle
 Florida Ambulance Sales
 407-782-4120

powered by **HALL-MARK**
 REVgroup.com



CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Final Development Plan

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Aerial Map
 Zoning Map
 Final Development Plan
 Architectural Renderings

SUBJECT: FINAL DEVELOPMENT PLAN – CARTER ELECTRIC – SOUTHWEST CORNER OF MARSHALL LAKE AND BRADSHAW ROADS

REQUEST: APPROVAL OF THE FINAL DEVELOPMENT PLAN FOR CARTER ELECTRIC LOCATED ON THE SOUTHWEST CORNER OF MARSHALL LAKE ROAD AND BRADSHAW ROAD

SUMMARY:

OWNER/APPLICANT: Carter Land Development, LLC c/o Douglas Carter

ENGINEER: Klima Weeks Civil Engineering, Inc., c/o Selby G. Weeks, P.E.

LOCATION: South Bradshaw Road (Southwest corner of Marshall Lake Road and Bradshaw Road)

PARCEL ID #: 09-21-28-0868-04-000

FUTURE LAND USE: Industrial

ZONING: I-1 (Restricted Industrial)

EXISTING USE: Vacant Land

PROPOSED USE: Office (8,837 square feet) / Warehouse (4,132 square feet)

TRACT SIZE: 13.02 +/- acres

BUILDING SIZE: 13,377 square feet (408 square feet of Mezzanine area)

FLOOR AREA RATIO 0.03

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	ROW/I-1	Marshall Lake Road/Vacant
East (City)	Industrial	ROW/I-1	Bradshaw Road/Industrial Park/Retention Park/Vacant
South (City)	Industrial	I-1	Industrial Park
West (City)	Industrial	I-1	Vacant

ADDITIONAL COMMENTS: Carter Electric, Inc. is an electrical contractor specializing in commercial, industrial, and high voltage construction that is adding a location in the City of Apopka. The 12,969 square feet building will be used as an office and warehouse with a 408 square feet of mezzanine area.

PARKING: A total of 71 parking spaces will be provided (50 required by code), three of which are reserved as a handicapped parking space.

ACCESS: Access to the site is provided by a single driveway curb cut on Marshall Lake Road located west of Bradshaw Road.

EXTERIOR ELEVATIONS: The height of the proposed building is 24’8", below the maximum allowable height of 35'. Staff has found the proposed building elevations to be in accordance with the City’s Development Design Guidelines.

STORMWATER: The stormwater management system includes an on-site retention area, on the southern portion of the site. The stormwater pond design meets the City’s Land Development Code requirements.

BUFFER/SCREENING/TREE PROGRAM: As part of the development plan approval, a 10-foot wide landscaping buffer and black vinyl coated chain link fence will screen the outdoor work area from adjacent properties. The viburnum hedges shall be allowed to grow to and maintained at 6 feet in height. The plan also shows sabal palms and viburnum hedges surrounding the dumpster enclosure area. The plan also shows a mixture of elms, crepe myrtles and viburnum hedges within the 25' landscaping buffer along Marshall Lake Road. Live oaks are located in the western and eastern buffers and elms are placed in each parking landscape island. Bald cypress trees surround the retention pond on the southernmost point of the project site's 10-foot wide landscape buffer. The buffer includes a lustrum hedge along both roads and twelve oak trees within the buffer. The applicant has provided a detailed landscape and irrigation plan for Carter Electric that complies with the requirements of the City’s Land Development Code. The planting materials and irrigation system design are consistent with the water-efficient landscape standards set forth in Ordinance No. 2069.

Total inches on-site:	95
Total inches removed	84
Total inches retained:	11
Total inches added:	174
Total inches post development:	195

PUBLIC HEARING SCHEDULE:

May 8, 2018 – Planning Commission (5:30 pm)
June 6, 2018 – June 6, 2018 (1:30 p.m.)

RECOMMENDATION ACTION:

The **Development Review Committee (DRC)** recommends approval of the Carter Electric Final Development Plan, subject to the findings of this staff report.

The **Planning Commission**, at its meeting on May 8, 2018, found the Carter Electric Final Development Plan consistent with the Comprehensive Plan and Land Development Code; and unanimously recommended approval of the Carter Electric Final Development Plan, subject to the findings of this staff report.

City Council: Approve the Carter Electric Final Development Plan

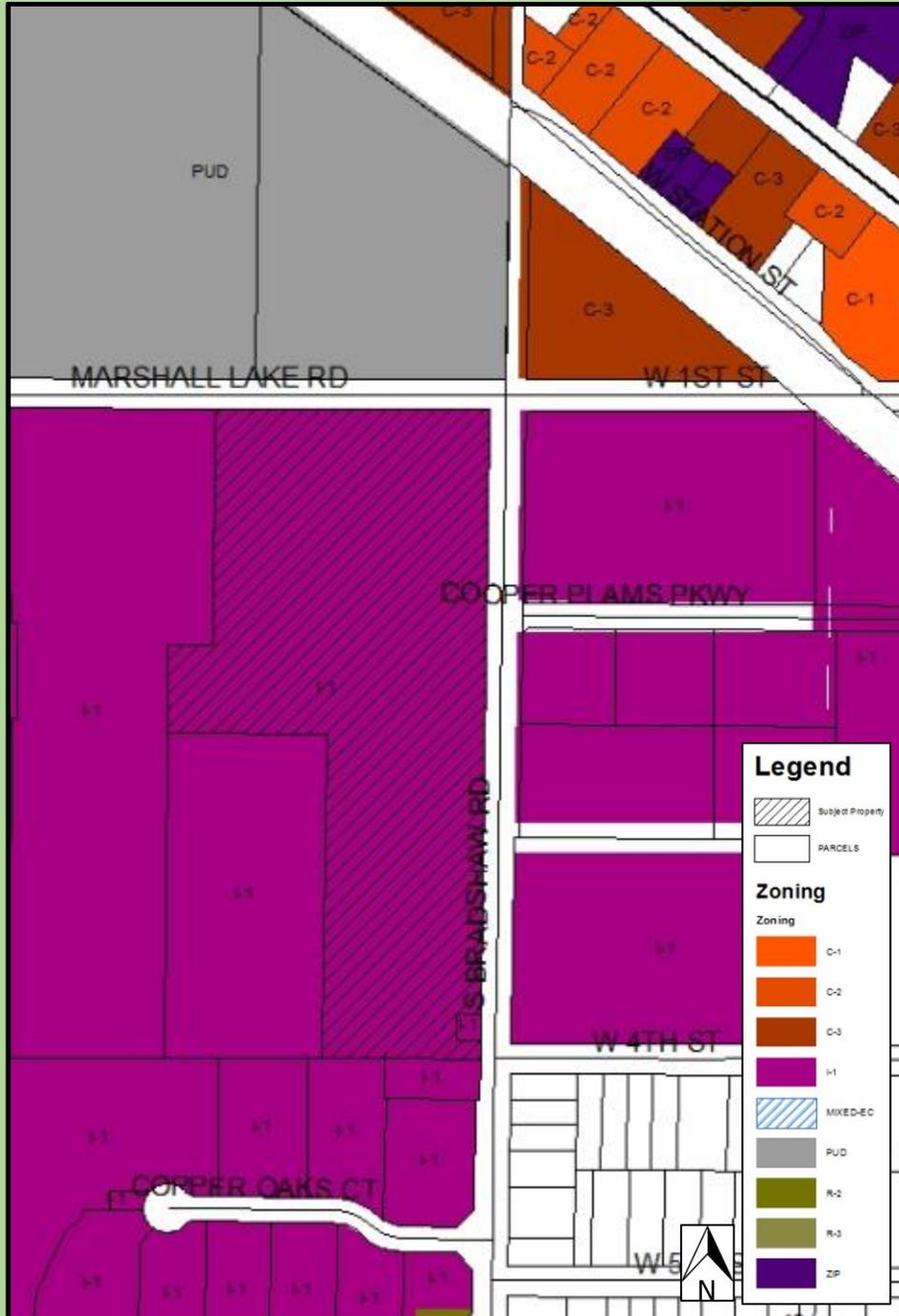
Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Application: Final Development Plan
Owner: Carter Land Development, LLC
Applicant: Carter Land Development, LLC c/o Douglas Carter
Engineer: Klima Weeks Civil Engineering, Inc., c/o Selby G. Weeks, P.E.
Parcel I.D. No: 09-21-28-0868-04-000
Location: Marshall Lake Road and Bradshaw Road
Acres: 13.02 acres +/-

VICINITY MAP



ZONING MAP



AERIAL MAP



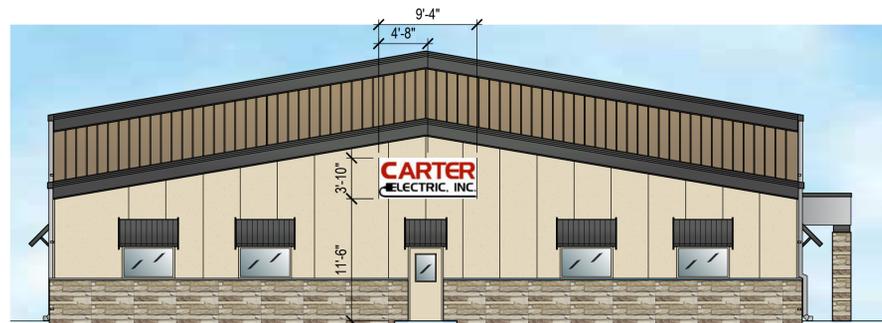
SIGNAGE NOTES:
ALL SIGNAGE TO BE SUBMITTED UNDER SEPARATE COVER FOR SIGN PERMIT.



1 WEST ELEVATION
Scale: 1/8" = 1'-0"



2 EAST ELEVATION
Scale: 1/8" = 1'-0"



3 NORTH ELEVATION
Scale: 1/8" = 1'-0"



4 SOUTH ELEVATION
Scale: 1/8" = 1'-0"

EXTERIOR FINISH SCHEDULE

DESCRIPTION	I.D.	COLOR/FINISH
PBR METAL SIDING PANEL	P1	TAN
TEXTURED METAL SIDING PANEL	P2	STONE
PBR METAL ROOFING PANEL	P3	COAL
NICHIHA LEDGESTONE FIBER CEMENT PANEL	P4	DESERT
METAL SCUPPERS, COLLECTION HEAD AND DOWNSPOUTS	P5	CLEAR ANODIZED ALUMINUM
STANDING SEAM METAL AWNINGS	P7	COAL
HOLLOW METAL DOORS & FRAMES	P9	SW PAINT TO MATCH STONE
ALUMINUM STOREFRONT DOOR & FRAME	P10	CLEAR ANODIZED
STOREFRONT GLAZING	P11	CLEAR
STONE WATER TABLE BAND	P12	SILL CHISELED- GRAY
PRECAST CONCRETE WALL CAP	P12	CAP CHISELED- GRAY
STUCCO-DUMPSTER	P13	SHERWIN WILLIAMS MATCH P2
METAL GATES- DUMPSTER	P14	SHERWIN WILLIAMS MATCH P1

GENERAL NOTES:
1. 'SW' DENOTES SHERWIN WILLIAMS PAINT NUMBERS.



STONE SAMPLE- KURASTONE LEDGESTONE DESERT

CARTER ELECTRIC, INC.
Apopka, Florida

PERMIT SET **2017.042**
02-23-2018 issue date CMH drawn by CMH approved by project number

DATE	REVISION SCHEDULE
03-16-18	PERMIT COMMENTS

CONCEPT ELEVATIONS **A6.1M**
sheet number

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BHM ARCHITECTURE, INC.
MAIL ONLY: 478 E ALTAMONTE DR., SUITE 108 PMB 264, ALTAMONTE SPRINGS, FL 32701-4622
PHONE: 407.333.2005 LICENSE # AAC000233

CARTER ELECTRIC FINAL DEVELOPMENT PLANS

CITY OF APOPKA, FLORIDA

APRIL 2018



CONTACTS:

OWNER/DEVELOPER/APPLICANT:
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SURVEYOR:
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1301 S. INTERNATIONAL PARKWAY SUITE 2001
LAKE MARY, FLORIDA 32746
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F: 407.320.8165

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SHEET INDEX

C000	COVER SHEET
S 1	BOUNDARY SURVEY
C100	OVERALL SITE PLAN
C101	SITE PLAN
C200	EROSION CONTROL AND DEMOLITION PLAN
C300	GEOMETRY PLAN
C400	GRADING AND DRAINAGE PLAN
C401	CROSS SECTIONS AND DETAILS
C500	UTILITY PLAN
C600	SITE DETAILS
C700	DRAINAGE DETAILS
C800	SANITARY DETAILS
C900	WATER DETAILS
TM1	TREE MITIGATION PLAN
L1	LANDSCAPE PLAN
L2	PLANT SCHEDULE, NOTES, DETAILS
L3	IRRIGATION PLAN
L4	IRRIGATION SCHEDULE AND NOTES
L5	IRRIGATION DETAILS
L6	IRRIGATION DETAILS
A6.1	BUILDING ELEVATIONS
AS1.1	DUMPSTER ENCLOSURE PLAN & DETAILS
E1.2	SITE PLAN PHOTOMETRICS
E1.3	SITE PLAN PHOTOMETRIC CUT SHEETS

LEGAL DESCRIPTION

LEGAL DESCRIPTION:

THE EAST 1/4 OF BLOCK D, BRADSHAW AND THOMPSON'S ADDITION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK B, PAGE 25, OF THE PUBLIC RECORDS OF ORANGE COUNTY, LESS THE NORTH 50 FEET OF THE SOUTH 88 FEET OF THE EAST 50 FEET THEREOF; AND THE NORTH 1/2 OF WEST 1/2 OF EAST 1/2 OF BLOCK D, BRADSHAW AND THOMPSON'S ADDITION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK B, PAGE 25, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, LESS THE WEST 90 FEET OF THE NORTH 470 FEET THEREOF.

PARCEL ID: 09-21-28-0868-04-000

CHARACTER AND INTENDED USE:

THE PROPOSED CONSTRUCTION CONSISTS OF A SINGLE STORY 15,135 SF. BUILDING CONSISTING OF 8,837 SF. OFFICE BUILDING, 4,132 SF. WAREHOUSE, 498 SF. MEZZANINE, 1,668 SF. COVERED AREA (UNCONDITIONED), DRIVEWAYS, PARKING LOT, ASSOCIATED WATER, SEWER AND STORMWATER MANAGEMENT.

UTILITY PROVIDERS:

WATER / SEWER / STORMWATER / RECLAIMED & SOLID WASTE:
CITY OF APOPKA - PUBLIC SERVICES DEPARTMENT
748 E. CLEVELAND STREET
APOPKA, FL. 32703
P: 407-703-1731
F: 407-703-1748

POWER:
DUKE ENERGY
150 PROGRESS ENERGY WAY
LONGWOOD, FL. 32750
P: 407-629-1010

CABLE COMPANIES:
CENTURY LINK
555 LAKE BORDER DRIVE
APOPKA, FL. 32703
P: 407-889-6000

CHARTER SPECTRUM
3767 ALL AMERICAN BLVD.
ORLANDO, FL. 32810
P: 855-222-0102



LOCATION MAP & LAND USE MAP

N.T.S.

SOUTH BRADSHAW ROAD, APOPKA, FLORIDA

147

100% CONSTRUCTION DOCUMENTS

NO.	REVISION	BY	DATE
1	CITY COMMENTS	DB	3/26/18
2	CITY COMMENTS	DB	4/24/18
3			
4			

385 DOUGLAS AVE
SITE 2100
ALTAMONTE SPRINGS
FLORIDA 32714
TELEPHONE 407.478.8750
FACSIMILE 407.478.8749

**Klima
Weeks**
CIVIL ENGINEERING

CERTIFICATE OF AUTHORIZATION No.: 9230

GENERAL INFORMATION:

STATEMENT OF INTENT:

THE PROPOSED CONSTRUCTION CONSISTS OF A SINGLE STORY 15,135 SF BUILDING CONSISTING OF 8,837 SF OFFICE BUILDING, 4,132 SF WAREHOUSE, 498 SF MEZZANINE, 1,668 SF COVERED AREA (UNCONDITIONED), DRIVEWAYS, PARKING LOT, ASSOCIATED WATER, SEWER AND STORMWATER MANAGEMENT.

BUILDING INFORMATION:

BUILDING: 15,135 SF
OFFICE: 8,837 SF
WAREHOUSE: 4,132 SF
MEZZANINE: 498 SF
COVERED AREA: 1,668 SF
TOTAL: 15,135 SF

PROPERTY INFORMATION:

ADDRESS: S BRADSHAW RD & MARSHALL LAKE RD, APOPKA, FL
SITE TOTAL AREA: 567,123± SF = 13.02 AC
PROPOSED USE: OFFICE/WAREHOUSE
NUMBER OF UNITS: 1
EXISTING ZONING: I-1
FLU: INDUSTRIAL

MAXIMUM ALLOWED BUILDING HEIGHT: 35'
MAXIMUM BUILDING HEIGHT: 24'-8"

SOILS (PROJECT AREA):

CANDLER FINE SAND, CANDLER-URBAN LAND AND ST LUCIE-URBAN LAND, ZOLFO-URBAN LAND.

FEMA FLOOD DATA

THIS SITE IS LOCATED IN ZONE X PER FEMA MAP No. 12095C0120 F, REVISED SEPTEMBER 25, 2009.

PARCEL ID No.: 09-21-28-0868-04-000

ADJACENT ZONING:

SUBJECT SITE: I-1
NORTH: I-1 (MARSHALL LAKE RD)
EAST: I-1 (S BRADSHAW RD)
WEST: I-1
SOUTH: I-1

ADJACENT LAND USE:

SUBJECT SITE: INDUSTRIAL
NORTH: INDUSTRIAL (MARSHALL LAKE RD)
EAST: INDUSTRIAL (S BRADSHAW RD)
WEST: INDUSTRIAL
SOUTH: INDUSTRIAL

BUILDING SETBACKS (I-1):

REQUIRED (FT.)	PROVIDED (FT.)
FRONT: MARSHALL LAKE RD. 25	FRONT: MARSHALL LAKE RD 118
EAST SIDE: BRADSHAW RD. 25	EAST SIDE: 385
WEST SIDE: 10	WEST SIDE: 84
REAR: 10	REAR: 331

LANDSCAPE BUFFER (I-1)

REQUIRED (FT.)	PROVIDED (FT.)
FRONT: MARSHALL LAKE RD. 25	FRONT: MARSHALL LAKE RD 42
EAST SIDE: BRADSHAW RD. 25	EAST SIDE: 328
WEST SIDE: 10	WEST SIDE: 12
REAR: 10	REAR: 20

PARKING CALCULATIONS:

OFFICE BUILDING: 1 SPACE PER 250 SF OF GFA
THEREFORE 8,837 SF/250 SF X 1 SPACE = 36 SPACES

PROPOSED AREA CALCULATIONS:

SITE TOTAL AREA: 567,123 SF = 13.02 AC= 100%
IMPERVIOUS AREA: 107,611 SF= 2.47 AC= 19.0%
PERVIOUS AREA: 459,512 SF= 10.55 AC= 81.0%

WHOLESALE, INDUSTRIAL, MANUFACTURE, PROCESSING OR ASSEMBLY:
2 SPACES PER 1,000 SF OF GFA, PLUS 1 SPACE PER VEHICLE OPERATING FROM PREMISES OR 1 SPACE PER 2 EMPLOYEES.
THEREFORE 4,132 SF/1,000 SF X 2 SPACES PLUS 6 VEHICLES = 14 SPACES

MAX. F.A.R. ALLOWABLE: 0.60
F.A.R.: 15,135 SF/ 567,123 SF= 0.03

I.S.R (PROVIDED): IMP/SITE SF= 0.21= 21%

OPEN SPACE REQUIRED: INDUSTRIAL (NO OPEN SPACE REQUIRED)

REQUIRED PARKING:

STANDARD: 48
ACCESSIBLE: 2
TOTAL: 50 SPACES

PROPOSED PARKING:

STANDARD: 68
ACCESSIBLE: 3
TOTAL: 71 SPACES

LOADING AREA:

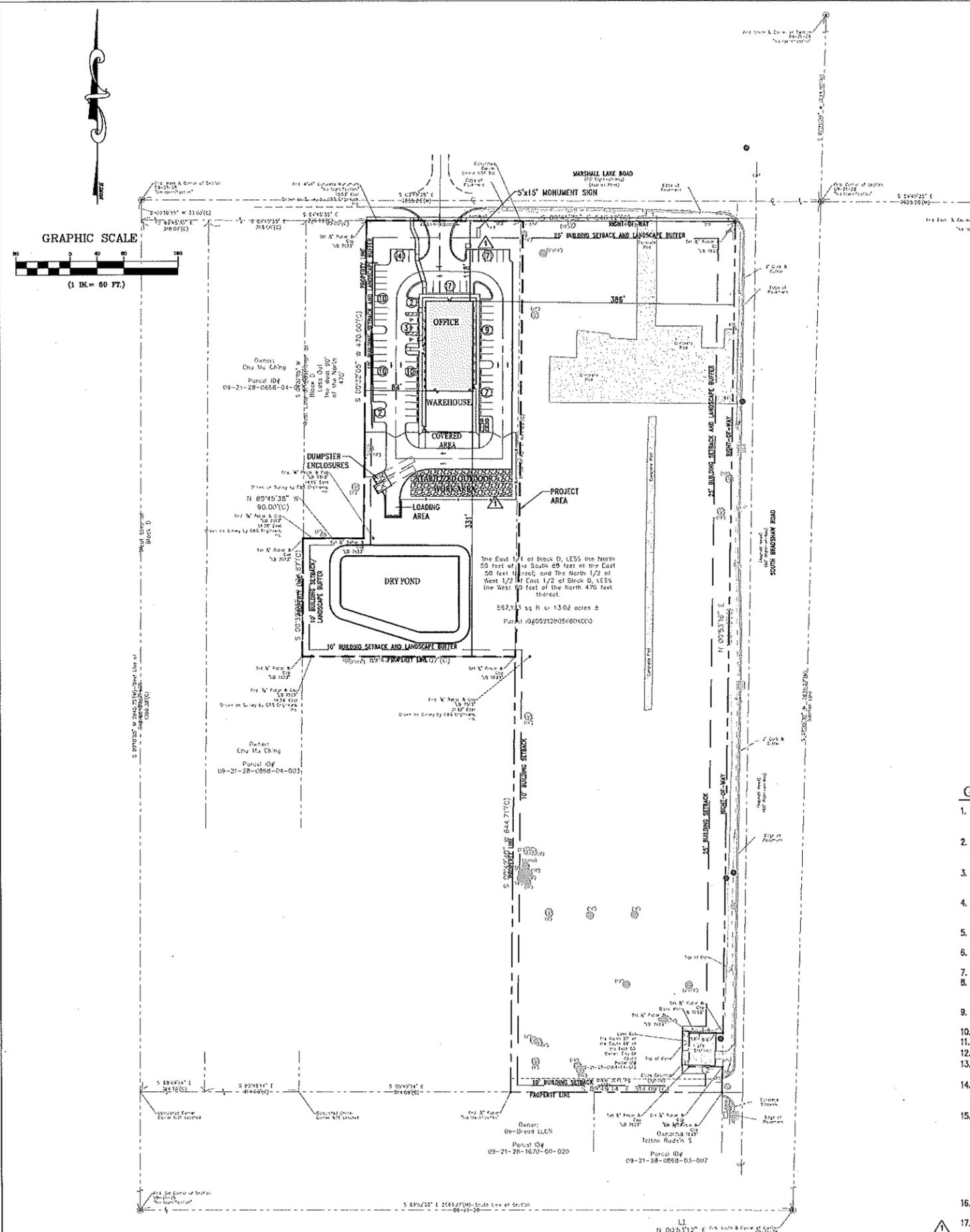
REQUIRED: 10'X 25'
PROVIDED: 20'X 40'

CITY OF APOPKA SPECIFIC CONDITIONS:

1. OUTDOOR VEHICLE STORAGE IS PROHIBITED UNLESS IN DESIGNATED AREAS.
2. THE STABILIZED WORK AREA WILL BE USED FOR STORAGE OF CONSTRUCTION VEHICLES, EQUIPMENT AND MATERIALS THAT ARE NECESSARY FOR THE DAY-TO-DAY OPERATIONS OF THE OWNER'S CONTRACTING BUSINESS.

GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION ACTIVITY FOR DIG PERMITS, ELECTRICAL PERMITS OR OTHER PERMITS AS APPLICABLE. CONTRACTOR IS ALSO TO COORDINATE FULLY WITH UTILITY COMPANIES ON EXACT LOCATION OF UNDERGROUND UTILITIES AND ANY UTILITY ADJUSTMENT REQUIRED. UTILITY COMPANIES SHALL BE NOTIFIED A MINIMUM OF THREE WORKING DAYS PRIOR TO EXCAVATION.
2. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS WERE DEPICTED FROM ACTUAL FIELD MEASUREMENTS AND/OR DERIVED FROM RECORD DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE LOCATION OF EXISTING UTILITIES TO DETERMINE IF THERE ARE ANY CONFLICTS WITH THE PROPOSED CONSTRUCTION AND TO COORDINATE WITH THE UTILITY OWNERS TO RESOLVE THESE CONFLICTS.
3. THE SUBSURFACE INFORMATION FOR THIS PROJECT WAS OBTAINED FOR DESIGN PURPOSES AND MAY NOT BE AN ADEQUATE REPRESENTATION OF ACTUAL CONDITIONS FOR PROJECT CONSTRUCTION. INFORMATION SHOWN, INCLUDING WATER LEVELS, REPRESENTS EXISTING CONDITIONS AT THE SPECIFIC BORING LOCATIONS AT THE TIME THE BORINGS WERE MADE.
4. ANY DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE, ON OR BELOW THE SURFACE OF THE GROUND, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER, IN WRITING, WITHIN 48 HOURS OF DISCOVERY. NO CLAIM FOR EXPENSES INCURRED BY THE CONTRACTOR DUE TO SUCH DIFFERING CONDITIONS WILL BE ALLOWED IF HE OR SHE FAILS TO PROVIDE THE WRITTEN NOTIFICATION.
5. ALL MATERIALS, INSTALLATION AND TESTING SHALL BE IN ACCORDANCE WITH THE CITY OF APOPKA, FLORIDA BUILDING CODE AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
6. THE CONTRACTOR SHALL PROVIDE ALL SHEETING, SHORING AND BRACING REQUIRED TO PROTECT ADJACENT STRUCTURES AND UTILITIES OR MINIMIZE TRENCH WIDTH AS REQUIRED. SHEETING AND SHORING SHALL BE DESIGNED BY A STATE OF FLORIDA PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
8. ALL DEBRIS AND WASTE MATERIALS GENERATED BY DEMOLITION OR SUBSEQUENT CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT AN APPROVED DISPOSAL FACILITY. THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED FOR DEMOLITION, CONSTRUCTION WORK AND HAULING WASTE MATERIAL. ALL ASSOCIATED COSTS AND PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. ANY PUBLIC LAND CORNER, WITHIN THE LIMITS OF CONSTRUCTION, IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING ALTERED AND HAS NOT YET BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER WITHOUT DELAY.
10. COORDINATE VALUES ARE BASED ON A LOCAL GRID ESTABLISHED BY THE ENGINEER AND ARE INDEPENDENT OF VALUES DEPICTED ON THE SURVEY.
11. ALL REFERENCES TO PROPOSED CONSTRUCTION INDICATES CONSTRUCTION INCLUDED IN THIS CONTRACT.
12. ALL PIPING TO HAVE A MINIMUM OF THREE (3) FEET COVER UNLESS OTHERWISE NOTED ON PLANS.
13. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY STRIPING, TRAFFIC CONTROL AND SAFETY DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," LATEST EDITION, AND THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION "ROADWAY DESIGN STANDARDS."
14. MAINTENANCE OF TRAFFIC: ACCESS FOR LOCAL TRAFFIC SHALL BE MAINTAINED, IF, DURING CONSTRUCTION, ACCESS FOR LOCAL TRAFFIC IS CHANGED, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE JURISDICTIONAL AGENCY A MINIMUM OF THREE (3) WORKING DAYS IN ADVANCE. MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH INDEX NO. 600 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS.
15. REFER TO FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS FOR THE FOLLOWING:
A. TYPE "C" INLET (INDEX NO. 232)
B. TYPE "D" CURB (INDEX NO. 300)
C. TYPE "F" CURB AND GUTTER (INDEX NO. 300)
D. CURB RAMP (INDEX NO. 304)
E. CROSSWALK, STOP BAR (INDEX NO. 17346)
F. PAVEMENT ARROWS & MARKINGS (INDEX NO. 17346)
G. CONCRETE BUMPER GUARD (INDEX NO. 300)
H. AS-BUILT DRAWINGS, SIGNED AND SEALED BY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA, SHALL BE PROVIDED PER THE PROJECT SPECIFICATIONS AND SHALL COMPLY WITH CITY OF APOPKA PERMITS.
16. ALL POWER SERVICES WILL HAVE TO BE PROVIDED UNDERGROUND, NO OVERHEAD SERVICE WILL BE ALLOWED.



385 Douglas Avenue, Ste 2100
Altamonte Springs, FL 32714
Telephone 407.478.8750
Facsimile 407.478.8749
Certificate of Authorization No.: 9230

Selby G. Weeks 56991

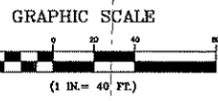
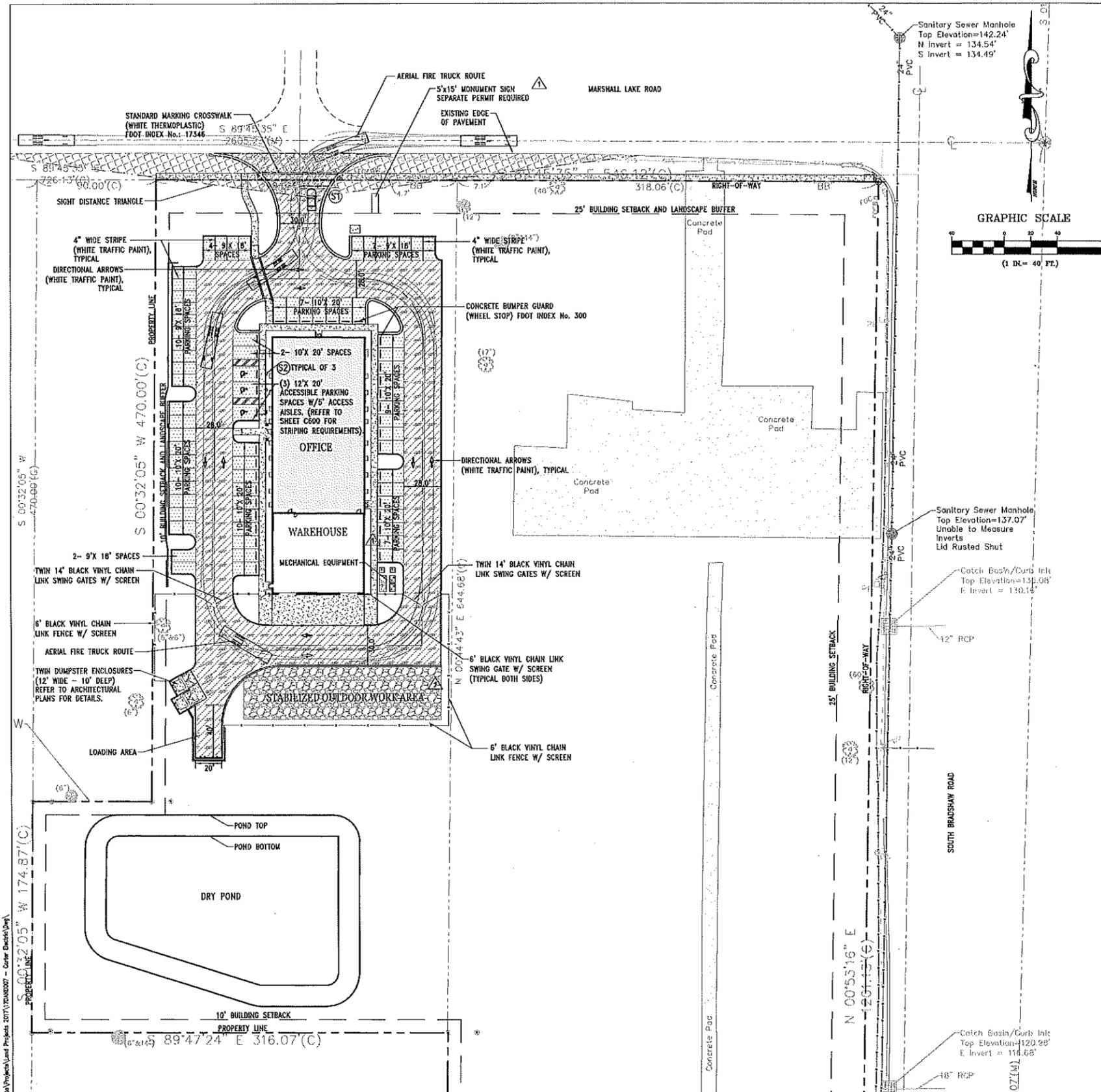
CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
OVERALL SITE PLAN

revision	description	date
△	City Comments	03.26.18
△	City Comments	04.24.18
△		
△		
△		
△		

drawn by: ELI
checked by: SGW
date: 02/27/2018
plot scale: AS SHOWN
project number: 17DAND007
file name: C100 & C101 Site Plans - Carter Elec.dwg

File Location: C:\Users\elsham\Documents\Projects\2017\17DAND007 - Carter Electric.dwg

CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
SITE PLAN



AERIAL FIRE TRUCK DIMENSIONS

WHEEL BASE - 249 INCHES
KINGPIN CENTERS - 68.5 INCHES
FRONT TRACK - 80.7 INCHES
BODY FRONT OVERHANG - 86 INCHES
BODY WIDTH - 96 INCHES
BUMPER TO BUMPER LENGTH - 511 INCHES
MAXIMUM INSIDE CRAMP ANGLE - 44 DEGREES

NOTE: UNOBSTRUCTED VERTICAL CLEARANCE OF AT LEAST 13 FEET 6 INCHES SHALL BE PROVIDED FOR ALL DEPICTED TRUCK ROUTES.

STRIPING AND SIGNAGE LEGEND:

- (S1) R1-1 "STOP" SIGN (30" HIGH INTENSITY GRADE SIGN). 24" WHITE THERMOPLASTIC STOP BAR.
- (S2) HANDICAP PARKING SIGN: REFER TO SHEET C600 FOR DETAIL. 12'X 20' HANDICAP PARKING SPACE W/ 5'X 20' ACCESS AISLE, REFER TO SHEET C600 FOR DETAIL AND STRIPING REQUIREMENTS.

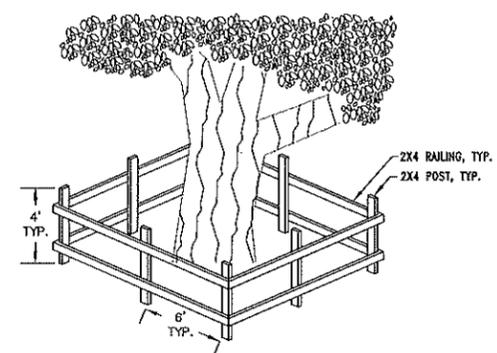
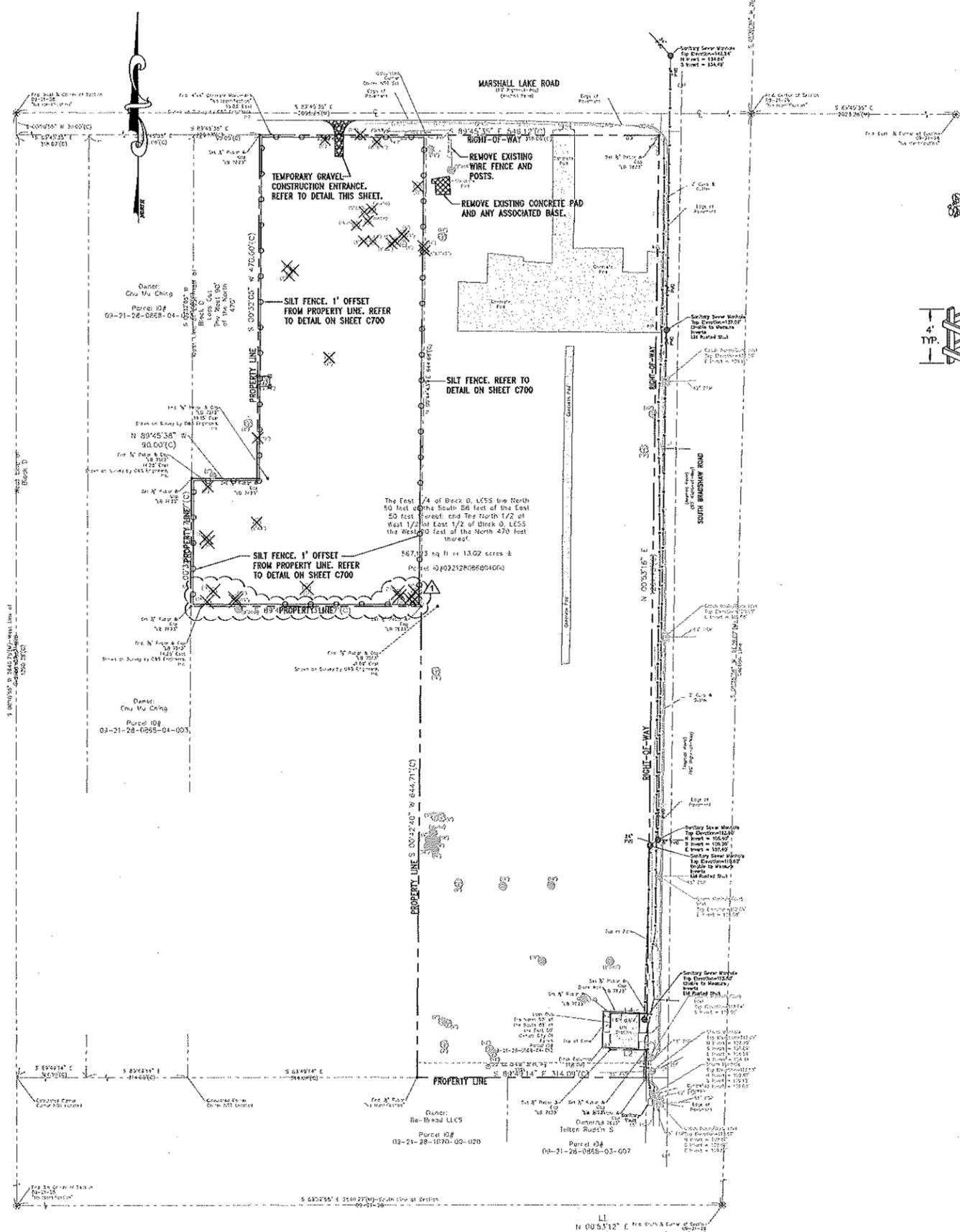
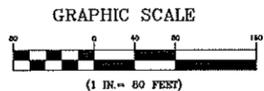
PAVING LEGEND:

- CONCRETE WALKS, PADS AND PAYEMENT (REFER TO DETAILS ON SHEET C600)
- STABILIZED OUTDOOR WORK AREA PAYEMENT (ASPHALT MILLINGS OR CONCRETE FINES)
- LIGHT-DUTY ASPHALT PAYEMENT SECTION (REFER TO DETAIL ON SHEET C600)
- HEAVY-DUTY ASPHALT PAYEMENT SECTION (REFER TO DETAIL ON SHEET C600)

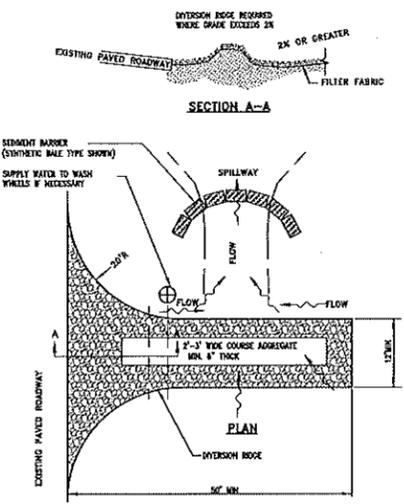
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checked by: SGW
date: 02/27/2018
plot scale: AS SHOWN
project number: 17DAND007
file name: C:\00 & C101 Site Plans - Carter Elec.dwg

Title Location: C:\Users\selbyw\Documents\Projects\17DAND007 - Carter Electric.dwg
Filename: C:\00 & C101 Site Plans - Carter Elec.dwg Plot Date: Apr. 24, 2018 12:03am



TREE BARRIER 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 BASKET.
 4. ALL EROSION CONTROL MATERIALS, CONSTRUCTION & MAINTENANCE TO BE PER APPLICABLE SECTIONS OF FOOT STANDARD SPECIFICATION #104.
 5. USE SANDBAGS, SYNTHETIC BALES OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASH REQUIRED.
 6. COURSE AGGREGATE & FILTER FABRIC TO BE PER SECTIONS OF FOOT STANDARD SPECIFICATION #901 & #985 RESPECTIVELY.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE DETAIL
N.T.S.

- DEMOLITION LEGEND
- SILT FENCE (REFER TO DETAIL ON SHEET C700)
 - ✕ TREE TO BE REMOVED
 - EXISTING TREE BARRIER (REFER TO DETAIL THIS SHEET)

- DEMOLITION NOTES:
1. CONTACT AND COORDINATE WITH THE CITY OF APOPKA PRIOR TO ANY REMOVAL OR CAPPING OF EXISTING WATER, SEWER & STORMWATER UTILITIES.
 2. UTILITY LINES SHALL BE DEMOLISHED AND REMOVED OR LEFT IN PLACE AS REQUIRED BY THE UTILITY DEPARTMENT, LOCAL REQUIREMENTS AND THE HEALTH DEPARTMENT. ANY CONDUITS THAT ARE LEFT IN PLACE SHALL HAVE ENDS SEALED WITH LEAN CONCRETE.
 3. ALL AREAS WHERE PAVEMENT, BUILDING SLABS, FOUNDATIONS, UTILITIES, CONDUITS, AND/OR UTILITY STRUCTURES HAVE BEEN REMOVED SHALL BE BACK FILLED WITH SELECT BACK FILL MATERIAL. ALL SELECT BACK FILL MATERIAL SHALL BE PLACED AND COMPACTED PER THE REQUIREMENTS OF THE SPECIFICATIONS AND THE ON-SITE GEOTECHNICAL ENGINEER.
 4. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION ACTIVITY FOR DIG PERMITS, ELECTRICAL PERMITS OR OTHER PERMITS AS APPLICABLE.
 5. CONTRACTOR IS TO COORDINATE FULLY WITH UTILITY COMPANIES ON EXACT LOCATION OF UNDERGROUND UTILITIES PRIOR TO EXCAVATION. ALL DEBRIS AND WASTE MATERIALS GENERATED BY DEMOLITION OR SUBSEQUENT CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OFF-SITE IN A LEGAL MANNER AT AN APPROVED DISPOSAL FACILITY.
 6. THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED FOR DEMOLITION, CONSTRUCTION WORK AND HAULING WASTE MATERIAL. ALL ASSOCIATED COSTS AND PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 7. CONTRACTOR SHALL BE RESPONSIBLE FOR ASPHALT RESURFACING AND STRIPING TO ALL EXISTING ROADS WHICH ARE DAMAGED DURING CONSTRUCTION. ALL REPAIRS TO BE MADE IN ACCORDANCE WITH FDOT REQUIREMENTS.
 8. ANY ENCOUNTERED CONTAMINATED MATERIALS SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE GEOTECHNICAL ENGINEER IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
 9. THE CONTRACTOR IS ADVISED THAT UNCHARTED UTILITIES MAY BE FOUND TO EXIST WITHIN THE CONSTRUCTION AREA AND THAT CONSTRUCTION OPERATIONS SHOULD BE CONDUCTED WITH CAUTION.
 10. REMOVE AND DISPOSE OF TREES TO BE REMOVED PER THIS SHEET.

- EROSION CONTROL NOTES:
1. ALL EROSION AND SEDIMENT CONTROL WORK SHALL CONFORM TO STANDARDS OF THE CITY OF APOPKA, FLORIDA, FDOT AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
 2. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN, CONSTRUCTION. SEDIMENT CONTROL PRACTICES WILL BE APPLIED AS A PERIMETER DEFENSE AGAINST ANY TRANSPORTATION OF SILT OFF THE SITE.
 3. SOIL MATERIALS FROM WORK ON THIS PROJECT SHALL BE CONTAINED AND NOT ALLOWED TO COLLECT ON ANY OFF-PERIMETER AREAS OR IN WATERWAYS. THESE INCLUDE BOTH NATURAL AND MAN-MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES AND PONDS.
 4. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF EROSION/SEDIMENT CONTROL EFFORTS. ANY NECESSARY REMEDIES SHALL BE PERFORMED WITHOUT DELAY.
 5. ALL MUD, DIRT, OR OTHER MATERIALS TRACKED OR SPILLED ONTO EXISTING PUBLIC OR PRIVATE ROADS AND FACILITIES FROM THIS SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
 6. ALL PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS AND ANY DISTURBED LAND AREAS SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADIRG.
 7. ALL TEMPORARY PROTECTION MEASURES SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE IN PLACE AND ESTABLISHED.
 8. THE EROSION CONTROL MEASURES SHALL BE MAINTAINED AS MINIMUM STANDARDS. ANY EROSION CONTROL REQUIRED BEYOND THAT SPECIFIED SHALL BE CONSIDERED AS INCLUDED WITHIN THIS CONTRACT.

Selby G. Weeks 56991

CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
EROSION CONTROL & DEMOLITION PLAN

revision	description	date
△	City Comments	03.26.18
△	City Comments	04.24.18
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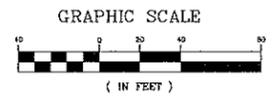
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checked by: SGW
date: 02/27/2018
plot scale: AS SHOWN
project number: 17DAND007
file name: C200 Eros Cont & Demo - Carter Elec.dwg

**CARTER ELECTRIC
MARSHALL LAKE ROAD
APOKA, FLORIDA
PAVEMENT, GRADING &
DRAINAGE PLAN**

revision	description	date
△	City Comments	03.26.18
△	City Comments	04.24.18
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drawn by: ELJ
checked by: SGV
date: 02/27/2018
plot scale: ASSHOWN
project number: 17DAN007
file name: C400 Grading Plan - Carter Elec.dwg

C 400



DRAINAGE KEYNOTES:

- ① THE INTO 5'x5' ROOF DOWNSPOUT W/ 6" PVC @ INV 128.00 AND EXTEND TO STORM MAIN @ 1.0% MIN. SLOPE.

GRADING & DRAINAGE LEGEND:

- 11.00 EXISTING SURVEY SPOT GRADE
- PROPOSED DRAINAGE FLOW
- 12.00 PROPOSED SPOT GRADE
- 12.00± MEG MATCH EXISTING GRADE
- GRADE BREAK LINE

GRADING AND DRAINAGE NOTES

- CONTRACTOR SHALL VERIFY EXISTING TOPOGRAPHIC DATA, LOCATION OF EXISTING UTILITIES AND ALL OTHER SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- ALL GRADES SHOWN, WITH THE EXCEPTION OF THOSE INDICATED ON THE SURVEY BASE DRAWING, ARE FINISHED GRADES UNLESS INDICATED OTHERWISE.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE GRADED TO ORIGINAL GROUND LINES AND FINISHED WITH SOD PER PROJECT SPECIFICATIONS UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL MAINTAIN ALL AREAS UNTIL FINAL ACCEPTANCE.
- ALL INLET AND MANHOLE TOPS SHALL BE TRAFFIC BEARING UNLESS OTHERWISE NOTED.
- SIDEWALK CROSS-SLOPES SHALL NOT EXCEED 2%. SIDEWALK LONGITUDINAL SLOPES SHALL NOT EXCEED 5%.

PROJECT BENCHMARK:

SOURCE: BOUNDARY AND TOPOGRAPHIC SURVEY OF SOUTH BRADSHAW ROAD, PARCEL ID #09-21-27-0868-04-000, LYING IN SECTION 09, RANGE 21, TOWNSHIP 28 EAST, APOPKA FL, BY IRELAND & ASSOCIATES SURVEYING, INC., DATED 03-21-17.

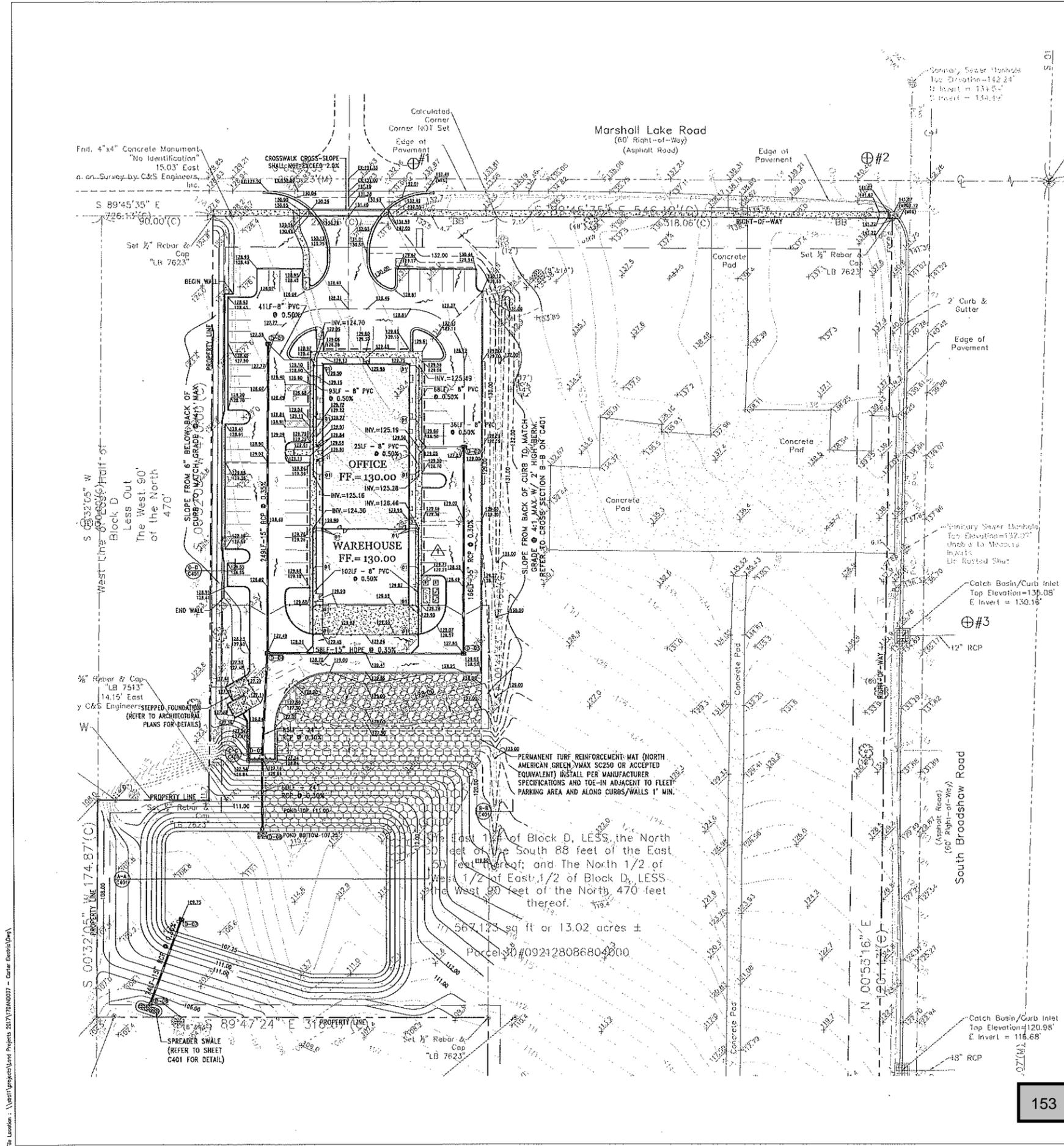
THE ELEVATIONS SHOWN HEREON ARE BASED ON ORANGE COUNTY DATUM PER BENCH MARK NUMBER TP-1204, ELEVATION = 134.71' (NAVD 88)

FLOOD INSURANCE RATE MAP:

THE SITE IS LOCATED IN ZONE X PER THE "FIRM" MAP NO. 12095C 0120F AND COMMUNITY NO. 120180, DATED SEPTEMBER 25, 2009.

DRAINAGE STRUCTURE TABLE:

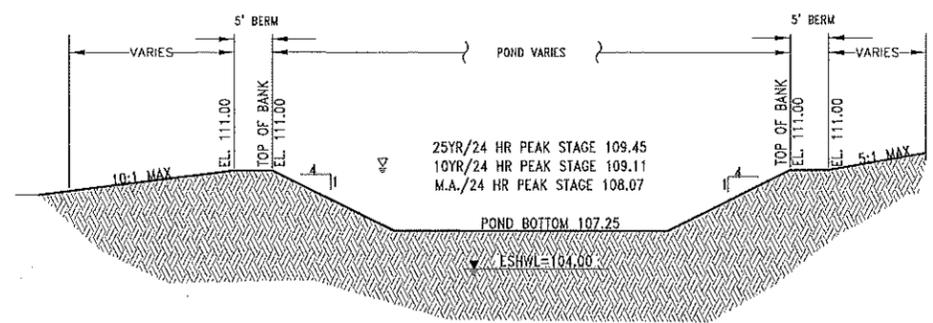
D-01	TYPE "F" INLET TOP EL. = 127.58 SE. INV. = 124.50 S. INV. = 123.82	D-05	TYPE "F" INLET TOP EL. = 126.54 N. INV. = 122.19 S. INV. = 107.43
D-02	TYPE "F" INLET TOP EL. = 127.81 W. INV. = 125.00 S. INV. = 123.50	D-06	MITERED END SECTION (REFER TO DETAIL SHEET C700) INV. = 107.25
D-03	TYPE "F" INLET TOP EL. = 127.95 N. INV. = 123.00 W. INV. = 123.00	D-07	TYPE "C" INLET TOP EL. = 109.75 6"x9" WEIR @ INV. = 109.00 S. INV. = 103.22
D-04	TYPE "F" INLET TOP EL. = 127.49 N. INV. = 122.95 E. INV. = 122.45 S. INV. = 122.45	D-08	MITERED END SECTION (REFER TO DETAIL SHEET C401) INV. = 103.00



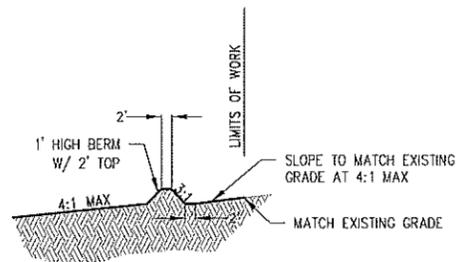
CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
CROSS SECTIONS AND DETAILS

revision	description	date
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△	City Comments	04.24.18
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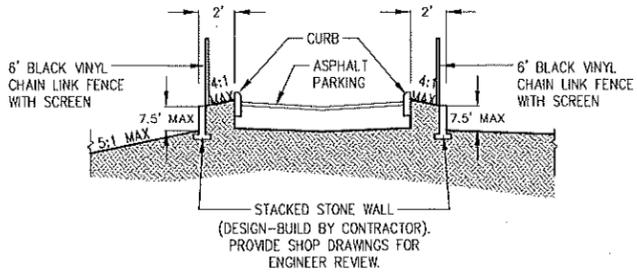
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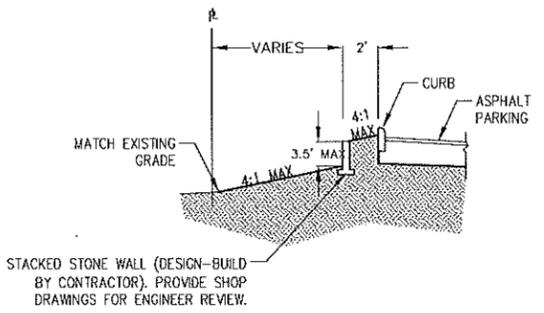
CROSS-SECTION "A - A"
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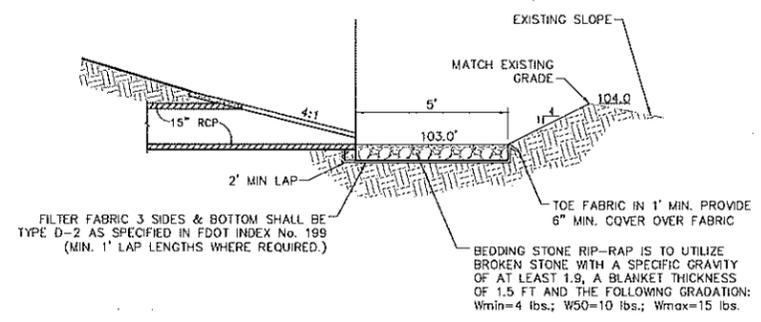
CROSS-SECTION "B - B"
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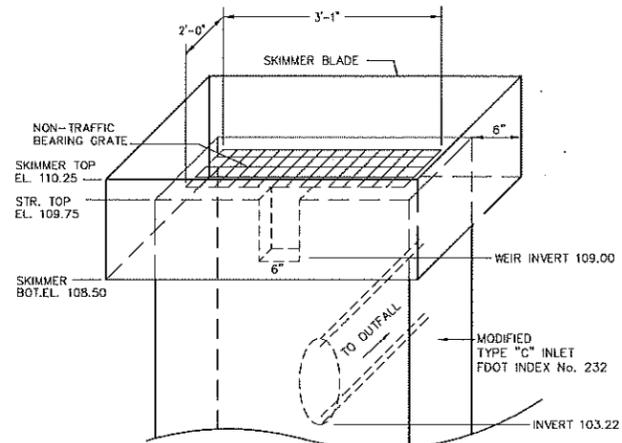
NOTE: REFER TO C400 FOR CURB AND PAVEMENT ELEVATIONS.
CROSS-SECTION "C - C"
N.T.S.



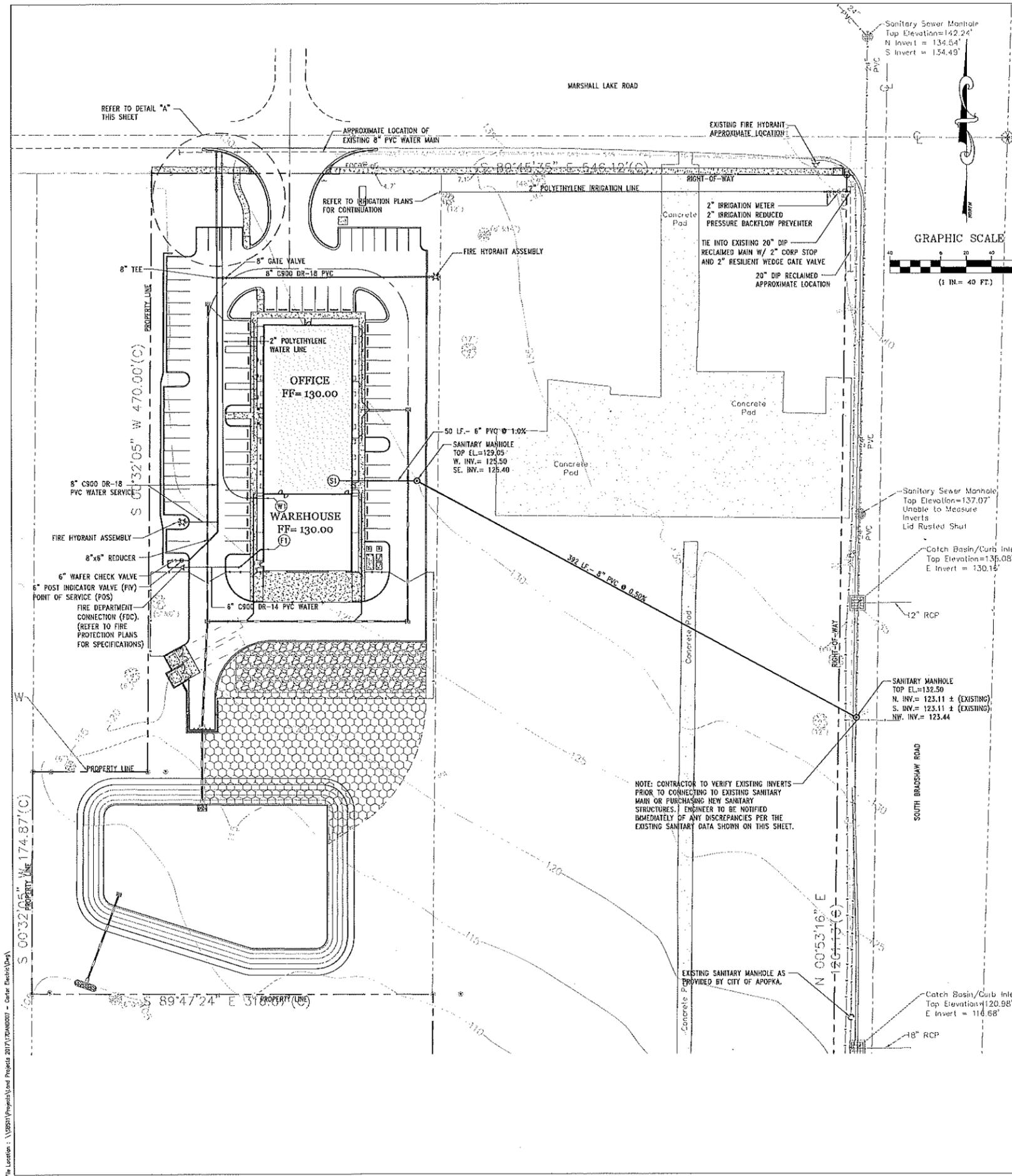
NOTE: REFER TO C400 FOR CURB AND PAVEMENT ELEVATIONS.
CROSS-SECTION "D - D"
N.T.S.



MITERED END SECTION W/ SPREADER SWALE
N.T.S.



NOTE: REFER TO PLAN SHEET FOR ACTUAL ORIENTATION OF OUTFALL PIPE.
DRY POND CONTROL STRUCTURE DETAIL (D-07)
N.T.S.



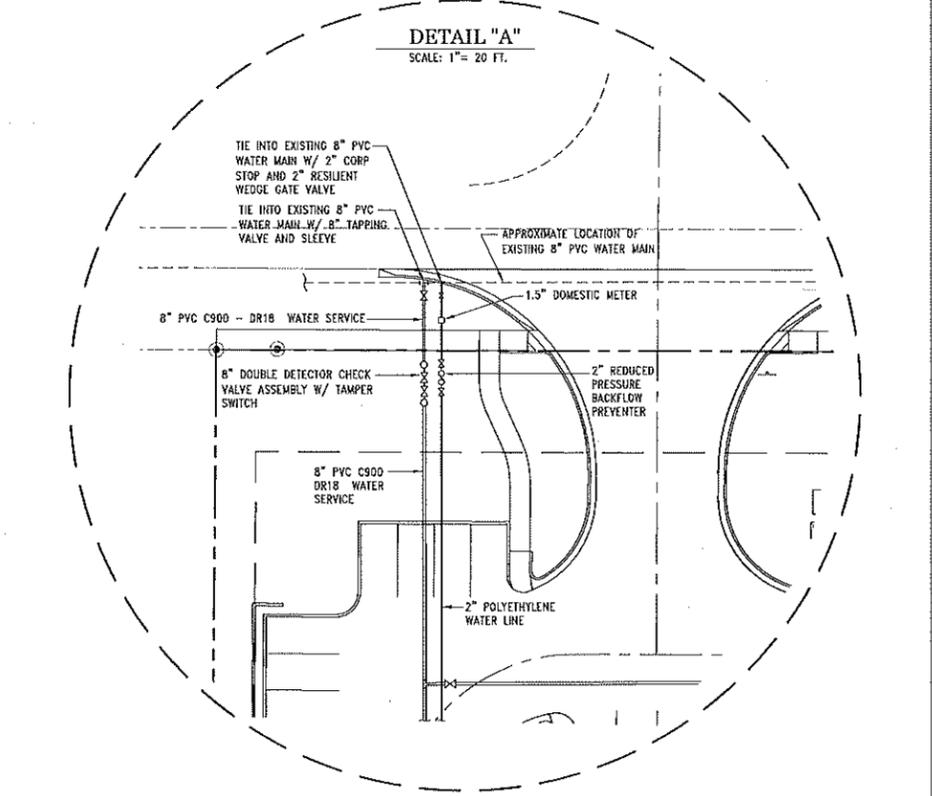
- ### UTILITY NOTES
- ALL WATER & WASTEWATER MAIN MATERIALS AND APPURTENANCES SHALL CONFORM TO AND SHALL BE INSTALLED, TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE STANDARDS OF THE CITY OF APOPKA UTILITIES AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 - HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
 - WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) 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.
 - WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN (10) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
 - WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN (10) 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 (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER.
 - WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN (10) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM.
 - VERTICAL SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.
 - 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 TWELVE (12) INCHES ABOVE THE OUTSIDE OF THE OTHER PIPELINE.
 - 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 TWELVE (12) INCHES ABOVE THE OUTSIDE OF THE OTHER PIPELINE.
 - 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 (3) FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER AND AT LEAST SIX (6) 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.
 - ALL ON-SITE UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED.
 - BACTERIOLOGICAL SAMPLE POINTS SHALL BE AS DESCRIBED IN THE FDP PERMIT CONDITIONS.
 - ALL UNDERGROUND FIRE MAINS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 24, 2007 EDITION, "STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES [F.A.C. 69A-60.005 (2)]."

NFPA FIRE FLOW CALCULATIONS:

CONSTRUCTION TYPE: TYPE IIB (FL. BLDG. CODE)
 FIRE AREA: 15,135. SF.
 MIN. REQUIRED FIRE FLOW: 2,500 GPM
 75% SPRINKLER CREDIT
 SPRINKLER CREDIT: 2,500 X 0.25 = 625
 THEREFORE MIN. REQUIRED FIRE FLOW = 1000 GPM (MIN. FOR COMMERCIAL)
 1 NEW HYDRANT WITHIN 60 FT.

NOTE: FIRE DEPARTMENT LOCK BOX MUST BE PROVIDED NEAR FRONT DOOR.

- ### UTILITY LEGEND:
- (W) 2" POLYETHYLENE WATER LINE. REFER TO PLUMBING PLANS FOR CONTINUATION
 - (SI) 6" SANITARY SERVICE. REFER TO PLUMBING PLANS FOR CONTINUATION. INV. = 126.00
 - (FI) 6" FIRE SERVICE. REFER TO FIRE PROTECTION PLANS FOR CONTINUATION

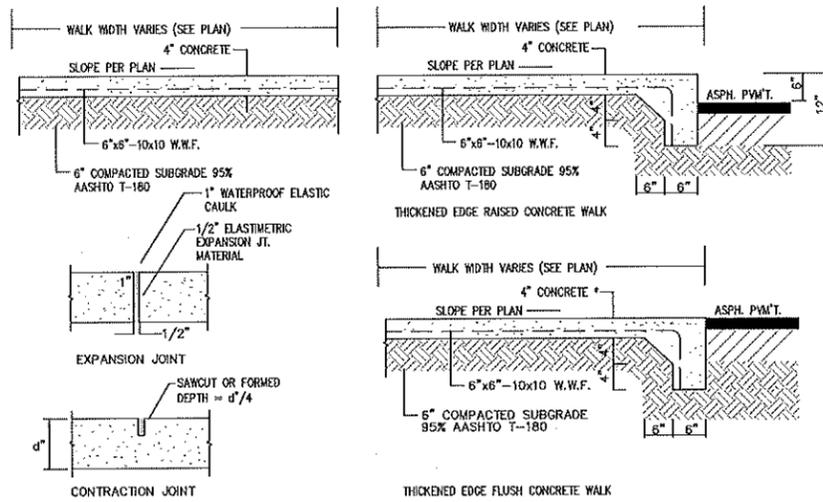


CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
UTILITY PLAN

revision	description	date
△	City Comments	03.26.18
△	City Comments	04.24.18
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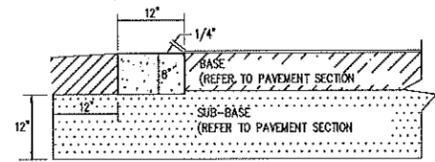
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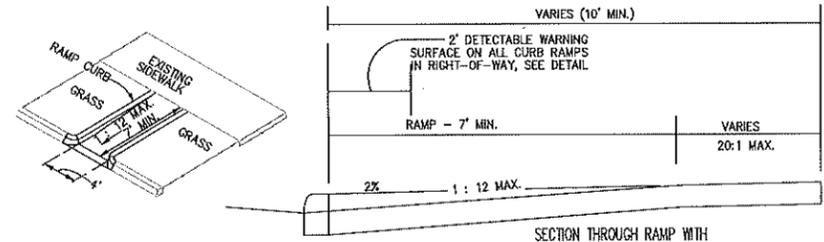


NOTE:
ALL CONCRETE SIDEWALKS SHALL HAVE A FULL 1/2" EXPANSION JOINT AT A MAXIMUM DISTANCE OF 30 LINEAR FEET AND A SAW CUT OR FORMED DUMMY CONTRACTION JOINT AT EVENLY SPACED INTERVALS NOT TO EXCEED 5 LINEAR FEET.

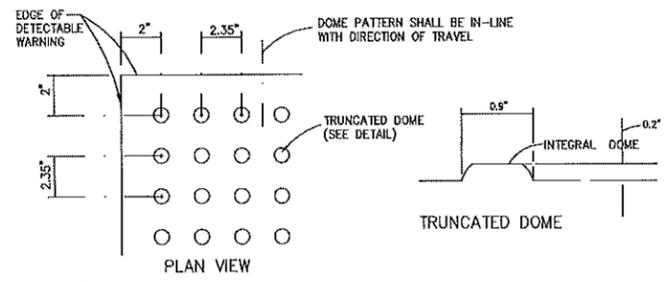
CONCRETE WALK DETAILS
N.T.S.



12" CONCRETE RIBBON CURB
N.T.S.

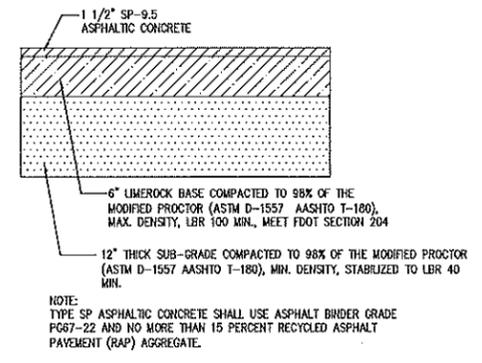


SECTION THROUGH RAMP WITH LANDING AT NORMAL SIDEWALK ELEVATION



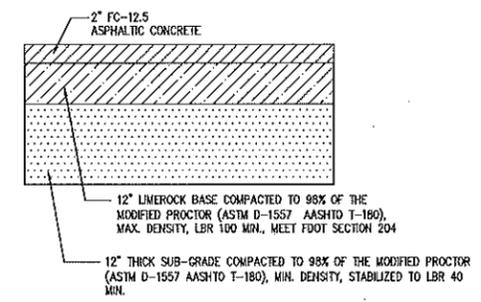
NOTE:
1. ALL SIDEWALK CURB RAMPS IN RIGHT-OF-WAY SHALL HAVE DETECTABLE WARNING SURFACES THAT EXTEND THE FULL WIDTH 2' FROM THE BACK OF CURB.
2. DETECTABLE WARNING MATS SHALL BE SET IN CONCRETE.

CURB RAMP DETECTABLE WARNING SURFACE
CURB RAMP DETAILS
N.T.S.

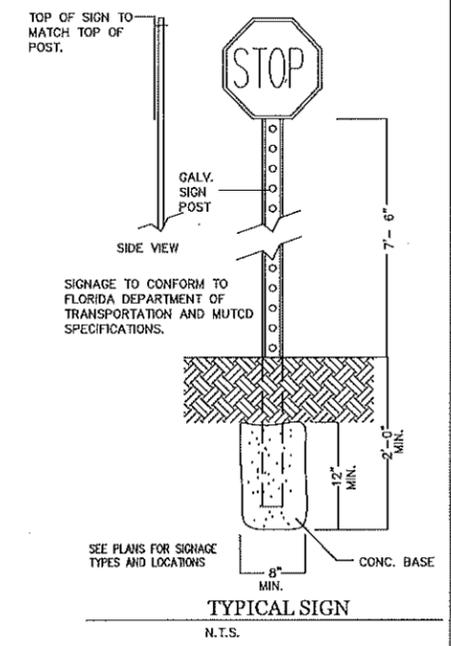


NOTE:
TYPE SP ASPHALTIC CONCRETE SHALL USE ASPHALT BINDER GRADE PG67-22 AND NO MORE THAN 15 PERCENT RECYCLED ASPHALT PAVEMENT (RAP) AGGREGATE.

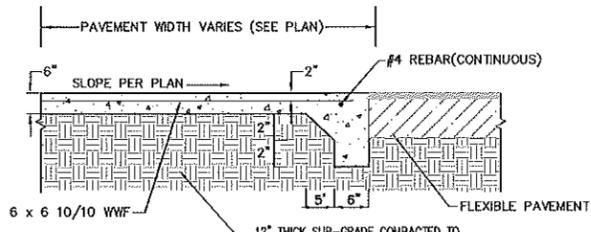
LIGHT-DUTY ASPHALT PAVEMENT SECTION
N.T.S.



HEAVY-DUTY ASPHALT PAVEMENT SECTION
N.T.S.



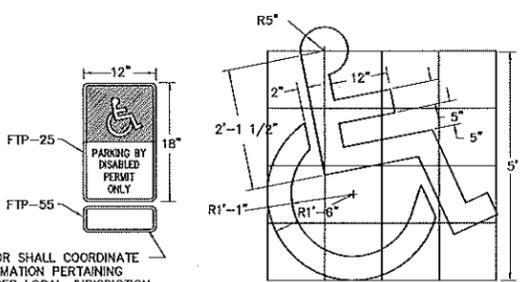
TYPICAL SIGN
N.T.S.



NOTES:
1. ALL CONCRETE PAVEMENT SHALL HAVE A FULL, 1/2" ISOLATION JOINT WHERE IT ABUTS EXISTING CONCRETE PAVEMENT AND OTHER RIGID STRUCTURES, SUCH AS BUILDING FOUNDATIONS AND WALLS. PROVIDE 2" SAW CUT OR DUMMY CONTRACTION JOINT AT EVENLY SPACED INTERVALS NOT TO EXCEED 20 FEET.
2. PORTLAND CEMENT CONCRETE PAVEMENT TO BE 4,000-PSI COMPRESSIVE STRENGTH, MIN.

NOTES:
PROVIDE 18" OF CLEAN, FREE DRAINING SAND SUBGRADE BENEATH CONCRETE PAVEMENT. COMPACT BOTTOM 6" TO 98% OF THE MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180).

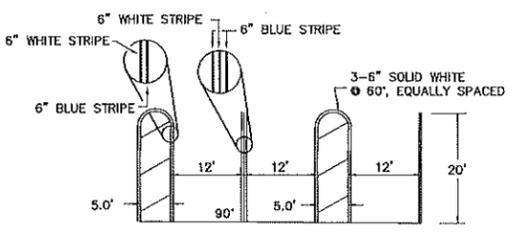
DUMPSTER PAD PAVEMENT DETAIL
N.T.S.



CONTRACTOR SHALL COORDINATE SIGN INFORMATION PERTAINING TO FINES PER LOCAL JURISDICTION (F.S. 316.1955, 31B.18)

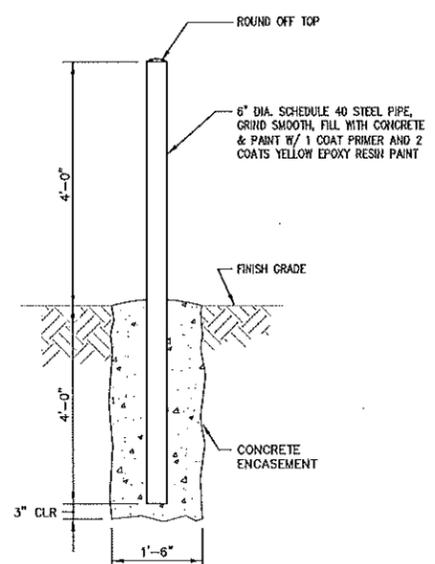
NOTES:
1. ALL LETTERS ARE 1" SERIES "C", PER MUTCD.
2. TOP PORTION OF SIGN SHALL HAVE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
4. ONE (1) SIGN IS REQUIRED FOR EACH PARKING SPACE.
5. HEIGHT OF SIGN SHALL BE 7'-6" FROM FINISHED GROUND TO BOTTOM OF SIGN.

HANDICAP PARKING SYMBOL
N.T.S.



NOTE:
1. HANDICAP SPACE IS TO BE OUTLINED IN A 6" BLUE PAINTED STRIPE.
2. PAINT CURB AND WHEEL STOP BLUE

TYPICAL HANDICAP PARKING SECTION
N.T.S.



BOLLARD DETAIL
N.T.S.

Klima Weeks
CIVIL ENGINEERING
385 Douglas Avenue, Ste 2100
Altamonte Springs, FL 32714
Telephone 407.478.8750
Facsimile 407.478.8749
Certificate of Authorization No.: 9230

Selby G. Weeks 56991

CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
SITE DETAILS

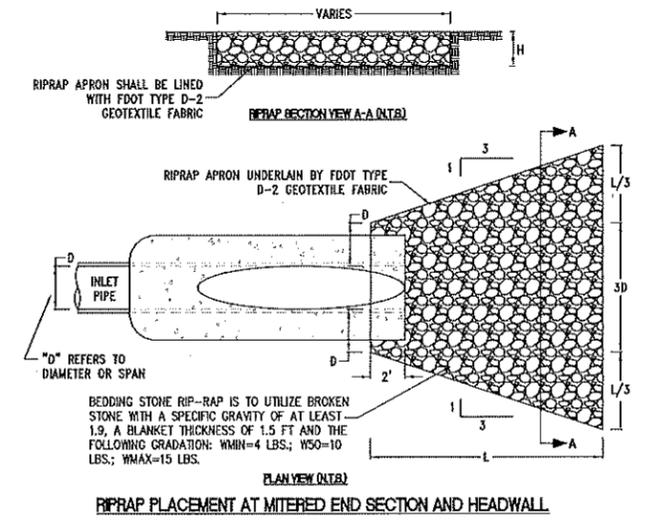
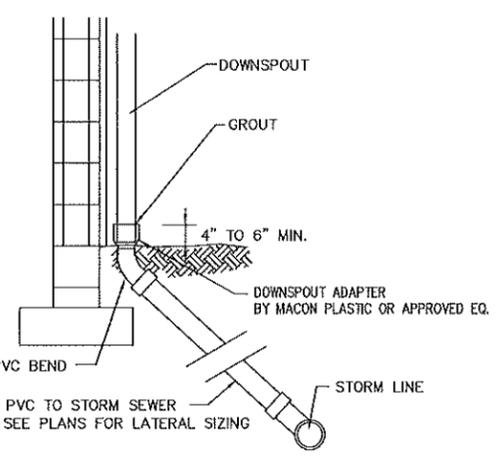
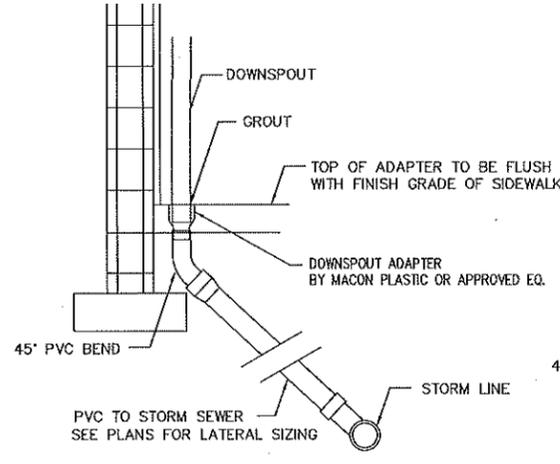
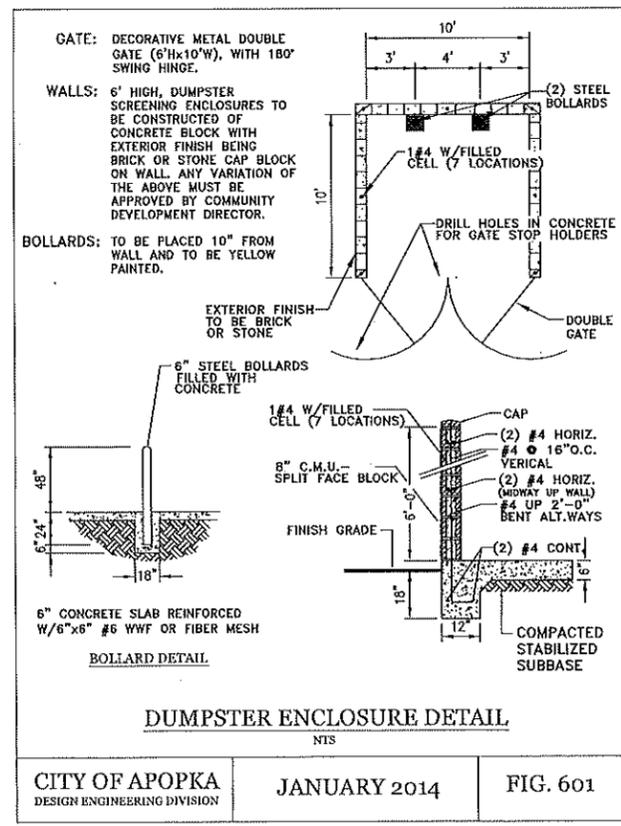
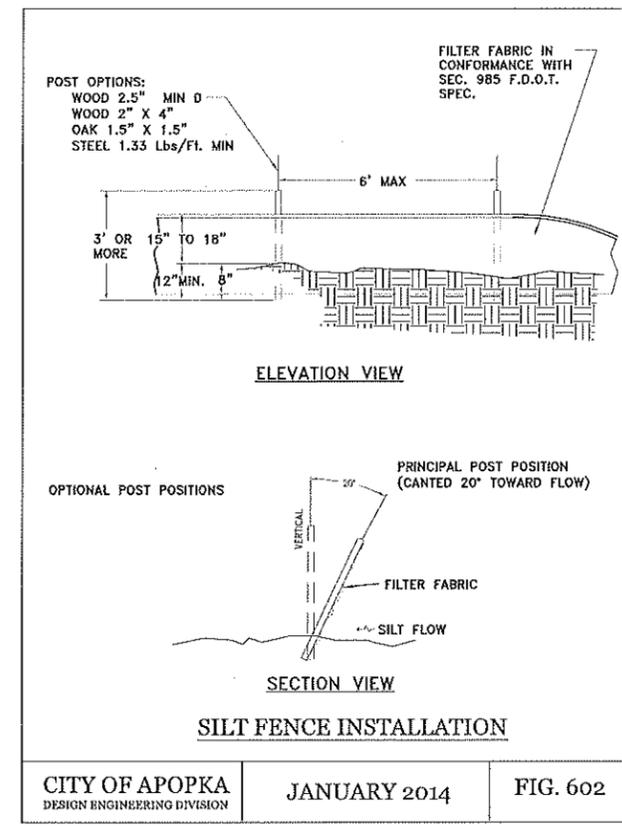
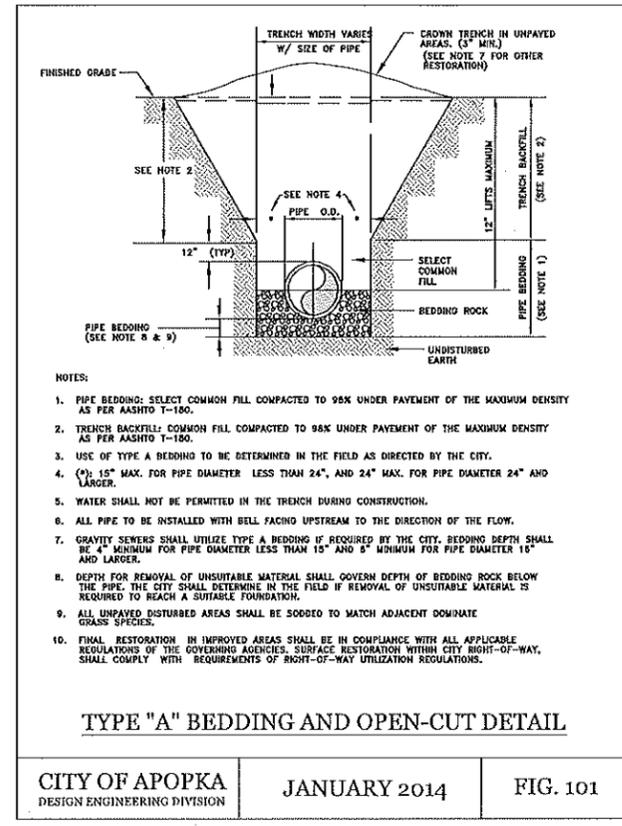
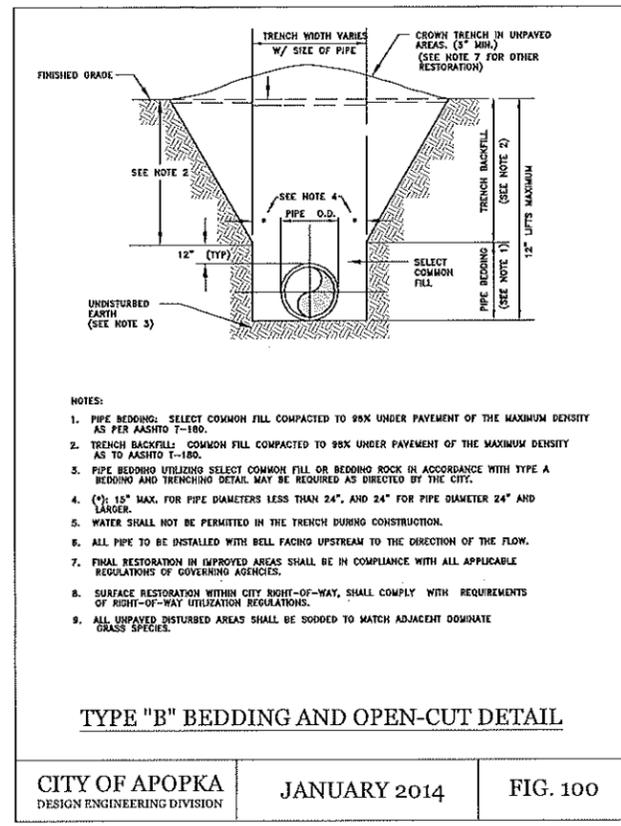
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△	City Comments	04.24.18
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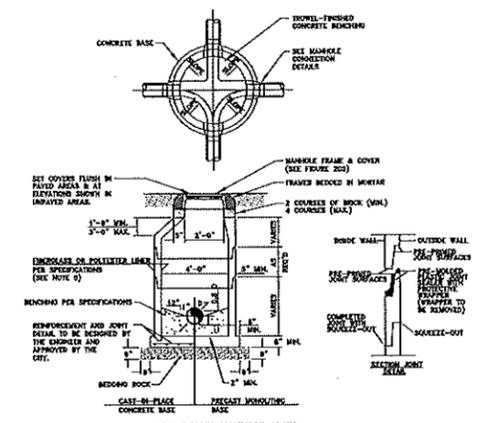
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drawn by: ELI
checked by: SGV
date: 02/27/2018
plot scale: AS SHOWN
project number: 17DAND007
file name: C700 - C700 Series Details - Carter Elec.dwg



RIPRAP APRON DIMENSIONS AND ESTIMATED QUANTITIES				
INLET PIPE SIZE "D" (IN)	LENGTH OF APRON "L" (FT)	DEPTH OF APRON "H" (FT)	ESTIMATED RIPRAP (CY)	ESTIMATED GEOTEXTILE (SY)
15	7	1.5	2.7	11
24	9	1.5	4.5	16
30	13.5	2	12	30

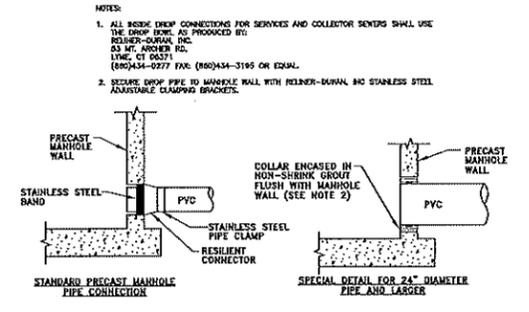
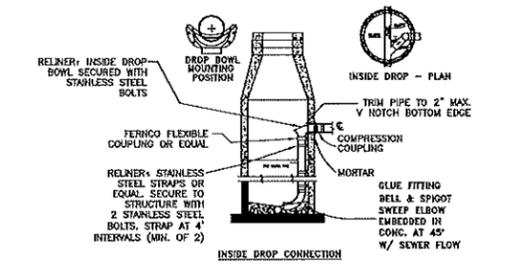


FORCE MAIN MANHOLE LINER			
THICKNESS (INCHES)	HEIGHT (FEET)	MATERIAL	MANUFACTURER
48	3-6		
60	7-12		
72	13-17		

- NOTES:
- MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
 - DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
 - THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
 - EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
 - SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED WITH HDPE OR FIBERGLASS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE

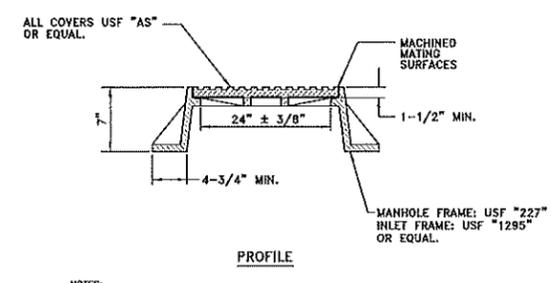
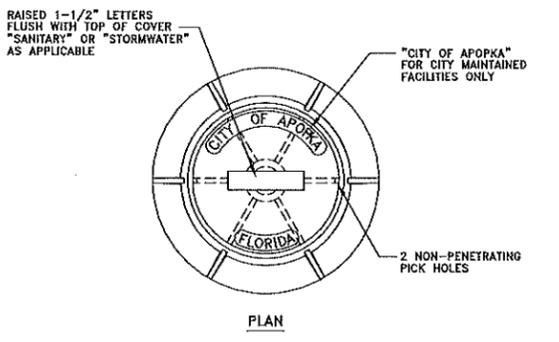
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 200



- NOTES:
- ALL ROSE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY: ROSENER-DUNN, INC. 23 MT. ABERN RD. LINDSAY, GA 30561 (800)434-3195 OR EQUAL.
 - SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DUNN AND STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.

MANHOLE CONNECTION DETAILS

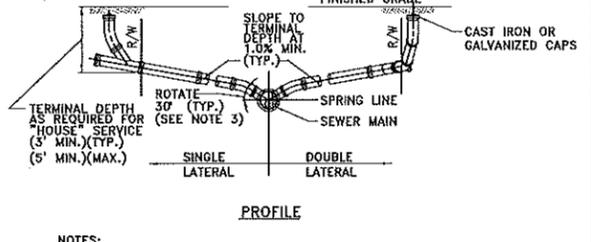
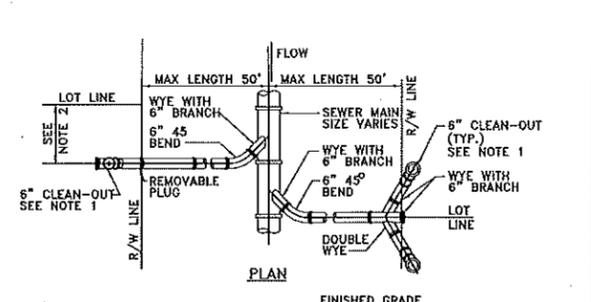
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 201



- NOTES:
- MANHOLE FRAME AND COVER ARE TO BE TRAFFIC BEARING RATED H-20, CLASS 30 MEETING ASTM A 48.

STANDARD MANHOLE FRAME AND COVER

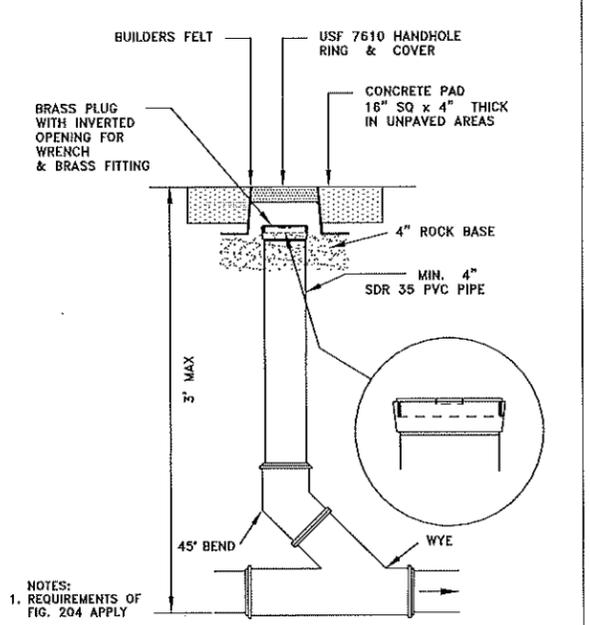
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 202



- NOTES:
- CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
 - LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
 - INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
 - RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON-RESIDENTIAL SERVICES SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
 - GALVANIZED, OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE.
 - LATERAL SHALL BE MARKED WITH AN \"S\" STAMPED OR CUT IN THE CURB.

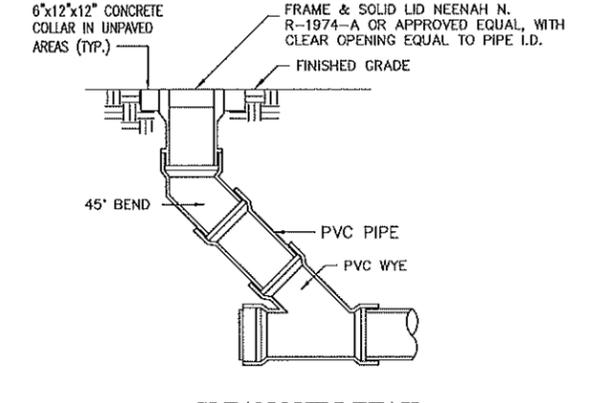
SERVICE LATERAL DETAIL

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



CLEANOUT DETAIL N.T.S.

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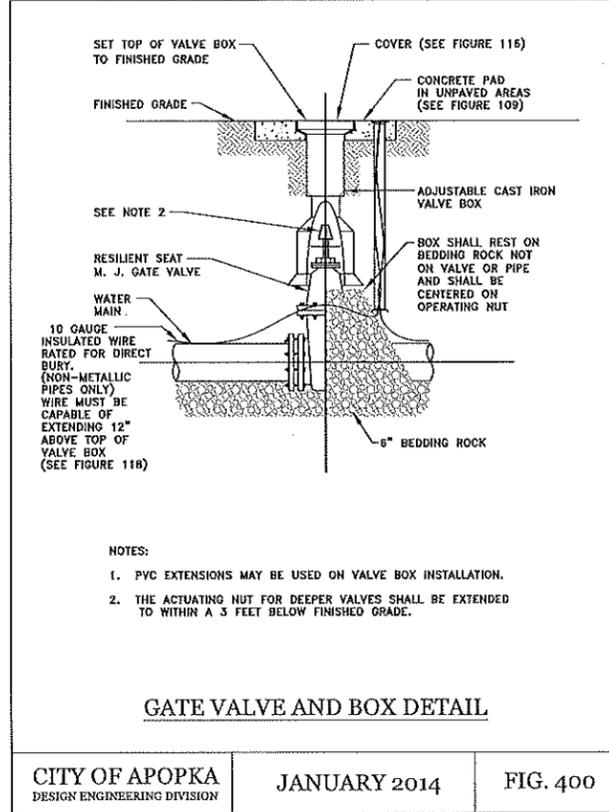
Selby G. Weeks 56991

CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
SANITARY DETAILS

revision	description	date
△	City Comments	03.26.18
△	City Comments	04.24.18
△		
△		
△		
△		

drawn by: ELI
checked by: SGW
date: 02/27/2018
plot scale: AS SHOWN
project number: 17DAND007
file name: C700 - C700 Series Details - Carter Elec.dwg

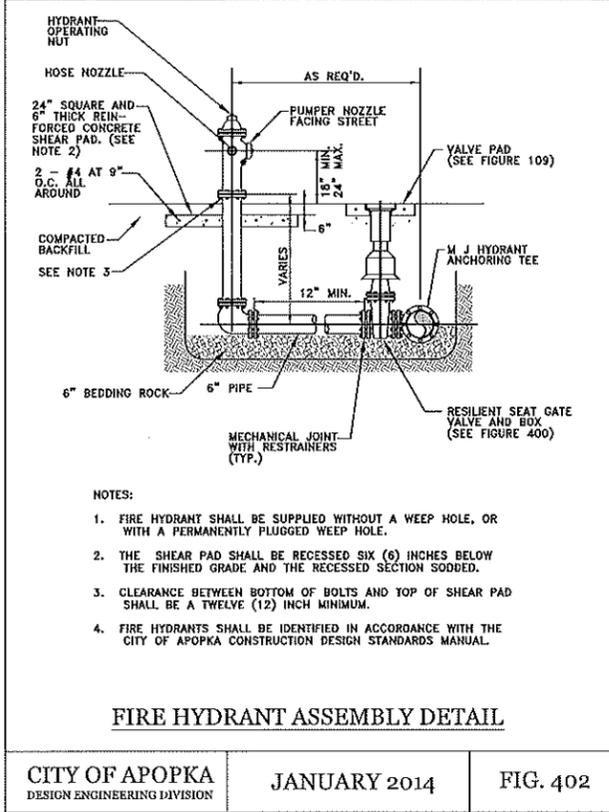
C 800



- NOTES:
1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
 2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL

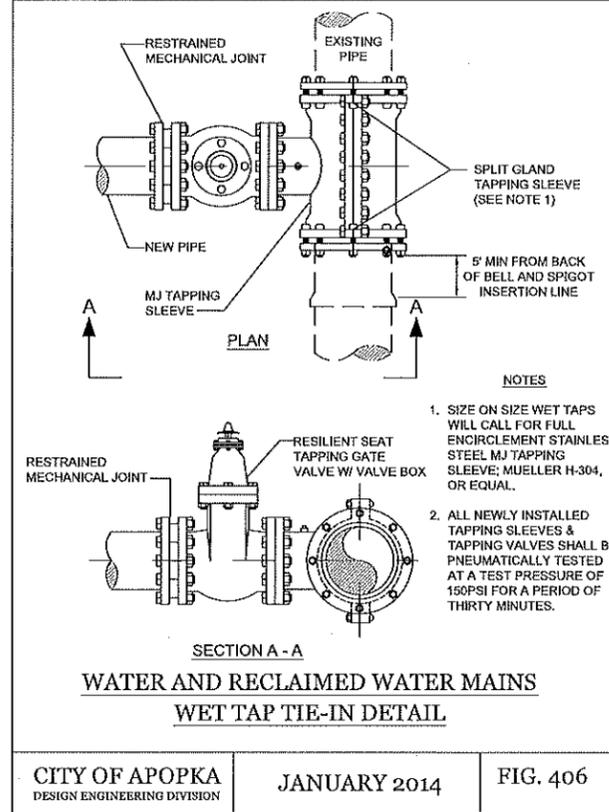
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 400



- NOTES:
1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
 2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
 3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
 4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA CONSTRUCTION DESIGN STANDARDS MANUAL.

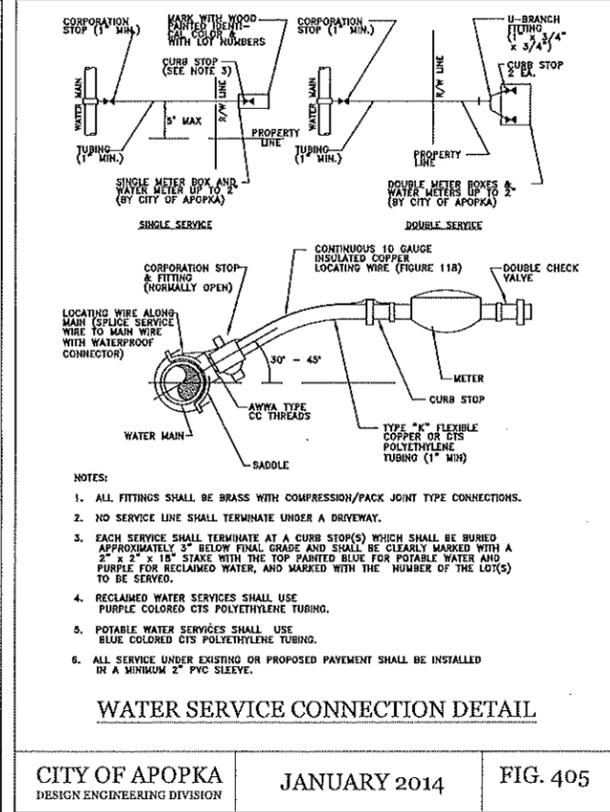
FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 402



WATER AND RECLAIMED WATER MAINS WET TAP TIE-IN DETAIL

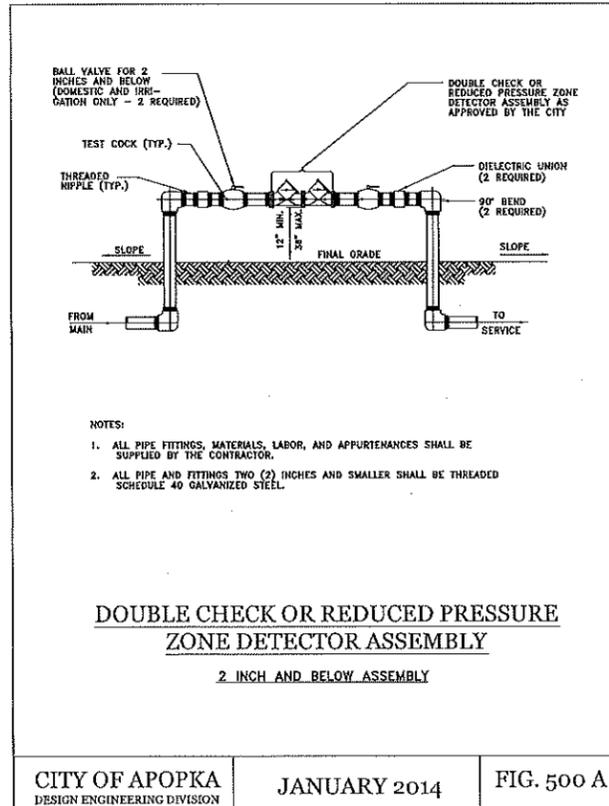
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 406



- NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
 2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
 3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3\"/>
 - 4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CIS POLYETHYLENE TUBING.
 - 5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CIS POLYETHYLENE TUBING.
 - 6. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2\"/>

WATER SERVICE CONNECTION DETAIL

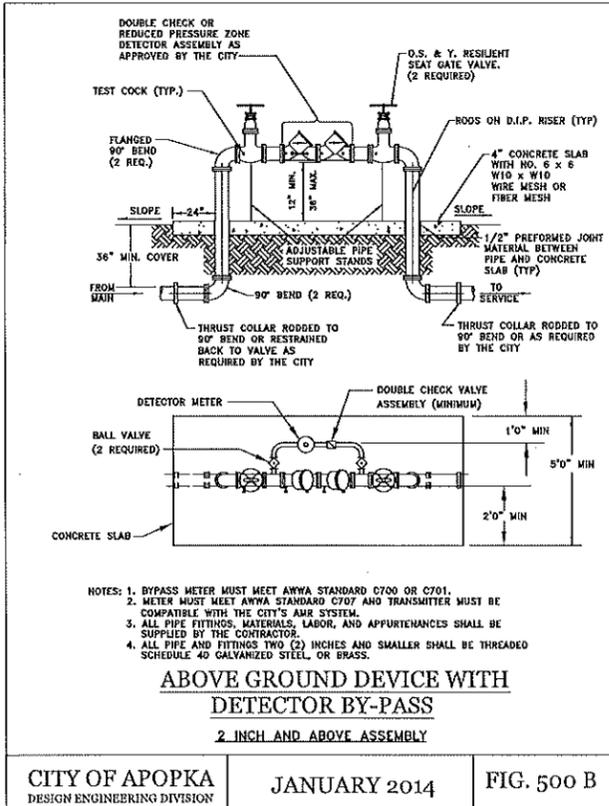
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 405



- NOTES:
1. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
 2. ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL.

DOUBLE CHECK OR REDUCED PRESSURE ZONE DETECTOR ASSEMBLY 2 INCH AND BELOW ASSEMBLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 500 A



- NOTES:
1. BYPASS METER MUST MEET AWWA STANDARD C700 OR C701.
 2. METER MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH THE CITY'S AMR SYSTEM.
 3. ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
 4. 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

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	8							
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:

1. FITTINGS SHALL BE DUCTILE IRON RESTRAINED JOINT TYPE. FM FITTINGS TO BE LINED WITH PROTECTO 401.
2. INSTALL FULL LENGTHS OF PIPE WITH TOTAL LENGTH CONTAINING ONLY RESTRAINED JOINTS EQUAL TO OR GREATER THAN LENGTH SHOWN IN TABLE.
3. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
4. IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
5. 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: SR(GARD)
LAYING CONDITIONS: 3
** FM = 100 P.S.I. / WM OR RWM = 150 P.S.I.
6. FOR PIPE ENCASED IN POLYETHYLENE INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.
7. VALUES NOT LISTED IN THE TABLE TO BE COMPLETED BY THE ENGINEER.

NOTE: RESTRAIN ALL JOINTS FOR DR-14 FIRE LINE.

RESTRAINED PIPE TABLE (PVC)

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 105

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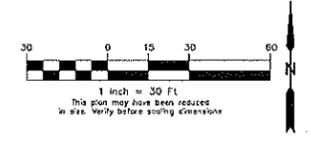
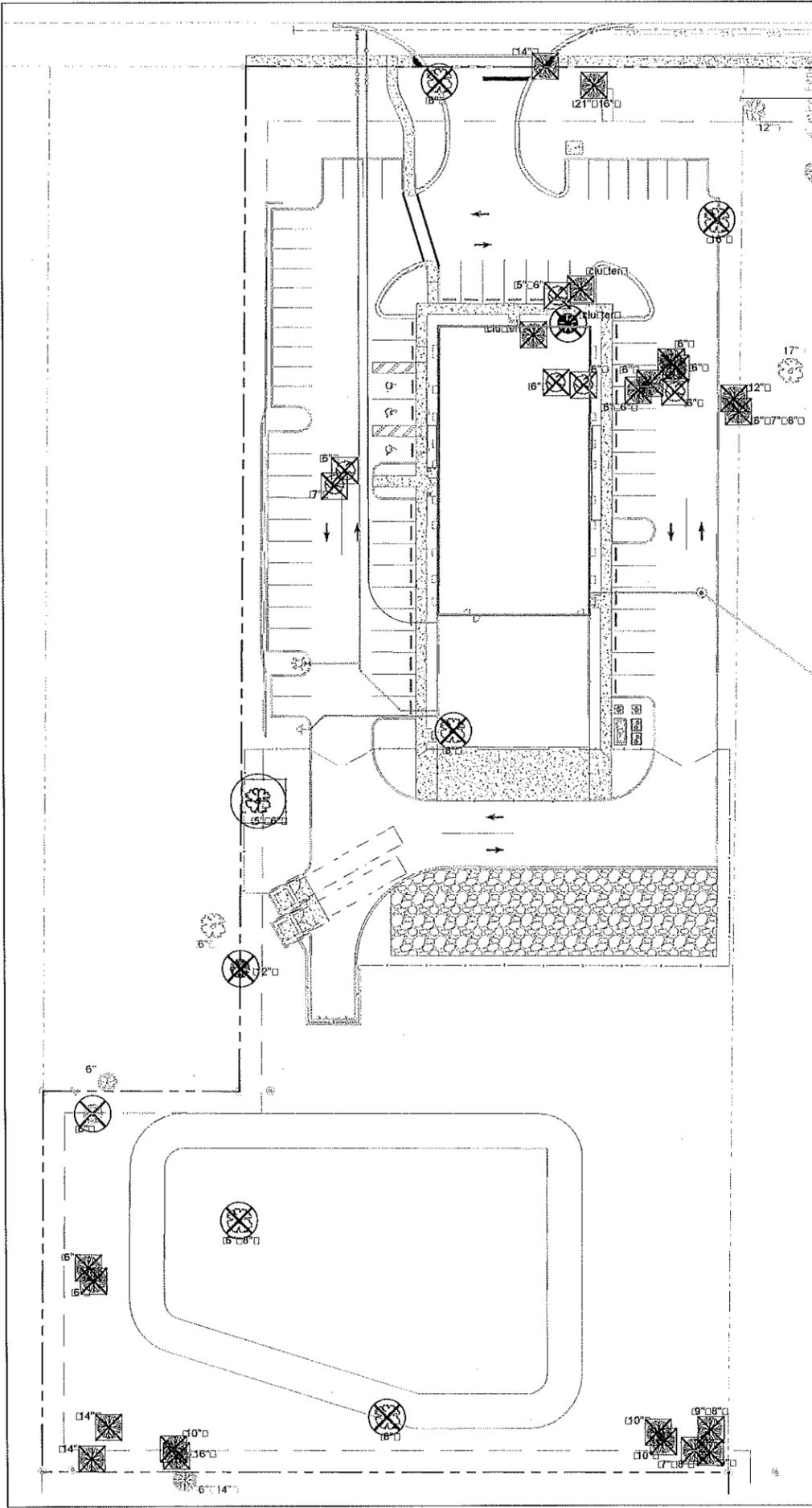
CARTER ELECTRIC
MARSHALL LAKE ROAD
APOPKA, FLORIDA
WATER DETAILS

revision	description	date
△	City Comments	03.26.18
△	City Comments	04.24.18
△		
△		
△		
△		

drawn by: ELJ
checked by: SGW
date: 02/27/2018
plot scale: AS SHOWN
project number: 171DAND007
file name: C900 - C900 Series Details - Carter Elec.dwg

C 900

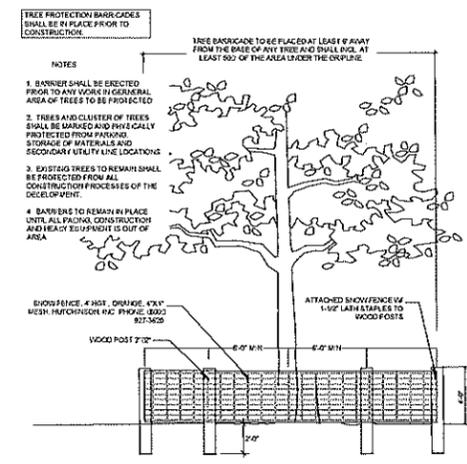
File Location: \\MSIT\Projects\Lead Project 2017\21040007 - Carter Electric.dwg
Filename: C900 - C900 Series Details - Carter Elec.dwg Plot Date: Apr. 24, 2018 11:05am



- Tree Note:**
- 18" □ - Diameter Tree measured at Chest Height
 - ☒ - Cherr Tree (NUISANCE TREE)
 - ☉ - Oak Tree
 - ☉ - Myrtle Tree
 - ☉ - Cedar Tree
 - ☉ - Ca Cit Tree (NUISANCE TREE)
 - ☉ - Citrus Tree

LEGEND

- ⊕ TREE TO REMAIN (THERE ARE NO TREE TO REMAIN)
- TREE TO REMAIN/ TREE BARRICADE (REFER TO DETAIL FOR ACTUAL DIMENSIONS FROM TRUNK)
- ☒ TREE TO BE REMOVED CALCULATIONS SHOWN
- ☒ TREE TO BE REMOVED MITIGATION NOT REQUIRED (NUISANCE TREE) CALCULATIONS NOT INCLUDED



1 TREE PROTECTION DETAIL Scale: N.T.S.

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR CARTER ELECTRIC IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.



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CARTER ELECTRIC

S BRADSHAW ROAD
APOPKA, FLORIDA

TREE MITIGATION PLAN

CARTER ELECTRIC 03 26 18

TREES REMOVED	
OAKS	6" 16" 8" 6+8" 8" 52" TOTAL
MYRTLE TREE (WAX MYRTLE)	12" 6" 18" TOTAL
CITRUS	14" 14" TOTAL (CLUSTER)
TOTAL INCHES REMOVED	84" TOTAL

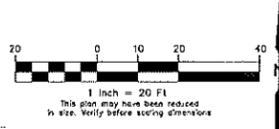
TREES TO REMAIN	
OAKS	5+6" 11" TOTAL

TOTAL INCHES ON SITE 95

TOTAL TREE INCHES ON SITE	95
TOTAL TREE INCHES REMOVED	84
TOTAL TREE INCHES REPLACED	174
MAXIMUM TREE STOCK FORMULA AND CALCS.	567"
QUANTITY OF SPECIMEN TREES (24" OR GREATER) REMOVED	0
SITE CLEARING AREA	162,136.72 SF
	3.72 AC
162,136.72-6,000=156,136.72/1,000=156.14 X 3.5"=546"±21"=567" MAX	

revision	description	date
△	CITY COMMENTS	03/26/18
△	CITY COMMENTS	04/18/18
△		
△		
△		
△		

drawn by: MD
checked by: MKM
date: 01/31/2018
plot scale: AS SHOWN
project number: MD1806
file name:



I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR CARTER ELECTRIC IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

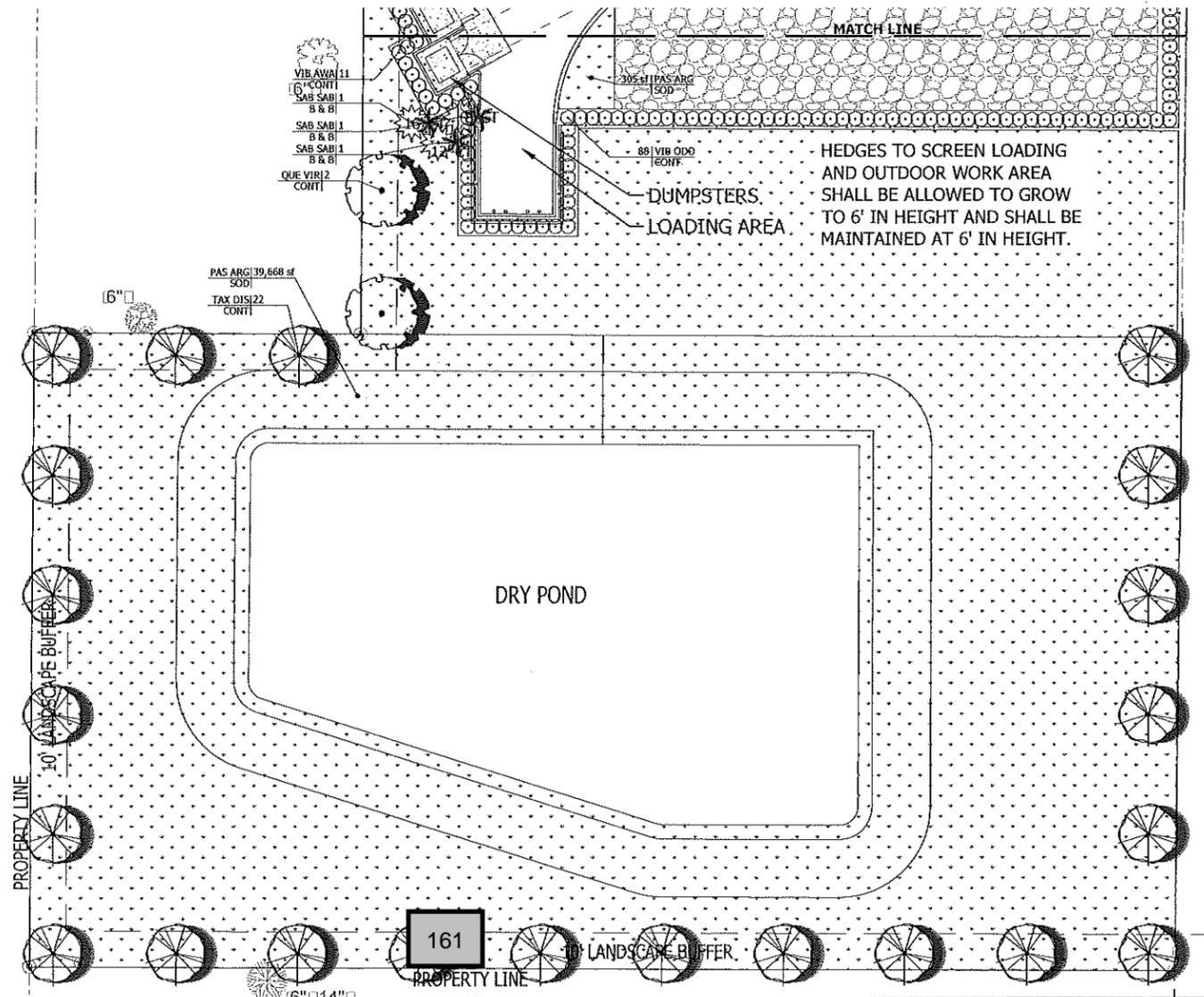
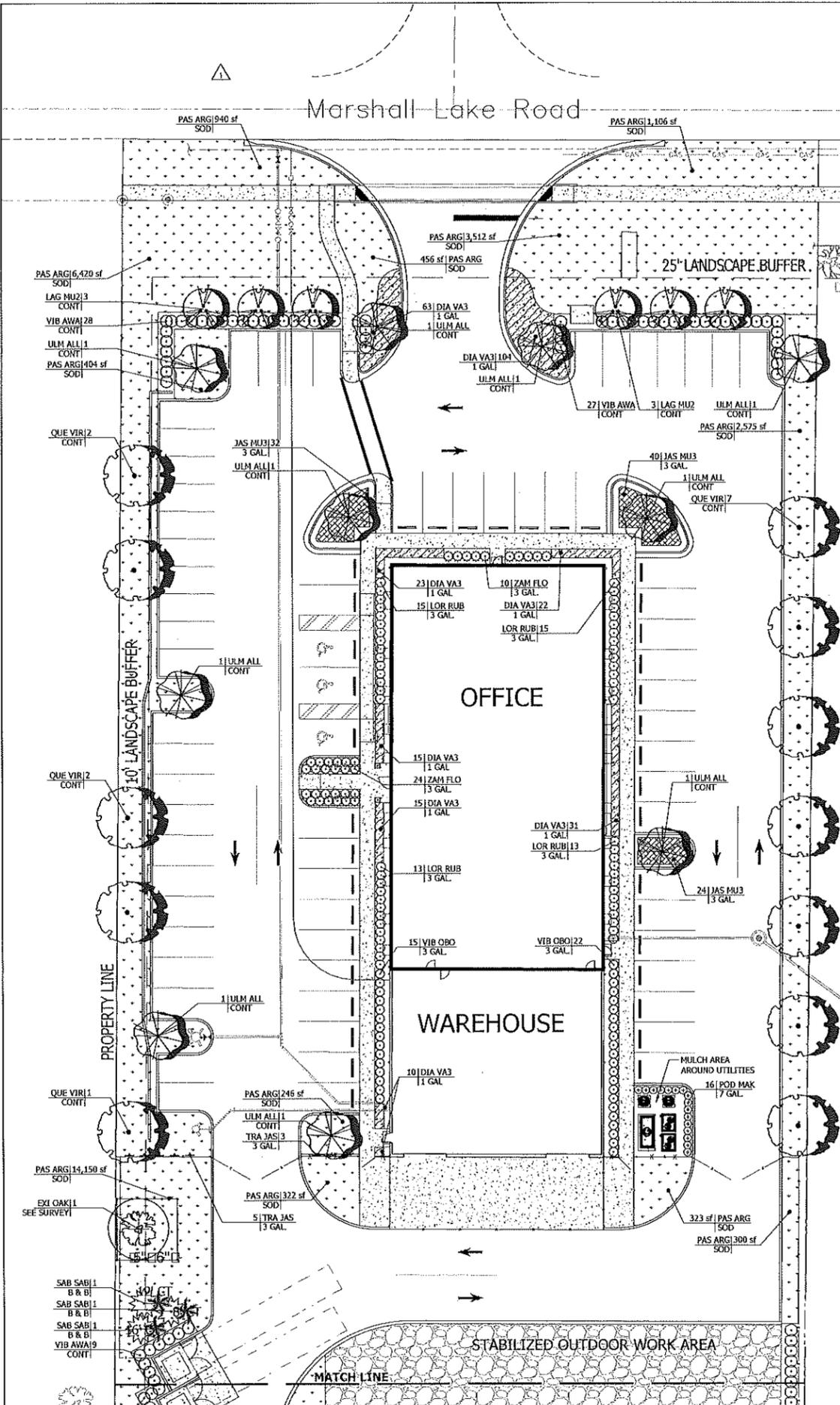


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PROJECT SITE AREA=	162,136.72 SF 3.72 AC
SITE TREES REQUIRED= (IN ADDITION TO BUFFERS)	1 PER 8000 SF 162,136.72/8000=
	20 TREES REQUIRED
	27 TREES PROVIDED (2.5" DBH MIN. 8' MIN. HT.)
	8 PARKING LOT TREES (8)
	6 SABAL PALMS 2:1 (3)
	6 CRAPE MYRTLES 2:1 (3)
	5 BALD CYPRESS (5)
	7 LIVE OAKS (7)
PARKING TREES REQUIRED=	1 PER 20 PARKING SPACES
	71 PARKING SPACES PROVIDED
	4 TREES REQUIRED
	9 TREES PROVIDED
	9 WINGED ELMS
BUFFER YARD TREES REQUIRED=	15,860 SF (NORTH, WEST, SOUTH)
	3.5" DBH REQUIRED PER 1000 SF
	15,860/1000*3.5
	56" DBH REQUIRED
	68.5" DBH PROVIDED
	51 17 - 3" DBH BALD CYPRESS
	17.5 7 - 2.5" DBH LIVE OAKS

CITY OF APOPKA LANDSCAPE NOTES:
1. ALL LANDSCAPE PLANTING SHALL BE PLANTED NO CLOSER THAN 2.5' FROM THE BUILDING BASE.



CARTER ELECTRIC
S BRADSHAW ROAD
APOPKA, FLORIDA
LANDSCAPE PLAN

revision	description	date
△	CITY COMMENTS	03/26/18
△	CITY COMMENTS	04/18/18
△		
△		
△		
△		

drawn by: MD
checked by: MKM
date: 01/31/2018
plot scale: AS SHOWN
project number: MD1806
file name:

L1

TYPICAL LANDSCAPE NOTES:

- ALL TREE CALIPER SIZES NOTED ARE MINIMUM. INCREASE SIZE OR ANY OTHER SPECIFICATIONS AS REQUIRED, PROVIDING MINIMUM PLANT SIZE AND SPECIFICATIONS.
- ALL CONTAINER SIZES NOTED ARE MINIMUM. INCREASE SIZE OF POT AS REQUIRED, PROVIDING MINIMUM PLANT SIZE AND SPECIFICATIONS. ALL HEIGHT AND SPREAD SPECIFICATIONS ARE MINIMUM.
- SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED FOR EACH PLANT BED. ALL PLANT QUANTITIES FOR PROPOSALS SHALL BE DERIVED SOLELY FROM DRAWINGS AND SPECIFICATIONS.
- SHRUB AND GROUND COVER SPACING IS INDICATED ON THE PLANT LIST AND SHALL APPLY FOR ALL "MASS PLANTING" BEDS.
- OWNERS REPRESENTATIVE MUST TAG AN EXAMPLE OF EACH PALM SPECIES ACCORDING TO THE SPECIFICATIONS IN THE PLANT LIST.
- SEE PLANT LIST DETAILS AND SPECIFICATIONS FOR FURTHER PLANTING INFORMATION.
- LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS AND COORDINATE WITH OWNER'S REPRESENTATIVE PRIOR TO INITIATING INSTALLATION WORK. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY DAMAGE COMMITTED TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES AND/OR EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL FIELD STAKE THE LOCATION OF ALL PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. THE LOCATION OF ALL PLANT MATERIAL IS SUBJECT TO FIELD CHANGE.
- LANDSCAPE CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE IRRIGATION CONTRACTOR AND ALL OTHER TRADES.
- LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED UNTIL PLANT MATERIALS ARE WELL ESTABLISHED, TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL LANDSCAPE AREAS WHERE THE EXISTING OR PROPOSED IRRIGATION IS FOR WHATEVER REASON NOT OPERATING OR NOT OPERATING CORRECTLY.
- CONTRACTOR SHALL CLEAN THE WORK AREAS AT THE END OF EACH WORKING DAY. RUBBISH AND DEBRIS SHALL BE COLLECTED AND DEPOSITED AS DIRECTED DAILY. ALL MATERIALS, PRODUCTS, AND EQUIPMENT SHALL BE STORED IN AN ORGANIZED FASHION AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE WITH FLORIDA NO. 1 GRADE, ACCORDING TO THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, CURRENT EDITION.
- CONTRACTOR SHALL REMOVE EXISTING SOD AND/OR VEGETATION IN ALL AREAS TO BE PLANTED WITH SHRUB/GROUNDCOVERS AND/OR ALL AREAS TO BE MULCHED.
- CONTRACTOR SHALL REPLACE SOD IN ALL AREAS WHERE EXISTING VEGETATION IS REMOVED OR RELOCATED, WHERE EXISTING LAWN AREAS ARE DAMAGED BY HIS WORK, AND WHERE NEW VEGETATION IS INSTALLED (UNLESS OTHERWISE NOTED ON PLANS) WITH SAME GRASS SPECIES TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADING ALL SUCH AREAS TO BLEND BOTH ELEVATIONS AND SOD INTO EXISTING SURROUNDING LAWN AREAS.
- THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK AND INCLUDED IN THE SPECIFICATIONS. PRIOR TO COMMENCEMENT OF THE LANDSCAPING WORK, FOR EVERY BLOCK SECTION OF STREET THE CONTRACTOR SHALL PROVIDE COMPLETE SOIL TESTS FOR AT LEAST THREE AREAS UNDISTURBED BY PREVIOUS WORK AND TWO AREAS DISTURBED AND/OR REFILLED. SEE SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE UNIT PRICES AS REQUESTED WHICH INCLUDE THE TOTAL COST OF THE WORK INCLUDING BUT NOT LIMITED TO ANY AND ALL COSTS FOR EQUIPMENT, MATERIAL, PRODUCTS, OVERHEAD, PROFIT, GUARANTEES, LABOR, INSTALLATION, ETC. TO PROVIDE A COMPLETE JOB AS OUTLINED ON THE DRAWINGS. THE OWNER SHALL HAVE THE OPTION TO ADD OR DEDUCT FROM THE LUMP SUM BID CONTRACT AMOUNT, BASED ON THE QUOTED UNIT PRICES FOR ANY OR THE ITEMS LISTED IN THE "PLANT LIST".
- CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN BY MEANS APPROVED BY THE OWNER/OWNER'S REPRESENTATIVE AND AS DETAILED IN THE DRAWINGS.
- CONTRACTOR SHALL CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
- CONTRACTOR AND EMPLOYEE VEHICLE PARKING SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE. SHUTTLING OF EMPLOYEES TO THE PROJECT AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL NOT DISRUPT OR CONFLICT IN ANY WAY WITH EXISTING TRAFFIC.
- CONSTRUCTION ACCESS SHALL BE INDICATED BY THE OWNER. COORDINATION OF HEAVY EQUIPMENT AND MATERIALS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL TAKE WHATEVER MEANS THAT MAY BE NECESSARY TO FULLY UNDERSTAND ALL THE ACCESS ROUTES AND CONSTRUCTION SCHEDULES IN ORDER TO PROVIDE A COMPLETE AND FINISHED PROJECT ON SCHEDULE.
- PINE STRAW MULCH OR APPROVED EQUAL SHALL BE USED (CYPRESS MULCH NOT ALLOWED).

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR CARTER ELECTRIC IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2009 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.



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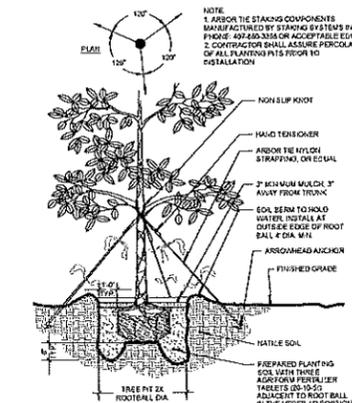
CARTER ELECTRIC

S BRADSHAW ROAD
APOPKA, FLORIDA

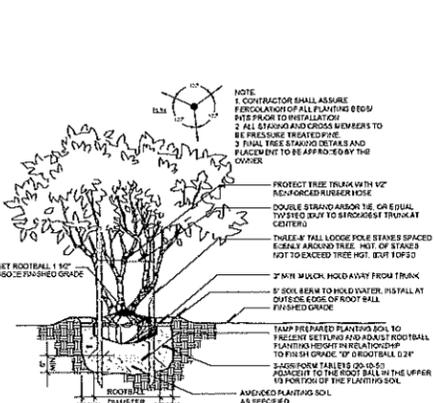
PLANT SCHEDULE, NOTES, DETAILS

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL/DBH	SPECIFICATION	WATER USAGE	NATIVE	REMARKS	
	LAG M2	6	LAGERSTROEMIA X 'MUSKOGEE'	LAVENDER CRAPE MYRTLE	CONT.	-	8" H X 3" S	LOW-MEDIUM	NO	MULTI-TRUNK, FULL	
	QUE VIR	14	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	CONT.	2.5" DBH	10' HT MIN	LOW-MEDIUM	YES	SINGLE, STRAIGHT TRUNK, FULL	
	TAX DIS	22	TAXODIUM DISTICHUM	BALD CYPRESS	CONT.	3" DBH MIN.	10' HT MIN	MEDIUM-HIGH	YES	SINGLE, STRAIGHT TRUNK, FULL	
	ULM ALL	10	ULMUS PARVIFOLIA 'ALLEE'	ALLEE LACEBARK ELM	CONT.	2.5" DBH	12' HT MIN	LOW-MEDIUM	NO	SINGLE, STRAIGHT TRUNK, FULL	
EXISTING TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL/DBH	SPECIFICATION	WATER USAGE	NATIVE	REMARKS	
	EXI OAK	1	EXISTING OAK	EXISTING OAK TO REMAIN	SEE SURVEY						
PALM TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL/DBH	SPECIFICATION	WATER USAGE	NATIVE	REMARKS	
	SAB SAB	2	SABAL PALMETTO	CABBAGE PALMETTO	B & B	14" CAL	12' CT	MEDIUM	NO	HEAVY TRUNK, RETAIN BOOTS	
		2	SABAL PALMETTO	CABBAGE PALMETTO	B & B	14" CAL	16" CT	MEDIUM	NO	HEAVY TRUNK, RETAIN BOOTS	
		2	SABAL PALMETTO	CABBAGE PALMETTO	B & B	14" CAL	8" CT	MEDIUM	NO	HEAVY TRUNK, RETAIN BOOTS	
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.		SPECIFICATION	WATER USAGE	NATIVE	REMARKS	
	LOR RUB	56	LOROPETALUM CHINENSE VAR. RUBRUM RUBY	REDEAF CHINESE FRINGE BUSH	3 GAL.		14" H X 16" S	LOW	NO	FULL	
	POD MAK	16	PODOCARPUS MACROPHYLLUS MAKI	SHRUBBY YEW	7 GAL.		36" H X 24" S	LOW-MEDIUM	NO	FULL	
	VIB OBO	37	VIBURNUM OBOVATUM	WALTER'S VIBURNUM	3 GAL.		22" H X 18" S	LOW	YES	FULL	
	VIB ODO	88	VIBURNUM ODORATISSIMUM	SWEET VIBURNUM	CONT.		36" HT MIN	LOW	NO	FULL, 42" OC MAX SPACING	
	VIB AWA	75	VIBURNUM ODORATISSIMUM 'AWABUKI'	AWABUKI VIBURNUM	CONT.		36" HT MIN	LOW	NO	FULL	
	ZAM FLO	34	ZAMIA FLORIDANA	COONTIE	3 GAL.		12" H X 12" S	LOW	YES	FULL	
VINE	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.		SPECIFICATION	WATER USAGE	NATIVE	REMARKS	
	TRA JAS	8	TRACHELOSPERNUM JASMINOIDES	CHINESE STAR JASMINE	3 GAL.		18" OA	LOW-MEDIUM	NO	FULL, 5 RUNNERS MIN.	
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.		SPECIFICATION	WATER USAGE	NATIVE	SPACING	REMARKS
	JAS M3	96	JASMINUM MULTIFLORUM	DOWNEY JASMINE	3 GAL.		18" H X 18" S	LOW	NO	30" o.c.	FULL
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.		SPECIFICATION	WATER USAGE	NATIVE	SPACING	REMARKS
	DIA VA3	283	DIANELLA TASMANICA 'VARIEGATA'	FLAX LILY	1 GAL.		16" H X 16" S	LOW	YES	24" o.c.	FULL
SOD	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.		SPECIFICATION	WATER USAGE	NATIVE	SPACING	REMARKS
	PAS ARG	70,727 SF	PASPALUM NOTATUM 'ARGENTHE'	BAHIA GRASS	SOD			N/A	NO		CLEAN AND WEED FREE

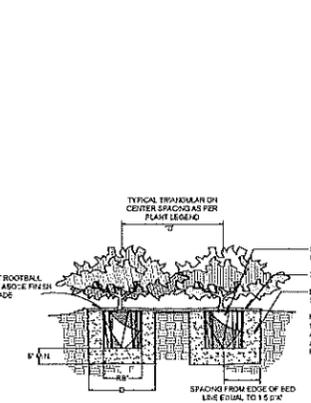
1 LANDSCAPE SCHEDULE



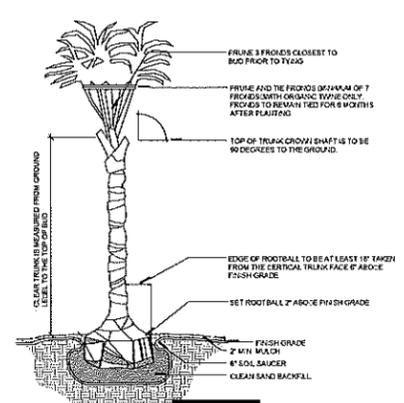
2 LARGE TREE PLANTING DETAIL Scale: N.T.S.



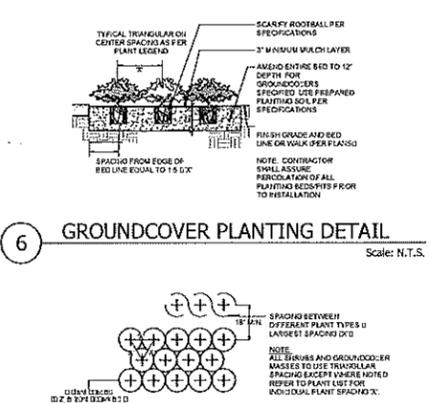
3 MULTI-TRUNK TREE PLANTING DETAIL Scale: N.T.S.



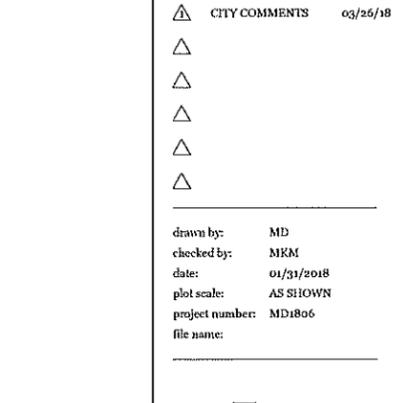
4 SHRUB PLANTING DETAIL Scale: N.T.S.



5 PALM PLANTING DETAIL Scale: N.T.S.



6 GROUND COVER PLANTING DETAIL Scale: N.T.S.

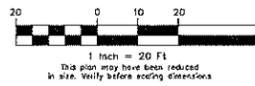


7 PLANT SPACING DETAIL Scale: N.T.S.

revision	description	date
1	CITY COMMENTS	03/25/18
2		
3		
4		
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6		
7		

drawn by: MD
checked by: MKM
date: 01/31/2018
plot scale: AS SHOWN
project number: MD1806
file name:

L2



REFER TO L4 FOR
IRRIGATION SCHEDULE
AND NOTES.

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR CARTER ELECTRIC IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.



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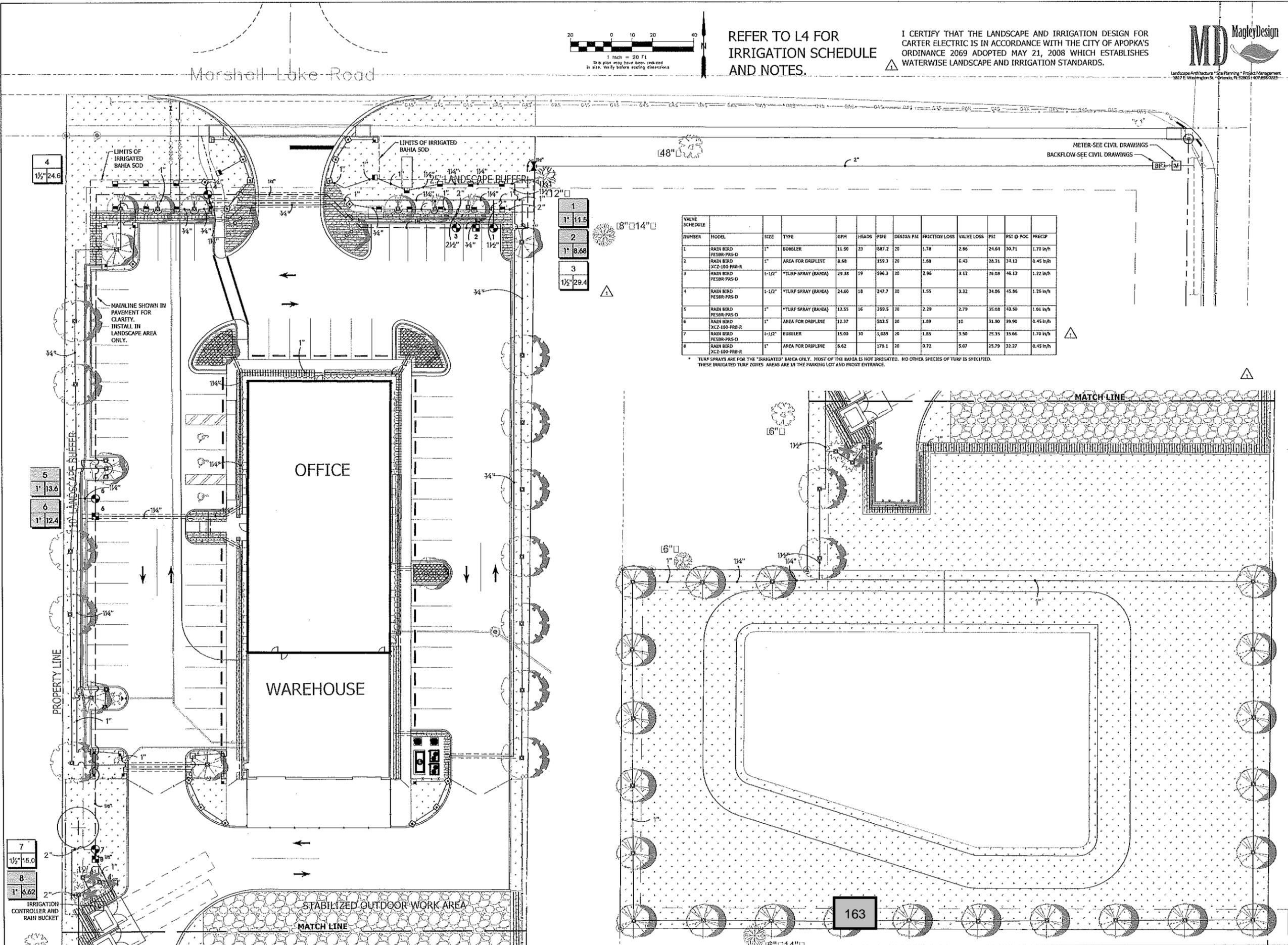
M. Katherine Magley, R.I.A.
FL#0001375

CARTER ELECTRIC
S BRADSHAW ROAD
APOPKA, FLORIDA
IRRIGATION PLAN

revision	description	date
△	CITY COMMENTS	03/26/18
△		
△		
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drawn by: MD
checked by: MKM
date: 01/31/2018
plot scale: AS SHOWN
project number: MD1806
file name:

L3



NUMBER	MODEL	SIZE	TYPE	GPM	HEAD	PIPE	DESIGN PSI	FRICTION LOSS	VALVE LOSS	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESBR-PRS-D	1"	BUBBLER	11.90	23	1087.2	20	1.78	2.86	24.64	30.71	1.70 in/h
2	RAIN BIRD XCZ-100-PRB-R	1"	AREA FOR DRUPLINE	8.58	159.3	20	1.68	6.43	28.31	34.13	0.45 in/h	
3	RAIN BIRD PESBR-PRS-D	1-1/2"	*TURF SPRAY (BAHIA)	29.38	19	596.3	30	2.96	3.12	36.08	46.13	1.22 in/h
4	RAIN BIRD PESBR-PRS-D	1-1/2"	*TURF SPRAY (BAHIA)	24.60	18	247.7	30	1.55	3.32	34.86	45.86	1.25 in/h
5	RAIN BIRD PESBR-PRS-D	1"	*TURF SPRAY (BAHIA)	13.55	16	359.5	30	2.29	2.79	35.08	43.50	1.01 in/h
6	RAIN BIRD XCZ-100-PRB-R	1"	AREA FOR DRUPLINE	12.37	153.5	20	1.89	10	31.90	39.90	0.45 in/h	
7	RAIN BIRD PESBR-PRS-D	1-1/2"	BUBBLER	15.00	30	1,059	20	1.85	3.50	25.35	35.66	1.70 in/h
8	RAIN BIRD XCZ-100-PRB-R	1"	AREA FOR DRUPLINE	6.62	178.1	20	0.72	5.07	25.79	32.27	0.45 in/h	

* TURF SPRAYS ARE FOR THE "IRRIGATED" BAHIA ONLY. MOST OF THE BAHIA IS NOT IRRIGATED. NO OTHER SPECIES OF TURF IS SPECIFIED. THESE IRRIGATED TURF ZONES ARE IN THE PARKING LOT AND FRONT ENTRANCE.

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CARTER ELECTRIC
S BRADSHAW ROAD
APOPKA, FLORIDA
IRRIGATION SCHEDULES & NOTES

revision	description	date
△	CITY COMMENTS	03/26/18
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drawn by: MD
checked by: MKM
date: 01/31/2018
plot scale: AS SHOWN
project number: MD1806
file name:

L4

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR CARTER ELECTRIC IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

TYPICAL IRRIGATION NOTES:

- UNLESS OTHERWISE NOTED, THE LIMITS OF CONSTRUCTION ARE AS INDICATED ON DRAWINGS.
- ANY TREES TO REMAIN WITHIN LIMIT OF WORK SHALL BE VERIFIED IN THE FIELD AND PROTECTED FROM DAMAGES.
- ALL PROJECT BASE INFORMATION PROVIDED BY THE OWNER.
- REFER TO ENGINEERING DRAWINGS FOR ALL UTILITY LOCATIONS, AND VERIFY IN THE FIELD PRIOR TO COMMENCING WORK. REFER TO ENGINEERING DRAWINGS FOR FINAL GRADING AND SPOT ELEVATIONS. VERIFY IN THE FIELD PRIOR TO CONSTRUCTION.
- THE CONTRACTOR, PRIOR TO BEGINNING ANY UNDERGROUND EXCAVATION, DIGGING, OR BORING MUST FIRST OBTAIN ALL REQUIRED PERMITS. WORK IS NOT AUTHORIZED PRIOR TO THE ISSUANCE OF PERMIT(S). THE CONTRACTOR SHALL COMPLY WITH FL 77-153 REGARDING NOTIFICATIONS OF EXISTING GAS AND OIL PIPELINE COMPANY OWNERS. EVIDENCE OF SUCH NOTICE SHALL BE FURNISHED TO THE OWNER PRIOR TO EXCAVATING. THE CONTRACTOR SHALL COORDINATE FULLY WITH THE OWNER FOR ALL EXCAVATION PERMITS AND NOTIFICATIONS NECESSARY PRIOR TO INITIATING ALL WORK.
- VERIFY GALLONAGE AND PRESSURE AVAILABILITY AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT BEFORE COMMENCING WITH THE INSTALLATION.
- POP-UP SPRINKLER HEADS AND LATERALS SHALL BE INSTALLED 6" FROM EDGE OF PAVEMENT OR WALKS AND FLUSH WITH FINISH GRADE.
- THE LOCATION OF ALL CONTROLLERS SHALL BE APPROVED BY THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO FULLY COORDINATE THE INSTALLATION, LOCATION, AND CONNECTION OF THE POWER SOURCE AND SERVICE WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO FULLY COORDINATE THE INSTALLATION, LOCATION, AND CONNECTION OF THE TELEPHONE COMMUNICATION WIRE AND SERVICE WITH THE OWNER'S REPRESENTATIVE AND THE COMMUNICATIONS PROVIDER PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO FULLY COORDINATE AND INTEGRATE THE OPERATION SCHEDULE OF THE IRRIGATION CONTROL SYSTEM PER THE OWNER'S REPRESENTATIVE'S DIRECTION AND APPROVAL.
- FIELD ALTERATIONS MADE IN THE IRRIGATION CONTRACT DRAWINGS MUST BE IN THE BEST INTEREST OF THE PLANT MATERIAL, SOD AND LANDSCAPE IRRIGATION SYSTEM. CHANGES MADE BY THE IRRIGATION CONTRACTOR SHALL BE APPROVED BY THE OWNER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- NO MATERIAL SUBSTITUTIONS ARE ALLOWED. ANY ALTERATION DEEMED BY THE OWNERS REPRESENTATIVE NOT IN CONFORMANCE WITH THE ABOVE CRITERIA SHALL BE REMOVED AND REPLACED AT THE IRRIGATION CONTRACTOR'S EXPENSE. IF QUESTIONS ARISE AS TO THE BEST WAY TO COMPLETE A FIELD ALTERATION, CONTACT THE OWNER'S REPRESENTATIVE FOR APPROVAL.
- THE LOCATION OF ALL PLANT MATERIAL SHALL BE FIELD STAKED BY THE LANDSCAPE CONTRACTOR FOR APPROVAL BY THE OWNERS REPRESENTATIVE OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE IRRIGATION SYSTEM.
- HIGH POP-UP SPRAYS SHALL BE UTILIZED AS REQUIRED:
 - IN PLANTING BEDS WHERE SPRAY HEAD IS IN LOW PLANTING OR GROUND COVER (MATURE PLANT HEIGHT IS 1" - 18").
 - IN PARKING ISLANDS CONTAINING GROUND COVER PLANTING.
 - WHERE IT IS ADVANTAGEOUS TO CONCEAL SPRINKLER HEADS DUE TO HIGH PEDESTRIAN TRAFFIC, VISIBILITY, VANDALISM AND MAINTENANCE, INSTALL SPRAY HIGH POP-UP RISER SO THAT HIGH POP-UPS SPRING ABOVE PLANT MATERIAL.
- CHANGES IN HEAD PLACEMENT OR A SPRAY SUBSTITUTION SHOULD ALWAYS TAKE INTO CONSIDERATION:
 - WHAT IS BEST FOR THE GROWTH AND MAINTENANCE OF THE SOD AND PLANT MATERIAL.
 - MAINTAINING A CONSTANT AND EVEN WATER DISTRIBUTION AND PRECIPITATION RATE (I.E., NEVER PUT ROTORS AND SPRAYS IN SAME ZONE)
- INSTALL ALL CONNECTED PIPING SHOWN BETWEEN DIFFERENT PIPE SIZES LABELS AS THE LARGER OF THE TWO SIZES OF PIPE.
- INSTALL ALL PIPING TO INDIVIDUAL SPRAY HEADS AND BUBBLERS AS 3/4"
- EACH TYPE OF ZONE IS TO BE PIPED SEPARATELY. DO NOT INTERCONNECT DIFFERENT TYPES OF ZONES (I.E., ROTORS AND SPRAYS).
- ANY IRRIGATION ITEMS NORMALLY INSTALLED IN LANDSCAPE AREAS THAT ARE SHOWN OUTSIDE OF LANDSCAPE AREAS OR OUTSIDE OF PROPERTY LINES ARE SHOWN AS SUCH FOR GRAPHIC CLARITY ONLY. INSTALL THESE ITEMS INSIDE OF PROPERTY LINES AND IN LANDSCAPE AREAS.
- PROVIDE PROOF TO THE LANDSCAPE ARCHITECT THAT ALL AVAILABLE MAINTENANCE MANUALS FOR EACH OF THE PRODUCTS INCLUDED IN THIS INSTALLATION HAVE BEEN PROVIDED TO THE OWNER OR OWNER'S REPRESENTATIVE.
- VALVES ARE SHOWN OUTSIDE OF PLANT BEDS FOR GRAPHIC CLARITY. INSTALL ALL VALVES AND VALVE BOXES IN LAWN AREAS, NOT PLANTING BEDS.
- THE CONTRACTORS ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CODES, INCLUDING THOSE REGARDING SEPARATION DISTANCE MINIMUMS FOR POTABLE WATER VERSUS EFFLUENT WATER AND SHALL INSTALL THE SYSTEM IN ACCORDANCE WITH THOSE CODES.
- INSTALL 12" POP-UP SPRAY HEADS AT FINISHED GRADE IN ALL GROUND COVER AREAS.
- INSTALL ALL SPRAYHEADS IN SHRUB BEDS ON RISERS ALONG BUILDING SIDEWALLS.
- SPACE ALL SPRAY HEADS AT A MAXIMUM OF 55% OF THEIR EFFECTIVE COVERAGE DIAMETER OR CLOSER WHERE SHOWN AS SUCH ON THE PLANS.
- ALL BAHIA SOD WILL NOT BE IRRIGATED, UNLESS SHOWN OTHERWISE. CONTRACTOR WILL BE RESPONSIBLE FOR HAND WATERING UNTIL IT IS WELL ENOUGH ESTABLISHED TO SURVIVE THROUGH THE WARRANTY PERIOD.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	GPH	RADIUS
⊕	RAIN BIRD 1806-SAM-PAS-IP 10 SERIES HPR TURF SPRAY 6.0" POP-UP SPRINKLER WITH CO-HOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, PRESSURE REGULATING, AND NON-POTABLE PURPLE CAP.	4	180	0.79	10'
⊕	RAIN BIRD 1806-SAM-PAS-IP 12 SERIES HPR TURF SPRAY 6.0" POP-UP SPRINKLER WITH CO-HOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, PRESSURE REGULATING, AND NON-POTABLE PURPLE CAP.	5	90	0.65	12'
⊕	RAIN BIRD 1806-SAM-PAS-IP 15 SERIES HPR TURF SPRAY 6.0" POP-UP SPRINKLER WITH CO-HOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, PRESSURE REGULATING, AND NON-POTABLE PURPLE CAP.	17	180	1.85	15'
⊕	RAIN BIRD 1806-SAM-PAS-IP 15 SERIES HPR TURF SPRAY 6.0" POP-UP SPRINKLER WITH CO-HOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, PRESSURE REGULATING, AND NON-POTABLE PURPLE CAP.	31	90	0.92	15'
⊕	RAIN BIRD 1806-SAM-PAS-IP HE-VARI SERIES TURF SPRAY 6.0" POP-UP SPRINKLER WITH CO-HOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, PRESSURE REGULATING, AND NON-POTABLE PURPLE CAP.	16	ADJ		15'
⊕	RAIN BIRD 1800-160 FLOOD FIXED FLOW RATE (0.25 LOGGPI), FULL CIRCLE BUBBLER, 1/2" FIP.	53	360	0.50	7'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	GPH	RADIUS
⊕	RAIN BIRD XC2-100-PRB-R 1" VIBES REEF ORP CONTROL KIT FOR COMMERCIAL APPLICATIONS. PURPLE CAP DESIGNATES FOR RECLAIMED WATER, NON-POTABLE USE. 1" PRESSURE REGULATING 40PSI BASKET FILTER. 0.30GPM TO 20GPM. VALVE BOX AND LID SHALL BE PURPLE.	3			
⊕	RAIN BIRD PCT SINGLE OUTLET EMITTER THREADED COMPENSATING THREADED LOW-FLOW BUBBLERS. OFFERED IN 5 GPH, 7 GPH, AND 10 GPH MODELS. WITH 1/2" NPT THREADED INLET. LIGHT BROWN = 5 GPH, VIOLET = 7 GPH, AND GREEN = 10 GPH.	10			
AREA TO RECEIVE DRIPLINE RAIN BIRD XPD-POG-IR (18) XPD ON-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE. 0.6GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV RESISTANT. PURPLE TUBING FOR NON-POTABLE WATER. SPECIFY XE INSERT FITTINGS.					
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	GPH	RADIUS
⊕	RAIN BIRD PESSR-PAS-D 1-1/2" 1", 1-1/2", AND 2" DURABLE CHLORINE RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, PURPLE FLOW CONTROL HANDLE, AND PRESSURE REGULATOR MODULE. VALVE BOX AND LID SHALL BE PURPLE.	3			
⊕	RAIN BIRD PESSR-PAS-D 1" 1", 1-1/2", AND 2" DURABLE CHLORINE RESISTANT VALVES FOR RECLAIMED WATER APPLICATIONS. WITH SCRUBBER MECHANISM TECHNOLOGY, PURPLE FLOW CONTROL HANDLE, AND PRESSURE REGULATOR MODULE. VALVE BOX AND LID SHALL BE PURPLE.	2			
⊕	BUCKET-SUPERIOR AV 3/4", 1", 1-1/4", 1-1/2", AND 2" RED BRASS ANGLE SHUT OFF VALVES WITH CROSS HANDLE. SIZE PER HANDLE. INSTALLED IN A TRAFFIC RATED VALVE BOX.	1			
⊕	SEE CIVIL DRAWING 1-1/2" IRRIGATION REDUCED PRESSURE BACKFLOW PREVENTER. INSTALLED BY OTHERS. SHOWN FOR INFORMATION ONLY.	1			
⊕	RAIN BIRD ESPR-SHTE WITH (1) ESP-SH6 15 STATION OUTDOOR SMART MODULAR CONTROL SYSTEM FOR RESIDENTIAL AND LIGHT COMMERCIAL USE. WALL MOUNT, TIPPING BUCKET RAIN SENSOR THAT MEASURES RAINFALL.	1			
⊕	WATER METER 2" INSTALLED BY OTHERS. POC IS AT THE CORNER OF MARSHALL LAKE ROAD AND SOUTH BRADSHAW ROAD. EXISTING 20" DIP RECLAIMED WTR COMP STOP/2" METERS/1" 60/2" POLYETHYLENE LINE TO PROJECT AREA. SEE CIVIL PLANS FOR EXACT LOCATION AND DETAILS.	1			
---	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26-HP 3/4"	2,481 L.F.			
---	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26-HP 1"	1,006 L.F.			
---	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26-HP 1 1/4"	397.5 L.F.			
---	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26-HP 1 1/2"	140.6 L.F.			
---	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26-HP 2"	65.4 L.F.			
---	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26-HP 2 1/2"	8.9 L.F.			
---	IRRIGATION MAINLINE: PVC SCHEDULE 40-HP 1 1/2"	573.1 L.F.			
---	IRRIGATION MAINLINE: POLYETHYLENE PIPE SDR-7-HP 2" INSTALLED BY OTHERS. SHOWN FOR INFORMATION ONLY.	383.0 L.F.			
---	PIPE SLEEVE: PVC SCHEDULE 40 PURPLE EXTENDED 12" BEYOND PAVEMENT. SIZE 2X PIPE SIZE	167.8 L.F.			

AREA OF LOW VOLUME IRRIGATION:
TOTAL IRRIGATED LANDSCAPE AREA: 10,679 SF
TOTAL TURF IRRIGATED AREA: 5,253 SF (49%)
TOTAL DRIP ZONE IRRIGATED AREA: 5,426 SF (51%) WHERE 25% IS REQUIRE

CRITICAL ANALYSIS

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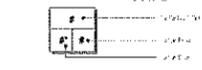
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Water Source Information: INSTALLED BY OTHERS. POC IS AT THE CORNER OF MARSHALL LAKE ROAD AND SOUTH BRADSHAW ROAD. EXISTING 20" DIP RECLAIMED WTR COMP STOP/2" METERS/1" 60/2" POLYETHYLENE LINE TO PROJECT AREA. SEE CIVIL PLANS FOR EXACT LOCATION AND DETAILS.

FLOW AVAILABLE
Water Meter Size: 2"
Flow Available: 77.18 gpm

PRESSURE AVAILABLE
Static Pressure at POC: 50.00 psi
Elevation Change: 5.00 ft
Service Line Size: 2"
Length of Service Line: 5.00 ft
Pressure Available: 48.00 psi

DESIGN ANALYSIS
Maximum Station Flow: 29.18 gpm
Flow Available at POC: 77.18 gpm
Residual Flow Available: 47.79 gpm

Critical Station: 3
Design Pressure: 30.00 psi
Friction Loss: 2.69 psi
Fittings Loss: 0.27 psi
Elevation Loss: 0.00 psi
Loss through Valve: 3.12 psi
Pressure Req. at Critical Station: 36.07 psi
Loss for Frittings: 0.39 psi
Loss for Main Line: 3.89 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 5.00 psi
Loss for Water Meter: 0.78 psi
Critical Station Pressure at POC: 46.13 psi
Pressure Available: 48.00 psi



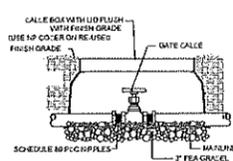
NUMBER	MODEL	SIZE	TYPE	GPH	HEADS	PIPE	DESIGN PSM	FRICTION LOSS	VALVE LOSS	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESSR-PAS-D	1"	BUBBLER	11.90	23	807.2	20	1.78	2.66	24.64	30.71	1.70 in/h
2	RAIN BIRD XC2-100-PRB-R	1"	AREA FOR ORIPLINE	8.68		159.1	20	1.68	6.43	28.31	34.13	0.45 in/h
3	RAIN BIRD PESSR-PAS-D	1-1/2"	*TURF SPRAY (BAHIA)	29.35	19	596.3	10	2.96	3.12	34.04	46.13	1.32 in/h
4	RAIN BIRD PESSR-PAS-D	1-1/2"	*TURF SPRAY (BAHIA)	24.60	18	247.7	10	1.55	3.32	34.66	45.86	1.26 in/h
5	RAIN BIRD PESSR-PAS-D	1"	*TURF SPRAY (BAHIA)	13.95	16	358.5	30	2.29	2.79	35.08	43.50	1.01 in/h
6	RAIN BIRD XC2-100-PRB-R	1"	AREA FOR DRIPLINE	12.37		583.5	20	1.89		31.90	39.90	0.45 in/h
7	RAIN BIRD PESSR-PAS-D	1-1/2"	BUBBLER	15.00	30	1,039	20	1.85	3.50			1.70 in/h
8	RAIN BIRD XC2-100-PRB-R	1"	AREA FOR DRIPLINE	6.62		178.1	20	0.72	5.07			0.45 in/h

* TURF SPRAYS ARE FOR THE IRRIGATED BAHIA ONLY. MOST OF THE BAHIA IS NOT IRRIGATED. NO OTHER SPECIES OF TURF IS THESE IRRIGATED TURF ZONES. AREAS ARE IN THE PARKING LOT AND FRONT ENTRANCE.

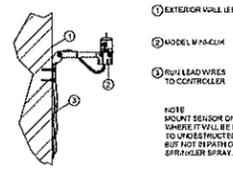
I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR CARTER ELECTRIC IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

- IRRIGATION CONTROLLER WITH 8-10 STATION ESP-LXME CONTROLLER IN METAL CABINET WITH OUTSIDE WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
- JUNCTION BOX
- 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
- POWER SUPPLY WIRE
- 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
- WIRES TO REMOTE CONTROL VALVES

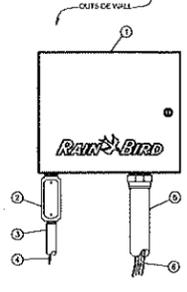
- NOTES
- ESP-LXME CONTROLLER IS AVAILABLE IN 8- OR 10-STATION BASE MODELS. ADDITIONAL MODELS 8-A AND 10-STATION CANNOT BE ADDED TO BRING THE CONTROLLER UP TO 16 STATIONS MAXIMUM.
 - FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 TERMINALS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSFER STATION WIRE AND COMMON WIRE FROM THE BOX TO EACH CONTROL WIRE TO BE USED IN CONTROLLER.
 - USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PCD CONDUIT FOR BELOW GRADE CONDITIONS.
 - PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.



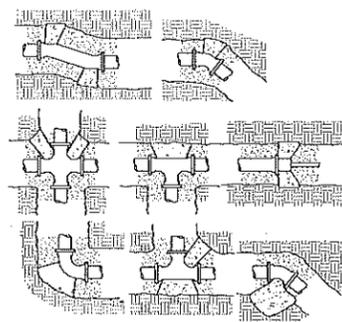
5 GATE VALVE
Scale: N.T.S.



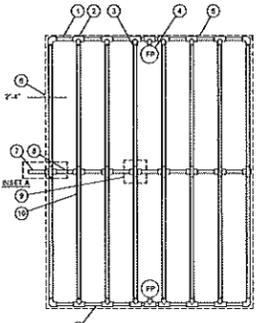
6 WALL MOUNTED RAIN SENSOR
Scale: N.T.S.



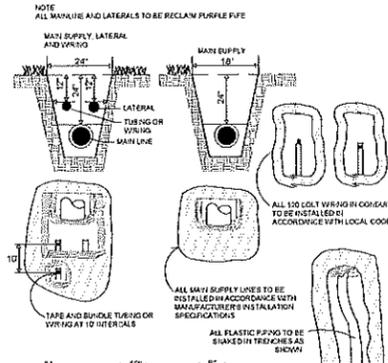
4 ESP-LXME CONTROLLER IN METAL CABINET
Scale: N.T.S.



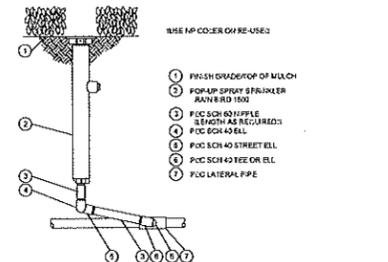
3 TYPICAL THRUST BLOCK DETAIL
Scale: N.T.S.



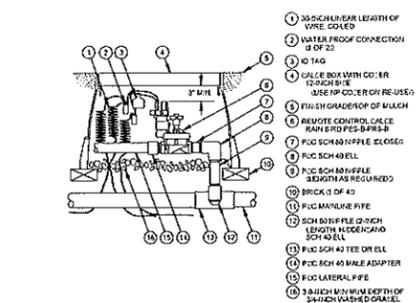
7 TYPICAL BUBBLER DETAIL
Scale: N.T.S.



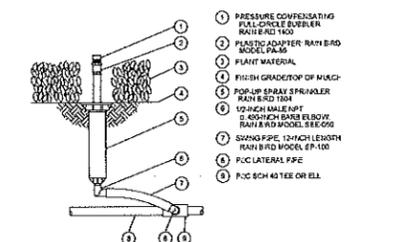
2 TYPICAL TRENCHING DETAIL
Scale: N.T.S.



8 TYPICAL POP-UP SPRAY HEAD DETAIL
Scale: N.T.S.



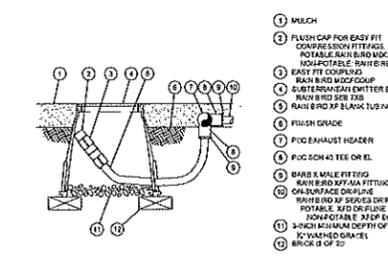
1 REMOTE CONTROL VALVE
Scale: N.T.S.



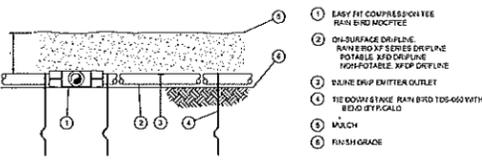
9 TYPICAL DRIPLINE PLAN VIEW
Scale: N.T.S.

Pipe Pressure (psi)	1/2" SDR31		1/2" SDR31		3/4" SDR31	
	100	150	100	150	100	150
15	273	150	314	250	424	322
20	312	166	353	294	503	369
30	350	190	413	330	592	414
40	395	225	469	402	682	474
50	417	255	528	470	770	488
60	460	290	590	490	780	514

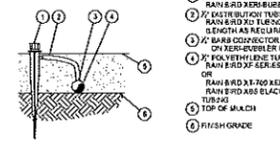
9 DRIPLINE PLAN VIEW TYPICAL
Scale: N.T.S.



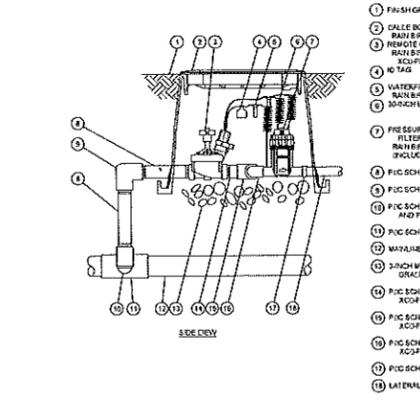
11 DRIPLINE FLUSH POINT
Scale: N.T.S.



12 DRIPLINE AT GRADE
Scale: N.T.S.



13 XERI BUG EMITTER
Scale: N.T.S.

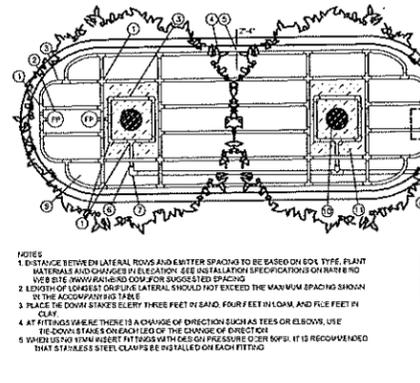


10 XZC-PRB DRIPLINE CONTROL ZONE KIT
Scale: N.T.S.

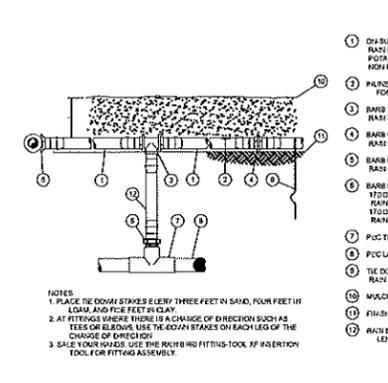
11 DRIPLINE FLUSH POINT
Scale: N.T.S.

12 DRIPLINE AT GRADE
Scale: N.T.S.

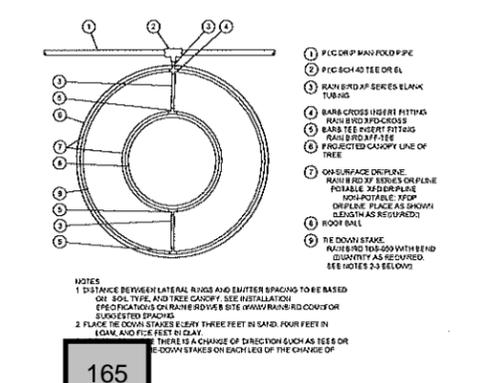
13 XERI BUG EMITTER
Scale: N.T.S.



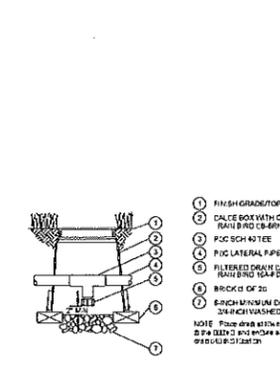
14 DRIPLINE PARKING LOT ISLANDS TYPICAL
Scale: N.T.S.



15 DRIPLINE RISER ASSEMBLY
Scale: N.T.S.



16 DRIPLINE AROUND TREE
Scale: N.T.S.

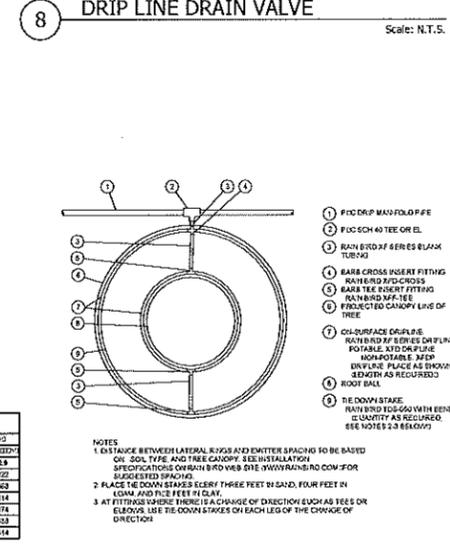
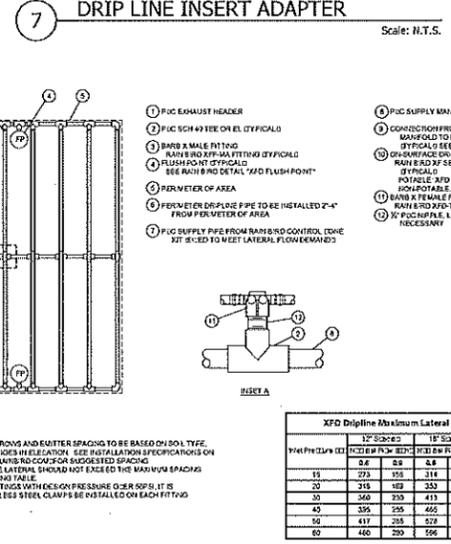
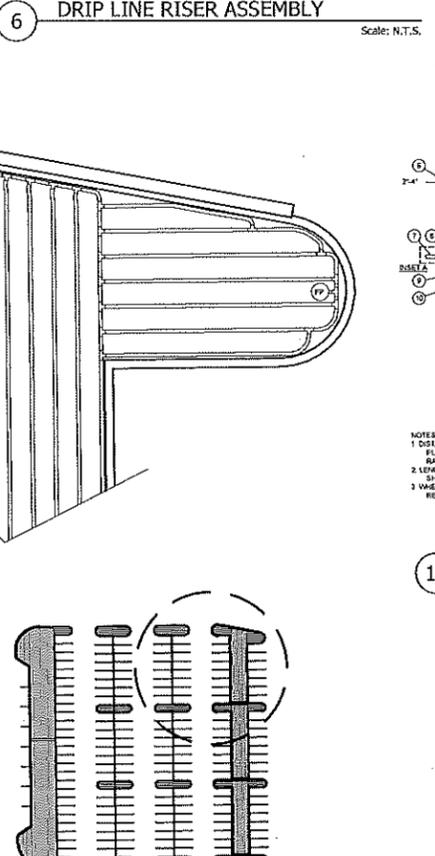
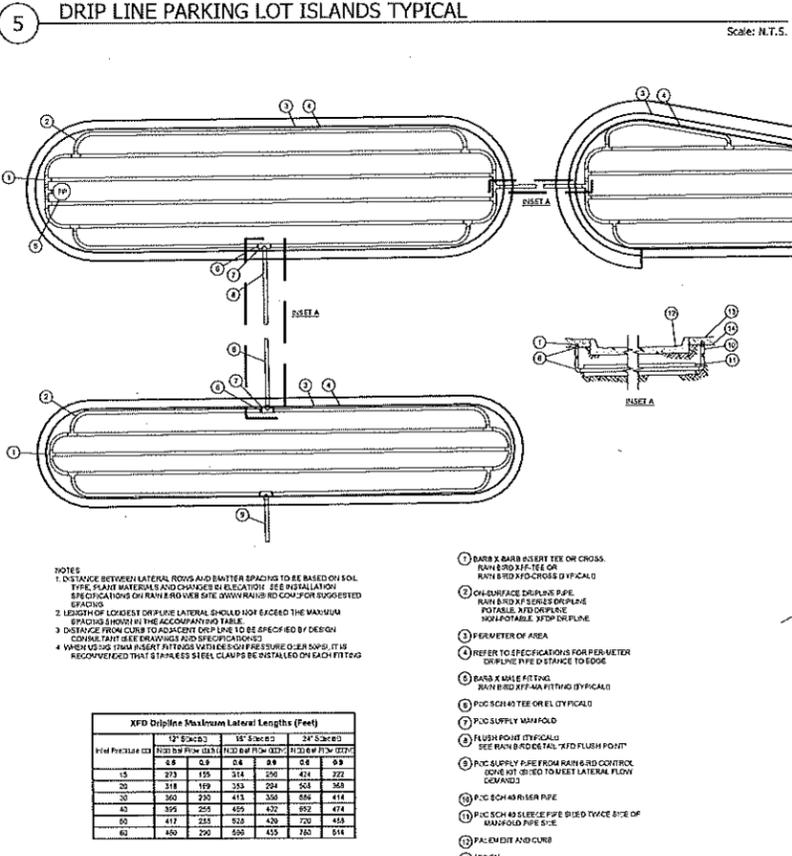
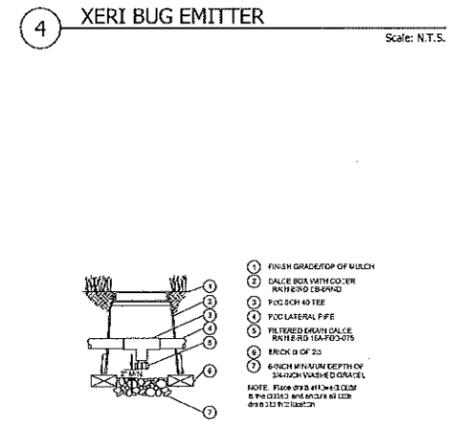
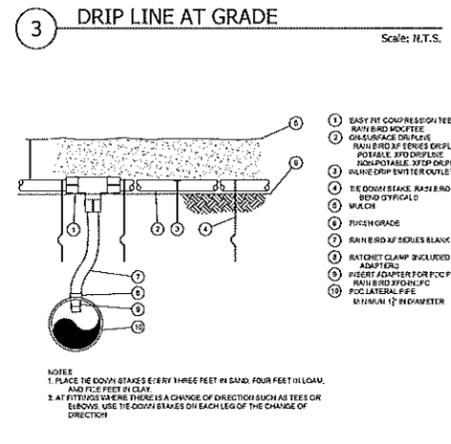
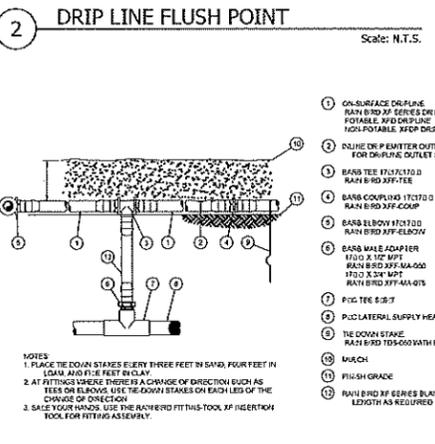
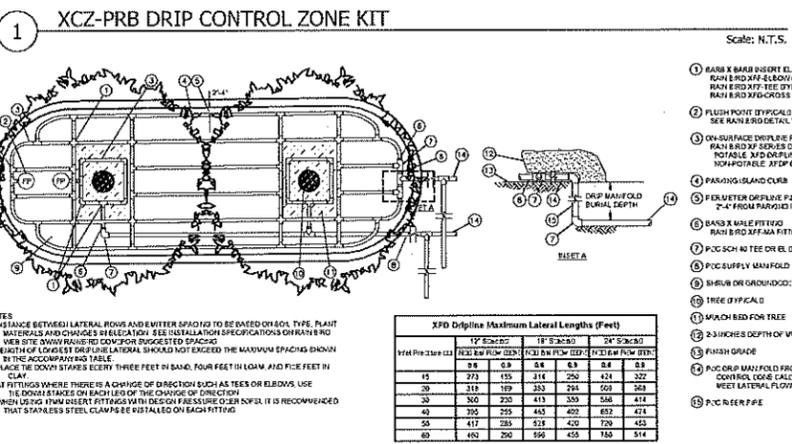
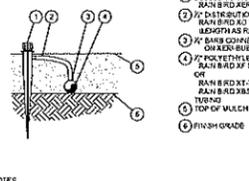
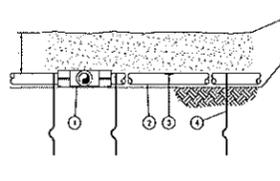
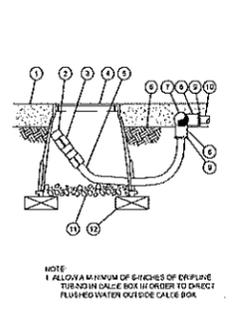
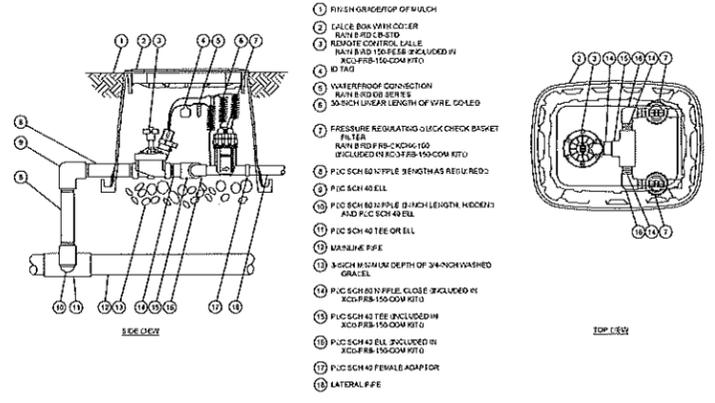


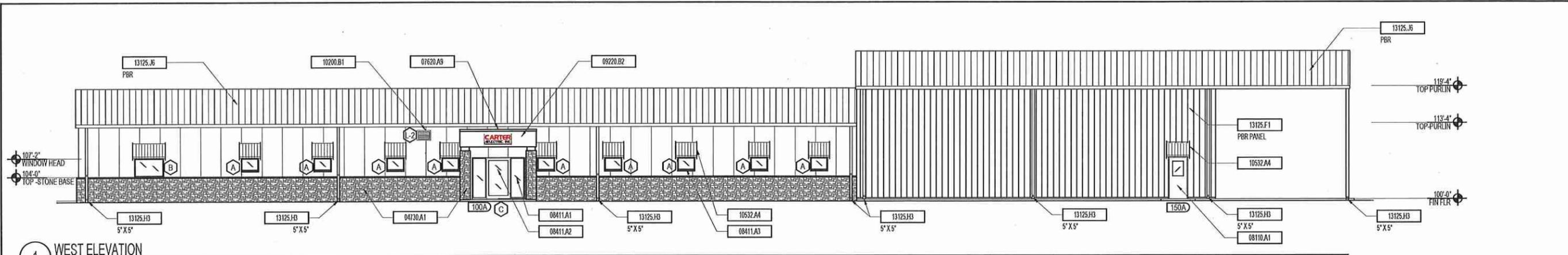
17 DRIPLINE DRAIN VALVE
Scale: N.T.S.

Pipe Pressure (psi)	1/2" SDR31		1/2" SDR31		3/4" SDR31	
	100	150	100	150	100	150
15	273	150	314	250	424	322
20	312	166	353	294	503	369
30	350	190	413	330	592	414
40	395	225	469	402	682	474
50	417	255	528	470	770	488
60	460	290	590	490	780	514

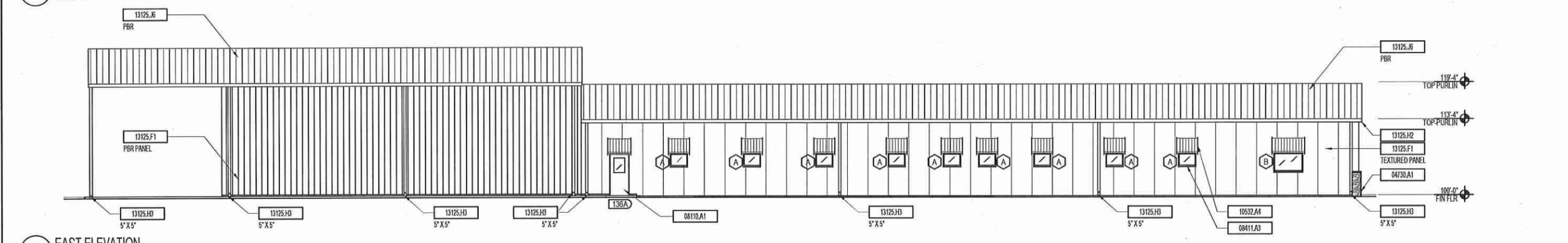
revision	description	date
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drawn by: MD
 checked by: NKM
 date: 01/31/2018
 plot scale: AS SHOWN
 project number: MD1806
 file name:

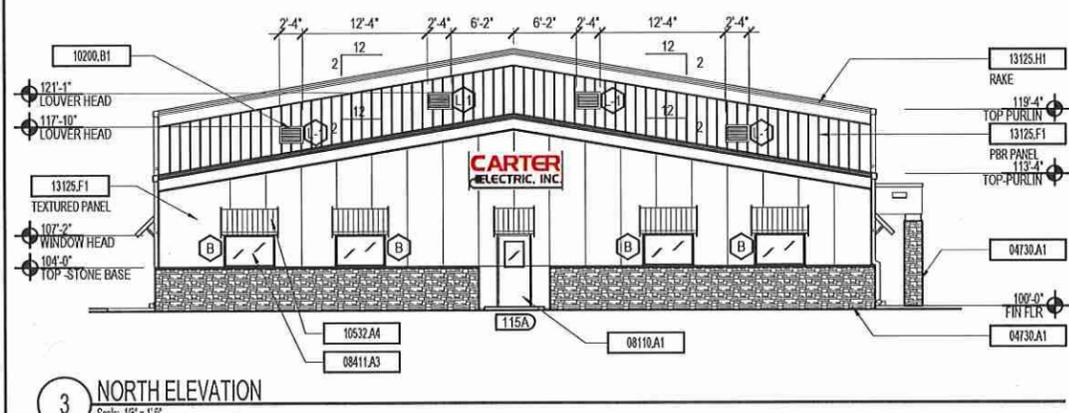




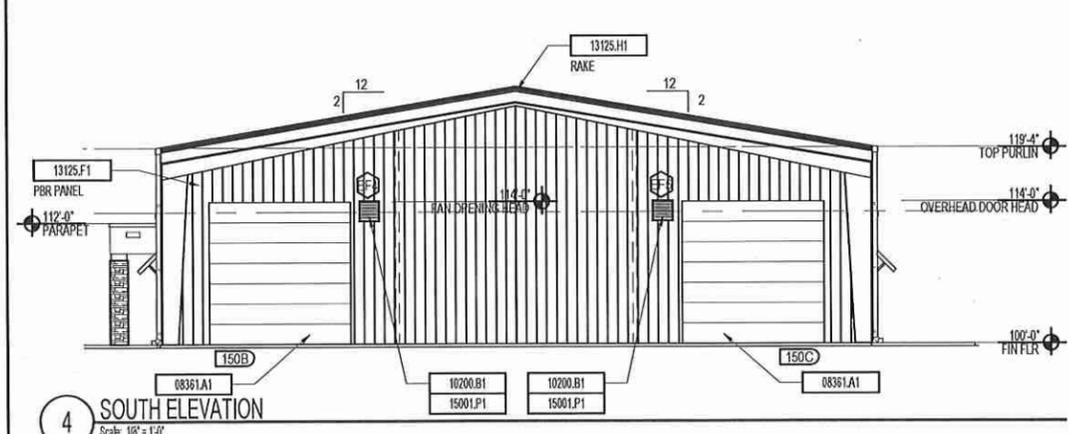
1 WEST ELEVATION
Scale: 1/8" = 1'-0"



2 EAST ELEVATION
Scale: 1/8" = 1'-0"



3 NORTH ELEVATION
Scale: 1/8" = 1'-0"



4 SOUTH ELEVATION
Scale: 1/8" = 1'-0"

SELECTIVE KEYNOTES

- 04730 MANUFACTURED STONE MASONRY SYSTEM
- 04730.A1 CULTURED STONE VENEER SYSTEM
- 07620 SHEET METAL FLASHING AND TRIM
- 07620.A9 METAL COPING
- 08110 HOLLOW METAL DOORS AND FRAMES
- 08110.A1 HOLLOW METAL DOOR & FRAME ASSEMBLY
- 08361 SECTIONAL DOORS
- 08361.A1 SECTIONAL OVERHEAD DOOR
- 08411 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
- 08411.A1 ALUMINUM FRAMED STOREFRONT
- 08411.A2 ALUMINUM/GLASS ENTRANCE DOOR
- 08411.A3 ALUMINUM FRAMED WINDOW
- 09220 PORTLAND CEMENT PLASTERING
- 09220.B2 3-COAT STUCCO ON METAL LATH
- 10200 LOUVERS AND VENTS
- 10200.B1 HORIZONTAL FIXED BLADE METAL LOUVER ASSEMBLY
- 10532 METAL ENTRY CANOPIES
- 10532.A4 PRE-ENGINEERED METAL AWNING-STANDING SEAM
- 13125 METAL BUILDING SYSTEMS
- 13125.F1 WALL PANELS
- 13125.F8 OUTSIDE CORNER TRIM
- 13125.H1 FASCIA
- 13125.H2 EAVE GUTTER
- 13125.H3 DOWNSPOUT
- 13125.J6 ROOF PANELS
- 15001 PLUMBING & MECHANICAL EQUIPMENT AND SYSTEMS
- 15001.P1 EXHAUST FAN

EXTERIOR FINISH SCHEDULE

DESCRIPTION	I.D.	COLOR/FINISH
PBR METAL SIDING PANEL	P1	TAN
TEXTURED METAL SIDING PANEL	P2	STONE
SEAM-LOK METAL ROOFING PANEL	P3	COAL
NICHIHA LEDGESTONE FIBER CEMENT PANEL	P4	DESERT
METAL SCUPPERS, COLLECTION HEAD AND DOWNSPOUTS	P5	CLEAR ANODIZED ALUMINUM
STANDING SEAM METAL AWNINGS	P7	GREY
HOLLOW METAL DOORS & FRAMES	P9	SW PAINT TO MATCH STONE
ALUMINUM STOREFRONT DOOR & FRAME	P10	CLEAR ANODIZED
STOREFRONT GLAZING	P11	CLEAR
STONE WATER TABLE BAND	P12	SILL CHISELED-GRAY

GENERAL NOTES:
1. 'SW' DENOTES SHERWIN WILLIAMS PAINT NUMBERS.



167 STONE SAMPLE- KURASTONE LEDGESTONE DESERT

CARTER ELECTRIC, INC.
Apopka, Florida

PERMIT SET
02-01-2018 RMH RMH
issue date drawn by approved by
2017.042
project number

DATE	REVISION SCHEDULE	DESCRIPTION

CONCEPT ELEVATIONS
A6.1
sheet number

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BHM ARCHITECTURE, INC.
MAIL ONLY: 478 E. ALTA MONTE DR., SUITE 108 PMB 264
ALTAMONTE SPRINGS, FL 32701-4622
PHONE: 407.333.2005 LICENSE # AAC0000233

SELECTIVE KEYNOTES

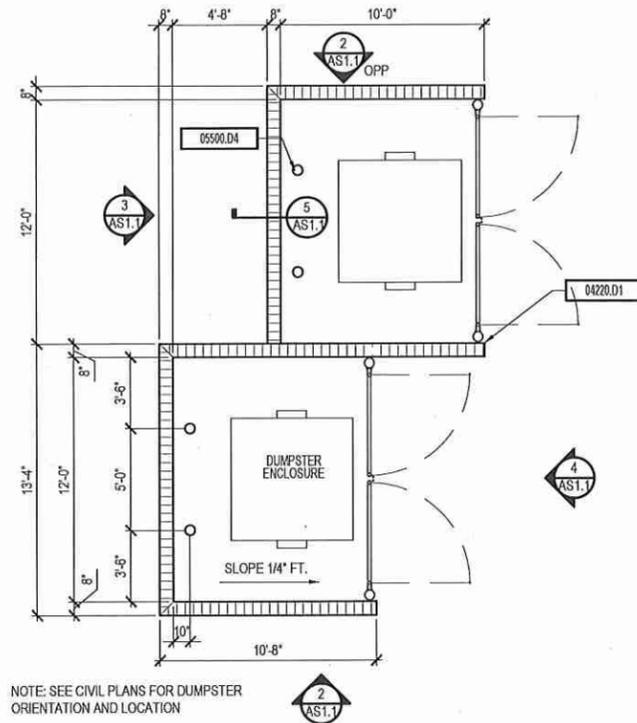
- 03001 CONCRETE WORK
- 03001.A3 CONCRETE FOUNDATION WALL
- 03001.A6 CONCRETE FOOTING
- 03001.C3 CONCRETE FLOOR SLAB
- 03001.C4 CONCRETE SLAB ON GRADE
- 03001.Y6 PRECAST CONCRETE WALL CAP

- 04220 CONCRETE UNIT MASONRY
- 04220.D1 CMU BLOCK

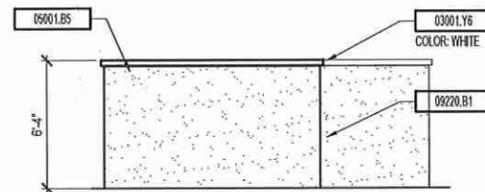
- 05500 METAL FABRICATIONS
- 05500.B1 METAL GATE ASSEMBLY
- 05500.D4 CONCRETE FILLED METAL BOLLARD

- 09220 PORTLAND CEMENT PLASTERING
- 09220.B1 2-COAT STUCCO DIRECT MASONRY BOND
- 09220.D5 CASING BEAD

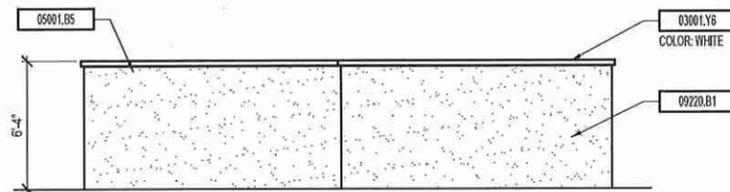
- 08912 INTERIOR PAINTING
- 08912.A1 PAINTED FINISH



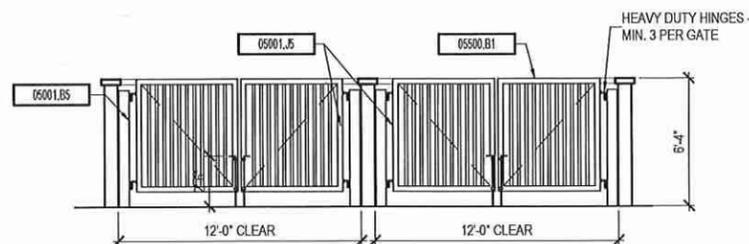
1 FLOOR PLAN - DUMPSTER ENCLOSURE
Scale: 1/4" = 1'-0"



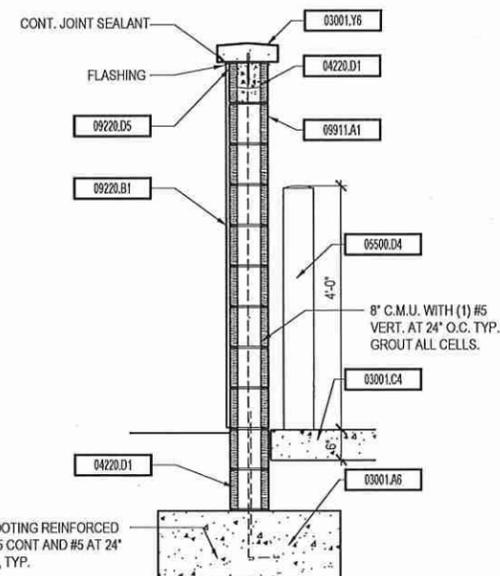
2 SIDE ELEVATION - DUMPSTER
Scale: 1/4" = 1'-0"



3 REAR ELEVATION - DUMPSTER
Scale: 1/4" = 1'-0"



4 FRONT ELEVATION - DUMPSTER
Scale: 1/4" = 1'-0"



5 WALL SECTION - DUMPSTER
Scale: 3/4" = 1'-0"

CARTER ELECTRIC, INC.
Apopka, Florida

PERMIT SET **2017.042**

02-01-2018 CMH CMH
issue date drawn by approved by project number

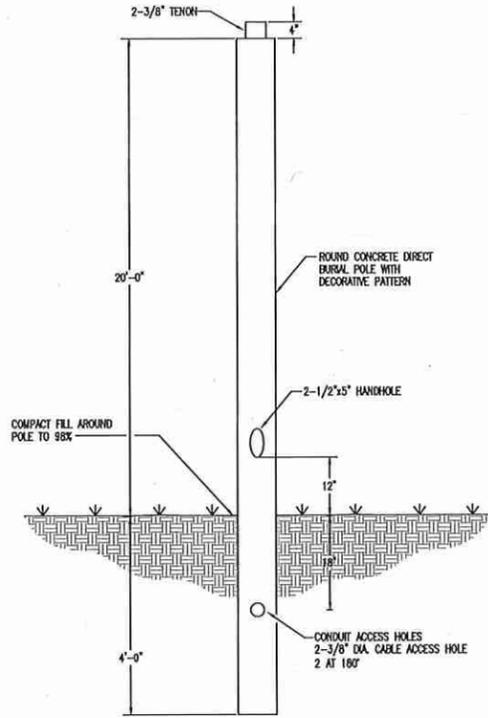
REVISION SCHEDULE	
DATE	DESCRIPTION

DUMPSTER ENCLOSURE **AS1.1**
PLAN & DETAILS sheet number

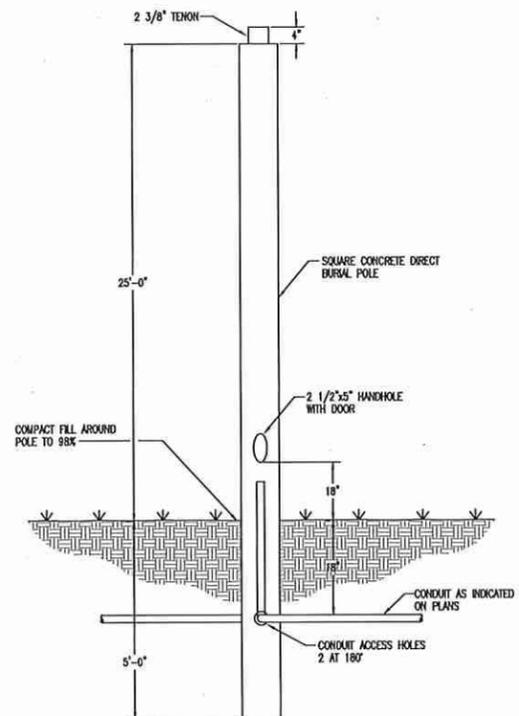
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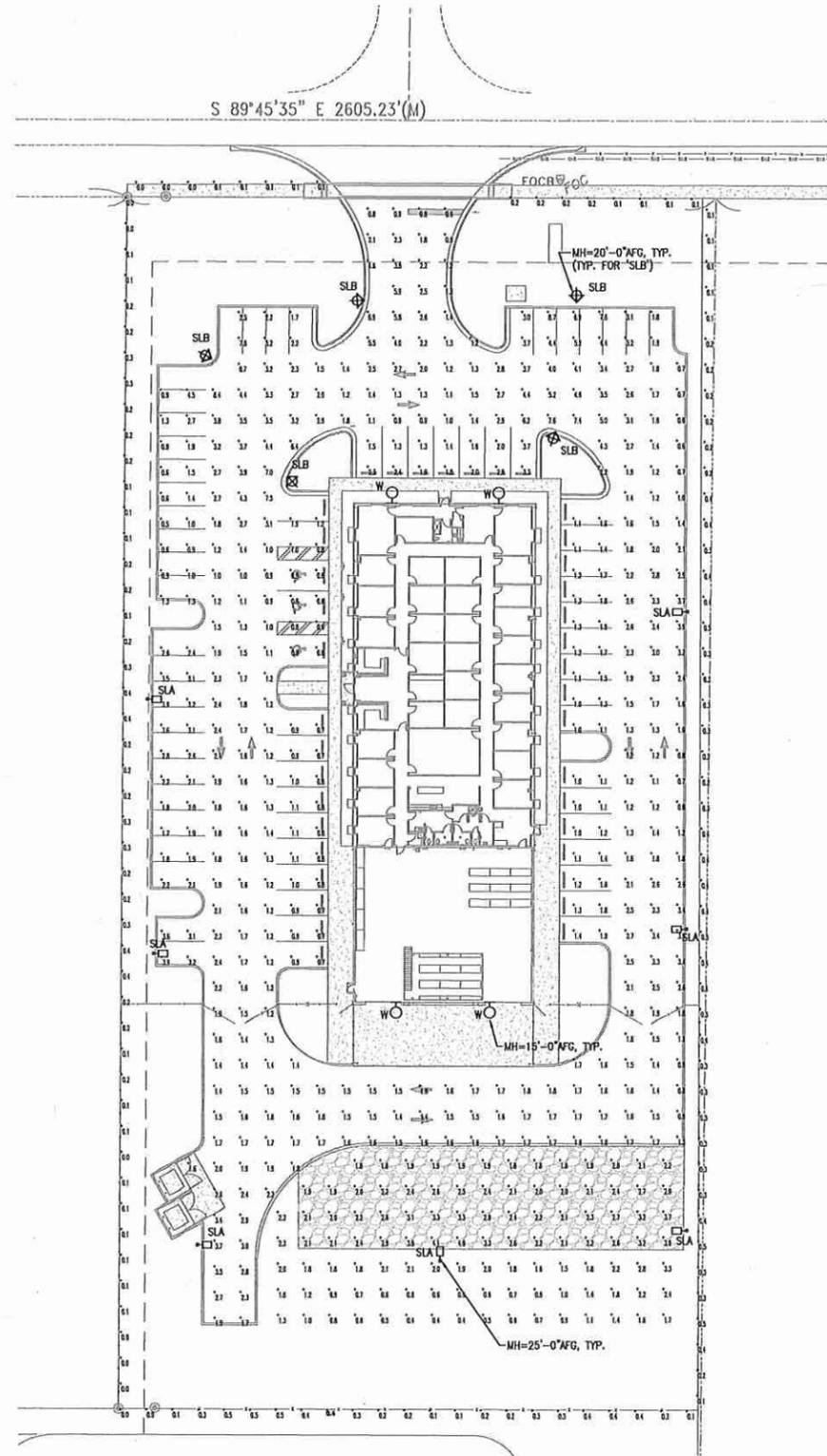
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SUITE 108 PMS 264
ALTAMONTE SPRINGS, FL 32701-4622
PHONE: 407.333.2005 LICENSE # AA0000233



3 20 ft. Mounting Height Pole Detail - Fixture SLB
Scale: N 1" = 10' Scale



2 25 ft. Mounting Height Pole Detail - Fixture SLA
Scale: N 1" = 10' Scale



1 SITE PLAN - PHOTOMETRICS
Scale: 1" = 30'-0"

Luminaire Schedule					
Symbol	Label	Arrangement	Total Lamp Lumens	LLF	Description
⊠	SLA	SINGLE	N.A.	0.950	ECF-S-4BL-1A-NW-G2-4-HIS
⊠	SLB	SINGLE	N.A.	0.950	APX-1-T4-64LC-5-4K-UNV
⊠	W	SINGLE	N.A.	0.950	VWPH-L60-730-FI-CLR-OPT-EDD-UNV

Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
Gravel Fleet Parking Lot	illumination	Fc	1.95	4.1	0.4	4.88
Parking Lot	illumination	Fc	2.06	8.7	0.5	4.12
Property Line	illumination	Fc	0.23	0.5	0.0	N.A.

CARTER ELECTRIC, INC.
Apopka, Florida

PERMIT SET **2017.042**

02.23.18 issue date SMB/MJR drawn by AJB/BLS approved by project number

REVISION SCHEDULE	
DATE	DESCRIPTION
03/29/18	City Comments

SITE PLAN PHOTOMETRICS **E1.2**
sheet number

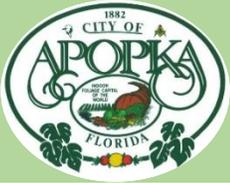
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Joseph, Lawrence & Co **bhm** *architecture*
Consulting Engineers
BHM ARCHITECTURE, INC.
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ALTAMONTE SPRINGS, FL 32701-4622
TEL: 407.333.2005
WWW.BHMCORP.COM
P.O. BOX 24123

Blake Lawrence Suddeth
P.E. # 69060
LICENSE # AAC000233

J.C. 17.0245.00





CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: Final Development Plan

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Aerial Map
 Zoning Map
 Final Development Plan
 Architectural Renderings

SUBJECT: FINAL DEVELOPMENT PLAN – CHURCH’S CHICKEN – 845 SOUTH ORANGE BLOSSOM TRAIL

REQUEST: APPROVAL OF THE FINAL DEVELOPMENT PLAN FOR CHURCH’S CHICKEN TO BE LOCATED AT 845 SOUTH ORANGE BLOSSOM TRAIL

SUMMARY:

OWNER/APPLICANT: CHC-845 S Orange Blossom Trail Apopka FL LLC
 ENGINEER: Kimley-Horn and Associates, Inc. c/o Jordan Draper, P.E.
 LOCATION: 845 South Orange Blossom Trail
 PARCEL ID #: 11-21-28-0206-00-070
 FUTURE LAND USE: Commercial
 ZONING: C-2 (General Commercial)
 EXISTING USE: Parking Lot
 PROPOSED USE: Restaurant with Drive-Thru Service
 TRACT SIZE: 1.07 +/- acres
 BUILDING SIZE: 1,850 square feet
 FLOOR AREA RATIO 0.0395

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)	Commercial	C-2	Multi-tenant Shopping Center
East (City)	Commercial	C-2	Multi-tenant Shopping Center
South (City)	Commercial	ROW/C-1	U.S. Highway 441/ Multi-tenant Shopping Center
West (City)	Commercial	C-2	Retail Establishment

ADDITIONAL COMMENTS: This is a request to approve the Church's Chicken Final Development Plan that includes a building size of 1850 square feet and height of 21 feet.

PARKING: A total of 27 parking spaces will be provided (15 required by code), two of which are reserved as a handicapped parking space.

ACCESS: Access to the restaurant is via private drive aisles of the Apopka Land Shopping Center that have multiple access points to U.S. 441, Sheeler Avenue, and S.R. 436.

EXTERIOR ELEVATIONS: The height of the proposed building is 21 feet, well below the maximum allowable height of 35'. Staff has found the proposed building elevations to be in accordance with the City's Development Design Guidelines.

STORMWATER: The stormwater management is off-site and part of the master stormwater system that includes the Apopka Land Regional Shopping Center.

BUFFER/SCREENING/LANDSCAPING/TREE PROGRAM: As part of the development plan approval, red maple, eastern redbud and shrubs are located within the 5-foot wide landscaping buffer on the western perimeter of the project site. 10-foot wide landscape buffer on the southern perimeter adjacent to U.S. Highway 441 consist of crape myrtle, red maple trees and shrubs. The plan also shows that a total of five existing oak trees are preserved.

Total inches on-site:	198
Total inches removed	78
Total inches retained:	120
Total inches added:	99
Total inches post development:	219

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)
 June 6, 2018 - City Council (1:30 pm)

RECOMMENDATION ACTION:

The **Development Review Committee (DRC)** recommends approval of the Church's Chicken Final Development Plan, subject to the findings of this staff report.

The **Planning Commission**, at its meeting on May 8, 2018, found the Church's Chicken Final Development Plan consistent with the Comprehensive Plan and Land Development Code, and unanimously recommended approval of the Church's Chicken Final Development Plan, subject to the findings of this staff report.

City Council: Approve the Church's Chicken Final Development Plan

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: Final Development Plan
Owner/Applicant: CHC-845 S Orange Blossom Trail Apopka FL LLC
Engineer: Kimley-Horn and Associates, Inc. c/o Jordan Draper, P.E.
Parcel I.D. No: 11-21-28-0206-00-070
Location: 845 South Orange Blossom Trail
Acres: 1.07 acres +/-

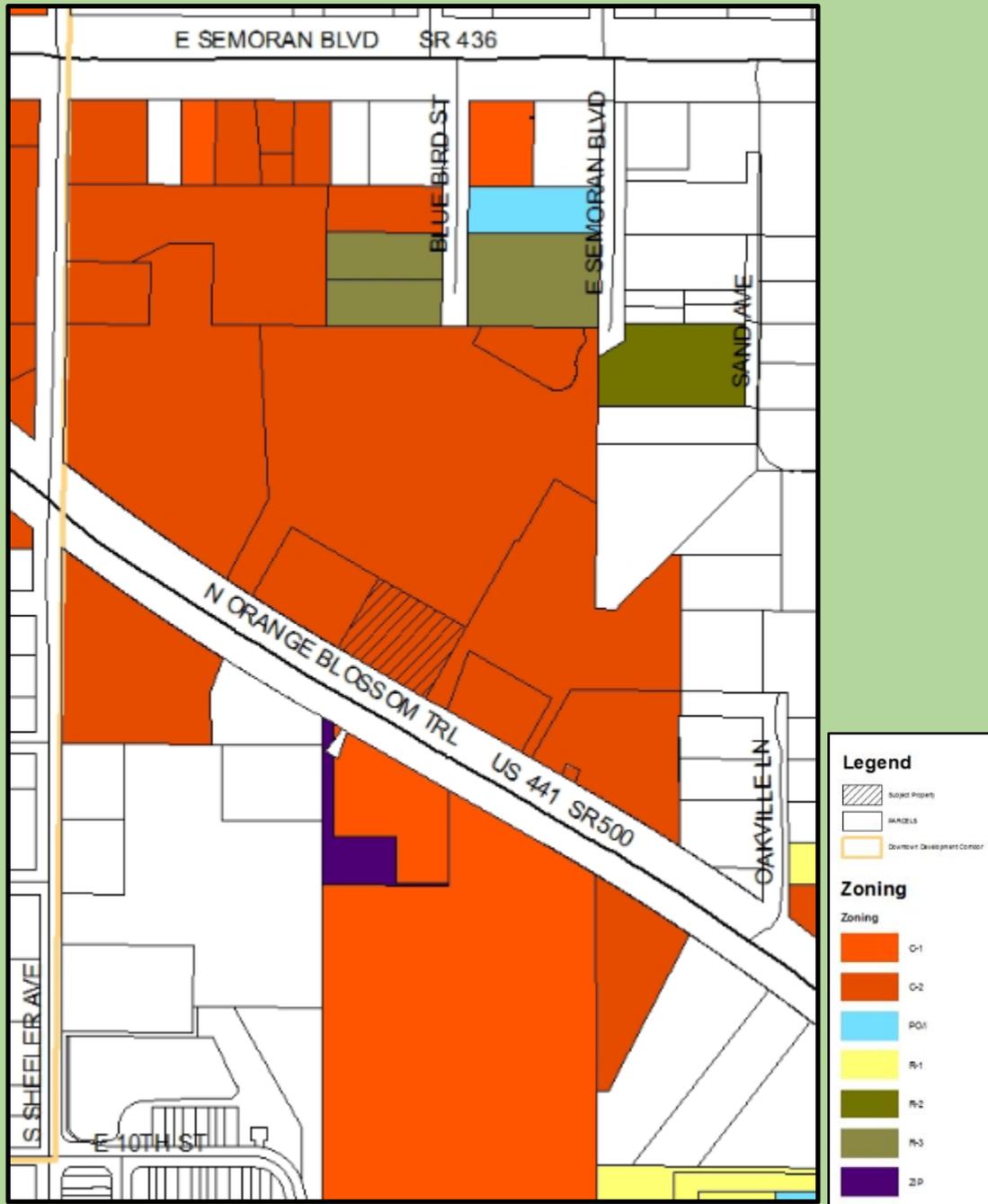


VICINITY MAP





ZONING MAP





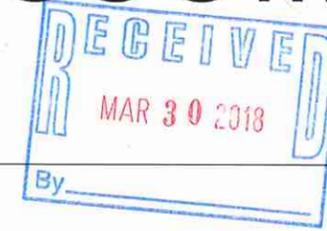
AERIAL MAP



SITE CIVIL PLANS FOR 845 SOUTH ORANGE BLOSSOM TRAIL

CHURCH'S CHICKEN

FINAL DEVELOPMENT PLAN SUBMITTAL:
MARCH 29, 2018



SITE DATA TABLE		
SITE ADDRESS	845 SOUTH ORANGE BLOSSOM TRAIL, APOPKA, FL 32703	
PARCEL ID NUMBER	11-21-28-0206-00-070	
TAX MAP	PLAT BOOK 53, PAGE 113	
ZONING	GENERAL COMMERCIAL (C-2)	
FUTURE LAND USE DESIGNATION	COMMERCIAL	
OVERALL AREA	EXISTING	PROPOSED
USE	SURFACE PARKING	FAST FOOD RESTAURANT W/ DRIVE THRU
SITE AREA	46,779 SF 1.07 AC	46,779 SF 1.07 AC
DISTURBED AREA	N/A	1.06 AC
IMPERVIOUS AREA	81.1%	72.6%
INTERIOR LANDSCAPING AREA	2,073 SF (2,093 SF REQUIRED)	3,537 SF
OPEN SPACE	18.7%	27.4%

ADJACENT AREAS	LAND USE	ZONING
NORTH	SHOPPING CENTER	C-2
SOUTH	N/A	N/A
EAST	BANK	C-2
WEST	RETAIL	C-2

CHURCH'S CHICKEN - DATA TABLE		
BUILDING DATA	REQUIRED	PROVIDED
DIMENSIONS	N/A	31 FT X 61 FT
HEIGHT	35 FT MAX	21 FT
STORIES	N/A	1
NUMBER OF EMPLOYEES	N/A	8
NUMBER OF FIXED SEATS	N/A	31
GROSS FLOOR AREA	1,850 SF	
GROSS FLOOR AREA RATIO	3.95%	
PATRON AREA WITHOUT FIXED SEATS	504 SF	
BUILDING SETBACKS	REQUIRED	PROVIDED
FRONT: SOUTH	10 FT MIN	49.4 FT
REAR: NORTH	10 FT MIN	83.5 FT
SIDE: EAST	10 FT MIN	136.5 FT
SIDE: WEST	10 FT MIN	70.0 FT
PARKING SETBACKS	REQUIRED	PROVIDED
FRONT: SOUTH	10 FT MIN	15.3 FT
REAR: NORTH	5 FT MIN	32.2 FT
SIDE: EAST	5 FT MIN	13.3 FT
SIDE: WEST	5 FT MIN	10.0 FT
PARKING	REQUIRED	PROVIDED
STANDARD SPACES	13	27
ACCESSIBLE	2	2
TOTAL VEHICULAR PARKING	15	29
SIGNAGE REGULATIONS	1 MONUMENT	4 BUILDING
SIGN HEIGHT	8 FT	N/A
SIGN AREA	100 SF	100 SF, 200 SF TOTAL



VICINITY MAP
SCALE: 1" = 2,000'

PROJECT DESIGN TEAM

ARCHITECT

THE MILBERGER ARCHITECTURAL GROUP, LLC
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DEVELOPER

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CONTACT: MANNY BUTERA

CIVIL ENGINEER

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SURVEY

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TAMPA, FL 33609
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CONTACT: CHARLES D. FERRARO, PLS

GEOTECH / ENVIRONMENTAL

PROFESSIONAL SERVICE INDUSTRIES, INC.
1748 33RD STREET
ORLANDO, FL 32839
PHONE: (407) 304-5560
CONTACT: JONATHAN K. THRASHER, P.E.

PERMITTING / UTILITY CONTACTS

BUILDING DEPT.

CITY OF APOPKA BUILDING DIVISION
RAY MARSH
120 EAST MAIN ST., 2ND FLOOR
APOPKA, FL 32703
PHONE: (407) 703-1713

ZONING

CITY OF APOPKA COMMUNITY DEVELOPMENT DEPARTMENT
JAMES HITT
120 EAST MAIN ST., 2ND FLOOR
APOPKA, FL 32703
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FIRE CHIEF

CITY OF APOPKA FIRE MARSHAL
BRIAN BOWMAN
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TRAFFIC

CITY OF APOPKA PUBLIC SERVICES
R. JAY DAVOLL
748 EAST CLEVELAND ST.
APOPKA, FL 32703
PHONE: (407) 703-1731

FDOT

FLORIDA DEPARTMENT OF TRANSPORTATION
FDOT DISTRICT 5
2400 CAMP ROAD
OVIEDO, FL 32765
PHONE: (407) 249-4299

STORMWATER

CITY OF APOPKA PUBLIC SERVICES
R. JAY DAVOLL
748 EAST CLEVELAND ST.
APOPKA, FL 32703
PHONE: (407) 703-1731

WATER

CITY OF APOPKA PUBLIC SERVICES
R. JAY DAVOLL
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APOPKA, FL 32703
PHONE: (407) 703-1731

SANITARY SEWER

CITY OF APOPKA PUBLIC SERVICES
R. JAY DAVOLL
748 EAST CLEVELAND ST.
APOPKA, FL 32703
PHONE: (407) 703-1731

ELECTRIC

DUKE ENERGY
DANIELLE ESTERS
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APOPKA, FL 32703
PHONE: (407) 464-1220

NATURAL GAS

LAKE APOPKA NATURAL GAS DISTRICT
EVERETT HOLMES
38 NORTH PARK AVE.
APOPKA, FL 32703
PHONE: (407) 656-2734 (EXT. 104)

TELEPHONE/CABLE

CHARTER COMMUNICATIONS
MARVIN USRY JR.
3767 ALL AMERICAN BLVD.
ORLANDO, FL 32810
PHONE: (407) 532-8509

SHEET LIST TABLE	
Sheet Number	Sheet Title
C0-00	COVER SHEET
--	SURVEY (BY OTHERS)
C0-01	GENERAL NOTES
C1-00	EXISTING CONDITIONS AND DEMOLITION PLAN
C2-00	SITE PLAN
C2-50	SITE DETAILS 1
C2-60	SITE DETAILS 2
C3-00	EROSION AND SEDIMENT CONTROL PLAN PHASE I
C3-10	EROSION AND SEDIMENT CONTROL PLAN PHASE II
C3-50	EROSION AND SEDIMENT CONTROL DETAILS
C4-00	GRADING AND DRAINAGE PLAN
C6-00	UTILITY PLAN
C6-10	UTILITY PROFILES
C6-50	STORMWATER PLAN
C6-60	STORMWATER PROFILES
L1-00	LANDSCAPE PLAN
L1-50	LANDSCAPE DETAILS
IR1-00	IRRIGATION PLAN
IR2-00	IRRIGATION DETAILS
IR2-50	IRRIGATION SPECIFICATIONS
--	PHOTOMETRIC PLAN

GENERAL DEVELOPMENT NOTES

- THIS PARCEL DOES NOT LIE WITHIN THE FLOOD HAZARD AREAS IN ACCORDANCE WITH FEMA INSURANCE RATE MAP PANEL NUMBER 47037C0219F.
- ANY EXCAVATION, FILL, OR DISTURBANCE OF THE EXISTING GROUND ELEVATION MUST BE DONE IN ACCORDANCE WITH CITY OF APOPKA PUBLIC WORKS DEPARTMENT REGULATIONS.
- CITY OF APOPKA SHALL BE PROVIDED SUFFICIENT AND UNENCUMBERED ACCESS IN ORDER TO MAINTAIN AND REPAIR UTILITIES IN THIS SITE.



REVISIONS	
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THE MILBERGER ARCHITECTURAL GROUP, LLC
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T0006
845 SOUTH ORANGE BLOSSOM TRAIL
APOPKA, FL 32703

DRAWN BY:	CHECKED BY:
LVA	TJM

CONTENTS:	
COVER SHEET	

3/29/2018

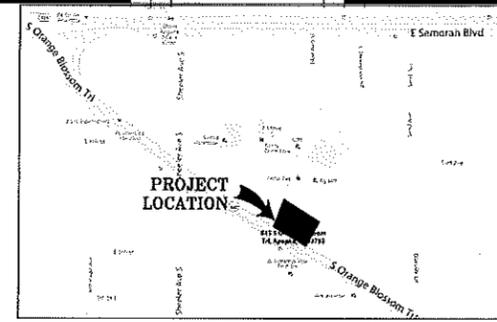
118220041
JOB NUMBER

C0-00	2
	17
	TOTAL



214 OceanSide Drive, Nashville, TN 37204
Main: 615.564.2701 | www.kimley-horn.com
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MAP OF SURVEY
LOT 7, APOPKA LAND REGIONAL SHOPPING CENTER 11
PLAT BOOK 53, PAGE 113
SECTION 11 & 14, TOWNSHIP 21 SOUTH, RANGE 28 EAST
ORANGE COUNTY, FLORIDA



REVISIONS

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T0006
845 SOUTH ORANGE BLOSSOM TRAIL
APOPKA, FL 32703

DRAWN BY: LVA
 CHECKED BY: TJM

CONTENTS:
 SURVEY (BY OTHERS)

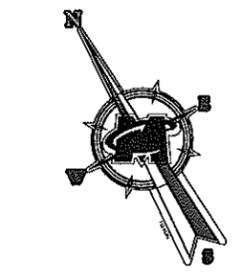
3/29/2018

118220041
 JOB NUMBER



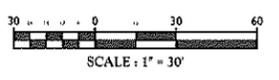
17 TOTAL

- SURVEYOR'S NOTES:**
- CERTIFIED TO:**
 CHC-845 S Orange Blossom Trail Apopka, FL, LLC
 RS Lending, Inc., a Delaware corporation or its successors or assigns
 First American Title Insurance Company
 THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 8, 9, 11, 13, & 14 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON MARCH 03, 2017.
 DATE OF PLAT OR MAP: MARCH 06, 2017
 THIS IS TO CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THIS MAP OR PLAT IS THE RESULT OF A FIELD SURVEY PERFORMED ON 03/03/2017 BY ME OR UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH THE RULES AND REGULATIONS PROMULGATED BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS. THE INFORMATION DEPICTED HEREON, CORRECTLY REPRESENTS THE CONDITIONS FOUND AT AND AS OF THE DATE OF THE FIELD SURVEY, EXCEPT SUCH IMPROVEMENTS OR EASEMENTS, IF ANY BELOW THE SURFACE AND NOT VISIBLE, ACCORDINGLY THE UNDERSIGNED PROFESSIONAL IS NOT RESPONSIBLE FOR THE PRESENCE OF UNDERGROUND UTILITIES OR STRUCTURES, IF SAME ARE NOT VISIBLE OR OTHERWISE DISCLOSED BY ANY AFOREMENTIONED DATA LISTED ABOVE.
 - THIS PLAN IS MADE FOR AND CERTIFIED TO THE PARTIES NAMED HEREON FOR THE PURPOSE(S) STATED. NO OTHER PURPOSE IS INTENDED NOR IMPLIED. THE UNDERSIGNED PROFESSIONAL IS NEITHER RESPONSIBLE NOR LIABLE FOR THE USE OF THIS PLAN BEYOND ITS INTENDED PURPOSE.
 - THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" CONSTITUTES AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THOSE FACTS OR FINDINGS WHICH ARE THE SUBJECT OF THE UNDERSIGNED PROFESSIONAL'S KNOWLEDGE, INFORMATION, AND BELIEF, AND IN ACCORDANCE WITH THE COMMONLY ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE EITHER EXPRESSED OR IMPLIED.
 - THIS SURVEY WAS PREPARED WITH THE BENEFIT OF OWNERSHIP AND ENCUMBRANCE REPORT PREPARED BY FIRST AMERICAN TITLE INSURANCE COMPANY, UNDER FILE NUMBER 12666-2390665, WITH AN EFFECTIVE DATE OF FEBRUARY 02, 2017 AT 8:00 A.M.. THE BELOW REFERENCED ITEMS ARE NUMBERED AS THEY APPEAR IN SCHEDULE B SECTION II OF THE TITLE BINDER AS FOLLOWS:
 5- SCHEDULE B SECTION II EXCEPTIONS FROM COVERAGE
 5-9. RESTRICTIONS, DEDICATIONS, CONDITIONS, RESERVATIONS, EASEMENTS AND OTHER MATTERS SHOWN ON THE PLAT OF APOPKA LAND REGIONAL SHOPPING CENTER II, AS RECORDED IN PLAT BOOK 53, PAGE(S) 113, BUT DELETING ANY COVENANT, CONDITION OR RESTRICTION INDICATING A PREFERENCE, LIMITATION OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN TO THE EXTENT SUCH COVENANTS, CONDITIONS OR RESTRICTIONS VIOLATE 42 USC 3604(c). (DOES AFFECT PLOTTED)
 5-10. RESTRICTIONS, DEDICATIONS, CONDITIONS, RESERVATIONS, EASEMENTS AND OTHER MATTERS SHOWN ON THE PLAT OF APOPKA LAND REGIONAL SHOPPING CENTER, AS RECORDED IN PLAT BOOK 25, PAGE(S) 5, BUT DELETING ANY COVENANT, CONDITION OR RESTRICTION INDICATING A PREFERENCE, LIMITATION OR DISCRIMINATION BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN TO THE EXTENT SUCH COVENANTS, CONDITIONS OR RESTRICTIONS VIOLATE 42 USC 3604(c). (DOES AFFECT SUBJECT PROPERTY, BLANKET IN NATURE).
 5-11. DECLARATION OF RESTRICTIONS RECORDED SEPTEMBER 25, 1985 IN BOOK 3694, PAGE 81, TOGETHER WITH FIRST MODIFICATION RECORDED OCTOBER 6, 1988 IN BOOK 3625, PAGE 3563 AND SECOND MODIFICATION RECORDED SEPTEMBER 6, 1994 IN BOOK 4792, PAGE 1823. (DOES AFFECT SUBJECT PROPERTY, BLANKET IN NATURE).
 5-12. EASEMENTS WITH COVENANTS AND RESTRICTIONS AFFECTING LAND RECORDED SEPTEMBER 25, 1985 IN BOOK 3694, PAGE 85, TOGETHER WITH FIRST MODIFICATION RECORDED OCTOBER 6, 1988 IN BOOK 3625, PAGE 3572, SECOND AMENDMENT RECORDED JUNE 19, 1999 IN BOOK 4080, PAGE 164 AND THIRD MODIFICATION RECORDED SEPTEMBER 6, 1994 IN BOOK 4792, PAGE 1827. (DOES AFFECT SUBJECT PROPERTY, BLANKET IN NATURE).
 5-13. PIPELINE EASEMENT IN FAVOR OF THE CITY OF APOPKA, A MUNICIPAL CORPORATION RECORDED SEPTEMBER 17, 1987 IN BOOK 3920, PAGE 4381. (DOES AFFECT SUBJECT PROPERTY, BLANKET IN NATURE).
 5-14. EASEMENT AGREEMENT BY AND BETWEEN APOPKA ASSOCIATES, A GEORGIA JOINT VENTURE AND THE CITIZENS AND SOUTHERN NATIONAL BANK OF FLORIDA, A NATIONAL BANKING ASSOCIATION RECORDED SEPTEMBER 15, 1989 IN BOOK 4115, PAGE 2981. (DOES AFFECT SUBJECT PROPERTY, BLANKET IN NATURE).
 5-15. RESTRICTIONS AND CONDITIONS AS SET FORTH IN THAT CERTAIN SPECIAL WARRANTY DEED RECORDED JANUARY 6, 2000 IN BOOK 5917, PAGE 2110. (DOES AFFECT SUBJECT PROPERTY, NOT PLOTTABLE).
 5-18. DECLARATION OF EASEMENTS, COVENANTS, CONDITIONS AND RESTRICTIONS RECORDED APRIL 15, 2003 IN BOOK 6870, PAGE 4202. (DOES AFFECT SUBJECT PROPERTY, BLANKET IN NATURE).
 - BASIS OF BEARING:** BEARING SHOWN HEREON ARE BASED ON STATE PLANE COORDINATE SYSTEM NAD83 ESTABLISHED BY RTK (REAL TIME KINEMATIC), HOLDING BASE STATION STAMPED AK7045 DESCRIBED AS "4"x4" NIS CONCRETE MONUMENT SURV 0472 CASY".
 - ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
 - THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OR NON-EXISTENCE OF WETLANDS AND/OR TOXIC WASTES. THEREFORE, IT SHOULD NOT BE ASSUMED THAT ANY STATEMENT IS BEING MADE BY THE FACT THAT NO EVIDENCE OF WETLANDS OR TOXIC WASTES IS FORTYFIED HEREON. IT IS IN THE BEST INTEREST OF THE CLIENT TO PURSUE THESE MATTERS AS A SEPARATE CONCERN APART FROM THIS SURVEY.
 - IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION OR INK SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED.
 - THE LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE AND ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK-OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION BEGINS, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.
 - UNDERGROUND FOUNDATIONS AND ENCROACHMENTS, ETC., IF ANY, NOT LOCATED, ONLY VISIBLE ABOVE GROUND FEATURES LOCATED.
 - ELEVATIONS SHOWN HERE ON ARE RELATIVE TO NATIONAL GEODETIC SURVEY (NIGS) BENCHMARK STAMP WITH DESIGNATION NUMBER "L 851 021" WITH AN ELEVATION OF 97.40 (NAVD 1988).
 - THE PARCEL SHOWN HEREON LIES IN FLOOD ZONE "X" PER THE FLOOD INSURANCE RATE MAP FOR ORANGE COUNTY, FLORIDA PER MAP NUMBER 12095C0140F, DATED SEPTEMBER 25, 2009 AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).
- LEGAL DESCRIPTION**
 LOT 7, AS PER MAP OR PLAT THEREOF "APOPKA LAND REGIONAL SHOPPING CENTER II" BEING A REPLAT OF LOTS 1 AND 2, APOPKA LAND REGIONAL SHOPPING CENTER PER PLAT BOOK 25, PAGES 5 THRU 8 AS RECORDED IN PLAT BOOK 53, PAGE 113 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.
 SAID LOT CONTAINS 46,779.13 SQUARE FEET OR 1.07 ACRES MORE OR LESS
 ALTA/NSPS LAND TITLE BOUNDARY & TOPOGRAPHIC SURVEY



PLEASE NOTE: WATER EASEMENTS APPLY FOR WATER MAINS AND APPURTENANCES AT DISTANCES FROM THE EXISTING CENTERLINE OF THE INSTALLED FACILITIES ABOVE AND BELOW GROUND AS NOTED ON THE REFERENCED RECORD PLAT. SEE NOTE 5-9 AND LEGAL DESCRIPTION FOR PLAT REFERENCE.

"NOT INCLUDED"
 LOT 8
 HARBOR REALTY TRUST
 841 SOUTH ORANGE BLOSSOM TRAIL
 FOLIO NO. 11-21-28-0208-00-030
 P.B. 53, PG. 113



CURVE DATA

SEGMENT	RADIUS	LENGTH	DELTA	CHORD
C1(C&M)	5599.65'	31.74'	00° 19' 29" N 60° 15' 07" W 31.74'	
C1(P)	5599.65'	31.71'	00° 19' 28" N 60° 06' 55" W 31.71'	
C2(C&M)	5599.65'	239.86'	02° 27' 15" N 58° 46' 22" W 239.84'	
C2(P)	5599.65'	240.06'	02° 27' 29" N 58° 45' 20" W 240.04'	

LEGEND

FEMA FEDERAL EMERGENCY MANAGEMENT AGENCY	NO. NUMBER	LNK. UNKNOWN	BFP BACK FLOW PREVENTER	CO CLEANOUTS	EBX ELECTRICAL BOX	F.D.C. FIRE DEPARTMENT CONNECTION	(D) DEED	FUEL MANHOLE	UNDERGROUND FIBER OPTIC
PG. PAGE	LB. LICENSE BUSINESS	INV. INVERT	L. LEGAL	STORM MANHOLE	RCP REINFORCED CONCRETE PIPE	MHS MANHOLE SANITARY	ENC ENCROACHING	TRAFFIC LIGHT	UNDERGROUND ELECTRIC
P.B. PLAT BOOK	NAD83 NORTH AMERICAN DATUM OF 1983	GR. GRATE	OWH OVERHEAD WIRE	GRATE INLET	TRANS TRANSFORMER	NSPS NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS	A/C AIR CONDITIONING	LIGHT POLE	UNDERGROUND GAS
O.R.B. OFFICIAL RECORDS BOOK	EP. EDGE OF PAVEMENT	PVC POLYVINYL CONDUIT	OUY OUY WIRE	WATER VALVE	IGN IDENTIFICATION	PARKER-KALON NAIL AND DISC	(C&M) CALCULATED AND MEASURED	FIBER OPTIC MARKER	UNDERGROUND UNKNOWN
DWG. DRAWING	CONC. CONCRETE	MES METERED END SECTION (TYP.) TYPICAL	W. WATER WIRE	SIGN MANHOLE ELECTRIC	MON MONUMENT	CHLN LINK FENCE	T.B.M. TEMPORARY BENCHMARK	CABLE BOX	TR-0-00 TREE IDENTIFICATION
REG. REGISTER	PSM PROFESSIONAL SURVEY MAPPERS	(C) CALCULATED	BOL BOLLARDS	P.O.C. POINT OF COMMENCEMENT	IRV IRRIGATION CONTROL VALVE	U.N.K. UNKNOWN	N.G.S. NATIONAL GEODETIC SURVEY	PARKING STALL	SS BOTTOM BERM
SQ.FT. SQUARE FEET	ELEC. ELECTRIC	(M) MANHOLE DRAIN	SV SEWER VALVE	P.O.B. POINT OF BEGINNING	PRM PERMANENT REFERENCE MONUMENT	FF FINISH FLOOR	N.C.F.S. NO CORNER FOUND		TD TOP OF BERM
NAVD NORTH AMERICAN VERTICAL DATUM	BOC BACK OF CURB	TEL TELEPHONE	BW BOTTOM OF WALL	FMON FOUND CONCRETE MONUMENT	BLDG BUILDING		MNGT MANHOLE GREASE		ROW RIGHT OF WAY
	(P) PLAT	TEPED TELEPHONE PEDESTAL		GM GAS METER	EM ELECTRIC METER				MNGT MANHOLE GREASE TRAP

CONTRACTOR RESPONSIBILITIES:

- 1. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
A. THE CONTRACTOR SHALL VERIFY ALL PROPOSED AND EXISTING CONDITIONS INCLUDING UTILITIES (INVERTS, CONNECTIONS, MATERIALS, ETC.) AND DIMENSIONS WITHIN THE LIMITS OF WORK PRIOR TO THE START OF CONSTRUCTION.
B. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILED BUILDING INFORMATION.
C. THE CONTRACTOR IS RESPONSIBLE FOR ALL NOTIFICATIONS AND LIAISONS WITH UTILITY COMPANIES DURING THE PROCESS OF LOCATING, RELOCATING, AND TYING INTO PUBLIC UTILITIES.
D. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR INSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
2. DURING CONSTRUCTION:
A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE.
B. THE CONTRACTOR SHALL USE MATERIALS AND EMPLOY CONSTRUCTION METHODS IN ORDER TO COMPLY WITH THE DRAWINGS AND SPECIFICATIONS. WHERE A CONFLICT OCCURS, THE STRICTEST DESIGN SHALL GOVERN. THE ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., DOES NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY SPECIFIC DEVIATIONS AND OBTAIN ENGINEER'S WRITTEN APPROVAL OF THE SPECIFIC DEVIATION.
C. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
D. ALL CONSTRUCTION MUST CONFORM TO THE STANDARDS, SPECIFICATIONS, AND CODES OF THE GOVERNING MUNICIPALITIES.
E. CONSTRUCTION SHALL MEET ALL CURRENT STANDARDS SET FORTH IN THE AMERICANS WITH DISABILITIES ACT.
F. IF THE CONTRACTOR DAMAGES ANY EXISTING UTILITIES DURING CONSTRUCTION, HE SHALL, AT HIS OWN EXPENSE, REPLACE OR REPAIR THE UTILITIES TO ORIGINAL CONDITION AND QUALITY AS APPROVED BY THE OWNER AND REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY.
G. SUFFICIENT BARRICADES, LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL METHODS IN ACCORDANCE WITH GOVERNING ORDINANCES MAY BE NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC. SAID CONTROL DEVICES SHALL BE PER THE MANUAL OF TRAFFIC CONTROL DEVICES, M.U.T.C.D., CURRENT EDITION, AND SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION.
H. TRAFFIC CONTROLS AND OTHER WARNING DEVICES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORK ON CITY OR COUNTY ROADS. THEY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE CONCLUSION OF ALL WORK.
I. ALL WARNING DEVICES SHALL BE EITHER TYPE I BARRICADES OR DRUMS WITH WARNING LIGHTS ON EVERY OTHER DEVICE. THEY SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION, AND THE CITY OF APOPKA FOR COLOR, SIZE, REFLECTIVITY, HEIGHT, AND PLACEMENT.
J. FIRE DEPARTMENT ACCESS SHALL BE MAINTAINED AT ALL TIMES.
K. CONTRACTOR SHALL SHORE AND BRACE ALL EARTH, FORMS, CONCRETE, STEEL, WOOD, AND MASONRY TO RESIST GRAVITY, EARTH, WIND, THERMAL, CONSTRUCTION, AND MISCELLANEOUS LOADS DURING CONSTRUCTION.
L. ON-SITE BURIAL OF DEBRIS IS PROHIBITED.
M. UNLESS OTHERWISE NOTED THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL FABRICATED MATERIALS TO THE ENGINEER. DESIGN DOCUMENTS SHALL NOT BE REPRODUCED AS SHOP DRAWINGS.
N. IN CASE OF UNFORESEEN CONSTRUCTION COMPLICATIONS OR DISCREPANCIES, THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER IN WRITING.
O. ALL REQUIRED TESTING REPORTS SHALL BE AVAILABLE AT THE JOB SITE.
P. AS-BUILT DRAWINGS OF ROADWAYS, STORM DRAINS, SANITARY SEWER AND WATER LINES, FIELD APPROVAL BY THE ENGINEER, AND ALL APPLICABLE BONDS ARE REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
Q. CONTRACTOR SHALL MAINTAIN CONTINUOUS UTILITY SERVICE TO ALL EXISTING BUILDINGS THROUGHOUT CONSTRUCTION UNLESS APPROVAL FOR SERVICE INTERRUPTION IS OBTAINED FROM THE OWNERS IN ADVANCE.
R. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS TO ENSURE THAT THE NEW WORK SHALL FIT INTO THE EXISTING SITE IN THE MANNER INTENDED AND AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK IN THE AREA INVOLVING DIFFERENCES. NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS AND NOTES RELATING TO THE AREA.
S. ANY FOREIGN ITEM FOUND DURING CONSTRUCTION IS THE PROPERTY OF THE OWNER. THIS INCLUDES, BUT IS NOT LIMITED TO, PRECIOUS METALS, COINS, PAPER CURRENCY, ARTIFACTS AND ANTIQUITIES.
T. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THE PREMISES OR ADJACENT PREMISES, OR INJURIES TO THE PUBLIC DURING THE CONSTRUCTION OF THE WORK, WHETHER CAUSED BY HIMSELF, HIS SUBCONTRACTORS, OR THE CARELESSNESS OF ANY OF HIS EMPLOYEES.
U. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY WORKS FOR THE PROTECTION OF THE WORK AND THE PUBLIC, INCLUDING BARRICADES, WARNING SIGNS, LIGHTS, ETC.
V. THE CONTRACTOR ACKNOWLEDGES & AGREES THAT THE WORK IS ENTIRELY AT HIS RISK UNTIL THE SITE IS ACCEPTED, AND HE WILL BE HELD RESPONSIBLE FOR ITS SAFETY BY THE OWNER. THE CONTRACTOR WILL INDEMNIFY THE OWNER & OWNER'S REPRESENTATIVE FROM LIABILITY AT THE SITE THROUGHOUT THE CONSTRUCTION PROCESS.
W. THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL PERMITS AND PAY ALL LEGAL FEES. HE SHALL ALSO COMPLY WITH ALL CITY, COUNTY AND STATE BUILDING LAWS, ORDINANCES OR REGULATIONS RELATING TO BUILDING SIDEWALKS, STREETS, BLASTING, PUBLIC INFRASTRUCTURE, STORMWATER REGULATIONS, ETC.

CONTRACTOR RESPONSIBILITIES (CONT.):

- X. THE CONTRACTOR IS TO CHECK AND VERIFY ALL MEASUREMENTS, LEVELS, ETC. BEFORE ORDERING MATERIALS AND PROCEEDING WITH THE WORK, AND IS TO BE RESPONSIBLE FOR THE SAME.
Y. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE DAMAGE OR LOSS OF ANY REFERENCE POINTS AND HUBS DURING THE CONSTRUCTION OF HIS WORK, AND SHALL BEAR THE COST OF REPLACING SAME.
Z. CARE SHALL BE TAKEN TO PROTECT ANY UTILITIES, TREES, ETC. WHICH ARE TO REMAIN AND NOT TO BE DISTURBED BY THE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO SUCH PROPERTY.

DEMOLITION INFORMATION:

- 1. NOTIFICATIONS: THE CONTRACTOR SHALL NOTIFY THE OWNER AND CITY INSPECTOR(S) 24 HOURS PRIOR TO ANY DEMOLITION OR CONSTRUCTION.
2. DISPOSAL GUIDELINES:
A. ONLY ITEMS SPECIFICALLY NOTED TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE.
B. REMOVE EXISTING PAVED AREAS AS SHOWN INCLUDING DRIVEWAYS, SIDEWALKS, PARKING AREAS, SERVICE AREAS, EQUIPMENT PADS, AND ALL MISCELLANEOUS PAVING.
C. ALL DEBRIS RESULTING FROM DEMOLITION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY BY THE CONTRACTOR IN ACCORDANCE WITH LOCAL STATE AND FEDERAL REGULATIONS. BACKFILL ALL TRENCHES AND EXCAVATIONS RESULTING FROM DEMOLITION.
D. ALL DEMOLISHED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.
3. TREE PROTECTION GUIDELINES: PROTECT ALL EXISTING TREES NOTED "TO REMAIN" AND ALL ITEMS TO BE TURNED OVER TO THE OWNER DURING DEMOLITION. TAKE ALL NECESSARY PRECAUTIONS AND PROTECTIVE MEASURES. ANY EXISTING ITEMS TO BE TURNED OVER TO THE OWNER WHICH ARE DAMAGED DURING DEMOLITION SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. TREES WHICH ARE DAMAGED WILL BE REPLACED OR REIMBURSED AT A RATE TO BE DETERMINED BY THE OWNER.
4. UTILITIES:
A. PRIOR TO REMOVING OR ABANDONING ANY UTILITY THE CONTRACTOR SHALL VERIFY THAT NO UPSTREAM SERVICE WILL BE TERMINATED. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY TERMINATION NOT SHOWN ON THE PLANS.
B. ALL ABANDONED WATER LINES, STORM SEWER PIPE, SANITARY SEWER PIPES, GAS LINES, OR ANY OTHER ABANDONED UNDERGROUND UTILITY SHALL BE ABANDONED IN PLACE UNLESS NOTED OTHERWISE.

SITE INFORMATION:

- 1. THE FOLLOWING ARE APPLICABLE TO ALL CIVIL DOCUMENTS:
A. WHERE A DETAIL SECTION, TYPICAL SECTION, OR A NOTE IS SHOWN FOR ONE CONDITION, IT SHALL APPLY FOR ALL LIKE OR SIMILAR CONDITIONS, UNLESS OTHERWISE NOTED ON THE PLANS.
B. EXISTING AND PROPOSED CONTOURS ARE AT ONE (1) FOOT INTERVALS.
C. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
D. ALL PIPE LENGTHS SPECIFIED IN THESE PLANS ARE THE HORIZONTAL DISTANCE AND ARE SHOWN FOR REFERENCE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE ACTUAL LENGTHS BASED ON PROPOSED PIPE SLOPE.
E. PIPE LENGTHS IN PLANS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.

EROSION AND SEDIMENT CONTROL INFORMATION:

- 1. COMPREHENSIVE:
A. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO OR CONCURRENT WITH LAND-DISTURBING ACTIVITIES.
B. PROVISIONS TO PREVENT EROSION OF SOIL FROM THE SITE SHALL BE AT A MINIMUM IN CONFORMANCE WITH THE REQUIREMENTS OF THE FLORIDA STORMWATER EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
C. FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE STANDARDS SPECIFIED IN THE FLORIDA STORMWATER EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL.
D. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
E. EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
F. THE CONSTRUCTION OF THE SITE WILL COMMENCE WITH THE INSTALLATION OF EROSION CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.
G. CONSTRUCTION EXITS SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY OR EXIT FROM THE SITE AND SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH STONE AS CONDITIONS DEMAND, REPAIR, AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT, ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES OFF SITE ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. ACCESS POINTS PROTECTED WITH A CONSTRUCTION EXIT SHALL BE OTHERWISE BARRICADED UNTIL THE SITE IS STABILIZED.

CONCRETE INFORMATION (SITE WORK ONLY):

- 1. PRODUCT CRITERIA:
A. UNLESS OTHERWISE NOTED CEMENT SHALL BE TYPE I OR III CONFORMING TO ASTM C150. AGGREGATES SHALL BE NORMAL WEIGHT CONFORMING TO ASTM C33.
B. CONCRETE SHALL CONFORM TO ACI BUILDING CODE (318-89). UNLESS NOTED CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3,500 P.S.I.
C. SLUMP SHALL BE 3" TO 5" FOR REGULAR MIX. LARGER SLUMP SHALL BE PERMITTED WITH WATER REDUCING ADMIXTURES AND WRITTEN CONSENT OF THE ENGINEER.
D. THE RELATIONSHIP BETWEEN MAXIMUM AGGREGATE SIZE TO MINIMUM AMOUNT OF CEMENT IN CONCRETE PAVEMENT (L.B. PER C.Y. OR MIX) SHALL BE AS FOLLOWS: 1" - 520, 3/4" - 540, 1/2" - 590, 3/8" - 610.
2. CURING CRITERIA:
A. CONCRETE CURING SHALL COMPLY WITH ACI 308. CURING PROCESS SHALL START IMMEDIATELY FOLLOWING INITIAL SET. CURING SHALL BE BY CURING COMPOUND.
B. CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318-89 TABLE 4.1.1. NORMAL WEIGHT CONCRETE SLABS SHALL HAVE AIR CONTENT IN ACCORDANCE WITH ACI 302.1R-89 TABLE 5.2.7A.
C. HOT WEATHER CONCRETING SHALL COMPLY WITH ACI 305. NO CONCRETE ABOVE 90 DEGREES FAHRENHEIT SHALL BE POURED. LOWER CONCRETE TEMPERATURE BY COOLING WATER AND AGGREGATE. FORMS, STEEL, AND SUBGRADE SHALL BE SPRINKLED WITH COLD WATER. AFTER FINISHING CONCRETE USE LIGHT FOG SPRAY UNTIL CURING COMPOUND IS USED.
D. COLD WEATHER CONCRETING SHALL COMPLY WITH ACI 306. SPECIAL MATERIAL PROCEDURES SHALL BE PROVIDED DURING PLACING AND CURING OF CONCRETE BELOW 40 DEGREES FAHRENHEIT.
E. CURING, HOT, AND COLD WEATHER CONCRETING PROCEDURES ARE ONLY GIVEN AS A GUIDE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT CONCRETE DAMAGE AND CRACKS. DAMAGED OR CRACKED CONCRETE WILL NOT BE ACCEPTED.

REINFORCING STEEL INFORMATION (SITE WORK ONLY):

- 1. PRODUCT CRITERIA:
A. REINFORCING STEEL SHALL CONFORM TO ASTM A-615, GRADE 60 AND GRADE 40 FOR #3 AND SMALLER BARS. MINIMUM LAP 48" DIAMETER.
B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185, MINIMUM LAP SHALL BE 8".
C. REINFORCING THAT IS WELDED SHALL BE WELDABLE TYPE AND CONFORM TO ASTM A-706.

PAVEMENT INFORMATION:

- 1. PAVEMENT:
A. ALL MATERIALS, EQUIPMENT, METHODS OF CONSTRUCTION, AND WORKMANSHIP SHALL CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION, FOOT, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
B. SEE PAVEMENT DETAILS ON CONSTRUCTION DOCUMENTS FOR SPECIFIC DESIGN INFORMATION AND REQUIREMENTS.
C. ALL CURB AND GUTTER TO BE 24" AND CONSTRUCTED OF 3000 P.S.I. CONCRETE UNLESS OTHERWISE NOTED.
2. SIGNING AND STRIPING:
A. SIGNING AND STRIPING TO BE PROVIDED BY THE CONTRACTOR ACCORDING TO THE DRAWINGS AND SPECIFICATIONS.
B. ALL STRIPING TO BE THERMOPLASTIC UNLESS OTHERWISE NOTED.

STORM SEWER NOTES:

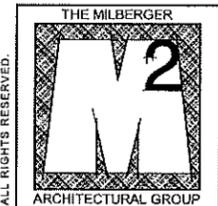
- 1. REINFORCED CONCRETE PIPE SHALL BE RCP CLASS II UNLESS OTHERWISE NOTED WITH BELL-AND-SPIGOT AND GASKETED JOINTS WITH ASTM C 443 RUBBER GASKETS.
2. FILL HEIGHTS OVER 13' REQUIRE CLASS IV RCP STORM PIPE.
3. STORM INLETS SHALL BE PRECAST IN ACCORDANCE WITH CITY OF APOPKA PUBLIC WORKS SPECIFICATIONS WHICH MEET OR EXCEED ASTM C 478.
4. ALL MANHOLE FRAMES AND COVERS ARE TO BE PER CITY OF APOPKA PUBLIC WORKS STANDARD DETAIL FOR DIMENSIONS AND MATERIALS AND AS BELOW IF NOT OTHERWISE INDICATED. FERROUS; 24-INCH (610-MM) ID BY 7- TO 9-INCH (175- TO 225-MM) RISER WITH 4-INCH- (102-MM-) MINIMUM WIDTH FLANGE AND 26-INCH- (660-MM-) DIAMETER COVER. INCLUDE INDENTED TOP DESIGN WITH LETTERING CAST INTO COVER, USING WORDING EQUIVALENT TO "STORM SEWER."
5. MATERIAL: GRAY IRON ASTM A48 CLASS 30 UNLESS OTHERWISE INDICATED.
6. ALL HDPE PIPE SHALL BE CORRUGATED HIGH DENSITY POLYETHYLENE SMOOTH INTERIOR PIPE. HDPE PIPE SHALL CONFORM TO ASTM D3505 WITH SOIL TIGHT JOINTS.
7. ALL HDPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND AASHTO SECTION 30.
8. CONTRACTOR TO PROVIDE AND INSTALL MANUFACTURER RECOMMENDED FITTINGS ON RCP CONNECTIONS TO HDPE STRUCTURES.
9. REFER TO PIPE CHART FOR CASTING TYPES. INSTALL REDUCERS AS NECESSARY PER MANUFACTURER'S SPECIFICATIONS TO ACCOMMODATE LARGER INLET SIZES.
10. FOLLOW CONSTRUCTION PLANS AND MANUFACTURER DETAILS, SPECIFICATIONS, AND INSTALLATION INSTRUCTIONS AS INCLUDED WITHIN THE PLANS AND PROVIDED BY MANUFACTURER FOR THE INSTALLATION OF WATER QUALITY AND DETENTION SYSTEMS.
11. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STORM SEWER PIPE, STRUCTURES, WATER QUALITY STRUCTURES, AND DETENTION STRUCTURES FOR ENGINEER AND OWNER APPROVAL PRIOR TO ORDERING MATERIALS.

CLEARING AND GRUBBING:

- A. DO NOT EXCEED CLEARING AND GRUBBING LIMITS OF CONSTRUCTION LINES INDICATED ON THE PLANS.
B. ALL AREAS OUTSIDE THE LIMITS OF CONSTRUCTION LINE SHALL NOT BE CROSSED BY HEAVY EQUIPMENT OR USED FOR STORING HEAVY EQUIPMENT OR MATERIALS.
C. NO EQUIPMENT SHALL BE STORED UNDER THE DRIP LINE OF TREES TO REMAIN.
D. DO NOT FALL ANY TREES OR PUSH PILES OF DEBRIS AGAINST ANY TREES TO REMAIN.
E. REMOVE ALL STUMPS, ROCKS, ASPHALT & CONCRETE DEBRIS, ETC. AND DISPOSE OFF SITE IN ACCORDANCE WITH LOCAL, STATE & FEDERAL REGULATIONS.
F. CONTACT ALL UTILITY AUTHORITIES WHO HAVE LINES WITHIN THE CLEARING AND GRUBBING LIMITS BEFORE STARTING WORK.
G. ALL EROSION CONTROL SEDIMENT BARRIERS, SILT FENCES, AND TREE PROTECTION DEVICES SHALL BE INSTALLED PRIOR TO STARTING CLEARING AND GRUBBING.
H. AFTER STAKING IS COMPLETED, TREES WITHIN GRADING LIMITS TO BE SAVED WILL BE IDENTIFIED BY THE OWNER'S REPRESENTATIVE. FIELD CHANGES TO GRADING PLANS SHALL BE MADE FOR SMOOTH TRANSITION OF GRADES AROUND ALL TREES WHICH REQUIRE TREE WELLS WITHIN THE GRADING LIMITS.
I. ALL CLEARING SHALL BE LIMITED TO AREAS TO BE GRADED WITHIN 15 CALENDAR DAYS.

GRADING NOTES:

- A. TOPSOIL SHALL BE STORED ON SITE IN LOCATIONS APPROVED BY THE OWNER'S REPRESENTATIVE. DRAINAGE SHALL ROUT AROUND THESE TOPSOIL STOCKPILES FOR THE DURATION OF THE GRADING OPERATIONS. EROSION CONTROL MEASURES SHALL PREVENT THE LOSS OF TOPSOIL MATERIAL.
B. UNSUITABLE SOILS SHALL BE UNIFORMLY SPREAD ACROSS NON-STRUCTURAL FILL AREAS AND COVERED WITH TOPSOIL AND SEEDED.
C. FILL AREA SHALL BE PROOF-ROLLED WITH RUBBER-TIRED EQUIPMENT WITH A MINIMUM WEIGHT OF FIFTEEN TONS PRIOR TO BEGINNING FILL OPERATION. AREAS WHICH ARE SOFT OR UNSTABLE SHALL BE UNDERCUT UNTIL STABLE SOILS ARE FOUND. RE-COMPACTION OF THESE SOILS SHALL BE TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 (STANDARD PROCTOR).
D. CUT AREA SHALL BE PROOF-ROLLED AFTER FINAL SUBGRADE IS ACHIEVED IN THE SAME MANNER AS FILLED AREAS. SOFT OR UNSTABLE SOILS SHALL BE SCARIFIED TO A DEPTH OF 12" AND RE-COMPACTED TO 98% MAXIMUM DRY DENSITY AS PER ASTM D698 (STANDARD PROCTOR).
E. ALL GRADING SHALL BE COMPLETED TO THE LEVEL INDICATED BY THE SCOPE OF WORK LISTED IN THE BID DOCUMENTS.
F. ELEVATIONS SHOWN ON THE PLANS IS THE FINISH GRADE ELEVATION.
G. GRADING SHALL BE SEQUENCED SO THAT BASE STONE IS PLACED WITHIN 10 CALENDAR DAYS OF ACHIEVING OPTIMUM SUBGRADE COMPACTION.
H. SOILS TESTING LABORATORY/ SOILS ENGINEER, CONTRACTOR WILL EMPLOY A QUALIFIED SOILS TESTING LABORATORY/ ENGINEER TO OBSERVE THIS WORK AND MAKE TESTS AS REQUIRED.
I. HAVE EARTH BORROW FILL, AGGREGATE, TOPSOIL, AND STRUCTURAL FILL TESTED AND APPROVED BY DESIGNATED TESTING LABORATORY BEFORE MOVING IT TO THE JOB SITE.
J. CONTRACTOR SHALL OBSERVE PROOF-ROLLING OF AREAS WHERE BUILDING AND PAVING WILL BE LOCATED TO DETERMINE ADEQUACY OF SOIL COMPACTION AND IN-PLACE SOILS. OTHER AREAS WILL BE IN THE CARE OF THE ENGINEER TO DETERMINE ADEQUACY IN THOSE AREAS. IF SOILS ARE NOT ADEQUATE TO BEAR WEIGHTS THAT WILL BE IMPOSED, TESTING LABORATORY WILL OBSERVE AND REPORT CORRECTIVE ACTION TAKEN.
K. TEST IN-PLACE SOIL AND FILLED AND COMPACTED AREAS. IF THESE ARE NOT ADEQUATE TO BEAR WEIGHTS IMPOSED, TESTING LABORATORY WILL ADVISE THE OWNER'S REPRESENTATIVE OF THEIR RECOMMENDATIONS. HE WILL DIRECT ANY CORRECTIVE MEASURES THAT ARE NECESSARY.
L. SOILS COMPACTION TESTING OF IN-PLACE AND FILLED AND COMPACTED AREAS WILL BE PERFORMED BY TESTING LABORATORY IN ACCORDANCE WITH THEIR REQUIREMENTS.
M. THE SOILS ENGINEER'S AND TESTING LABORATORY'S FEES WILL BE PAID BY THE CONTRACTOR.
N. APPLICABLE SPECIFICATIONS FOR COMPACTED FILL: THE FOLLOWING CURRENT AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) STANDARDS ARE HEREBY MADE PART OF THIS SPECIFICATION:
• D421-68, DRY PREPARATION OF SOIL SAMPLES FOR GRAIN-SIZE ANALYSIS AND DETERMINATION OF SOIL CONSTANTS.
• D422-63, STANDARD METHOD OF PARTICLE SIZE ANALYSIS OF SOILS.
• D1140-54, METHOD OF TEST FOR AMOUNT OF MATERIAL IN SOILS FINER THAN NO. 200 SIEVE.
• D698, METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT.
• D1557-74, STANDARD TEST METHODS FOR MOISTURE-DENSITY RELATIONS OF SOILS AND SOIL-AGGREGATE MIXTURES USING 10 LB. (4.54-KG) RAMMER AND 18-INCH (457 MM) DROP.
O. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS AT ALL LOCATIONS UNLESS OTHERWISE NOTED.
P. CONTRACTOR SHALL REVIEW THE SITE SPECIFIC GEOTECHNICAL REPORT PRIOR TO COMMENCING WITH GRADING OPERATIONS. WHERE CONFLICTS BETWEEN THE GRADING NOTES AND GEOTECHNICAL REPORT EXIST, THE MORE STRINGENT REQUIREMENT SHALL APPLY.



REVISIONS table with columns for revision number and description.

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T0006
845 SOUTH ORANGE
BLOSSOM TRAIL
APOPKA, FL 32703

Table with columns: DRAWN BY: LVA, CHECKED BY: TJM.

CONTENTS:
GENERAL NOTES

3/29/2018

118220041
JOB NUMBER

Table with columns: C0-01, 2, 17 TOTAL.



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REVISIONS

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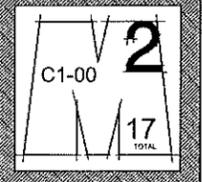
T0006
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DRAWN BY:	CHECKED BY:
LVA	TJM

CONTENTS:
EXISTING CONDITIONS AND DEMOLITION PLAN

3/29/2018

118220041
JOB NUMBER



SITE LEGEND

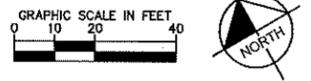
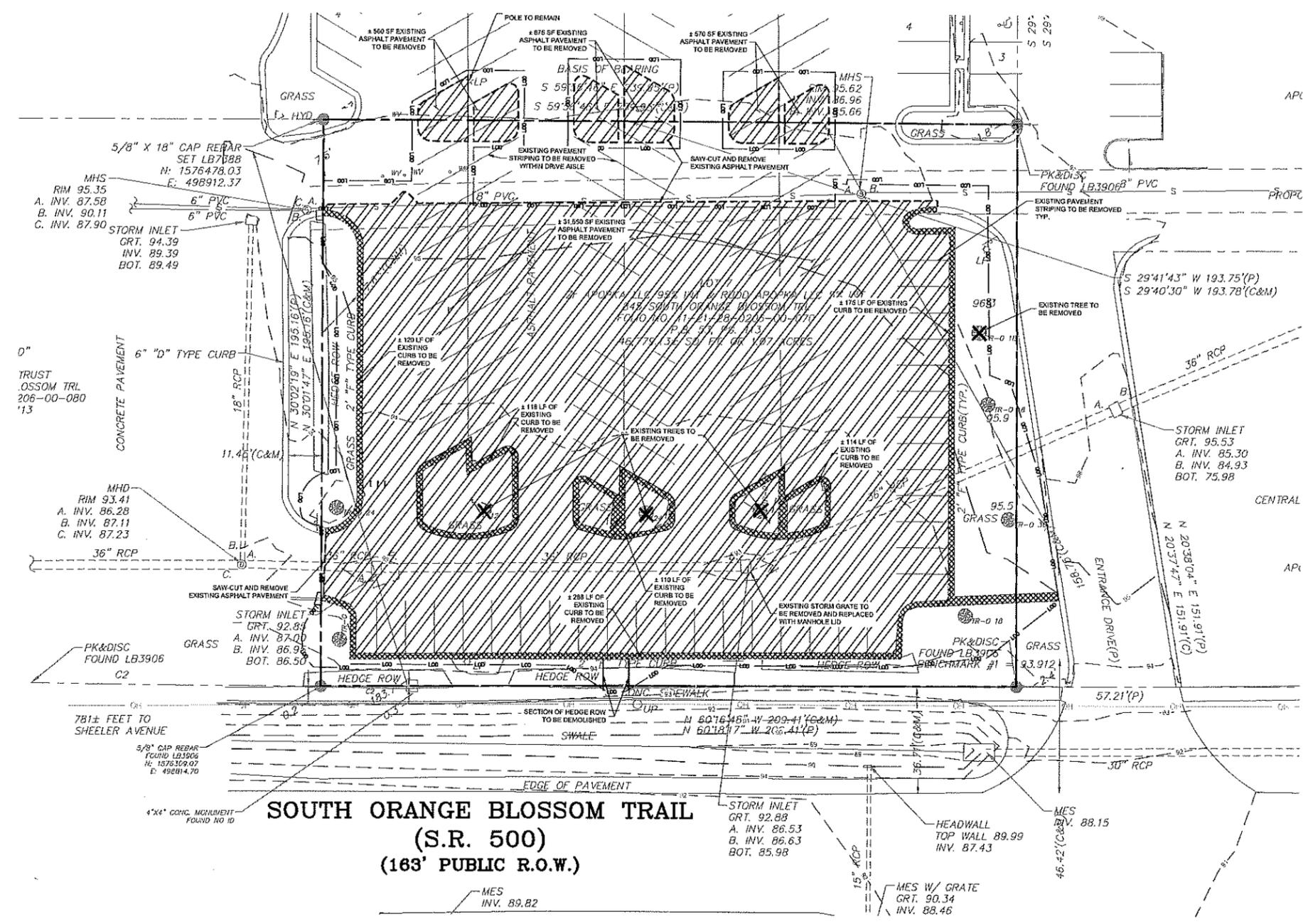
---	PROPERTY LINE
---	LIMITS OF DISTURBANCE
⊙	SANITARY SEWER MANHOLE
---	SANITARY SEWER PIPE
●	TREE
★	PALM TREE
☼	LIGHT POLE
---	STORMWATER PIPE
---	STORMWATER INLET
○	WATER VALVE
⊕	FIRE HYDRANT
○	UTILITY POLE
---	OVERHEAD WIRE

DEMOLITION LEGEND

▨	EXISTING PAVEMENT TO BE REMOVED
▩	EXISTING CURB TO BE REMOVED
---	SAW-CUT AND REMOVE EXISTING PAVEMENT
X	TREE REMOVAL

NOTES

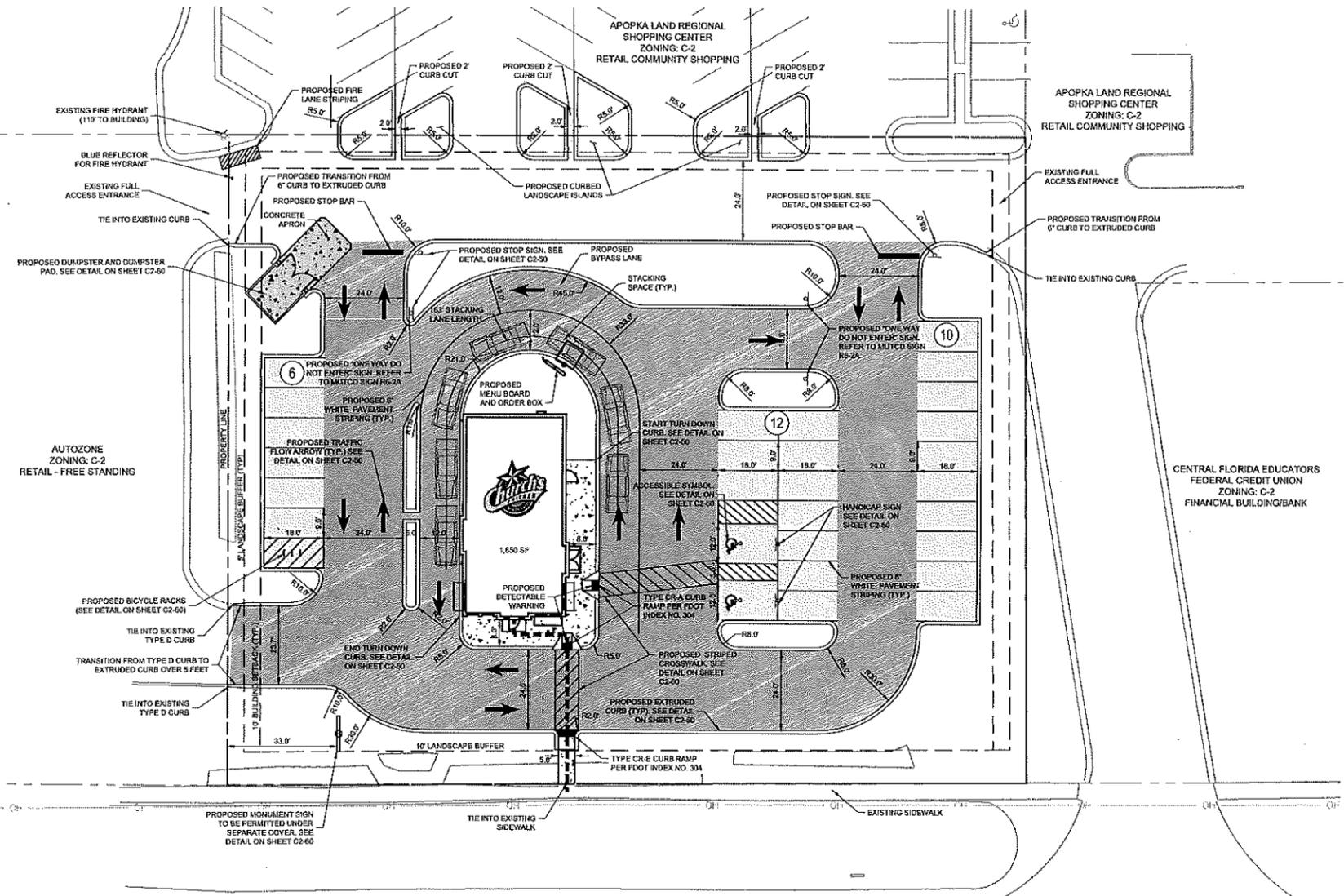
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES AND/OR CONFLICTS WITH EXISTING OR PROPOSED UTILITIES PRIOR TO PROCEEDING.
- ALL EXISTING PAVEMENT STRIPING TO BE REMOVED ON-SITE.



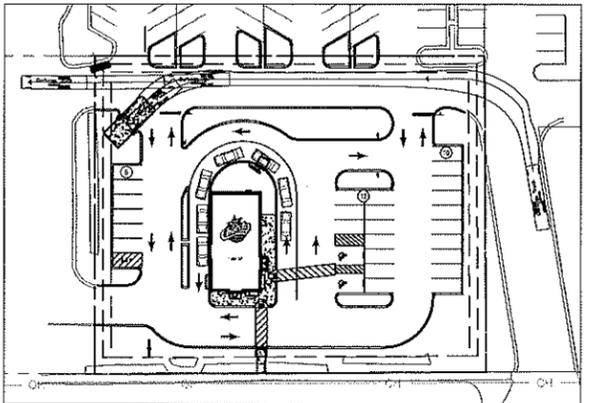
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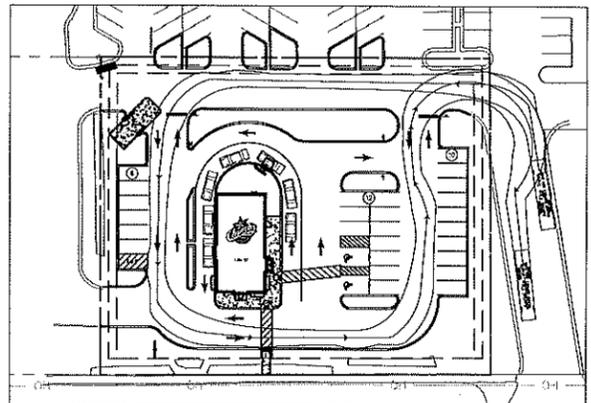
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SOUTH ORANGE BLOSSOM TRAIL
 (S.R. 500)
 (163' PUBLIC R.O.W.)



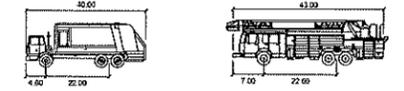
GARBAGE TRUCK CIRCULATION PLAN
 SCALE: 1" = 50'



FIRE TRUCK CIRCULATION PLAN
 SCALE: 1" = 50'

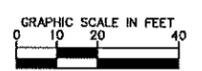
EXISTING PARKING DATA		
	EXCLUDING CHURCH'S CHICKEN LOT	INCLUDING CHURCH'S CHICKEN LOT
SHOPPING CENTER REQUIRED PARKING	1,010 SPACES	1,010 SPACES
EXISTING SHOPPING CENTER PARKING	855 SPACES	963 SPACES*
PROPOSED SHOPPING CENTER PARKING	855 SPACES**	881 SPACES

** 12 OF THESE SPACES ARE SPLIT BETWEEN THE TWO PARCELS, AND WILL BE CONVERTED TO LANDSCAPE ISLANDS PER CITY COMMENTS REGARDING OPPOSITE IMPROVEMENTS. PARKING FOR SHOPPING CENTER EXCLUDING CHURCH'S CHICKEN LOT TO REMAIN UNCHANGED.



GARBAGE TRUCK PROFILE		FIRE TRUCK PROFILE	
Width	Height	Width	Height
4'0"	8'0"	7'0"	11'0"
Turn	8'0"	Turn	8'0"
Lock to Lock Time	5'0"	Lock to Lock Time	4'0"
Steering Angle	27.4°	Steering Angle	33.3°

SCALE: 1" = 20'



SITE LEGEND	
	PROPOSED MONUMENT SIGN
	ADA PARKING SPACE
	EXTRUDED CURB
	PROPERTY LINE
	SIGN
	PARKING SPACE COUNT
	DIRECTIONAL ARROW
	ACCESSIBLE RAMP WITH DETECTABLE WARNING
	PEDESTRIAN ROUTE

PAVEMENT LEGEND	
	HEAVY DUTY PAVEMENT
	LIGHT DUTY PAVEMENT
	CONCRETE SIDEWALK
	HEAVY DUTY CONCRETE

SITE DATA	
ZONING DISTRICT	GENERAL COMMERCIAL (C-2)
SOIL TYPE	TAVARES-HILL HOPPER COMPLEX (0 TO 5 PERCENT SLOPES) HYDROLOGIC SOIL GROUP A
PARKING	1 SPACER/4 FIXED SEATS + 1 SPACER/5 SP PATRON AREA WITHOUT FIXED SEATS + 31 SEATS/4 + 504 SF/75+ 15 SPOTS
PARKING PROVIDED:	28 SPOTS
STACKING SPACES PROVIDED:	7 SPOTS
IMPERVIOUS SURFACE AREA	
EXISTING:	61.1%
PROPOSED:	72.6%
LANDSCAPING	
ILA EXISTING:	2,073 SF
ILA REQUIRED:	2,093 SF
ILA PROPOSED:	3,537 SF
OPEN SPACE PROVIDED:	27.4%
PAVEMENT QUANTITIES	
HEAVY DUTY ASPHALT:	17,560 SF
LIGHT DUTY ASPHALT:	5,120 SF
CONCRETE SIDEWALK:	780 SF
HEAVY DUTY CONCRETE:	410 SF
CURB QUANTITIES:	
EXTRUDED CURB:	1,730 LF
TURN-DOWN CURB:	105 LF

- SITE LAYOUT NOTES**
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
 - ALL RADI ARE 3' UNLESS OTHERWISE NOTED.
 - ALL CURB AROUND SIDEWALKS TO BE TURN-DOWN AS PER DETAIL 7 ON SHEET C2-50.
 - INSTALL CONCRETE JOISTS WHERE SHOWN ON PLANS AND DETAILS. ALIGN ON WALLS, BUILDINGS, RADI, ETC. EVENLY SPACE BETWEEN ELEMENTS AS SHOWN. PROVIDE EXPANSION JOISTS BETWEEN CONCRETE PAVEMENT AND ALL VERTICAL ELEMENTS (WALLS, CURBS, ETC.). LAYOUT ALL CURVES SMOOTHLY WITH NO ABRUPT CHANGES AT TANGENT POINTS.
 - ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 - LAYOUT ALL ELEMENTS IN FIELD AND CONTACT OWNERS REPRESENTATIVE FOR APPROVAL BEFORE BEGINNING ANY CONSTRUCTION.
 - CONTRACTOR TO TAKE ALL PRECAUTIONS TO FIND AND AVOID SITE UTILITIES. ALL UTILITIES ARE NOT SHOWN ON DRAWINGS. VERIFY LOCATIONS AND CONSIDER SUCH WHEN ESTIMATING.
 - ALL LANDSCAPE ISLANDS SHALL BE MOUNDING WITH TOPSOIL 4" ABOVE THE CURB LINE TO PROMOTE POSITIVE DRAINAGE.
 - ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
 - ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE INSTALLED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 - ALL SIDEWALKS WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED PER CITY OF APOPKA PUBLIC WORKS STANDARDS.
 - SAW CUT LINES SHALL BE DONE IN A STRAIGHT NEAT LINE A MINIMUM OF 18" FROM THE EXISTING EDGE OF PAVEMENT.
 - REFER TO ARCHITECTURAL PLAN FOR STRIPING WITHIN THE BUILDING.
 - ALL TREE GRATES SHALL BE ADA COMPLIANT AND 120 TRAFFIC RATED.
 - FIRE LANE STRIPING TO BE 4" X 12" IN FRONT OF FIRE HYDRANT SERVING SITE PER DISCUSSION WITH CITY OF APOPKA FIRE MARSHAL.

- PUBLIC WORKS NOTES**
- ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
 - THE DEVELOPER'S FINAL CONSTRUCTION SHALL COMPLY WITH THE DESIGN REGULATIONS ESTABLISHED BY THE DEPARTMENT OF PUBLIC WORKS. FINAL DESIGN MAY VARY BASED ON FIELD CONDITIONS.
 - ALL ROW DEDICATIONS ARE TO BE RECORDED PRIOR TO ISSUANCE OF THE BUILDING PERMITS.

- JOINT ACCESS AND PARKING NOTES**
- THE FOLLOWING PROVISIONS OF THE RECORDED DOCUMENTS BELOW JOINT ACCESS/PARKING FOR THE SUBJECT PARCEL AND ADJACING PROPERTIES: EASEMENTS/RESTRICTIONS BOOK 3694, PAGE 95, SECTION 5(A); EASEMENTS/RESTRICTIONS BOOK 6870, PAGE 4202, SECTION 2.2



REVISIONS	
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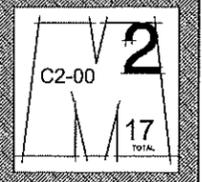
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 APOPKA, FL 32703

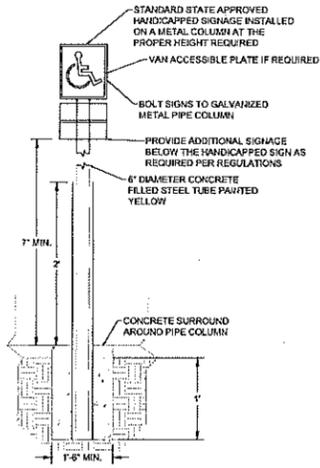
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CONTENTS:
 SITE PLAN

3/29/2018

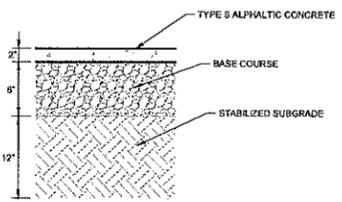
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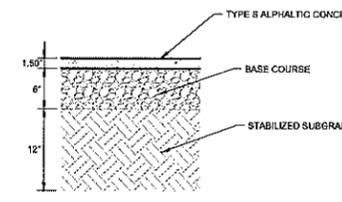
1 HANDICAP SIGN DETAIL VAN ACCESSIBLE
NOT TO SCALE

NOTES:
1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH FOOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. PROPOSED PAVEMENT SECTIONS SHOWN HEREIN ARE PRELIMINARY. FINAL PAVEMENT DESIGN SHALL BE PROVIDED BY A LICENSED GEOTECHNICAL ENGINEER, BASED ON SITE CONDITIONS AND SOIL PROPERTIES FOUND DURING CONSTRUCTION.
3. LIMEROCK/CRUSHED CONCRETE BASE COURSE (LBR=100) OR SOIL CEMENT (350 PSI DESIGN OR EQUIVALENT)
4. STABILIZED SUBGRADE (LBR = 40) IF A LIMEROCK/CRUSHED CONCRETE BASE IS USED OR A SUBGRADE COMPACTED TO 98 PERCENT OF THE MATERIAL'S ASTM D-1557 MAXIMUM DRY DENSITY IF SOIL CEMENT IS USED AS BASE MATERIAL.

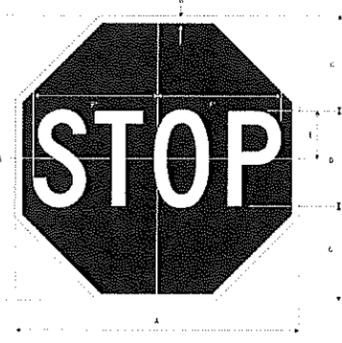


2 TYPICAL HEAVY DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE

NOTES:
1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH FOOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. PROPOSED PAVEMENT SECTIONS SHOWN HEREIN ARE PRELIMINARY. FINAL PAVEMENT DESIGN SHALL BE PROVIDED BY A LICENSED GEOTECHNICAL ENGINEER, BASED ON SITE CONDITIONS AND SOIL PROPERTIES FOUND DURING CONSTRUCTION.
3. LIMEROCK/CRUSHED CONCRETE BASE COURSE (LBR=100) OR SOIL CEMENT (350 PSI DESIGN OR EQUIVALENT)
4. STABILIZED SUBGRADE (LBR = 40) IF A LIMEROCK/CRUSHED CONCRETE BASE IS USED OR A SUBGRADE COMPACTED TO 98 PERCENT OF THE MATERIAL'S ASTM D-1557 MAXIMUM DRY DENSITY IF SOIL CEMENT IS USED AS BASE MATERIAL.



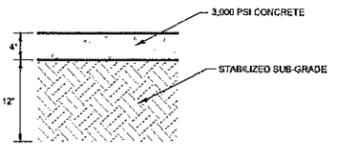
3 TYPICAL LIGHT DUTY ASPHALT PAVEMENT SECTION
NOT TO SCALE



4 STOP SIGN DETAIL
NOT TO SCALE

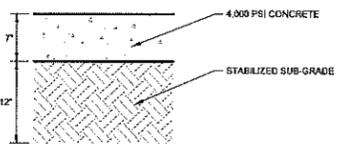
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NOTES:
1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH FOOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. BROOM FINISH SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
3. PROPOSED PAVEMENT SECTIONS SHOWN HEREIN ARE PRELIMINARY. FINAL PAVEMENT DESIGN SHALL BE PROVIDED BY A LICENSED GEOTECHNICAL ENGINEER, BASED ON SITE CONDITIONS AND SOIL PROPERTIES FOUND DURING CONSTRUCTION.
4. WELL-DRAINING GRANULAR SUBGRADE, COMPACTED TO 98 PERCENT OF THE MATERIAL'S ASTM D-1557 MAXIMUM DRY DENSITY.
5. PLACE EXPANSION JOINTS AT A MAXIMUM OF 75' O.C.
6. PLACE CONTROL JOINTS AT A MAXIMUM OF 15' O.C.

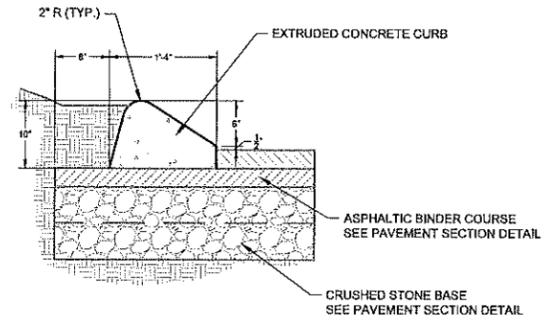


5 TYPICAL CONCRETE SIDEWALK SECTION
NOT TO SCALE

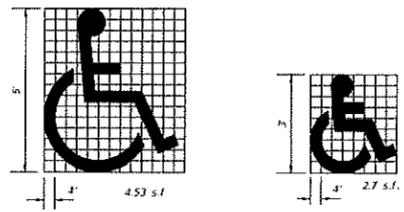
NOTES:
1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH FOOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION, LATEST EDITION.
2. BROOM FINISH SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.
3. PROPOSED PAVEMENT SECTIONS SHOWN HEREIN ARE PRELIMINARY. FINAL PAVEMENT DESIGN SHALL BE PROVIDED BY A LICENSED GEOTECHNICAL ENGINEER, BASED ON SITE CONDITIONS AND SOIL PROPERTIES FOUND DURING CONSTRUCTION.
4. WELL-DRAINING GRANULAR SUBGRADE, COMPACTED TO 98 PERCENT OF THE MATERIAL'S ASTM D-1557 MAXIMUM DRY DENSITY.
5. PLACE EXPANSION JOINTS AT A MAXIMUM OF 75' O.C.
6. PLACE CONTROL JOINTS AT A MAXIMUM OF 15' O.C.



6 TYPICAL CONCRETE PAVEMENT SECTION
NOT TO SCALE

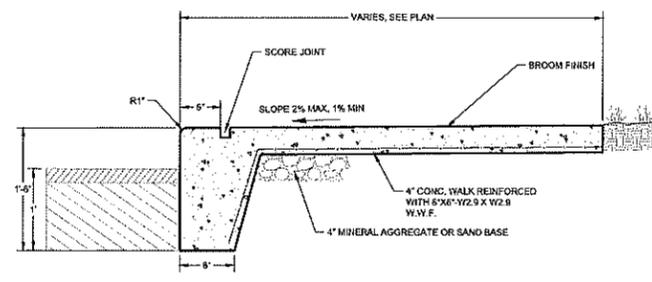


7 EXTRUDED CURB DETAIL
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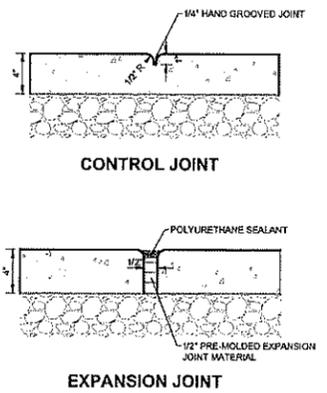


8 ACCESSIBLE SYMBOL DETAIL
NOT TO SCALE

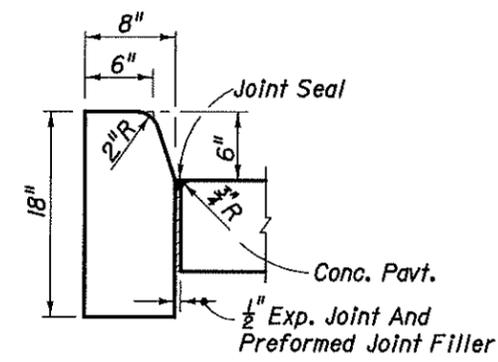
NOTES:
1. USE 3,000 PSI CONCRETE
2. USE GRADE 60 STEEL
3. PROVIDE CONTROL JOINTS @ 5' CENTERS
4. PROVIDE EXPANSION JOINTS @ 20' CENTERS AND WHERE SIDEWALKS ABUT RIGID MATERIAL



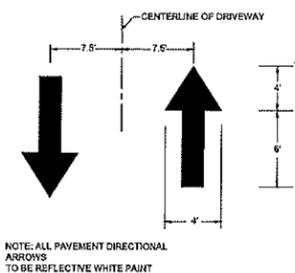
9 SIDEWALK W/ TURN DOWN CURB
NOT TO SCALE



10 SIDEWALK JOINTS
NOT TO SCALE



11 TYPE D CURB
NOT TO SCALE



12 TRAFFIC FLOW ARROW DETAIL
NOT TO SCALE



REVISIONS

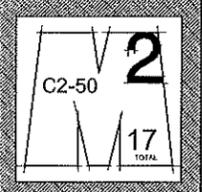
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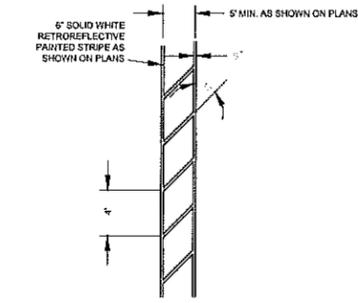
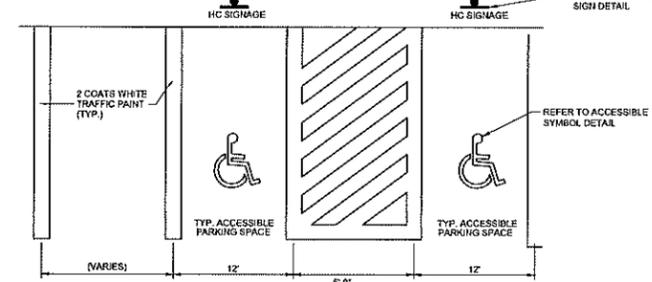
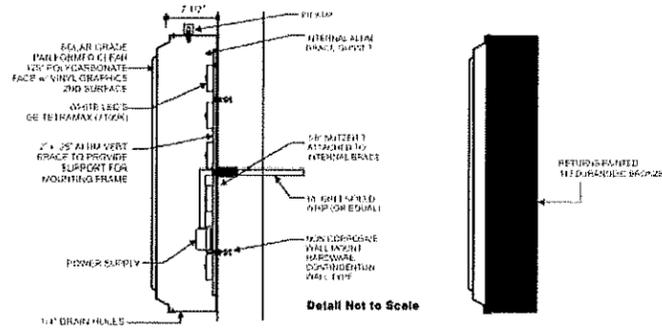


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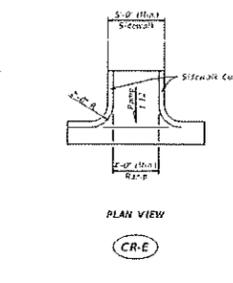
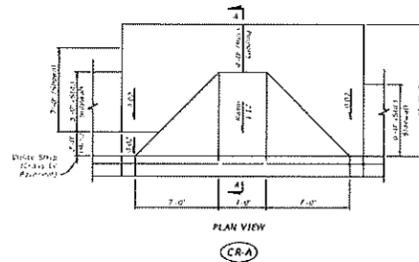
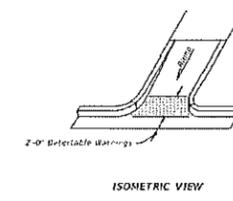
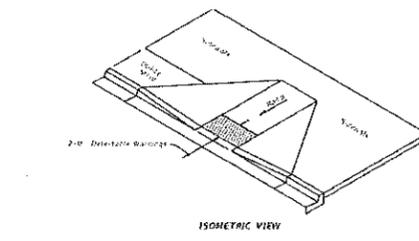
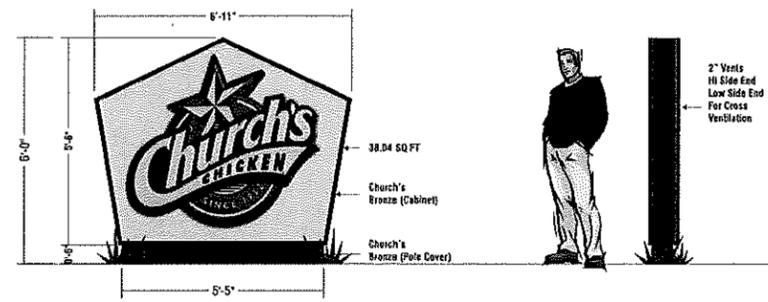


SIGN TYPE	SIGN SIZE	SQUARE FOOTAGE	CLEAR SPACE
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1 WALL SIGN DETAIL
NOT TO SCALE

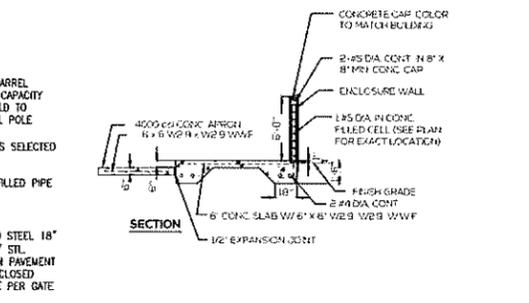
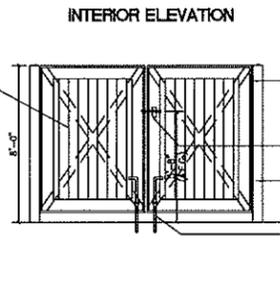
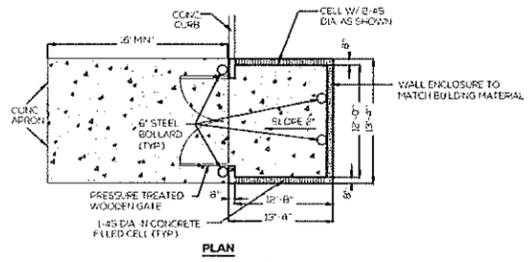
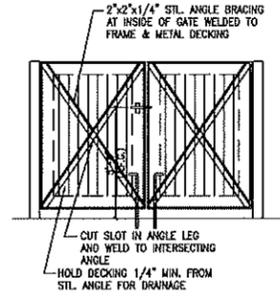


- NOTES:
1. SIDEWALKS TO HAVE A MAXIMUM 2% CROSS SLOPE AND A MAXIMUM 5% LONGITUDINAL SLOPE.
 2. PEDESTRIAN CROSSWALKS TO HAVE MAXIMUM 2% CROSS SLOPE AND MAXIMUM 5% LONGITUDINAL SLOPE WITH STRIPED AREA.
 3. ADA PARKING AREAS AND ACCESSIBLE AREAS TO HAVE A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.
 4. SIDEWALK INTERSECTIONS AND RAMP LANDINGS TO HAVE A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.

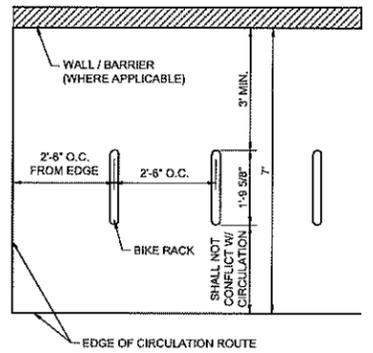
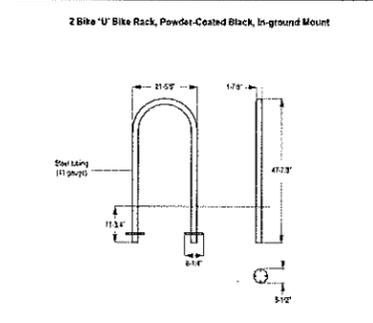


5 CR-A CURB RAMP DETAIL
NOT TO SCALE

5 CR-E CURB RAMP DETAIL
NOT TO SCALE



7 CONCRETE DUMPSTER PAD W/ SCREEN WALL
NOT TO SCALE



NOTE: BIKE RACKS TO BE EMBEDDED IN PAVEMENT



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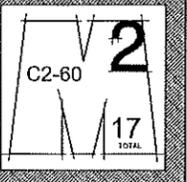
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CONTENTS:
SITE DETAILS 2

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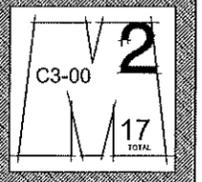
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CONTENTS:
 EROSION AND SEDIMENT CONTROL PLAN PHASE I

3/29/2018

118220041
 JOB NUMBER



GENERAL LEGEND

---	EXISTING MAJOR CONTOUR LINE
---	EXISTING MINOR CONTOUR LINE
---	LIMITS OF DISTURBANCE
---	PROPOSED PROPERTY LINE

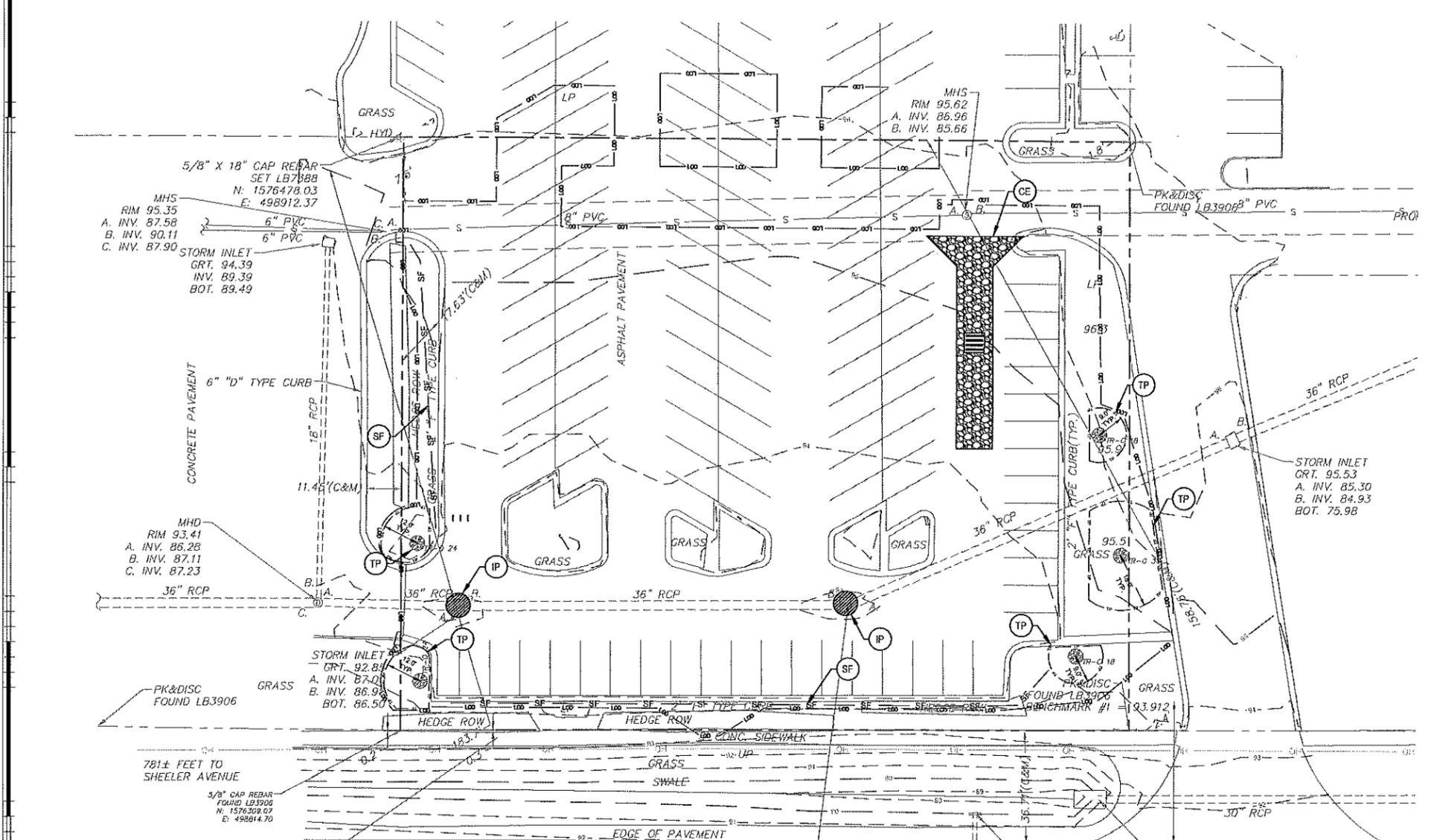
EROSION CONTROL LEGEND

NO.	TITLE	KEY	SYMBOL
4.3	CONSTRUCTION ENTRANCE	CE	[Symbol]
4.5	EXISTING STORM DRAIN INLET PROTECTION	IP	[Symbol]
7.4	TEMPORARY SEEDING	TS	[Symbol]
7.9	TREE PRESERVATION	TP	[Symbol]

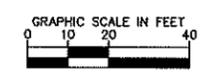
(TS) (PS) (MU)
 SHALL BE IMPLEMENTED ACROSS SITE AS NEEDED.

- PHASE 1 CONSTRUCTION SEQUENCE**
- INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
 - INSTALL PERIMETER CONTROLS, INLET PROTECTION AT EXISTING STORM DRAIN STRUCTURES, AND OTHER MEASURES AS SHOWN ON PLANS.
 - ALL PHASE 1 EROSION AND SEDIMENT CONTROL DEVICES MENTIONED ABOVE ARE TO BE APPROVED BY THE CITY INSPECTOR PRIOR TO PROCEEDING WITH CLEARING AND GRADING WORK.
 - BEGIN DEMOLITION AND CLEARING AS SHOWN ON DEMOLITION PLAN.

- EROSION CONTROL NOTES**
- STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS. STOCK PILE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO GRADING ACTIVITIES. EROSION & SEDIMENT CONTROL PRACTICE SHALL BE INSTALLED PRIOR TO STOCKPILE OPERATIONS.
 - ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL REQUIRED PERMITS ARE SECURED FOR EACH PROPERTY UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
 - CONSTRUCT SILT BARRIERS BEFORE BEGINNING GRADING OPERATIONS.
 - MULCH AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED (WITHIN 15 DAYS OF ACHIEVED FINAL GRADES) UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEASURES NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION. STEEP SLOPES (GREATER THAN 3:1) SHALL BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.
 - REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
 - CLEAN SILT BARRIERS WHEN THEY ARE APPROXIMATELY 50% FILLED WITH SEDIMENT OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. SILT BARRIERS SHALL BE REPLACED AS EFFECTIVENESS IS SIGNIFICANTLY REDUCED OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
 - REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND, WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.
 - PROVIDE TEMPORARY CONSTRUCTION ACCESSES AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND DIRT.
 - DO NOT DISTURB VEGETATION OR REMOVE TREES EXCEPT WHEN NECESSARY FOR GRADING PURPOSES.
 - STABILIZATION MEASURES (SEED & MULCH, TRIM WHERE INDICATED) SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, EXCEPT IN THE FOLLOWING TWO CASES.
 - WHERE THERE IS SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE OR WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 15 DAYS. TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE.
 - ALL EROSION CONTROL MEASURES SHALL BE CHECKED TWICE WEEKLY DURING PROLONGED RAINFALL. DAILY CHECKING IS NECESSARY. DOCUMENTATION OF ALL CHECKS AND CORRECTIVE MEASURES SHALL BE KEPT AT THE PROJECT. A MONITORING REPORT CAN BE FOUND IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
 - CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT REFUELING IN ACCORDANCE WITH FDEP STANDARDS. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NEPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS OIL CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITEE.
 - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTORS MANUAL, U.S. DEPARTMENT OF AGRICULTURE.
 - THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY AGENCY FLOOD INSURANCE RATE MAP #12085C0140F, EFFECTIVE SEPTEMBER 25, 2009.
 - CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE GRADING PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE AT THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE GRADING PERMIT.
 - THE TOTAL DISTURBED AREA IS 48,97 ACRES.
 - THIS PLAN SHALL BE USED IN CONJUNCTION WITH THE EROSION CONTROL NOTES AND DETAILS ON SHEET C3-90.



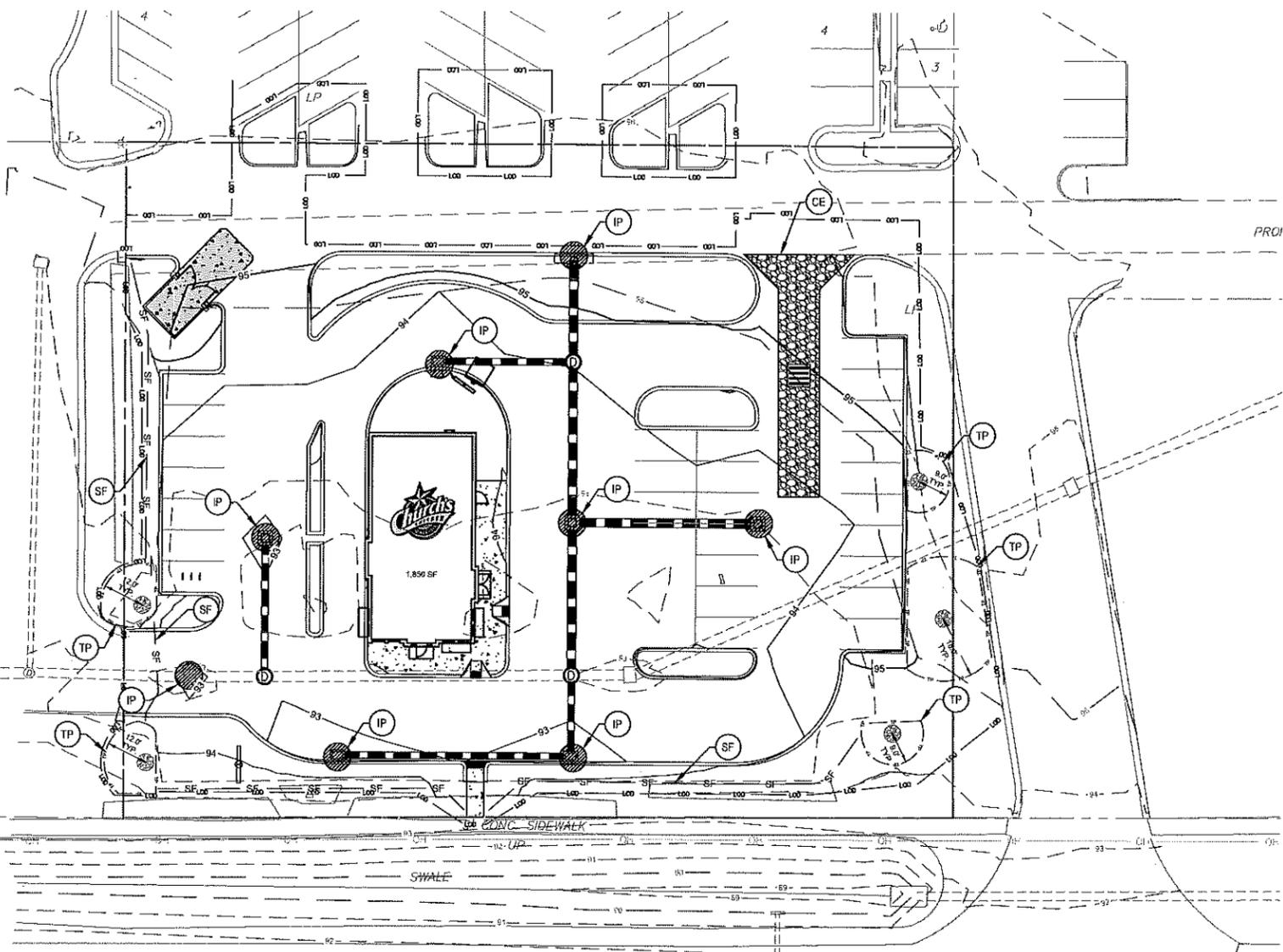
**SOUTH ORANGE BLOSSOM TRAIL
 (S.R. 500)
 (163' PUBLIC R.O.W.)**



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**SOUTH ORANGE BLOSSOM TRAIL
(S.R. 500)
(163' PUBLIC R.O.W.)**

- PHASE 2 CONSTRUCTION SEQUENCE**
- BEGIN GRADING OPERATIONS AS SHOWN ON THE GRADING PLAN AFTER ALL PHASE 1 CONTROL DEVICES AND SITE CONDITIONS HAVE BEEN APPROVED BY THE CITY INSPECTOR.
 - BEGIN FOUNDATIONS.
 - INSTALL STORM SEWER SYSTEM AND INLET PROTECTION ON ALL NEW STRUCTURES.
 - BEGIN INSTALLING UTILITIES SUCH AS THE WATER MAIN SYSTEM AND SANITARY SYSTEM. FRANCHISE UTILITIES SUCH AS POWER, GAS, PHONE, CABLE, ETC. SHALL BE INSTALLED AS SPECIFIED BY OTHERS.
 - BEGIN AND STABILIZE SITE WORK (WITH BASE STONE FOR ASPHALT AND CONCRETE WORK, FOR EXAMPLE) AS SOON AS POSSIBLE.
 - INSTALL CURBS AND OTHER SITE IMPROVEMENTS AS PER PLAN.
 - FINE GRADE BASE STONE, INSTALL ASPHALT PAVEMENT AND CONCRETE PAVEMENT AS PER PLAN.
 - DRESS AND OVERSEED ALL DISTURBED AREAS.
 - PAVE AND STRIPE AS PER PLAN.
 - STABILIZE SITE (INCLUDING TOPSOILING AND SEEDING).
 - REMOVE AND DISPOSE OF SEDIMENTS THAT HAVE ACCUMULATED ONSITE AND IN THE DRAINAGE PIPES.
 - PLANT TREE AND VEGETATION AS SHOWN ON THE SITE LANDSCAPE PLANS.
 - SITE SHALL BE STABILIZED AND ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES READY FOR REMOVAL WITHIN 30 DAY OF FINAL SITE STABILIZATION. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM CITY OF APOPKA PRIOR TO REMOVAL OF EAS MEASURES.

GENERAL LEGEND

— 04 —	PROPOSED MAJOR CONTOUR LINE
- 04 -	PROPOSED MINOR CONTOUR LINE
— 01 —	EXISTING MAJOR CONTOUR LINE
- 01 -	EXISTING MINOR CONTOUR LINE
---	LIMITS OF DISTURBANCE
---	PROPOSED PROPERTY LINE

EROSION CONTROL LEGEND

NO.	TITLE	KEY	SYMBOL
4.3	CONSTRUCTION ENTRANCE	CE	
4.4.1	SILT FENCE	SF	
4.5	PROPOSED STORM DRAIN INLET PROTECTION	IP	
7.4	TEMPORARY SEEDING	TS	
7.5	PERMANENT SEEDING	PS	
7.7	MULCHING	MU	
7.9	TREE PRESERVATION	TP	

(TS) (PS) (MU)
SHALL BE IMPLEMENTED
ACROSS SITE AS NEEDED.

- EROSION CONTROL NOTES**
- STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS. STOCKPILE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO GRADING ACTIVITIES. EROSION & SEDIMENT CONTROL PRACTICE SHALL BE INSTALLED PRIOR TO STOCKPILE OPERATIONS.
 - ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL REQUIRED PERMITS ARE SECURED FOR EACH PROPERTY UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
 - CONSTRUCT SILT BARRIERS BEFORE BEGINNING GRADING OPERATIONS.
 - MULCH AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED (WITHIN 15 DAYS OF ACHIEVED FINAL GRADES) UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION STEEP SLOPES (GREATER THAN 3:1) SHALL BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.
 - REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
 - CLEAN SILT BARRIERS WHEN THEY ARE APPROXIMATELY 50% FILLED WITH SEDIMENT OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. SILT BARRIERS SHALL BE REPLACED AS EFFECTIVENESS IS SIGNIFICANTLY REDUCED OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
 - REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND, WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.
 - PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND DIRT.
 - DO NOT DISTURB VEGETATION OR REMOVE TREES EXCEPT WHEN NECESSARY FOR GRADING PURPOSES.
 - STABILIZATION MEASURES (SEED & MULCH, TRIM WHERE INDICATED) SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, EXCEPT IN THE FOLLOWING TWO CASES:
 - WHERE THERE IS SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE OR WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 15 DAYS. TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE.
 - ALL EROSION CONTROL MEASURES SHALL BE CHECKED TWICE WEEKLY DURING PROLONGED RAINFALL. DAILY CHECKING IS NECESSARY. DOCUMENTATION OF ALL CHECKS AND CORRECTIVE MEASURES SHALL BE KEPT AT THE PROJECT. A MONITORING REPORT CAN BE FOUND IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
 - CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT REFUELING IN ACCORDANCE WITH FDEP STANDARDS. CONTRACTOR TO COORDINATE EXACT LOCATION WITH NPDES DEPARTMENT DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITS.
 - ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTORS MANUAL, U.S. DEPARTMENT OF AGRICULTURE.
 - THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY AGENCY FLOOD INSURANCE RATE MAP #2500040E, EFFECTIVE SEPTEMBER 26, 2009.
 - CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE GRADING PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE IN THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE GRADING PERMIT.
 - THE TOTAL DISTURBED AREA IS 48.97 ACRES.
 - THIS PLAN SHALL BE USED IN CONJUNCTION WITH THE EROSION CONTROL NOTES AND DETAILS ON SHEET C3-50.



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CONTENTS:
EROSION AND
SEDIMENT CONTROL
PLAN PHASE II

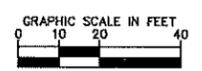
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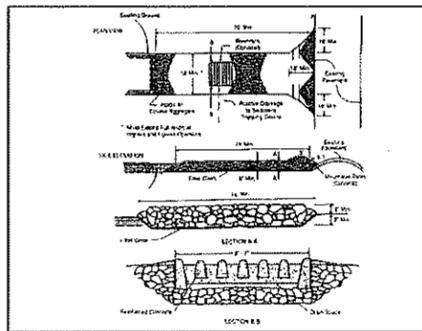


Figure 4.3c. Construction Entrance with Wash Rack
Source: 1983 Maryland Standards for Soil Erosion and Sediment Control

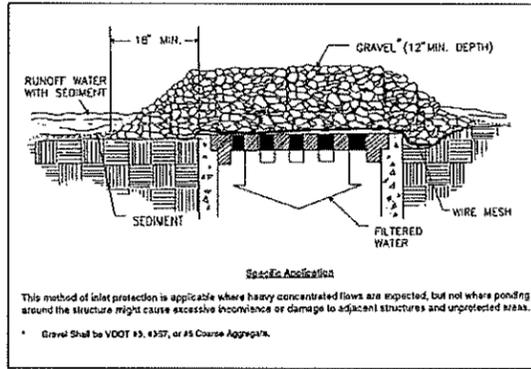


Figure 4.5c. Gravel and Wire Mesh Drop Inlet Sediment Filter
Source: Virginia DSWC

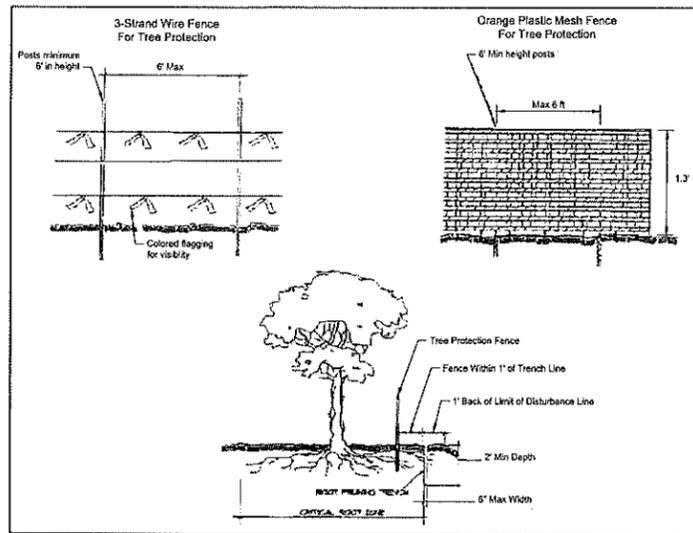


Figure 7.9b. Tree Conservation Area Protection Practices
Source: Montgomery County, Maryland, 1992

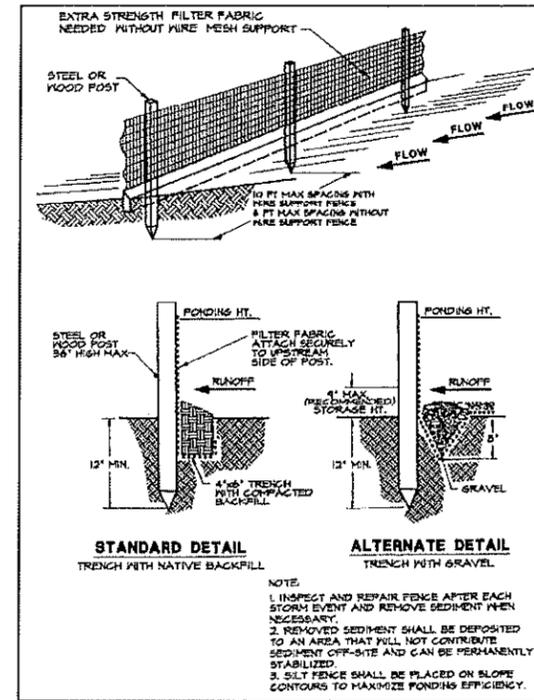


Figure 4.4a. Silt Fence
Source: Erosion Draw

EROSION AND SEDIMENT CONTROL NOTES

7.4 TEMPORARY SEEDING - APPLY TEMPORARY SEEDING TO EXPOSED SOIL SURFACES WHICH WILL NOT BE FINE GRADED FOR A PERIOD OF 7 DAYS OR MORE. LIMING, FERTILIZER, SURFACE ROUGHENING AND TRACKING SHOULD BE USED AS NECESSARY TO AID IN PLANT GERMINATION AND GROWTH AS PER THE FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL. SEEDS SHALL BE APPLIED WITH A CYCLONE SEEDER, DRILL, CULTIPACKER-SEEDER OR HYDROSEEDER. SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1 INCH DEEP. GRASSES AND LEGUMES SHALL BE PLANTED NO MORE THAN 1/2 INCH DEEP.

7.5 PERMANENT SEEDING - APPLY PERMANENT SEEDING TO DISTURBED AREAS WHERE PERMANENT VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL OR TO ROUGH GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE. REFER TO THE FLORIDA DEVELOPMENT MANUAL TO DETERMINE PROPER PLANT MATERIALS AND APPROPRIATE SEEDING MIXTURES. BEFORE PERMANENT SEEDING IS APPLIED, THE EXISTING SOIL MUST HAVE ADEQUATE MOISTURE AND NUTRIENT SUPPLY, SUFFICIENT PORE SPACE, SUFFICIENT DEPTH, ADEQUATE PH LEVELS, AND FREEDOM FROM EXCESSIVE QUANTITIES OF ROOTS, ROCKS AND OTHER OBSTRUCTIONS. IF THESE CRITERIA ARE NOT MET, TOPSOIL MUST BE ADDED PRIOR TO SEEDING. SEEDING SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER-SEEDER, OR HYDROSEEDER. THE MAXIMUM SEEDING DEPTH SHOULD BE 1/2 INCHES.

7.7 MULCHING - MULCHING SHALL BE APPLIED IMMEDIATELY AFTER PERMANENT SEEDING. AREAS THAT CANNOT BE SEEDING BECAUSE OF THE SEASON MUST BE MULCHED TO PROTECT THE SOIL SURFACE. MULCH SHALL BE USED TOGETHER WITH TREE AND SHRUB PLANTING TO STABILIZE SOIL. MULCHING SHALL BE USED IN CONJUNCTION WITH TEMPORARY SEEDING. SEE ADJACENT TABLE 7.1 FOR MULCH MATERIALS AND APPLICATION RATES. PRIOR TO MULCHING, REMOVE ALL ROCKS AND DEBRIS, LIME AND FERTILIZE THE SOIL, AND ROUGHEN THE SURFACE AS NEEDED. MULCH ANCHORING SHALL BE USED AS NEEDED.

Table 7.1. Organic Mulch Materials and Application Rates

Mulches	Rate Per Acre	Rate Per 1,000 Square Feet	Notes
Straw	1.5 - 2 tons	70 - 90 pounds	Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.
Wood Fibers	0.5 - 1.0 tons	25 - 50 pounds	Fibers 1 1/2 inch minimum length. Do not use alone in winter or during hot, dry weather. Apply in clumps.
Corn Stalks	4 - 6 tons	185 - 275 pounds	Cut or shredded in 4 to 8 inch lengths. Air dried. Do not use in fine turf areas. Apply with mulch blower or by hand.
Wood Chips	4 - 6 tons	185 - 275 pounds	Free of coarse matter. Air dried. Treat with 15 pounds nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower or by hand.
Shredded Bark Chips	50 - 70 cubic yards	1 - 2 cubic yards	Free of coarse matter. Air dried. Do not use in fine turf areas. Apply with mulch blower or chip handler, or by hand.

Source: Virginia DSWC



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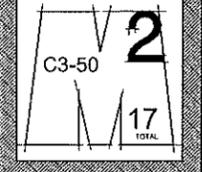
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CONTENTS:
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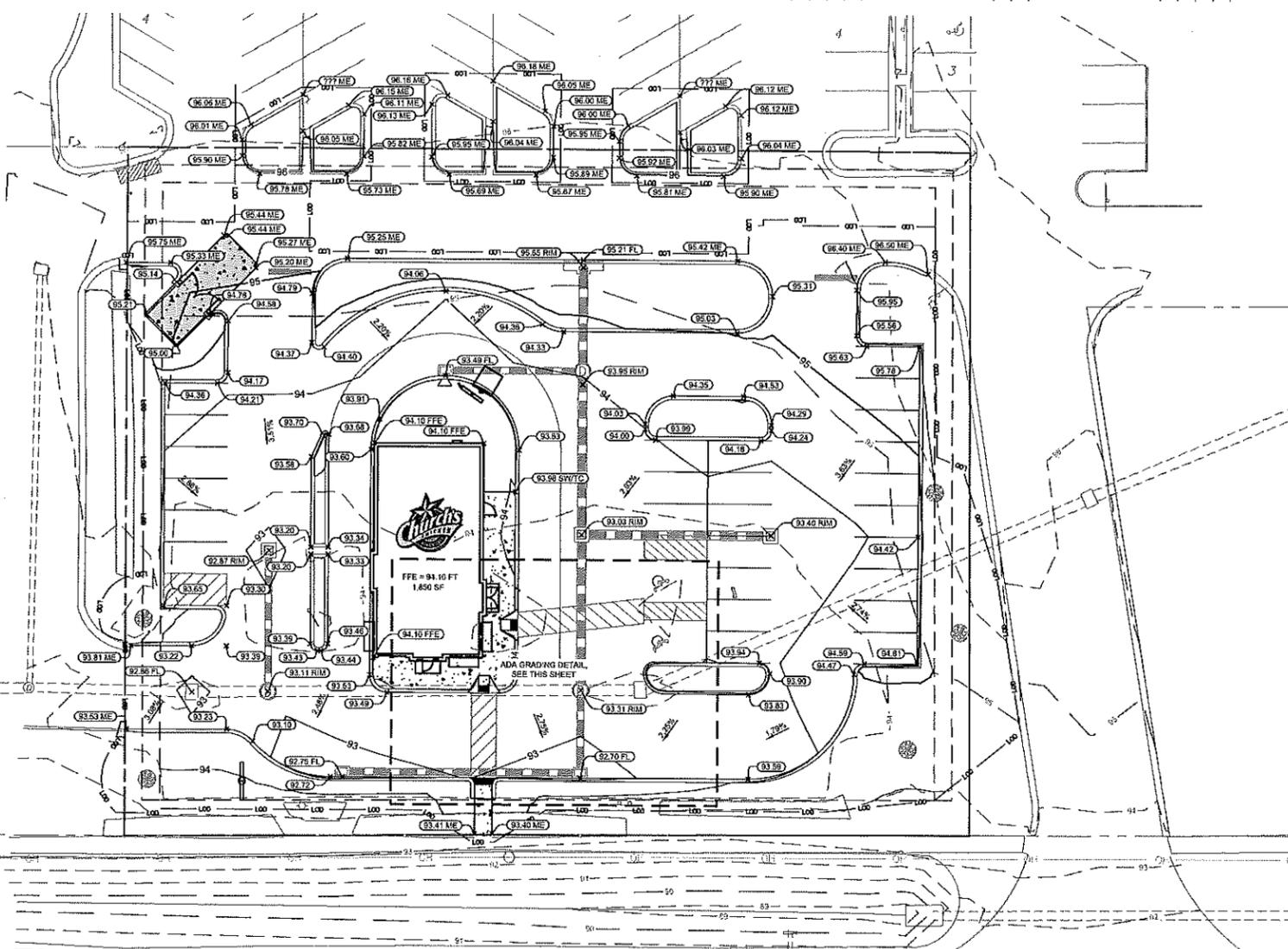
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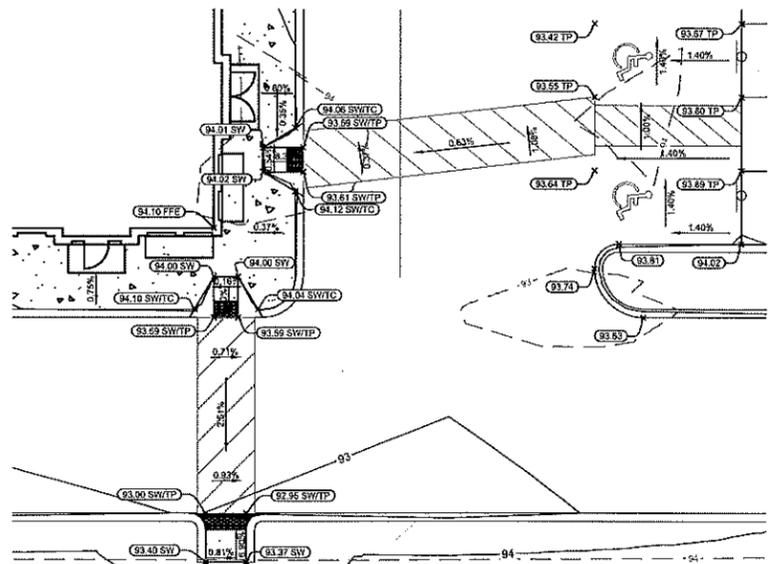
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**SOUTH ORANGE BLOSSOM TRAIL
(S.R. 500)
(163' PUBLIC R.O.W.)**



ADA GRADING DETAIL
SCALE: 1" = 10'

GRADING LEGEND

---	PROPOSED MAJOR CONTOUR LINE
---	PROPOSED MINOR CONTOUR LINE
---	EXISTING MAJOR CONTOUR LINE
---	EXISTING MINOR CONTOUR LINE
---	LIMITS OF DISTURBANCE
---	PROPOSED PROPERTY LINE
XXX	SPOT ELEVATION
○	STORMWATER MANHOLE
---	STORMWATER PIPE
○	STORMWATER INLET

SPOT ELEVATION LEGEND

ME	MATCH EXISTING ELEVATION
FL	FLOW LINE ELEVATION
RM	RIM ELEVATION
TP	TOP OF PAVEMENT ELEVATION
FFE	FINISHED FLOOR ELEVATION
SW	SIDEWALK ELEVATION

NOTE: ALL SPOT ELEVATIONS ARE BASE OF CURB UNLESS OTHERWISE NOTED

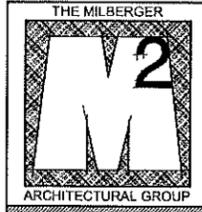
EARTHWORK QUANTITIES

DISTURBED AREA = 42,394 SF = 0.97 AC
 PROPOSED IMPERVIOUS AREA = 33,969 SF = 0.78 AC

CUT = 373 CY
 FILL = 190 CY
 NET EXPORT = 177 CY

NOTE: EARTHWORK QUANTITIES ARE PRELIMINARY AND DO NOT ACCOUNT FOR UNSURABLE MATERIALS. QUANTITIES PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL PERFORM SEPARATE TAKE OFF FOR ESTIMATE.

- GRADING NOTES**
- AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER AND IN ACCORDANCE WITH THE APPLICABLE STATE GENERAL PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
 - ADDITIONAL EROSION CONTROL DEVICES TO BE USED AS REQUIRED BY LOCAL INSPECTOR.
 - DISTURBED AREAS LEFT IDLE FOR FIVE DAYS, AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION. MULCH, TEMPORARY VEGETATION OR PERMANENT VEGETATION SHALL BE COMPLETED ON ALL EXPOSED AREAS WITHIN 14 DAYS AFTER DISTURBANCE. ALL AREAS TO FINAL GRADE WILL BE ESTABLISHED TO PERMANENT VEGETATION UPON COMPLETION.
 - WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING. IF UNABLE TO ACCOMPLISH, MULCH SHALL BE USED AS A TEMPORARY COVER.
 - CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2:1 AND WITH A HEIGHT OF TEN FEET OR GREATER (DOES NOT APPLY TO RETAINING WALLS), AND CUTS AND FILLS WITHIN BUFFERS, SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING OR BLANKETS.
 - THE GRADING PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES DURING CONSTRUCTION AND IN PLAIN VIEW FROM A PUBLIC ROAD OR STREET.
 - EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSPECTED AND INSPECTED PRIOR TO ANY GRADING ON SITE. THE CONTRACTOR MUST CALL FOR AN INSPECTION TO OBTAIN A PERMIT TO GRADE. PLEASE CALL WITH ENOUGH LEAD-TIME FOR AN INSPECTION TO MEET YOUR SCHEDULE.
 - SEDIMENTATION CONTROL DEVICES MUST BE INSTALLED ACCORDING TO LOCAL AND STATE REQUIREMENTS AND AS STIPULATED IN THE STORMWATER POLLUTION PREVENTION PLAN. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MAY BE NECESSARY AS THE PROJECT PROGRESSES AND NEW CHANNELS HAVE DEVELOPED.
 - THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.
 - EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
 - CONTRACTOR SHALL REVIEW SITE GEOTECHNICAL REPORT BEFORE COMMENCING GRADING OPERATIONS.
 - SEED ALL DISTURBED AREAS UNLESS OTHERWISE NOTED AS PART OF THIS CONTRACT. REFER TO LANDSCAPING PLANS FOR AREAS TO RECEIVE SO2.
 - INSTALL SO2 OR RIPRAP IN SWALES AS INDICATED ON GRADING PLANS AND EROSION CONTROL PLANS.
 - TOPSOIL ON SITE TO BE STRIPPED AND STOCKPILED FOR REUSE IN LAWN AREAS.
 - ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER WATER QUALITY MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND/OR CONTRACTOR.
 - UNDERGROUND UTILITIES HAVE NOT BEEN VERIFIED BY THE OWNER, DESIGNER, OR THEIR REPRESENTATIVES. BEFORE YOU DIG CALL ONE CALL-811 OR 1-800-782-8007.
 - THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
 - TOPOGRAPHIC INFORMATION IS TAKEN FROM A TOPOGRAPHIC SURVEY BY HASLER CONSULTING P.A. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.
 - CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.



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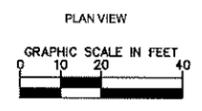
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GRADING AND DRAINAGE PLAN	

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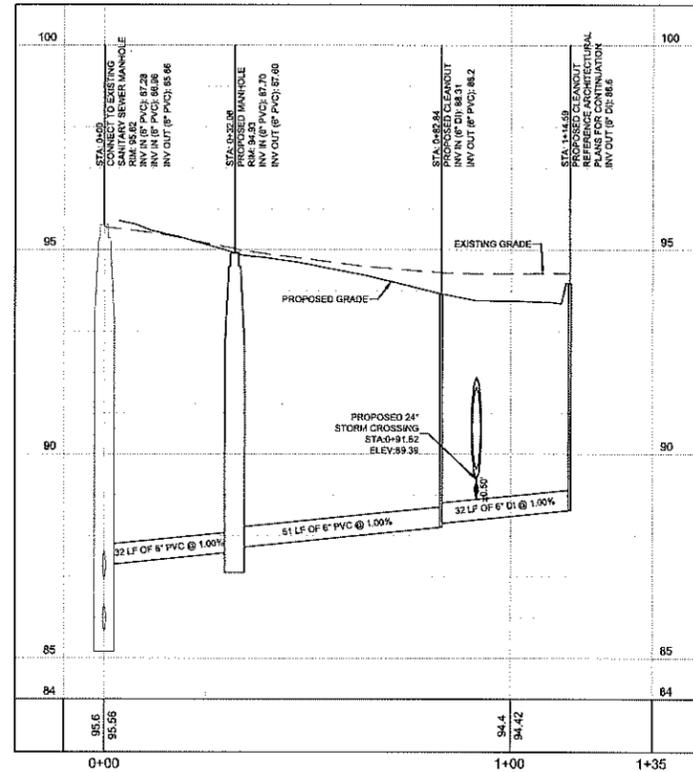
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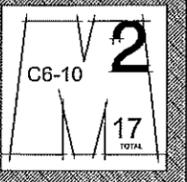
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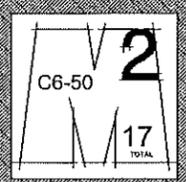
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CONTENTS:
 STORMWATER PLAN

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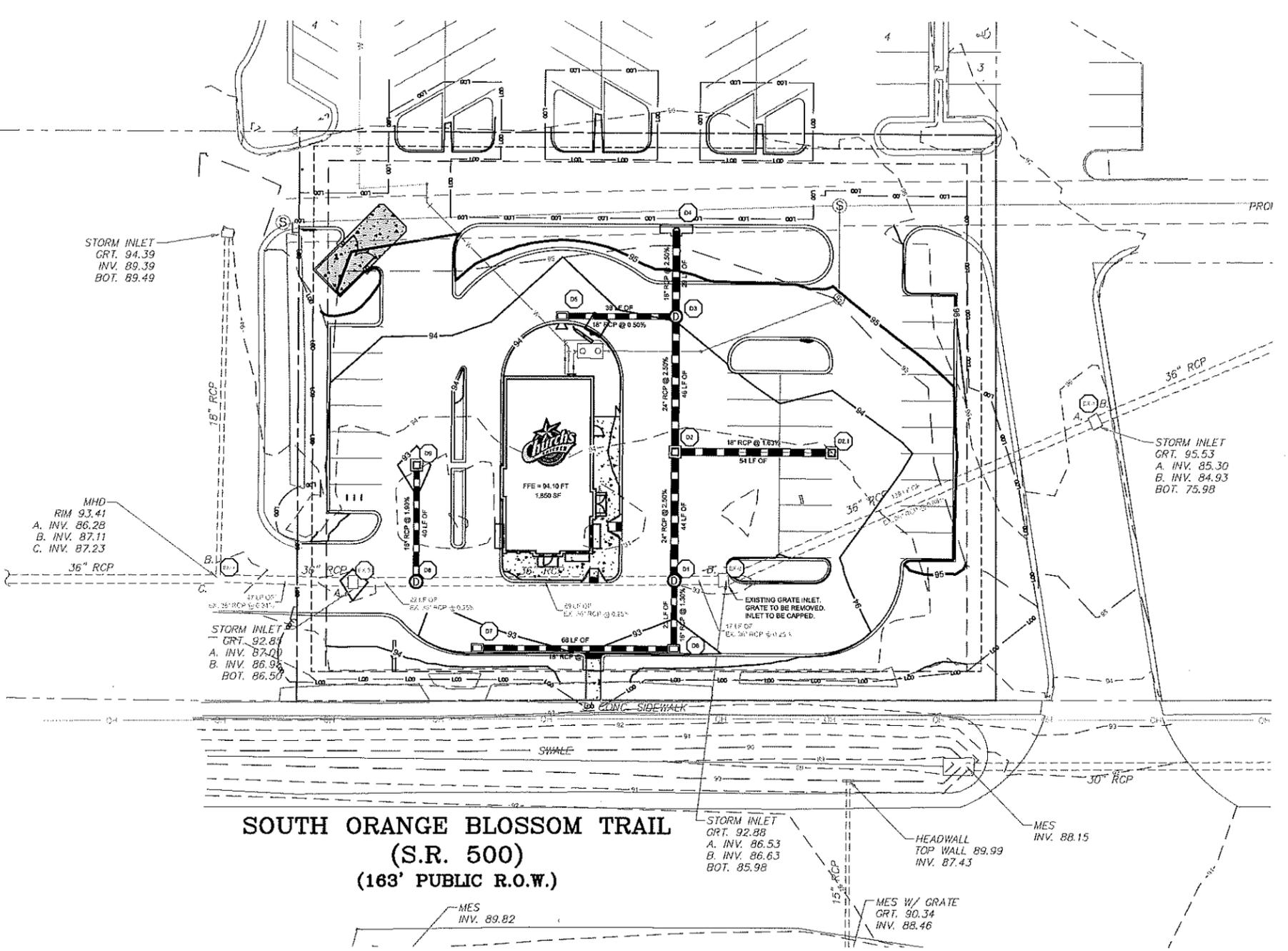
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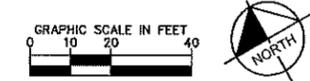
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---	PROPOSED MINOR CONTOUR LINE
---	EXISTING MAJOR CONTOUR LINE
---	EXISTING MINOR CONTOUR LINE
---	LIMITS OF DISTURBANCE
---	PROPOSED PROPERTY LINE
○	STORMWATER MANHOLE
—	STORMWATER PIPE
□	STORMWATER INLET

- STORMWATER NOTES**
- REFER TO SHEET C6-50 FOR STORMWATER STRUCTURE INFORMATION.
 - CONTRACTOR RESPONSIBLE FOR VERIFYING LOCATION, SIZE, AND ELEVATIONS OF EXISTING UTILITIES AT CONNECTION POINTS PRIOR TO GRADING OR INSTALLATION OF ANY PROPOSED UTILITIES. CONTRACTOR TO IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE IF DISCREPANCIES ARE FOUND.
 - THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES TO REMAIN.
 - AREAS FOR CONSTRUCTION THAT REQUIRE DE-WATERING FOR EXCAVATION WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER AND IN ACCORDANCE WITH SECTION 4.1.4 OF THE FLORIDA GENERAL NPDES PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
 - ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER WATER QUALITY MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY THE CONTRACTOR'S OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER AND/OR CONTRACTOR.
 - THIS LOT DOES NOT LIE IN AN AREA DESIGNATED AS A SPECIAL FLOOD HAZARD AREA ACCORDING TO FEDERAL EMERGENCY AGENCY FLOOD INSURANCE RATE MAP #12080C040F, EFFECTIVE SEPTEMBER 25, 2006.
 - CONSTRUCTION SHALL BE COMPLETED WITHIN 12 MONTHS OF THE GRADING PERMIT BEING ISSUED. IF CONSTRUCTION IS NOT COMPLETE IN THAT AMOUNT OF TIME, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR AN EXTENSION OF THE GRADING PERMIT.
 - THE TOTAL DISTURBED AREA IS 10.97 ACRES.

- ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**
- THIS PLAN HAS BEEN APPROVED BY THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SRWMD), PERMIT NUMBER 20244-3, ISSUED JANUARY 16, 2018.
 - A COPY OF THE APPROVED SRWMD PERMIT MUST BE KEPT AT THE CONSTRUCTION SITE.



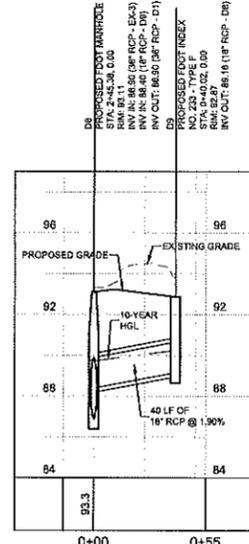
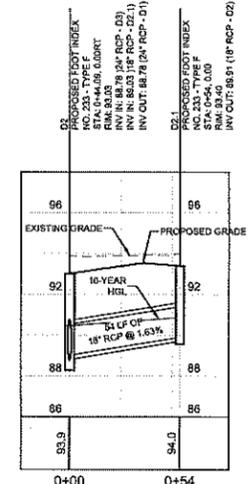
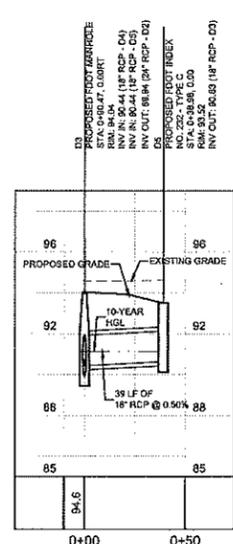
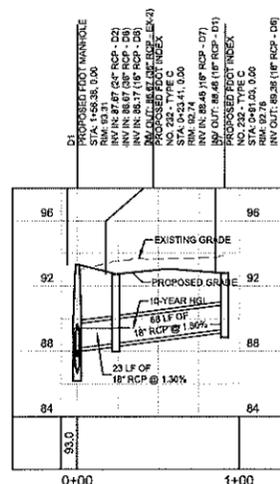
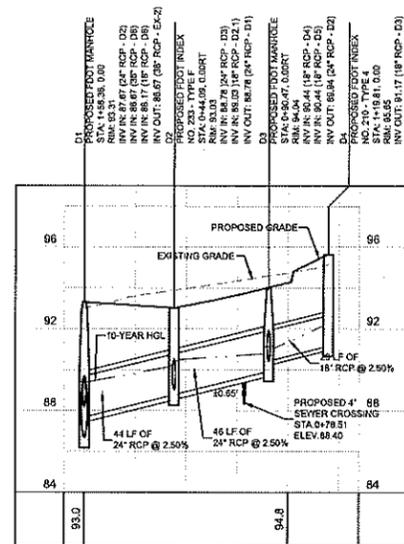
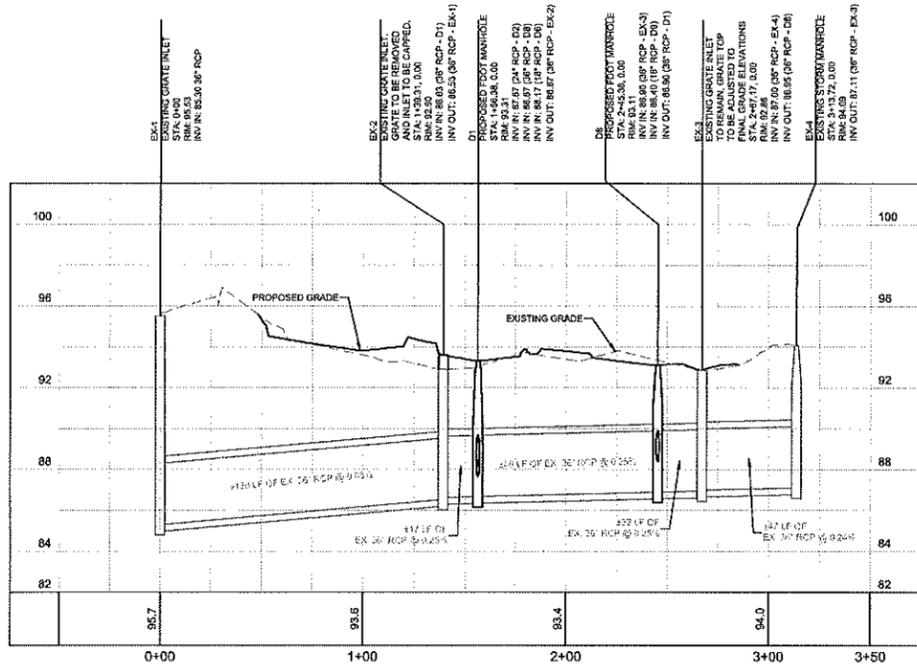
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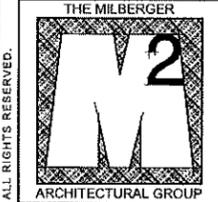
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STRUCTURE TABLE			
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT:
D1	PROPOSED FOOT MANHOLE RIM: 93.31 INV IN: 87.67 INV IN: 86.67 INV IN: 88.17 INV OUT: 86.67	FROM D2, 24" RCP INV IN: 87.67 @ 2.50% FROM D3, 36" RCP INV IN: 86.67 @ 0.25% FROM D5, 18" RCP INV IN: 88.17 @ 1.30%	TO EX-2, 36" RCP INV OUT: 86.67 @ 0.25%
D2	PROPOSED FOOT INDEX NO. 233 - TYPE F RIM: 93.03 INV IN: 88.78 INV IN: 89.03 INV OUT: 88.78	FROM D3, 24" RCP INV IN: 88.78 @ 2.50% FROM D2.1, 18" RCP INV IN: 89.03 @ 1.63%	TO D1, 24" RCP INV OUT: 88.78 @ 2.50%
D2.1	PROPOSED FOOT INDEX NO. 233 - TYPE F RIM: 93.40 INV OUT: 89.91		TO D2, 18" RCP INV OUT: 89.91 @ 1.63%
D3	PROPOSED FOOT MANHOLE RIM: 94.04 INV IN: 90.44 INV IN: 90.44 INV OUT: 89.94	FROM D4, 18" RCP INV IN: 90.44 @ 2.50% FROM D5, 18" RCP INV IN: 90.44 @ 0.50%	TO D2, 24" RCP INV OUT: 89.94 @ 2.50%
D4	PROPOSED FOOT INDEX NO. 210 - TYPE 4 RIM: 95.65 INV OUT: 91.17		TO D3, 18" RCP INV OUT: 91.17 @ 2.50%
D5	PROPOSED FOOT INDEX NO. 232 - TYPE C RIM: 93.52 INV OUT: 90.53		TO D3, 18" RCP INV OUT: 90.53 @ 0.50%
D6	PROPOSED FOOT INDEX NO. 232 - TYPE C RIM: 92.74 INV IN: 88.48 INV OUT: 88.48	FROM D7, 18" RCP INV IN: 88.48 @ 1.30%	TO D1, 18" RCP INV OUT: 88.48 @ 1.30%
D7	PROPOSED FOOT INDEX NO. 232 - TYPE C RIM: 92.78 INV OUT: 89.36		TO D6, 18" RCP INV OUT: 89.36 @ 1.30%
D8	PROPOSED FOOT MANHOLE RIM: 93.11 INV IN: 86.90 INV IN: 88.40 INV OUT: 86.90	FROM EX-3, 36" RCP INV IN: 86.90 @ 0.25% FROM D9, 18" RCP INV IN: 88.40 @ 1.90%	TO D1, 36" RCP INV OUT: 86.90 @ 0.25%
D9	PROPOSED FOOT INDEX NO. 233 - TYPE F RIM: 92.67 INV OUT: 89.16		TO D8, 18" RCP INV OUT: 89.16 @ 1.90%
EX-1	EXISTING GRATE INLET RIM: 95.53 INV IN: 85.30	FROM EX-2, 36" RCP INV IN: 85.30 @ 0.88%	
EX-2	EXISTING GRATE INLET, GRATE TO BE REMOVED AND INLET TO BE CAPPED. RIM: 92.53 INV IN: 86.53 INV OUT: 86.53	FROM D1, 36" RCP INV IN: 86.53 @ 0.25%	TO EX-1, 36" RCP INV OUT: 86.53 @ 0.88%
EX-3	EXISTING GRATE INLET TO REMAIN, GRATE TOP TO BE ADJUSTED TO FINAL GRADE ELEVATIONS RIM: 92.86 INV IN: 87.00 INV OUT: 86.95	FROM EX-4, 36" RCP INV IN: 87.00 @ 0.24%	TO D8, 36" RCP INV OUT: 86.95 @ 0.25%
EX-4	EXISTING STORM MANHOLE RIM: 94.09 INV OUT: 87.11		TO EX-3, 36" RCP INV OUT: 87.11 @ 0.24%



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T0006
 845 SOUTH ORANGE
 BLOSSOM TRAIL
 APOPKA, FL 32703

DRAWN BY:	CHECKED BY:
LVA	TJM

CONTENTS:
 STORMWATER PROFILES

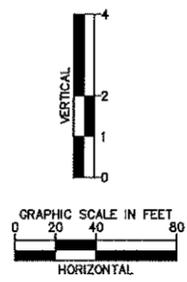
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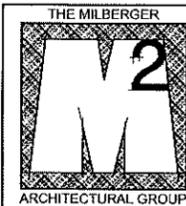
118220041
 JOB NUMBER

C6-60	2
TOTAL	17

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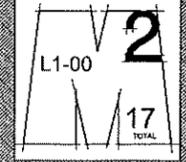
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CONTENTS:
 LANDSCAPE PLAN

3/29/2018

118220041
 JOB NUMBER



Buffer Yard Requirement

Location	Adjacent Use	Width	Buffer Required
Buffer A	Southwest Boundary	C-1 Arterial Roadway/Thick Stone	Z.O. 2.02.13 G1
Buffer B	Southeast Boundary	C-2 CFC Credit Union	5' min. Z.O. 2.02.13 G3
Buffer C	Northwest Boundary	C-2 AutoZone	5' min. Z.O. 2.02.13 G3
Buffer D	Northeast Boundary	C-2 Shopping Center	5' min. Z.O. 2.02.13 G3

Buffer A

Length = 240 LF
 Width = 10 LF
 Buffer Area = 2,400 SF
 Min. Tree DBH required = 8.4 in
 (3.5" DBH per 1,000 SF of Buffer Area)

Length of Parking = 116 LF

DBH Provided = 21 in

Plant Material Type	Quantity Required	Quantity Provided	Zoning Ordinance
Canopy Tree	(1 per 35 LF of Buffer) = 7	7	5.01.08 A(3)
Understory Tree	(1 per 15 LF of Buffer) = 16	16	2.02.01 Sb (4c)
Shrubs	(10 per 35 LF of Buffer) = 69	20	5.01.08 A(3)
Hedgerow	(1 per 3.5 LF of Length of Parking) = 34	-	5.01.08 G(5)
Ex. Hedgerow to Remain		49	

Buffer B

Length = 150 LF
 Width = 5 LF
 Buffer Area = 750 SF
 Min. Tree DBH required = 2.6 in
 (3.5" DBH per 1,000 SF of Buffer Area)

DBH Provided = 12 in

Plant Material Type	Quantity Required	Quantity Provided	Zoning Ordinance
Canopy Tree	(1 per 35 LF of Buffer) = 5	4	5.01.08 A(2)
Ex. Tree to Remain		1	

Buffer C

Length = 140 LF
 Width = 5 LF
 Buffer Area = 700 SF
 Min. Tree DBH required = 2.5 in
 (3.5" DBH per 1,000 SF of Buffer Area)

DBH Provided = 9 in

Plant Material Type	Quantity Required	Quantity Provided	Zoning Ordinance
Canopy Tree	(1 per 35 LF of Buffer) = 4	3	5.01.08 A(3)
Ex. Tree to Remain		1	
Shrubs	(10 per 35 LF of Buffer) = 40	18	5.01.08 A(3)
Ex. Hedgerow to Remain		22	

Buffer D

Length = 160 LF
 Width = 5 LF
 Buffer Area = 800 SF
 Min. Tree DBH required = 3.2 in
 (3.5" DBH per 1,000 SF of Buffer Area)

DBH Provided = 18 in

Plant Material Type	Quantity Required	Quantity Provided	Zoning Ordinance
Canopy Tree	(1 per 35 LF of Buffer) = 6	6	5.01.08 A(3)
Shrubs	(10 per 35 LF of Buffer) = 52	52	5.01.08 A(3)

Tree Replacement (ZO 5.01.06, 5.01.07)

Total Site Area	1.07 Acres	46,609 SF
Preservation Area		9,721 SF
Paved Areas		22,219 SF

Replacement Requirement: 1 inch DBH for 1 inch Removed

Trees Preserved

Type	Quantity	Size (DBH)	Total DBH
OAK	2	18 in	36 in
OAK	2	24 in	48 in
OAK	1	36 in	36 in

Trees to be Removed

Type	Quantity	Size (DBH)	Total DBH
PALM	1	12 in	12 in
OAK	1	18 in	18 in
OAK	2	24 in	48 in

Trees Planted

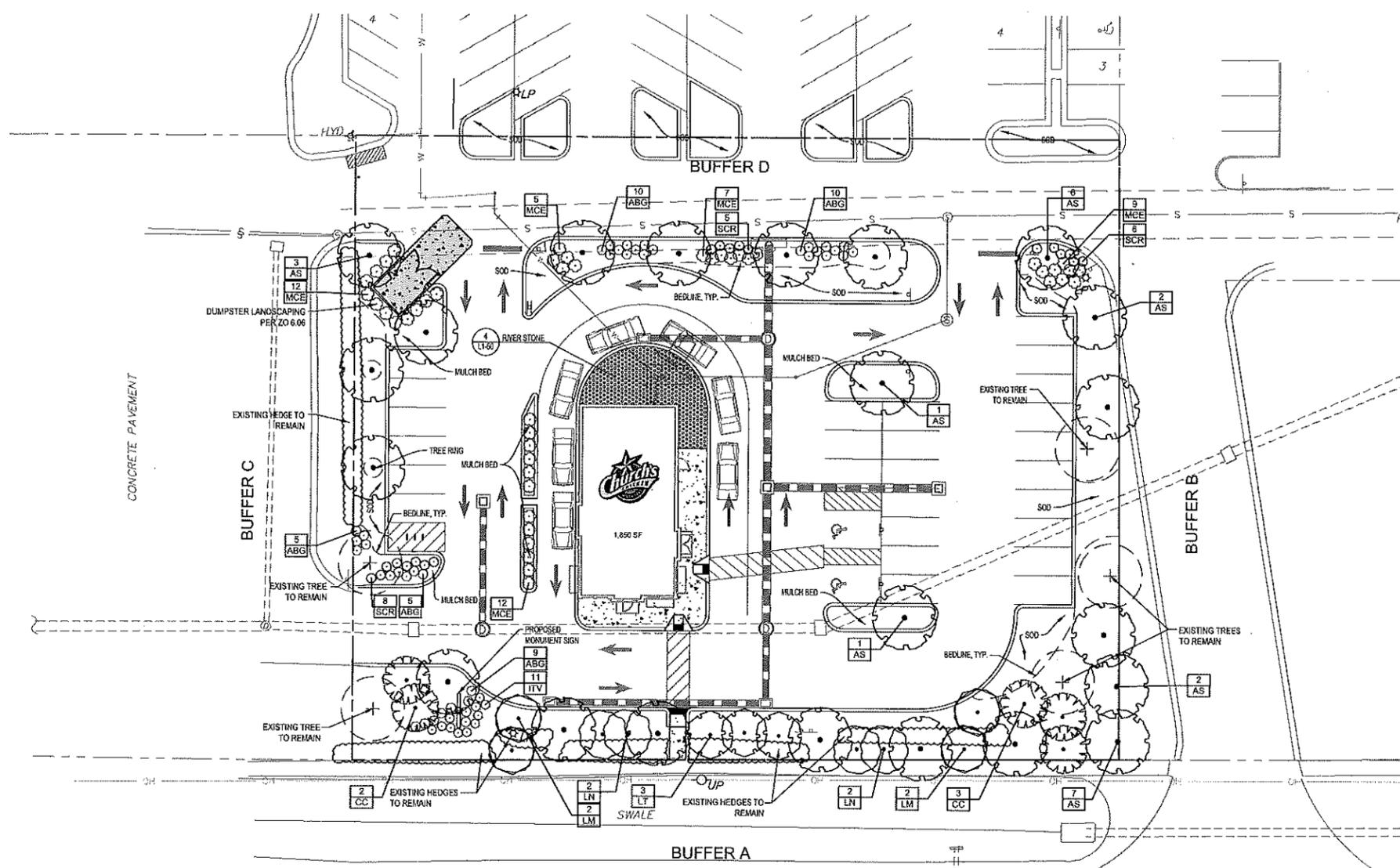
Type	Quantity	Size (DBH)	Total DBH
RED MAPLE	22	3 in	66 in
MUSKOGEE CRAPE MYRTLE	4	3 in	12 in
NATCHEZ CRAPE MYRTLE	4	3 in	12 in
TUSKEGEE CRAPE MYRTLE	3	3 in	9 in

Requirement is Met:
 Trees to be Removed 78 DBH < Trees Planted 99 DBH

Interior Parking Landscaping (ZO 5.01.08 C)

Number of Parking Spaces	28 Spaces
Parking Area	4,696 SF
Parking and Traffic Circulation Area	21,733 SF
Interior Landscaping Area Required (Min 10% of Parking and Traffic Area)	2,173 SF
Trees Required (1 per 20 parking spaces)	2
Required Parking Area to be Shaded (Min. 30% of Parking Area Covered)	1,409 SF

Interior Landscaping Area Provided: 2,913 SF
 Trees Provided: 2
 Parking Area Shaded by Tree Canopy at Maturity: 3,926 SF
 Percent Shaded Parking Area Provided: 84%

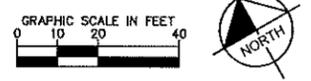


**SOUTH ORANGE BLOSSOM TRAIL
 (S.R. 500)
 (163' PUBLIC R.O.W.)**

PLANT SCHEDULE

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CALIPER	REMARKS
AS	22	Acer rubrum 'Red Sunset'	Red Sunset Maple	B & B	3" Cal	Strong central leader
FLOWERING TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CALIPER	REMARKS
CC	5	Cercis canadensis	Eastern Redbud	B & B	8" HT. MIN	Single-trunk
LM	4	Lagerstroemia x 'Muskogee'	Muskogee Crape Myrtle	B & B	8" HT. MIN	Lavender; (3) 1" Canes Min.
LN	4	Lagerstroemia x 'Natchez'	Natchez Crape Myrtle	B & B	8" HT. MIN	White; (3) 1" Canes Min.
LT	3	Lagerstroemia x 'Tuskegee'	Tuskegee Crape Myrtle	B & B	8" HT. MIN	Red / Pink; (3) 1" Canes Min.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT	REMARKS
ABG	39	Abelia x grandiflora	Glossy Abelia	Cont.	24" HT MIN.	Full to the ground
ITV	11	Ita virginica	Virginia Willow	Cont.	24" HT MIN.	Full to the ground
MCE	45	Myrica cerifera	Wax Myrtle	Cont.	36" HT. MIN.	Full to the ground
SCR	19	Spiraea cantoniensis	Reeves Spirea, Bridal Wreath	Cont.	24" HT MIN.	Full to the ground

- GENERAL NOTES:**
- This plan is in compliance with Water Wise Ordinance 2009.
 - All sod shall be Zoysia and shall not exceed 75% of the total irrigation area.
 - 100% of the irrigation is low volume, refer to sheet IR-1-00 for more information.
 - Contractor to field verify location of Buffer A landscape material to be consistent with City of Apopka Code of Ordinances.
 - Prior to commencement of work, Contractor is required to obtain a City of Apopka Arbor Clearing permit.



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GENERAL NOTES

- Plants shall be healthy, vigorous material, free of pests and diseases and are subject to approval/rejection of the Landscape Architect prior to, during and after installation.
- Contractor shall identify all materials at growing location prior to purchase and submit digital photographs, and source list to the Landscape Architect for approval at a minimum of six (6) calendar weeks prior to installation. Plants not approved shall be resourced and resubmitted.
- Planting beds and individual tree plantings shall be mulched continuously as specified.
- Prior to construction the contractor shall be responsible for locating underground utilities and execute work in a manner that avoids damage to utilities during the course of work. Contractor shall be responsible for remedy of any damage to utilities, structures, site appearances that occur as a result of landscape related work.
- Contractor is responsible for verifying quantities shown on documents. Field adjustments shall be approved by Landscape Architect prior to installation. Quantities indicated on drawings are for reference-it is the Contractor's responsibility to ensure full coverage of plants at the indicated spacing.
- Contractor is responsible for maintenance of all plantings including, but not limited to watering, mowing, edging, spraying, mulching, fertilizing, of plantings and turf areas for one (1) calendar year from date of certificate of occupancy. Contractor is responsible for warranty of all plant material for a period of one (1) calendar year from date of certificate of occupancy. Warranty replacement planting shall meet or exceed the original specification identified on drawings. Replacement plantings shall extend the same warranty as originally installed materials. Plantings and grass areas shall be flourishing and fully thriving at end of warranty period.
- Plants identified for replacement by Owner, Landscape Architect shall be replaced immediately by the Contractor unless otherwise agreed upon. Plantings (trees, shrubs, groundcover) subject to replacement by warranty shall exhibit characteristics of 30% dead-per individual plant, non-contributing or disease compromised. Grass areas suitable for acceptance shall demonstrate 85% sustained/consistent and continuous, densely established coverage. Contractor shall perform a site review at end of warranty period and provide the Owner with written documentation of the site, including plant health, warranty replacement terms, and conditions that may be influencing plant health. Contractor shall remove from plants and site, all staking and guying material at end of warranty period.
- Contractor shall comply with all local, state and federal requirements, codes and regulations related to the work undertaken.
- All material including planting operation appearances shall be of domestic origin manufacture and sourced within 100 miles of the project site.
- Contractor is responsible for coordination among trades operating on site. Coordination and if necessary resulting modifications to schedules are responsibility of the Contractor.

PERFORMANCE SPECIFICATION

I. PLANTS

- A. General**
- Live healthy plants free of dead branches and parts
 - Free of disease, insect, injury and damage
 - Unbroken, intact, dense and solid rootballs and containers, without cracks, flat sides or previously repaired damage.
 - Free of girdling roots or rootbound/circling container conditions
 - Plants of consistent in growth habit and healthy character
 - Free of compromising growth conditions such as weak crotch connections, crossed branches, snags and scars
 - Point of origin growing location within 100 miles of project site
 - Graded, standards, caliper, sizes and stock consistent with ANSI Z60.1, American Standard for Nursery Stock most current edition
 - Species identified consistent with *Hortus Third: Concise Dictionary of Plants Cultivated in the United States and Canada*, most current edition and *Manual of Woody Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*, most current edition
 - All distributed areas shall be grass seed unless otherwise identified on landscape plans

B. Trees:

- Deciduous Single Trunk**
 - Full, straight and upright with consistent symmetrical natural branching pattern throughout
 - Branching height-seven (7) feet to lowest branch in two years unless otherwise required by local jurisdiction
- Deciduous Multi-Trunk**
 - Full and upright with straight consistent symmetrical natural branching pattern throughout
 - Canes evenly spaced and of similar growth habit
 - Free of suckers and extraneous branching
- Evergreen Single-Trunk**
 - Full and upright with continuous symmetrical dense natural habit
 - Clear branching height twelve (12) inches above top of rootball
 - Free of suckers and extraneous branching
 - Do not shear or otherwise prune to shape plantings

C. Evergreen and Deciduous Shrubs

- Full, dense and naturally symmetrical
- Consistent with container and/or balled and burlapped size
- Free of suckers and extraneous branching
- Do not shear or otherwise prune or shape plantings

D. Evergreen and Deciduous Groundcover

- Full and dense in pots or flats

E. Perennials and Seasonal Color

- Full and dense in pots or flats

F. Turf Grass

- Subgrade**
 - Soil Mix-10% Compost, 90% topsoil by volume
 - Preparation-loosen subgrade to a minimum depth of four (4) inches. Remove all non-natural materials including litter, stones, sticks and all items greater than 3/4 inch in any dimension
 - Preparation-spread soil mix at a depth of four (4) inches continuously to meet grade elevations shown on drawings. Allow for thickness of sod when applicable
- Grass Sod**
 - Install not longer than twenty-four (24) hours from harvest
 - Grass bed not less than two (2) inches in continuous thickness
 - 100% continuous live sod coverage after first growing season and at end of warranty period.
 - Of uniform non-varying density and continuous texture quality capable of growth and development immediately upon installation. Weed and noxious plant free
 - Stagger installation rows and place signed parallel to contours
 - Fill joints solidly with planting bed preparation soil
 - Provide anchor pins at twenty-four (24) inches on center for slopes greater than 4:1

3. Grass Seed

- Mix approved by the Landscape Architect
- Provide first and new of year seed crops in mix free of weed seeds and deleterious matter
- Provide seed mix not greater than 15% annual or perennial rye
- Coverage 85% continuous coverage live stand after first growing season and at end of warranty
- Replacement or overseeding mixes consistent with original application/installation
- Provide erosion blankets or other slope retention methods as noted on drawings

II. Materials and Appurtenances

- A. Testing**
- Materials testing information/certificates/dated labels shall be current to the project and performed/certified not greater than 120 calendar previous days from current date of submittal for review
- B. Top Soil**
- Neutral Ph balance 5.5 - 7.5. Friable and containing 2.0-5.0% organic matter by dry weight. Continuously free of non-soil items such as stones, debris, sticks, trash, and deleterious matter greater than 3/4 inch in any direction. Clay content shall not exceed 25%. Gravel content shall not exceed 10%. Silt shall not exceed 25%
- C. Use of Existing Topsoil**
- Existing topsoil on-site may be reused with prior Owner approval. Contractor shall provide soil testing and additive program that demonstrates consistent performance and characteristics and composition as identified herein. Owner shall approve soil testing and soil amendment/additive methods and procedures.

D. Shredded Hardwood Mulch

- 100% organic shredded first year hardwood free of deleterious matter, rock, gravel and weed seed. Neutral Ph balance 5.5-7.5

E. Composted Pine Bark Fines

- 100% organic ground pine bark with no particle dimension greater than 3/4-inch and no greater than 10% wood content

F. Compost Ph

- Balanced 5.0-9.5 mature, stable and weed free produced by natural aerobic decomposition. Free of visible contaminants and toxic substances. Not greater than 5% sand, silt, clay or rock by dry weight. Consistent with US-EPA CFR Title 40 Part 503 Standards for Class A biosolids

G. Compost Testing

- Prior to delivery on-site, the following items are required for approval by Owner: Feedstock percentage in final compost product; statement that the products meets federal, state and local health safety requirements
- Provide copy of lab analysis less than 120 calendar days old verifying that the product meets desired physical requirements: chemical contaminants: Ph; physical contaminants: biological contaminants (including a statement that fecal coliform and salmonella testing and results comply with requirements of the US Composting Council Seal of Testing approval programs

H. Planting Mix

- 85% topsoil and 15% Compost

I. Fertilizer

- Fertilizer content and application rate shall be in accordance with Sec. 15-804 of the Orange County fertilizer ordinance.
- Per Sec. 15-803(a) of the Orange County fertilizer ordinance: no fertilizer containing nitrogen or phosphorus shall be applied to turf or landscape plants during a period for which the National Weather Service has issued any of the following advisories for any portion of Orange County: a severe thunderstorm warning or watch, flood warning or watch, tropical storm warning or watch, or hurricane warning or watch.
- Per Sec. 15-803(b) of the Orange County fertilizer ordinance: No person, except applicators certified pursuant to section 15-809, shall apply fertilizer containing nitrogen or phosphorus to turf or landscape plants during restricted season from June 1 through September 30.

J. Herbicide

- Product and Material Safety Data as approved by Owner

K. Water

- Potable only unless otherwise approved by Owner

L. Hardwood Stakes

- 2 x 2 x 48 inch square of sound hardwood, painted flat black on all sides

M. Tree Ties

- Villa Non-Abresive Rubber Tree Ties or approved equal

N. Filter Fabric

- Mirafi 140-N or approved equal

O. Steel Edging

- 1/8-inch x 4-inch in full sections. Ryerson, Timec or approved equal with integral stakes. No open corners. Corners shall be formed and trued to compliant angle or welded closed

P. River Stone

- Locally sourced, river rounded, unfaceted river stone/cobbles.
- Size shall not exceed 3 total inches in any dimension.
- Color and texture approved by Owner
- When placed in concrete or mortar setting bed, tamp to secure and brush clear joints.
- Concrete or mortar as approved by owner.

III. Execution

- A. Site Conditions**
- Respect site and notify Owner in writing of acceptance with indication that project conditions are acceptable are suitable to proceed with work. Notify Owner of any existing damage and/or other conflicting conditions.
 - Do not proceed with work until unsatisfactory conditions have been satisfactorily remedied. Notify Owner of acceptance prior to commencement of work.
 - Notify Owner in writing of any conditions that may preclude successful completion of work including items such as coordination with other trades, incomplete work, drainage, soil temperature and/or composition, access to storage/work areas, damage to conditions, etc.
 - Notify Owner in writing immediately of any items that may influence work schedule, timing of tasks, materials delivery and/or installation and warranty responsibilities.
 - Coordinate and cooperate with other trades working in and adjacent to work areas. Examine drawings of other trades which show development of the entire project and become familiar with the scope of required work by others.

B. Planting Seasons

- Recommended seasons are a general guide based on historical climatic data and typical performance of plantings, and which vary dependent on project-specific environmental conditions. Due to construction schedules, recommended planting seasons may/may not coincide with request(s) for certificate of occupancy for projects. Coordination of planting installation and seasons shall be reviewed with Owner on an individual project basis.

1. Deciduous and Evergreen Trees

- Do not install plant the following trees between September 15 and March 15
 - Oaks (*Quercus* Sp., Such as *Q. rubra*, *Q. alba*, *Q. phellos*, *Q. coccinea*)
 - Dogwood (*Cornus* Sp.)
 - Sweetgum (*Liquidambar* Sp.)
 - All Conifers and Evergreens except White Pine (*Pinus strobus* Sp.)

2. Deciduous and Evergreen Shrubs

- Install plant between March 15 and June 15 and/or September 15 and November 30

3. Perennials

- Install plant between March 15 and June 15 and/or September 15 and November 30

4. Spring Flowering Bulbs

- Install plant between September 15 and December 15

5. Seasonal Annuals

- Install plant in season per approved schedule

6. Turf Grass

- Install plant between March 15 and May 15 and/or September 15 and November 30
- Do not install plant seed or sod turf grass areas when ambient air temperature is below forty (40) degrees Fahrenheit, or forecast for a twelve (12) hour period after completion of work

7. No Plant Installation

- Do not install plantings or turf grass between June 15 and September 15, without approval by Owner

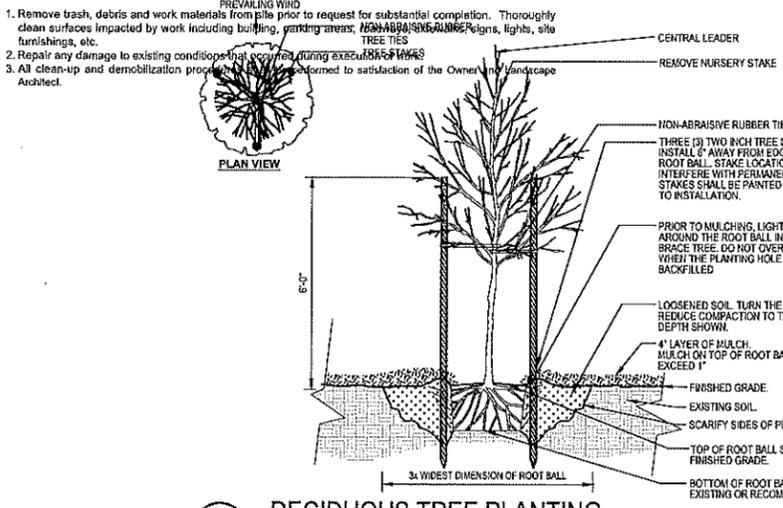
C. Positioning & Location of Plantings

- Position plants to show the most-prominent and well-formed face to most-public view
- Field locate plants and location/spacing/dimension of planting beds on project site prior to beginning installation
- Verify location of individual plants and plant beds prior to beginning installation. Do not proceed without Owner approval

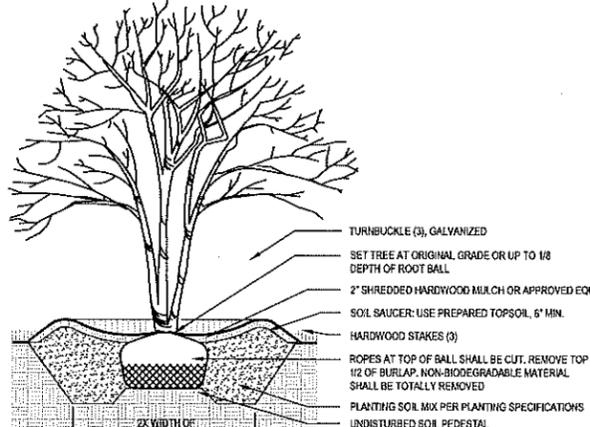
D. Implementation

- Pursue work continuously without delay or interruption until completion unless notified otherwise by Owner
- Provide project submittals ahead of commencement of work. Landscape Architect requires a minimum of ten (10) working days from date of receipt for review of submittals and response to Owner and Contractor. Plan accordingly for procurement of materials
- Continuously update implementation schedule and notify Owner of progress. Delays related to material availability are not cause for non-completion of scheduled delivery of work
- Report delays due to weather or site conditions immediately upon finding. Provide recommendation for remedy of schedule delays. Do not work, place or modify frozen soil
- Report delays due to extraordinary natural or other conditions beyond control of Contractor

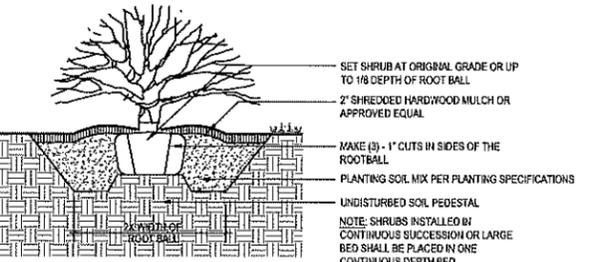
E. Clean Up



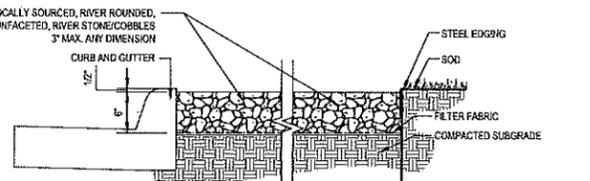
1 DECIDUOUS TREE PLANTING
NOT TO SCALE



2 ORNAMENTAL TREE PLANTING
NOT TO SCALE



3 SHRUB PLANTING
NOT TO SCALE



4 RIVER STONE
1\"/>



REVISIONS

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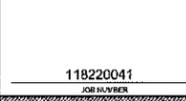
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LANDSCAPE
DETAILS

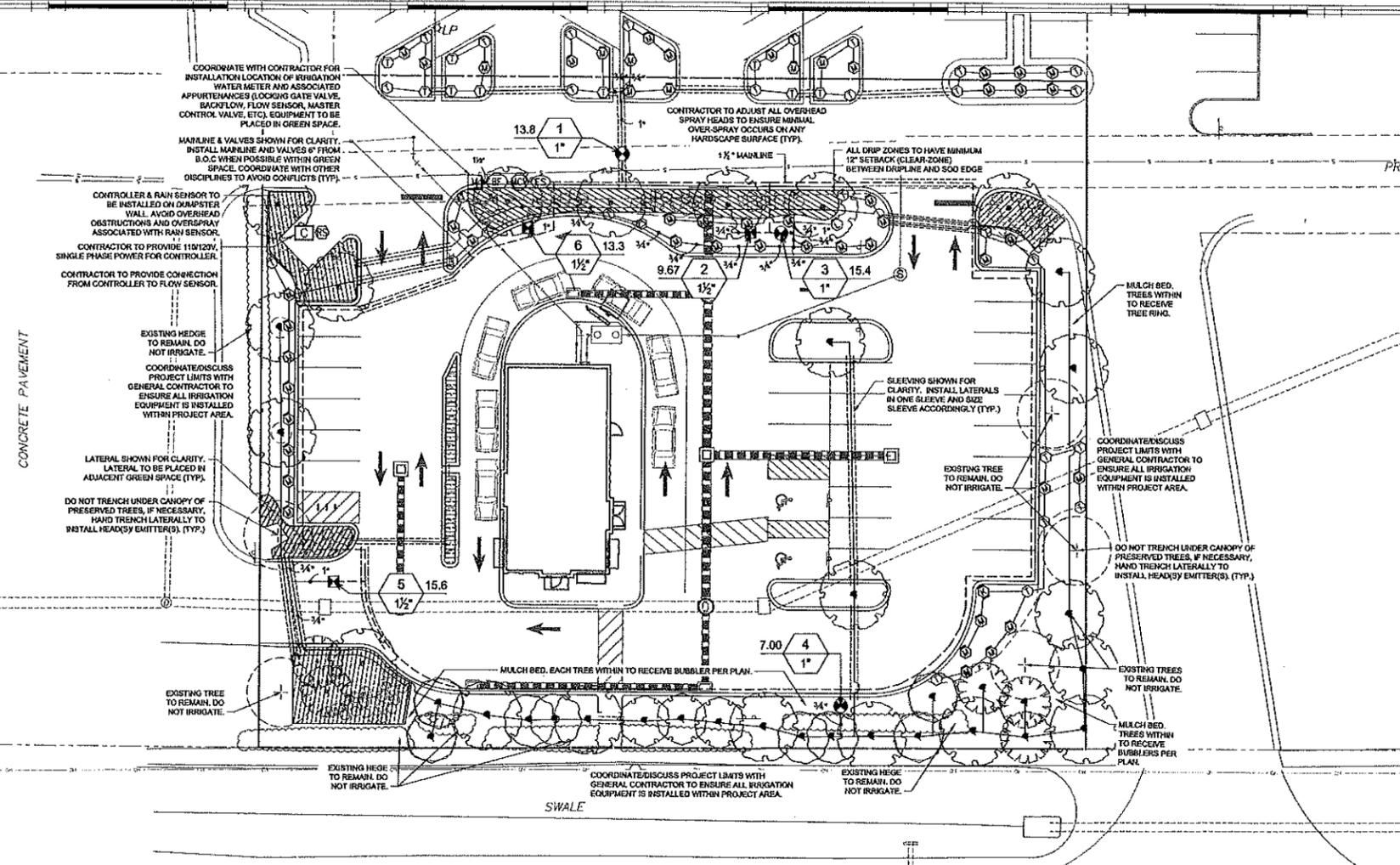
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**SOUTH ORANGE BLOSSOM TRAIL
(S.R. 500)
(163' PUBLIC R.O.W.)**

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
⊗	Hunter MP1000 PROS-04-PRS40-CV Turf Rotor, 4" (10.16 cm) pop-up with check valve, pressure regulated to 40 psi (2.76 bar), MP Rotor nozzle on PRS40 body. 11-Harcon adj arc 90 to 210, 1.4 gph @ 2.0 to 2.75 arc, 0.005 @ 300 arc.	52
⊗	Hunter MP2000 PROS-04-PRS40-CV Turf Rotor, 4" (10.16 cm) pop-up with factory installed check valve, pressure regulated to 40 psi (2.76 bar), MP Rotor nozzle on PRS40 body. X-Black adj arc 90-210, 0.005 @ arc 210-270, 0.005 @ 300 arc.	1
⊗	Hunter MP Corner PROS-04-PRS40-CV Turf Rotor, 4" (10.16 cm) pop-up with factory installed check valve, pressure regulated to 40 psi (2.76 bar), MP Rotor nozzle on PRS40 body. 11-Harcon adj arc 45-165 on PRS40 body.	37
⊗	Hunter MP Slip PROS-04-PRS40-CV Turf Rotor, 4" (10.16 cm) pop-up with factory installed check valve, pressure regulated to 40 psi (2.76 bar), MP Rotor nozzle on PRS40 body. LST-heavy left slip, SST-heavy right slip, RST-Copper right slip.	1
⊗	Tom 8706-F38-PC Pressure-Compensating Flood Bubbler on Flood Riser. 0.25GPM, 0.5GPM, 1.0GPM, and 2.0GPM.	28
⊗	Rain Bird XCC-150-PRB-COM High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2" PESS Valve with two 1" Pressure Regulating (40psi) Quick-Check Basket Filters. Flow range: 15-40gpm.	3
⊗	Area to Receive Drip Hedrin TLOCV-09-12 Techni Pressure Compensating Landscape Drip with Check Valve. 0.9 GPH emitters at 12" O.C. Drip laterals spaced at 12" apart, with emitters offset for irregular pattern. 17mm.	2,618 LL
⊗	Rain Bird PEB 1" 1" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	3
⊗	Rain Bird PEB 1" 1" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	1
⊗	Felco 825Y 1" Reduced Pressure Backflow Preventer	1
⊗	Hunter FCC-1200 Light Commercial & Residential Controller, 12-Station fixed controller, 120 VAC, Outdoor model.	1
⊗	Hunter WRP-CLK Rain/Water Sensor, install within 1000 ft of controller, in line of sight. 22-28 VAC/VDC 100 mA power from line transformer. Mount as noted. Includes Gutter Mount.	1
⊗	Hunter FPS-100 Flow Sensor for use with AGC controller, 1" Schedule 40 Sensor Body, 24 VAC, 2 amp.	1
⊗	Water Meter 1"	1
⊗	Irrigation Lateral Line: PVC Class 200 SDR 21	2,217 LL
⊗	Irrigation Mainline: PVC Class 200 SDR 21	743.8 LL
⊗	Pipe Sleeve: PVC Schedule 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve shall allow for irrigation piping and their related couplings to easily slide through sleeve material. Extend sleeves 18 inches beyond edges of paving or construction.	472.3 LL



THIS IRRIGATION PLAN IS DESIGNED TO THE FOLLOWING STATS: 65 PSI AND 75 GPM, WITH 40 PSI AVAILABLE AT EACH HEAD. IF WATER PRESSURE DOES NOT MEET DESIGN SPECIFICATIONS A BOOSTER PUMP WILL BE REQUIRED AT COST OF CONTRACTOR. CONTACT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IF SYSTEM HAS +/- 5 PSI THAN DESIGN PRESSURE.

ABOVE QUANTITIES PROVIDED FOR CONVENIENCE ONLY. CONTRACTOR TO CONFIRM ALL QUANTITIES PRIOR TO BIDDING.

REFERENCE MAXIMUM LATERAL DRIPLINE CHART TO DETERMINE MINIMUM NUMBER OF POINTS OF CONNECTION PER DRIP LINE ZONE.

WHERE LAYOUT FLEXIBILITY EXISTS CENTER FEED LAYOUTS MUST BE USED. THIS ALLOWS FOR EVEN FLOW OF WATER THROUGH THE ZONE.

IRRIGATION ZONE CHART

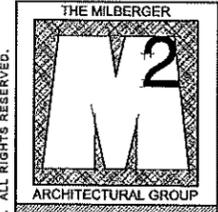
ZONE #	VALVE SIZE	IRRIGATION EQUIPMENT	LANDSCAPE MATERIAL	LOW VOLUME
1	1"	MP ROTORS	SOD	YES
2	1 1/2"	DRIP	SHRUBS	YES
3	1"	MP ROTORS	SOD	YES
4	1"	BUBBLERS	TREES	YES
5	1 1/2"	DRIP	SHRUBS	YES
6	1 1/2"	DRIP	SHRUBS	YES

CITY OF APOPKA IRRIGATION NOTES

- 40 PSI IS REQUIRED AT EACH HEAD PER CITY ORDINANCE.
- NO RISERS ALLOWED.
- ZONES MUST HAVE MATCHING PRECIPITATION RATES.
- ALL IRRIGATION EQUIPMENT SHALL BE INSTALLED AT LEAST 24" FROM VERTICAL STRUCTURES.
- ALL VELOCITIES IN THE WATER CONVEYANCE SYSTEM SHALL NOT EXCEED 5' PER SECOND.
- CONTRACTOR TO ENSURE PROPER IRRIGATION DAYS & TIMES ARE FOLLOWED.
- CONTRACTOR TO PROVIDE ZONE CHART WITH INSTALLATION DATE & COMPANY WITHIN CONTROLLER.
- MAINTENANCE SCHEDULE TO BE PROVIDED BY OWNER.

IRRIGATION NOTES

- IRRIGATION CONTRACTOR SHALL TEST EXISTING STATIC PRESSURE ON SITE PRIOR TO CONSTRUCTION. SHOULD EXISTING SITE PRESSURE BE BELOW 65 PSI, CONTRACTOR SHALL CONTACT THE IRRIGATION DESIGNER PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
- THE IRRIGATION CONTRACTOR SHALL SECURE ALL REQUIRED PERMITS AND PAY ALL ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES HEREIN.
- LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES, MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES.
- ELECTRICAL POWER SHALL BE PROVIDED WITHIN 5 FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR. I.L.O. TO PROVIDE FINAL HARD WIRE TO CONTROLLER.
- 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF 18 GAUGE, U.L. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR "IRRIGATION WIRE". WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF WIRE CONNECTOR U.L. APPROVED AND FILLED WITH SILICONE.
- VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE, WITH THREE INCHES OF CLEAN PEA GRAVEL LOCATED BELOW THE VALVE. USE 1/2" RIGID VALVE BOXES FOR ELECTRIC VALVES AND QUICK COUPLING VALVES UNLESS NOTED OTHERWISE. O.C.A. SHALL BE BOXED ACCORDING TO LOCAL CODES.
- USE PVC SWING JOINT ASSEMBLIES TO CONNECT ALL SPRAY HEADS.
- ALL ROTOR HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2 FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD ON 79S SOLVENT AND 79-70 PRIMER. PRIMER SHALL BE PURPLE IN COLOR.
- CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
- SLEEVES SHALL BE INSTALLED BY GENERAL CONTRACTOR. SLEEVE MATERIAL SHALL BE PVC, SCHED. 40. CONTRACTOR SHALL EXTEND SLEEVES ONE FOOT BEYOND EDGE OF ALL PAVEMENT.
- LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO SUPPLY OWNER AND OWNERS CONTRACTOR WITH ALL EQUIPMENT SPECIFICATIONS AND MAINTENANCE GUIDELINES.
- DRIP LINE SHALL BE PLACED A MINIMUM OF 2" UNDER MULCH.
- LICENSED IRRIGATION CONTRACTOR SHALL ADJUST SPRAY NOZZLES FOR "HEAD-TO-HEAD" COVERAGE AND ADJUST FOR MINIMUM OVERSPRAY ONTO PAVEMENT. NO OVERSPRAY IS PERMITTED ONTO STREETS OR SIDEWALKS.
- IRRIGATION CONTRACTOR SHALL SUPPLY AND CONSTRUCT IRRIGATION SYSTEM WITH ALL MATERIALS AND PER MANUFACTURER SPECIFICATIONS SHOWN ON THIS PLAN. IF CONTRACTOR PREFERENCES MATERIALS THAT DIFFER FROM THE THIS PLAN, THEY SHALL BE APPROVED BY THE IRRIGATION DESIGNER PRIOR TO CONSTRUCTION.



REVISIONS

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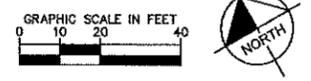
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APOPKA, FL 32703

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AJH	LAC

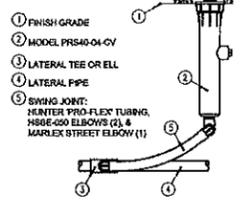
CONTENTS:
IRRIGATION PLAN

3/28/18
[Signature]
L. LUKASEK
FL LICENSE NO. 666118
118220041
PROJECT NUMBER

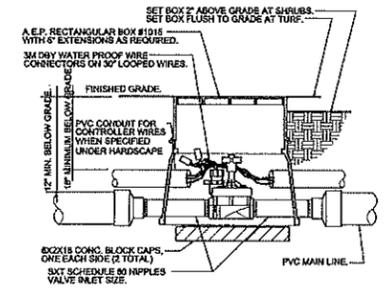
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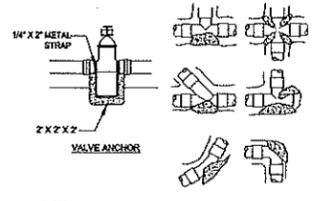
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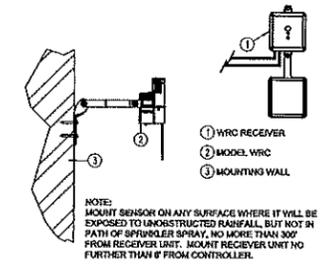
MP ROTATOR SPRINKLER
DETAIL - N.T.S.



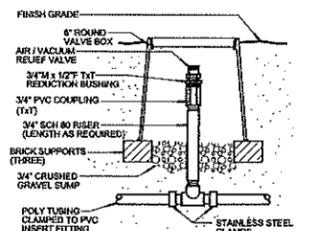
MASTER CONTROL VALVE
DETAIL - N.T.S.



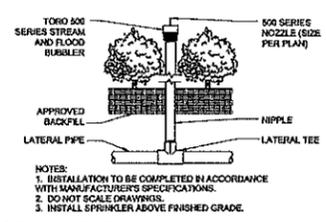
THRUST BLOCK
DETAIL - N.T.S.



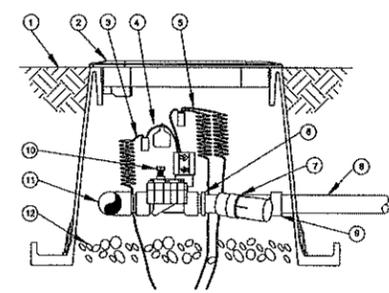
WIRELESS RAIN SENSOR
DETAIL - N.T.S.



AIR/VACUUM RELIEF
DETAIL - N.T.S.

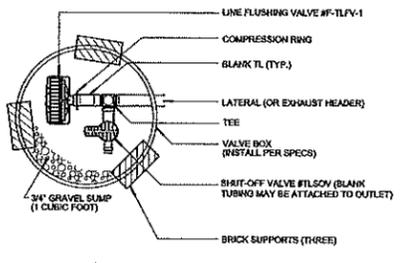


TORO BUBBLER
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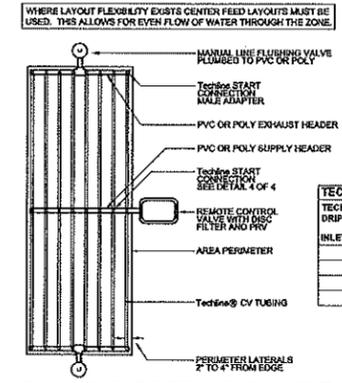


XCZ DRIP ZONE KIT
N.T.S.

- 1 FINISH GRADE
- 2 STANDARD VALVE BOX WITH COVER: RAIN BIRD VS-STD
- 3 WATERPROOF CONNECTION: RAIN BIRD DS SERIES
- 4 VALVE ID TAG
- 5 30-INCH LINEAR LENGTH OF WIRE, COILED
- 6 1" X 3/4" REPAIRING COUPLER (INCLUDED IN XCZ-LF-100-PRF KIT)
- 7 PRESSURE REGULATING FILTER: RAIN BIRD PRF-100-RBY (INCLUDED IN XCZ-LF-100-PRF KIT)
- 8 LATERAL PIPE
- 9 PVC SCH 40 FEMALE ADAPTOR OR REDUCER
- 10 REMOTE CONTROL VALVE: RAIN BIRD LFV-100 (INCLUDED IN XCZ-LF-100-PRF KIT)
- 11 PVC SCH 40 TEE OR ELL TO MANIFOLD
- 12 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL



LINE FLUSHING VALVE
N.T.S.

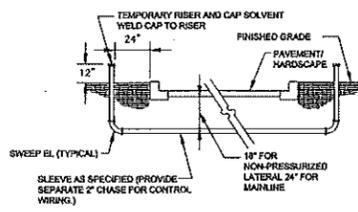


Techline® CV CENTER FEED LAYOUT
DETAIL - N.T.S.

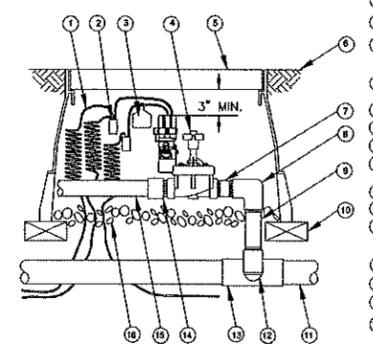
TECHLINE CV MAXIMUM LENGTH OF A SINGLE LATERAL (FEET)	12"			16"			24"		
	DRIPPER SPACING	DRIPPER FLOW RATE (GPH)	DRIPPER PRESSURE (PSI)	DRIPPER SPACING	DRIPPER FLOW RATE (GPH)	DRIPPER PRESSURE (PSI)	DRIPPER SPACING	DRIPPER FLOW RATE (GPH)	DRIPPER PRESSURE (PSI)
15	109	86	65	151	120	91	152	116	88
20	325	256	194	459	361	274	458	348	264
30	405	322	244	679	450	348	680	440	336
45	469	369	280	684	523	397	656	506	360

PIPE SIZE	SLEEVE SIZE
3/4"	1-1/4"
1"	2"
1-1/4"	2-1/2"
1-1/2"	2-1/2"
2"	3"
2-1/2"	4"
3, 4"	6"

SLEEVE SIZE SCHEDULE

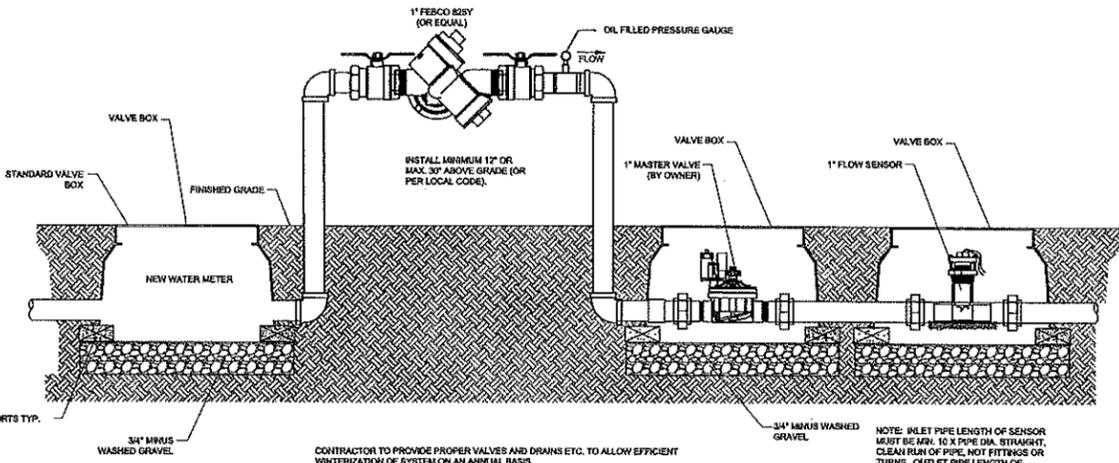


SLEEVE INSTALLATION
DETAIL - N.T.S.

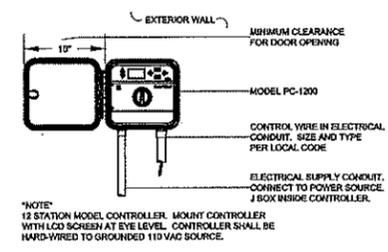


ELECTRIC REMOTE CONTROL VALVE
N.T.S.

- 1 30-INCH LINEAR LENGTH OF WIRE, COILED
- 2 WATERPROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
- 3 ID TAG: RAIN BIRD VSD SERIES
- 4 REMOTE CONTROL VALVE: RAIN BIRD PERS-PRS-D WITH NF-HAN
- 5 VALVE BOX WITH COVER: RAIN BIRD VS-STD
- 6 FINISH GRADE/TOP OF MULCH
- 7 PVC SCH 80 NIPPLE (CLOSE)
- 8 PVC SCH 40 ELL
- 9 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 10 BRICK (1 OF 4)
- 11 PVC MAINLINE PIPE
- 12 SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
- 13 PVC SCH 40 TEE OR ELL
- 14 PVC SCH 40 MALE ADAPTER
- 15 PVC LATERAL PIPE
- 16 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL



RPZ ASSEMBLY BACKFLOW PREVENTER
N.T.S.



PRO-C CONTROLLER
DETAIL - N.T.S.



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BLOSSOM TRAIL
APOPKA, FL 32703

DRAWN BY:	CHECKED BY:
AM	LMC

CONTENTS:

IRRIGATION DETAILS

3/28/18
[Signature]
LEAH M. CAMPBELL, P.E.
FL LICENSE NO. 587159
118220041
03/16/2018

IR2-00	2
TOTAL	17

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GENERAL IRRIGATION SPECIFICATIONS AND NOTES

A. EXTENT:

INCLUDES FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT FOR THE PROPER INSTALLATION OF THE IRRIGATION SYSTEM. THE WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: (1) TRENCHING AND BACKFILL, (2) AUTOMATICALLY CONTROLLED LOW VOLUME IRRIGATION SYSTEM, (3) TEST ALL SYSTEMS AND MAKE OPERATIVE, (4) "AS-BUILT" DRAWINGS.

B. GENERAL:

1. PERMITS AND FEES: OBTAIN ALL PERMITS AND PAY REQUIRED FEES TO ANY GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE WORK. INSPECTIONS REQUIRED BY LOCAL ORDINANCES DURING THE COURSE OF CONSTRUCTION SHALL BE ARRANGED AS REQUIRED. ON COMPLETION OF THE WORK, SATISFACTORY EVIDENCE SHALL BE FURNISHED TO THE OWNER'S CONSTRUCTION REPRESENTATIVE TO SHOW THAT ALL WORK HAS BEEN INSTALLED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE - PLUMBING / APPENDIX F AND CODE REQUIREMENTS.

2. APPROVAL: WHEREVER THE TERMS "APPROVE" OR "APPROVED" ARE USED IN THE SPECIFICATIONS, THEY SHALL MEAN THE APPROVAL OF THE OWNER'S CONSTRUCTION REPRESENTATIVE IN WRITING.

3. BEFORE ANY WORK IS STARTED, A CONFERENCE SHALL BE HELD BETWEEN THE CONTRACTOR AND THE OWNER'S CONSTRUCTION REPRESENTATIVE CONCERNING THE WORK UNDER THIS CONTRACT.

4. COORDINATION: COORDINATE AND COOPERATE WITH OTHER CONTRACTORS TO ENABLE THE WORK TO PROCEED AS RAPIDLY AND EFFICIENTLY AS POSSIBLE.

5. INSPECTION OF SITE:

A. CONTRACTOR SHALL ACQUAINT HIMSELF WITH ALL SITE CONDITIONS. SUBMISSION OF HIS PROPOSAL SHALL BE CONSIDERED EVIDENCE THAT THE EXAMINATION HAS BEEN CONDUCTED. SHOULD UTILITIES NOT SHOWN ON THE PLANS BE FOUND DURING EXCAVATIONS, CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S CONSTRUCTION REPRESENTATIVE FOR FURTHER ACTION. FAILURE TO DO SO WILL MAKE CONTRACTOR LIABLE FOR ANY AND ALL DAMAGE THEREAFTER ARISING FROM HIS OPERATIONS SUBSEQUENT TO DISCOVERY OF SUCH UTILITIES NOT SHOWN IN PLANS.

B. CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS IN THE LAYOUT AS MAY BE REQUIRED TO CONNECT TO EXISTING STRUCTURES, SHOULD SUCH STRUCTURES NOT BE LOCATED EXACTLY AS SHOWN, AND AS MAY BE REQUIRED TO WORK AROUND EXISTING WORK AT NO INCREASE IN COST TO THE OWNER'S CONSTRUCTION REPRESENTATIVE.

6. PROTECTION OF EXISTING PLANTS AND SITE CONDITIONS: THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT SITE CONDITIONS TO REMAIN. SHOULD DAMAGE BE INCURRED, THE CONTRACTOR SHALL REPAIR THE DAMAGE TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

7. THE OWNER RESERVES THE RIGHT TO SUBSTITUTE, ADD, OR DELETE ANY MATERIAL OR WORK AS THE WORK PROGRESSES. ADJUSTMENTS TO THE CONTRACT PRICE SHALL BE NEGOTIATED IF DEEMED NECESSARY BY THE OWNER ON A PER ITEM BASIS.

8. THE OWNER RESERVES THE RIGHT TO REJECT MATERIAL OR WORK WHICH DOES NOT CONFORM TO THE CONTRACT DOCUMENTS. REJECTED WORK SHALL BE REMOVED OR CORRECTED AT THE EARLIEST TIME POSSIBLE.

9. WORK SCHEDULE: WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A WORK SCHEDULE.

10. "AS-BUILT" IRRIGATION DRAWINGS: PREPARE AN "AS-BUILT" DRAWING ON A BLUEPRINT WHICH SHALL SHOW DEVIATIONS FROM THE BID DOCUMENTS MADE DURING CONSTRUCTION AFFECTING THE MAIN LINE PIPE, CONTROLLER LOCATIONS, REMOTE CONTROL VALVES AND QUICK COUPLING VALVES. THE DRAWINGS SHALL ALSO INDICATE AND SHOW APPROVED SUBSTITUTIONS OF SIZE, MATERIAL AND MANUFACTURERS NAME AND CATALOG NAME AND CATALOG NUMBER. THE DRAWINGS SHALL BE DELIVERED TO THE TENANT'S CONSTRUCTION REPRESENTATIVE BEFORE FINAL ACCEPTANCE OF WORK.

11. FINAL ACCEPTANCE: FINAL ACCEPTANCE OF THE WORK MAY BE OBTAINED FROM THE OWNER'S CONSTRUCTION REPRESENTATIVE UPON THE SATISFACTORY COMPLETION OF ALL WORK.

12. GUARANTEE: ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE AGAINST ALL DEFECTS IN MATERIAL, EQUIPMENT AND WORKMANSHIP. GUARANTEE SHALL ALSO COVER REPAIR OF DAMAGE TO ANY PART OF THE PREMISES RESULTING FROM LEAKS OR OTHER DEFECTS IN MATERIAL, EQUIPMENT AND WORKMANSHIP TO THE SATISFACTION OF THE TENANT'S CONSTRUCTION REPRESENTATIVE. REPAIRS, IF REQUIRED, SHALL BE DONE PROMPTLY AT NO COST TO THE OWNER.

13. A LAMINATED PLAN (8 1/2 X 11) SHOWING THE DIFFERENT IRRIGATION ZONES IN COLOR, PREPARED BY THE IRRIGATION CONTRACTOR, SHALL BE POSTED IN THE MECHANICAL ROOM.

C. MATERIALS:

1. GENERAL: ALL MATERIALS THROUGHOUT THE SYSTEM SHALL BE NEW AND IN PERFECT CONDITION.

2. PLASTIC PIPING: ALL MAIN LINES AND LATERAL LINES SHALL BE CLASS 200 POLYETHYLENE TEREPHTHALATE (PET) PIPE AND SHALL COMPLY WITH ONE OF THE FOLLOWING STANDARDS: ASTM D 1785, ASTM D-2241, AWWA C-900, OR AWWA C-905. SDR-PR PIPE SHALL HAVE A MINIMUM WALL THICKNESS AS REQUIRED BY SDR-26. PVC GASKETS/FITTINGS SHALL CONFORM TO ASTM D 5158. GASKETS SHALL CONFORM TO ASTM F 477. SOLVENT-WELD PVC FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2468. THREADED PVC PIPE FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2464. CONFORMING TO ASTM D-1784 AND D-2241.

3. PLASTIC FITTINGS: ALL SOLVENT-WELD PVC FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2468. SCHEDULE 40 SOLVENT-WELD, POLYETHYLENE TEREPHTHALATE (PET) STANDARD WEIGHT AS MANUFACTURED BY SLOAN, LASCO, OR APPROVED EQUAL.

4. SOLVENT CEMENT: PVC CEMENT SHALL MEET ASTM D 2564 AND PVC CLEANER-TYPE SHALL MEET ASTM F 656.

5. SPRINKLER HEAD RISERS: SCHEDULE 40 PVC FOR RISERS. PIPE SHALL BE CUT WITH A STANDARD PIPE CUTTING TOOL WITH SHARP CUTTERS. REAM ONLY TO FULL DIAMETER OF PIPE AND CLEAN ALL HOUGH EDGES OR BURRS. CUT ALL THREADS ACCURATELY WITH SHARP DIES. NOT MORE THAN THREE(3) FULL THREADS SHALL SHOW BEYOND FITTINGS WHEN PIPE IS MADE UP. ASSEMBLIES SHALL BE AS DETAILED.

6. AUTOMATIC CONTROLLER: SEE LEGEND

7. REMOTE CONTROL VALVES: SEE LEGEND

8. CONTROL WIRING: 24 VOLT SOLID UL APPROVED FOR DIRECT BURIAL IN GROUND. MINIMUM WIRE SIZE: 14 GAUGE. ALL SPICES SHALL BE MADE WITHIN VALVE BOX.

9. SLEEVES FOR CONTROL WIRING: UNDER ALL WALKS AND PAVED AREAS AND WHERE INDICATED ON DRAWINGS. MINIMUM PVC 1220-200 PSI PLASTIC PIPE.

10. SPRINKLER HEADS/ DRIP LINE: SEE LEGEND

11. QUICK COUPLING VALVES: SHALL BE NOTED ON DRAWINGS.

CITY OF APOPKA IRRIGATION NOTES

- 40 PSI IS REQUIRED AT EACH HEAD PER CITY ORDINANCE.
- NO RISERS ALLOWED.
- ZONES MUST HAVE MATCHING PRECIPITATION RATES.
- ALL IRRIGATION EQUIPMENT SHALL BE INSTALLED AT LEAST 24" FROM VERTICAL STRUCTURES.
- ALL VELOCITIES IN THE WATER CONVEYANCE SYSTEM SHALL NOT EXCEED 5' PER SECOND.
- CONTRACTOR TO ENSURE PROPER IRRIGATION DAYS & TIMES ARE FOLLOWED.
- CONTRACTOR TO PROVIDE ZONE CHART WITH INSTALLATION DATE & COMPANY WITHIN CONTROLLER.
- MAINTENANCE SCHEDULE TO BE PROVIDED BY OWNER.

D. WORKMANSHIP:

1. LAY OUT WORK AS ACCURATELY AS POSSIBLE TO THE DRAWINGS. THE DRAWINGS, THOUGH CAREFULLY DRAWN, ARE GENERALLY DIAGRAMMATIC TO THE EXTENT THAT SWING JOINTS, OFFSETS, AND ALL FITTINGS ARE NOT SHOWN.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULL AND COMPLETE COVERAGE OF ALL IRRIGATED AREAS AND SHALL MAKE ANY NECESSARY MINOR ADJUSTMENTS AT NO ADDITIONAL COST TO THE OWNER'S CONSTRUCTION REPRESENTATIVE.

3. ANY MAJOR REVISIONS TO THE IRRIGATION SYSTEM MUST BE SUBMITTED AND ANSWERED IN WRITTEN FORM, ALONG WITH ANY CHANGE IN CONTRACT PRICE.

E. INSTALLATION:

1. EXCAVATION AND TRENCHING:

A. PERFORM ALL EXCAVATIONS AS REQUIRED FOR THE INSTALLATION OF THE WORK, INCLUDING UNDER THIS SECTION, INCLUDING SHORING OF EARTH BANKS TO PREVENT CAVE-INS, RESTORE ALL SURFACES, EXISTING UNDERGROUND INSTALLATIONS, ETC., DAMAGED OR CUT AS A RESULT OF THE EXCAVATIONS TO AND IN A MANNER APPROVED BY THE OWNER.

B. TRENCHES SHALL BE MADE WIDE ENOUGH TO ALLOW A MINIMUM OF 6 INCHES BETWEEN PARALLEL PIPE LINES. TRENCHES FOR PIPE LINES SHALL BE MADE OF SUFFICIENT DEPTHS TO PROVIDE THE MINIMUM COVER FROM FINISH GRADE AS FOLLOWS:

- 18" MINIMUM COVER OVER IRRIGATION LINES FOR VEHICLE TRAFFIC AREAS.
- MINIMUM COVER OVER IRRIGATION LINES TO HEADS/ DRIPLINE EXCEPT VEHICLE TRAFFIC AREAS ARE AS FOLLOWS:

3'-1" = 6" COVER
2'-3" = 12" COVER
4'-9" = 18" COVER
GREATER THAN 4' = 24" COVER

C. MAINTAIN ALL WARNING SIGNS, SHORING, BARRICADES, FLARES AND RED LANTERNS AS REQUIRED BY THE SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY AND LOCAL ORDINANCES.

2. PIPE LINE ASSEMBLY:

A. INSTALL REMOTE CONTROL VALVES WHERE SHOWN AND GROUP TOGETHER WHERE PRACTICAL. PLACE NO CLOSER THAN 12 INCHES TO WALK EDGES, BUILDINGS AND WALLS.

B. PLASTIC PIPE AND FITTINGS SHALL BE SOLVENT WELDED USING SOLVENTS AND METHODS RECOMMENDED BY MANUFACTURER OF THE PIPE. EXCEPT WHERE SCREWED CONNECTIONS ARE REQUIRED, PIPE AND FITTINGS SHALL BE THOROUGHLY CLEANED OF DIRT, DUST AND MOISTURE BEFORE APPLYING SOLVENT WITH A NON-SYNTHETIC BRISTLE BRUSH.

C. PIPE MAY BE ASSEMBLED AND WELDED ON THE SURFACE. SHAKE PIPE FROM SIDE TO SIDE OF TRENCH BOTTOM TO ALLOW FOR EXPANSION AND CONTRACTION.

D. MAKE ALL CONNECTIONS BETWEEN PLASTIC PIPE AND METAL VALVES OR STEEL PIPE WITH THREADED FITTINGS USING PLASTIC WALE ADAPTERS.

3. SPRINKLER HEADS/ DRIPLINE:

A. INSTALL ALL SPRINKLERS/ DRIPLINE AS DETAILED ON DRAWINGS.

B. DO NOT SCALE PLANS FOR EXACT HEAD LOCATION.

C. PROVIDE A MINIMUM OF 4" BETWEEN SPRINKLERS/ DRIPLINE AND PAVEMENT AND 24 INCHES BETWEEN SPRINKLERS/ DRIPLINE AND BUILDINGS.

4. CLOSING OF PIPE AND FLUSHING LINES:

A. CAP OR PLUG ALL OPENINGS AS SOON AS LINES HAVE BEEN INSTALLED TO PREVENT THE ENTRANCE OF MATERIALS THAT WOULD OBSTRUCT THE PIPE. LEAVE IN PLACE UNTIL REMOVAL IS NECESSARY FOR COMPLETION OF INSTALLATION.

B. THOROUGHLY FLUSH OUT ALL WATER LINES BEFORE INSTALLING HEADS, DRIPLINE, VALVES AND OTHER HYDRANTS.

C. TEST IN ACCORDANCE WITH PARAGRAPH ON HYDROSTATIC TESTS.

D. UPON COMPLETION OF THE TESTING, THE CONTRACTOR SHALL COMPLETE ASSEMBLY AND ADJUST SPRINKLER HEADS FOR PROPER DISTRIBUTION.

5. INSPECTIONS:

A. SPRINKLER/ DRIPLINE LAYOUT AND SPACING INSPECTION: VERIFICATION THAT THE IRRIGATION DESIGN IS ACCURATELY INSTALLED IN THE FIELD. IT WILL ALSO PROVIDE FOR ALTERATION OR MODIFICATION OF THE SYSTEM TO MEET FIELD CONDITIONS. SPACING SHOULD BE WITHIN 5% OF THE DESIGN SPACING.

B. PIPE INSTALLATION DEPTH INSPECTION: ALL PIPES IN THE SYSTEM SHALL BE INSTALLED TO DEPTHS AS PREVIOUSLY DESCRIBED IN SECTION "E" OF THESE SPECIFICATIONS.

C. OPEN TRENCH INSPECTION: THE TRENCH AND ALL JOINTS AND EVERY TRANSITION IN PIPE SIZE, WILL BE OPEN WHERE OPEN TRENCH INSPECTION IS REQUIRED.

D. INSPECTIONS WILL BE PERFORMED THROUGHOUT THE DURATION OF THE INSTALLATION. INSPECTION MAY BE MADE BY THE GOVERNING AGENCY/ OWNER TO ENSURE COMPLIANCE WITH DESIGN INTENT, SPECIFICATIONS, AND THE IRRIGATION CODES.

6. HYDROSTATIC TESTS:

A. REQUEST THE PRESENCE OF THE OWNER IN WRITING AT LEAST 48 HOURS IN ADVANCE OF TESTING.

B. TESTING TO BE ACCOMPLISHED AT THE EXPENSE OF THE CONTRACTOR AND IN THE PRESENCE OF THE OWNER.

C. CENTER LOAD PIPING WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING OR SLIPPING UNDER PRESSURE.

D. APPLYING A CONTINUOUS AND STATIC WATER PRESSURE OF 125 PSI WHEN WELDED PLASTIC JOINTS HAVE CURED AT LEAST 3 HOURS AND WITH THE RISERS CAPPED AS FOLLOWS:

- 1) MAIN LINES AND SUBMANS TO BE TESTED FOR 2 HOURS.
- 2) NO PRESSURE LOSS IS ALLOWED FOR SOLVENT WELD MAINLINE/ PIPE.

E. FOR PVC AND D-RING GASKET PIPE THE ALLOWABLE LEAKAGE SHALL NOT EXCEED THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FOLLOWING FORMULA:

$$L = NPD^3 1,650$$

IN WHICH:
L=ALLOWABLE LEAKAGE, IN GALLONS PER HOUR
N=NUMBER OF JOINTS
D=PIPE DIAMETER IN INCHES
P=AVERAGE TEST PRESSURE IN PSI GAUGE

F. REPAIR LEAKS RESULTING FROM TESTS.

7. AUTOMATIC CONTROLLERS:

A. CONNECT REMOTE CONTROL VALVES TO CONTROLLER IN A CLOCKWISE SEQUENCE TO CORRESPOND WITH STATION SETTING BEGINNINGS WITH STATIONS 1, 2, 3, ETC.

8. AUTOMATIC CONTROL WIRING:

A. INSTALL CONTROL WIRING, SPRINKLER MAINS AND LATERALS IN COMMON TRENCHES WHEREVER POSSIBLE.

B. INSTALL CONTROL WIRES AT LEAST 18" BELOW FINISH GRADE AND LAY TO THE SIDE AND BELOW THE MAIN LINE. PROVIDE LOCKED SLACK AT VALVES AND SHAKE WIRES IN TRENCH TO ALLOW FOR CONTRACTION OF WIRES. THE WIRES IN BUNDLES AT INTERVALS.

C. CONTROL WIRE SPICES WILL BE ALLOWED ONLY RUNS OVER 1000 FT. CONNECTIONS SHALL BE IN VALVE BOX & SHOWN ON AS-BUILT PLAN FOR LOCATION.

D. ALL WIRING PASSING UNDER EXISTING OR FUTURE PAVING, CONSTRUCTION, ETC., SHALL BE ENCASED IN PLASTIC OR GALVANIZED STEEL CONDUIT EXTENDING AT LEAST 24" BEYOND EDGES OF PAVING OR CONSTRUCTION.

9. BACKFILL AND COMPACTING:

A. AFTER SYSTEM IS OPERATING AND REQUIRED TESTS AND INSPECTIONS HAVE BEEN MADE, BACKFILL EXCAVATIONS AND TRENCHES WITH CLEAN SOIL, FREE OF RUBBISH. INITIAL BACKFILL MATERIAL TO 6 INCHES ABOVE THE TOP OF PIPE SHALL BE FREE OF ROCKS OR STONES LARGER THAN ONE INCH IN DIAMETER. FINAL BACKFILL MATERIAL SHALL BE FREE OF ROCKS OR STONES LARGER THAN 3 INCHES IN DIAMETER.

B. BACKFILL FOR ALL TRENCHES, REGARDLESS OF THE TYPE OF PIPE COVERED, SHALL BE COMPACTED TO MINIMUM 90% DENSITY.

C. COMPACT TRENCHES IN AREAS TO BE PLANTED BY THOROUGHLY FLOODING THE BACKFILL. JETTING PROCESS MAY BE USED IN THOSE AREAS.

D. DRESS OFF ALL AREAS TO FINISH GRADES.



REVISIONS

THE MILBERGER ARCHITECTURAL GROUP, LLC
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Suite 215K
Huntsville, AL 35802
(256)334-0637
www.m2architects.com



T0006
845 SOUTH ORANGE
BLOSSOM TRAIL
APOPKA, FL 32703

DRAWN BY:	CHECKED BY:
ALH	LMC

CONTENTS:
IRRIGATION SPECIFICATIONS

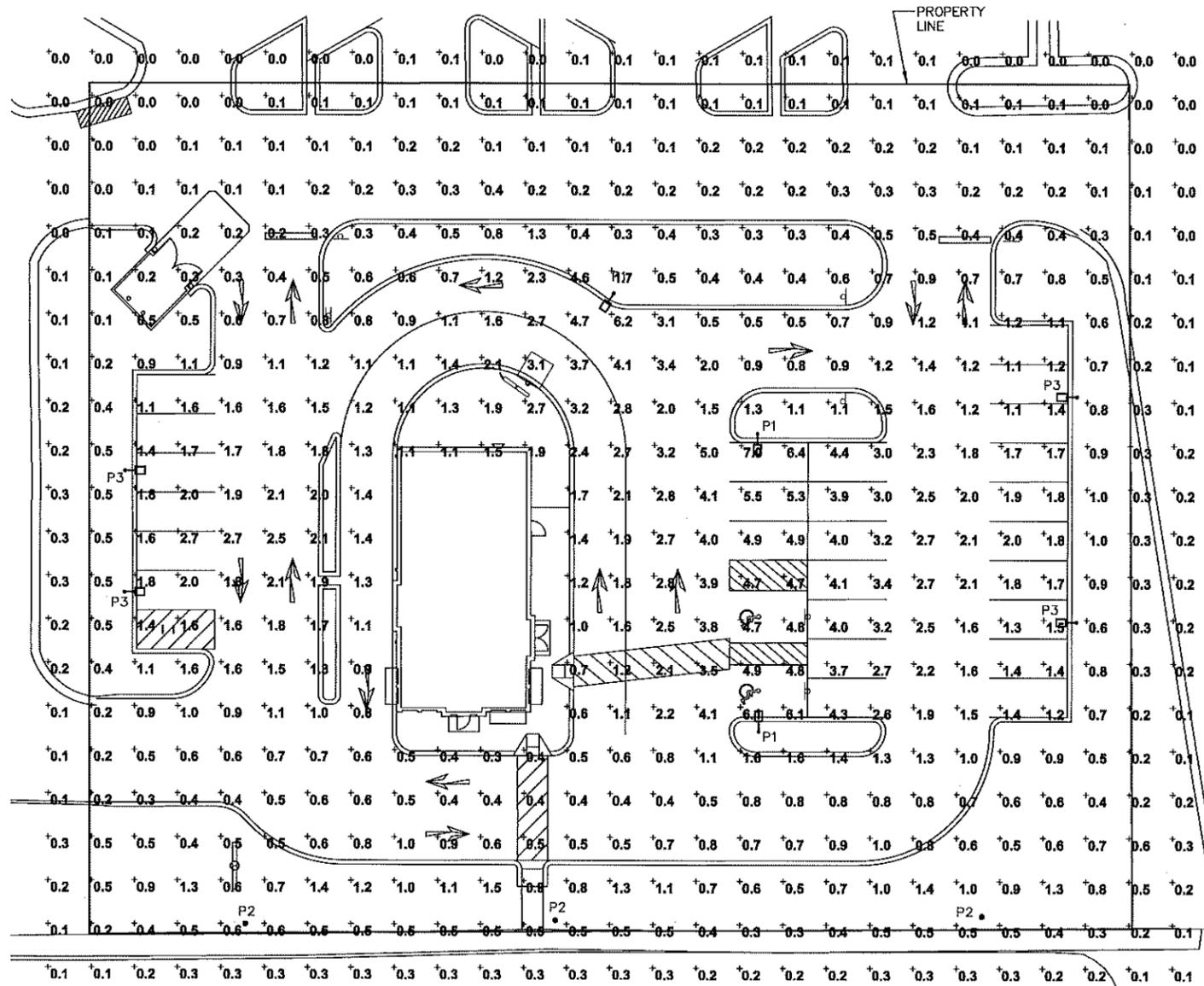
3/28/18
[Signature]
LEAH M. CAMPBELL, PLA
FL LICENSE NO. 6567166
118220041
2/8/2018

IR2-50	2
	17
	TOTAL



214 Oceanside Drive, Nashville, TN 37204
Main: 615.564.2701 | www.kimley-horn.com
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LIGHT FIXTURE SCHEDULE					
FIXTURE ID	DESCRIPTION	LAMP TYPE	LAMP QTY	WATTAGE	ADDITIONAL INFORMATION
P1	LED POLE LIGHT LSI CAT # XLCS FT LED SS NW UE BRZ	LED	1	97	20' SQUARE STEEL POLE ON 30' HIGH X 24" Ø BASE
P2	LED POLE LIGHT HOLOPHANE CAT # STLE2 P10 30K 3	LED	1	26	12' ROUND STEEL DECORATIVE POLE ON 0' HIGH X 18" Ø BASE
P3	LED POLE LIGHT LSI CAT # XLCS FIE LED SS NW HSS UE BRZ	LED	1	96	20' SQUARE STEEL POLE ON 30' HIGH X 24" Ø BASE



1 SITE PHOTOMETRIC PLAN
PM-1.0 SCALE: 1/16" = 1'-0"



REVISIONS

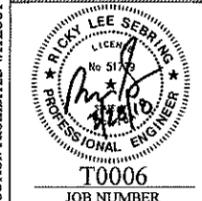
THE MILBERGER ARCHITECTURAL GROUP, LLC
7500 South Memorial Parkway
Suite 215K
Huntsville, AL, 35802
(256)534-0657
www.m2architects.com



CHURCH'S
Version 2200, CC4
Store No. xxxx
845 S. Orange Blossom Trail
Apopka, FL

DRAWN BY:
DATE
CHECKED

CONTENTS:
SITE
PHOTOMETRIC
PLAN



UNAUTHORIZED REPRODUCTION PROHIBITED WITHOUT PERMISSION



CITY OF APOPKA CITY COUNCIL

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: PUD Master Plan/Final Development Plan

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Aerial Map
 Final Development Plan
 Landscape Plan
 Architectural Elevations

SUBJECT: PLANNED UNIT DEVELOPMENT (PUD) MASTER PLAN/FINAL DEVELOPMENT PLAN – RACETRAC – HERMIT SMITH ROAD

REQUEST: APPROVE THE PUD MASTER PLAN/FINAL DEVELOPMENT PLAN FOR RACETRAC LOCATED ON THE NORTHWEST CORNER OF HERMIT SMITH ROAD AND US 441

SUMMARY:

OWNER: Zellwood Properties, LLC
 APPLICANT/ENGINEER: Tannath Design, Inc., c/o Bryan Potts, P.E.
 LOCATION: Northwest corner of Hermit Smith Road and US 441
 PARCEL ID #: 36-20-27-0000-00-024, 01-21-27-0000-00-001
 LAND USE: Commercial
 ZONING: PUD (Planned Unit Development/Commercial)
 EXISTING USE: Vacant Land
 PROPOSED USE: Gas Station with 18 fueling stations and 5,411 square foot convenience store
 TRACT SIZE: 2.53 +/- acres
 BUILDING SIZE: 5,411 square feet convenience store

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 (County)	Rural (1 D/U per 10 Acres)	“County” A-1	Vacant
East (City)	Rural (1 D/U per 10 Acres)	“County” A-1 (ZIP)	Hermit Smith Rd/Vacant
South (County)	Not assigned	Not assigned	US 441
West (County)	Rural (1 D/U per 10 Acres)	“County” A-1	Vacant

ADDITIONAL COMMENTS: The applicant has submitted a PUD Master Plan/Final Development Plan for a RaceTrac gas station with 16 fueling stations and an associated 5,411 square foot convenience store. The subject property is located at the northeast corner of the intersection of Hermit Smith Road and US 441. The subject property is approximately 2.53 acres in size and is zoned Planned Unit Development.

PARKING: A total of 35 parking spaces will be provided for the convenience store, and 16 parking spaces will be provided at the fueling station for a total of 55 parking spaces. Two parking spaces are reserved as a handicapped parking spaces.

ACCESS: Access to the site is provided via a full access point located on Hermit Smith Road, and a right in/right out on US 441. A 240-foot right turn lane leading into the site from US 441 will be constructed concurrent with site construction.

TRANSPORTATION: Using ITE Trip Generation Rates, 9th Edition, the estimated project trip generation is 731 net new daily trips daily trips, 52 a.m. and 62 p.m. net new peak hour trips. The development is adding a 240-foot right deceleration lane at the access driveway on US 441.

ARCHITECTURAL ELEVATIONS: The architectural elevations provided for the convenience store propose a one story building with architectural design elements including awnings, windows with glazing, eifs, and a watermark and stone veneer provided around the perimeter of the building. The fueling station will be covered with an awning. Stone veneer that matches the stone veneer provided around the perimeter of the convenience store will be provided around the perimeter of the support columns of the fueling station. The building exhibits high quality architectural elements that are required in the Development Design Guidelines.

STORMWATER: Stormwater run-off and drainage will be accommodated onsite with a dry stormwater retention pond that is located behind the convenience store building.

BUFFER/TREE PROGRAM: The adjacent properties to the north and west have Agricultural zoning. Per the Land Development Code, a 6-foot block wall is required to be provided between commercial and agricultural uses. A wall is provided along the northern property boundary and approximately one-quarter of the western property. The wall is not provided along the entire western property line to allow for future cross-access between the subject property and the property to the west at such time that property develops. Landscaping including Live Oaks, Bald Cypress, Holly, and Bahia sod is provided in this location.

The applicant has provided a detailed landscape and irrigation plan that complies with the requirements of the City’s Land Development Code. The planting materials and irrigation system design are consistent with the water-efficient, Florida-friendly landscape standards set forth in Ordinance No. 2069.

TREES: The applicant has agreed to a tree mitigation payment of \$2,769.41 to mitigate existing trees that are proposed to be removed.

Total inches on-site:	365
Total inches removed	277
Total inches retained:	88
Total inches added:	81.5
Total inches post development:	169.5

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)

June 6, 2018 - City Council (1:30 pm)

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the RaceTrac PUD Master Plan/Final Development Plan, subject to the findings of this staff report.

The **Planning Commission**, at its meeting on May 8, 2018, found the RaceTrac PUD Master Plan/Final Development Plan consistent with the Comprehensive Plan and Land Development Code; and unanimously recommended approval of the RaceTrac Final Development Plan, subject to the findings of the staff report.

City Council: Approve the RaceTrac PUD Master Plan/Final Development Plan.

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: PUD Master Plan/Final Development Plan
Owner: Zellwood Properties, LLC
Applicant/Engineer: Tannath Design, Inc., c/o Bryan Potts, P.E.
Parcel I.D. No: 36-20-27-0000-00-024, 01-21-27-0000-00-001
Location: Hermit Smith Road and US 441
Acres: 2.53 acres



VICINITY MAP





AERIAL MAP



ADDITIONAL COMMENTS: The subject parcel was annexed in the city on April 18, 2018 by Ordinance 2641. Presently, the subject property does not have a “city” future land use designation or “city” zoning classification assigned. The applicant requests a future land use designation of “city” Residential Very Low Suburban.

COMPREHENSIVE PLAN COMPLIANCE: The proposed use of the property is consistent with the Residential Very Low Suburban Future Land Use designation. Site development cannot exceed the intensity allowed by the Future Land Use policies. Planning & Zoning staff determines that the below policies support a Residential Very Low Suburban FLUM designation at the subject site:

Future Land Use Element

1. **Policy 3.1.c**

Very Low Density Suburban Residential

The primary use shall be residential dwelling units up to 2 dwelling units per acre, elementary schools; middle schools, high schools; supporting infrastructure of less than two acres, neighborhood parks.

SCHOOL CAPACITY REPORT: The proposed future land use change will result in an insignificant increase (less than 9) in the number of residential units which could be developed at the subject property. Therefore, the property is exempt from school capacity enhancement per the School Interlocal Planning Agreement.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on April 2, 2018.

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)

May 16, 2018 - City Council (7:00 pm) - 1st Reading

June 6, 2018 – City Council (1:30 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

April 24, 2018 – Public Notice and Notification

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, recommending approval of the proposed Future Land Use Designation of Residential Very Low Suburban for the property owned by Lynn R. Fontaine, and located at 4353 McDonald Gley Road.

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed Future Land Use amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas; and unanimously recommended approval of the change of Future Land Use Designation from “County” Rural to “City” Residential Very Low Suburban, subject to the findings of the Staff Report.

The **City Council**, at its meeting on May 16, 2018, accepted the first reading of Ordinance No. 2646 and held over for second reading and adoption on June 6, 2018.

Adopt Ordinance No. 2646.

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

LAND USE REPORT

I. RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City and County)	“City” Agriculture and “County” Rural	“City” Agriculture and “County” A-1	Agriculture and Single Family Homes
East (City)	Residential Low Suburban	R-1A	Subdivision (Chandler Estates)
South (City and County)	“City” Residential Low Suburban and “County” Rural	“City” R-1A and “County” A-1	Single Family Homes
West (County)	Rural	A-1	Single Family Home

II. LAND USE ANALYSIS:

The subject property is located on a site that is ideal for residential use, which makes the request for a Residential Very Low Suburban future land use designation consistent with the Comprehensive Plan policies listed above, as well as the general future land use character of the surrounding area.

Properties to the south, north and west are low density single-family homes. The Chandler Estates subdivision is to the east. Due to the connection of a local road, and no presence of collector or arterial roads, staff views this property as favorable for a residential low future land use designation.

The proposed Residential Very Low Suburban future land use designation is consistent with the general future land use character of the surrounding area.

Wekiva River Protection Area: No
 Area of Critical State Concern: No
 DRI / FQD: No

JPA: The City of Apopka and Orange County entered into a Joint Planning Area (JPA) agreement on October 26, 2004. The subject property is not located within the “Northern Area” of the JPA. The proposed FLUM Amendment request for a change from “County” Rural (0-10 du/ac) to “City” Residential Very Low Suburban (0-2 du / ac) is consistent with the terms of the JPA (Second Amendment). Lynn R. Fontaine is the applicant of the proposed future land use amendment and proposed change of zoning for the Property, and has been notified of the hearing schedule.

Transportation: Road access to the site is from McDonald Gley.

Wekiva Parkway and Protection Act: The proposed amendment has been evaluated against the adopted Wekiva Study Area Comprehensive Plan policies. The proposed amendment is consistent with the adopted mandates and requirements. The proposed Future Land Use Map (FLUM) amendment has been reviewed against the best available data, with regard to aquifer and groundwater resources. The City of Apopka's adopted Comprehensive Plan addresses aquifer recharge and stormwater run-off through the following policies:

- Future Land Use Element, Policies 4.16, 14.4, 15.1, 16.2 and 18.2
- Infrastructure Element, Policies 1.5.5, 4.2.7, 4.4, 4.4.1, 4.4.2 and 4.4.3
- Conservation Element, Policy 3.18

Karst Features: The Karst Topography Features Map from the Florida Department of Environmental Protection shows that there are karst features in the vicinity of this property.

Analysis of the character of the Property: The property comprises mostly of grasslands, with some tree cover. Additionally, the property has a single family home.

Analysis of the relationship of the amendment to the population projections: The proposed future land use designation for the property is Residential Very Low Suburban (0-2 du / ac). Based on the housing element of the City's Comprehensive Plan, this amendment will not increase the City's future population

CALCULATIONS:

ADOPTED: 1 Unit(s) x 2.659 p/h = 3 persons

PROPOSED: 1 Unity = 3 persons

Housing Needs: This amendment will not negatively impact the housing needs as projected in the Comprehensive Plan.

Habitat for species listed as endangered, threatened or of special concern: A habitat study is required for developments greater than ten (10) acres in size. At the time the Master Site Plan or Preliminary Development Plan is submitted to the City, the development applicant must conduct a species survey and submit a habitat management plan if any threatened or endangered species are identified within the project site.

Transportation: The City of Apopka is a Transportation Concurrency Exception Area. Refer to Chapter 3 of the City of Apopka 2010 Comprehensive Plan.

Sanitary Sewer Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 81 GPD/Capita ; 81 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 196 GPD
3. Projected total demand under proposed designation: 3,528 GPD
4. Capacity available: Yes
5. Projected LOS under existing designation: 81 GPD/Capita
6. Projected LOS under proposed designation: 81 GPD/Capita
7. Improved/expansions already programmed or needed as a result if proposed amendment: None

Potable Water Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 177 GPD/Capita ; 177 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 210 GPD
3. Projected total demand under proposed designation: 3,780 GPD
4. Capacity available: Yes
5. Projected LOS under existing designation: 177 GPD / Capita
6. Projected LOS under proposed designation: 177 GPD / Capita
7. Improved/expansions already programmed or needed as a result of the proposed amendment: None
8. Parcel located within the reclaimed water service area: Yes

Solid Waste

1. Facilities serving the site: City of Apopka
2. If the site is not currently served, please indicate the designated service provider: City of Apopka
3. Projected LOS under existing designation: 4 lbs/ day
4. Projected LOS under proposed designation: 192 lbs / day
5. Improved/expansions already programmed or needed as a result of the proposed amendment: None

This initial review does not preclude conformance with concurrency requirements at the time of development approval.

Infrastructure Information

- Water treatment plant permit number: CUP No. 3217
- Permitting agency: St. John's River Water Management District
- Permitted capacity of the water treatment plant(s): 9.353 MGD
- Total design capacity of the water treatment plant(s): 33.696 MGD
- Availability of distribution lines to serve the property: Yes
- Availability of reuse distribution lines available to serve the property: Yes

Drainage Analysis

1. Facilities serving the site: None
2. Projected LOS under existing designation: 100 year – 24 hour design storm
3. Projected LOS under proposed designation: 100 year – 24 hour design storm

4. Improvement/expansion: On site retention / detention ponds

Recreation

1. Facilities serving the site; LOS standard: City of Apopka Parks System ; 3 acre / 1000 capita
2. Projected facility under existing designation: 0.009 acres
3. Projected facility under proposed designation: 0.144 acres
4. Improvement/expansions already programmed or needed as a result of the proposed amendment: None

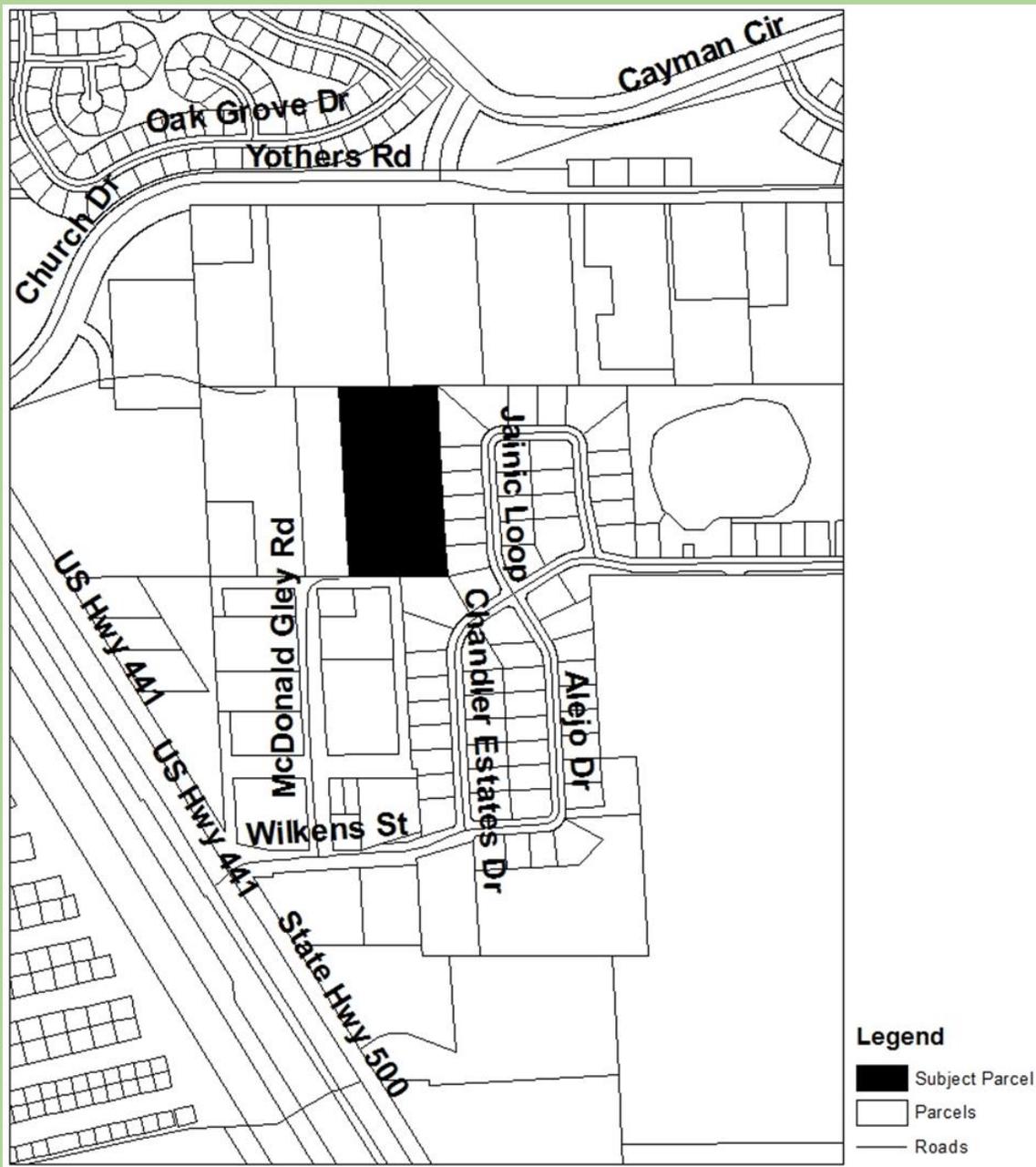
Standards set forth in the City's Land Development Code will require any development plans to provide parkland and recreation facilities and open space for residents residing with the new development.

This initial review does not preclude conformance with concurrency requirements at the time of development approval.



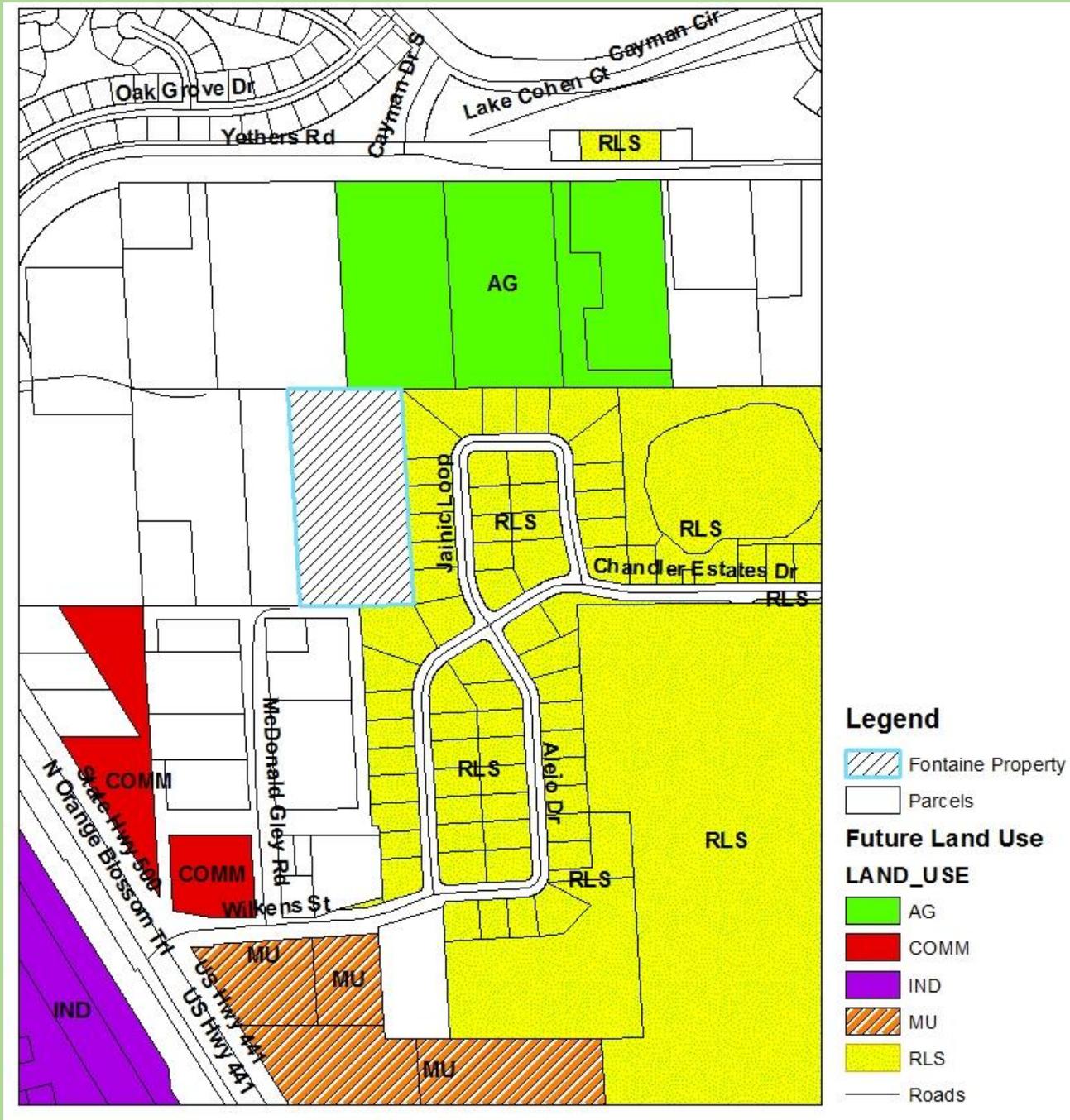
Lynn R. Fontaine
5.2 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Rural
To: "City" Residential Very Low Suburban
Proposed Change of Zoning:
From: "County" A-1
To: RCE-2
Parcel ID #: 35-20-27-0000-00-037

VICINITY MAP



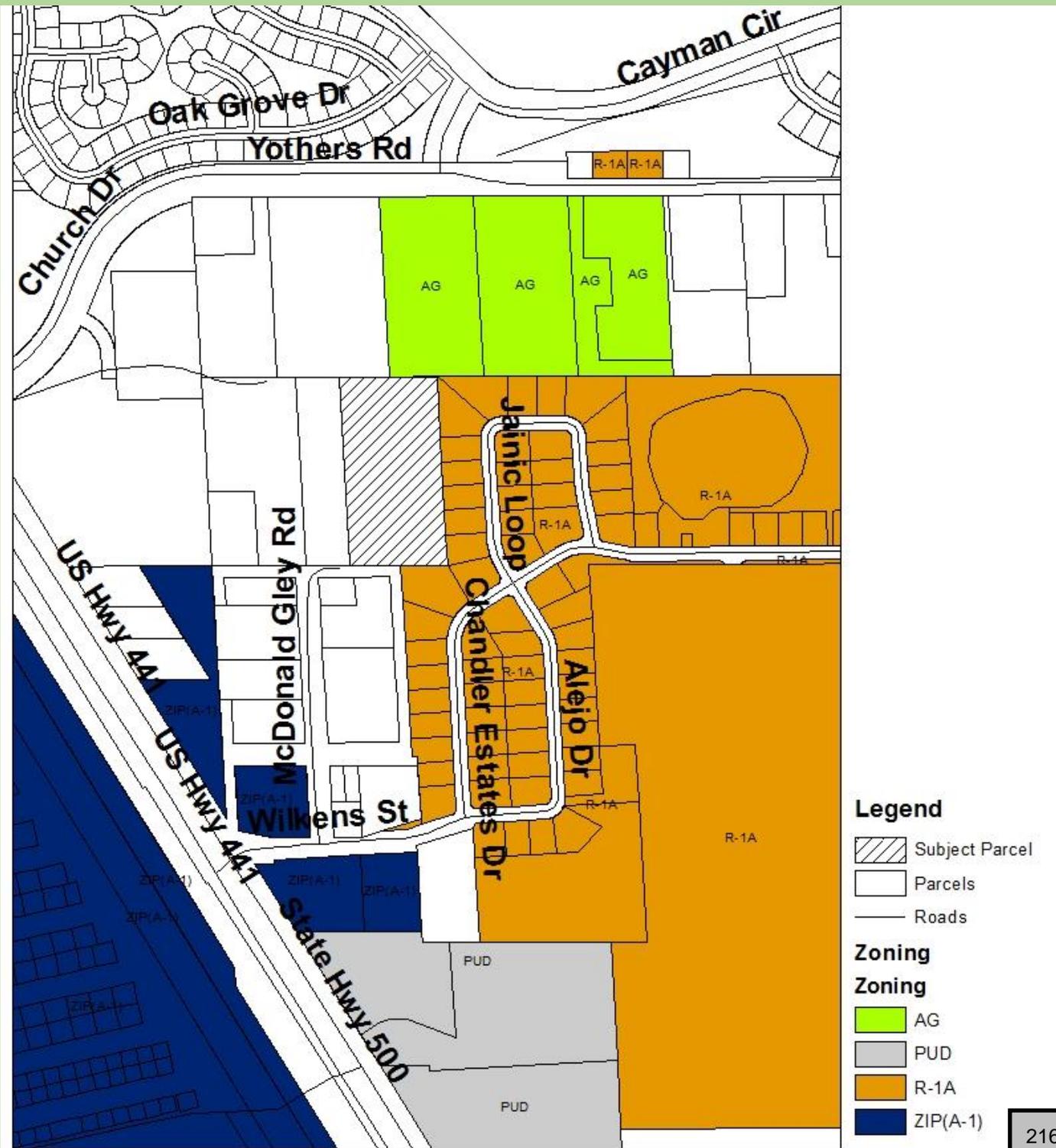


FUTURE LAND USE MAP



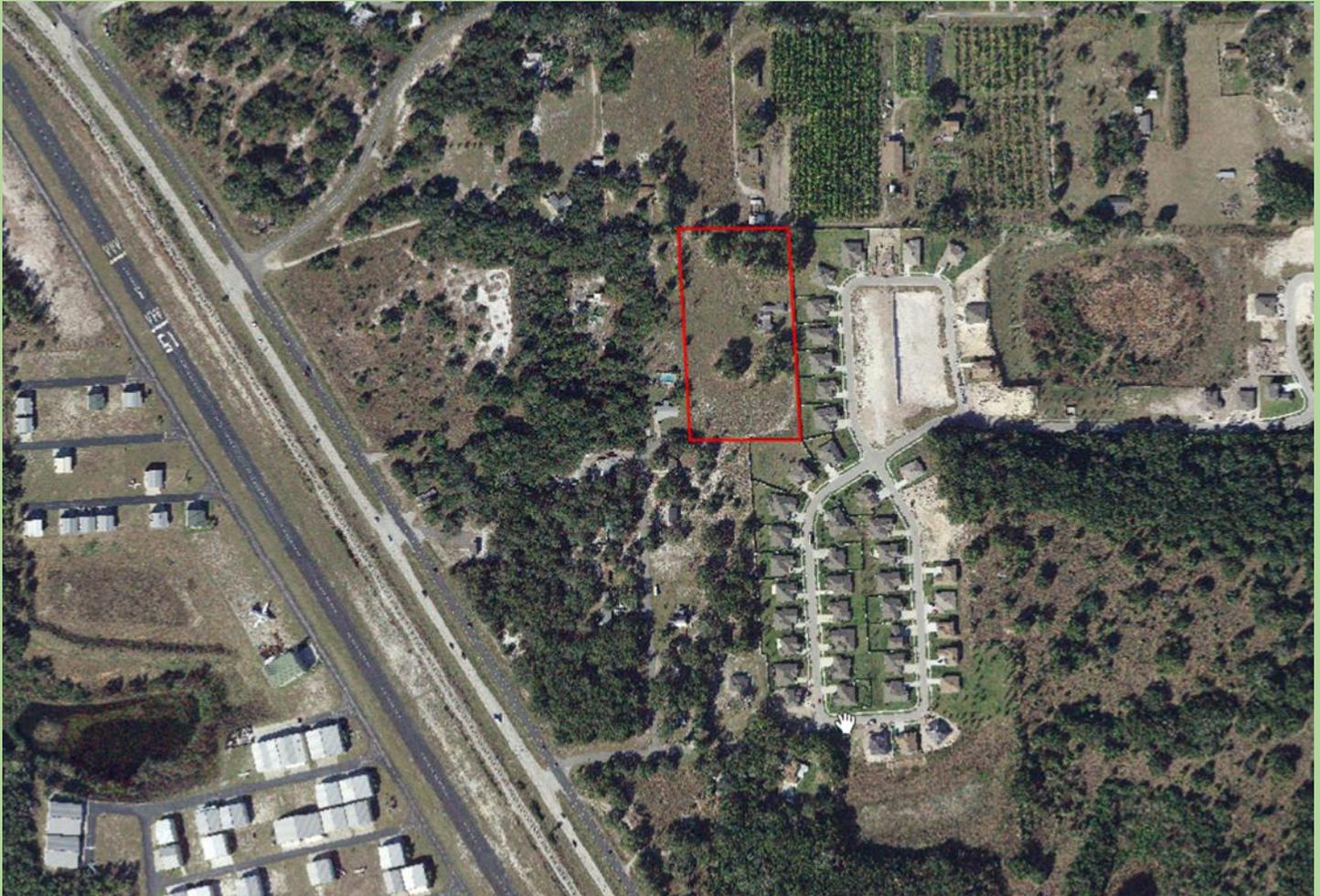


ADJACENT ZONING





ADJACENT USES



ORDINANCE NO. 2646

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 TO “CITY” RESIDENTIAL VERY LOW SUBURBAN FOR CERTAIN REAL PROPERTY GENERALLY LOCATED SOUTH OF YOTHERS ROAD AND EAST OF ORANGE BLOSSOM TRAIL, COMPRISING 5.2 ACRES, MORE OR LESS AND OWNED BY LYNN FONTAINE; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Apopka adopted the Apopka Comprehensive Plan by Ordinance No. 653 on October 2, 1991, pursuant to Section 163.3184, Florida Statutes and most recently amended it by Ordinance No. 2606 on March 7, 2018; and

WHEREAS, the City of Apopka’s local planning agency (Planning Commission) has, in preparation of the amended version of the Apopka Comprehensive Plan, analyzed the proposed amendment pursuant to Chapter 163, Part II, F.S., found it to be consistent with the intent of the Apopka Comprehensive Plan, and held public hearings providing for full public participation.

NOW THEREFORE, BE IT ORDAINED, by the City Council of the City of Apopka, Florida, as follows:

Section I. Purpose and Intent.

This Ordinance is enacted to carry out the purpose and intent of, and exercise the authority set out in, the Local Government Comprehensive Planning and Land Development Regulation Act, Sections 163.3184 and 163.3187, Florida Statutes.

Section II. Future Land Use Element.

Page 1-15 (Map 1-3) of the Future Land Use Element of the City of Apopka Comprehensive Plan, as most recently amended by Ordinance No. 2631, is amended in its entirety to change the land use from “County” Rural (1 du\10 ac) to “City” Residential Very Low Suburban (0-2 du/ac), for certain real property generally located south of Yothers Road and east of U.S. 441, comprising 5.2 acres more or less, and owned by Lynn Fontaine; as further described in Exhibit “A” attached hereto.

Section III. Applicability and Effect.

The applicability and effect of the City of Apopka Comprehensive Plan shall be as provided by the Local Government Comprehensive Planning and Land Development Regulation Act, Sections 163.3161 through 163.3215, Florida Statutes.

Section IV. Severability.

If any provision or portion of this Ordinance is declared by any court of competent jurisdiction to be void, unconstitutional, or unenforceable, then all remaining provisions and portions of this Ordinance shall remain in full force and effect.

Section V. The Community Development Director is hereby authorized to amend the Future Land Use to comply with this ordinance.

Section VI. Effective Date. This Ordinance shall become effective upon adoption.

ADOPTED at a regular meeting of the City Council of the City of Apopka, Florida, this 6th day of June, 2018

READ FIRST TIME: May 16, 2018

READ SECOND TIME
AND ADOPTED: June 6, 2018

Bryan Nelson, Mayor

ATTEST:

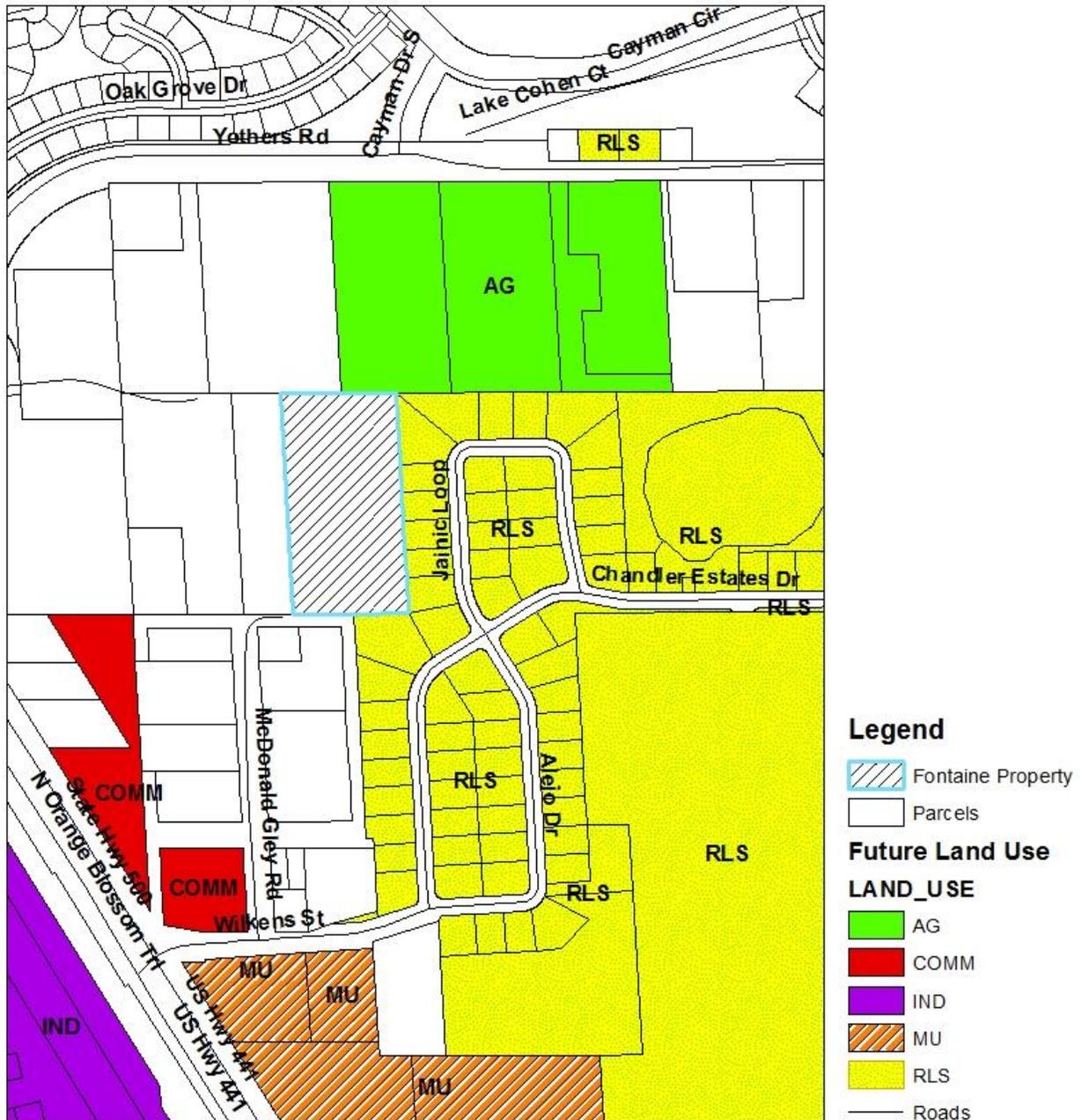
Linda Goff, City Clerk

DULY ADVERTISED FOR HEARING: April 24, 2018; May 25, 2018



EXHIBIT "A"

ORDINANCE NO. 2646
Lynn Fontaine
Small Scale Future Land Use Amendment:
From: "County" Rural (1 du\ 10 ac)
To: "City" Residential Very Low Suburban (0-3.5 du/ac)
Parcel ID #: 35-20-27-0000-00-037
Acreage: 5.2 +/-



ORDINANCE NO. 2647

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” A-1 TO “CITY” RCE-2 (RESIDENTIAL COUNTRY ESTATE) FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF WEST ORANGE BLOSSOM TRAIL AND SOUTH OF YOTHERS ROAD, COMPRISING 5.2 ACRES MORE OR LESS, AND OWNED BY LYNN FONTAINE; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE

WHEREAS, to manage the 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, the City of Apopka has requested a change in zoning on said property as identified in Section I of this ordinance; and

WHEREAS, the proposed Residential Country Estate (RCE-2) 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 Residential Country Estate (RCE-2), as defined in the Apopka Land Development Code, and with the following Master Plan provisions subject to the following zoning provisions:

Section II. That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.

Section III. 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 IV. 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 V. That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section VI. That this Ordinance shall take effect upon adoption of Ordinance No. 2646.

READ FIRST TIME: May 16, 2018

READ SECOND TIME
AND ADOPTED: June 6, 2018

Bryan Nelson, Mayor

ATTEST:

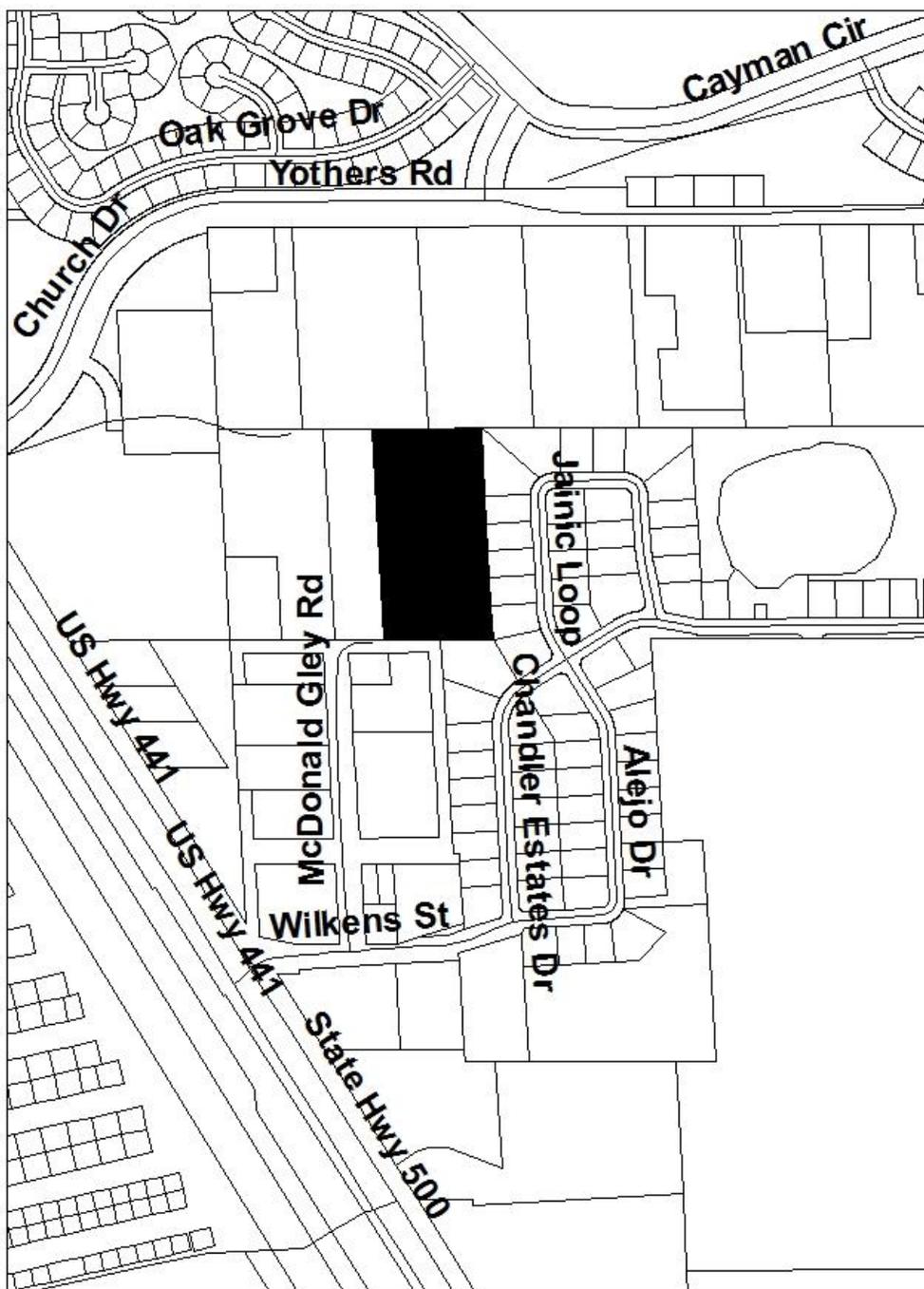
Linda Goff, City Clerk

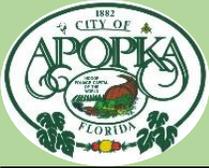
DULY ADVERTISED: April 24, 2018; May 25, 2018



Lynn R. Fontaine
5.20 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Rural
To: "City" Residential Low Suburban
Proposed Change of Zoning:
From: "County" A-1
To: "City" RCE-2
Parcel ID #: 35-20-27-0000-00-037

VICINITY MAP





CITY OF APOPKA CITY COUNCIL

CONSENT AGENDA
 PUBLIC HEARING
 SPECIAL REPORTS
 OTHER: Ordinance

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Zoning Report
 Vicinity Map
 Future Land Use Map
 Adjacent Zoning Map
 Adjacent Uses Map
 Ordinance No. 2647

SUBJECT: ORDINANCE 2647 – CHANGE OF ZONING – LYNN R. FONTAINE

REQUEST: SECOND READING & ADOPTION OF ORDINANCE NO. 2647 – CHANGE OF ZONING – LYNN FONTAINE – FROM “COUNTY” RURAL (1 DU/10 AC) TO “CITY” RESIDENTIAL VERY LOW SUBURBAN (0-2 DU/AC)

SUMMARY:

OWNER/APPLICANT: Lynn R. Fontaine
 LOCATION: 4353 McDonald Gley Rd.
 PARCEL ID NUMBER: 35-20-27-0000-00-037
 EXISTING USE: Single Family Home
 CURRENT ZONING: “County” A-1
 PROPOSED DEVELOPMENT: Single Family Home
 PROPOSED ZONING: “City” RCE-2 (Residential Country Estate) (Note: this Change of Zoning request is being processed along with a request to amend the Future Land Use from “County” Rural (1 du / 10 ac) to Residential Very Low Suburban (0-2 du / ac) and an application for annexation.
 TRACT SIZE: 5.2 +/- acres
 MAXIMUM ALLOWABLE DEVELOPMENT:
 EXISTING: 1 Single Family Home
 PROPOSED: 1 Single Family Home

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

G:\CommDev\PLANNING ZONING\REZONING\2018\Fontaine

ADDITIONAL COMMENTS: Presently, the subject property has not yet been assigned a “City” zoning category. The applicant is requesting the City to assign a zoning classification of RCE-2 (Residential Country Estates) to the property.

The subject parcel was annexed into the city on April 18, 2018 by Ordinance Number 2641.

A request to assign a change of zoning to RCE-2 is compatible to the adjacent zoning classifications and with the general character of abutting properties and surrounding area. The change of zoning request is being processed in conjunction with a future land use amendment from “County” Rural to “City” Residential Very Low Suburban.

COMPREHENSIVE PLAN COMPLIANCE: The existing and proposed use of the property is consistent with the proposed Residential Very Low Suburban (0-2 du / ac) Future Land Use designation.

SCHOOL CAPACITY REPORT: The proposed future land use change will result in an insignificant increase (less than 9) in the number of residential units which could be developed at the subject property. Therefore, the property is exempt from school capacity enhancement per the School Interlocal Planning Agreement.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on April 2, 2018.

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)

May 16, 2018 - City Council (7:00 pm) - 1st Reading

June 6, 2018 – City Council (1:30 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

April 24, 2018 - Public Notice and Notification

May 25, 2018 – Public Notice

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, recommending approval of the proposed Change of Zoning from “County” A-1 to “City” RCE-2 for the property owned by Lynn R. Fontaine, and located at 4353 McDonald Gley Rd.

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas; and unanimously recommended approval of the proposed Change of Zoning from “County” A-1 to “City” RCE-2 for the property owned by Lynn R. Fontaine, and located at 4353 McDonald Gley Rd.

The **City Council**, at its meeting on May 16, 2018, accepted the First Reading of Ordinance 2647 and held it over for Second Reading and Adoption on June 6, 2018

Adopt Ordinance No. 2647.

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 and County)	“City” Agriculture and “County” Rural	“City” Agriculture and “County” A-1	Agriculture and Single Family Homes
East (City)	Residential Low Suburban	R-1A	Subdivision (Chandler Estates)
South (City and County)	“City” Residential Low Suburban and “County” Rural	“City” R-1A and “County” A-1	Single Family Homes
West (County)	Rural	A-1	Single Family Home

LAND USE & TRAFFIC COMPATIBILITY:

The property is currently accessed by McDonald Gley Rd.

COMPREHENSIVE PLAN COMPLIANCE:

The proposed RCE-2 zoning is consistent with the proposed Future Land Use designation, “Residential Very Low Suburban” (0-2 du / ac) and with the character of the surrounding area and future proposed development. Development Plans shall not exceed the density allowed in the adopted Future Land Use designation.

ALLOWABLE USES:

1. Single-family dwellings and their customary accessory structures and uses in accordance with article VII of this code.
2. Guest/granny quarters in accordance with article VII of this code.

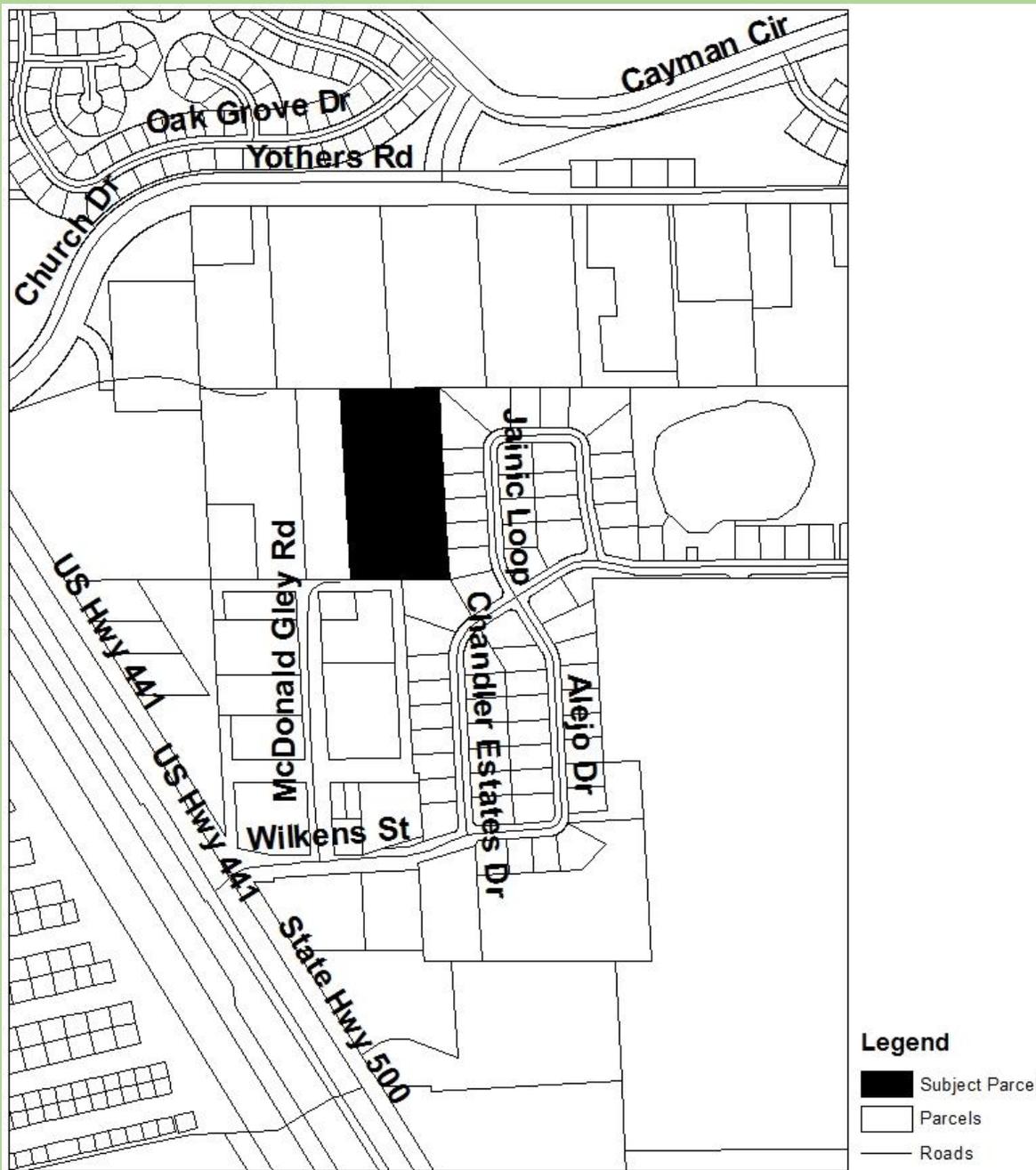
ZONING REGULATIONS

Minimum Site Area: 2 Acres
 Minimum Lot Width: 150 ft.
 Front Setback: 35 ft.
 Side Setback: 15 ft.
 Rear Setback: 30 ft.
 Corner Setback: 35 ft.
 Minimum Living Area: 2,200 sq. ft.



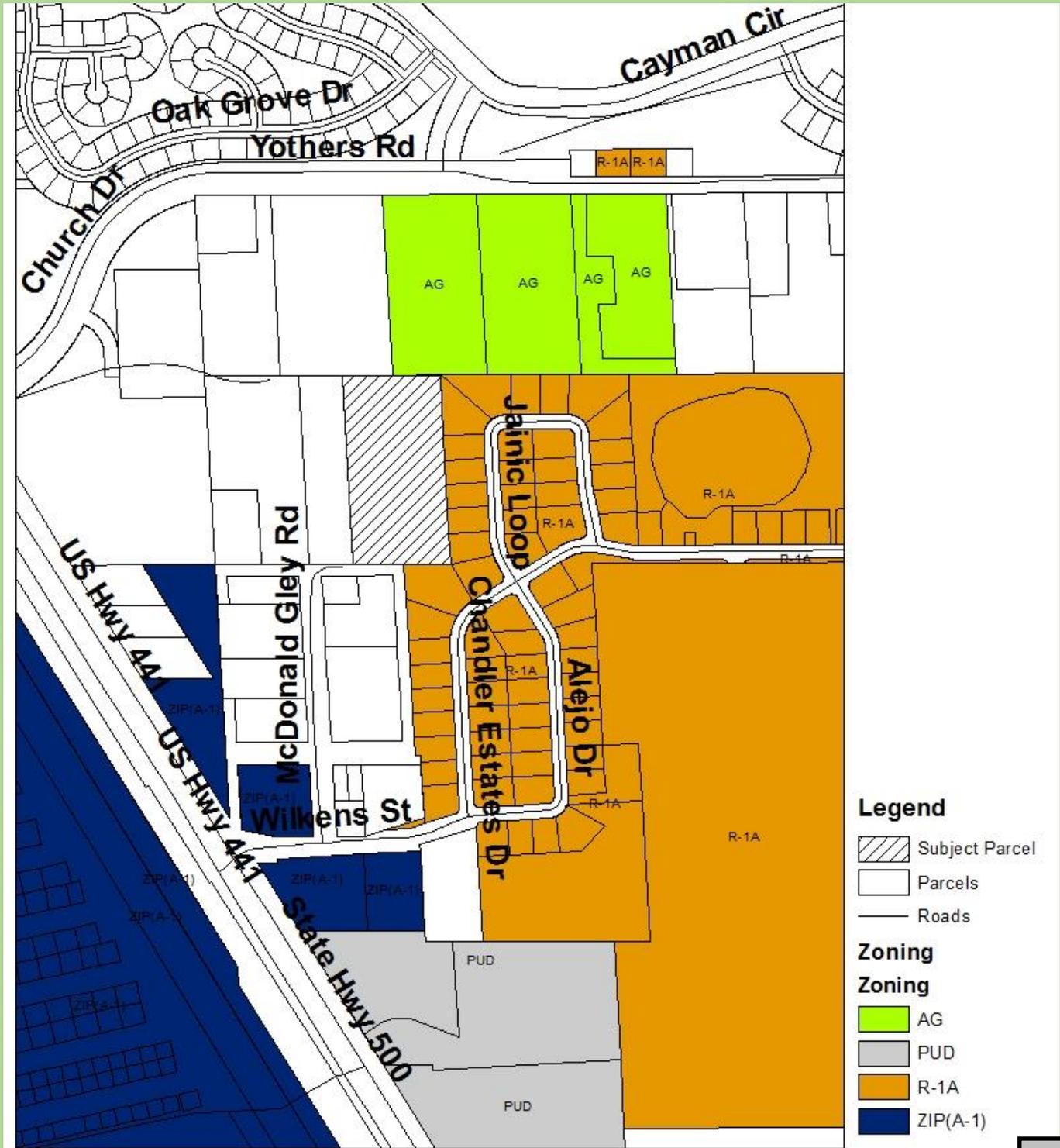
Lynn R. Fontaine
5.20 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: “County” Rural
To: “City” Residential Very Low Suburban
Proposed Change of Zoning:
From: “County” A-1
To: “City” RCE-2
Parcel ID #: 35-20-27-0000-00-037

VICINITY MAP



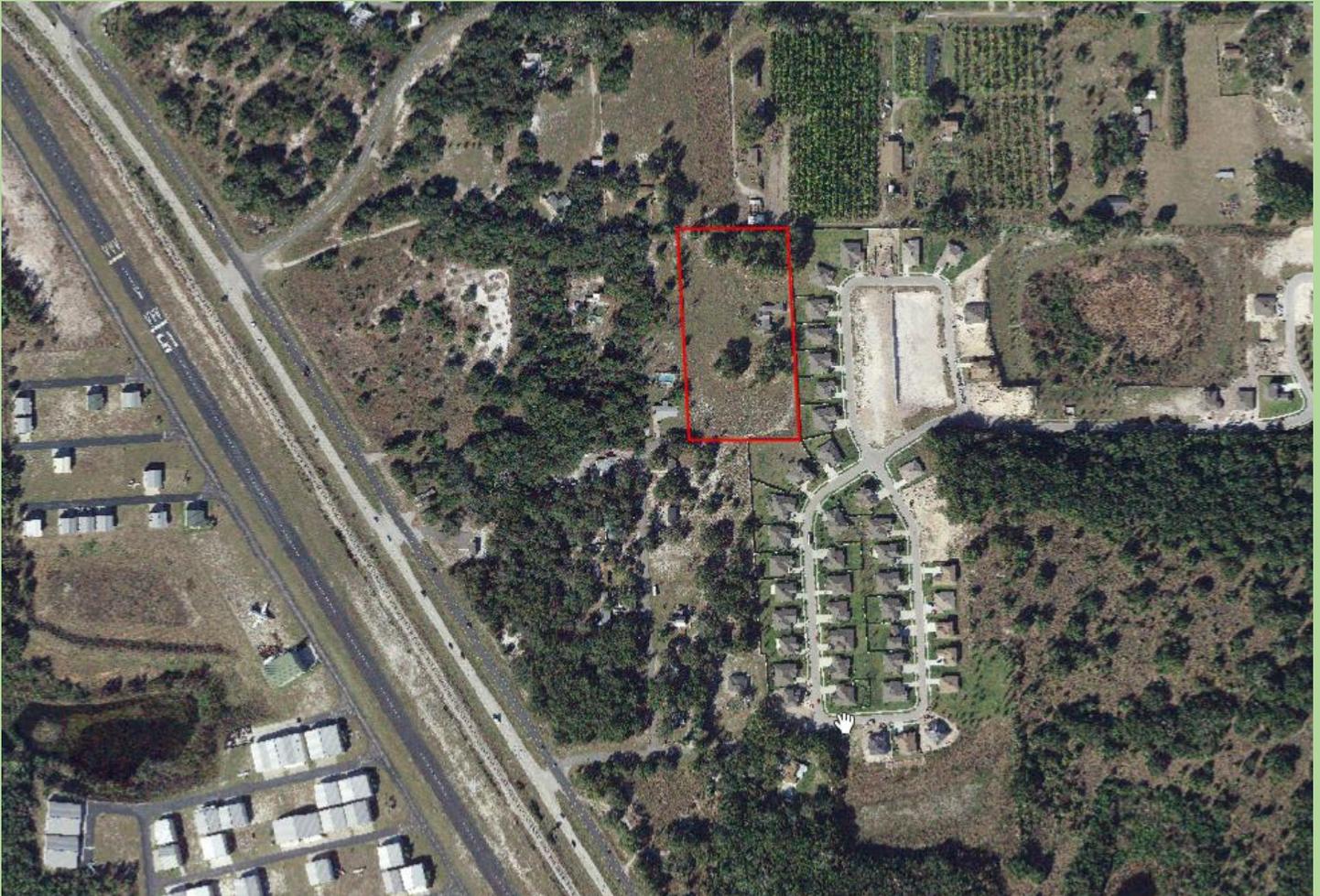


ADJACENT ZONING MAP





ADJACENT USES MAP





CITY OF APOPKA CITY COUNCIL

CONSENT AGENDA
 PUBLIC HEARING
 SPECIAL REPORTS
 OTHER: Ordinance

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Land Use Report
 Vicinity Map
 Future Land Use Map
 Adjacent Zoning Map
 Adjacent Uses Map
 Ordinance No. 2648

SUBJECT: ORDINANCE 2648 - COMPREHENSIVE PLAN – SMALL SCALE - FUTURE LAND USE AMENDMENT – JANINE AND RICHARD EDMONDSON

REQUEST: SECOND READING & ADOPTION OF ORDINANCE 2648 – COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – JANINE AND RICHARD EDMONDSON – FROM “COUNTY” RURAL (0-1 DU/10 AC) TO “CITY” RESIDENTIAL VERY LOW SUBURBAN (0-2 DU/AC)

SUMMARY:

OWNERS/APPLICANTS: Janine and Richard Edmondson

LOCATION: 3904 Plymouth Sorrento Road

PARCEL ID NUMBER: 24-20-27-0000-00-085

EXISTING USE: Single Family Home

CURRENT ZONING: “County” A-2

EXISTING DEVELOPMENT: Single Family Home

PROPOSED ZONING: “City” R-1AA (Note: this Future Land Use amendment request is being processed along with a request for annexation and to change the zoning classification from “County” A-2 to “City” R-1AA (Residential Single Family District).

TRACT SIZE: 1.0 +/- acres

MAXIMUM ALLOWABLE DEVELOPMENT: EXISTING: Single Family Home
PROPOSED: 2 Single Family Homes

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: The subject parcel was annexed in the city on April 18, 2018 by Ordinance 2640. Presently, the subject property does not have a “city” future land use designation or “city” zoning classification assigned. The applicant requests a future land use designation of “city” Residential Very Low Suburban.

COMPREHENSIVE PLAN COMPLIANCE: The proposed use of the property is consistent with the Residential Very Low Suburban Future Land Use designation. Site development cannot exceed the intensity allowed by the Future Land Use policies. Planning & Zoning staff determines that the below policies support a Residential Very Low Suburban FLUM designation at the subject site:

Future Land Use Element

1. **Policy 3.1.c**

Very Low Density Suburban Residential

The primary use shall be residential dwelling units up to 2 dwelling units per acre, elementary schools; middle schools; supporting infrastructure of less than two acres, neighborhood parks.

SCHOOL CAPACITY REPORT: The proposed future land use change will result in an insignificant increase (less than 9) in the number of residential units which could be developed at the subject property. Therefore, the property is exempt from school capacity enhancement per the School Interlocal Planning Agreement.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on April 2, 2018.

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)
May 16, 2018 - City Council (1:30 pm) - 1st Reading
June 6, 2018 – City Council (7:00 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

April 24, 2018 – Public Notice and Notification

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, recommending approval of the proposed Future Land Use Designation of Residential Very Low Suburban for the property owned by Janine and Richard Edmondson, and located at 3904 Plymouth Sorrento Road.

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed Future Land Use amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas; and unanimously recommended approval of the change of Future Land Use Designation from “County” Rural to “City” Residential Very Low Suburban, subject to the findings of the Staff Report.

The **City Council**, at its meeting on May 16, 2018, accepted the First Reading of Ordinance 2648, and held it over for Second Reading and Adoption on June 6, 2018.

Adopt Ordinance No. 2648.

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

LAND USE REPORT

I. RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (County)	“County” Rural	“County” A-2	Greenhouse
East (City)	“City” Residential Very Low Suburban	“City” R-1AAA	Agriculture
South (County)	“County” Rural	“County” A-2	Single Family Home
West (County)	“County” Rural	“County” A-2	Greenhouse

II. LAND USE ANALYSIS:

The subject property comprises of one single family house, which makes the request for a Residential Very Low Suburban future land use designation consistent with the Comprehensive Plan policies listed above, as well as the general future land use character of the surrounding area.

Properties to the north and south are developed as existing single-family homes. To the east and west are agriculturally oriented properties.

The proposed Residential Very Low Suburban future land use designation is consistent with the general future land use character of the surrounding area.

Wekiva River Protection Area: No
 Area of Critical State Concern: No
 DRI / FQD: No

JPA: The City of Apopka and Orange County entered into a Joint Planning Area (JPA) agreement on October 26, 2004. The subject property is located within the “Northern Area” of the JPA. The proposed FLUM Amendment request for a change from “County” Rural (0-1 du/10 ac) to “City” Residential Very Low Suburban (0-2 du / ac) is consistent with the terms of the JPA (Second Amendment. Janine and Richard Edmondson are the applicants of the proposed future land use amendment and proposed change of zoning for the property, and have been notified of the hearing schedule.

Transportation: Road access to the site is from Plymouth Sorrento Road.

Wekiva Parkway and Protection Act: The proposed amendment has been evaluated against the adopted Wekiva Study Area Comprehensive Plan policies. The proposed amendment is consistent with the adopted mandates and requirements. The proposed Future Land Use Map (FLUM) amendment has been reviewed against the best available data, with regard to aquifer and groundwater resources. The City of Apopka's adopted Comprehensive Plan addresses aquifer recharge and stormwater run-off through the following policies:

- Future Land Use Element, Policies 4.16, 14.4, 15.1, 16.2 and 18.2
- Infrastructure Element, Policies 1.5.5, 4.2.7, 4.4, 4.4.1, 4.4.2 and 4.4.3
- Conservation Element, Policy 3.18

Karst Features: The Karst Topography Features Map from the Florida Department of Environmental Protection shows that there are karst features in the vicinity of this property.

Analysis of the character of the Property: The property contains a single family home with a 2,486 sq. ft. living area and moderate tree coverage.

Analysis of the relationship of the amendment to the population projections: The proposed future land use designation for the property is Residential Very Low Suburban (0-2 du / ac). Based on the housing element of the City's Comprehensive Plan, this amendment will not increase the City's future population

CALCULATIONS:

ADOPTED: 1 Unit(s) x 2.659 p/h = 3 persons

PROPOSED: 1 Unit = 5 persons

Housing Needs: This amendment will not negatively impact the housing needs as projected in the Comprehensive Plan.

Habitat for species listed as endangered, threatened or of special concern: A habitat study is required for developments greater than ten (10) acres in size. At the time the Master Site Plan or Preliminary Development Plan is submitted to the City, the development applicant must conduct a species survey and submit a habitat management plan if any threatened or endangered species are identified within the project site.

Transportation: The City of Apopka is a Transportation Concurrency Exception Area. Refer to Chapter 3 of the City of Apopka 2010 Comprehensive Plan.

Sanitary Sewer Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 81 GPD/Capita ; 81 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 196 GPD
3. Projected total demand under proposed designation: 392 GPD
4. Capacity available: Yes
5. Projected LOS under existing designation: 81 GPD/Capita
6. Projected LOS under proposed designation: 81 GPD/Capita
7. Improved/expansions already programmed or needed as a result if proposed amendment: None

Potable Water Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 177 GPD/Capita ; 177 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 210 GPD

3. Projected total demand under proposed designation: 392 GPD
4. Capacity available: Yes
5. Projected LOS under existing designation: 177 GPD / Capita
6. Projected LOS under proposed designation: 177 GPD / Capita
7. Improved/expansions already programmed or needed as a result of the proposed amendment: None
8. Parcel located within the reclaimed water service area: Yes

Solid Waste

1. Facilities serving the site: City of Apopka
2. If the site is not currently served, please indicate the designated service provider: City of Apopka
3. Projected LOS under existing designation: 12 lbs/ day
4. Projected LOS under proposed designation: 20 lbs / day
5. Improved/expansions already programmed or needed as a result of the proposed amendment: None

This initial review does not preclude conformance with concurrency requirements at the time of development approval.

Infrastructure Information

Water treatment plant permit number: CUP No. 3217
Permitting agency: St. John's River Water Management District
Permitted capacity of the water treatment plant(s): 9.353 MGD
Total design capacity of the water treatment plant(s): 33.696 MGD
Availability of distribution lines to serve the property: Yes
Availability of reuse distribution lines available to serve the property: Yes

Drainage Analysis

1. Facilities serving the site: None
2. Projected LOS under existing designation: 100 year – 24 hour design storm
3. Projected LOS under proposed designation: 100 year – 24 hour design storm

4. Improvement/expansion: On site retention / detention ponds

Recreation

1. Facilities serving the site; LOS standard: City of Apopka Parks System ; 3 acre / 1000 capita
2. Projected facility under existing designation: 0.009 acres
3. Projected facility under proposed designation: 0.015 acres
4. Improvement/expansions already programmed or needed as a result of the proposed amendment: None

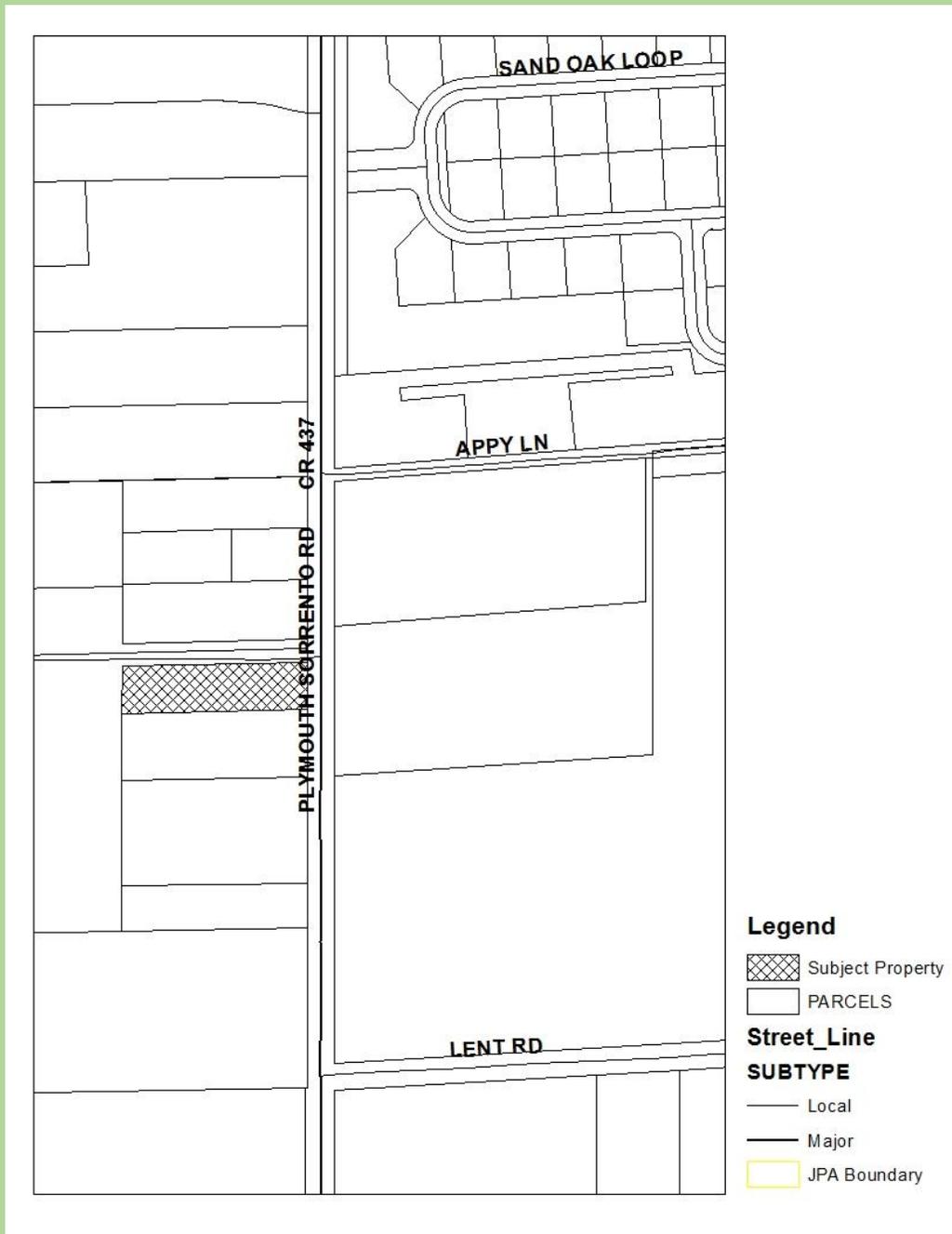
Standards set forth in the City's Land Development Code will require any development plans to provide parkland and recreation facilities and open space for residents residing with the new development.

This initial review does not preclude conformance with concurrency requirements at the time of development approval.



Janine and Richard Edmondson
1 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Rural
To: "City" Residential Very Low Suburban
Proposed Change of Zoning:
From: "County" A-2
To: R-1AA
Parcel ID #: 24-20-27-0000-00-085

VICINITY MAP



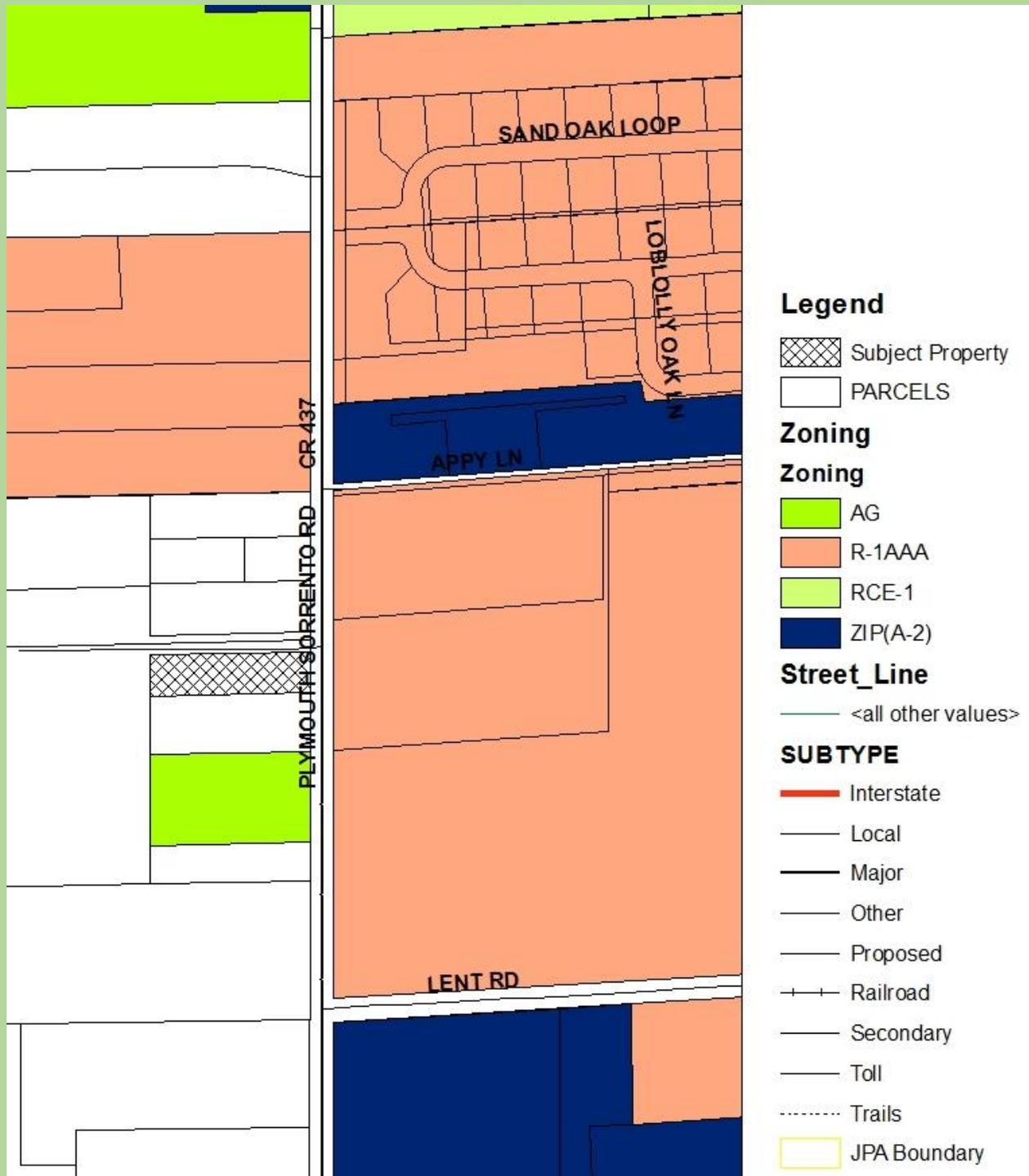


FUTURE LAND USE MAP





ADJACENT ZONING





ADJACENT USES



ORDINANCE NO. 2648

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 (1 DU/10 AC) TO “CITY” RESIDENTIAL VERY LOW SUBURBAN (0-2 DU/AC) FOR CERTAIN REAL PROPERTY LOCATED WEST OF PLYMOUTH SORRENTO ROAD AND SOUTH OF WEST KELLY PARK ROAD, COMPRISING 1.0 ACRE MORE OR LESS, AND OWNED BY JANINE AND RICHARD EDMONDSON; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Apopka adopted the Apopka Comprehensive Plan by Ordinance No. 653 on October 2, 1991, pursuant to Section 163.3184, Florida Statutes and most recently amended it by Ordinance No. 2631 adopted on March 7, 2018; and

WHEREAS, the City of Apopka’s local planning agency (Planning Commission) has, in preparation of the amended version of the Apopka Comprehensive Plan, analyzed the proposed amendment pursuant to Chapter 163, Part II, F.S., found it to be consistent with the intent of the Apopka Comprehensive Plan, and held public hearings providing for full public participation.

NOW THEREFORE, BE IT ORDAINED, by the City Council of the City of Apopka, Florida, as follows:

Section I. Purpose and Intent.

This Ordinance is enacted to carry out the purpose and intent of, and exercise the authority set out in, the Local Government Comprehensive Planning and Land Development Regulation Act, Sections 163.3184 and 163.3187, Florida Statutes.

Section II. Future Land Use Element.

Page 1-15 (Map 1-3) of the Future Land Use Element of the City of Apopka Comprehensive Plan, as most recently amended by Ordinance No. 2631, is amended in its entirety to change the land use from “County” Rural (1 du/10 ac) to “City” Residential Very Low Suburban (0-2 du/ac), for certain real property located at 3904 Plymouth Sorrento Road, comprising 1.0 acre more or less, (Parcel No. 24-20-27-0000-00-085); as further described in Exhibit “A” attached hereto.

Section III. Applicability and Effect.

The applicability and effect of the City of Apopka Comprehensive Plan shall be as provided by the Local Government Comprehensive Planning and Land Development Regulation Act, Sections 163.3161 through 163.3215, Florida Statutes.

Section IV. Severability.

If any provision or portion of this Ordinance is declared by any court of competent jurisdiction to be void, unconstitutional, or unenforceable, then all remaining provisions and portions of this Ordinance shall remain in full force and effect.

Section V. The Community Development Director is hereby authorized to amend the Future Land Use to comply with this ordinance.

Section VI. Effective Date.

This Ordinance shall become effective upon adoption.

ADOPTED at a regular meeting of the City Council of the City of Apopka, Florida, this 6th day of June, 2018

READ FIRST TIME: May 16, 2018

READ SECOND TIME
AND ADOPTED: June 6, 2018

Bryan Nelson, Mayor

ATTEST:

Linda Goff, City Clerk

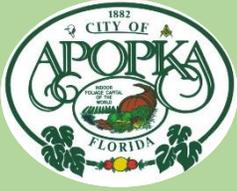
DULY ADVERTISED FOR HEARING: April 24, 2018; May 25, 2018



EXHIBIT "A"

Janine and Richard Edmondson
1 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Rural
To: "City" Residential Very Low Suburban
Proposed Change of Zoning:
From: "County" A-2
To: R-1AA
Parcel ID #: 24-20-27-0000-00-085





CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Zoning Report
 Vicinity Map
 Future Land Use Map
 Adjacent Zoning Map
 Adjacent Uses Map
 Ordinance No. 2649

SUBJECT: ORDINANCE 2649 – CHANGE OF ZONING – JANINE AND RICHARD EDMONDSON

REQUEST: SECOND READING & ADOPTION OF ORDINANCE 2649 – CHANGE OF ZONING – JANINE AND RICHARD EDMONDSON – FROM “COUNTY” A-2 TO “CITY” R-1AA (SINGLE FAMILY RESIDENTIAL

SUMMARY:

OWNERS/APPLICANTS: Janine and Richard Edmondson

LOCATION: 3904 Plymouth Sorrento Road

PARCEL ID NUMBER: 24-20-27-0000-00-085

EXISTING USE: Single Family Home

CURRENT ZONING: “County” A-2

EXISTING DEVELOPMENT: Single Family Home

PROPOSED ZONING: “City” R-1AA (Note: this Change of Zoning request is being processed along with a request to amend the Future Land Use from “County” Rural to “City” Residential Very Low Suburban (0-2 du/ac)

TRACT SIZE: 1.0 +/- acres

MAXIMUM ALLOWABLE DEVELOPMENT: EXISTING: Single Family Home
 PROPOSED: 2 Single Family Homes

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: Presently, the subject property has not yet been assigned a “City” zoning category. The applicant is requesting the City to assign a zoning classification of R-1AA (Single Family Residential) to the property.

The subject parcel was annexed into the city on April 18, 2018 by Ordinance Number 2641

A request to assign a change of zoning to R-1AA is compatible to the adjacent zoning classifications and with the general character of abutting properties and surrounding area. The change of zoning request is being processed in conjunction with a future land use amendment from “County” Rural to “City” Residential Very Low Suburban.

COMPREHENSIVE PLAN COMPLIANCE: The existing and proposed use of the property is consistent with the proposed Residential Very Low Suburban (0-2 du / ac) Future Land Use designation.

SCHOOL CAPACITY REPORT: The proposed future land use change will result in an insignificant increase (less than 9) in the number of residential units which could be developed at the subject property. Therefore, the property is exempt from school capacity enhancement per the School Interlocal Planning Agreement.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on April 2, 2018.

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)

May 16, 2018 - City Council (1:30 pm) - 1st Reading

June 6, 2018 – City Council (7:00 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

April 24, 2018 – Public Notice and Notification

May 25, 2018 – Public Notice

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, recommending approval of the proposed Change of Zoning from “County” A-2 to “City” R-1AA for the property owned by Janine and Richard Edmondson, and located at 3904 Plymouth Sorrento Rd.

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas; and unanimously recommended approval of the proposed Change of Zoning from “County” A-2 to “City” R-1AA for the property owned by Janine and Richard Edmondson, and located at 3904 Plymouth Sorrento Rd.

The **City Council**, at its meeting on May 16, 2018, accepted the first reading of Ordinance 2649, and held it over for Second Reading and Adoption on June 6, 2018.

Adopt Ordinance No. 2649.

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.

LAND USE REPORT

I. RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (County)	“County” Rural	“County” A-2	Greenhouse
East (City)	“City” Residential Very Low Suburban	“City” R-1AAA	Agriculture
South (County)	“County” Rural	“County” A-2	Single Family Home
West (County)	“County” Rural	“County” A-2	Greenhouse

**LAND USE & TRAFFIC
 COMPATIBILITY:**

The property is currently accessed by Plymouth Sorrento Rd.

**COMPREHENSIVE PLAN
 COMPLIANCE:**

The proposed R-1AA zoning is consistent with the proposed Future Land Use designation, “Residential Very Low Suburban” (0-2 du / ac) and with the character of the surrounding area and future proposed development. Development Plans shall not exceed the density allowed in the adopted Future Land Use designation.

ALLOWABLE USES:

1. Single-family dwellings and their customary accessory structures and uses in accordance with article VII of this code.
2. Guest/granny quarters in accordance with article VII of this code.

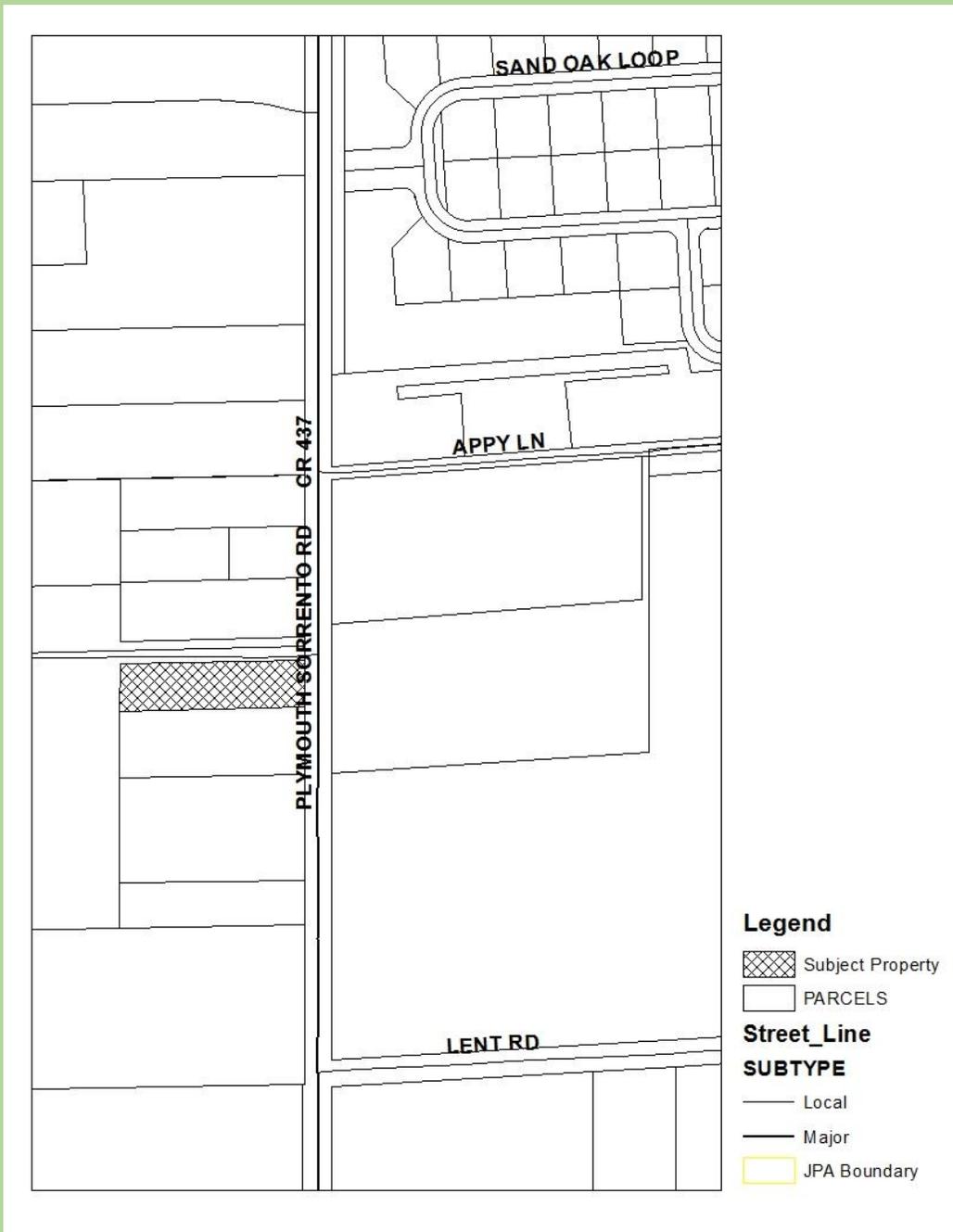
ZONING SETBACKS:

Minimum Site Area	12,500 sq. ft.
Minimum Lot Width	95 ft.
Front	25 ft. (30 ft for front loaded garages)
Side	10 ft.
Rear	20 ft.
Corner	25 ft.
Minimum Living Area	1,700 sq. ft.



Janine and Richard Edmondson
1 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Rural
To: "City" Residential Very Low Suburban
Proposed Change of Zoning:
From: "County" A-2
To: R-1AA
Parcel ID #: 24-20-27-0000-00-085

VICINITY MAP



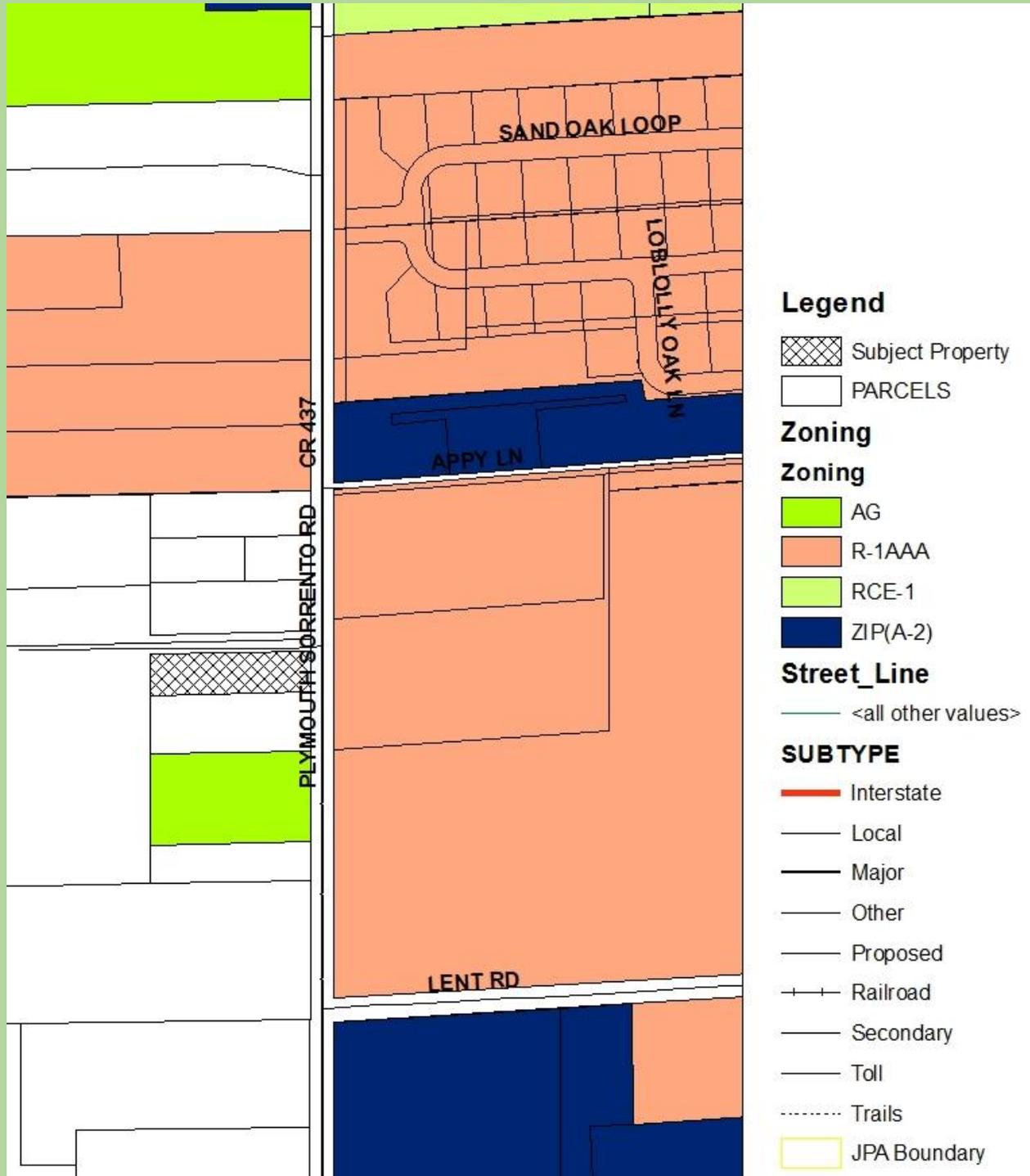


FUTURE LAND USE MAP





ADJACENT ZONING





ADJACENT USES



ORDINANCE NO. 2649

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” A-2 TO “CITY” R-1AA (SINGLE FAMILY RESIDENTIAL) FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF PLYMOUTH SORRENTO ROAD AND SOUTH OF APPY LANE, COMPRISING 1 ACRE MORE OR LESS, AND OWNED BY JANINE AND RICHARD EDMONDSON; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

WHEREAS, to manage the 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, the City of Apopka has requested a change in zoning on said property as identified in Section I of this ordinance; and

WHEREAS, the proposed R-1AA (Single Family Residential) 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 Single Family Residential (R-1AA), as defined in the Apopka Land Development Code, and with the following provisions subject to the following zoning provisions:

Section II. That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.

Section III. 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 IV. 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 V. That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

ORDINANCE NO. 2649

PAGE 2

Section VI. That this Ordinance shall take effect upon adoption of 2648.

READ FIRST TIME: May 16, 2018

READ SECOND TIME
AND ADOPTED: June 6, 2018

Bryan Nelson, Mayor

ATTEST:

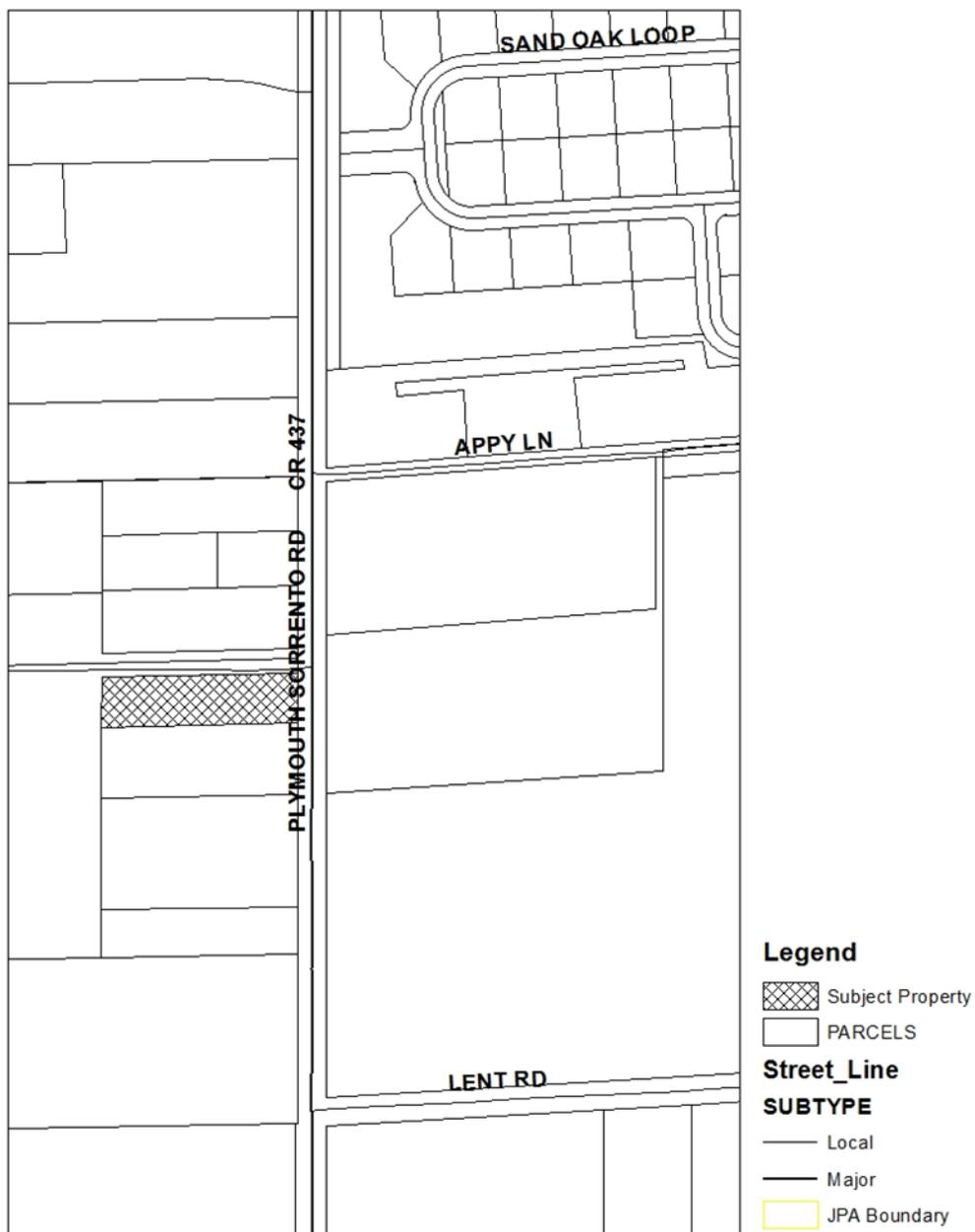
Linda Goff, City Clerk

DULY ADVERTISED: April 24, 2018; May 25, 2018



Janine and Richard Edmondson
1 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Rural
To: "City" Residential Low Suburban
Proposed Change of Zoning:
From: "County" A-2
To: "City" R-1AA
Parcel ID #: 24-20-27-0000-00-085

VICINITY MAP





CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Land Use Report
 Vicinity Map
 Future Land Use Map
 Adjacent Zoning
 Adjacent Uses
 Ordinance No. 2650

SUBJECT: ORDINANCE 2650 - COMPREHENSIVE PLAN – SMALL SCALE - FUTURE LAND USE AMENDMENT – SUNTRUST BANK

REQUEST: SECOND READING & ADOPTION OF ORDINANCE 2650 – COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – SUNTRUST BANK– FROM “COUNTY” COMMERCIAL (MAX 3.0 FAR) TO “CITY” COMMERCIAL (MAX 0.25 FAR)

SUMMARY:

OWNER: SunTrust Bank

APPLICANT: Casseaux, Hewett, and Walpole

LOCATION: 920 E. Semoran Blvd.

PARCEL ID NUMBER: 11-21-28-0750-00-050

EXISTING USE: Vacant

CURRENT ZONING: “County” R-2

DEVELOPMENT POTENTIAL: 4,055 sq. ft. commercial space

PROPOSED ZONING: “City” C-1 (Note: this Future Land Use amendment request is being processed along with a request to change the zoning classification from “County” R-2 to “City” C-1 (Retail Commercial)).

TRACT SIZE: 0.37 +/- acres

MAXIMUM ALLOWABLE DEVELOPMENT: EXISTING: 48,351 sq. ft.
PROPOSED: 4,029 sq. ft.

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: The subject parcel was annexed in the city on April 18, 2018 by Ordinance 2642. Presently, the subject property does not have a “city” future land use designation or “city” zoning classification assigned. The applicant requests a future land use designation of “city” Commercial.

COMPREHENSIVE PLAN COMPLIANCE: The proposed use of the property is consistent with the Commercial Future Land Use designation. Site development cannot exceed the intensity allowed by the Future Land Use policies. Planning & Zoning staff determines that the below policies support a Commercial FLUM designation at the subject site:

Future Land Use Element

1. **Policy 3.1.i**

Commercial

Primary uses shall be for business, commerce, and convenience shopping which may be neighborhood or community oriented. The maximum floor area ratio shall be .25 gross floor area. Institutional land uses of less than five acres; and public facilities or utilities of less than five acres.

The expansion of strip commercial areas shall be prohibited except in infill areas.

SCHOOL CAPACITY REPORT: The proposed future land use change will not generate any new school-age population, making it exempt from school capacity enhancement and school concurrency.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on April 2, 2018.

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)

May 16, 2018 - City Council (7:00 pm) - 1st Reading

June 6, 2018 – City Council (1:30 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

April 24, 2018 – Public Notice and Notification

May 25, 2018 – Public Notice

RECOMMENDATION ACTION:

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed Future Land Use amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas; and unanimously recommended approval of the change of Future Land Use Designation from “County” Commercial to “City” Commercial, subject to the findings of the Staff Report.

The **City Council**, at its meeting on May 16, 2018, accepted the First Reading of Ordinance 2650, and held it over for Second Reading and Adoption on June 6, 2018.

Adopt Ordinance No. 2650.

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

LAND USE REPORT

I. RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (County)	“County” Commercial	“County” C-3	Agriculture and Single Family Homes
East (City)	“City” Commercial	“City” C-1	Subdivision (Chandler Estates)
South (City and County)	“City” Commercial	“City” C-2	Single Family Homes
West (County)	“City” Commercial	“City” C-2	Single Family Home

II. LAND USE ANALYSIS:

The subject property is located on a site that is ideal for commercial use, which makes the request for a Commercial future land use designation consistent with the Comprehensive Plan policies listed above, as well as the general future land use character of the surrounding area.

Properties at all cardinal directions are zoned for commercial usage, and the subject property is adjacent to an arterial road, East Semoran Boulevard.

The proposed Commercial future land use designation is consistent with the general future land use character of the surrounding area.

Wekiva River Protection Area: No
 Area of Critical State Concern: No
 DRI / FQD: No

Transportation: Road access to the site is from Semoran Boulevard

Wekiva Parkway and Protection Act: The proposed amendment has been evaluated against the adopted Wekiva Study Area Comprehensive Plan policies. The proposed amendment is consistent with the adopted mandates and requirements. The proposed Future Land Use Map (FLUM) amendment has been reviewed against the best available data, with regard to aquifer and groundwater resources. The City of Apopka's adopted Comprehensive Plan addresses aquifer recharge and stormwater run-off through the following policies:

- Future Land Use Element, Policies 4.16, 14.4, 15.1, 16.2 and 18.2
- Infrastructure Element, Policies 1.5.5, 4.2.7, 4.4, 4.4.1, 4.4.2 and 4.4.3
- Conservation Element, Policy 3.18

Karst Features: The Karst Topography Features Map from the Florida Department of Environmental Protection shows that there are karst features in the vicinity of this property.

Analysis of the character of the Property: The property comprises mostly of grasslands, with some tree cover. Additionally, the property has a single family home.

Analysis of the relationship of the amendment to the population projections: The proposed future land use designation for the property is Commercial (Max. 0.25 FAR). Based on the housing element of the City's Comprehensive Plan, this amendment will not increase the City's future population.

Housing Needs: This amendment will not negatively impact the housing needs as projected in the Comprehensive Plan.

Habitat for species listed as endangered, threatened or of special concern: A habitat study is required for developments greater than ten (10) acres in size. At the time the Master Site Plan or Preliminary Development Plan is submitted to the City, the development applicant must conduct a species survey and submit a habitat management plan if any threatened or endangered species are identified within the project site.

Transportation: The City of Apopka is a Transportation Concurrency Exception Area. Refer to Chapter 3 of the City of Apopka 2010 Comprehensive Plan.

Sanitary Sewer Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 81 GPD/Capita ; 81 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 7,253 GPD
3. Projected total demand under proposed designation: 604 GPD
4. Capacity available: Yes
5. Projected LOS under existing designation: 81 GPD/Capita
6. Projected LOS under proposed designation: 81 GPD/Capita
7. Improved/expansions already programmed or needed as a result if proposed amendment: None

Potable Water Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 177 GPD/Capita ; 177 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 9,670 GPD
3. Projected total demand under proposed designation: 806 GPD
4. Capacity available: Yes

5. Projected LOS under existing designation: 177 GPD / Capita
6. Projected LOS under proposed designation: 177 GPD / Capita
7. Improved/expansions already programmed or needed as a result of the proposed amendment: None
8. Parcel located within the reclaimed water service area: Yes

Solid Waste

1. Facilities serving the site: City of Apopka
2. If the site is not currently served, please indicate the designated service provider: City of Apopka
3. Projected LOS under existing designation: 97 lbs/ day
4. Projected LOS under proposed designation: 8 lbs / day
5. Improved/expansions already programmed or needed as a result of the proposed amendment: None

This initial review does not preclude conformance with concurrency requirements at the time of development approval.

Infrastructure Information

Water treatment plant permit number: CUP No. 3217

Permitting agency: St. John's River Water Management District

Permitted capacity of the water treatment plant(s): 9.353 MGD

Total design capacity of the water treatment plant(s): 33.696 MGD

Availability of distribution lines to serve the property: Yes

Availability of reuse distribution lines available to serve the property: Yes

Drainage Analysis

1. Facilities serving the site: None
2. Projected LOS under existing designation: 100 year – 24 hour design storm
3. Projected LOS under proposed designation: 100 year – 24 hour design storm
4. Improvement/expansion: On site retention / detention ponds

Recreation

1. Facilities serving the site; LOS standard: City of Apopka Parks System ; 3 acre / 1000 capita
2. Projected facility under existing designation: N/A acres
3. Projected facility under proposed designation: N/A acres
4. Improvement/expansions already programmed or needed as a result of the proposed amendment: None

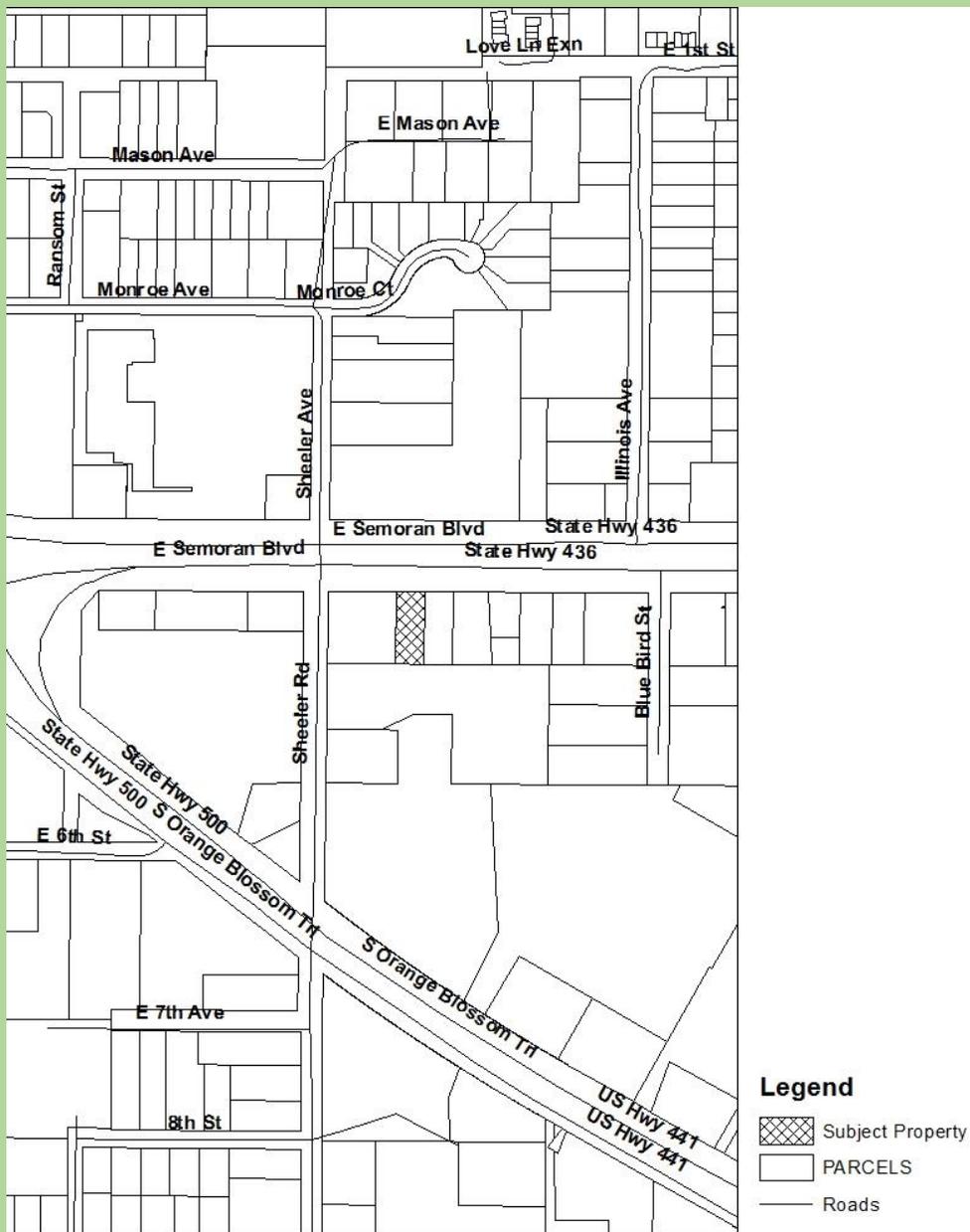
Standards set forth in the City's Land Development Code will require any development plans to provide parkland and recreation facilities and open space for residents residing with the new development.

This initial review does not preclude conformance with concurrency requirements at the time of development approval.

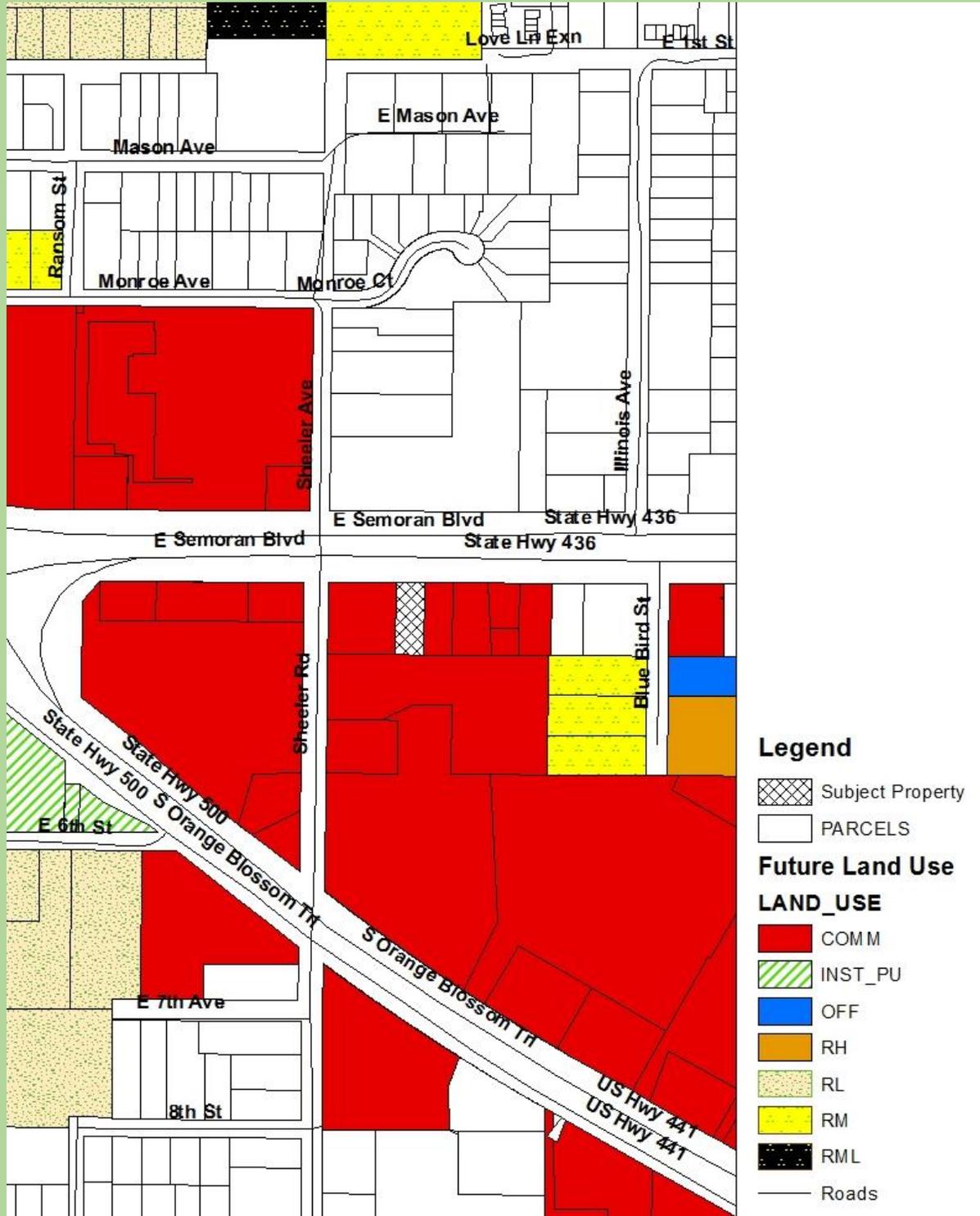


SunTrust Bank
0.37 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Commercial
To: "City" Commercial
Proposed Change of Zoning:
From: "County" R-2
To: "City" C-1
Parcel ID #: 11-21-28-0750-00-050

VICINITY MAP



FUTURE LAND USE MAP





Legend

 Subject Property

 PARCELS

Zoning

Zoning

 C-1

 C-2

 PO/I

 PUD

 R-1

 R-1A

 R-1AA

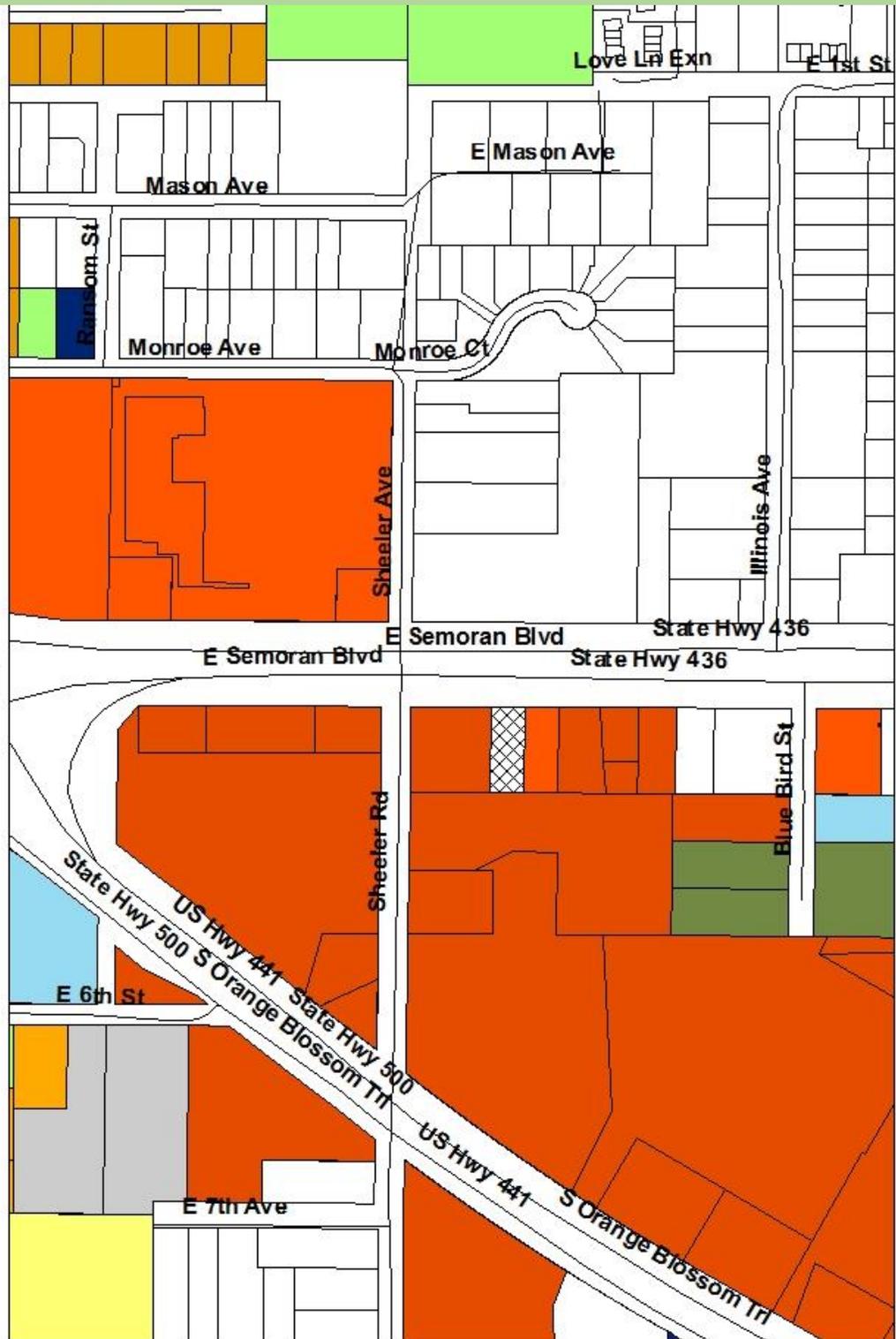
 R-2

 R-3

 ZIP(C-1)

 ZIP(r-2)

 Roads





AERIAL MAP



ORDINANCE NO. 2650

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” COMMERCIAL TO “CITY” COMMERCIAL FOR CERTAIN REAL PROPERTY GENERALLY LOCATED SOUTH OF EAST SEMORAN BOULEVARD AND EAST OF SOUTH SHEELER AVENUE, COMPRISING 0.37 ACRES, MORE OR LESS AND OWNED BY SUNTRUST BANK; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City Council of the City of Apopka adopted the Apopka Comprehensive Plan by Ordinance No. 653 on October 2, 1991, pursuant to Section 163.3184, Florida Statutes and most recently amended it by Ordinance No. 2606 on December 20, 2017; and

WHEREAS, the City of Apopka’s local planning agency (Planning Commission) has, in preparation of the amended version of the Apopka Comprehensive Plan, analyzed the proposed amendment pursuant to Chapter 163, Part II, F.S., found it to be consistent with the intent of the Apopka Comprehensive Plan, and held public hearings providing for full public participation.

NOW THEREFORE, BE IT ORDAINED, by the City Council of the City of Apopka, Florida, as follows:

Section I. Purpose and Intent.

This Ordinance is enacted to carry out the purpose and intent of, and exercise the authority set out in, the Local Government Comprehensive Planning and Land Development Regulation Act, Sections 163.3184 and 163.3187, Florida Statutes.

Section II. Future Land Use Element.

Page 1-15 (Map 1-3) of the Future Land Use Element of the City of Apopka Comprehensive Plan, as most recently amended by Ordinance No. 2606, is amended in its entirety to change the land use from “County” Commercial (Max. FAR 3.0) to “City” Commercial (Max. FAR 0.25), for certain real property generally located South of East Semoran Boulevard and East of South Sheeler Road, comprising 0.37 acres more or less, and owned by SunTrust Bank; as further described in Exhibit “A” attached hereto.

Section III. Applicability and Effect.

The applicability and effect of the City of Apopka Comprehensive Plan shall be as provided by the Local Government Comprehensive Planning and Land Development Regulation Act, Sections 163.3161 through 163.3215, Florida Statutes.

Section IV. Severability.

If any provision or portion of this Ordinance is declared by any court of competent jurisdiction to be void, unconstitutional, or unenforceable, then all remaining provisions and portions of this Ordinance shall remain in full force and effect.

ORDINANCE NO. 2650
PAGE 2

Section V. The Community Development Director is hereby authorized to amend the Future Land Use to comply with this ordinance.

Section VI. Effective Date. This Ordinance shall become effective upon adoption.

ADOPTED at a regular meeting of the City Council of the City of Apopka, Florida, this 6th day of June 2018.

READ FIRST TIME: May 16, 2018

READ SECOND TIME
AND ADOPTED: June 6, 2018

Bryan Nelson, Mayor

ATTEST:

Linda Goff, City Clerk

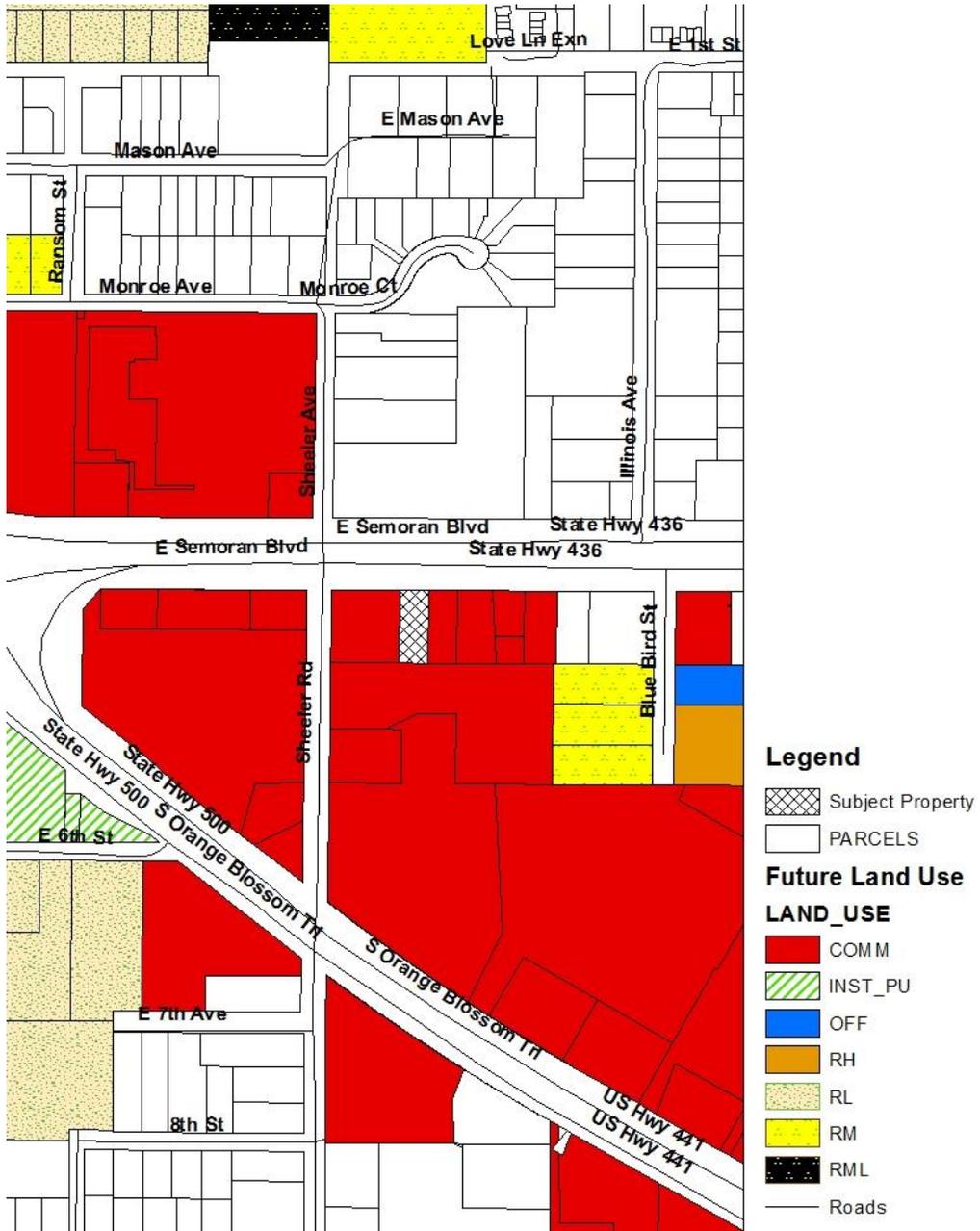
DULY ADVERTISED FOR HEARING: April 24, 2018; May 25, 2018



EXHIBIT "A"

ORDINANCE NO. 2650
SunTrust Bank
Small Scale Future Land Use Amendment:
From: "County" Commercial (Max. 3.0 FAR)
To: "City" Commercial (Max 0.25 FAR)
Parcel ID #: 11-21-28-0750-00-050
Acreage: 0.37 +/-

FUTURE LAND USE MAP



ORDINANCE NO. 2651

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” R-2 TO “CITY” C-1 (COMMERCIAL RETAIL) FOR CERTAIN REAL PROPERTY GENERALLY LOCATED EAST OF SOUTH SHEELER AVENUE AND SOUTH OF EAST SEMORAN BOULEVARD, COMPRISING 0.37 ACRES MORE OR LESS, AND OWNED BY SUNTRUST BANK; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

WHEREAS, to manage the 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, the City of Apopka has requested a change in zoning on said property as identified in Section I of this ordinance; and

WHEREAS, the proposed C-1 (Commercial Retail) 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 Commercial Retail (C-1), as defined in the Apopka Land Development Code, and with the following provisions subject to the following zoning provisions:

Section II. That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.

Section III. 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 IV. 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 V. That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section VI. That this Ordinance shall take effect upon adoption of Ordinance No. 2650.

READ FIRST TIME: May 16, 2018

READ SECOND TIME
AND ADOPTED: June 6, 2018

Bryan Nelson, Mayor

ATTEST:

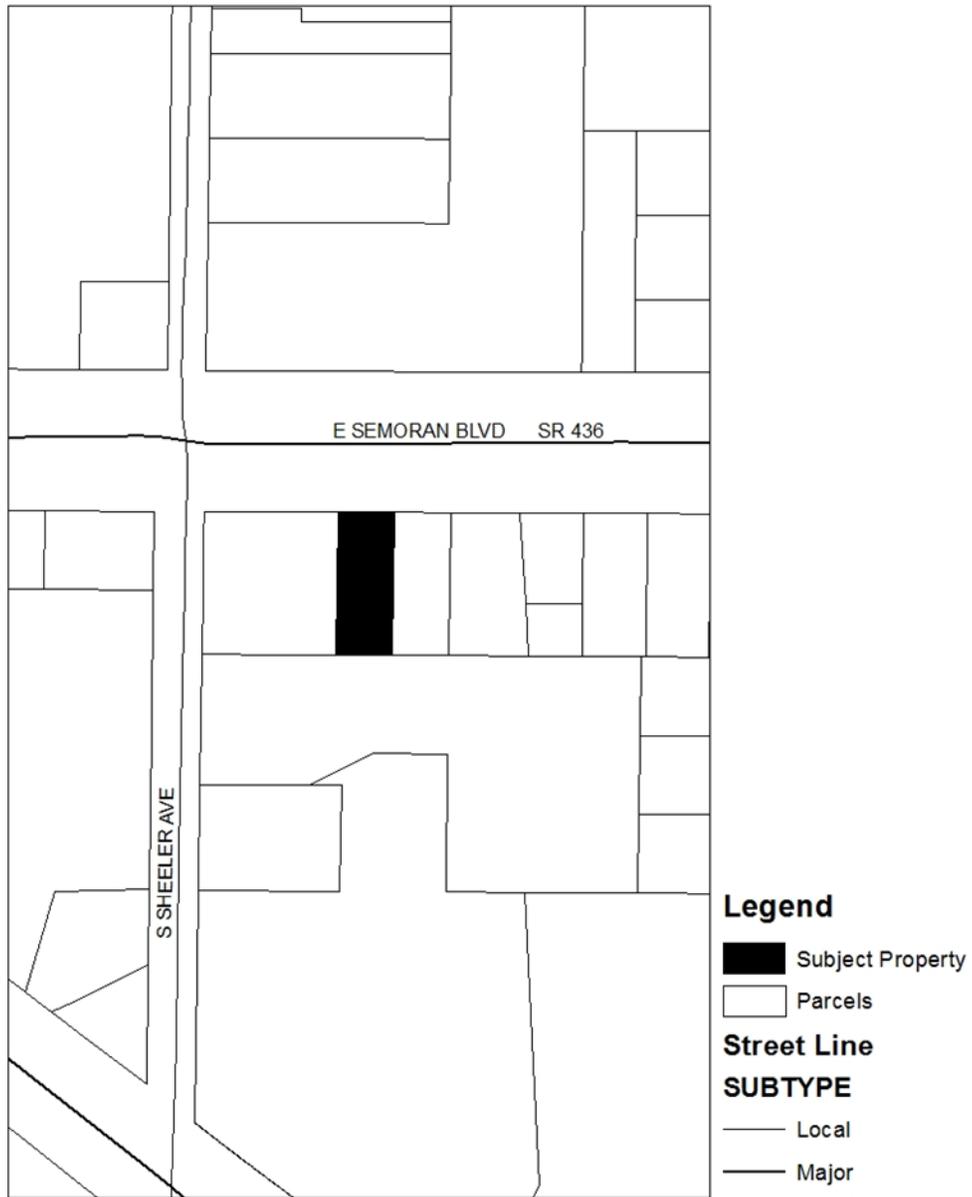
Linda Goff, City Clerk

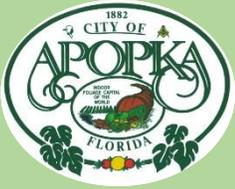
DULY ADVERTISED: April 24, 2018; May 25, 2018



SunTrust Bank
0.37 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Commercial
To: "City" Commercial
Proposed Change of Zoning:
From: "County" R-2
To: "City" C-1
Parcel ID #: 11-21-28-0750-00-050

VICINITY MAP





CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Zoning Report
 Vicinity Map
 Adjacent Zoning Map
 Adjacent Uses Map
 Ordinance No. 2651

SUBJECT: ORDINANCE 2651 - CHANGE OF ZONING – SUNTRUST BANK

REQUEST: SECOND READING & ADOPTION OF ORDINANCE 2651 – CHANGE OF ZONING – SUNTRUST BANK – FROM “COUNTY” R-2 TO “CITY” C-1 (COMMERCIAL RETAIL)

SUMMARY:

OWNER: SunTrust Bank

APPLICANT: Causseaux, Hewett, and Walpole, Inc.

LOCATION: 920 E Semoran Blvd

PARCEL ID NUMBER: 11-21-28-0750-00-050

EXISTING USE: Vacant

CURRENT ZONING: “County” R-2

DEVELOPMENT POTENTIAL: 4,029 sq. ft. commercial space

PROPOSED ZONING: “City” C-1 (Commercial Retail) (Note: this Change of Zoning request is being processed along with a request to amend the Future Land Use from “County” Commercial (Max. 3.0 FAR) to “City” Commercial (Max. 0.25 FAR)

TRACT SIZE: 0.37 +/- acres

MAXIMUM ALLOWABLE DEVELOPMENT UNDER ZONING DISTRICT:

EXISTING:	48,351 sq. ft. commercial space
PROPOSED:	4,029 sq. ft. commercial space

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: Presently, the subject property has not been assigned a “City” zoning category. The applicant is requesting the City to assign a zoning classification of C-1 (Commercial Retail) to the property.

The subject parcel was annexed into the city on April 18, 2018 by Ordinance Number 2642

A request to assign a change of zoning to C-1 is compatible to the adjacent zoning classifications and with the general character of abutting properties and surrounding area. The change of zoning request is being processed in conjunction with a future land use amendment from “County” Commercial to “City” Commercial.

COMPREHENSIVE PLAN COMPLIANCE: The existing and proposed use of the property is consistent with the proposed C-1 (Commercial Retail) Future Land Use designation.

SCHOOL CAPACITY REPORT: The proposed future land use change will result in commercial development and non-residential uses that will not impact student enrollment at Orange County Public Schools Therefore, the property is exempt from school capacity enhancement and school concurrency per the School Interlocal Planning Agreement.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on April 2, 2018.

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)

May 16, 2018 - City Council (7:00 pm) - 1st Reading

June 6, 2018 – City Council (1:30 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

April 24, 2018 - Public Notice and Notification

May 25, 2018 – Public Notice

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, recommending approval of the proposed Change of Zoning from “County” R-2 to “City”C-1 for the property owned by SunTrust Bank, and located at 920 E Semoran Blvd.

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas; and unanimously recommended approval of the proposed Change of Zoning from “County” R-2 to “City”C-1 for the property owned by SunTrust Bank, and located at 920 E Semoran Blvd.

The **City Council**, at its meeting on May 16, 2018, accepted the First Reading of Ordinance 2651 and held it over for Second Reading and Adoption on June 6, 2018.

Adopt Ordinance No. 2651.

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 (County)	“County” Commercial	“County” C-3	Retail Uses
East (City)	“City” Commercial	“City” C-1 and C-2	Auto Parts Vendor and Vacant Lot
South (City)	“City” Commercial	“City” C-2	Vacant
West (City)	Commercial	“City” C-1 and C-2	Bank and Vacant Lots

**LAND USE & TRAFFIC
 COMPATIBILITY:**

The property is currently accessed by East Semoran Blvd.

**COMPREHENSIVE PLAN
 COMPLIANCE:**

The proposed C-1 zoning is consistent with the proposed Future Land Use designation, “Commercial” (Max 0.25 FAR) and with the character of the surrounding area and future proposed development. Development Plans shall not exceed the density allowed in the adopted Future Land Use designation.

ALLOWABLE USES:

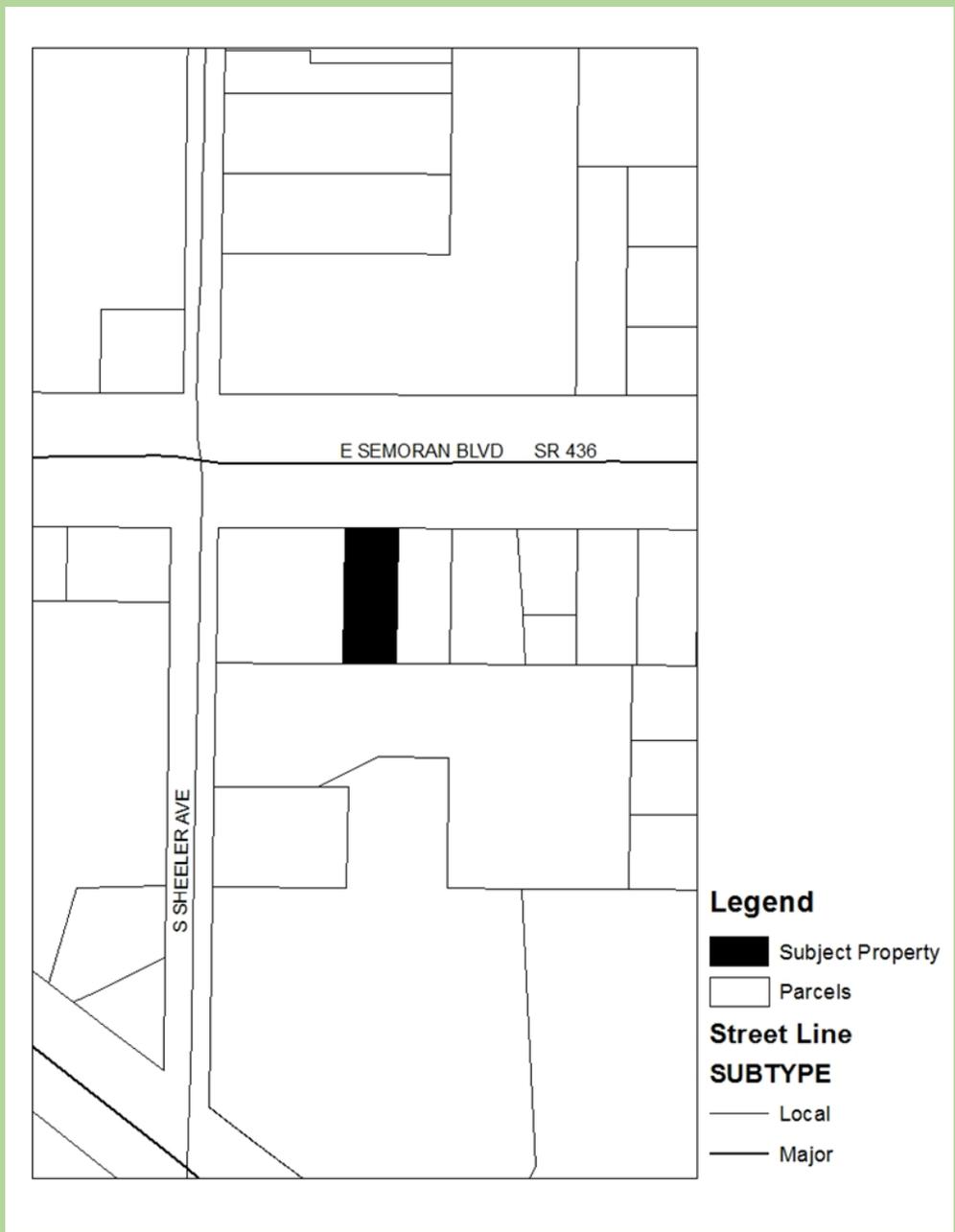
1. Any nonresidential permitted use in the PO/I or CN districts.
2. Retail establishments.
3. Banks, savings and loan and other financial institutions.
4. Bowling alleys, skating rinks, billiard parlors and similar amusement centers, provided such activities and facilities are enclosed within a sound-proof building.
5. Churches and schools.
6. Day nurseries, kindergartens and other child care centers.
7. Drive-in restaurants, with property lines no closer than 200 feet from any residential districts or uses.
8. Florist shops, the products of which are displayed and sold wholly within an enclosed building.
9. Hotels, motels, bed and breakfast facilities.
10. Personal service establishments such as barbershops, beauty parlors, professional and other offices, parking garages and lots, laundry and dry cleaning pickup station, self-service coin-operated laundry and dry cleaning establishments, shoe shine and repair, tailoring, travel services, watch and clock repair and locksmiths, etc.

11. Post offices.
12. Restaurants.
13. Theaters, enclosed in structures.
14. Clubs and lodges.
15. Funeral parlors, when the sole use of the facility shall be for funeral rites.
16. Animal clinics for the treatment of small animals, excluding farm animals, but including those animals no larger than a dog, commonly kept as pets in a residence, provided the care, treatment or housing of such animals shall not be allowed on the outside.
17. Other uses which are similar and compatible to the uses permitted herein which adhere to the intent of the district and which are not prohibited as specified in this code. Use determination shall be based upon the community development director's recommendation.



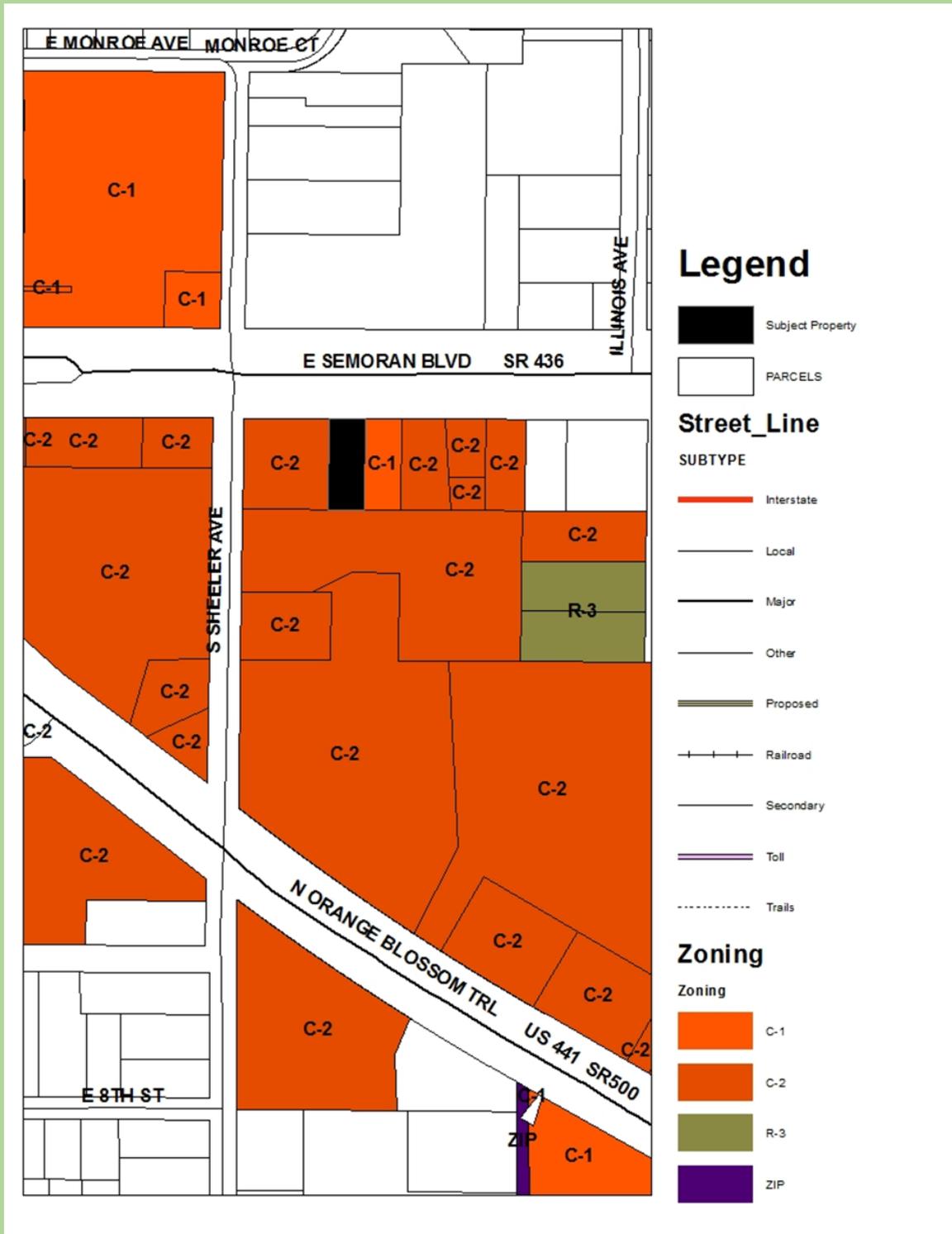
SunTrust Bank
0.37 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Commercial
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From: "County" R-2
To: "City" C-1
Parcel ID #: 11-21-28-0750-00-050

VICINITY MAP





ADJACENT ZONING MAP

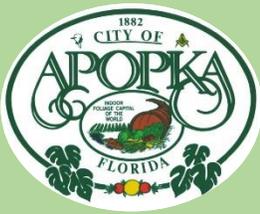




AERIAL MAP

Subject Parcels





CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Zoning Report
 Vicinity Map
 Adjacent Zoning Map
 Adjacent Uses Map
 Ordinance No. 2653

SUBJECT: ORDINANCE 2653 - CHANGE OF ZONING – LAURA R. MURPHY

REQUEST: SECOND READING & ADOPTION OF ORDINANCE 2653 – CHANGE OF ZONING – LAURA MURPHY – FROM AGRICULTURE TO R-1 (SINGLE FAMILY RESIDENTIAL); AND HOLD OVER FOR SECOND READING FOR ADOPTION.

SUMMARY:

OWNER/APPLICANT: Laura R. Murphy
 LOCATION: 359 W. Lester Road
 PARCEL ID NO: 28-20-28-0000-00-060
 CURRENT ZONING: Agriculture
 PROPOSED ZONING: R-1 (Single Family Residential)
 EXISTING USE: Errol Equestrian Center
 DEVELOPMENT POTENTIAL: 52 Single Family Homes (Proposed)
 TRACT SIZE: 19.94 +/- acres
 MAXIMUM ALLOWABLE DEVELOPMENT UNDER ZONING DISTRICT:
 EXISTING: 1 single family home
 PROPOSED: 69 single family homes

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: The future land use, for the subject parcel, was amended on May 2, 2018 from “Agriculture” to “Residential Low Suburban”. The existing Future Land Use, “Residential Low Suburban” and the proposed zoning, “R-1”, are the same conditions as the nearby subdivision, “Rock Springs Estates”.

A request to assign a change of zoning to R-1 is compatible to the adjacent zoning classifications and with the general character of abutting properties and surrounding area.

COMPREHENSIVE PLAN COMPLIANCE: The existing and proposed use of the property is consistent with the proposed Residential Low Suburban (0-3.5 du / ac) Future Land Use designation.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on April 2, 2018.

ORANGE COUNTY PUBLIC SCHOOLS: The applicant obtained a Capacity Enhancement Agreement (CEA) with Orange County Public Schools (OCPS) prior to the subject property’s Future Land Use amendment on May 2, 2018. The applicant is required to obtain a concurrency mitigation agreement prior to adoption of the Final Development Plan.

Elementary School: Rock Springs Elementary
Middle School: Apopka Middle School
High School: Apopka High School

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)
May 16, 2018 - City Council (7:00 pm) - 1st Reading
June 6, 2018 – City Council (1:30 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

April 24, 2018 - Public Notice and Notification
May 25, 2018 – Public Notice

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, recommending approval of the proposed Change of Zoning from Agriculture to R-1 for the property owned by Laura Murphy, and located at 359 W. Lester Road

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas; and unanimously recommended approval of the proposed Change of Zoning from Agriculture to R-1 for the property owned by Laura Murphy, and located at 359 W. Lester Rd.

The **City Council**, at its meeting on May 16, 2018, accepted the First Reading of Ordinance No. 2653, and held it over for Second Reading and Adoption on June 6, 2018.

Adopt Ordinance No. 2653.

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 (County)	“County” Low Density Residential	“County” A-1	Woodlands
East (City)	“City” Agriculture	“City” AG	Bird Reconditioning Center
South (City and County)	“City” Residential Low & “County” Low Medium Density Residential	“City” R-2 & “County” A-2	Single Family Homes
West (County)	“County” Low Density Residential	“County” A-1	Greenhouse

LAND USE & TRAFFIC COMPATIBILITY:

The property is currently accessed by W. Lester Rd. A multi-use trail, which links to the West Orange Trail, is on the south side of W. Lester Road. The Rock Springs Estates Subdivision, sharing the same future land use and proposed zoning is southwest of the subject property. East adjacent of the subject property is the Avian Reconditioning Center.

COMPREHENSIVE PLAN COMPLIANCE:

The proposed R-1 zoning is consistent with the proposed Future Land Use designation, “Residential Low Suburban” (0-3.5 du / ac) and with the character of the surrounding area and future proposed development. Development Plans shall not exceed the density allowed in the adopted Future Land Use designation.

ALLOWABLE USES:

1. Single-family dwellings and their customary accessory structures and uses in accordance with article VII of this code.
2. Guest/granny quarters in accordance with article VII of this code.

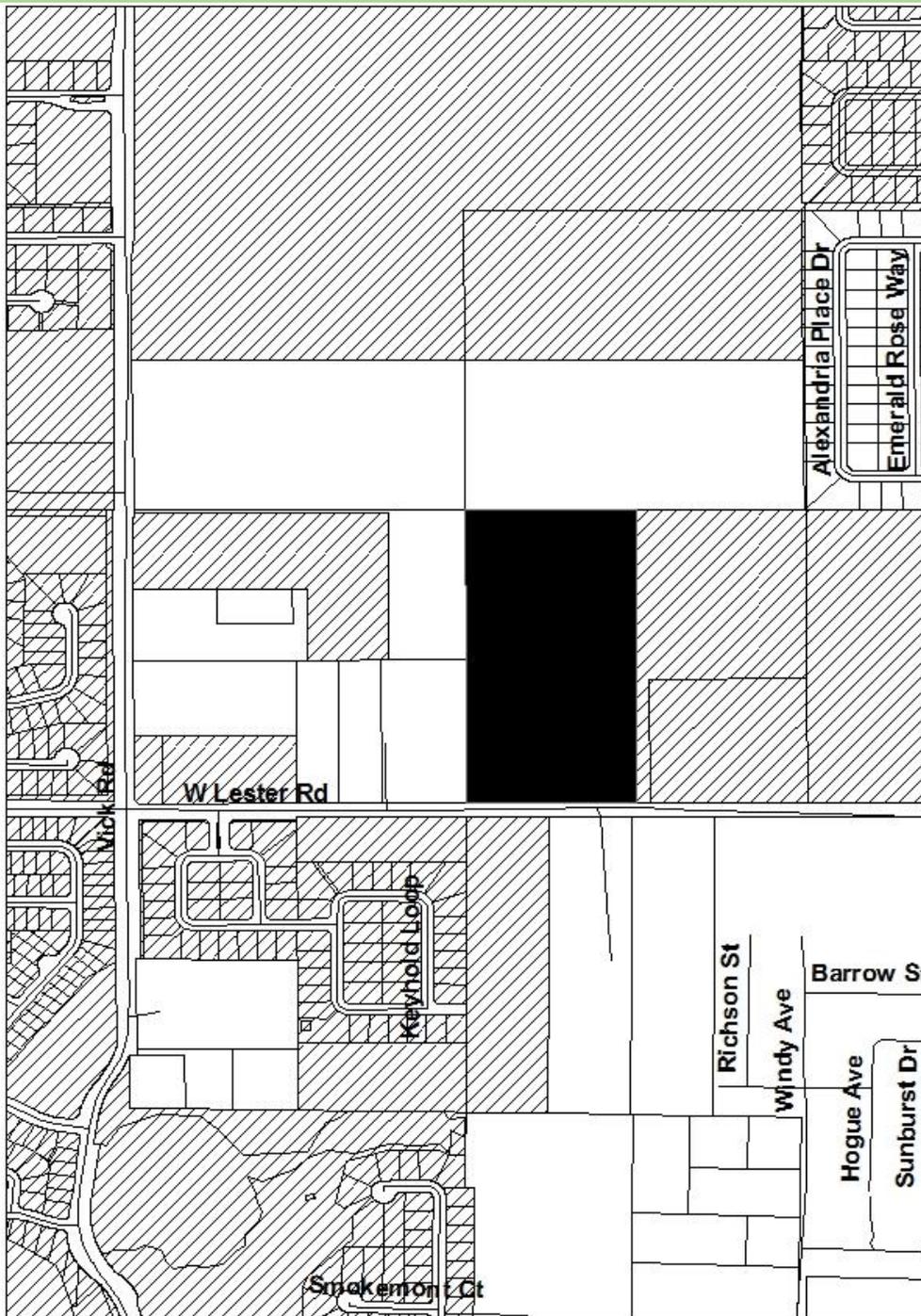
R-1 ZONING REGULATIONS:

Minimum Site Area: 8,000 sq. ft.
 Minimum Lot Width: 75 ft.
 Front Setback: 25 ft. (30 ft. for front loaded garages)
 Side Setback: 10 ft.
 Rear Setback: 20 ft.
 Corner Setback: 25 ft.
 Minimum Living Area: 1,500 sq. ft.



Laura R. Murphy, Property Owner
+/- 19.94
Rezoning
From: Agriculture
To: R-1 (Single Family Residential)
Parcel ID # 28-20-28-0000-00-060

VICINITY MAP

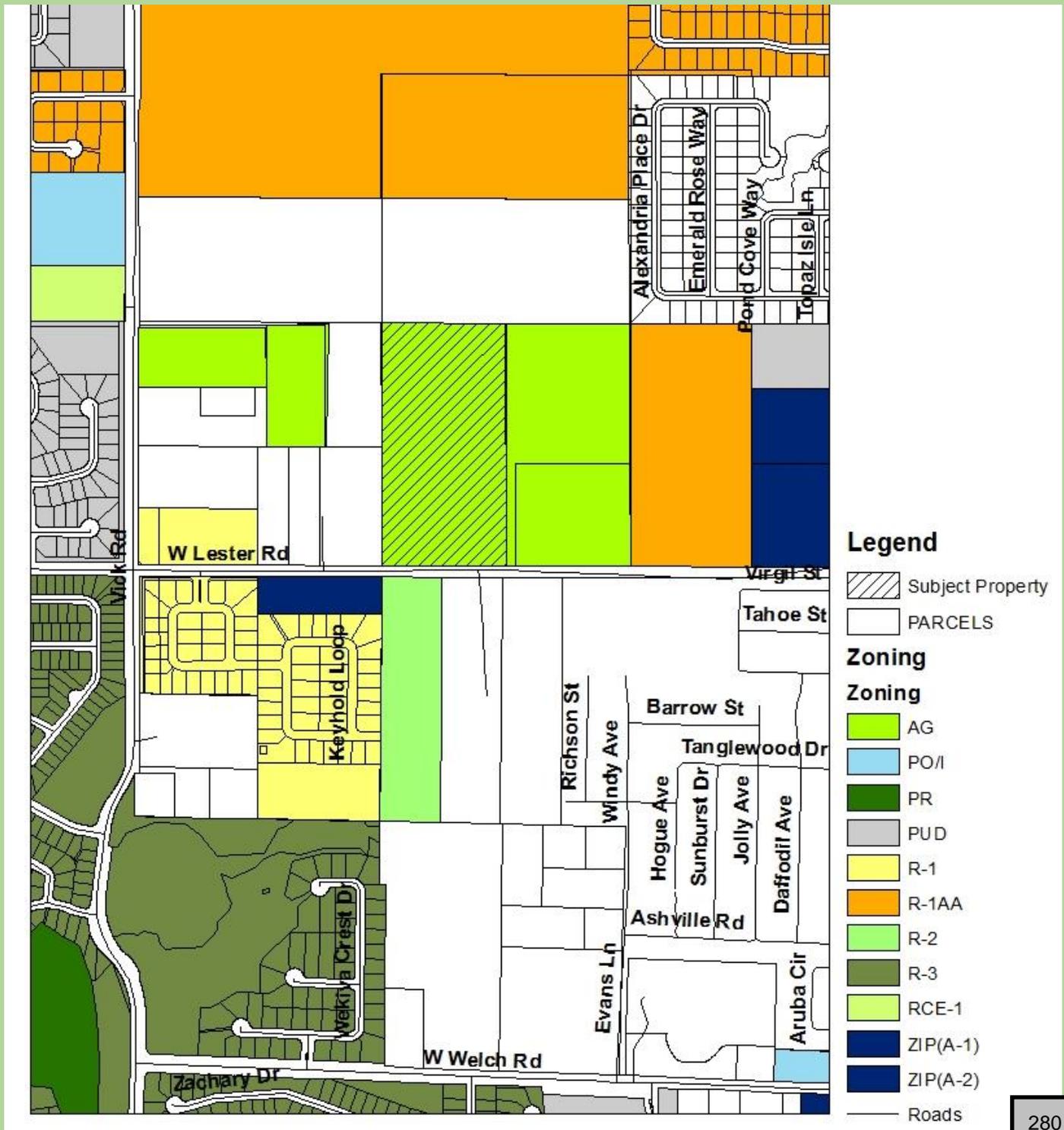


Legend

-  Subject Property
- PARCELS**
-  <all other values>
- CITY_CODE**
-  APK
-  ORG
-  Roads



ADJACENT ZONING MAP





ADJACENT USES MAP



ORDINANCE NO. 2653

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA CHANGING THE ZONING FROM AGRICULTURE TO R-1 (SINGLE FAMILY RESIDENTIAL) FOR CERTAIN REAL PROPERTY LOCATED AT 359 WEST LESTER ROAD, COMPRISING 19.94 ACRES, MORE OR LESS AND OWNED BY LAURA MURPHY; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE

WHEREAS, to manage the 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, Laura Murphy has requested a change in zoning on said property as identified in Section I of this ordinance; and

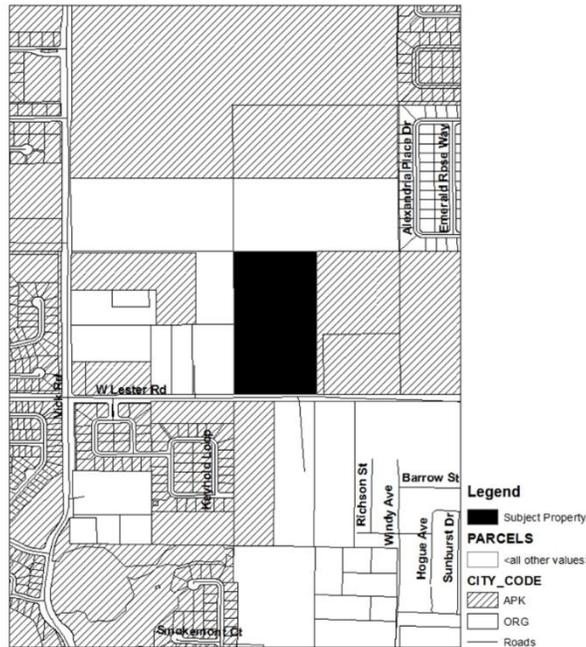
WHEREAS, the proposed R-1 zoning has been found to be consistent with the City of Apopka Comprehensive Plan, and the City of Apopka Land Development Code.

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, being situated in the City of Apopka, Florida, is hereby R-1, as defined in the Apopka Land Development Code.

Legal Description:

THE W1/2 OF SE1/4 OF SW1/4 SEC 28-20-28



Parcel ID No: 28-20-28-0000-00-060

Contains: 19.94 +/- Acres

Section II. That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.

Section III. 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 IV. 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 V. That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

READ FIRST TIME: May 16, 2018

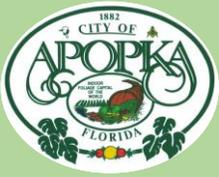
READ SECOND TIME
AND ADOPTED: June 6, 2018

Bryan Nelson, Mayor

ATTEST:

Linda Goff, City Clerk

DULY ADVERTISED: April 24, 2018; May 25, 2018



CITY OF APOPKA CITY COUNCIL

- ____ CONSENT AGENDA
- X PUBLIC HEARING
- ____ SPECIAL REPORTS
- X OTHER: Master Plan

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Zoning Report
 Vicinity Map
 Adjacent Zoning Map
 Adjacent Uses Map
 Existing Use Map
 Ordinance No. 2656
 Ex. A – Master Plan

SUBJECT: ORDINANCE NO. 2656 - CHANGE OF ZONING – AHIFO-18, LLC

REQUEST: FIRST READING OF ORDINANCE NO. 2656 - CHANGE OF ZONING – AHIFO-18, LLC, FROM “COUNTY” PD (ZIP – PLANNED DEVELOPMENT) TO “CITY” KPI-MU (KELLY PARK INTERCHANGE MIXED USE); ASSIGNMENT OF KELLY PARK INTERCHANGE NEIGHBORHOOD OVERLAY DISTRICT; APPROVAL OF MASTER PLAN – BRIDLE PATH SUBDIVISION; AND HOLD OVER FOR SECOND READING AND ADOPTION.

SUMMARY:

OWNER: AHIFO-18, LLC

APPLICANT: VHB – c/o Jim Hall

LOCATION: West of Plymouth-Sorrento Road and east of SR 429, approximately one-half mile north of the intersection of Kelly Park Road and Plymouth-Sorrento Road

PARCEL ID NUMBERS: 12-20-27-0000-00-032; 12-20-27-0000-00-090

EXISTING USE: Vacant, abandoned two story house and horse stables

FLUM DESIGNATION: Orange County Rural Settlement

CURRENT ZONING: Orange County Planned Development (PD/ZIP)

PROPOSED DEVELOPMENT: 152 single family homes (all 50-t. wide lots; 110 ft. typical depth)

PROPOSED ZONING: Kelly Park Interchange Mixed-Use (KPI-MU)

TRACT SIZE: 51 +/- acres

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 INFORMATION: The owner of the subject property is requesting a rezoning of 51 acres of property from Orange County Planned Development (PD/ZIP) to Kelly Park Interchange Mixed-Use (KPI-MU), with a Neighborhood character zone to develop a single-family residential subdivision subject to the requirements of the Kelly Park Interchange Form Based Code. The subject property is comprised of two parcels and is located east of SR 429 and west of Plymouth-Sorrento Road, approximately one-half mile north of the intersection of Kelly Park Road and Plymouth-Sorrento Road. The owner of the properties is AHIFO-18, LLC.

Development Profile:

No. of residential lots:	152	single family homes, detached
Minimum lot width:	50	feet (all lots 50 feet wide)
Minimum lot depth:	110	feet (all lots 110 feet deep)
Minimum lot size:	5,500	sq. ft. (all proposed\FBC has no minimum lot size)
Minimum house livable area:	1,500	sq. ft. (proposed\FBC does not address)

Setbacks:

Front:	Min. 15 ft. – Max. 30 ft.
Rear:	Min. 20 ft.
Side:	Min. 5 ft.
Garage:	Same as front
Overflow Parking	None
Driveway length:	Min. 15 ft. – Max. 30 ft.
On-street parking:	One side-of street provides parking (see Exhibit “C”)
Max. number of floors:	Two
Parking:	Two spaces per house within the lot (enclosed or exterior; FBC does not require enclosed parking)

Amenities:

- Pool house with cabana; no parking
- Walking paths around stormwater ponds (concrete or asphalt surface on all paths)
- Regional Trails: two – along Plymouth-Sorrento Road, and internal along stormwater pond and wetland edges.

In accordance with the requirements of the Kelly Park Interchange Form Based Code, the owner has submitted a Master Plan in conjunction with the rezoning application detailing the development of 152 single-family homes on 51 acres. The property currently has a future land use designation of Orange County Rural Settlement. The property is located within the one-mile radius from the SR 429/Kelly Park Road interchange.

PROJECT DESCRIPTION: The Master Plan proposes development of the property with a total of 152 single-family homes on 50-foot by 110-foot wide lots and a minimum living area of 1,500 square feet. There are no minimum and maximum lot size and living area requirements in the Form Based Code. Notes provided on the Master Plan indicate the project may be developed in multiple phases, with each phase determined upon submittal of the Final Development Plan. The Master Plan details design of the proposed subdivision in accordance with the requirements of the Kelly Park Interchange Form Based Code, and the Neighborhood character zone, which primarily allows single-family homes as permitted uses. The surrounding properties consist of single-family residential and agricultural uses.

Access to the site is proposed via Plymouth-Sorrento Road. A dedication of a 30-foot wide strip for future right-of-way needs for Plymouth-Sorrento Road is detailed on the Master Plan. Behind this strip, a 30-foot area will be reserved for a landscape buffer along Plymouth-Sorrento Road. A wetland area exists in the northwest corner of the development. A spring is located within the wetland area. Per the Comprehensive Plan, a 300-foot buffer will be provided around the spring. Stormwater ponds are located in the southwestern corner of the site. Four-foot wide walking paths are provided around the perimeter of the ponds. 20-percent of the total site area will remain as open space in accordance with the requirements of the Form Based Code. Common recreation elements include a clubhouse with a pool, an internal trail system, preserved wetlands, upland buffers, and a park/stormwater facility.

The Master Plan details the design of the internal street system with public streets utilizing a walkable grid design, which is a fused grid design that includes varied street, sidewalk and pedestrian pathways throughout a development that links developments. Three roadway connections will be provided to allow cross-access to the properties to the north and south at such time they develop. A 10-foot wide trail will be constructed within the development, and connections to the properties to the north and south will be provided to facilitate development of a regional trail system. A cul-de-sac is provided in the southwestern corner of the site, adjacent to the park and stormwater pond, and is provided to accommodate trail connection and to create an open space corridor along stormwater pond system and wetland area. Properties adjacent to the cul-de-sac will have access to the trail system which will allow pedestrian access to the common areas internal to the development. The developer will provide a 12-foot wide multi-purpose trail along the portion of the development abutting Plymouth-Sorrento Road to help facilitate the construction of the regional trail system.

DEVELOPMENT AND ZONING CONDITIONS OF APPROVAL: That the zoning classification of the following described property be designated as Kelly Park Interchange Mixed-Use (KPI-MU), Neighborhood character zone, as defined in the Kelly Park Interchange Form Based Code, and with the following provisions:

1. Development of the property is subject to the requirements of the Kelly Park Interchange Form Based Code, Neighborhood character zone.
2. The architectural design of the buildings must be consistent with Section K.2.g, and Appendix A of the Kelly Park Interchange Form Based Code.
3. A 10-foot wide trail will be constructed within the development, connecting to future developments to the properties located to the north and south will be provided to facilitate development of a regional trail system, generally as shown on the Exhibit within the Staff Report. (Policy 20.19, FLUE; Sec. Q, FBC)
4. A 12-foot wide multi-purpose trail will be constructed along the portion of the development abutting Plymouth-Sorrento Road to facilitate the construction of a regional trail system. (Policy 20.19, FLUE; Sec. Q, FBC). The trail shall be placed in an easement or tract.
5. Perpetual easements dedicated to the City of Apopka shall be provided over the internal pedestrian pathways and trail networks to allow public access.

6. A minimum living area of 1,500 square feet shall be provided.
7. A development agreement shall address the extension of utilities, dedication of rights-of-way, and public access to regional trail facilities.

COMPREHENSIVE PLAN COMPLIANCE: The proposed use of the property is consistent with the Mixed-Use Interchange Future Land Use designation and is consistent with the Kelly Park Interchange Form Based Code.

SCHOOL CAPACITY REPORT: A School Capacity Enhancement Agreement has been approved by OCPS. The location is served by the following schools: Zellwood Elementary, Wolf Lake Middle, and Wekiva High School. No development activity shall occur on the subject property until the developer has obtained a school concurrency mitigation agreement or letter from OCPS.

ORANGE COUNTY NOTIFICATION: Pursuant to Section 7 of the Joint Planning Area agreement, Orange County was notified on April 3, 2018.

PUBLIC HEARING SCHEDULE:

May 8, 2018 - Planning Commission (5:30 pm)
June 6, 2018 - City Council (1:30 pm) - 1st Reading
June 20, 2018 – City Council (7:00 pm) - 2nd Reading

DULY ADVERTISED:

April 27, 2018 - Public Notice; Letter, Poster
April 27, 2018 - Public Notice

RECOMMENDED ACTION:

The **Development Review Committee** finds the proposed rezoning to Kelly Park Interchange Mixed-Use (KPI-MU), and assignment of a Neighborhood character zone consistent with the Comprehensive Plan and Kelly Park Interchange Form Based Code, and recommends approval of the Bridle Path Master Plan.

The **Planning Commission**, at its meeting on May 8, 2018, found the proposed amendment consistent with the Comprehensive Plan; and unanimously recommended approval of the proposed rezoning to Kelly Park Interchange Mixed-Use (KPI-MU), and assignment of a Neighborhood character zone, and Bridle Path Master Plan, subject to a minimum living area of 1,500 square feet being provided, and all internal multi-use paths and the 12-foot path along Plymouth-Sorrento Road being constructed of either concrete or asphalt surface.

City Council: Accept the First Reading of Ordinance No. 2656 and Hold it Over for Second Reading and Adoption on June 20, 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)	Rural	A-1 (ZIP)	Single-family residential/woodlands
East (County)	Rural	A-1	Woodlands/Plymouth-Sorrento Road
South (City)	Rural	RCE-2 (ZIP)	Equestrian track
West (City)	None	SR 429 right-of-way	SR 429

LAND USE & TRAFFIC COMPATIBILITY:

The property is accessed via Plymouth-Sorrento Road. Internal streets are public and 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 residential, and agricultural.

COMPREHENSIVE PLAN COMPLIANCE:

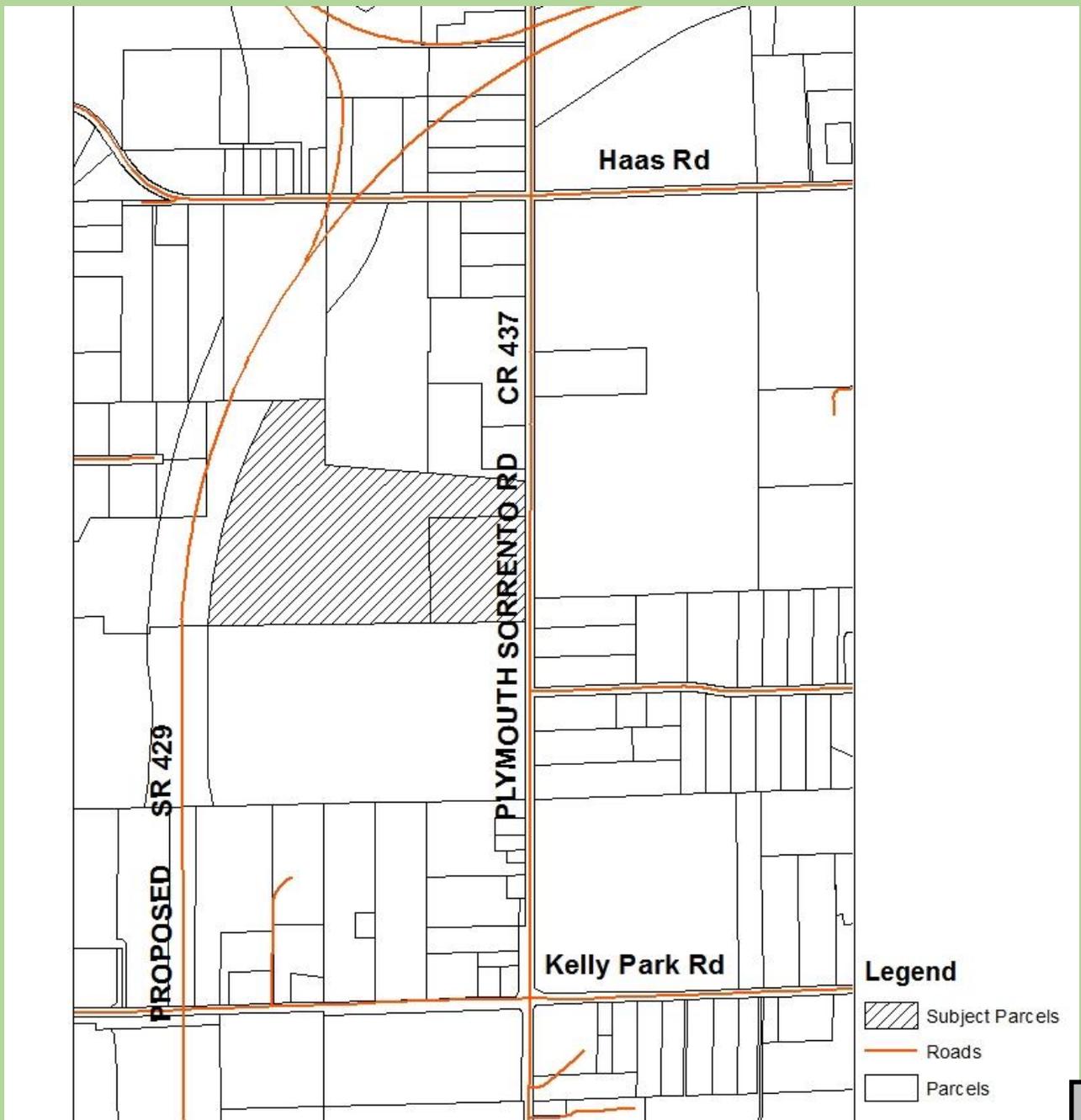
The proposed Kelly Park Interchange Mixed-Use (KPI-MU) zoning is compatible with policies set forth in the Comprehensive Plan.

ALLOWABLE USES:

Single-family residential uses as set forth within the Master Plan.

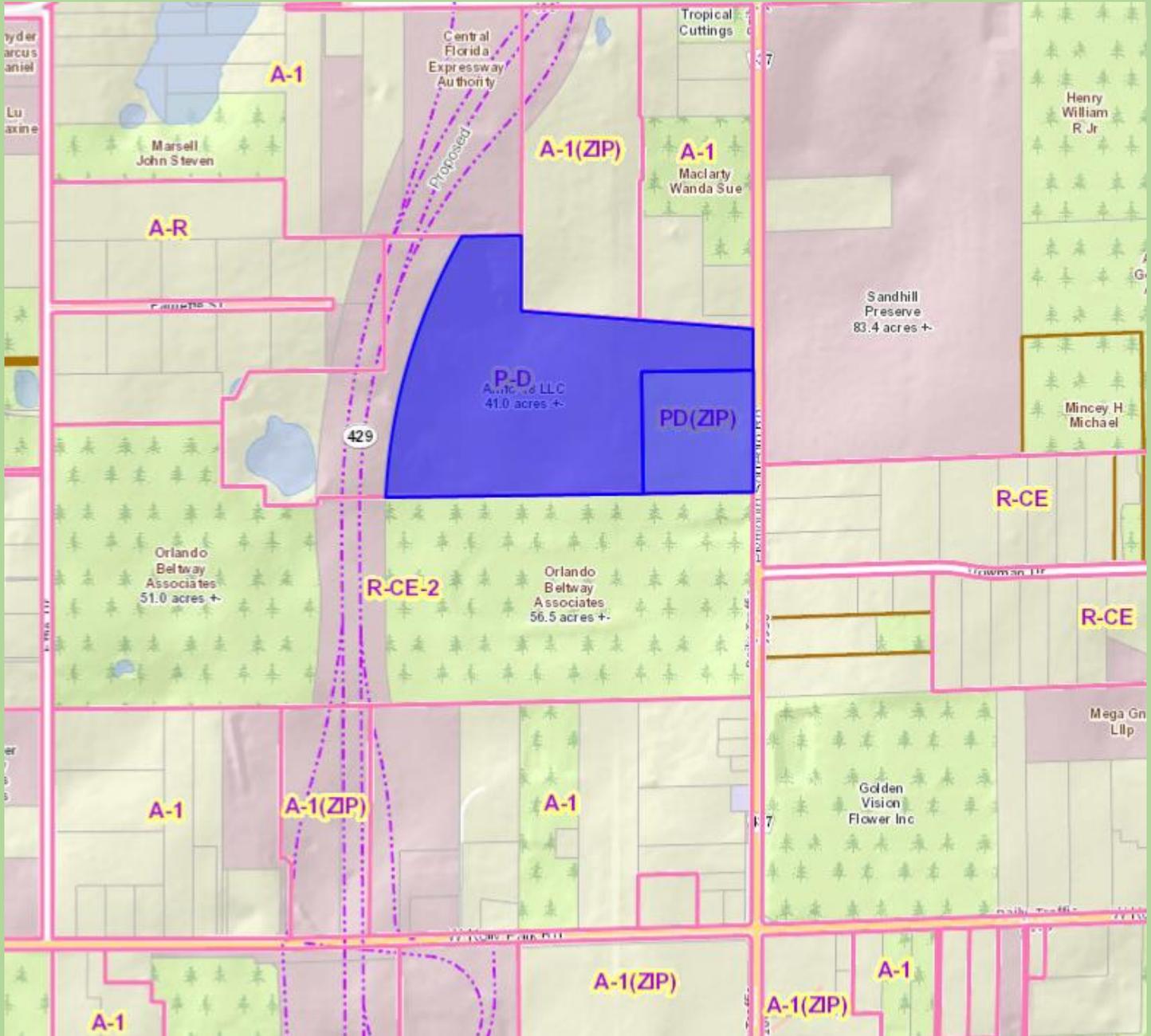
Project: BRIDLE PATH
Owned by: AHIFO-18, LLC
Located: WEST OF PLYMOUTH-SORRENTO ROAD AND EAST OF SR 429
Parcel ID#s: 12-20-27-0000-00-032, 12-20-27-0000-00-090

VICINITY MAP



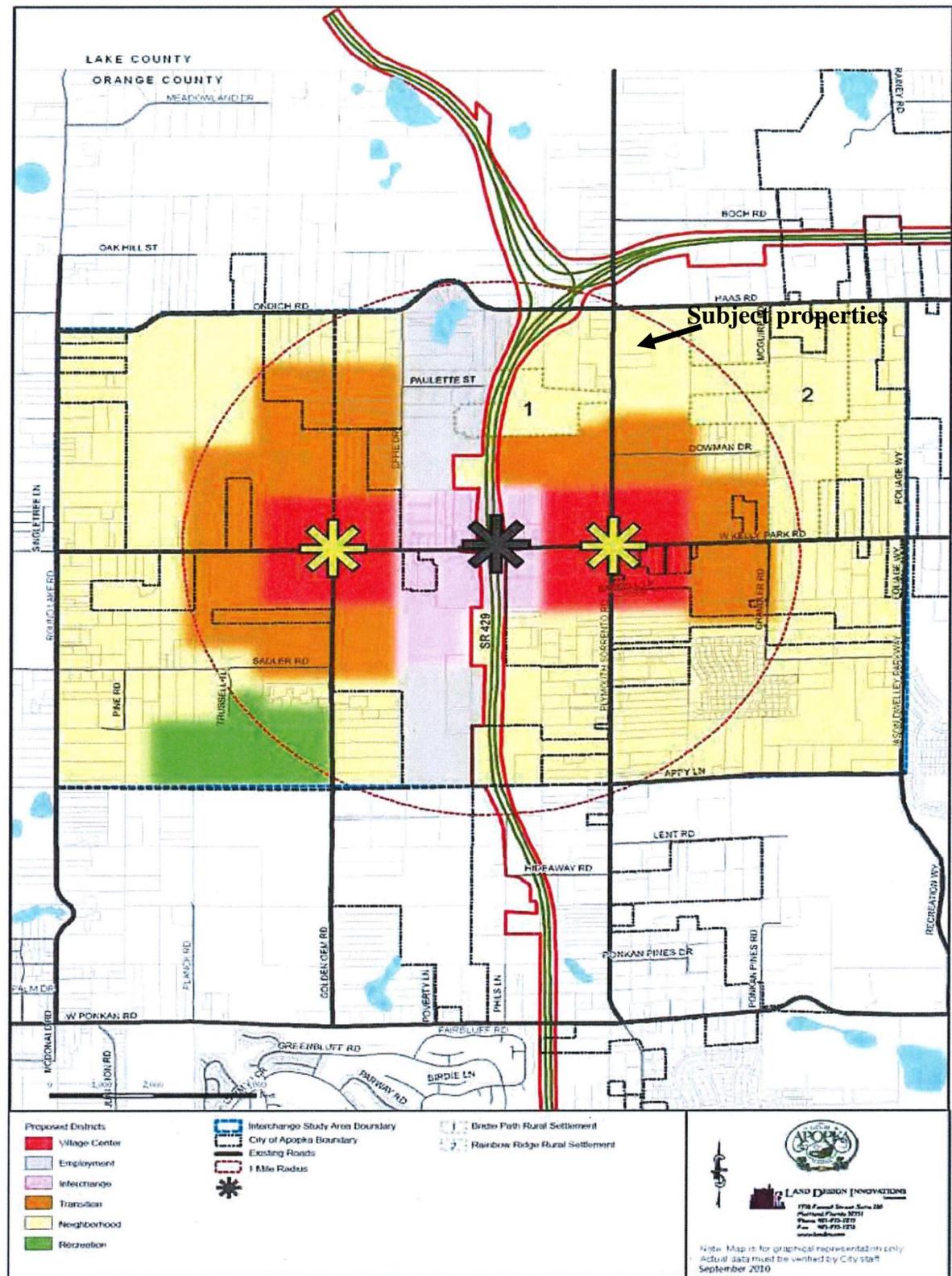


ADJACENT ZONING





Kelly Park Crossing Form-Based Code Area



ORDINANCE 2656

AN ORDINANCE OF THE CITY OF APOPKA, FLORIDA, CHANGING THE ZONING FROM “COUNTY” PLANNED DEVELOPMENT (PD/ZIP) TO “CITY” KELLY PARK INTERCHANGE MIXED-USE (KPI-MU), AND ASSIGNING A KELLY PARK CROSSING NEIGHBORHOOD OVERLAY DISTRICT, FOR CERTAIN REAL PROPERTY GENERALLY LOCATED WEST OF PLYMOUTH-SORRENTO ROAD AND EAST OF SR 429, APPROXIMATELY ONE-HALF MILE NORTH OF THE INTERSECTION OF KELLY PARK ROAD AND PLYMOUTH-SORRENTO ROAD, COMPRISING 51 ACRES MORE OR LESS, AND OWNED BY AHIFO-18, 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, AHIFO-18, LLC has requested a change in zoning on property as identified in Section II of this ordinance; and

WHEREAS, the subject property is located within the Kelly Park Interchange Form-Based Code Area; and

WHEREAS, if a site, or any portion of a site is located within a one mile radius of the interchange of Kelly Park Road and State Road 429, the entire site is subject to the form based standards contained within the Kelly Park Form-Based Code; and

WHEREAS, properties within the Kelly Park Interchange Form Based Code Area may be rezoned to the Kelly Park Interchange Mixed-Use (KPI-MU) zoning category; and

WHEREAS, in conjunction with the rezone of property to Kelly Park Interchange Mixed Use, an overlay designation to assign a character zone to the site must be requested; and

WHEREAS, AHIFO-18, LLC has requested a rezoning to Kelly Park Interchange Mixed-Use (KPI-MU) zoning, with the assignment of Neighborhood character zone; and

WHEREAS, the proposed Kelly Park Interchange Mixed-Use (KPI-MU) zoning, and Neighborhood character zone has been found to be consistent with the City of Apopka Comprehensive Plan, and the Kelly Park Interchange Form Based 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 Kelly Park Interchange Mixed-Use (KPI-MU), Neighborhood character zone as defined in the Kelly Park Interchange Form Based Code, and with the following Master Plan provisions:

1. Development of the property is subject to the requirements of the Kelly Park Interchange Form Based Code, Neighborhood character zone.
2. The architectural design of the buildings must be consistent with Section K.2.g, and Appendix A of the Kelly Park Interchange Form Based Code.
3. A 10-foot wide trail will be constructed within the development, connecting the subject property to future developments located to the north and south to facilitate development of a regional trail system.
4. A 12-foot wide multi-purpose trail will be constructed along the portion of the development abutting Plymouth-Sorrento Road to facilitate the construction of a regional trail system. Said trail shall be placed in an easement or tract.
5. Perpetual easements dedicated to the City of Apopka shall be provided over the internal pedestrian pathways and trail networks to allow public access.
6. A minimum living area of 1,500 square feet shall be provided.
7. All internal multi-use paths, and the 12-foot path along Plymouth-Sorrento Road shall be constructed of either concrete or an asphalt surface.

Section II. That the zoning classification of the following described property, being situated in the City of Apopka, Florida, is hereby Kelly Park Interchange Mixed-Use (KPI-MU), Neighborhood character zone as defined in the Kelly Park Interchange Form Based Code.

Legal Description: Attachment “A”

Section III. That the zoning classification is consistent with the Comprehensive Plan of the City of Apopka, Florida.

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: June 6, 2018

READ SECOND TIME
AND ADOPTED: _____

Bryan Nelson, Mayor

ATTEST:

Linda Goff, City Clerk

DULY ADVERTISED: April 27, 2018

ATTACHMENT "A"

LEGAL DESCRIPTION

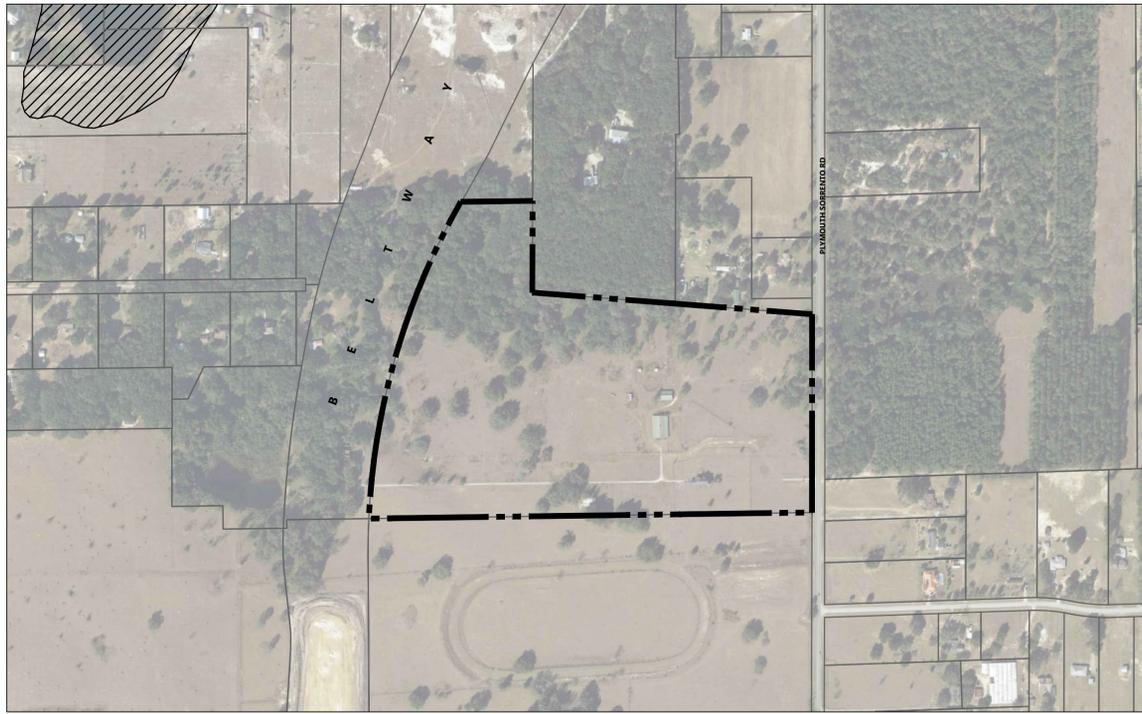
Parcel ID Nos.: 12-20-27-0000-00-032; 12-20-27-0000-00-090

Combined Acreage: 51.061 +/- Acres

A portion of land being in the East half of Section 12, Township 20 South, Range 27 East, Orange County, Florida and being more particular described as follows:

Commence at the northeast corner of the northeast quarter of said section 12; thence run along the East line of said northeast quarter, South 00° 01' 00" East, 1876.78 feet, thence leaving said East line run North 85° 37' 03" West, 30.08 feet to a point on the West Right of Way line for Plymouth Sorrento Road, said point also being the POINT OF BEGINNING; thence run along said West Right of Way line, South 00° 01' 00" East, 930.76 feet; thence leaving said West Right of Way line run, South 89° 12' 07" West, 2091.52 feet to a point on the easterly Right of Way line of State Road 429 (Wekiva Parkway), said point being on a non-tangent curve, concave to the East, having a radius of 3300.00 feet, central angle of 027° 07' 49", a chord bearing of North 16° 12' 47" East and a chord distance of 1548.04 feet; thence run along said easterly Right of Way line and arc of said curve 1562.59 feet to a point of non-tangency; thence leaving said Right of Way line run, North 89° 17' 05" East, 339.10 feet; thence run, South 00° 09' 41" West, 429.58 feet; thence run, South 85° 37' 03" East, 1324.83 feet to the POINT OF BEGINNING.

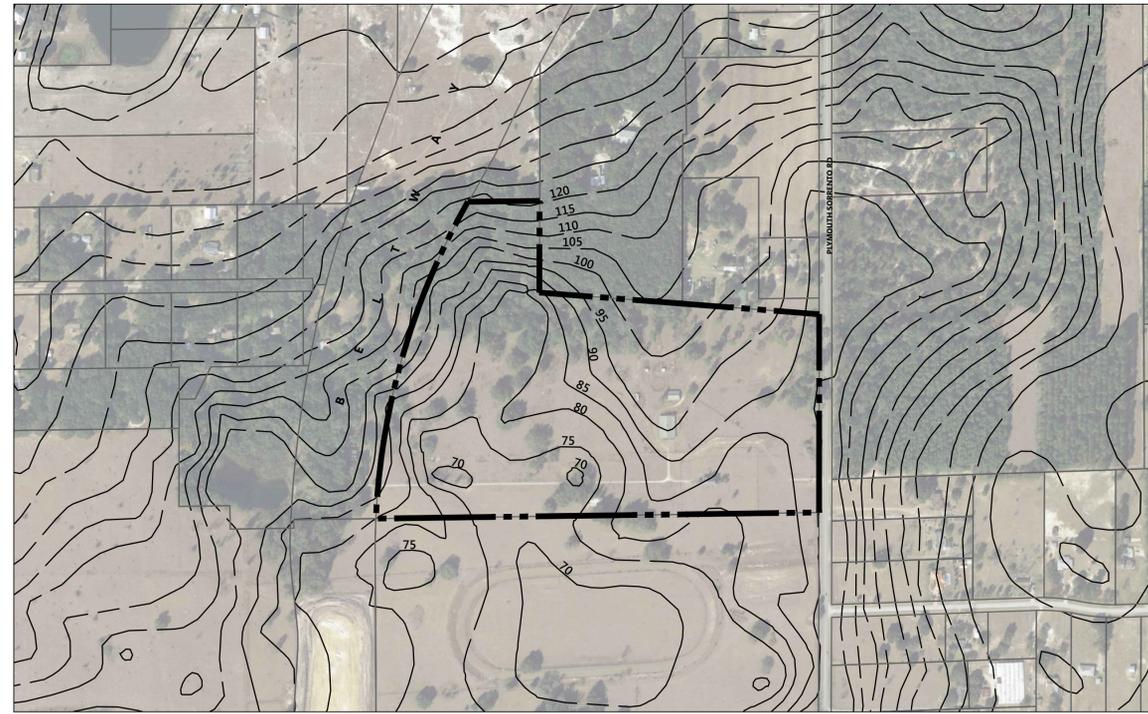
Said portion of land contains 51.061 Acres more or less.



Floodplain (100 Year)

 Flood Prone Area

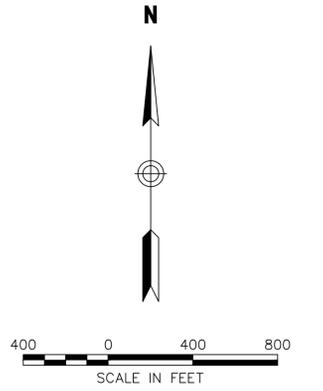
Source:
Orange County GIS, 2017



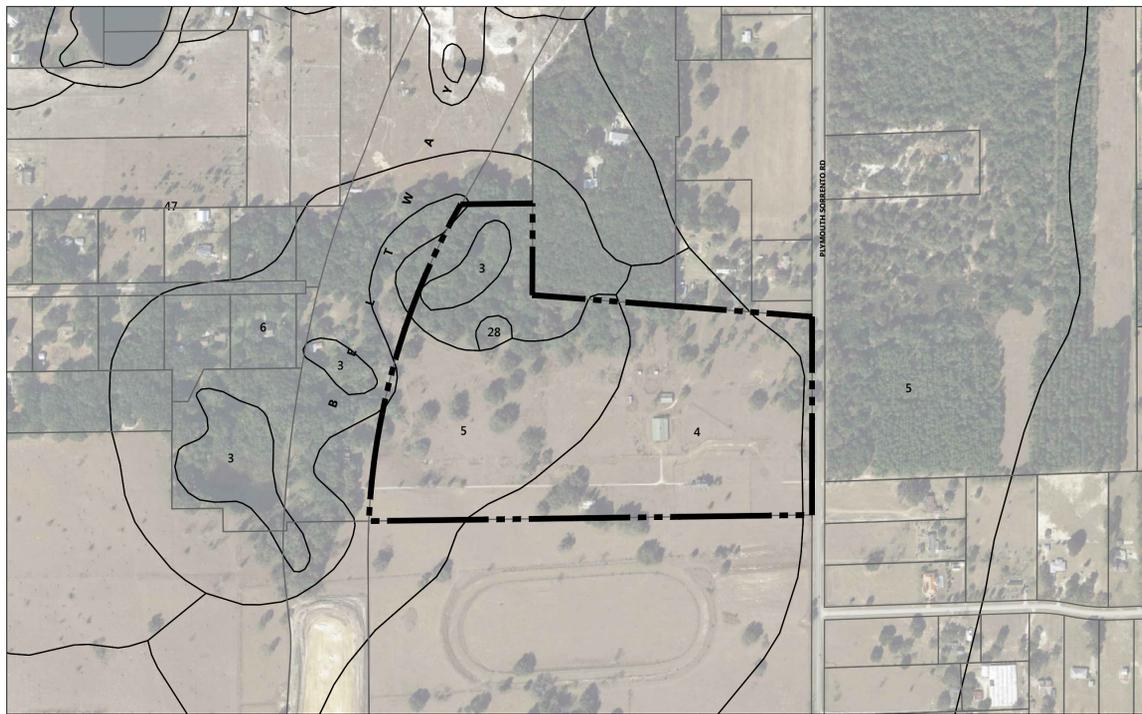
Topography

105
Topographic Contour

Source:
Orange County GIS, 2017



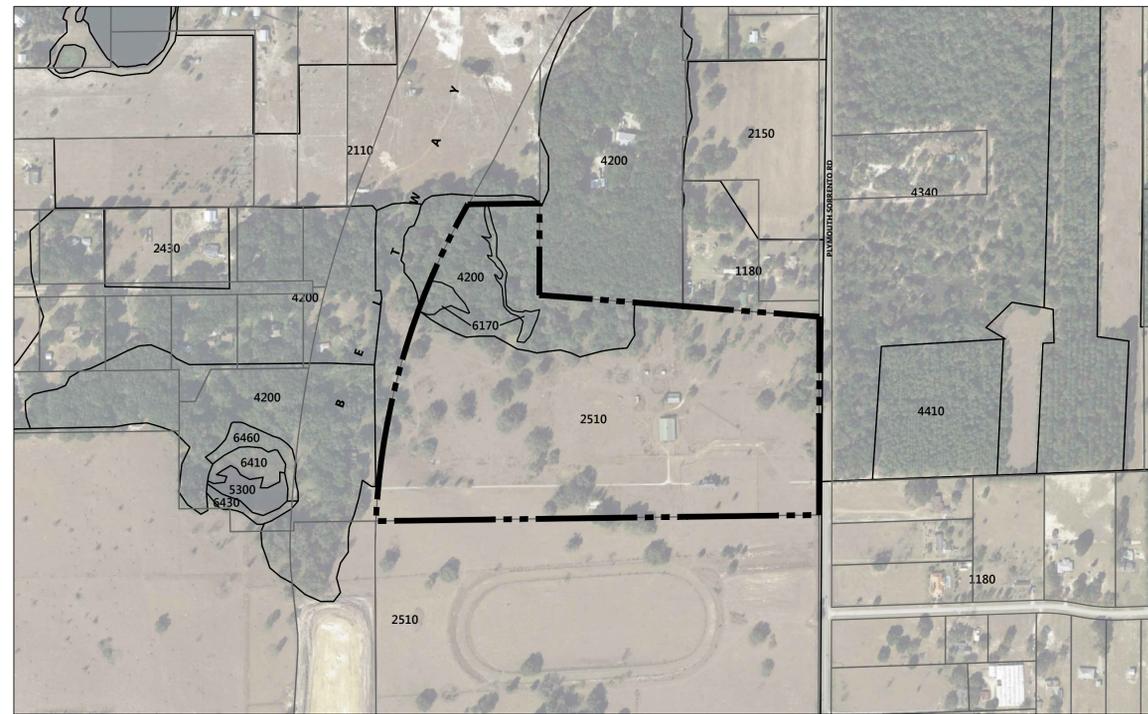
No.	Revision	Date	Appr.



Soils

Soil Code	Description
3	Basinger Fine Sand, depressional
4	Candler Fine Sand, 0 to 5 percent slopes
5	Candler Fine Sand, 5 to 12 percent slopes
6	Candler-Apopka Fine Sand, 5 to 12 percent slopes
28	Florhome fine sand, 0 to 5 percent slopes
47	Tavares-Millhopper fine sand, 0 to 5 percent slopes

Source:
Orange County GIS, 2017



Vegetation

Code	Description
2510	Horse Farms
4200	Upland Hardwood Forests
4340	Upland Mixed Coniferous/Hardwood
6170	Mixed Wetland Hardwoods

Source:
FLUCFCS, 2017



Planning + Design Studio
Transportation
Land Development
Environmental Services
225 E. Robinson Street, Suite 300
Orlando, Florida 32801
407-839-4006 • FAX 407-839-4008
Certificate of Authorization Number 3932

Project Title
Bridle Path PD

**Environmental
Conditions**
City of Apopka, Florida

Drawing Title

C-2

Drawing

Scale	Sheet	of
Date	Project Number	
April 10, 2018	61924.00	

SITE DATUM

Gross Acres	51.06 ac
Preserved Wetlands/Uplands	6.88 ac
Stormwater (16%)	7.01 ac
Developable Acres	37.17 ac

Proposed Development Program	
Single Family	152 Du
Net Density	4.1 Du/ac

SITE DATA TABLE	
PARCEL ID NUMBER	12-20-27-0000-00-032; 12-20-27-0000-00-090
EXISTING FUTURE LAND USE	ANNEX
PROPOSED FUTURE LAND USE	MIXED USE
EXISTING ZONING	ZIP
PROPOSED ZONING	MIXED KPI
ADJACENT FUTURE LAND USE	NORTH: Annex SOUTH: Annex EAST: Rural(County) WEST: Annex
ADJACENT ZONING	NORTH: ZIP SOUTH: ZIP R.C.E. EAST: ZIP WEST: ZIP
ACREAGE/SQUARE FOOTAGE	51 ac
BUILDING HEIGHT	PROPOSED: 35' MAX: 35'
DENSITY	PROPOSED: 4.1 Du/ac MAX: 5 Du/ac
BUILDING SETBACKS	PROPOSED: FRONT: 15' SIDE: 5' REAR: 20' CORNER: 10'/15'
PARKING SPACES	PROVIDED: 290 REQUIRED: 290
NUMBER OF EMPLOYEES	N/A
PROPOSED NUMBER OF BEDS	N/A
WAIVER REQUEST	YES: NO: X
VARIANCE REQUEST	YES: NO: X

*WHERE REAR YARD OF CORNER LOT ADJUTS SIDE YARD OF ADJACENT LOT, CORNER SIDE SETBACK SHALL BE 15'

Land Use	DUs	Student Generation	Elementary School	Student Generation	Middle School	Student Generation	High School
Single Family	152	0.191	29	0.095	15	0.131	20
Total	64 students						

Land Use District	Units	ITE Code	Daily Trips	AM Peak Trips			PM Peak Trips			
				Total	In	Out	Total	In	Out	
Neighborhood	152	du	210	1,528	118	31	87	158	101	57
Total			1,528	118	31	87	158	101	57	

District Development Standards

Neighborhood Overlay Zone

Minimum Living Area	1,500 sq ft
Minimum Lot Width	30 feet
Minimum Lot Depth	110 feet
Maximum Block Length	500 feet
Porches	
Width	minimum 12 feet
Depth	minimum 4 feet
Rear Accessory Structure	10 feet
Garage Standards	
Front Loaded	minimum 4 foot recess from primary facade
Open Space	minimum 50% of front facade
Open Space	
Required	30%
Provided	30%

Project Phasing

The Bridle Path project may be developed in multiple phases, with each respective phase determined at Final Development Plan.

Project Notes

- This plan is conceptual in nature and subject to final survey, environmental, geotechnical, stormwater/engineering evaluation and agency review.
- Boundary is based on Orange County GIS information. All unit counts are subject to change based on final survey information.
- Project proposes a large-scale land use amendment from Annexation to Mixed Use and rezoning from ZIP to MIXED KPI.
- On-street parking is permitted on one-side of the street.
- Additional development standards for the Neighborhood Overlay Zone of the Kelly Park PBC shall be applied.
- Where feasible, green building principles shall be applied.
- All structures, including residential homes, clubhouse/pool area, and subdivision entry signage shall comply with Kelly Park Interchange Form Based Code, Section K - Building Design Standards (Adopted June 21, 2017).
- Where feasible, existing trees shall be preserved in accordance with Section 4.5 of the Design Plan/Interchange Design Report.
- All internal multi-use paths and the 12-foot path along Plymouth-Sorrento Road shall be constructed of either concrete or asphalt surface.

PUBLIC OPEN SPACE CALCULATIONS:

TOTAL GROSS AREA	REQUIRED OPEN SPACE (2019 ⁽¹⁾)	PROVIDED OPEN SPACE ⁽²⁾
51.06 ac.	10.21 ac.	PRESERVED WETLANDS 1.00 ac UPLAND BUFFERS 1.37 ac PRESERVED UPLANDS 4.51 ac OPEN SPACE 2.16 ac AMENITY AREA 0.65 ac PARK/STORMWATER 7.01 ac TOTAL 16.70 ac.

(1) PER SECTION G OF THE KELLY PARK INTERCHANGE FORM BASED CODE, 20% OF THE TOTAL AREA WITHIN THE NEIGHBORHOOD CHARACTER ZONE SHALL BE PUBLIC OPEN SPACE.
 (2) PER SECTION S OF THE KELLY PARK INTERCHANGE FORM BASED CODE, PUBLIC OPEN SPACE IS DEFINED AS NATURALISTIC OR LANDSCAPED AREAS USED PRIMARILY FOR PASSIVE RECREATION, ACTIVE RECREATION, VISUAL AMENITY, OR FOR PURPOSES OF ENVIRONMENTAL CONSERVATION, SPECIFICALLY INCLUDING GREENSPACES, RECREATION AND BICYCLE PATHWAYS, OUTDOOR RECREATION FACILITIES, WETLANDS, WOODLANDS, AND WATER PLANT COMMUNITY CONSERVATION AREAS AND PRESERVED, PUBLIC PARKS, AND STORMWATER AREAS THAT ARE VISUAL AMENITIES.

Legend

- Project Boundary
- RURAL (A-1) Future Land Use (Zoning)
- Trail



No.	Revision	Date	Appr.



Planning + Design Studio
 Transportation
 Land Development
 Environmental Services
 225 E. Robinson Street, Suite 300
 Orlando, Florida 32801
 407-839-4006 • FAX 407-839-4008
 Certificate of Authorization Number 3932

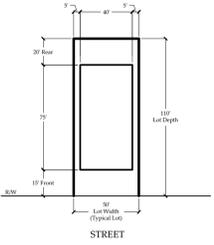
Project Title

Bridle Path PD

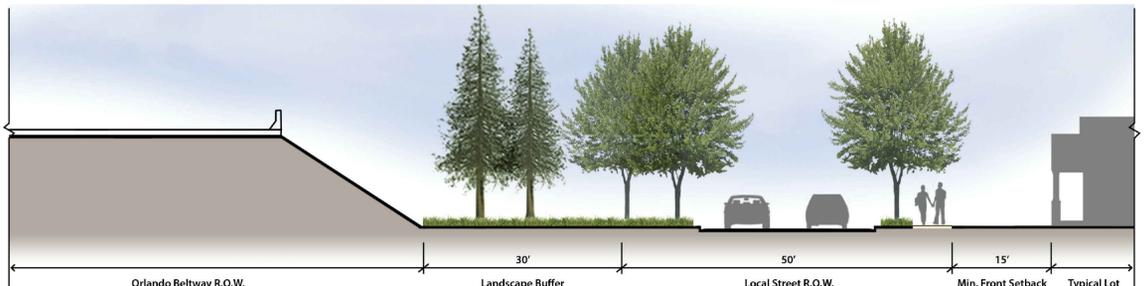
Site Plan

City of Apopka, Florida

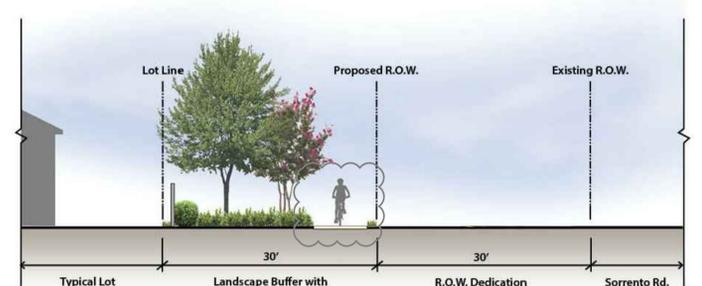
Drawing Title



Typical 50'x110' Single-Family Lot



TYPICAL LANDSCAPE BUFFER CROSS SECTION ALONG ORLANDO BELTWAY (N.T.S.)



TYPICAL LANDSCAPE BUFFER CROSS SECTION ALONG PLYMOUTH SORRENTO ROAD (N.T.S.)

* Recreation trail may be constructed within 30' R.O.W. dedication if agreed to by Orange County at time of final engineering design.

C-3

Drawing

Scale _____ Sheet _____ of _____

Date _____ Project Number _____

April 10, 2018 61924.00

61924.00 - BRIDLE PATH PD-SITE PLAN.DWG

ADDITIONAL COMMENTS: The applicant intends to use the subject properties for an industrial park, and requests the City to assign a future land use designation of Industrial to the property. A industrial warehouse developer has proposed to city staff to couple the subject site to industrial-zoned parcels to the north and northeast for an industrial complex.

The subject properties were annexed into the City on May 20, 1998 via Ordinance 1171 and on July 3, 2006 via Ordinance 1833. The proposed Large Scale Future Land Use Amendment is being requested by the owner/applicant. Pursuant to Florida law, properties ten acres or more are required to undergo review by State planning agencies.

A request to assign a Future Land Use Designation of Industrial is compatible with the designations assigned to abutting properties. The FLUM application covers approximately 37.4 acres.

Industrial FLUM Uses:

“The primary use shall be *industrial*, intensive commercial, agricultural and business/research parks. Also allowed are public facilities and supporting infrastructure. The use of the Planned Unit Development process shall be encouraged. The maximum floor area ratio shall be 0.60.” [Emphasis added]

In conjunction with state requirements, staff has analyzed the proposed amendment and determined that adequate public facilities exist to support this land use change (see attached Land Use Report). Based on the findings of the Land Use report, the proposed FLUM amendment is compatible with the surrounding and nearby land uses and the character of the general area.

COMPREHENSIVE PLAN COMPLIANCE: The proposed use of the property is consistent with the Institutional/Public Use designation and the proposed Professional Office\Institutional zoning.

SCHOOL CAPACITY REPORT: Since the proposed use, an industrial park, is a non-residential use, a capacity enhancement agreement with OCPS is not required.

ORANGE COUNTY NOTIFICATION: The JPA requires the City to notify the County 30 days before any public hearing or advisory board. The City properly notified Orange County on May 9, 2018.

PUBLIC HEARING SCHEDULE:

June 12, 2018 - Planning Commission (5:30 pm)

June 20, 2018 - City Council (7:00 pm) - 1st Reading & Transmittal

DULY ADVERTISED:

May 11, 2018 – Public Notice (Apopka Chief) and Notification (letters and posting)

June 8, 2018 -- Public Notice (Apopka Chief)

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding area, and recommends transmittal of the change in Future Land Use from Agriculture (0-1 du/5 ac) and Mixed Use to Industrial for the properties owned by Eagles Landing at Ocoee, LLC.

The **Planning Commission**, at its meeting on May 22, 2018, found the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding area; and unanimously recommended transmittal of the Future Land Use Map designation from Agriculture and Mixed Use to Industrial to the Florida Department of Economic Opportunity.

Recommended Motion: Find the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding area, and recommend transmittal of the Future Land Use Map designation from Agriculture and Mixed Use to Industrial to the Florida Department of Economic Opportunity.

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

LAND USE REPORT

I. RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	“City” Industrial	PUD and I-1	Industrial and Vacant Properties; Peterson Road ROW
East (City and County)	“City” Industrial and “County” Rural	“City” I-1 and “County” A-1	Vacant industrial land (City); Vacant land (County)
South (County)	“County” Rural	A-2	Lake Apopka Restoration Area
West (County)	“County” Rural	A-2	Lake Apopka Restoration Area

II. LAND USE ANALYSIS

The applicant intends to use this site for industrial or commercial wholesale business. A warehouse business has submitted concept plans to couple this parcel with those owned by Mod-Florida Freezer Warehouse LTD to the northeast, and development a warehouse or industrial complex. As the subject site current has access through planned industrial areas via from undeveloped Peterson Road right-of-way and an easement to the public road segment of Hermit Smith Road, the site is not attractive for residential development. Use of the subject site for industrial, commercial wholesale, or commercial services is more compatible with the character of the planned and existing uses along Hermit Smith Road and undeveloped Peterson Road.

North: Abutting the subject property to the north are industrial properties and vacant woodlands.

West: The property to the west of the subject site is the Lake Apopka Restoration Area.

South: Lake Apopka Restoration Area

East: To the east of the subject site are vacant wooded properties.

The proposed future land use designation of “City” Industrial is consistent with the surrounding future land use designations to the west and south, considering the proposed use, and with current uses along Hermit Smith Road.

Therefore, staff supports the proposed future land use changes.

Other Information:

Wekiva River Protection Area: No
 Area of Critical State Concern: No
 DRI / FQD: No

Wekiva Parkway and Protection Act: The proposed amendment has been evaluated against the adopted Wekiva Study Area Comprehensive Plan policies. While located within the Wekiva River Basin Study Area, the subject property is not located within the Protection Area. The proposed amendment is consistent with the adopted mandates and requirements. The proposed Future Land Use Map (FLUM) amendment has been reviewed against the best available data, with regard to aquifer and groundwater resources. The City of Apopka's adopted Comprehensive Plan addresses aquifer recharge and stormwater run-off through the following policies:

- Future Land Use Element, Policies 4.16, 14.4, 15.1, 16.2 and 18.2
- Infrastructure Element, Policies 1.5.5, 4.2.7, 4.4, 4.4.1, 4.4.2 and 4.4.3
- Conservation Element, Policy 3.18

Karst Features: The Karst Topography Features Map from the Florida Department of Environmental Protection shows that there are no karst features on this property.

Analysis of the character of the Property: The properties do not front a paved public road at this time. The concept plan, submitted with the Planned Unit Development Rezoning Application, shows a configuration of industrial buildings and roads.

Analysis of the relationship of the amendment to the population projections: The proposed future land use designation for the property is Industrial. Based on the housing element of the City's Comprehensive Plan, this amendment will not increase the City's future population.

CALCULATIONS:

ADOPTED (City and County designations): 1 Unit(s) x 2.659 p/h = 3 persons

PROPOSED (City designation): Industrial Park, 977,486 sq. ft. of building space

Housing Needs: This amendment will not negatively impact the housing needs as projected in the Comprehensive Plan.

Habitat for species listed as endangered, threatened or of special concern: Per policy 4.1 of the Conservation Element, a habitat study is required for developments ten (10) acres or more in size. This site is greater than ten acres. A habitat study will be required at the time of a development plan application.

Transportation: The City of Apopka is a Transportation Concurrency Exception Area. Refer to Chapter 3 of the City of Apopka 2010 Comprehensive Plan.

Potable Water, Reclaimed Water & Sanitary Sewer Analysis: The subject property is located within the City of Apopka service area for potable water, reclaimed water and sanitary service.

Sanitary Sewer Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 81 GPD/Capita ; 81 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 1,372 GPD
3. Projected total demand under proposed designation: 146,623 GPD
4. Capacity available: Yes
5. Projected LOS under existing designation: 81 GPD/Capita
6. Projected LOS under proposed designation: 81 GPD/Capita

7. Improved/expansions already programmed or needed as a result if proposed amendment: None

Potable Water Analysis

1. Facilities serving the site; current LOS; and LOS standard: None; 177 GPD/Capita ; 177 GPD / Capita

If the site is not currently served, please indicate the designated service provider: City of Apopka

2. Projected total demand under existing designation: 1,470 GPD
3. Projected total demand under proposed designation: 195,497 GPD
4. Capacity available: Yes
5. Projected LOS under existing designation: 177 GPD / Capita
6. Projected LOS under proposed designation: 177 GPD / Capita
7. Improved/expansions already programmed or needed as a result of the proposed amendment: None
8. Parcel located within the reclaimed water service area: Yes

Solid Waste

1. Facilities serving the site: City of Apopka
2. If the site is not currently served, please indicate the designated service provider: City of Apopka
3. Projected LOS under existing designation: 72 lbs/ day
4. Projected LOS under proposed designation: 1,955 lbs / day
5. Improved/expansions already programmed or needed as a result of the proposed amendment: None

This initial review does not preclude conformance with concurrency requirements at the time of development approval.

Infrastructure Information

Water treatment plant permit number: CUP No. 3217

Permitting agency: St. John's River Water Management District

Permitted capacity of the water treatment plant(s): 9.353 MGD

Total design capacity of the water treatment plant(s): 33.696 MGD

Availability of distribution lines to serve the property: Yes

Availability of reuse distribution lines available to serve the property: Yes

Drainage Analysis

1. Facilities serving the site: None
2. Projected LOS under existing designation: 100 year – 24 hour design storm
3. Projected LOS under proposed designation: 100 year – 24 hour design storm
4. Improvement/expansion: On site retention / detention ponds

Recreation

1. Facilities serving the site; LOS standard: City of Apopka Parks System ; 3 acre / 1000 capita
2. Projected facility under existing designation: 0.054 acres
3. Projected facility under proposed designation: N/A acres
4. Improvement/expansions already programmed or needed as a result of the proposed amendment: None

This initial review does not preclude conformance with concurrency requirements at the time of development approval.



Eagles Landing at Ocoee LLC
Proposed Large Scale Future Land Use Amendment:
From: Agriculture (0-1 du/5 ac) and Mixed Use (0-15 un/ac)

To: Industrial (Max. FAR 0.60)

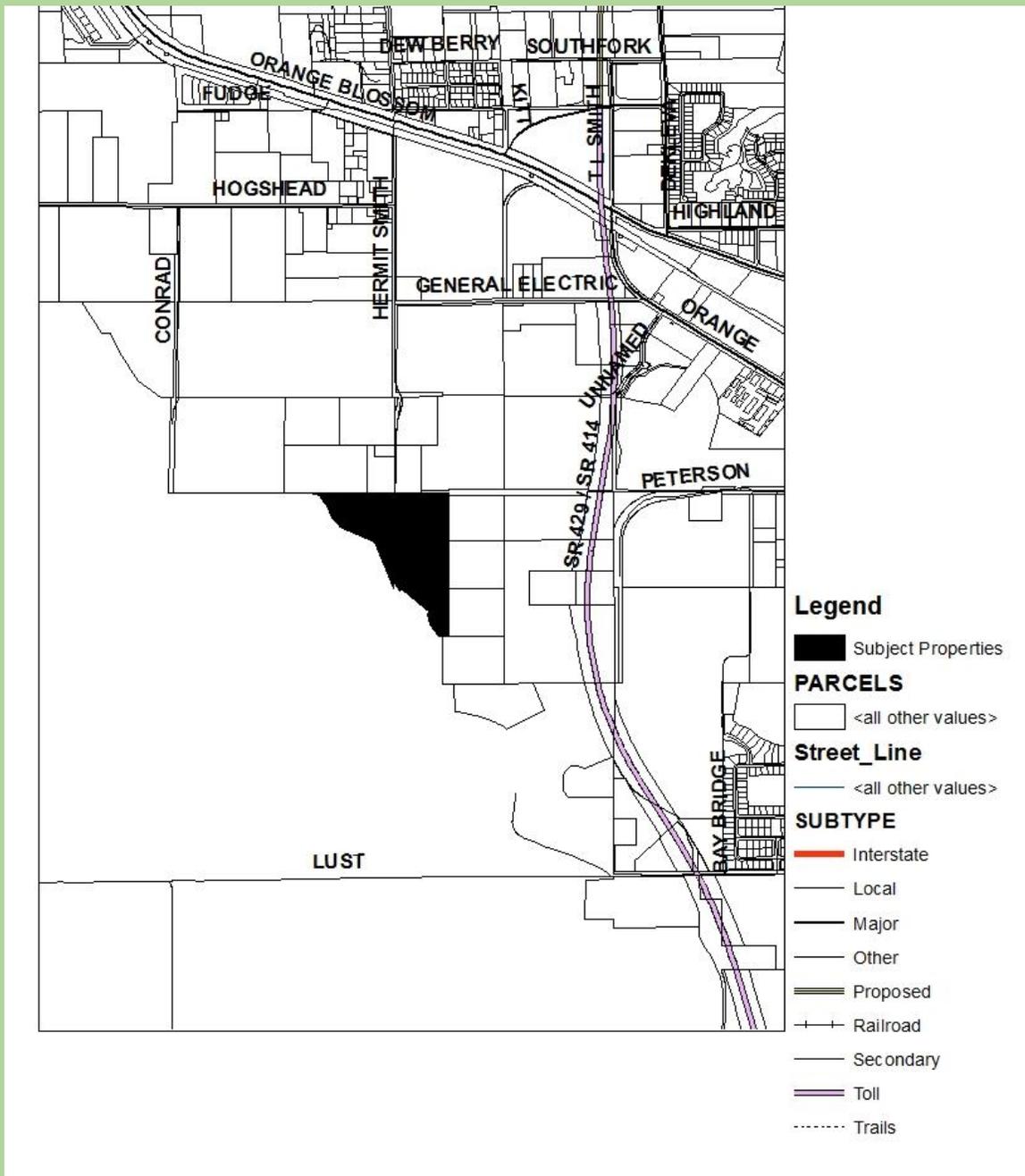
Proposed Change of Zoning:

From: “County” A-1 (ZIP) and “City” R-1AA, Mixed-EC, and Agriculture

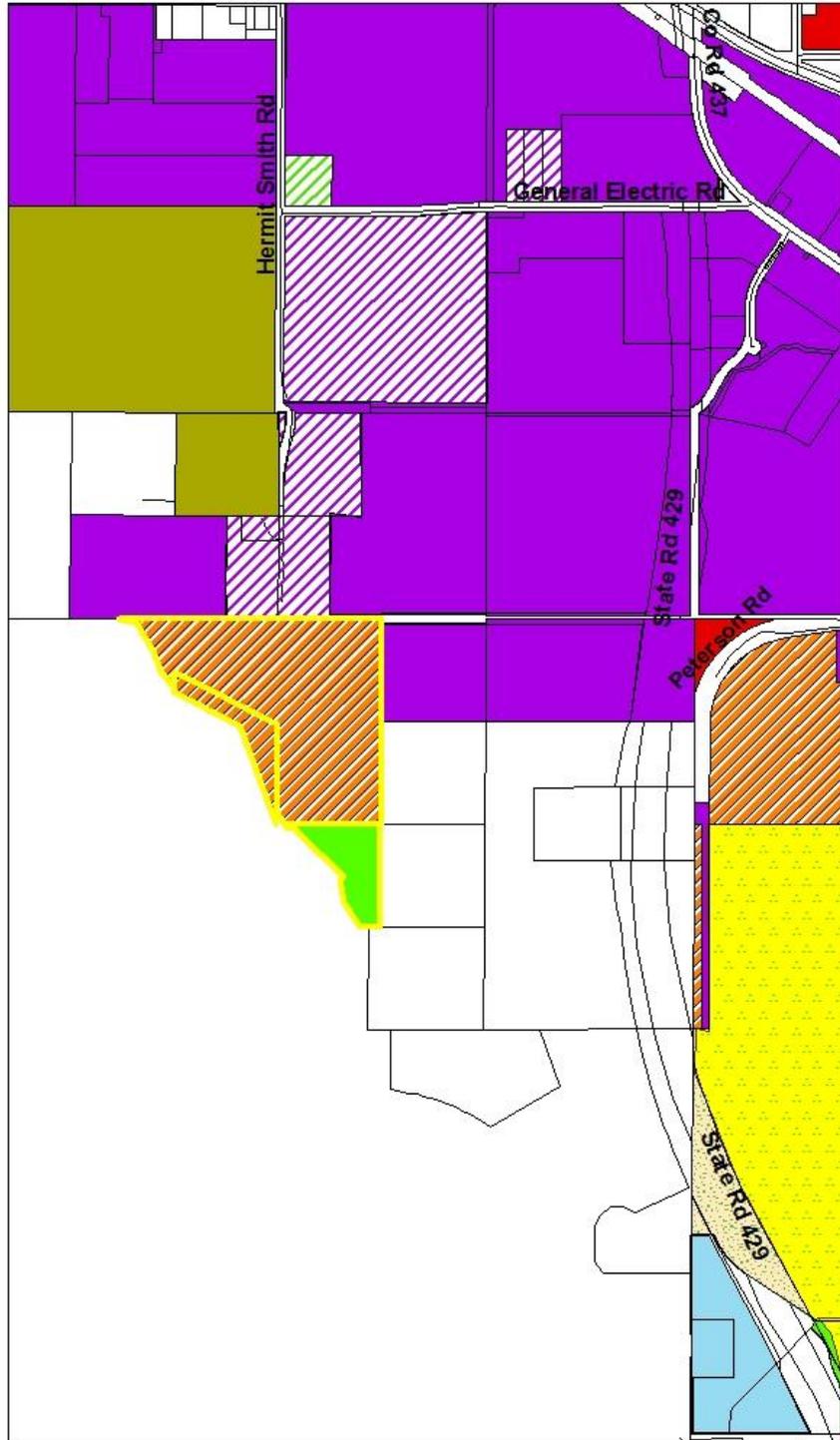
To: “City” Planned Unit Development (PUD)

Parcel ID #s: 12-21-27-0000-000-015, 12-21-27-0000-000-017, 12-21-27-0000-000-021

VICINITY MAP



FUTURE LAND USE MAP



Legend

-  Subject Property 1
-  Subject Property 2
-  <all other values>

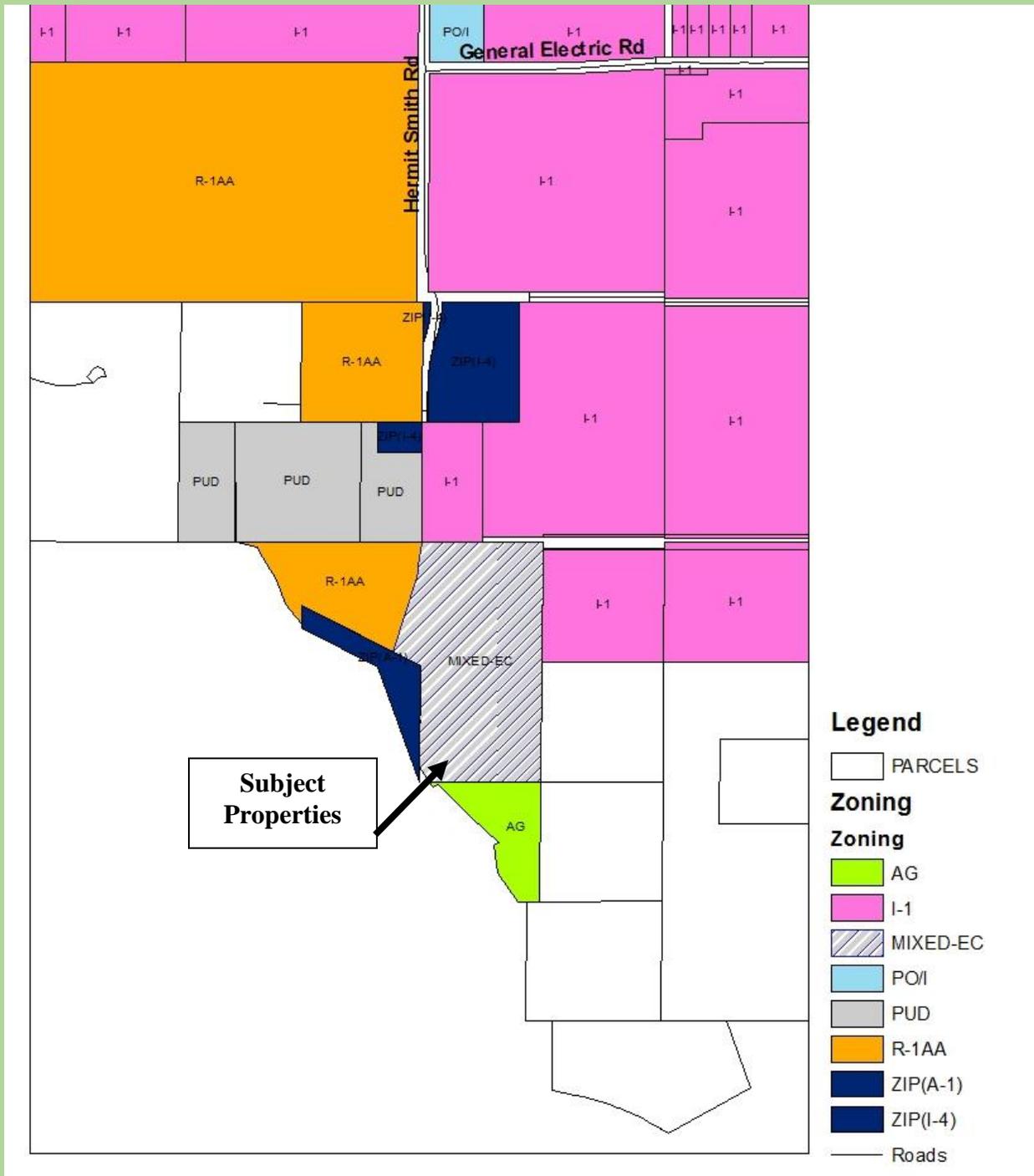
Future Land Use

LAND_USE

-  AG
-  ANNEX
-  COMM
-  IND
-  IND*
-  INST_PU
-  MU
-  RL
-  RM
-  RVLS
-  Roads



ADJACENT ZONING





ADJACENT USES



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.

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. 2560; 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 transmittal and 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 Future Land Use Element of the adopted Comprehensive Plan as follows:

The Future Land Use Map is hereby amended for the property identified in Exhibit "A" of this Ordinance, and incorporated herein by reference.

SECTION II: This Ordinance shall become effective following adoption and upon issuance by the Department of Economic Opportunity or the Administration Commission, as may be applicable, a final order finding the amendment to be in compliance in accordance with Chapter 163.3184.

SECTION III: 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 IV: That all ordinances or parts of ordinances in conflict herewith are hereby repealed.

SECTION V: This Ordinance shall become effective upon issuance of a final order by the Florida Department of Economic Opportunity finding the plan amendment in compliance in accordance with s.163.3184 (2)(a), Florida Statute.

ADOPTED at a regular meeting of the City Council of the City of Apopka, Florida, this ____ day of _____, 2018.

READ FIRST TIME: June 6, 2018

READ SECOND TIME
AND ADOPTED: _____

Bryan Nelson, Mayor

ATTEST:

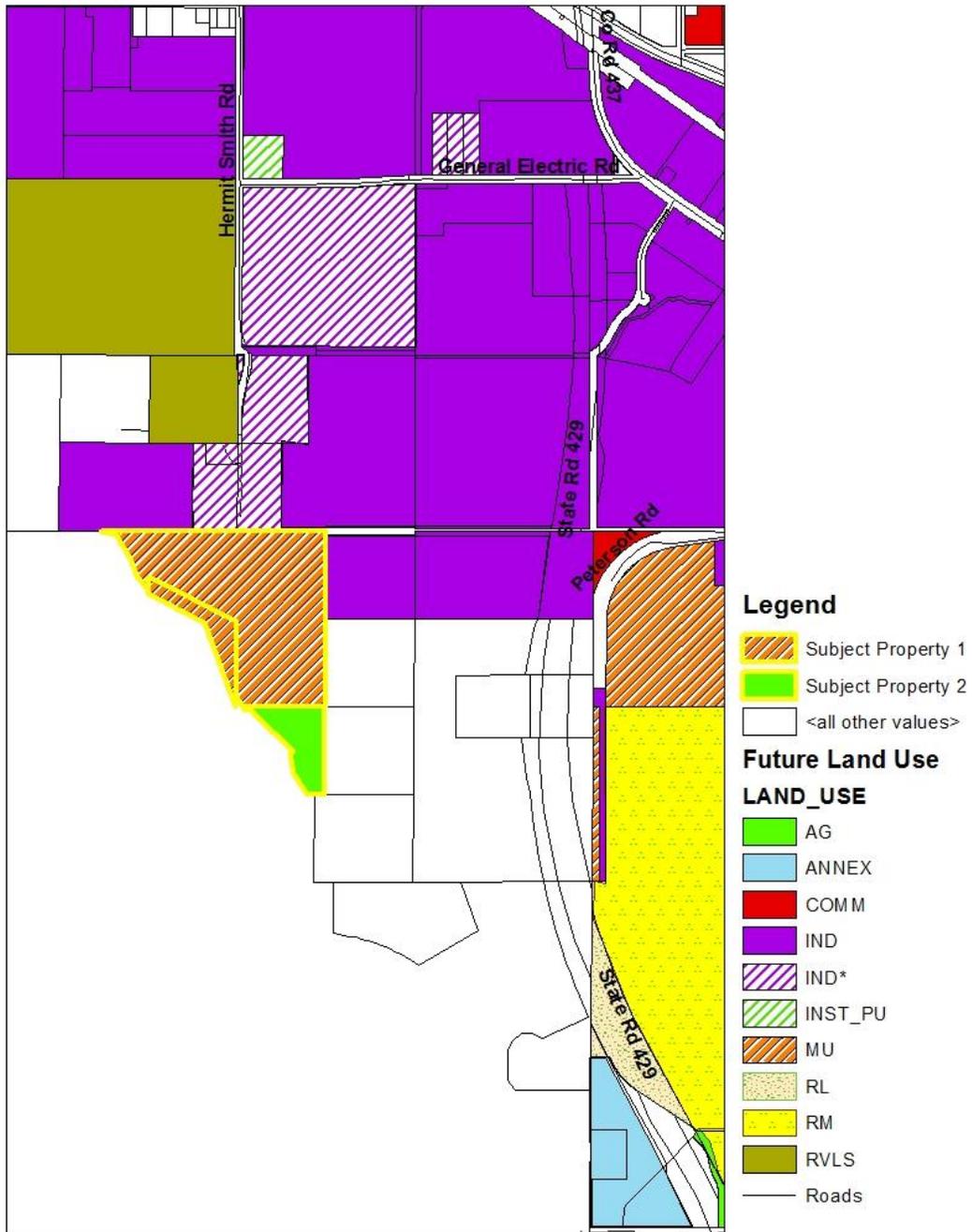
Linda Goff, City Clerk

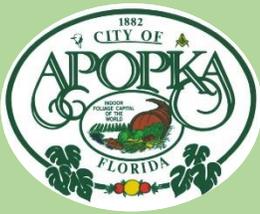
DULY ADVERTISED FOR PUBLIC HEARING: April 24, 2018



EXHIBIT "A"

Eagles Landing at Ocoee, LLC
Property Owners
37.4 +/- Acres
Proposed Large Scale Future Land Use Amendment:
From: Mixed Use and Agriculture
To: Industrial
Parcel ID #s: 12-21-27-0000-000-015; 12-21-27-0000-000-017;
12-21-27-0000-000-021





CITY OF APOPKA CITY COUNCIL

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

MEETING OF: June 6, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Resolution No. 2018-08
 Ex. A - Plat – Stanton Ridge
 Ex. B – Legal Ad

SUBJECT: RESOLUTION 2018-08 – STANTON RIDGE – VACATION OF SUBDIVISION PLAT

REQUEST: ADOPT RESOLUTION 2018-08 TO VACATE THE STANTON RIDGE SUBDIVISION PLAT

SUMMARY:

OWNER/APPLICANT: Central Florida Expressway Authority

LOCATION: West side of State Road 429, west of the intersection of Belgian Street and Plymouth Sorrento Road

LAND USE: Residential Low Suburban (0-3.5 du/ac)

ZONING: R-1AA

EXISTING USE: Vacant single-family residential subdivision

AREA TO BE VACATED: Plat, Stanton Ridge, Plat Book 68, Pages 18-22

RELATIONSHIP TO ADJACENT PROPERTIES:

Direction	Land Use	Zoning	Present Use
North - City	Agriculture	AG	SR 429 right-of-way
East - City	Residential Low Suburban	R-1AA, A-1 (ZIP)	Single Family residences, agricultural uses
South - County	Low Density Residential	“County” A-1, R-1A	SR 429 right-of-way, Single-family residences
West – County, City	“City” Institutional/Public Use, “City” Residential Low Suburban, “County” Low Density Residential	“County” R-1, “City” A-1 (ZIP)	Single Family residences, City of Apopka Plymouth Regional Water Plant

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 – JUNE 6, 2018
STANTON RIDGE – VACATION OF SUBDIVISION PLAT
PAGE 2

ADDITIONAL COMMENTS: The Central Florida Expressway Authority has submitted an application to vacate the plat for Stanton Ridge. Stanton Ridge was platted as a 65 lot subdivision in 2007. Infrastructure for the subdivision was constructed. Following construction of subdivision infrastructure and recording of the Stanton Ridge Plan, the property was acquired by the Central Florida Expressway Authority for right-of-way necessary to accommodate State Road 429 (aka Wekiva Parkway). According to the applicant, the expressway authority used approximately 1/3 of the eastern side of the Stanton Ridge subdivision for tollway right-of-way.

City staff has followed the process for plat vacation outlined in Florida Statute 177.101, which requires the City Council to adopt a resolution vacating a plat and return the property covered by the plat into acreage.

The applicant has submitted the City a new Final Development Plan and Plat for consideration of approval. This new plan and plat detail the new configuration following the construction of State Road 429. The remaining portions of the property detailed on the new Final Development Plan and Plat will be marketed to a home builder.

CONDITON OF APPROVAL: The plat vacate resolution will be recorded in the official records of Orange County until a new plat has been approved by City Council. This process of recording the two at the same time will assure that the City retains legal access across the Stanton Ridge property to access the City’s sanitary sewer lift station and has a legal means to access the western side of the Stanton Ridge subdivision across Belgian Street.

PUBLIC HEARING SCHEDULE:
June 6, 2018 - City Council (1:30 p.m.)

DULY ADVERTISED:
May 18, 2018 - Public Hearing Notice (Apopka Chief)
May 25, 2018 – Public Hearing Notice (Apopka Chief)

RECOMMENDATION ACTION:

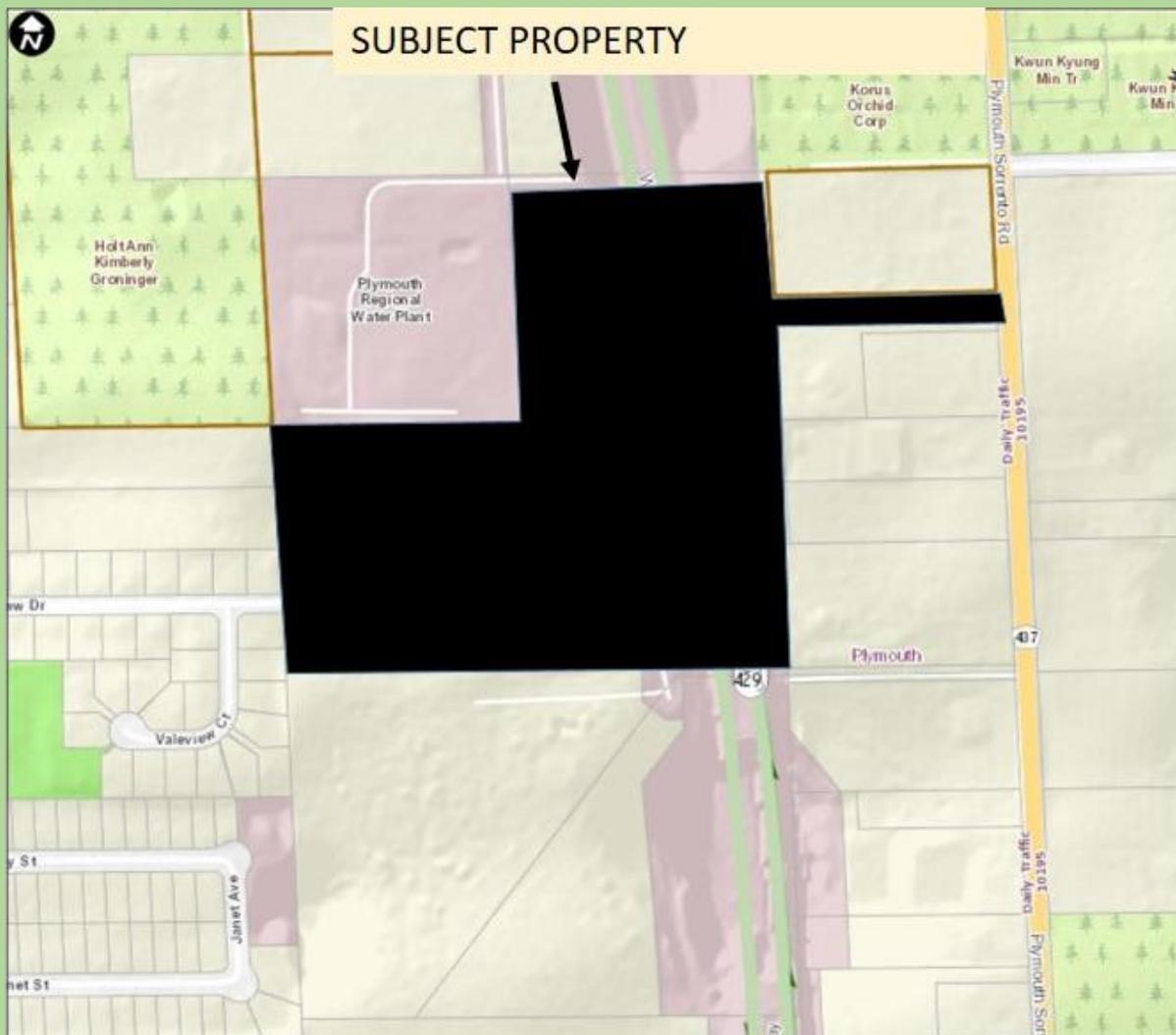
The **Development Review Committee** recommends approval of the request to vacate the subdivision plat as described in the legal description.

City Council: Approve Resolution 2018-08.

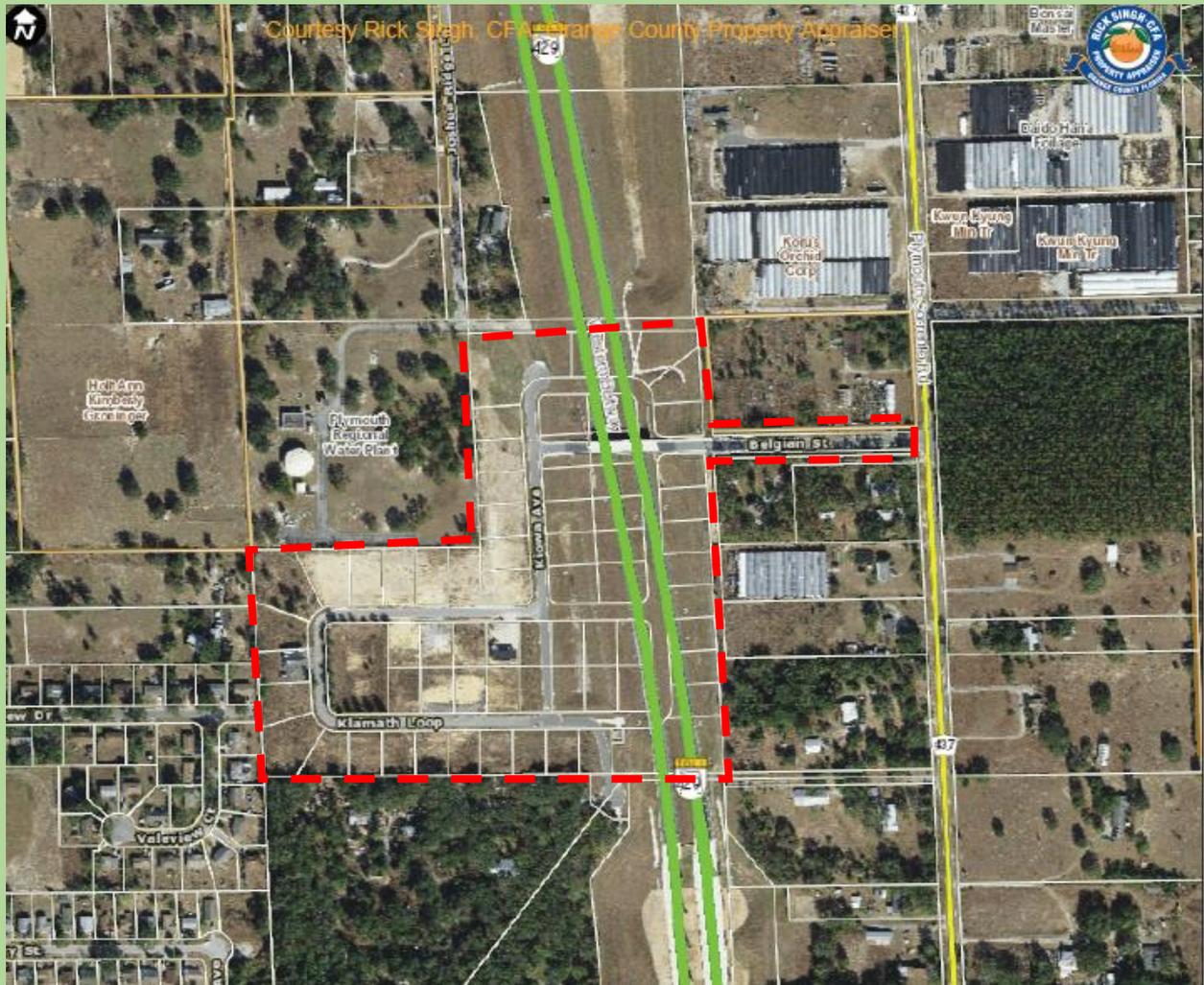


Stanton Ridge Proposed Vacation of subdivision plat

VICINITY MAP



STANTON RIDGE AERIAL MAP



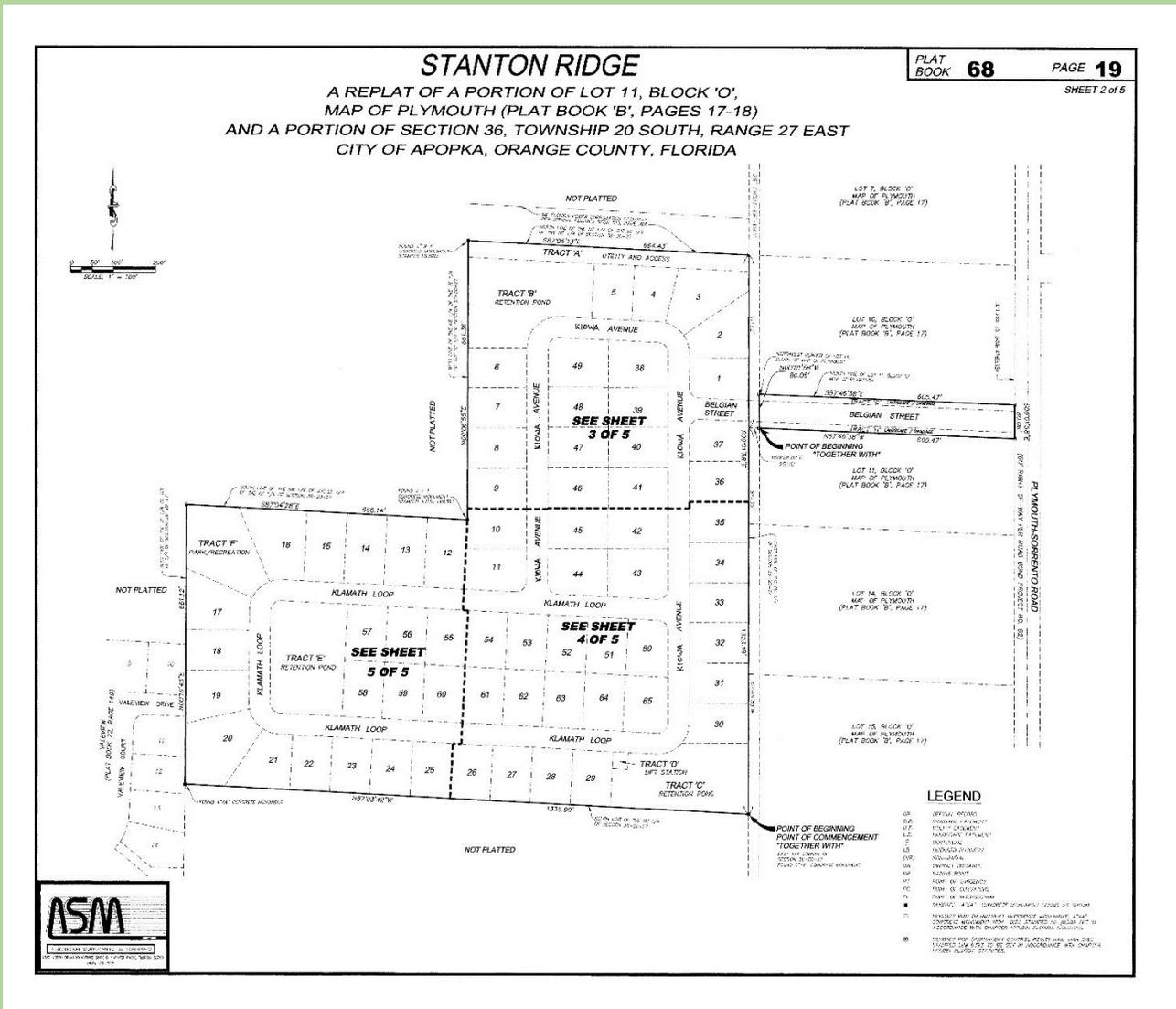
CITY COUNCIL – JUNE 6, 2018
STANTON RIDGE – VACATION OF SUBDIVISION PLAT
PAGE 5

Legal Description:

Stanton Ridge, Plat Book 68, Pages 18-22, City of Apopka, Orange County, Florida.

Containing: 31.43 acres, more or less.

EXHIBIT “A”.



RESOLUTION 2018-08

A RESOLUTION OF THE CITY OF APOPKA, FLORIDA, TO VACATE THE PLAT OF STANTON RIDGE, PLAT BOOK 68, PAGES 18 THROUGH 22; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.

WHEREAS, the City Council is authorized to adopt a resolution vacating plats, either in whole or in part, in subdivisions located in the City of Apopka pursuant to Section 177.101(3), Fla. Stat., and Section 12.02.06.D of the Apopka Land Development Code; and

WHEREAS, the Central Florida Expressway Authority is the owner of the lands of the Stanton Ridge plat, and applied to the City of Apopka Community Development Department to vacate the plat described as follows:

Stanton Ridge, Plat Book 68, Pages 18 through 22, Lying and being in Section 36, Township 20 South, Range 27 East, Orange County, Florida,

WHEREAS, as required by Section 177.101(3), Fla. Stat., and Section 12.02.06.D of the Apopka Land Development Code, the Central Florida Expressway Authority owns the fee simple title to the plat sought to be vacated; and

WHEREAS, the Community Development Department, after conducting an investigation required under Section 12.02.06.D the City of Apopka Land Development Code, reached a favorable recommendation on the application for the plat vacation; and

WHEREAS, Central Florida Expressway Authority has satisfied the publication of legal notice requirements of Section 177.101(4), Fla. Stat, and Section 12.02.06.D the City of Apopka Land Development Code, see EXHIBIT "B" attached hereto and by reference made a part hereof; and

WHEREAS, the platted subdivisions in entirety lies within the corporate limits of Apopka; and

WHEREAS, Central Florida Expressway Authority has certified that all state and county taxes (and municipal taxes if applicable) have been paid as required by Section 177.101(4), Fla. Stat., and Section 12.02.06.D the City of Apopka Land Development Code; and

WHEREAS, the City Council, in accordance with Section 177.101(3), Fla. Stat., and Section 12.02.06.D the City of Apopka Land Development Code, has determined that vacating the plat owned by Central Florida Expressway Authority will not affect the ownership or right of convenient access of persons owning adjacent properties, and is in the best interest of the public welfare.

BE IT RESOLVED BY THE CITY COUNCIL OF APOPKA FLORIDA:

Section I. Findings. The City Council finds, determines and declares that the recitals in the preamble are true and correct, and hereby incorporates them by reference.

Section II. Approval of the application to vacate the plats. The plat of Stanton Ridge as described in Exhibit "A" is vacated, and the property covered by the plat, is returned to acreage.

Section III. Streets and alleys. All streets and alleys within the portion of the vacated plat that are not highways necessary for use by the traveling public are also vacated.

Section IV. Authority of the Mayor. The Mayor is hereby authorized to execute any documents approved by the City Attorney related to that portion of the vacated plat.

Section V. Effective Date. This resolution shall take effect when a certified copy of the adopted resolution, *together with a copy of the proof of publication of the Notice of Public Hearing, and a copy of the proof of publication for the adopted Resolution* has been filed with the Clerk of the Circuit Court and duly recorded in the public records of Orange County, Florida.

Bryan Nelson, Mayor

ATTEST:

Linda Goff, City Clerk

DULY ADVERTISED: May 18, 2018; May 25, 2018

STANTON RIDGE

A REPLAT OF A PORTION OF LOT 11, BLOCK 'O',
MAP OF PLYMOUTH (PLAT BOOK 'B', PAGES 17-18)
AND A PORTION OF SECTION 36, TOWNSHIP 20 SOUTH, RANGE 27 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

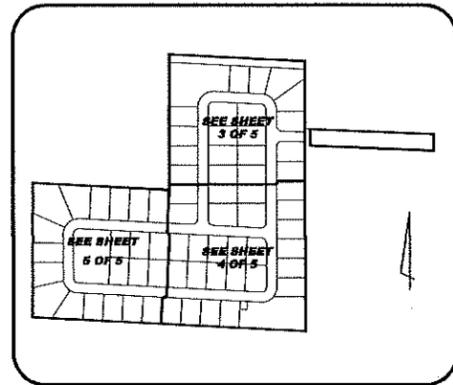
LEGAL DESCRIPTION

A PORTION OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 36, TOWNSHIP 20 SOUTH, RANGE 27 EAST, ORANGE COUNTY, FLORIDA AND A PORTION OF LOT 11, BLOCK O, MAP OF PLYMOUTH ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK B, PAGES 17 AND 18 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

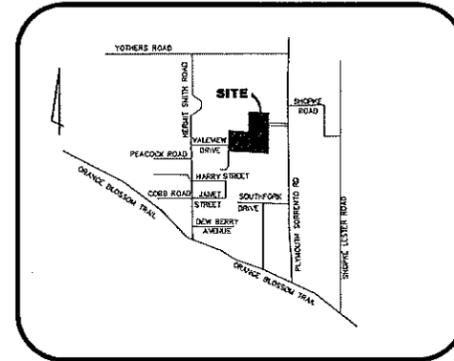
BEGINNING AT THE EAST 1/4 CORNER OF SAID SECTION 36, THENCE NORTH 87°03'42" WEST ALONG THE SOUTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 36, A DISTANCE OF 1335.90 FEET, TO A POINT ON THE WEST LINE OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 36; THENCE NORTH 00°16'43" EAST ALONG SAID WEST LINE A DISTANCE OF 661.12 FEET TO THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 36; THENCE SOUTH 87°04'28" EAST ALONG SAID SOUTH LINE, A DISTANCE OF 666.14 FEET TO THE WEST LINE OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 36; THENCE NORTH 00°06'55" EAST ALONG SAID WEST LINE, A DISTANCE OF 661.36 FEET TO A POINT ON THE NORTH LINE OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION 36; THENCE SOUTH 87°00'15" EAST ALONG SAID NORTH LINE, A DISTANCE OF 684.49 FEET TO THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 36; THENCE SOUTH 00°01'68" EAST ALONG SAID EAST LINE, A DISTANCE OF 1323.18 FEET TO THE POINT OF BEGINNING. CONTAINING 30.32 ACRES MORE OR LESS.

TOGETHER WITH:

COMMENCING AT THE EAST 1/4 CORNER OF SAID SECTION 36, THENCE NORTH 00°01'58" WEST ALONG THE EAST LINE OF THE NORTHEAST 1/4 OF SAID SECTION 36, A DISTANCE OF 911.36 FEET; THENCE NORTH 89°59'02" EAST A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING; THENCE NORTH 00°01'58" WEST ALONG THE WEST LINE OF LOT 11, BLOCK 'O' OF THE SAID PLAT OF MAP OF PLYMOUTH, A DISTANCE OF 80.06 FEET TO THE NORTHWEST CORNER OF SAID LOT 11, BLOCK 'O'; THENCE SOUTH 87°46'38" EAST ALONG THE NORTH LINE OF SAID LOT 11, BLOCK 'O', A DISTANCE OF 605.47 FEET TO A POINT ON THE WESTERLY RIGHT OF WAY OF PLYMOUTH SORRENTO ROAD; THENCE ALONG SAID WESTERLY RIGHT-OF-WAY LINE, SOUTH 00°01'58" EAST A DISTANCE OF 80.06 FEET; THENCE DEPARTING SAID WESTERLY RIGHT OF WAY NORTH 87°46'38" WEST A DISTANCE OF 605.47 FEET TO THE POINT OF BEGINNING. CONTAINING 1.11 ACRES MORE OR LESS.



KEY MAP
Not to Scale



VICINITY MAP
Not to Scale

TRACT DESIGNATION AND AREA

TRACT	DESCRIPTION	ACREAGE (AC)	OWNERSHIP	MAINTENANCE
A	UTILITY AND ACCESS	0.61	HOMEOWNER'S ASSOCIATION	HOMEOWNER'S ASSOCIATION
B	RETENTION POND	1.18	HOMEOWNER'S ASSOCIATION	HOMEOWNER'S ASSOCIATION
C	RETENTION POND	1.07	HOMEOWNER'S ASSOCIATION	HOMEOWNER'S ASSOCIATION
D	LIFT STATION	0.03	CITY OF APOPKA	CITY OF APOPKA
E	RETENTION POND	1.07	HOMEOWNER'S ASSOCIATION	HOMEOWNER'S ASSOCIATION
F	PARK/RECREATION	0.68	HOMEOWNER'S ASSOCIATION	HOMEOWNER'S ASSOCIATION
G	LANDSCAPE / DRAINAGE	0.21	HOMEOWNER'S ASSOCIATION	HOMEOWNER'S ASSOCIATION
H	LANDSCAPE / DRAINAGE	0.21	HOMEOWNER'S ASSOCIATION	HOMEOWNER'S ASSOCIATION

NOTES

- THE BEARINGS SHOWN HEREON ARE BASED ON THE WESTERLY RIGHT OF WAY LINE OF PLYMOUTH-SORRENTO ROAD, HAVING AN ASSUMED BEARING OF SOUTH 00°01'58" EAST.
- THERE IS A BLANKET INGRESS AND EGRESS EASEMENT ACROSS THE RETENTION TRACTS DEDICATED TO THE CITY OF APOPKA FOR MAINTENANCE OF THE STORMWATER PIPES AND STRUCTURES.
- THERE IS A DRAINAGE AND UTILITY EASEMENT:
10 FEET IN FRONT
5 FEET ALONG THE SIDES
7.5 FEET ALONG THE REAR
OF ALL LOTS, UNLESS OTHERWISE SHOWN.
- MAINTENANCE OF DRAINAGE STRUCTURES WITHIN TRACTS 'B', 'C' AND 'E' SHALL BE THE RESPONSIBILITY OF THE HOMEOWNERS ASSOCIATION.
- THE 5 FOOT LANDSCAPE EASEMENT AS DEPICTED ON THE PLAT FOR THE PROTECTION OF STREET TREES SHALL BE THE RESPONSIBILITY OF THE HOMEOWNERS ASSOCIATION.
- THERE SHALL BE NO FENCES OR OBSTRUCTIONS CONSTRUCTED WITHIN THE DRAINAGE EASEMENT SHOWN BETWEEN TRACT 'F' AND LOT 17, LOT 17 AND LOT 18, LOT 18 AND LOT 19, LOT 19 AND LOT 20 AND ON LOTS 52, 53, 62 AND 63.
- ALL UTILITY EASEMENTS SHOWN HEREON SHALL ALSO BE EASEMENTS FOR 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.
- ALL LINES ARE RADIAL UNLESS SHOWN AS NON-RADIAL (NR)

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.



KNOW ALL MEN THESE PRESENTS, that Company, being the owners 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 herein expressed, and dedicates Right-of-way, Tract 'D' and utility easements as shown hereon to the perpetual use of the public.

IN WITNESS WHEREOF, said company has caused these presents to be signed by the officers named below and its corporate seal affixed hereto on July 25th, 2006.

Signed in the presence of:
K. HOVANNIAN CAMBRIDGE HOMES, L.L.C.
By: Kyle A. Sanders VP. of Acquisition & Development
Witness: TAD FRENCH and Harvey C. Williams

STATE OF: Florida
COUNTY OF: Orange
The foregoing dedication was acknowledged before me this 25th day of July, 2006 by Kyle A. Sanders who is personally known to me and did not take an oath.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the above date.

David M. Sullivan
Print Name: David M. Sullivan
Notary Public, State of Florida
My Commission Expires: 11/11/07
Commission Number: 000274297

QUALIFICATION STATEMENT OF SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a Professional Surveyor and Mapper registered in the state of Florida, does hereby certify that on July 25, 2006 2005, he completed the survey of the said lands, and that the foregoing plat and said survey was made, under his responsible direction and supervision. The survey was made in accordance with all the requirements of Chapter 177, Florida Statutes, and that said lands are located in the City of Apopka, Orange County, Florida.

Signed: David M. Sullivan
Surveyor's Name: David M. Sullivan
Registration Number: 5038
Florida Professional Surveyor
Registration Number Of Legal Entity: L.B. 6383
American Surveying and Mapping, Inc.
1030 N. Orlando Avenue, Suite B
Winter Park, FL 32789

CERTIFICATE OF APPROVAL BY MUNICIPALITY

This is to certify that on the 10th day of February, 2006, the Apopka Land Development Review Board approved the foregoing plat.

John H. Land
Mayor, City of Apopka JOHN H. LAND

Attest: JANICE G. BOESSEL
City Clerk JANICE G. BOESSEL

CERTIFICATE OF APPROVAL BY CITY ENGINEER

Examined and Approved: JAY DANNOLL 8-15-06
City Engineer JAY DANNOLL Date

CERTIFICATE OF APPROVAL BY LAND DEVELOPMENT REVIEW BOARD

This is to certify that on the 10th day of February, 2006, the Apopka Land Development Review Board approved the foregoing plat.

Steven G. Hodges
Chairman STEVEN G. HODGES

CERTIFICATE OF APPROVAL BY CITY SURVEYOR

Pursuant to Section 177.061, Florida Statutes, I have reviewed this plat for conformity to Section 177, Florida Statutes, and find 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.

Dennis J. Lewis
Dennis J. Lewis, P.S.M.
Lewis Surveying, Inc.
Florida Registration No. 3993
Certification of Authorization No. 6732

CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY, that I have examined the foregoing plat and find that it complies in form with all the requirements of Chapter 177, Florida Statutes, and was filed for record on January 13, 2007, 2006.

at _____ File No. _____
Martha O. Hoynic
County Comptroller
In and for Orange County, Florida
by Valerie Humberger D.C.

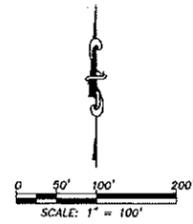
STANTON RIDGE

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 AND A PORTION OF SECTION 36, TOWNSHIP 20 SOUTH, RANGE 27 EAST
 CITY OF APOPKA, ORANGE COUNTY, FLORIDA

PLAT BOOK **68**

PAGE **19**

SHEET 2 of 5



NOT PLATTED

LOT 7, BLOCK 'O'
 MAP OF PLYMOUTH
 (PLAT BOOK 'B', PAGE 17)

LOT 10, BLOCK 'O'
 MAP OF PLYMOUTH
 (PLAT BOOK 'B', PAGE 17)

LOT 11, BLOCK 'O'
 MAP OF PLYMOUTH
 (PLAT BOOK 'B', PAGE 17)

LOT 14, BLOCK 'O'
 MAP OF PLYMOUTH
 (PLAT BOOK 'B', PAGE 17)

LOT 15, BLOCK 'O'
 MAP OF PLYMOUTH
 (PLAT BOOK 'B', PAGE 17)

TRACT 'A'
 UTILITY AND ACCESS

TRACT 'B'
 RETENTION POND

TRACT 'F'
 PARK/RECREATION

TRACT 'E'
 RETENTION POND

TRACT 'D'
 LIFT STATION

TRACT 'C'
 RETENTION POND

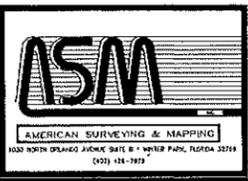
**SEE SHEET
 3 OF 5**

**SEE SHEET
 4 OF 5**

**SEE SHEET
 5 OF 5**

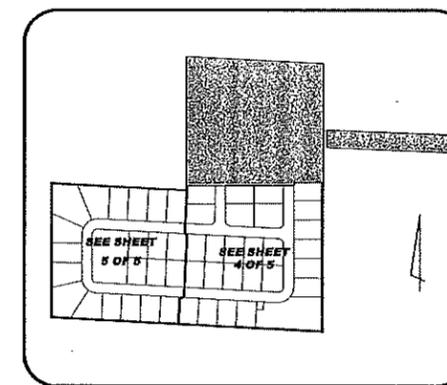
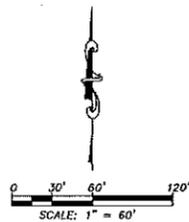
LEGEND

- OR. OFFICIAL RECORD
- D.E. DRAINAGE EASEMENT
- U.E. UTILITY EASEMENT
- L.E. LANDSCAPE EASEMENT
- C. CENTERLINE
- LB. LICENSED BUSINESS
- (NR) NON-RADIAL
- OA. OVERALL DISTANCE
- RP. RADIUS POINT
- PT. POINT OF TANGENCY
- PC. POINT OF CURVATURE
- PI. POINT OF INTERSECTION
- DENOTES 4"x4" CONCRETE MONUMENT FOUND AS SHOWN.
- DENOTES PRM (PERMANENT REFERENCE MONUMENT) 4"x4" CONCRETE MONUMENT WITH DISC STAMPED LB #6393 SET IN ACCORDANCE WITH CHAPTER 177.091 FLORIDA STATUTES.
- ⊙ DENOTES PCP (PERMANENT CONTROL POINT) NAIL WITH DISC STAMPED LB# 6393 TO BE SET IN ACCORDANCE WITH CHAPTER 177.091 FLORIDA STATUTES.

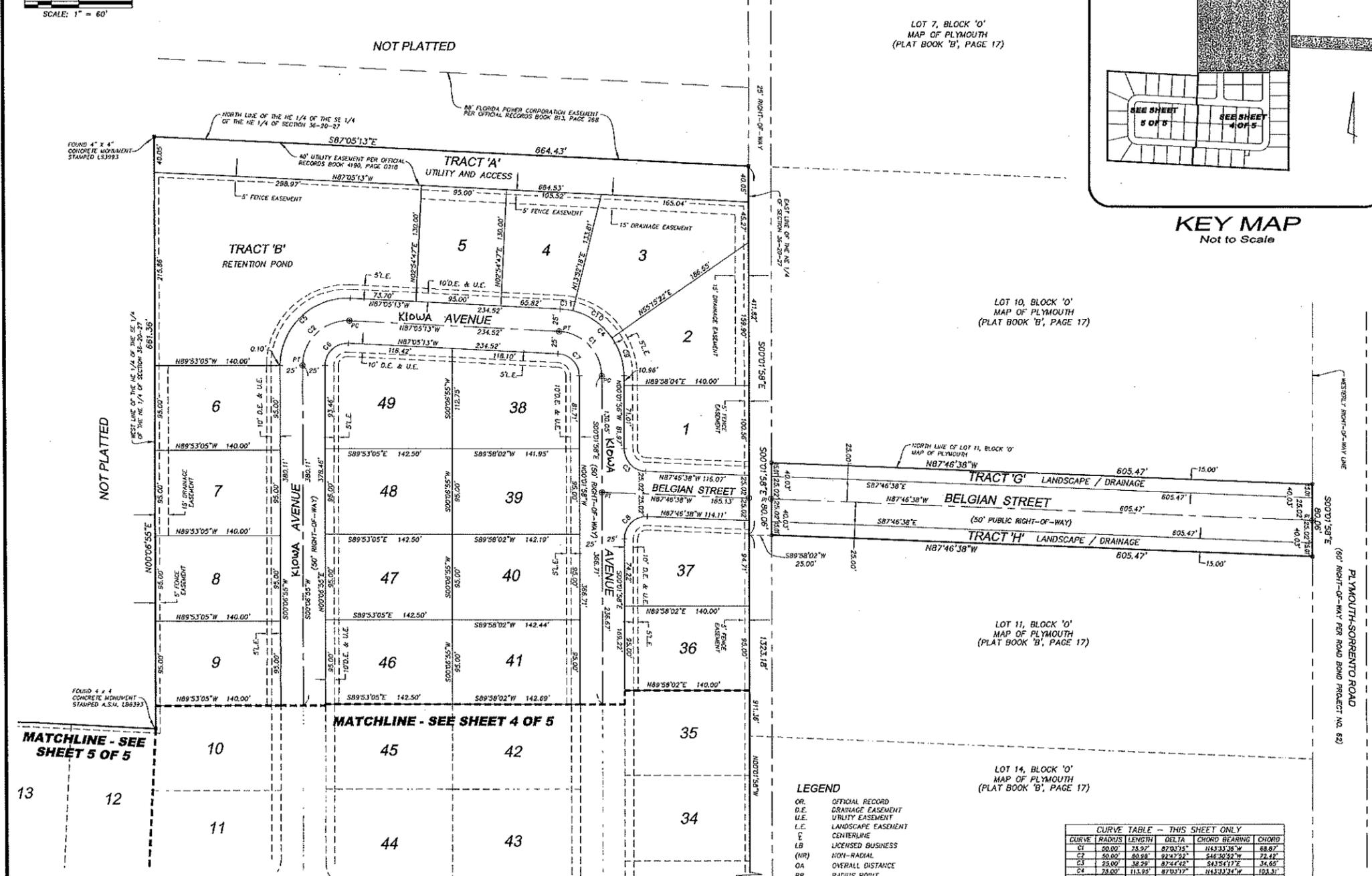


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 AND A PORTION OF SECTION 36, TOWNSHIP 20 SOUTH, RANGE 27 EAST
 CITY OF APOPKA, ORANGE COUNTY, FLORIDA



KEY MAP
 Not to Scale



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 - U.E. UTILITY EASEMENT
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CURVE TABLE - THIS SHEET ONLY

CURVE	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD
C1	50.00'	75.97'	87°03'15"	N43°33'38"W	68.87'
C2	50.00'	80.98'	92°47'52"	S46°30'21"W	108.82'
C3	25.00'	38.29'	87°44'52"	S43°33'17"W	34.65'
C4	75.00'	113.95'	87°03'17"	N43°33'34"W	103.31'
C5	75.00'	121.47'	92°47'52"	S46°30'21"W	108.82'
C6	25.00'	40.42'	92°47'52"	S46°30'21"W	36.21'
C7	25.00'	37.88'	87°03'15"	N43°33'38"W	34.43'
C8	25.00'	40.25'	87°03'15"	N43°33'38"W	36.04'
C9	75.00'	45.44'	34°42'32"	N72°23'17"W	44.72'
C10	75.00'	44.17'	41°03'02"	N55°02'10"W	53.00'
C11	75.00'	14.34'	102°13'0"	N81°58'28"W	14.32'



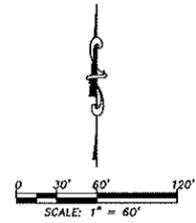
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PLAT BOOK **68**

PAGE **21**

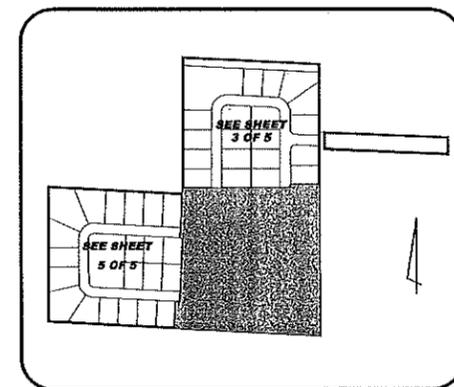
SHEET 4 of 5



CURVE TABLE - THIS SHEET ONLY					
CURVE	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD
C1	150.00'	81.13'	82°58'16"	N42°27'10"E	72.52'
C2	25.00'	40.00'	82°48'37"	N46°51'14"E	36.21'
C3	25.00'	38.04'	87°11'23"	S43°28'46"E	34.48'
C4	25.00'	40.66'	82°37'00"	N48°26'47"E	36.86'
C5	25.00'	32.88'	87°02'00"	N43°01'37"W	34.43'
C6	25.00'	40.47'	82°58'16"	N48°27'11"E	36.22'
C7	25.00'	121.72'	82°58'16"	N48°27'10"E	106.28'
C8	25.00'	53.12'	40°24'54"	N02°52'28"E	52.02'
C9	75.00'	88.58'	82°23'22"	N56°44'52"E	68.21'

LEGEND

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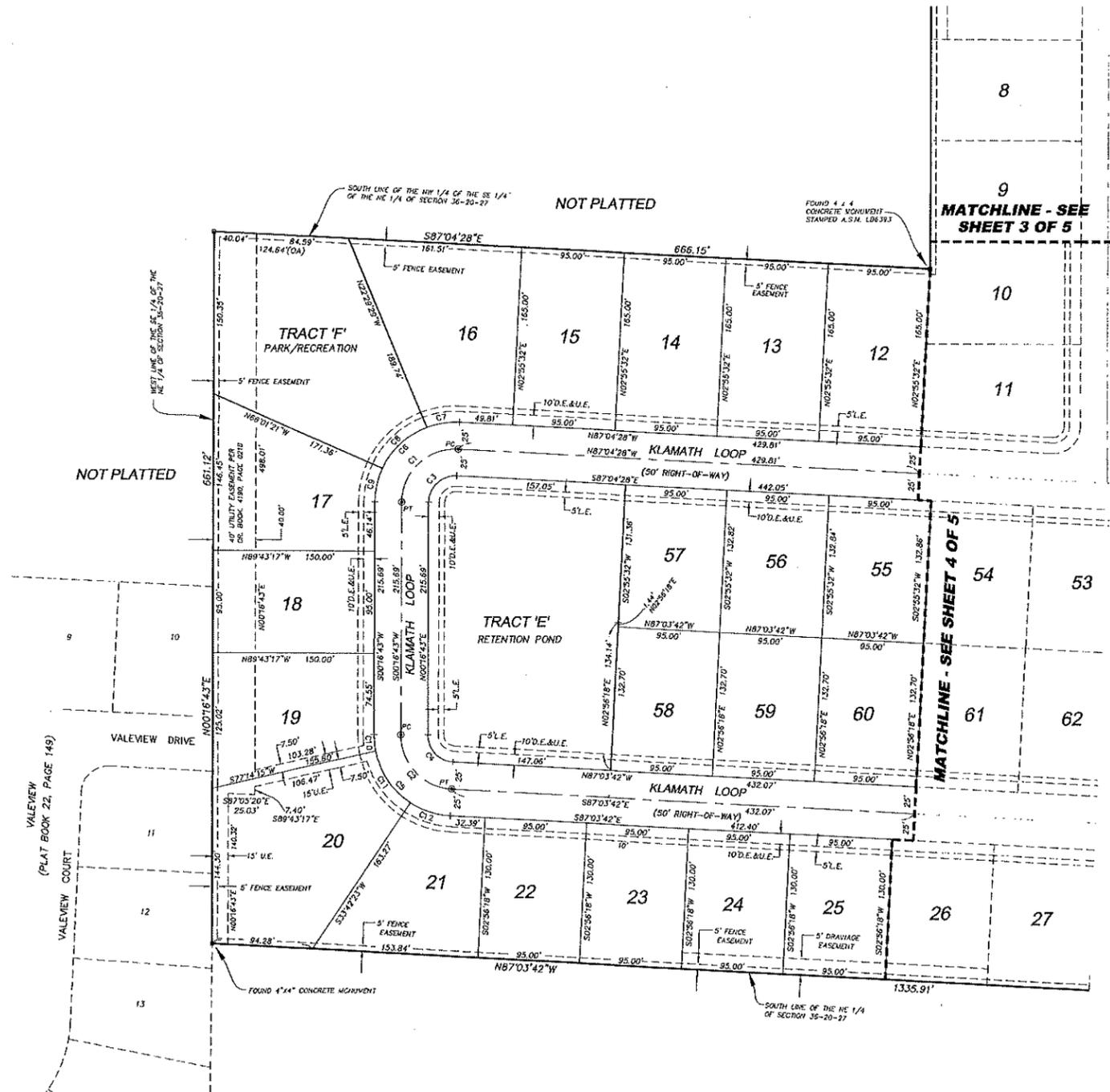
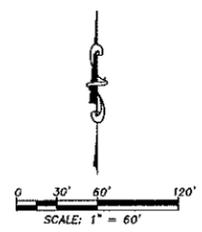


KEY MAP
Not to Scale



STANTON RIDGE

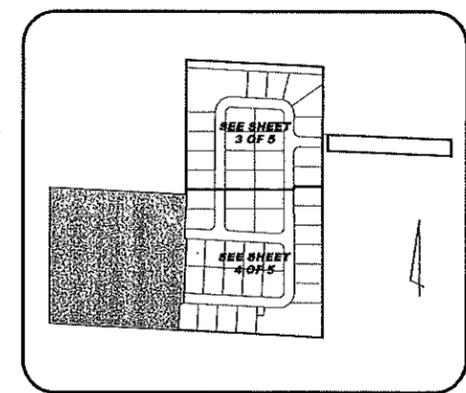
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CURVE TABLE - THIS SHEET ONLY

CURVE	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD
C1	50.00'	80.87'	82°24'49"	S46°36'00"W	72.11'
C2	50.00'	78.22'	87°20'25"	S43°23'30"E	69.65'
C3	25.00'	40.43'	92°36'49"	S46°16'38"W	36.36'
C4	25.00'	38.11'	87°20'25"	S43°23'28"E	34.53'
C5	25.00'	114.13'	87°20'25"	S43°23'30"E	103.18'
C6	25.00'	121.27'	92°36'49"	S46°16'38"W	108.49'
C7	25.00'	31.15'	73°47'33"	S81°01'46"W	30.83'
C8	25.00'	57.65'	43°04'53"	S42°25'53"W	56.29'
C9	25.00'	32.44'	74°46'44"	S12°40'05"W	32.18'
C10	25.00'	35.46'	11°48'45"	S03°37'42"E	35.44'
C11	25.00'	88.11'	43°09'24"	S34°06'49"E	87.59'
C12	25.00'	92.75'	50°22'11"	S71°52'37"E	90.97'



KEY MAP
 Not to Scale



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: **May 18, 2018**, as well as being posted online at www.theapokkachief.com and www.florida-publicnotices.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
18 day of May, 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

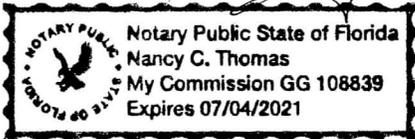


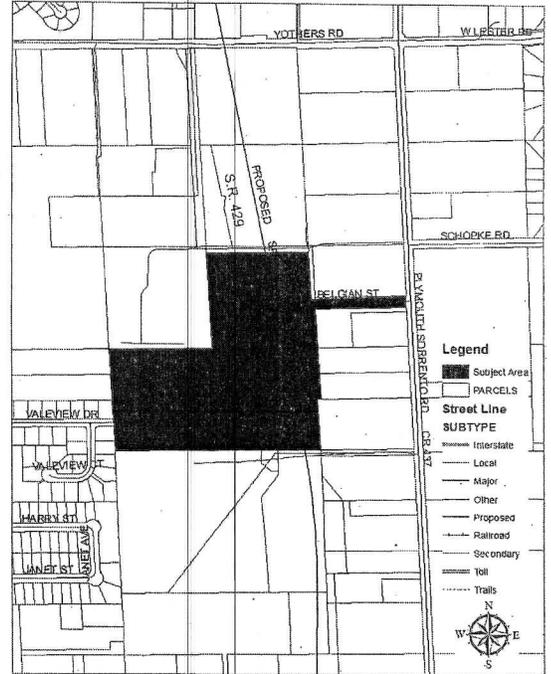
EXHIBIT "B"

PUBLIC NOTICE
CITY OF APOPKA
NOTICE OF INTENT TO VACATE SUBDIVISION PLAT

NOTICE is hereby given that the City of Apopka City Council, in accordance with Florida Statutes Section 177.101, has received an application from **Central Florida Expressway Authority** to vacate the Stanton Ridge subdivision plat, as recorded in the Public Records of Orange County, Florida, being more particularly described as follows:

RESOLUTION 2018-08

A RESOLUTION OF THE CITY OF APOPKA, FLORIDA, TO VACATE THE PLAT OF STANTON RIDGE PLAT, AS APPEARING IN PLAT BOOK 68, PAGES 18 THROUGH 22, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; PROVIDING FOR DIRECTIONS TO THE COMMUNITY DEVELOPMENT DIRECTOR, SEVERABILITY, CONFLICTS, AND AN EFFECTIVE DATE.



(THIS IS FOR REFERENCE PURPOSES ONLY AND IS NOT TO SCALE)

Stanton Ridge Plat Vacate Description:
 Stanton Ridge, Plat Book 68, Pages 18-22, City of Apopka, Orange County, Florida.

Containing: 31.43 acres, more or less.

NOTICE is hereby given that the **CITY OF APOPKA CITY COUNCIL** will consider this plat vacate application at its regularly scheduled meeting in the City Hall City Council Chambers, 120 East Main Street, Apopka, Florida, on **Wednesday, June 6, 2018, at 1:30 p.m.** or as soon thereafter as possible.

Please be advised that, under State Law, if you decide to appeal a decision made with respect to this matter, you will need a record of the proceedings and may need to ensure that a verbatim record is made, including the testimony and evidence upon which the appeal is to be based. The proposed subdivision plat vacation and resolution may be inspected at the Apopka Community Development Department located at Apopka City Hall on weekdays between the hours of 8:00 a.m. and 4:30 p.m. In accordance with the Americans with Disabilities Act (ADA), persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office at 120 East Main Street, Apopka FL 32703, Telephone: 407-703-1704, no less than 48 hours prior to the proceeding.

Apopka City Council
 Community Development Department

May 18, 2018
 Publish: The Apopka Chief

160437

JAMIE ROBERSON



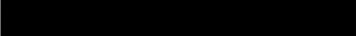
April 25, 2018

Ms. Sharon Thornton
Human Resources Director
City of Apopka
120 East Main Street
Apopka, FL 32703

Dear Ms. Thornton:

Attached please find my résumé for your consideration with respect to the available Finance Director position at the City of Apopka.

I am in my sixteenth year of experience for local Osceola County agencies as a municipal employee in finance and accounting. I am currently serving my twelfth year of dedicated service as the Chief Financial Officer for the Osceola County Property Appraiser. This position requires financial reporting, accounting, budgeting, payroll, oversight of human resources and employee benefits within the appraiser's office. During my four year tenure at the Osceola County Board of County Commissioners, I managed various finance, accounting, financial reporting and budget functions in both a supervisory and line employee capacity. These areas included general management, cash management, operational analysis, and debt management.

I am eager to speak with you and discuss my possible contribution to the City of Apopka, as I feel my experiences in government finance and human resources will be an asset to the City. I hope to hear from you soon, and if you need to reach me, you can 
email me 

Thank you for your time and consideration in advance.

Sincerely,



Jamie Roberson, CGFO
Enclosures

JAMIE ROBERSON, CGFO

EMPLOYMENT HISTORY

OSCEOLA COUNTY PROPERTY APPRAISER
Population 323,000, FY 2017 Operating Budget \$5.2 million

09/2006 - Present

CHIEF FINANCIAL OFFICER

Responsible for the functions of Human Resources, Budgeting, Accounting, Financial Reporting and Fiscal Management. These functions include but are not limited to:

- Human Resources and Benefits
- Payroll
- Cash Management
- Disbursement and Procurement Management
- Budget and Variance Analysis
- Audit and Financial Reporting

OSCEOLA COUNTY – FINANCIAL SERVICES DEPARTMENT
Population 235,000, FY 2006 Operating and Capital Budget \$406 million

08/2002 – 08/2006

SENIOR ACCOUNTANT – ASSET AND DEBT MANAGEMENT

10/2004 – 08/2006

Responsible for the functions of Cash Management, General Management, Debt Administration and Operational Analysis:

- Cash Management
 - Accounted for and deposited County receipts
 - Managed and reconciled County bank accounts
 - Monitored cash flow to assure adequate fund availability for daily operations
 - Recorded and/or reviewed accounting transactions with documentation
 - Utilized cash control processes for payroll and general disbursements
- General Management
 - Revised outdated processes to enhance efficiencies
 - Changed cash receipt procedure by better utilizing financial system
 - Decreased bank account reconciliation time by authorizing staff to acquire web based banking information
 - Interviewed and hired new staff for the Financial Services Department
 - Supervised professional and clerical staff

ACCOUNTANT – FINANCIAL SERVICES

08/2002 – 09/2004

Responsible for the functions of Debt Administration and Operational Analysis:

- Debt Administration
 - Monitored debt obligations including debt covenants and arbitrage compliance
 - Made debt payments
 - Interacted with external auditors for year-end reporting
 - Completed various reporting requirements including SEC 15c-2-12 secondary market disclosure
 - Compiled and prepared debt analysis for Elected Officers and Senior Management
- Operational Analysis
 - Monitored and projected the use of financial resources through analysis and forecasting of revenues and expenditures
 - Utilized the Uniform Accounting Systems Manual and Chart of Accounts for budgetary compliance and conformity to organization's financial operation
 - Maintained an understanding and the effects of Generally Accepted Accounting Principles and Governmental Accounting Standards in the governmental sector
 - Prepared analytical reports to assist external auditors with annual audit and financial reporting.

MEMBER SERVICE REPRESENTATIVE/TELLER – HUNTER’S CROSSING BRANCH

- Managed an average \$100,000 of cash transactions daily
- Implemented credit analysis
- Trained 5-10 new tellers annually

PROFESSIONAL MEMBERSHIPS

Member, Government Finance Officers Association of the United States and Canada (GFOA)
Director and Member, Florida Government Finance Officers Association (FGFOA)
Committee Chair, Florida Government Finance Officers Association (FGFOA) Membership Development Committee
Sub-Committee Chair, Florida Government Finance Officers Association (FGFOA) Membership Involvement Ad-hoc Committee
Committee Member, Florida Government Finance Officers Association (FGFOA) 2012 School of Government
Committee Member, Florida Government Finance Officers Association (FGFOA) Technical Resources
Past President and Member, Central Florida Chapter Florida Government Finance Officers Association (FGFOA)

OTHER CERTIFICATION AND ACHIEVEMENTS

Leadership Osceola Class of 2015 Graduate
Certified Government Finance Officer (CGFO) #0418, November 2008
Member, Beta Alpha Psi
Member, Phi Theta Kappa International Honor Society
Hawthorne Middle/High School Valedictorian

EDUCATION

UNIVERSITY OF SOUTH FLORIDA	TAMPA, FL	05/2000 – 08/2002
Bachelor of Science, Business Administration, Major Accounting		
UNIVERSITY OF FLORIDA	GAINESVILLE, FL	08/1999 – 05/2000
Business Administration, Major Accounting		
SANTA FE COMMUNITY COLLEGE	GAINESVILLE, FL	08/1996 – 06/1999
Associate of Arts, Major Accounting		