



**City of Apopka
Planning Commission
Meeting Agenda
March 13, 2018
5:30 PM @ CITY COUNCIL CHAMBERS**

I. CALL TO ORDER

If you wish to appear before the Planning Commission, please submit a “Notice of Intent to Speak” card to the Recording Secretary.

II. OPENING AND INVOCATION

III. APPROVAL OF MINUTES:

- 1 Approve minutes of the Planning Commission regular meeting held February 13, 2018.

IV. PUBLIC HEARING:

1. COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – From “County” Rural to “City” Commercial (Max. 0.25 FAR) for property owned by Kenney Harry Charles McAllister and located on the Northwest corner of North Hermit Smith Road and U.S. 441 intersection. (Parcel ID No. 01-21-27-0000-00-001)
2. CHANGE OF ZONING – From “County” A-1 (Agricultural) to “City” Planned Unit Development (PUD/Commercial) for property owned by Kenney Harry Charles McAllister and located on the Northwest corner of North Hermit Smith Road and U.S. 441 intersection. (Parcel ID No. 01-21-27-0000-00-001)
3. CHANGE OF ZONING – OAK POINTE - From “County” A-1 (Agricultural) to “City” Planned Unit Development (PUD/Residential); and amendment of Ordinance No. 2584 to incorporate property into the legal description therein, for properties owned by Jason C. Revelle and Thompson Hills Estates, LLC, and located east of Ocoee-Apopka Road, north of McCormick Road. (Parcel ID #s: 29-21-28-0000-00-037; 29-21-28-0000-00-011; 29-21-28-0000-00-016; 29-21-28-0000-00-033; 29-21-28-0000-00-038; 32-21-28-0000-00-004; 32-21-28-0000-00-030)
4. PLAT – BINION RESERVE SUBDIVISION - Owned by Gail W. Brown, c/o Jeffrey A. Sedloff, P.E., June Engineering Consultants, Inc. and located at 1078 South Binision Road. (Parcel ID #: 18-21-28-0000-00-057)

- 5. FINAL DEVELOPMENT PLAN/PLAT – LAKE GEM COMMERCE PARK - Owned by Property Industrial Enterprises, LLC, c/o Michael Cooper and located at 511 and 611 Marshall Lake Road. (Parcel ID #: 09-21-28-0000-00-011 and 08-21-28-0000-00-029)

- 6. FINAL DEVELOPMENT PLAN – SELF HELP CREDIT UNION - Owned by Self Help Credit Union c/o Randy Chambers, President and located at 667 West Orange Blossom Trail. (Parcel ID #: 09-21-28-5900-04-010)

- 7. FINAL DEVELOPMENT PLAN/PLAT – ZARABROOKE SUBDIVISION - Owned by Zarabrooke, LLC, c/o Barry Kalmanson and located at 829 Paradiso Court. (Parcel ID #: 05-21-28-0000-00-056)

V. SITE PLANS:

VI. OLD BUSINESS:

VII. NEW BUSINESS:

VIII. ADJOURNMENT:

All interested parties may appear and be heard with respect to this agenda. Please be advised that, under state law, if you decide to appeal any decision made by the City Council with respect to any matter considered at this meeting or hearing, you will need a record of the proceedings, and that, for such purpose, you may need to ensure that a verbatim record of the proceedings is made, which record includes a testimony and evidence upon which the appeal is to be based. The City of Apopka does not provide a verbatim record.

In accordance with the American with Disabilities Act (ADA), persons with disabilities needing a special accommodation 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.

Backup material for agenda item:

- 1 Approve minutes of the Planning Commission regular meeting held February 13, 2018.

MINUTES OF THE PLANNING COMMISSION MEETING HELD ON FEBRUARY 13, 2018, AT 5:30 P.M. IN THE CITY COUNCIL CHAMBERS, APOPKA, FLORIDA.

MEMBERS PRESENT: James Greene, Tony Foster, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle

ABSENT: Patrice Phillips, Orange County Public Schools (Non-voting)

STAFF PRESENT: David Moon, AICP - Planning Manager, Richard Earp – City Engineer, Patrick Brackins – City Attorney, Bobby Howell – Senior Planner, Pamela Richmond – Senior Planner, Phil Martinez – Planner I, Jean Sanchez – Planner I, and Jeanne Green – Recording Secretary.

OTHERS PRESENT: Sandra Martinez, Denise Prescott, Michael Rowe, Nina Rowe, Carrie Wiercioch, Scott Hill, Mabel Brinkle, Jose Luccioni, Zurong Cai, Lisa Ramlal, Luke Classon, Kim Pritchard, Suzanne Kidd, Richard Wohlfarth, Teresa Sargeant, and Shirish Suchak

OPENING AND INVOCATION: Chairperson Greene called the meeting to order and asked for a moment of silent prayer. The Pledge of Allegiance followed.

WORKSHOP – Sunshine Law & Meeting Procedures – Patrick Brackin, City Attorney, presented a video prepared by Cliff Shepard, Esq., entitled “Let the Sunshine In” on the Sunshine Law.

Mr. Brackin reviewed the Public Meetings Law; and procedures for Quasi-Judicial Hearings. A copy of the presentation has been made a part of the minutes.

In response to a comment by Ms. Laurendeau about an e-mail she had received regarding a project that will be coming before the Planning Commission in the future, Mr. Brackin stated that e-mails on this nature are public records. The recipient should not delete them and should forward them to the Clerk.

In response to a question by Mr. Sprinkle, Mr. Brackin stated that form at the back of the packet entitled “Affidavit of Annual Board Meeting Training” was there for the use of the Planning Commission but was not mandatory but helpful.

APPROVAL OF MINUTES: Chairperson Greene asked if there were any corrections or additions to the regular meeting minutes of January 9, 2018, at 5:30 p.m.

Motion: **Tony Foster made a motion to approve the Planning Commission minutes from the regular meeting held on January 9, 2018, at 5:30 p.m. and seconded by Jose Molina. Aye votes were cast by James Greene, Tony Foster, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle (6-0).**

QUASI-JUDICIAL - CHANGE OF ZONING – CITY OF APOPKA; JAMES D. & DEBORAH M. LYDA; AND CITIZENS BANK OF FLORIDA - Chairperson Greene stated this is a request to recommend approval of the Change of Zoning from Planned Unit Development, Mixed-EC, and I-1 to Planned Unit Development (Residential); and the PUD Master Plan/Preliminary Development Plan for the properties owned by City of Apopka; James D. & Deborah M. Lyda; and Citizens Bank of Florida, located south of Marshall Lake and west of SR 451.

Chairperson Greene stated this item is quasi-judicial and anyone giving testimony during a quasi-judicial hearing must be sworn in. He asked that all those who planned to speak during this hearing to stand and raise their right hand to be sworn in.

Attorney Brackins swore-in staff, petitioners, and affected parties for the quasi-judicial hearing item.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak.

Carrie Wiercioch, 857 Marshall Lake Road, stated she is an affected party as she resides adjacent to the subject properties.

Kim Pritchard, 849 Marshall Lake Road, stated she is an affected party as she resides adjacent to the subject properties.

Sandra Martinez, 779 Cavan Drive, stated she is an affected party as she resides adjacent to the subject properties.

The Planning Commission unanimously agreed that Ms. Wiercioch, Ms. Pritchard, and Ms. Martinez are affected parties.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

Staff Presentation: Bobby Howell, AICP, Senior Planner, stated this is a request to recommend approval of the Change of Zoning from Planned Unit Development, Mixed-EC, and I-1 to Planned Unit Development (Residential); and the PUD Master Plan/Preliminary Development Plan for the proposed Lake Marshall Subdivision, Phases 1 and 2, owned by the City of Apopka, James D & Deborah M. Lyda, and Citizens Bank of Florida and located south of Marshall Lake and west of SR 451. The applicant is Appian Engineering, LLC. The existing use is vacant land and the proposed use is a single family subdivision with 301 lots to be developed in two phases. The future land use designation is Low Density Residential, Mixed-Use. The tract size is 154.18 +/- acres.

The subject property is approximately 154.17 acres in size and is zoned PUD (Planned Unit Development), Mixed-EC (Mixed Employment Center) and I-1 (Restricted Industrial), and a has a future land use designation of Low Density Residential and Mixed-Use. The subject property is comprised of three parcels and is located south of Marshall Lake and west of SR 451. The owners of the properties are the City of Apopka, James D. and Deborah M. Lyda, and Citizens Bank of Florida. Of the 154.17 acres, the City of Apopka owns 103 acres, Citizens Bank of Florida owns 39.9 acres, and Mr. and Mrs. Lyda own 11.28 acres. The proposed change of zoning to PUD is being requested by a representative of the prospective developer, Royal Oak Homes who proposes to construct 301 single-family units in two phases on the three parcels.

In 2005, 83.28 acres of the property now owned by the City was originally proposed to be developed into a 90 unit single-family subdivision known as Lake Marshall Preserve. This development received City Commission approval and subsequently was never developed. In 2007, the City of Apopka purchased the property. In 2017 after an advertised bid process, Royal Oak Homes agreed to purchase the property from the City contingent upon City Commission approval of a PUD rezoning and Preliminary Development Plan for the proposed development.

The PUD Master Plan and Preliminary Development Plan propose development of the property in two phases as a private, gated residential community with a total of 301 single-family homes. The subject property is located south of Marshall Lake and west of SR 451. The surrounding properties consist primarily of single-family residential, and agricultural uses. The development is proposed to be accessed via Johns Road. Adjacent to the west of the subject property is the Breckenridge subdivision. A gated access for emergency vehicle access will be provided between the two subdivisions. This access point will only be for emergency vehicles. In response to the Breckenridge homeowners association, pedestrian access will not be permitted between the two subdivisions.

Lot Size.

Typical Lot Width	Number of units	Percentage of development	Typical lot area (minimum size)
55-feet	119	39%	7,425 square feet
60-feet	149	50%	8,100 square feet
75-feet	33	11%	10,875 square feet
Total	301	100%	

The developer is proposing 55-foot, 60-foot and 75-foot wide lots with a minimum average lot area of lots and 7,425 square feet for the 55-foot wide lots, 8,100 square feet for the 60-foot wide lots and 10,875 square feet for the 75-foot wide lots. The minimum lot depth is proposed at 135-feet. The minimum living area is proposed at 1,800 square feet in Phase 1 and 1,600 square feet in Phase 2. Both phases of the subdivision will be accessed via Johns Road. Johns Road will terminate at the main entrance of the development, which will be accessed via a gate. The developer will be dedicating a 0.27 acre portion of right-of-way along Johns Road to the City. The subdivision will consist of private roads and infrastructure that is owned and maintained by the homeowners association.

Deviations. The applicant is requesting three deviations to the City’s required development standards. For a PUD master plan, a deviation from the City’s Land Development Code does not represent a variance but a development standard or zoning condition unique to and approved as part of the Planned Unit Development zoning. PUD’s are required to satisfy the requirements of the land Development Code unless the City Council finds that, based on substantial evidence, a proposed alternative development guideline is adequate to protect to the public health safety, and welfare. Any deviations must be consistent with the policies of the Comprehensive Plan.

1. Typical Lot Width Standard. The first deviation is to Land Development Code Section 2.02.18.D.11, which requires a minimum lot size within a PUD to be 70-feet in width, and to have a minimum site area of 7,500 square feet. In addition to 75-foot wide lots, the developer is proposing 60-foot and 55-foot wide lots with minimum lots sizes of 8,100 square feet and 7,425 square feet respectively.
2. Garage Standards. The second deviation requested is from Section 3.2.1 of the Development Design Guidelines which requires front-entry garages to be setback a minimum of thirty (30) feet from the front property line. The Master Plan provides a 25-foot setback for front entry garages. Based on the shape of the property and the lot yield that the applicant has indicated is necessary for financial feasibility, a 25-foot garage setback will potentially result in a larger back yard.
3. Architectural Design. The third deviation requested is from Section 3.2.1 of the Development Design Guidelines, an architectural appearance standard, which requires front entry garages to be flush with or behind the primary residential façade. The applicant is proposing three garage types – protruding, flush, and recessed. According to the applicant, side entry garages are not an option on 55-foot, 60-foot, and 75-foot wide lots. The applicant contends that providing the three garage options will help to break up the monotony of each home being offset the same distance from the sidewalk.

Justification for Deviations\Development Standard. The following justifications are provided for the three deviations that are proposed.

1. An improved recreation amenities package is proposed. The recreation package will consist of a cabana with restrooms, a swimming pool, a playground, and a mixed-use active field at a minimum. In addition the developer is dedicating a tract in Phase 1 adjacent to Marshall Lake as a Community Lake Park that will have a community dock, and a 1.03 acre open space tract across

the street from this park. In the Phase 2 area, two tracts will be dedicated as a park/open space area, and a 15.12 acre Conservation area will also be dedicated.

2. Protection of Environmentally Sensitive Areas and Preservation of Open Space. The PUD master plan protects wetlands within the northwest and northeast corners of the project boundaries, containing approximately 19 acres within Tracts “K” and “L” of Phase I. Open space is preserved through approximately 15 acres within Tract “I” of Phase 2.
3. Abutting Site Characteristics. Fifty-foot landscape buffer. An existing 50-foot landscape buffer occurs along the western and northern project line within the Breckenridge plat. This buffer is noted as a tract on the Breckenridge plat. The Lake Marshall development will not be visible from the homes within Breckenridge and separation between the larger lots in Breckenridge and the smaller lots within Lake Marshall PUD will be provided. S.R. 451 (tollway) abuts a significant portion of the eastern project line, making the area less attractive for large lot residential development.
4. No other residential neighborhoods will be impacted by the development. The development abuts SR 451 to the east and Marshall Lake to the north. As mentioned above, a 50-foot wide landscape buffer will separate the Breckenridge development from the subject property. The development will not be visible from the surrounding properties.
5. The Master Plan proposes a diversity of lot sizes-- (55-feet, 60-feet, and 75-foot lot widths).
6. Access to the site is limited because of lake and wetland systems to the north and an odd shape parcel to the south. The southern end of the property is also blocked by a wetland system. Therefore, access to the property is severely limited, leaving Johns Road as the only reasonable access point without impact environmental sensitive areas.
7. The Master Plan proposes a gated development with private roads and infrastructure.

Transportation The traffic generated by this project will cause a reduced level of service at the intersection of Johns Road and Bradshaw Road and the intersection of Bradshaw Road and Ocoee Apopka Road. The intersection of Johns Road and Bradshaw Road will require the following roadway improvements to be constructed prior to the issuance of the 87th Certificate of Occupancy for Phase 1, Phase 2, or a combination of Phase 1 and Phase 2:

1. A 260- foot northbound left turn lane;
2. A 185-foot southbound right turn lane; and
3. A 150-foot eastbound turn lane.

The intersection of Bradshaw Road and Ocoee Apopka Road is projected to experience significant delays at the stop sign with the addition project traffic and committed traffic on both roadways. While existing conditions do not warrant a signal, the intersection may meet warrants in the future. It is recommended the Developer be required to conduct a signal warrant analysis for the intersection of Bradshaw Road and Ocoee Apopka Road prior to the issuance of the 251st Certificate of Occupancy. If the City determines a signal is warranted, the Developer will design and install a traffic signal at the intersection within a year of the issuance of the final Certificate of Occupancy.

PUD Recommendations: That the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions subject to the following zoning provisions:

- A. The uses permitted within the PUD district shall be single-family residential uses.
- B. Terms of Expiration for this PUD shall be as follows:

If a Final Development Plan associated with the PUD district has not been approved by the City within three years, and site development has not commenced within four years after approval of these Master Plan provisions, the approval of the Master Plan provisions will expire. At such time, the City Council may:

1. Permit a single six-month extension for submittal of the required Final Development Plan;
2. Allow the PUD zoning designation to remain on the property pending resubmittal of new Master Plan provisions and any conditions of approval; or
3. Rezone the property to a more appropriate zoning classification.

The proposed use of the property is consistent with the Low Density Residential and Mixed-Use Future Land Use designations and is consistent with the Land Development Code.

A capacity enhancement agreement with OCPS or a letter exempting the project from school capacity enhancement is required prior to submittal of a final development plan. An application for School capacity determination and a mitigation agreement has been submitted to OCPS by the application. A final development plan will not be approved by the City until such time the School Board approves a school capacity mitigation agreement.

Pursuant to Section 7 of the Joint Planning Area agreement, notification to Orange County is not required for a rezoning application as the subject parcels are not adjacent to unincorporated Orange County.

The Development Review Committee finds the proposed rezoning to Planned Unit Development (PUD), PUD Master Plan, and the Preliminary Development Plan consistent with the Comprehensive Plan and Land Development Code and recommends approval of the Lake Marshall Subdivision Planned Unit Development Master Plan and Preliminary Development Plan.

Staff recommended approval of the rezoning of the subject parcels from Planned Unit Development (PUD), Mixed-EC (Mixed Employment Center) and I-1 (Restricted Industrial) to Planned Unit Development/Residential (PUD), and approval of the PUD Master Plan/Preliminary Development Plan based on the findings and facts presented in the staff report and exhibits.

Petitioner Presentation: Luke Classon, Appian Engineering, 2221 Lee Road, Suite 17, Winter Park, stated he was in attendance on behalf of Appian Engineering and they represent the developer. We have design plans that are being reviewed at this time. There will not be access off of Marshall Lake Road. Access will be off of Johns Road and an emergency only access to the south through the existing Breckenridge development. He said he was available to answer any questions.

In response to Mr. Molina’s questions, Mr. Classon stated the deviation requesting the front setback be a minimum of 25-foot setback instead of the required 30 foot so that they can add that five feet to the back yard. He said they looked at large vehicles, such as an F-150 with a trailer hitch, that depth is less than 25 feet. Home buyers don’t typically use their front yards, they normally play in the back. The minimum lot depth is 130 feet with a maximum of 140 feet. It is to increase the yield it is to increase the quality.

Mr. Classon explained that the deviation regarding garages is being requested because the applicant is proposing three garage types – protruding, flush, and recessed. Side entry garages are not an option on 55-foot, 60-foot, and 75-foot wide lots. Providing the three garage options will help to break up the monotony of each home being offset the same distance from the sidewalk.

Mr. Classon stated that no other residential neighborhoods will be impacted by the development. The development abuts SR 451 to the east and Marshall Lake to the north. As mentioned above, a 50-foot wide landscape buffer will separate the Breckenridge development from the subject property. The development will not be visible from the surrounding properties.

Mr. Classon said there are two entrances one is on Johns Road which is being extended to the west with a large landscaping feature for an entrance way that will be gated. The second access point will only be for residents; and there will be a locked emergency gate accessible through Breckenridge and will benefit both developments.

In response to questions by Ms. Laurendeau, Mr. Classon stated the setback is from the back of the sidewalk to the front point of the building must be 25 feet. With the 2-car garage, 4 parking stalls being provided. Two in the driveway and two in the garage. There is a potential for 5 if the buyer opts for the 3-car garage.

Affected Party Presentation:

Ms. Pritchard expressed her opposition to providing access to Marshall Lake to the 301 residences proposed in Lake Marshall Phases 1 & 2. She requested that motorized vehicles (boats, jet skis, etc.) not be permitted on the lake. She expressed concern with regard to the existence and condition of the ramp and dock on the property; and the impacts to the ecosystem of the lake.

Chairperson Greene stated that the Development Review Committee (DRC) is aware of providing access to Marshall Lake to the residences or the use of motorized vehicles on the lake.

In response to a question by Chairperson Greene, Ms. Pritchard stated she does not want anyone to have access to the lake.

In response to a question by Mr. Foster, Ms. Pritchard stated that she currently has access to the lake but does not want anyone else to have access.

Ms. Wiercioch stated that any new developments along the lake should not provide access to the lake. She stated the lake is too small and shallow for motorized vehicles. She expressed her opposition to providing access to Marshall Lake to the 301 residences proposed in Lake Marshall Phases 1 & 2. She requested that motorized vehicles (boats, jet skis, etc.) not be permitted on the lake. She expressed concern with regard to the existence and condition of the ramp and dock on the property; and the impacts to the ecosystem of the lake.

In response to questions by Ms. Martinez, Mr. Classon stated that the 50 foot natural landscape buffer between her home in Breckenridge and the retention pond in Lake Marshall would remain. There will only be a fence around the retention pond.

In response to questions by Chairperson Greene, Mr. Moon stated this plan is different from what was previously submitted because there are more properties included and the plan is more creative.

Mr. Classon stated that the emergency access on the south will be more beneficial to the Breckenridge community.

In response to question by Mr. Molina, Mr. Classon stated there is currently a concrete ramp and a dilapidated dock. The dock is going to be replaced.

Chairperson Greene opened the meeting for public hearing.

Mike Rowe, 651 Lake Doe Boulevard, opposed allowing access to the lake because it is too shallow and expressed concerns that trees along the lake would be removed.

Mr. Classon stated that they would not be making a connection to Lake Marshall. The area next to the lake has been designated as conservation area.

In response to a question by Chairperson Greene, Mr. Moon stated that staff was unable to find a state agency that makes a determination on whether a water body is navigable. He said that access to the lake would have to be determined by finding out who owns the lake. He stated the Planning Commission could direct staff to research who owns the lake and who has legal access.

Mr. Brackins stated that his office can look into that.

Scott Hill, 635 Lake Doe Boulevard, stated he lives right on the water. He stated that when the lake is dry you can walk across it. The lake is owned by multiple owners. There is a lot of wildlife. He stated that the St. Johns River Water Management District would be the entity to contact to find out if the lake is useable as is being proposed.

Nina Rowe, 651 Lake Doe Boulevard, expressed her opposition to allowing speed boats on the lake and the noise impact on the area. She stated that only those who live along the lake should have access.

Ms. Pritchard stated that she is not opposed to the development being proposed; but wants only the lots adjacent to the lake to have access.

In response to a question by Mr. Hill, Mr. Classon stated that at this time he does not have information regarding the proposed prices of the homes.

In response to a question by Ms. Laurendeau, Mr. Moon stated that it is not feasible to fence off the lake,

Mr. Simpson suggested that language be included in the HOA covenants and restrictions about access to the lake.

With no one else wishing to speak, Chairperson Greene closed the public hearing.

Motion: Linda Laurendeau made a motion to find the application consistent with the Apopka Comprehensive Plan and Land Development Code, and recommend approval of the change of zoning from Planned Unit Development, Mixed-EC, and I-1 to Planned Unit Development (Residential); and the PUD Master Plan/Preliminary Development Plan for the properties owned by City of Apopka; James D. & Deborah M. Lyda; and Citizens Bank of Florida and located south of Marshall Lake and west of SR 451. Motion seconded by Tony Foster. Aye votes were cast by James Greene, Tony Foster, Linda Laurendeau, and Roger Simpson. Jose Molina and John Sprinkle voted no. (4-2). (Vote taken by poll.)

LEGISLATIVE - COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – IGLESIA GETSEMANI, INC. - Chairperson Greene stated this is a request to find the proposed Future Land Use Designation consistent with the Comprehensive Plan; and to recommend approval of the Future Land Use amendment from “County” Commercial to “City” Commercial (Maximum of 0.25 FAR) for the property owned by Iglesia Getsemani, Inc. and located at 2575 West Orange Blossom Trail.

Staff Presentation: Phil Martinez, Planner I, stated this is a request to find the proposed Future Land Use Designation consistent with the Comprehensive Plan; and to recommend approval of the Future Land Use amendment from “County” Commercial to “City” Commercial (Maximum of 0.25 FAR) for the property owned by Iglesia Getsemani, Inc. and located at 2575 West Orange Blossom Trail. The existing use is a church with a single-family residence. The current zoning is “County” C-1 which is being processed at the same time as the future land use amendment to “City” C-1. The existing maximum allowable development is up to 187,350 sq. ft. and the proposed is up to 15,621 sq. ft. The tract size is 1.43 +/- acres. (Staff report incorporated into the record.)

The applicant intends to annex the existing house of worship and single family residence to unite this parcel with the abutting eastern parcel, which is located within the City’s jurisdiction and is used for a parking lot by the Church.

The annexation for the subject property was approved by the city council, for a second reading, on December 20, 2017 by ordinance 2613.

A request to assign a Future Land Use Designation of “Commercial” is compatible with the designations assigned to abutting properties. City parcels to the east share this same Future Land Use designation. The commercial uses act as a transition space between the residential neighborhood to the north and the arterial road, and an industrial park to the south. The FLUM application covers approximately 1.43 acres.

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.

The existing and proposed use of the subject property is consistent with the Commercial (max. 0.25 FAR) Future Land Use designation and the City’s proposed C-1 Zoning.

Because this request represents a change to a non-residential future land use designation and zoning classification, school capacity determination by Orange County Public Schools is not required.

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 January 12, 2018.

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 Commercial for the property owned by Iglesia Getsemani Inc.

Staff recommended that the Planning Commission find the proposed Future Land Use amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, and recommend approval of the change of Future Land Use Designation from “County” Commercial to “City” Commercial, subject to the findings of the Staff Report.

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.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: Roger Simpson made a motion to find the application consistent with the Apopka Comprehensive Plan and compatible with the character of the surrounding area; and to recommend approval of the Small Scale Future Land use amendment from “County” Commercial to “City” Commercial (Maximum of 0.25 FAR) for the property owned by Iglesia Getsemani, Inc. and located at 2575 West Orange Blossom Trail. Motion seconded by Linda Laurendeau. Aye votes were cast by James Greene, Tony Foster, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle (6-0). (Vote taken by poll.)

QUASI-JUDICIAL - CHANGE OF ZONING – IGLESIA GETSEMANI, INC. - Chairperson Greene stated this is a request to find the proposed Change of Zoning consistent with the Comprehensive Plan; and to recommend approval of the Change of Zoning from “County” C-1 (Commercial) to “City” C-1 (Commercial) for the property owned by Iglesia Getsemani, Inc. and located at 2575 West Orange Blossom Trail.

Attorney Brackins swore-in staff, petitioners, and affected parties for the quasi-judicial item to be discussed.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

Staff Presentation: Mr. Martinez stated this is a request to find the proposed Change of Zoning consistent with the Comprehensive Plan; and to recommend approval of the Change of Zoning from C-1 (Commercial) to “City” C-1 (Commercial) for the property owned by Iglesia Getsemani, Inc. and located at 2575 West Orange Blossom Trail. The existing use is a church with a single-family residence. The current Future Land Use is “County” Commercial (3.0 FAR) and is being processed at the same time as the change of zoning to “City” Commercial (Max. 0.25 FAR). The existing maximum allowable development is up to 187,350 sq. ft. and the proposed is up to 15,621 sq. ft. The tract size is 1.43 +/- acres. (Staff report incorporated into the record.)

Presently, the subject property has not yet been assigned a “City” zoning category. The site is used as a church. The applicant is requesting the City assign a zoning classification of C-1 (Retail Commercial District) to the property. Abutting the eastern parcel line for the subject sites is a parcel that is owned by the same church, which is currently used as the parking lot.

The annexation of the subject property was reviewed and approved by the City Council, on December 20, 2017 through ordinance number 2613.

The place of worship, located on the subject property, is in unincorporated Orange County. The parking lot for this religious use is one parcel to the east, and the parcel is in the city limits. This parking lot has “City” C-1 zoning and Commercial Future Land Use. The existing zoning and Future Land Use designations of Iglesias’s parking lot will complement the zoning and Future Land Use designations for the place of worship.

A request to assign a change of zoning to C-1 (Retail Commercial District) 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.

The existing and proposed use of the property is consistent with the proposed Office (Max. 25% Floor Area Ratio) Future Land Use designation and the proposed City C-1 (Retail Commercial District) zoning classification. Site development cannot exceed the intensity allowed by the Future Land Use policies.

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.

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 January 12, 2018.

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” C-1 to “City” C-1 for the property owned by Iglesia Getsemani, Inc., and located at 2575 W. Orange Blossom Trail.

Staff recommended that the Planning Commission find 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” C-1 to “City” C-1 for the property owned by Iglesia Getsemani, Inc.

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.

Petitioner Presentation: None.

Affected Party Presentation: None.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: Jose Molina made a motion to find the application consistent with the Apopka Comprehensive Plan and Land Development Code, and recommend adoption of the change of zoning from “County” C-1 to “City” C-1 for the property owned by Iglesia Getsemani, Inc. and located at 2575 West Orange Blossom Trail. Motion seconded by John Sprinkle. Aye votes were cast by James Greene, Tony Foster, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle (7-0). (Vote taken by poll.)

QUASI-JUDICIAL - CHANGE OF ZONING – A. D. RAULERSON, SR. & A. D. RAULERSON, JR. AND CURTIS & KAREN PUMPHREY - Chairperson Greene stated this is a request to find the proposed Change of Zoning consistent with the Comprehensive Plan; and to recommend approval of the Change of Zoning from “County” A-1 (Agricultural) to “City” Planned Unit Development (PUD) for the properties owned by A. D. Raulerson, Sr. & A. D. Raulerson; and Curtis & Karen Pumphrey and located north of Lester Road; west of Rock Springs Road.

Attorney Brackins swore-in staff, petitioners, and affected parties for the quasi-judicial item to be discussed.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak.

Jose Luccioni, 25 E. Lester Road, stated that his property is adjacent to the subject property.

The Planning Commission unanimously agreed that Mr. Luccioni is an affected party.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

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Staff Presentation: Jean Sanchez, Planner I, stated this is a request to find the proposed Change of Zoning consistent with the Comprehensive Plan; and to recommend approval of the Change of Zoning from “County” A-1 (Agricultural) to “City” Planned Unit Development (PUD) for the properties owned by A. D. Raulerson, Sr. & A. D. Raulerson; and Curtis & Karen Pumphrey and located north of Lester Road; west of Rock Springs Road. The applicant is Apopka Development II, LLC, c/o Richard C. Wohlfarth, P.E. The existing use on the Raulerson Parcel is warehousing and vacant land; and warehousing on the Pumphrey parcel. The potential development is a single-family development with a minimum lot width of 40 feet. The existing maximum allowable development under the current zoning is 11 dwelling units and the proposed development is 112 lots. The tract size is 23.14 +/- acres. (Staff report incorporated into the record.)

Presently, the subject property has not yet been assigned a “City” zoning category. The applicant is requesting the City assign a zoning classification of PUD (Planned Unit Development) to the property to accommodate lot widths smaller than the minimum required width of 70 feet through an alternative plan.

The subject properties were annexed into the City of Apopka on October 4, 2017, through the adoption of Ordinance No. 2595.

The intent of the PUD zoning ordinance is to accommodate lots that are smaller in width than the regularly required residential zoning districts. The narrowest lot width allowed in other City zoning districts is 70 feet in the R-2 and R-3 zoning districts.

The proposed development, San Sebastian Reserve, is a private and gated subdivision of 112 detached, single family homes. The site comprises of 23.2 acres, of which, 4.43 acres will be dedicated for recreation space. Residential lots have a minimum lot width of 40 feet and a minimum lot size of 4,400 square feet. Additional information, including the conceptual subdivision layout is displayed in the attached conceptual master plan.

A request to assign a change of zoning to PUD is compatible to the adjacent zoning classifications and with the general character of abutting properties and the surrounding area. East of the subject properties is an arterial road, Rock Springs Road, as well as commercially zoned properties. A mobile home park (Rock Springs Mobile Home Park) and a townhome community (Wekiva Park Townhomes) are located to the south of the subject properties. A single family subdivision, with 40 feet lot widths will act as a transitional use between the larger lot community to the north (Alexandria Place) and the other previously mentioned surrounding uses.

The change of zoning request is being processed in conjunction with a future land use amendment from “County” Rural to “City” Commercial. On February 21, 2018, the City Council will vote on Ordinance 2600, which proposes to change the future land use of the subject properties from “County” Residential Low Density to “City” Residential Medium Low.

Deviations: The applicant is requesting two deviations to the City's development standards. For a PUD master plan, a deviation from the City's Land Development Code does not represent a variance but a development standard or zoning condition unique to and approved as part of the PUD zoning.

1. Typical lot width standard. The applicant is requesting a deviation from Land Development Code Section 2.02.18(D)(11) requiring the minimum single family lot size within a PUD to be a minimum of 70 feet in width unless City Council finds that a proposed alternative development is adequate to protect public health, safety and welfare based on substantial evidence. The plan shows a minimum 40-foot wide single family lot with lot size minimum of 4,400 square feet.
2. Number of canopy trees required per single family lot. Due to size of each lot and size of canopy trees at its maturity, the applicant is also requesting a deviation from Section 3.6 of the Development Design Guidelines that requires a minimum of three trees on each lot. The plan shows two trees on each lot with varying types including oak, red maple and crepe myrtle. In lieu of
3. Garage standard/architectural design. The second deviation is Section 3.2.1 of the Development Design Guidelines that require front-entry garages to be setback a minimum of 30 feet from the property line.

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Two models of the four typical lot detail on the plans show that one lot layout is 25 feet from the property line and another shows 28 feet from the property line. The applicant asserts that the variation garage setbacks provides a visual break along the streetscape.

Justification for Deviation. The following justifications are provided for the three deviations that are proposed:

1. Lot Width and Size. The Master Plan provides an enhanced recreation/amenities package. The amenities include a cabana, gazebo, swimming pool, playground, dog park and mail kiosk. In addition, landscape buffers are provided adjacent to the Alexandria Place residential community. Such buffer is not required next to abutting single family residential development if a minimum 70-foot wide lot were provided.
2. Lot Tree Planting Requirement. With a minimum lot size of 4,400 square feet and a minimum lot width of 40 feet, insufficient lot area occurs with the lot to plant the required three canopy trees. As alternative, one canopy and one understory tree, or only two canopy trees (depending on the lot) will be planted, and the other required tree will be planted within the landscape buffers, park areas, or other open space within the project site. Additional trees beyond the requirements of the buffer areas are provided, particularly on the northern perimeter of the site to account for the number of trees required for each lot. The plan also shows additional on-street parking throughout the community to off-set the reduced garage setback for those lots with 25' and 28' setbacks
3. Due to the shape of the overall site as well as the provision of buffers adjacent to existing residential community, compliance with a minimum open space area of 30%, the provision of over-flow parking areas, and more so because of a confined typical lot depth of 110 feet, the Master Plan offers a 25 foot long driveway instead of the required 30-foot long driveway. Also, typical lot depth at 110 feet combined with the ground floor area of some of the proposed house plans restricts available pace within a 4,400 square foot lot to accommodate a 30-foot long driveway. Further, the San Sebastian residential community is planned as a gate, private community.

PUD Development and Zoning Conditions: That the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions subject to the following zoning provisions:

The recommendations are that the zoning classification of the aforementioned properties be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions are subject to the following provisions:

- A. The uses permitted within the PUD district shall be: single family homes and associated accessory uses or structures consistent with land use and development standards established for the R- 1 zoning category except where otherwise addressed in this ordinance.
- B. If a Final Development Plan associated with the PUD district has not been approved by the City within three years after approval of these Master Plan provisions, the approval of the Master Site Plan\PDP provisions will expire. At such time, the City Council may:
 1. Permit a single six-month extension for submittal of the required Final Development Plan;
 2. Allow the PUD zoning designation to remain on the property pending resubmittal of new Master Site Plan provisions and any conditions of approval; or
 3. Rezone the property to a more appropriate zoning classification.
- C. The following PUD development standards shall apply to the development of the subject property:
 1. Exhibit "F" describes the development standards applicable to this PUD/PDP Master Site Plan.
 2. Unless otherwise addressed within the PUD development standards, the R-1 zoning standards will apply to the subject property.

The existing and proposed use of the property is consistent with the proposed Residential Medium Low (0-7.5 du/ac) Future Land Use designation and the proposed Planned Unit Development Zoning classification. Site development cannot exceed the intensity allowed by the Future Land Use policies.

A capacity enhancement agreement with Orange County Public Schools (OCPS) or a letter exempting the project from school capacity enhancement is required prior to submittal of a final development plan. An application for School Capacity Determination and a mitigation agreement has been submitted to OCPS by the application. A final development plan will not be approved by the City until such time the School Board approves a school capacity mitigation agreement.

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 January 12, 2018.

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" PUD for the property owned by A.D Raulerson, Sr. & A.D. Raulerson, Jr. and Curtis and Karen Pumphrey, and located north of Lester Road and west of Rock Springs Road.

Staff recommended that the Planning Commission find the proposed amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, and recommends approval of the proposed Change of Zoning from "County" A-1 to "City" PUD (Commercial) for the property owned by A.D Raulerson, Sr. & A.D. Raulerson, Jr. and Curtis and Karen Pumphrey, and located north of Lester Road and west of Rock Springs Road, subject to the PUD Development and Zoning Conditions provided in the staff report.

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.

Petitioner Presentation: Richard C. Wohlfarth, P.E., Wohlfarth Consulting Group, LLC, 246 N. Westmonte Drive, Altamonte Springs, stated he represents Apopka Development II, LLC. With regard to the requested deviations they would be providing enhanced recreation amenities. He stated that the minimum lot area will be 1,660 sq. ft. and the maximum will be 2,700 sq. ft. Except for one two-story single family lot, they are requesting a deviation of the required lot width of 70' to be 40'. The home prices are expected to range from \$200,000 to \$300,000. There is an additional 50 parking spaces in an overflow parking area.

In response to a question by Ms. Laurendeau, Mr. Wohlfarth stated that the original plans were too dense for the area so they came up with an alternative that provides a transition from the mobile home park and the properties to the north.

In response to questions by Mr. Molina, Mr. Wohlfarth stated there will be two gated entrances off of Lester Road. The cul-de-sacs have been designed to accommodate emergency vehicles.

In response to a question by Mr. Simpson, Mr. Wohlfarth stated they would be providing a traffic study that will provide that the level of service requirements are met. The distance between the traffic signal on Lester and this project is approximately 800 ft. to 1,000 ft.

Affected Party Presentation: In response to a question by Mr. Luccioni, Mr. Wohlfarth stated there will be a PVC fence installed adjacent to his property.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: Jose Molina made a motion to add a condition to require an emergency access to the properties owned by A. D. Raulerson, Sr. & A. D. Raulerson; and Curtis & Karen Pumphrey and located north of Lester Road; west of Rock Springs Road.

Motion died due to the lack of a Second.

Motion: Tony Foster made a motion to find the application consistent with the Apopka Comprehensive Plan and Land Development Code, and recommend adoption of the change of zoning from "County" A-1 (Agricultural) to "City" Planned Unit Development (PUD) for the properties owned by A. D. Raulerson, Sr. & A. D. Raulerson; and Curtis & Karen Pumphrey and located north of Lester Road; west of Rock Springs Road. Motion seconded by Roger Simpson. Aye votes were cast by James Greene, Tony Foster, Linda Laurendeau, Roger Simpson, and John Sprinkle. Jose Molina voted no. (5-1). (Vote taken by poll.)

Due to a previous engagement, Tony Foster left the meeting at 7:38 p.m.

QUASI-JUDICIAL - CHANGE OF ZONING – TGINF, LLC - Chairperson Greene stated this is a request to find the proposed Change of Zoning consistent with the Comprehensive Plan; and to recommend approval of the Change of Zoning from "County" A-1 (Agricultural) to "City" Planned Unit Development (PUD) for the properties owned by A. D. Raulerson, Sr. & A. D. Raulerson; and Curtis & Karen Pumphrey and located north of Lester Road; west of Rock Springs Road.

Attorney Brackins swore-in staff, petitioners, and affected parties for the quasi-judicial item to be discussed.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

Staff Presentation: Mr. Martinez stated this is a request to find the proposed Change of Zoning consistent with the Comprehensive Plan; and to recommend approval of the Change of Zoning from "C-1 (Retail Commercial) to R-3 (Residential Multi-Family) for the property owned by TGINF, LLC and located at 501 Old Dixie Highway. The existing use is woodlands and the proposed use is townhomes. The maximum allowable development is 171,294 sq. ft. Commercial Use and the proposed maximum allowable development is 117 Dwelling Units (92 proposed on Preliminary Development Plan). The tract size is 15.7 +/- acres.

The subject parcel was annexed into the City of Apopka on December 17, 2003 through the adoption of Ordinance 1619.

A request to assign a change of zoning to R-3 (Residential Multiple-Family District) is compatible with the adjacent zoning classifications and with the general character of abutting properties and surrounding area. The proposed townhome subdivision will act as a transitional use between the commercial properties on Old Dixie Highway and West Orange Blossom Trail and the single family residential subdivision to the north. The property owner is requesting the R-3 zoning classification for the development of a proposed townhome subdivision. This use is consistent with the proposed Residential Medium Low Future Land Use Designation. The proposal to rezone the property to R-3 (Residential Multiple-Family District) is compatible with the general character of the surrounding zoning and uses.

The change of zoning application covers approximately 15.73 acres.

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 Zoning Report).

The proposed use of the property is consistent with the Residential Medium Low (0-7.5 d/u per acre) Future Land Use designation and with the proposed R-3 zoning classification. Site development cannot exceed the intensity allowed by the Future Land Use policies.

A capacity enhancement agreement and/or school mitigation agreement with OCPS or a letter exempting the project from school capacity enhancement is required prior to submittal of a final development plan.

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 January 12, 2018.

The Development Review Committee finds the proposed amendment consistent with the Comprehensive Plan. The Development Review Committee recommends adoption of the change in zoning from C-1 (Commercial) to R-3 (Residential Multiple Family), subject to the adoption of the associated large scale future land use amendment, for the property owned by TGINF, LLC.

Staff recommended the Planning Commission find the proposed rezoning consistent with the Comprehensive Plan and Land Development Code and to recommend a change of zoning from C-1 (Commercial) to R-3 (Residential Multiple Family), for property owned by TGINF, LLC, subject to the adoption of the associated large scale future land use amendment.

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.

Petitioner Presentation: None.

Affected Party Presentation: None.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: Roger Simpson made a motion to find the application consistent with the Apopka Comprehensive Plan and Land Development Code, and recommend approval of the change of zoning from “C-1 (Retail Commercial) to R-3 (Residential Multi-Family) for the property owned by TGINF, LLC and located at 501 Old Dixie Highway. Motion seconded by John Sprinkle. Aye votes were cast by James Greene, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle (5-0). (Vote taken by poll.)

LEGISLATIVE - COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – VBRO ENTERPRISES, INC. - Chairperson Greene stated this is a request to find the proposed Future Land Use Designation consistent with the Comprehensive Plan; and to recommend approval of the Small Scale Future Land Use Amendment from “County” Low Density Residential (0-4 du/ac) to “City” Commercial (Max. 0.25 FAR) for the property owned by VBRO Enterprises, Inc. and located at 41 E. Lester Road.

Staff Presentation: Mr. Martinez stated this is a request to find the proposed Future Land Use Designation consistent with the Comprehensive Plan; and to recommend approval of the Small Scale Future Land Use Amendment from “County” Low Density Residential (0-4 du/ac) to “City” Commercial (Max. 0.25 FAR) for the property owned by VBRO Enterprises, Inc. and located at 41 E. Lester Road. The applicant is Burkett Engineering, c/o William E. Burkett, P.E. The existing use is a single family residence. The potential development is 9,119 sq. ft. commercial use. The current zoning is “County” A- 1 and the proposed zoning is “City” Planning Unit Development (PUD/Commercial Neighborhood). The proposed

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zoning is being processed as the same time of the small scale future land use amendment. The existing maximum allowable development is 3 dwelling units and the proposed is up to 9,119 sq. ft. of commercial use. The tract size is 0.83 +/- acres.

A request to assign a Future Land Use Designation of “Commercial” is compatible with the designations assigned to abutting properties. The FLUM application covers approximately 0.84 acre. Combined with the parcel to the east and several other parcels along the west side of Rock Springs Road, this parcel is proposed to be developed as a small commercial retail plaza. A proposed zoning of Planned Unit Development will tailor the site to appropriate commercial and office uses compatible to residential development further to the west along Lester Road. This proposed shopping plaza will be located at the northwest corner of Lester Road and Rock Springs Road.

The adjacent properties to the east, face an arterial road have a “Commercial” Future Land Use designation. The Wekiva Plaza Shopping Center is approximately a half mile south of the subject property.

In conjunction with state requirements, staff have 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.

The proposed zoning of the subject property, “Commercial Neighborhood” is consistent with the Commercial (max. 0.25 FAR) Future Land Use designation.

Because this request represents a change to a non-residential future land use designation and zoning classification, school capacity determination by Orange County Public Schools is not required.

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 January 12, 2018.

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 Office for the property owned by VBRO Enterprises, Inc., and located at 41 East Lester Road.

Staff recommended the Planning Commission find the proposed Future Land Use amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding areas, and recommend approval of the change of Future Land Use Designation from “County” Low Density Residential to “City” Commercial, subject to the findings of the Staff Report.

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.

Bill Burkett, Burkett Engineering, 105 E Robinson St, Orlando, stated he was available to answer any questions.

Chairperson Greene opened the meeting for public hearing.

In response to a question by Mr. Luccioni, Mr. Moon stated that buffer requirements would be addressed at the time the preliminary development plan is submitted.

With no one else wishing to speak, Chairperson Greene closed the public hearing.

Motion: Linda Laurendeau made a motion to find the application consistent with the Apopka Comprehensive Plan and compatible with the character of the surrounding area; and

to recommend approval of the Small Scale Future Land use amendment from “County” Low Density Residential (0-4 du/ac) to “City” Commercial (Max. 0.25 FAR) for the property owned by VBRO Enterprises, Inc. and located at 41 E. Lester Road. Motion seconded by Roger Simpson. Aye votes were cast by James Greene, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle. (5-0). (Vote taken by poll.)

QUASI-JUDICIAL - CHANGE OF ZONING – VBRO ENTERPRISES, INC. - Chairperson Greene stated this is a request to recommend approval of the Change of Zoning from “County” A-1 (Agriculture) to “City” Planned Unit Development (PUD/Neighborhood Commercial) for the property owned by VBRO Enterprises, Inc. and located at 41 E. Lester Road.

Attorney Brackins swore-in staff, petitioners, and affected parties for the quasi-judicial item to be discussed.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

Staff Presentation: Mr. Martinez stated this is a request to recommend approval of the Change in Zoning from “County” A-1 (Agriculture) to “City” Planned Unit Development (PUD/Neighborhood Commercial) for the property owned by VBRO Enterprises, Inc. and located at 41 E. Lester Road. The applicant is Burkett Engineering, c/o William E. Burkett, P.E. The existing use is a single family residence. The potential development is 9,119 sq. ft. commercial use. The current zoning is “County” A- 1 and the proposed zoning is “City” Planning Unit Development (PUD/Commercial Neighborhood). The proposed zoning is being processed as the same time of the small scale future land use amendment. The existing maximum allowable development is 3 dwelling units and the proposed is up to 9,119 sq. ft. of commercial use. The tract size is 0.83 +/- acres. (Staff report incorporated into the record.)

The applicant desires to combine six small parcels at the northwest corner of North Rock Springs Road and Lester Road into a small commercial or office shopping center. For the five parcels abutting Rock Springs Road, “City” CN (Neighborhood Commercial) is currently assigned to each. For the sixth parcel, which fronts Lester Road and which was recently annexed into the City, the zoning is “County” A-1.

The intent of the PUD (Planned Unit Development) zoning request is to allow a restaurant at the intersection of E. Lester Road and N. Rock Springs Road. Restaurants are prohibited in the current CN zoning category. A request to rezone to C-1 (Retail Commercial District), to accommodate a restaurant, would potentially allow undesirable uses such as motels, laundry facilities, and outside storage of merchandise, equipment or commodities.

A request to assign a change of zoning to PUD, for commercial use, is compatible with the adjacent zoning classifications and with the general character of abutting properties and surrounding area. The subject properties have 500 linear feet of frontage along Rock Springs Road, an arterial road. Other commercial properties, such as the Wekiva Plaza Shopping Center, are in the vicinity of the subject property.

The applicant has voluntarily agreed to restrict the type of commercial uses that may be incompatible for allocation that serves as a gateway into an area dominated by existing and future residential neighborhoods along Lester Road, from Rock Springs Road to Plymouth-Sorrento Road.

PUD Development and Zoning Conditions: That the zoning classification of the following described property be designated as Planned Unit Development (PUD), as defined in the Apopka Land Development Code, and with the following Master Plan provisions subject to the following zoning provisions:

A. The uses permitted within the PUD district shall be:

1. All permitted uses listed in the PO/I (Professional Office/Institutional) and CN (Commercial Neighborhood) district, except those listed as prohibited below.
2. Restaurants, with or without outdoor seating, including fast-casual restaurants. Fast-casual restaurant is defined as an establishment whose principal business is the sale of food or beverage that is made to order, for consumption within the building, or off the premises as carryout orders. The principal method of operation includes, but is not limited to, the following characteristics: food or beverages may be served in non-disposable container; Limited table service may be available. Order and pay at the counter. The food is made fresh and is either brought to the table by a server or the customer is called back to the counter. Price points are generally higher than fast food. Food is perceived to be higher quality and healthier than food from standard fast food restaurants. May have drive-through service as allowed by the development design standard in Paragraph C.
3. Adult day care, not to exceed 7,000 square feet net floor area.
4. Retail businesses, except those listed as prohibited.
5. Banks.
6. Coffee Shops.
7. 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.

B. The uses prohibited within the PUD district shall be:

1. Tobacco Store
2. Laundromat businesses
3. Veterinary and pet grooming facilities
4. Motorized Vehicle Service Stations
5. New or used motorized vehicle sales
6. Plumbing Shops
7. Appliance Stores
8. Tattoo/Piercing Parlors
9. Adult entertainment as defined in section 10-98 of the Apopka Municipal Code
10. Auto title loan, paycheck advance facilities, and other "personal credit institutions"
11. Pawn shops.
12. Employment agencies.

13. Modular, mobile and pre-fab home display and sales.
 14. Mini-warehouse and self-storage facilities.
 15. Outside storage of supplies, materials, equipment, merchandise, and activities.
 16. Motorized Truck stops or terminal as defined by this code.
 17. Flea markets (indoor and outdoor).
 18. Motorized automotive and transportation related businesses including new and used retail automotive part stores, mechanic shops, new and used car sales, boat sales, vehicle rental, etc.
 19. Bail bonds businesses.
 20. Blood banks, blood donor stations, plasmapheresis facilities, or other similar bio-donating uses; provided however, that this prohibition shall not include the practice of the following duly licensed professionals: physicians, dentists, orthodontists or pharmacists, or other health care practitioners, which may perform incidental bio-donating functions and procedures; provided, further, however, that this prohibition shall not apply to bona fide blood drives and similar events conducted by non-profit blood banks for a non-commercial purpose.
 21. Soup kitchens; provided however, that this prohibition shall not apply to the bona fide charitable activities of bona fide churches, synagogues, mosques and other places of worship that are occupied and in operation on the effective date of this ordinance.
 22. Outdoor parks and recreational areas.
 23. Bowling alleys, skating rinks, billiard parlors and similar amusement centers.
 24. Assisted Living Facilities.
- C. Development Design Standards for this PUD, in addition to the Development Design Standards set forth in the Land Development Code (LDC) shall be as follows:
1. Drive through restaurants shall be limited to one drive aisle and no more than one menu board.
 2. Drive through establishments without food and beverage sales are limited to two service drive aisles.
 3. The development must have a unified architectural theme.
 4. The development shall have a plaza or prominent architectural feature at the corner of Rock Springs Road and Lester Road. Examples include: statue, fountain, corner entrance, clock tower)
 5. Outdoor seating encouraged at restaurant(s).
 6. The development must have at least two separate buildings, each building shall have a footprint not greater than 15,000 square feet floor area.
 7. Driveways must be at least 50 feet away from the southeastern corner of the development.
 8. Building frontage along Rock Springs Road and Lester Road must resemble store fronts with

windows and either faux or real entrances.

9. If any conflict occurs between the above design standards and the LDC, the above standards shall apply.

D. Terms of Expiration for this PUD shall be as follows:

If a Final Development Plan associated with the PUD district has not been approved by the City within three years, and site development has not commenced within four years after approval of these Master Plan provisions, the approval of the Master Plan provisions will expire. At such time, the City Council may:

1. Permit a single six-month extension for submittal of the required Final Development Plan;
2. Allow the PUD zoning designation to remain on the property pending resubmittal of new Master Plan provisions and any conditions of approval; or
3. Rezone the property to a more appropriate zoning classification.

E. The requisite Master Plan shall be submitted with or as part of the Preliminary Development Plan application.

The proposed Planned Unit Development zoning of the property is consistent with the proposed Commercial (Max. 25% Floor Area Ratio) Future Land Use designation. Site development cannot exceed the intensity allowed by the Future Land Use policies.

The proposed rezoning will not generate any residential development and, thus, will not have an impact on public schools.

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 January 12, 2018.

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 and "City" CN to "City" PUD for the property owned by VBRO Enterprises, Inc., and located at 41 E. Lester Road, 2038 Rock Springs Road, 2030 Rock Springs Road, 2022 Rock Springs Road, 2014 Rock Springs Road, and 2006 Rock Springs Road.

Staff recommended the Planning Commission find 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 and "City" CN to "City" PUD for the property owned by VBRO Enterprises, Inc., subject to the PUD development and zoning standards within the Staff Report.

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.

Petitioner Presentation: Mr. Burkett said he was available to answer any questions.

Affected Party Presentation: None.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: Jose Molina made a motion to find the application consistent with the Apopka Comprehensive Plan and Land Development Code, and recommend adoption of the change of zoning from “County” A-1 (Agriculture) to “City” Planned Unit Development (PUD/Neighborhood Commercial) for the property owned by VBRO Enterprises, Inc. and located at 41 E. Lester Road. Motion seconded by Roger Simpson. Aye votes were cast by James Greene, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle (5-0). (Vote taken by poll.)

QUASI-JUDICIAL - VARIANCE – BELVEDERE ESTATES, INC. - Chairperson Greene stated this is a request to approve a variance of Apopka Code of Ordinances, Part III, Land Development Code, Sections 2.02.01(A) and 2.02.06(G)(1)(c) “Rear yards shall be a minimum of 20 feet” to allow a deck to extend within the required rear-yard setback for the property owned by Belvedere Estates, Inc., c/o Shirish Suchak and located at 1586 Golfside Village Boulevard.

Attorney Brackins swore-in staff, petitioners, and affected parties for the quasi-judicial item to be discussed.

Chairperson Greene asked if there were any affected parties in attendance that wished to speak. No one spoke.

Chairperson Greene asked if the Commission members had any ex parte communications to divulge regarding this item. No one spoke.

Staff Presentation: David Moon, AICP, Planning Manager, provided an introduction to the variance process. He said that the Land Development Code, Section 10.02.00, states the Planning Commission must follow two steps to approve a variance. Section 10.02.02.A, states the limitations on Granting Variances. The Planning Commission “shall first determine whether the need for the proposed variance arises out of the physical surroundings, shape topographical conditions, or other physical or environment conditions that are unique to the specific property involved.” This is known as a physical hardship. If the Planning Commission makes this determination, then it must take action on the seven variance criteria set forth in Section 10.02.02.B. Section 10.02.02.B provides the required findings. Once a “physical hardship” has been determined, the Planning Commission shall not vary from the requirements of any provision of the LDC unless it makes a positive finding, based on substantial competent evidence, on the seven variance criteria.

Ms. Sanchez stated this is a request to approve a variance of Apopka Code of Ordinances, Part III, Land Development Code, Sections 2.02.01(A) and 2.02.06(G)(1)(c) “Rear yards shall be a minimum of 20 feet” to allow a deck to extend within the required rear-yard setback for the property owned by Belvedere Estates, Inc., c/o Shirish Suchak and located at 1586 Golfside Village Boulevard. The existing use is a single family residence. The future land use is Residential Low and the zoning is R-3. The tract size is 0.14 +/- acres or 6,094 sq. ft.

Applicable City Codes:

1. Section 2.02.01(A) – Single-family development shall meet the requirements set forth in the R-2 zoning district.
2. Section 2.02.06(G)(1)(c) – Rear yards shall be a minimum of 20-feet.

The applicant’s request is to allow placement of a deck to expand within the required 20-foot rear yard setback.

The first step of the variance determination process is to determine if a hardship occurs pursuant to Section 10.02.02.A, “whether the need for the proposed variance arises out of the physical surroundings, shape

topographical conditions, or other physical or environment conditions that are unique to the specific property involved.”

Applicant’s Response. Due to the existing size of the rear yard setback, it currently does not allow for a reasonable size deck.

Staff Response. No objection. This single family home was built in 1989. Errol Golfside Village was possibly approved without having established setback standards that do not address accessory uses. The current Land Development Code was adopted in 1993. Errol Golfside Village subdivision plat was recorded in 1981.

If the Planning Commission accepts the hardship in Paragraph A. above, the second step is to make a finding on the seven criteria below. The Planning Commission must make a positive finding, based on substantial competent evidence, on each of the following seven criteria:

1. There are practical difficulties in carrying out the strict letter of the regulation [in] that the requested variance relates to a hardship due to characteristics of the land and not solely on the needs of the owner.

Applicant’s Response: Due to the existing size of the rear yard setback, it currently does not allow for a reasonable size deck.

Staff’s Response: No objection.

2. The variance request is not based exclusively upon a desire to reduce the cost of developing the site.

Applicant’s Response: The proposed variance incurs a cost of construction.

Staff’s Response: No objection.

3. The proposed variance will not substantially increase congestion on surrounding public streets.

Applicant’s Response: The proposed variance will not increase congestion on the surrounding streets. The extension of the deck will not create special conditions and circumstances.

Staff’s Response: No objection.

4. The proposed variance will not substantially diminish property values in, nor alter the essential character of, the area surrounding the site.

Applicant’s Response: The extension of the deck should increase the property value.

Staff’s Response: City staff does not hold professional expertise to address property values.

5. The effect of the proposed variance is in harmony with the general intent of this code and the specific intent of the relevant subject area(s) of the code.

Applicant’s Response: The effect of the approval of the requested extension of the deck within the required rear yard setback would allow more time spent outside and enjoy the entire property.

Staff Response: No objection.

6. Special conditions and circumstances do not result from the actions of the applicant.

Applicant's Response: The deck extension will be completed in compliance with the rest of the Code. The extension of the existing deck does not affect Golfside Village Boulevard or create safety hazards.

Staff Response: No objections.

7. That the variance granted is the minimum variance which will make possible the reasonable use of the land, building or structure. The proposed variance will not create safety hazards and other detriments to the public.

Applicant's Response: The proposed deck extension would allow for more relaxation in the outdoors.

Staff Response: No objections.

Based on the information provided by the applicant at the hearing for the variance requested, the role of the Planning Commission is to first determine that sufficient substantially competent information indicates "whether a need for the proposed variance arises out of the physical surroundings, shape topographical conditions, or other physical or environment conditions that are unique to the specific property involved." If so, then the Planning Commission must find that substantially competent information occurs to accept each of the seven variance criteria. The Planning Commission has authority to take final action. It may approve, deny, or approve with conditions.

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.

In response to a questions by Mr. Molina, Mr. Moon stated that the home will back up to an undeveloped area that is part of a proposed assisted living facility. He said the deck will be raised with four columns supporting the structure.

In response to a questions by Mr. Molina, Mr. Suchak stated a contractor will build the deck. The highest elevation will be 10 to 11 feet from the ground. Plans will be provided as the time the building permit is submitted.

Petitioner Presentation: None.

Affected Party Presentation: None.

Chairperson Greene opened the meeting for public hearing. With no one wishing to speak, Chairperson Greene closed the public hearing.

Motion: Roger Simpson made a motion to determine that sufficient substantially competent information has been provided that a hardship occurs pursuant to the City of Apopka Code of Ordinances, Part III, Land Development Code, Section 10.02.02.A, "whether the need for the proposed variance arises out of the physical surroundings, shape topographical conditions, or other physical or environment conditions that are unique to the property owned by Belvedere Estates, Inc., c/o Shirish Suchak and located at 1586 Golfside Village Boulevard. The Motion was seconded by John Sprinkle. Aye votes were cast by James Greene, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle (5-0). (Vote taken by poll.)

Motion: Jose Molina made a motion to approve the variance of Apopka Code of Ordinances, Part III, Land Development Code, Sections 2.02.01(A) and 2.02.06(G)(1)(c) “Rear yards shall be a minimum of 20 feet” to allow a deck to extend within the required rear-yard setback for the property owned by Belvedere Estates, Inc., c/o Shirish Suchak and located at 1586 Golfside Village Boulevard. The Motion was seconded by Roger Simpson. Aye votes were cast by James Greene, Linda Laurendeau, Jose Molina, Roger Simpson, and John Sprinkle (5-0). (Vote taken by poll.)

OLD BUSINESS: None.

NEW BUSINESS: None.

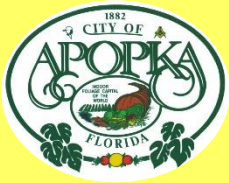
ADJOURNMENT: The meeting was adjourned at 8:08 p.m.

James Greene, Chairperson

James K. Hitt, FRA-RA
Community Development Director

Backup material for agenda item:

1. COMPREHENSIVE PLAN – SMALL SCALE – FUTURE LAND USE AMENDMENT – From “County” Rural to “City” Commercial (Max. 0.25 FAR) for property owned by Kenney Harry Charles McAllister and located on the Northwest corner of North Hermit Smith Road and U.S. 441 intersection. (Parcel ID No. 01-21-27-0000-00-001)



CITY OF APOPKA PLANNING COMMISSION

PUBLIC HEARING
 SITE PLAN
 SPECIAL REPORTS
 OTHER:

MEETING OF: March 13, 2018
FROM: Community Development
EXHIBITS: Future Land Use Report
Vicinity Map
Future Land Use Map
Zoning Map
Adjacent Uses Map

SUBJECT: COMPREHENSIVE PLAN – SMALL SCALE - FUTURE LAND USE AMENDMENT – KEENEY HARRY CHARLES MCALLISTER

PARCEL ID NO: 01-21-27-0000-00-001

REQUEST: SMALL SCALE FUTURE LAND USE AMENDMENT
FROM: “COUNTY” RURAL
TO: “CITY” COMMERCIAL (MAXIMUM OF 0.25 FAR)

SUMMARY:

OWNER: Keeney Harry Charles McAllister
APPLICANT: Tannath Design, Inc.
LOCATION: Northwest corner of North Hermit Smith Road and U.S. 441 intersection
EXISTING USE: Woodlands
CURRENT ZONING: “County” A-1 (ZIP)
PROPOSED DEVELOPMENT: Convenience Market w/ vehicle fuel service (This parcel will be used for landscape buffer area.)
PROPOSED ZONING: “City” PUD (Note: this Future Land Use amendment request is being processed along with a request to change the zoning classification from “County” A-1 (ZIP) to “City” PUD (Planned Unit Development).
TRACT SIZE: 0.04 +/- acres
MAXIMUM ALLOWABLE DEVELOPMENT: EXISTING: Vacant
PROPOSED: Up to 479 sq. ft. service station

FUNDING SOURCE: N/A

DISTRIBUTION

Mayor Kilsheimer	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 into the city on January 17, 2018 by Ordinance Number 2627. Presently, the subject property does not have a “city” future land use designation or “city” zoning classification assigned. The applicant’s intent for the “Commercial” Future Land Use Designation is to incorporate this parcel with the north-adjacent parcel, 1102 Hermit Smith Road. The applicant is applying for “Planned Unit Development” for the two parcels to accommodate a service station.

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. Planned Unit Development uses may include: (Policy 3.1.i)

1. All primary uses
2. All Special Exception uses
3. Multifamily Development of up to fifteen dwelling units per acre, when located within a primary use structure
4. Other uses deemed compatible with and complimentary to the other proposed master planned uses and the surrounding neighborhoods.

SCHOOL CAPACITY REPORT: Because this request represents a change to a non-residential future land use designation and zoning classification, school capacity determination by Orange County Public Schools 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 February 12, 2018.

PUBLIC HEARING SCHEDULE:

March 13, 2018 - Planning Commission (5:30 pm)
March 21, 2018 - City Council (7:00 pm) - 1st Reading
April 4, 2018 – City Council (1:30 pm) – 2nd Reading and Adoption

DULY ADVERTISED:

February 23, 2018 – Public Notice and Notification

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval to transmit a change in Future Land Use from “County” Rural to “City” Commercial for the property owned by Kenney Harry Charles McAllister Trust, subject to the information and findings in the staff report.

Planning Commission Recommended Motion: Find the proposed Future Land Use amendment consistent with the Comprehensive Plan and compatible with the character of the surrounding area, and recommend approval of the change of Future Land Use Designation from “County” Rural to “City” Commercial, subject to the findings of the Staff Report.

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 (City)	“County” Rural	“County” A-1 (ZIP	Woodlands
East (City)	“County” Rural	“City” A-1 (ZIP)	Woodlands/Grasslands
South (County)	Rural (1 D/U per 10 Acres)	“County” C-3 & R-3	Single-family homes
West (City)	“County” Rural	“County” A-1 (ZIP)	Woodlands

The concept plan shows proposed accesses on S.R. 441 and Hermit Smith Road.

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 to the south and west are developed as existing single-family homes, which properties to the east and north are vacant, but have a future land use designation and zoning classification that permit single-family residential.

The proposed Residential 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 (0-10 du/ac) to “City” Commercial (Max. 0.25 FAR) is consistent with the terms of the JPA (Second Amendment). Tannath Design, Inc., 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 West Orange Blossom Trail to the South and Hermit Smith Road to the East.

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 current use of the Property is vacant and heavily wooded.

Analysis of the relationship of the amendment to the population projections: The proposed future land use designation for the property is Commercial (max FAR 0.25). 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: N/A, no residential

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: 72 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: 96 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: 1 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: N/A acres
4. Improvement/expansions already programmed or needed as a result of the proposed amendment: N/A

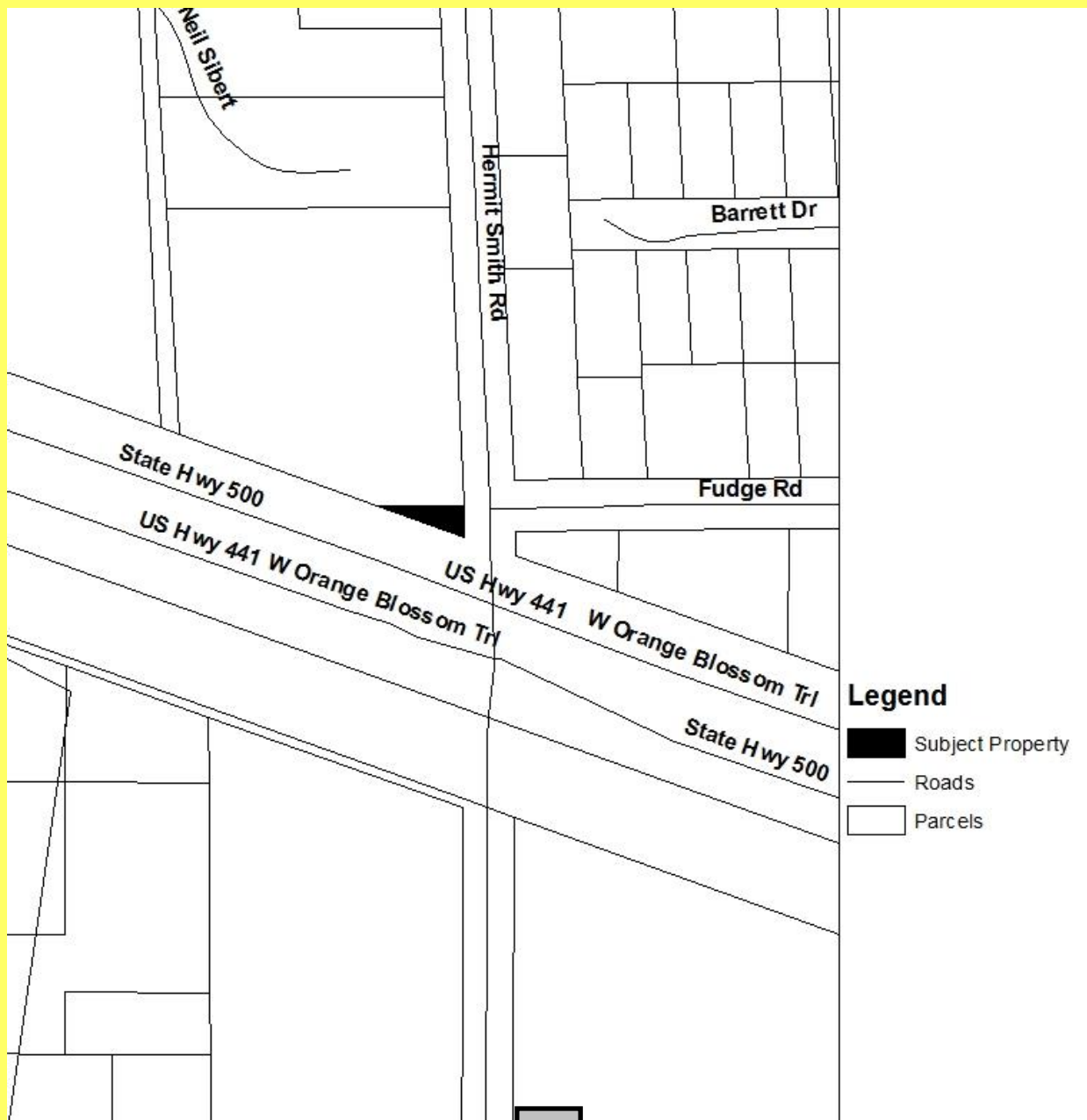
Standards set forth in the City’s Land Development Code will require any development plans to provide parkland and recreation facilities and open space for residents residing with the new development.

This initial review does not preclude conformance with concurrency requirements at the time of development approval.



Kenney Harry Charles McAllister
0.04 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: "County" Rural
To: "City" Commercial
Proposed Change of Zoning:
From: A-1 (ZIP)
To: PUD
Parcel ID #: 01-21-27-0000-00-001

VICINITY MAP



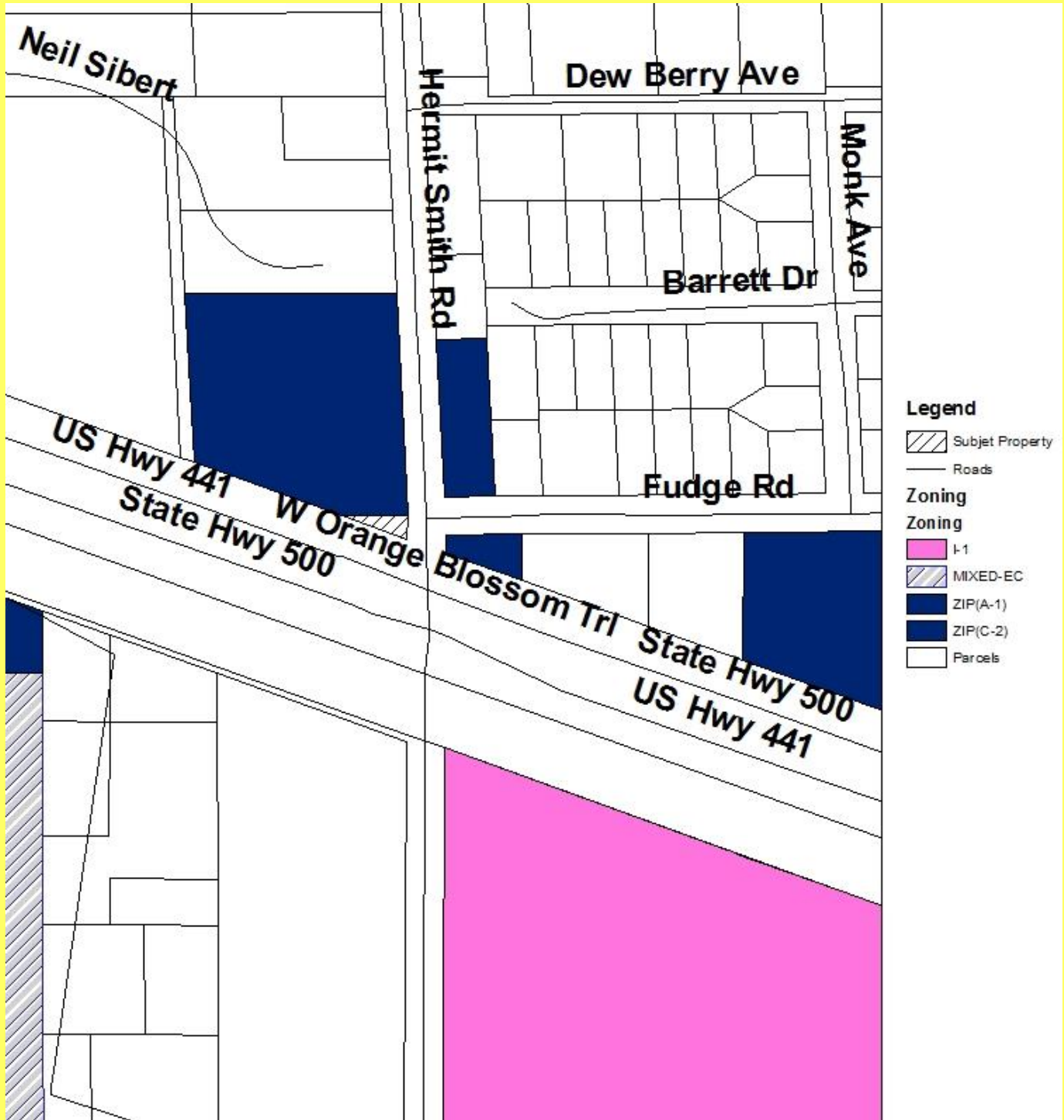


FUTURE LAND USE MAP





ADJACENT ZONING



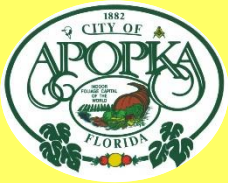


ADJACENT USES



Backup material for agenda item:

2. CHANGE OF ZONING – From “County” A-1 (Agricultural) to “City” Planned Unit Development (PUD/Commercial) for property owned by Keeny Harry Charles McAllister and located on the Northwest corner of North Hermit Smith Road and U.S. 441 intersection. (Parcel ID No. 01-21-27-0000-00-001)



CITY OF APOPKA PLANNING COMMISSION

PUBLIC HEARING
 SITE PLAN
 SPECIAL REPORTS
 OTHER:

MEETING OF: March 13, 2018
FROM: Community Development
EXHIBITS: Zoning Report
Vicinity Map
Zoning Map
Adjacent Uses Map

SUBJECT: CHANGE OF ZONING – KEENEY HARRY CHARLES MCALLISTER

PARCEL ID NO: 01-21-27-0000-00-001

REQUEST: CHANGE OF ZONING
FROM: “COUNTY” A-1 (AGRICULTURAL)
TO: “CITY” PLANNED UNIT DEVELOPMENT (PUD/COMMERCIAL)

SUMMARY:

OWNER: Keeney Harry Charles McAllister
APPLICANT: Tannath Design, Inc.
LOCATION: Northwest corner of North Hermit Smith Road and U.S. 441 intersection
EXISTING USE: Vacant - Woodlands
CURRENT ZONING: “County” A-1 (ZIP)
DEVELOPMENT POTENTIAL: Maximum 482 sq. ft. commercial use (Max. 0.25 floor area ratio)
PROPOSED ZONING: “City” PUD (Note: this Future Land Use amendment request is being processed along with a request to amend the Future Land Use from “County” Rural to “City” Commercial (Max. 0.25 FAR))
TRACT SIZE: 0.04 +/- acres
MAXIMUM ALLOWABLE DEVELOPMENT: EXISTING: Vacant
PROPOSED: Up to 479 sq. ft. service station

FUNDING SOURCE: N/A

DISTRIBUTION

Mayor Kilsheimer	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 PUD (Planned Unit Development) to the property, which will be incorporated with the PUD in the north adjacent parcel.

The subject parcel was annexed into the city on January 17, 2018 by Ordinance Number 2627.

A request to assign a change of zoning to PUD 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” Commercial.

COMPREHENSIVE PLAN COMPLIANCE: The existing and proposed use of the property is consistent with the proposed Commercial (Max. 25% Floor Area Ratio) Future Land Use designation and the City’s proposed Planned Unit Development Zoning classification. Site development cannot exceed the intensity allowed by the Future Land Use policies.

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 February 12, 2018.

PUBLIC HEARING SCHEDULE:
Planning Commission, March 13, 2018 (5:30 pm)
City Council, March 21, 2018 (7:00 pm) - 1st Reading
City Council, April 4, 2018 (1:30 pm) - 2nd Reading

DULY ADVERTISED:

February 23, 2018 -- Public Notice and Notification- (Apopka Chief, letter, posting)
March 23, 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 areas, recommending approval of the proposed Change of Zoning from “County” A-1 to “City” PUD for the property owned by Kenney Harry Charles McAllister, and located at 3591 W. Orange Blossom Trail.

Recommended Motion: Planning Staff recommends finding 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” PUD for the property owned by Kenney Harry Charles McAllister, and located at 3591 W. Orange Blossom Trail.

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)	“County” Rural	“City” A-1 (ZIP)	Woodlands
East (City)	“County” Rural	A-1 (ZIP)	Woodlands/Grasslands
South (County)	Rural (1 D/U per 10 Acres)	“County” C-3 & R-3	Single-Family Homes
West (City)	“County” Rural	“County” A-1 (ZIP)	Woodlands

**LAND USE & TRAFFIC
 COMPATIBILITY:**

The concept plan for the PUD proposes accesses on West Orange Blossom Trail and Hermit Smith Road.

**COMPREHENSIVE PLAN
 COMPLIANCE:**

The proposed PUD zoning is consistent with the proposed Future Land Use designation, “Commercial” (Max. 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.

**BUFFERYARD
 REQUIREMENTS:**

1. Areas adjacent to all road rights-of-way shall provide a minimum ten-foot landscaped bufferyard.
2. Areas adjacent to agricultural and residential uses or districts shall provide a minimum six-foot-high masonry wall within a ten-foot landscaped bufferyard.
3. Areas adjacent to nonresidential uses or districts shall provide a minimum of five-foot landscaped bufferyard.
4. Landscaping requirements for existing platted lots of record and structures may be approved in a lesser amount than required after review by the development review committee.

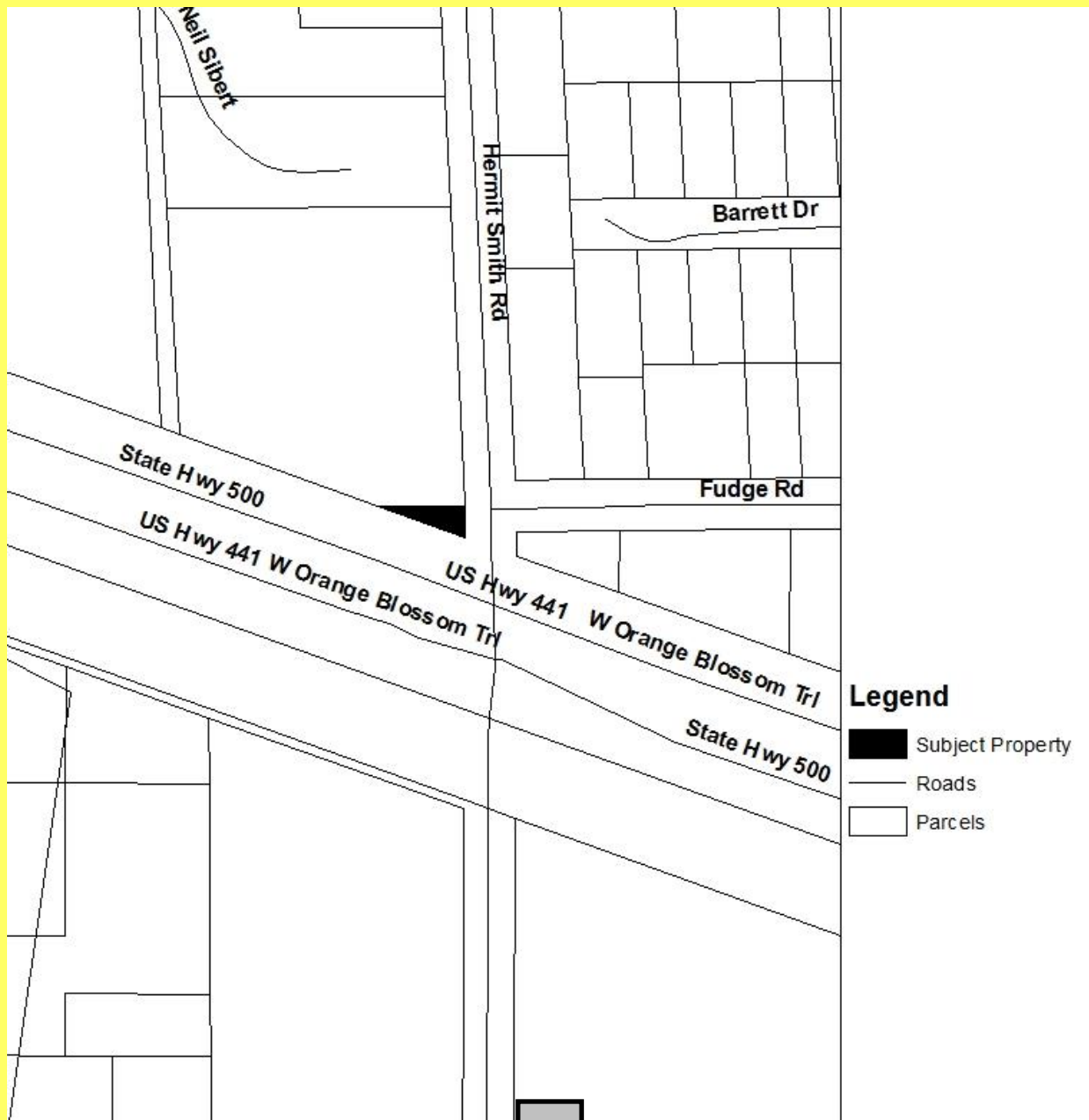
PUD CONDITIONS:

1. This Planned Unit Development will be incorporated to the north adjacent PUD at 1102 Hermit Smith Rd.
2. The use for this property shall be open space and buffering for the north adjacent development at 1102 Hermit Smith Rd.



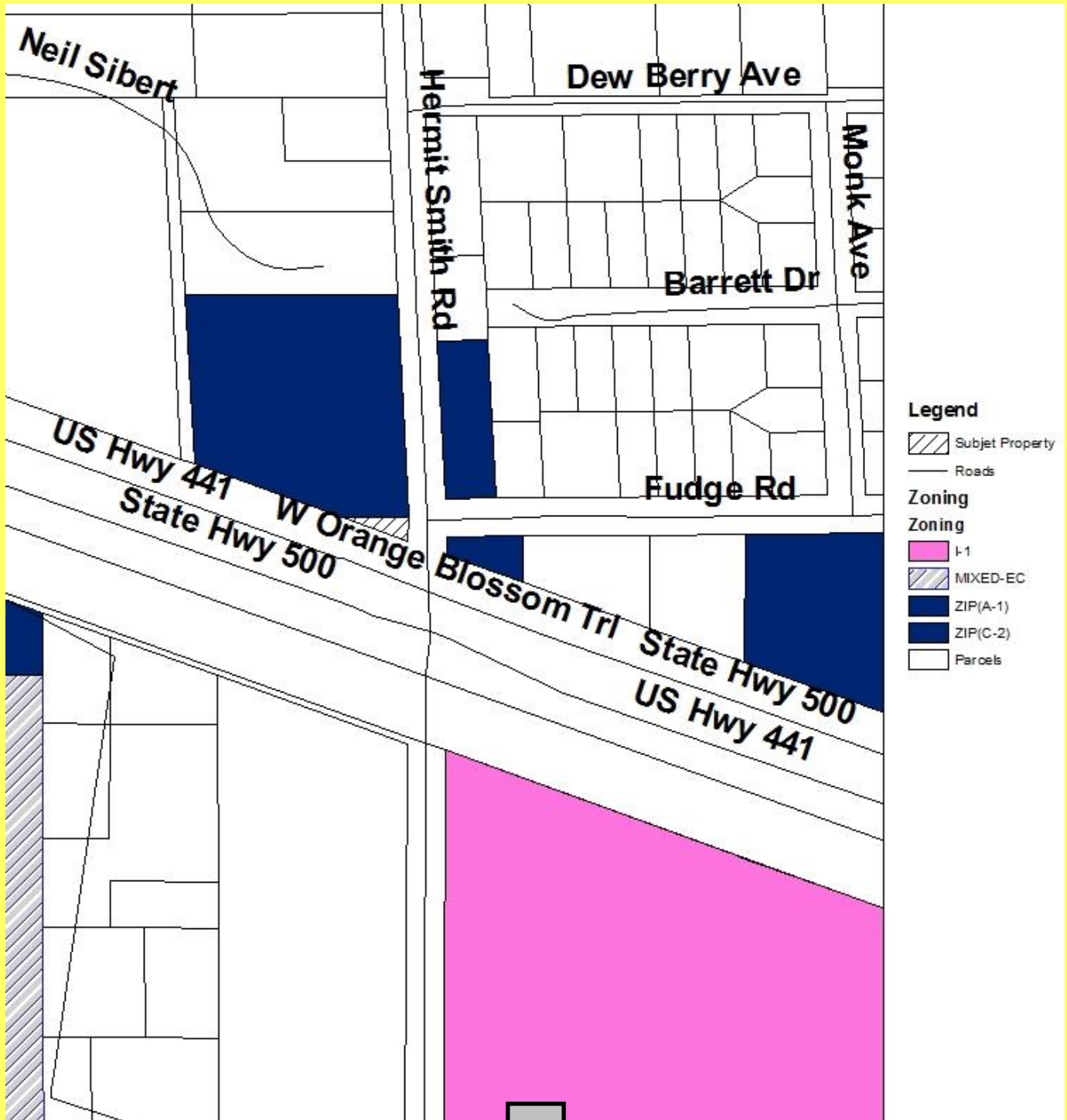
Kenney Harry Charles McAllister
0.04 +/- acres
Proposed Small Scale Future Land Use Amendment:
From: “County” Rural
To: “City” Commercial
Proposed Change of Zoning:
From: A-1 (ZIP)
To: PUD
Parcel ID #: 01-21-27-0000-00-001

VICINITY MAP





ADJACENT ZONING MAP





ADJACENT USES MAP



Backup material for agenda item:

3. CHANGE OF ZONING – OAK POINTE - From “County” A-1 (Agricultural) to “City” Planned Unit Development (PUD/Residential); and amendment of Ordinance No. 2584 to incorporate property into the legal description therein, for properties owned by Jason C. Revelle and Thompson Hills Estates, LLC, and located east of Ocoee-Apopka Road, north of McCormick Road. (Parcel ID #s: 29-21-28-0000-00-037; 29-21-28-0000-00-011; 29-21-28-0000-00-016; 29-21-28-0000-00-033; 29-21-28-0000-00-038; 32-21-28-0000-00-004; 32-21-28-0000-00-030)



CITY OF APOPKA PLANNING COMMISSION

- CONSENT AGENDA
- PUBLIC HEARING
- SPECIAL REPORTS
- OTHER: PUD Master Plan

- MEETING OF: March 13, 2018
- FROM: Community Development
- EXHIBITS: Zoning Report
- Vicinity Map
- Adjacent Zoning Map
- Adjacent Uses Map
- Existing Use Map
- Ex. A - Revelle Survey -- Location
- Ex. B - Master Site Plan Sheet
- Ex. C - Landscape Plan Sheet
- Ex. D - Entire PUD Master Plan\PDP Plan

SUBJECT: CHANGE OF ZONING – OAK POINTE – FROM “COUNTY” A-1 TO “CITY” PLANNED UNIT DEVELOPMENT (PUD); AND AMENDMENT OF ORDINANCE 2584 TO INCORPORATE PROPERTY INTO THE LEGAL DESCRIPTION THEREIN

PARCEL ID NUMBERS: 29-21-28-0000-00-037; 29-21-28-0000-00-011; 29-21-28-0000-00-016; 29-21-28-0000-00-033; 29-21-28-0000-00-038; 32-21-28-0000-00-004; 32-21-28-0000-00-030

REQUEST: RECOMMEND APPROVAL OF THE CHANGE OF ZONING
FROM: “COUNTY” A-1
TO: “CITY” PLANNED UNIT DEVELOPMENT (PUD)

SUMMARY:

- OWNERS:** Jason C. Revelle, Thompson Hills Estates, LLC
- APPLICANT:** Evans Engineering, Inc.
- LOCATION:** East of Ocoee-Apopka Road, north of McCormick Road
- EXISTING USE:** Single-family residential (Revelle Parcel\Jones Addition) and Existing Oak Pointe PUD Residential Community (vacant)
- FLUM DESIGNATION:** Residential Low (0 – 5 units per acre), both the Revelle Parcel and the existing Oak Pointe PUD.
- CURRENT ZONING:** “County” A-1, City of Apopka PUD
- PROPOSED DEVELOPMENT:** Add the 0.97 acre Revelle parcel to boundaries of the Oak Pointe PUD, and increase the number of townhomes in the Oak Pointe PUD from 106 to 120 unit for a total of 118 single family homes; 120 townhome units (238 units total)
- PROPOSED ZONING:** Planned Unit Development (PUD)
- TRACT SIZE:** Parcel to be rezoned -- 0.97 acres (+/-)
Total PUD area -- 69.38 +/- acres

DISTRIBUTION

Mayor Kilsheimer
 Commissioners
 City Administrator
 Community Development Director

Finance Director
 HR Director
 IT Director
 Police

Public Services Director
 Recreation Director
 City Clerk
 Fire Chief

ADDITIONAL COMMENTS: On December 20, 2017 the City Council approved Ordinance 2584, which approved a PUD Master Plan for a 69.7 acre residential development known as Oak Pointe. The approved Oak Pointe PUD Master Plan consists of 118 single-family and 106 townhome units. Prior to the approval of Ordinance 2584, the property owner of the Oak Pointe PUD entered into an agreement to purchase a 0.96 acre parcel located at 1751 Irmalee Lane, which is currently owned by Jason C. Revelle. The Revelle Parcel (aka Jones Additon) is surrounded by and interior to the Oak Pointe PUD. The legal description for Ordinance 2584, and the approved Oak Pointe PUD Master Plan did not include the legal description Mr. Revelle’s property. As a result, the applicant is requesting the following actions:

- 1) Rezone Mr. Revelle’s property from Orange County A-1 to City of Apopka PUD (Planned Unit Development).
- 2) Incorporate the legal description of Mr. Revelle’s property into the overall legal description of Ordinance 2584 (the Oak Pointe PUD).
- 3) Amend the Oak Pointe PUD Master Plan to include six townhome units on Mr. Revelle’s property, and eight additional townhomes within the existing Oak Pointe PUD, adjacent to Tract L-3, for an increase in the amount of townhomes in the Oak Pointe PUD from 106 to 120. There will be no increase in the amount of single-family units located within the Oak Pointe PUD. No other changes are proposed to the Oak Pointe PUD.
- 4) The Revelle parcel, when incorporated into the Oak Pointe PUD, will be owned by Thompson Hill Estates LLC, and will be subject the terms and conditions sheet forth in the Oak Pointe PUD and its development agreement.

PROJECT DESCRIPTION: The amended PUD Master Plan includes 120 townhomes and 118 single family homes within a gated community with private streets. A single master homeowners association will serve both the single family homes and townhomes. The following development standards are proposed:

- Single family lots typically have a minimum width of 70 feet and a minimum lot area of 8,400 sq. ft., a minimum house livable area of 1,500 sq. ft., and a minimum two-car enclosed garage. A small percentage of single family lots (6.8% totaling 8 lots) have a minimum typical lot width of 65 feet and a minimum lot area of 7,800 sq. ft., also with a minimum house livable area of 1,500 sq. ft. and a minimum two-car enclosed garage. No three-car garages are allowed.
- Townhomes will have a minimum lot width of 23 feet and a minimum lot area of 2,530 sq. ft. All townhome units offer a one-car enclosed garage. No two-car enclosed garages are proposed by the developer. Seventy-five (75) units have a one-car driveway; 31 units have a two-car driveway. On-Street parking and a parking lot are provided for the townhomes and community park (Tract K-6).
- Two parks are provided and will be accessible to all residents. Tract N-1 provides a community swimming pool and a cabana with a parking lot. A second community park provides outdoor recreation on 2.03 acres (Tract K-6) and includes a fenced-in dog park.
- Access to the Oak Pointe Community will occur through a road connection to McCormick Road and a future road connection to Ocoee-Apopka Road. A gate will be located at both the north and south entrances. An emergency gate will be located on the eastern boundary, connecting to Pelock Drive within the Apopka Woods community.

- Perimeter buffers include: a ten foot buffer with a six-foot high brick wall along the western property line adjacent to S.R. 429, a six-foot high vinyl fence within a ten foot buffer next to the Apopka Woods community and next to the County’s Northwest Reclamation facility.

Existing Conditions: The Oak Point PUD consists of 69.38 acres serviced by a gated private right-of-way noted on the Master Plan as Street “I”. The site typically has a flat topography with no wetlands. The property is located along the north side of McCormick Road. The City of Ocoee is situated along the south side of McCormick Road. The proposed residential PUD Master Plan abuts land zoned commercial located to the south. The commercial land is not part of the PUD and is located between McCormick Road and the single family residential area delineated on the Master Plan. Located to the east of the site is Apopka Woods a 76 lot, single family residential neighborhood. Typical lots within Apopka Woods have a minimum width of 70 feet and a minimum land area of 7,500 sq. ft. The Orange County Northwest Reclamation Water Facility is located on portions of the northern and northwest boundaries of the property. Directly to the south of Oak Pointe is a private gated residential community located in the City of Ocoee; McCormick Woods, with typical lot sizes of 70 x 125 (8,750 sq. ft.).

Annexation History: The subject properties were annexed into the City via Ordinance 1651 on December 18, 2002.

Amenities: The Master Plan includes two recreation tracts:

1. Tract N-1 – 0.8 acres

- Swimming Pool.
- Pool area surrounded by a 36” viburnum hedge, crepe myrtles, magnolia trees, live oak trees, and approved ground cover.
- Pool parking lot - 13 parking plus one handicap parking space.
- Bike rack located adjacent to parking lot.
- 2,200 +/- SF Cabana located next to the pool surrounded by landscaping that blends with the pool landscaping.
- The cabana will be partially open, with the open area surrounded by a four foot metal guardrail/fence.
- A paved sidewalk from the Cabana connects to the sidewalk along Street I.
- An outdoor shower will be placed on both the east and west sides of the building.
- The pool and cabana are appropriately located near the center of the development, easily accessible to both the single family residential units and the townhome.

2. Tract K-6 – 2.05 acres

- Two multi-purpose playing fields.
- Mulched walking trail around the perimeter of the Tract.
- Paved sidewalk will placed along the west side of the park, connecting Street I with the Tot Lot, Dog Park, and parking lot.
- Paved sidewalk will connect the parking lot at Tract O-1 with the paved sidewalk along the west side of the park.
- Three picnic tables.
- Litter receptacle - 24” X 30” size.
- Eight benches, each with armrests.
- Tot Lot with playground equipment – slides, climbing equipment.
- Dog park with five foot high vinyl coated chain link fence, screened with a viburnum hedge.
- Dogipot aluminum pet station with pet waste receptacle.
- Dog park will be handicap accessible.

- Bike rack located in Tract K-5, between the parking lot and sidewalk along the west side of the park.
- Pedestrian level lighting
- Park area surrounded by a viburnum hedge, sabal palms, crepe myrtles, magnolia trees, live oak trees, and approved ground cover.

PUD RECOMMENDATIONS: That the zoning classification for the Revelle Parcel is proposed to be PUD and the amendment to the Oak Point PUD incorporates the Revelle property into its boundaries. A summary of the amendments are as follows:

Amendment

1. The Oak Pointe PUD is amended to include the Ravelle property. (Parcel identification number: 29-21-28-0000-00-037)
2. The Ravelle property shall be subject to all the development standards and conditions set forth in Ordinance 2584.
3. The Ravelle property shall be subject to any Development Agreement approved by the City Council for the Oak Pointe PUD.
4. The maximum number of townhome units for the Oak Pointe PUD is increased from 106 to 120.

COMPREHENSIVE PLAN COMPLIANCE: The existing and proposed use of the property is consistent with the Residential Low Future Land Use designation and is consistent with the Land Development Code subject to the recommended DRC development conditions.

SCHOOL CAPACITY REPORT: The current capacity enhancement agreement must be amended with OCPS or a letter provided by OCPS prior to City approval of a final development.

ORANGE COUNTY NOTIFICATION: Pursuant to Section 7 of the Joint Planning Area agreement, notification to Orange County is not required for a rezoning application as the subject parcel being incorporated into the PUD is not adjacent to unincorporated Orange County. As a courtesy, the City notified Orange County and the City of Ocoee on February 21, 2018.

PUBLIC HEARING SCHEDULE:

March 13, 2018 - Planning Commission (5:30 pm)
April 4, 2018 - City Council (1:30 pm) - 1st Reading
April 18, 2018 – City Council (7:00 pm) - 2nd Reading

DULY ADVERTISED:

February 27, 2018 – Public Notice; Letter, Poster
February 23, 2018 – Public Notice (Apopka Chief)

RECOMMENDED ACTION:

The **Development Review Committee** finds the proposed amendment consistent with the Comprehensive Plan and Land Development Code and recommends approval of the amended Oak Pointe Planned Unit Development Master Plan/Preliminary Development Plan subject to the DRC Conditions of Approval.

Recommended Motion: Find the proposed amendments to be consistent with the Comprehensive Plan and Land Development Code, and recommend to approve the rezoning of the Revelle Parcel from Orange County “A-1” to City of Apopka PUD (Planned Unit Development), and amend Ordinance 2584 to incorporate the Revelle Parcel into the legal description of Ordinance 2584, and the amended Oak Pointe PUD Master Plan/Preliminary Development Plan to increase the maximum number of townhomes to 120.

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)	Rural (0-1 du/10 ac)	A-1	Northwest Water Reclamation Facility
East (City)	Residential Low (0-5 du/ac)	R-2	Apopka Woods subdivision
South (City)	Commercial (max 0.25 FAR)	C-1	Vacant commercial\McCormick Rd
West (City & County)	“City” Mixed Use & “County” Rural (0-1 du/10 ac)	Mixed-EC & A-1	SR 429 ROW & Retention Pond

LAND USE &

TRAFFIC COMPATIBILITY:

The property has access to a Major Arterial roadway (McCormick Road) and future access to Ocoee Apopka Road to the north. A proposed internal spine road be a private gated road and provide connectivity to both Ocoee Apopka Road to the north and McCormick Road to the south for future residents of Oak Pointe. Future land use designations and zoning categories assigned to properties to the north, south, east, and west are predominantly residential and rural.

**COMPREHENSIVE
 PLAN COMPLIANCE:**

The proposed PUD zoning is compatible with policies set forth in the Comprehensive Plan.

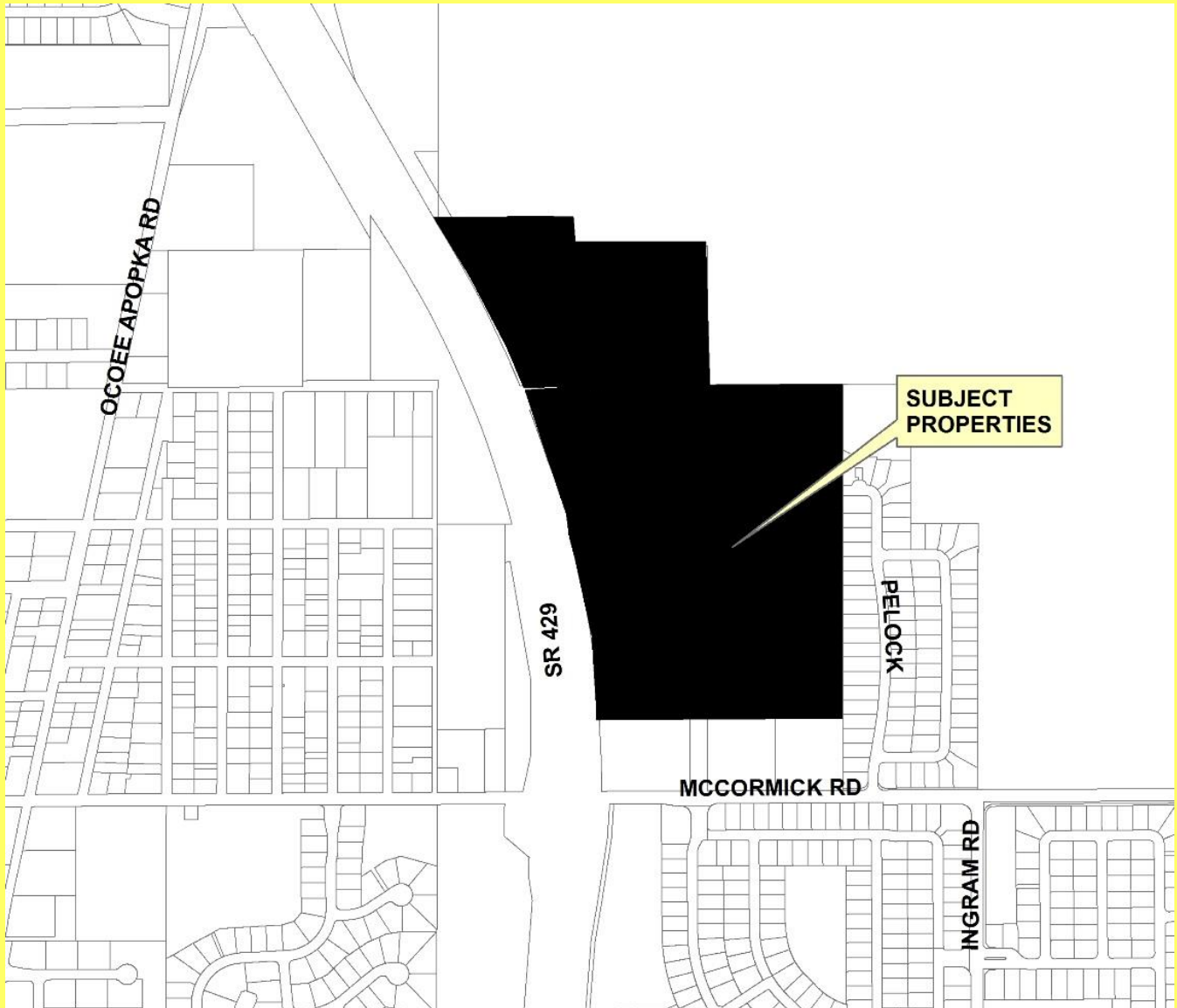
**ALLOWABLE
 USES:**

Single-family and townhome residential uses set forth within the Planned Unit Development Master Plan.

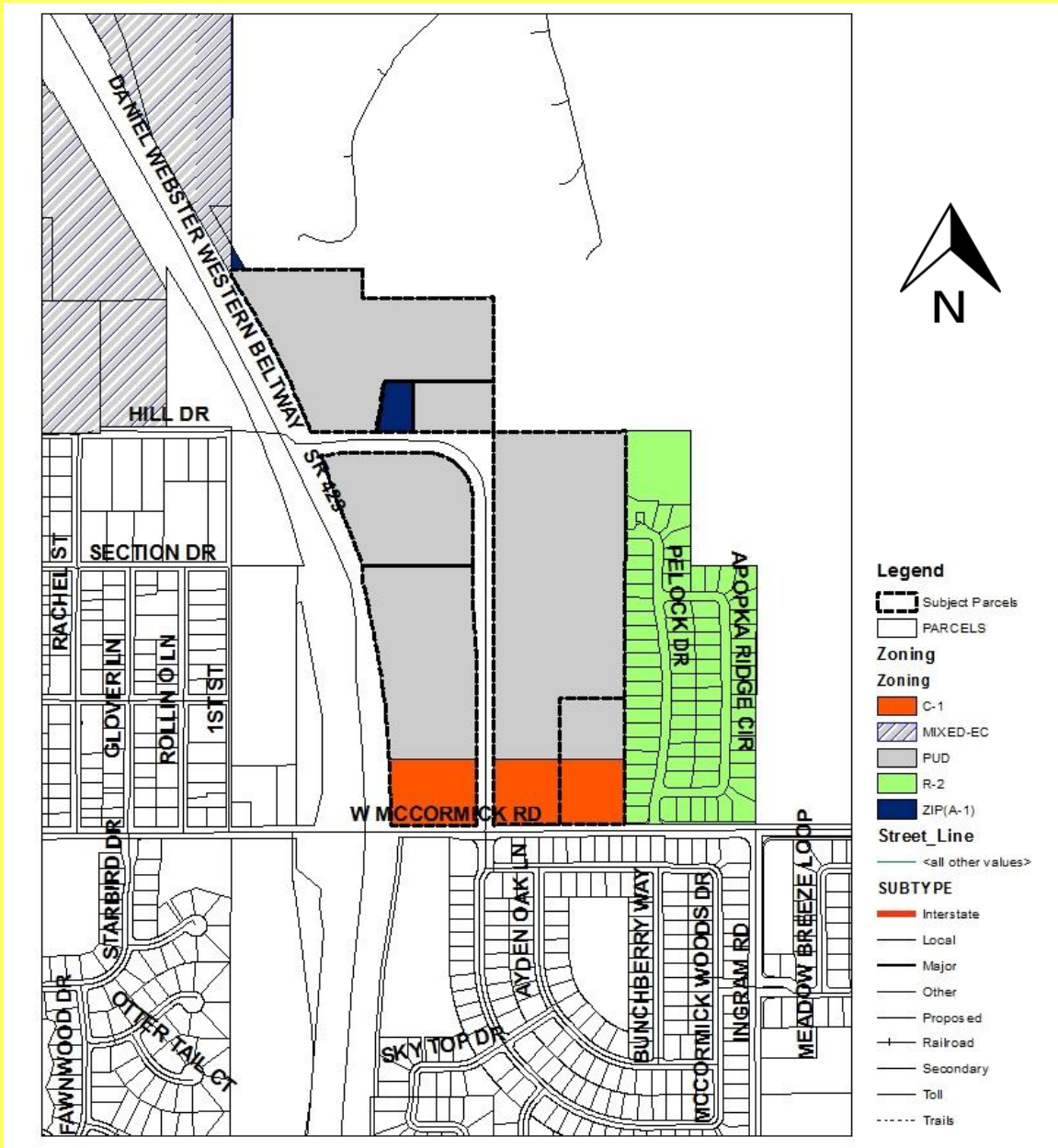


Thompson Hills Estates LLC (Oak Pointe PUD)
0.97 +/- Acres
Proposed Change of Zoning:
From: Orange County A-1
To: Planned Unit Development (New Master Site Plan)
Parcel ID #: 29-21-28-0000-00-037

VICINITY MAP



ZONING MAP

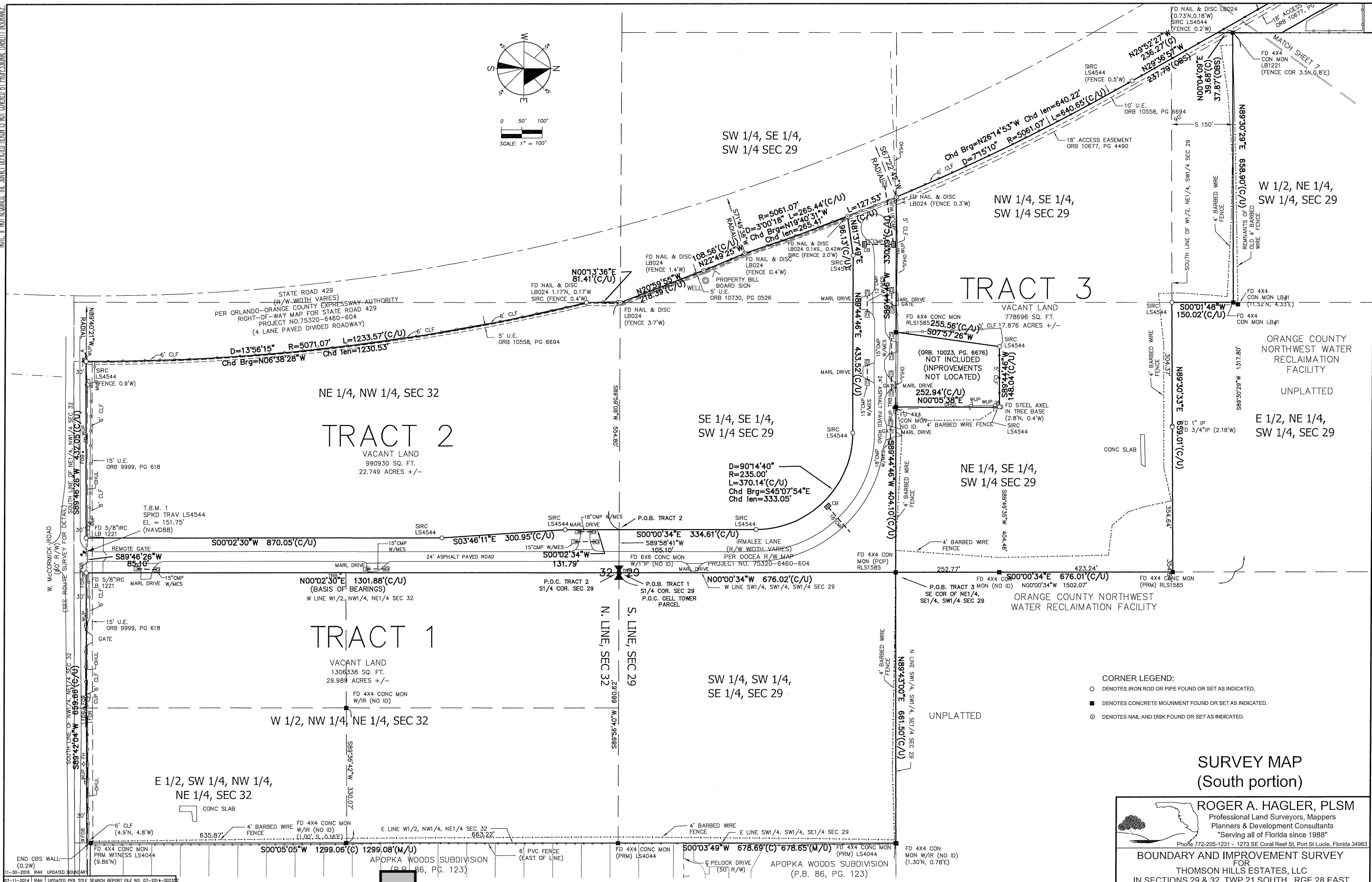
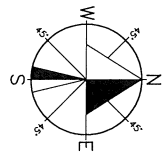




ADJACENT USES



NOTE: IF NOT REQUIRED, THE SURVEY DEPICTED HEREON IS NOT COVERED BY PROFESSIONAL LIABILITY INSURANCE.



- CORNER LEGEND:**
- DENOTES IRON ROD OR PIPE FOUND OR SET AS INDICATED.
 - DENOTES CONCRETE MONUMENT FOUND OR SET AS INDICATED.
 - ⊙ DENOTES NAIL AND DISK FOUND OR SET AS INDICATED.

**SURVEY MAP
(South portion)**

ROGER A. HAGLER, PLSM
 Professional Land Surveyors, Mappers
 Planners & Development Consultants
 "Serving all of Florida since 1988"
 Phone 772-205-1231 - 1273 SE Coral Reef St., Port St. Lucie, Florida 34983

BOUNDARY AND IMPROVEMENT SURVEY
 FOR
THOMSON HILLS ESTATES, LLC
 IN SECTIONS 29 & 32, TWP 21 SOUTH., RGE 28 EAST
 ORANGE COUNTY, FLORIDA

Drawn by: R. Hagler	Date: 03-19-2013	SCALE: AS SHOWN	JOB NUMBER: 13-101	SHEET 6	OF 7
Checked by: R. Hagler	Dwg File: 13-101.DWG				

11-30-2016	RAH	UPDATED BOUNDARY
07-11-2014	RAH	UPDATED PER TITLE SEARCH REPORT FILE NO. 07-2014-00232
04-11-2013	RAH	REFLECT NEW TITLE COMMITMENTS
04-02-2013	RAH	REVISE PER ADDITIONAL TITLE POLICY REVIEW
03-17-2013	RAH	INITIAL FIELD SURVEY COMPLETED
DATE	BY	REVISION

Parcel ID:
32-21-28-0000-00-036
Owner: William E Black
Zoning: CITRUS RURAL (ORANGE CO.)
FLU: RURAL (ORANGE CO.)

Parcel ID:
32-21-28-0000-00-010
Owner:
Orange County BBC
Zoning: A-1 Agricultural
FLU: Rural

Parcel ID:
32-21-28-0000-00-016
Owner:
Orrin L Barnes
Zoning: CITRUS RURAL ((ORANGE CO.)
FLU: RURAL (ORANGE CO.)

Parcel ID:
29-21-28-0000-00-049
Owner:
Central Florida Expressway

STATE ROAD 429
(PUBLIC RIGHT OF WAY)

NOT A PART

TRACT K-10
OPEN

NOT A PART

TRACT K-11
OPEN

TRACT K-1
OPEN

WEST LOT AREA

EAST LOT AREA

TRACT N-1
OPEN / REC

TRACT L-1
RETENTION

TRACT L-3
RETENTION

TRACT J-3
BUFFER

TRACT O-1
PARKING/ROW

TRACT M-1
LIFT STATION

TRACT K-6
OPEN SPACE / REC

TRACT K-8
OPEN

TRACT L-2
RETENTION POND

TRACT J-5
BUFFER

TRACT J-4
BUFFER

Parcel ID:
32-21-28-0235-00-004
Owner:
Apopka Woods Homeowners AssoC.
Zoning: XXXX

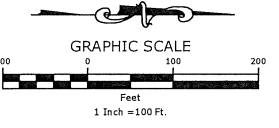
TRACT K-12
OPEN

TRACT J-2
BUFFER

TRACT K-4
OPEN

Parcel ID:
28-21-28-0000-00-010
Owner:
Orange County BBC
Zoning: A-1

TRACT K-5
OPEN



PUD/MASTER SITE PLAN AMENDMENT
PROPOSED USE DATA TABLE

TRACT	ZONING	ACREAGE	PROPOSED USE	OWNER	MAINTAINED BY
WEST LOT AREA	PUD	11.98	R-3 (SF)	HOA	HOA
EAST LOT AREA	PUD	15.57	R-3 (SF)	HAO	HOA
TH LOT AREA	PUD	8.20	R-3 (TH)	HOA	HOA
J-1	PUD	0.30	BUFFERYARD	HOA	HOA
J-2	PUD	0.25	BUFFERYARD	HOA	HOA
J-3	PUD	0.06	BUFFERYARD	HOA	HOA
J-4	PUD	0.03	BUFFERYARD	HOA	HOA
J-5	PUD	0.25	BUFFERYARD	HOA	HOA
K-1	PUD	0.20	OPEN SPACE	HOA	HOA
K-2	PUD	2.04	OPEN SPACE	HOA	HOA
K-3	PUD	0.13	OPEN SPACE	HOA	HOA
K-4	PUD	0.28	OPEN SPACE	HOA	HOA
K-5	PUD	0.20	OPEN SPACE	HOA	HOA
K-6	PUD	2.05	OPEN / REC	HOA	HOA
K-7	PUD	1.77	OPEN SPACE	HOA	HOA
K-8	PUD	0.10	OPEN SPACE	HOA	HOA
K-9	PUD	2.92	OPEN SPACE	HOA	HOA
K-10	PUD	0.18	OPEN SPACE	HOA	HOA
K-11	PUD	0.23	OPEN SPACE	HOA	HOA
K-12	PUD	0.28	OPEN SPACE	HOA	HOA
L-1	PUD	2.33	RETENTION	HOA	HOA
L-2	PUD	2.88	RETENTION	HOA	HOA
L-3	PUD	2.48	RETENTION	HOA	HOA
M-1	PUD	0.08	LIFT STATION	ORANGE CO.	ORANGE CO.
N-1	PUD	0.80	RECREATION	HOA	HOA
O-1	PUD	0.51	PARKING/ROW	HOA	HOA
P-1 (Private R.O.W.)	PUD	13.28	ROW	HOA	HOA
TOTAL		69.38			

Parcel ID:
28-21-28-0000-00-010
Owner:
Orange County BBC
Zoning: A-1

DATE	REVISIONS
4-20-17	1 REV PER DRC COMMENTS
6-28-17	2 REV PER DRC COMMENTS

EVANS ENGINEERING, INC.
LAND PLANNING
CERTIFICATE OF AUTHORIZATION NO. 6788
DAVID L. EVANS
FLORIDA REG. NO. 46484
DATE: NOV 13, 2017

EVANS ENGINEERING, INC.
LAND PLANNING
CERTIFICATE OF AUTHORIZATION NO. 6788
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
WWW.EVANSENGINEERING.COM
CERTIFICATE OF AUTHORIZATION NO. 00005788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
FLORIDA
CITY OF APOPKA

MASTER SITE PLAN

DRAWN:
TVW / MWK
CHECKED:
MPG
DATE:
JULY 2017
SCALE:
1" = 100'
JOB #:
25801
SHEET #:

4.0
OF SHEETS

4/20/17 (REV) - Oak Pointe/Thompson Hills & MOP/USDA/CA/PCP/MDP - Master Site Plan/Amend (A-1) Revised: Nov 13, 2017 - 11:46am by: jbarrett

All ideas, designs, arrangements and plans indicated or represented by this drawing are owned by and the property of SCHWEIER BOJACK LANDSCAPE ARCHITECTURE LLC and were created, evolved and developed for the use on and connection with this specific project.



SCHWEIER
BOJACK
LANDSCAPE
ARCHITECTURE

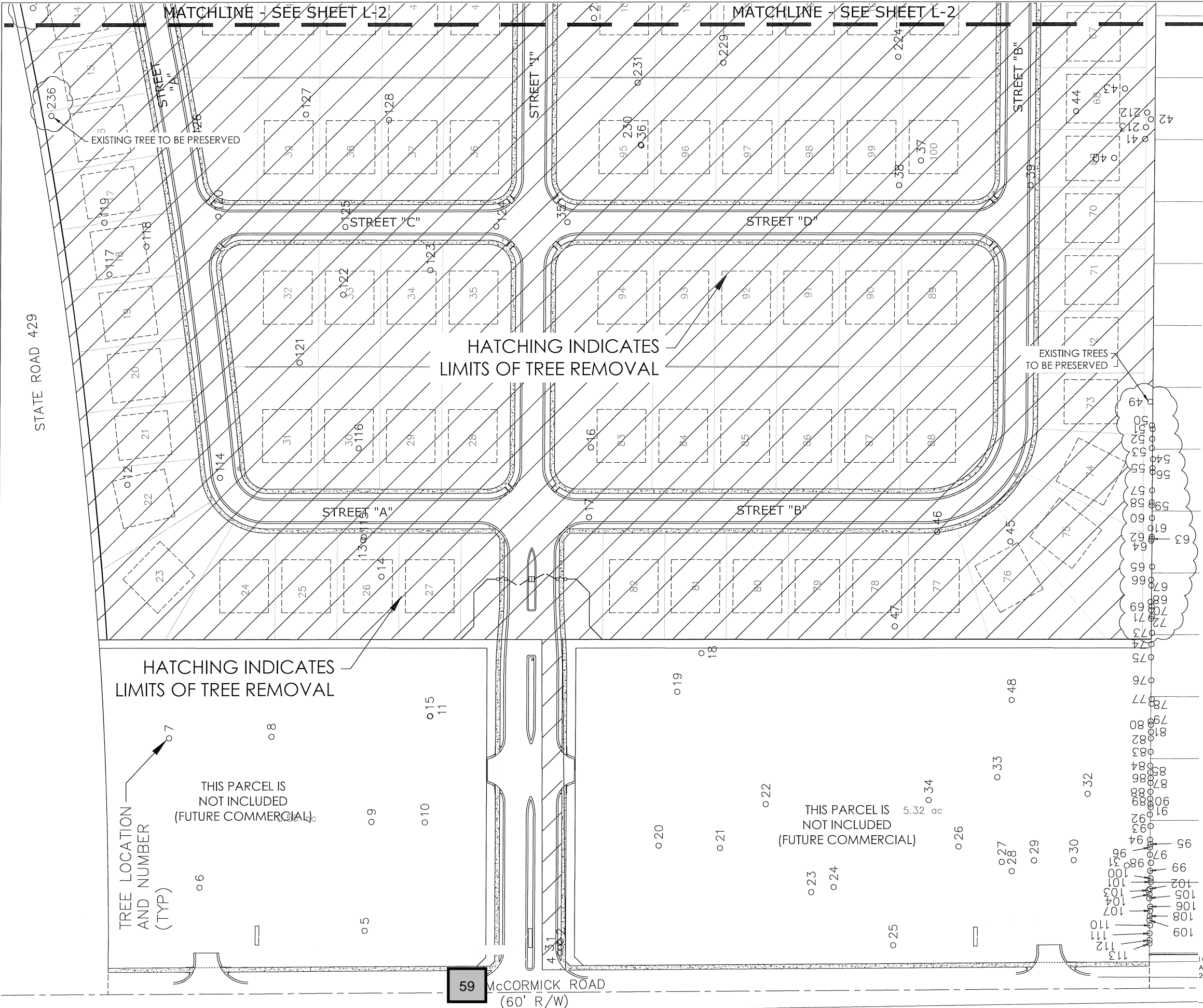
LANDSCAPE & IRRIGATION DESIGN
PO BOX 4883 • MAHLAND, FLORIDA 32794 • PH: (407) 376-1423
LICENSE NO. LC2000487 • DESIGN@SCHWEIERBOJACK.COM

OAK POINTE - PUD / MASTER PLAN
1527 W. MCCORMICK ROAD - CITY OF APOPKA, FL 32703

- 6/11/10/17
- 5/7/21/17
- 4/6/23/17
- 3/5/17/17
- 2/5/01/17
- 1/4/12/17

1/31/17
DRAWN BY: KB
SHEET NUMBER

L-1



HATCHING INDICATES LIMITS OF TREE REMOVAL

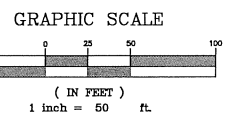
TREE LOCATION AND NUMBER (TYP)

THIS PARCEL IS NOT INCLUDED (FUTURE COMMERCIAL)

THIS PARCEL IS NOT INCLUDED (FUTURE COMMERCIAL)

EXISTING TREES TO BE PRESERVED

HATCHING INDICATES LIMITS OF TREE REMOVAL



TREE REMOVAL PLAN

(SHEET 1 OF 4)

LANDSCAPE & IRRIGATION DESIGN

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE _____ REG. NO. _____ DATE _____

59 MCCORMICK ROAD (60' R/W)

STATE ROAD 429

MATCHLINE - SEE SHEET L-2

MATCHLINE - SEE SHEET L-2

OAK POINTE

(f.k.a.) THOMPSON HILLS ESTATES

CITY OF APOPKA, FLORIDA

PUD/ MASTER PLAN

MASTER & PRELIMINARY DEVELOPMENT PLANS

PARCEL ID. NUMBERS:

29-21-28-0000-00-011, 29-21-28-0000-00-016, 29-21-28-0000-00-033
AND PORTIONS OF
29-21-28-0000-00-038, 32-21-28-0000-00-004, 32-21-28-0000-00-030

NOVEMBER 13, 2017

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2.0	DEVELOPMENT DESIGN STANDARDS
2.1	GENERAL DETAILS AND SECTIONS
3.0	EXISTING CONDITIONS
4.0	MASTER SITE PLAN
5.1-5.4	PRELIMINARY DEVELOPMENT PLAN
6.0	MASTER SIGNAGE PLAN
7.0	FENCING PLAN
8.0	FIRE ACCESS PLAN
9.0	PARKING ANALYSIS
S1	BOUNDARY SURVEY
L1-L4	TREE REMOVAL PLAN
L5-L6	MASTER LANDSCAPE PLANS
L7-L9	COMMUNITY LANDSCAPE PLANS
L10	ENTRANCE LANDSCAPE PLAN
L11	POOL AND CABANA LANDSCAPE PLAN
L12	TOWNHOMES LIFT STATION & PARK LANDSCAPE PLANS
A1-A3	ARCHITECTURAL ELEVATIONS

UTILITY COMPANIES

WATER
ORANGE COUNTY UTILITIES
9150 CURRY FORD RD. 2ND FLOOR
ORLANDO, FLORIDA 32825

WASTEWATER
ORANGE COUNTY UTILITIES
9150 CURRY FORD RD. 2ND FLOOR
ORLANDO, FLORIDA 32825

RECLAIMED WATER
ORANGE COUNTY UTILITIES
9150 CURRY FORD RD. 2ND FLOOR
ORLANDO, FLORIDA 32825

STORMWATER
ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT
601 SOUTH LAKE DESTINY RD.,
SUITE 200
MAITLAND, FL 32751

PHONE
BRIGHTHOUSE NETWORKS,
CENTURY LINK
3767 ALL AMERICAN BLVD.
ORLANDO, FLORIDA 32810
(407)291-2500

CABLE
BRIGHTHOUSE NETWORKS,
CENTURY LINK
3767 ALL AMERICAN BLVD.
ORLANDO, FLORIDA 32810
(407)291-2500

GAS
LAKE APOPKA NATURAL GAS
1320 S. VINELAND ROAD
WINTER GARDEN, FLORIDA 34777
(407)656-2734

ELECTRIC
DUKE ENERGY
P.O. BOX 14042
ST. PETERSBURG, FLORIDA 33733
(407)629-1010

APPLICANT / OWNER

THOMPSON HILLS ESTATES, LLC
207 ISLAND DRIVE.
JUPITER, FLORIDA 33477
PHONE: (561)746-8848
CONTACT: MALCOLM JONES

ENGINEER

EVANS ENGINEERING, INC.
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
PHONE: (407)872-1515
CONTACT: DAVID EVANS, P.E.

SURVEYOR

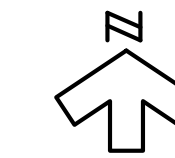
ROGER A. HAGLER, P.L.S.M.
PROFESSIONAL LAND SURVEYORS, MAPPERS
585 ORANGE AVE.
SEBASTIAN, FLORIDA 32958
PHONE: (772)205-1231
CONTACT: ROGER A. HAGLER, P.L.S.M.

GEOTECHNICAL ENGINEER

ARDAMAN & ASSOCIATES
8008 SOUTH ORANGE AVENUE
ORLANDO, FLORIDA 32809
PHONE: (407)855-3860
CONTACT: CHUCK CUNNINGHAM

STATEMENT OF INTENDED USE:

THE DEVELOPMENT OF A 224 LOT SINGLE FAMILY SUBDIVISION
PROJECT ADDRESS:
1527 W. MCCORMICK ROAD
APOPKA, FLORIDA 32703



VICINITY MAP
N.T.S.

LEGAL DESCRIPTION

TRACT 1
A PARCEL OF LAND SITUATE IN SECTIONS 29 AND 32, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTH 1/4 CORNER OF SAID SECTION 29, SAID POINT-OF-BEGINNING ALSO BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF IRMALEE LANE AS SHOWN ON OGC&A RIGHT-OF-WAY MAP, PROJECT NO. 75320-6460-604, THENCE RUN ALONG SAID RIGHT-OF-WAY LINE AND THE WEST LINE OF THE NORTHWEST 1/4 OF THE SOUTH 1/4 OF SECTION 29, NORTH 09°09'48" WEST, A DISTANCE OF 676.02 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE SOUTH 1/4 OF SAID SECTION 29, THENCE RUN NORTH 89°36'10" EAST ALONG THE NORTH LINE OF THE SOUTH 1/4 OF SAID SECTION 29, A DISTANCE OF 662.29 FEET TO THE NORTHEAST CORNER OF SAID SOUTHWEST 1/4 OF THE SOUTH 1/4 OF THE SOUTH 1/4 OF THE SOUTH 1/4 OF SAID SECTION 29, THENCE RUN SOUTH 09°09'48" WEST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4 OF THE SOUTH 1/4 OF THE SOUTH 1/4 OF SAID SECTION 29, A DISTANCE OF 679.77 FEET TO THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4 OF THE SOUTH 1/4 OF THE SOUTH 1/4 OF SAID SECTION 29, THENCE RUN SOUTH 09°09'48" WEST ALONG THE EAST LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 29, A DISTANCE OF 1299.53 FEET TO A POINT OF INTERSECTION WITH A LINE LYING 30 FEET NORTH OF AN PARALLEL WITH THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 29, SAID LINE ALSO BEING THE NORTH RIGHT-OF-WAY LINE OF WEST MCCORMICK ROAD AS LAID OUT AND IN USE, THENCE RUN SOUTH 89°44'22" WEST ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 659.63 FEET TO THE EASTERLY RIGHT-OF-WAY LINE OF AFORESAID IRMALEE LANE, THENCE RUN NORTH 09°09'48" EAST ALONG SAID RIGHT-OF-WAY LINE AND THE WEST LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29, A DISTANCE OF 1301.88 FEET BACK TO THE POINT-OF-BEGINNING.
THE ABOVE DESCRIBED PARCEL CONTAINS 180788 SQUARE FEET OR 30.808 ACRES MORE OR LESS.
FOR THE PURPOSE OF THIS DESCRIPTION ALL BEARINGS ARE RELATIVE TO THE FLORIDA STATE PLANE SYSTEM, NATIONAL ADJUSTED DATUM OF 1983 (NAD83), EAST ZONE TRANSVERSE MERCATOR, ZONE FL83-EF.

TRACT 2
A PARCEL OF LAND SITUATE IN SECTIONS 29 AND 32, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 29, SAID POINT ALSO BEING ON THE EASTERLY RIGHT-OF-WAY LINE OF IRMALEE LANE AS SHOWN ON OGC&A RIGHT-OF-WAY MAP, PROJECT NO. 75320-6460-604, THENCE RUN SOUTH 89°38'41" WEST, A DISTANCE OF 105.10 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF SAID IRMALEE LANE AND THE POINT-OF-BEGINNING OF THE PARCEL INTENDED TO BE DESCRIBED, THENCE FROM SAID POINT-OF-BEGINNING RUN ALONG SAID WESTERLY RIGHT-OF-WAY LINE FOR THE FOLLOWING THREE (3) COURSES, FIRST SOUTH 09°09'48" WEST, A DISTANCE OF 131.79 FEET, THENCE SOUTH 09°46'11" EAST, A DISTANCE OF 309.95 FEET, THENCE SOUTH 09°29'50" WEST, A DISTANCE OF 870.05 FEET TO A POINT OF INTERSECTION WITH A LINE LYING 30 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 29, SAID LINE ALSO BEING THE NORTH RIGHT-OF-WAY LINE OF WEST MCCORMICK ROAD AS LAID OUT AND IN USE, THENCE RUN SOUTH 89°46'26" WEST ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 432.05 FEET TO A POINT OF INTERSECTION WITH THE EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF STATE ROAD 429, AS SHOWN ON THE ORLANDO ORANGE COUNTY EXPRESSWAY AUTHORITY RIGHT-OF-WAY MAP, PROJECT NO. 75320-6460-604, THENCE ALONG THE SAID EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE FOR THE FOLLOWING FIVE (5) COURSES, THE FIRST BEING FROM A POINT ON A CURVE NON-TANGENT TO THE PRECEDING COURSE, CONCAVE TO THE WEST, HAVING A RADIUS OF 5071.07 FEET, A CHORD OF NORTH 06°58'25" WEST, 1250.71 FEET AND FROM WHICH A RADIAL LINE BEARS NORTH 89°49'25" WEST, THENCE NORTHWESTERLY ALONG THE ARC OF SAID CURVE, SUBTENDED BY A CENTRAL ANGLE OF 17°56'27", A DISTANCE OF 123.75 FEET TO A POINT OF NON-TANGENCY, THENCE NORTH 09°13'36" EAST, A DISTANCE OF 81.23 FEET, THENCE NORTH 21°02'59" WEST, A DISTANCE OF 210.39 FEET, THENCE NORTH 22°49'25" WEST, A DISTANCE OF 108.56 FEET TO A POINT ON A CURVE BEING NON-TANGENT TO THE PRECEDING COURSE, CONCAVE TO THE WEST, HAVING A RADIUS OF 5061.07 FEET, A CHORD OF NORTH 19°49'51" WEST, 265.41 FEET AND FROM WHICH A RADIAL LINE BEARS SOUTH 71°49'58" WEST, THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE, SUBTENDED BY A CENTRAL ANGLE OF 39°01'8", A DISTANCE OF 265.41 FEET TO A POINT OF INTERSECTION WITH THE AFORESAID RIGHT-OF-WAY LINE OF IRMALEE LANE, THENCE DEPARTING FROM SAID EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, RUN ALONG THE RIGHT-OF-WAY LINE OF IRMALEE LANE FOR THE FOLLOWING FOUR (4) COURSES, FIRST NORTH 81°37'49" EAST, A DISTANCE OF 93.13 FEET, THENCE NORTH 89°44'46" EAST, A DISTANCE OF 433.52 FEET TO THE BEGINNING OF A CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 235.00 FEET AND A CHORD OF SOUTH 45°07'54" EAST, 333.05 FEET, THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, SUBTENDED BY A CENTRAL ANGLE OF 90°14'00", A DISTANCE OF 370.14 FEET TO THE END OF SAID CURVE, THENCE RUN SOUTH 09°09'48" EAST, A DISTANCE OF 234.61 FEET BACK TO THE POINT-OF-BEGINNING.
THE ABOVE DESCRIBED PARCEL CONTAINS 99021 SQUARE FEET OR 22.748 ACRES MORE OR LESS.
FOR THE PURPOSE OF THIS DESCRIPTION ALL BEARINGS ARE RELATIVE TO THE FLORIDA STATE PLANE SYSTEM, NATIONAL ADJUSTED DATUM OF 1983 (NAD83), EAST ZONE TRANSVERSE MERCATOR, ZONE FL83-EF.

TRACT 3
A PARCEL OF LAND SITUATE IN SECTION 29, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTH 1/4 OF SAID SECTION 29, SAID POINT-OF-BEGINNING ALSO BEING AT THE NORTHEAST CORNER OF THE RIGHT-OF-WAY FOR IRMALEE LANE AS SHOWN ON THE OGC&A RIGHT-OF-WAY MAP, PROJECT NO. 75320-6460-604, THENCE RUN SOUTH 89°44'48" WEST, ALONG SAID RIGHT-OF-WAY LINE AND THE SOUTH LINE OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, A DISTANCE OF 664.10 FEET TO A POINT AT THE SOUTHWEST CORNER OF THESE LANDS DESCRIBED IN THAT CERTAIN WARRANTY DEED RECORDED IN OFFICIAL RECORD BOOK, 1023 AT PAGE 6676 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, THENCE TRAVELING SAID LANDS FOR THE FOLLOWING THREE (3) COURSES, FIRST NORTH 09°09'38" EAST, A DISTANCE OF 252.94 FEET, THENCE SOUTH 89°44'46" WEST, A DISTANCE OF 146.04 FEET, THENCE SOUTH 09°29'50" WEST, A DISTANCE OF 25.56 FEET BACK TO THE AFORESAID RIGHT-OF-WAY LINE OF IRMALEE LANE, THENCE RUN SOUTH 89°44'46" WEST ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 330.19 FEET TO A POINT OF INTERSECTION WITH THE EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF STATE ROAD 429, AS SHOWN ON THE ORLANDO ORANGE COUNTY EXPRESSWAY AUTHORITY RIGHT-OF-WAY MAP, PROJECT NO. 75320-6460-604, SAID POINT BEING A POINT ON A NON-TANGENT CURVE, CONCAVE TO THE SOUTHWEST, HAVING A RADIUS OF 5061.07 FEET, A CHORD OF NORTH 26°14'23" WEST, 680.22 FEET AND FROM WHICH A RADIAL LINE BEARS SOUTH 61°27'24" WEST, THENCE RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE, SUBTENDED BY A CENTRAL ANGLE OF 71°51'00", A DISTANCE OF 680.66 FEET, THENCE CONTINUE ALONG SAID LIMITED ACCESS RIGHT-OF-WAY LINE NORTH 09°29'57" WEST, A DISTANCE OF 217.78 FEET TO A POINT OF INTERSECTION WITH THE EAST LINE OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, THENCE DEPARTING FROM SAID LIMITED ACCESS RIGHT-OF-WAY LINE AND ALONG THE EAST LINE OF THE NORTHWEST 1/4 OF SAID SECTION 29, NORTH 09°09'38" EAST, A DISTANCE OF 37.87 FEET TO A POINT OF INTERSECTION WITH A LINE LYING 150 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF THE WEST 1/2 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, THENCE RUN NORTH 89°39'29" EAST ALONG SAID PARALLEL LINE, A DISTANCE OF 688.90 FEET TO THE EAST LINE OF SAID WEST 1/2, THENCE RUN SOUTH 09°09'38" WEST ALONG SAID EAST LINE, A DISTANCE OF 150.02 FEET TO THE SOUTH LINE OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 29, THENCE RUN NORTH 89°39'31" EAST ALONG SAID SOUTH LINE, A DISTANCE OF 659.12 FEET TO THE SOUTHWEST CORNER OF SAID EAST 1/2, THENCE RUN SOUTH 09°09'34" EAST ALONG THE EAST LINE OF SAID EAST 1/2, A DISTANCE OF 676.01 FEET BACK TO THE POINT OF BEGINNING.
THE ABOVE DESCRIBED PARCEL CONTAINS 99021 SQUARE FEET OR 22.748 ACRES MORE OR LESS.

PLAN PROVIDED FOR:

- PRELIMINARY PLAN
- BID SET
- PERMIT REVIEW SET
- CONSTRUCTION SET
- RECORD DRAWING

* THIS PLAN SHALL NOT BE USED FOR CONSTRUCTION UNLESS APPROVED FOR CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS HAVE BEEN OBTAINED PRIOR TO STARTING CONSTRUCTION.

NOTE:

ALL RESIDENTIAL ARCHITECTURAL APPEARANCE SHALL BE IN ACCORDANCE WITH THE APOPKA DEVELOPMENT DESIGN GUIDELINES, OR ALTERNATIVE DEVELOPMENT DESIGN STANDARDS, SUBJECT TO APPROVAL BY THE COMMUNITY DEVELOPMENT DEPARTMENT.



S 29&32, T 21S, R 28E

Design Standards

Lot Criteria

Table with 3 columns: Setback Table, Single Family, Townhomes. Rows include Front Porch, Front (Garage), Side Street, etc.

*MINIMUM LOT WIDTH NOTE:

THE FOLLOWING LOTS OF A MINIMUM LOT WIDTH OF 65': 9, 13, 17, 21, 69, 73, 77, 79

Table with 3 columns: Count, Percentage. Rows for 65' Width Lots, 70' Width Lots, Total Lots.

SINGLE- FAMILY LOT DATA:

Table with 3 columns: Lot Number, Lot Width* (ft.), Lot Area (ac.). Rows 1-40.

Table with 3 columns: Lot Number, Lot Width* (ft.), Lot Area (ac.). Rows 41-80.

Table with 3 columns: Lot Number, Lot Width* (ft.), Lot Area (ac.). Rows 81-118.

*LOT WIDTH MEASURE AT BUILDING SETBACK

SITE DATA:

Table with 2 columns: Category, Value. Rows: TOTAL AREA, PHASES, SINGLE FAMILY UNITS, TOWNHOME UNITS, TOTAL UNITS.

DENSITY (TOTAL UNITS / TOTAL AREA): 238 (UNITS) / 69.38 AC = 3.43 U/AC

Table with 2 columns: Category, Value. Rows: RECREATIONAL AREA, REQUIRED, PROVIDED, TRACT N-1, TRACT K-6, TOTAL.

OPEN SPACE CALCULATIONS:

Table with 2 columns: Category, Value. Rows: SINGLE FAMILY, TOWNHOUSES, TOTAL REQ'D OPEN SPACE AREA.

Table with 2 columns: Category, Value. Rows: PROVIDED, SINGLE FAMILY, BUFFER YARDS, OPEN SPACE, RETENTION, RECREATION, SINGLE FAMILY TOTAL.

Table with 2 columns: Category, Value. Rows: TOWNHOUSE, BUFFER YARDS, OPEN SPACE, RETENTION, TOWNHOUSE TOTAL.

TOTAL OPEN SPACE PROVIDED 19.52 AC

*50% OF TOTAL REQUIRED SINGLE FAMILY OPEN SPACE AREA

Notes:

- 1. Front Porch Setbacks as allowed per City of Apopka Development Design Guidelines Ord. 2502, July 2016.
2. Side Street setback requires no lot frontages on Street I and that the side street setback will not be in front of any front setback of any adjacent lot.

Architectural, Buildings and Architectural Standards

- 1. Architectural Design shall meet the intent of the City of Apopka Design Development Guidelines Ord. 2502, July 2016.
2. Single family detached homes will have two car enclosed garages.
3. Townhomes will have a combination of single and two car garages as depicted on the parking plan.
4. Mail delivery for SF and Townhomes will be in a Kiosk as located at each amenity area and shown on the Development Plan.

Utilities and Infrastructure

- 1. Water, sanitary sewer and reclaimed services will be provided by Orange County Utilities.
2. Storm water management system shall be designed to comply with the requirements of the City of Apopka and SJRWMD.
3. All internal streets and Street 'I' in its entirety from McCormick Road to its northern terminus will be owned and maintained by the HOA, included the landscape medians.
4. Street I north of the public portion will be owned and maintained by the HOA.
5. Fire protection and a stabilized access road will be provided prior to vertical building construction.
6. Five foot concrete sidewalks will be provided on all internal streets per the Engineering Standards manual.
7. Electric power will be provided underground. No overhead power service will be permitted with this development.
8. Vehicular, pedestrian and accent lighting shall substantially conform to section 3.10 of the City of Apopka Development Design Guidelines.
9. A lighting plan must be submitted with the Final Development Plan.
10. Street Names will be provided at the time of the Final Development Plan.

Recreation and Open Space

- 1. Required project open space shall be a minimum of 20% for the Single Family portion and 30% for the townhome portion per the City of Apopka PUD LDC 2.02.18 D. 19. B.
2. Project Recreational Area shall be provided at a rate of 3.6 acres per thousand population with 2.6 persons per dwelling unit.
3. The recreational tract located in the Single Family area of the project will include a pavilion and swimming pool. This tract will be easily accessible by the single family and townhomes within the development.
4. The recreational tract located in the townhome area of the project will include large play fields, benches, a dog park and walking trails. This recreational tract will be easily accessible by the townhomes and single family homes.
5. All proposed amenity areas will be shared by the entire residential development.
6. The required amenity areas will be completed and open for use by the issuance of the 50th Certificate of Occupancy for all residential units.
7. All recreation and open space areas will be owned and maintained by the HOA.

Buffers and Landscaping

- 1. A 10' buffer will be provided along SR 429 as shown on the landscape plans and consist of a 6' precast stone wall and landscaping.
2. A 10' buffer will be provided along the southern boundary of the single family residential and will include a 6' precast stone wall and landscaping.
3. A 6' tan vinyl fence will be placed at the north and east property boundary. A 6' tan vinyl fence exists on the west boundary of the Apopka Woods development. The fence proposed on this property will only be installed where there are areas not fenced on the eastern property line. A fencing plan is included in this development proposal.
4. Each single family residential lot will include two newly planted trees. The trees planted in the front yards will also serve as the street trees.

Wetlands and Environmental

- 1. There are no wetlands on the proposed site area.
2. There is no 100 year flood plain on the proposed site area.
3. An erosion protection plan will be submitted during the final development plan process.
4. Tree removal and replacement and landscaping will comply with Article V of the City of Apopka Land Development Code.
5. Individual Lot Arbor / Clearing permit is required prior to clearing or grading of any lots.

Miscellaneous

- 1. Any existing septic tanks or wells shall be properly abandoned prior to earthwork or construction permits.
2. All acreages are subject to change with the Final Engineering and Final plat review and approval.
3. The existing home within the townhome development area will maintain access rights through the proposed private access road.
4. Final location of the covered mail kiosk within the townhome community shall be determined at the Final Development Plan. A letter of approval from the Postmaster shall be submitted prior to Final Development Plan approval. The mail kiosk shall have a similar architectural appearances as the townhome buildings.

Table with 2 columns: DATE, REVISIONS. Rows for 4-20-17, 6-26-17.

Table with 2 columns: Category, Value. Rows: EVANS ENGINEERING, INC., CERTIFICATE OF AUTHORIZATION NO. 07888, DAVID L. EVANS, FLORIDA P.E. NO. 46886, DATE: Nov 13, 2017.

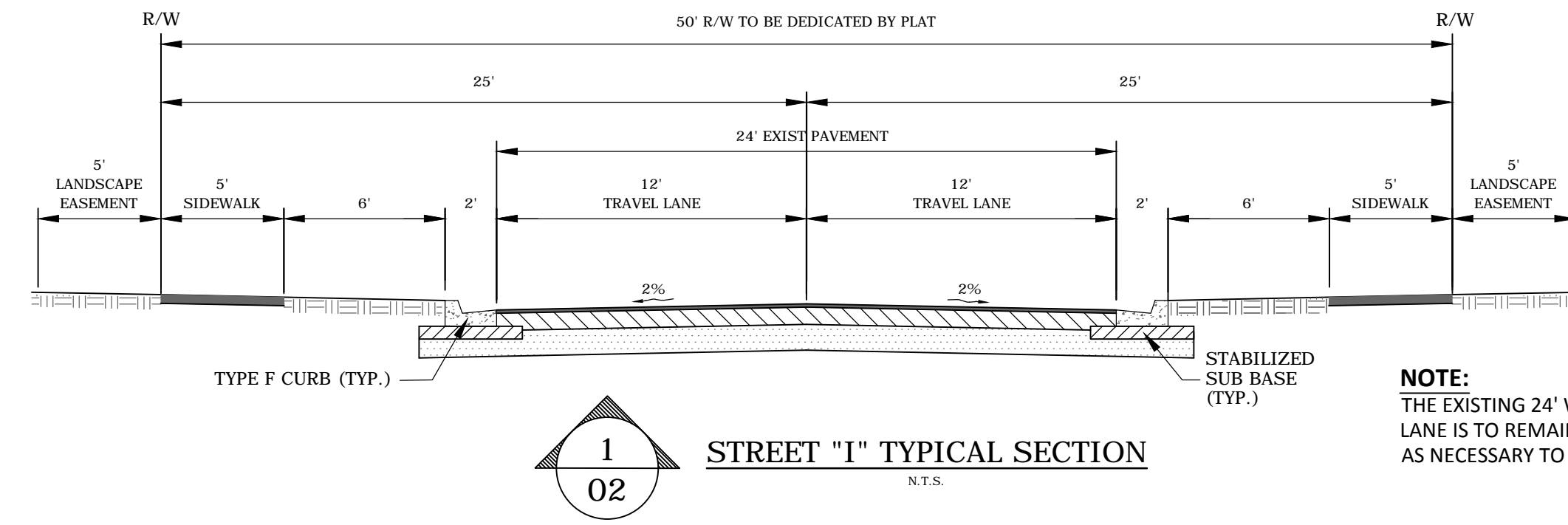
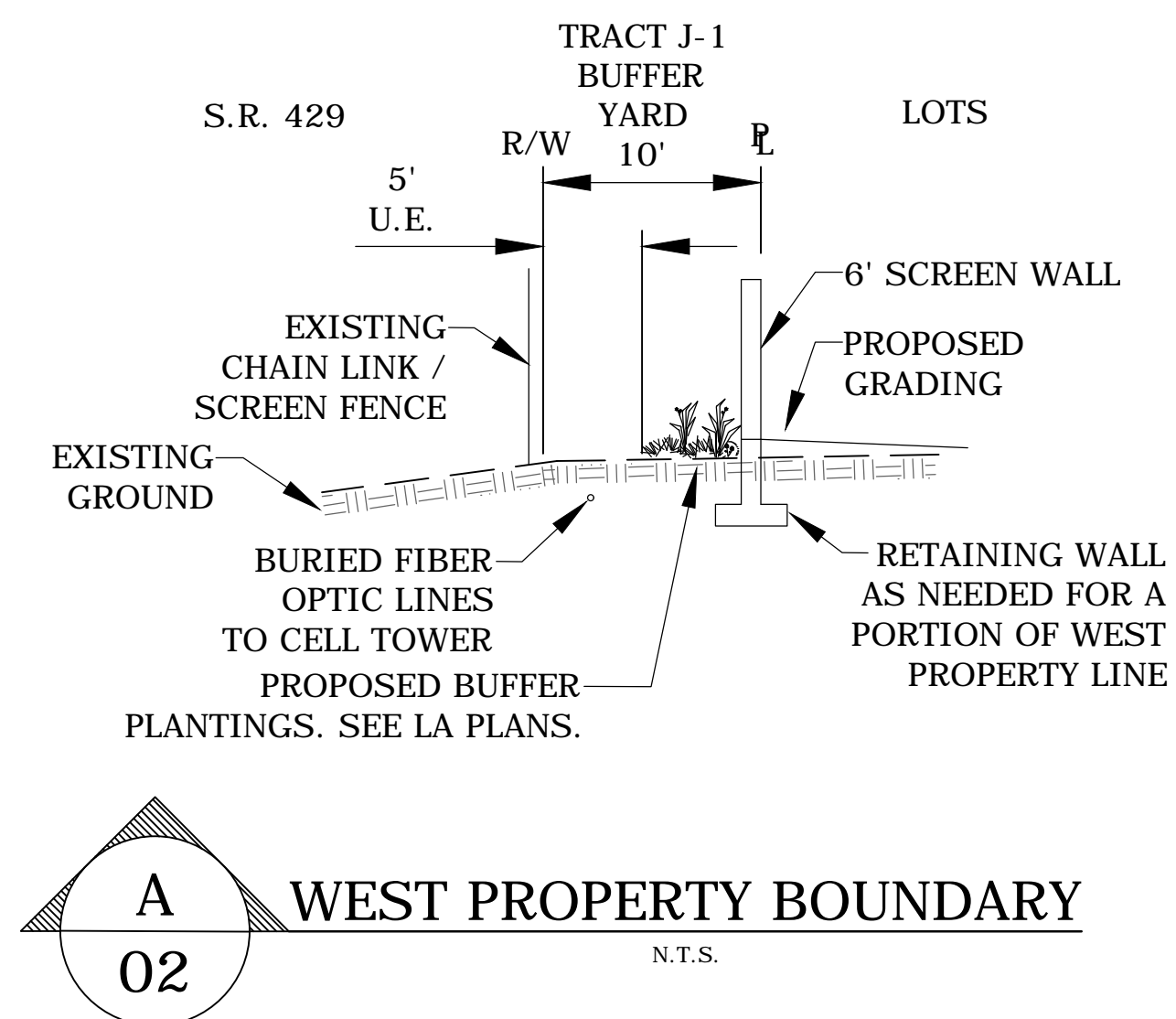
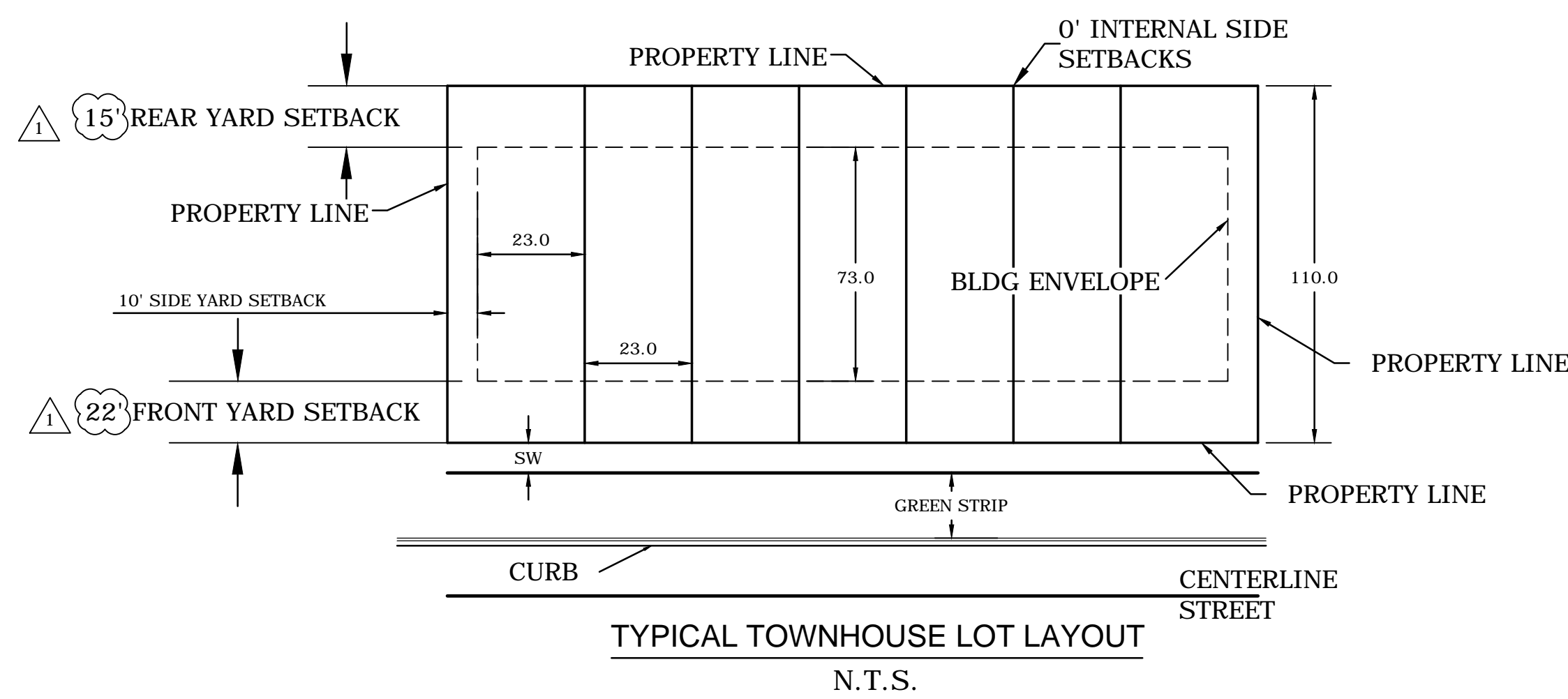
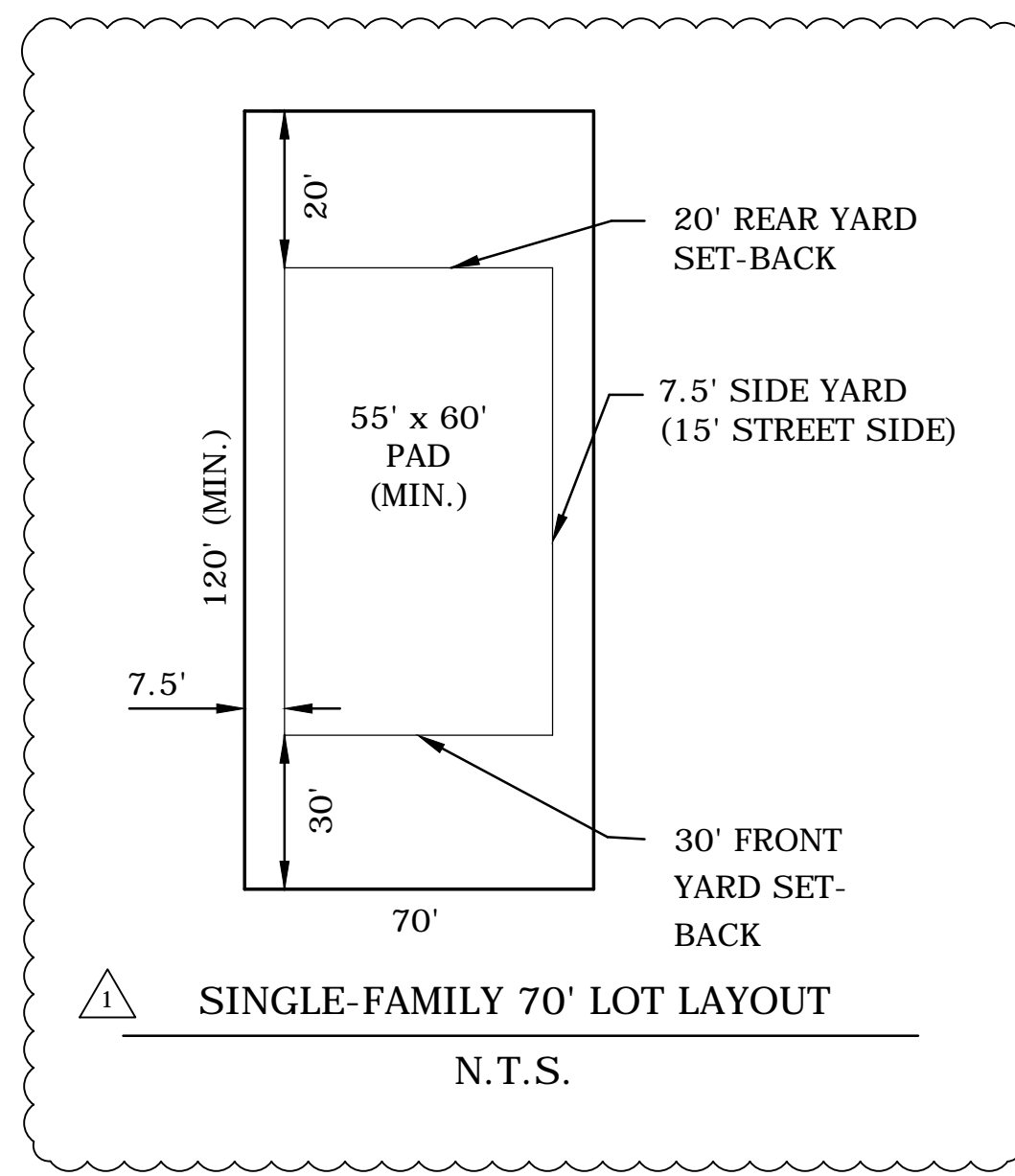
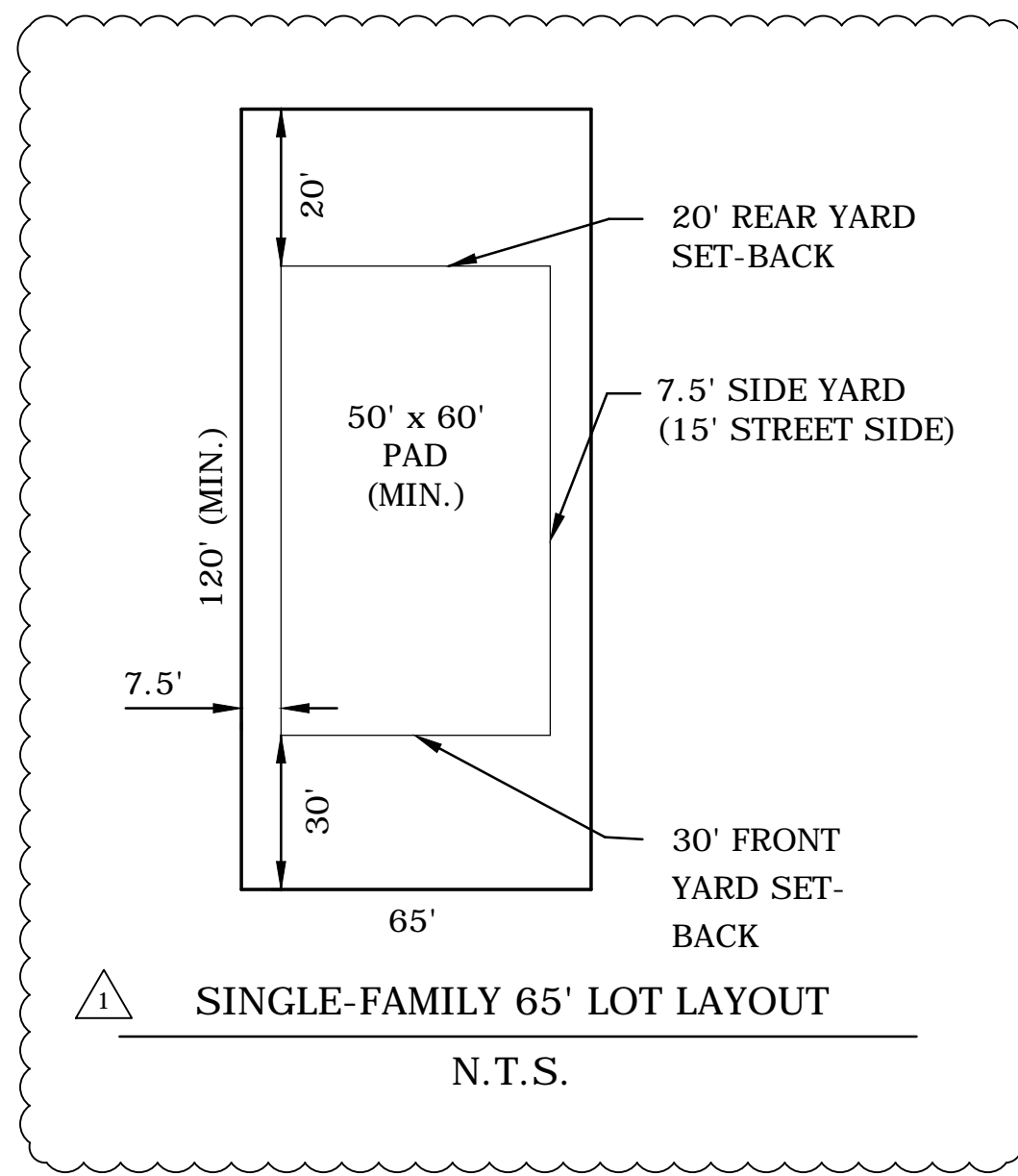
EVANS ENGINEERING, INC. LAND PLANNING PERMITTING SERVICES 719 IRMA AVENUE ORLANDO, FLORIDA 32803 (407) 872-1516 WWW.EVANSERGIN.C.OM CERTIFICATE OF AUTHORIZATION NO. 00008788

OAK POINTE FOR THOMPSON HILLS ESTATES LLC CITY OF APOPKA, FLORIDA

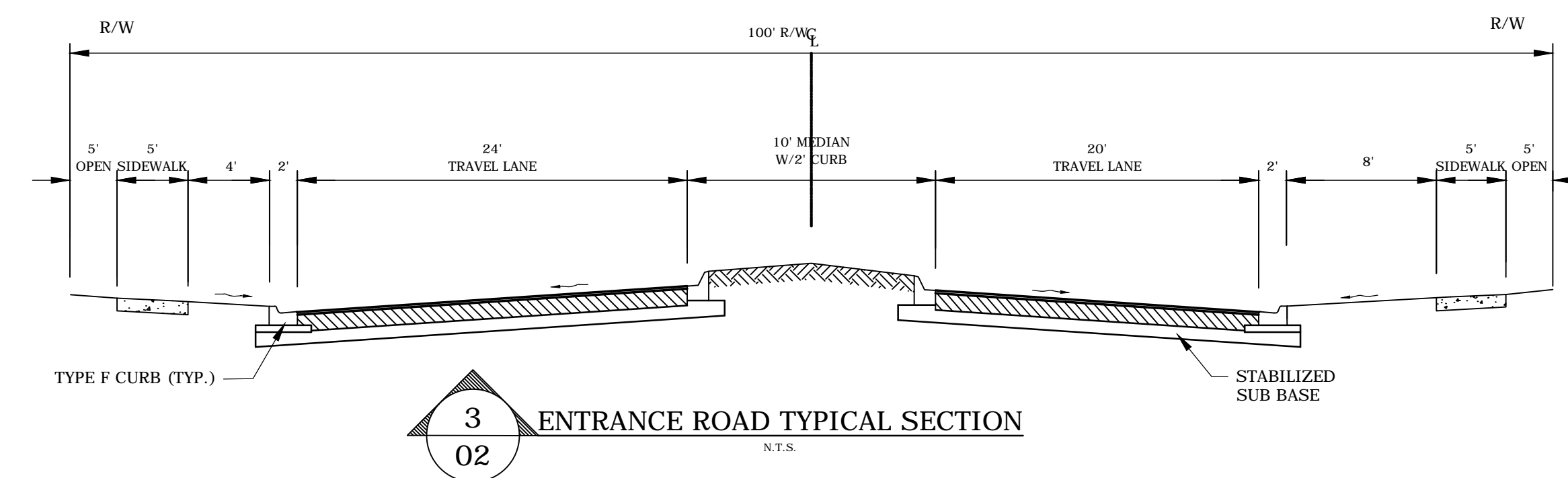
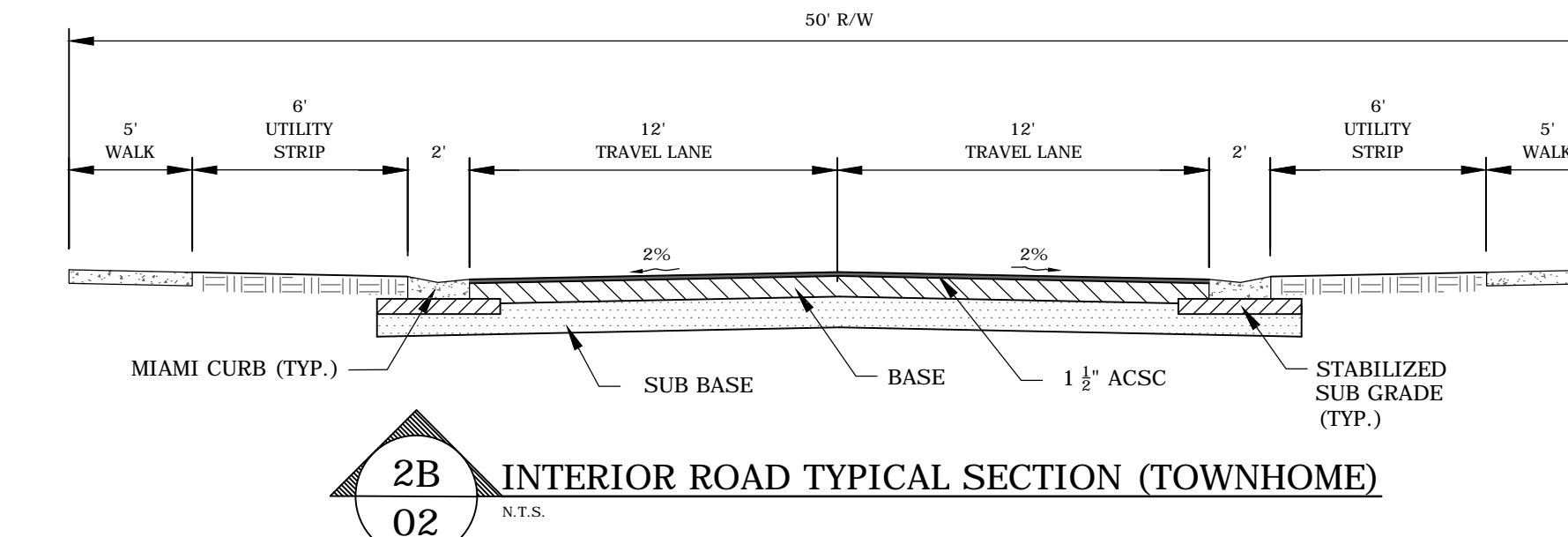
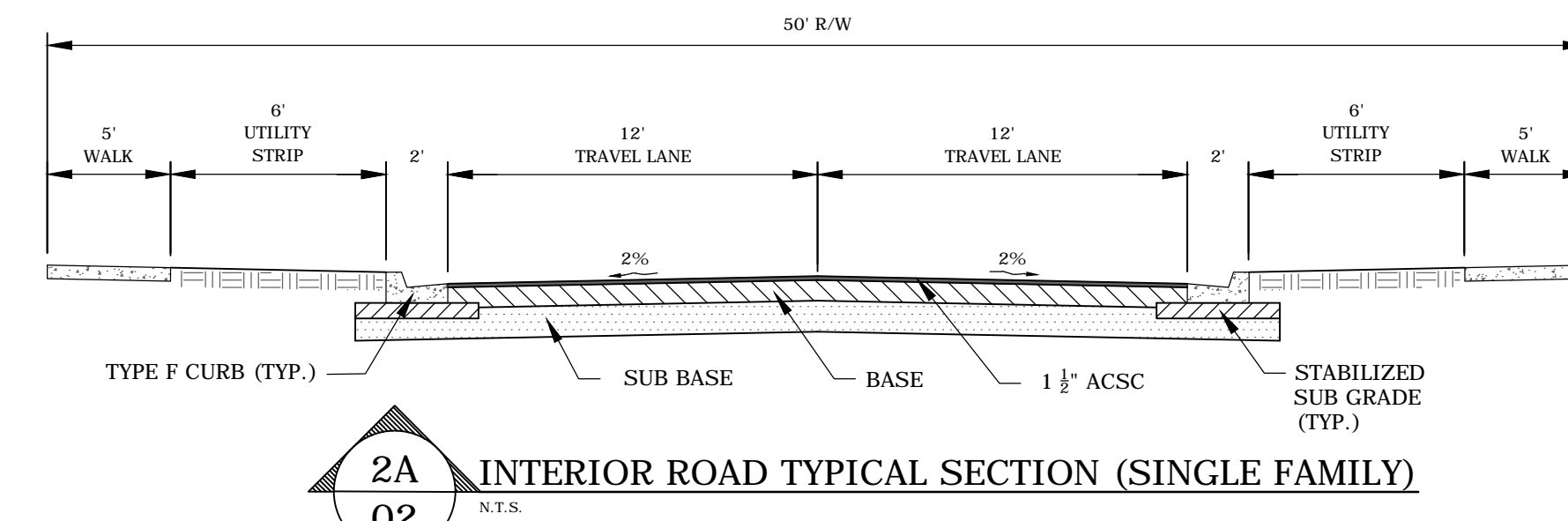
DEVELOPMENT DESIGN STANDARDS

DRAWN: TVW / MWK CHECKED: MPB DATE: NOV 2017 SCALE: NTS JOB #: 25801 SHEET #:

2.0



NOTE:
THE EXISTING 24' WIDE PAVEMENT ON IRMALEE LANE IS TO REMAIN. THE EDGES WILL BE SAWCUT AS NECESSARY TO INSTALL NEW CURB.



DATE	REVISIONS	BY
4-20-17	1 REV PER DRC COMMENTS	TVW/MWK
6-26-17	2 REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788
DAVID L. EVANS
FLORIDA P.E. NO. 46686
DATE: Nov 13, 2017

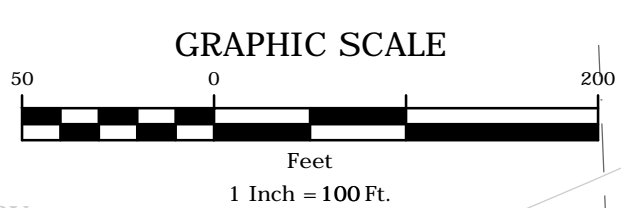
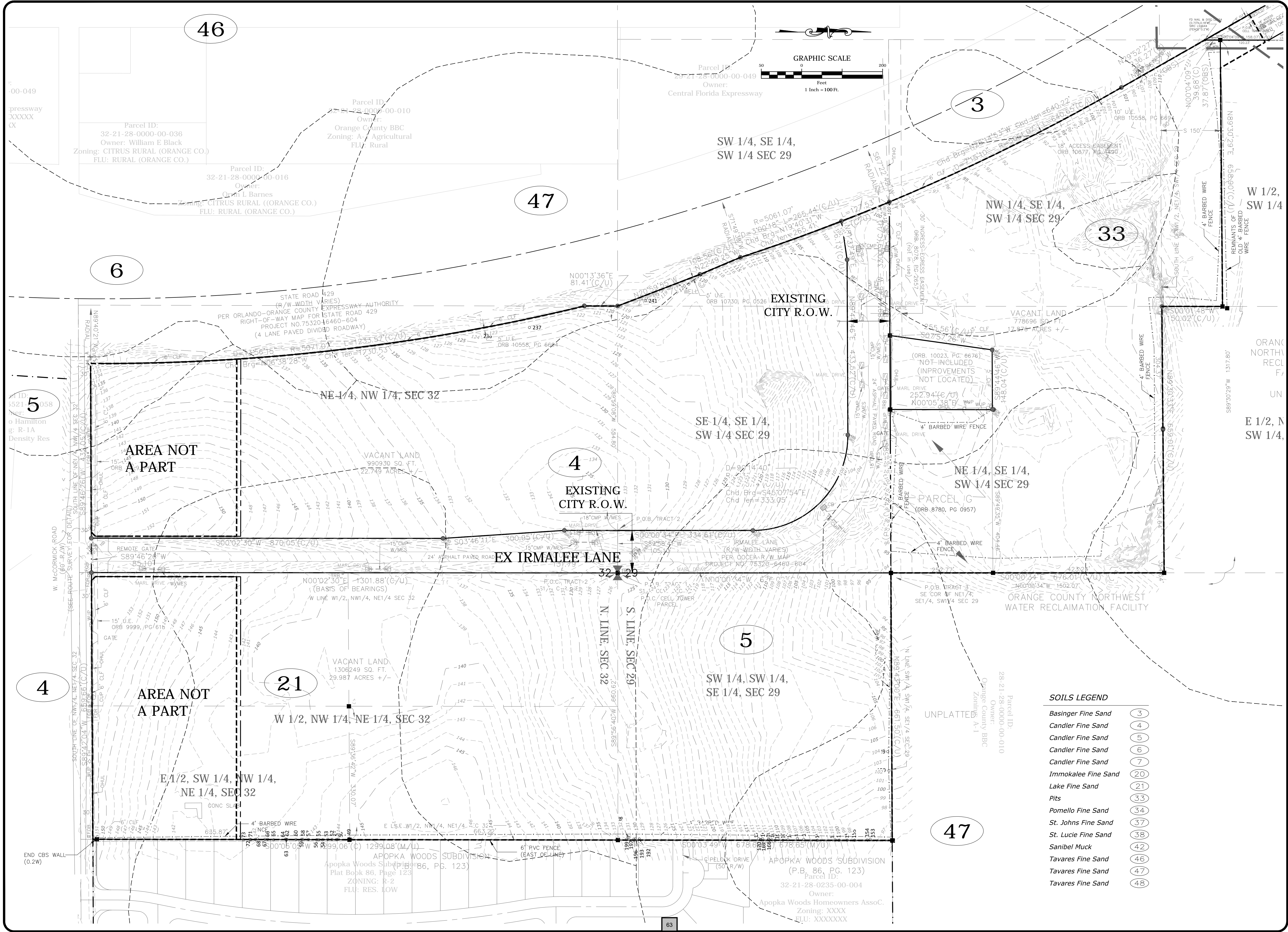
EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1516
WWW.EVANSERGINC.COM
CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
CITY OF APOPKA, FLORIDA

GENERAL
DETAILS AND SECTIONS

DRAWN:
TVW / MWK
CHECKED:
MPG
DATE:
NOV 2017
SCALE:
1" = 100'
JOB #:
25801
SHEET #:

2.1



SOILS LEGEND

Basinger Fine Sand	(3)
Candler Fine Sand	(4)
Candler Fine Sand	(5)
Candler Fine Sand	(6)
Candler Fine Sand	(7)
Immokalee Fine Sand	(20)
Lake Fine Sand	(21)
Pits	(31)
Pomello Fine Sand	(34)
St. Johns Fine Sand	(37)
St. Lucie Fine Sand	(38)
Sanibel Muck	(42)
Tavares Fine Sand	(46)
Tavares Fine Sand	(47)
Tavares Fine Sand	(48)

DATE	REVISIONS	BY
4-20-17	1 REV PER DRC COMMENTS	TV/MWK
6-26-17	2 REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
 CERTIFICATE OF AUTHORIZATION NO. 6788
 DAVID L. EVANS
 FLORIDA P.E. NO. 46886
 DATE: Nov 13, 2017

EVANS ENGINEERING, INC.
 LAND PLANNING PERMITTING SERVICES
 719 IRMA AVENUE
 ORLANDO, FLORIDA 32803
 (407) 872-1516
 WWW.EVANSERINC.COM
 CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
 FOR
 THOMPSON HILLS ESTATES LLC
 CITY OF APOPKA, FLORIDA

EXISTING CONDITIONS

DRAWN:
TVW / MWK
 CHECKED:
MPG
 DATE:
NOV 2017
 SCALE:
1" = 60'
 JOB #:
25801
 SHEET #:

3.0

32-21-28-0235-00-004 (3.0) Plotted on: Nov 13, 2017 - 11:07am by: jwrenn

Parcel ID:
32-21-28-0000-00-036
Owner: William E Black
Zoning: CITRUS RURAL (ORANGE CO.)
FLU: RURAL (ORANGE CO.)

Parcel ID:
32-21-28-0000-00-010
Owner: Orange County BBC
Zoning: A-1 Agricultural
FLU: Rural

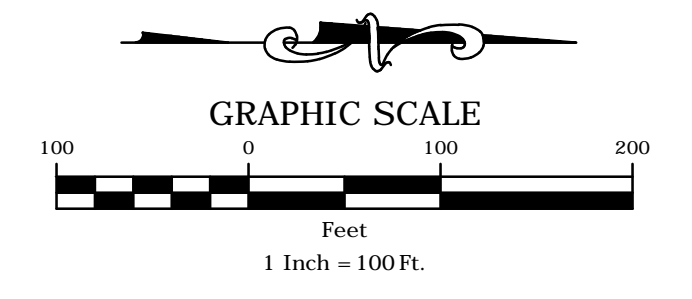
Parcel ID:
32-21-28-0000-00-016
Owner: Orrin L Barnes
Zoning: CITRUS RURAL ((ORANGE CO.)
FLU: RURAL (ORANGE CO.)

Parcel ID:
29-21-28-0000-00-049
Owner: Central Florida Expressway

Parcel ID:
28-21-28-0000-00-010
Owner: Orange County BBC
Zoning: A-1

Parcel ID:
32-21-28-0235-00-004
Owner: Apopka Woods Homeowners AssoC.
Zoning: XXXX

STATE ROAD 429
(PUBLIC RIGHT OF WAY)



PUD/MASTER SITE PLAN AMENDMENT
PROPOSED USE DATA TABLE

TRACT	ZONING	ACREAGE	PROPOSED USE	OWNER	MAINTAINED BY
WEST LOT AREA	PUD	11.98	R-3 (SF)	HOA	HOA
EAST LOT AREA	PUD	15.57	R-3 (SF)	HAO	HOA
TH LOT AREA	PUD	8.20	R-3 (TH)	HOA	HOA
J-1	PUD	0.30	BUFFERYARD	HOA	HOA
J-2	PUD	0.25	BUFFERYARD	HOA	HOA
J-3	PUD	0.06	BUFFERYARD	HOA	HOA
J-4	PUD	0.03	BUFFERYARD	HOA	HOA
J-5	PUD	0.25	BUFFERYARD	HOA	HOA
K-1	PUD	0.20	OPEN SPACE	HOA	HOA
K-2	PUD	2.04	OPEN SPACE	HOA	HOA
K-3	PUD	0.13	OPEN SPACE	HOA	HOA
K-4	PUD	0.28	OPEN SPACE	HOA	HOA
K-5	PUD	0.20	OPEN SPACE	HOA	HOA
K-6	PUD	2.05	OPEN / REC	HOA	HOA
K-7	PUD	1.77	OPEN SPACE	HOA	HOA
K-8	PUD	0.10	OPEN SPACE	HOA	HOA
K-9	PUD	2.92	OPEN SPACE	HOA	HOA
K-10	PUD	0.18	OPEN SPACE	HOA	HOA
K-11	PUD	0.23	OPEN SPACE	HOA	HOA
K-12	PUD	0.28	OPEN SPACE	HOA	HOA
L-1	PUD	2.33	RETENTION	HOA	HOA
L-2	PUD	2.88	RETENTION	HOA	HOA
L-3	PUD	2.48	RETENTION	HOA	HOA
M-1	PUD	0.08	LIFT STATION	ORANGE CO.	ORANGE CO.
N-1	PUD	0.80	RECREATION	HOA	HOA
O-1	PUD	0.51	PARKING/ROW	HOA	HOA
P-1 (Private R.O.W.)	PUD	13.28	ROW	HOA	HOA
TOTAL		69.38			

REVISIONS

DATE	BY	REVISIONS
4-20-17	TV/MWK	REV PER DRC COMMENTS
6-26-17	JR/MWK	REV PER DRC COMMENTS

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788
DAVID L. EVANS
FLORIDA P.E. NO. 46886
DATE: Nov 13, 2017

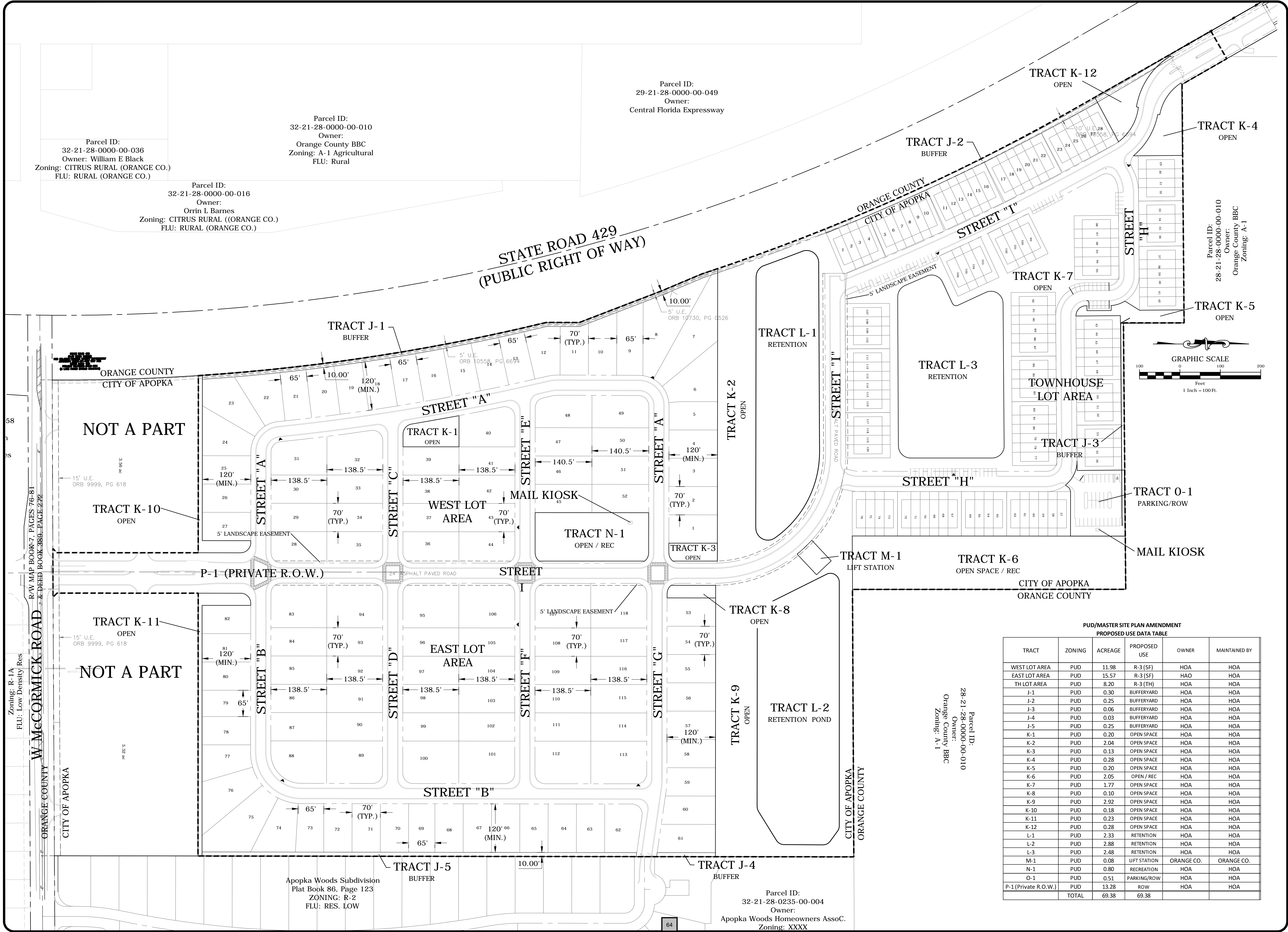
EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
ORLANDO, FLORIDA 32803
(407) 872-1515
WWW.EVANSERGINC.COM
CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE FOR THOMPSON HILLS ESTATES LLC
FLORIDA
CITY OF APOPKA

MASTER SITE PLAN

DRAWN: TVW / MWK
CHECKED: MPG
DATE: JULY 2017
SCALE: 1" = 100'
JOB #: 25801
SHEET #:

4.0 SHEETS

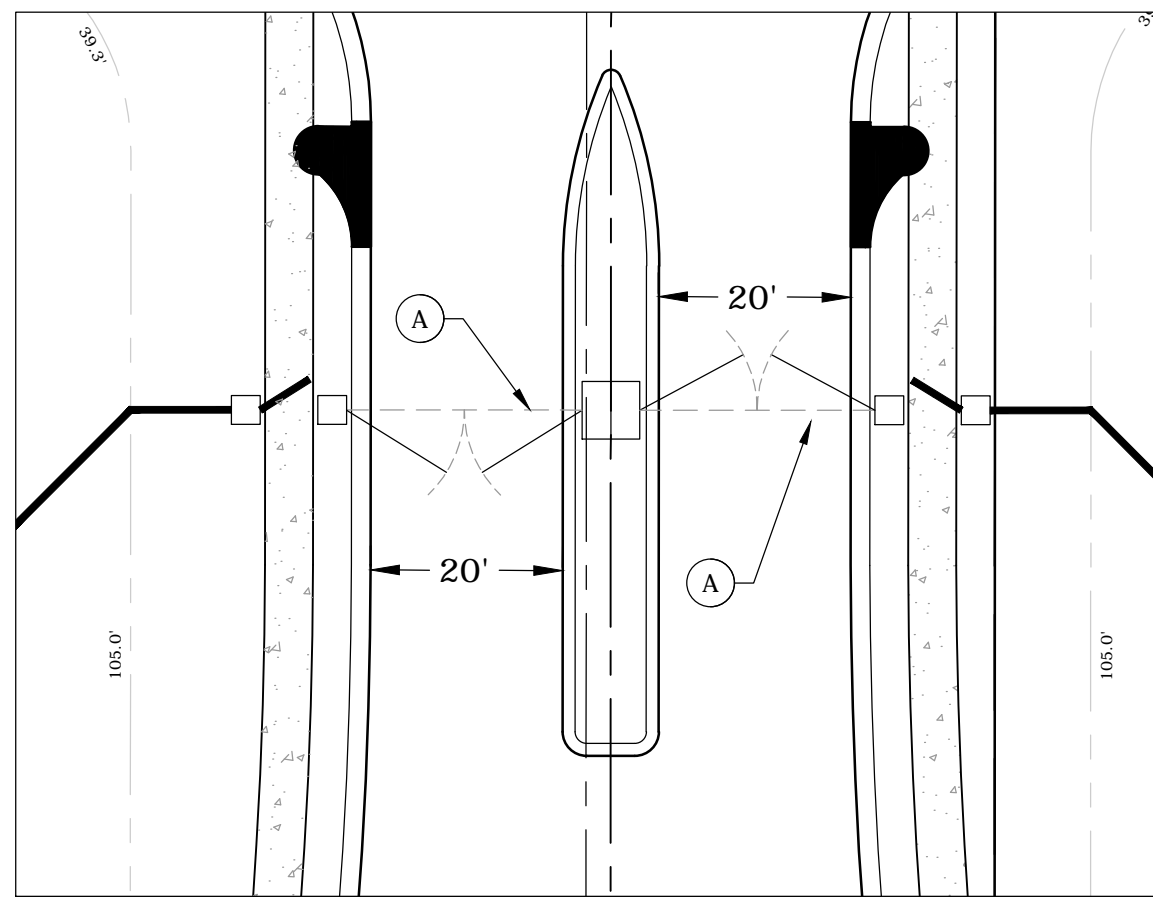


Zoning: R-1A
 FLU: Low Density Res
 W. MCCORMICK ROAD
 R/W MAP BOOK-7, PAGES 76-81
 & DEED BOOK-388, PAGE 272
 ORANGE COUNTY
 CITY OF APOPKA

ORANGE COUNTY
 CITY OF APOPKA

Parcel ID:
28-21-28-0000-00-010
Owner: Orange County BBC
Zoning: A-1

Apopka Woods Subdivision
Plat Book 86, Page 123
ZONING: R-2
FLU: RES. LOW

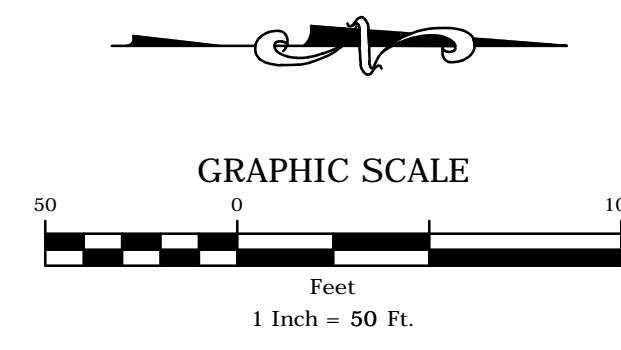


**EMERGENCY ACCESS DETAIL
(FRONT GATE)**
N.T.S.

NOTES:
1. EMERGENCY ACCESS GATES TO BE INSTALLED WITH OPTICON SYSTEM, YELP SENSOR, AND KEYPAD. TWO YELP SENSORS TO BE INSTALLED AT EACH GATE, ONE HIGH (6'+) AND ONE LOW (3').

KEY NOTES:
A EMERGENCY ACCESS GATE (SEE NOTE 1)

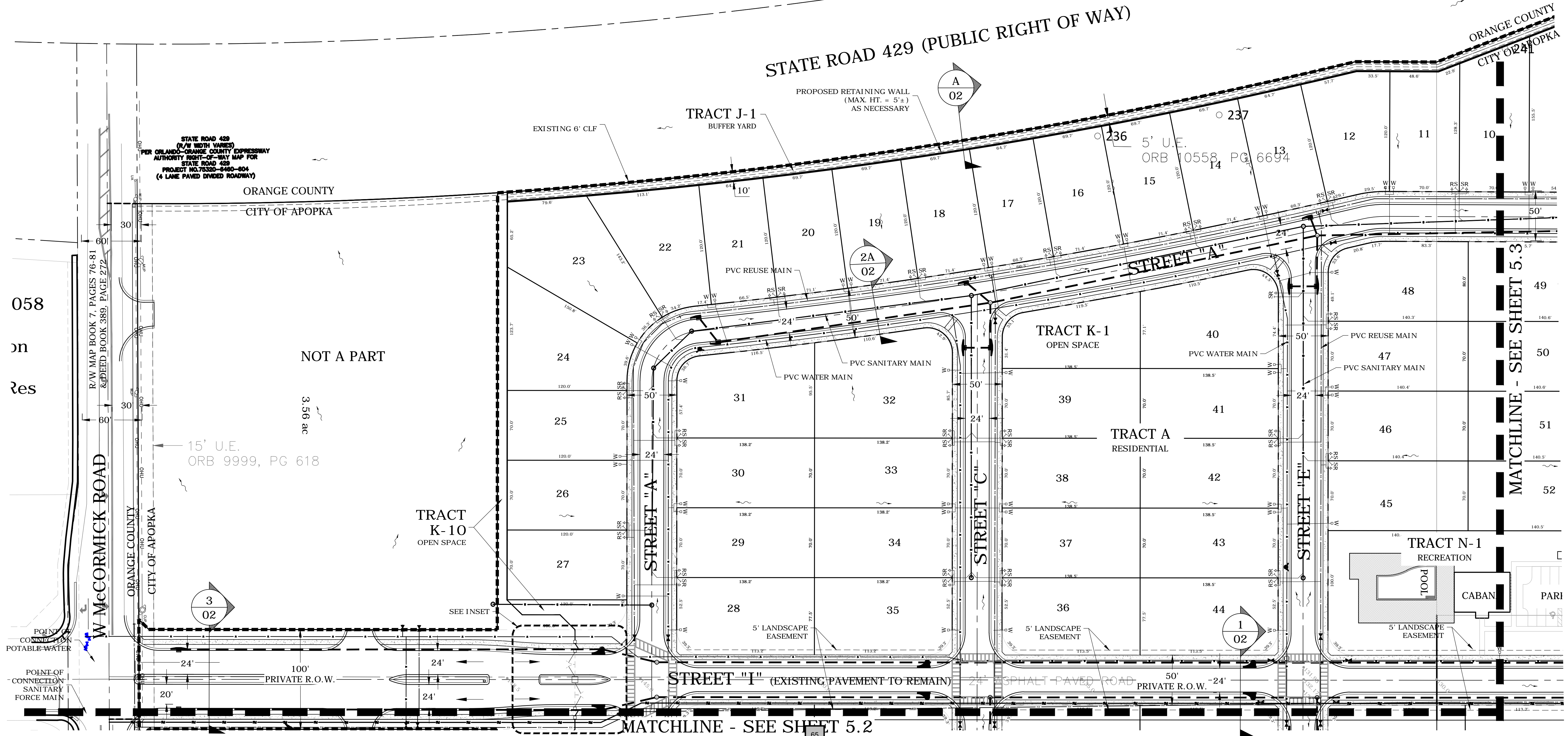
Parcel ID:
32-21-28-0000-00-016
Owner:
Orrin L Barnes
Zoning: CITRUS RURAL ((ORANGE CO.)
FLU: RURAL (ORANGE CO.)



LEGEND:

UTILITIES

- STORM SEWER
- SANITARY SEWER
- SANITARY FORCE MAIN
- WATER MAIN
- 6" HOA/Common Area SLEEVES
- PROPOSED SANITARY MANHOLE
- PROPOSED CURB INLETS
- PROPOSED DITCH BOTTOM INLETS
- PROPOSED DRAINAGE MANHOLE
- PROPOSED MITERED END SECTION
- PROPOSED HYDRANT ASSEMBLY
- PROPOSED IRRIGATION METER
- PROPOSED SINGLE AND DOUBLE SANITARY CONNECTION
- PROPOSED GATE VALVE
- PROPOSED REDUCER
- SANITARY LIFT STATION



DATE	REVISIONS	BY
4-20-17	REV PER DRC COMMENTS	TVW/MWK
6-26-17	REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788
DAVID L. EVANS
FLORIDA P.E. NO. 46686
DATE: Nov 13, 2017

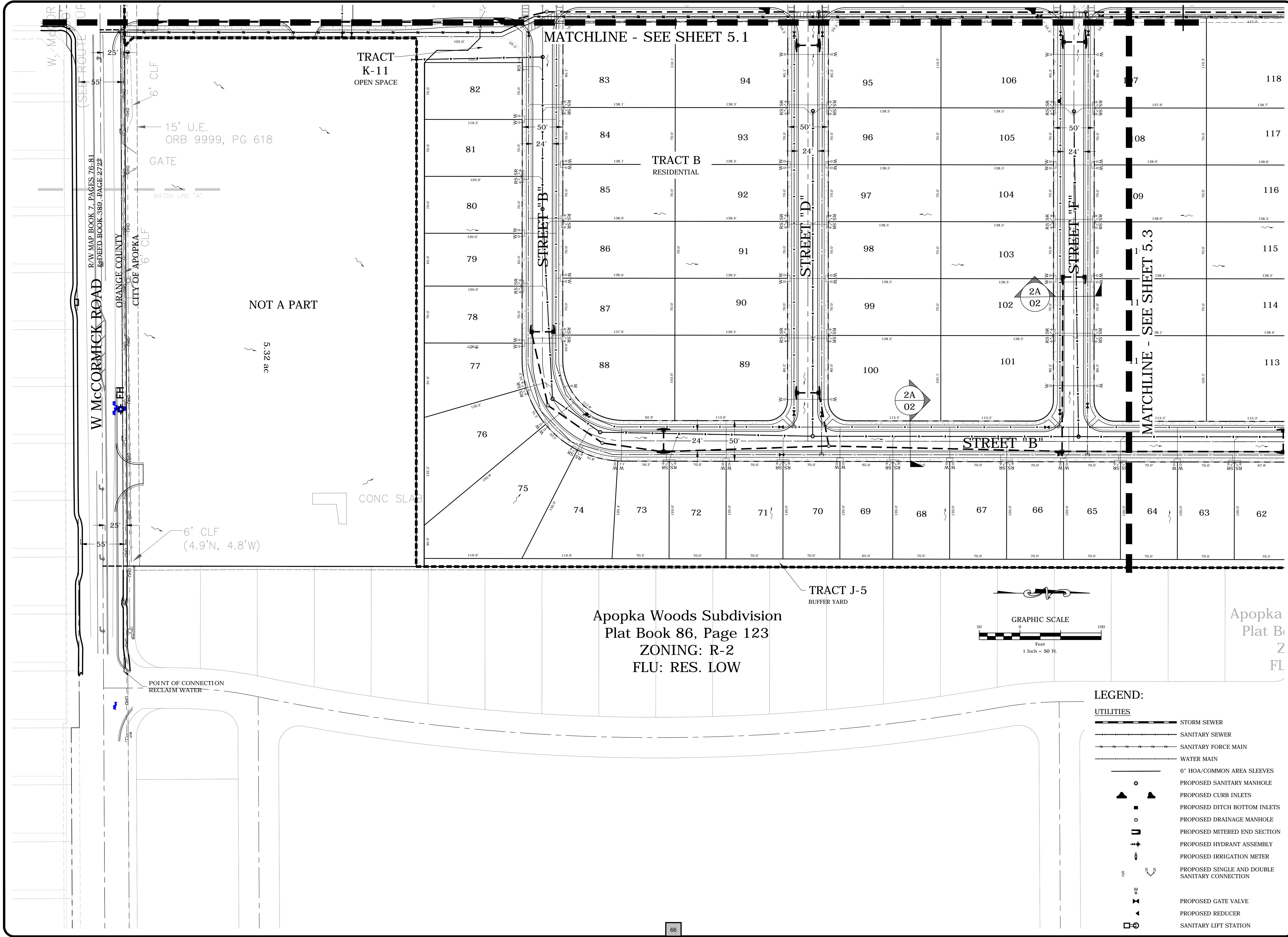
EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
www.evansenginc.com
CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
FLORIDA

PRELIMINARY
DEVELOPMENT PLAN

DRAWN:
TVW / MWK
CHECKED:
MPG
DATE:
NOV 2017
SCALE:
1" = 60'
JOB #:
25801
SHEET #:

5.1



MATCHLINE - SEE SHEET 5.1

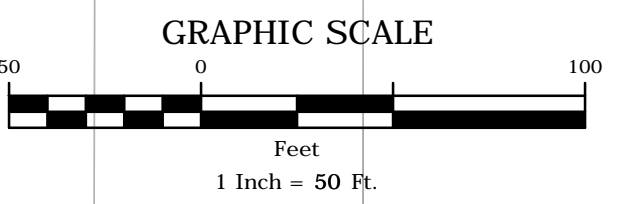
TRACT K-11
OPEN SPACE

TRACT B
RESIDENTIAL

TRACT J-5
BUFFER YARD

Apopka Woods Subdivision
Plat Book 86, Page 123
ZONING: R-2
FLU: RES. LOW

Apopka
Plat B
Z
FL



LEGEND:

- UTILITIES**
- STORM SEWER
 - SANITARY SEWER
 - SANITARY FORCE MAIN
 - WATER MAIN
 - 6" HOA/COMMON AREA SLEEVES
 - PROPOSED SANITARY MANHOLE
 - PROPOSED CURB INLETS
 - PROPOSED DITCH BOTTOM INLETS
 - PROPOSED DRAINAGE MANHOLE
 - PROPOSED MITERED END SECTION
 - PROPOSED HYDRANT ASSEMBLY
 - PROPOSED IRRIGATION METER
 - PROPOSED SINGLE AND DOUBLE SANITARY CONNECTION
 - PROPOSED GATE VALVE
 - PROPOSED REDUCER
 - SANITARY LIFT STATION

DATE	REVISIONS
4-20-17	1 REV PER DRC COMMENTS
6-26-17	2 REV PER DRC COMMENTS

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788
DAVID L. EVANS
FLORIDA P.E. NO. 46686
DATE: Nov 13, 2017

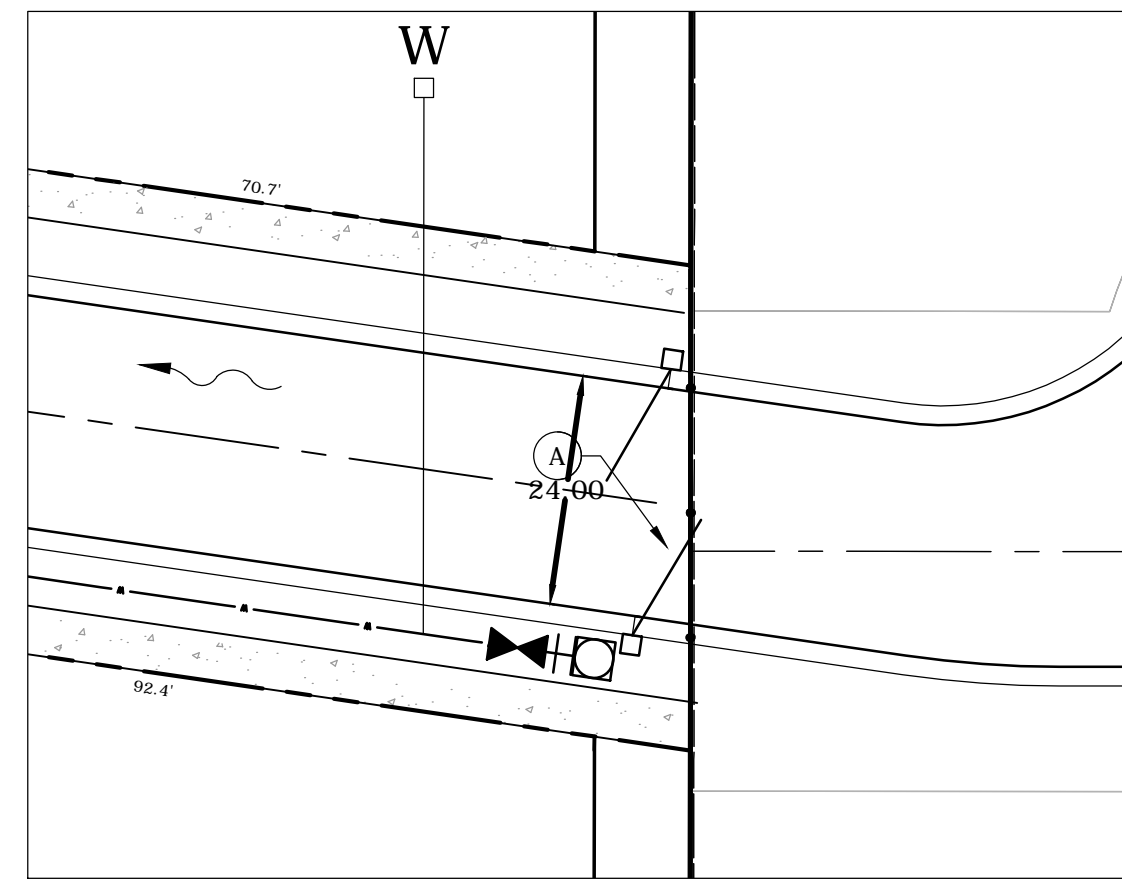
EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
WWW.EVANSERGINC.COM
CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
FLORIDA
CITY OF APOPKA,

PRELIMINARY
DEVELOPMENT PLAN

DRAWN:
TVW / MWK
CHECKED:
MPG
DATE:
NOV 2017
SCALE:
1" = 60'
JOB #:
25801
SHEET #:

5.2



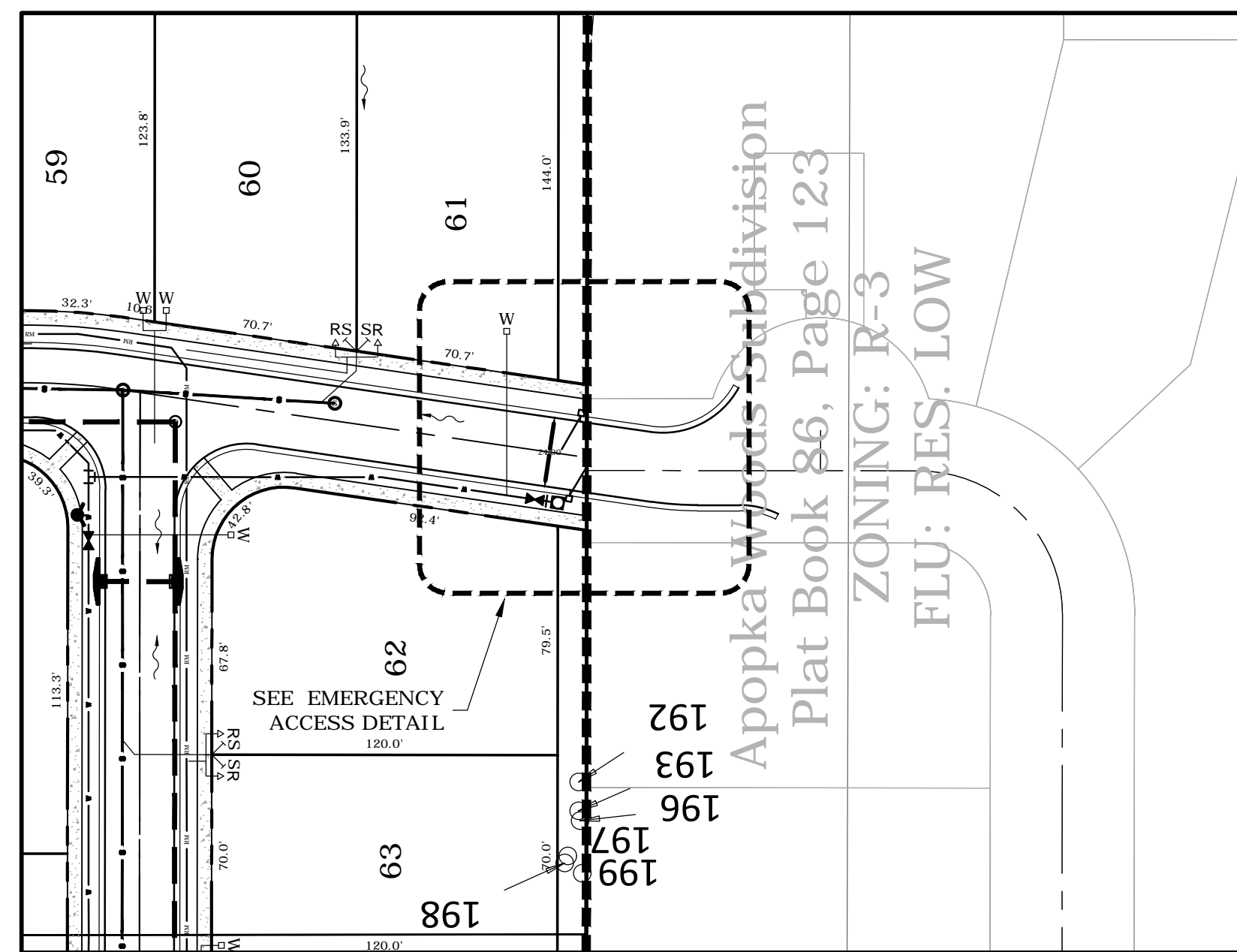
**EMERGENCY ACCESS DETAIL
(APOPKA WOODS ENTRY)**

NOTES:

- EMERGENCY ACCESS GATES TO BE INSTALLED WITH OPTICON SYSTEM, YELP SENSOR, AND KEYPAD. TWO YELP SENSORS TO BE INSTALLED AT EACH GATE, ONE HIGH (6'-") AND ONE LOW (3').

KEY NOTES:

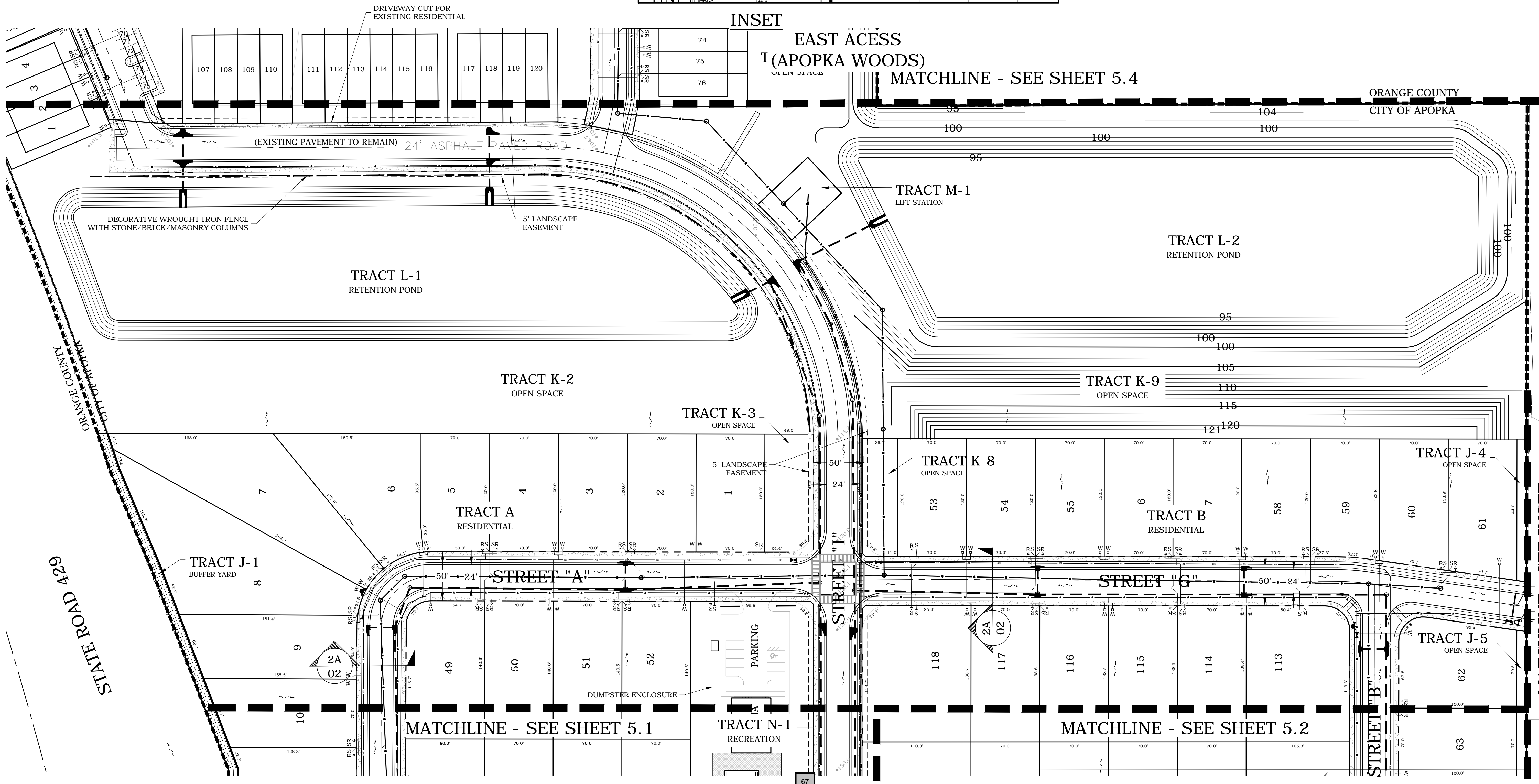
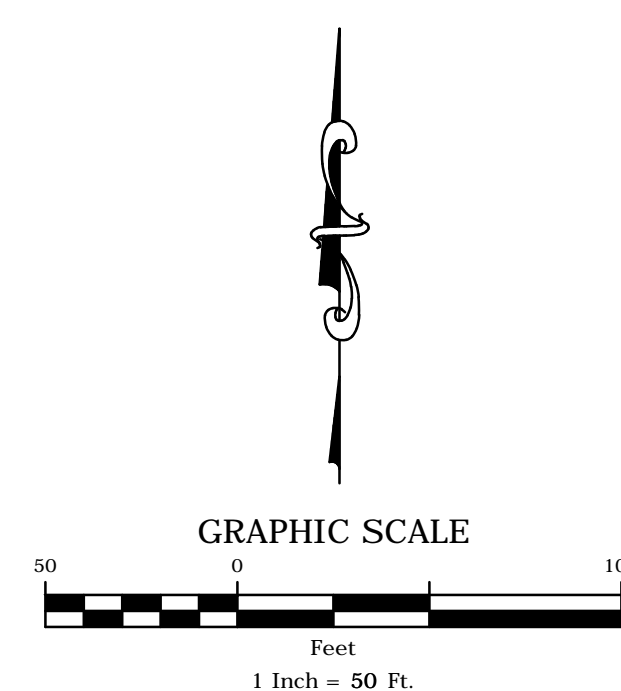
- (A) EMERGENCY ACCESS GATE (SEE NOTE 1)



LEGEND:

UTILITIES

- STORM SEWER
- SANITARY SEWER
- SANITARY FORCE MAIN
- WATER MAIN
- 6" HOA/Common Area Sleeves
- PROPOSED SANITARY MANHOLE
- PROPOSED CURB INLETS
- PROPOSED DITCH BOTTOM INLETS
- PROPOSED DRAINAGE MANHOLE
- PROPOSED MITERED END SECTION
- PROPOSED HYDRANT ASSEMBLY
- PROPOSED IRRIGATION METER
- PROPOSED SINGLE AND DOUBLE SANITARY CONNECTION
- PROPOSED GATE VALVE
- PROPOSED REDUCER
- SANITARY LIFT STATION



DATE	REVISIONS	BY
4-20-17	REV PER DRC COMMENTS	TVW/MWK
6-26-17	REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46886
DATE: Nov 13, 2017

EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
WWW.EVANSERGINC.COM
CERTIFICATE OF AUTHORIZATION NO. 00006788

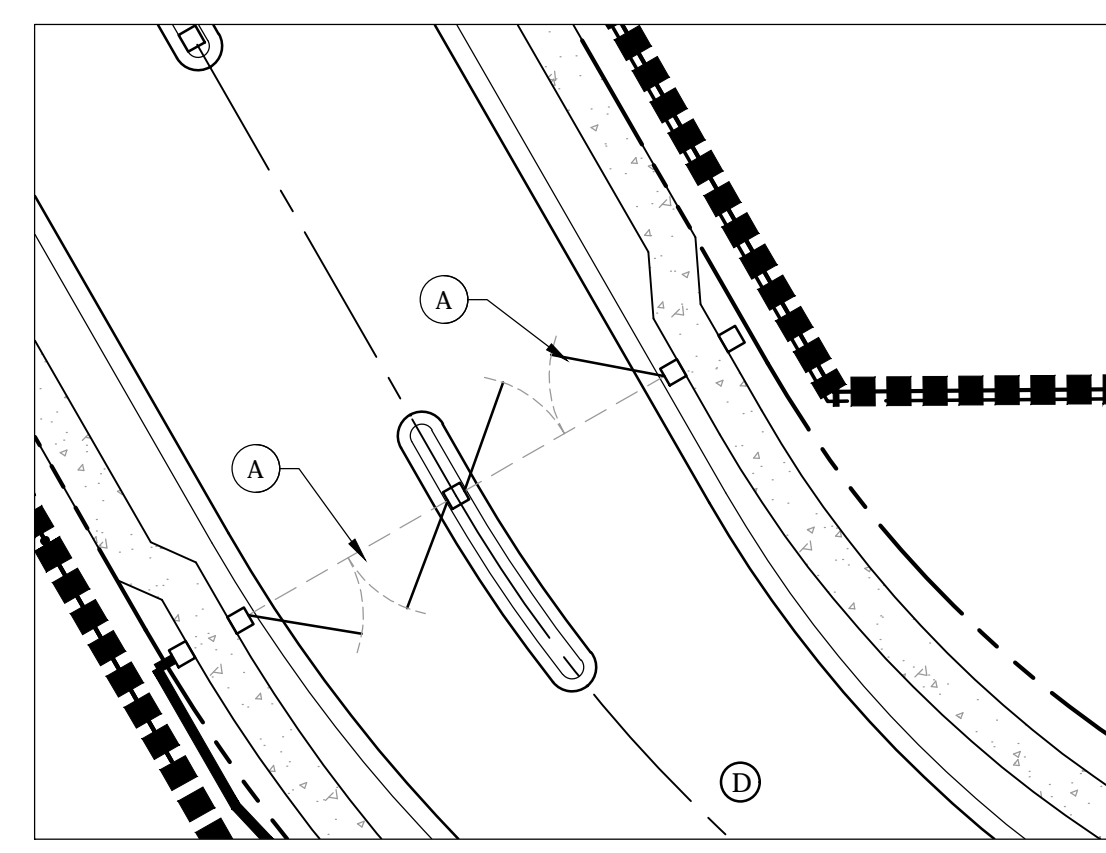
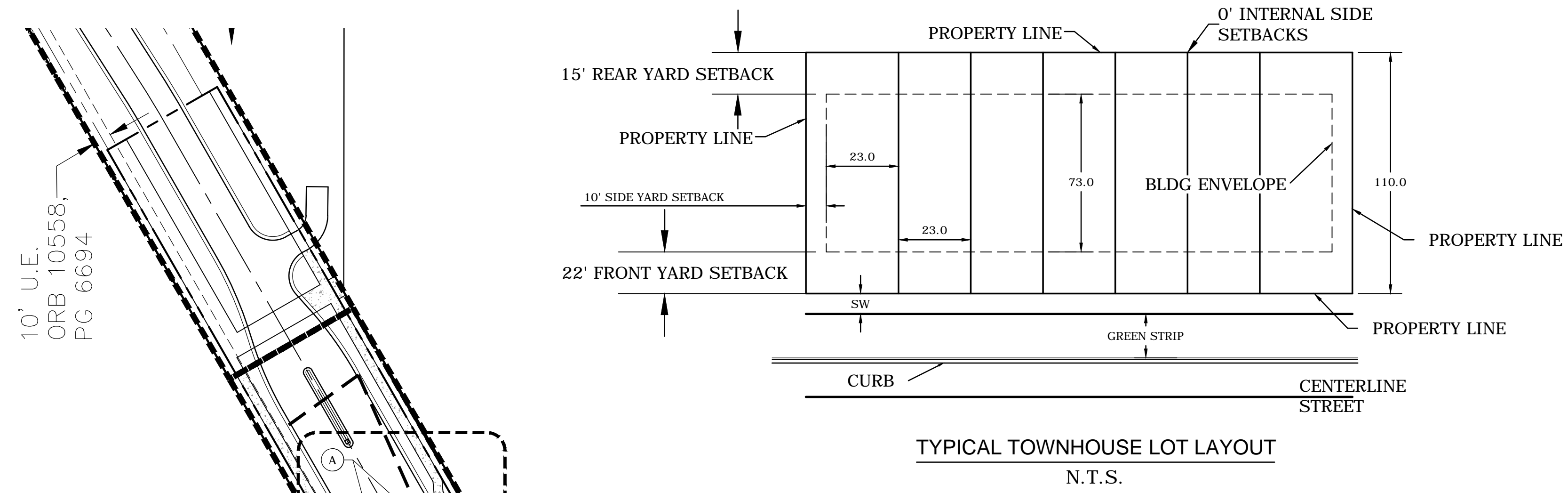
OAK POINTE FOR THOMPSON HILLS ESTATES LLC
FLORIDA

PRELIMINARY DEVELOPMENT PLAN

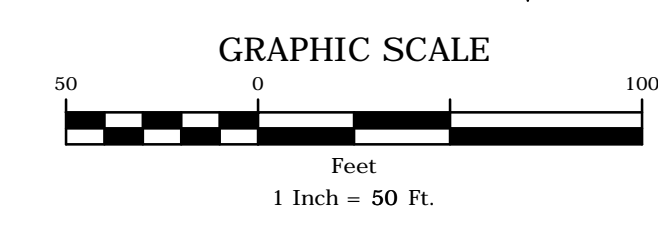
DRAWN: TVW / MWK
CHECKED: MFG
DATE: NOV 2017
SCALE: 1" = 60'
JOB #: 25801
SHEET #:

5.3

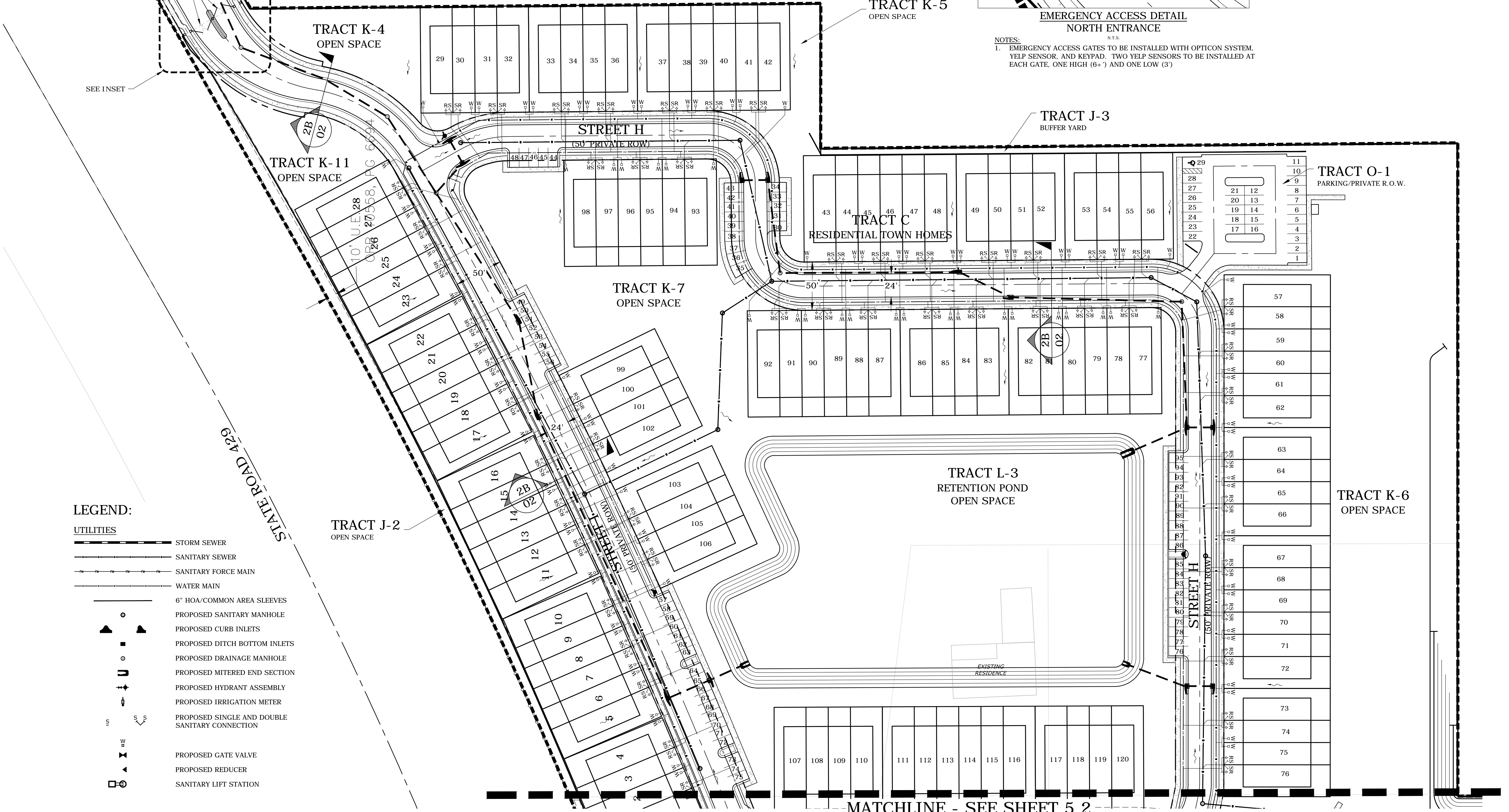
A:\005\25801 - Oak Pointe\Drawings\05-PDP-006 - PDP.dwg (5.3) Plotted on: Nov 13, 2017 - 1:02pm by Jherren



KEY NOTES:
 (A) EMERGENCY ACCESS GATE (SEE NOTE 1)



NOTES:
 1. EMERGENCY ACCESS GATES TO BE INSTALLED WITH OPTICON SYSTEM, YELP SENSOR, AND KEYPAD. TWO YELP SENSORS TO BE INSTALLED AT EACH GATE. ONE HIGH (6'+) AND ONE LOW (3')



LEGEND:

UTILITIES

	STORM SEWER
	SANITARY SEWER
	SANITARY FORCE MAIN
	WATER MAIN
	6" HOA/COMMON AREA SLEEVES
	PROPOSED SANITARY MANHOLE
	PROPOSED CURB INLETS
	PROPOSED DITCH BOTTOM INLETS
	PROPOSED DRAINAGE MANHOLE
	PROPOSED MITERED END SECTION
	PROPOSED HYDRANT ASSEMBLY
	PROPOSED IRRIGATION METER
	PROPOSED SINGLE AND DOUBLE SANITARY CONNECTION
	PROPOSED GATE VALVE
	PROPOSED REDUCER
	SANITARY LIFT STATION

MATCHLINE - SEE SHEET 5.2

DATE	REVISIONS
4-20-17	1 REV PER DRC COMMENTS
6-26-17	2 REV PER DRC COMMENTS

EVANS ENGINEERING, INC.
 CERTIFICATE OF AUTHORIZATION NO. 6788
 LAND PLANNING PERMITTING SERVICES
 719 IRMA AVENUE
 ORLANDO, FLORIDA 32803
 (407) 872-1515
 WWW.EVANSENGINEERING.COM
 DAVID L. EVANS
 FLORIDA P.E. NO. 46886
 DATE: Nov 13, 2017
 CERTIFICATE OF AUTHORIZATION NO. 00006788

EVANS ENGINEERING, INC.
 LAND PLANNING PERMITTING SERVICES
 719 IRMA AVENUE
 ORLANDO, FLORIDA 32803
 (407) 872-1515
 WWW.EVANSENGINEERING.COM
 CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
 FOR
 THOMPSON HILLS ESTATES LLC
 FLORIDA
 CITY OF APOPKA,

PRELIMINARY
 DEVELOPMENT PLAN

DRAWN:
TVW / MWK
 CHECKED:
MPG
 DATE:
NOV 2017
 SCALE:
1" = 60'
 JOB #:
25801
 SHEET #:

5.4

MASTER SIGNAGE PLAN NOTES:

THE FOLLOWING CRITERIA HAS BEEN ESTABLISHED BASED ON SECTION 8.4.02 AND SPECIFICALLY SECTIONS A-H. A MONUMENT SIGN WITHIN THE LANDSCAPED ISLAND IS PROPOSED AT THE PROJECT'S ENTRANCE. AS SHOWN ON THE MASTER PLAN THE FOLLOWING TABLE HAS BEEN PREPARED TO DETERMINE MAXIMUM SIGNAGE HEIGHT AND AREA.

ROAD SUMMARY:

McCORMICK RD - WITH 2 OUT PARCELS
 BASED ON THESE CRITERIA WE HAVE TABULATED TOTAL PROJECT SIGN AREA AND LOCATION AND IS AS FOLLOWS:

SIGN #1
 McCORMICK RD. - 100 S.F. MAX. BASED ON 300' STREET FRONTAGE + 20 S.F. FOR MULTI-USE CENTER OR 120 S.F.

SIGNS #2 & 3:
 OUT PARCELS - 2 OUT PARCELS AT 50 S.F. EACH OR 100 S.F.
 TOTAL SIGN AREA 220 S.F.

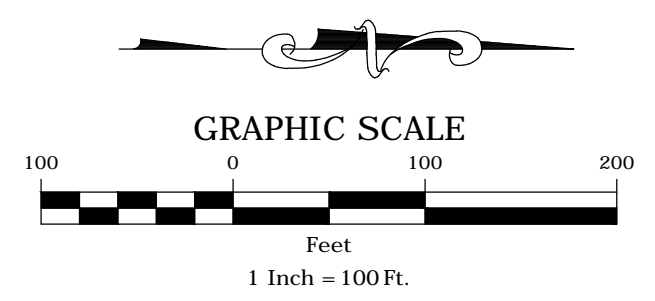
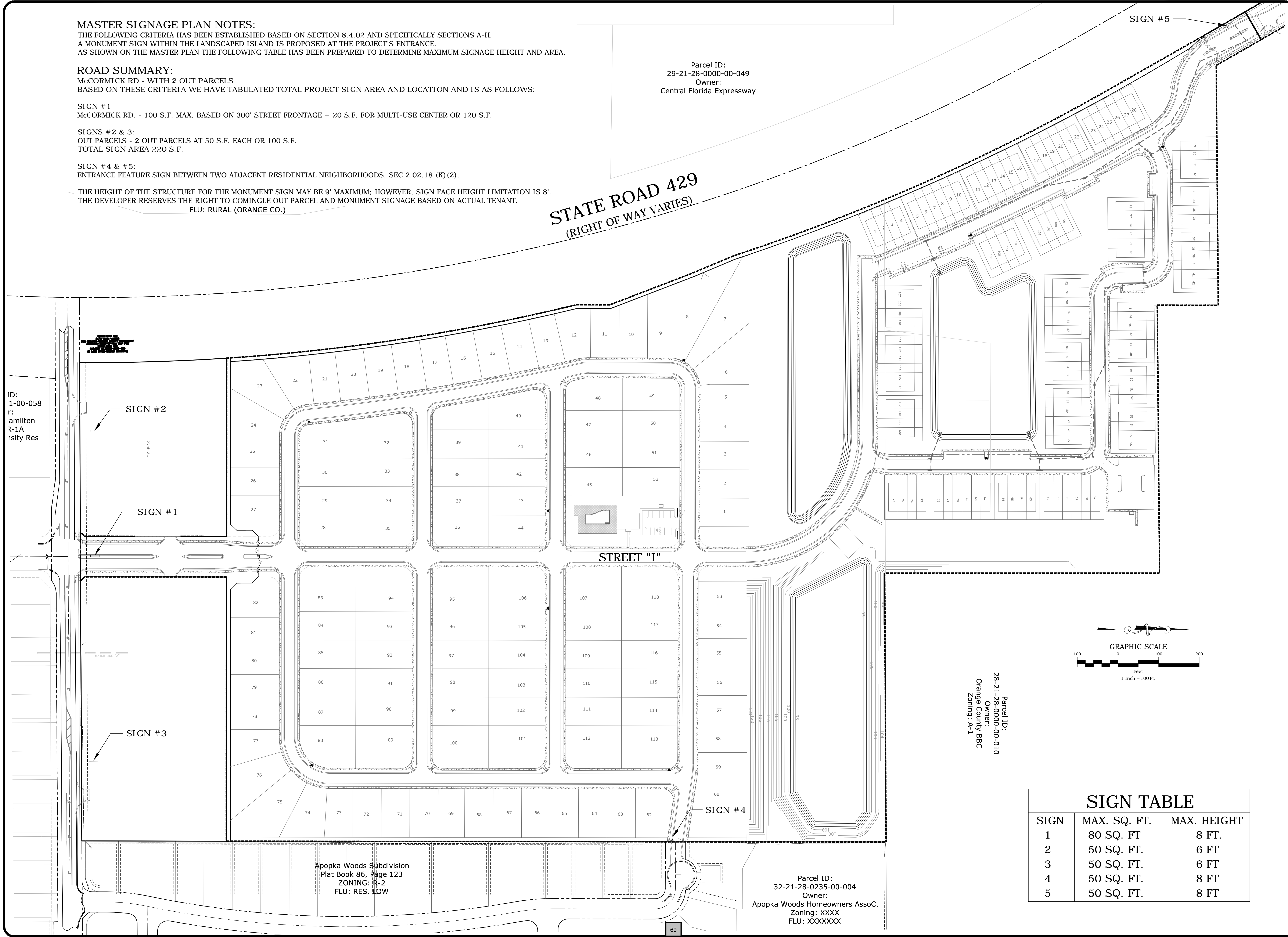
SIGN #4 & #5:
 ENTRANCE FEATURE SIGN BETWEEN TWO ADJACENT RESIDENTIAL NEIGHBORHOODS. SEC 2.02.18 (K) (2).

THE HEIGHT OF THE STRUCTURE FOR THE MONUMENT SIGN MAY BE 9' MAXIMUM; HOWEVER, SIGN FACE HEIGHT LIMITATION IS 8'.
 THE DEVELOPER RESERVES THE RIGHT TO COMINGLE OUT PARCEL AND MONUMENT SIGNAGE BASED ON ACTUAL TENANT.
 FLU: RURAL (ORANGE CO.)

Parcel ID:
 29-21-28-0000-00-049
 Owner:
 Central Florida Expressway

STATE ROAD 429
 (RIGHT OF WAY VARIES)

ID:
 1-00-058
 r:
 amilton
 R-1A
 nsity Res



SIGN TABLE		
SIGN	MAX. SQ. FT.	MAX. HEIGHT
1	80 SQ. FT.	8 FT.
2	50 SQ. FT.	6 FT.
3	50 SQ. FT.	6 FT.
4	50 SQ. FT.	8 FT.
5	50 SQ. FT.	8 FT.

Apopka Woods Subdivision
 Plat Book 86, Page 123
 ZONING: R-2
 FLU: RES. LOW

Parcel ID:
 32-21-28-0235-00-004
 Owner:
 Apopka Woods Homeowners AssoC.
 Zoning: XXXX
 FLU: XXXXXXX

Parcel ID:
 28-21-28-0000-00-010
 Owner:
 Orange County BBC
 Zoning: A-1

DATE	REVISIONS
4-20-17	1 REV PER DRC COMMENTS
6-26-17	2 REV PER DRC COMMENTS

EVANS ENGINEERING, INC.
 CERTIFICATE OF AUTHORIZATION NO. 6788
 DAVID L. EVANS
 FLORIDA P.E. NO. 46586
 DATE: Nov 13, 2017

EVANS ENGINEERING, INC.
 LAND PLANNING PERMITTING SERVICES
 719 IRMA AVENUE
 ORLANDO, FLORIDA 32803
 (407) 872-1515
 www.evansenginc.com
 CERTIFICATE OF AUTHORIZATION NO. 00006788

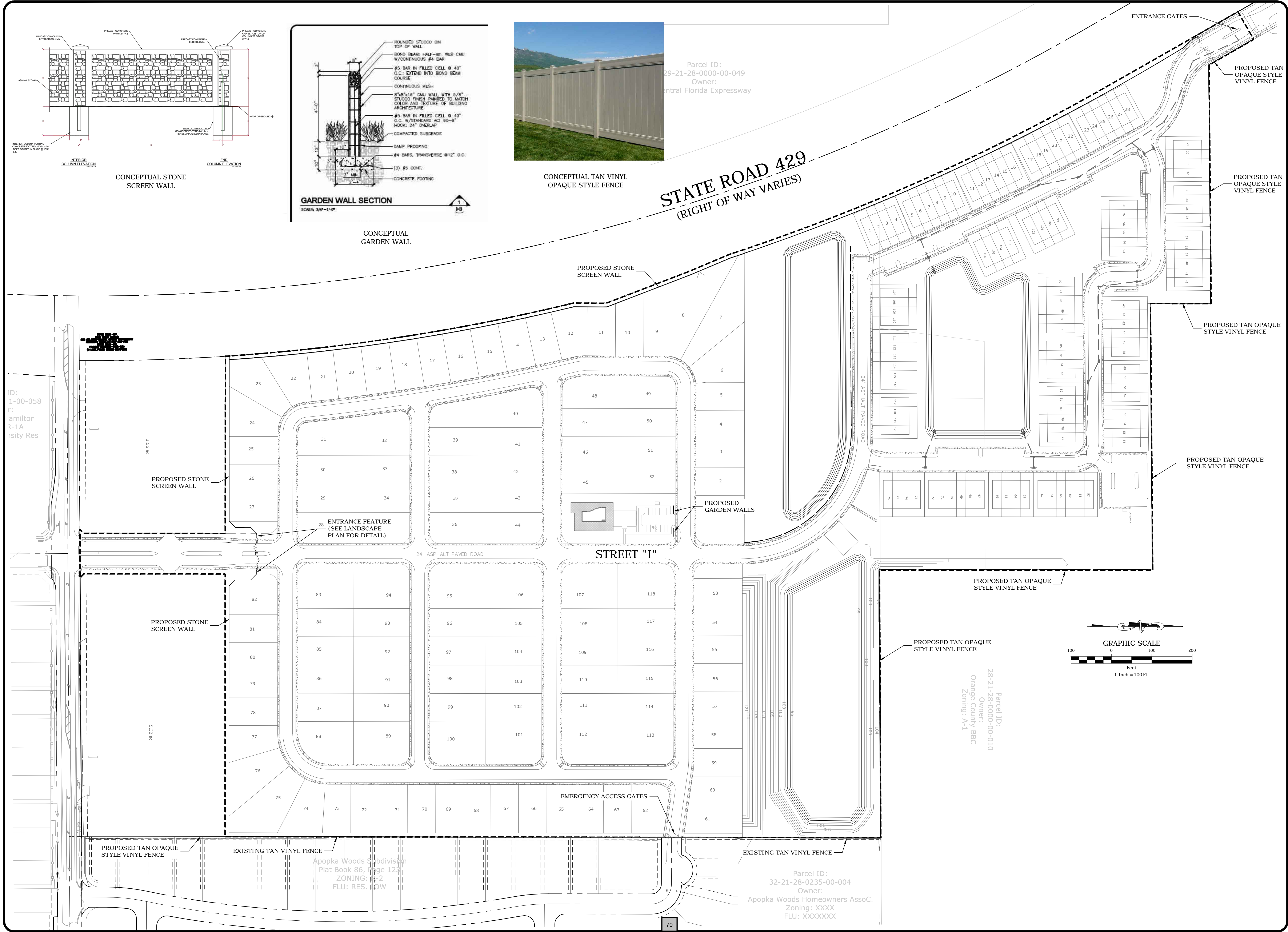
OAK POINTE
 FOR
 THOMPSON HILLS ESTATES LLC
 CITY OF APOPKA, FLORIDA

PRELIMINARY DEVELOPMENT PLAN
 MASTER SIGNAGE PLAN

DRAWN:
 TVW / MWK
 CHECKED:
 MFG
 DATE:
 NOV 2017
 SCALE:
 1" = 100'
 JOB #:
 25801
 SHEET #:

6.0

J:\005\25801 - Oak Pointe\Drawings\058 - PDP-MDP - PDP-SIGNAGE.dwg (SHT 06) Plotted on: Nov 13, 2017 - 12:46pm by jecoren



ID: 1-00-058
 Hamilton
 1-1A
 University Res

OAK POINTE
 FOR
 THOMPSON HILLS ESTATES LLC
 FLORIDA
 CITY OF APOPKA,

DATE	REVISIONS
4-20-17	1 REV PER DRC COMMENTS
6-26-17	2 REV PER DRC COMMENTS

EVANS ENGINEERING, INC.
 CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
 FLORIDA P.E. NO. 46686
 DATE: Nov 13, 2017

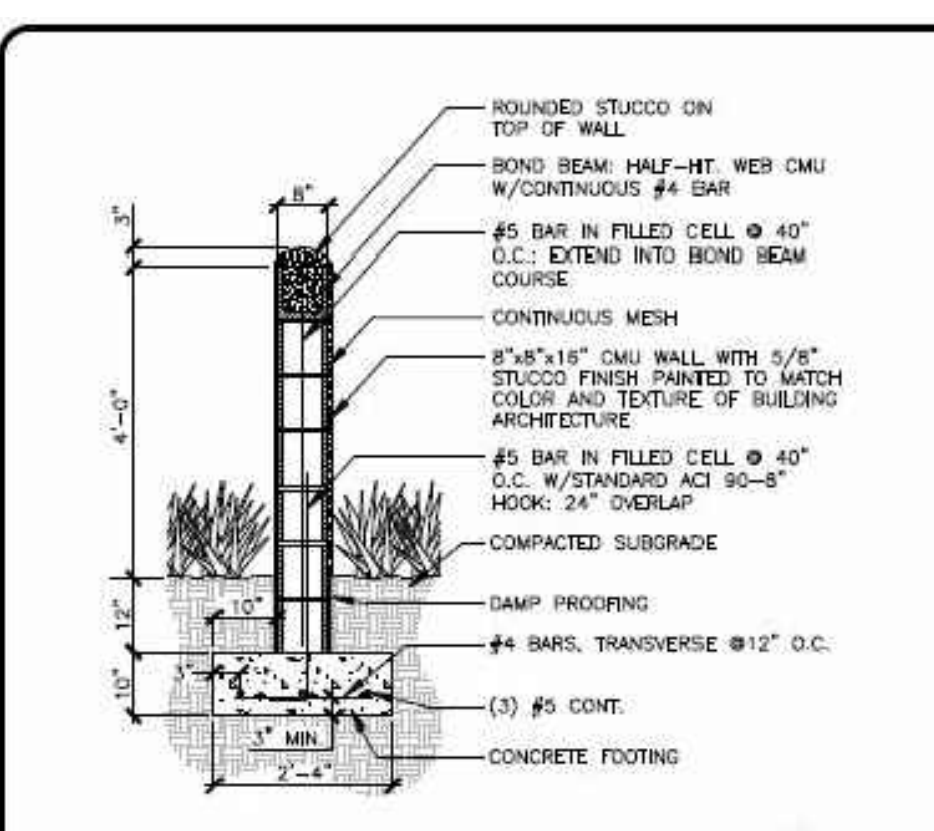
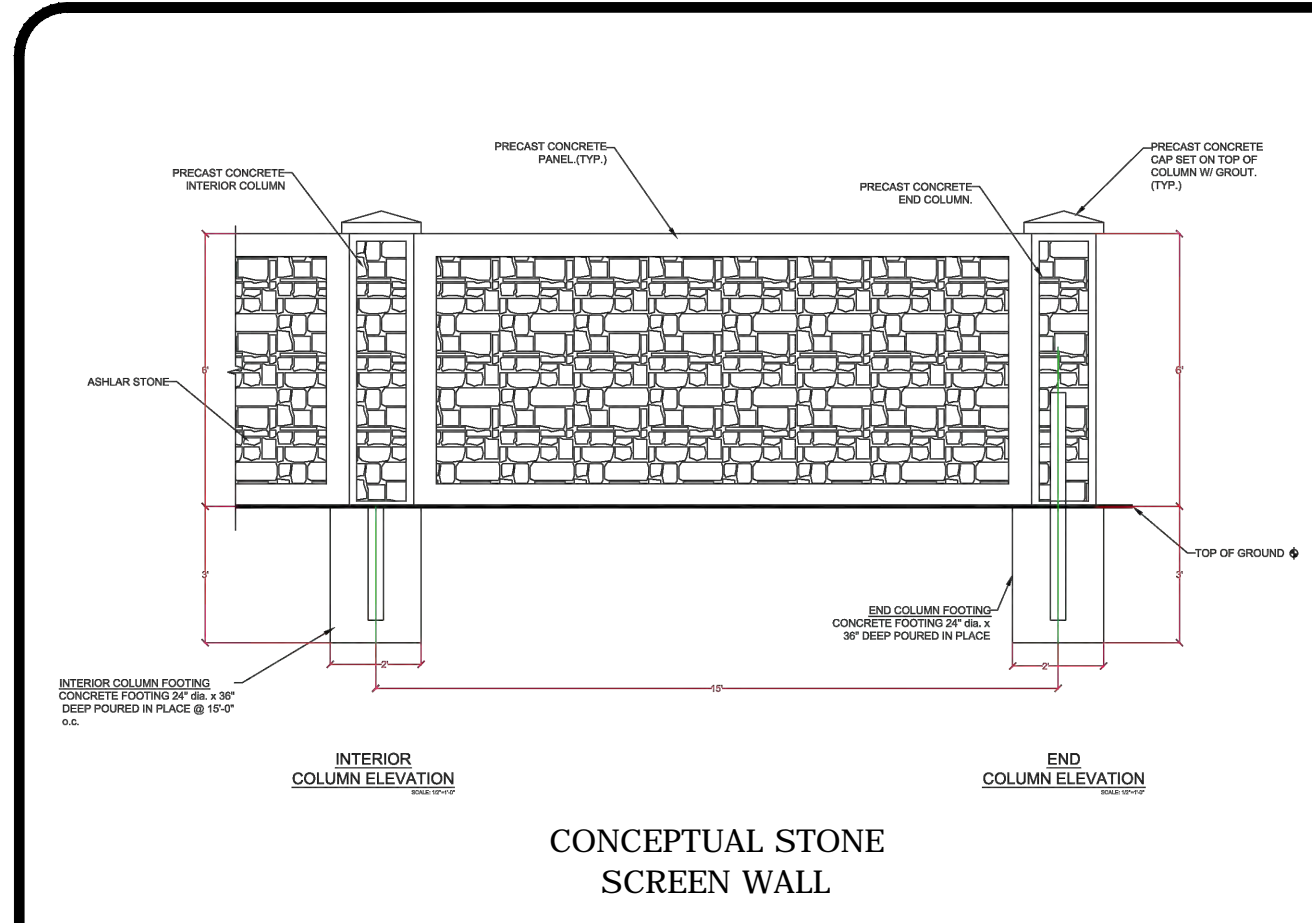
EVANS ENGINEERING, INC.
 LAND PLANNING PERMITTING SERVICES
 719 IRMA AVENUE
 ORLANDO, FLORIDA 32803
 (407) 872-1515
 WWW.EVANSERGINC.COM
 CERTIFICATE OF AUTHORIZATION NO. 00008788

OAK POINTE
 FOR
 THOMPSON HILLS ESTATES LLC
 FLORIDA
 CITY OF APOPKA,

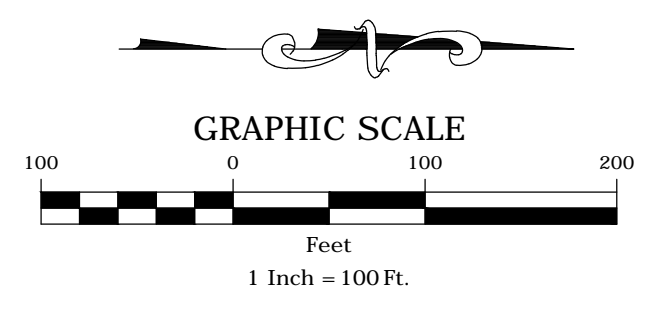
PRELIMINARY
 DEVELOPMENT PLAN
 MASTER
 FENCE / WALL PLAN

DRAWN: TVW / MWK
 CHECKED: MFG
 DATE: NOV 2017
 SCALE: 1" = 100'
 JOB #: 25801
 SHEET #:

7.0



STATE ROAD 429
 (RIGHT OF WAY VARIES)



ORANGE COUNTY
 FIRE FLOW CALCULATIONS:
 PER CHAPTER 18, NFPA 1, 2009 EDITION

	CONSTRUCTION TYPE	AREA (sf)	FF REQUIRED (gpm)	R13 SPRINKLER (75% REDUCTION-gpm)	FF PROVIDED (gpm)
COMMERCIAL (NOT A PART)	IIB	56,345	5,000	1,250	1,250
SINGLE FAMILY (TRACT A & B)	VB	8,400	2,500	625	1,000
TOWNHOMES (TRACT C)	VB	2,530	1,500	375	1,000

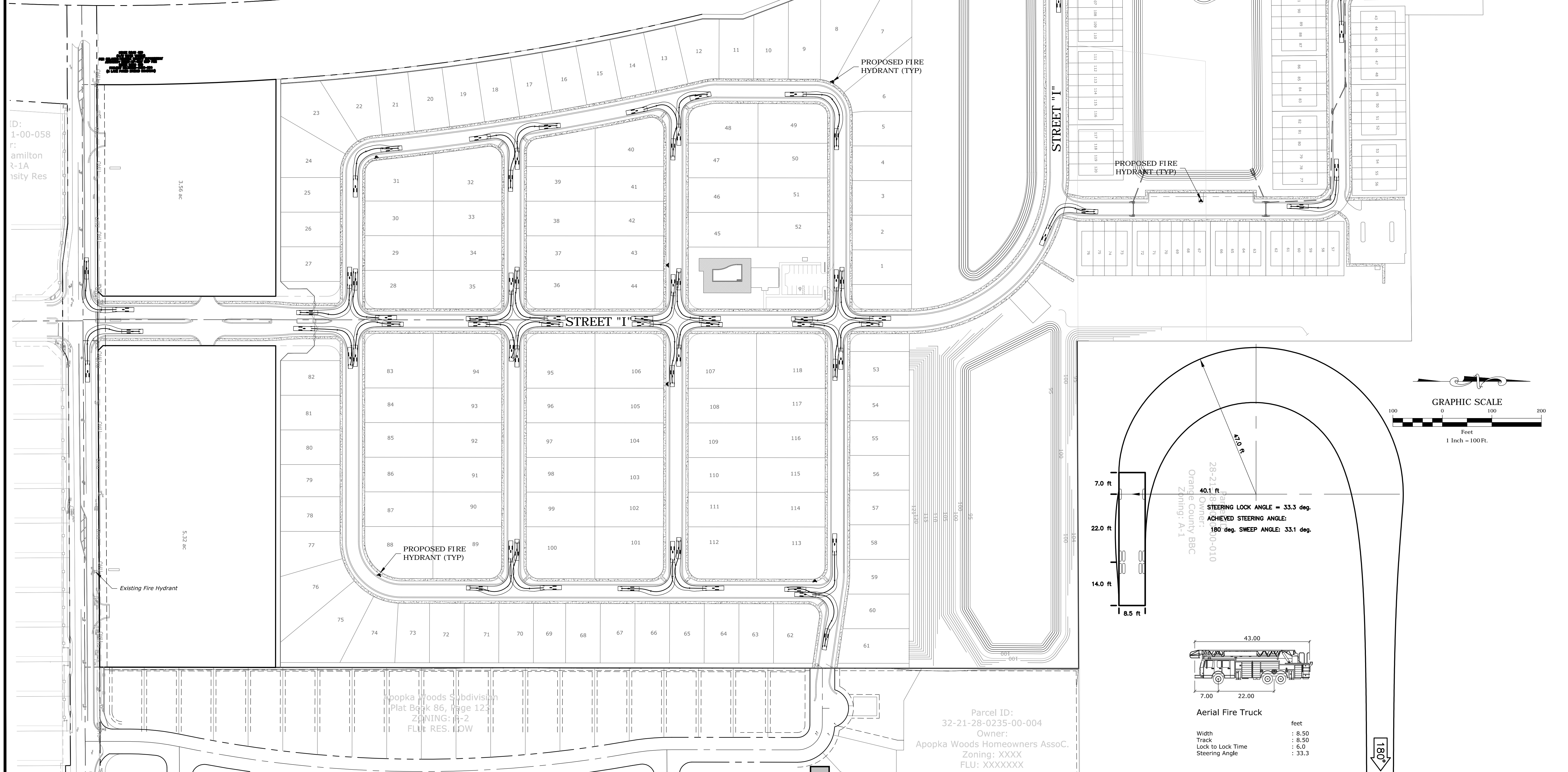
	NUMBER OF FIRE HYDRANTS (ALL BUILDINGS MIN NUMBER OF HYDRANTS)	AVE SPACING BETWEEN HYDRANTS (FT)	MAX DISTANCE FROM ANY POINT ON STREET FRONTAGE(FT)
FIRE FLOW - 1,750 OR LESS	1	500	250
FIRE FLOW - 2,000-2,250 GPM	2	450	225

NOTES: MINIMUM FIRE FLOW FOR COMMERCIAL BUILDINGS PER ORANGE COUNTY FIRE IS 2,000 GPM. BUILDINGS EQUIPPED WITH AUTOMATIC SPRINKLER SYSTEMS SHALL CONFORM TO NFPA STANDARDS.

Orrin L Barnes
 Zoning: CITRUS RURAL ((ORANGE CO.)
 FLU: RURAL (ORANGE CO.)

Parcel ID:
 29-21-28-0000-00-049
 Owner:
 Central Florida Expressway

STATE ROAD 429
 (RIGHT OF WAY VARIES)



ID:
 1-00-058
 Hamilton
 1-1A
 University Res

Apopka Woods Subdivision
 Plat Book 86, Page 123
 ZONING: R-2
 FLU RES. LOW

Parcel ID:
 32-21-28-0235-00-004
 Owner:
 Apopka Woods Homeowners Asso.C.
 Zoning: XXXX
 FLU: XXXXXXX

DATE	REVISIONS
4-20-17	1 REV PER DRC COMMENTS
6-26-17	2 REV PER DRC COMMENTS

EVANS ENGINEERING, INC.
 CERTIFICATE OF AUTHORIZATION NO. 6788
 DAVID L. EVANS
 FLORIDA P.E. NO. 46886
 DATE: Nov 13, 2017

EVANS ENGINEERING, INC.
 LAND PLANNING PERMITTING SERVICES
 719 IRMA AVENUE
 ORLANDO, FLORIDA 32803
 (407) 872-1515
 WWW.EVANSERGINC.COM
 CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
 FOR
 THOMPSON HILLS ESTATES LLC
 CITY OF APOPKA, FLORIDA

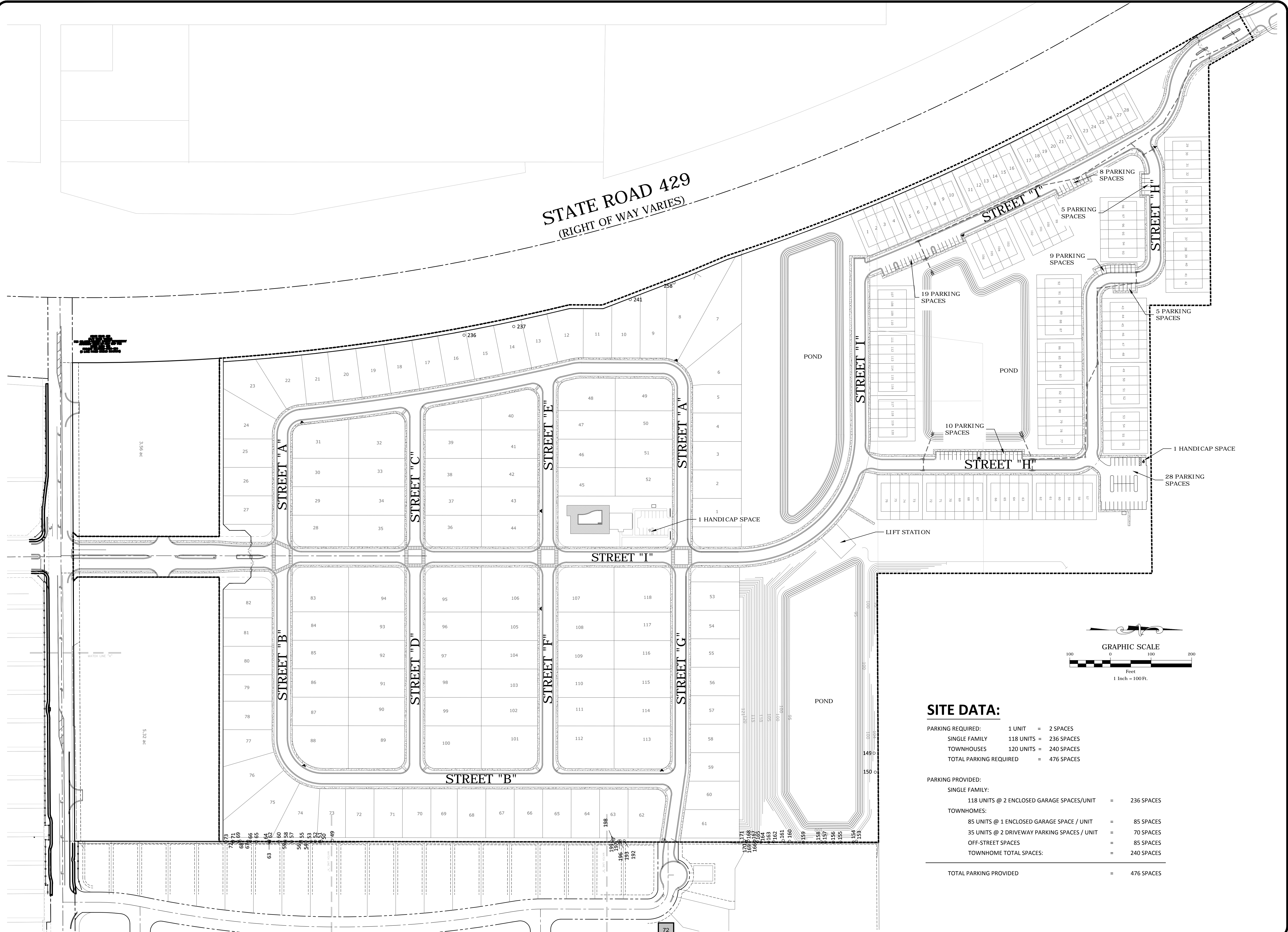
PRELIMINARY
 DEVELOPMENT PLAN
 FIRE ACCESS PLAN

DRAWN:
TVW / MWK
 CHECKED:
MPG
 DATE:
NOV 2017
 SCALE:
1" = 100'
 JOB #:
25801
 SHEET #:

8.0

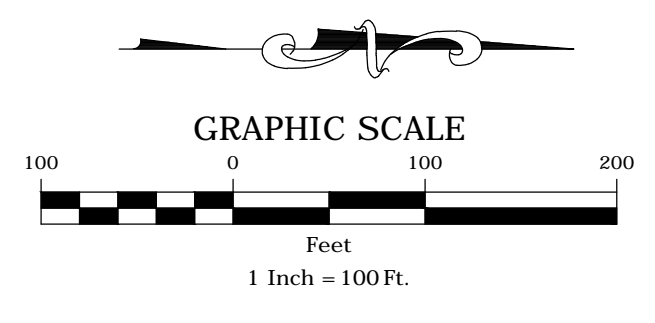
J:\J08\25801 - Oak Pointe\Drawings\058 & MDP\32801 08 PDP-adj - PDP-FIRE ACCESS.dwg (08) Plotted on: Nov 13, 2017 - 12:48pm by jkerrin

STATE ROAD 429
(RIGHT OF WAY VARIES)



SITE DATA:

PARKING REQUIRED:	1 UNIT = 2 SPACES	
SINGLE FAMILY	118 UNITS = 236 SPACES	
TOWNHOUSES	120 UNITS = 240 SPACES	
TOTAL PARKING REQUIRED	= 476 SPACES	
PARKING PROVIDED:		
SINGLE FAMILY:		
118 UNITS @ 2 ENCLOSED GARAGE SPACES/UNIT	=	236 SPACES
TOWNHOMES:		
85 UNITS @ 1 ENCLOSED GARAGE SPACE / UNIT	=	85 SPACES
35 UNITS @ 2 DRIVEWAY PARKING SPACES / UNIT	=	70 SPACES
OFF-STREET SPACES	=	85 SPACES
TOWNHOME TOTAL SPACES:	=	240 SPACES
TOTAL PARKING PROVIDED	=	476 SPACES



DATE	REVISIONS	BY
4-20-17	1 REV PER DRC COMMENTS	TVW/MWK
6-26-17	2 REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46886
DATE: Nov 10, 2017

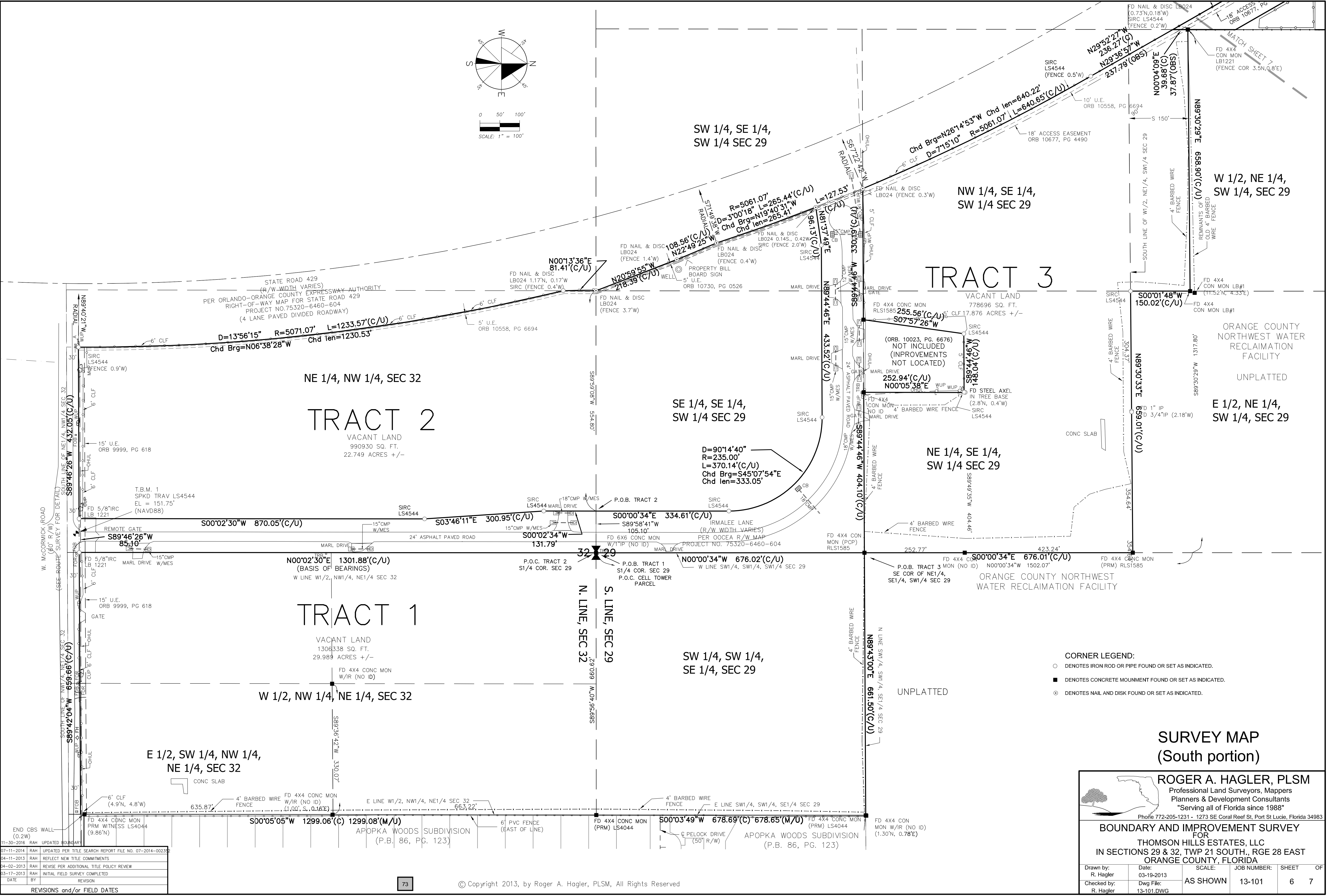
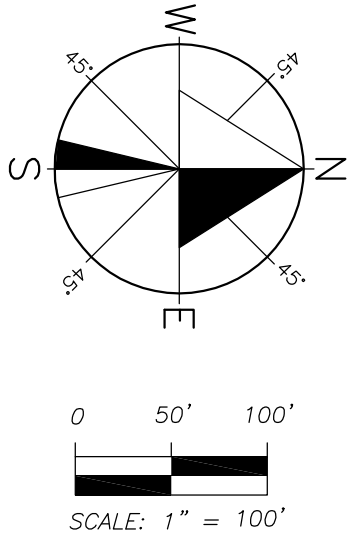
EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
WWW.EVANSERGINC.COM
CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
FLORIDA
CITY OF APOPKA

PRELIMINARY DEVELOPMENT PLAN
PARKING ANALYSIS PLAN

DRAWN: TVW / MWK
CHECKED: MPC
DATE: JULY 2017
SCALE: 1" = 100'
JOB #: 25801
SHEET #:

NOTE: IF NOT REQUIRED, THE SURVEY DEPICTED HEREON IS NOT COVERED BY PROFESSIONAL LIABILITY INSURANCE.



- CORNER LEGEND:**
- DENOTES IRON ROD OR PIPE FOUND OR SET AS INDICATED.
 - DENOTES CONCRETE MOUNMENT FOUND OR SET AS INDICATED.
 - ⊙ DENOTES NAIL AND DISK FOUND OR SET AS INDICATED.

SURVEY MAP (South portion)

ROGER A. HAGLER, PLSM
Professional Land Surveyors, Mappers
Planners & Development Consultants
"Serving all of Florida since 1988"
Phone 772-205-1231 - 1273 SE Coral Reef St. Port St Lucie, Florida 34983

BOUNDARY AND IMPROVEMENT SURVEY
FOR
THOMSON HILLS ESTATES, LLC
IN SECTIONS 29 & 32, TWP 21 SOUTH., RGE 28 EAST
ORANGE COUNTY, FLORIDA

Drawn by: R. Hagler	Date: 03-19-2013	SCALE: AS SHOWN	JOB NUMBER: 13-101	SHEET 6	OF 7
Checked by: R. Hagler	Dwg File: 13-101.DWG				

DATE	BY	REVISION
07-11-2014	RAH	UPDATED PER TITLE SEARCH REPORT FILE NO. 07-2014-00213
04-11-2013	RAH	REFLECT NEW TITLE COMMITMENTS
04-02-2013	RAH	REVISE PER ADDITIONAL TITLE POLICY REVIEW
03-17-2013	RAH	INITIAL FIELD SURVEY COMPLETED

REVISIONS and/or FIELD DATES

All ideas, designs, arrangements and plans indicated or represented by this drawing are owned by and the property of SCHWEIZER BOJACK LANDSCAPE ARCHITECTURE LLC and were created, evolved and developed for the use on and connection with this specific project.



SCHWEIZER
BOJACK
LANDSCAPE
ARCHITECTURE

LANDSCAPE & IRRIGATION DESIGN
PO BOX 94833 • MAITLAND, FLORIDA 32794 • PH. (407) 376-1423
LICENSE NO. LC2600487 • DESIGN@SCHWEIZERBOJACK.COM

STATE ROAD 429

MATCHLINE - SEE SHEET L-2

MATCHLINE - SEE SHEET L-2

EXISTING TREE TO BE PRESERVED

HATCHING INDICATES
LIMITS OF TREE REMOVAL

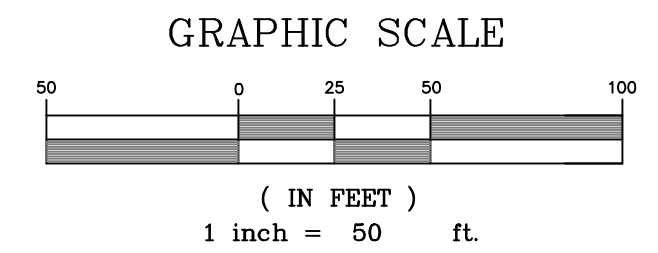
EXISTING TREES
TO BE PRESERVED

HATCHING INDICATES
LIMITS OF TREE REMOVAL

THIS PARCEL IS
NOT INCLUDED
(FUTURE COMMERCIAL)

THIS PARCEL IS
NOT INCLUDED
(FUTURE COMMERCIAL)

TREE LOCATION
AND NUMBER
(TYP)



TREE REMOVAL PLAN

(SHEET 1 OF 4)

LANDSCAPE & IRRIGATION DESIGN

I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

SIGNATURE _____ REG. NO. _____ DATE _____

OAK POINTE - PUD / MASTER PLAN
1527 W. MCCORMICK ROAD - CITY OF APOPKA, FL 32703

- 6 11/10/17
- 5 7/21/17
- 4 6/23/17
- 3 5/17/17
- 2 5/01/17
- 1 4/12/17

1/31/17
DRAWN BY: KB
SHEET NUMBER

L-1

All ideas, designs, arrangements and plans indicated or represented by this drawing are owned by and the property of SCHWEIZER BOJACK LANDSCAPE ARCHITECTURE LLC and were created, evolved and developed for the use on and connection with this specific project.



SCHWEIZER
BOJACK
LANDSCAPE
ARCHITECTURE

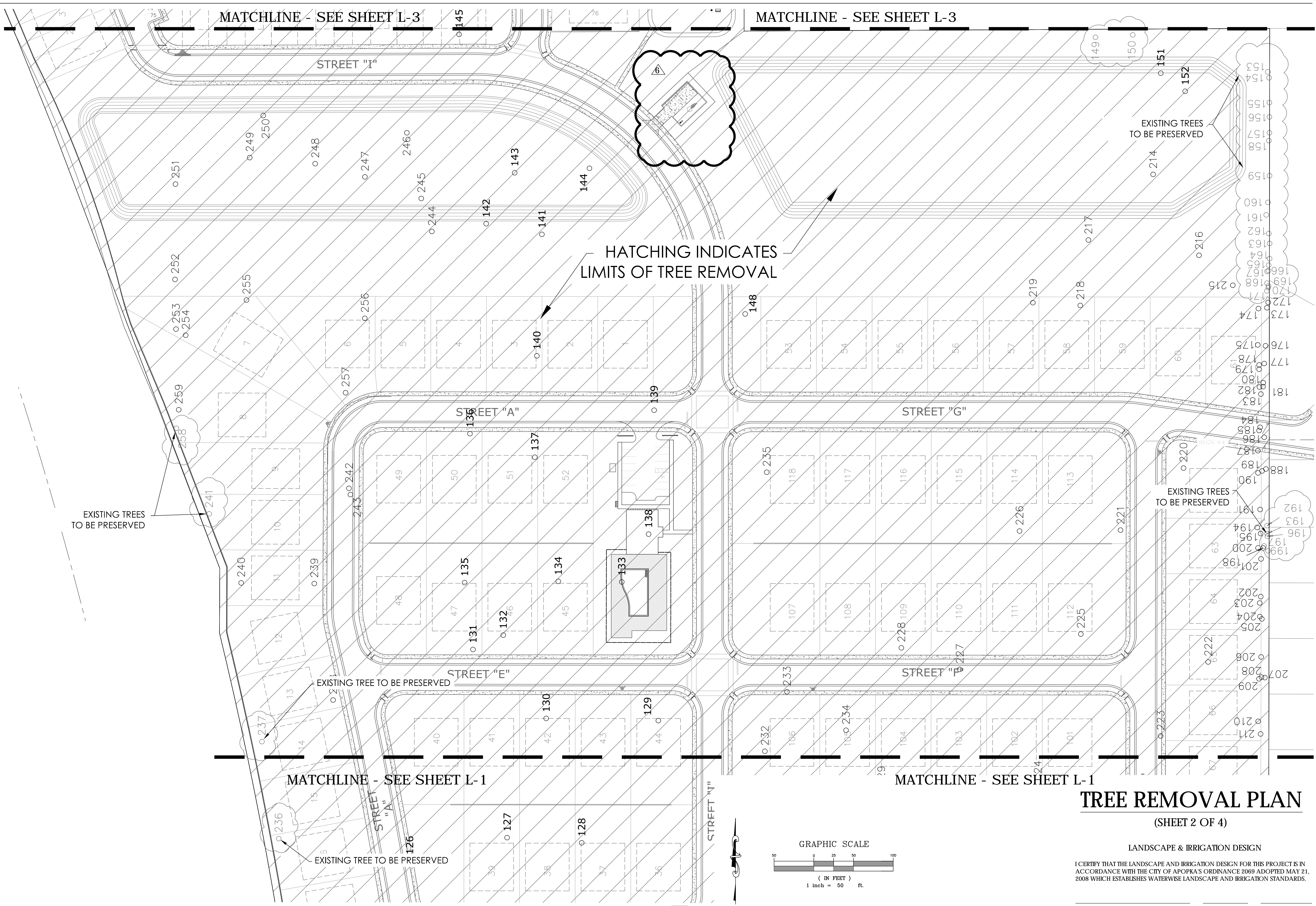
LANDSCAPE & IRRIGATION DESIGN
PO BOX 94833 • MAITLAND, FLORIDA 32794 • PH. (407) 376-1423
LICENSE NO. LC2600487 • DESIGN@SCHWEIZERBOJACK.COM

OAK POINTE - PUD / MASTER PLAN
1527 W. MCCORMICK ROAD - CITY OF APOPKA, FL 32703

- 6 11/10/17
- 5 7/21/17
- 4 6/23/17
- 3 5/17/17
- 2 5/01/17
- 1 4/12/17

1/31/17
DRAWN BY: KB
SHEET NUMBER

L-2



HATCHING INDICATES
LIMITS OF TREE REMOVAL

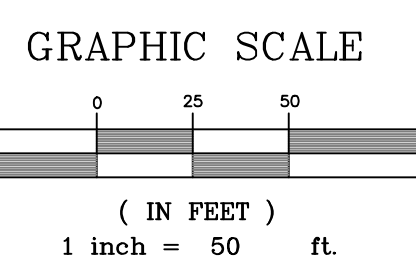
EXISTING TREES
TO BE PRESERVED

EXISTING TREES
TO BE PRESERVED

EXISTING TREES
TO BE PRESERVED

EXISTING TREE TO BE PRESERVED

EXISTING TREE TO BE PRESERVED



TREE REMOVAL PLAN

(SHEET 2 OF 4)

LANDSCAPE & IRRIGATION DESIGN

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MATCHLINE 'A' (THIS SHEET)

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SCHWEIZER
BOJACK
LANDSCAPE
ARCHITECTURE

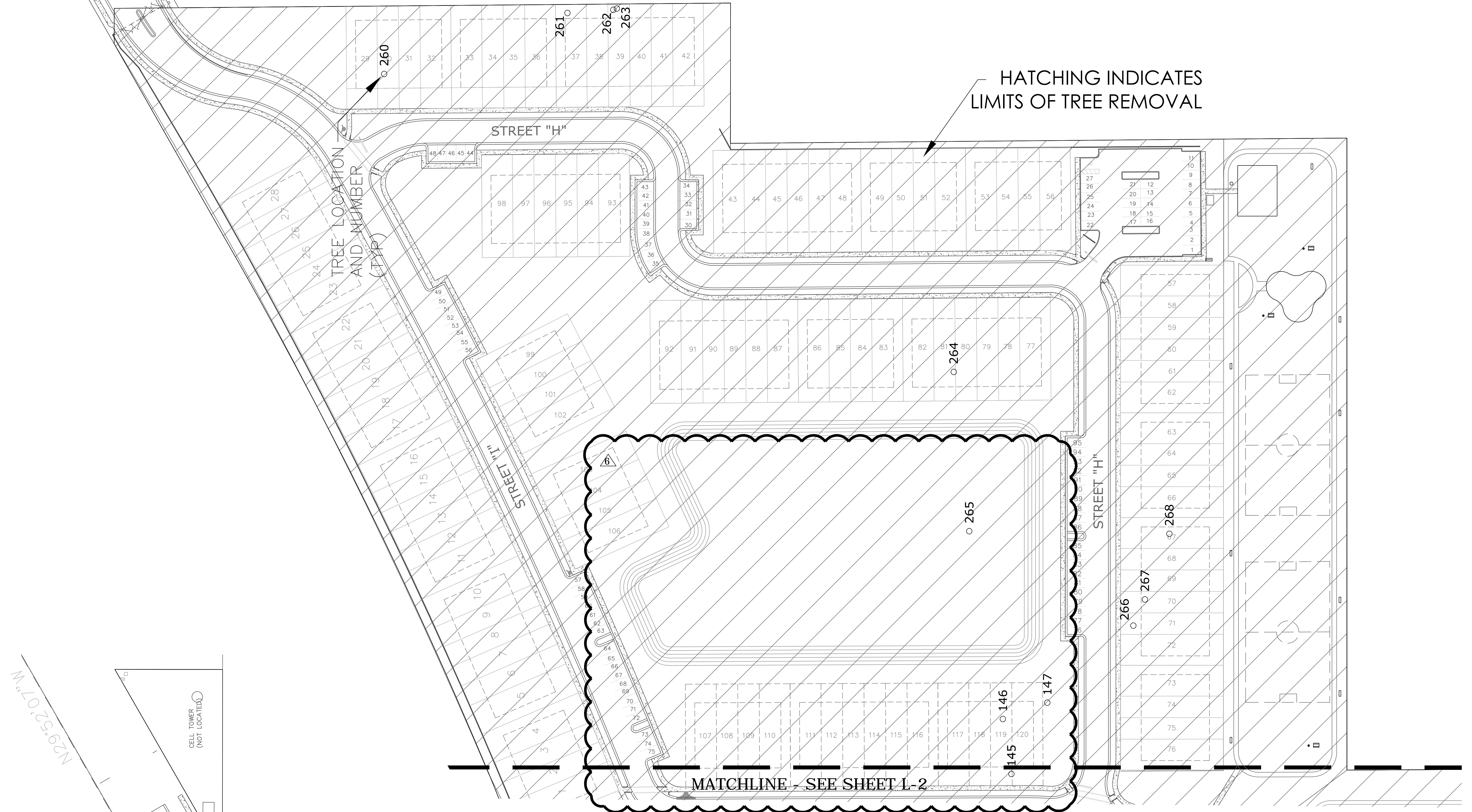
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1527 W. MCCORMICK ROAD - CITY OF APOPKA, FL 32703

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1/31/17
DRAWN BY: KB
SHEET NUMBER

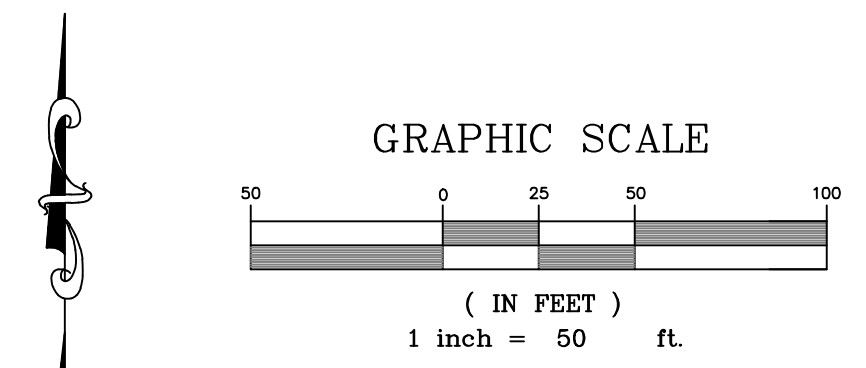
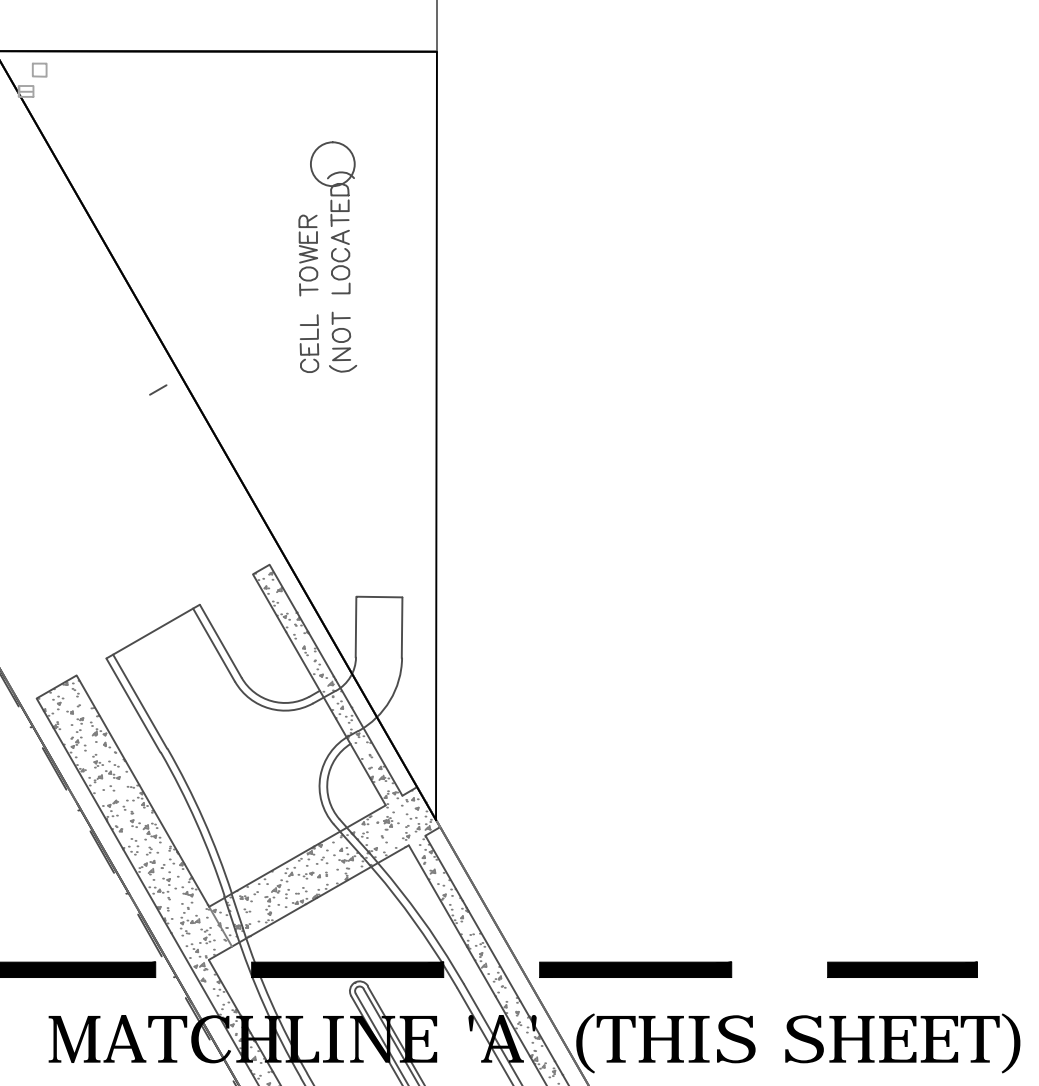
L-3



HATCHING INDICATES
LIMITS OF TREE REMOVAL

MATCHLINE - SEE SHEET L-2

N29°52'07"W



TREE REMOVAL PLAN

(SHEET 3 OF 4)

LANDSCAPE & IRRIGATION DESIGN

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TREE REMOVAL

TREE NO.	SPECIES	DIAMETER (INCHES)	QUANTITY
1	OAK	6	SINGLE
2	PINE	14	SINGLE
3	PINE	8	SINGLE
4	PINE	12	SINGLE
12	OAK	24	SINGLE
13	OAK	24*	SINGLE
14	OAK	24	SINGLE
16	OAK	23	DOUBLE
17	OAK	38	SINGLE
35	OAK	24	SINGLE
36	OAK	36	SINGLE
37	OAK	26	SINGLE
38	OAK	30	SINGLE
39	OAK	24	DOUBLE
40	OAK	28	SINGLE
41	OAK	64	SINGLE
42	CABBAGE-PALM	20	SINGLE
43	OAK	32	SINGLE
44	OAK	28	SINGLE
45	OAK	30	SINGLE
46	OAK	22	SINGLE
47	OAK	30	SINGLE
114	OAK	26	SINGLE
115	OAK	24*	SINGLE
116	OAK	24	SINGLE
117	OAK	30	SINGLE
118	OAK	28	SINGLE
119	OAK	32	SINGLE
120	OAK	30	SINGLE
121	OAK	44	SINGLE
122	OAK	28	SINGLE
123	OAK	30	SINGLE
124	OAK	30	SINGLE
125	OAK	42	SINGLE
126	OAK	34	SINGLE
127	OAK	26	SINGLE
128	OAK	30	SINGLE
129	OAK	30	SINGLE
130	OAK	46	SINGLE
131	OAK	28	SINGLE
132	OAK	28	SINGLE
133	OAK	52	SINGLE
134	OAK	24	SINGLE
135	OAK	34	SINGLE
136	OAK	24	SINGLE
137	OAK	32	SINGLE
138	OAK	24	SINGLE
139	OAK	32	SINGLE
140	OAK	80	SINGLE
141	OAK	24	SINGLE
142	OAK	26	SINGLE
143	OAK	40	SINGLE
144	OAK	24	SINGLE
145	OAK	22	SINGLE
146	OAK	24	SINGLE
147	OAK	44	SINGLE
148	OAK	26	SINGLE
151	OAK	42	SINGLE
152	OAK	36	SINGLE
172	OAK	6	DOUBLE
173	OAK	18	SINGLE
174	OAK	10	SINGLE
175	OAK	20	SINGLE
176	OAK	20	SINGLE
177	OAK	10	SINGLE
178	OAK	6	DOUBLE
179	OAK	8	SINGLE
180	OAK	12	SINGLE
181	OAK	18	SINGLE
182	OAK	24	SINGLE
183	OAK	8	DOUBLE
184	OAK	22	SINGLE
185	OAK	28	SINGLE
186	OAK	12	SINGLE
187	OAK	6	SINGLE

TREE PRESERVATION

TREE NO.	SPECIES	DIAMETER (INCHES)	QUANTITY
188	OAK	14	SINGLE
189	OAK	12	SINGLE
190	OAK	12	SINGLE
191	OAK	48	SINGLE
194	OAK	24	SINGLE
195	OAK	18	DOUBLE
198	OAK	12	SINGLE
200	CABBAGE-PALM	16	SINGLE
201	OAK	14	SINGLE
202	CABBAGE-PALM	14	SINGLE
203	OAK	8	SINGLE
204	OAK	8	DOUBLE
205	OAK	32	SINGLE
206	OAK	14	DOUBLE
207	OAK	20	SINGLE
208	OAK	14	SINGLE
209	OAK	10	SINGLE
210	OAK	28	SINGLE
211	OAK	6	3-4 CLUSTER
212	CABBAGE-PALM	16	SINGLE
213	OAK	10	3-4 CLUSTER
214	OAK	32	SINGLE
215	OAK	40	SINGLE
216	OAK	36	SINGLE
217	OAK	24	TRIPLE
218	OAK	30	SINGLE
219	OAK	36	SINGLE
220	OAK	42	SINGLE
221	OAK	42	SINGLE
222	OAK	50	SINGLE
223	OAK	40	SINGLE
224	OAK	28	SINGLE
225	OAK	26	TRIPLE
226	OAK	42	SINGLE
227	OAK	40	DOUBLE
228	OAK	38	SINGLE
229	OAK	24	TRIPLE
230	OAK	32	SINGLE
231	OAK	26	SINGLE
232	OAK	22	SINGLE
233	OAK	44	SINGLE
234	OAK	46	SINGLE
235	OAK	30	SINGLE
238	OAK	26	SINGLE
239	OAK	26	SINGLE
240	OAK	18	TRIPLE
242	OAK	30	SINGLE
243	OAK	30	SINGLE
244	OAK	20	SINGLE
245	OAK	18	SINGLE
246	OAK	18	SINGLE
247	OAK	26	SINGLE
248	OAK	18	SINGLE
249	OAK	24	SINGLE
250	OAK	20	SINGLE
251	OAK	32	SINGLE
252	OAK	34	SINGLE
253	OAK	40	SINGLE
254	OAK	42	SINGLE
255	OAK	34	SINGLE
256	OAK	68	SINGLE
257	OAK	28	SINGLE
258	OAK	18	SINGLE
259	OAK	20	SINGLE
260	OAK	28	SINGLE
261	OAK	28	SINGLE
262	OAK	18	SINGLE
263	OAK	16	DOUBLE
264	OAK	52	SINGLE
265	OAK	42	SINGLE
266	OAK	26	SINGLE
267	OAK	26	SINGLE
268	OAK	34	SINGLE
269	OAK	10	SINGLE

TREE NO.	SPECIES	DIAMETER (INCHES)	QUANTITY
49	OAK	12	SINGLE
50	OAK	32	SINGLE
51	OAK	28	SINGLE
52	OAK	14	SINGLE
53	OAK	16	SINGLE
54	OAK	14	SINGLE
55	OAK	16	SINGLE
56	OAK	14	SINGLE
57	OAK	64	SINGLE
58	OAK	18	SINGLE
59	OAK	14	SINGLE
60	OAK	18	SINGLE
61	OAK	30	SINGLE
62	OAK	8	SINGLE
63	OAK	8	SINGLE
64	OAK	20	SINGLE
65	OAK	12	SINGLE
66	OAK	16	SINGLE
67	OAK	20	SINGLE
68	OAK	6	SINGLE
69	OAK	18	SINGLE
70	OAK	16	SINGLE
71	OAK	8	SINGLE
72	OAK	18	SINGLE
73	OAK	6	SINGLE
149	OAK	10	SINGLE
150	PINE	10	SINGLE
153	OAK	32	SINGLE
154	OAK	10	SINGLE
155	OAK	28	SINGLE
156	OAK	26	SINGLE
157	OAK	18	SINGLE
158	OAK	12	SINGLE
159	OAK	28	SINGLE
160	OAK	12	SINGLE
161	OAK	6	SINGLE
162	OAK	26	SINGLE
163	OAK	8	SINGLE
164	OAK	8	SINGLE
165	OAK	8	SINGLE
166	OAK	32	SINGLE
167	OAK	8	SINGLE
168	OAK	6	SINGLE
169	OAK	14	SINGLE
170	OAK	12	SINGLE
171	OAK	8	SINGLE
192	OAK	10	SINGLE
193	OAK	10	SINGLE
196	OAK	8	SINGLE
197	CABBAGE-PALM	14	SINGLE
199	OAK	12	SINGLE
236	OAK	60	SINGLE
237	OAK	38	SINGLE
241	OAK	20	SINGLE

TREE REMOVAL DATA

TOTAL EXISTING TREES TO BE REMOVED: 160 TREES (4,024")
 SPECIMEN TREES (≥24" DBH) REMOVED: 98 TREES (3,192")
 PROTECTED TREES (<24" DBH) REMOVED: 62 TREES (832")
 (NOTE: CABBAGE PALMS & TREES UNDER 6" DBH NOT INCLUDED)

TREE PRESERVATION DATA

TOTAL EXISTING TREES TO BE PRESERVED: 53 TREES (926")
 SPECIMEN TREES (≥24" DBH) PRESERVED: 12 TREES (424")
 PROTECTED TREES (<24" DBH) PRESERVED: 41 TREES (502")
 (NOTE: CABBAGE PALMS & TREES UNDER 6" DBH NOT INCLUDED)



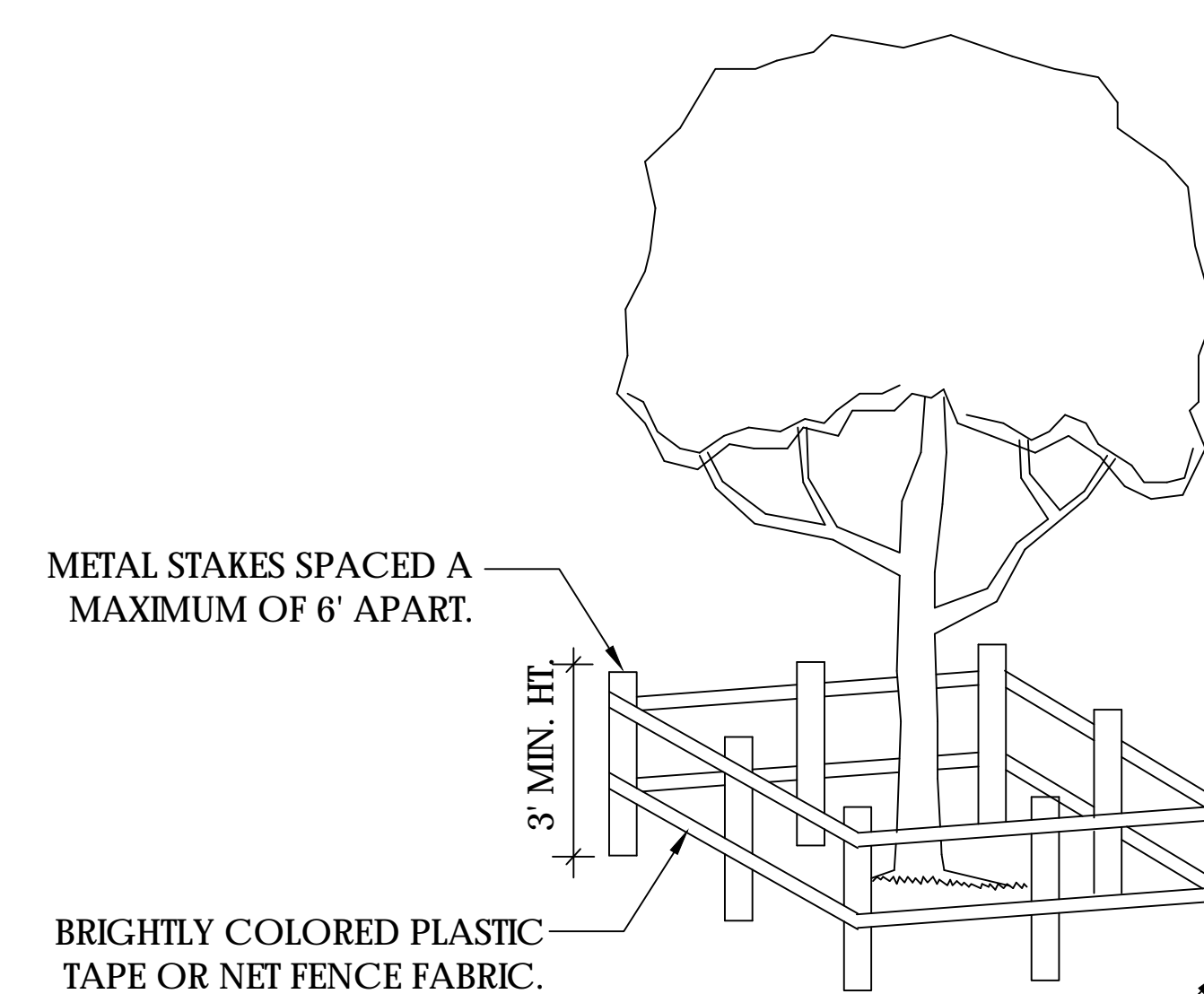
TREE REQUIREMENT (MAX. TREE STOCK CALCULATION)

TOTAL SITE AREA: 3,022,193 SQ. FT. (69.38 ACRES)
 TREES REQUIRED: 378 TREES (1 TREE/8,000 SQ. FT.)
 TREES PROVIDED: 880 TREES (INCLUDES BUFFER TREES)

TREE REPLACEMENT (PROPOSED TREES)

9 LIVE OAKS x 3.5" DBH =	31.5"
286 LIVE OAKS x 3" DBH =	858"
7 MAGNOLIAS x 3" DBH =	21"
30 RED MAPLES x 3" DBH =	90"
64 BALD CYPRESS x 3" DBH =	192"
296 LOT CANOPY TREES x 3" DBH =	888"
64 RED CEDARS x 3" DBH =	192"
48 YAUPON HOLLIES x 3" DBH =	144"
76 CRAPE MYRTLES x 3" DBH =	228"
880 PROPOSED TREES =	2,644.5"

TREE PROTECTION DETAIL



PROTECTIVE BARRIERS SHALL BE PLACED AT POINTS NOT CLOSER THAN SIX (6) FEET FROM THE BASE OF THE TREE OR AT THE RADIUS OF THE DRIP-LINE OF THE PROTECTED TREE OR STAND OF TREES, WHICHEVER IS GREATER. EACH SECTION OF THE BARRIER SHALL BE CLEARLY VISIBLE (FLAGGED WITH BRIGHTLY COLORED PLASTIC TAPES OR OTHER MARKERS). NO ATTACHMENTS OR WIRES OTHER THAN THOSE OF A PROTECTIVE OR NON-DAMAGING NATURE SHALL BE ATTACHED TO ANY TREE.

TREE PROTECTION NOTES

All protected tree shall have the trunk and roots protected by protective barriers erected prior to development activity in accordance with the following:

1. Protective barriers constructed of wood rails, chain link fabric or orange plastic safety netting shall be placed around the tree or trees to form a continuous barricade at least four feet high. Ideally such barriers will form a protection zone described by the drip line.
2. Protective barriers shall remain in place until landscape operations begin or until construction in the immediate area has been completed.
3. Trenching for underground utilities shall be prohibited inside the protective barriers. If underground utilities must be routed through the protected area, tunneling shall be required. All landscape preparation in these areas shall be conducted by hand, except for mechanical tunneling as needed.
4. No vehicles, equipment, materials or fill shall be placed or stored within the protected area.

TREE REMOVAL & TREE PRESERVATION TABLE NOTES:

1. TREES #13 & #115 SIZES CHANGED DUE TO ERROR IN SIZE REPORTED ON TREE SURVEY FOUND DURING SITE ANALYSIS BY LANDSCAPE ARCHITECT (INDICATED BY *).
2. TREES #145, #148, #222, #238, #249, #251, #253, #254 & #260 OMITTED FROM TREE MITIGATION CALCULATIONS DUE TO EXTREME POOR HEALTH AND/OR DISEASE (INDICATED BY STRIKETHROUGH).
3. TREES #5 THRU #11, #15, #18 THRU #34, #48, & #74 THRU #113 HAVE BEEN OMITTED FROM THE TREE REMOVAL & TREE PRESERVATION TABULATIONS AS THEY ARE OUTSIDE THE LIMITS OF THE PROJECT.
4. CABBAGE PALMS (#42, #197, #200, #202 & #212) HAVE BEEN OMITTED FROM THE TREE REMOVAL & TREE PRESERVATION TABULATIONS DUE TO 'NON-PROTECTED' STATUS (INDICATED BY STRIKETHROUGH)

TREE REMOVAL PLAN

(SHEET 4 OF 4)

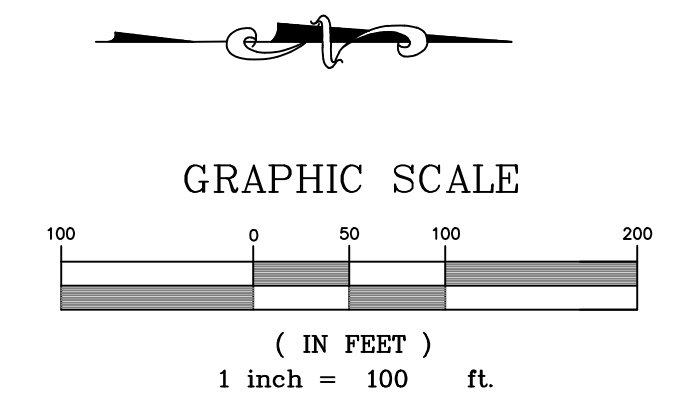
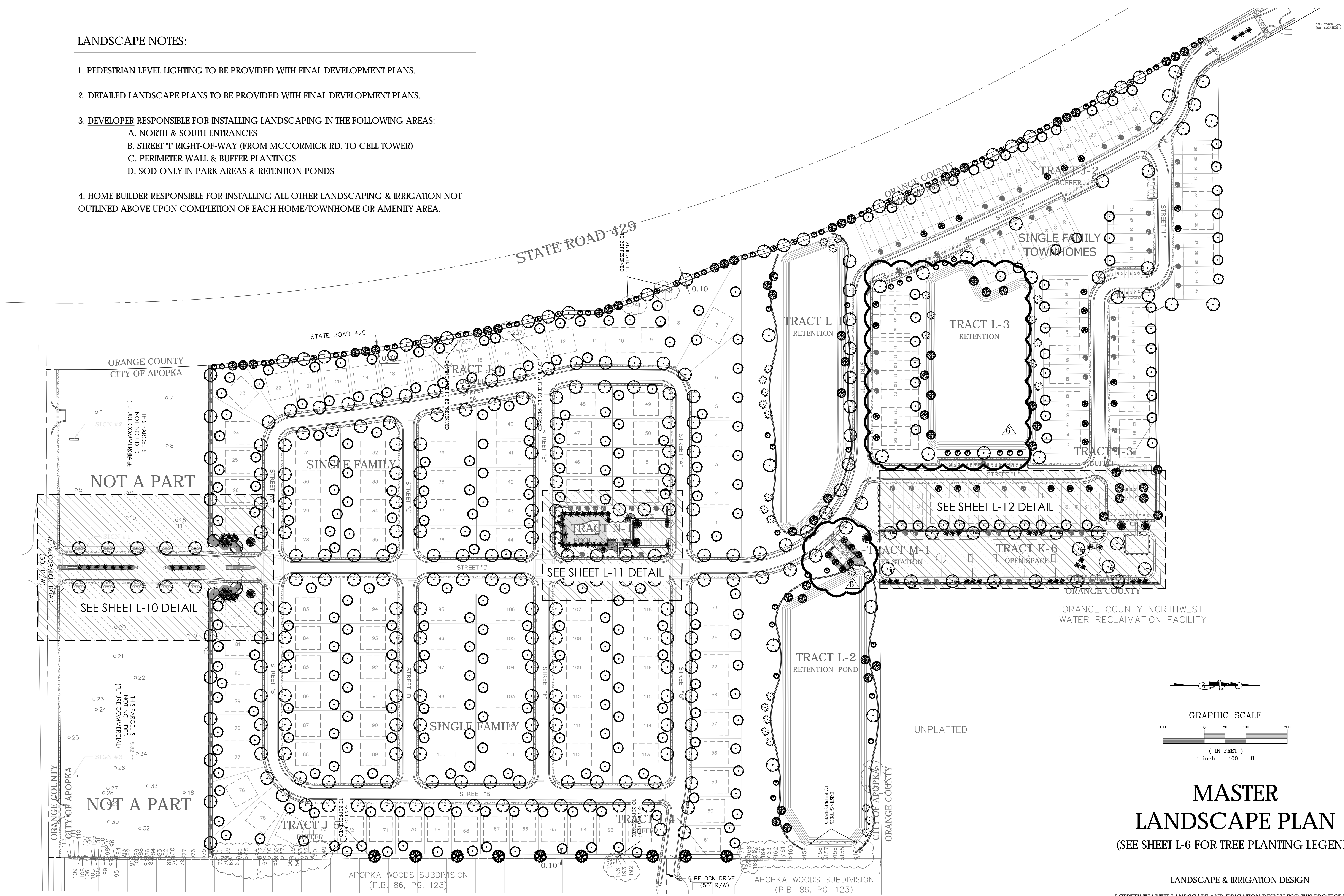
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SIGNATURE _____ REG. NO. _____ DATE _____

LANDSCAPE NOTES:

1. PEDESTRIAN LEVEL LIGHTING TO BE PROVIDED WITH FINAL DEVELOPMENT PLANS.
2. DETAILED LANDSCAPE PLANS TO BE PROVIDED WITH FINAL DEVELOPMENT PLANS.
3. DEVELOPER RESPONSIBLE FOR INSTALLING LANDSCAPING IN THE FOLLOWING AREAS:
 - A. NORTH & SOUTH ENTRANCES
 - B. STREET "T" RIGHT-OF-WAY (FROM MCCORMICK RD. TO CELL TOWER)
 - C. PERIMETER WALL & BUFFER PLANTINGS
 - D. SOD ONLY IN PARK AREAS & RETENTION PONDS
4. HOME BUILDER RESPONSIBLE FOR INSTALLING ALL OTHER LANDSCAPING & IRRIGATION NOT OUTLINED ABOVE UPON COMPLETION OF EACH HOME/TOWNHOME OR AMENITY AREA.



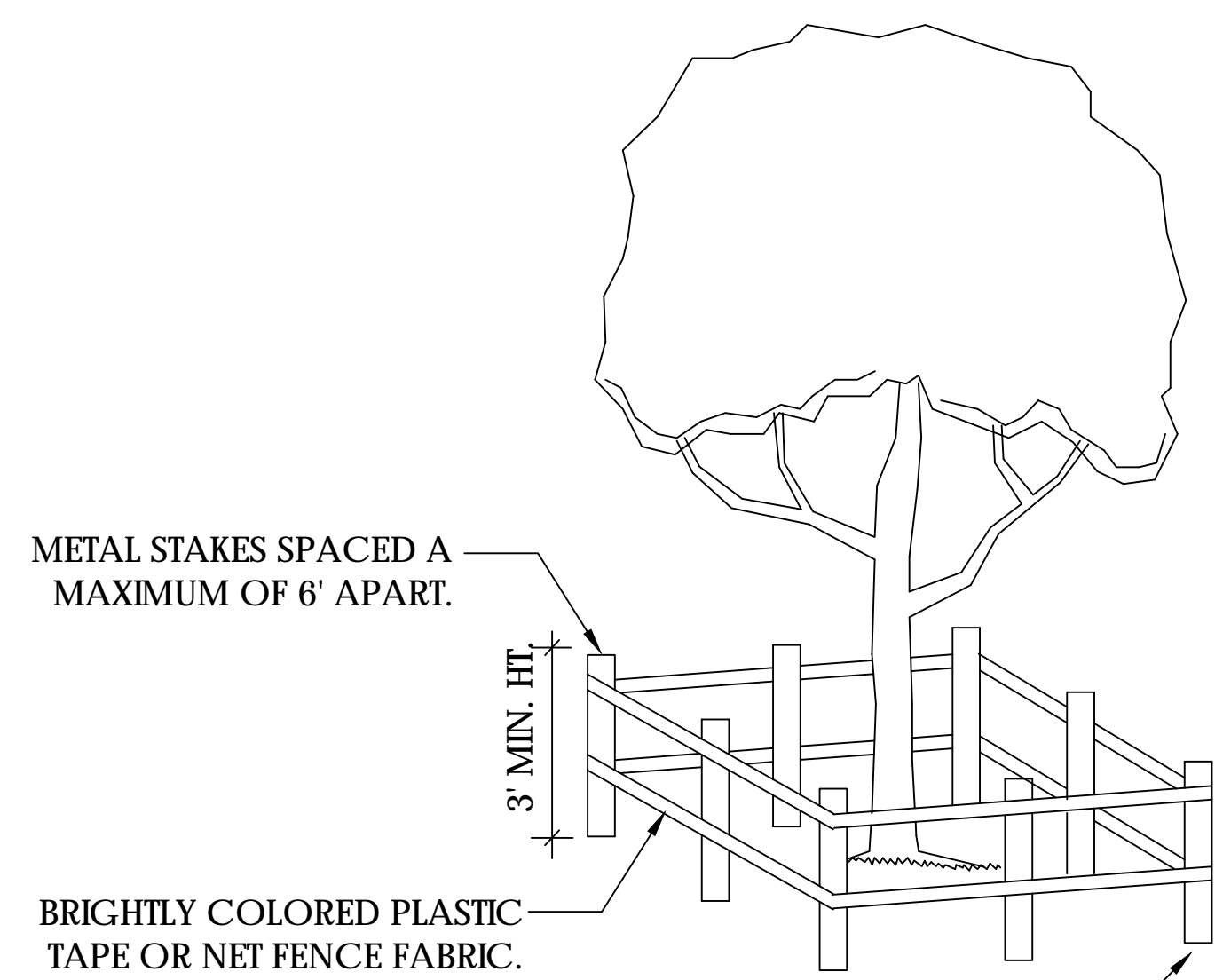
**MASTER
LANDSCAPE PLAN**
(SEE SHEET L-6 FOR TREE PLANTING LEGEND)

LANDSCAPE & IRRIGATION DESIGN
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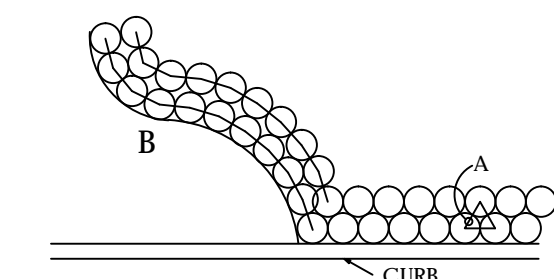
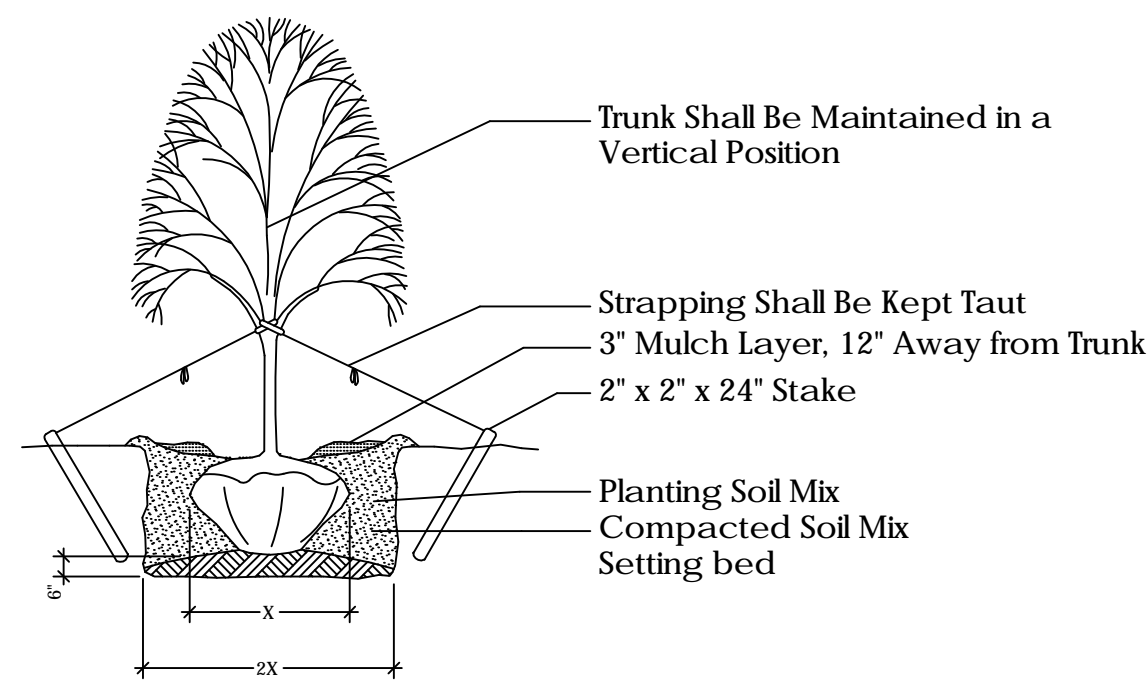
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TREE PROTECTION DETAIL



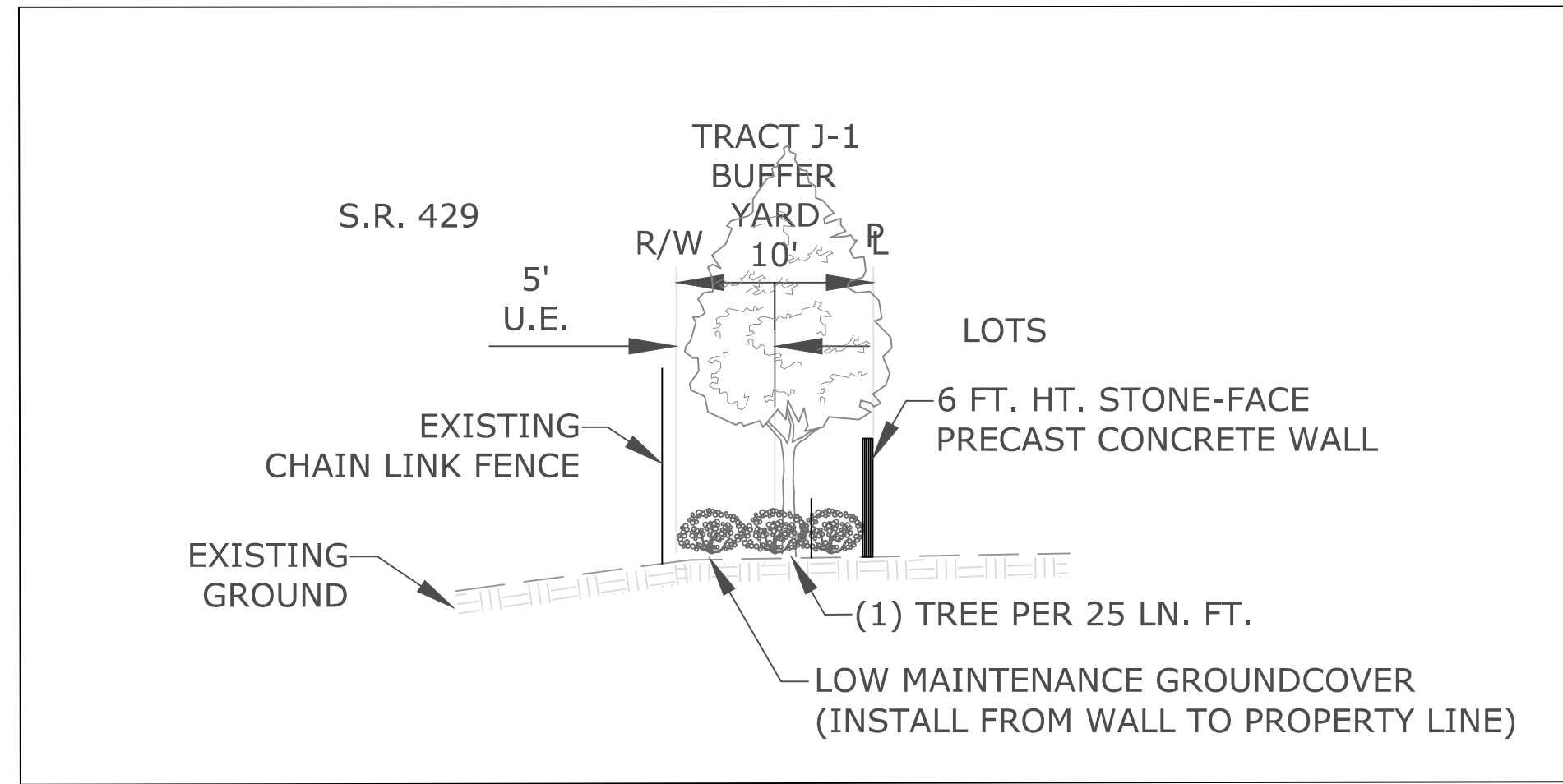
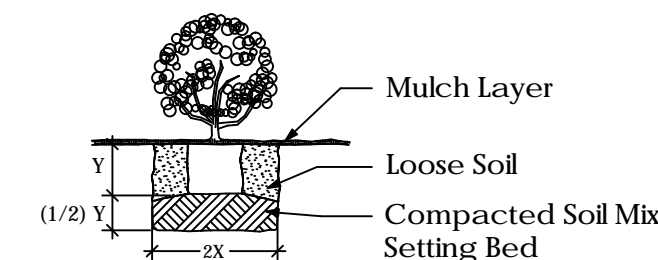
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PLANTING DETAILS



A Shrubs & groundcovers adjacent to straight edges shall be planted in rows parallel to the straight edge.

B Shrubs & groundcovers adjacent to curved edges shall be planted in rows parallel to the curved edge.



TYPICAL WESTERN LANDSCAPE BUFFER SECTION (SCALE: N.T.S.)

LANDSCAPE GENERAL NOTES

- The Landscape Contractor shall insure that this work does not interrupt established or projected drainage patterns. The Landscape Contractor shall insure adequate vertical drainage in all plant beds and planters. Vertical drilling through any compacted fill to native soil shall be accomplished to insure drainage.
- The Landscape Contractor shall be responsible for all materials and all work as called for on the landscape plans and in the landscape specifications. The list of plant quantities accompanying the plans shall be used as a guide only. Contractor shall verify all quantities and report any discrepancies at the time of bidding.
- All plant materials shall be graded Florida No. 1 or better, as outlined under Grades and Standards for Nursery Plants, Division of Plant Industry, State of Florida, unless otherwise noted.
- All plant beds and tree rings shall be top dressed with a 3" minimum depth of pine bark nuggets.
- The Landscape Contractor shall be wholly responsible for stability and plumb condition of all trees and shrubs. Staking of trees or shrubs, if desired or requested by the Landscape Architect or owner, shall be done utilizing a method agreed upon by the Landscape Architect.
- No fill material or use of heavy equipment around existing trees is allowed. Existing trees are to be protected by a wood barricade erected in compliance with local codes.
- The Landscape Contractor is responsible for testing project soils. The Landscape Contractor is to provide a certified soils report to the Owner and Landscape Architect. The Landscape Contractor shall verify that the soils on site are acceptable for proper growth of the proposed plant material. Should the Landscape Contractor find poor soil conditions, the Owner and Landscape Architect must be consulted prior to planting.
- All grades, dimensions and existing conditions shall be verified by the Contractor on site before construction begins. Any discrepancies shall be brought to the attention of the Landscape Architect.
- All proposed trees to be installed either entirely in or entirely out of planting beds. Planting bedlines are not to be obstructed; smooth and flowing.
- The Landscape Contractor shall review architectural/engineering plans to become thoroughly familiar with surface and subsurface utilities.
- The Landscape Contractor shall coordinate with the lighting and irrigation contractors regarding the timing of the installation of plant material.
- Every possible safeguard shall be taken to protect building surfaces, equipment and furnishings. Landscape Contractor shall be responsible for any damage or injury to person or property which may occur as a result of his negligence in the execution of work.

IRRIGATION NOTE

Irrigation Plan will be provided at time of the Final Development Plan.

LANDSCAPE DEVELOPMENT NOTES:

- PEDESTRIAN LEVEL LIGHTING TO BE PROVIDED WITH FINAL DEVELOPMENT PLANS.
- DETAILED LANDSCAPE PLANS WITH PLANTING SCHEDULE TO BE PROVIDED WITH FINAL DEVELOPMENT PLANS.
- DEVELOPER RESPONSIBLE FOR INSTALLING LANDSCAPING IN THE FOLLOWING AREAS:
 - NORTH & SOUTH ENTRANCES
 - STREET "T" RIGHT-OF-WAY (FROM MCCORMICK RD. TO CELL TOWER)
 - PERIMETER WALL & BUFFER PLANTINGS
 - SOD ONLY IN PARK AREAS & RETENTION PONDS
- HOME BUILDER RESPONSIBLE FOR INSTALLING ALL OTHER LANDSCAPING & IRRIGATION NOT OUTLINED ABOVE UPON COMPLETION OF EACH HOME/TOWNHOME OR AMENITY AREA.

TREE PLANTING LEGEND

SYMBOL	KEY	QNTY.	COMMON/BOTANICAL NAME	SPECIFICATIONS/DESCRIPTION
☼	QV1	9	Live Oak <i>Quercus virginiana</i>	3 1/2" DBH, 12' - 14' Ht., 100 Gal. or B&B
☼	QV2	286	Live Oak <i>Quercus virginiana</i>	3" DBH, 10' - 12' Ht., 100 Gal. or B&B
☼	MG	7	Southern Magnolia <i>Magnolia grandiflora</i>	3" DBH, 10' - 12' Ht., 100 Gal. or B&B
☼	AR	30	Red Maple <i>Acer rubrum</i>	3" DBH, 10' - 12' Ht., 100 Gal. or B&B
☼	TD	64	Bald Cypress <i>Taxodium distichum</i>	3" DBH, 10' - 12' Ht., 100 Gal. or B&B
☼	LOT	296	Canopy Tree (Species to be Selected by Lot Owner: Live Oak, Magnolia, Red Maple or Elm Tree)	3" DBH, 10' - 12' Ht., 100 Gal. or B&B
☼	JV	64	Red Cedar <i>Juniperus virginiana</i>	3" DBH, 10' - 12' Ht., 100 Gal. or B&B
☼	IVN	48	Upright Yaupon Holly <i>Lagerstroemia indica</i>	3" Total DBH, Multi Trunk, 8' - 10' Ht., 100 Gal. or B&B
☼	LI	76	Crape Myrtle <i>Lagerstroemia indica</i>	3" Total DBH, Multi Trunk, 8' - 10' Ht., 100 Gal. or B&B

NOTE: Additional Details on Palms, Ornamentals, Shrubs & Groundcovers to be included on Final Development Plan

PROPOSED TREE PLANTING INCHES

9 LIVE OAKS x 3.5" DBH =	31.5"
286 LIVE OAKS x 3" DBH =	858"
7 MAGNOLIAS x 3" DBH =	21"
30 RED MAPLES x 3" DBH =	90"
64 BALD CYPRESS x 3" DBH =	192"
296 LOT CANOPY TREES x 3" DBH =	888"
64 RED CEDARS x 3" DBH =	192"
48 YAUPON HOLLIES x 3" DBH =	144"
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880 PROPOSED TREES =	2,644.5"

LANDSCAPE
NOTES & DETAILS

LANDSCAPE & IRRIGATION DESIGN

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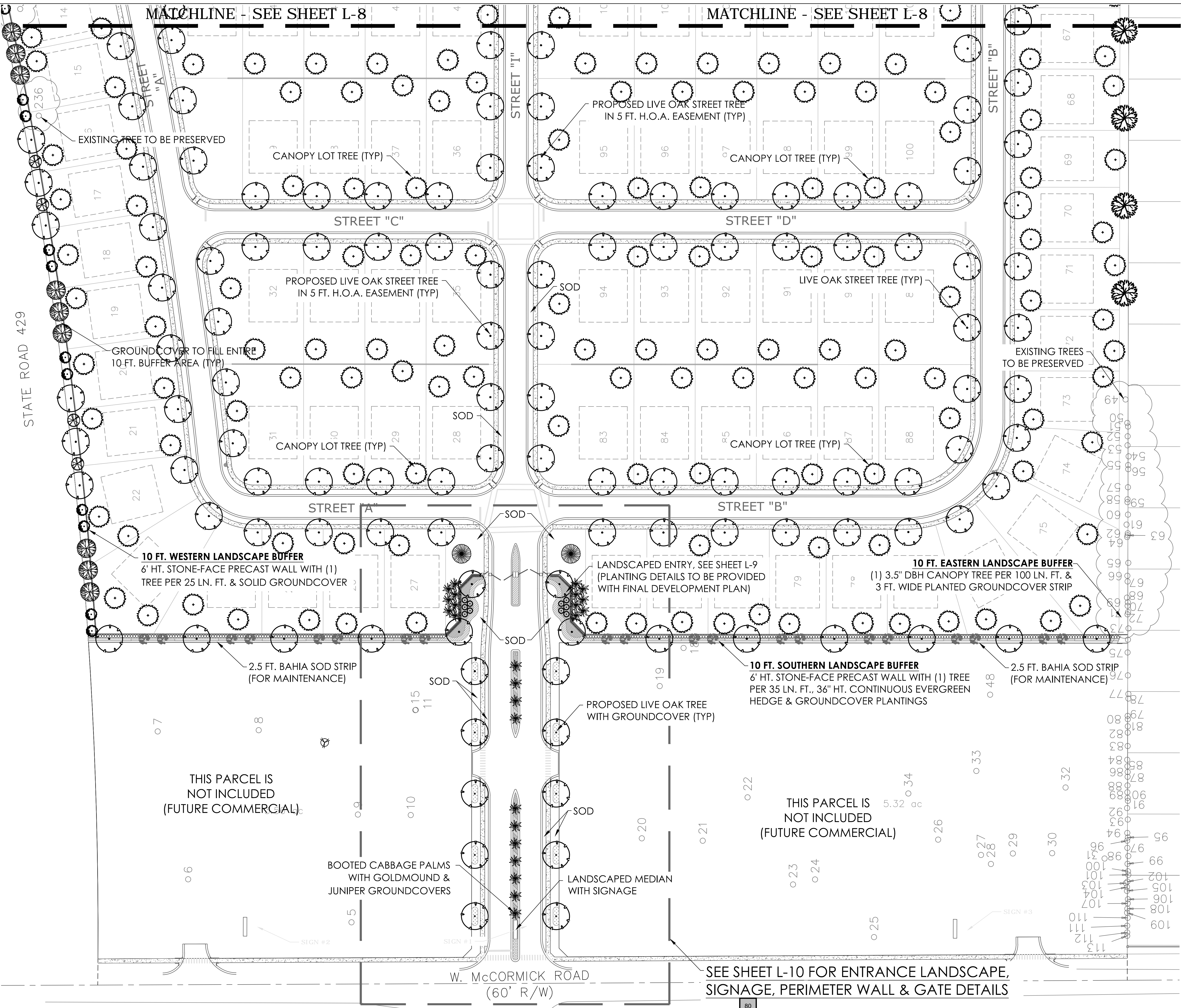
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MATCHLINE - SEE SHEET L-8

MATCHLINE - SEE SHEET L-8

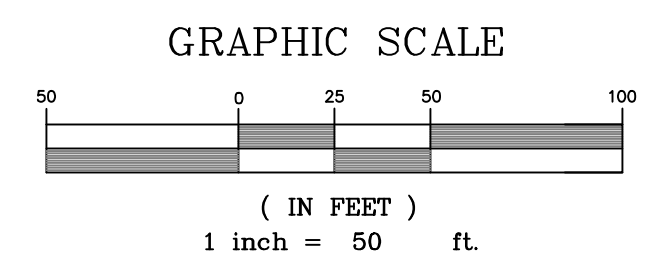
STATE ROAD 429

THIS PARCEL IS NOT INCLUDED (FUTURE COMMERCIAL)

THIS PARCEL IS NOT INCLUDED (FUTURE COMMERCIAL)

W. McCORMICK ROAD (60' R/W)

SEE SHEET L-10 FOR ENTRANCE LANDSCAPE, SIGNAGE, PERIMETER WALL & GATE DETAILS



LANDSCAPE PLAN

(SEE SHEET L-6 FOR TREE PLANTING LEGEND)

LANDSCAPE & IRRIGATION DESIGN
I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

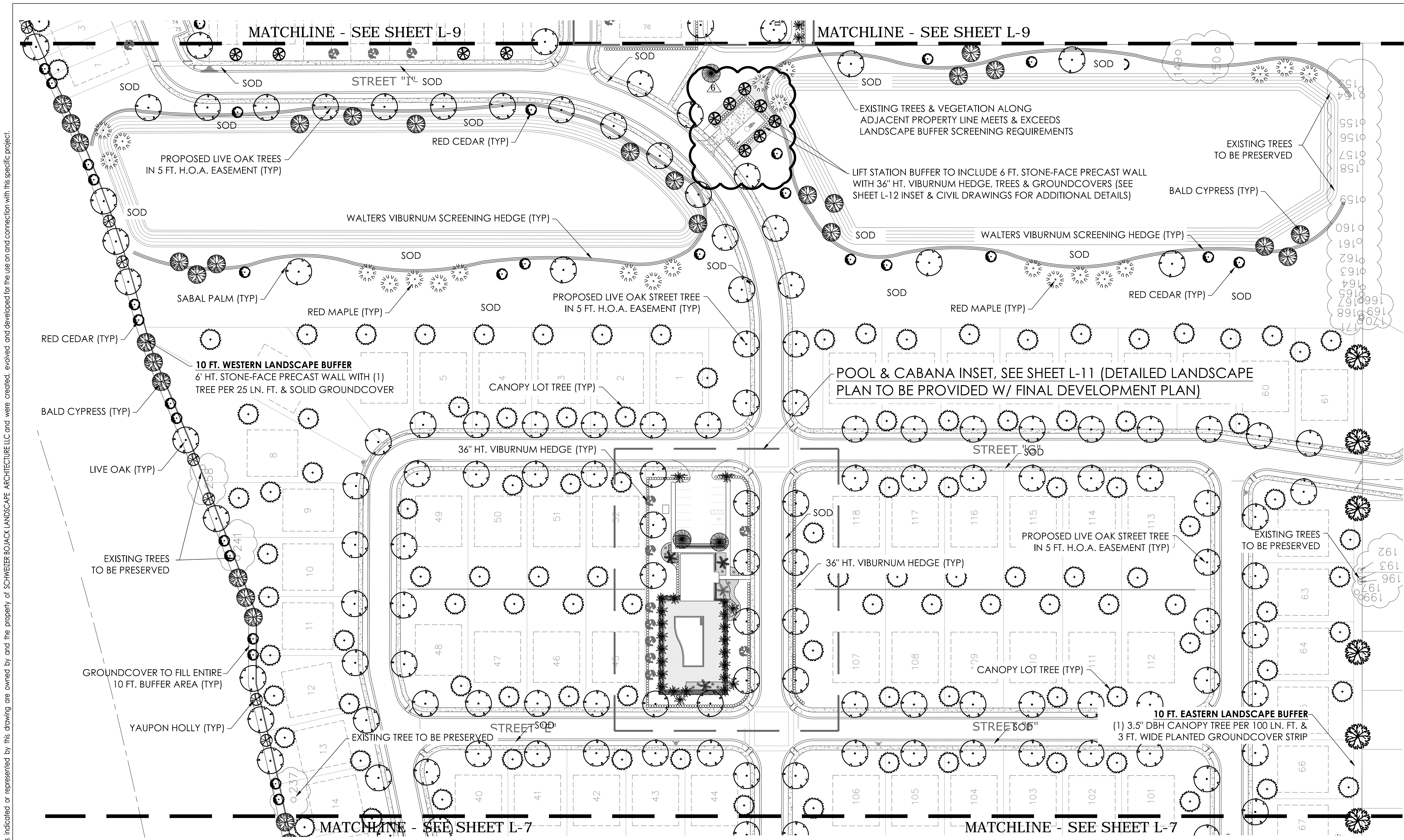
SIGNATURE _____ REG. NO. _____ DATE _____

OAK POINTE - PUD / MASTER PLAN
1527 W. MCCORMICK ROAD - CITY OF APOPKA, FL 32703

- 6 11/10/17
- 5 7/21/17
- 4 6/23/17
- 3 5/17/17
- 2 5/01/17
- 1 4/12/17

1/31/17
DRAWN BY: KB
SHEET NUMBER

L-7

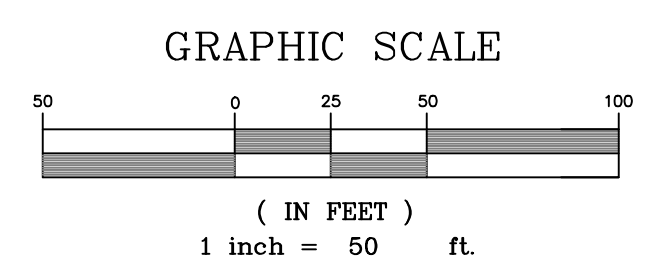


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LANDSCAPE PLAN
(SEE SHEET L-6 FOR TREE PLANTING LEGEND)

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5	7/21/17
4	6/23/17
3	5/17/17
2	5/01/17
1	4/12/17

1/31/17
DRAWN BY: KB
SHEET NUMBER

L-9

MATCHLINE 'A' (THIS SHEET)

NORTHERN ENTRANCE
SEE SHEET L-10 FOR GATE & COLUMN DETAILS

EXISTING TREES & VEGETATION ALONG ADJACENT
PROPERTY LINE MEETS & EXCEEDS LANDSCAPE
BUFFER SCREENING REQUIREMENTS

DOG PARK WITH 5 FT.
HEIGHT VINYL COATED
CHAIN LINK FENCE

MULCHED WALKING
TRAIL (TYP)

PLAYGROUND AREA
(SEE SHEET L-12)

MULTI-PURPOSE
PLAYING FIELD

BENCH (TYP)

PICNIC TABLE & LITTER
RECEPTACLE, TYP.
(SEE SHEET L-12)

RED CEDAR (TYP)

GROUNDCOVER TO FILL ENTIRE
10 FT. BUFFER AREA (TYP)

LIVE OAK (TYP)

BALD CYPRESS (TYP)

10 FT. WESTERN LANDSCAPE BUFFER
6' HT. STONE-FACE PRECAST WALL WITH (1)
TREE PER 25 LN. FT. & SOLID GROUNDCOVER

YAUPON HOLLY (TYP)

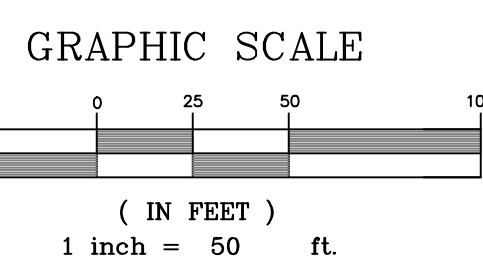
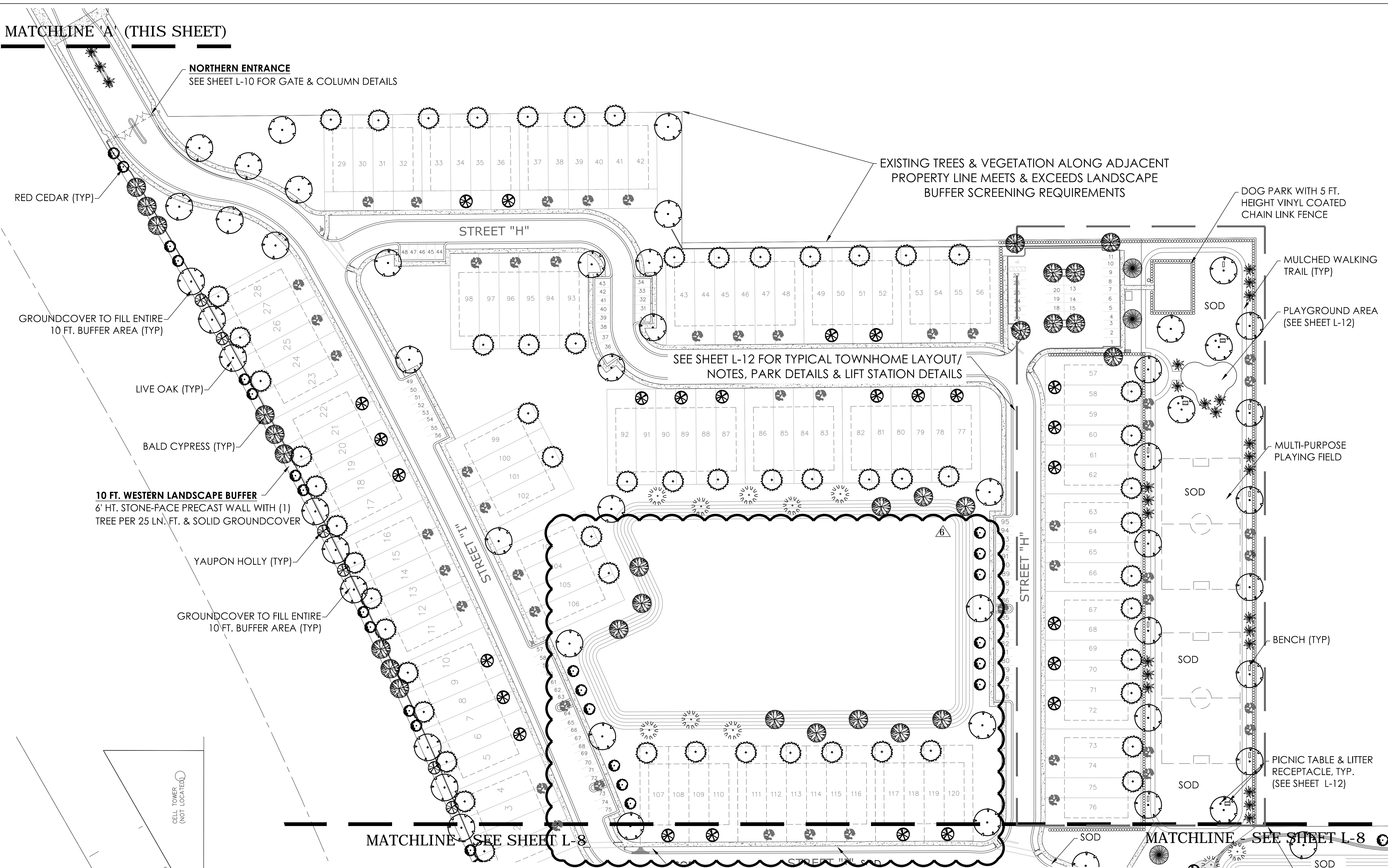
GROUNDCOVER TO FILL ENTIRE
10 FT. BUFFER AREA (TYP)

CELL TOWER
(NOT LOCATED)

MATCHLINE SEE SHEET L-8

MATCHLINE SEE SHEET L-8

MATCHLINE 'A' (THIS SHEET)



LANDSCAPE PLAN
(SEE SHEET L-6 FOR TREE PLANTING LEGEND)

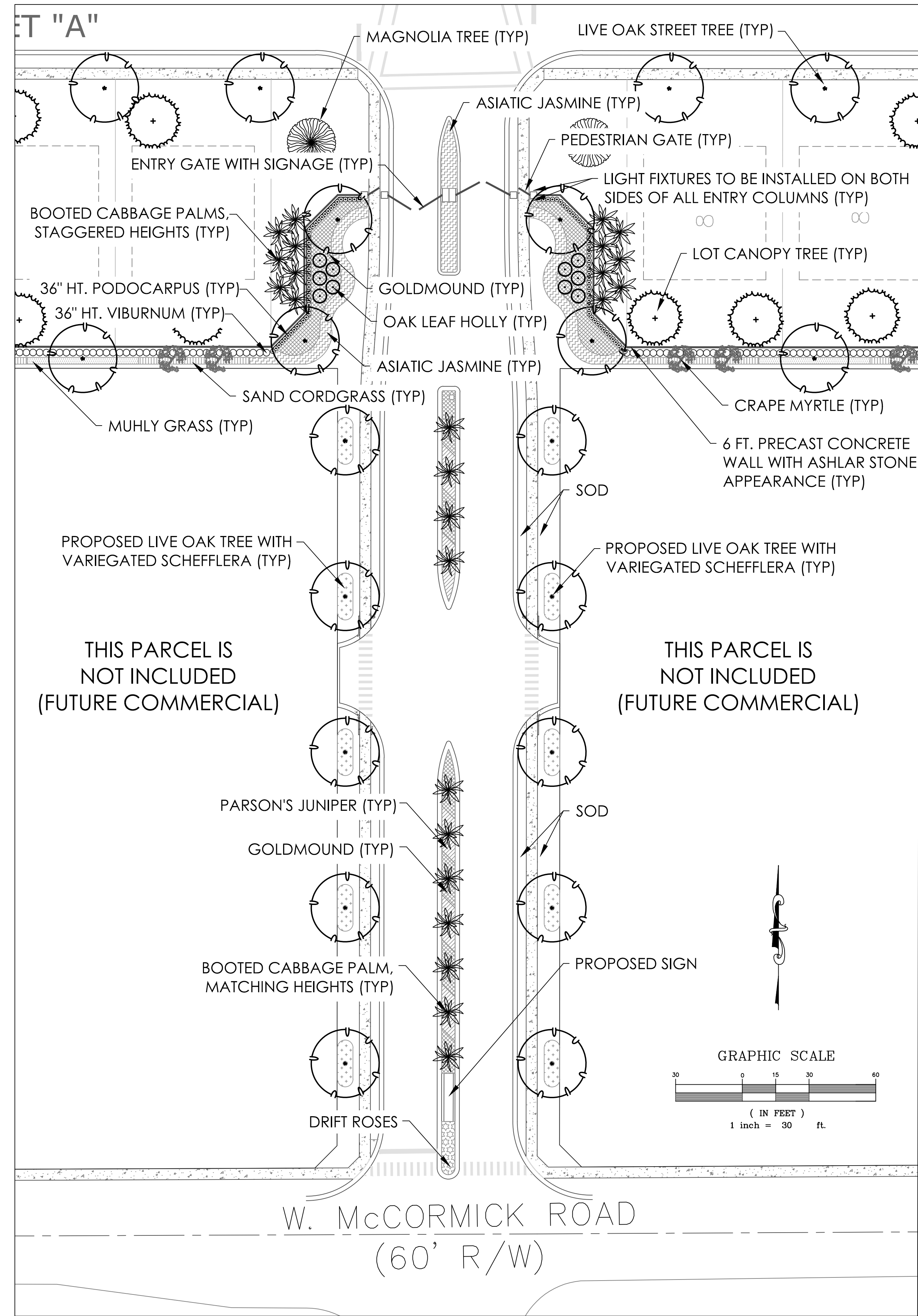
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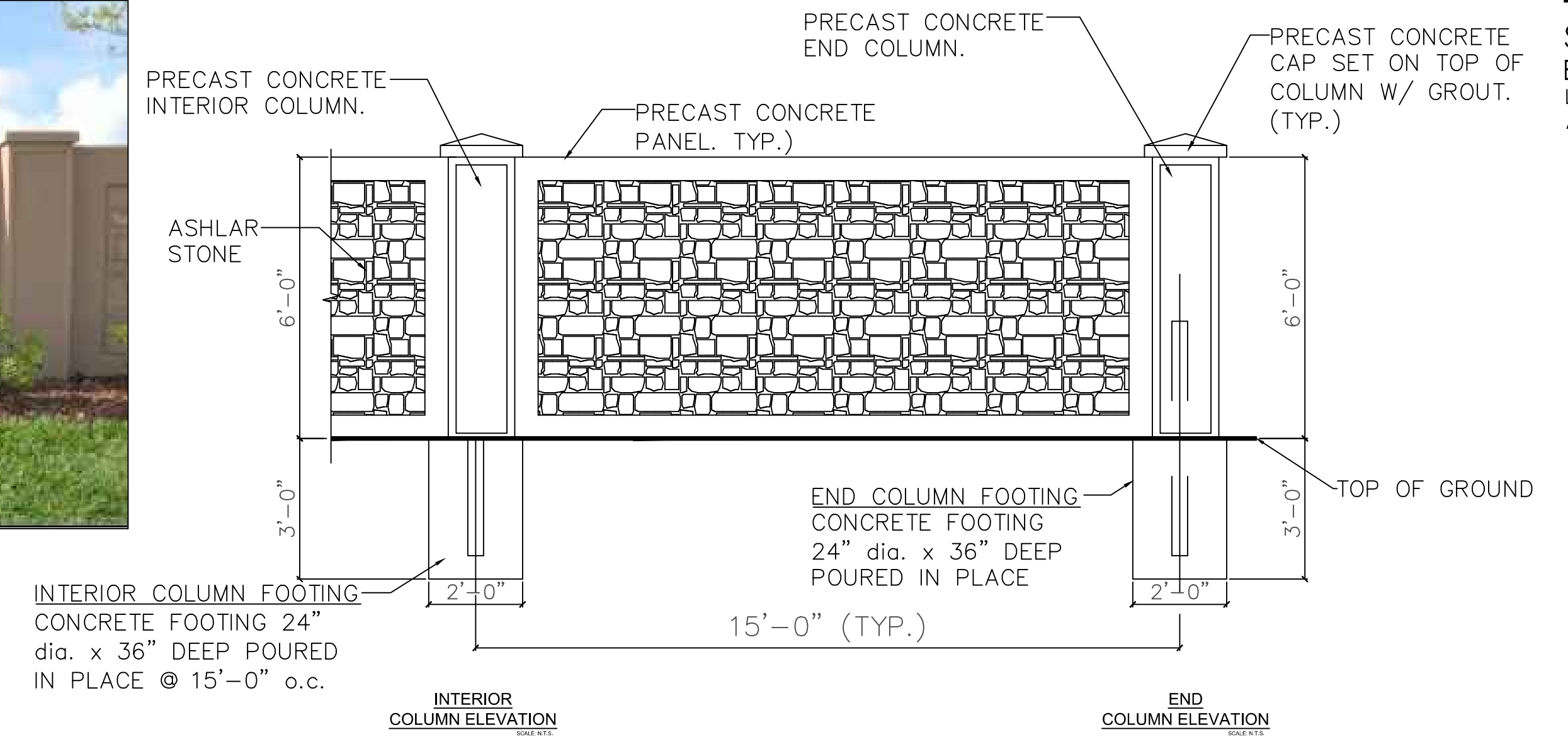
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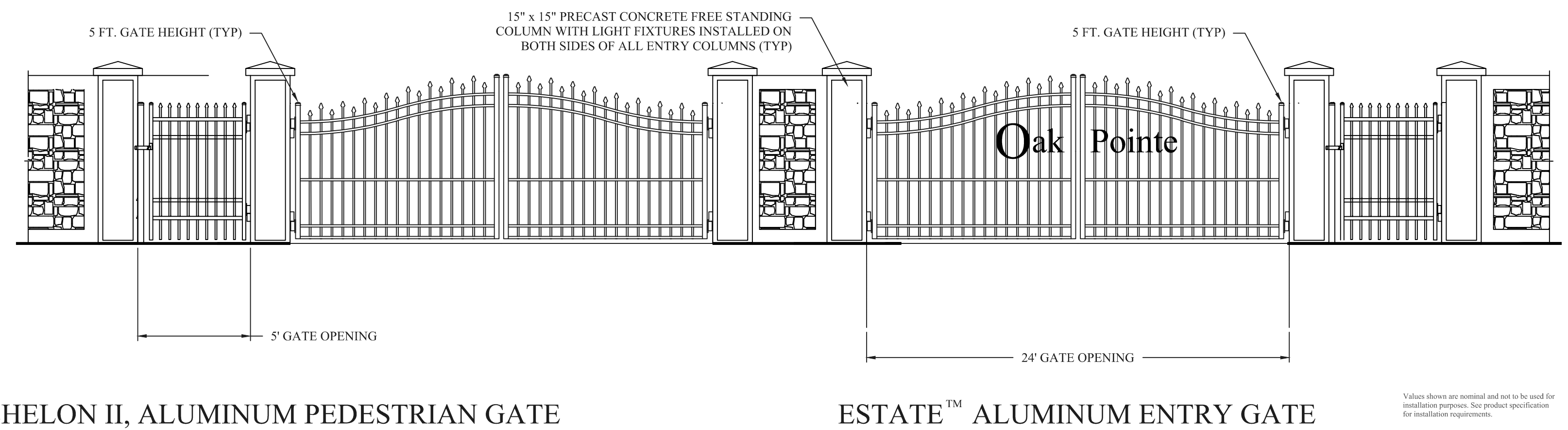
SOUTHERN ENTRANCE LANDSCAPE



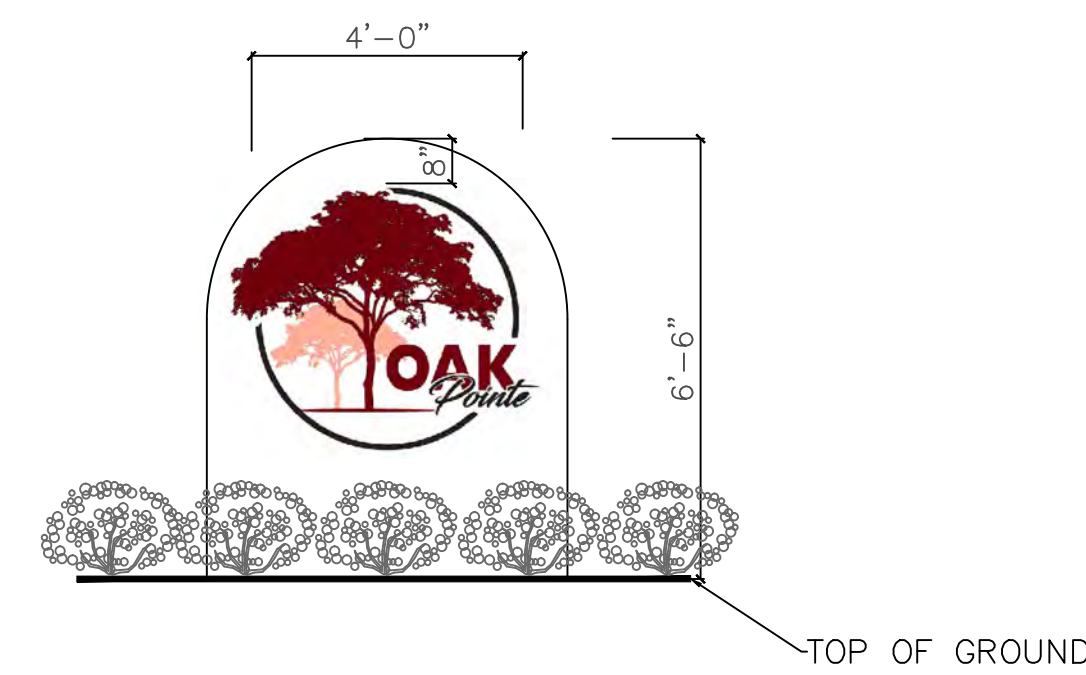
WALL DETAILS



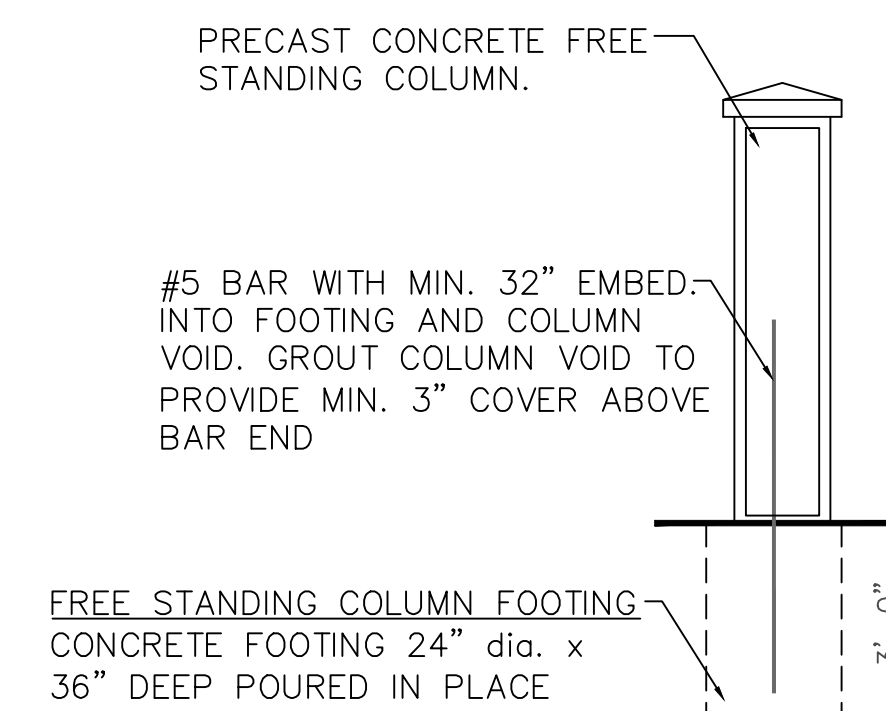
GATE ELEVATIONS (TYPICAL LAYOUT FOR NORTH & SOUTH ENTRIES)



SOUTH ENTRY SIGN ELEVATION



FREE STANDING COLUMN



ENTRANCE LANDSCAPE PLAN

LANDSCAPE & IRRIGATION DESIGN

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SCHWEIZER
BOJACK
LANDSCAPE
ARCHITECTURE

LANDSCAPE & IRRIGATION DESIGN
PO BOX 94833 • MAITLAND, FLORIDA 32794 • PH. (407) 376-1423
LICENSE NO. LC2600487 • DESIGN@SCHWEIZERBOJACK.COM

OAK POINTE - PUD / MASTER PLAN
1527 W. MCCORMICK ROAD - CITY OF APOPKA, FL 32703

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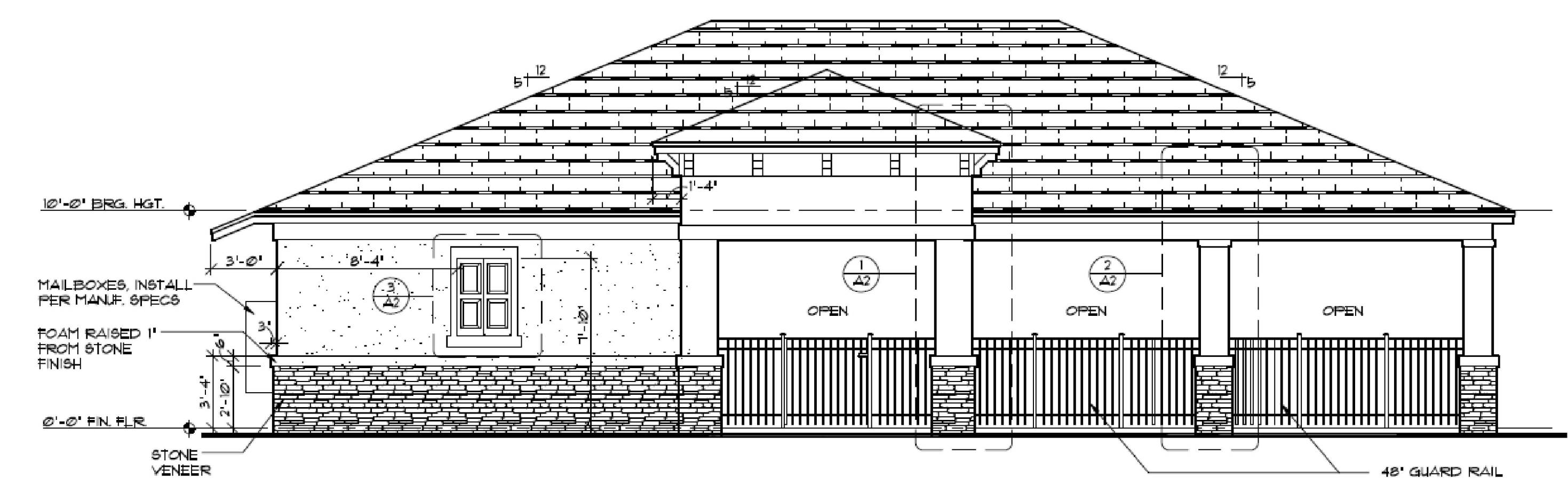
1/31/17
DRAWN BY: KB
SHEET NUMBER

L-10

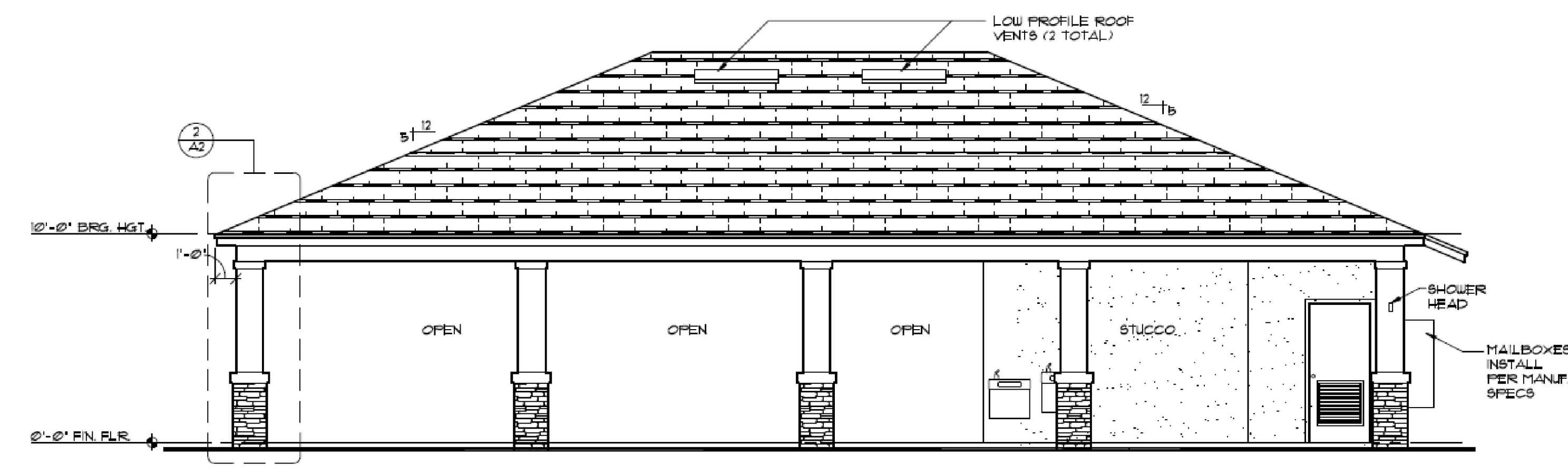
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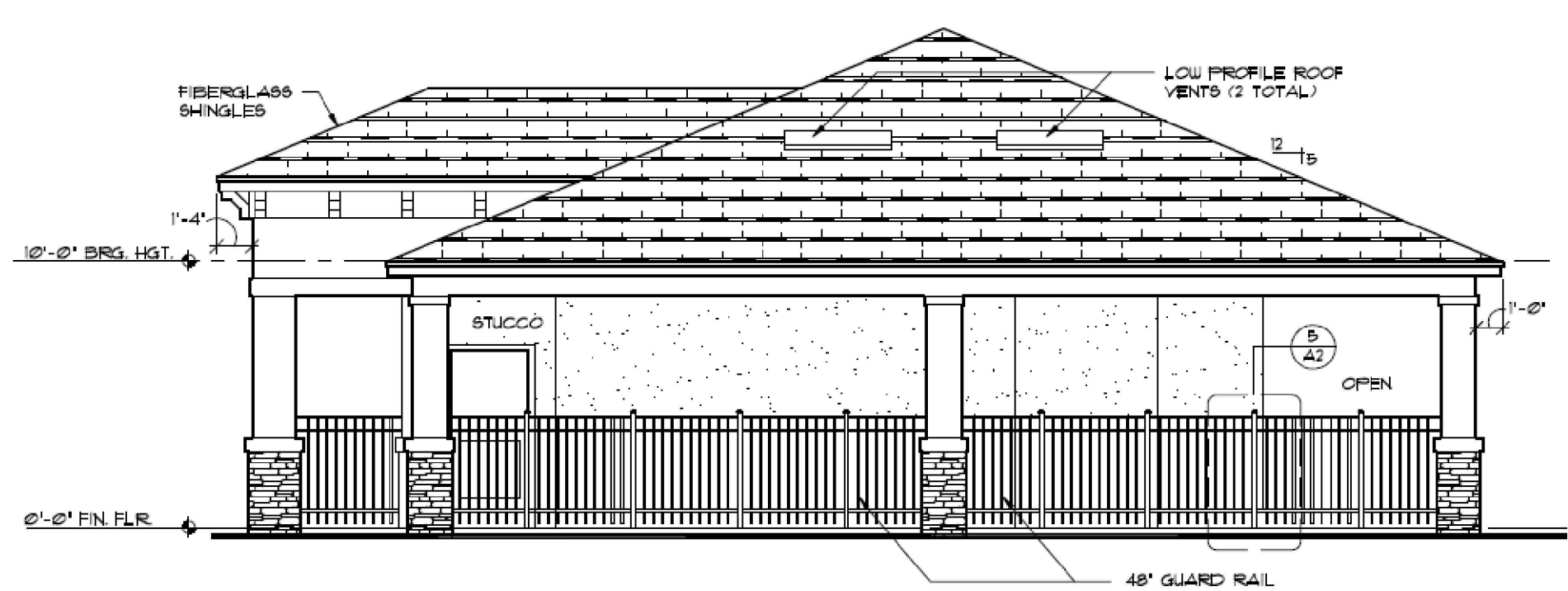
POOL & CABANA LANDSCAPE



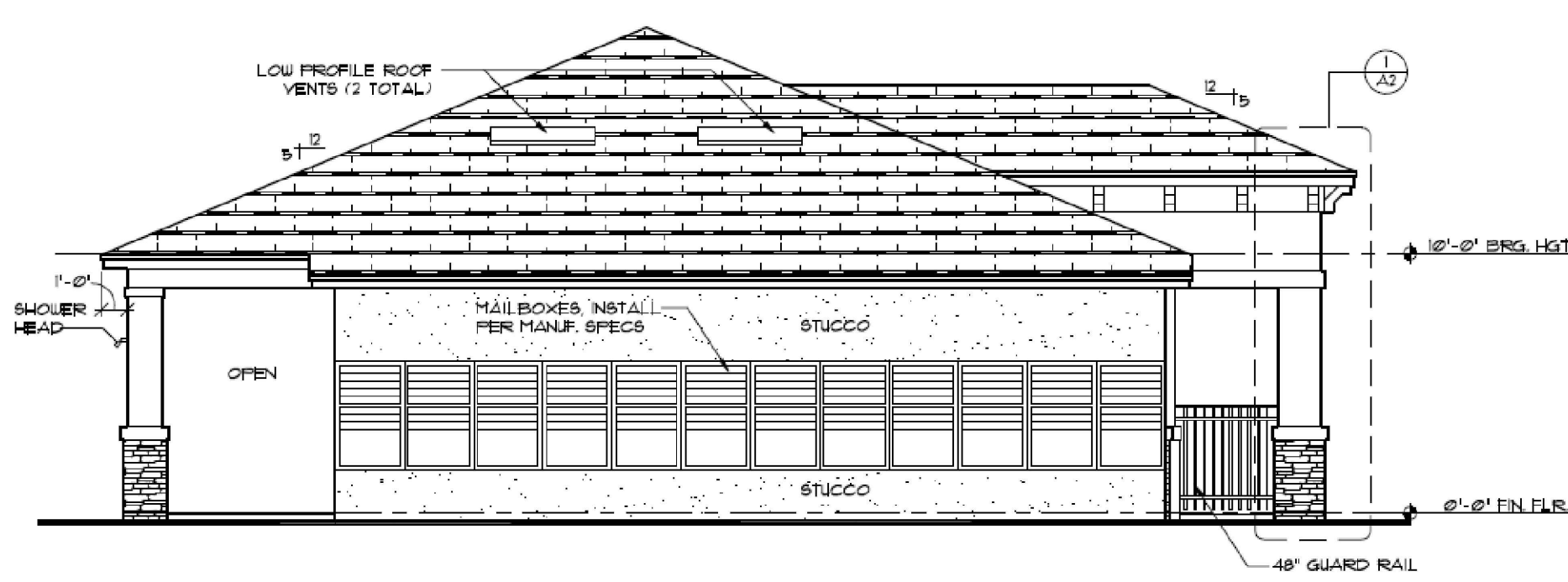
FRONT ELEVATION
TEXTURED FINISH



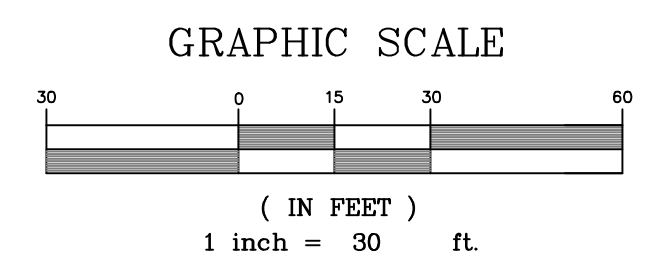
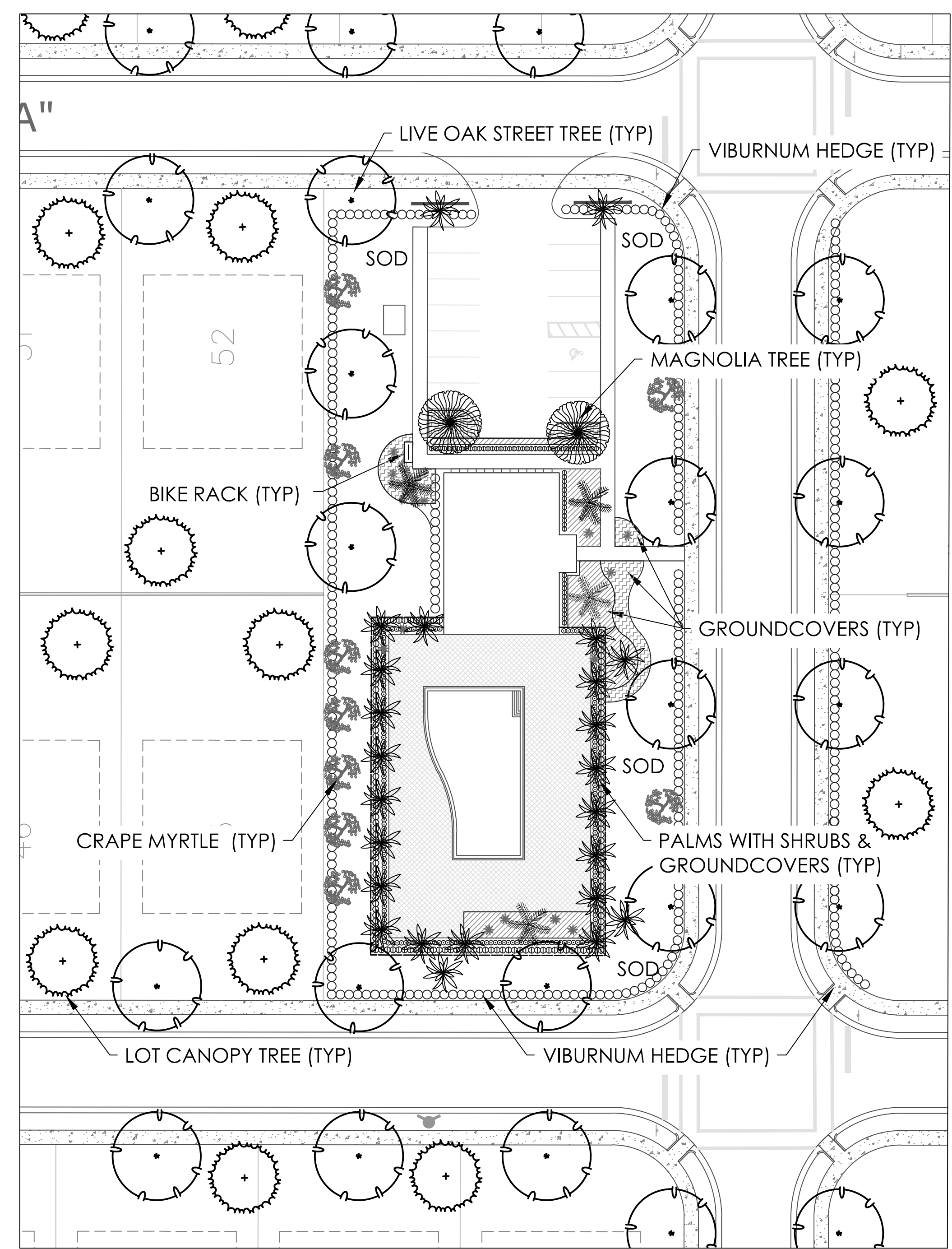
REAR ELEVATION
TEXTURED FINISH



RIGHT ELEVATION
TEXTURED FINISH



LEFT ELEVATION
TEXTURED FINISH



POOL & CABANA
LANDSCAPE PLAN

LANDSCAPE & IRRIGATION DESIGN

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TOWNHOME, LIFT STATION & PARK

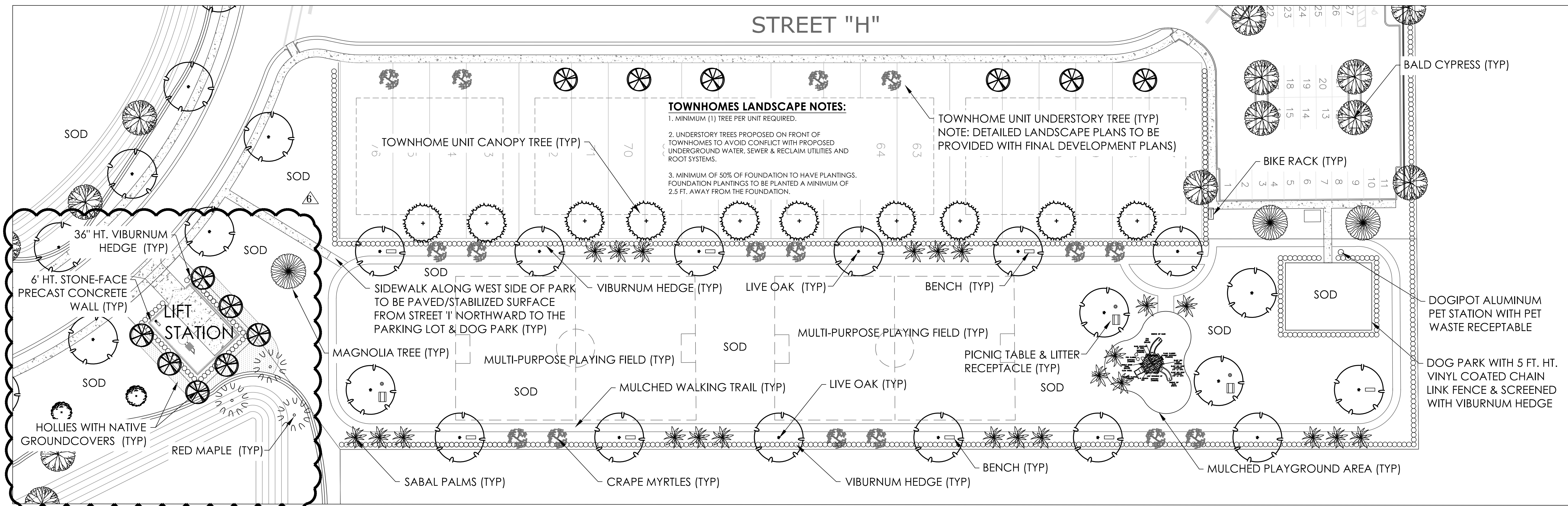


SCHWEIZER
BOJACK
LANDSCAPE
ARCHITECTURE

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LICENSE NO. LC2600487 • DESIGN@SCHWEIZERBOJACK.COM

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1527 W. MCCORMICK ROAD - CITY OF APOPKA, FL 32703

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A TUFFCLAD SERIES HEAVY DUTY PICNIC TABLE Model 28014, by Gametime



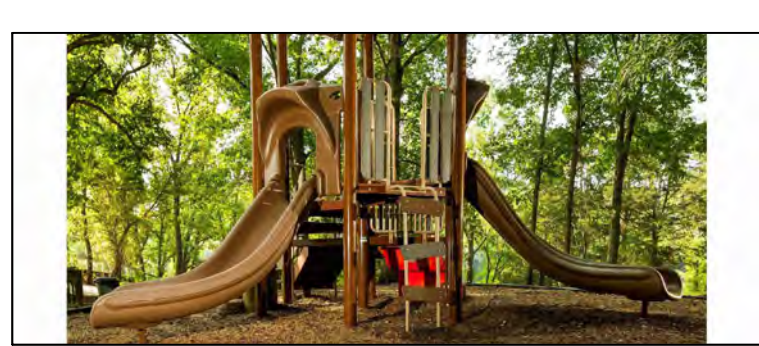
B ARLINGTON SERIES BENCH WITH ARMREST Model UF9106, by Gametime



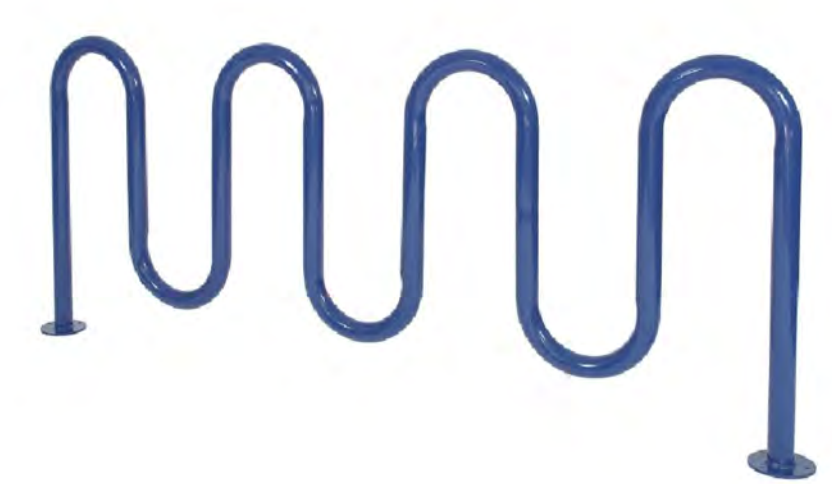
C ARLINGTON SERIES LITTER RECEPTACLE Model UL9310 - 24" x 30", by Gametime



D CANYON CABIN PLAYGROUND Model PS16010, by PowerScape

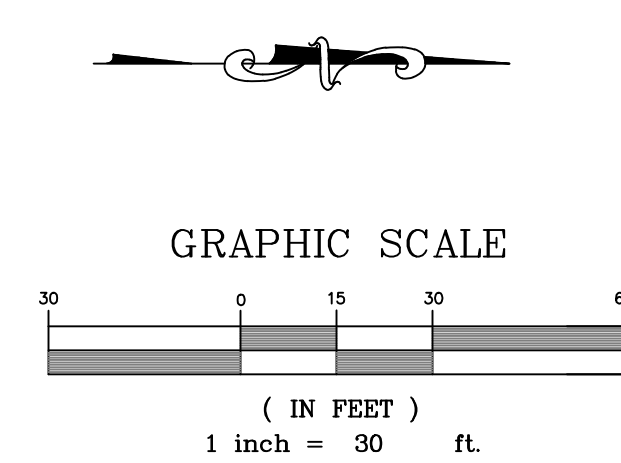


E LOOP BICYCLE RACK Model 7700, by Gametime



PARK & AMENITY PLAN NOTES:

- PEDESTRIAN LEVEL LIGHTING TO BE PROVIDED WITH FINAL DEVELOPMENT PLANS.
- DETAILED LANDSCAPE PLANS WITH ADDITIONAL GROUNDCOVERS TO BE PROVIDED WITH FINAL DEVELOPMENT PLANS.
- SIDEWALK RUNNING ALONG WESTERN SIDE OF PARK SHALL BE PAVED/STABILIZED SURFACE FROM STREET "I" NORTHWARD TO THE PARKING LOT & DOG PARK TO ACCOMMODATE HANDICAP ACCESSIBILITY.



**TOWNHOME, LIFT STATION & PARK
LANDSCAPE & AMENITIES PLAN**

LANDSCAPE & IRRIGATION DESIGN

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- 2/5/01/17
- 1/4/12/17

1/31/17
DRAWN BY: KB
SHEET NUMBER

L-12

Express
HOMES



Elevation - "C"



Elevation - "D"

The Aria
3 Bedroom | 2 Bath | 2 Car Garage
1,672 Square Feet

Express
HOMES



Elevation - "C"



Elevation - "D"

The Cali
3-4 Bedroom | 2 Bath | 2 Car Garage
1,828 Square Feet

Express
HOMES



Elevation - "C"



Elevation - "D"

The Arden
4 Bedroom | 2.5 Bath | 2 Car Garage
1,969 Square Feet

Express
HOMES



Elevation - "C"



Elevation - "D"

The Flora
4 Bedroom | 2.5 Bath | 2 Car Garage
2,264 Square Feet

Express
HOMES



Elevation - "C"



Elevation - "D"

The Galen
4 Bedroom | 2.5 Bath | 2 Car Garage
2,432 Square Feet

Express
HOMES



Elevation - "C"



Elevation - "D"

The Hayden
5 Bedroom | 3 Bath | 2 Car Garage
2,601 Square Feet

DATE	REVISIONS	BY
4-20-17	1 REV PER DRC COMMENTS	TVW/MWK
6-26-17	2 REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46886

DATE: Nov 13, 2017

EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
CIVIL ENGINEERING

719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1515
WWW.EVANSERGINC.COM

CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
CITY OF APOPKA, FLORIDA

PRELIMINARY
DEVELOPMENT PLAN
ARCHITECTURAL
ELEVATIONS

DRAWN:
TVW / MWK

CHECKED:
MPG

DATE:
NOV 2017

SCALE:
NTS

JOB #:
25801

SHEET #:

A1



Elevation - "C"



Elevation - "D"

The Elle
5 Bedroom | 2.5 Bath | 2 Car Garage
2,807 Square Feet*

Eastham 1756E -



A



B

Wellfleet 1798E -



A



B

Harwich 1542E -



A



B

DATE	REVISIONS	BY
4-20-17	1 REV PER DRC COMMENTS	TVW/MWK
6-26-17	2 REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788

DAVID L. EVANS
FLORIDA P.E. NO. 46686
DATE: Nov 13, 2017

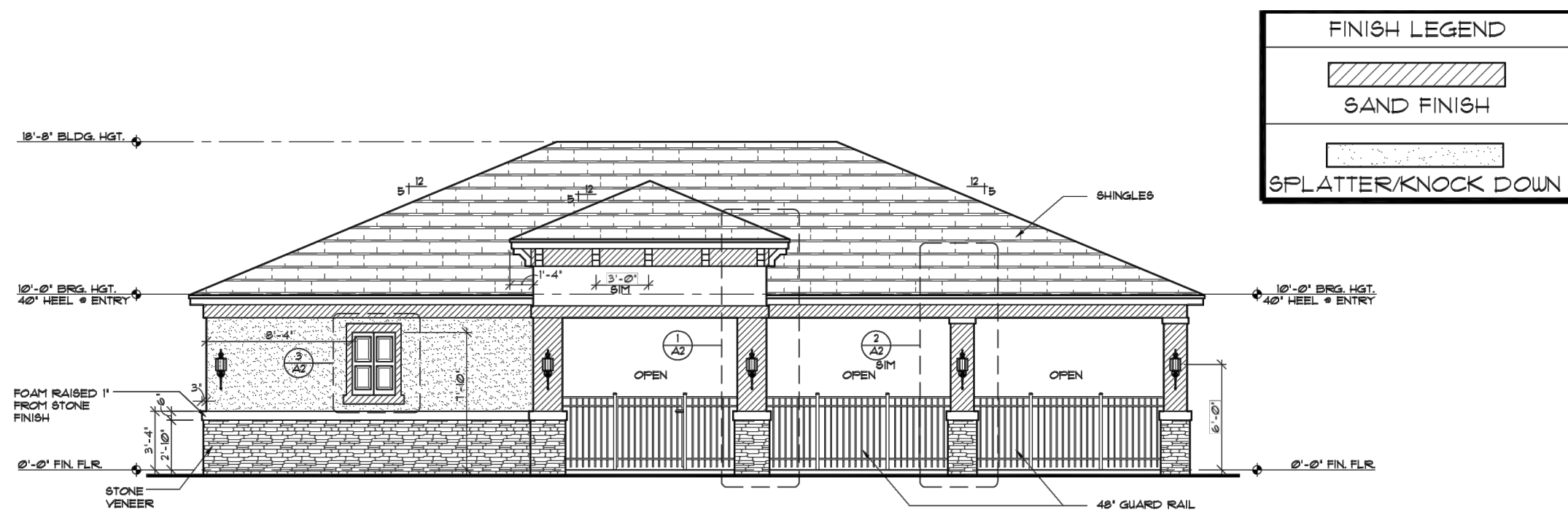
EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE
ORLANDO, FLORIDA 32803
(407) 872-1516
WWW.EVANSERGINC.COM
CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
CITY OF APOPKA, FLORIDA

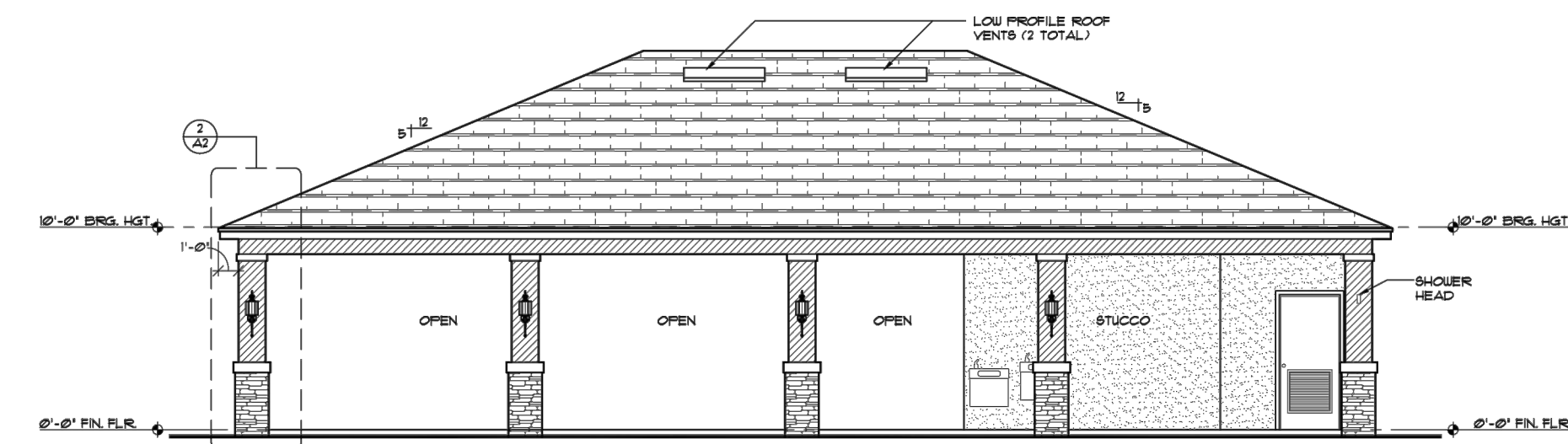
PRELIMINARY
DEVELOPMENT PLAN
ARCHITECTURAL
ELEVATIONS

DRAWN:
TVW / MWK
CHECKED:
MPG
DATE:
NOV 2017
SCALE:
NTS
JOB #:
25801
SHEET #:

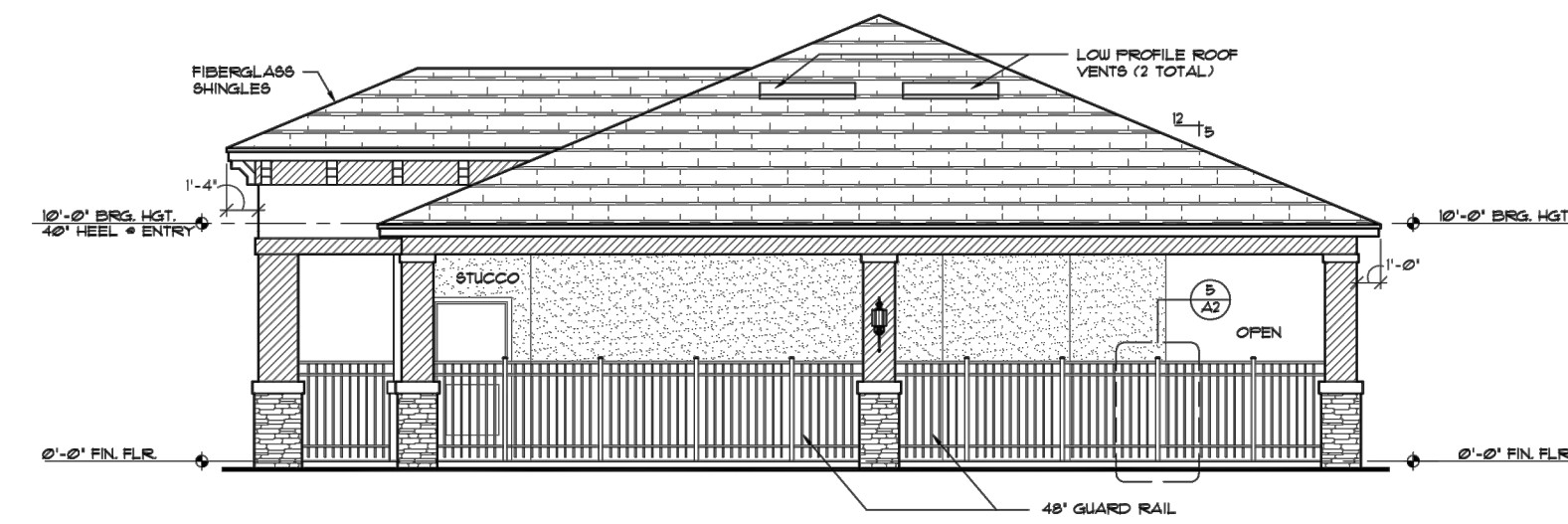
A2



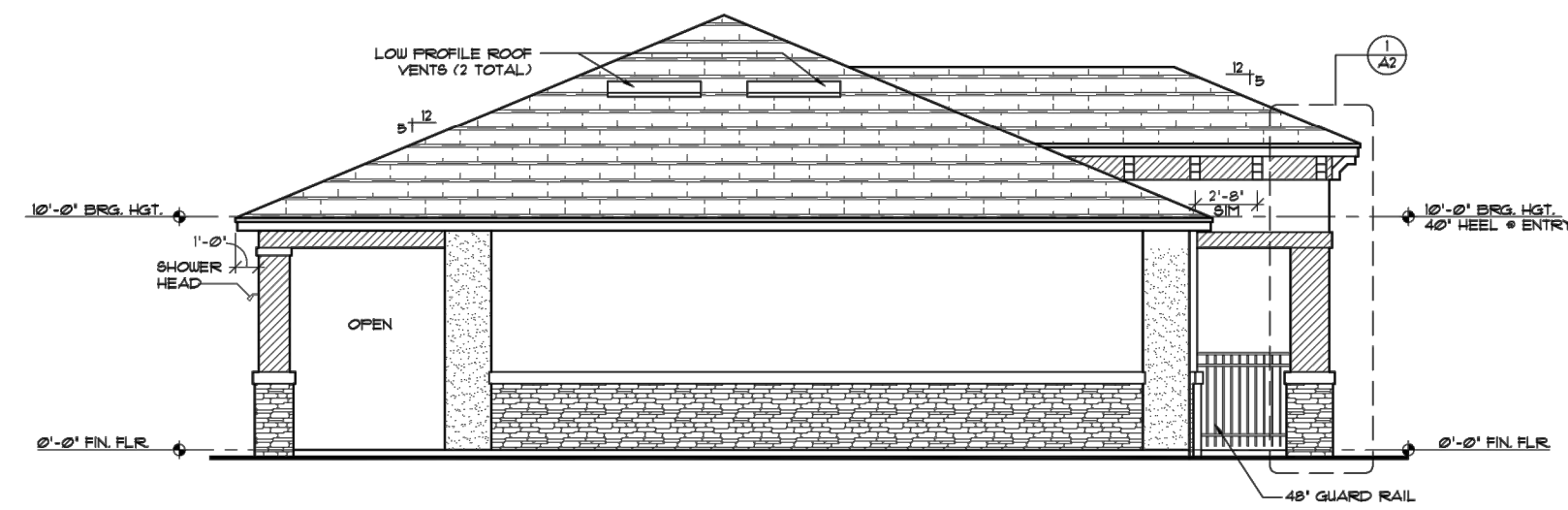
FRONT ELEVATION
TEXTURED FINISH



REAR ELEVATION
TEXTURED FINISH

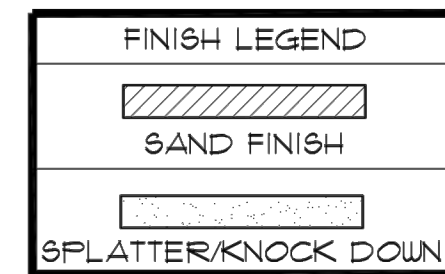
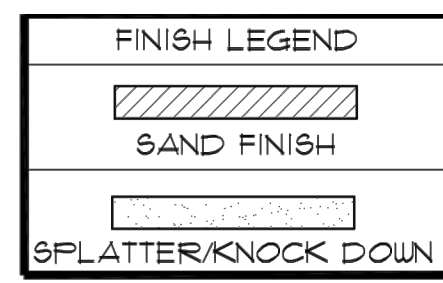


RIGHT ELEVATION
TEXTURED FINISH



LEFT ELEVATION
TEXTURED FINISH

POOL CABANA



HOLLY
3 Bedroom | 2.5 Bath
1-Car Garage
1,530 Sq. Ft.*

TOWNHOUSES



KELSEY
3 Bedroom | 2.5 Bath
1-Car Garage
1,674 Sq. Ft.*

TOWNHOUSES

DATE	REVISIONS	BY
4-20-17	1 REV PER DRC COMMENTS	TVW/MWK
6-26-17	2 REV PER DRC COMMENTS	JR/MWK

EVANS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION NO. 6788
DAVID L. EVANS
FLORIDA P.E. NO. 16586
DATE: Nov 13, 2017

EVANS ENGINEERING, INC.
LAND PLANNING PERMITTING SERVICES
719 IRMA AVENUE 32803
ORLANDO, FLORIDA (407) 872-1516
WWW.EVANSERGINC.COM
CERTIFICATE OF AUTHORIZATION NO. 00006788

OAK POINTE
FOR
THOMPSON HILLS ESTATES LLC
CITY OF APOPKA, FLORIDA

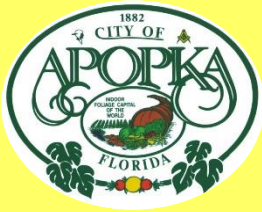
PRELIMINARY
DEVELOPMENT PLAN
ARCHITECTURAL
ELEVATIONS

DRAWN:
TVW / MWK
CHECKED:
MPG
DATE:
NOV 2017
SCALE:
NTS
JOB #:
25801
SHEET #:

A3

Backup material for agenda item:

4. PLAT – BINION RESERVE SUBDIVISION - Owned by Gail W. Brown, c/o Jeffrey A. Sedloff, P.E., June Engineering Consultants, Inc. and located at 1078 South Binision Road. (Parcel ID #: 18-21-28-0000-00-057)



CITY OF APOPKA PLANNING COMMISSION

- PUBLIC HEARING
- SITE PLAN
- SPECIAL REPORTS
- OTHER: Plat

MEETING OF: March 13, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Aerial Map
 Plat
 Final Development Plan

SUBJECT: BINION RESERVE RESIDENTIAL SUBDIVISION – PLAT

REQUEST: RECOMMEND APPROVAL OF THE BINION RESERVE SUBDIVISION PLAT

SUMMARY:

OWNER/APPLICANT: Gail W. Brown

PROJECT ENGINEER: June Engineering Consultants, Inc., c/o Jeffrey A. Sedloff, P.E.

LOCATION: 1078 South Binion Road (south of Lust Road & west of Binion Road)

EXISTING USE: Vacant Single Family Residence

FUTURE LAND USE: Residential Low Density (0 – 5 du/ac)

ZONING: R-1A (Single Family Residential)

MINIMUM LOT WIDTH: 85 feet typical lot width

MINIMUM LOT SIZE: 10,000 square feet

PROPOSED DEVELOPMENT: 44 Single Family Residential Lots

TRACT SIZE: 21.39 +/- acres

PROPOSED DENSITY: 2.05 du/ac

FUNDING SOURCE: N/A

DISTRIBUTION

Mayor Kilsheimer	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)	Res. Low Suburban (0-3.5 du/ac)	A-1 (ZIP)	Vacant
East (City)	Res. Low (0-5.0 du/ac)	A-1 (ZIP)	Single Family Residential
East (County)	Rural (1 du/10 acres)	A-1	Single Family Residential
South (City)	Mixed-Use	A-1 (ZIP)	Single Family Residential
West (City)	Res. Low (0-5.0 du/ac)	R-1A/R-O-W	Vacant/SR 429

Project Summary: Planning Commission reviewed and recommended approval of the Binion Reserve Preliminary Development Plan (PDP on July 12, 2016). The Planning Commission role is to review the Plat for consistency with the PDP, as the Planning Commission Chair is required to sign the Plat.

The Binion Reserve Final Development Plan proposes the development of 44 single family residential lots. Located within the R-1A zoning district, the community provides a typical lot width standard of 85 feet and minimum lot size of 10,000 square feet.

The proposed minimum living area, in aggregate of 1,600 square feet, with a no individual unit being less than 1,600 square feet as set forth in Section 2.02.20.B.4 of the Land Development Code. At the time of the final development plan, developer will be requested to establish criteria to assure a 2,000 sq. ft. aggregate is monitored and maintained during the building permit application cycle.

The minimum setbacks applicable to this project are:

Setback	Min. Standard
Front*	25'
Side	10'
Rear	20'
Corner	25'

*Front-entry garage must be setback 30 feet.

Access: Ingress/egress access points for the development will be via full access onto Binion Road.

Stormwater: The stormwater management system includes an on-site retention area. Stormwater ponds are located within Tract “A” and Tract “I”. The stormwater ponds design meets the City’s Land Development Code requirements.

Recreation: The developer is providing 0.51 acres (22,120 square-feet) of active and passive recreation space. Details of active and passive recreation equipment and facilities are submitted with the final development plan.

Buffer/Tree Program: A ten-foot wide landscaped buffer easement is provided along the western project line adjacent to the S.R. 429 right-of-way with a 6-foot tall brick, masonry, concrete or precast wall. A thirty-foot wide buffer tract with a 6-foot tall brick, masonry, concrete or precast wall are provided along Binion Road.

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

Total inches on-site:	8561
Total number of specimen trees removed:	67
Total specimen tree inches retained:	1505
Total inches replaced:	756
Total inches removed:	5797
Total inches retained:	2764
Total inches post development:	3520

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

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

PUBLIC HEARING SCHEDULE:
March 13, 2018 - Planning Commission, 5:30 p.m.
April 4, 2018 - City Council, 1:30 p.m.

RECOMMENDATION ACTION:

The **Development Review Committee** finds the Binion Reserve Plat to be consistent with the Preliminary Development plan and Final Development Plan, and recommends approval of Binion Reserve Subdivision Plat subject to the final review by the City surveyor and City Engineer prior to recording the plat.

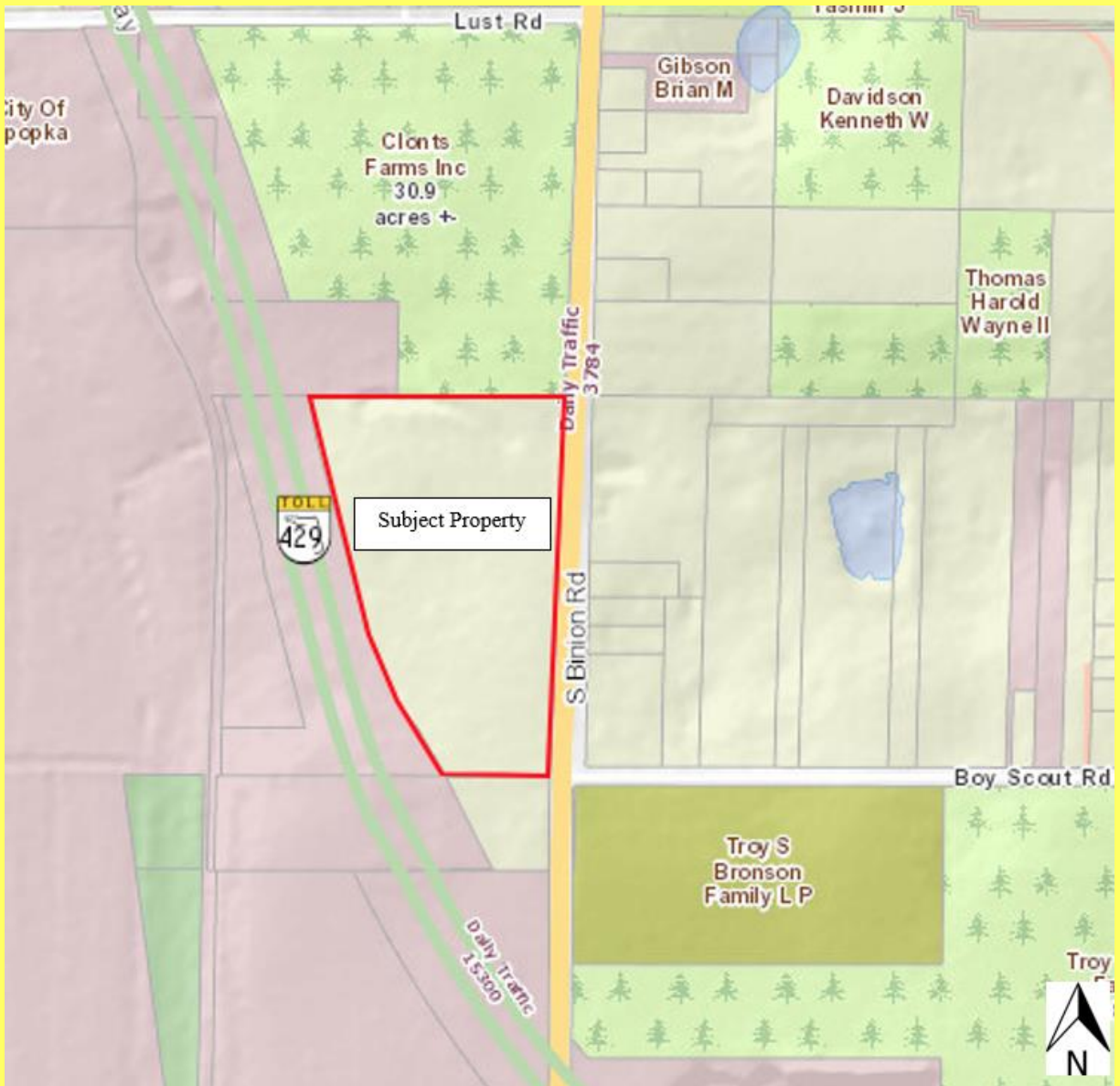
Planning Commission Recommendation: Find the Binion Reserve Subdivision Plat consistent with the Land Development Code and recommend approval of the Plat subject to the findings of the Staff Report

Planning Commission Role: The role of the Planning Commission for this development application is to advise the City Council to approve, deny, or approve with conditions based on consistency with the Final Development Plan Comprehensive Plan and Land Development Code.

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.

Gail Brown, c/o Jeffrey A. Sedloff, P.E.
June Engineering Consultants, Inc.
Binion Reserve Subdivision
21.39 +/- acres
Proposed number of units: 44
Parcel ID No.: 18-21-28-0000-00-057

VICINITY MAP



AERIAL MAP



BINION RESERVE

SHEET 1 OF 3

A PART OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

PLAT
BOOK

PAGE

BINION RESERVE DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT ROHLAND A. JUNE, DIRECTOR OF FLORIDA PROPERTIES, INC., BEING THE OWNER IN FEE SIMPLE OF THE LANDS DESCRIBED IN THE FOREGOING CAPTION TO THIS PLAT, HEREBY DEDICATES THE LIFT STATION AND ROADS AS SHOWN HEREON TO THE PERPETUAL USE OF THE PUBLIC.

IN WITNESS WHEREOF, HAS CAUSED THESE PRESENTS TO BE SIGNED AND ATTESTED TO BY THE OFFICERS NAMED BELOW ON THIS

BY: _____
ROHLAND A. JUNE, DIRECTOR

SIGNED IN THE PRESENCE OF:

SIGN NAME: _____ SIGN NAME: _____

PRINT NAME: _____ PRINT NAME: _____

STATE OF FLORIDA
COUNTY OF ORANGE

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 2016, BY ROHLAND A. JUNE, DIRECTOR, WHO IS PERSONALLY KNOWN TO ME AND DID NOT TAKE AN OATH, THE INDIVIDUAL DESCRIBED IN AND WHO EXECUTED THE FOREGOING CONVEYANCE AND ACKNOWLEDGED THE EXECUTION THEREOF TO BE HIS FREE ACT.

NOTARY PUBLIC
MY COMMISSION EXPIRES:

QUALIFICATION AND STATEMENT OF SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING A PROFESSIONAL SURVEYOR AND MAPPER CERTIFIES THAT I HAVE PREPARED THE FOREGOING PLAT AND IT WAS MADE UNDER MY DIRECTION AND SUPERVISION AND THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES; AND THAT SAID LAND IS LOCATED IN, THE CITY OF APOPKA, ORANGE COUNTY, FLORIDA.

Dated: _____ Signed: _____
BISHMAN SURVEYING AND MAPPING, INC. ARON D. BISHMAN, P.S.M.
32 WEST PLANT STREET Florida Registration No. 5668
WINTER GARDEN, FLORIDA 34787 Licensed Business No. 7274

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, THAT ON _____, THE CITY COUNCIL THE CITY OF APOPKA APPROVED THE FOREGOING PLAT.
ATTEST:

JOE KILSHEIMER, MAYOR CITY CLERK

CERTIFICATE OF APPROVAL BY CITY ENGINEER

THIS IS TO CERTIFY, THAT ON _____, THE FOREGOING PLAT WAS EXAMINED AND APPROVED BY

R. JAY DAVOLL, CITY ENGINEER

CERTIFICATE OF APPROVAL BY REVIEWING SURVEYOR

PURSUANT TO SECTION 177.081, FLORIDA STATUTES, I HAVE REVIEWED THIS PLAT FOR CONFORMITY TO CHAPTER 177 PART 1 OF THE FLORIDA STATUTES AND THAT SAID PLAT COMPLIES WITH THE TECHNICAL REQUIREMENTS OF THAT CHAPTER; PROVIDED HOWEVER, THAT MY REVIEW DOES NOT INCLUDE FIELD VERIFICATION OF ANY OF THE COORDINATES, POINTS OR MEASUREMENTS SHOWN ON THIS PLAT.

RALPH A. NIETO, P.S.M. DATE
NIETO WHITTAKER SURVEYING, LLC
REGISTRATION NO. 6025

CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION

THIS IS TO CERTIFY, THAT ON _____, THE FOREGOING PLAT WAS APPROVED BY THE APOPKA PLANNING COMMISSION OF THE CITY OF APOPKA.

CHAIRMAN DATE

CERTIFICATE OF APPROVAL BY THE COUNTY COMPTROLLER

I HEREBY CERTIFY THAT THE FOREGOING PLAT WAS RECORDED IN THE ORANGE COUNTY OFFICIAL RECORDS ON _____ AS FILE NO. _____ COUNTY COMPTROLLER IN AND FOR ORANGE COUNTY, FLORIDA BY _____.

DESCRIPTION

THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4, SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA;
LESS;

S. BINION ROAD (aka S.R. 437A) AND ALSO LESS SEABOARD COAST LINE RAILROAD;
AND LESS;

A PARCEL OF LAND SITUATE IN SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4 INCH BY 4 INCH CONCRETE MONUMENT STAMPED "L.F. HENRICH R.L.S. NO. 1263 P.R.M. MAITLAND, FLA." AS SHOWN ON PLAT OF SURVEY BY HENRICH INC. LAND SURVEYORS DATED 11-19-73 AND BOUNDARY SURVEY BY P.E.C. FOR S.J.R.W.M.D. LAST DATED 8-10-98 MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE RUN NORTH 89°39'46" EAST 1,320.44 FEET ALONG THE NORTH LINE OF SAID SECTION 18 TO THE WEST BOUNDARY OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 18, AS SHOWN ON P.E.C. S.J.R.W.M.D. SURVEY; THENCE SOUTH 01°03'27" WEST 1,337.48 FEET ALONG SAID WEST BOUNDARY LINE TO A POINT ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 18; THENCE DEPARTING SAID WEST BOUNDARY LINE, RUN ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 39.26 FEET TO POINT OF BEGINNING; THENCE CONTINUE ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 306.42 FEET; THENCE DEPARTING SAID NORTH LINE, SOUTH 09°56'34" EAST 159.99 FEET; THENCE SOUTH 14°48'28" EAST 700.00 FEET; THENCE SOUTH 23°31'40" EAST 290.42 FEET; THENCE SOUTH 38°37'42" EAST 100.53 FEET; THENCE SOUTH 30°39'48" EAST 197.78 FEET TO THE NORTH LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 18; THENCE NORTH 89°58'47" WEST 796.70 FEET ALONG SAID NORTH LINE OF THE SOUTHWEST 1/4 TO THE EASTERLY RIGHT OF WAY LINE OF FORMER S.C.L.R.R. AS MONUMENTED FOR S.J.R.W.M.D. BY P.E.C.; THENCE NORTH 01°03'18" EAST 174.53 FEET ALONG SAID EASTERLY RIGHT OF WAY LINE; THENCE DEPARTING SAID EASTERLY RIGHT OF WAY LINE, RUN SOUTH 89°53'41" EAST 295.19 FEET; THENCE NORTH 14°33'12" WEST 573.59 FEET; THENCE NORTH 07°06'24" WEST 100.81 FEET; THENCE NORTH 14°48'28" WEST 538.38 FEET TO THE POINT OF BEGINNING.

AND ALSO LESS;

A PARCEL OF LAND SITUATE IN SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4 INCH BY 4 INCH CONCRETE MONUMENT STAMPED "L.F. HENRICH R.L.S. NO. 1263 P.R.M. MAITLAND, FLA." AS SHOWN ON PLAT OF SURVEY BY HENRICH INC. LAND SURVEYORS DATED 11-19-73 AND BOUNDARY SURVEY BY P.E.C. FOR S.J.R.W.M.D. LAST DATED 8-10-98 MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE RUN NORTH 89°39'46" EAST 1,320.44 FEET ALONG THE NORTH LINE OF SAID SECTION 18 TO THE WEST BOUNDARY OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 18, AS SHOWN ON P.E.C. S.J.R.W.M.D. SURVEY; THENCE SOUTH 01°03'27" WEST 1,337.48 FEET ALONG SAID WEST BOUNDARY LINE TO A POINT ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 18; THENCE DEPARTING SAID WEST BOUNDARY LINE, RUN ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 39.26 FEET; THENCE DEPARTING SAID NORTH LINE, RUN SOUTH 14°48'28" EAST 538.38 FEET; THENCE SOUTH 07°06'24" EAST 100.81 FEET; THENCE SOUTH 14°33'12" EAST 573.59 FEET; THENCE NORTH 89°53'41" WEST 295.19 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF FORMER S.C.L.R.R. AS MONUMENTED FOR S.J.R.W.M.D. BY P.E.C.; THENCE NORTH 01°03'18" EAST 880.37 FEET ALONG SAID EASTERLY RIGHT OF WAY LINE TO A POINT ON A TANGENT CURVE (CONCAVE SOUTHWESTERLY); THENCE FROM A CHORD BEARING OF NORTH 102°7'51" WEST, RUN NORTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 751.20 FEET FOR AN ARC DISTANCE OF 302.06 FEET, THROUGH A CENTRAL ANGLE OF 23°02'20" TO END OF CURVE AND POINT OF BEGINNING.

CONTAINING 21.396 ACRES, MORE OR LESS.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

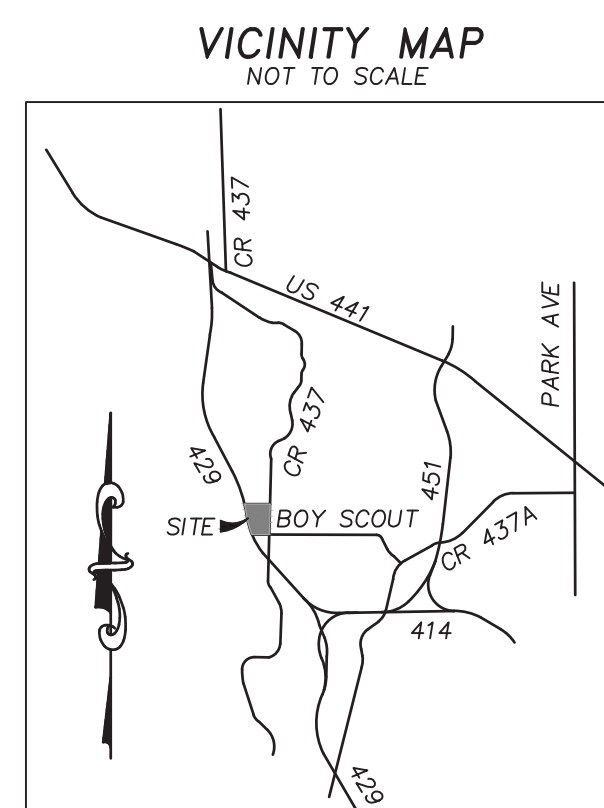
THAT PART OF SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE CENTER SECTION OF SAID SECTION 18; THENCE RUN N89°58'47"W, ALONG THE SOUTH LINE OF SAID SOUTH 1/4 OF THE NORTHWEST 1/4, 89.04 FEET, TO THE POINT OF BEGINNING; THENCE CONTINUE N89°58'47"W, ALONG SAID SOUTH LINE OF SAID SOUTH 1/4 OF THE NORTHWEST 1/4, 366.58 FEET, TO THE EASTERLY RIGHT OF WAY LINE OF STATE ROAD NO. 429; THENCE RUN NORTHERLY ALONG SAID EASTERLY RIGHT OF WAY LINE THE FOLLOWING 5 COURSES: N30°39'48"W, 197.78 FEET; THENCE RUN N38°37'42"W, 100.53 FEET; THENCE RUN N23°31'40"W, 290.42 FEET; THENCE RUN N14°48'28"W, 700.00 FEET; THENCE RUN N09°56'34"W, 159.99 FEET, TO THE NORTH LINE OF SAID SOUTHEAST 1/4 OF THE NORTHWEST 1/4; THENCE RUN S89°52'24"E, ALONG SAID NORTH LINE, 906.26 FEET, TO THE WESTERLY RIGHT OF WAY LINE OF COUNTY ROAD NO. 437 (ROAD PLAT BOOK 1, PAGES 40-43, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA); THENCE RUN S02°16'47"W, ALONG SAID WESTERLY RIGHT OF WAY LINE, 1325.34 FEET TO A CURVE CONCAVE EASTERLY; THENCE RUN SOUTHERLY ALONG SAID CURVE HAVING A CENTRAL ANGLE OF 0°01'34.7", A RADIUS OF 5769.65 FEET, AN ARC LENGTH OF 23.13 FEET, A CHORD BEARING OF S02°09'53"W AND A CHORD DISTANCE OF 23.13 FEET

CONTAINING 21.396 ACRES, MORE OR LESS.

SURVEYORS NOTES:

1. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. THE ELECTRONIC FILE FOR THIS PROJECT IS THE PROPERTY OF BISHMAN SURVEYING AND MAPPING, INC. AND IS NOT THE PROPERTY OF THE CLIENT.



LEGEND

Δ	CENTRAL ANGLE
R	RADIUS LENGTH
L	ARC LENGTH
T	TANGENT LENGTH
CB	CHORD BEARING
CL	CHORD LENGTH
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVE
PCC	POINT OF COMPOUND CURVE
RP	RADIUS POINT
PI	POINT OF INTERSECTION
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
(R)	RADIAL
OR	OFFICIAL RECORDS BOOK
PB	PAGE
PG	PLAT BOOK
CL	CENTERLINE
LB	LICENSED BUSINESS
DE	DRAINAGE EASEMENT
UE	UTILITY EASEMENT
DUE	DRAINAGE & UTILITY EASEMENT
LE	LANDSCAPE EASEMENT
(TYP.)	TYPICAL
R/W	RIGHT OF WAY
PCP	PERMANENT CONTROL POINT
PRM	PERMANENT REFERENCE MONUMENT
WLE	WALL/LANDSCAPE EASEMENT
—	DENOTES CHANGE IN DIRECTION

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.

NOTES:

- DENOTES SET PERMANENT REFERENCE MONUMENT, A 4"x4" CONCRETE MONUMENT FROM LB 7274; UNLESS NOTED OTHERWISE.
- DENOTES SET PERMANENT CONTROL POINT, A NAIL AND DISC "PCP LB 7274"; UNLESS NOTED OTHERWISE.



CERTIFICATE OF AUTHORIZATION LB 7274
32 W. PLANT STREET Phone No. 407.905.8877
WINTER GARDEN, FL 34787 Fax No. 407.905.8875

BINION RESERVE

A PART OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

SHEET 2 OF 3

PLAT BOOK

PAGE

N 1/4 CORNER OF SECTION 18-21-28
RECOVERED RAILROAD SPIKE (NO
IDENTIFICATION)
CERTIFIED CORNER RECORD 105361
N 1576467.250 E 479660.063



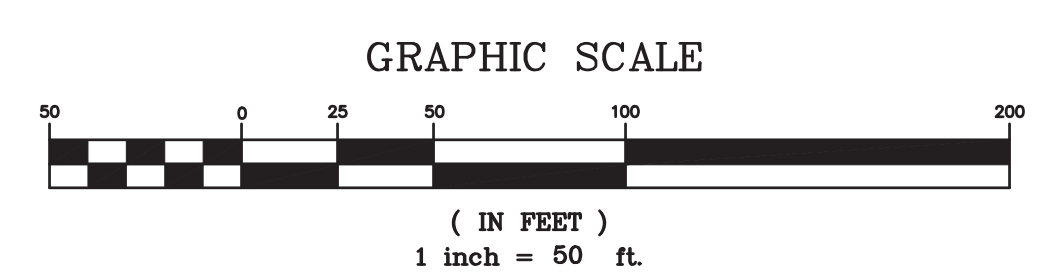
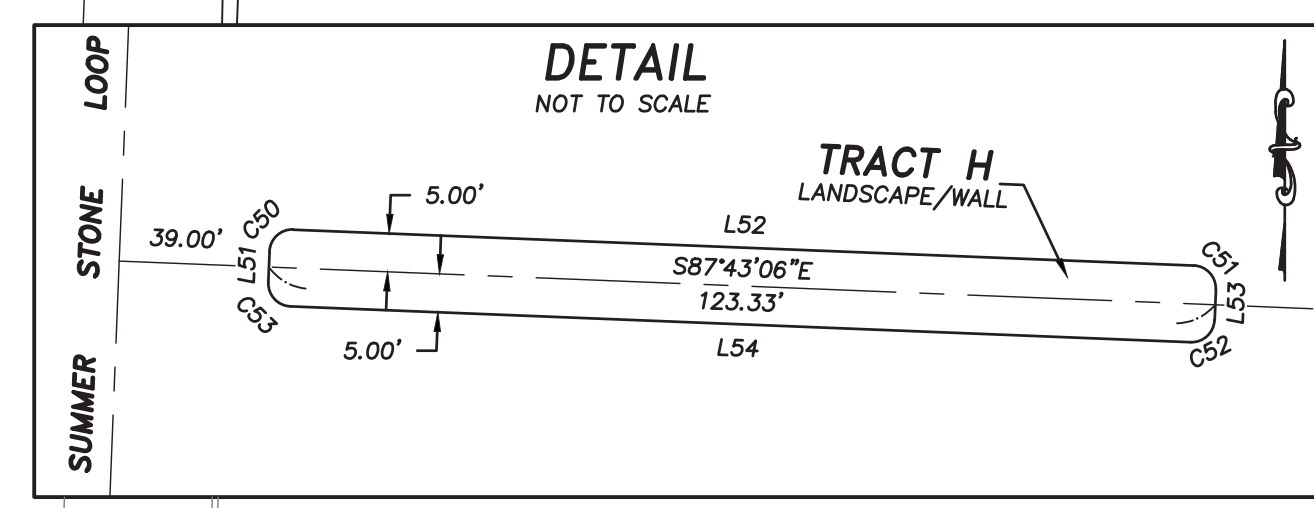
LINE	BEARING	LENGTH
L1	S73°15'45"E	33.04'
L2	S65°05'44"E	151.57'
L3	S52°18'13"E	43.41'
L4	S22°30'21"E	25.11'
L5	S20°49'10"W	37.93'
L6	S29°14'11"E	30.19'
L7	S22°00'28"W	40.68'
L8	S72°24'38"W	12.23'
L9	S81°00'20"E	47.63'
L10	S41°10'01"E	106.83'
L11	S33°18'35"E	58.71'
L12	S52°07'49"E	36.02'
L13	S76°06'31"E	61.47'
L14	S82°28'43"E	72.60'
L15	S83°15'35"E	71.92'
L16	N80°49'32"E	33.39'
L17	N71°22'00"E	40.78'
L18	N87°29'27"E	35.50'
L19	S41°17'56"E	27.48'
L20	S89°52'24"E	29.88'
L21	S41°17'56"E	27.48'
L22	S35°09'01"W	12.01'
L23	N71°22'00"E	42.85'
L24	N87°29'27"E	35.50'
L25	N80°49'32"E	38.95'
L26	S83°15'35"E	75.58'
L27	S82°28'43"E	74.16'
L28	S76°06'31"E	68.17'
L29	S52°07'49"E	41.07'
L30	S53°18'35"E	60.96'
L31	S41°49'58"E	56.31'
L32	S19°18'04"E	55.46'
L33	N72°24'38"E	51.02'
L34	N22°00'28"E	40.68'
L35	N29°14'11"W	30.19'
L36	N52°18'13"W	40.60'
L37	N86°36'56"W	53.40'
L38	N59°52'24"E	26.04'
L39	N50°74'11"W	56.04'
L40	N73°15'45"W	64.26'
L41	N81°18'03"W	62.99'
L42	N81°19'18"W	28.48'
L43	S89°52'24"E	206.43'
L44	S89°52'24"E	132.23'
L46	S87°43'06"E	20.00'
L47	S87°43'06"E	7.59'
L48	N02°16'54"E	28.17'
L49	N20°49'10"E	17.53'
L50	S69°10'50"E	35.00'
L51	N02°16'54"E	4.00'
L52	S87°43'06"E	112.34'
L53	S02°16'54"W	4.00'
L54	N87°43'06"W	117.34'
L55	N47°48'19"E	23.03'
L56	N87°43'06"W	5.71'

CURVE	CENTRAL ANGLE	RADIUS	LENGTH	CHORD	CH. BEARING
C1	31°38'38"	75.00'	41.42'	40.90'	S00°40'29"W
C2	40°26'44"	75.00'	52.94'	51.85'	S36°43'10"W
C3	35°20'22"	75.00'	46.26'	45.53'	S74°36'43"W
C4	107°25'44"	75.00'	140.62'	120.91'	S38°34'02"W
C5	107°25'44"	90.00'	93.75'	80.61'	S38°34'02"W
C6	107°25'44"	25.00'	46.87'	40.30'	S38°34'02"W
C7	14°42'55"	75.00'	19.26'	19.21'	N80°21'39"W
C8	44°53'50"	75.00'	58.77'	57.28'	N46°43'55"W
C9	26°33'54"	75.00'	34.77'	34.46'	N11°00'03"W
C10	90°00'00"	75.00'	117.81'	106.07'	N42°43'06"W
C11	90°00'00"	50.00'	78.54'	70.71'	N42°43'06"W
C12	90°00'00"	25.00'	39.27'	35.36'	N42°43'06"W
C32	90°00'00"	10.00'	15.71'	14.14'	N47°16'54"E
C33	90°00'00"	10.00'	15.71'	14.14'	S42°43'06"E
C34	90°00'07"	25.00'	39.27'	35.36'	N47°16'50"E
C40	3°49'21"	75.00'	5.00'	5.00'	N71°05'30"W
C41	23°04'02"	25.00'	10.06'	10.00'	N40°46'12"W
C42	51°14'39"	25.00'	22.36'	21.62'	N03°36'52"W
C43	50°24'11"	25.00'	21.99'	21.29'	N47°12'33"E
C47	16°07'27"	25.00'	7.04'	7.01'	N79°25'44"E
C48	51°12'37"	25.00'	22.34'	21.61'	S66°54'14"E
C49	64°35'11"	25.00'	28.18'	26.71'	S09°00'20"E
C50	90°00'00"	3.00'	4.71'	4.24'	S47°16'54"W
C51	90°00'00"	3.00'	4.71'	4.24'	N42°43'06"W
C52	90°00'00"	3.00'	4.71'	4.24'	N47°16'54"E
C53	90°00'00"	3.00'	4.71'	4.24'	S42°43'06"E

- LEGEND**
- Δ CENTRAL ANGLE
 - R RADIUS LENGTH
 - L ARC LENGTH
 - T TANGENT LENGTH
 - CB CHORD BEARING
 - CH CHORD LENGTH
 - PC POINT OF CURVATURE
 - PRC POINT OF REVERSE CURVE
 - PCC POINT OF COMPOUND CURVE
 - RP RADIUS POINT
 - PI POINT OF INTERSECTION
 - POB POINT OF BEGINNING
 - POC POINT OF COMMENCEMENT
 - (R) RADIAL
 - OR OFFICIAL RECORDS BOOK
 - PG PAGE
 - PB PLAT BOOK
 - C CENTERLINE
 - LB LICENSED BUSINESS
 - DE DRAINAGE EASEMENT
 - UE UTILITY EASEMENT
 - DUE DRAINAGE & UTILITY EASEMENT
 - LE LANDSCAPE EASEMENT
 - (TYP.) TYPICAL
 - R/W RIGHT OF WAY
 - PCP PERMANENT CONTROL POINT
 - PRM PERMANENT REFERENCE MONUMENT
 - WLE WALL LANDSCAPE EASEMENT
 - DENOTES CHANGE IN DIRECTION

- NOTES:**
- DENOTES SET PERMANENT REFERENCE MONUMENT, A 4"x4" CONCRETE MONUMENT FROM LB 7274, UNLESS NOTED OTHERWISE.
 - DENOTES SET PERMANENT CONTROL POINT, A NAIL AND DISC "PCP LB 7274", UNLESS NOTED OTHERWISE.

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CERTIFICATE OF AUTHORIZATION LB 7274
32 W. PLANT STREET Phone No. 407.905.8877
WINTER GARDEN, FL 34787 Fax No. 407.905.8875

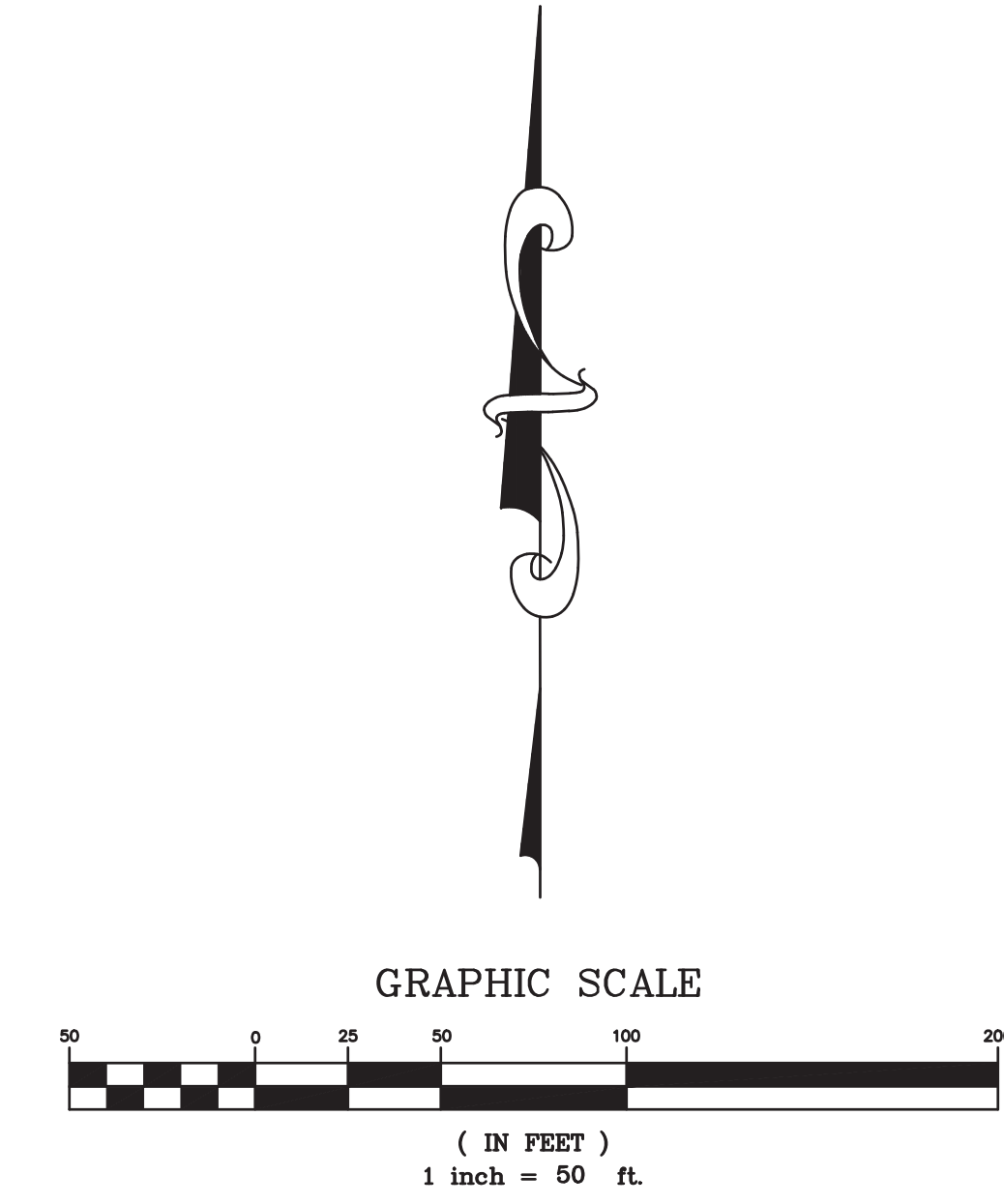
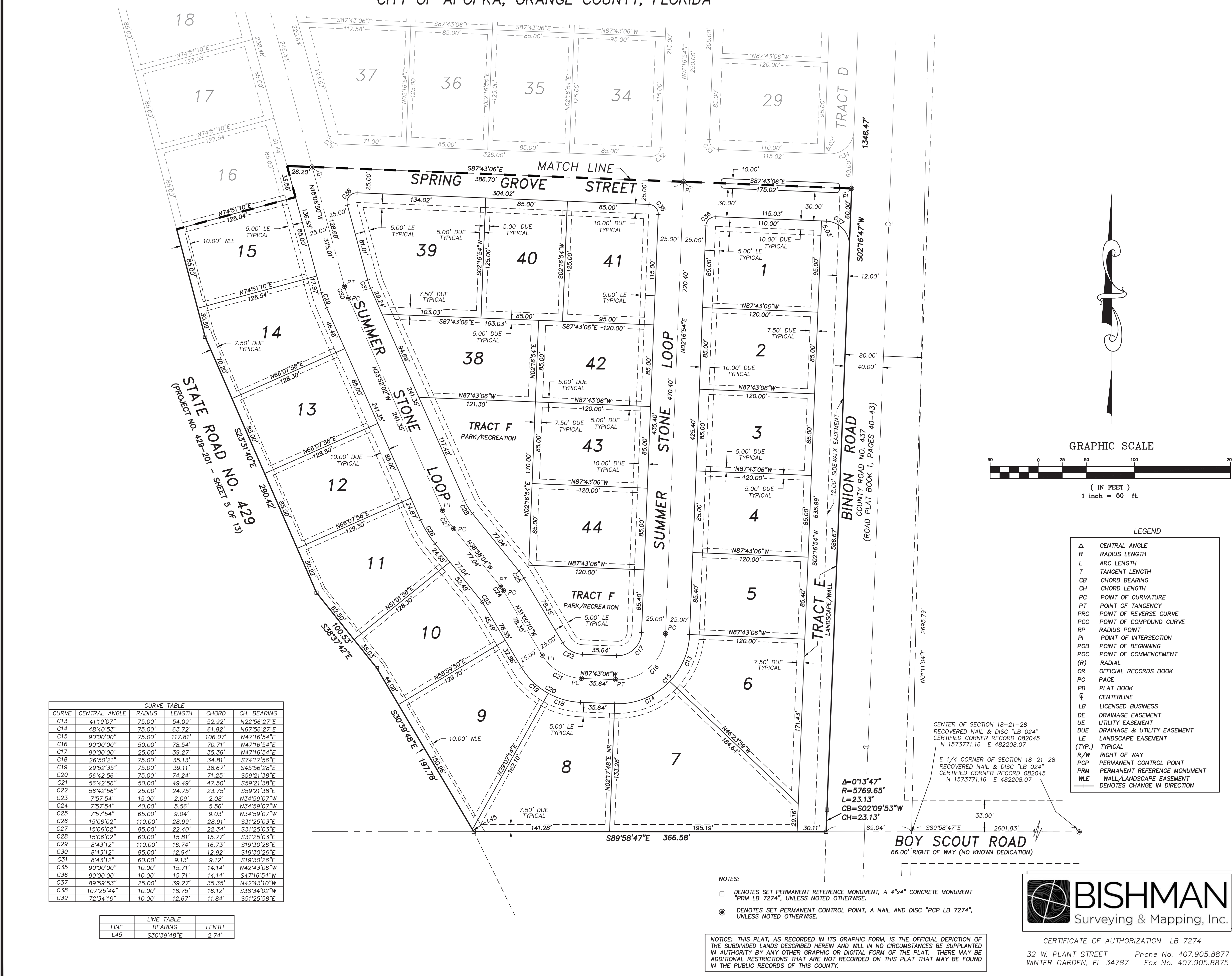
BINION RESERVE

A PART OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

SHEET 3 OF 3

PLAT BOOK

PAGE



CURVE	CENTRAL ANGLE	RADIUS	LENGTH	CHORD	CH. BEARING
C13	41°19'07"	75.00'	54.09'	52.92'	N22°56'27"E
C14	48°40'53"	75.00'	63.72'	61.82'	N67°56'27"E
C15	90°00'00"	75.00'	117.81'	106.67'	N47°16'54"E
C16	90°00'00"	50.00'	78.54'	70.71'	N47°16'54"E
C17	90°00'00"	25.00'	39.27'	35.36'	N47°16'54"E
C18	26°50'21"	75.00'	35.13'	34.81'	S74°17'56"E
C19	29°52'35"	75.00'	39.11'	38.67'	S45°56'28"E
C20	56°42'56"	75.00'	74.24'	71.25'	S59°21'38"E
C21	56°42'56"	50.00'	49.49'	47.50'	S59°21'38"E
C22	56°42'56"	25.00'	24.75'	23.75'	S59°21'38"E
C23	75°7'54"	15.00'	2.09'	2.08'	N34°59'07"W
C24	75°7'54"	40.00'	5.56'	5.56'	N34°59'07"W
C25	75°7'54"	65.00'	9.04'	9.03'	N34°59'07"W
C26	15°06'02"	110.00'	28.99'	28.91'	S31°25'03"E
C27	15°06'02"	85.00'	22.40'	22.34'	S31°25'03"E
C28	15°06'02"	60.00'	15.81'	15.77'	S31°25'03"E
C29	8°43'12"	110.00'	16.74'	16.73'	S19°30'26"E
C30	8°43'12"	85.00'	12.94'	12.92'	S19°30'26"E
C31	8°43'12"	60.00'	9.13'	9.12'	S19°30'26"E
C35	90°00'00"	10.00'	15.71'	14.14'	N42°43'06"W
C36	90°00'00"	10.00'	15.71'	14.14'	S47°16'54"W
C37	89°59'53"	25.00'	39.27'	35.35'	N42°43'10"W
C38	107°25'44"	10.00'	18.75'	16.12'	S38°34'02"W
C39	72°34'16"	10.00'	12.67'	11.84'	S51°29'58"E

LINE	BEARING	LENGTH
L45	S30°39'48"E	2.74'

LEGEND

- Δ CENTRAL ANGLE
- R RADIUS LENGTH
- L ARC LENGTH
- T TANGENT LENGTH
- CB CHORD BEARING
- CH CHORD LENGTH
- PC POINT OF CURVATURE
- PT POINT OF TANGENCY
- PRC POINT OF REVERSE CURVE
- PCC POINT OF COMPOUND CURVE
- RP RADIUS POINT
- PI POINT OF INTERSECTION
- POB POINT OF BEGINNING
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- (R) RADIAL
- OR OFFICIAL RECORDS BOOK
- PG PAGE
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- DE DRAINAGE EASEMENT
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- LE DRAINAGE & UTILITY EASEMENT
- LANDSCAPE EASEMENT
- (TYP.) TYPICAL
- R/W RIGHT OF WAY
- PCP PERMANENT CONTROL POINT
- PRM PERMANENT REFERENCE MONUMENT
- WLE WALL/LANDSCAPE EASEMENT
- DENOTES CHANGE IN DIRECTION

- NOTES:
- DENOTES SET PERMANENT REFERENCE MONUMENT, A 4"x4" CONCRETE MONUMENT "PRM LB 7274", UNLESS NOTED OTHERWISE.
 - DENOTES SET PERMANENT CONTROL POINT, A NAIL AND DISC "PCP LB 7274", UNLESS NOTED OTHERWISE.

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CERTIFICATE OF AUTHORIZATION LB 7274
32 W. PLANT STREET Phone No. 407.905.8877
WINTER GARDEN, FL 34787 Fax No. 407.905.8875



Zoning: A-1
Future Land Use: MU

Zoning: R-1A
Future Land Use: RL

Zoning: A-1
Future Land Use: RLS/L

Note: Lots 1 & 29 shall not have a driveway cut on Spring Grove Street. Access to these lots shall be on Summer Stone Loop.

LEGEND	
Existing Contours	(Symbol)
Lot Number	(12)
Direction of Flow	(Arrow)
Existing Grade	x.79.3
Proposed Grade	(Symbol)
Finished Floor	(Symbol)
Proposed Pavement	(Symbol)
Storm Structure	(Symbol)
Stormpipe	(Symbol)
Fire Hydrant	(Symbol)
Storm Inlet	(Symbol)
Concrete	(Symbol)
Plan & Profile Sheet #	(4)
Soil Type	(4)
Conservation Line	(Symbol)
100 Year Flood	(Symbol)

DATE	REVISION
11/4/16	City Comments
1/3/17	City Comments
4/26/17	City Comments
8/15/17	Grading Revisions

Binion Reserve
Site Plan

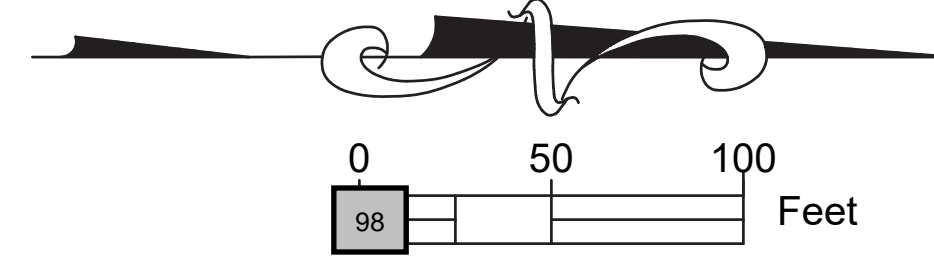
JEC june engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
DATE: 7/12/16 DATE: 7/12/16

JEFFREY A. SEDLOFF
PE# 51506

JOB NO.
14-0460
SHEET
3
OF
11



K:\ACTIVE_JOBS\0460_Brown_Property\Binion Reserve Final Plans with Revised Ponding, 2/9/2018, 2:54:52 PM

Final Development Plan for Binion Reserve

DESCRIPTION

THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4, SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA;

LESS;

S. BINION ROAD (aka S.R. 437A) AND ALSO LESS SEABOARD COAST LINE RAILROAD;

AND LESS;

A PARCEL OF LAND SITUATE IN SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4 INCH BY 4 INCH CONCRETE MONUMENT STAMPED "L.F. HENRICH R.L.S. NO. 1263 P.R.M. MAITLAND, FLA." AS SHOWN ON PLAT OF SURVEY BY HENRICH INC. LAND SURVEYORS DATED 11-19-73 AND BOUNDARY SURVEY BY P.E.C. FOR S.J.R.W.M.D. LAST DATED 8-10-98 MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE RUN NORTH 89°39'46" EAST 1,320.44 FEET ALONG THE NORTH LINE OF SAID SECTION 18 TO THE WEST BOUNDARY OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 18, AS SHOWN ON P.E.C. S.J.R.W.M.D. SURVEY; THENCE SOUTH 01°03'27" WEST 1,337.48 FEET ALONG SAID WEST BOUNDARY LINE TO A POINT ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 18; THENCE DEPARTING SAID WEST BOUNDARY LINE, RUN ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 39.26 FEET TO POINT OF BEGINNING; THENCE CONTINUE ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 306.42 FEET; THENCE DEPARTING SAID NORTH LINE, SOUTH 09°56'34" EAST 159.99 FEET; THENCE SOUTH 14°48'28" EAST 700.00 FEET; THENCE SOUTH 23°31'40" EAST 290.42 FEET; THENCE SOUTH 38°37'42" EAST 100.53 FEET; THENCE SOUTH 30°39'48" EAST 197.78 FEET TO THE NORTH LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 18; THENCE NORTH 89°58'47" WEST 796.70 FEET ALONG SAID NORTH LINE OF THE SOUTHWEST 1/4 TO THE EASTERLY RIGHT OF WAY LINE OF FORMER S.C.L.R.R., AS MONUMENTED FOR S.J.R.W.M.D. BY P.E.C.; THENCE NORTH 01°03'18" EAST 174.53 FEET ALONG SAID EASTERLY RIGHT OF WAY LINE; THENCE DEPARTING SAID EASTERLY RIGHT OF WAY LINE, RUN SOUTH 89°53'41" EAST 295.19 FEET; THENCE NORTH 14°33'12" WEST 573.59 FEET; THENCE NORTH 07°06'24" WEST 100.81 FEET; THENCE NORTH 14°48'28" WEST 538.38 FEET TO THE POINT OF BEGINNING.

AND ALSO LESS;

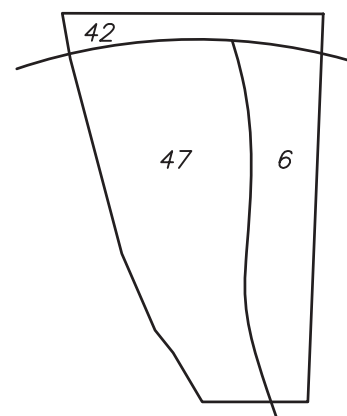
A PARCEL OF LAND SITUATE IN SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4 INCH BY 4 INCH CONCRETE MONUMENT STAMPED "L.F. HENRICH R.L.S. NO. 1263 P.R.M. MAITLAND, FLA." AS SHOWN ON PLAT OF SURVEY BY HENRICH INC. LAND SURVEYORS DATED 11-19-73 AND BOUNDARY SURVEY BY P.E.C. FOR S.J.R.W.M.D. LAST DATED 8-10-98 MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE RUN NORTH 89°39'46" EAST 1,320.44 FEET ALONG THE NORTH LINE OF SAID SECTION 18 TO THE WEST BOUNDARY OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 18, AS SHOWN ON P.E.C. S.J.R.W.M.D. SURVEY; THENCE SOUTH 01°03'27" WEST 1,337.48 FEET ALONG SAID WEST BOUNDARY LINE TO A POINT ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 18; THENCE DEPARTING SAID WEST BOUNDARY LINE, RUN ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 39.26 FEET; THENCE DEPARTING SAID NORTH LINE, RUN SOUTH 14°48'28" EAST 538.38 FEET; THENCE SOUTH 07°06'24" EAST 100.81 FEET; THENCE SOUTH 14°33'12" EAST 573.59 FEET; THENCE NORTH 89°53'41" WEST 295.19 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF FORMER S.C.L.R.R., AS MONUMENTED FOR S.J.R.W.M.D. BY P.E.C.; THENCE NORTH 01°03'18" EAST 880.37 FEET ALONG SAID EASTERLY RIGHT OF WAY LINE TO A POINT ON A TANGENT CURVE (CONCAVE SOUTHWESTERLY); THENCE FROM A CHORD BEARING OF NORTH 10°27'51" WEST, RUN NORTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 751.20 FEET FOR AN ARC DISTANCE OF 302.06 FEET, THROUGH A CENTRAL ANGLE OF 23°02'20" TO END OF CURVE AND POINT OF BEGINNING.

CONTAINING 21.396 ACRES, MORE OR LESS.

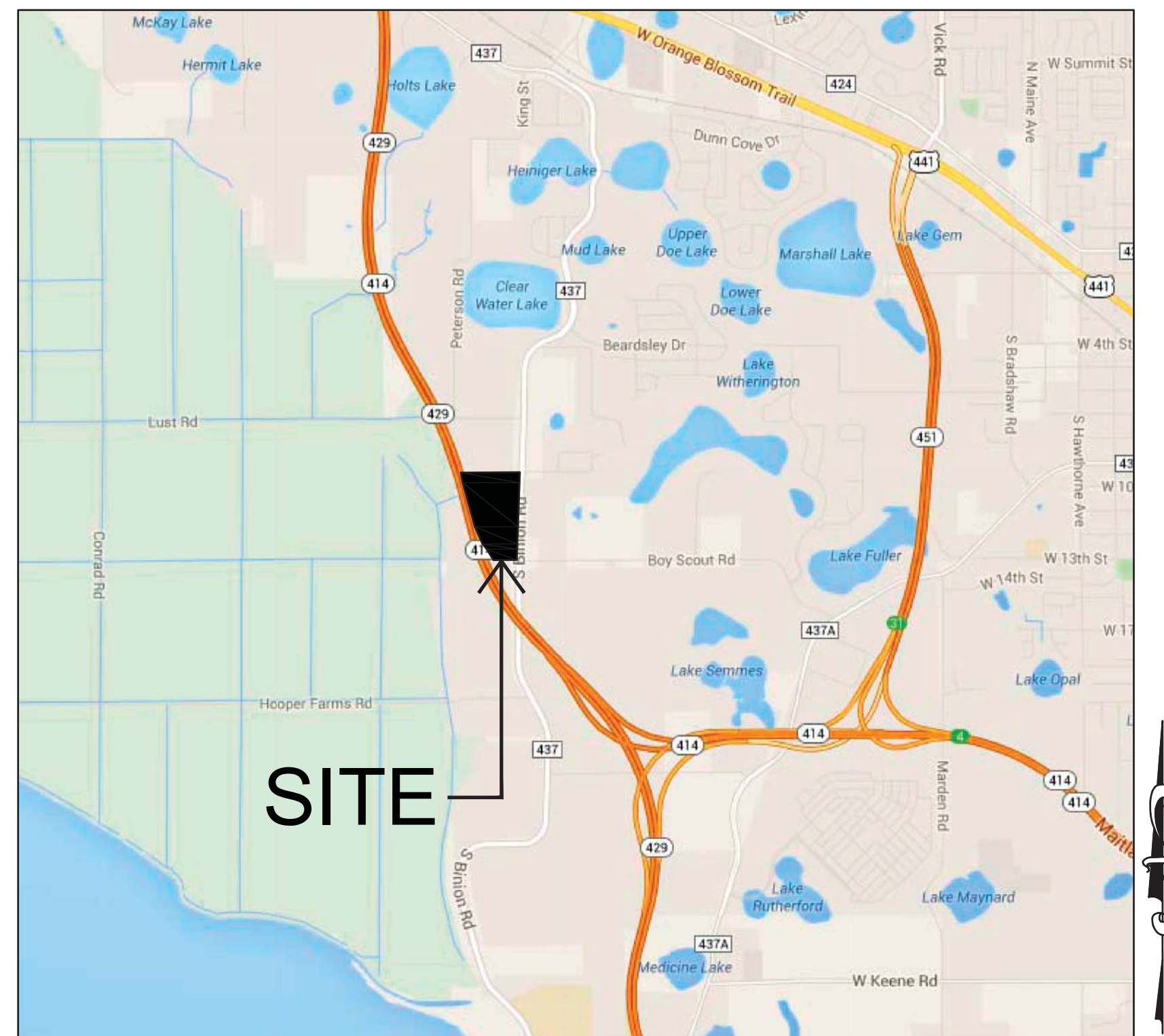
DEVELOPMENT INFORMATION

Land Area	21.396 Acres (932,040.61 sf.)
Zoning	Single Family Residential Existing - R-1A
Existing Land Use	Vacant, Exist. Residence (mobile home)
Proposed Land Use	Residential Low (0-5 du/ac)
Number of Proposed Lots	44
Proposed Density	2.05 units/acre
Maximum Height	35 ft (2 Stories)
Average Lot Area	11,374 sf
Minimum Lot Area	10,000 sf
Minimum Living Area	1,600 sf
Minimum Lot Width	85 ft
Minimum Yard Setback:	
Front:	25 ft
Side:	10 ft
Rear:	25 ft
Wetland:	50 ft



6 Candler-Apopka FS (A)
42 Sanibel Muck (A/D)
47 Tavares-Millhooper FS (A)

SOILS MAP
N.T.S.



Location Map

Tract Information		
Tract	Use	Ownership & Maintenance
A	Stormwater Management	Homeowners Association
B	Upland Buffer	Homeowners Association
C	Conservation / Open Space	Homeowners Association
D	Landscape/Wall	Homeowners Association
E	Landscape/Wall	Homeowners Association
F	Park / Recreation	Homeowners Association
G	Lift Station	City of Apopka
H	Landscape/Wall	Homeowners Association
I	Open Space / Retention	Homeowners Association

OWNER:	GAIL BROWN P.O. BOX 456 CLARCONA, FL. 32710	(407) 905-8180
OWNER/ DEVELOPER:	BINION RESERVE ROHLAND A. JUNE, PRESIDENT P.O. BOX 770609 WINTER GARDEN, FL. 34777-0609	(407) 905-8180
ENGINEER:	JUNE ENGINEERING CONSULTANTS, INC. P.O. BOX 770609 WINTER GARDEN, FL. 34777-0609	(407) 905-8180
SURVEYOR:	BISHMAN SURVEYING AND MAPPING, INC. 32 W. PLANT STREET WINTER GARDEN, FL. 34787	(407) 905-8877
GEOTECHNICAL ENGINEER:	YOVAISH ENGINEERING SCIENCES, INC. 953 SUNSHINE LANE ALTAMONTE SPRINGS, FL. 32714	(407) 774-9383
ENVIRONMENTAL CONSULTANT:	BIO-TECH CONSULTING, INC. 3025 E. SOUTH STREET ORLANDO, FL. 32803	(407) 894-5969
UTILITIES	Water Sewer Telephone Electric Cable Gas	City of Apopka City of Apopka Century Link Duke Energy Brighthouse Networks Lake Apopka Natural Gas

Open Space:
Open Space Provided = 1 lot = .234 Ac. = 1.1%

Open Space Provided = 5.94 Ac. = 27.809%

Tract A	2.39
Tract B	0.60
Tract C	0.36
Tract D	0.25
Tract E	0.44
Tract F	0.51
Tract I	1.39
	5.94

* Irregular Lots Front Yard Setback Distance is Indicated at the Minimum Required Lot Width

Phasing Single Phase

Projected Traffic: 440 Average Daily Traffic Trips

Schools Elementary - Apopka
Middle - Wolf Lake
High - Wekiva

Sewer Flow - 13,200 gal. per day

Water Flow - 15,400 gal. per day (Fire flow per Sub. Regs.)

Stormwater Provide Retention/Detention System on-site per Sub. Regs.

Existing Vegetation: Various

No fences, landscaping or other structures are allowed within drainage easements between lots with underground piping.

FEMA - Site lies partially within Flood Zone X, (areas outside of 500 Yr. flood plain), with portions lying within Zone AE, (areas of 100 Yr. flood plain), with a base elevation of 70.3. According to FIRM Map No. 12095C0120 F, Community No. 120180 0120 F, Dated September 25, 2009.

Parcel ID Number: 18-21-28-0000-00-057

Property Address: 1078 S. Binion Rd.

INDEX OF SHEETS	
SHEET TITLE	No.
Cover Sheet	1
Typical Section	2
Overall Plan	3
Tree Removal Plan	3a
Overall Drainage & Grading Plan	3b
Overall Water System Plan	3c
Overall Reclaimed Water System	3d
Overall Sewer Plan	3e
SWPPP	3f
Signage Plan	3g
Wetland Inventory Plan	3h
Paving-Plan & Profile	4-6
Offsite Improvements	7
Stormwater Management Area	8
Site Details	9
Lift Station Details	10-11
General Utility Details	G1-G5
City General Notes Plan	S1
Landscape Plan	L1
Irrigation Plan	i1
Compensating Storage	CS-1, CS-2
Plat	P1-P3

General Notes:

- The front of all homes shall face the street. See Section 6.01.00.C.4 of the City Land Development Code.
- A minimum of one street tree (canopy tree) per 30 feet on center is required per section 3.6 of the City's Development Design Guidelines.
- A minimum of 3 trees per lot is required per section 3.6 of the City's Development Design Guidelines.
- All power service to site and throughout the site shall be provided underground, no overhead service will be allowed.
- Prior to clearing or grading the site, a letter from Florida Fish & Wildlife Commission shall be provided to the City of Apopka Planning & Zoning Department.
- All roadway and fire hydrant infrastructure must be in place before building construction begins.
- Residential architecture will comply with the City's Development Design Guidelines. Architectural renderings of all proposed residential buildings must be submitted with the development plan application.
- The front elevation of any home constructed on a cul-de-sac or on a curve shall be no more than a 30 degree deflection from a line perpendicular to a radial line from the center of the cul-de-sac or the radius point of a curve through the mid-point of the lot frontage. This perpendicular line shall be drawn from the intersection of the radial line and the corner of the proposed structure. All minimum lot width and structure setbacks must be accomplished. Evidence of compliance with these standards shall be evidenced on the development plans, plot plans, foundation surveys and final surveys associated with the building permit and inspection process.
- Front load garages shall be setback 30 feet from property line.
- All stormwater design shall comply with City of Apopka Land Development Code. Compensating storage shall be provided for any fill within the 100 year flood plain.
- A letter must be obtained from the Florida Fish and Wildlife Conservation Commission (FWCC) regarding wild life management plan, prior to any construction activities occurring on site.

CERTIFICATION

Construction plans were prepared in accordance with the "Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, State of Florida" (FDOT Greenbook and Orange County Regulations and Specifications).

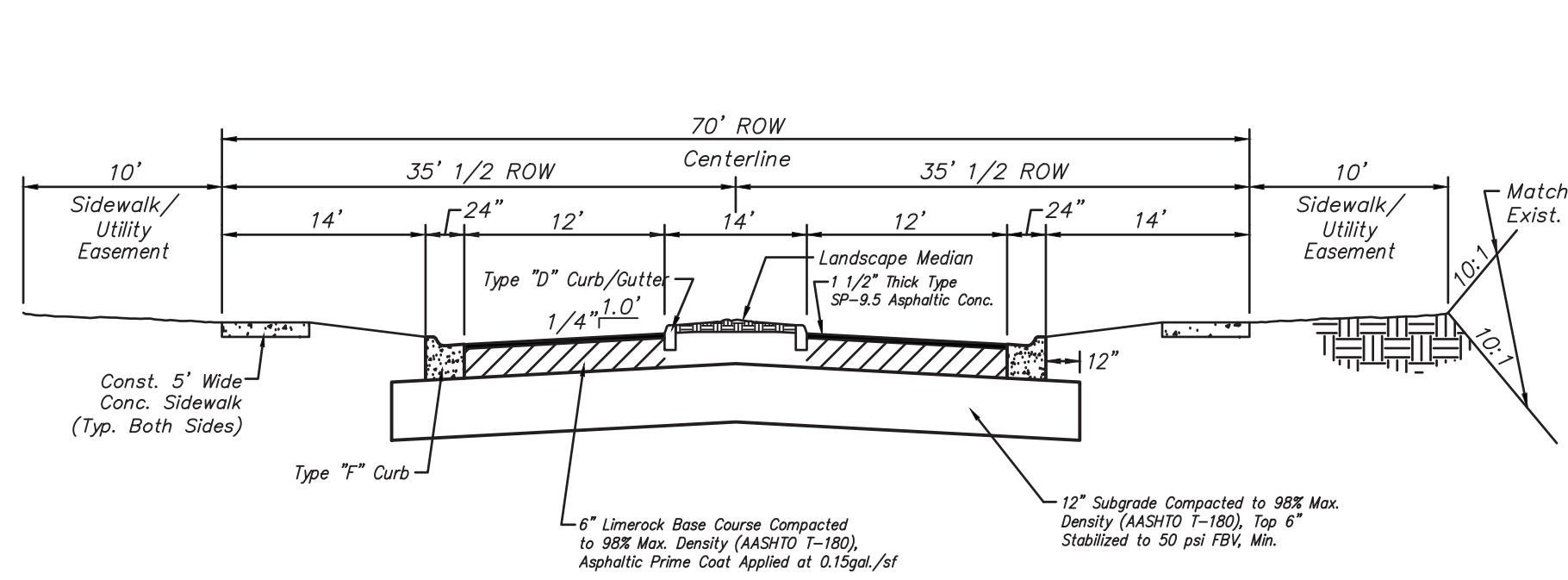
July 12, 2016
Revised April 26, 2017



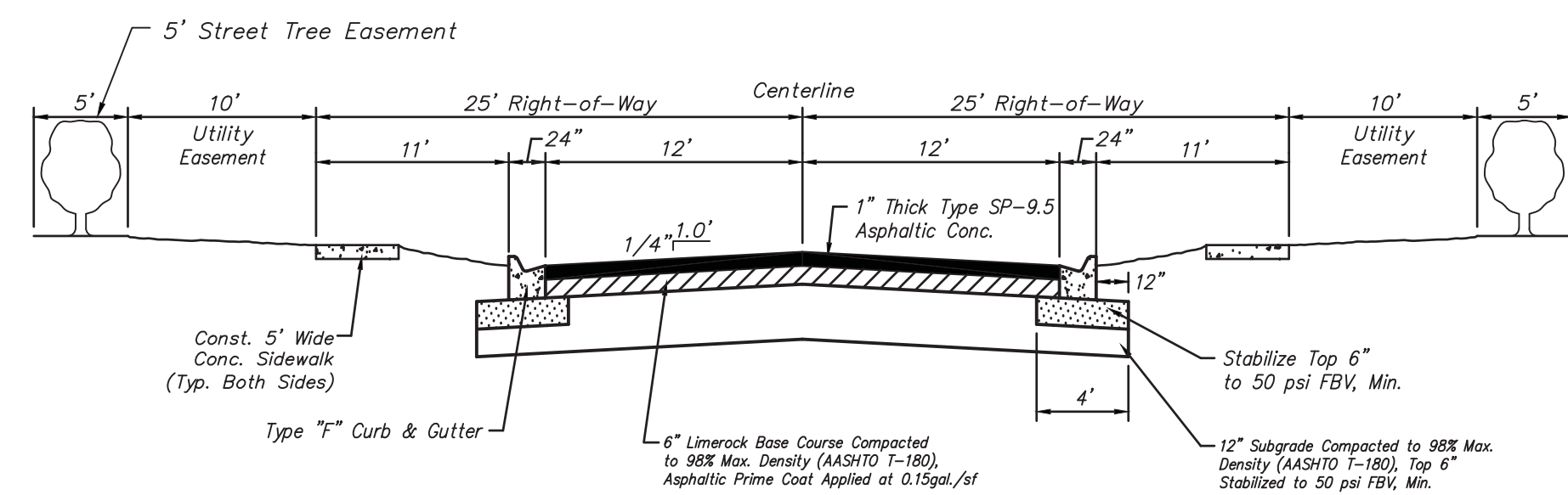
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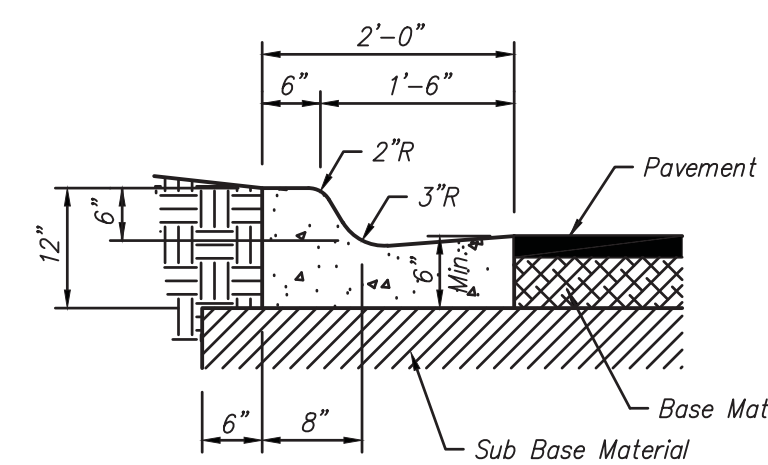
JEFFREY A. SEDLOFF
PE# 51506



ENTRANCE ROAD SECTION
N.T.S.

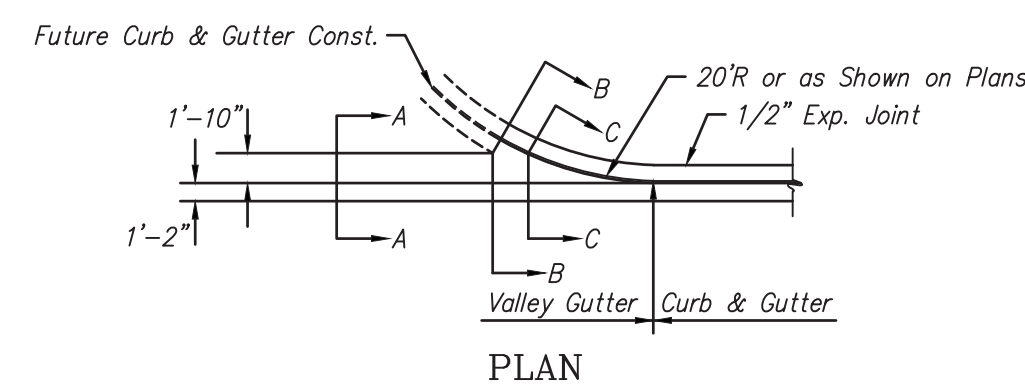


TYPICAL ROAD SECTION
N.T.S.

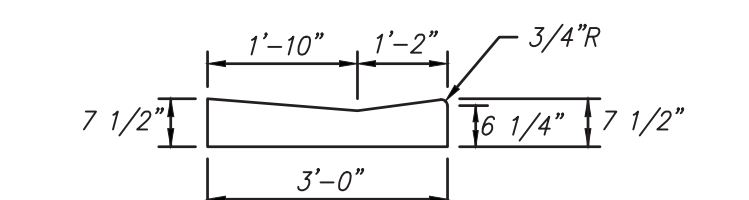


Note: When Used on High Side of Roadways, The Cross Slope of the Curb Shall Match the Cross Slope of the Adjacent Pavement and the Thickness of the Lip Shall be 6", Unless Otherwise Shown on Plans.

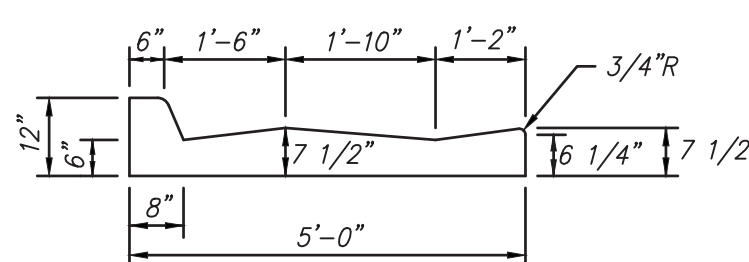
TYPE "F" CURB & GUTTER
N.T.S.



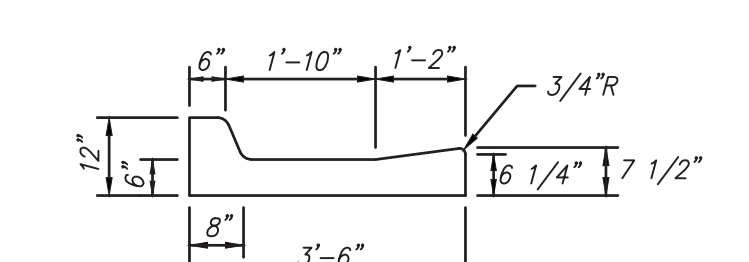
PLAN



SECTION AA

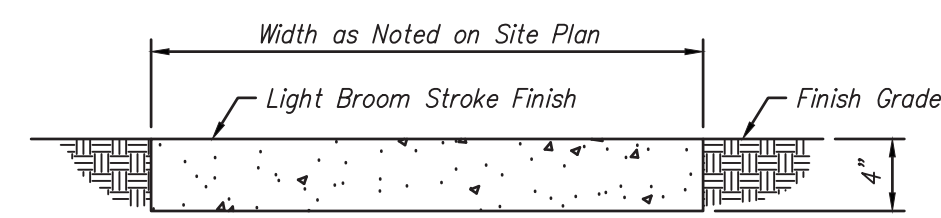


SECTION BB

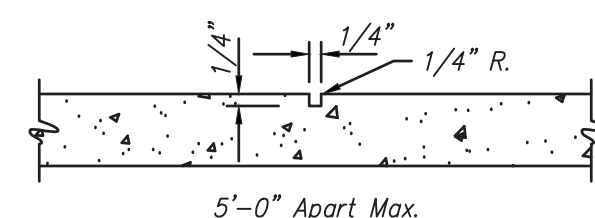


SECTION CC

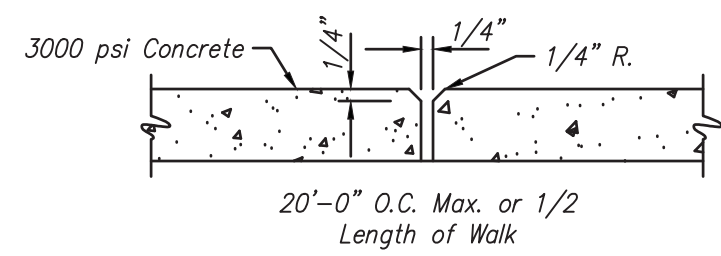
VALLEY GUTTER
N.T.S.



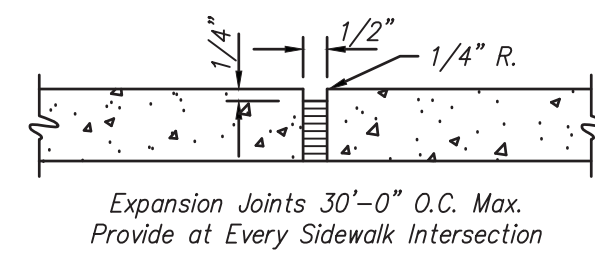
WALK SECTION



DUMMY GROOVE

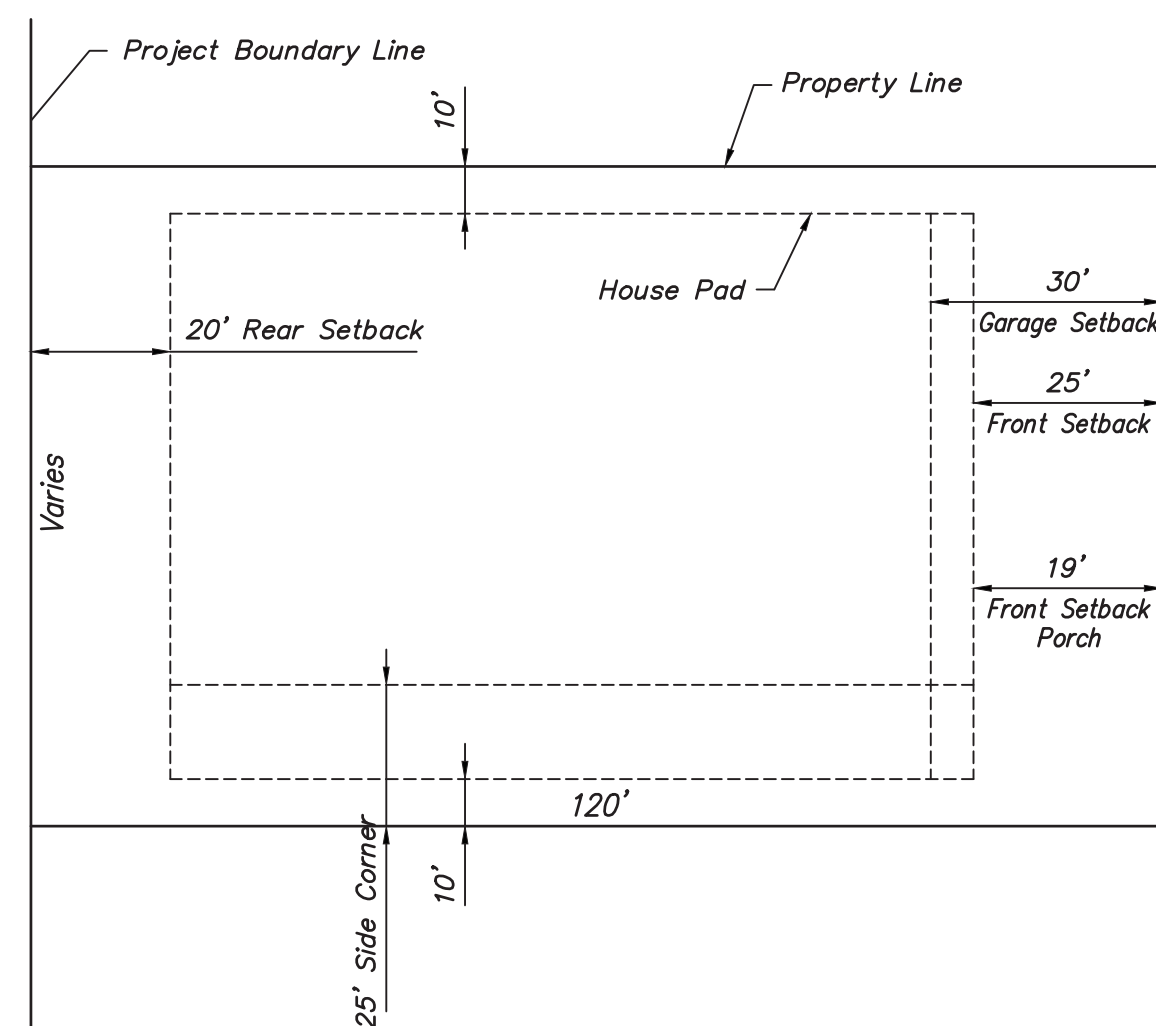


CONSTRUCTION JOINT

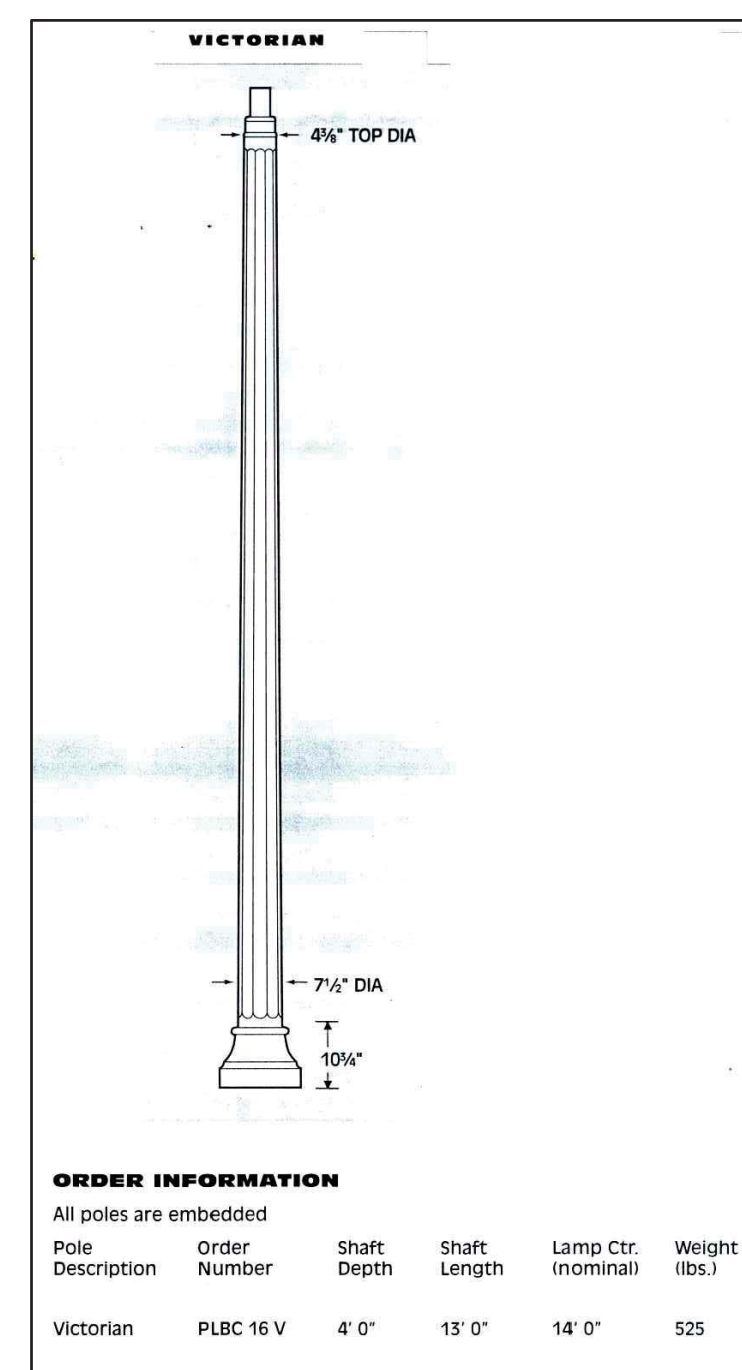


CONSTRUCTION JOINT

SIDEWALK DETAILS
N.T.S.

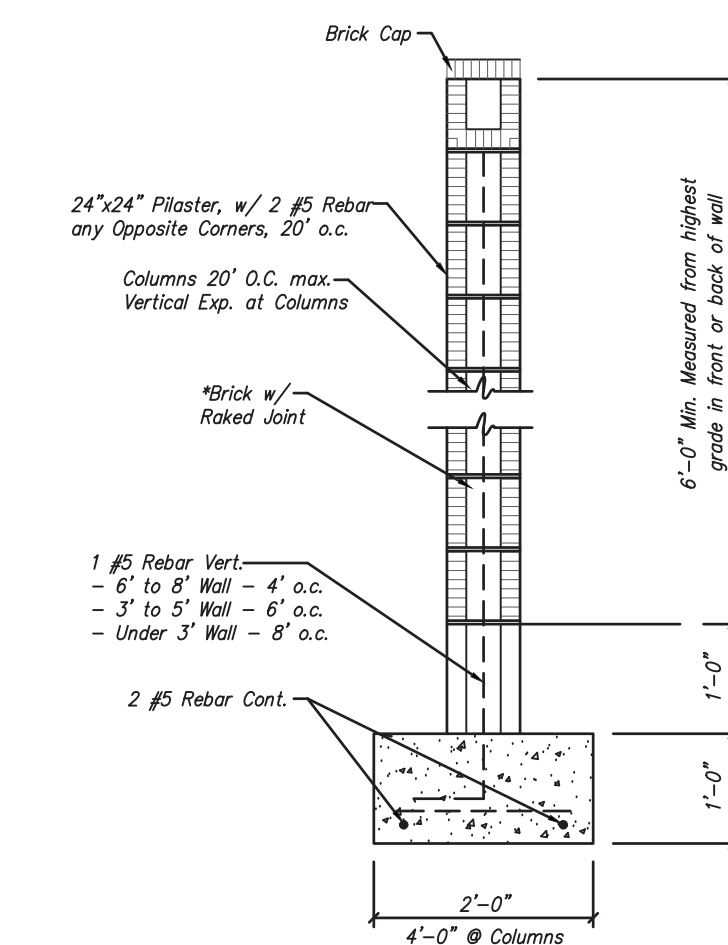


TYPICAL LOT LAYOUT
N.T.S.



TYPICAL LIGHTPOLE
N.T.S.

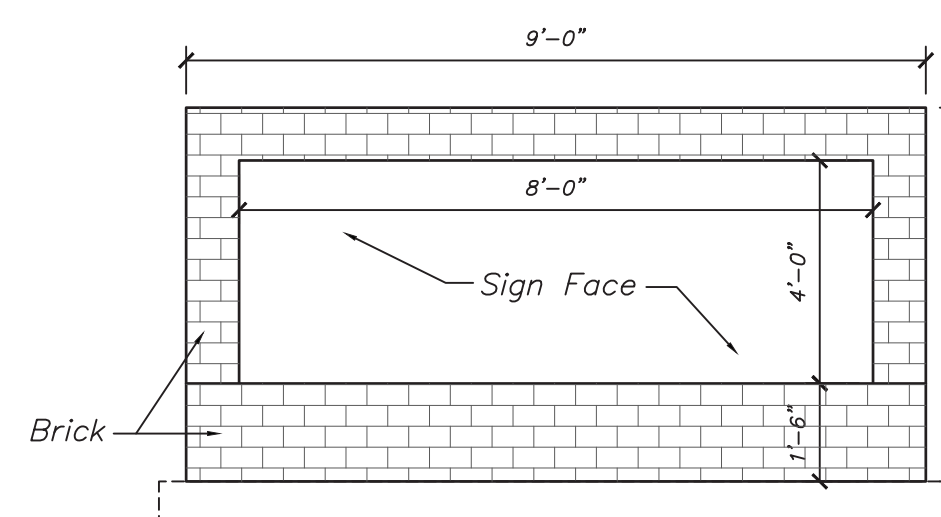
100



WALL DETAIL
N.T.S.



EXAMPLE OF ENTRANCE SIGN
N.T.S.



SIGN DETAIL
N.T.S.

GENERAL NOTES

- ALL CONSTRUCTION INCLUDING BUT NOT LIMITED TO CLEARING, GRUBBING, EXCAVATION, EMBANKMENT, GRADING, GRASSING, STORM PIPE, STORM STRUCTURES, UNDERDRAIN, PAVING, CURBING, SIDEWALKS, WATER MAINS, WATER SERVICES, SEWER MAINS AND SERVICES, AND MATERIAL TESTING SHALL CONFORM TO CITY OF APOPKA AND TO THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, MOST RECENT EDITIONS.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF CONSTRUCTION. SLOPED AREAS, SWALES, POND SIDE SLOPES, ETC MAY BE REQUIRED TO BE SODED. CITY OF APOPKA WILL REVIEW ANY OF THESE AREAS PRIOR TO CERTIFICATE OF ACCEPTANCE.
- ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES.
- THE FLOWLINES OF ALL CURBS SHALL BE GRADED TO OBTAIN A MINIMUM GRADE OF 0.30% AND SHALL DRAIN POSITIVELY TO ALL INLETS.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SUPPLIED BY BISHMAN SURVEYING & MAPPING, INC.
- UTILITIES SHOWN WERE LOCATED FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND PROTECTION OF ALL UTILITIES THAT MAY EXIST.
- THE ELEVATIONS SHOWN HEREON ARE BASED NATIONAL GEODETIC SURVEY BENCHMARK "GIS0478 ALLISON" ELEVATION 100.20 (NAVD 88), BEING A 3" BRASS DISC SET IN TOP OF CONCRETE MONUMENT.
- EXISTING ZONING OF THE SUBJECT SITE IS R-1A.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE EROSION AND SEDIMENT CONTROL THROUGHOUT THE CONSTRUCTION PHASE WHICH SHALL INCLUDE, BUT NOT LIMITED TO THE PLACEMENT OF SILT FENCES, STACKED SYNTHETIC BALES OR OTHER SIMILAR STRUCTURES ALONG THE PERIMETER OF THE SITE. THIS WORK SHALL CONFORM TO THE REQUIREMENTS OF THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND THE FLORIDA DEPARTMENT OF TRANSPORTATION AS OUTLINED IN F.D.O.T. STANDARD INDEX #102. THE CONTRACTOR SHALL PROVIDE AN EROSION CONTROL PLAN. STORM INLETS WILL BE REQUIRED TO HAVE SEDIMENT PROTECTION, SUCH AS PERFORATED PIPES WITH SOCKS.
- STRIPPINGS AND ALL UNCLASSIFIED MATERIALS MUST BE REMOVED FROM RETENTION AREAS AND ROADWAYS AND DISPOSED OF OFFSITE AS DIRECTED BY ENGINEERING SO AS NOT TO AFFECT BUILDING LOT PADS.
- SOILS REPORT BY YOVAISH ENGINEERING SERVICES, INC.
- CONTRACTOR SHALL IMMEDIATELY NOTIFY JUNE ENGINEERING CONSULTANTS, INC. OF ANY PROBLEMS REQUIRING DEVIATION FROM THESE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE AS-BUILT INFORMATION TO ENGINEER ON THE FOLLOWING ITEMS: PAVING GRADES AT POINTS SHOWN ON THESE PLANS; ALL STORM STRUCTURE AND PIPING INVERTS AND LOCATIONS; ALL WATER MAIN, SERVICES, FIRE HYDRANTS, VALVES, AND BLOWOFF LOCATIONS.
- STORM PIPE MEASUREMENTS SHOWN ARE MEASURED TO END OF MITERED END SECTIONS AND TO THE CENTER OF STORM STRUCTURES. SANITARY PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURE.
- INDIVIDUAL LOT OWNERS WILL BE REQUIRED TO CONSTRUCT DRIVEWAYS AND SIDEWALKS AT THE TIME OF HOUSE CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO CONSTRUCT SIDEWALKS WHERE REQUIRED ALONG RETENTION PONDS AND COMMON TRACTS.
- CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL UNDERGROUND CONDUITS NEEDED FOR UTILITIES AND IRRIGATION.
- CONTRACTOR SHALL ACQUIRE, REVIEW, AND MEET ALL CONDITIONS OF PERMITS PERTAINING TO THE CONSTRUCTION OF PROJECT INCLUDING BUT NOT LIMITED TO CITY OF APOPKA, ST. JOHNS RIVER WATER MANAGEMENT AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION.
- CONTRACTOR SHALL USE PLAT FOR ALL CONSTRUCTION LAYOUT AND NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN PLAT AND CONSTRUCTION PLANS.
- FILL MATERIAL SHALL BE PLACED (MAX. 12" LIFTS) AS SHOWN BY THE PROPOSED ELEVATIONS AND TYPICAL SECTIONS AND COMPACTED TO A MINIMUM OF 95% MAXIMUM DENSITY (AASHTO T-180) AS VERIFIED BY A SOILS ENGINEERING COMPANY RETAINED BY THE OWNER. SUITABILITY OF FILL MATERIAL SHALL BE APPROVED BY A SOILS ENGINEER.
- THE CONTRACTOR SHALL NOTIFY ST. JOHNS RIVER WATER MANAGEMENT DISTRICT IF ANY DEWATERING SHALL BE REQUIRED. IF REQUIRED SURVMD WILL DETERMINE IF A PERMIT IS NECESSARY.
- THE FIVE FOOT WIDE CONCRETE SIDEWALK SHALL BE CONSTRUCTED BY SITE CONTRACTOR FOR LENGTH OF THE R/W FRONTAGE FOR ALL TRACTS. BUILDING CONTRACTOR SHALL BUILD SIDEWALKS IN FRONT OF LOTS AT HOUSE CONSTRUCTION, IF THE DEVELOPER EXECUTES A SIDEWALK AGREEMENT. OTHERWISE ALL SIDEWALKS MUST BE INSTALLED PRIOR TO CERTIFICATE OF ACCEPTANCE.
- CONTRACTOR TO CONFIRM ELEVATIONS OF CONNECTIONS TO EXISTING SANITARY & STORM STRUCTURES & WORKABILITY OF THE SYSTEMS, PRIOR TO CONSTRUCTION AND ORDERING OF NEW STRUCTURES.
- CONTRACTOR RESPONSIBLE FOR SIZING BOXES IF NOT ADEQUATE.
- BERMS CONSTRUCTED OF FILL SHALL BE CERTIFIED BY A GEOTECHNICAL ENGINEER. A GEOTECHNICAL ENGINEER SHALL ALSO CERTIFY THAT BERMS CONSTRUCTED OF FILL HAVE BEEN COMPLETED AS DESIGNED. REFER TO RECOMMENDATIONS IN SOILS REPORT BY YOVAISH ENGINEERING SCIENCES.
- SEDIMENT AND EROSION PROTECTION MEASURES SHOWN HEREIN ARE THE MINIMUM REQUIRED. ADDITIONAL MEASURES/CONTROLS SHALL BE UTILIZED AS NEEDED DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.
- ALL EDGE OF ALL DRIVEWAYS SHALL BE AT LEAST FIVE FEET FROM THE SIDE YARD LOT LINE UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- ALL BUILDING ARCHITECTURE SHALL MEET THE INTENT OF THE CITY'S DEVELOPMENT DESIGN GUIDELINES.

DATE	REVISION
11/4/16	City Comments

Typical Sections
Binion Reserve



June engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: As Noted
DATE: 7/12/16 DATE: 7/12/16

JEFFREY A. SEDLOFF
PE# 51506

JOB NO.
14-0460
SHEET
2
OF 11



Zoning: A-1
Future Land Use: MU

Zoning: R-1A
Future Land Use: RL

Zoning: A-1
Future Land Use: RLS/L

Note: Lots 1 & 29 shall not have a driveway cut on Spring Grove Street. Access to these lots shall be on Summer Stone Loop.

LEGEND	
Existing Contours	
Lot Number	(12)
Direction of Flow	→
Existing Grade	x 79.3
Proposed Grade	
Finished Floor	51.1
Proposed Pavement	
Storm Structure	
Stormpipe	
Fire Hydrant	
Storm Inlet	
Concrete	
Plan & Profile Sheet #	(4)
Soil Type	(4)
Conservation Line	
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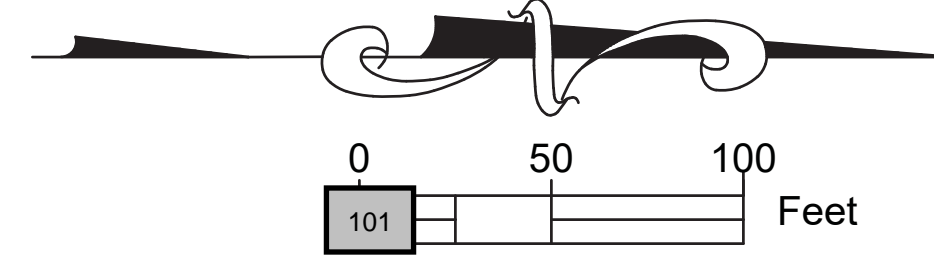
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JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 3 OF 11



All Trees Inside of Proposed Right-of-Way and Inside of the Building Pad Will be Removed. Care Will be Taken to Save as Many Trees as Possible.

TREE SUMMARY:

Total Tree Inches on-site (pre-development)	8,561
Total Tree Inches Removed	5,797
Total Retained Tree Inches (non-specimen)	1,259
Total Retained Tree Inches (specimen, 24" DBH or Greater)	1,505
Total Tree Inches Replaced	756
Total Tree Inches on-site (post-development)	3,520
Total Number of Specimen (24" DBH or Greater) Trees being Removed	67
Total Specimen Inches Removed	3,000
Site Clearing Area 932,040.6 sf (21.397 Ac.)	

TREE REPLACEMENT DATA:

TOTAL SITE CLEARING AREA = 932,040.6 S.F. (21.397 AC)

SPECIMEN TREE CHART (24" OR GREATER DBH)					
TOTAL NO.	TOTAL CALIPER	REMOVE		REMAIN	
		NO.	CALIPER	NO.	CALIPER
90	4505"	67	3000	23	1505"

NON-SPECIMEN TREE CHART (6" TO 23" DBH)
(EXCLUDES CHINABERRY, CAMPHOR AND WILD CHERRY TREES)

NON-SPECIMEN TREE CHART (6" TO 23" DBH) (EXCLUDES CHINABERRY, CAMPHOR AND WILD CHERRY TREES)					
TOTAL NO.	TOTAL CALIPER	REMOVE		REMAIN	
		NO.	CALIPER	NO.	CALIPER
353	4056"	251	2797	102	1259"

TOTAL TREE STOCK REQUIREMENT:

SPECIMEN TREE STOCK FORMULA CAP: 3,000 INCHES DBH (AT 1" REPLACEMENT FOR 1" REMOVED)
NON-SPECIMEN TREE STOCK FORMULA CAP: 2,797 INCHES DBH (AT 1" REPLACEMENT FOR 1" REMOVED)
TOTAL MAXIMUM TREE REPLACEMENT: 5,797 INCHES DBH
PROPOSED REPLACEMENT INCHES: 756.0 INCHES DBH
REPLACEMENT DEFICIT INCHES: 5,041 INCHES DBH

Maximum Tree Stock Specimen Formula:
30 inch DBH plus 5 DBH per 1000 sf of area over 6000 sf
932040 sf - 6000 sf = 926040
926040 sf / 1000 = 926
926 x 5 + 30 = 4660

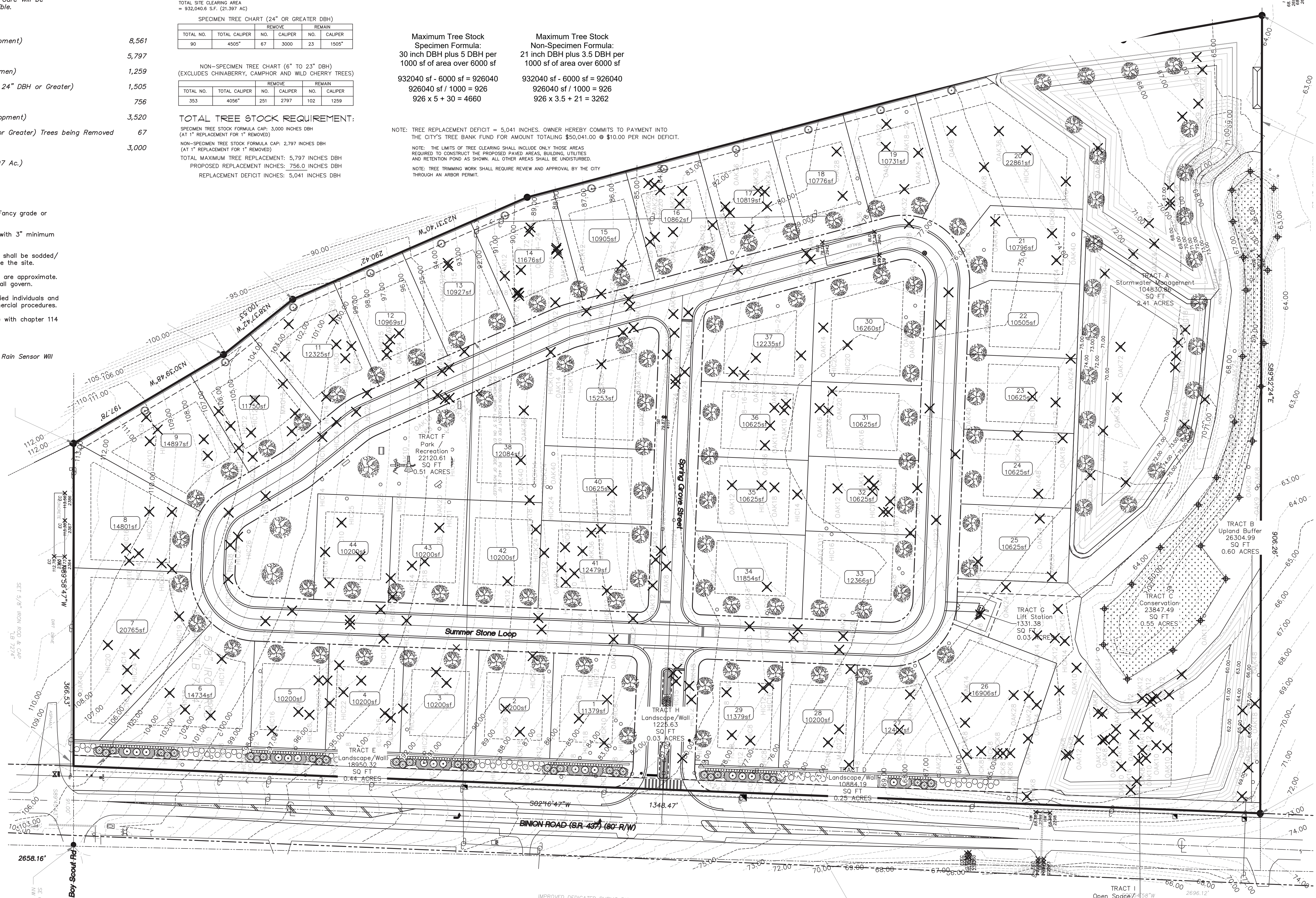
Maximum Tree Stock Non-Specimen Formula:
21 inch DBH plus 3.5 DBH per 1000 sf of area over 6000 sf
932040 sf - 6000 sf = 926040
926040 sf / 1000 = 926
926 x 3.5 + 21 = 3262

NOTE: TREE REPLACEMENT DEFICIT = 5,041 INCHES. OWNER HEREBY COMMITS TO PAYMENT INTO THE CITY'S TREE BANK FUND FOR AMOUNT TOTALING \$50,041.00 @ \$10.00 PER INCH DEFICIT.
NOTE: THE LIMITS OF TREE CLEARING SHALL INCLUDE ONLY THOSE AREAS REQUIRED TO CONSTRUCT THE PROPOSED PAVED AREAS, BUILDING, UTILITIES AND RETENTION POND AS SHOWN. ALL OTHER AREAS SHALL BE UNDISTURBED.
NOTE: TREE TRIMMING WORK SHALL REQUIRE REVIEW AND APPROVAL BY THE CITY THROUGH AN ARBOR PERMIT.

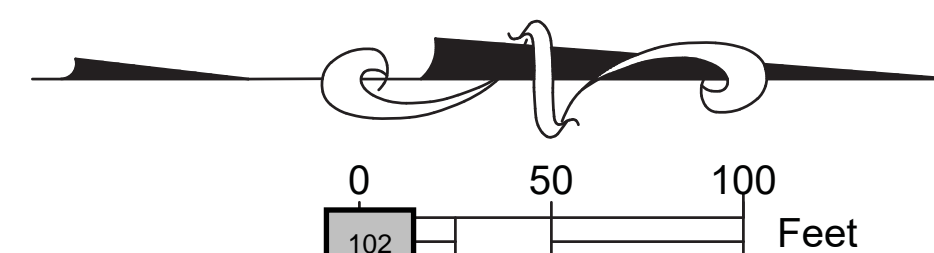
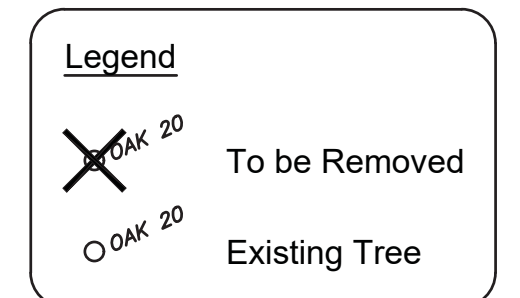
LANDSCAPE NOTES

- All plant material shall be Florida Fancy grade or better.
- All planting beds shall be covered with 3" minimum of cypress mulch.
- All areas disturbed by construction shall be sodded/replanted appropriately when outside the site.
- All plant quantities indicated above are approximate. In case of discrepancy the plan shall govern.
- All planting shall be done by qualified individuals and in accordance with accepted commercial procedures.
- Landscaping shall be in accordance with chapter 114 of the city ordinance.

Note: Provide Irrigation for all landscaping - A Rain Sensor Will be Required for Irrigation System



I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.



DATE	REVISION
11/4/16	City Comments
8/15/17	Grading Revisions

Binion Reserve
Tree Removal Plan

JEC June engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

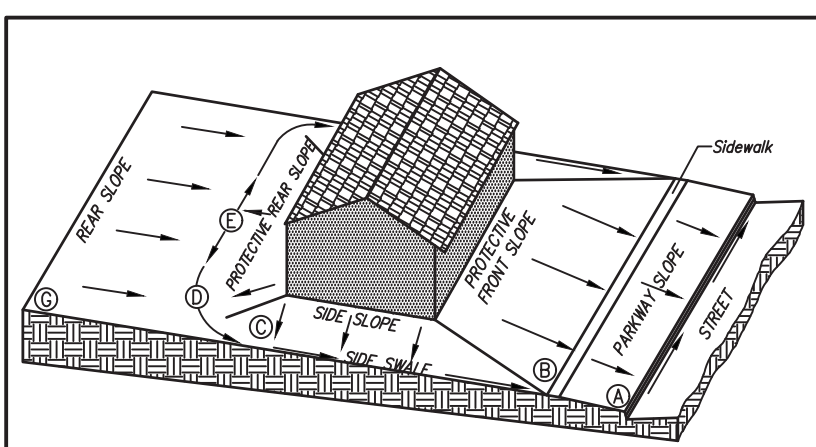
Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
DATE: 7/12/16 DATE: 7/12/16

JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 3a
OF 11

SIGNATURE _____ REG. NO. _____ DATE _____

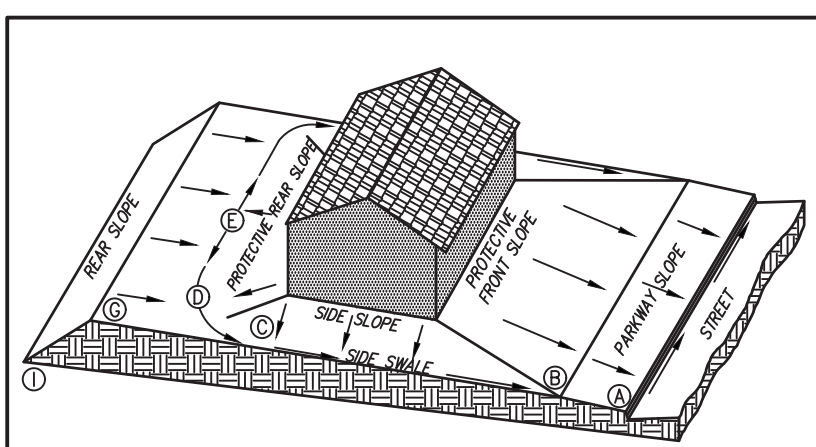


SAMPLE COMPUTATION OF GRADING CONTROL LINE A-F FOR A LOT ON AN 0.5% STREET, WITH 30' SETBACK, 60' BUILDING DEPTH AND 1% SWALES

ITEM	RESULTS USING 1% SWALES
A - Curb-top on lot-line extension of high lot corner	(0.27)
A-B Parkway slope: 12' grass and walk of 1/4" / ft. (2%)	(0.37)
B-C Side swale: 30' grass	(0.87)
C-D Swale turn with 10' radius: 16' grass	(0.27)
D-E Rear swale: 12' grass at 1/4" / ft.	(0.27)
E-F Protective rear slope up from high-point of swales	(0.17)
F-G Lot depth of swale grade	varies
G-H Match existing grade (See notes)	varies
Sub-total A-F from curb-top to ground at rear building wall	(1.77)
Minimum rise from curb-top to slab floor	(2.27)

TYPE 'A' LOT GRADING

N.T.S.

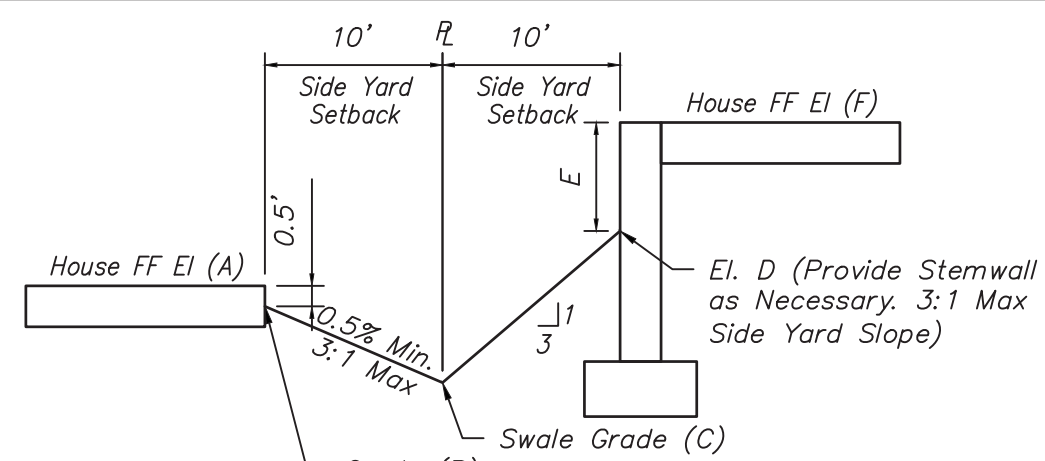


SAMPLE COMPUTATION OF GRADING CONTROL LINE A-F FOR A LOT ON AN 0.5% STREET, WITH 30' SETBACK, 60' BUILDING DEPTH AND 2% SWALES

ITEM	RESULTS USING 2% SWALES
A - Curb-top on lot-line extension of high lot corner	(0.37)
A-B Parkway slope: 12' grass and walk of 1/4" / ft. (2%)	(1.17)
B-C Side swale: 30' grass	(0.87)
C-D Swale turn with 10' radius: 16' grass	(0.27)
D-E Rear swale: 12' grass at 1/4" / ft.	(0.27)
E-F Protective rear slope up from high-point of swales	(0.17)
F-G Lot depth of swale grade	varies
G-H Match existing grade (See notes)	varies
Sub-total A-F from curb-top to ground at rear building wall	(2.17)
Minimum rise from curb-top to slab floor	(2.67)

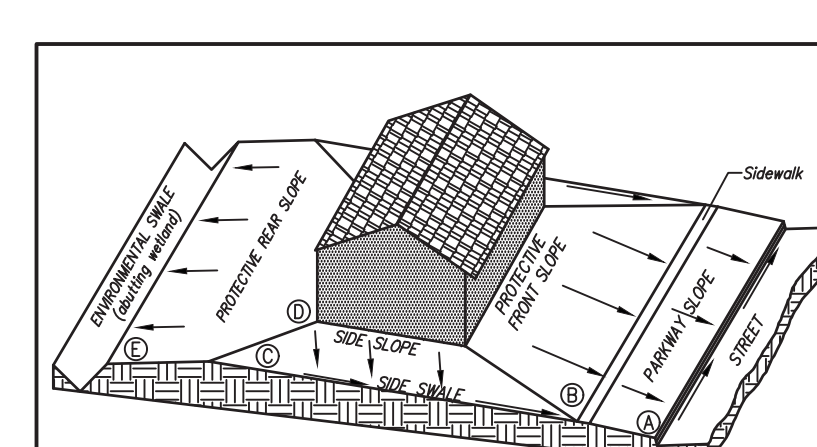
MODIFIED TYPE 'A' LOT GRADING

N.T.S.



SIDE YARD SWALE DETAIL

N.T.S.

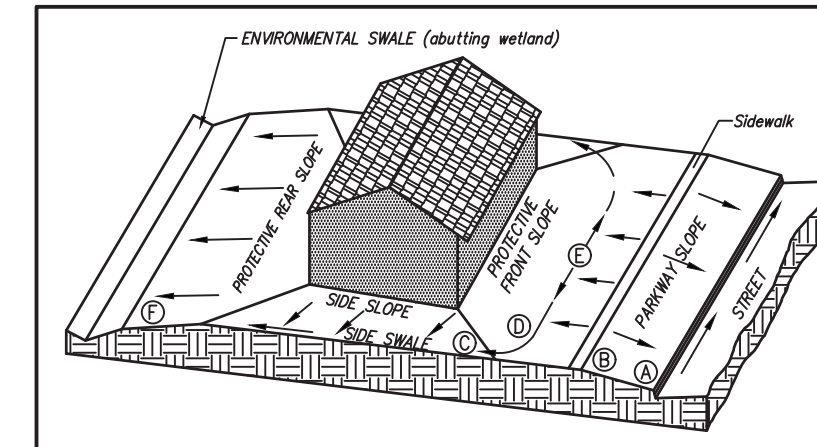


SAMPLE COMPUTATION OF GRADING CONTROL LINE A-F FOR A LOT ON AN 0.5% STREET, WITH 30' SETBACK, 60' BUILDING DEPTH AND 1% SWALES

ITEM	RESULTS USING 1% SWALES
A - Curb-top on lot-line extension of high lot corner	(0.27)
A-B Parkway slope: 12' grass and walk of 1/4" / ft. (2%)	(0.37)
B-C Side swale: 30' grass	(0.87)
C-D Swale turn with 10' radius: 16' grass	(0.27)
D-E Rear swale: 12' grass at 1/4" / ft.	(0.27)
E-F Protective rear slope up from high-point of swales	(0.17)
F-G Lot depth of swale grade	varies
G-H Match existing grade (See notes)	varies
Sub-total A-F from curb-top to ground at rear building wall	(1.67)
Minimum rise from curb-top to slab floor	(2.17)

TYPE 'B' LOT GRADING

N.T.S.

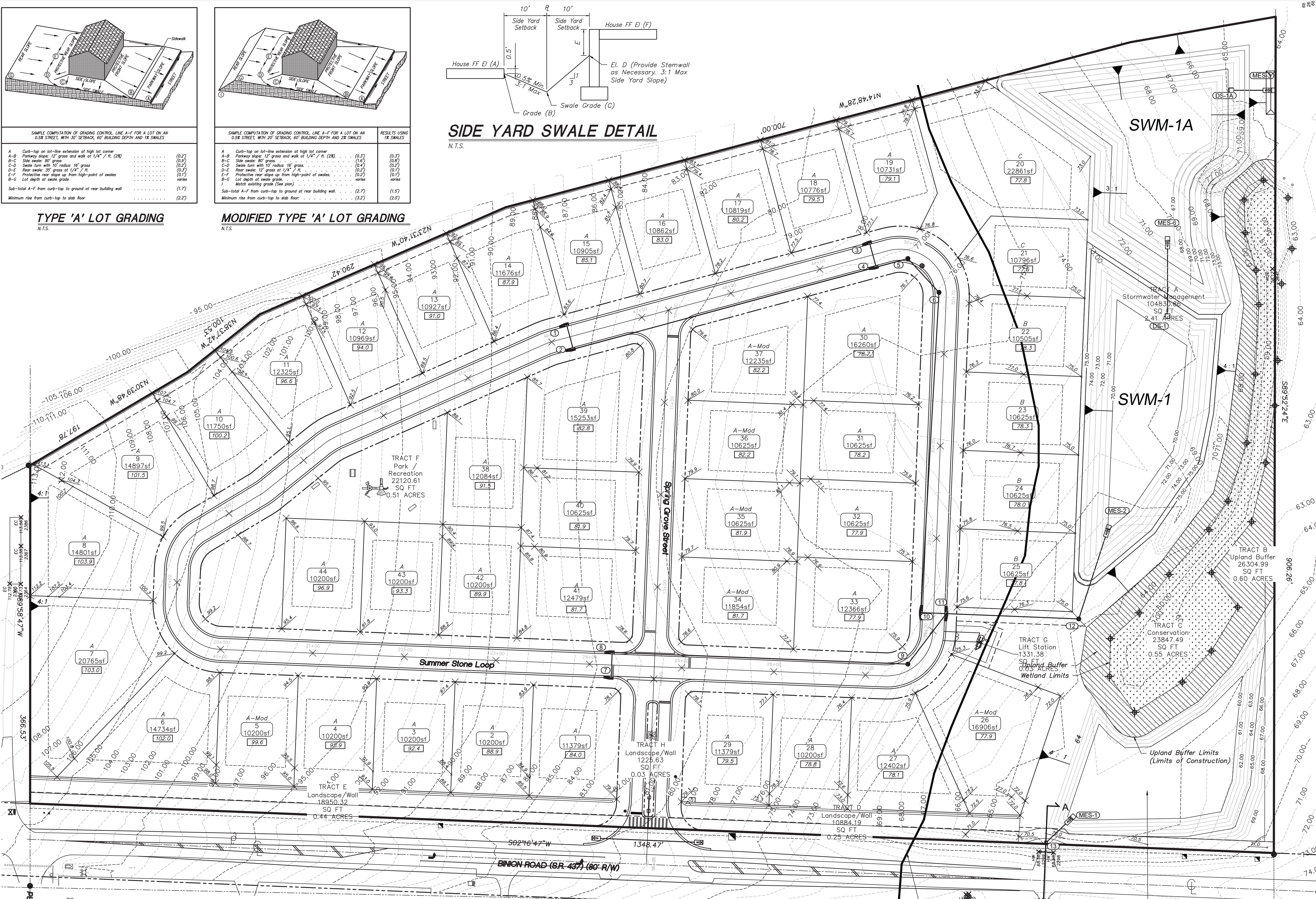


SAMPLE COMPUTATION OF GRADING CONTROL LINE A-F FOR A LOT ON AN 0.5% STREET, WITH 30' SETBACK, 60' BUILDING DEPTH AND 2% SWALES

ITEM	RESULTS USING 2% SWALES
A - Curb-top on lot-line extension of high lot corner	(0.37)
A-B Parkway slope: 12' grass and walk of 1/4" / ft. (2%)	(1.17)
B-C Side swale: 30' grass	(0.87)
C-D Swale turn with 10' radius: 16' grass	(0.27)
D-E Rear swale: 12' grass at 1/4" / ft.	(0.27)
E-F Protective rear slope up from high-point of swales	(0.17)
F-G Lot depth of swale grade	varies
G-H Match existing grade (See notes)	varies
Sub-total A-F from curb-top to ground at rear building wall	(2.17)
Minimum rise from curb-top to slab floor	(2.67)

TYPE 'C' LOT GRADING

N.T.S.



STORM STRUCTURES

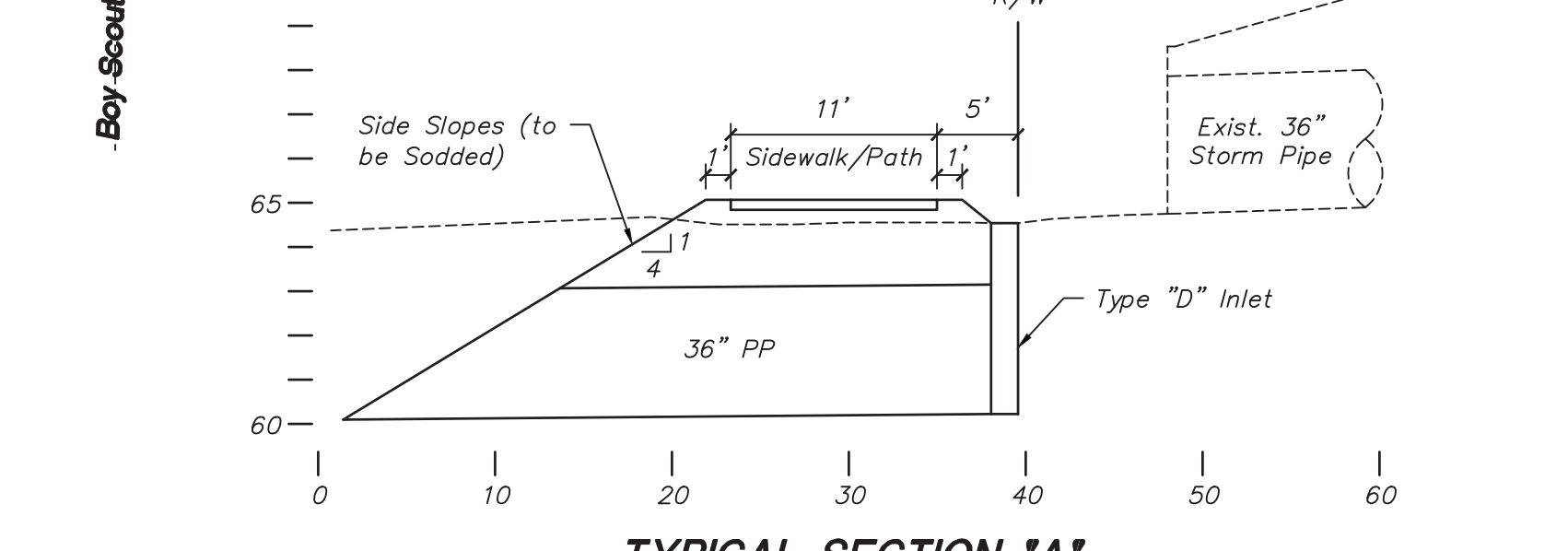
INLET	STATION	TYPE	TOP EL. (FT)	INV. EL. (FT)
1	46+19.28	P-5	83.45	76.06
2	46+19.28	P-5	83.45	W76.00 N75.00
3	49+59.28	P-5	76.90	71.90
4	49+59.28	P-5	76.90	71.84
5	50+00.00, 9.2' Rt.	P-7	76.42	71.42
6	50+64.37, 7.7' Rt.	P-7	76.07	71.27
7	24+24.15	P-5	79.75	74.75
8	24+24.15	P-5	79.75	74.69
9	27+50.00, 6.3' Lt.	P-7	75.53	70.63
10	28+16.50	P-6	75.43	70.56
11	28+16.50	J-6	75.43	70.50
12		P-6	75.00	70.21
13		D	69.00	64.50
MES-1		MES		60.00
MES-2		MES		70.00
MES-3		MES		63.00
MES-4		MES		76.00
MES-5		MES		75.00
MES-6		MES		67.00
DS-1	See Detail, Sheet 8	D	73.71	67.78
DS-1A	See Detail, Sheet 8	D	71.58	63.40

STORM PIPING

PIPE RUN	Pipe Size (in)	Material	Length (ft)	Slope (%)
1 to 2	18	PP	26	0.20
2 to 4	24	PP	372	0.85
3 to 4	18	PP	26	0.20
4 to 5	24	PP	37	1.13
5 to 6	24	PP	54	0.28
6 to 10	24	PP	353	0.20
7 to 8	18	PP	26	0.20
8 to 9	24	PP	318	1.28
9 to 11	24	PP	65	0.20
10 to 11	24	PP	26	0.20
11 to 12	30	PP	142	0.20
12 to MES-2	30	PP	102	0.20
13 to MES-1	36	PP	28	0.20
DS-1A to MES-3	18	PP	40	1.00
MES-4 to MES-5	18	PP	100	1.00
DS-1 to MES-6	36	PP	78	1.00

LEGEND

Existing Contours	
Lot Number	(12)
Direction of Flow	→
Existing Grade	~ 79.3
Proposed Grade	~ 51.1
Finished Floor	51.1
Storm Structure	■
Fire Hydrant	⊕
Storm Inlet	▲
Concrete	■
Conservation Line	~
100 Year Flood	~



Side Yard Swale Elevations

Lots	El. A	El. B	El. C	El. D	E	El. F	
1/2	84.00	83.50	83.40	86.70	2.20	88.90	
2/3	88.90	88.40	88.30	91.60	0.80	92.40	
3/4	92.40	91.90	91.80	94.80	1.10	95.90	
4/5	95.90	95.40	95.30	99.16	0.00	99.60	
10/11	96.60	96.10	96.00	99.30	1.00	100.20	
11/12	94.00	93.50	93.40	96.10	0.50	96.60	
12/13	91.00	90.50	90.40	93.50	0.50	94.00	
13/14	87.90	87.40	87.30	90.50	0.50	91.00	
14/15	95.10	94.60	94.50	87.40	0.50	87.90	
16/17	83.00	82.50	82.40	84.60	0.50	85.10	
38/39				88.20	91.00	0.50	91.50
41/42				87.00	90.30	0.50	90.80
42/43	89.90	89.40	89.30	92.60	0.70	93.30	
43/44	92.80	92.70	92.60	96.00	0.90	96.90	

REVISION

DATE	REVISION
11/4/16	City Comments
11/16/16	SJRWD Comments
1/3/17	City Comments
6/21/17	City Comments
8/15/17	Grading Revisions

Grading & Drainage Plan
Binion Reserve

JEC June engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
DATE: 7/12/16 DATE: 7/12/16

JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 3b OF 11

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Utility Separation Notes:

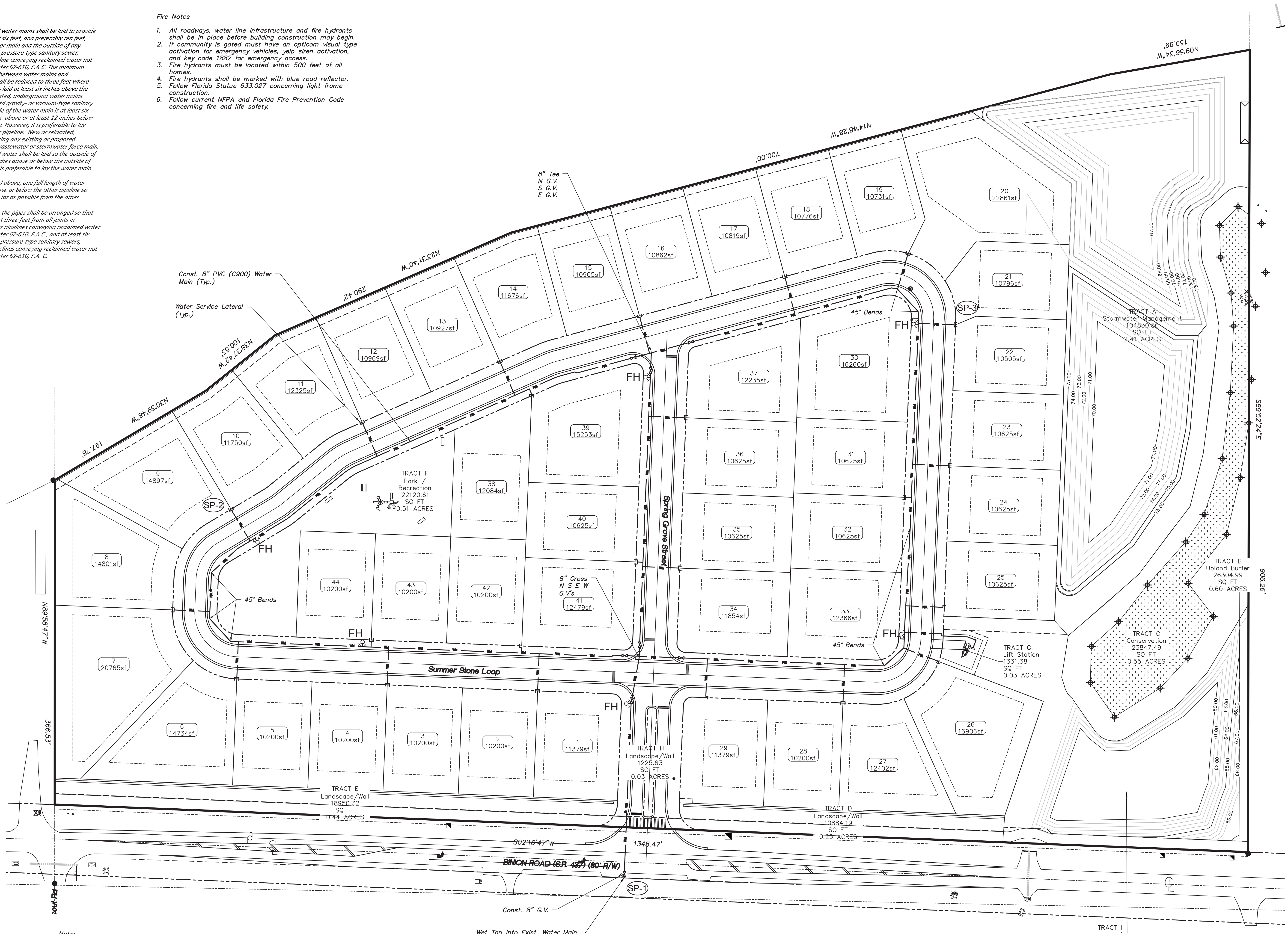
New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer. New or relocated, underground water mains crossing any existing or proposed gravity- or vacuum-type sanitary sewer shall be laid so the outside of the water main is at least six inches, and preferably 12 inches, above or at least 12 inches below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline. New or relocated, underground water mains crossing any existing or proposed pressure-type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water shall be laid so the outside of the water main is at least 12 inches above or below the outside of the other pipeline. However, it is preferable to lay the water main above the other pipeline.

At the utility crossings described above, one full length of water main pipe shall be centered above or below the other pipeline so the water main joints will be as far as possible from the other pipeline.

Alternatively, at such crossings, the pipes shall be arranged so that all water main joints are at least three feet from all joints in vacuum-type sanitary sewers, or pipelines conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C., and at least six feet from all joints in gravity- or pressure-type sanitary sewers, wastewater force mains, or pipelines conveying reclaimed water not regulated under part III of Chapter 62-610, F.A.C.

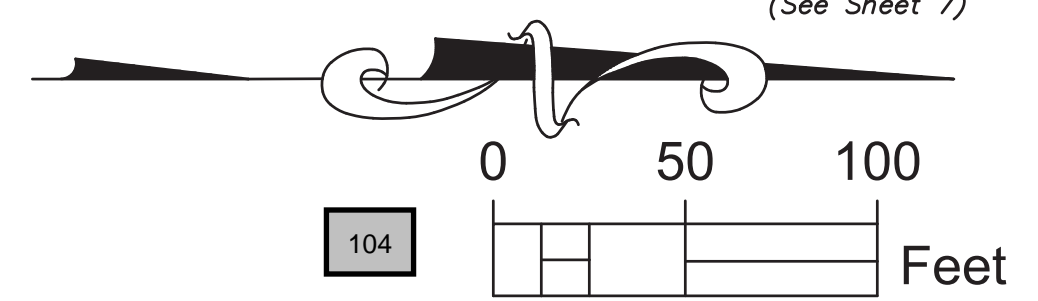
Fire Notes

1. All roadways, water line infrastructure and fire hydrants shall be in place before building construction may begin.
2. If community is gated must have an optimum visual type activation for emergency vehicles, yelp siren activation, and key code 1882 for emergency access.
3. Fire hydrants must be located within 500 feet of all homes.
4. Fire hydrants shall be marked with blue road reflector.
5. Follow Florida Statute 633.027 concerning light frame construction.
6. Follow current NFPA and Florida Fire Prevention Code concerning fire and life safety.



Note:
1. All water mains shall be 8" PVC (C900) unless otherwise noted.

SP-1 Sampling Point Location



DATE	REVISION
11/4/16	City Comments
1/3/17	City Comments
8/15/17	Grading Revisions

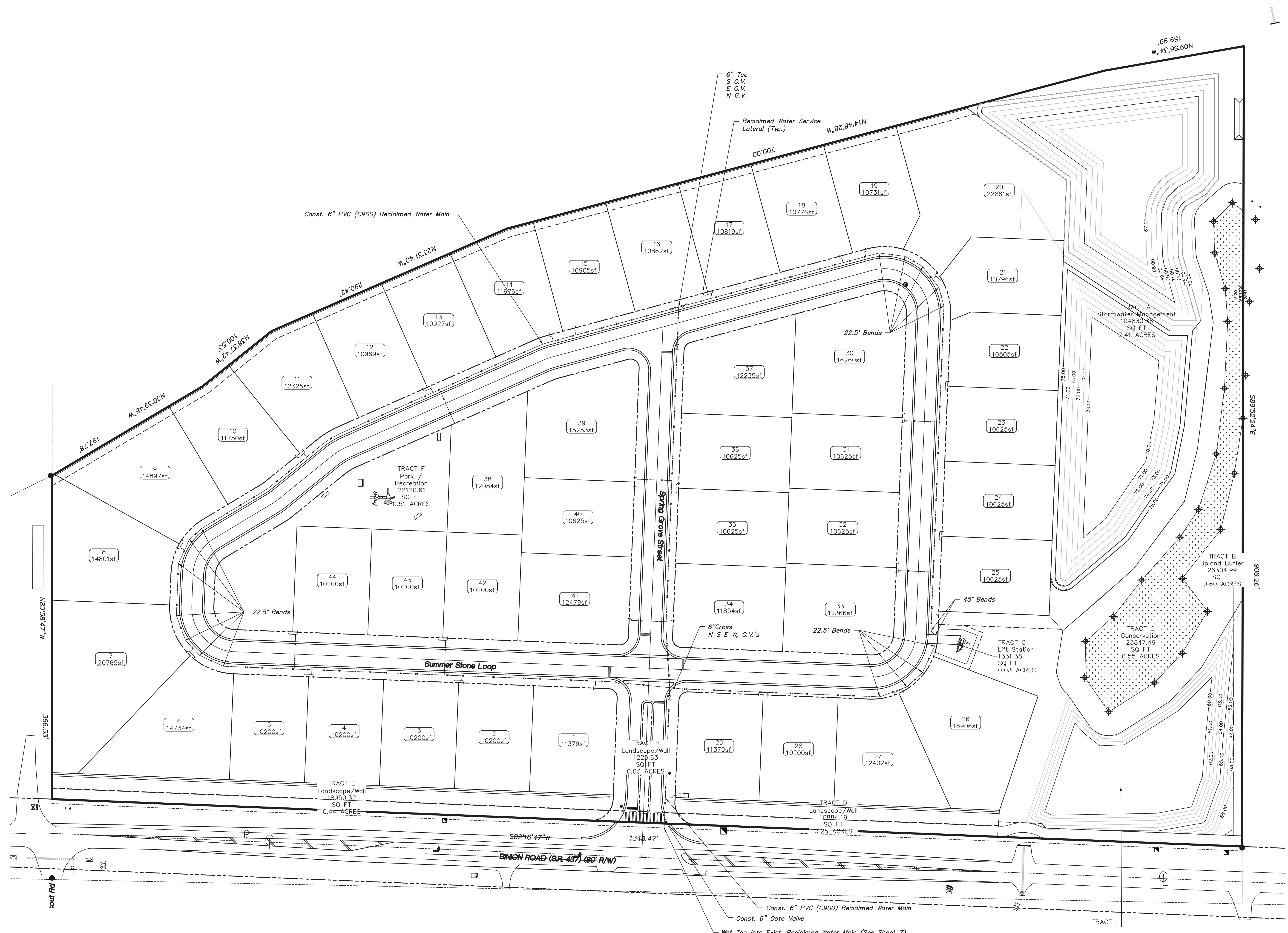
**Overall Water System Plan
Binion Reserve**

JEC june engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232
Certificate of Authorization #00031567

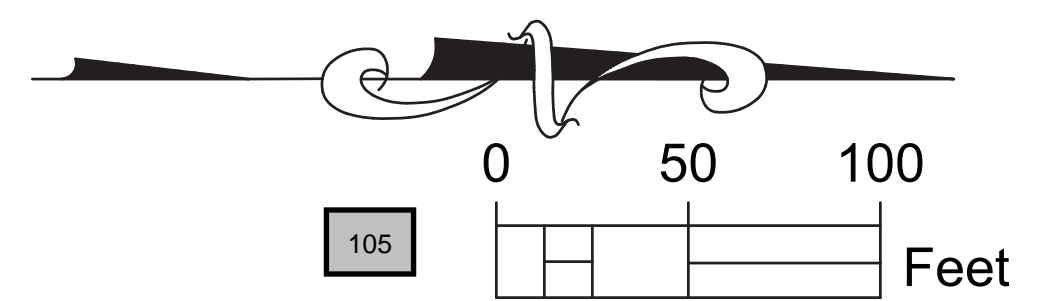
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DATE: 7/12/16 DATE: 7/12/16

JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 30 OF 11



Note:
 1. All reuse water mains shall be 4" PVC (C900) unless otherwise noted.
 2. All irrigation in this project, whether for common areas or individual lots, must be designed to deliver 10 gpm at 40 psi at each individual metered connection.



DATE	REVISION
11/4/16	City Comments
1/3/17	City Comments
8/15/17	Grading Revisions

*Reclaimed Water System Plan
Binion Reserve*

JEC june engineering consultants, inc.
 32 W. Plant Street
 Winter Garden, FL 34787
 Ph. 407-905-8180
 Fax 407-905-6232
 Certificate of Authorization #00031567
 DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
 DATE: 7/12/16 DATE: 7/12/16

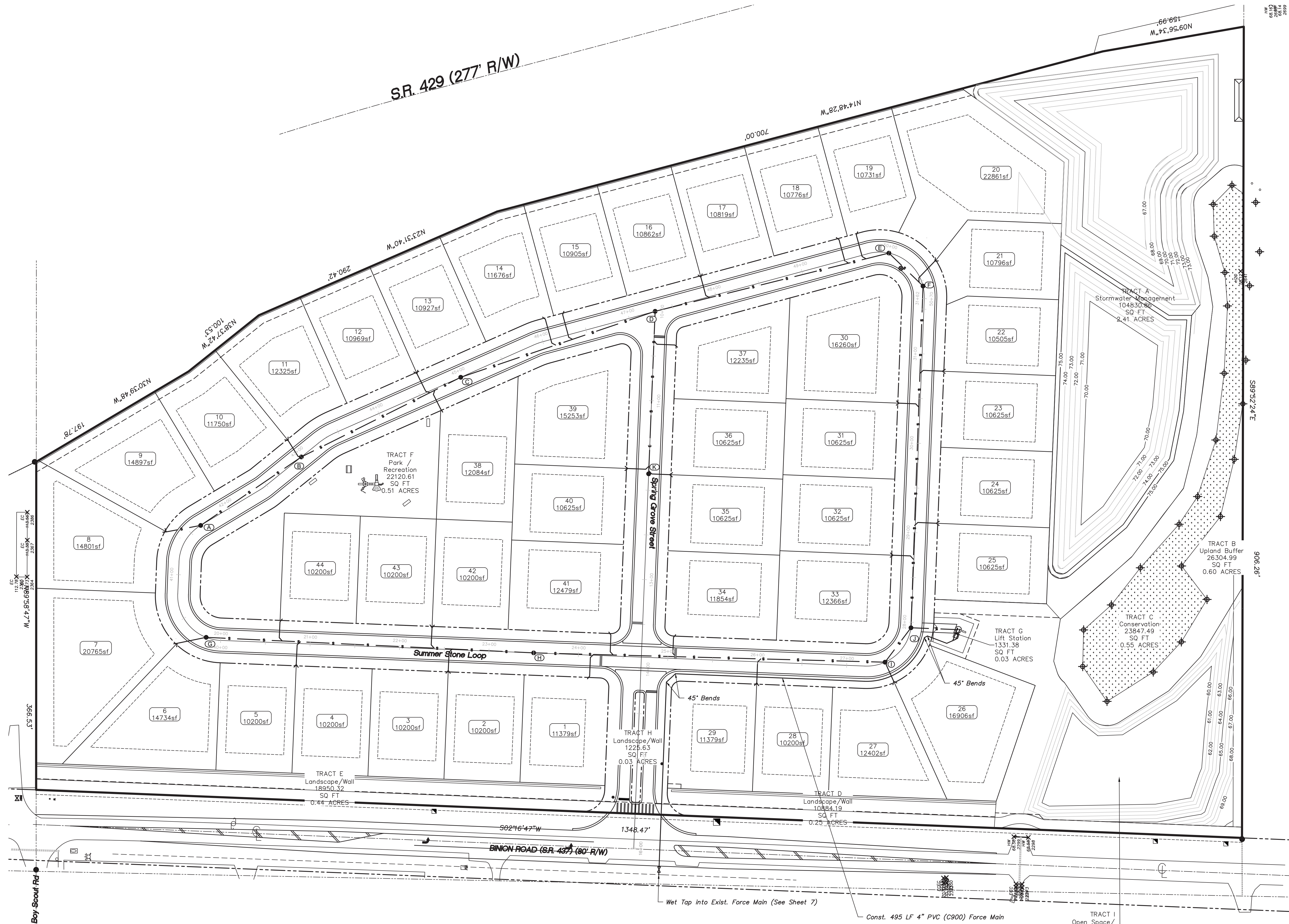
JEFFREY A. SEDLOFF
 PE# 51506

JOB NO. 14-0460
 SHEET 3d OF 11

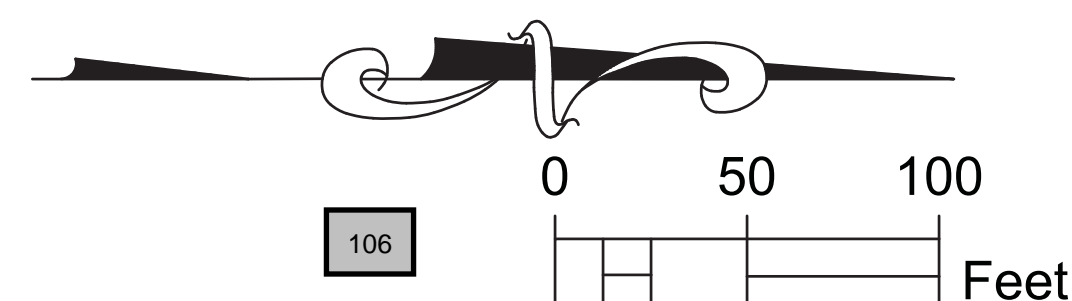
K:\ACTIVE_JOBS\0460 Binion Reserve Final Plans with Revised Pondings, 7/8/2018, 2:55:02 PM

SANITARY SEWER STRUCTURES			
Manhole	Station	Top El. (ft)	Inv. El. (ft)
A	41+64.00	99.44	N 92.44
B	43+00.00	94.79	S 87.79 N 87.69
C	45+00.00	87.57	S 80.57 N 80.67
D	47+30.00	79.27	E, S 72.67 N 72.57
E	50+00.00	76.52	S 69.62 N 69.52
F	50+55.86	76.26	SW 69.32 E 69.22
G	40+16.00	98.49	N 91.49
H	23+50.00	83.24	S 76.34 N 76.24
I	27+43.49	75.74	S 66.46 N 67.06
J	27+90.22	75.32	W, E 66.90 N 66.80
K	11+81.70	79.98	W 73.40
Lift Station	27+96.42, 52.9" Rt.	See Sheet 10	See Sheet 10

SANITARY SEWER PIPING			
Pipe Run	Length (ft)	Size & Material	Slope (%)
A to B	136	8" PVC (SDR 35)	3.42
B to C	200	8" PVC (SDR 35)	3.56
C to D	230	8" PVC (SDR 35)	3.48
D to E	270	8" PVC (SDR 35)	1.09
E to F	49	8" PVC (SDR 35)	0.40
F to J	391	8" PVC (SDR 35)	0.59
G to H	366	8" PVC (SDR 35)	4.14
H to I	392	8" PVC (SDR 35)	2.32
I to J	40	8" PVC (SDR 35)	0.40
K to D	182	8" PVC (SDR 35)	0.40
J to LS	54	8" PVC (SDR 14)	7.00



Note: The minimum slope of sanitary pipes shall be 0.32%. If minimum slopes are not attained during construction, the mains may have to be realigned (depending on the constructed slope) or the responsible party shall concur in writing to provide any additional maintenance and/or repairs that may result from these reduced slopes.



DATE	REVISION
11/4/16	City Comments
1/3/17	City Comments
6/21/17	City Comments
8/15/17	Grading Revisions

Sanitary Sewer Plan
Binion Reserve

JEC june engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
DATE: 7/12/16 DATE: 7/12/16

JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 3e OF 11

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Project Name: Binion Reserve
 FDEP Project ID # 14-0460
 Site Location:
 S18 T21 R28
 Latitude: 28°39'56"N Longitude: 81°33'08"W
 Site Area: The total site is approximately 26.26 acres of which 26.26 will be disturbed by construction activities.

Owner Name: Florida Properties, Inc.
 32 West Plant Street
 Winter Garden, FL 34787

Contractor Name:
 Project Description: Construct infrastructure associated with an industrial/commercial subdivision. Clearing and Grubbing; installing a stabilized construction entrance, perimeter and other erosion and sediment controls; grading; excavation for the stormwater ponds, storm sewer, culverts and building foundations; construction of roads, curbs, sidewalks; preparation for final planting and seeding.

Construction Sequence:
 1. Install stabilized construction entrance.
 2. Clear and Grub for silt fence installation.
 3. Install Silt Fence.
 4. Construct Retention Ponds/Mass Site Grading.
 5. Install Infrastructure (Storm Sewer, Utilities, Roads, etc.)
 6. Complete final grading and install permanent seeding and plantings.
 7. Remove any accumulated sediment from basin.
 8. When construction activity is complete and the site is stabilized, remove silt fence and reseed/resod any areas disturbed by their removal.

Soil Type: Site is primarily underlain with USDA SCS Type "A" Soils (Candler Fine Sands & Tavares Sand)
 Runoff Coefficient: The final runoff coefficient for the site will be C=0.43
 Dewatering Methods: Point well
 Receiving Water
 Body: Lake Apopka

CONTROLS (BMPs)
 Erosion and Sediment Controls
 Stabilization Practices
 Temporary Stabilization - Top stock piles and disturbed portions of the site where construction activity temporarily ceases for at least 7 days will be stabilized with temporary seed and mulch.
 Permanent Stabilization - Disturbed portions of the site where construction activities permanently ceases shall be stabilized with permanent seed and mulch and/or sod no later than 30 days after the last construction activity.

Structural Practices
 Silt Fencing - Will be constructed around the perimeter of the site as indicated on the overall plans of the construction plans.
 Retention Ponds
 Sediment Basin - Will be constructed with the site grading. Once construction activities are nearly complete, the accumulated sediment will be removed from the basin.

Other Controls
 Waste Disposal
 Waste Materials - All waste materials will be collected and stored in a dumpster or as required by the City of Apopka. All trash and debris from the site will be stored in the dumpster.
 Hazardous Waste - All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer.
 Sanitary Waste - All sanitary waste will be collected from the portable units as per the requirement of Orange County and FDEP.

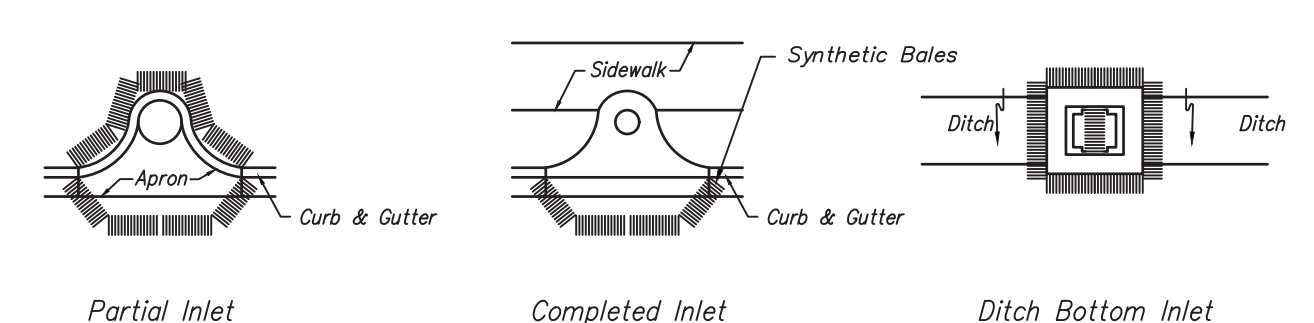
Offsite Vehicle Tracking
 A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street leading to the site entrance will be swept as necessary to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

TIMING OF CONTROLS/MEASURES
 As indicated in the Sequence of Major Activities, the silt fence, stabilized construction entrance will be constructed prior to clearing or grading of any other portions of the site. Areas where construction activity temporarily ceases for more than 7 days will be stabilized with a temporary seed and mulch. Once construction activity resumes permanently in an area, that area will be stabilized with permanent seed and mulch and/or sod. After the entire site is stabilized, the accumulated sediment will be removed from the retention ponds and along the silt fence.

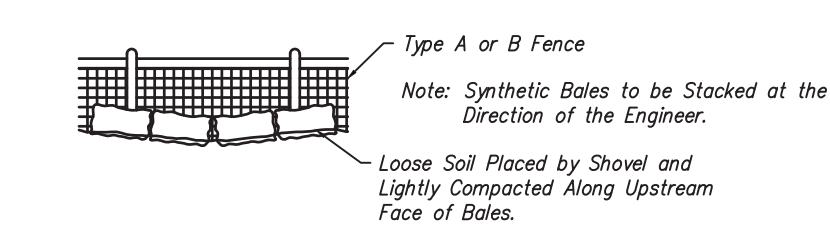
CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS
 The storm water pollution prevention plan reflects the Orange County, St. Johns River Water Management District, Florida Department of Environmental Protection and the U.S. Environmental Protection Agency requirements for storm water management and erosion and sediment control.

MAINTENANCE/INSPECTION PROCEDURES
 These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls.
 All control measures will be inspected at least once each week and following any storm event of 0.2 inches or greater. A rain gauge will be on site to measure rainfall amounts.
 All measures will be maintained in good working order; if repair is necessary, it will be initiated within 24 hours of the report.
 Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
 Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
 The retention ponds/sediment basins will be inspected, and sediment will be removed at the end of the job.
 Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.

INVENTORY FOR POLLUTION PREVENTION PLAN
 The materials or substances listed below are expected to be present onsite during construction:
 Concrete
 Asphalt
 Wood
 Masonry Block
 Roofing Shingles
 Petroleum Based Products
 Fertilizers
 Cleaning Solvents
 Plastics (Enamel and Latex)
 Metal Sludge
 Detergents
 Contractors are responsible for installing any additional erosion control if it becomes necessary to meet state and local standards.



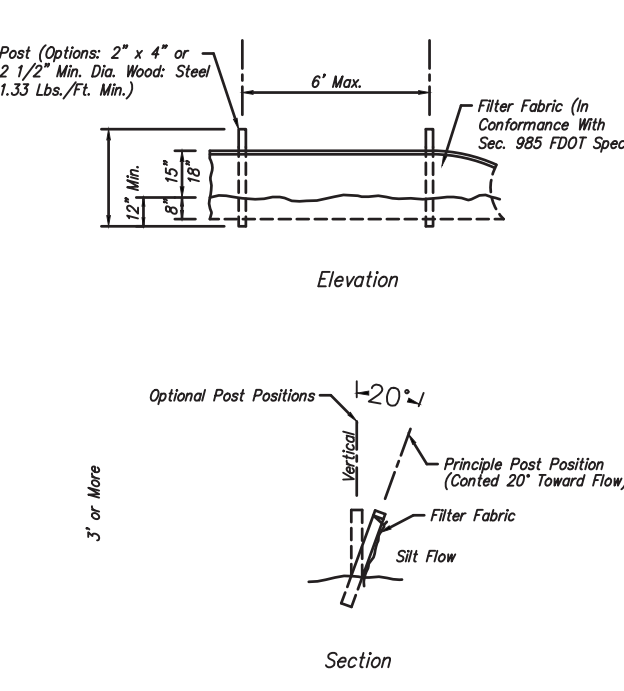
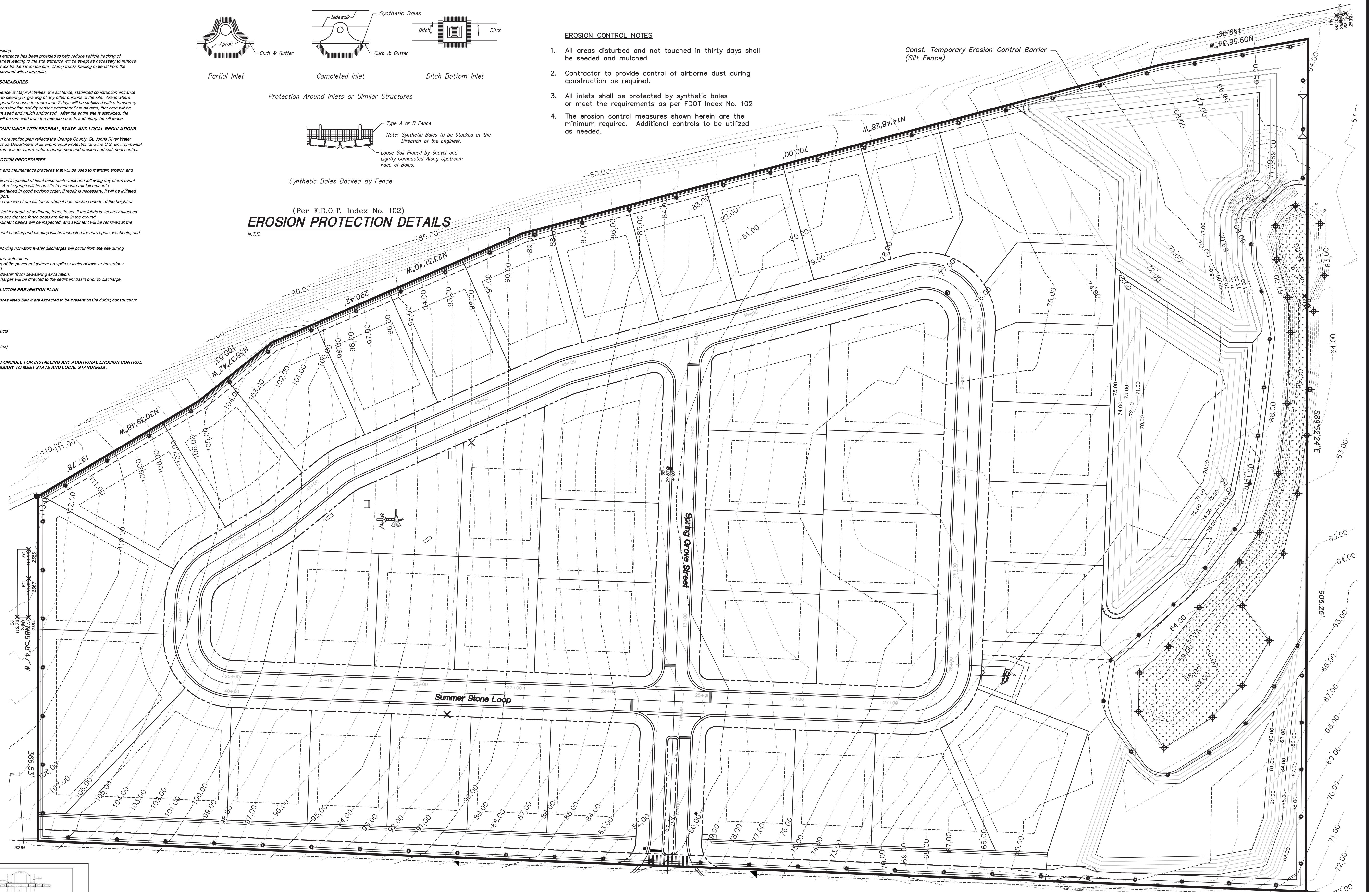
Protection Around Inlets or Similar Structures



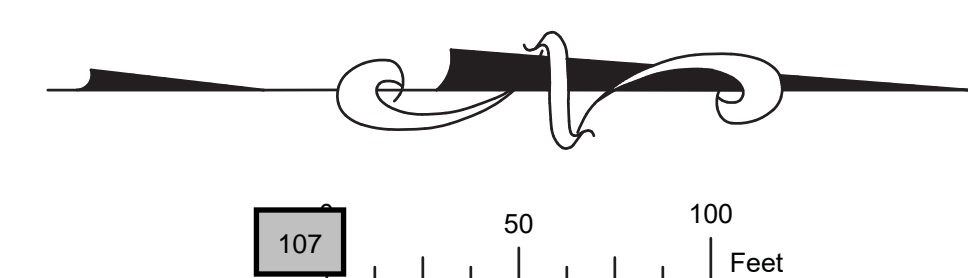
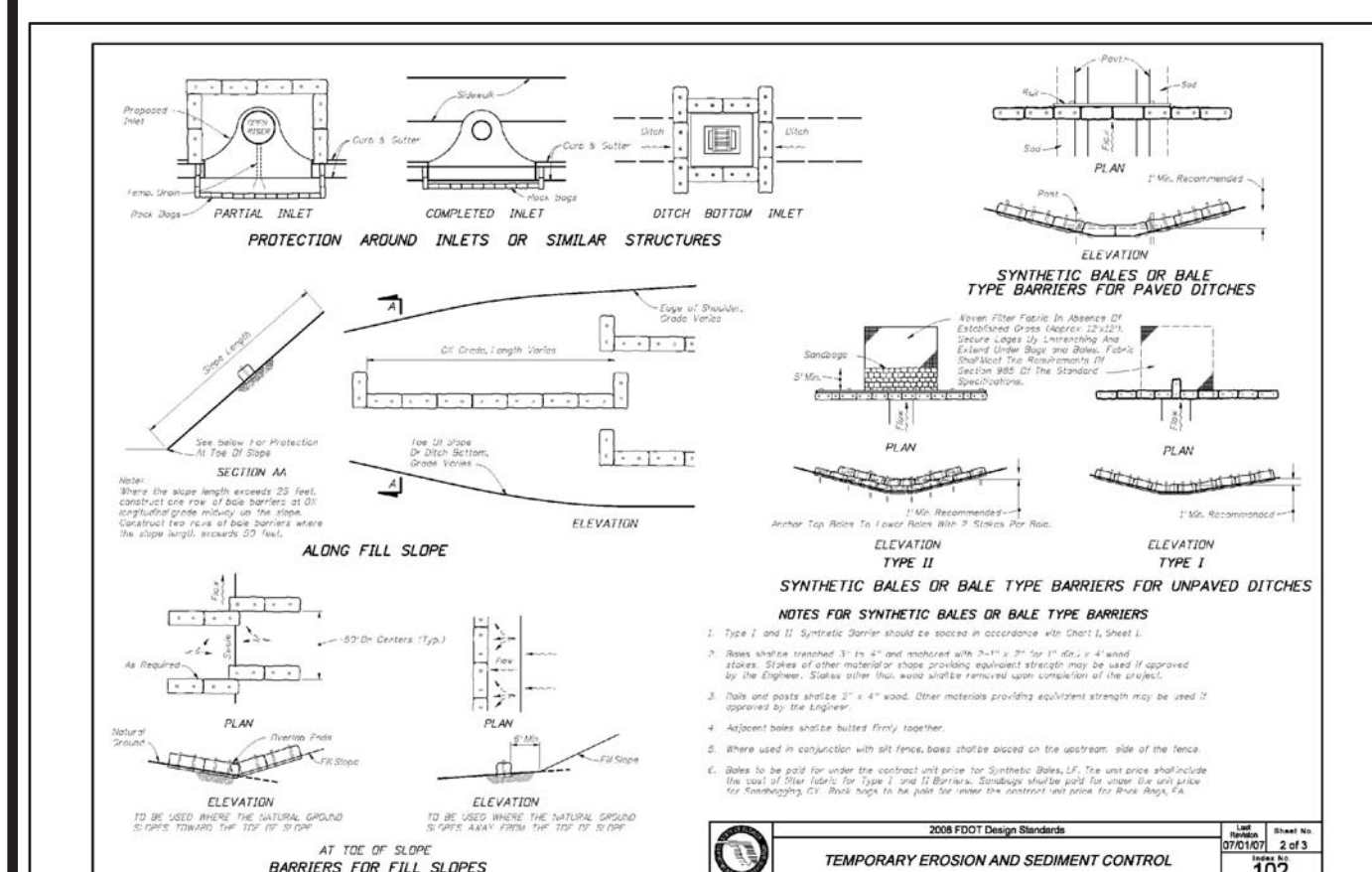
(Per F.D.O.T. Index No. 102)
EROSION PROTECTION DETAILS
 N.T.S.

- EROSION CONTROL NOTES**
- All areas disturbed and not touched in thirty days shall be seeded and mulched.
 - Contractor to provide control of airborne dust during construction as required.
 - All inlets shall be protected by synthetic bales or meet the requirements as per FDOT Index No. 102
 - The erosion control measures shown herein are the minimum required. Additional controls to be utilized as needed.

Const. Temporary Erosion Control Barrier (Silt Fence)



Note: Silt Fence to be Paid for under the Contract Unit Price for Staked Silt Fence (U).
 Reinforced Silt Fence Shall be Provided Adjacent to all Wetlands/Altered Buffers or as Noted. Reinforcement Shall Include Wire Backing to Silt Fence.
TYPE III SILT FENCE
 N.T.S.



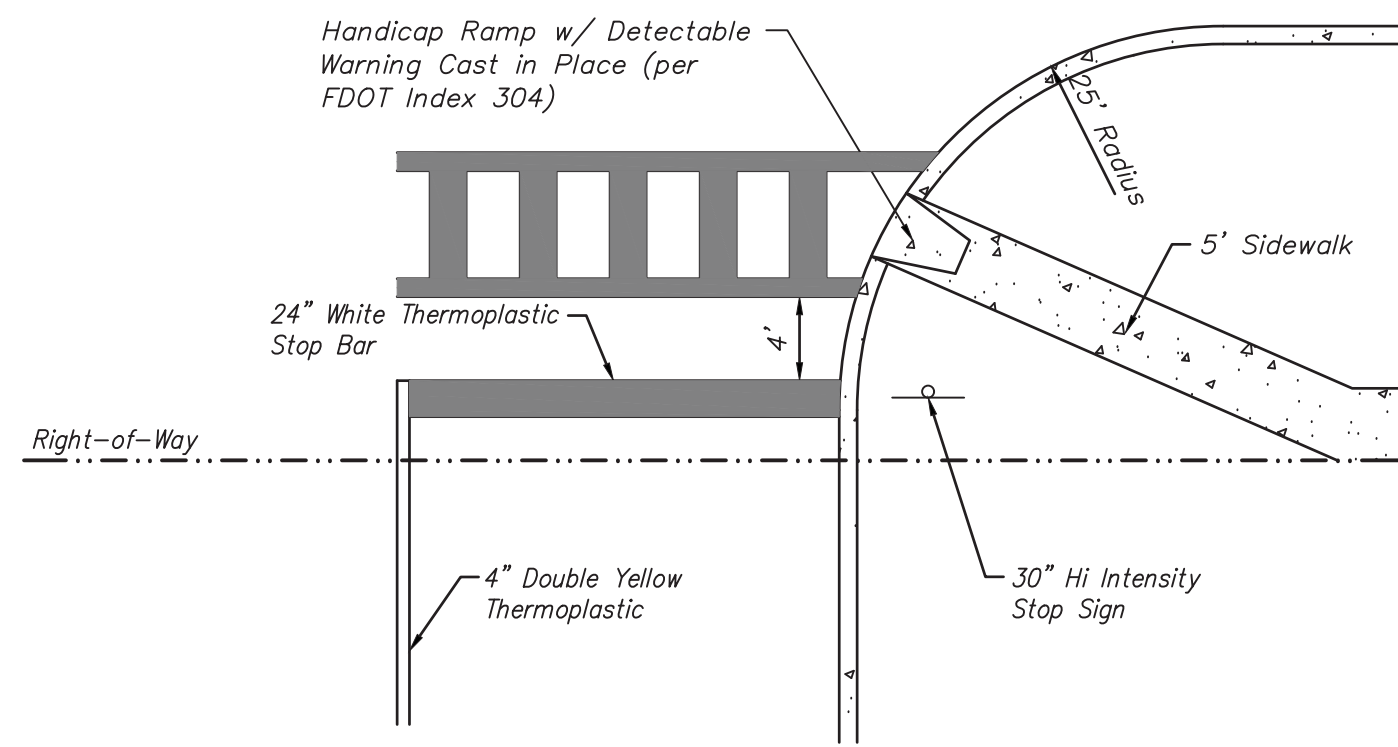
DATE	REVISION
10/27/16	SJR/RWD Comments
11/4/16	City Comments
11/16/16	SJR/RWD Comments
8/15/17	Grading Revisions

Stormwater Pollution Prevention Plan
 Binion Reserve

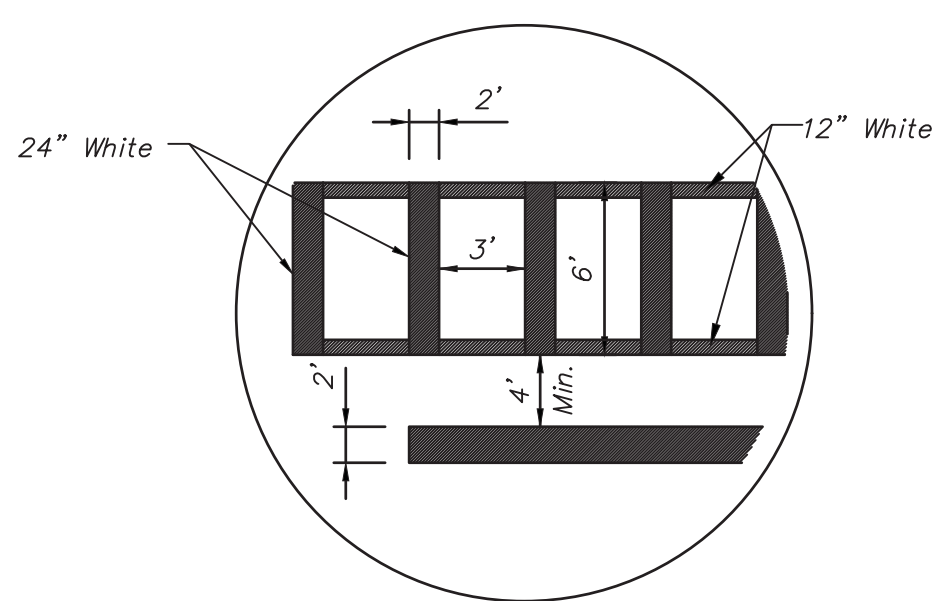
JEC june engineering consultants, inc.
 32 W. Plant Street
 Winter Garden, FL 34787
 Ph. 407-905-8180
 Fax 407-905-6232
 Certificate of Authorization #00031567
 DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
 DATE: 12/23/15 DATE: 12/23/15

JEFFREY A. SEDLOFF
 PE# 51506
 JOB NO. 14-0460
 SHEET 3f OF 11

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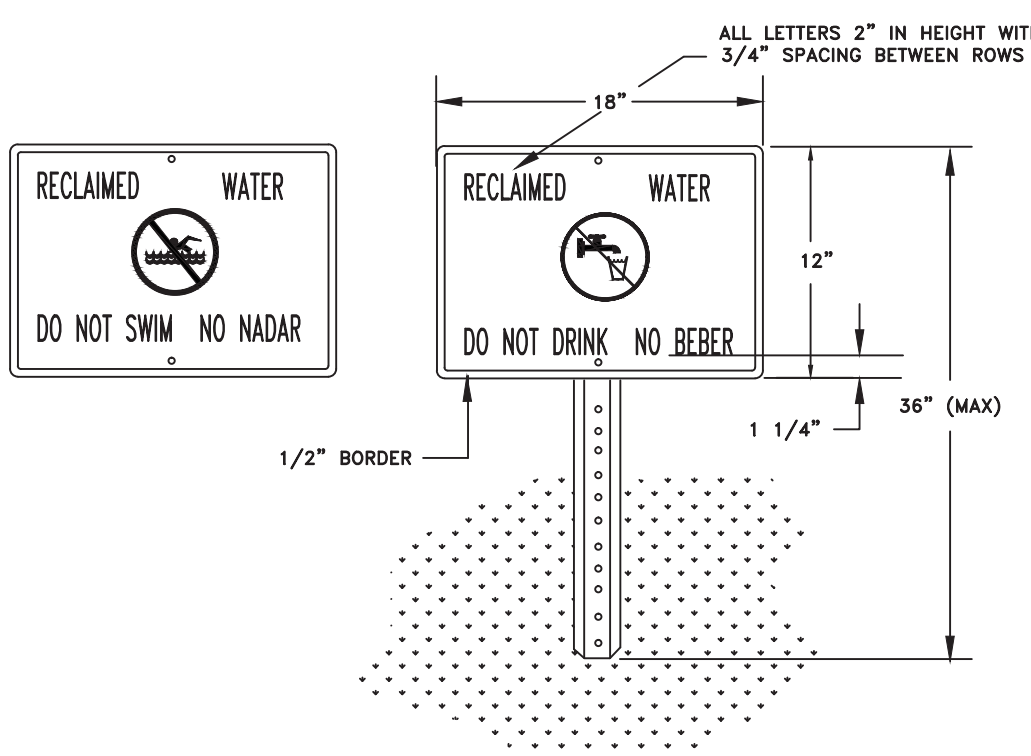


SIDEWALK / STOP LOCATION DETAIL
N.T.S.



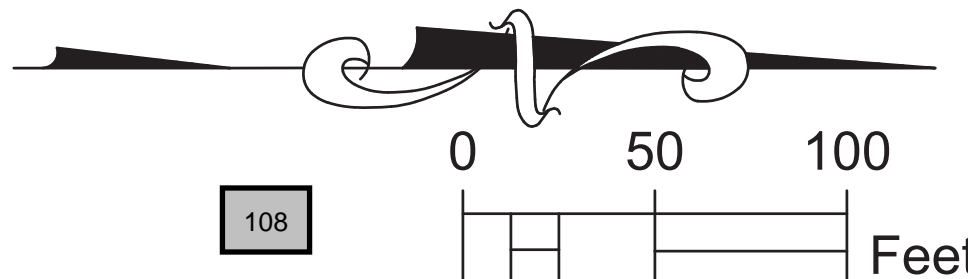
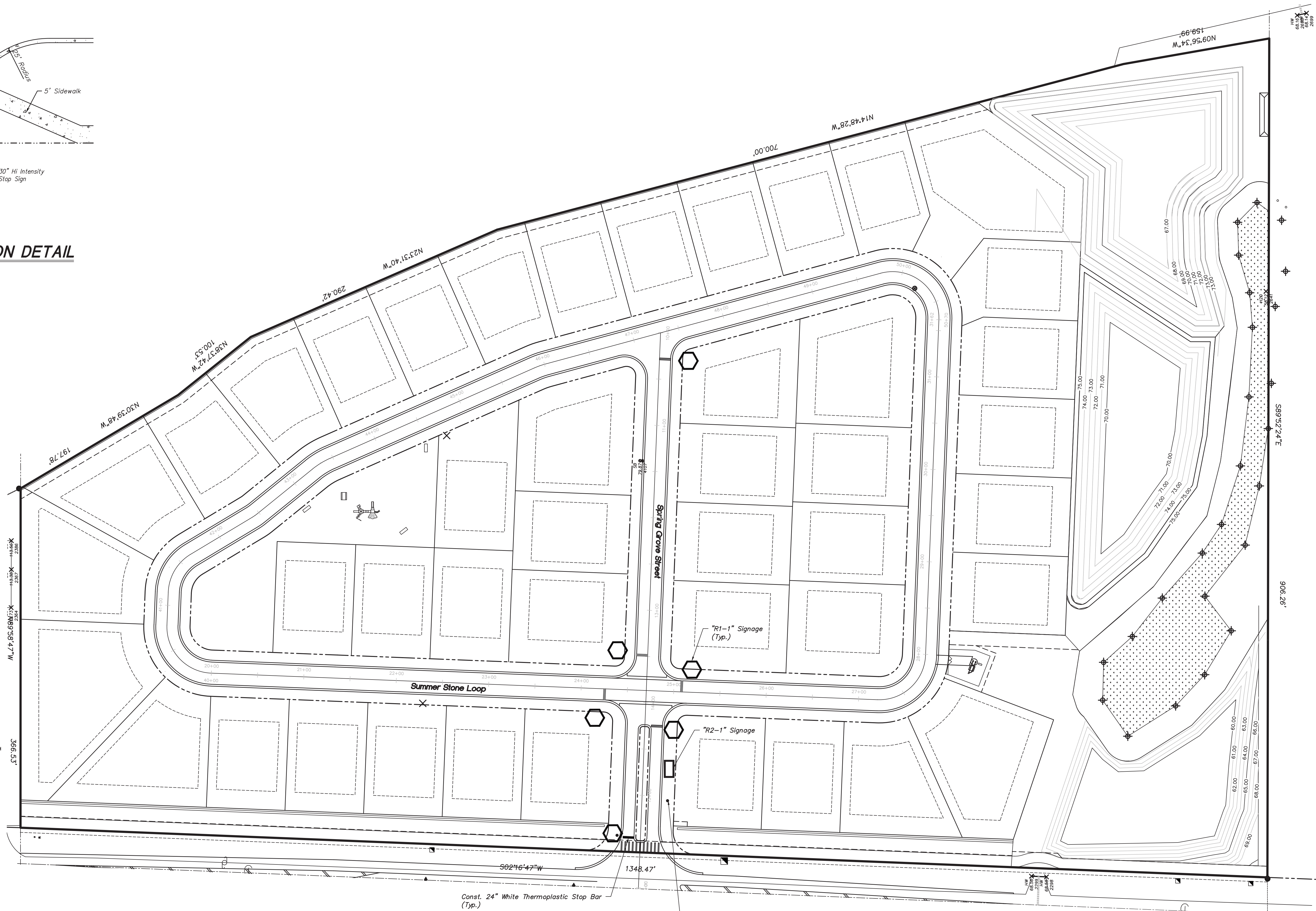
Note: All Striping Shall Conform to FDOT Index 17346

CROSSWALK DETAIL
N.T.S.



- NOTES:
- HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
 - BACKGROUND SHALL BE WHITE, LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
 - ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
 - POST SHALL BE U CHANNEL 12 FT. 2 LB. HOT ROLLED HIGH TENSILE RAIL OR BILLET STEEL, HOT DIP GALVANIZED PER ASTM A-123.
 - MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
 - SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

RECLAIMED WATER ADVISORY SIGN



DATE	REVISION
11/4/16	City Comments
1/3/17	City Comments
8/15/17	Grading Revisions

Overall Signage Plan
Binion Reserve

JEC june engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232
Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
DATE: 7/12/16 DATE: 7/12/16

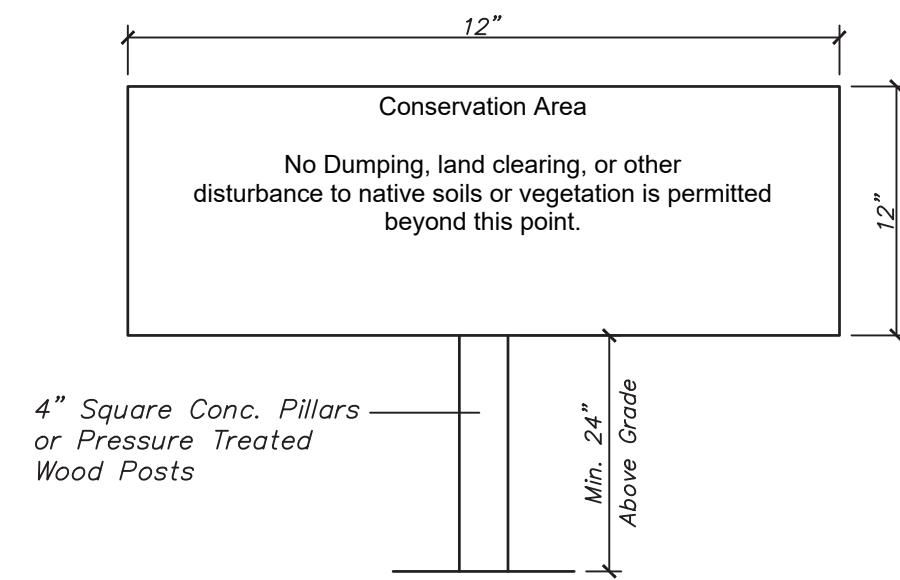
JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 3g OF 11

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 Wetland Preservation 0.55 Ac.

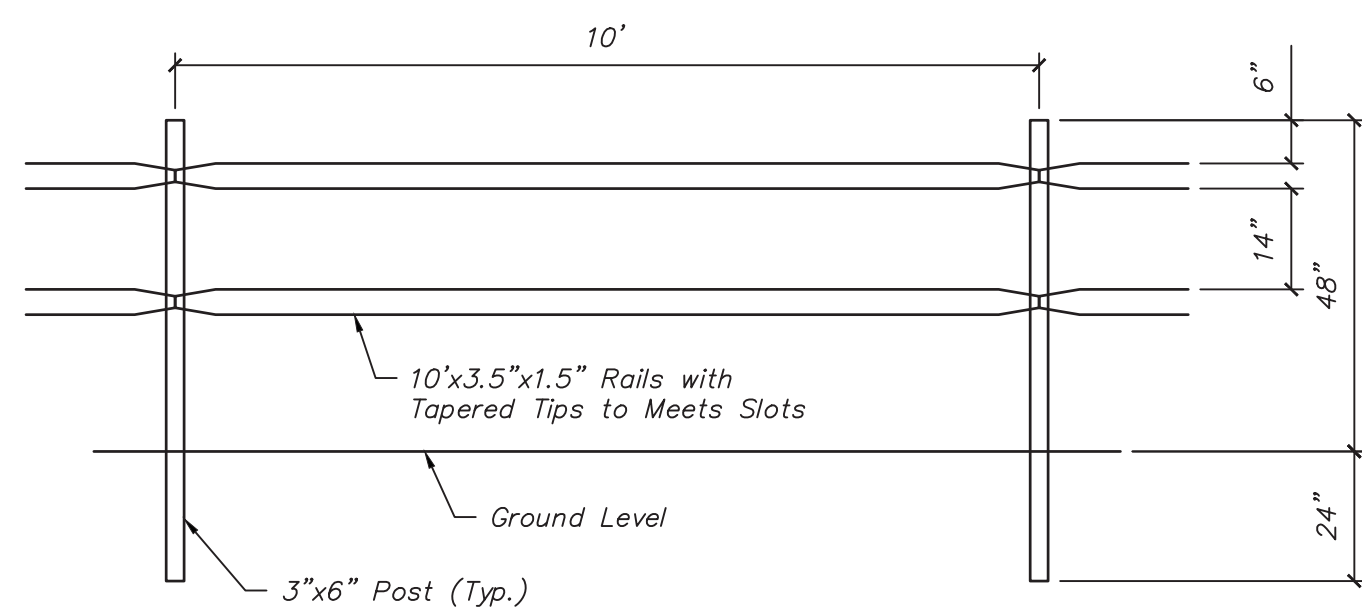
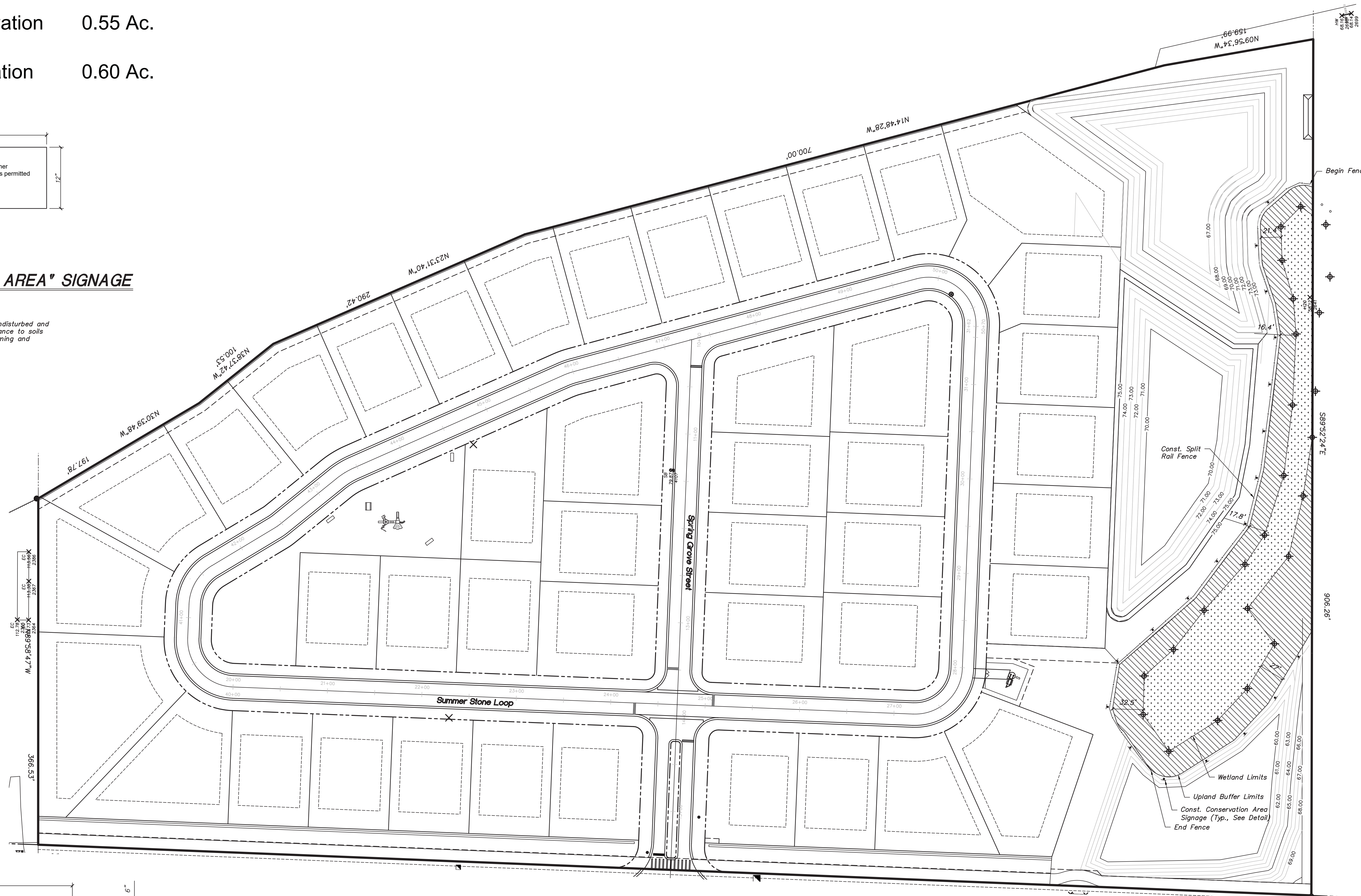
 Upland Preservation 0.60 Ac.



TYPICAL "CONSERVATION AREA" SIGNAGE

N.T.S.

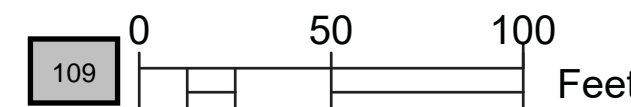
Note:
The conservation areas shall remain undisturbed and all construction, dumping, and disturbance to soils and vegetation including mowing, trimming and removal is prohibited.



Note: All Wood for Split Rail Fence to be Pressure Treated

SPLIT RAIL FENCE DETAIL

N.T.S.



DATE	REVISION
10/27/16	SJRWD Comments
11/16/16	SJRWD Comments
8/15/17	Grading Revisions

Wetland Inventory Plan

Binion Reserve



32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
DATE: 7/12/16 DATE: 7/12/16

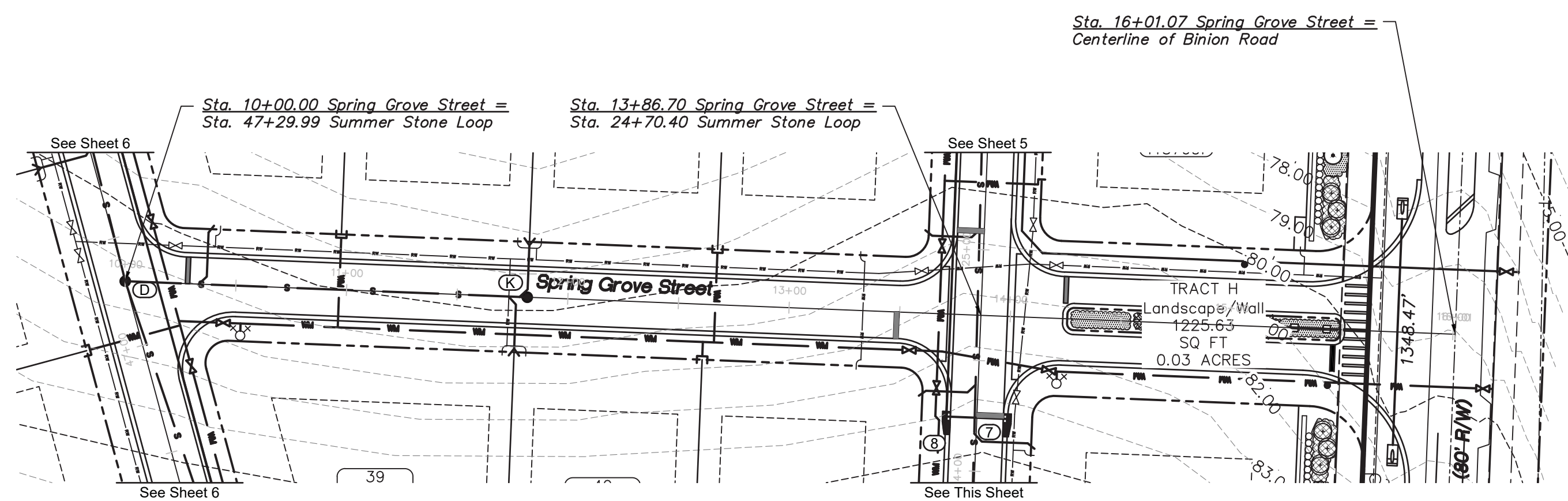
JEFFREY A. SEDLOFF
PE# 51506

JOB NO.
14-0460

SHEET

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OF 11

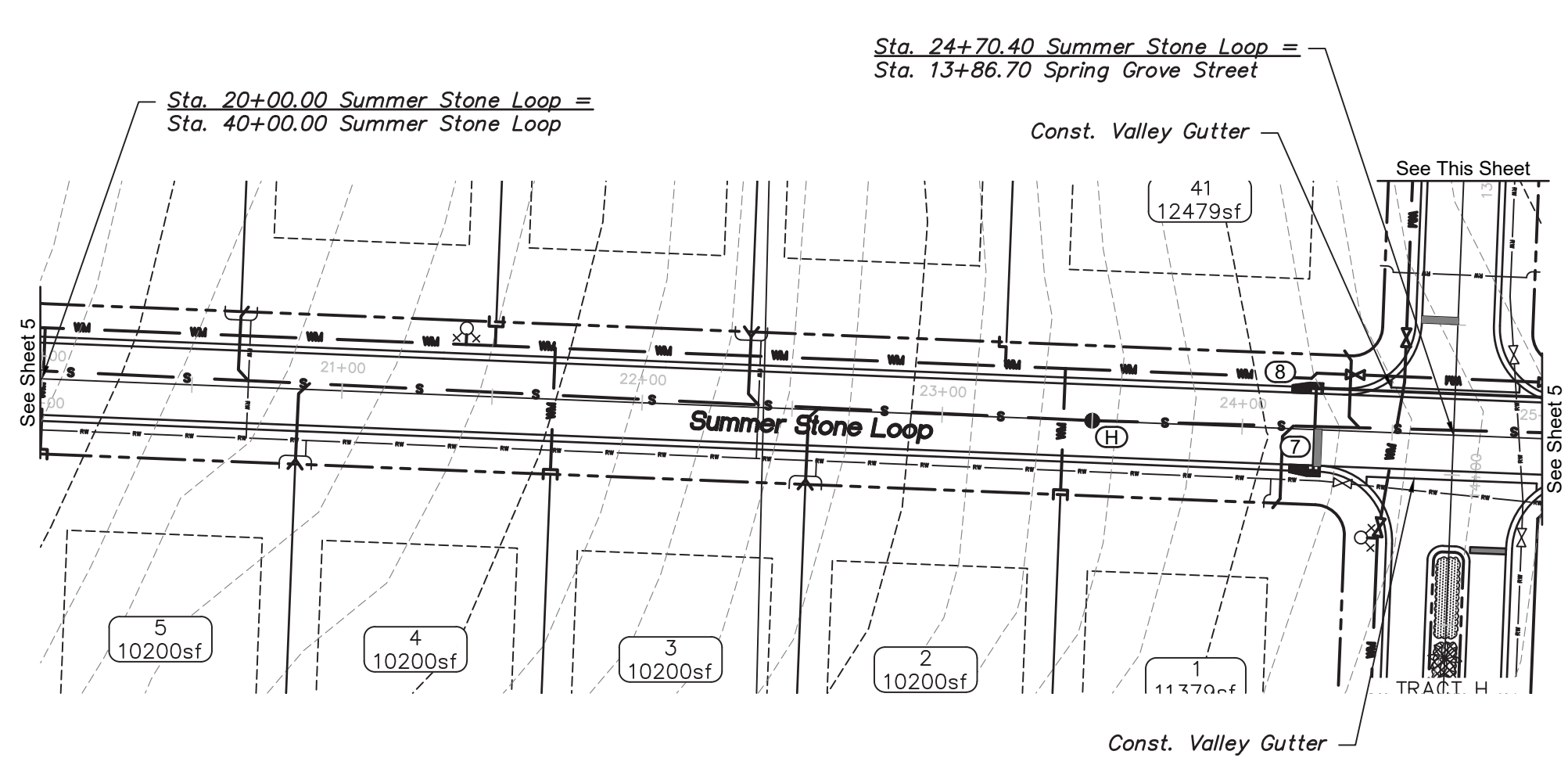
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STORM STRUCTURES				
INLET	STATION	TYPE	TOP EL. (FT)	INV. EL. (FT)
1	46+19.28	P-5	83.45	76.06
2	46+19.28	P-5	83.45	W76.00 N75.00
3	49+59.28	P-5	76.90	71.90
4	49+59.28	P-5	76.90	71.84
5	50+00.00, 9.2' Rt.	P-7	76.42	71.42
6	50+64.37, 7.7' Rt.	P-7	76.07	71.37
7	24+24.15	P-5	79.75	74.75
8	24+24.15	P-5	79.75	74.69
9	27+50.00, 6.3' Lt.	P-7	75.53	70.63
10	28+16.50	P-6	75.43	70.56
11	28+16.50	J-6	75.43	70.50
12	28+16.50	P-6	75.00	70.21
13		D	69.00	64.50
MES-1		MES		60.00
MES-2		MES		70.00
MES-3		MES		63.00
MES-4		MES		76.00
MES-5		MES		75.00
MES-6		MES		67.00
DS-1	See Detail, Sheet 8	D	73.71	67.78
DS-1A	See Detail, Sheet 8	D	71.58	63.40

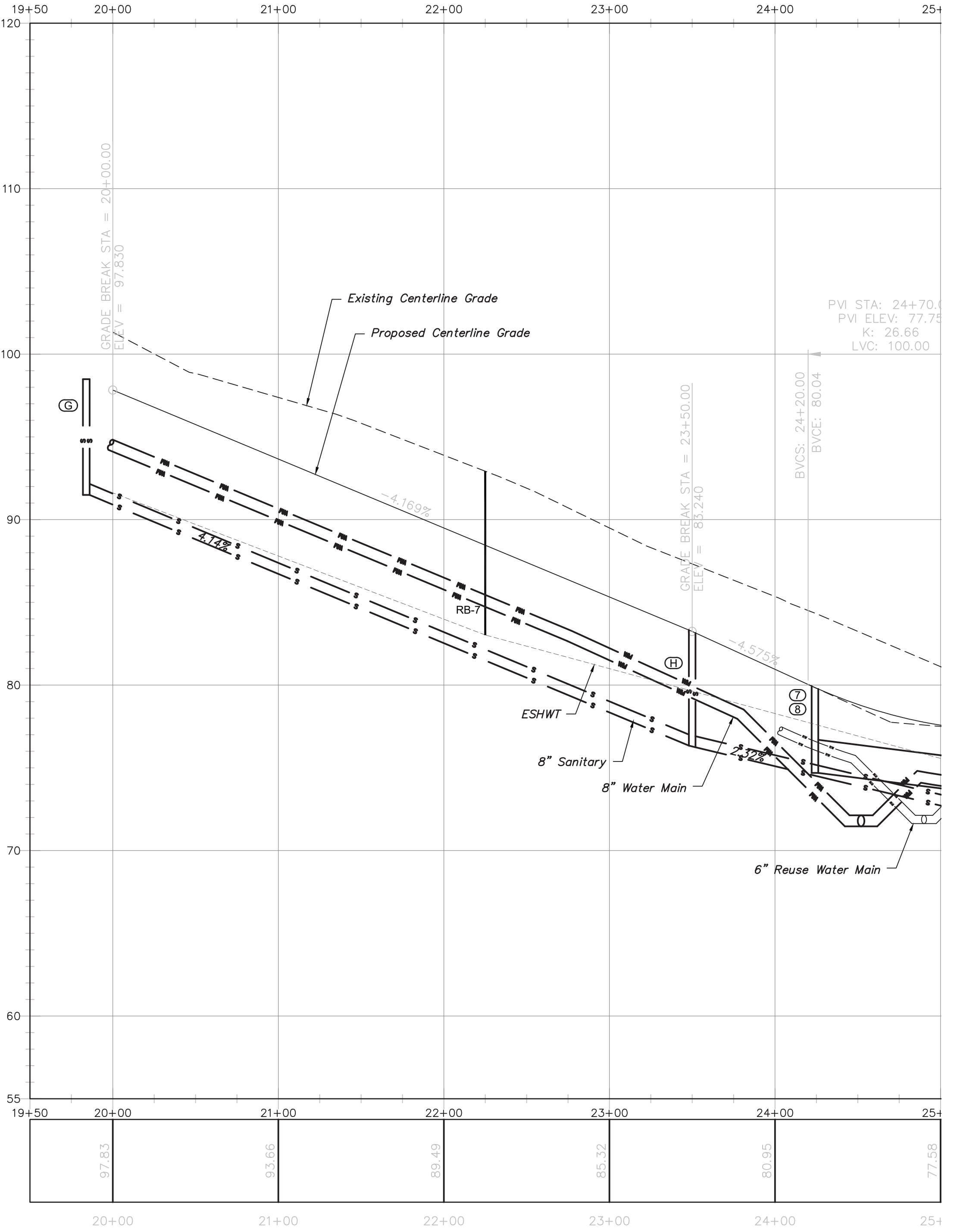
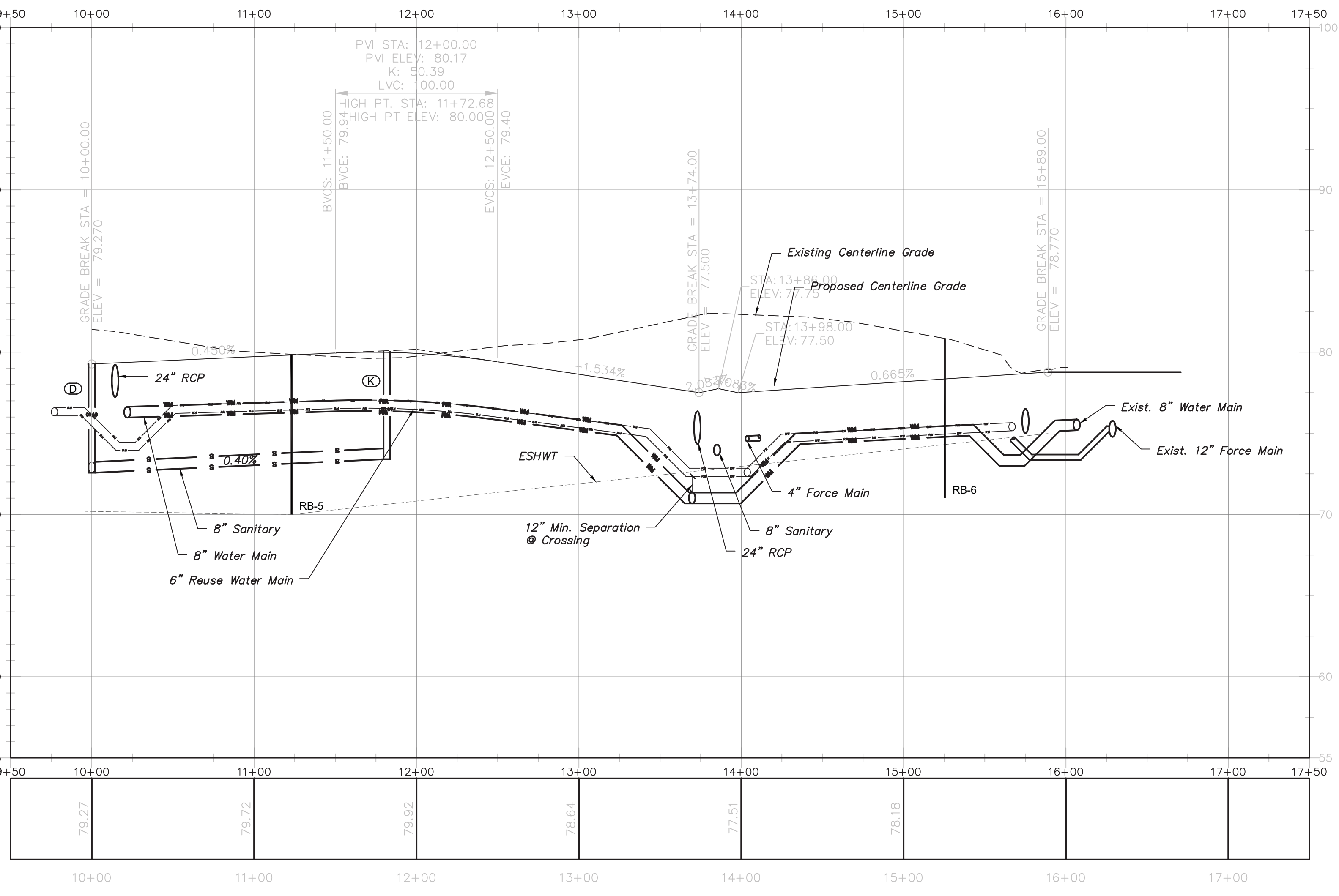
STORM PIPING				
PIPE RUN	Pipe Size (in)	Material	Length (ft)	Slope (%)
1 to 2	18	PP	26	0.20
2 to 4	24	PP	372	0.85
3 to 4	18	PP	26	0.20
4 to 5	24	PP	37	1.13
5 to 6	24	PP	54	0.28
6 to 10	24	PP	353	0.20
7 to 8	18	PP	26	0.20
8 to 9	24	PP	318	1.28
9 to 11	24	PP	65	0.20
10 to 11	24	PP	26	0.20
11 to 12	30	PP	142	0.20
12 to MES-2	30	PP	102	0.20
13 to MES-1	36	PP	28	0.20
DS-1A to MES-3	18	PP	40	1.00
MES-4 to MES-5	18	PP	100	1.00
DS-1 to MES-6	36	PP	78	1.00

PP - Polypropylene



SANITARY SEWER STRUCTURES			
Manhole	Station	Top El. (ft)	Inv. El. (ft)
A	41+64.00	99.44	N 92.44
B	43+00.00	94.79	S 87.79 N 87.69
C	45+00.00	87.57	S 80.57 N 80.67
D	47+30.00	79.27	E, S 72.67 N 72.57
E	50+00.00	76.52	S 69.62 N 69.52
F	50+55.86	76.26	SW 69.32 E 69.22
G	40+16.00	98.49	N 91.49
H	23+50.00	83.24	S 76.34 N 76.24
I	27+43.49	75.74	S 66.46 N 67.06
J	27+90.22	75.32	W, E 66.90 N 66.80
K	11+81.70	79.98	W 73.40
L/R Station	27+96.42, 52.9' Rt.	See Sheet 10	See Sheet 10

SANITARY SEWER PIPING			
Pipe Run	Length (ft)	Size & Material	Slope (%)
A to B	136	8" PVC (SDR 35)	3.42
B to C	200	8" PVC (SDR 35)	3.56
C to D	230	8" PVC (SDR 35)	3.48
D to E	270	8" PVC (SDR 35)	1.09
E to F	49	8" PVC (SDR 35)	0.40
F to J	391	8" PVC (SDR 35)	0.59
G to H	366	8" PVC (SDR 35)	4.14
H to I	392	8" PVC (SDR 35)	2.32
I to J	40	8" PVC (SDR 35)	0.40
K to D	182	8" PVC (SDR 35)	0.40
J to L/S	54	8" PVC (SDR 14)	1.00



DATE	REVISION
11/4/16	City Comments
6/21/17	City Comments
8/15/17	Grading Revisions

Plan & Profile
Binion Reserve

JEC june engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

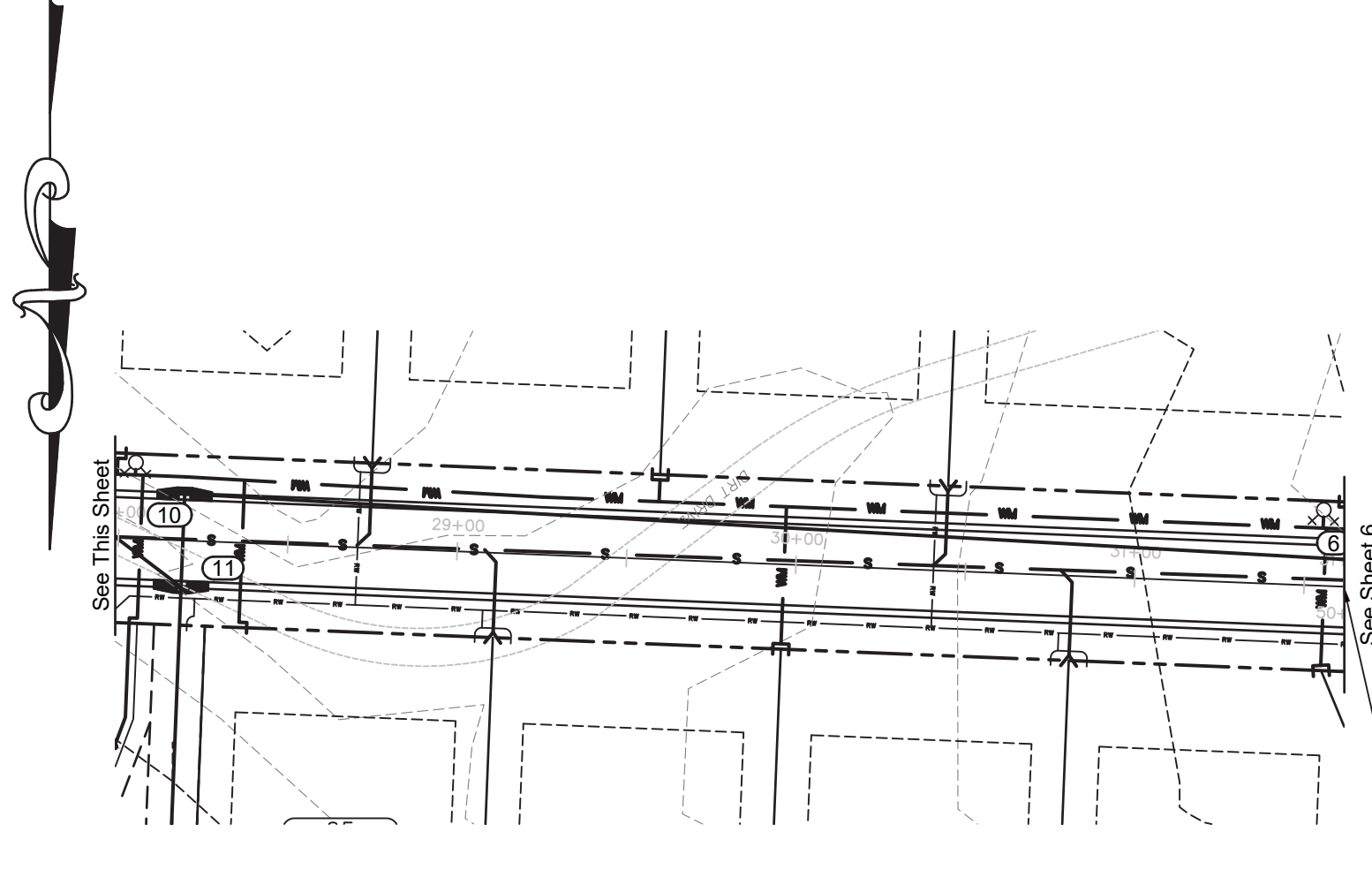
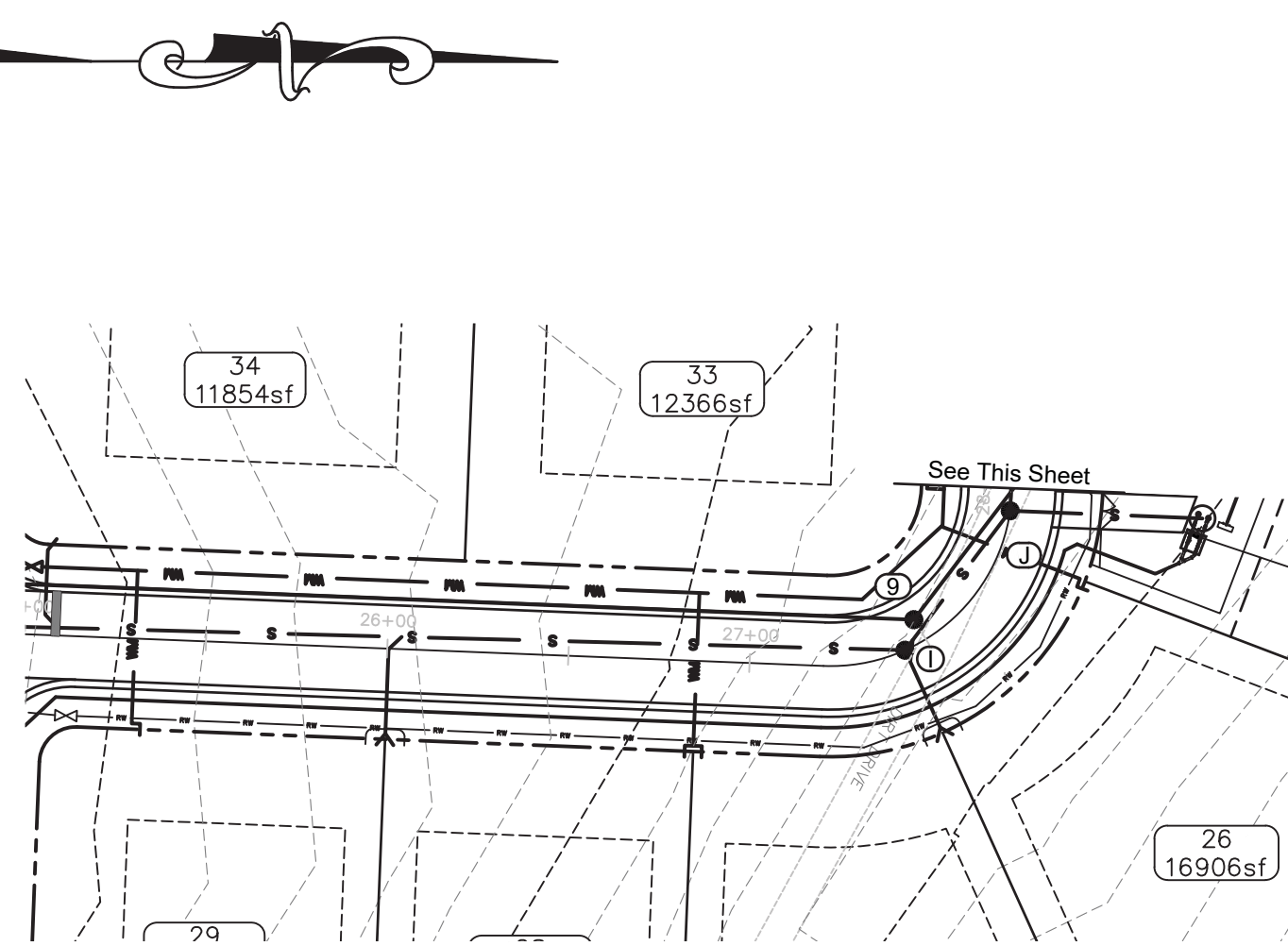
Certificate of Authorization #00031567

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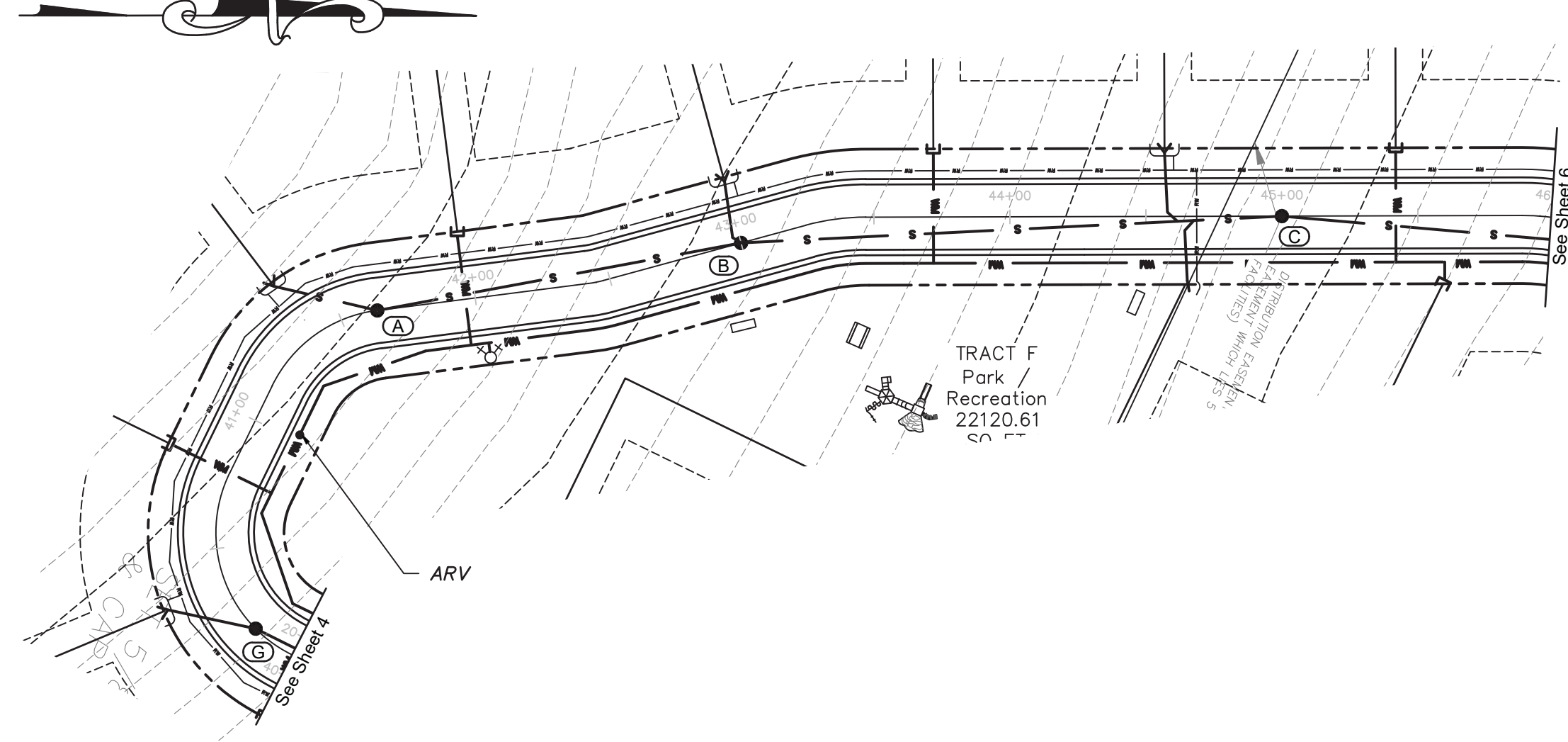
JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 4 OF 12

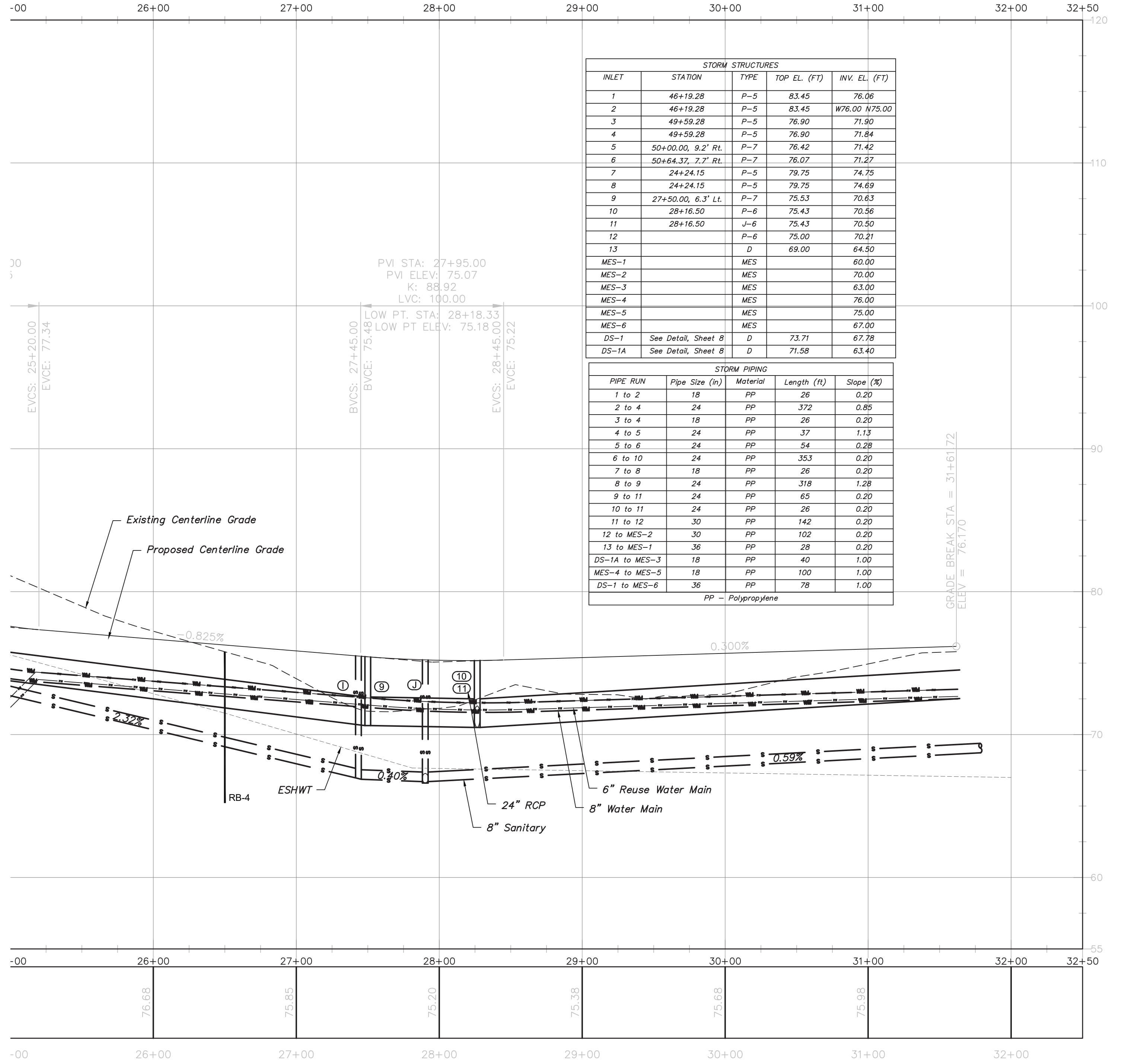
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Sta. 31+61.72 Summer Stone Loop =
Sta. 50+70.08 Summer Stone Loop



Summer Stone Loop

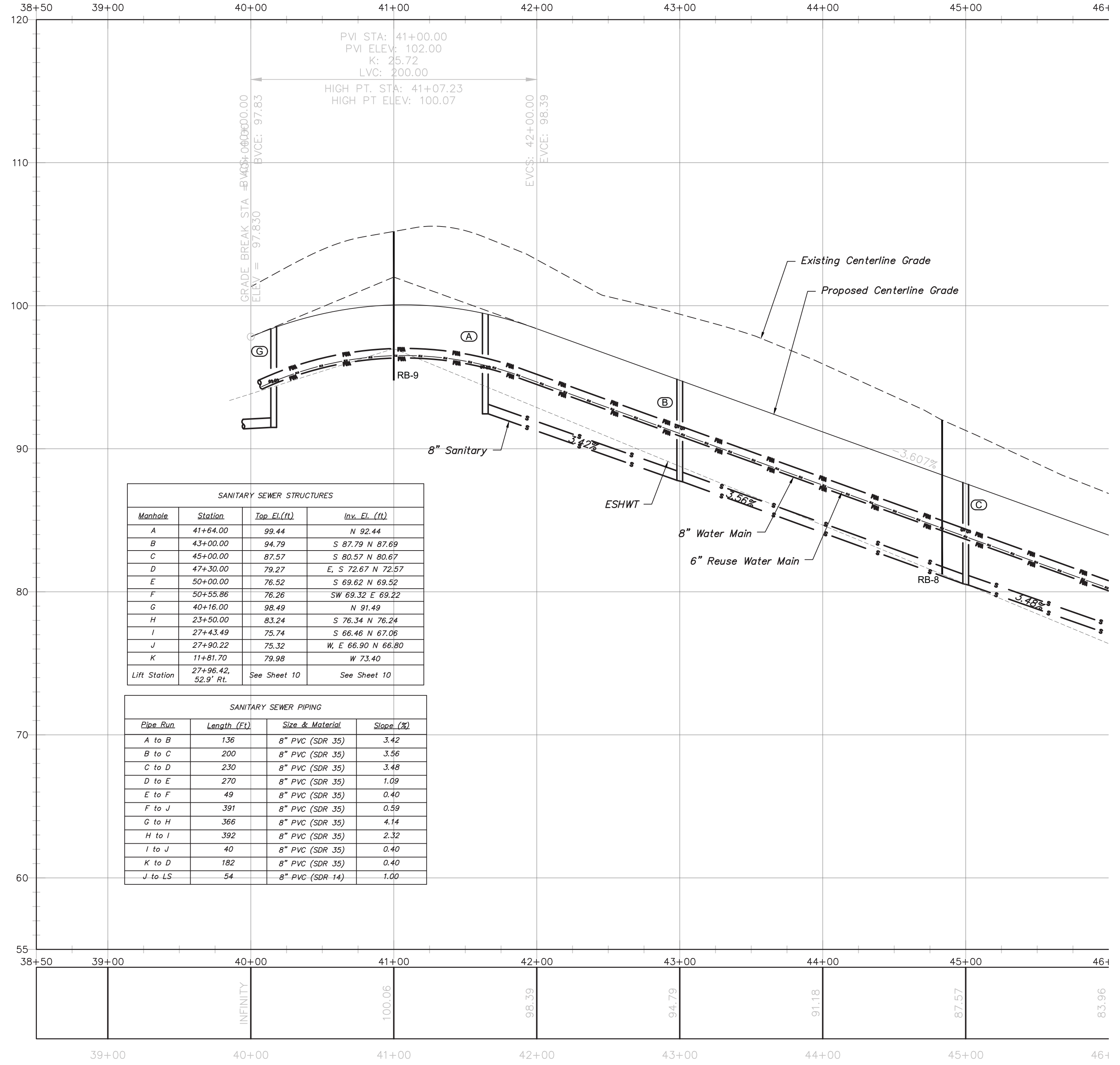


STORM STRUCTURES				
INLET	STATION	TYPE	TOP EL. (FT)	INV. EL. (FT)
1	46+19.28	P-5	83.45	76.06
2	46+19.28	P-5	83.45	W76.00 N75.00
3	49+59.28	P-5	76.90	71.90
4	49+59.28	P-5	76.90	71.84
5	50+00.00, 9.2' RL	P-7	76.42	71.42
6	50+64.37, 7.2' RL	P-7	76.07	71.27
7	24+24.15	P-5	79.75	74.75
8	24+24.15	P-5	79.75	74.69
9	27+50.00, 6.3' Lt.	P-7	75.53	70.63
10	28+16.50	P-6	75.43	70.56
11	28+16.50	J-6	75.43	70.50
12		P-6	75.00	70.21
13		D	69.00	64.50
MES-1		MES		60.00
MES-2		MES		70.00
MES-3		MES		63.00
MES-4		MES		76.00
MES-5		MES		75.00
MES-6		MES		67.00
DS-1	See Detail, Sheet 8	D	73.71	67.78
DS-1A	See Detail, Sheet 8	D	71.58	63.40

STORM PIPING				
PIPE RUN	Pipe Size (in)	Material	Length (ft)	Slope (%)
1 to 2	18	PP	26	0.20
2 to 4	24	PP	372	0.85
3 to 4	18	PP	26	0.20
4 to 5	24	PP	37	1.13
5 to 6	24	PP	54	0.28
6 to 10	24	PP	353	0.20
7 to 8	18	PP	26	0.20
8 to 9	24	PP	318	1.28
9 to 11	24	PP	65	0.20
10 to 11	24	PP	26	0.20
11 to 12	30	PP	142	0.20
12 to MES-2	30	PP	102	0.20
13 to MES-1	36	PP	28	0.20
DS-1A to MES-3	18	PP	40	1.00
MES-4 to MES-5	18	PP	100	1.00
DS-1 to MES-6	36	PP	78	1.00

PP - Polypropylene

Summer Stone Loop



SANITARY SEWER STRUCTURES				
Manhole	Station	Top El. (ft)	Inv. El. (ft)	
A	41+64.00	99.44	N 92.44	
B	43+00.00	94.79	S 87.79 N 87.69	
C	45+00.00	87.57	S 80.57 N 80.67	
D	47+30.00	79.27	E, S 72.67 N 72.57	
E	50+00.00	76.52	S 69.62 N 69.52	
F	50+55.86	76.26	SW 69.32 E 69.32	
G	40+16.00	98.49	N 91.49	
H	23+50.00	83.24	S 76.34 N 76.24	
I	27+43.49	75.74	S 66.46 N 67.06	
J	27+90.22	75.32	W, E 66.90 N 66.80	
K	11+81.70	79.98	W 73.40	
Lift Station	27+96.42, 52.9' RL	See Sheet 10	See Sheet 10	

SANITARY SEWER PIPING			
Pipe Run	Length (ft)	Size & Material	Slope (%)
A to B	136	8" PVC (SDR 35)	3.42
B to C	200	8" PVC (SDR 35)	3.56
C to D	230	8" PVC (SDR 35)	3.48
D to E	270	8" PVC (SDR 35)	1.09
E to F	49	8" PVC (SDR 35)	0.40
F to J	391	8" PVC (SDR 35)	0.59
G to H	366	8" PVC (SDR 35)	4.14
H to I	392	8" PVC (SDR 35)	2.32
I to J	40	8" PVC (SDR 35)	0.40
K to D	182	8" PVC (SDR 35)	0.40
J to LS	54	8" PVC (SDR 14)	1.00

DATE	REVISION
11/4/16	City Comments
6/21/17	City Comments
8/15/17	Grading Revisions

Plan & Profile
Binion Reserve

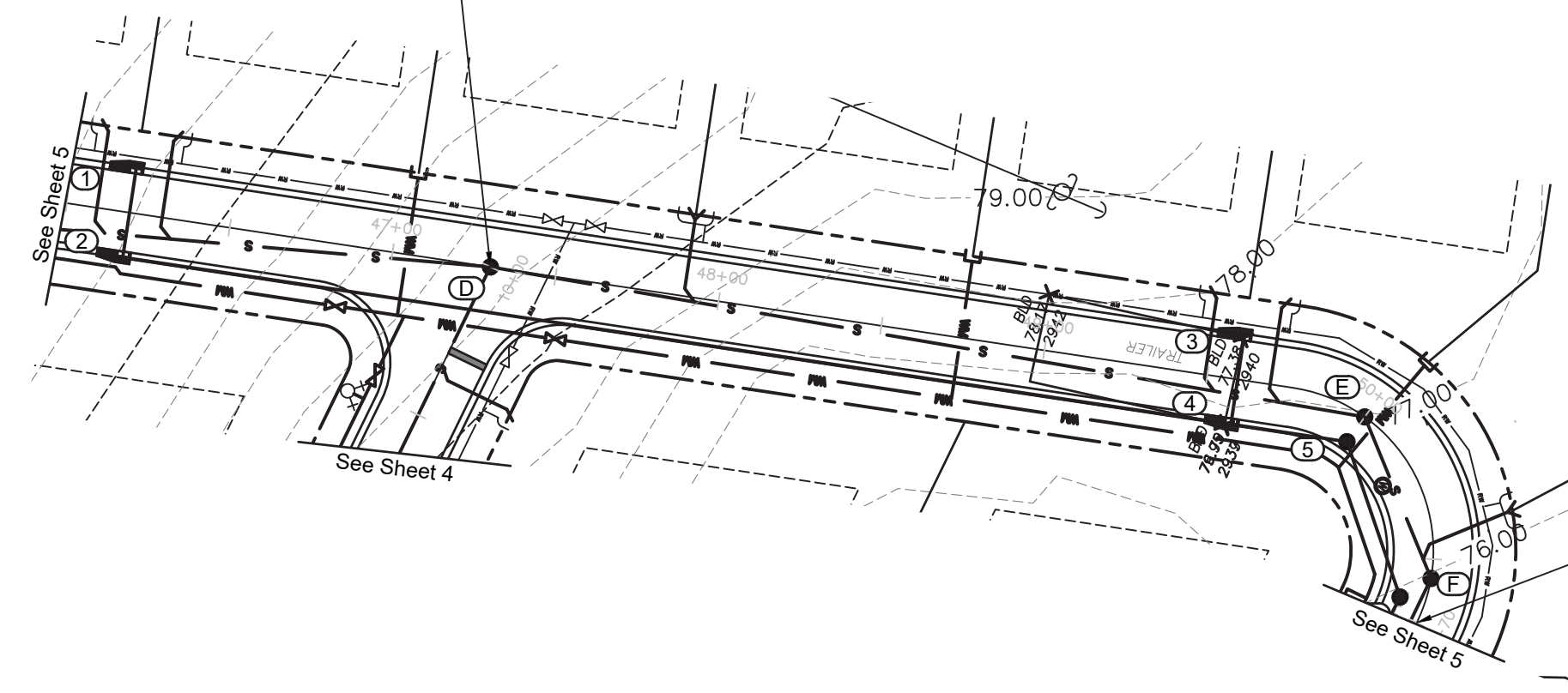
JEC june engineering consultants, inc.
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JEFFREY A. SEDLOFF
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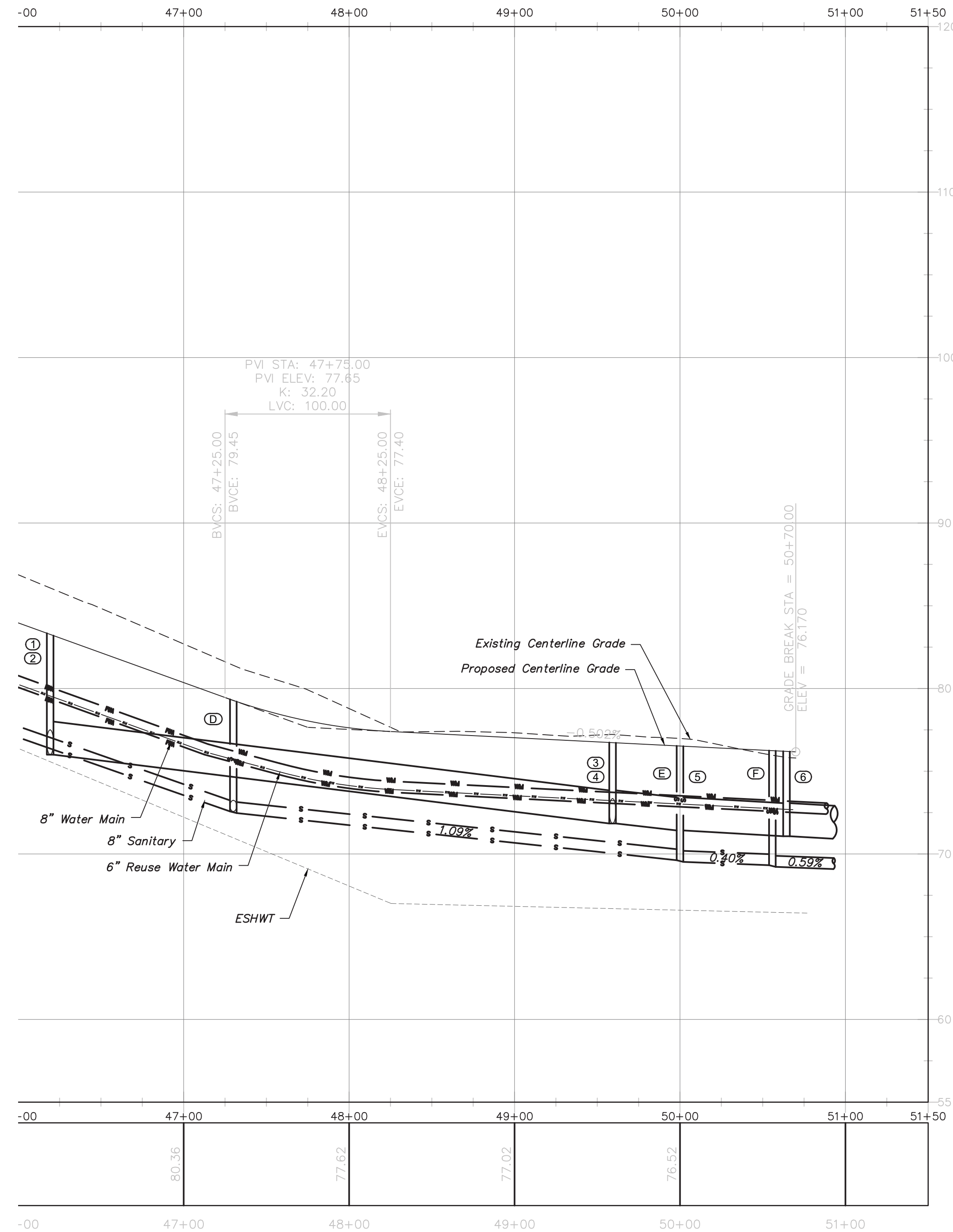
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SHEET 5 OF 11

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Sta. 47+29.99 Summer Stone Loop =
Sta. 10+00.00 Spring Grove Street



Sta. 50+70.08 Summer Stone Loop =
Sta. 31+61.72 Summer Stone Loop



STORM STRUCTURES				
INLET	STATION	TYPE	TOP EL. (FT)	INV. EL. (FT)
1	46+19.28	P-5	83.45	76.06
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13		D	69.00	64.50
MES-1		MES		60.00
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5 to 6	24	PP	54	0.28
6 to 10	24	PP	353	0.20
7 to 8	18	PP	26	0.20
8 to 9	24	PP	316	1.28
9 to 11	24	PP	65	0.20
10 to 11	24	PP	26	0.20
11 to 12	30	PP	142	0.20
12 to MES-2	30	PP	102	0.20
13 to MES-1	36	PP	28	0.20
DS-1A to MES-3	18	PP	40	1.00
MES-4 to MES-5	18	PP	100	1.00
DS-1 to MES-6	36	PP	78	1.00

PP - Polypropylene

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E	50+00.00	76.52	S 69.62 N 69.52
F	50+55.88	76.26	SW 69.32 E 69.22
G	40+16.00	98.49	N 91.49
H	23+50.00	83.24	S 76.34 N 76.24
I	27+43.49	75.74	S 66.46 N 67.06
J	27+90.22	75.32	W, E 66.90 N 66.80
K	11+81.70	79.98	W 73.40
Lift Station	27+96.42, 52.9' RL	See Sheet 10	See Sheet 10

SANITARY SEWER PIPING			
Pipe Run	Length (ft)	Size & Material	Slope (%)
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G to H	366	8" PVC (SDR 35)	4.14
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I to J	40	8" PVC (SDR 35)	0.40
K to D	182	8" PVC (SDR 35)	0.40
J to LS	54	8" PVC (SDR 14)	1.00

DATE	REVISION
11/4/16	City Comments
6/21/17	City Comments
8/15/17	Grading Revisions

Plan & Profile
Binion Reserve



june engineering
consultants, inc.

32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

Certificate of Authorization #00031567

DRAWN BY: CLK
DATE: 7/12/16

CHECKED BY: RAJ
DATE: 7/12/16

SCALE
1" = 50'

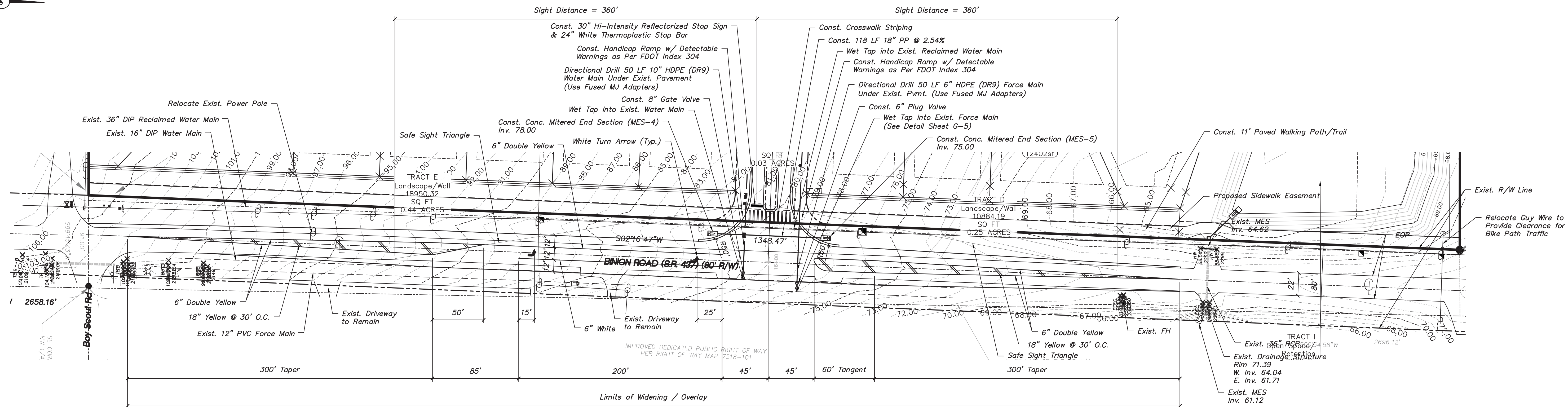
JEFFREY A. SEDLOFF
PE# 51506

JOB NO.
14-0460

SHEET

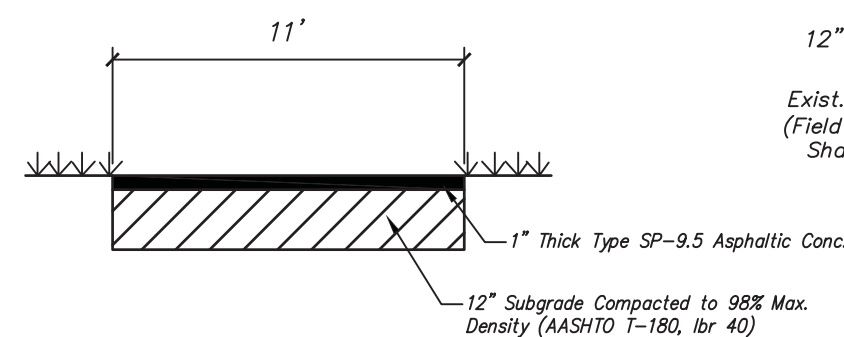
6

OF 11

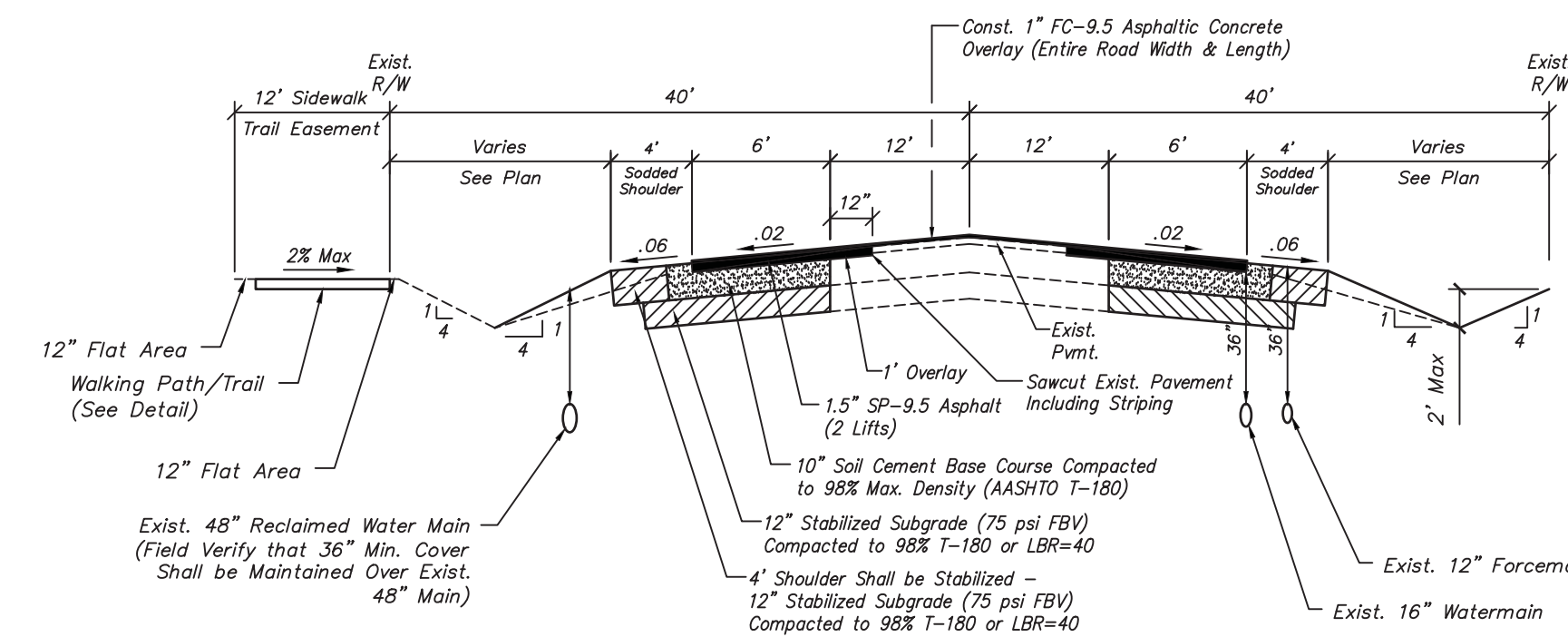


Sheet Notes:

1. All striping shall conform to FDOT index No. 17346 and shall be thermoplastic with reflective pavement markers.
2. Turn lanes were designed based on a design speed of 45mph.
3. Use FDOT Index 526, Sheet 2 of 8 for roadway transitions, design speed = 45mph, center widening.
4. Use FDOT Index 301 for turn lanes, design speed = 45mph.
5. The contractor shall locate the exact location of the existing utilities on Binion Road (CR 437) prior to construction.
6. Binion Road is operated and maintained by Orange County. Driveway connection to Binion Road will require an Orange County permit and compliance to their standards.
7. The Contractor shall be responsible for any relocate of any City of Apopka Utilities that are found to be in conflict with the Binion Road Right-of-Way Work Proposed for this Project.



WALKING PATH / TRAIL TYPICAL SECTION
N.T.S.



TYPICAL PAVEMENT WIDENING SECTION
N.T.S.

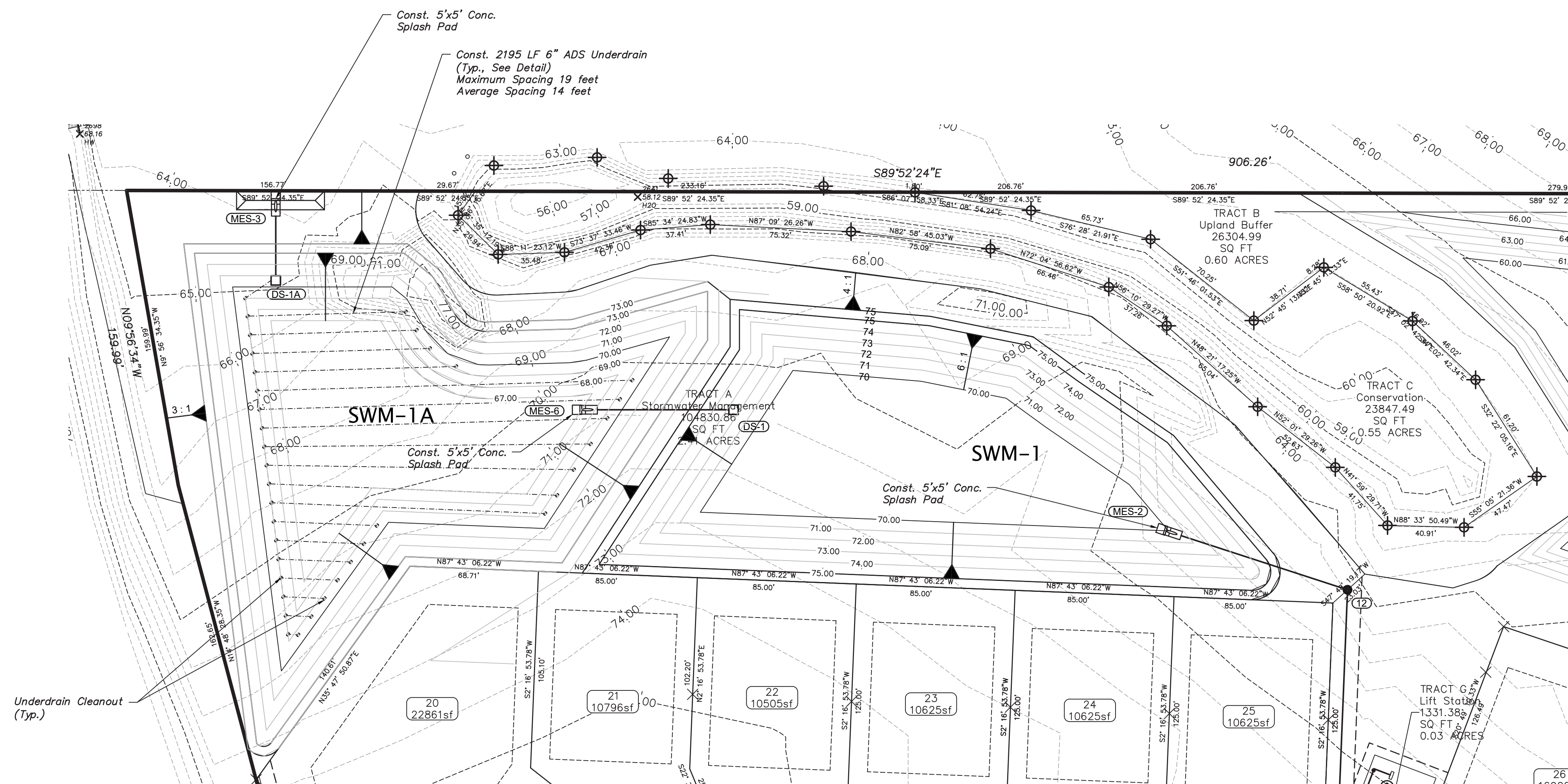
DATE	REVISION
11/4/16	City Comments
12/8/16	County Comments
4/26/17	City Comments
8/15/17	Grading Revisions

Offsite Improvements
Binion Reserve

JEC june engineering consultants, inc.
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Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 50'
DATE: 7/12/16 DATE: 7/12/16

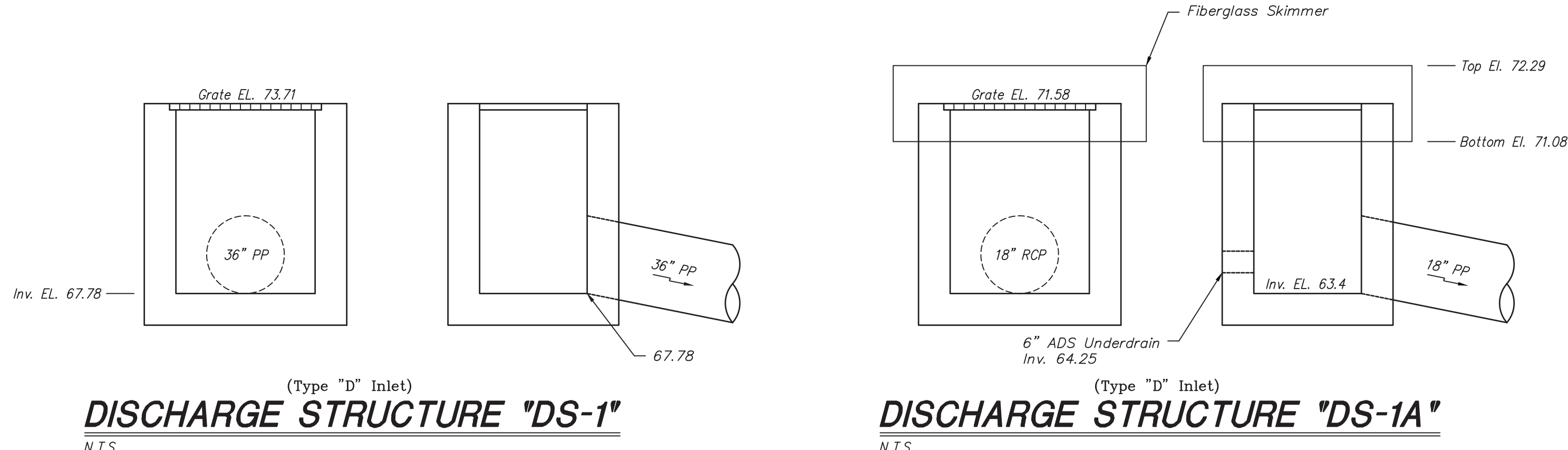
JEFFREY A. SEDLOFF
PE# 51506



STORM STRUCTURES				
INLET	STATION	TYPE	TOP EL. (FT)	INV. EL. (FT)
1	46+19.28	P-5	83.45	76.06
2	46+19.28	P-5	83.45	W76.00 N75.00
3	49+59.28	P-5	76.90	71.90
4	49+59.28	P-5	76.90	71.84
5	50+00.00, 9.2' Rt.	P-7	76.42	71.42
6	50+64.37, 7.7' Rt.	P-7	76.07	71.27
7	24+24.15	P-5	79.75	74.75
8	24+24.15	P-5	79.75	74.69
9	27+50.00, 6.3' Lt.	P-7	75.53	70.63
10	28+16.50	P-6	75.43	70.56
11	28+16.50	J-6	75.43	70.50
12	28+16.50	P-6	75.00	70.21
13		D	69.00	64.50
MES-1		MES		60.00
MES-2		MES		70.00
MES-3		MES		63.00
MES-4		MES		76.00
MES-5		MES		75.00
MES-6		MES		67.00
DS-1	See Detail, Sheet 8	D	73.71	67.78
DS-1A	See Detail, Sheet 8	D	71.58	63.40

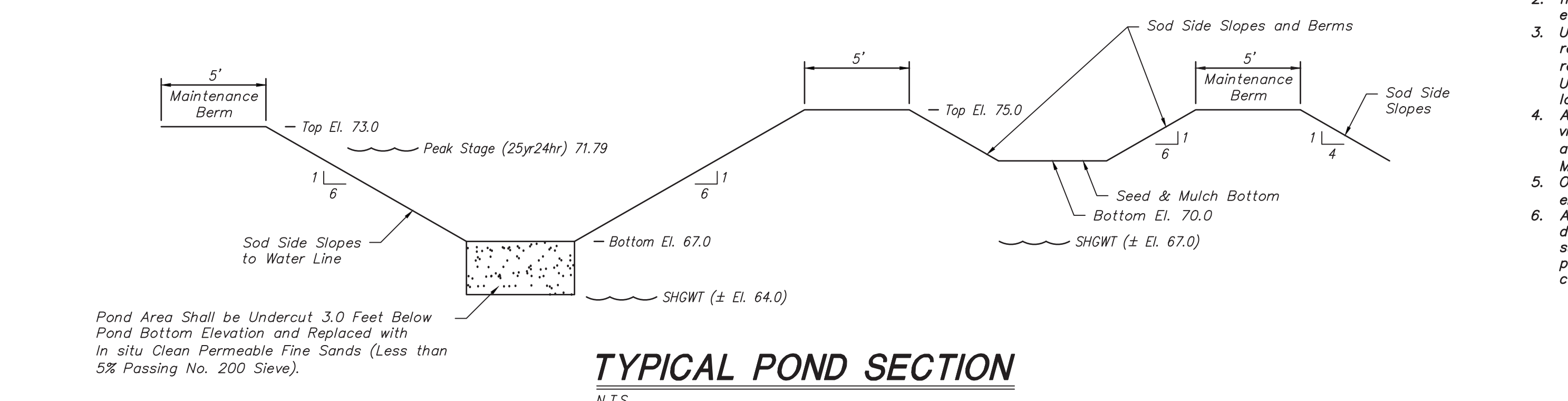
STORM PIPING				
PIPE RUN	Pipe Size (in)	Material	Length (ft)	Slope (%)
1 to 2	18	PP	26	0.20
2 to 4	24	PP	372	0.85
3 to 4	18	PP	26	0.20
4 to 5	24	PP	37	1.13
5 to 6	24	PP	54	0.28
6 to 10	24	PP	353	0.20
7 to 8	18	PP	26	0.20
8 to 9	24	PP	318	1.28
9 to 11	24	PP	65	0.20
10 to 11	24	PP	26	0.20
11 to 12	30	PP	142	0.20
12 to MES-2	30	PP	102	0.20
13 to MES-1	36	PP	28	0.20
DS-1A to MES-3	18	PP	40	1.00
MES-4 to MES-5	18	PP	100	1.00
DS-1 to MES-6	36	PP	78	1.00

PP - Polypropylene



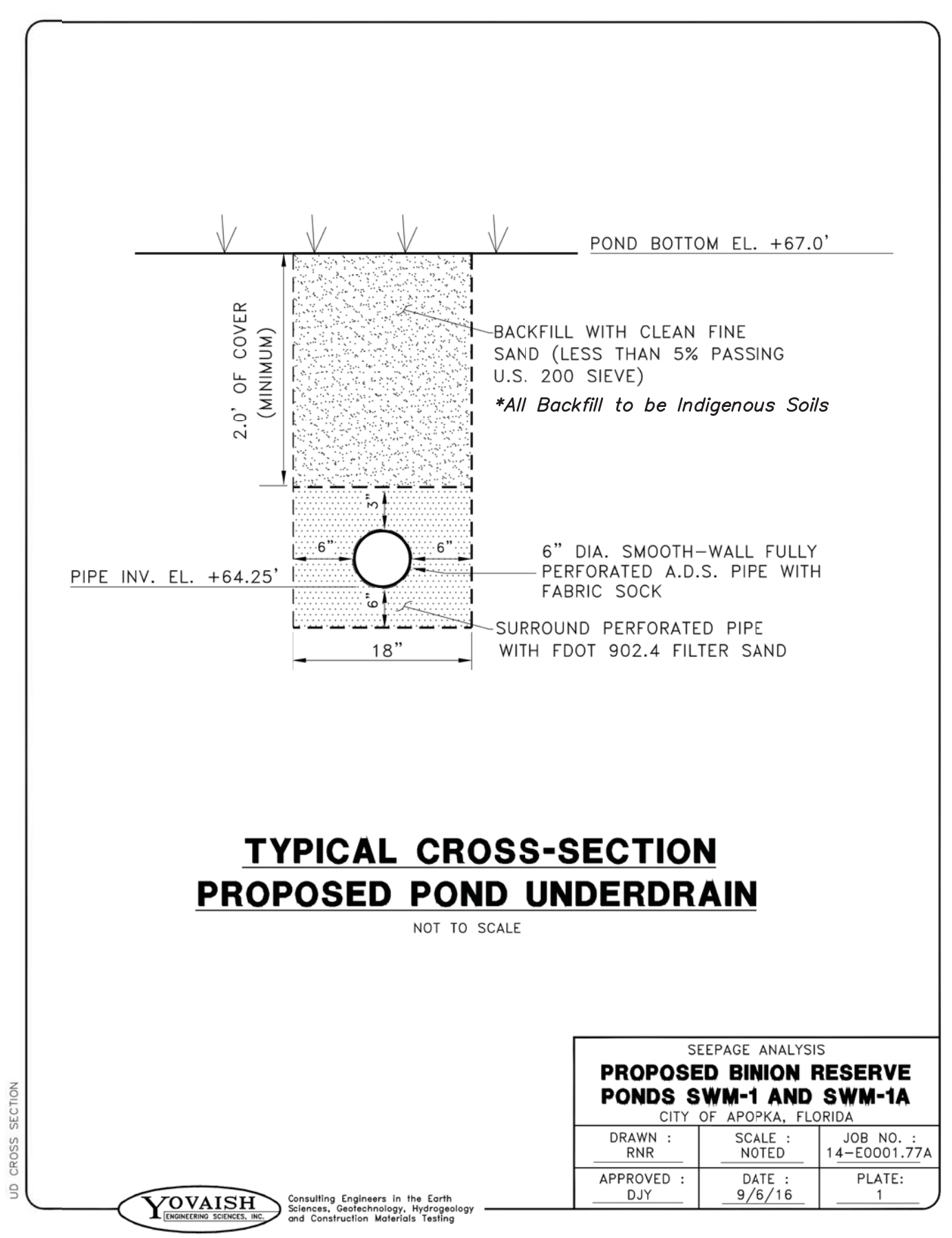
(Type "D" Inlet) **DISCHARGE STRUCTURE "DS-1"** N.T.S.

(Type "D" Inlet) **DISCHARGE STRUCTURE "DS-1A"** N.T.S.



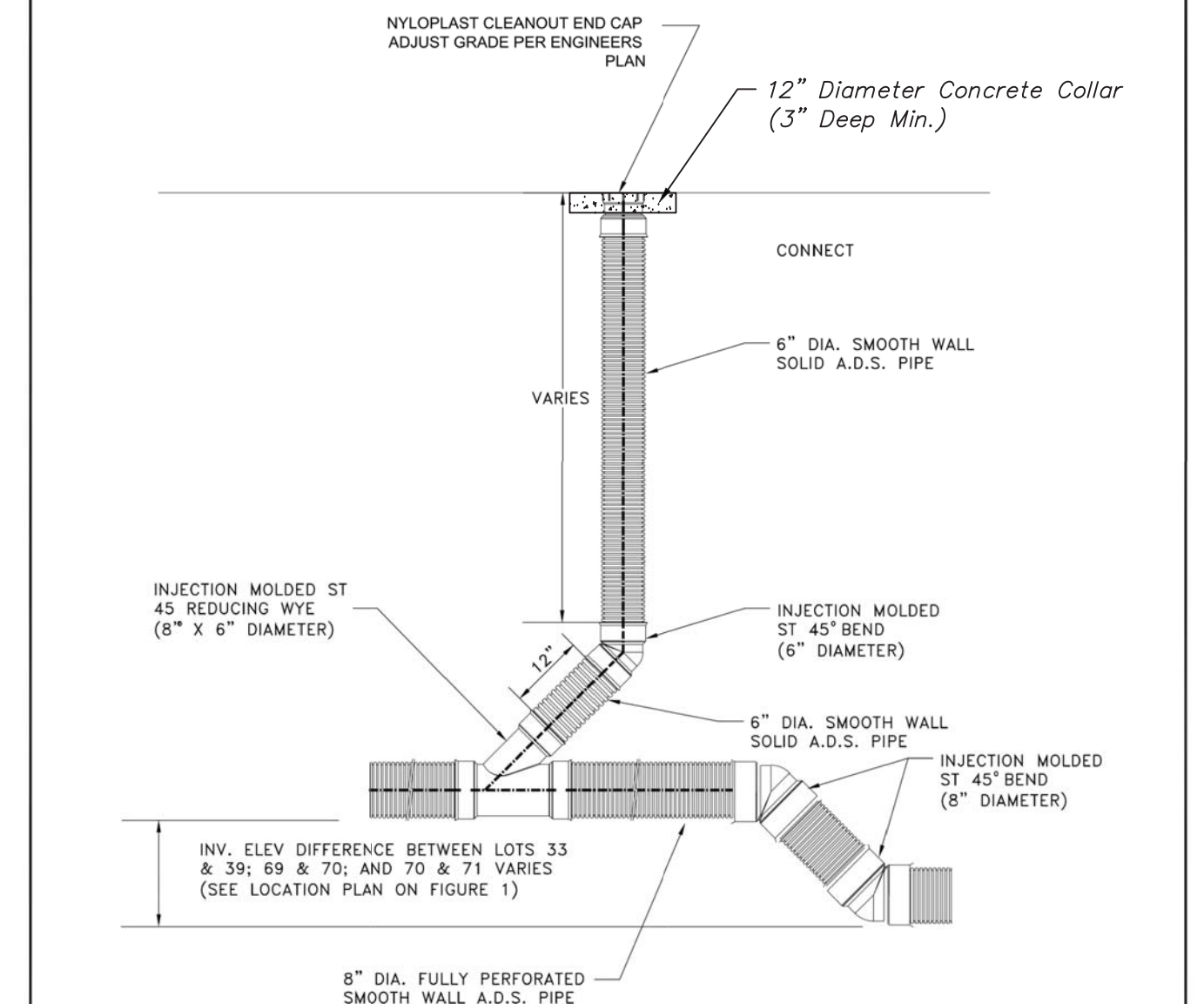
TYPICAL POND SECTION N.T.S.

Pond Area Shall be Undercut 3.0 Feet Below Pond Bottom Elevation and Replaced with In situ Clean Permeable Fine Sands (Less than 5% Passing No. 200 Sieve).



TYPICAL CROSS-SECTION PROPOSED POND UNDERDRAIN NOT TO SCALE

SEEPAGE ANALYSIS		
PROPOSED BINION RESERVE PONDS SWM-1 AND SWM-1A		
CITY OF APOPKA, FLORIDA		
DRAWN : RNR	SCALE : NOTED	JOB NO. : 14-E0001.77A
APPROVED : DJY	DATE : 9/6/16	PLATE : 1



TYPICAL CROSS-SECTION UNDERDRAIN CLEANOUT NOT TO SCALE

GEOTECHNICAL EVALUATIONS		
REPORTED GROUNDWATER SEEPAGE		
CITY OF APOPKA, FLORIDA		
DRAWN : RNR	SCALE : NOTED	JOB NO. : 16-E0001.87
APPROVED : DJY	DATE : 6/13/16	PLATE : 2

- Earthen Berm Construction Recommendations: As input to our stability evaluations, we prepared the following recommendations for the construction of the pond berms.
- The entire berm construction area(s), including a minimum margin of 3 feet beyond the perimeter of the berm should be cleared and stripped; removing all existing vegetation, topsoil and other deleterious material.
 - The stripped area should be proof-rolled using proper construction equipment.
 - Upon approval by the Geotechnical Engineer and/or his designated representative, the cleared surface below the berm may be filled with relatively clean granular sands (less than 15 percent fines passing the U.S. No. 200 Sieve), and placed in level lifts not to exceed 12 inches loose and compacted as outlined below.
 - A sufficient number of overlapping passes should be made by the vibratory roller across the filled area in order to compact the fill soil to a minimum density equivalent to 95 percent of the soil's Maximum Modified Proctor Density Value (ASTM D-1557).
 - Once the berm has been filled and compacted to its design elevation/grades, appropriate erosion control shall be provided.
 - A Soil Engineer from Yovaish Engineering Services, LLC, or his designated representative should inspect and test all compacted surfaces to determine that the in-place natural and fill soils are properly densified and proper documentation of the required minimum compaction criteria can be provided.

DATE	REVISION
10/27/16	SJRWD Comments
11/4/16	City Comments
12/20/16	SJRWD Comments
1/3/17	City Comments
8/15/17	Grading Revisions

Stormwater Management
Binion Reserve

JEC june engineering consultants, inc.
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Certificate of Authorization #00031567

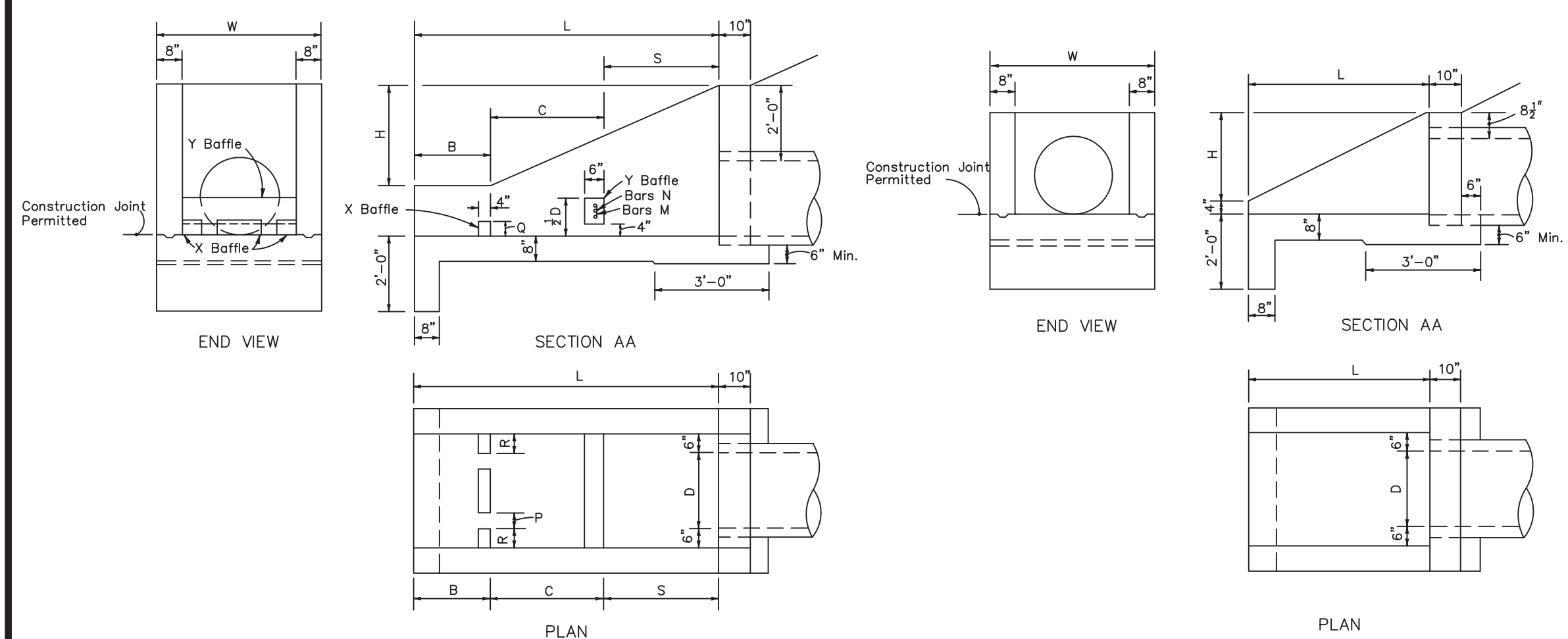
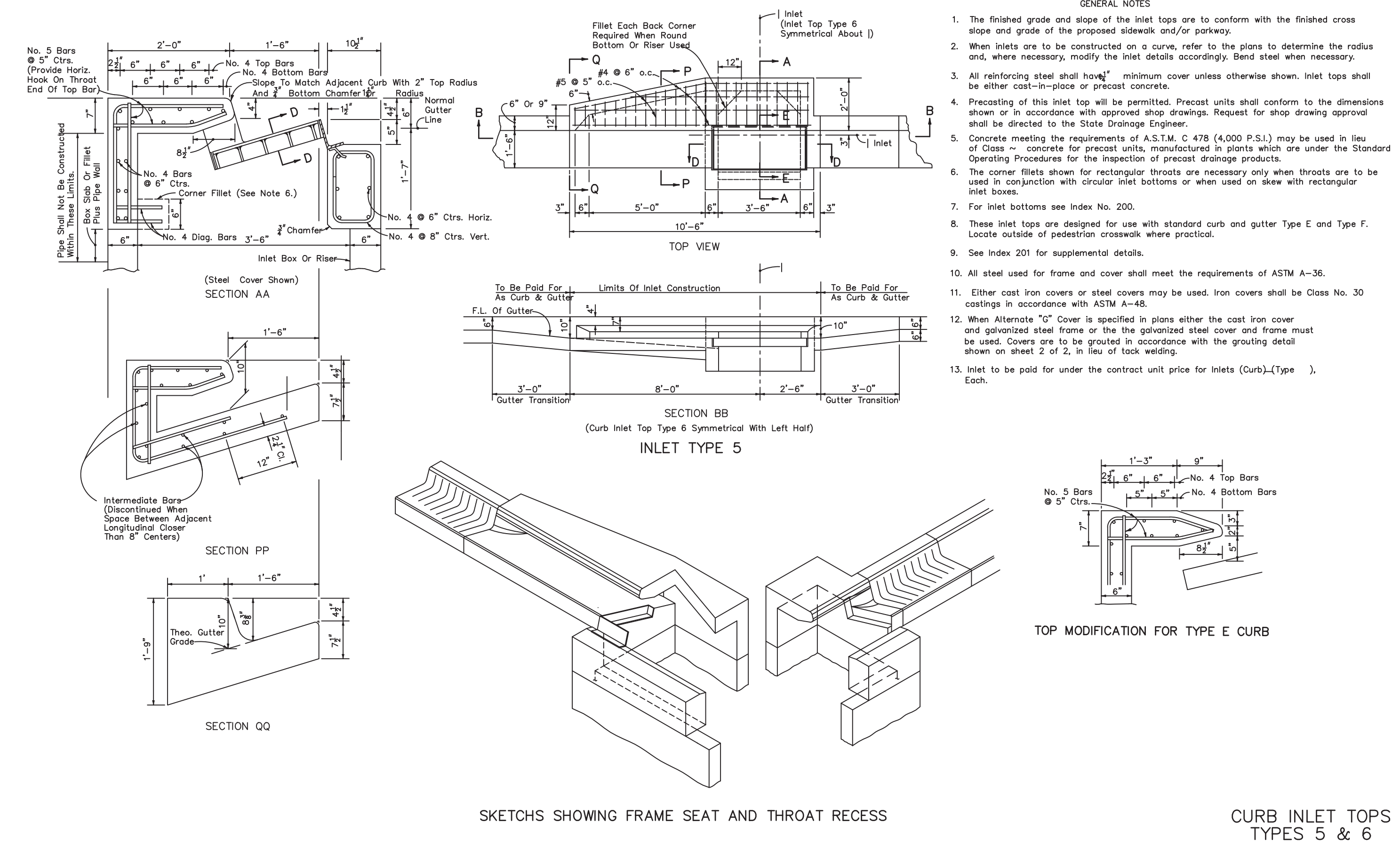
DRAWN BY: CLK
DATE: 7/12/16

CHECKED BY: RAJ
DATE: 7/12/16

SCALE: 1" = 40'

JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 8 OF 11

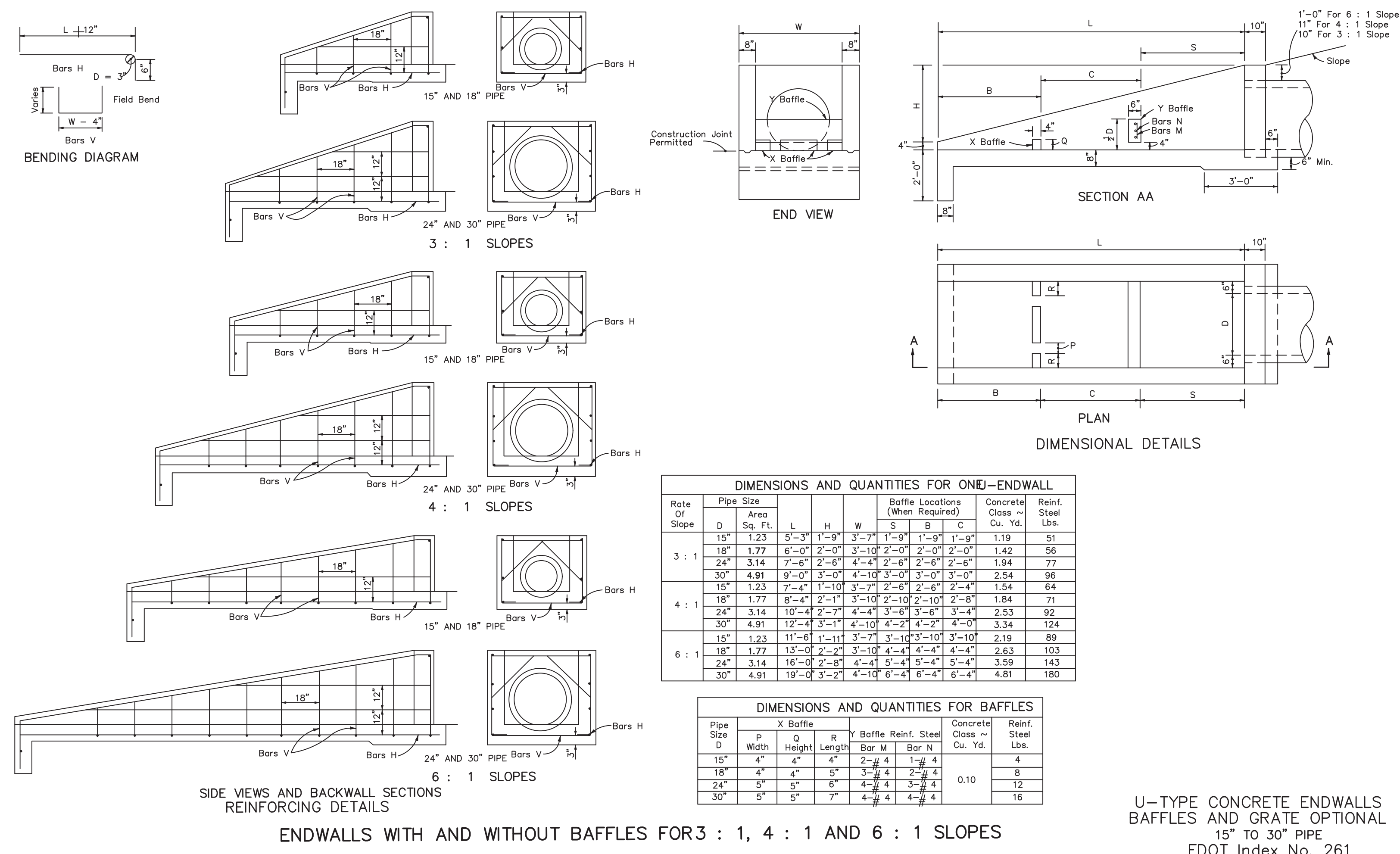


DIMENSIONS AND QUANTITIES FOR ONE U-ENDWALL

Pipe Size	D	Area Sq. Ft.	L	H	W	S	B	C	P	Q	R	Bar M	Bar N	Concrete Class ~ Cu. Yd.	Reinf. Steel Lbs.
15"	1.23	5'-9"	2'-3"	3'-7"	2'-3"	1'-3"	2'-3"	4"	4"	4"	2 #4	1 #4	1.81	72	
18"	1.77	8'-6"	2'-5"	3'-10"	2'-6"	1'-8"	2'-6"	4"	4"	5"	3 #4	2 #4	1.89	86	
24"	3.14	8'-0"	2'-8"	4'-4"	3'-0"	2'-0"	3'-0"	5"	5"	6"	4 #4	3 #4	2.52	108	
30"	4.91	9'-6"	2'-11"	4'-10"	3'-6"	2'-6"	3'-6"	5"	5"	7"	4 #4	4 #4	3.34	131	

DIMENSIONS AND QUANTITIES FOR ONE U-ENDWALL

Pipe Size	D	Area Sq. Ft.	L	H	W	Concrete Class ~ Cu. Yd.	Reinf. Steel Lbs.
15"	1.23	3'-3"	1'-7"	3'-7"	0.89	39	
18"	1.77	3'-9"	1'-10"	3'-10"	1.05	43	
24"	3.14	4'-9"	2'-4"	4'-4"	1.40	55	
30"	4.91	5'-9"	2'-10"	4'-10"	1.88	64	



DIMENSIONS AND QUANTITIES FOR ONE U-ENDWALL

Rate of Slope	Pipe Size	D	Area Sq. Ft.	L	H	W	S	B	C	P	Q	R	Bar M	Bar N	Concrete Class ~ Cu. Yd.	Reinf. Steel Lbs.
3 : 1	15"	1.23	5'-3"	1'-9"	3'-7"	1'-9"	1'-9"	1'-9"	1'-9"	1.19	51					
	18"	1.77	6'-0"	2'-0"	3'-10"	2'-0"	2'-0"	2'-0"	1.42	56						
	24"	3.14	7'-6"	2'-6"	4'-4"	2'-6"	2'-6"	1.94	77							
	30"	4.91	9'-0"	3'-0"	4'-10"	3'-0"	3'-0"	2.54	96							
4 : 1	15"	1.23	3'-4"	1'-10"	3'-7"	2'-6"	2'-4"	1.54	64							
	18"	1.77	4'-4"	2'-1"	3'-10"	2'-10"	2'-8"	1.84	71							
	24"	3.14	5'-4"	2'-7"	4'-4"	3'-6"	3'-4"	2.53	92							
	30"	4.91	6'-4"	3'-1"	4'-10"	4'-2"	4'-0"	3.34	124							
6 : 1	15"	1.23	1'-6"	1'-11"	3'-7"	3'-10"	3'-10"	2.19	89							
	18"	1.77	1'-3"	2'-7"	3'-10"	4'-4"	4'-4"	2.63	103							
	24"	3.14	1'-6"	2'-8"	4'-4"	5'-4"	5'-4"	3.59	143							
	30"	4.91	1'-9"	3'-2"	4'-10"	6'-4"	6'-4"	4.81	180							

DIMENSIONS AND QUANTITIES FOR BAFFLES

Pipe Size	D	Width	X Baffle Height	Y Baffle Length	Reinf. Bar M	Reinf. Bar N	Concrete Class ~ Cu. Yd.	Reinf. Steel Lbs.
15"	4"	4"	4"	2'-4"	2 #4	4	4	4
18"	4"	4"	5"	2'-4"	2 #4	4	4	4
24"	5"	5"	6"	4'-4"	4 #4	4	0.10	8
30"	5"	5"	7"	4'-4"	4 #4	4	12	16

DATE	REVISION

Detail Sheet

Binion Reserve

JEC
june engineering
consultants, inc.

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Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232

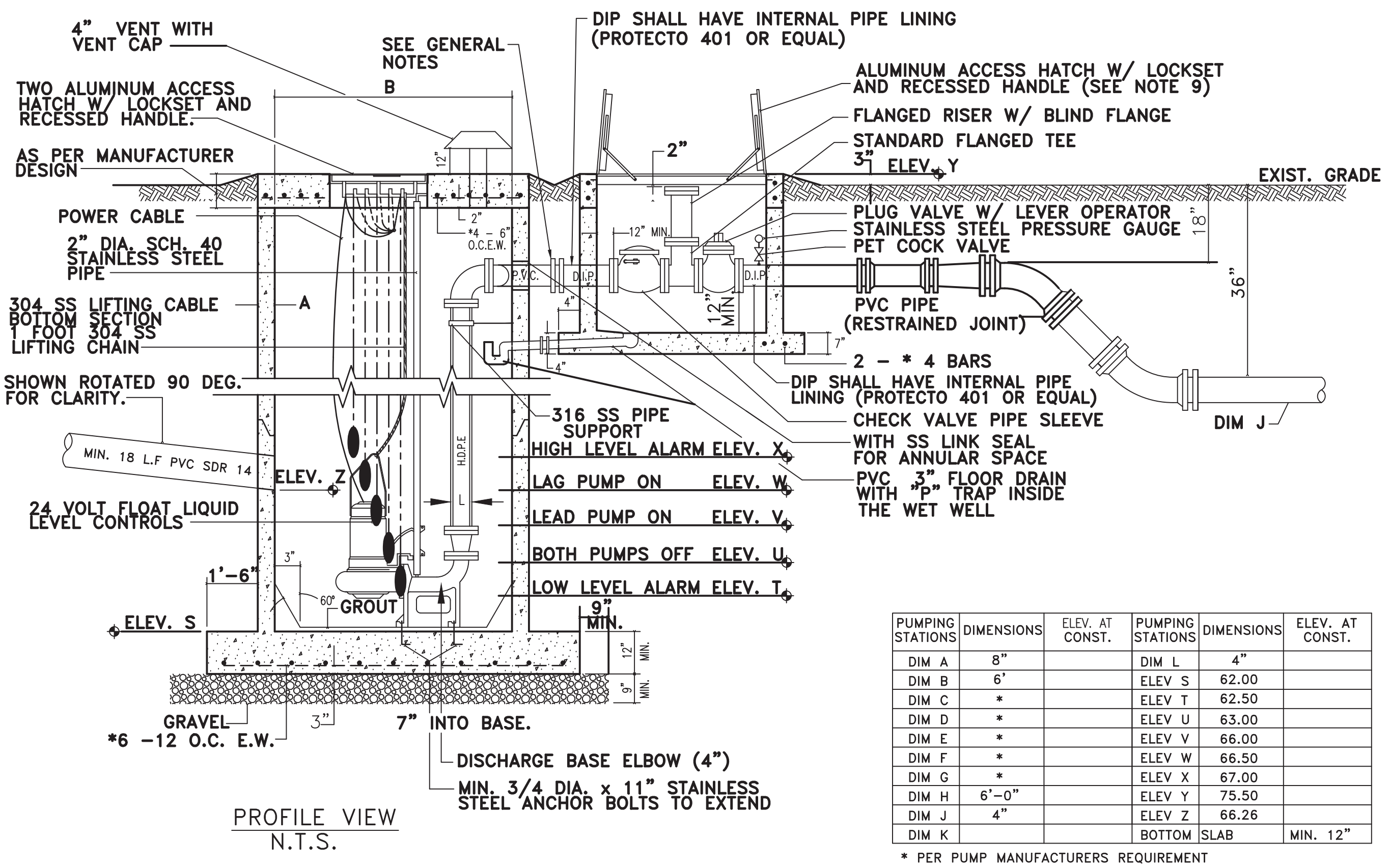
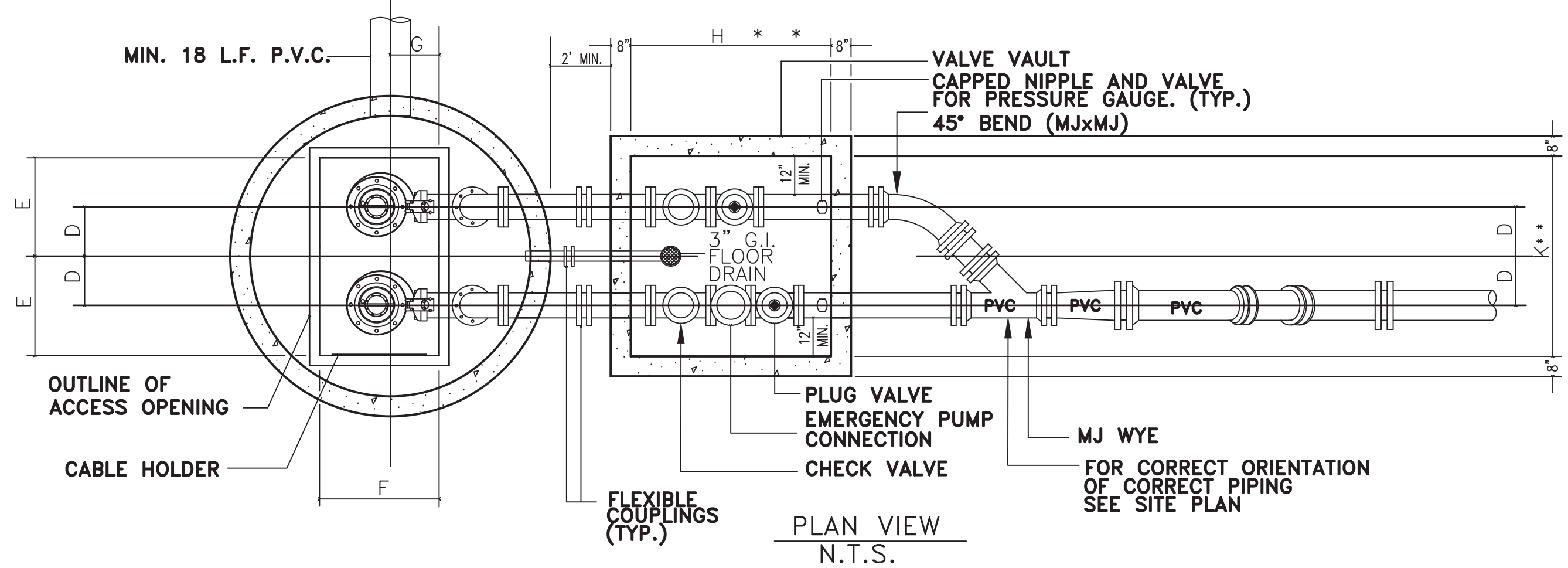
Certificate of Authorization #00031567

DRAWN BY: CLK CHECKED BY: RAJ SCALE: N.T.S.
DATE: 7/12/16 DATE: 7/12/16

JEFFREY A. SEDLOFF
PE# 51506

JOB NO. 14-0460
SHEET 9 OF 11

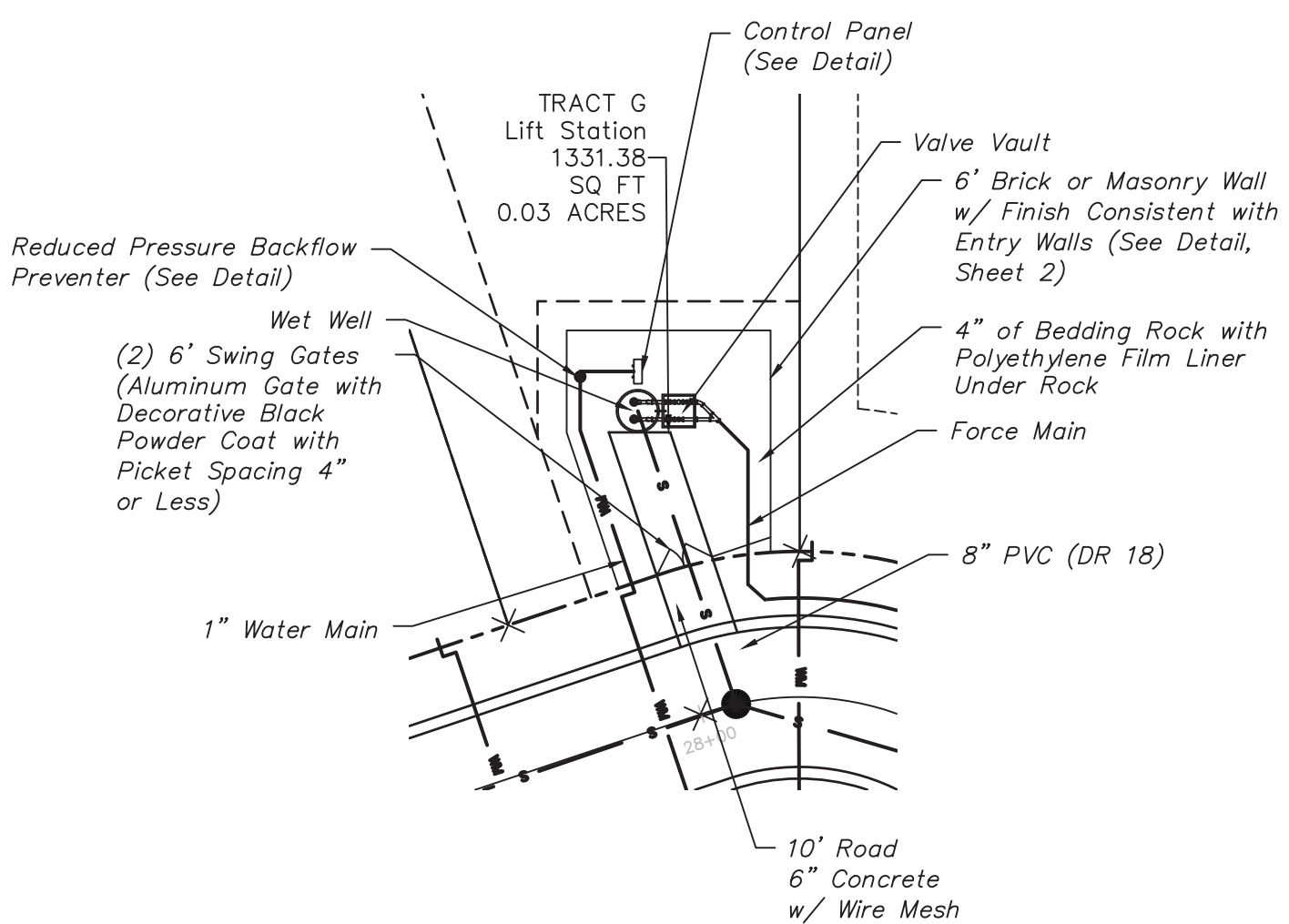
K:\ACTIVE_JOBS\0460_Binion Reserve Final Plans with Revised Foundation, 2/8/2018, 2:55:59 PM



PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.	PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.
DIM A	8"		DIM L	4"	
DIM B	6"	ELEV. S	62.00		
DIM C	*	ELEV. T	62.50		
DIM D	*	ELEV. U	63.00		
DIM E	*	ELEV. V	66.00		
DIM F	*	ELEV. W	66.50		
DIM G	*	ELEV. X	67.00		
DIM H	6'-0"	ELEV. Y	75.50		
DIM J	4"	ELEV. Z	66.26		
DIM K		BOTTOM SLAB	MIN. 12"		

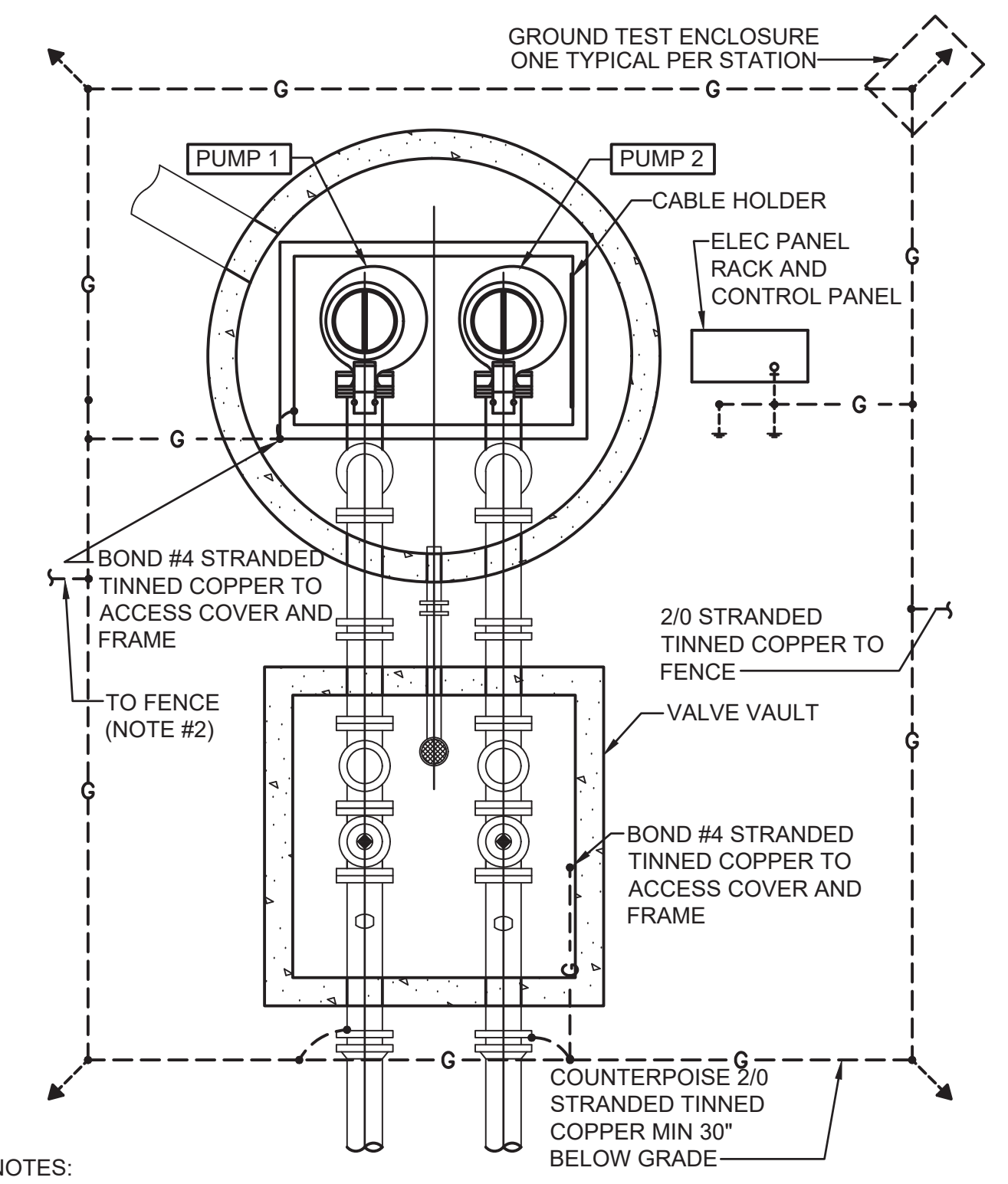
* PER PUMP MANUFACTURERS REQUIREMENT

PUMP STATION DETAILS
PLANS, SECTION, AND NOTES
(FIG. 301)



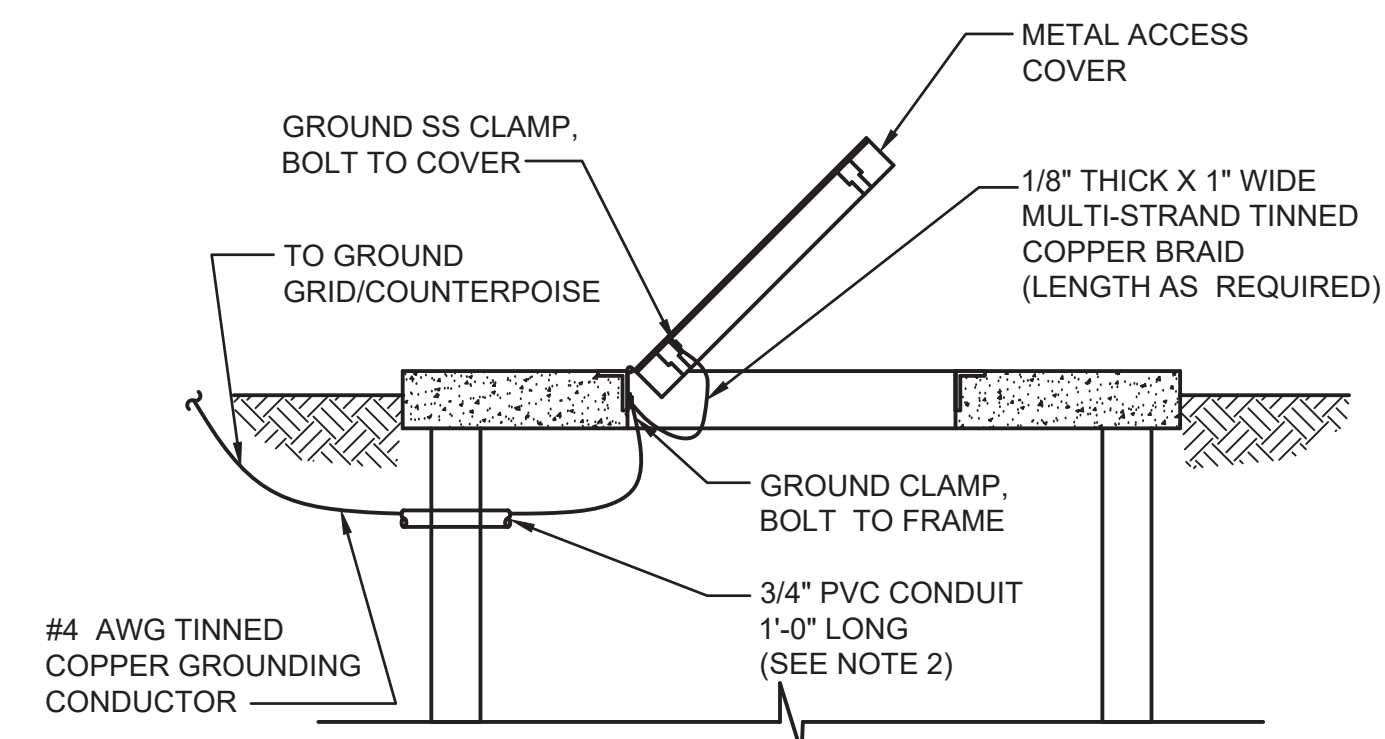
PUMP STATION SITE PLAN
1" = 30'

GENERAL NOTES:
1. VALVE VAULT AND WET WELL LIDS SHALL BE COATED WITH 1 COAT OF TNEC SERIES 86, COLOR EN03, (2-3 MILS), FOLLOWED BY TOP COAT OF TNEC SERIES 73, COLOR EN05, (2-3 MILS) OR EQUAL.
2.A THE WET WELL SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYESTER (RFP) AND MANUFACTURED FROM COMMERCIAL GRADE POLYESTER RESIN OR VINYL ESTER RESIN, WITH FIBERGLASS REINFORCEMENTS. THE WET WELL SHALL BE A ONE PIECE UNIT AND MANUFACTURED BY L.F. MANUFACTURE, INC. OR EQUAL.
2.B IN LIEU OF RFP THE WET WELL MAY BE CONSTRUCTED OF PRECAST CONCRETE HAVING A MINIMUM WALL THICKNESS OF 8 INCHES. THE INTERIOR WALLS SHALL BE LINED USING A HIGH DENSITY POLYETHYLENE PRODUCT AS MANUFACTURED BY AGRU SURE GRIP, OR EQUAL.
3. PIPING IN THE WET WELL TO BE HDPE WITH FUSED 45 DEGREE FITTINGS FROM WET WELL TO VALVE VAULT.
4. INTERIOR OF THE VALVE VAULT AND PIPING IN THE VALVE VAULT WITH ConSeal CS-55 (OR EQUAL), TWO COATS, 4 MILS EACH. PIPING SHALL BE COATED AFTER INSTALLATION.
5. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 6" DIAMETER PIPE AND SMALLER. CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES.
6. VALVE VAULT SHALL HAVE SEALED FLOOR AND DRAIN.
7. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE AND STAINLESS STEEL LINK SEAL.
8. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
9. WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE LOCK BRACKET. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY THE CITY.
10. FLEXIBLE COUPLING SHALL BE SLEEVE TYPE, EPOXY COATED.
11. PUMPS SHALL BE:
MANUFACTURER: FLYGT; MODEL: NP3153 SH 3-274; DIA: 3 1/8"; SPEED: 3510; DISCHARGE SIZE: 4 IN.; VOLTAGE: 230; HZ.: 60; PHASE: 3; H.P.: 23.0; MIN. SOLID SIZE: 3 IN.
12. OPERATING CONDITIONS SHALL BE 150.0 GPM AT 178.0 FEET TDH.
13. ALL HARDWARE IN WET WELL AND VALVE BOX TO BE 316 STAINLESS STEEL.
14. "P" TRAP TO BE INSTALLED IN WET WELL.
15. ALL PUBLIC LIFT STATIONS SHALL BE EQUIPPED WITH SCADA SYSTEM. THE DEVELOPER SHALL PAY THE CITY COST OF THE UNIT. THE CITY WILL BE RESPONSIBLE FOR INSTALLATION.
16. ALL LIFT STATIONS SHALL BE FENCED WITH DECORATIVE BLOCK OR AS DIRECTED BY THE CITY.
17. ALL LIFT STATIONS SHALL HAVE A 10 FEET WIDE CONCRETE ACCESS DRIVEWAY, 35' LONG FROM EDGE OF WET WELL TO BACK OF CURB.
18. ENGINEER SHALL PROVIDE A SCALED (1" = 20' MIN.) SITE SPECIFIC DETAIL.

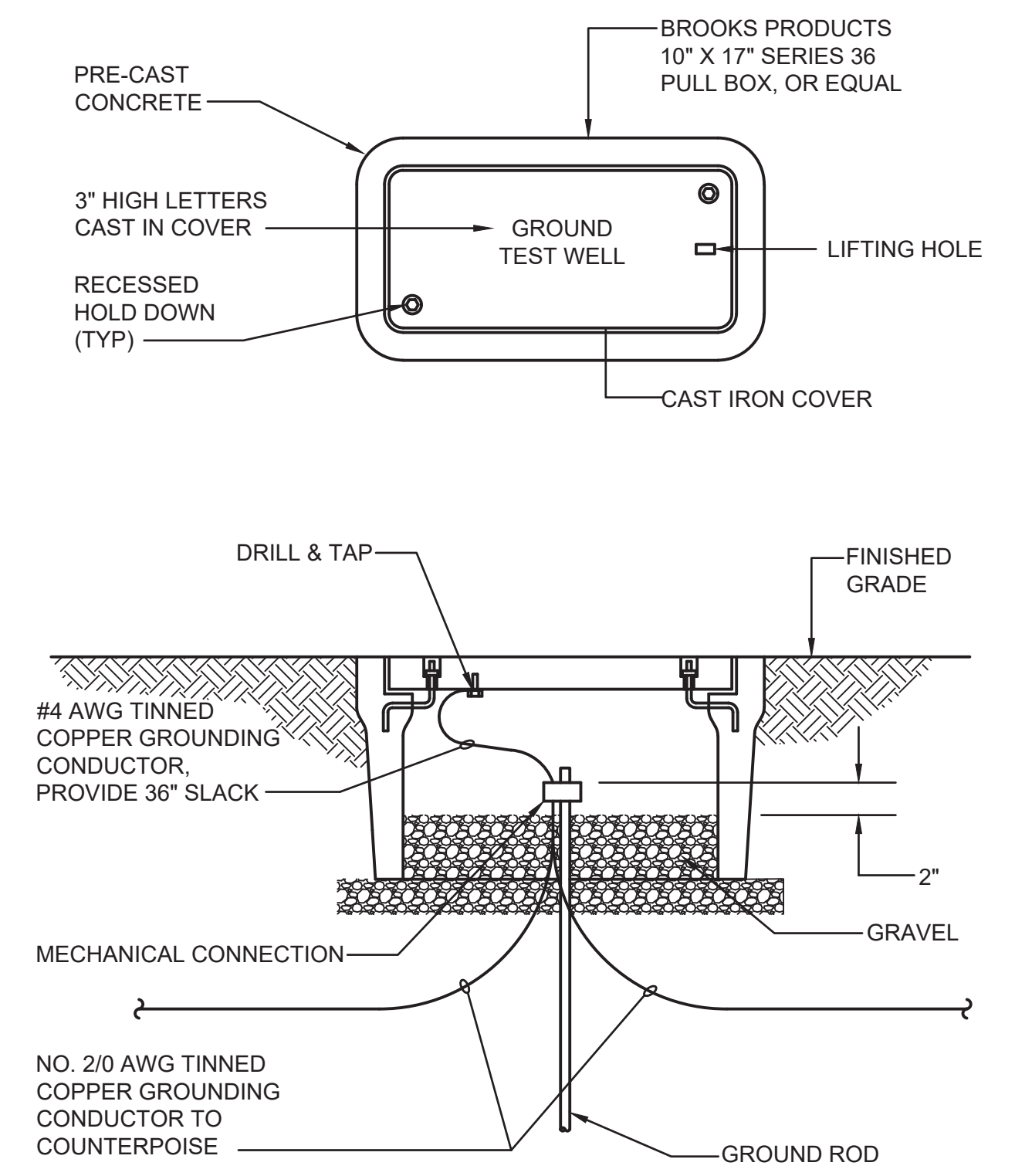


NOTES:
1. DETAIL IS GENERIC. SPECIFIC LOCATIONS OF EQUIPMENT MAY VARY.
2. TIE TO FENCE, MINIMUM 2 LOCATIONS. NOT REQUIRED WHERE PVC COATED OR BLOCK FENCE IS INSTALLED.
3. PROVIDE EXOTHERMIC WELDS UNLESS NOTED OTHERWISE.

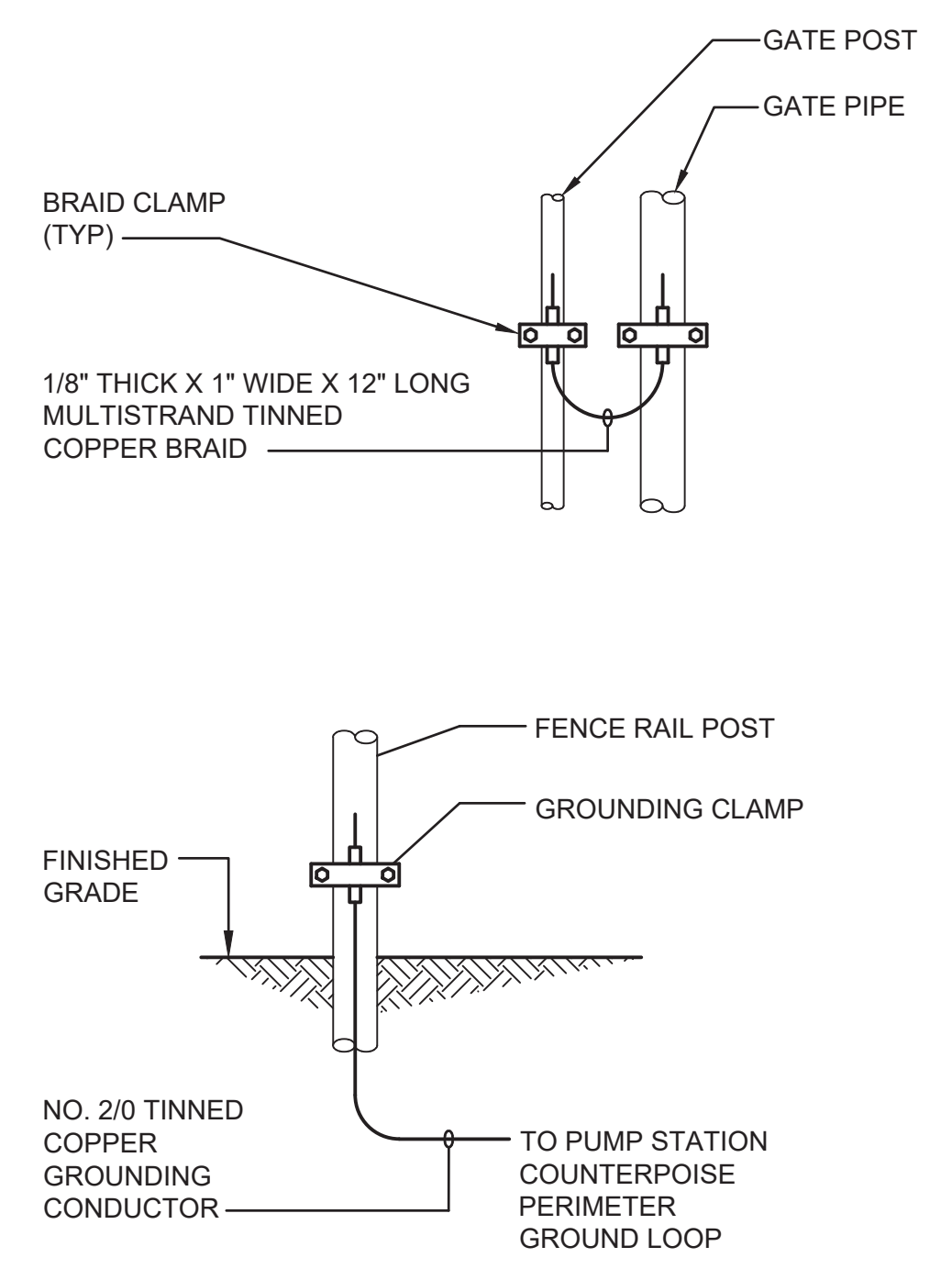
PUMP STATION GROUNDING (TYPICAL)
(FIG. 307)



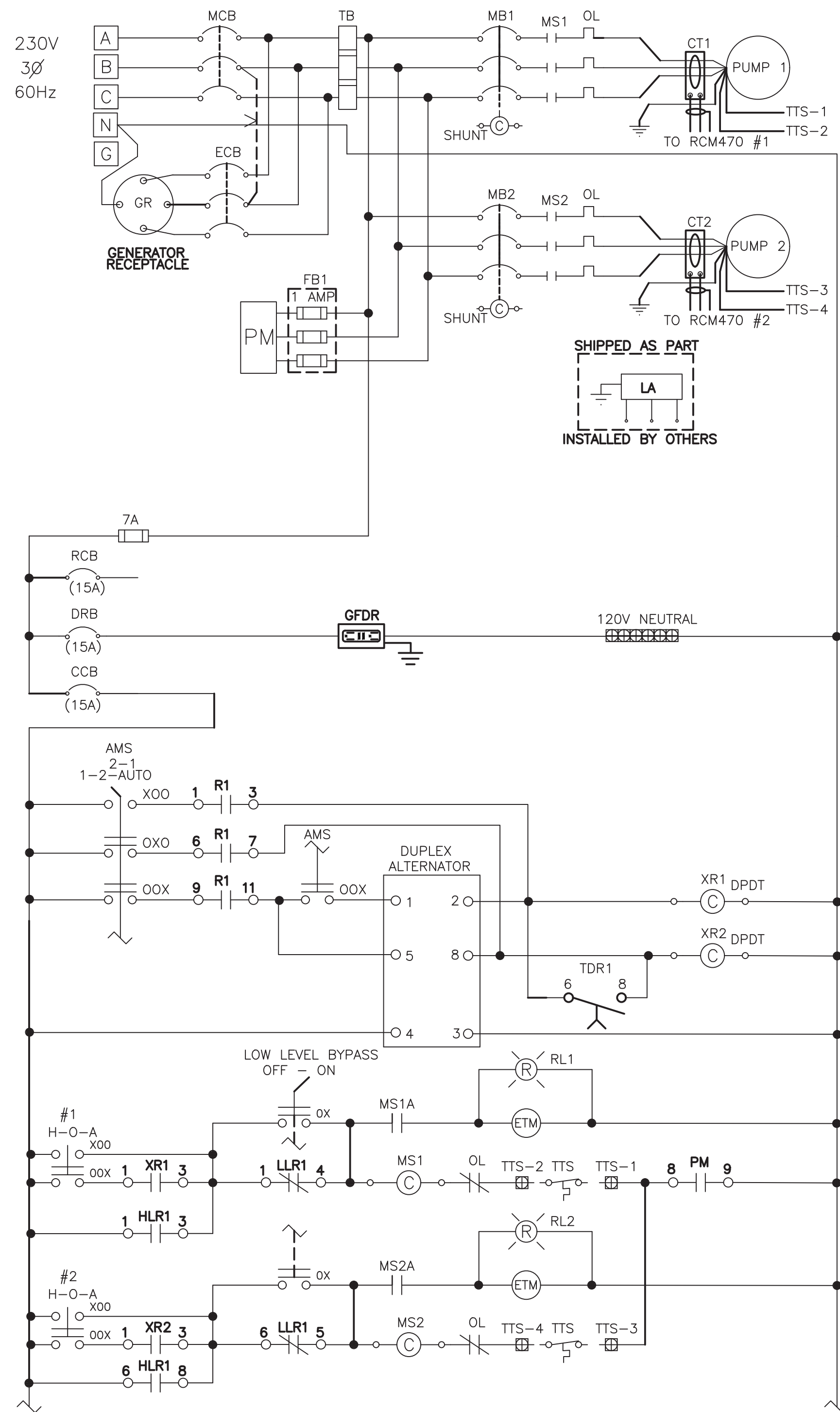
COVER AND DOOR GROUNDING
(FIG. 307C)



GROUND TEST WELL
(FIG. 307B)



FENCE POST GROUNDING (TYPICAL)
(FIG. 307A)



LEGEND

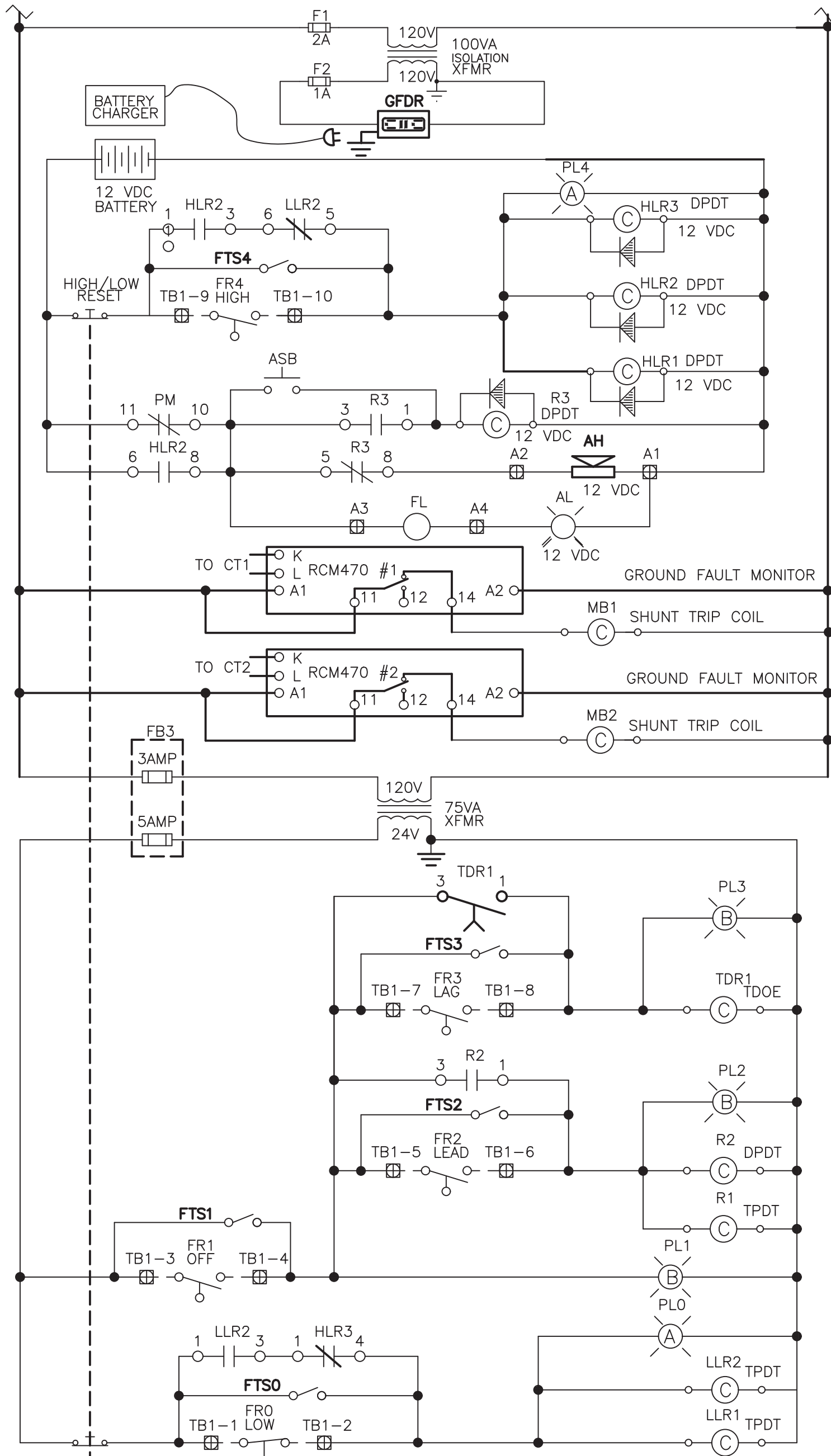
AB - ALARM BELL	MB - MOTOR BREAKER
ACFL - AIR COMPRESSOR FAIL LIGHT	MCB - MAIN CIRCUIT BREAKER
ACR - AIR COMPRESSOR RESET	MD - MOISTURE DETECTOR
ACTS - AIR COMPRESSOR TERMINAL STRIP	MS - MOTOR STARTER
AH - ALARM HORN	NC - NORMALLY CLOSED
AL - ALARM LIGHT	NO - NORMALLY OPEN
ALT - ALTERNATOR	OL - OVERLOAD
AMS - ALTERNATOR MODE SWITCH	PB - POWER BLOCK
ASB - ALARM SILENCE BUTTON	FCU - PUMP CONTROL UNIT
ATS - ALTERNATOR TEST SWITCH	PFL - PUMP FAIL LIGHT
AV - AIR VENT	PFT - PUMP FAIL TIMER
CCB - CONTROL CIRCUIT BREAKER	PL - PILOT LIGHT
CT - CURRENT TRANSFORMER	POL - POWER ON LIGHT
CVLS - CHECK VALVE LIMIT SWITCH	PM - PHASE MONITOR
DPDT - DOUBLE POLE DOUBLE THROW	PS - PRESSURE SWITCH
DR - DISABLE RELAY	R - RELAY
DRB - DUPLEX RECEPTACLE BREAKER	RCB - RTU CIRCUIT BREAKER
DS - DOOR SWITCH	RL - RUNNING LIGHT
ECB - EMERGENCY CIRCUIT BREAKER	RTU - REMOTE TELEMETRY UNIT
ETM - ELAPSED TIME METER	SC - SURGE CAPACITOR
F - FUSE	SDR - STATION DISABLE RELAY
FB - FUSE BLOCK	SMC - SMART MOTOR CONTROLLER
FL - FLASHER	SPM - SINGLE PHASE MODUL
FR - FLOAT REGULATOR	SS - SAFETY SWITCH
FS - FLOAT SWITCH	SSOL - SOLID-STATE OVERLOAD
FTS - FLOAT TEST SWITCH	T - TERMINAL
GFDR - GROUND FAULT DUPLEX RECEPTACLE	TB - TERMINAL BLOCK
GND - EARTH GROUND	TD - TIME DELAY
GR - GENERATOR RECEPTACLE	TDODE - TIME DELAY ON DE-ENERGIZE
HLA - HIGH LEVEL ALARM	TDOE - TIME DELAY ON ENERGIZE
HLR - HIGH LEVEL RESET	TDR - TIME DELAY RELAY
HOA - HAND-OFF AUTO SELECTOR SWITCH	TL - TROUBLE LIGHT
ISR - INTRINSICALLY SAFE RELAY	TLT - TROUBLE LIGHT SWITCH
LA - LIGHTNING ARRESTOR	TPDT - TRIPLE-POLE, DOUBLE-THROW
LLR - LOW LEVEL RESET	TTS - THERMAL TERMINAL STRIP
LTB - LAMP TEST BUTTON	XFMR - TRANSFORMER

NOTES:

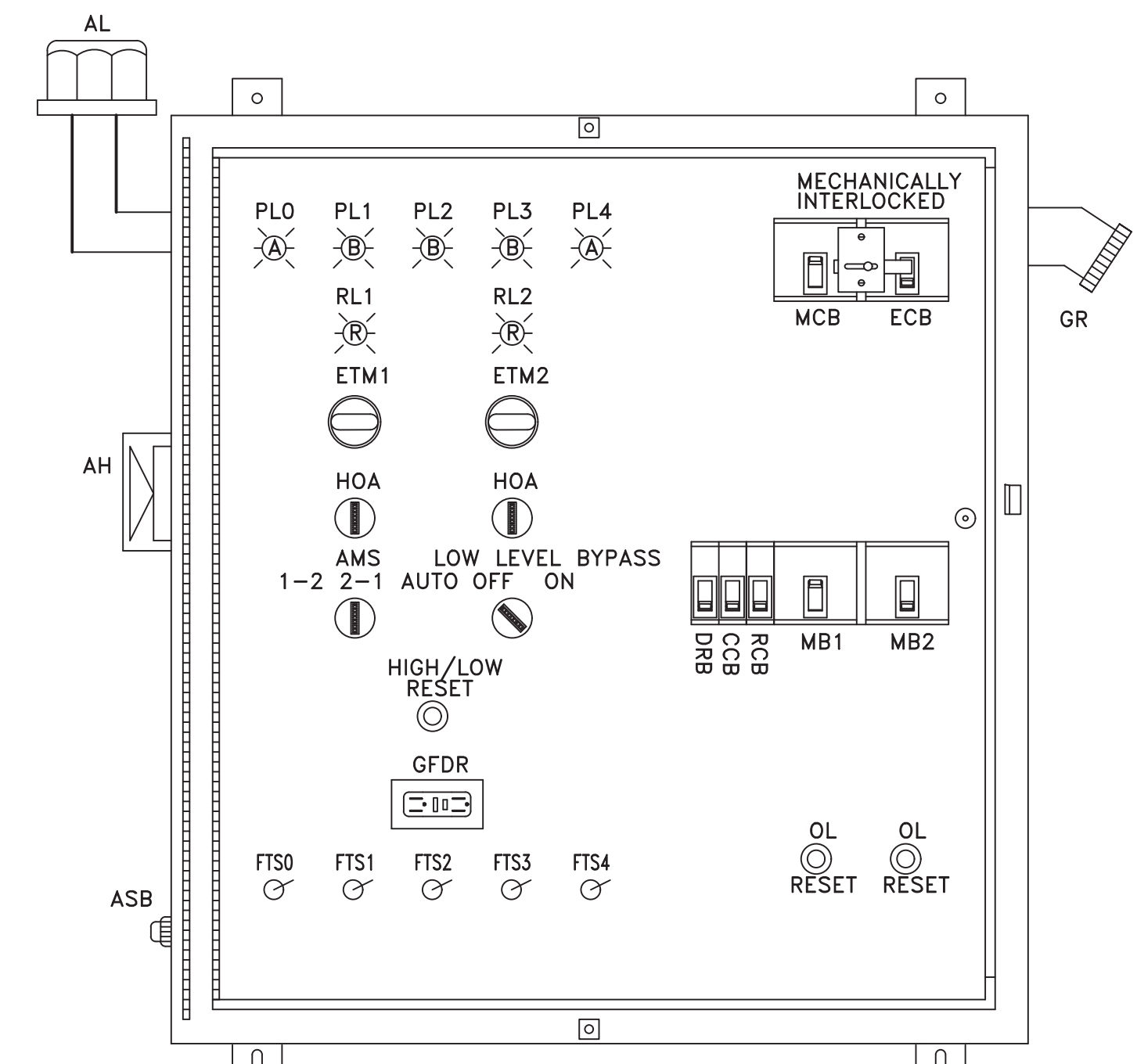
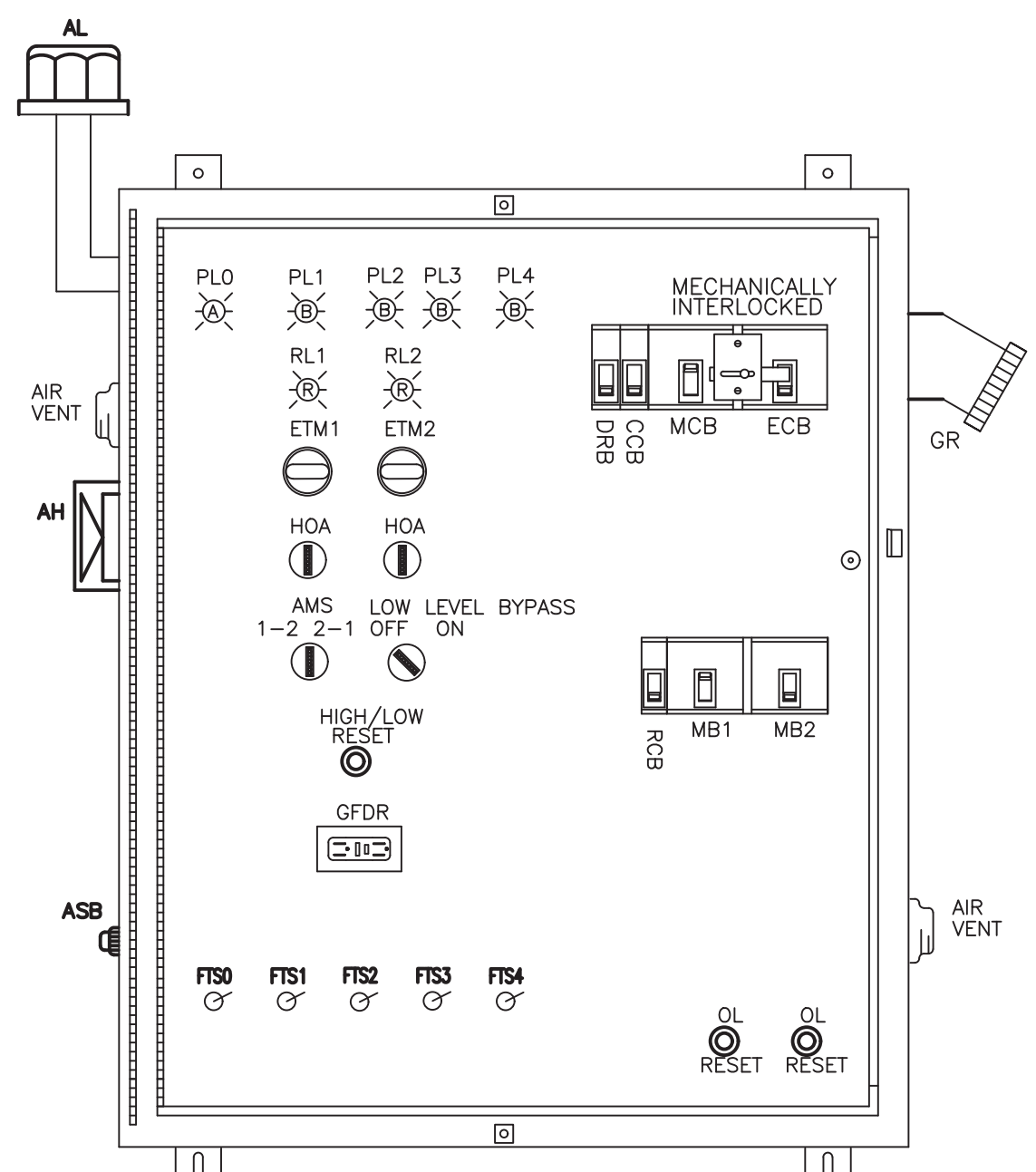
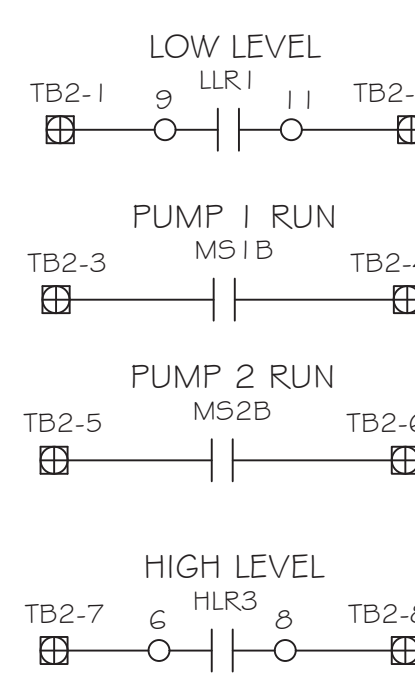
1. OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT NEMA TYPE 3R 5.5. ENCLOSED WITH CONTINUOUS HINGE ALL HARDWARE TYPE 304 STAINLESS STEEL. TYPICAL, ACTUAL LAYOUT MAY VARY WITH HORSEPOWER.
2. SERIES 3 (Q-FRAME) CIRCUIT BREAKERS.
3. GENERATOR OUTLET FOR 230V - PYLE NATIONAL MODEL JRE 4100. FOR 460V OR > 100 AMP SERVICE USE CROUSE HINDS MODEL AR 2042.

DUPLEX PUMP CONTROL PANEL GENERAL LAYOUT & SCHEMATIC

(230V-3PH) WITH GENERATOR RECEPTACLE (FIG.305A)



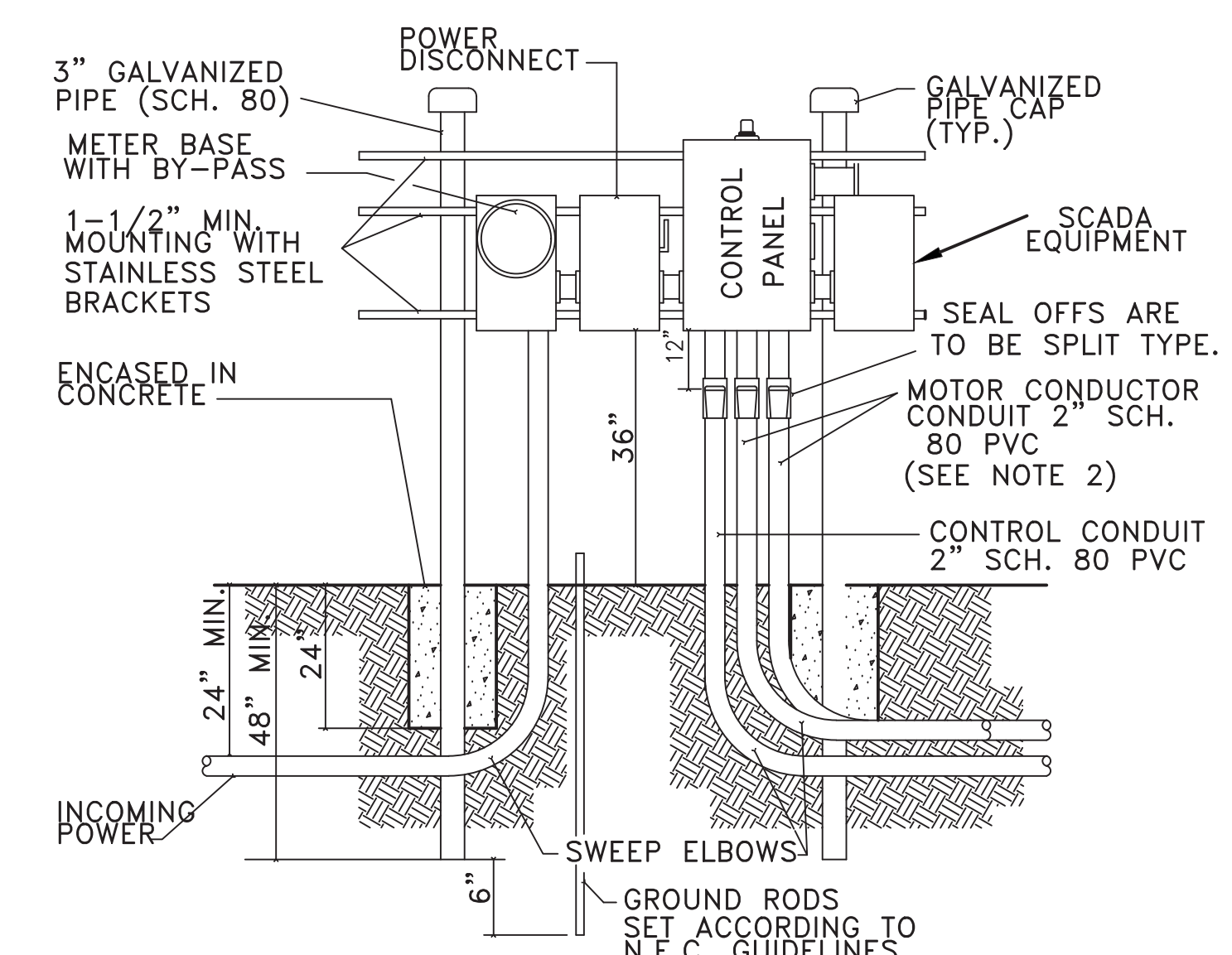
TB2



- NOTES:**
1. OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT NEMA TYPE 3R 304 S.S. ENCL. WITH CONTINUOUS HINGE ALL HARDWARE STAINLESS STEEL TYPICAL, ACTUAL LAYOUT MAY VARY WITH HORSEPOWER
 2. SERIES 3 (Q-FRAME) CIRCUIT BREAKERS
 3. GENERATOR OUTLET FOR 230V - PYLE NATIONAL MODEL JRE4100/460V - CROUSE HINDS MODEL AREA20427.
 4. THE HEIGHT OF THE ALARM LIGHT WILL NEED TO BE MADE VISIBLE FROM OUTSIDE THE LIFT STATION.

DUPLEX PUMP STATION CONTROL PANEL FRONT LAYOUT

(FIG.303)



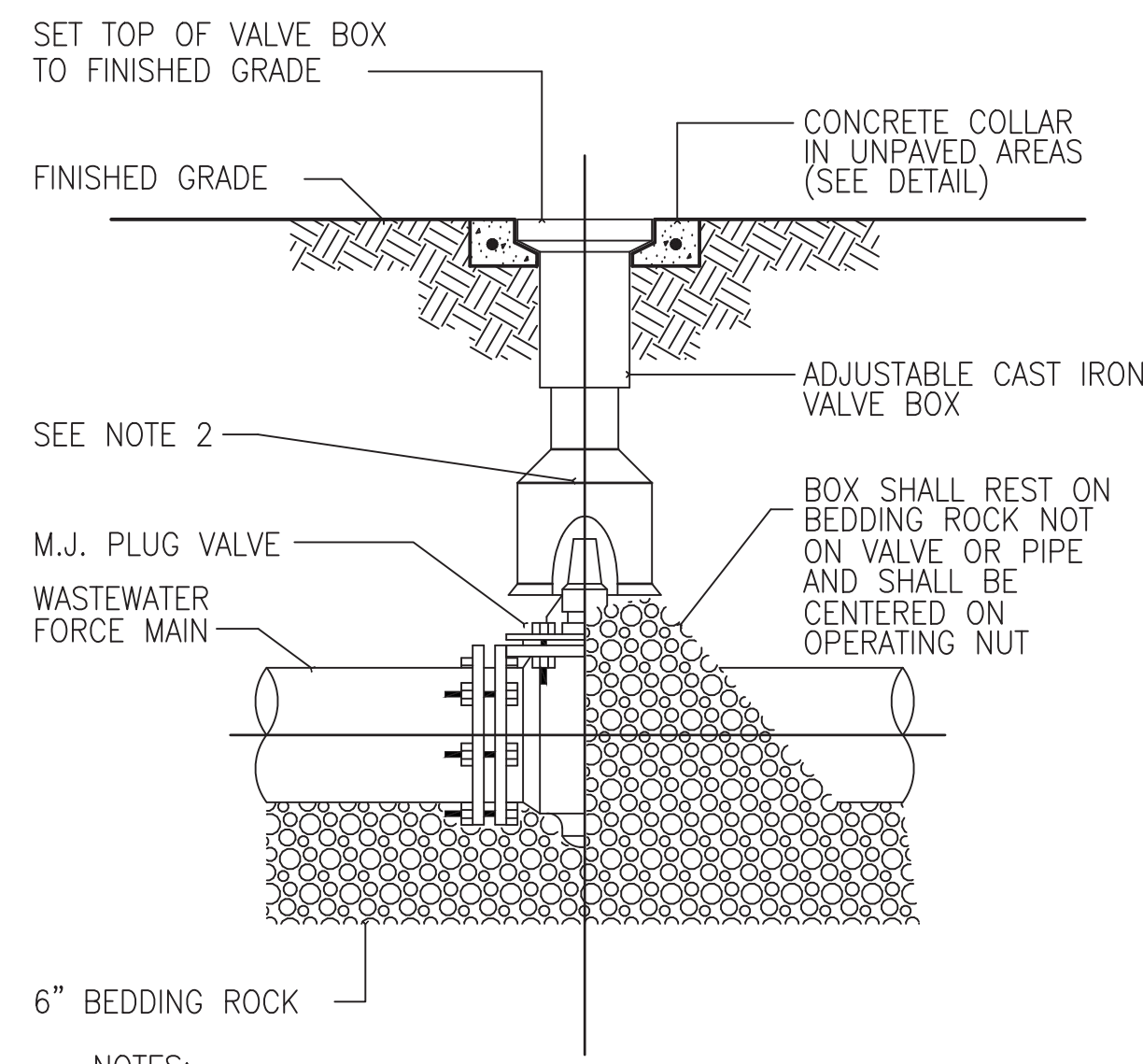
- NOTES:**
1. DRAWING IS SHOWN FOR 230 VOLT POWER SUPPLY. THE LOCATION OF METER AND MAIN POWER DISCONNECT SHALL BE REVERSED FOR 480 VOLT SUPPLY.
 2. WHEN TWO (2) SEPARATE CONDUCTOR-TYPE MOTORS ARE USED, CONDUIT SHALL BE INCREASED TO THREE (3) INCH.
 3. POWER SUPPLY SHALL BE UNDERGROUND TO THE PUMP STATION AND SHALL BE THREE (3) PHASE FROM A THREE (3) PHASE SOURCE ONLY.

DUPLEX PUMP STATION CONTROL PANEL INSTALLATION DETAIL

(FIG.302)

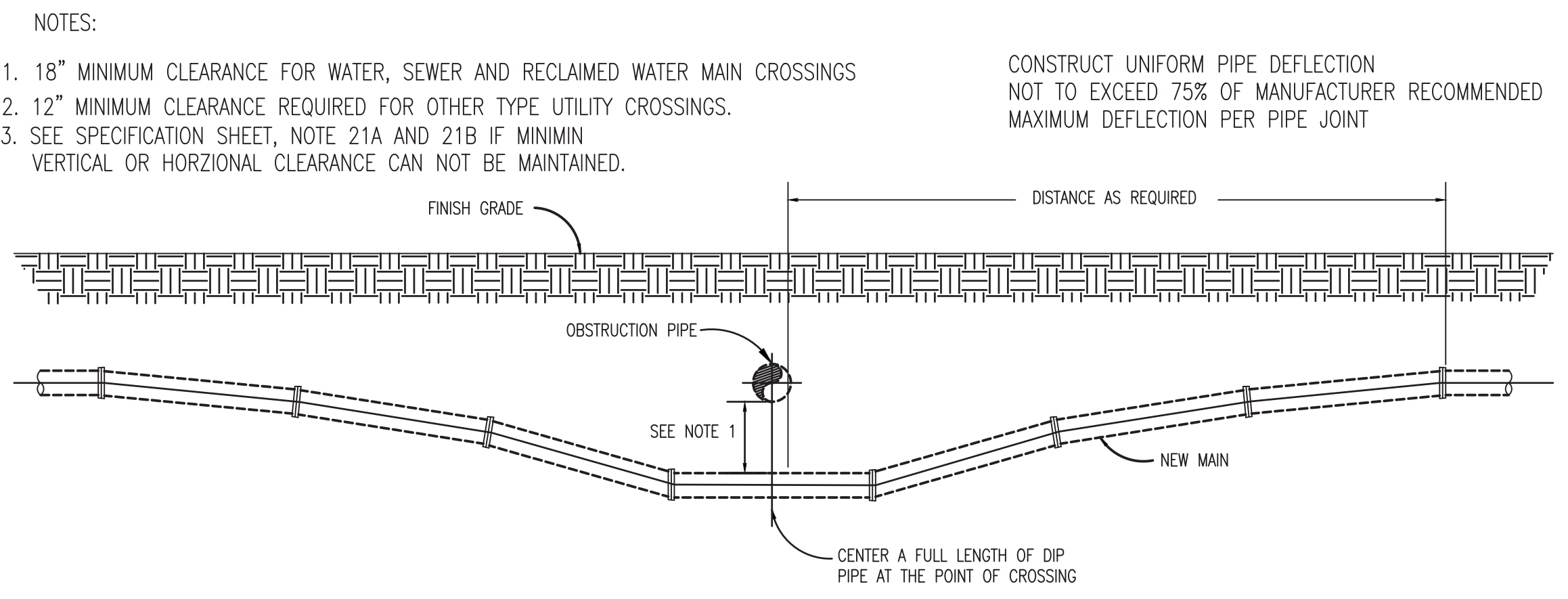
PROJECT NO:	DWG FILE:	DETAILS
DATE:	SCALE:	NTS
REVISIONS:	DATE:	
DRAWN BY:	JLT	DESIGNED BY:
CHECKED BY:	JEJ	APPROVED BY:
GENERAL UTILITY DETAILS 7		
PROJECT TITLE:		
SHEET	11	

CITY OF APOPKA
 DESIGN ENGINEERING DIVISION
 748 E. CLEVELAND AVENUE
 APOPKA, FLORIDA 32703
 TEL (407) 881-1751 FAX: (407) 888-1748



- NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.
 2. COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.

PLUG VALVE AND BOX DETAIL
(FIG. 203)



- NOTES:
1. 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
 2. 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
 3. SEE SPECIFICATION SHEET, NOTE 21A AND 21B IF MINIMUM VERTICAL OR HORIZONTAL CLEARANCE CAN NOT BE MAINTAINED.

CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

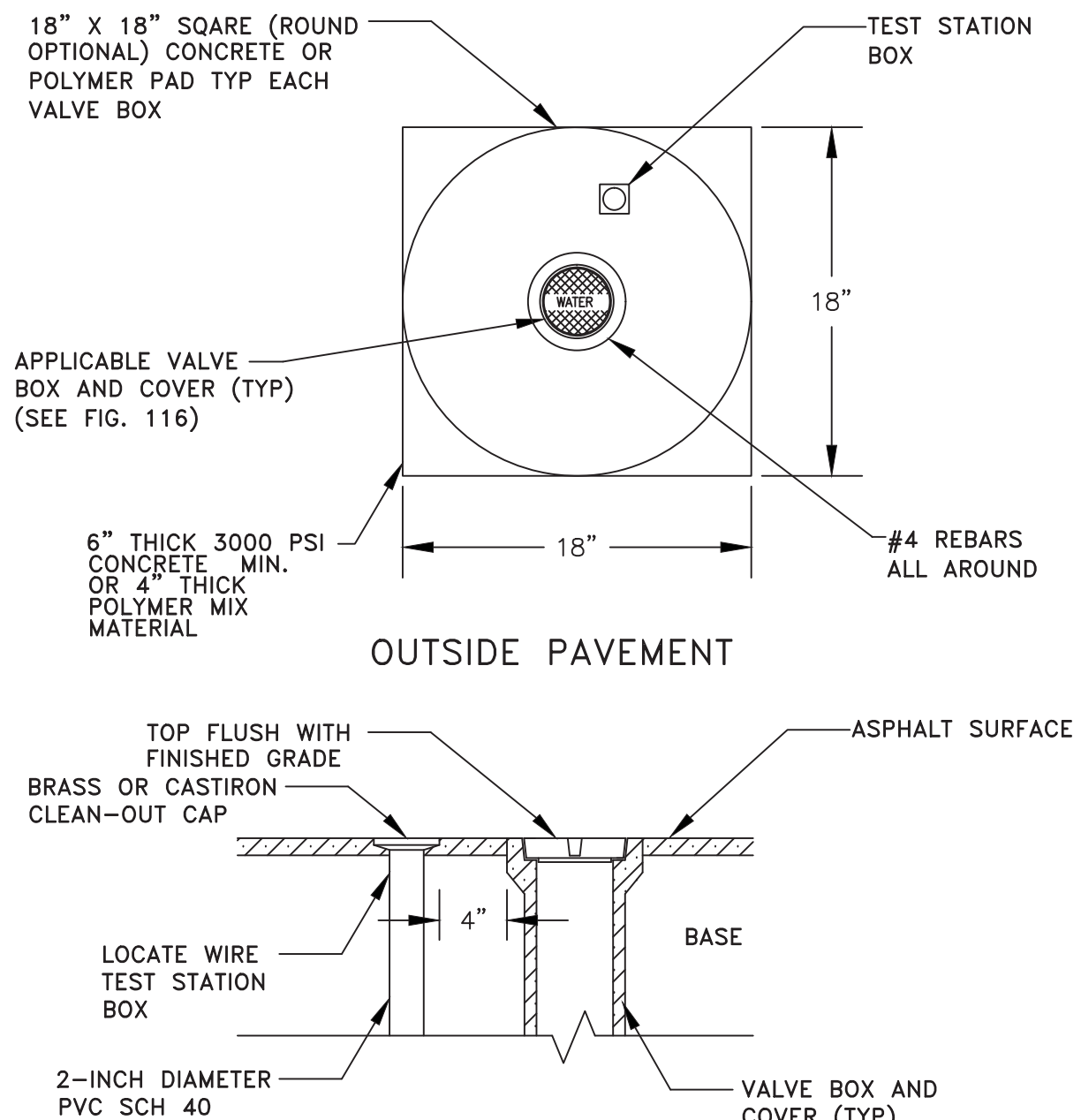
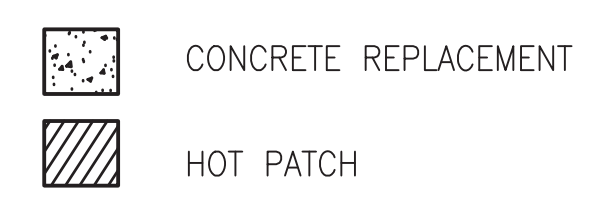
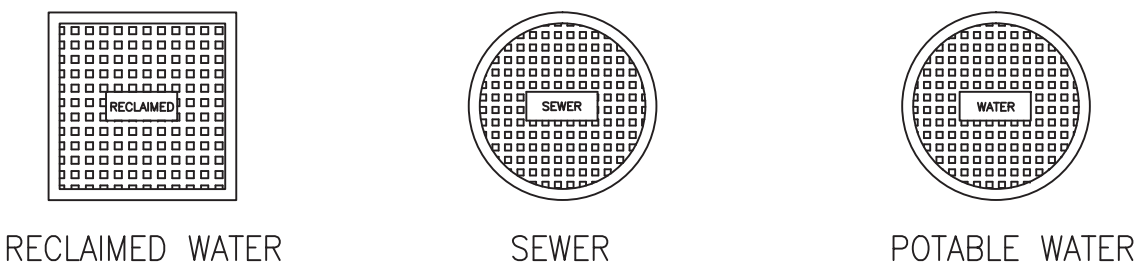
UTILITY CROSSING PIPE DEFLECTION DETAIL

GENERAL NOTES:

1. BASE REPLACEMENT SHALL BE 3000 PSI HIGH EARLY STRENGTH CONCRETE.
2. ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL AT THE TIME OF REMOVAL.
3. MINIMUM ASPHALTIC CONCRETE SURFACE OVERLAY THICKNESS SHALL BE ONE INCH (1").
4. ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.

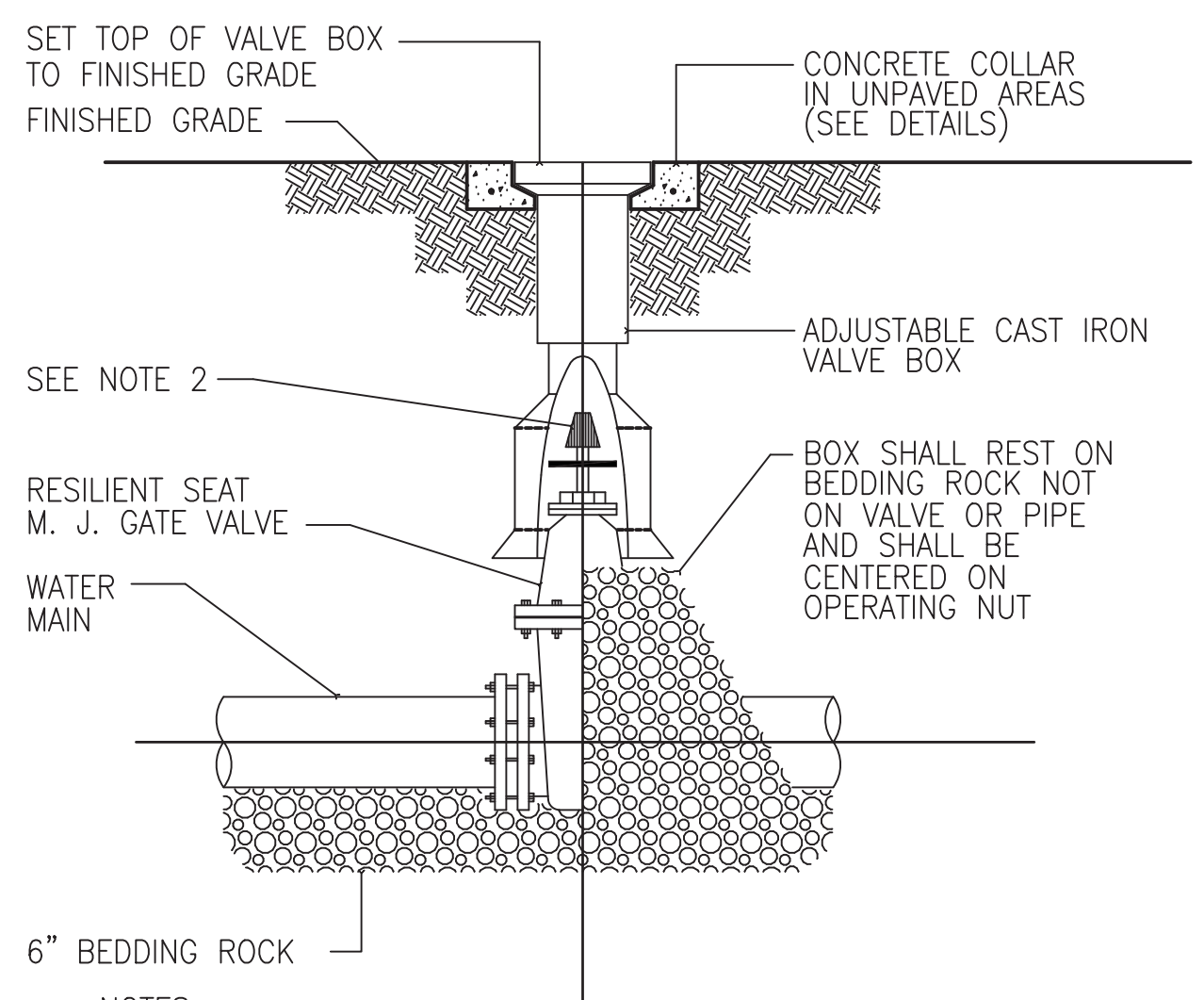
PAVEMENT RESTORATION:

1. LONGITUDINAL CUTS MAY REQUIRE OVERLAY/RESURFACING OF THE COMPLETE WIDTH OF THE TRAVELED WAY.
2. CUTS AT INTERSECTIONS OF STREETS GENERALLY MAY REQUIRE A COMPLETE OVERLAY/RESURFACING TO THE END OF ALL RETURN RADII, AND ALSO TO A POINT TEN FEET (10') BEYOND THE CUT WHICHEVER IS GREATER.
3. ACTUAL REQUIREMENTS WILL BE AS STATED ON THE APPROVED PERMIT.



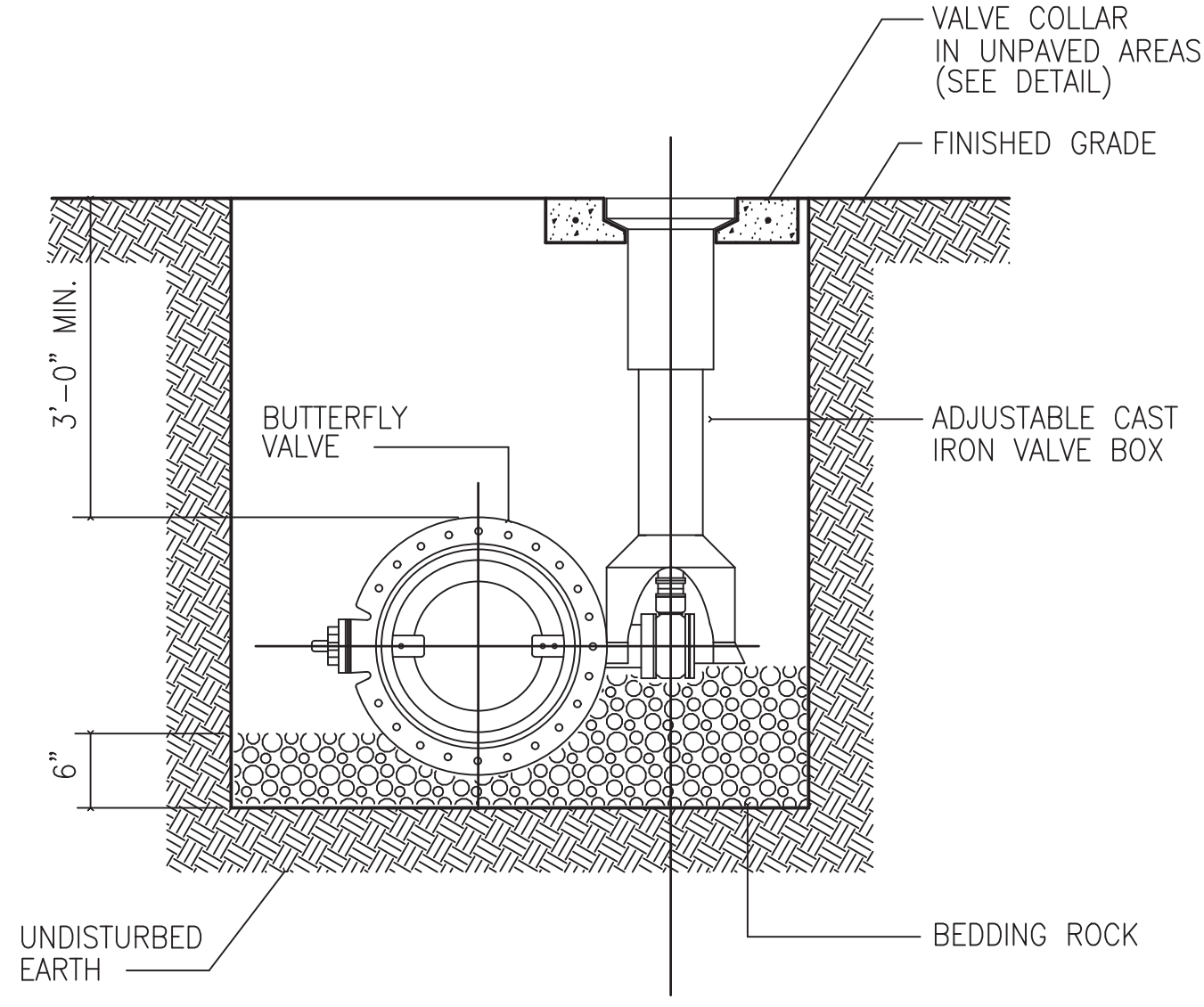
INSIDE PAVEMENT
VALVE IDENTIFICATION TAG TO BE INSTALLED BY CITY & PAID FOR BY DEVELOPER

VALVE BOX DETAIL
(FIG. 109)



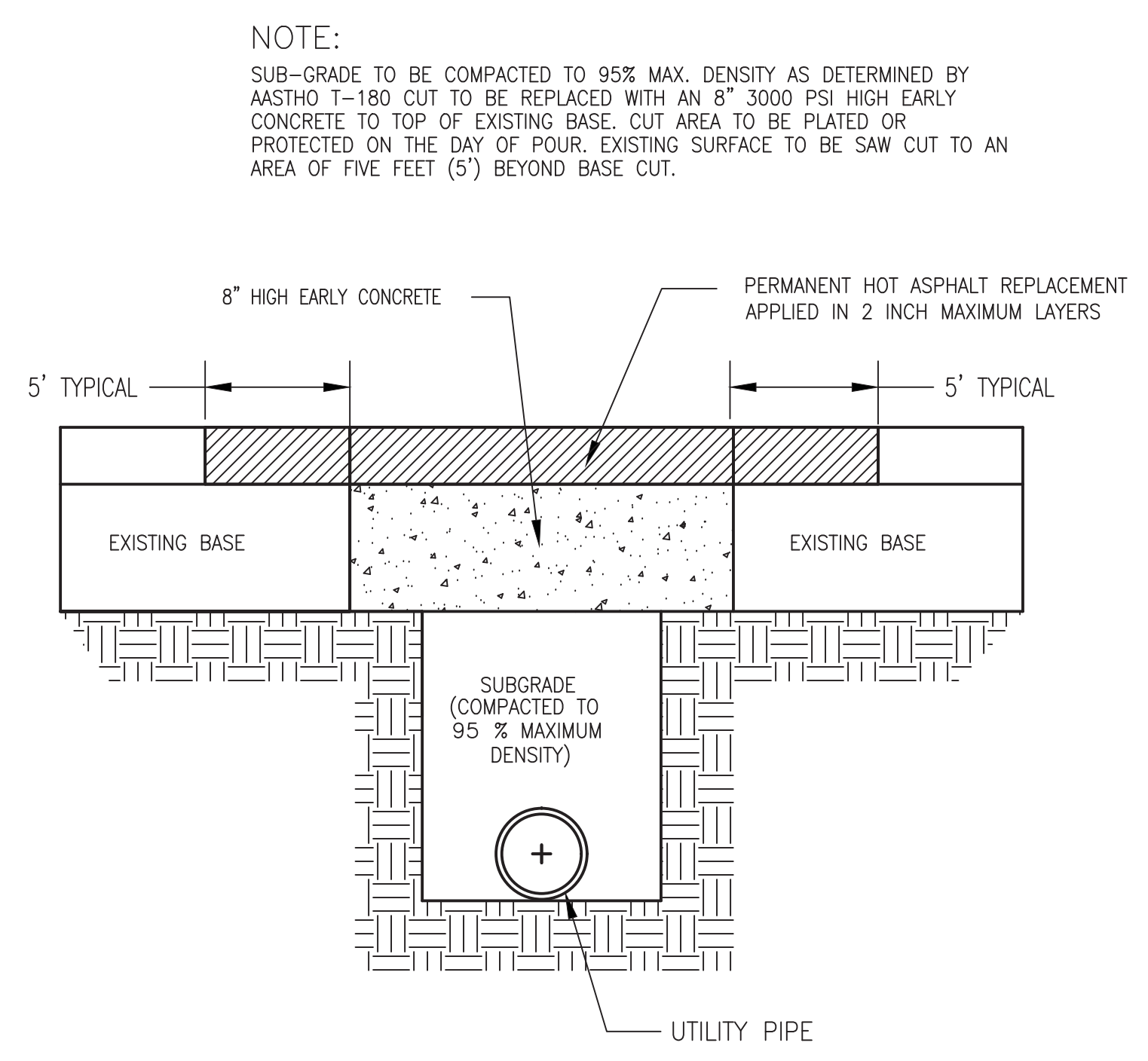
- NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
 2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO COME UP TO 4 FOOT DEPTH BELOW FINISHED GRADE.
 3. APPLY TWO COATS OF EXTERIOR ENAMEL PAINT TO VALVE COVER
PURPLE - RECLAIMED WATER
GREEN - SEWER
BLUE - POTABLE WATER

GATE VALVE, COVER AND BOX DETAIL
(FIG. 400)



- NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
 2. ALL WATER SHUT-OFF VALVES SIXTEEN (16) INCHES AND LARGER SHALL BE BUTTERFLY VALVES.

BUTTERFLY VALVE AND BOX DETAIL
(FIG. 401)



STANDARD ROADWAY OPENCUT DETAIL
FINAL RESTORATION - TYPICAL OF MAJOR OPEN CUTS

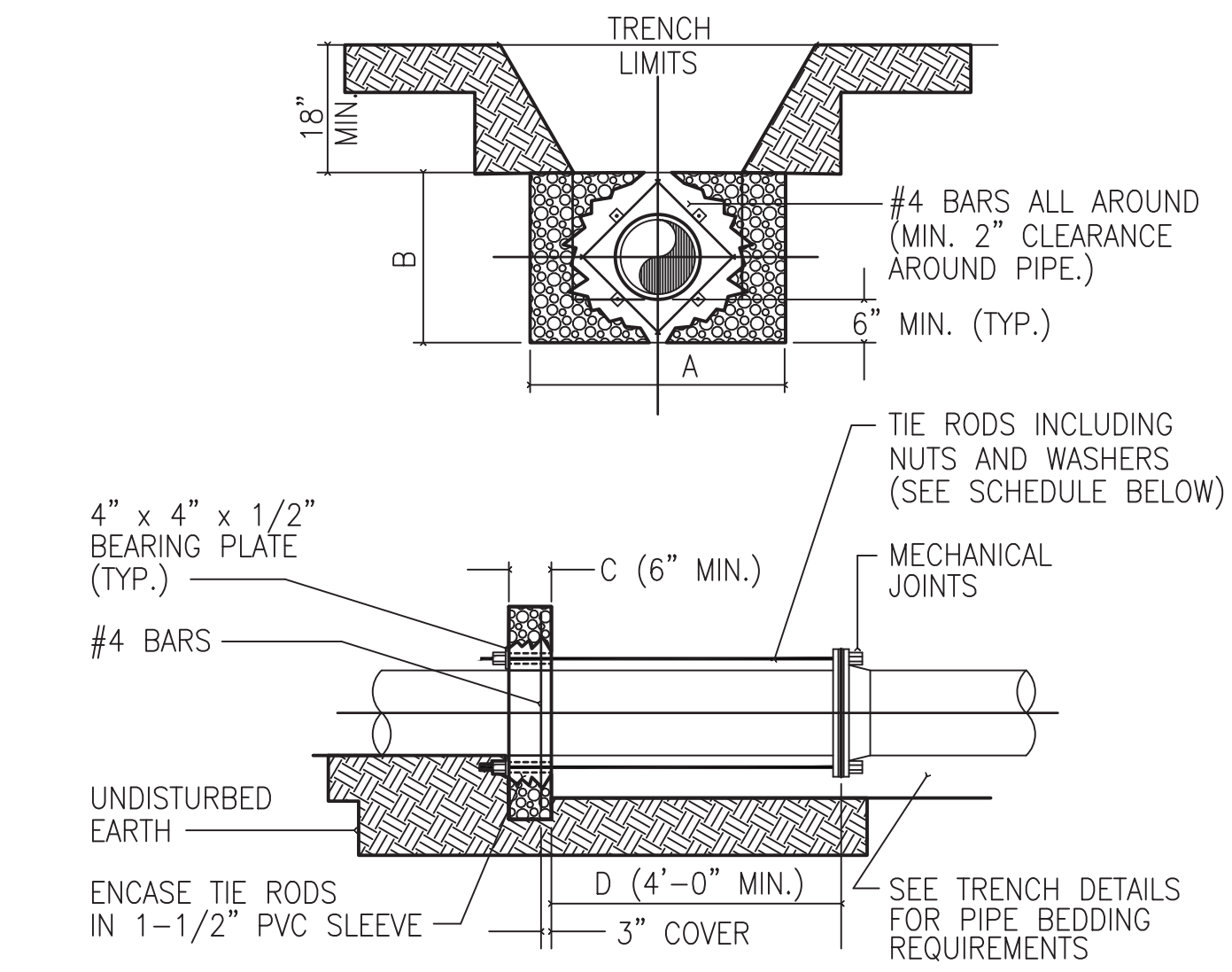
PROJECT NO:	DETAILS2
DWG FILE:	NTS
SCALE:	NTS
DATE:	
PROJECT TITLE:	CITY OF APOPKA DESIGN ENGINEERING DIVISION 748 E. CLEVELAND AVENUE APOPKA, FLORIDA 32703 TEL (407) 703-1751 FAX: (407) 703-1748
REVISIONS:	
DRAWN BY:	JLT
DES. BY:	JLT
CHECKED BY:	JEJ
APPROVED BY:	JEJ
GENERAL UTILITY DETAILS 2	
SHEET	
G-2	

MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S). *

	PIPE SIZE									
	6"	8"	10"	12"	16"	18"	20"	24"	30"	
90° BEND	36	36	36	54	54	72	72	90		
45° BEND	18	18	18	18	36	36	36	36		
22-1/2° BEND	18	18	18	18	18	18	18	18		
11-1/4° BEND	18	18	18	18	18	18	18	18		
PLUG OR BRANCH OF TEE	18	36	36	54	90	108	108	144		

- NOTES:
- FITTINGS SHALL BE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
 - INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
 - WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH OF RESTRAINED PIPE.
 - IN LINE VALVES AND THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
 - LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
 WORKING PRESSURE: 150 P.S.I.*
 SOIL DESIGNATION: SAND / SILT *
 LAYING CONDITIONS: TYPE "4" BEDDING *
 - FOR PIPE ENCASED IN POLYETHYLENE, USE VALUES GIVEN IN PARENTHESES OR INCREASE THE GIVEN VALUE BY A FACTOR OF 1.5.

RECLAIMED AND POTABLE WATER MAIN RESTRAINED PIPE TABLE.
(FIG. 104)



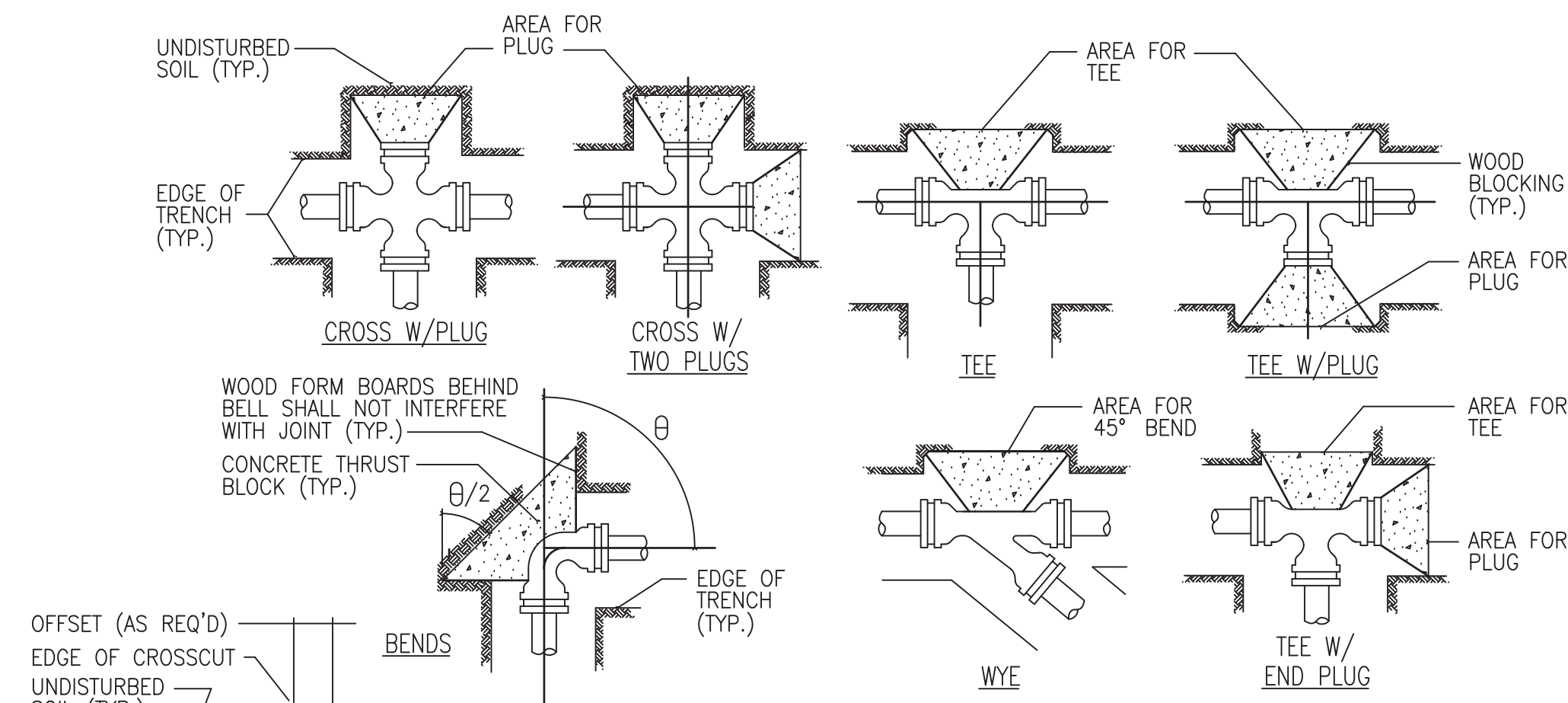
- NOTES:
- ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
 - MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 2500 PSI.
 - BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
 - ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
 - NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
 - DESIGN PRESSURE: P.S.I.*

RECLAIMED AND POTABLE WATER MAIN THRUST COLLAR DETAIL
(FIG. 105)

SCHEDULE OF DIMENSIONS AND MATERIALS *

PIPE SIZE (INCHES)	DIMENSIONS				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
4						
6						
8						
10						
12						
16						
18						
20						
24						

NOTE: THRUST BLOCK AREAS TO BE COMPUTED ON BASIS OF (1,500 MIN) LBS. PER SQ. FT. SOIL RESTRAINT BEARING. SEE NOTE 5.
* TO BE COMPLETED BY ENGINEER.



TYPICAL SECTION

SCHEDULE FOR THRUST BLOCK AREAS *

PIPE SIZE (INCHES)	90 BEND (SQ. FT.)	45 BEND (SQ. FT.)	22-1/2 BEND (SQ. FT.)	11-1/4 BEND (SQ. FT.)	TEE & PLUG (SQ. FT.)	DESIGN PRESS (PSI)
4	2.60	1.40	1.00	1.00	1.80	150
6	5.30	2.90	1.50	1.00	3.73	150
8	9.10	4.90	2.50	1.30	6.45	150
10	13.70	7.40	3.80	1.90	9.70	150
12	19.40	10.50	5.30	2.70	13.70	150
16	33.62	18.20	9.30	4.70	24.00	150
18	42.30	22.90	11.65	5.90	29.90	150
20	52.00	28.80	14.00	7.00	37.00	150
24	74.00	40.00	20.40	10.30	52.30	150

NOTE: THRUST BLOCK AREAS TO BE COMPUTED ON BASIS OF (1,500 MIN) LBS. PER SQ. FT. SOIL RESTRAINT BEARING. SEE NOTE 5.
TEST PRESSURE 150 PSIG
CONCRETE STRENGTH = 2500 PSI IN 28 DAYS
* TO BE COMPLETED BY ENGINEER.

RECLAIMED AND POTABLE WATER MAIN THRUST BLOCK DETAIL
(FIG. 103)

- NOTES:
- THRUST BLOCK BEARING AREAS SHALL BE POURED AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE ALL LOOSE MATERIAL AND EXTEND TO UNDISTURBED MATERIAL.
 - EXTEND THRUST BLOCK FULL LENGTH OF FITTINGS. JOINTS SHALL NOT BE COVERED BY THRUST BLOCKS. FITTINGS SHALL BE PROTECTED BY POLYETHYLENE FILM (8 MIL) PRIOR TO PLACING CONCRETE THRUST BLOCK.
 - ROUGH BLOCKING FORMS SHALL BE USED ALONG SIDES OF THRUST BLOCKS, AS REQUIRED.
 - THRUST BLOCKS SHALL BE USED IN COMBINATION, AS REQUIRED, TO SUITE THE SPECIFIC FITTING ARRANGEMENT.
 - ALTERNATE DESIGNED RESTRAINING SYSTEMS SHALL BE PROVIDED WHERE STANDARD THRUST BLOCKING IS NOT SUITABLE AND/OR SOIL RESISTANCE BEARING IS LESS THAN 1500 PSF.
 - ALL WOOD BLOCKING SHALL BE PRESERVATIVE TREATED WITH PRESERVATIVE.

PROJECT NO: _____ DWG FILE: DETAILS PROJECT TITLE: GENERAL UTILITY DETAILS 3

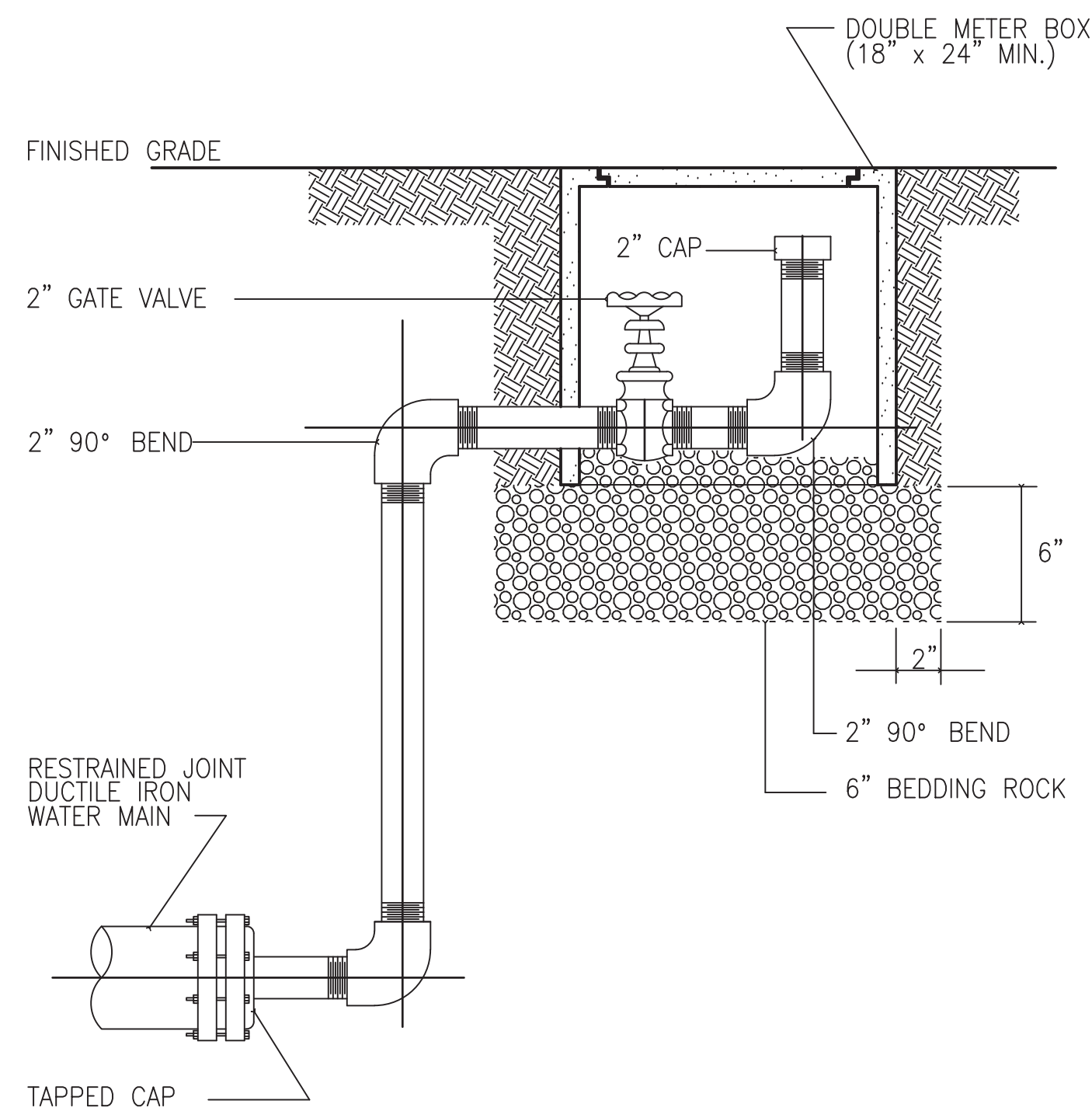
CITY OF APOPKA DESIGN ENGINEERING DIVISION 748 E. CLEVELAND AVENUE APOPKA, FLORIDA 32703 TEL (407) 889-1751 FAX: (407) 889-1748

DATE: _____ SHEET: G-3

REVISIONS:

NO.	DATE	DESCRIPTION

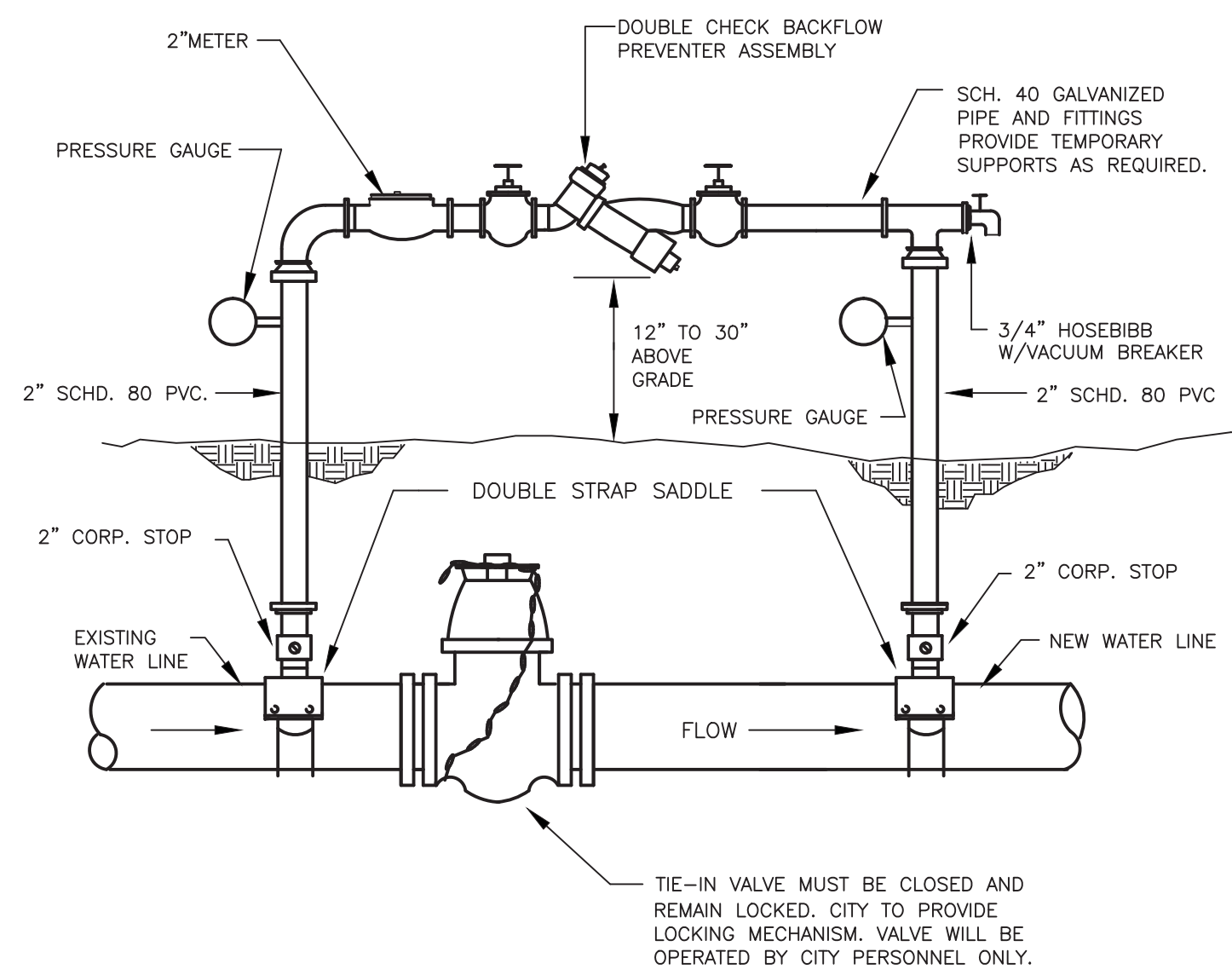
DRAWN BY: JLT DES. BY: JLT CHECKED BY: JEJ APPROVED BY: JEJ



- NOTES:
1. ALL 2" PIPE AND FITTINGS SHALL BE SCHEDULE 40 GALVANIZED STEEL OR BRASS WITH THREADED (NPT) JOINTS.

BLOWOFF VALVE DETAIL

(FIG. 403)



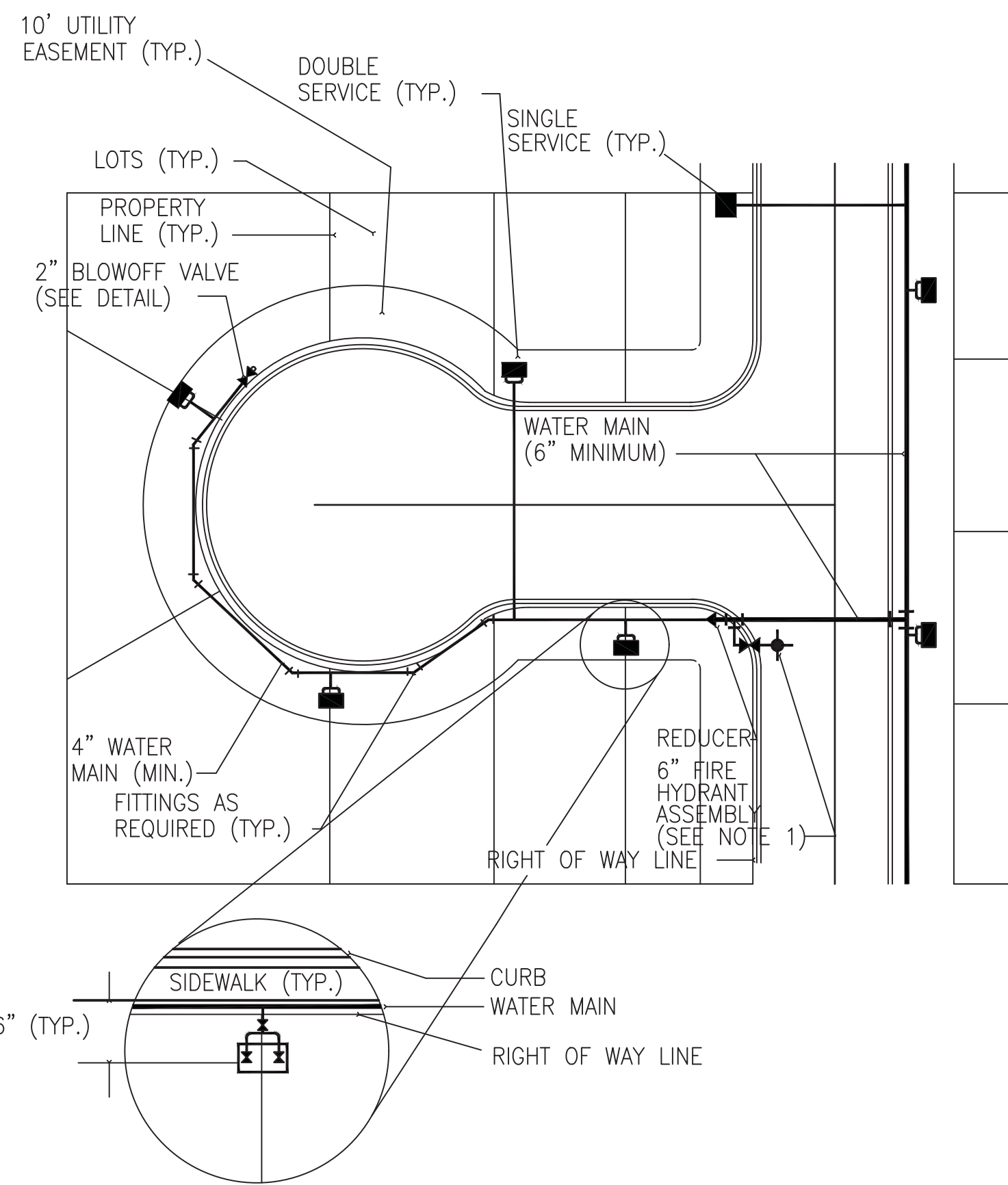
NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, ASSEMBLY, AND THE INSTALLATION OF THE DEVICE.

TEMPORARY JUMPER CONNECTION

TEMPORARY JUMPER CONNECTION NOTES:

1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.
2. THE DETAIL ABOVE IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8 INCHES IN DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAVE BEEN RECEIVED. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED ADEQUATE. THRUST BLOCKING AND/OR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THE TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF AWWA C651-92.
3. FLUSHING OF 10 INCHES IN DIAMETER AND LARGER WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE UNDER VERY CONTROLLED CONDITIONS. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
 - A. THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO TIE-IN. VALVES WHICH ARE NOT WATER TIGHT SHALL BE REPLACED WITH A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.
 - B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.
 - * FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAINS.
 - * ALL DOWNSTREAM VALVES IN THE SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE.
 - * PROVIDE FOR AND MONITOR THE PRESSURE IN THE TIE-IN POINT. THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.
 - * THE TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS GREATER THAN 10 PSI.
 - C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE UTILITY COMPANY UNTIL FLUSHING BEGINS.
 - D. THE TIE-IN VALVE SHALL BE OPENED ONLY FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE UTILITY COMPANY AND OBSERVED BY THE ENGINEER.
 - E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSED POSITION BY THE UTILITY COMPANY.
4. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE DOUBLE CHECK BACKFLOW PREVENTION DEVICE HAS BEEN TESTED AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION.
5. EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8 INCHES IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSED POSITION BY THE UTILITY COMPANY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER PERTINENT AGENCIES.
6. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2 INCH BRASS PLUGS.
7. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE, FITTINGS, VALVE, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

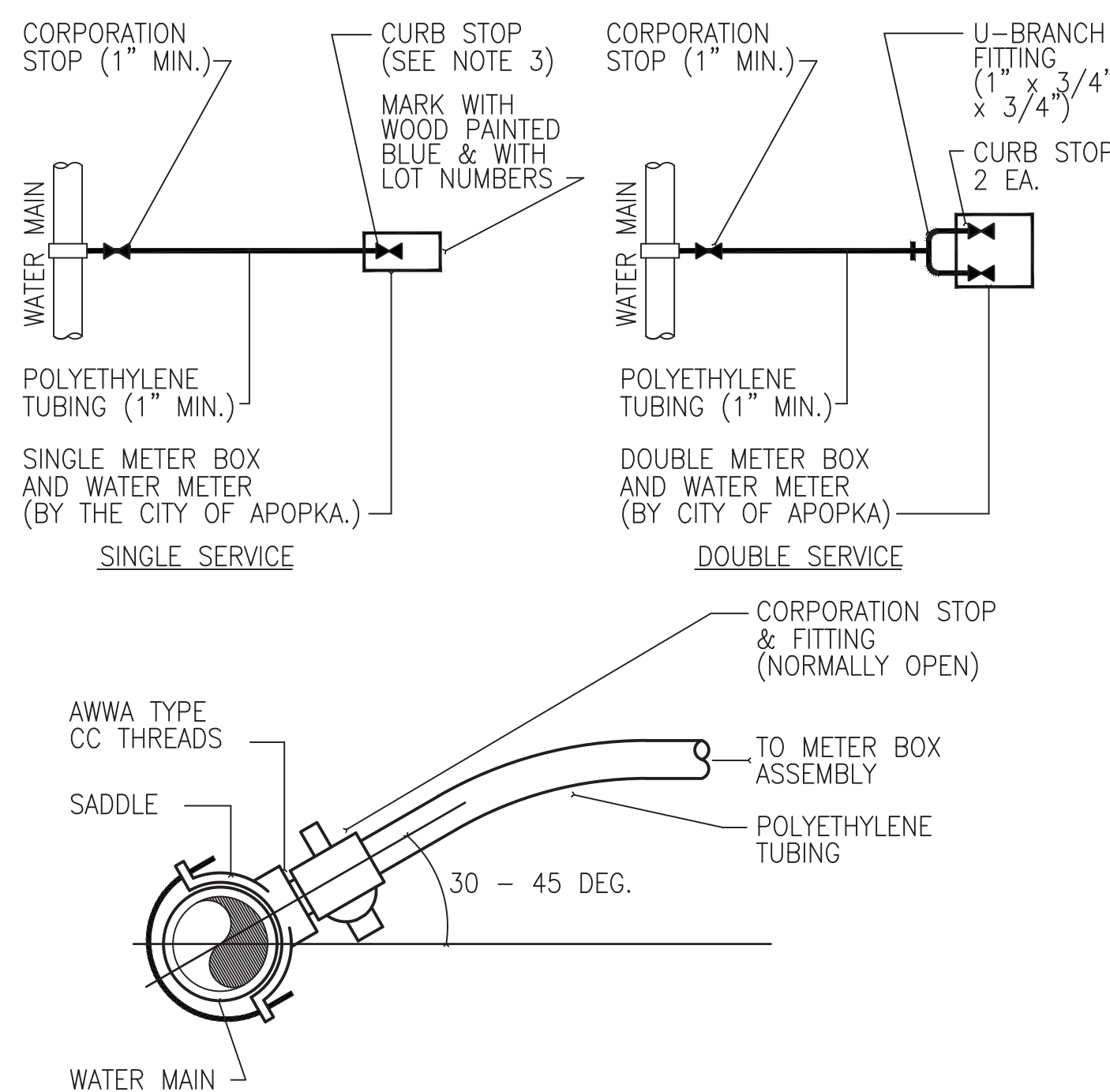
Unless otherwise noted Fire Hydrants to be placed 4 feet behind curb



- NOTES:
1. ANCHORING TYPE 90° BEND SHALL ONLY BE USED WHERE RIGHT-OF-WAY CONSTRICTIONS WILL NOT ALLOW INSTALLATION OF A STRAIGHT ASSEMBLY.

WATER SERVICE LOCATION DETAIL

(FIG. 404)



- 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" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" X 2" X 18" STAKE WITH THE TOP PAINTED BLUE AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.

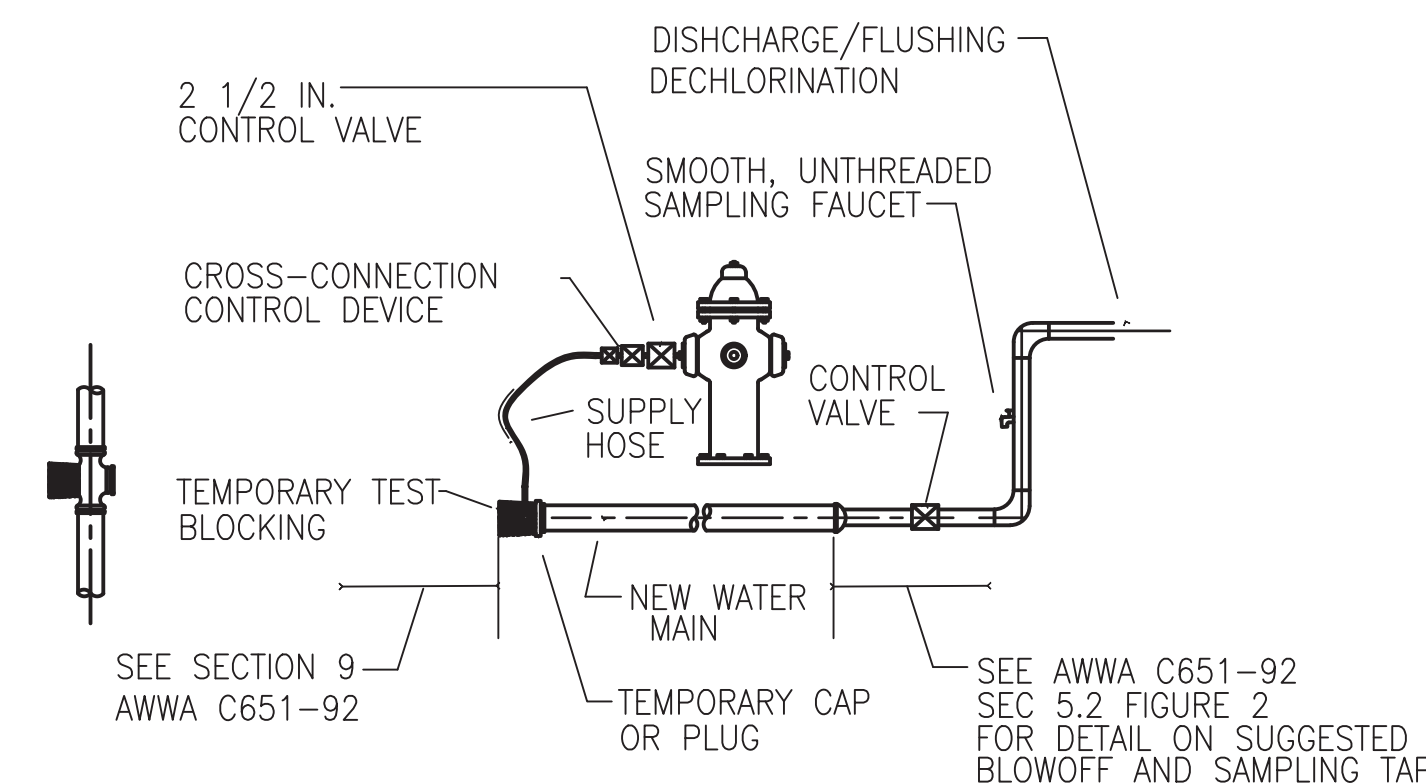
WATER SERVICE CONNECTION DETAILS

(FIG. 405)

NOTES AS PER AWWA C-651-92:

- SEC. 3 BASIC DISINFECTION PROCEDURE
THE BASIC DISINFECTION PROCEDURE CONSISTS OF
1. PREVENTING CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR.
 2. REMOVING, BY FLUSHING OF OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAIN.
 3. CLORINATING ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSHING THE CLORINATED WATER FROM THE MAIN.
 4. PROTECTING THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW DUE TO HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.
 5. DETERMINING THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.
 6. FINAL CONNECTION OF THE APPROVED NEW WATER MAIN TO THE ACTIVE DISTRIBUTION SYSTEM.
- SEC. 4.8 BACKFLOW PROTECTION (OPTIONAL)*
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), THE NEW WATER MAIN SHALL BE KEPT ISOLATED FROM THE ACTIVE DISTRIBUTION SYSTEM BY PHYSICAL SEPERATION (SEE FIGURE 1) UNTIL SATISFACTORY BACTERIOLOGICAL TESTING HAS BEEN COMPLETED AND THE DISINFECTANT WATER FLUSHED OUT. WATER REQUIRED TO FILL THE NEW MAIN FOR HYDROSTATIC PRESSURE TESTING, DISINFECTION, AND FLUSHING SHALL BE SUPPLIED THROUGH A TEMPORARY CONNECTION BETWEEN THE DISTRIBUTION SYSTEM AND THE NEW MAIN. THE TEMPORARY CONNECTION SHALL INCLUDE AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE CONSISTENT WITH THE DEGREE OF HAZZARD, AND SHALL BE DISCONNECTED (PHYSICALLY SEPERATED) FROM THE NEW MAIN DURING THE HYDROSTATIC PRESSURE TEST. IF IT WILL BE NECESSARY TO REESTABLISH THE TEMPORARY CONNECTION AFTER COMPLETION OF THE HYDROSTATIC PRESSURE TEST TO FLUSH OUT THE DISINFECTANT WATER PRIOR TO FINAL CONNECTION OF THE NEW MAIN TO THE DISTRIBUTION SYSTEM.
- SEC. 9 FINAL CONNECTIONS TO EXISTING MAINS (OPTIONAL)*
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), WATER MAINS AND APPURTENANCES MUST BE COMPLETELY INSTALLED, FLUSHED, DISINFECTED, AND SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS RECEIVED PRIOR TO PERMANENT CONNECTIONS BEING MADE TO THE ACTIVE DISTRIBUTION SYSTEM. SANITARY CONSTRUCTION PRACTICES MUST BE FOLLOWED DURING INSTALLATION OF THE FINAL CONNECTION, SO THAT THERE IS NO CONTAMINATION OF THE NEX OR EXISTING WATER MAIN WITH FOREIGN MATERIAL OR GROUNDWATER.
- SEC. 9.1 CONNECTIONS EQUAL TO OR LESS THAN ONE PIPE LENGTH (≤18 FT. [5.5mm])
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), THE NEW PIPE, FITTINGS, AND VALVE(S) REQUIRED FOR THE CONNECTION MAY BE SPRAY-DISINFECTED OR SWABBED WITH A MINIMUM (1) PERCENT SOLUTION OF CLORINE JUST PRIOR TO BEING INSTALLED, IF THE TOTAL LENGTH OF CONNECTION FROM THE END OF A NEW MAIN TO THE EXISTING MAIN IS EQUAL TO OR LESS THAN 18 FT. (5.5mm)
- SEC. 9.2 CONNECTIONS GREATER THAN ONE PIPE LENGTH (>18 FT. [5.5mm])
AS AN OPTIONAL PROCEDURE (IF SPECIFIED BY PURCHASER), THE PIPE REQUIRED FOR THE CONNECTION MUST BE SET UP ABOVEGROUND, DISINFECTED AND BACTERIOLOGICAL SAMPLES TAKEN, AS DESCRIBED IN SEC. 5 THROUGH SEC. 8. IF THE TOTAL LENGTH OF CONNECTION FROM THE END OF A NEW MAIN TO THE EXISTING MAIN IS GREATER THAN 18 FT. (5.5mm), AFTER SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS HAVE BEEN RECEIVED FOR THIS "PREDISINFECTED" PIPE, THE PIPE CAN BE USED IN CONNECTING THE NEW MAIN TO THE ACTIVE DISTRIBUTION SYSTEM. BETWEEN THE TIME THAT SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS ARE RECEIVED AND THE TIME THAT THE CONNECTION PIPING IS INSTALLED, THE ENDS OF THIS PIPING MUST BE SEALED WITH PLASTIC WRAPS OR WATERTIGHT PLUGS OR CAPS.

* CLEAN POTABLE-WATER HOSE ONLY. SIZE AND NUMBER OF TAPS PER AWWA C-651-92 SECTION 5.2.2 TABLE 3. THIS HOSE MUST BE REMOVED DURING THE HYDROSTATIC PRESSURE TEST.
NOTE: FIGURE APPLIES TO PIPE WITH DIAMETERS 4 IN.(100mm) THROUGH 12 IN.(300mm). ALL LARGER SIZES MUST BE HANDLED ON A CASE-BY-CASE BASIS.



SEE SECTION 9
AWWA C651-92

SEE AWWA C651-92
SEC 5.2 FIGURE 2
FOR DETAIL ON SUGGESTED
BLOWOFF AND SAMPLING TAP

TEMPORARY JUMPER CONNECTION

PROJECT NO:	CITY OF APOPKA
DWG FILE:	DESIGN ENGINEERING DIVISION
DETAILS:	748 E. CLEVELAND AVENUE
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NTS:	TEL (407) 886-1751 FAX: (407) 886-1748
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REVISIONS:	City Comments
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DES. BY:	JLT
CHECKED BY:	JEJ
APPROVED BY:	JEJ
PROJECT TITLE:	GENERAL UTILITY DETAILS 4
SHEET:	G-4

GENERAL NOTES:

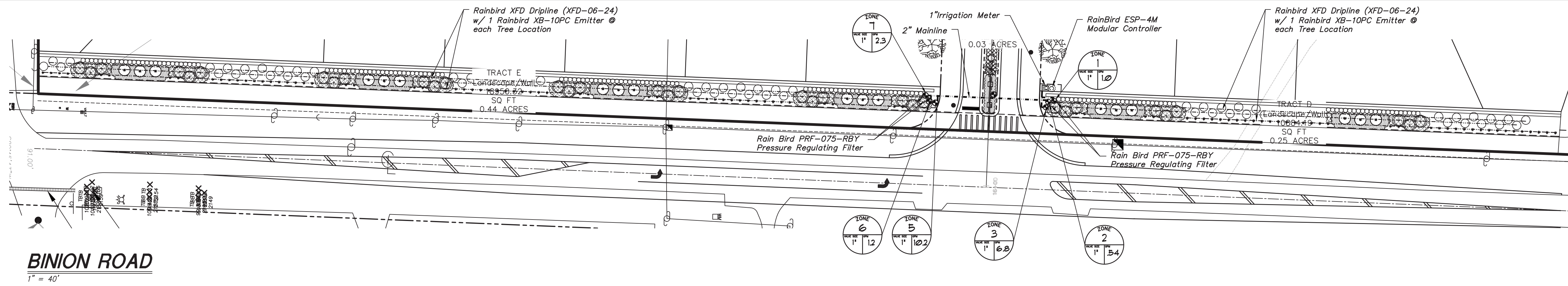
- 1. ALL CONSTRUCTION SHALL CONFORM WITH THE STANDARDS AND SPECIFICATIONS SET FORTH BY LOCAL, STATE AND FEDERAL REGULATIONS, WHICHEVER IS MORE STRINGENT SHALL APPLY.
2. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE THE NECESSARY RIGHT-OF-WAY PERMIT(S) AND PROVIDE FOR THE SAFETY AND CONTROL OF TRAFFIC DURING CONSTRUCTION.
3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN-HAND BEFORE BEGINNING ANY CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING (HORIZONTALLY AND VERTICALLY) ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND FOR NOTIFYING VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISTRIBUTION SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY.
5. THE LOCATION OF ALL EXISTING UTILITIES, STORM DRAINAGE SYSTEMS, AND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR INACCURACY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR WILL HALT CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CITY WITHIN 48 HOURS BEFORE ANY INSPECTIONS. ALSO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA, SCHEDULES AND SIGNING SAID INSPECTIONS.
7. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR SHALL NOT EXCAVATE REMOVE OR OTHERWISE DISTURB ANY MATERIAL, STRUCTURE OR PART OF A STRUCTURE WHICH IS LOCATED OUTSIDE THE LINES, GRADES OR GRADING SECTION, ESTABLISHED FOR THIS PROJECT, EXCEPT WHERE SUCH EXCAVATIONS OR REMOVAL IS PROVIDED OR IN THE CONTRACT, PLANS, OR SPECIFICATIONS.
9. ALL WORK AND ALL MATERIALS FURNISHED SHALL BE IN CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS, AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT, PLANS OR SPECIFICATIONS.
10. PROVIDE A MINIMUM OF 3 FT COVER FOR ALL UTILITIES UNLESS OTHERWISE NOTED.
11. COMPACT ALL UTILITIES TRENCHES WITHIN ROADWAYS TO 98% OF THE PROCTOR MAXIMUM DENSITY.
12. THE SPECIFICATIONS, NOTES AND PLANS CALL ATTENTION TO CERTAIN REQUIRED FEATURES OF THE CONSTRUCTION BUT DO NOT PURPORT TO COVER ALL DETAILS OF DESIGN AND CONSTRUCTION. HOWEVER, THE CONTRACTOR SHALL FURNISH AND INSTALL THE WORKS IN ALL DETAILS AND READY FOR OPERATION.
13. ALL EQUIPMENT SHALL BE HANDLED, STORED, INSTALLED, TESTED AND OPERATED IN STRICT ACCORDANCE WITH THE APPLICABLE MANUFACTURER'S WRITTEN INSTRUCTIONS.
14. ALL WORK SHALL BE ACCOMPLISHED TO THE HIGHEST QUALITY CRAFTSMANSHIP STANDARDS.
15. ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES ORDINANCES REGULATIONS.
16. APPARENT ERRORS, DISCREPANCIES OR OMISSIONS ON THE DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BIDDING.
17. AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TO THE CITY, A COMPLETED ASBUILT ONE WEEK BEFORE FINAL INSPECTION. BEFORE THE FINAL ACCEPTANCE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A SITE CLEANUP FOR THE REMOVAL OF TRASH, DEBRIS, EXCESS MATERIALS AND EQUIPMENT TO PRESENT THE PROJECT SITE CLEAN AND IN GOOD ORDER.
18. NO EXTRA PAYMENTS WILL BE ALLOWED FOR ANY WORK REQUIRED DUE TO MISUNDERSTANDING OF JOB OR SITE CONDITIONS AFFECTING THE WORK AS DESCRIBED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION IN THE DRAWINGS OR SPECIFICATIONS, AND THE ENGINEER SHALL BE PERMITTED TO MAKE CORRECTIONS AND INTERPRETATION AS MAY BE DEEMED NECESSARY FOR THE FULFILLMENT OF THE INTENT OF THE CONTRACTS DOCUMENTS. THE TENDERING OF A PROPOSAL WILL ACKNOWLEDGE ACCEPTANCE OF THESE CONDITIONS BY THE BIDDER.
19. THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF DETAILED SHOP DRAWINGS OF ALL MAJOR ITEMS PROPOSED FOR THIS PROJECT TO THE ENGINEER PRIOR TO ORDERING ANY OF THE EQUIPMENT. TWO (2) COPIES OF THE SHOP DRAWINGS WILL BE RETURNED TO THE CONTRACTOR. UPON THE CONTRACTOR'S RECEIPT OF APPROVED SHOP DRAWINGS FROM THE ENGINEER, THE CONTRACTOR MAY PROCEED WITH THE WORK.
20. INSTALL VALVE BOXES WITH ALL VALVES. VALVE BOXES UNDER THE PAVEMENTS SHALL HAVE TRAFFIC BEARING COVERS.
21. SEPARATION OF WATER MAINS, SANITARY SEWERS & STORM SEWERS SHALL BE AS PER THE RECOMMENDATION OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REQUIREMENTS.
A. UTILITY SEPARATION-VERTICAL CLEARANCE
WHERE WATER AND GRAVITY SANITARY SEWER MAINS CROSS WITH LESS THAN 18 INCHES VERTICAL CLEARANCE OR THE SEWER MAIN IS ABOVE THE WATER MAIN, THE SANITARY SEWER SHALL BE SHOWN ON THE SHEET OF PVC UPGRADED TO WATER MAIN STANDARDS AND PRESSURE TESTED TO AWWA C900/ASTM 1784
WHERE WATER MAINS AND STORM SEWERS PIPES CROSS WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE WATER MAIN SHALL BE 20 FEET OF DUCTILE IRON PIPE CENTERED ON THE POINT OF CROSSING.
B. UTILITY SEPARATION-HORIZONTAL SEPARATION
WHEN A WATER MAIN PARALLELS A GRAVITY SANITARY SEWER MAIN, A SEPARATION (MEASURED EDGE TO EDGE) OF AT LEAST 10 FEET SHOULD BE MAINTAINED. WHERE THIS SEPARATION IS NOT MET, ONE OF THE FOLLOWING MUST OCCUR:
1. THE WATER MAIN IS LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR;
2. IF BOTH SANITARY SEWER AND POTABLE WATER MAINS ARE PROPOSED AND ABOVE (1) IS NOT MET, THE SANITARY SEWER PIPES SHALL BE UPGRADED TO THE EQUIVALENT PIPE MATERIAL AS THE WATER MAIN AND PRESSURE TESTED. DUCTILE IRON SHALL NOT BE USED FOR SANITARY SEWER UNLESS APPROVED BY THE DIRECTOR.
3. IF THE SANITARY SEWER IS EXISTING AND THE POTABLE WATER MAIN IS PROPOSED, THE WATER MAIN SHALL, AT A MINIMUM, BE UPGRADED TO DUCTILE IRON PIPE, CONSTRUCTED IN SEPARATE TRENCHES, LAID AT A HIGHER ELEVATION THAN THE SANITARY SEWER, AND UTILIZE STAGGERED JOINTS.
C. FORCE MAINS
SEPARATION BETWEEN FORCE MAIN AND WATER MAINS MUST BE MAINTAINED UNLESS APPROVED BY FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
D. SEWER MANHOLES
NO WATER PIPES SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER MANHOLE.
22. WATER MAIN MATERIALS:
A. PVC PIPE: PVC PIPE OF NORMAL DIAMETER OF FOUR (4) THROUGH TWELVE (12) INCHES SHALL BE (BLUE) AWWA STANDARD C900, CLASS 150, DR 18, AND SHALL BEAR THE NSF LOGO FOR POTABLE WATER USE. AND MUST MEET THE REQUIREMENTS OF ASTM D-1784.

- B. DUCTILE IRON PIPE: DUCTILE IRON PIPE FOR WATER MAIN FOR PIPE SIZES OF FOUR (4) THROUGH FIFTY (50) INCHES SHALL CONFORM TO ANSI/AWWA A21.51/C151. A MINIMUM OF CLASS 50 UNLESS OTHERWISE NOTED.
C. PVC WATER MAIN JOINTS:
1. PVC PIPE SHALL HAVE INTEGRAL BELL PUSH ON TYPE JOINTS CONFORMING TO ASTM D3139.
2. JOINTS FOR DUCTILE IRON PIPE AND FITTING JOINTS SHALL BE PUSH-ON OR MECHANICAL JOINTS CONFORMING TO ANSI/AWWA A21.11/C111. WHERE CALLED FOR IN THE PLANS, RESTRAINED OR FLANGED JOINTS SHALL BE PROVIDED. FLANGED JOINTS SHALL CONFORM TO ANSI STANDARD B16.1-125LB. RESTRAINED JOINTS SHALL CONFORM TO NOTE 31 OF THIS SHEET.
D. PVC AND DUCTILE IRON PIPE WATER MAIN FITTINGS:
1. ANY FITTINGS REQUIRED SHALL BE MECHANICAL JOINT DUCTILE IRON OR GREY IRON CONFORMING TO ANSI/AWWA A21.10/C110, 25 PSI MINIMUM PRESSURE RATING, OR DUCTILE IRON COMPACT FITTINGS FOUR (4) THROUGH TWELVE (12) INCHES IN ACCORDANCE WITH ANSI/AWWA A21.53/C153.
E. SERVICE PIPE, STOPS AND FITTINGS:
1. SERVICE PIPE:
ALL SERVICE LINES SHALL BE 1", 1-1/2" OR 2" POLYETHYLENE TUBING. WITH NSF LOGO FOR POTABLE WATER USE, AND MUST CONFORM TO SPECIFICATION IN AWWA C800 AND AWWA C901.
2. STOPS:
CORPORATION STOPS SHALL BE 1", 1-1/2" OR 2" BRASS, EQUIPPED WITH CONNECTIONS COMPATIBLE WITH THE POLYETHYLENE TUBING AND THREADED IN ACCORDANCE WITH SPECIFICATIONS IN AWWA C800 AND AWWA C901. CURB STOPS SHALL BE SIZED TO MATCH THE METER SIZE AND CONFORM TO THE SPECIFICATIONS IN AWWA C800 AND AWWA C901.
3. FITTINGS:
FITTINGS SHALL BE BRASS, CAST AND MACHINED IN ACCORDANCE WITH SPECIFICATIONS IN AWWA C800 AND AWWA C901. WITH COMPATIBLE POLYETHYLENE TUBING CONNECTIONS.
4. SERVICE SADDLES:
A SERVICE SADDLE SHALL BE USED FOR ALL SERVICE LINE TRAPS. SERVICE SADDLES SHALL BE DOUBLE STRAP, ANCHORED BY A MINIMUM FOUR (4) BOLT PATTERN ON A DUCTILE IRON SADDLE BODY. SERVICE SADDLES FOR PVC PIPES SHALL HAVE THE DOUBLE STRAP SIZED EXACTLY TO THE PIPE OUTSIDE DIAMETER. SEALING GASKETS SHALL BE BUNA-N RUBBER AND STRAPS SHALL BE CORROSION RESISTANT ALLOY STEEL.
THE CITY MAY REQUIRE A STAINLESS STEEL STRAP AND FUSION EPOXY OR NYLON COATED DUCTILE IRON BODY WITH STAINLESS STEEL HARDWARE IN AREAS DESIGNATED AS CORROSIVE.
F. MARKING FOR WATERMAIN:
ALL NON-METALLIC WATERMANS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10 GAUGE INSULATED COPPER WIRE (RATED FOR 600 V AND FOR DIRECT BURY) INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. IN ADDITION ALL PVC WATERMANS SHALL BE EITHER A SOLID BLUE COLOR OR WHITE WITH BLUE LETTERING. ALL LETTERING SHALL APPEAR LEGIBLY ON PIPE AND SHALL RUN THE ENTIRE LENGTH OF THE PIPE. LETTERING SHALL READ AS IS ACCEPTABLE FOR THE INTENDED USE.
ALL DUCTILE IRON WATER MAINS SHALL BE MARKED WITH A CONTINUOUS STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE. SAID STRIPE SHALL BE A MINIMUM 2 INCHES IN WIDTH AND SHALL BE BLUE IN COLOR. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION.
23. SANITARY PIPE MATERIALS:
A. PVC GRAVITY SEWER PIPE:
PVC GRAVITY SEWER PIPE (4"-15"), ASTM D3034, SDR 35, UNIFORM MINIMUM "PIPE STIFFNESS" AT FIVE (5) PERCENT DEFLECTION SHALL BE 46 PSI. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI-B-4. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL. THE MINIMUM STANDARD LENGTH OF THE PIPE SHALL BE THIRTEEN (13) FEET.
B. DIP GRAVITY SEWER PIPE:
DUCTILE IRON PIPE SHALL CONFORM TO ANSI/AWWA A21.51/C151. CLASS THICKNESS DESIGNATED PER ANSI/AWWA A21.51/C151. WITH MECHANICAL JOINTS. INTERIOR PROTECTIVE LINING OF COAL TAR EPOXY SHALL BE PROVIDED WITH A MINIMUM DRY THICKNESS OF 30 MILS. DUCTILE IRON GRAVITY SEWERS, WHERE CALLED FOR BY THE CITY, SHALL BE WRAPPED WITH POLYETHYLENE FILM, AWWA C105. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE EIGHTEEN (18) FEET. (DUCTILE IRON SHALL NOT BE USED FOR SANITARY SEWER UNLESS APPROVED BY THE DIRECTOR)
C. PIPE MARKINGS:
ALL PIPE SHALL HAVE A HOMING MARK ON THE SPIGOT PROVIDED BY THE MANUFACTURER. ON FIELD CUT PIPE, CONTRACTOR SHALL PROVIDE HOMING MARK ON THE SPIGOT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
D. JOINT MATERIALS:
1. PVC PIPE: PVC SEWER PIPE JOINTS SHALL BE FLEXIBLE ELASTOMERIC SEALS PER ASTM D3212.
2. DUCTILE IRON PIPE: DUCTILE IRON PIPE AND FITTING JOINTS SHALL BE "PUSH ON" OR MECHANICAL JOINTS CONFORMING TO ANSI A21.11.
E. FITTINGS:
ALL FITTINGS SHALL BE THE SAME MATERIAL AS THE PIPE.
24. FORCEMAINS:
A. PVC PIPE: PVC PIPE OF NORMAL DIAMETER OF FOUR (4) THROUGH TWELVE (12) INCHES SHALL BE GREEN AWWA C900, CLASS 150 DR 25 OR CLASS 100 DR 21 AND MUST MEET THE REQUIREMENTS OF ASTM D-1784.
B. DUCTILE IRON PIPE: DUCTILE IRON PIPE FOR FORCE MAINS FOR PIPE SIZES OF FOUR (4) THROUGH FIFTY FOUR (54) INCHES SHALL CONFORM TO ANSI/AWWA A21.51/C151. A MINIMUM OF CLASS 50 UNLESS OTHERWISE NOTED. (DUCTILE IRON SHALL NOT BE USED FOR FORCE MAIN UNLESS APPROVED BY THE DIRECTOR)
C. FORCEMAIN JOINTS:
1. PVC PIPE SHALL HAVE INTEGRAL BELL PUSH-ON TYPE JOINTS CONFORMING TO ASTM D3139.
2. JOINTS FOR DUCTILE IRON PIPE AND FITTING SHALL BE THE SAME AS IN NOTE 22-C.2 OF THIS SHEET.
D. FORCEMAIN FITTINGS:
1. FORCEMAIN FITTING FOR PVC AND DIP SHALL BE THE SAME AS IN NOTE 22-D.1 OF THIS SHEET.
F. MARKING FOR FORCEMAIN:
ALL NON-METALLIC FORCE MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10 GAUGE INSULATED COPPER WIRE (RATED FOR 600 V AND FOR DIRECT BURY) INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. IN ADDITION ALL PVC FORCE MAINS SHALL BE EITHER A SOLID GREEN COLOR OR WHITE WITH GREEN LETTERING. ALL LETTERING SHALL APPEAR LEGIBLY ON PIPE AND SHALL RUN THE ENTIRE LENGTH OF THE PIPE. LETTERING SHALL READ AS IS ACCEPTABLE FOR THE INTENDED USE.
ALL DUCTILE IRON FORCE MAINS SHALL BE MARKED WITH A CONTINUOUS STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE. SAID STRIPE SHALL BE A MINIMUM 2 INCHES IN WIDTH AND SHALL BE GREEN IN COLOR. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION.
25. RECLAIMED WATERMANS:
A. PVC PIPE: PVC PIPE OF NORMAL DIAMETER OF FOUR (4) THROUGH TWELVE (12) INCHES SHALL BE LAVENDER AWWA C500, CLASS 150, SDR 18 AND MUST MEET THE REQUIREMENTS OF ASTM D-1784.
B. DUCTILE IRON PIPE: DUCTILE IRON PIPE FOR RECLAIMED WATER FOR PIPE SIZES OF FOUR (4) THROUGH FIFTY FOUR (54) INCHES SHALL CONFORM TO ANSI/AWWA A21-51/C151. A MINIMUM OF CLASS 50 UNLESS OTHERWISE NOTED. TO ASTM D3139

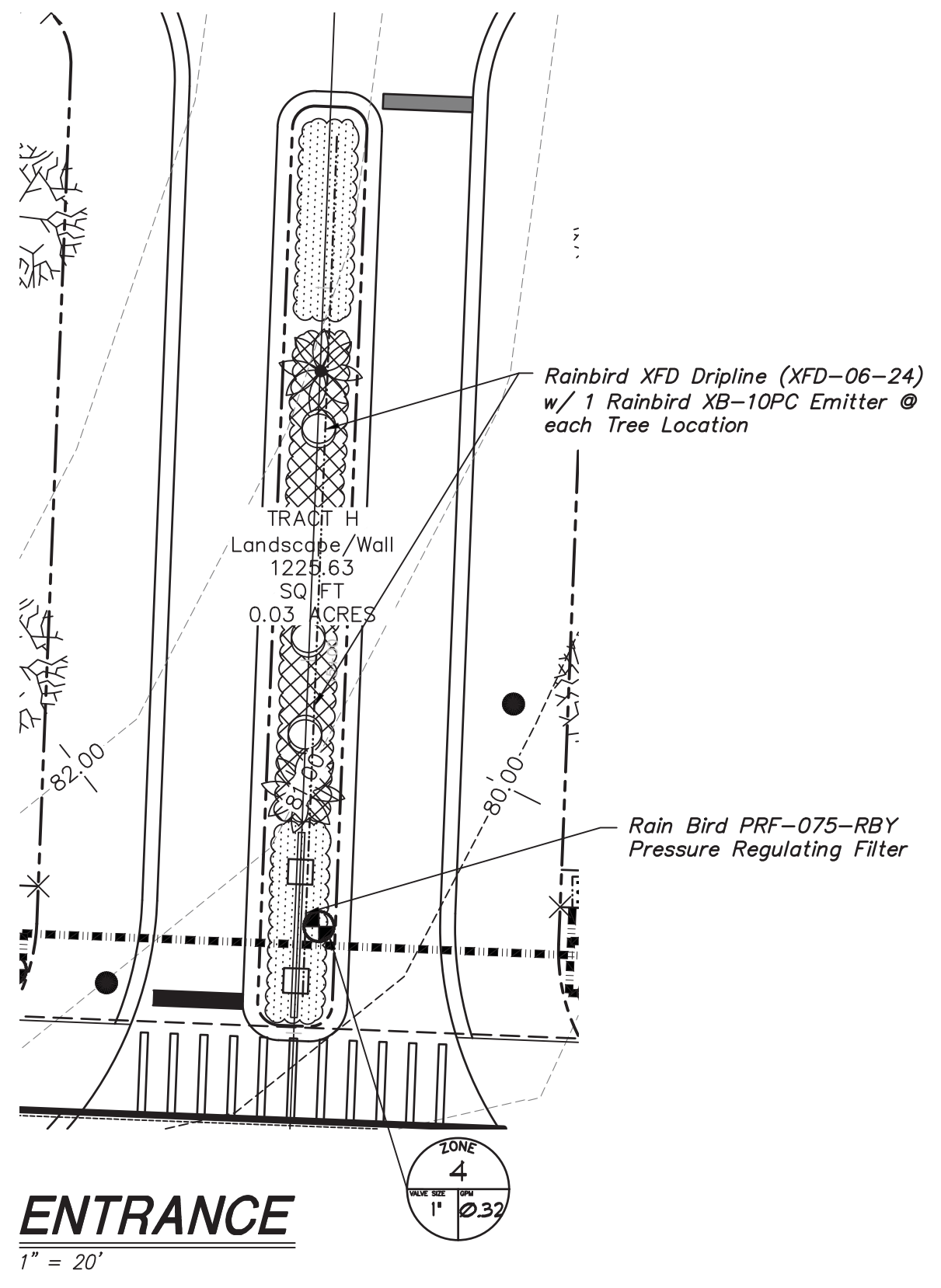
- C. RECLAIMED MAIN JOINT:
1. PVC PIPE SHALL HAVE INTEGRAL BELL PUSH-ON TYPE JOINTS CONFORMING TO ASTM D3139
2. JOINTS FOR DUCTILE IRON PIPE AND FITTING SHALL BE THE SAME AS IN NOTE 24-C.2 OF THIS SHEET.
D. RECLAIMED MAIN FITTINGS:
1. RECLAIMED MAIN FITTING FOR PVC AND DIP SHALL BE THE SAME AS IN NOTE 22-D.1 OF THIS SHEET.
F. MARKING FOR RECLAIMED WATER MAIN:
ALL NON-METALLIC WATERMANS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10 GAUGE INSULATED COPPER WIRE (RATED FOR 600 V AND FOR DIRECT BURY) INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. IN ADDITION ALL PVC WATER MAINS SHALL BE EITHER A SOLID PURPLE COLOR OR WHITE WITH PURPLE LETTERING. ALL LETTERING SHALL APPEAR LEGIBLY ON PIPE AND SHALL RUN THE ENTIRE LENGTH OF THE PIPE. LETTERING SHALL READ AS IS ACCEPTABLE FOR THE INTENDED USE.
ALL DUCTILE IRON FORCE MAINS SHALL BE MARKED WITH A CONTINUOUS STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE. SAID STRIPE SHALL BE A MINIMUM 2 INCHES IN WIDTH AND SHALL BE PURPLE IN COLOR. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION.
26. THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOAD RESTRICTIONS IN HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT.
27. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY, AND ROUTE DISCHARGE WATER IN SUCH A MANNER AS TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM THE SITE.
28. VALVES:
A. BUTTERFLY VALVES ARE REQUIRED ON LINES BEING 16" OR GREATER.
B. VALVES 2" AND SMALLER: VALVES SHALL BE BRONZE, WEDGE, DISC, NON-RISING STEM TYPE, 150 PSI MINIMUM WORKING PRESSURE, EQUIPPED WITH WROUGHT STEEL, ALUMINUM OR CAST IRON OPERATING HAND WHEEL. VALVES SHALL MEET FEDERAL SPECIFICATIONS WW54D, TYPE 1, CLASS A VALVES SHALL BE FIGURE 3FG AS MANUFACTURED BY AMERICAN VALVE COMPANY OR APPROVED EQUAL.
C. VALVE BOXES: UNITS SHALL BE SCREW TYPE, CAST IRON. MINIMUM DIAMETER OF 6" WITH COVER CAST WITH THE APPLICABLE INSCRIPTION IN LEGIBLE LETTERING ON THE TOP "WATER". BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE DOMESTIC ONLY AND SHALL BE MANUFACTURED BY TYLER COMPANY OR APPROVED EQUAL.
D. WASTEWATER AIR/VACUUM-RELEASE VALVE: THE VALVE BODY SHALL BE OF CAST IRON ASTM A126-B; THE FLOAT, FLOOD GUIDE AND STEM SHALL BE OF STAINLESS STEEL TYPE 304. THE RESILIENT SEAT SHALL BE OF BUNA-N THE VALVE SHALL BE SUITABLE FOR 150 PSIG WORKING PRESSURE. VALVE SHALL BE STANDARD TWO (2) INCH NPT INLET AND OUTLET PORTS.
E. RESILIENT SEAT GATE VALVES: VALVES SHALL BE RESILIENT SEAT WEDGE TYPE. VALVES SHALL BE FURNISHED WITH O-RING STEM SEALS USING 2 O-RINGS LOCATED ABOVE AND 1 O-RING LOCATED BELOW THE THRUST COLLAR. O-RINGS SHALL BE SET IN THE GROOVES IN THE STEM. INTERNAL AND EXTERNAL SURFACES OF THE VALVE BODY AND BONNET SHALL BE COATED WITH EPOXY TO AWWA C550 STANDARDS. GATES FOR ALL VALVE SIZES SHALL BE COMPLETELY ENCAPSULATED IN RUBBER INCLUDING STEM BORE. VALVES SHALL BE CAPABLE OF INSTALLATION IN ANY POSITION WITH RATED SEALING IN BOTH DIRECTIONS. VALVES SHALL BE STYLE 3067 AS MANUFACTURED BY M&H VALVE COMPANY OR APPROVED EQUAL.
F. RESILIENT TAPPING VALVES: VALVES SHALL BE FURNISHED WITH THE DESIGN TAPPING FLANGE HAVING A RAISED FACE OR LIP DESIGNED TO ENGAGE THE CORRESPONDING RECESS IN THE TAPPING SLEEVE FLANGE IN ACCORDANCE WITH MSS SP60. TAPPING VALVES WITHOUT THE RAISED FACE ON THE TAPPING FLANGE ARE NOT PERMITTED SINCE THEY DO NOT ASSURE THE PROPER ALIGNMENT REQUIRED TO PREVENT DAMAGE BY A MISALIGNED SHELL CUTTER. THE INTERIOR OF THE WATERWAY IN THE BODY SHALL BE FULL OPENING AND CAPABLE OF PASSING A FULL SIZED SHELL CUTTER EQUAL TO THE NOMINAL DIAMETER OF THE VALVE. SHALL BE METROSEAL AS MANUFACTURED BY U.S. PIPE OR APPROVED EQUAL.
G. BUTTERFLY VALVES (BFV): VALVES SHALL BE CAST OR DUCTILE IRON BODY ALLOY, CAST IRON OR DUCTILE IRON DISC. VALVE SEAT SHALL BE 18.8 STAINLESS STEEL MADE INTEGRAL WITH THE VALVE BODY, SHAFT SIZE AND OTHER SPECIAL REQUIREMENTS SELECTED IN ACCORDANCE WITH THE SPECIFIC DESIGN AND SHALL COMPLY WITH PROVISIONS OF AWWA C504 RUBBER-SEATED BUTTERFLY VALVES". VALVE OPERATIONS SHALL BE APPROVED GEAR ACTUATORS, WITH SEALED ENCLOSURES FOR BURIED OR SUBMERGED SERVICE. UNITS SHALL BE EQUIPPED WITH ACTUATING NUTS, CAST IRON HANDWHEELS OR CHAIN OPERATORS WITH GALVANIZED STEEL CHAINS, AS APPROPRIATE FOR THE INSTALLATION. VALVES SHALL BE STYLE 450 AS MANUFACTURED BY M&H VALVE COMPANY OR APPROVED EQUAL.
29. CONNECTION TO EXISTING LINES. TO WHICH PIPING OF THIS CONTRACT MUST CONNECT, THE FOLLOWING WORK SHALL BE PERFORMED.
A. EXPOSE BURIED LINES TO CONFIRM OR DETERMINE END CONNECTION, PIPE MATERIAL AND DIAMETER.
B. FURNISHING AND INSTALLING PIPING AND MAKING PROPER CONNECTIONS.
30. THRUST BLOCKS:
A. LONGITUDINAL THRUST ALONG PRESSURIZED PIPE LINES AT BENDS, TEES, REDUCERS, AND CAPS OR PLUGS SHALL BE COUNTERACTED BY ENOUGH WEIGHT OF CONCRETE TO COUNTER BALANCE THE VERTICAL AND HORIZONTAL THRUST FORCE. WHERE UNDISTURBED TRENCH WALLS ARE NOT AVAILABLE FOR BLOCKING, THE CONTRACTOR SHALL FURNISH AND INSTALL SUITABLE PIPE HARNESSES OR TIES DESIGNED AND MANUFACTURED SPECIFICALLY FOR THIS PURPOSE. HARNESSES AND/OR TIES SHALL BE APPROVED BY THE ENGINEER.
B. JOINTS SHALL BE PROTECTED BY FELT ROOFING PAPER PRIOR TO PLACING CONCRETE THRUST BLOCK.
C. BEARING AREA OF THRUST BLOCKS SHALL BE ADEQUATE TO PREVENT ANY MOVEMENT OF THE FITTING AND SHALL BE OF THE SIZE AND DIMENSIONS AS SHOWN ON THE DRAWINGS.
D. CONCRETE FOR THRUST BLOCKINGS SHALL BE CLASS C. CONCRETE SHALL BE PLACED AGAINST UNDISTURBED MATERIAL, AND SHALL NOT COVER JOINTS, BOLTS OR NUTS, OR INTERFERE WITH THE REMOVAL OF ANY JOINT. WOODEN SIDE FORMS SHALL BE PROVIDED FOR THRUST BLOCKS. IN LIEU OF THRUST BLOCKING AND WITH THE APPROVAL OF THE ENGINEER, PIPE HARNESSES AND/OR TIES OR RESTRAINED PUSH-ON OR RESTRAINED MECHANICAL JOINTS MAY BE USED.
E. RESTRAINED JOINTS SHALL BE USED WHERE SHOWN ON THE DRAWINGS.
31. RESTRAINED JOINTS:
A. SECTIONS OF PIPING DESIGNATED ON THE DRAWINGS AS HAVING RESTRAINED JOINTS OR THOSE REQUIRING RESTRAINED JOINTS SHALL BE CONSTRUCTED USING PIPE AND FITTINGS WITH RESTRAINED "LOCKED-TYPE" JOINTS AND THE JOINTS SHALL BE CAPABLE OF HOLDING AGAINST WITHDRAWAL FOR LINE PRESSURES 50 PERCENT ABOVE THE NORMAL WORKING PRESSURE, BUT NOT LESS THAN 150 PSI. THE PIPE AND FITTINGS SHALL BE SHOWN FOR RESTRAINED PUSH-ON JOINTS OR RESTRAINED MECHANICAL JOINTS ON PAGE 416 IN SECTION VI, IN THE HANDBOOK OF CAST IRON PIPE, 4TH EDITION. MECHANICAL JOINT DUCTILE IRON PIPE RETAINER GLANDS WILL BE PERMITTED ONLY WHEN RESTRAINED JOINTS ARE NOT READILY AVAILABLE.
B. RESTRAINED PIPE JOINTS THAT ACHIEVE RESTRAINT BY INCORPORATING CUT OUT SECTIONS IN THE WALL OF THE PIPE SHALL HAVE A MINIMUM WALL THICKNESS AT THE POINT OF CUT OUT THAT CORRESPONDS WITH THE MINIMUM SPECIFIED THICKNESS FOR THE REST OF THE PIPE.
C. THE MINIMUM NUMBER OF RESTRAINED JOINTS REQUIRED FOR RESISTING FORCES AT FITTINGS AND CHANGES IN DIRECTION OF PIPE SHALL BE DETERMINED FROM THE LENGTH OF THE RESTRAINED PIPE ON EACH SIDE OF FITTINGS AND CHANGES IN DIRECTION NEEDS TO DEVELOP RESISTING FRICTION WITH THE SOIL. THE FORMULA AND PARAMETERS GIVEN BELOW SHALL BE USED TO DETERMINE THE MINIMUM REQUIREMENTS.

- D. BOLTS AND NUTS FOR RESTRAINED JOINTS SHALL BE CORTEN, LOW ALLOW, HIGH STRENGTH STEEL
E. THE CONTRACTOR SHALL ALSO PROVIDE RESTRAINED JOINTS IN ACCORDANCE WITH THE ABOVE CRITERIA WHENEVER THRUST BLOCKS ARE NOT USED IN CONNECTION WITH BELOW GROUND FITTINGS ON LINES 6 INCHES IN DIAMETER OR LESS AND AS APPROVED BY THE ENGINEER.
32. PRESSURE AND LEAKAGE TEST OF UNDERGROUND PRESSURE PIPING:
A. HYDROSTATIC PRESSURE AND LEAKAGE TEST SHALL CONFORM WITH SECTION 7.3 OF AWWA C900 (PVC) AND SECTION 5.2 OF AWWA C500 (DIP) SPECIFICATION WITH THE EXCEPTION THAT THE CONTRACTOR SHALL FURNISH ALL GAUGES, METERS, PRESSURE PUMPS AND OTHER EQUIPMENT NEEDED TO TEST THE LINE.
B. THE PRESSURE REQUIRED FOR THE FIELD HYDROSTATIC PRESSURE TEST SHALL BE 50 PERCENT ABOVE THE NORMAL WORKING PRESSURE BUT NOT LESS THAN 150 PSI. THE CONTRACTOR SHALL PROVIDE TEMPORARY PLUGS AND BLOCKING NECESSARY TO MAINTAIN THE REQUIRED TEST PRESSURE. CORPORATION COCKS AT LEAST 3/4" IN DIAMETER, THE RISER AND ANGLE GLOBE VALVES SHALL BE PROVIDED AT EACH PIPE DEAD-END IN ORDER TO BLEED AIR FROM THE LINE. DURATION OF PRESSURE TEST SHALL BE AT LEAST TWO HOURS WITH NO DROP IN TEST PRESSURE. THE COST OF THESE ITEMS SHALL BE PAID BY THE CONTRACTOR.
C. THE LEAKAGE TEST SHALL BE CONDUCTED FOLLOWING THE PRESSURE TEST AND SHALL BE OF NOT LESS THAN 2 HOURS DURATION. ALL LEAKS EVIDENT AT THE SURFACE SHALL BE REPAIRED AND LEAKAGE ELIMINATED REGARDLESS OF TOTAL LEAKAGE AS SHOWN BY TEST. LINES WHICH FAIL TO MEET TESTS SHALL BE REPAIRED AND RETESTED AS NECESSARY UNTIL TEST REQUIREMENTS ARE COMPLIED WITH. DEFECTIVE MATERIALS, PIPES, VALVES AND ACCESSORIES SHALL BE REMOVED AND REPLACED. THE PIPE LINES SHALL BE TESTED IN SUCH SECTIONS AS MAY BE DIRECTED BY THE ENGINEER BY SHUTTING VALVES OR INSTALLING TEMPORARY PLUGS AS REQUIRED. THE LINES SHALL BE FILLED WITH WATER ALL AIR REMOVED AND THE TEST PRESSURE SHALL BE MAINTAINED IN THE PIPE FOR THE ENTIRE TEST PERIOD BY MEANS OF A FORCE PUMP TO BE FURNISHED BY THE CONTRACTOR. ACCURATE MEANS SHALL BE PROVIDED FOR MEASURING THE WATER REQUIRED TO MAINTAIN THIS PRESSURE. THE AMOUNT OF WATER REQUIRED IS A MEASURE OF THE LEAKAGE.
D. THE AMOUNT OF LEAKAGE WHICH WILL BE PERMITTED SHALL BE IN ACCORDANCE WITH AWWA C600 STANDARDS FOR ALL PRESSURE. NO PIPE INSTALLATION SHALL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THE FOLLOWING FORMULA:
THIS FORMULA SHALL BE USED FOR PVC PIPE (PVC).
THIS FORMULA SHALL BE USED FOR DUCTILE IRON PIPE (DIP).
L = (ND*sqrt(P))/7,400
L = (SD*sqrt(P))/133,200
WHERE:
L = ALLOWABLE LEAKAGE (GAL/HOUR)
S = LENGTH OF PIPE TESTED (LINEAR FEET)
D = NOMINAL DIAMETER OF PIPE (INCHES)
P = AVERAGE TEST PRESSURE (PSI)
P = 150 PSI FOR WATERMANS
P = 100 PSI FOR FORCEMANS
E. THE CONTRACTOR MUST SUBMIT HIS PLAN FOR TESTING TO THE ENGINEER FOR REVIEW AT LEAST TEN (10) DAYS BEFORE STARTING THE TEST. THE CONTRACTOR SHALL REMOVE AND ADEQUATELY DISPOSE OF ALL BLKING MATERIAL AND EQUIPMENT AFTER COMPLETION AND ACCEPTANCE OF THE FIELD HYDROSTATIC TEST, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY DAMAGE TO THE PIPE COATING SHALL BE REPAIRED BY THE CONTRACTOR. LINES SHALL BE TOTALLY FREE AND CLEAN PRIOR TO FINAL ACCEPTANCE.
33. DISINFECTING:
PRIOR TO ACCEPTANCE OF THE LINES, AND PRIOR TO USE OF SAID MAINS OF DOMESTIC PURPOSES, THE CONTRACTOR SHALL FLUSH THE LINE CLEAR OF FOREIGN MATERIAL AND THEN STERILIZE THE PIPELINE, INCLUDING ALL VALVES AND FITTINGS, IN ACCORDANCE WITH AWWA C651.
34. CHLORINATION:
THE CHLORINATING AGENT SHALL BE APPLIED AT THE BEGINNING OF THE SECTION ADJACENT OF THE FEEDER CONNECTION AND SHALL BE INJECTED THROUGH A CORPORATION COCK, HYDRANT OR OTHER CONNECTION INSURING TREATMENT OF THE ENTIRE LINE. THE CHLORINATING AGENT SHALL BE ANY COMPOUND SPECIFIED BY SAID AWWA C651 REQUIREMENTS, SUCH AS "HTH" OR OTHER APPROVED CHLORINE-BEARING COMPOUNDS. WATER SHALL BE FED SLOWLY INTO THE NEW LINE WITH CHLORINE APPLIED IN AMOUNTS TO PRODUCE A DOSAGE OF 40 TO 50 PPM AND A RESIDUAL OF NOT LESS THAN 50 PPM IN ALL PARTS OF THE LINE AFTER A 24-HOUR PERIOD HAS ELAPSED. DURING CHLORINATION PROCESS, OPERATE ALL VALVES AND ACCESSORIES.
35. FLUSHING THE WATER LINE:
CARE SHALL BE TAKEN TO PROVIDE DISINFECTIONS TO THE TOTAL SYSTEM AND EXTREMITIES SHALL BE CAREFULLY FLUSHED TO ACCOMPLISH THIS END.
36. CONNECTION TO EXISTING WATER MAINS
IF CONNECTION OF PROPOSED W.M. WILL RESULT IN DEPRESSURIZATION OF EXISTING WM BELOW 20 PSI, ONE OF THE FOLLOWING SHALL OCCUR:
A. PRECAUTIONARY BOIL WATER NOTICE SHALL BE ISSUED, IN ALL AREAS WHERE A INTERRUPTION OF WATER SERVICE THAT HAS BEEN DEEMED A HEALTH THREAT BY D.E.P., OR WILL EFFECT THE BACTERIOLOGICAL QUALITY OF THE EXISTING W.M.
B. ADVISORIES SHALL BE ISSUED IF TEMPORARY CHANGES IN WATER QUALITY ARE EXPECTED TO OCCUR AND NOT DEEMED AN IMMINENT PUBLIC HEALTH THREAT.
37. FIRE HYDRANTS:
SHALL BE 5-1/4" VALVE OPENING, 42" BURY, 6" MJ SHOE, BRONZE TO BRONZE SEATING, DUCTILE IRON DIRT WEATHER SHIELD, SHOE, UPPER AND LOWER BARREL SHALL BE FUSION COATED PER AWWA C-550.81. DRY BARREL WITH ONE 4-1/2" PUMPER NOZZLE AND TWO 2-1/2" HOSE NOZZLE 1-1/2" PENTAGON N.S.A.G. RED PAINT FOR WEEP HOLES PLUGGED HYDRANT MEET AWWA C-502.85 AND UL/FM REQUIREMENTS. HYDRANTS SHALL BE MODEL MEDALION AS MANUFACTURED BY CLOW OR APPROVED EQUAL ALL FIRE HYDRANTS SHALL BE PAINTED AS STATED IN THE APOPKA DESIGN AND CONSTRUCTION MANUAL SEC. 52.7.2
38. BLOWOFF HYDRANT:
SHALL BE BOX HYDRANTS HAVING A 2" MAIN VALVE CLOSING WITH THE WATER PRESSURE. 2" PIPE WITH THE OUTLET BEING A 2" BRONZE MAIL NOZZLE, ALL WORKING PARTS BRONZE, OPEN TO THE LEFT. REMOVABLE BRONZE SEAT WHICH SEALS AGAINST A SEAT RUBBER OF NO LESS DIAMETER THAN 85 WITH LOCKABLE IRON LIDS. BLOWOFF HYDRANTS SHALL BE ECLIPSE MODEL NO. 85B AS MANUFACTURED BY KUPFERLE FOUNDRY COMPANY OR APPROVED EQUAL.
39. LEAKAGE TEST FOR GRAVITY SANITARY SEWERS:
A. LEAKAGE TEST SHALL BE THE LOW PRESSURE AIR TEST OR LEAKAGE/INFILTRATION, IN GENERAL, LEAKAGE/INFILTRATION TEST MAY BE REQUIRED IN AREA WITH GROUNDWATER. MAXIMUM INFILTRATION IS 0.2 GALLONS PER HOUR , PER INCH DIAMETER, PER 100 FEET. MANHOLE MAY BE TESTED SIMULTANEOUSLY WITH HYDROSTATIC TEST, BY FILLING MANHOLE WITH WATER TO AN ELEVATION 1 FOOT BELOW THE START OF THE CONE SECTION WITH A MINIMUM DEPTH OF 20 FEET WHERE THE MANHOLES ARE TESTED WITH THE SEWER LINE. NO ADDITIONAL LEAKAGE WILL BE ALLOWED ABOVE THAT FOR THE MAINLINE SEWER. THE MAXIMUM ALLOWABLE DROP IN THE WATER SURFACE SHALL BE 1/2 INCH FOR EACH 15 MINUTES PERIOD OF TESTING.
B. THE AIR LEAKAGE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURE FOR "RECOMMENDED PRACTICE FOR LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE", AS ESTABLISHED BY THE UNI-BELL PVC PIPE ASSN. PASSING THE TEST SHALL BE PRESUMED TO ESTABLISH LEAKAGE TEST LIMITS OF 50 GALLONS PER DAY PER INCH DIAMETER PER MILE SEWER.
C. INTERNAL VIDEO INSPECTION FOR THE GRAVITY SEWER SHALL BE PERFORMED BY THE CONTRACTOR TO CHECK FOR ALIGNMENT AND DEFLECTION. THE TELEVISION INSPECTION SHALL ALSO BE USED TO CHECK FOR CRACKED, BROKEN OR OTHERWISE DEFECTIVE PIPE, AND OVERALL PIPE INTEGRITY.

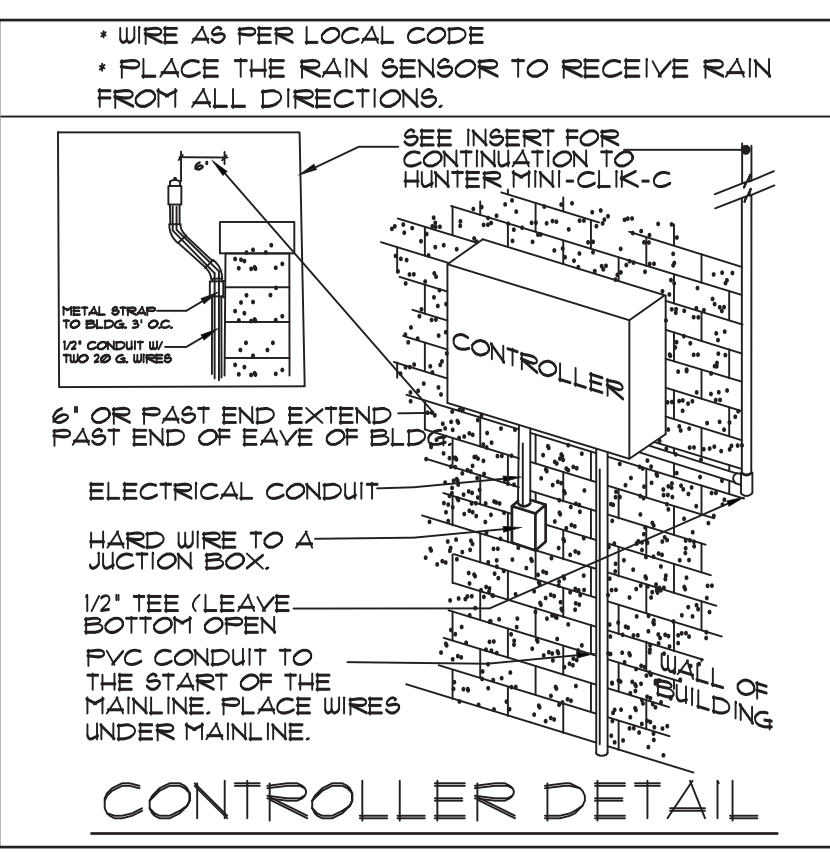
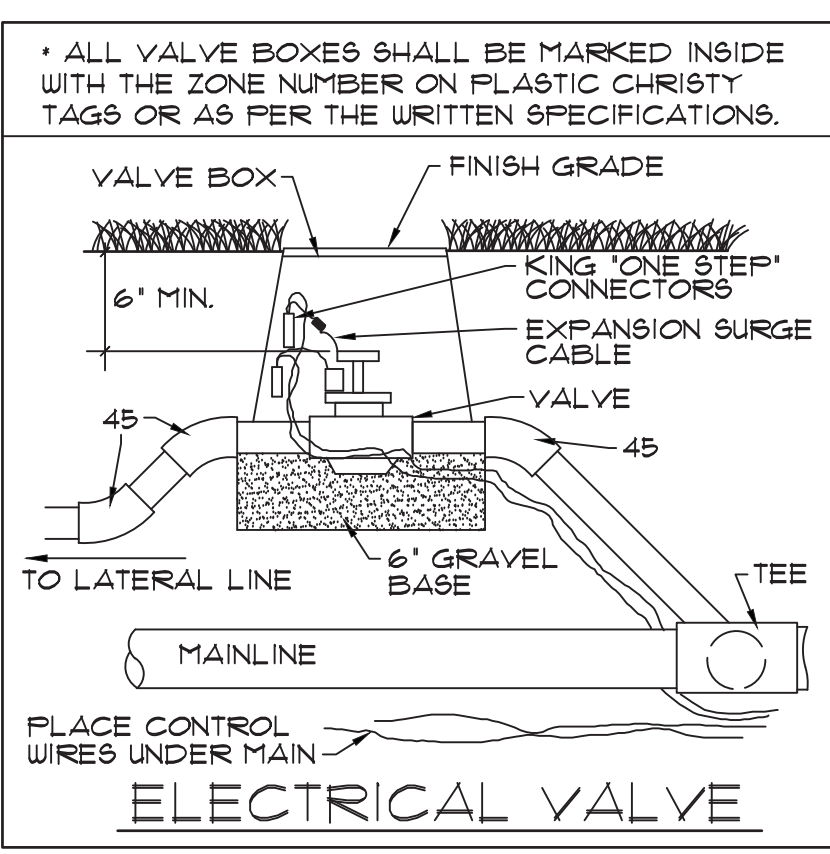
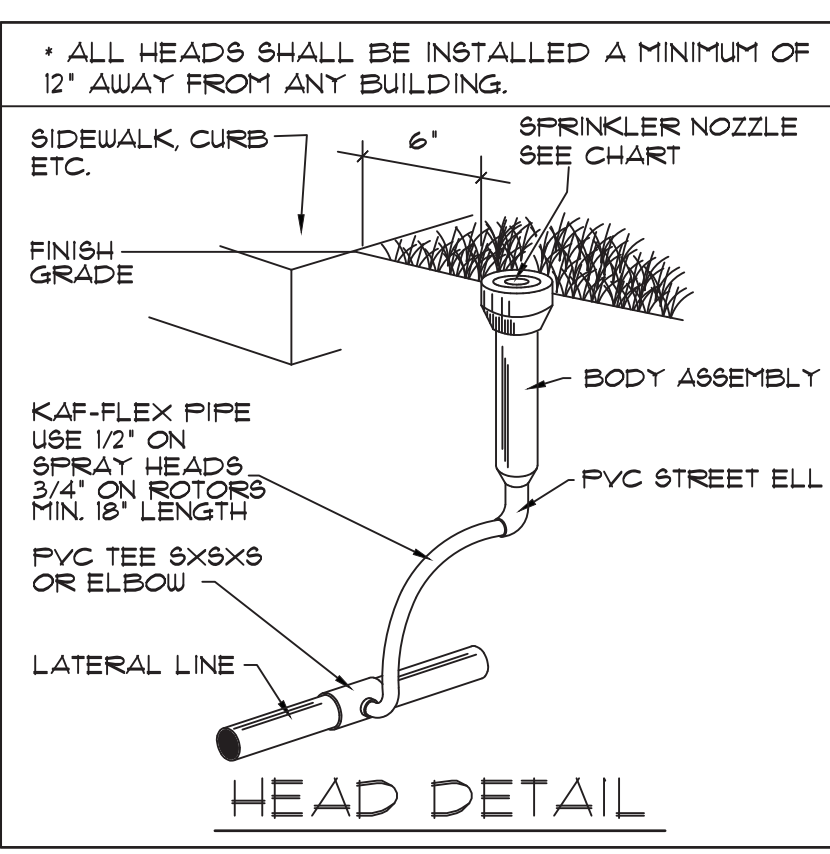
Table with project information: PROJECT NO., DWG FILE, SPECS, SCALE, NTS, DATE, CITY OF APOPKA DESIGN ENGINEERING DIVISION, 746 S. US HIGHWAY 90, APOPKA, FLORIDA 32073, TEL. (407) 880-1731, (407) 880-1748, REVISIONS, DRAWN BY: JLT, DES. BY: DESIGN ENG DIVISION, CHECKED BY: JEU, APPROVED BY: JEU, PROJECT TITLE: GENERAL NOTES AND SPECIFICATION POTABLE WATER, RECLAIMED WATER AND SEWER, SHEET S-1



BINION ROAD
1" = 40'



ENTRANCE
1" = 20'



- Irrigation Notes:**
- REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS. HAND DIG AROUND ANY EXISTING TREES. DO NOT CUT ANY ROOTS OVER 2" IN DIAMETER.
 - ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.
 - ALL POP-UP ROTORS AND SPRAYS SHALL BE INSTALLED USING AN 18" PVC FLEX PIPE CONNECTION. DO NOT USE POLYETHYLENE PIPE.
 - ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES & BLDG. WALLS. THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING. USE ADJUSTABLE NOZZLES WHERE REQUIRED TO AVOID ANY WATER ON BUILDING WINDOWS.
 - ALL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES. THE VALVE BOXES SHALL BE PURPLE WHEN USING REUSE WATER.
 - THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY THEIR WORK.
 - ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP. (OR AS OUTLINED IN THE WRITTEN SPECIFICATIONS)
 - ELECTRICAL SERVICE TO LOCATION OF THE CONTROLLER, WELL OR PUMP SHALL BE PROVIDED TO A JUNCTION BOX OR DISCONNECT AT THE EQUIPMENT LOCATION BY THE ELECTRICAL CONTRACTOR OR BY OWNER WHEN IT IS NOT PART OF THE BID PACKAGE.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCALE THE PLAN AND CHECK NOZZLE TYPES TO DETERMINE THE CORRECT SPACING OF THE HEADS. THE CONTRACTOR SHALL NOT SPACE THE HEADS FURTHER APART OR USE LESS HEADS THAN SHOWN ON THE PLAN. ANY CHANGES TO THE HEAD SPACING OR LAYOUT, WITHOUT THE CONSENT OF THE LANDSCAPE ARCHITECT OR OWNER, SHALL HOLD THE IRRIGATION CONTRACTOR RESPONSIBLE FOR WARRANTY OF THE PLANTS AND OR SOD IN THESE AREAS.
 - 48 HOURS BEFORE DIGGING, CALL 1-800-432-4770 (SUNSHINE STATE ONE CALL CENTER)
 - IRRIGATION RISERS ARE NOT PERMITTED.
 - ALL GRASS AREAS SHALL BE TRUCK IRRIGATED FOR THE FIRST 30 DAYS OR UNTIL GRASS HAS BEEN ESTABLISHED.
 - ALL PLANT BEDS AND TURF AREAS NEED TO BE ON SEPARATE ZONES.
 - LOW VOLUME IRRIGATION NEEDS TO BE USED FOR PLANT BEDS, SHRUBS AND TREE IRRIGATION.
 - IRRIGATION DISTRIBUTION EQUIPMENT TO BE 24 INCHES FROM VERTICAL STRUCTURES.

- RE-USE WATER REQUIREMENTS**
- ALL PIPE SHALL BE THE PURPLE REUSE TYPE. ALL MAINLINE SHALL HAVE MAGNETIC MARKER TAPE PLACED IN THE TRENCH 6" ABOVE PIPE.
 - ALL SPRINKLER HEADS SHALL HAVE PURPLE INDICATORS TO ALERT THE PRESENCE OF RE-USE
 - WATER: ALL MANUAL AND ELECTRIC VALVES SHALL HAVE PURPLE INDICATORS TO ALERT THE PRESENCE
 - OF RE-USE WATER. ALL VALVE BOXES SHALL HAVE PURPLE LIDS TO INDICATE THE PRESENCE OF RE-USE WATER.
 - ALL EQUIPMENT SHALL BE INSTALLED AS PER ALL LOCAL, COUNTY, STATE, AND FEDERAL CODES.
 - PROVIDE AND INSTALL ALL REQUIRED REUSE SIGNS. ALL CROSSINGS OF IRRIGATION PIPING AND POTABLEWATER LINES SHALL HAVE THE VERTICAL SEPARATION OF 6 INCHES MINIMUM AND PREFERABLY 12 INCHES.
 - CLEARANCE VISUALLY VERIFIED AND THIS VERIFICATION MUST BE SHOWN ON THE ASBUILT DRAWINGS BY DOCUMENTING THE VERTICAL MEASUREMENT SEPARATING THE PIPES. THE VERTICAL SEPARATION BETWEEN THE POTABLE AND RE-USE WATER LINES SHALL BE A MINIMUM OF 18". THIS SEPARATION SHALL BE VERIFIED AND DOCUMENTED IN A SET OF ASBUILT DRAWINGS AS PER SPECIFICATIONS. THE HORIZONTAL SEPARATION SHALL BE 5' CENTER TO CENTER AND 3' OUTSIDE TO OUTSIDE IF VERTICAL MINIMUM OF 18" IS NOT MET. REFER TO THE SPECIFIC CODE IF THESE SEPARATIONS CAN NOT BE MET.

Zone #	Type	GPM	Run Time	GPD
1	Drip/Bubbler	1.0	20 Min.	20
2	Drip/Bubbler	0.54	20 Min.	10.8
3	Drip/Bubbler	6.8	20 Min.	136.0
4	Drip/Bubbler	0.32	20 Min.	6.4
5	Drip/Bubbler	10.2	20 Min.	204.0
6	Drip/Bubbler	1.2	20 Min.	24.0
7	Drip/Bubbler	2.3	20 Min.	46.0
Total			2Hr 20Min	447.2

Symbol	Description	Pressure	Flow	Radius
● A	Rain Bird SQ-HLF (Low Volume)	40 psi	0.17 gpm	4 Ft
● B	Rain Bird SQ-FUL (Low Volume)	40 psi	0.46 gpm	4 Ft
	Rain Bird XB-10PC Emitter	40 psi	0.017 gpm	

---	Rainbird XFD Dripline (XFD-06-24)
----	PVC Lateral Line
----	2" PVC Main Line
●	Nozzle Location - See Chart for Specifications
M	Irrigation Meter
C	RainBird ESP Controller
B	Backflow Preventer
⊕	Rain Bird 100-PGA Series Valve Installed in Ametek 10" Round Valve Box
⊕	Rain Bird DV Series Valve (Size Shown on Zone Label) Installed in Ametek 10" Round Valve Box (Pressure Regulating Valve)

LANDSCAPE AND IRRIGATION DESIGN
I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2069 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

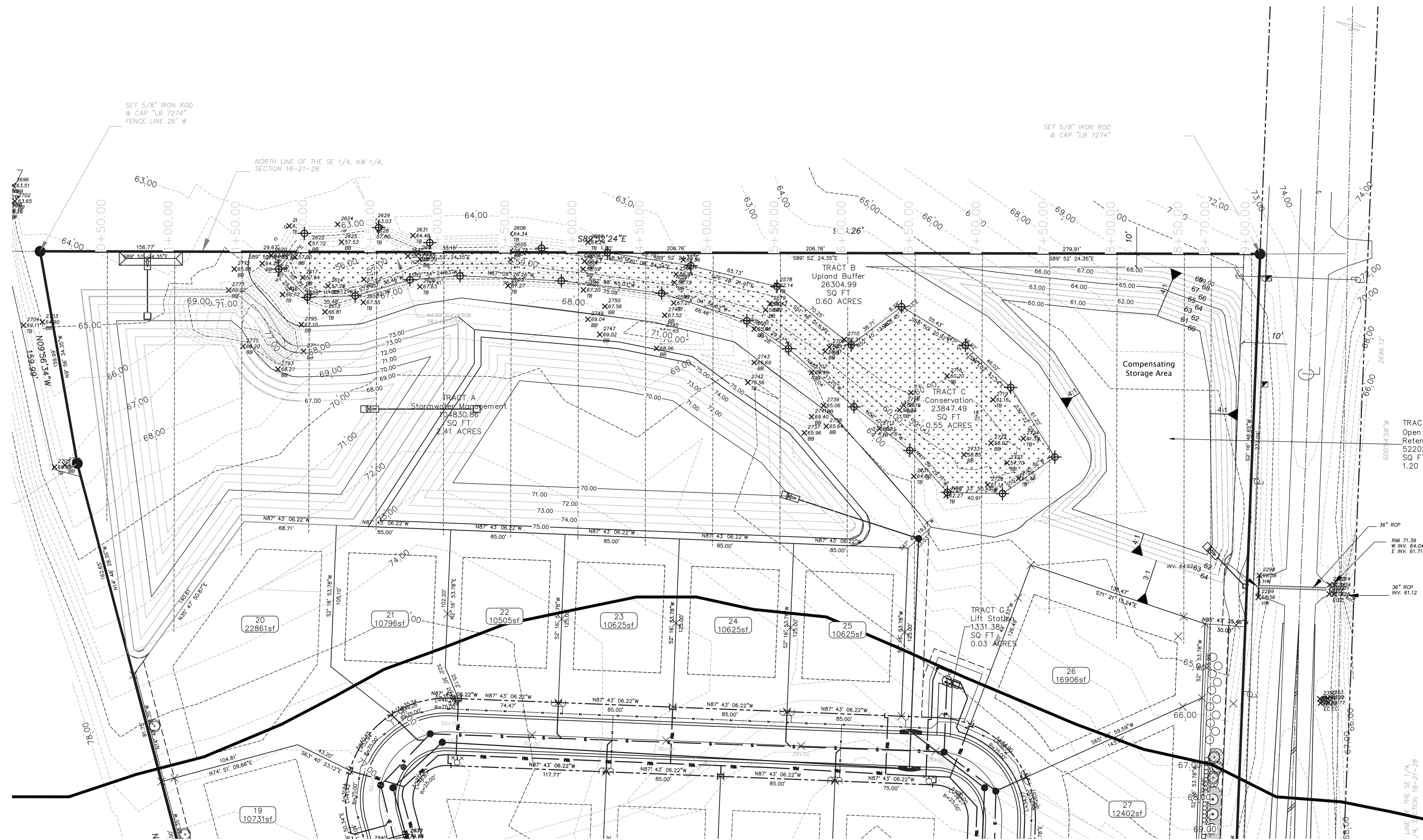
SIGNATURE _____ REG. NO. _____ DATE _____

DATE	REVISION
11/4/16	City Comments
1/3/17	City Comments
2/8/18	City Comments

*Binion Reserve
Irrigation Plan*

JEC june engineering consultants, inc.
32 W. Plant Street
Winter Garden, FL 34787
Ph. 407-905-8180
Fax 407-905-6232
Certificate of Authorization #00031567
DRAWN BY: CLK CHECKED BY: RAJ SCALE: As Noted
DATE: 7/12/16 DATE: 7/12/16

JOB NO.
14-0460
SHEET
1-1
OF



DATE	REVISION
10/27/16	SJRWD Comments

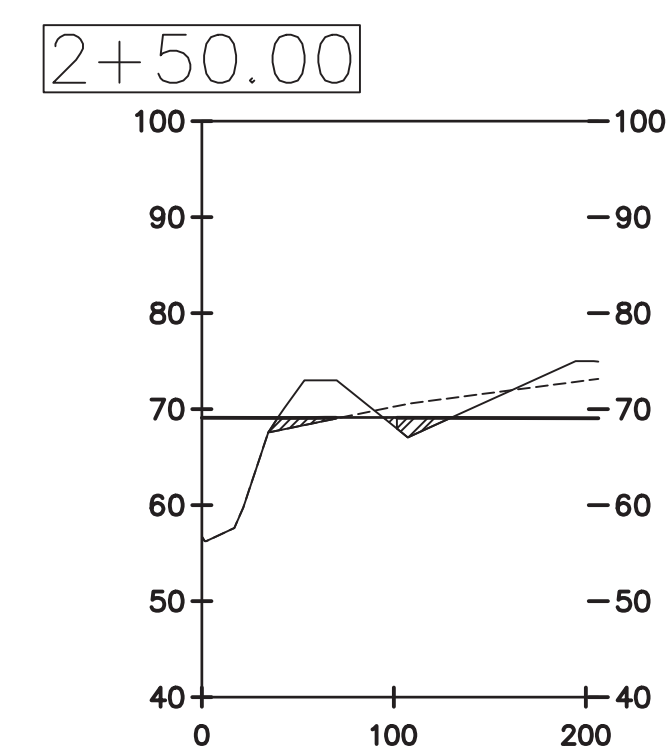
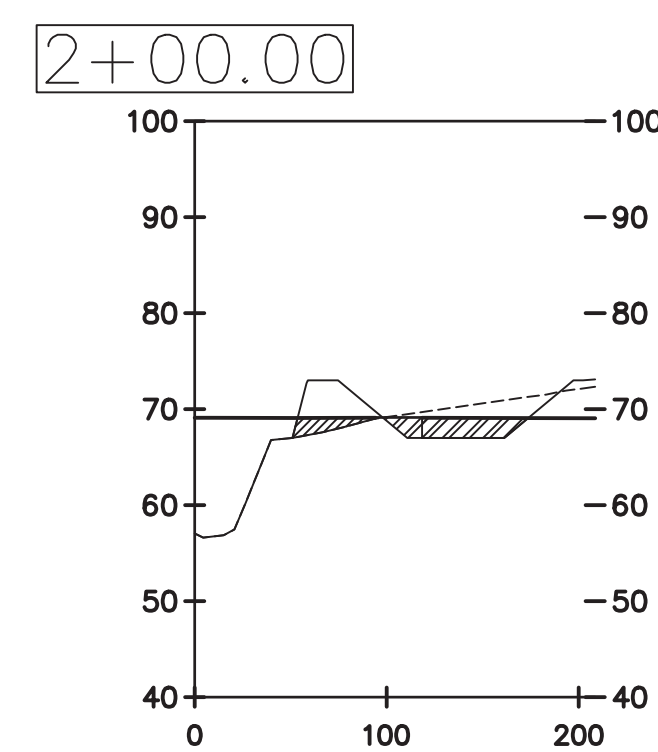
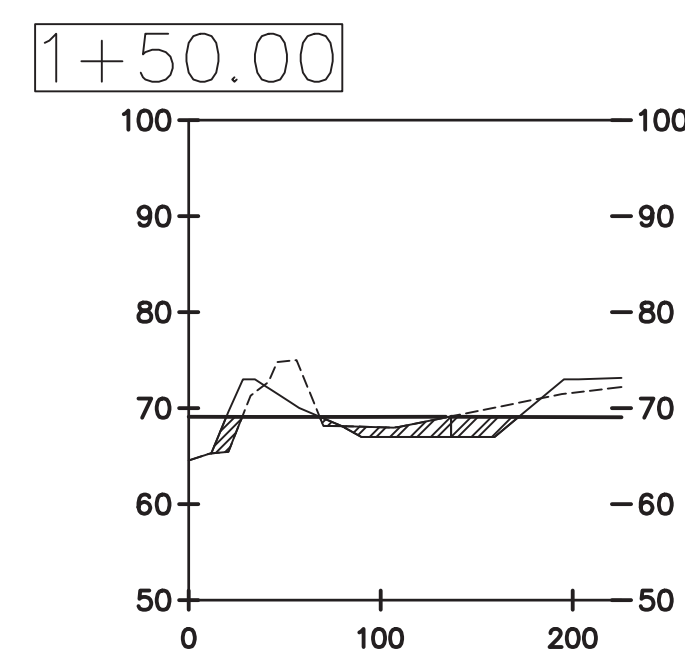
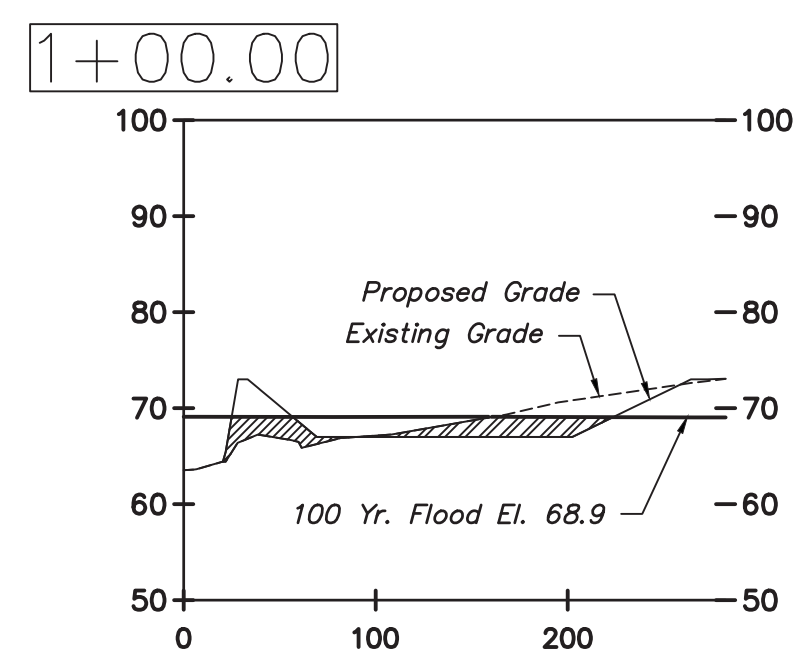
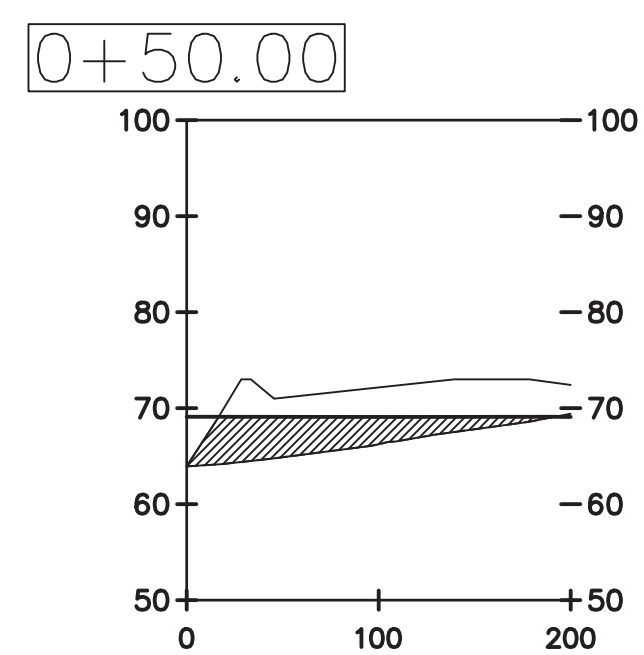
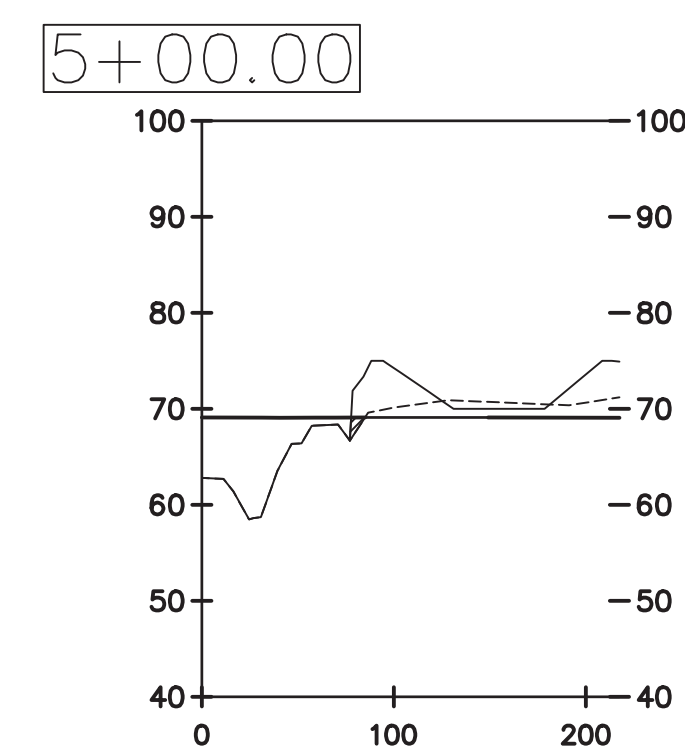
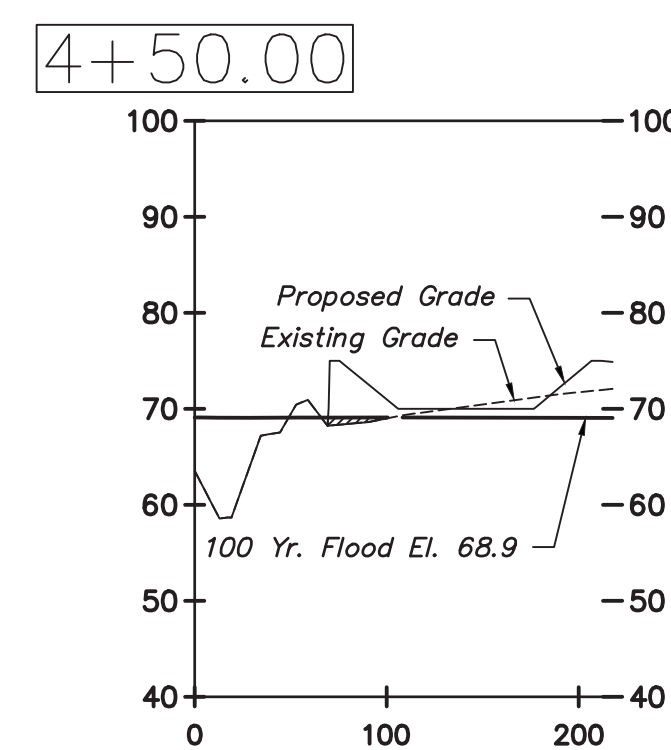
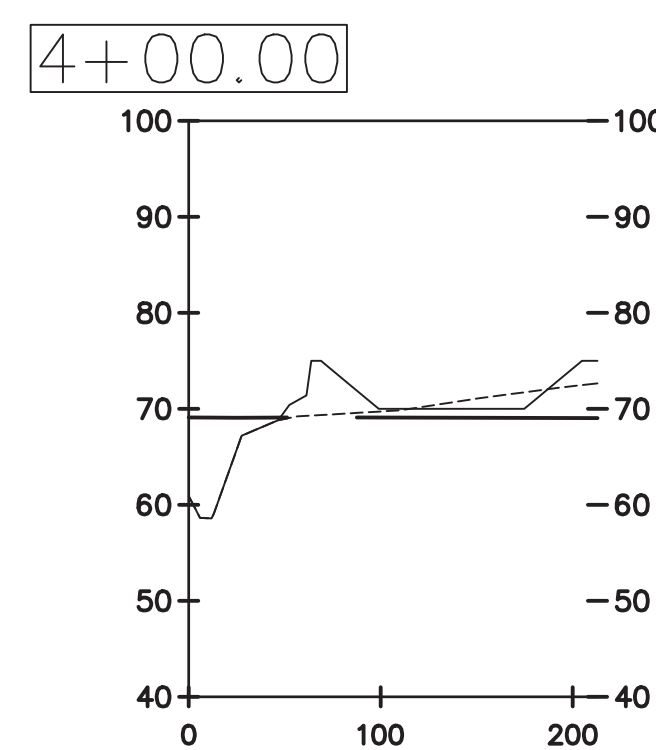
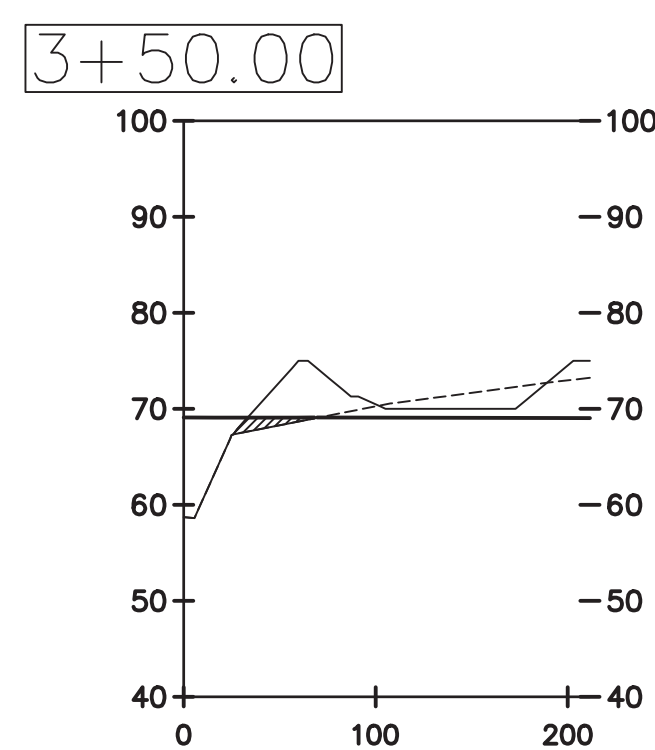
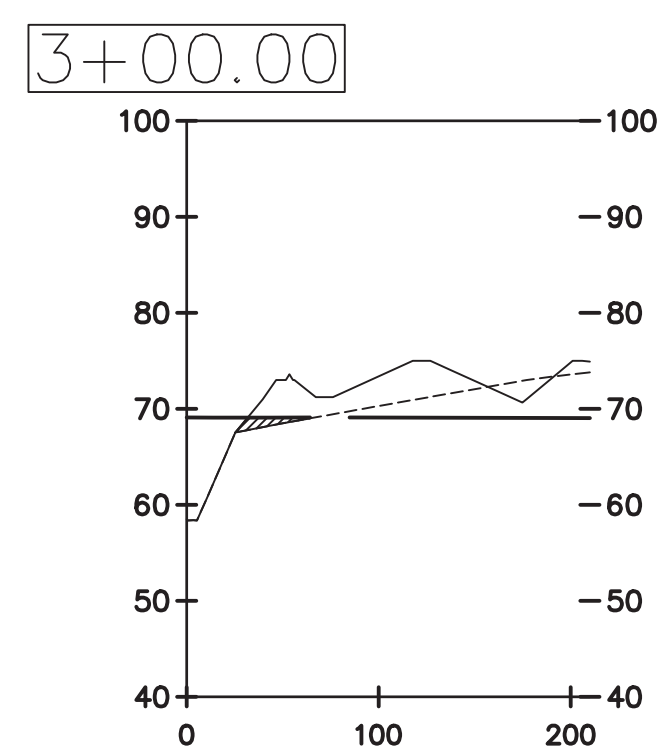
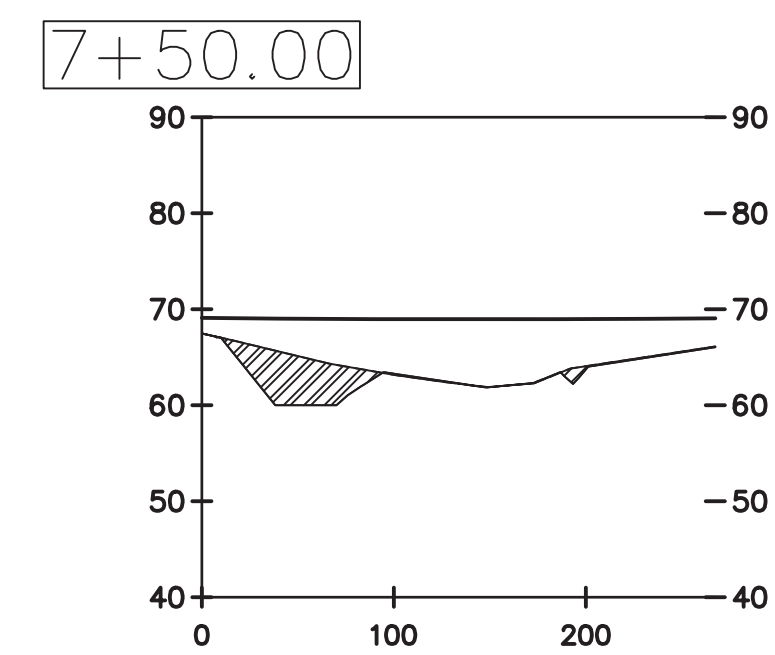
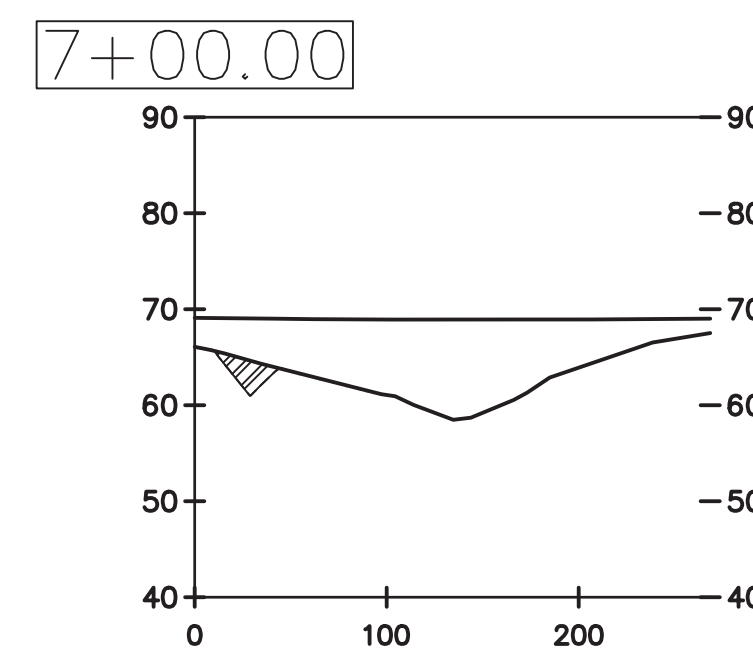
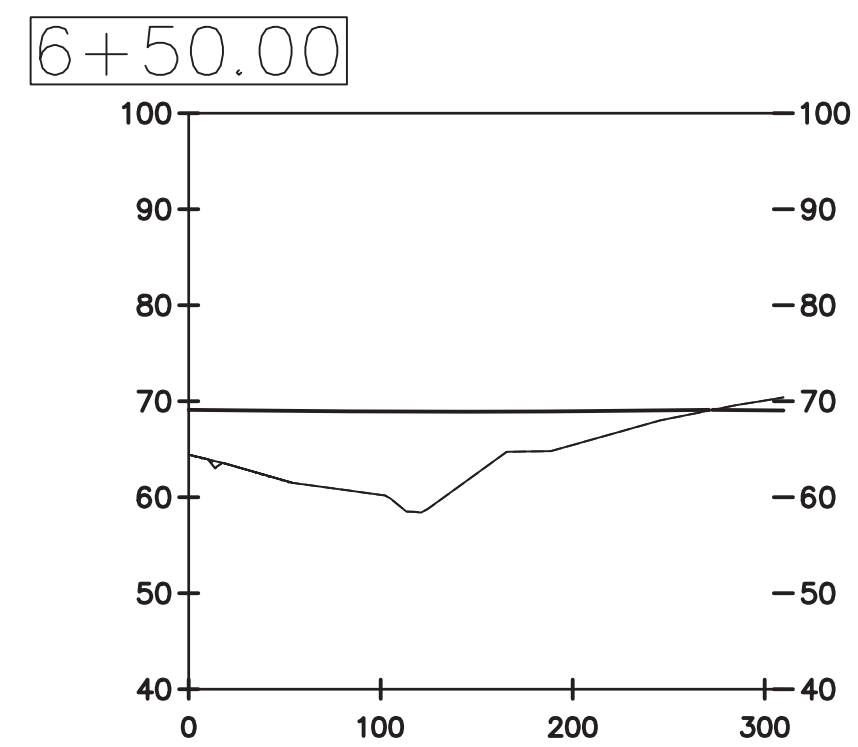
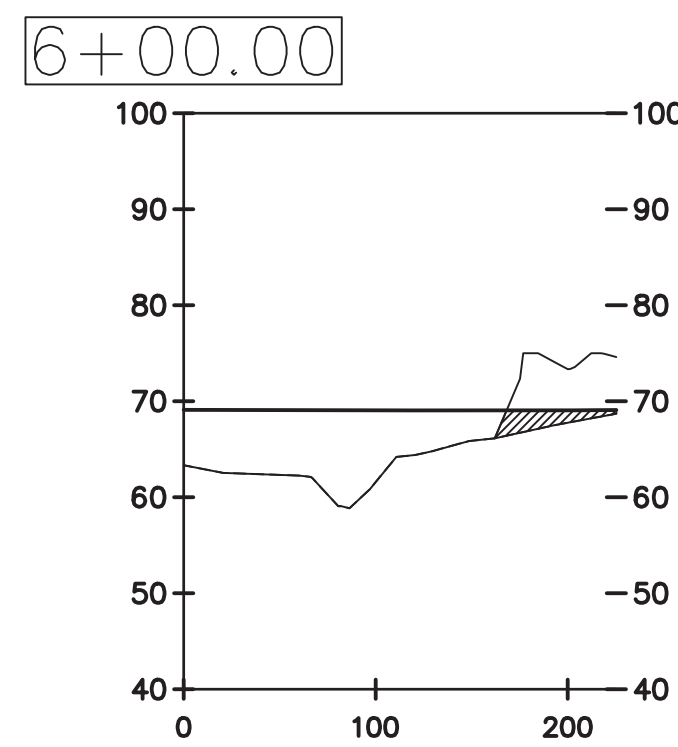
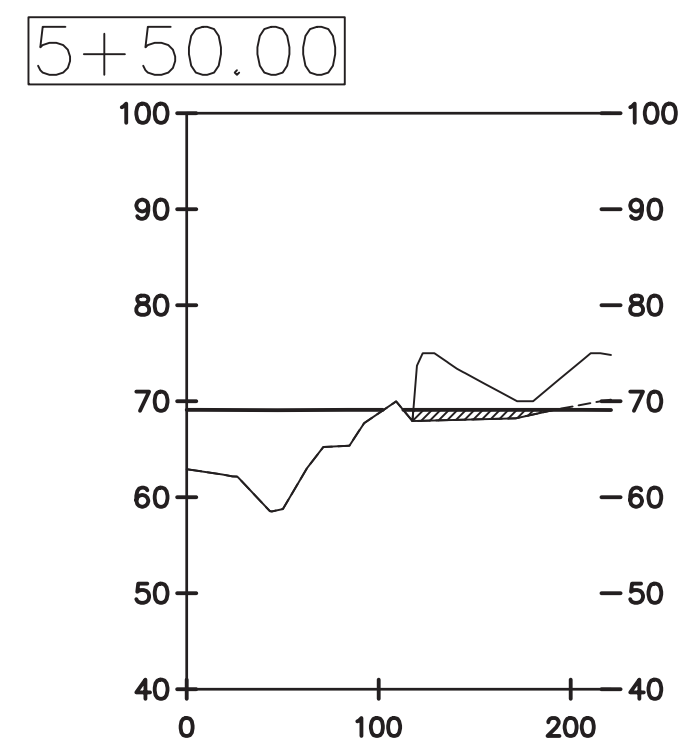
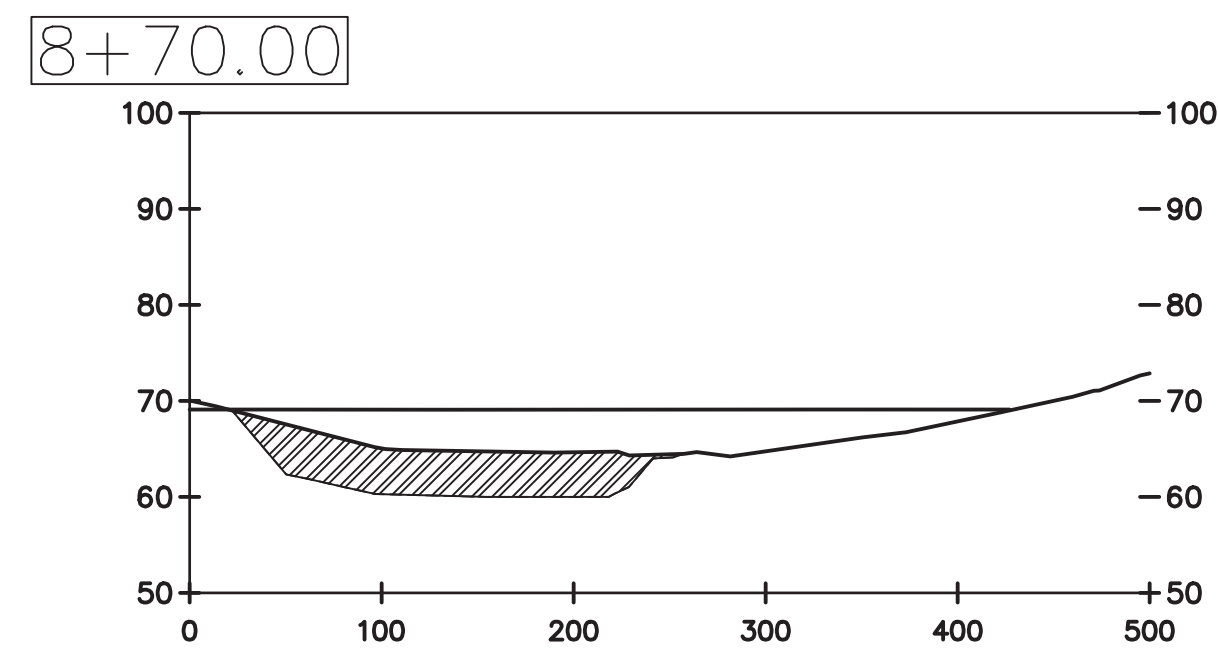
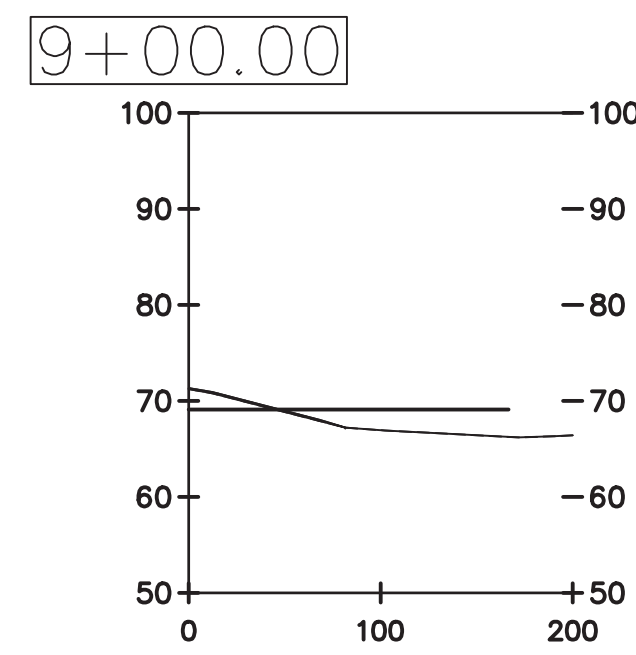
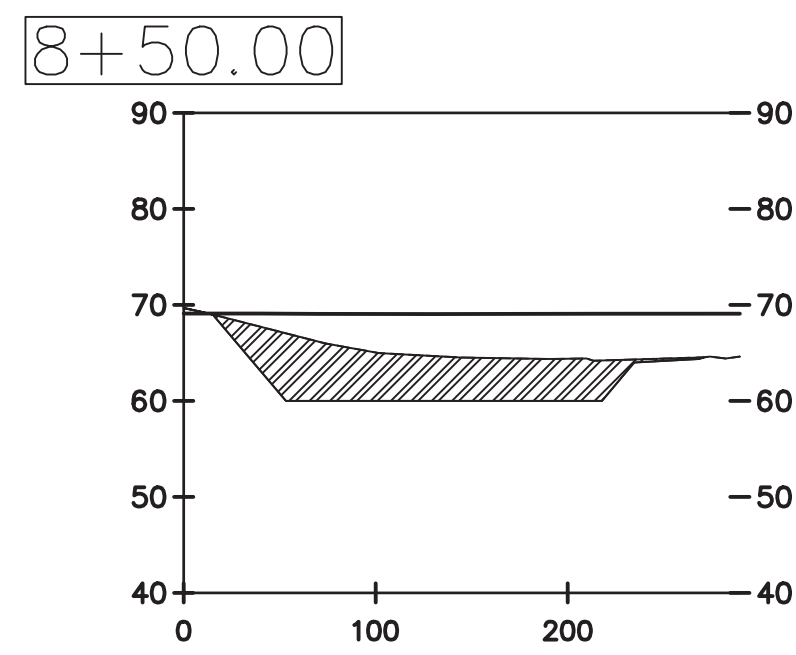
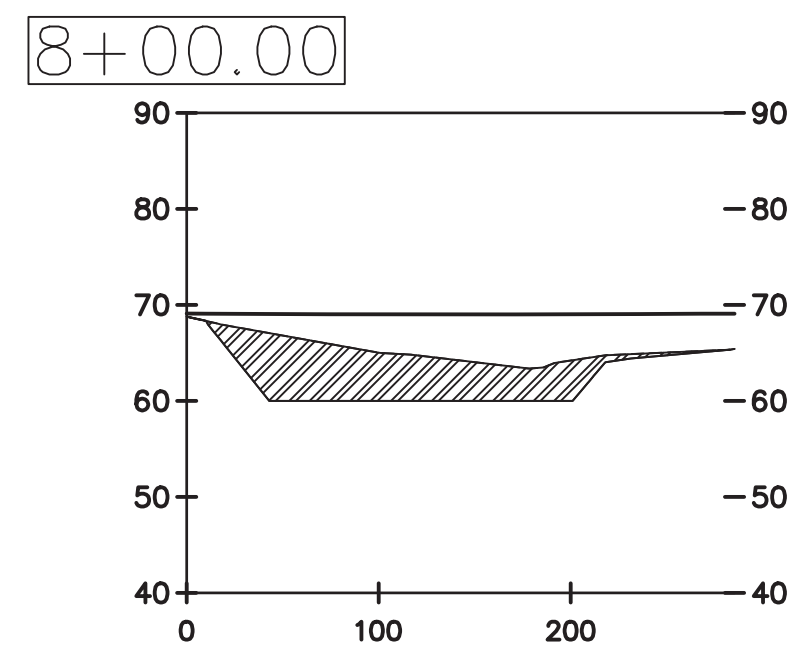
Binion Reserve
Compensating Storage


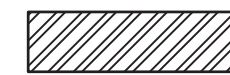
JEC june engineering consultants, inc.
 Certificate of Authorization #00031567
 DRAWN BY: CLK CHECKED BY: RAJ SCALE: 1" = 40'
 DATE: 12/23/15 DATE: 12/23/15

32 W. Plant Street
 Winter Garden, FL 34787
 Ph. 407-905-8180
 Fax 407-905-6232
 JEFFREY A. SEDLOFF
 PE# 51506

JOB NO.
14-0460
 SHEET
CS-1
 OF 2

K:\ACTIVE_JOBS\0460_Brown_Property\Binion Reserve Flood Plans with Revised Pondings_2/8/2018_2:58:25 PM



 Proposed Fill
 Proposed Cut

DATE	REVISION
10/27/16	SJRWD Comments
11/4/16	City Comments

Binion Reserve
 FEMA Sections



32 W. Plant Street
 Winter Garden, FL 34787
 Ph. 407-905-8180
 Fax 407-905-6232

Certificate of Authorization #00031567
 DRAWN BY: CLK CHECKED BY: RAJ SCALE: As Noted
 DATE: 12/23/15 DATE: 12/23/15

JEFFREY A. SEDLOFF
 PE# 51506

JOB NO.
 14-0460
 SHEET
 CS-2
 OF

BINION RESERVE

SHEET 1 OF 3

A PART OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

PLAT
BOOK

PAGE

BINION RESERVE DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT ROHLAND A. JUNE, DIRECTOR OF FLORIDA PROPERTIES, INC., BEING THE OWNER IN FEE SIMPLE OF THE LANDS DESCRIBED IN THE FOREGOING CAPTION TO THIS PLAT, HEREBY DEDICATES THE LIFT STATION AND ROADS AS SHOWN HEREON TO THE PERPETUAL USE OF THE PUBLIC.

IN WITNESS WHEREOF, HAS CAUSED THESE PRESENTS TO BE SIGNED AND ATTESTED TO BY THE OFFICERS NAMED BELOW ON THIS

BY: _____
ROHLAND A. JUNE, DIRECTOR

SIGNED IN THE PRESENCE OF:

SIGN NAME: _____ SIGN NAME: _____

PRINT NAME: _____ PRINT NAME: _____

STATE OF FLORIDA
COUNTY OF ORANGE

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____ 2016, BY ROHLAND A. JUNE, DIRECTOR, WHO IS PERSONALLY KNOWN TO ME AND DID NOT TAKE AN OATH, THE INDIVIDUAL DESCRIBED IN AND WHO EXECUTED THE FOREGOING CONVEYANCE AND ACKNOWLEDGED THE EXECUTION THEREOF TO BE HIS FREE ACT.

NOTARY PUBLIC
MY COMMISSION EXPIRES:

QUALIFICATION AND STATEMENT OF SURVEYOR AND MAPPER

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING A PROFESSIONAL SURVEYOR AND MAPPER CERTIFIES THAT I HAVE PREPARED THE FOREGOING PLAT AND IT WAS MADE UNDER MY DIRECTION AND SUPERVISION AND THAT THE PLAT COMPLIES WITH ALL OF THE SURVEY REQUIREMENTS OF CHAPTER 177, FLORIDA STATUTES; AND THAT SAID LAND IS LOCATED IN, THE CITY OF APOPKA, ORANGE COUNTY, FLORIDA.

Dated: _____ Signed: _____

BISHMAN SURVEYING AND MAPPING, INC. ARON D. BISHMAN, P.S.M.
32 WEST PLANT STREET Florida Registration No. 5668
WINTER GARDEN, FLORIDA 34787 Licensed Business No. 7274

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, THAT ON _____, THE CITY COUNCIL THE CITY OF APOPKA APPROVED THE FOREGOING PLAT.
ATTEST:

JOE KILSHEIMER, MAYOR CITY CLERK

CERTIFICATE OF APPROVAL BY CITY ENGINEER

THIS IS TO CERTIFY, THAT ON _____, THE FOREGOING PLAT WAS EXAMINED AND APPROVED BY

R. JAY DAVOLL, CITY ENGINEER

CERTIFICATE OF APPROVAL BY REVIEWING SURVEYOR

PURSUANT TO SECTION 177.081, FLORIDA STATUTES, I HAVE REVIEWED THIS PLAT FOR CONFORMITY TO CHAPTER 177 PART 1 OF THE FLORIDA STATUTES AND THAT SAID PLAT COMPLIES WITH THE TECHNICAL REQUIREMENTS OF THAT CHAPTER; PROVIDED HOWEVER, THAT MY REVIEW DOES NOT INCLUDE FIELD VERIFICATION OF ANY OF THE COORDINATES, POINTS OR MEASUREMENTS SHOWN ON THIS PLAT.

RALPH A. NIETO, P.S.M. DATE
NIETO WHITTAKER SURVEYING, LLC
REGISTRATION NO. 6025

CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION

THIS IS TO CERTIFY, THAT ON _____, THE FOREGOING PLAT WAS APPROVED BY THE APOPKA PLANNING COMMISSION OF THE CITY OF APOPKA.

CHAIRMAN DATE

CERTIFICATE OF APPROVAL BY THE COUNTY COMPTROLLER

I HEREBY CERTIFY THAT THE FOREGOING PLAT WAS RECORDED IN THE ORANGE COUNTY OFFICIAL RECORDS ON _____ AS FILE NO. _____ COUNTY COMPTROLLER IN AND FOR ORANGE COUNTY, FLORIDA BY _____.

DESCRIPTION

THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4, SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA;
LESS;

S. BINION ROAD (aka S.R. 437A) AND ALSO LESS SEABOARD COAST LINE RAILROAD;
AND LESS;

A PARCEL OF LAND SITUATE IN SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4 INCH BY 4 INCH CONCRETE MONUMENT STAMPED "L.F. HENRICH R.L.S. NO. 1263 P.R.M. MAITLAND, FLA." AS SHOWN ON PLAT OF SURVEY BY HENRICH INC. LAND SURVEYORS DATED 11-19-73 AND BOUNDARY SURVEY BY P.E.C. FOR S.J.R.W.M.D. LAST DATED 8-10-98 MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE RUN NORTH 89°39'46" EAST 1,320.44 FEET ALONG THE NORTH LINE OF SAID SECTION 18 TO THE WEST BOUNDARY OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 18, AS SHOWN ON P.E.C. S.J.R.W.M.D. SURVEY; THENCE SOUTH 01°03'27" WEST 1,337.48 FEET ALONG SAID WEST BOUNDARY LINE TO A POINT ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 18; THENCE DEPARTING SAID WEST BOUNDARY LINE, RUN ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 39.26 FEET TO POINT OF BEGINNING; THENCE CONTINUE ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 306.42 FEET; THENCE DEPARTING SAID NORTH LINE, SOUTH 09°56'34" EAST 159.99 FEET; THENCE SOUTH 14°48'28" EAST 700.00 FEET; THENCE SOUTH 23°31'40" EAST 290.42 FEET; THENCE SOUTH 38°37'42" EAST 100.53 FEET; THENCE SOUTH 30°39'48" EAST 197.78 FEET TO THE NORTH LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 18; THENCE NORTH 89°58'47" WEST 796.70 FEET ALONG SAID NORTH LINE OF THE SOUTHWEST 1/4 TO THE EASTERLY RIGHT OF WAY LINE OF FORMER S.C.L.R.R. AS MONUMENTED FOR S.J.R.W.M.D. BY P.E.C.; THENCE NORTH 01°03'18" EAST 174.53 FEET ALONG SAID EASTERLY RIGHT OF WAY LINE; THENCE DEPARTING SAID EASTERLY RIGHT OF WAY LINE, RUN SOUTH 89°53'41" EAST 295.19 FEET; THENCE NORTH 14°33'12" WEST 573.59 FEET; THENCE NORTH 07°06'24" WEST 100.81 FEET; THENCE NORTH 14°48'28" WEST 538.38 FEET TO THE POINT OF BEGINNING.

AND ALSO LESS;

A PARCEL OF LAND SITUATE IN SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; MORE PARTICULARLY DESCRIBED AS:

COMMENCE AT A 4 INCH BY 4 INCH CONCRETE MONUMENT STAMPED "L.F. HENRICH R.L.S. NO. 1263 P.R.M. MAITLAND, FLA." AS SHOWN ON PLAT OF SURVEY BY HENRICH INC. LAND SURVEYORS DATED 11-19-73 AND BOUNDARY SURVEY BY P.E.C. FOR S.J.R.W.M.D. LAST DATED 8-10-98 MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE RUN NORTH 89°39'46" EAST 1,320.44 FEET ALONG THE NORTH LINE OF SAID SECTION 18 TO THE WEST BOUNDARY OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF SAID SECTION 18, AS SHOWN ON P.E.C. S.J.R.W.M.D. SURVEY; THENCE SOUTH 01°03'27" WEST 1,337.48 FEET ALONG SAID WEST BOUNDARY LINE TO A POINT ON THE NORTH LINE OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SAID SECTION 18; THENCE DEPARTING SAID WEST BOUNDARY LINE, RUN ALONG SAID NORTH LINE, SOUTH 89°52'24" EAST 39.26 FEET; THENCE DEPARTING SAID NORTH LINE, RUN SOUTH 14°48'28" EAST 538.38 FEET; THENCE SOUTH 07°06'24" EAST 100.81 FEET; THENCE SOUTH 14°33'12" EAST 573.59 FEET; THENCE NORTH 89°53'41" WEST 295.19 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF FORMER S.C.L.R.R. AS MONUMENTED FOR S.J.R.W.M.D. BY P.E.C.; THENCE NORTH 01°03'18" EAST 880.37 FEET ALONG SAID EASTERLY RIGHT OF WAY LINE TO A POINT ON A TANGENT CURVE (CONCAVE SOUTHWESTERLY); THENCE FROM A CHORD BEARING OF NORTH 10°27'51" WEST, RUN NORTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 751.20 FEET FOR AN ARC DISTANCE OF 302.06 FEET, THROUGH A CENTRAL ANGLE OF 23°02'20" TO END OF CURVE AND POINT OF BEGINNING.

CONTAINING 21.396 ACRES, MORE OR LESS.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

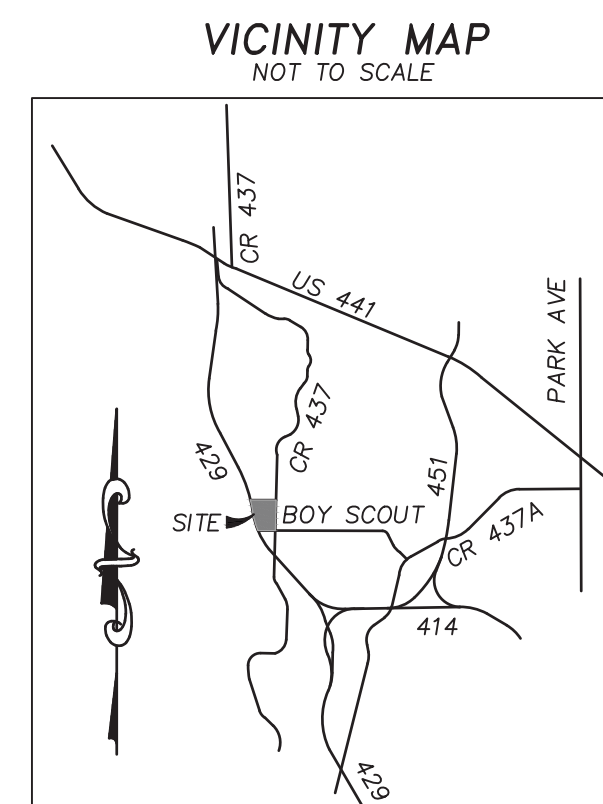
THAT PART OF SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE CENTER SECTION OF SAID SECTION 18; THENCE RUN N89°58'47"W, ALONG THE SOUTH LINE OF SAID SOUTH 1/4 OF THE NORTHWEST 1/4, 89.04 FEET, TO THE POINT OF BEGINNING; THENCE CONTINUE N89°58'47"W, ALONG SAID SOUTH LINE OF SAID SOUTH 1/4 OF THE NORTHWEST 1/4, 366.58 FEET, TO THE EASTERLY RIGHT OF WAY LINE OF STATE ROAD NO. 429; THENCE RUN NORTHERLY ALONG SAID EASTERLY RIGHT OF WAY LINE THE FOLLOWING 5 COURSES: N30°39'48"W, 197.78 FEET; THENCE RUN N38°37'42"W, 100.53 FEET; THENCE RUN N23°31'40"W, 290.42 FEET; THENCE RUN N14°48'28"W, 700.00 FEET; THENCE RUN N09°56'34"W, 159.99 FEET, TO THE NORTH LINE OF SAID SOUTHEAST 1/4 OF THE NORTHWEST 1/4; THENCE RUN S89°52'24"E, ALONG SAID NORTH LINE, 906.26 FEET, TO THE WESTERLY RIGHT OF WAY LINE OF COUNTY ROAD NO. 437 (ROAD PLAT BOOK 1, PAGES 40-43, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA); THENCE RUN S02°16'47"W, ALONG SAID WESTERLY RIGHT OF WAY LINE, 1325.34 FEET TO A CURVE CONCAVE EASTERLY; THENCE RUN SOUTHERLY ALONG SAID CURVE HAVING A CENTRAL ANGLE OF 0°01'34.7", A RADIUS OF 5769.65 FEET, AN ARC LENGTH OF 23.13 FEET, A CHORD BEARING OF S02°09'53"W AND A CHORD DISTANCE OF 23.13 FEET

CONTAINING 21.396 ACRES, MORE OR LESS.

SURVEYORS NOTES:

1. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. THE ELECTRONIC FILE FOR THIS PROJECT IS THE PROPERTY OF BISHMAN SURVEYING AND MAPPING, INC. AND IS NOT THE PROPERTY OF THE CLIENT.



LEGEND

- Δ CENTRAL ANGLE
- R RADIUS LENGTH
- L ARC LENGTH
- T TANGENT LENGTH
- CB CHORD BEARING
- CL CHORD LENGTH
- PC POINT OF CURVATURE
- PT POINT OF TANGENCY
- PRC POINT OF REVERSE CURVE
- PCC POINT OF COMPOUND CURVE
- RP RADIUS POINT
- PI POINT OF INTERSECTION
- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT
- (R) RADIAL
- OR OFFICIAL RECORDS BOOK
- PB PAGE
- PG PLAT BOOK
- CL CENTERLINE
- LB LICENSED BUSINESS
- DE DRAINAGE EASEMENT
- UE UTILITY EASEMENT
- DUE DRAINAGE & UTILITY EASEMENT
- LE LANDSCAPE EASEMENT
- (TYP.) TYPICAL
- R/W RIGHT OF WAY
- PCP PERMANENT CONTROL POINT
- PRM PERMANENT REFERENCE MONUMENT
- WLE WALL/LANDSCAPE EASEMENT
- DENOTES CHANGE IN DIRECTION

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NOTES:

- DENOTES SET PERMANENT REFERENCE MONUMENT, A 4"x4" CONCRETE MONUMENT "PRM LB 7274", UNLESS NOTED OTHERWISE.
- DENOTES SET PERMANENT CONTROL POINT, A NAIL AND DISC "PCP LB 7274", UNLESS NOTED OTHERWISE.



CERTIFICATE OF AUTHORIZATION LB 7274
32 W. PLANT STREET Phone No. 407.905.8877
WINTER GARDEN, FL 34787 Fax No. 407.905.8875

BINION RESERVE

A PART OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF APOPKA, ORANGE COUNTY, FLORIDA

SHEET 2 OF 3

PLAT BOOK

PAGE

N 1/4 CORNER OF SECTION 18-21-28
RECOVERED RAILROAD SPIKE (NO
IDENTIFICATION)
CERTIFIED CORNER RECORD 105361
N 1576467.250 E 479660.063



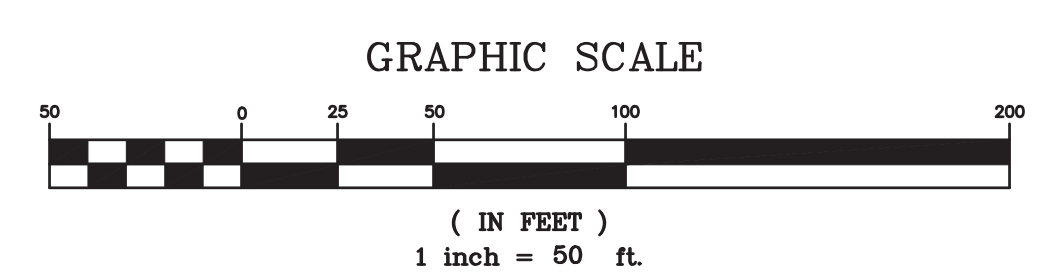
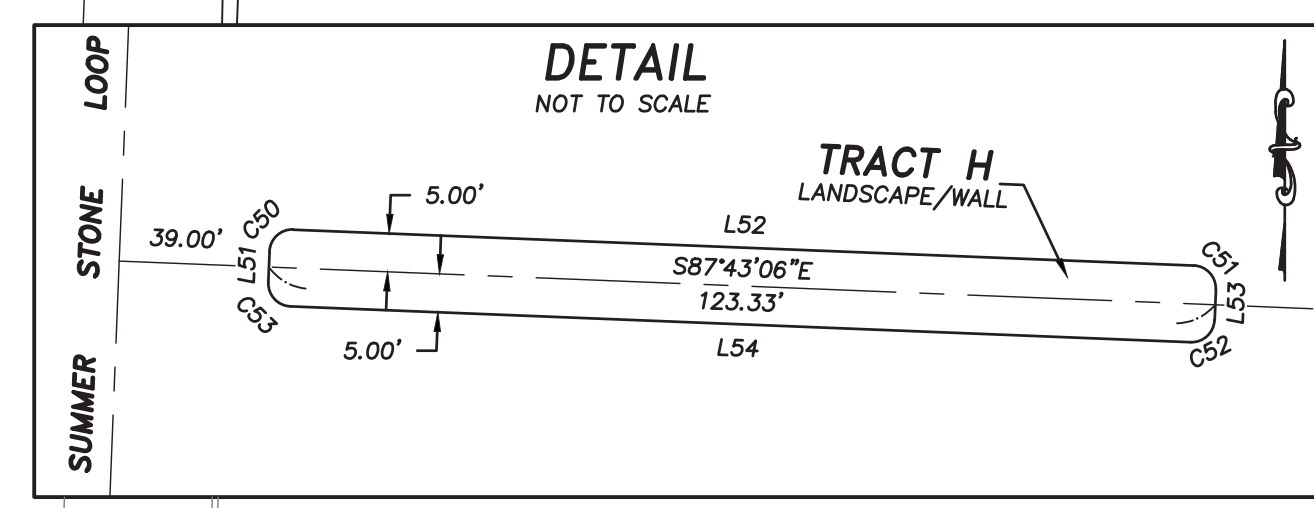
LINE	BEARING	LENGTH
L1	S73°15'45"E	33.04'
L2	S65°05'44"E	151.57'
L3	S52°18'13"E	43.41'
L4	S22°30'21"E	25.11'
L5	S20°49'10"W	37.93'
L6	S29°14'11"E	30.19'
L7	S22°00'28"W	40.68'
L8	S72°24'38"W	12.23'
L9	S81°00'20"E	47.63'
L10	S41°10'01"E	106.83'
L11	S33°18'35"E	58.71'
L12	S52°07'49"E	36.02'
L13	S76°06'31"E	61.47'
L14	S82°28'43"E	72.60'
L15	S83°15'35"E	71.92'
L16	N80°49'32"E	33.39'
L17	N71°22'00"E	40.78'
L18	N87°29'27"E	35.50'
L19	S41°17'56"E	27.48'
L20	S89°52'24"E	29.88'
L21	S41°17'56"E	27.48'
L22	S35°09'01"W	12.01'
L23	N71°22'00"E	42.85'
L24	N87°29'27"E	35.50'
L25	N80°49'32"E	38.95'
L26	S83°15'35"E	75.58'
L27	S82°28'43"E	74.16'
L28	S76°06'31"E	68.17'
L29	S52°07'49"E	41.07'
L30	S53°18'35"E	60.96'
L31	S41°49'58"E	56.31'
L32	S19°18'04"E	55.46'
L33	N72°24'38"E	51.02'
L34	N22°00'28"E	40.68'
L35	N29°14'11"W	30.19'
L36	N52°18'13"W	40.60'
L37	N86°36'56"W	53.40'
L38	N59°52'24"E	26.04'
L39	N50°74'11"W	56.04'
L40	N73°15'45"W	64.26'
L41	N81°18'03"W	62.99'
L42	N81°19'18"W	28.48'
L43	S89°52'24"E	206.43'
L44	S89°52'24"E	132.23'
L46	S87°43'06"E	20.00'
L47	S87°43'06"E	7.59'
L48	N02°16'54"E	28.17'
L49	N20°49'10"E	17.53'
L50	S69°10'50"E	35.00'
L51	N02°16'54"E	4.00'
L52	S87°43'06"E	112.34'
L53	S02°16'54"W	4.00'
L54	N87°43'06"E	117.34'
L55	N47°48'19"E	23.03'
L56	N87°43'06"W	5.71'

CURVE	CENTRAL ANGLE	RADIUS	LENGTH	CHORD	CH. BEARING
C1	31°38'38"	75.00'	41.42'	40.90'	S00°40'29"W
C2	40°26'44"	75.00'	52.94'	51.85'	S36°43'10"W
C3	35°20'22"	75.00'	46.26'	45.53'	S74°36'43"W
C4	107°25'44"	75.00'	140.62'	120.91'	S38°34'02"W
C5	107°25'44"	90.00'	93.75'	80.61'	S38°34'02"W
C6	107°25'44"	25.00'	46.87'	40.30'	S38°34'02"W
C7	14°42'55"	75.00'	19.26'	19.21'	N80°21'39"W
C8	44°53'50"	75.00'	58.77'	57.28'	N46°43'55"W
C9	26°33'54"	75.00'	34.77'	34.46'	N11°00'03"W
C10	90°00'00"	75.00'	117.81'	106.07'	N42°43'06"W
C11	90°00'00"	50.00'	78.54'	70.71'	N42°43'06"W
C12	90°00'00"	25.00'	39.27'	35.36'	N42°43'06"W
C32	90°00'00"	10.00'	15.71'	14.14'	N47°16'54"E
C33	90°00'00"	10.00'	15.71'	14.14'	S42°43'06"E
C34	90°00'07"	25.00'	39.27'	35.36'	N47°16'50"E
C40	3°49'21"	75.00'	5.00'	5.00'	N71°05'30"W
C41	23°04'02"	25.00'	10.06'	10.00'	N40°46'12"W
C42	51°14'39"	25.00'	22.36'	21.62'	N03°36'52"W
C43	50°24'11"	25.00'	21.99'	21.29'	N47°12'33"E
C47	16°07'27"	25.00'	7.04'	7.01'	N79°25'44"E
C48	51°12'37"	25.00'	22.34'	21.61'	S66°54'14"E
C49	64°35'11"	25.00'	28.18'	26.71'	S09°00'20"E
C50	90°00'00"	3.00'	4.71'	4.24'	S47°16'54"W
C51	90°00'00"	3.00'	4.71'	4.24'	N42°43'06"W
C52	90°00'00"	3.00'	4.71'	4.24'	N47°16'54"E
C53	90°00'00"	3.00'	4.71'	4.24'	S42°43'06"E

- LEGEND**
- Δ CENTRAL ANGLE
 - R RADIUS LENGTH
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 - CB CHORD BEARING
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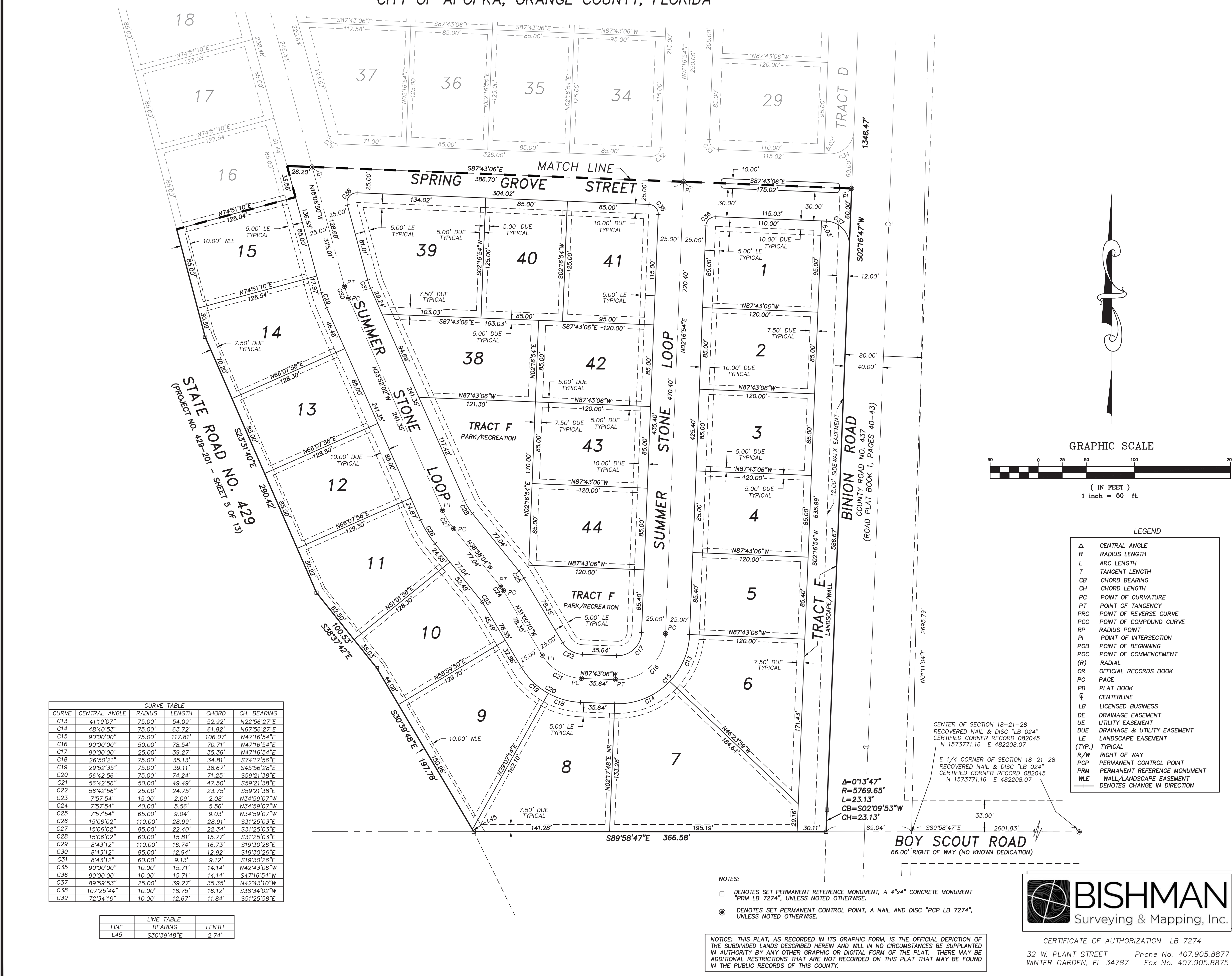
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CITY OF APOPKA, ORANGE COUNTY, FLORIDA

SHEET 3 OF 3

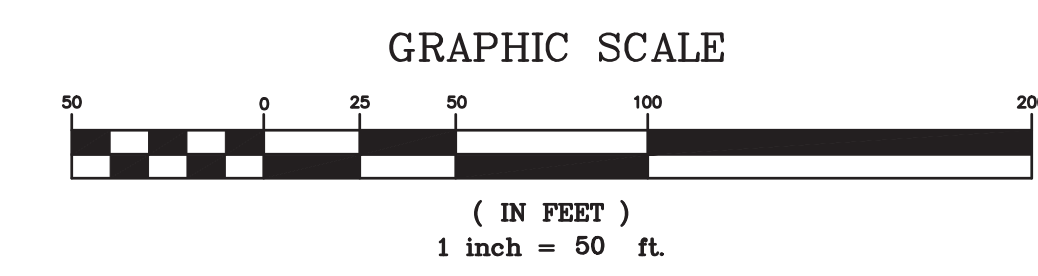
PLAT BOOK

PAGE



CURVE	CENTRAL ANGLE	RADIUS	LENGTH	CHORD	CH. BEARING
C13	41°19'07"	75.00'	54.09'	52.92'	N22°56'27"E
C14	48°40'53"	75.00'	63.72'	61.82'	N67°56'27"E
C15	90°00'00"	75.00'	117.81'	106.07'	N47°16'54"E
C16	90°00'00"	50.00'	78.54'	70.71'	N47°16'54"E
C17	90°00'00"	25.00'	39.27'	35.36'	N47°16'54"E
C18	26°50'21"	75.00'	35.13'	34.81'	S74°17'56"E
C19	29°52'35"	75.00'	39.11'	38.67'	S45°56'28"E
C20	56°42'56"	75.00'	74.24'	71.25'	S59°21'38"E
C21	56°42'56"	50.00'	49.49'	47.50'	S59°21'38"E
C22	56°42'56"	25.00'	24.75'	23.75'	S59°21'38"E
C23	75°7'54"	15.00'	2.09'	2.08'	N34°59'07"W
C24	75°7'54"	40.00'	5.56'	5.56'	N34°59'07"W
C25	75°7'54"	65.00'	9.04'	9.03'	N34°59'07"W
C26	15°06'02"	110.00'	28.99'	28.91'	S31°25'03"E
C27	15°06'02"	85.00'	22.40'	22.34'	S31°25'03"E
C28	15°06'02"	60.00'	15.81'	15.77'	S31°25'03"E
C29	8°43'12"	110.00'	16.74'	16.73'	S19°30'26"E
C30	8°43'12"	85.00'	12.94'	12.92'	S19°30'26"E
C31	8°43'12"	60.00'	9.13'	9.12'	S19°30'26"E
C35	90°00'00"	10.00'	15.71'	14.14'	N42°43'06"W
C36	90°00'00"	10.00'	15.71'	14.14'	S47°16'54"W
C37	89°59'53"	25.00'	39.27'	35.35'	N42°43'10"W
C38	107°25'44"	10.00'	18.75'	16.12'	S38°34'02"W
C39	72°34'16"	10.00'	12.67'	11.84'	S51°29'58"E

LINE	BEARING	LENGTH
L45	S30°39'48"E	2.74'



LEGEND

- Δ CENTRAL ANGLE
- R RADIUS LENGTH
- L ARC LENGTH
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- WLE WALL/LANDSCAPE EASEMENT
- DENOTES CHANGE IN DIRECTION

- NOTES:
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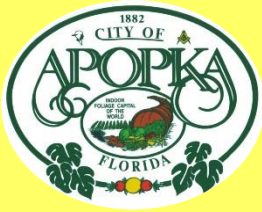
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WINTER GARDEN, FL 34787 Fax No. 407.905.8875

Backup material for agenda item:

5. FINAL DEVELOPMENT PLAN/PLAT – LAKE GEM COMMERCE PARK - Owned by Property Industrial Enterprises, LLC, c/o Michael Cooper and located at 511 and 611 Marshall Lake Road. (Parcel ID #s: 09-21-28-0000-00-011 and 08-21-28-0000-00-029)



CITY OF APOPKA PLANNING COMMISSION

- PUBLIC HEARING
- SITE PLAN
- SPECIAL REPORTS
- OTHER: Final Development Plan/Plat

MEETING OF: March 13, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Aerial Map
 Plat
 Final Development Plan

SUBJECT: LAKE GEM COMMERCE PARK – FINAL DEVELOPMENT PLAN/PLAT

REQUEST: RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN/PLAT FOR LAKE GEM COMMERCE PARK

SUMMARY:

OWNER/APPLICANT: Property Industrial Enterprises, LLC c/o Michael R. Cooper
 PROJECT ENGINEER: Al Tehrani, P.E.
 LOCATION: 511 and 611 Marshall Lake Road
 EXISTING USE: Vacant
 FUTURE LAND USE: Industrial
 ZONING: PUD (Planned Unit Development)/I-1
 PROPOSED DEVELOPMENT: Commerce Park with 12 Lots
 Minimum lot width: 160 feet; minimum lot size: 32,597 square feet
 TRACT SIZE: 28.74 +/- acres
 FLOOR AREA RATIO (FAR): Maximum 0.60 FAR

FUNDING SOURCE: N/A

DISTRIBUTION

Mayor Kilsheimer	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)	Railroad/Commercial	Railroad/I-1	Railroad/Vacant
East (City)	Industrial	I-1	Vacant
South (City)	Industrial	Right-of-Way/I-1	Marshall Lake Road/Single Family Residence/ Horticulture/Vacant
West (City)	Conservation\Industrial	I-1	Vacant

Project Use: The Lake Gem Commerce Park Final Development Plan/Plat proposes the development of 12 industrial lots. Located within the PUD/I-1 zoning district, the plan shows a minimum lot width of 160 feet and with a no individual lot being less than 32,597 square feet. Lake Gem Commerce must comply with the development standards for I-1 zoning district but allowed for a building height of up to 50 feet.

Preliminary and/or Final Development Plans shall be provided at the time of the each lot development and comply with the most current Land Development Code and other City standards.

The minimum setbacks applicable to this project are:

Setback	Min. Standard
Front*	25'
Side	10'
Rear	10'*
Corner	25'

*30 feet setback from residential uses or zoning districts.

Access: Ingress/egress access points for the development will be via full access onto Marshall Lake Road.

Stormwater: The stormwater management system includes an on-site retention area. The stormwater pond is located within Tract B. The stormwater pond design meets the City’s Land Development Code requirements.

Buffer: A 25-foot wide landscaped buffer is provided along Marshall Lake Road, as required by Code, and on the boundary adjacent to the existing railroad. The plan also shows a 10-foot wide buffer along the eastern boundary.

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

PUBLIC HEARING SCHEDULE:

March 13, 2018 - Planning Commission, 5:30 p.m.

April 4, 2018 - City Council, 1:30 p.m.

RECOMMENDATION ACTION:

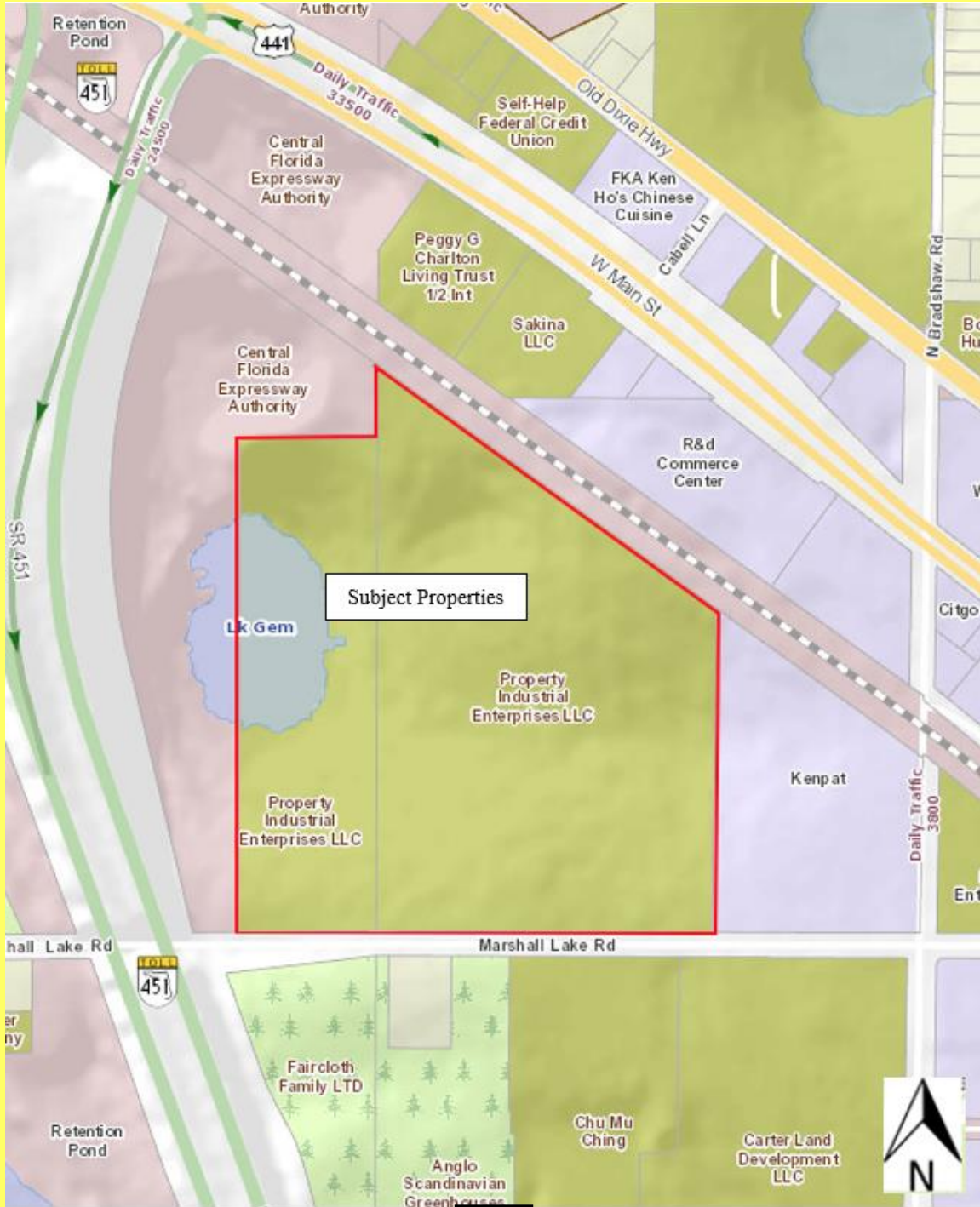
The **Development Review Committee** recommends approval of Lake Gem Commerce Park Final Development Plan/Plat subject to the final review by the City surveyor and City Engineer prior to recording the plat and findings of this staff report.

Planning Commission: Find the Lake Gem Commerce Park Final Development Plan and Plat consistent with the Comprehensive Plan and Land Development Code, and recommend approval of the Lake Gem Commerce Park Final Development Plan/Plat, subject to the findings of this staff report.

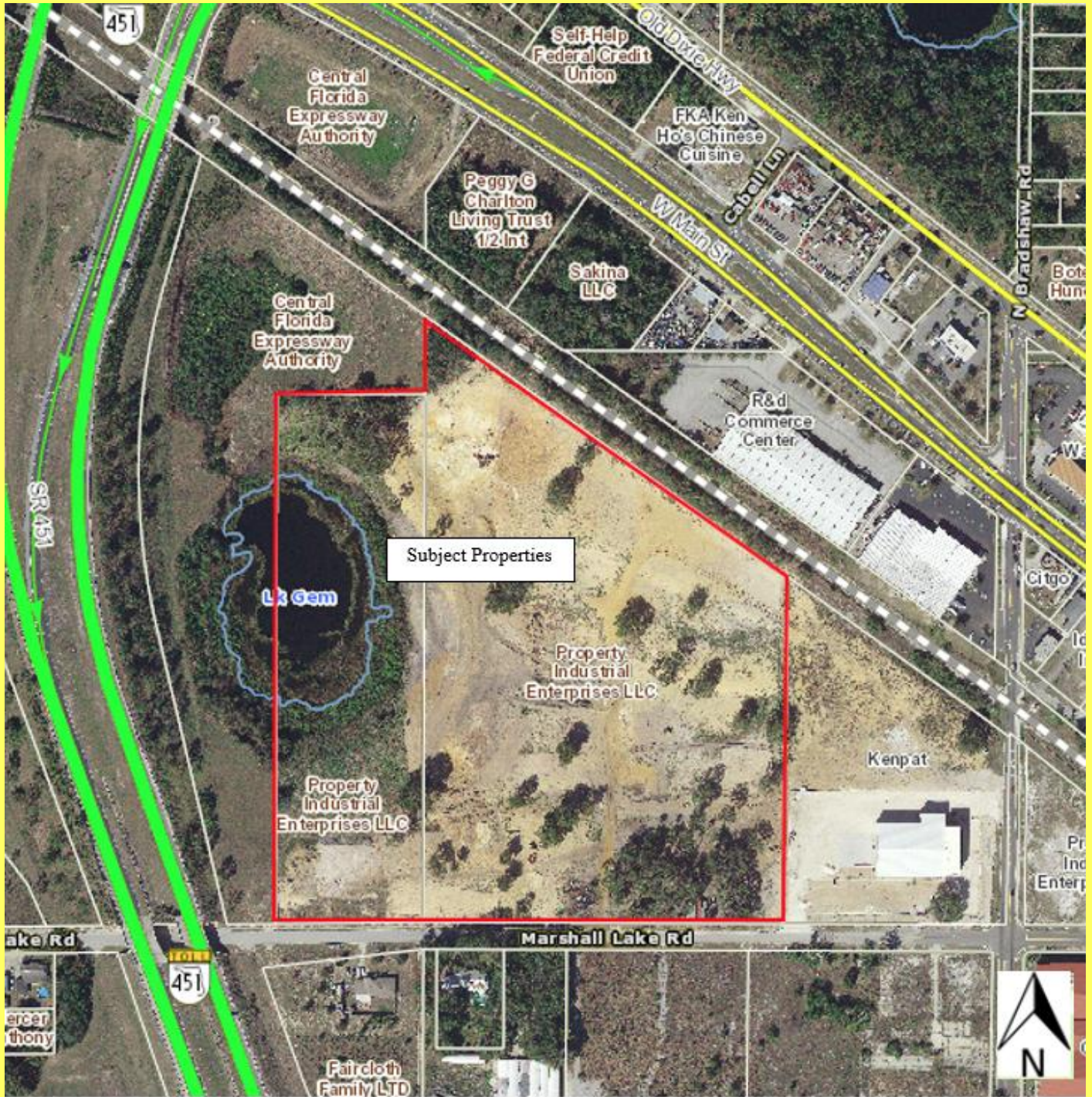
Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Property Industrial Enterprises, LLC, c/o Michael R. Cooper
Ali Tehrani, P.E.
Lake Gem Commerce Park Subdivision
28.74 +/- acres
Proposed number of lots: 12
Parcel ID Nos.: 09-21-28-0000-00-011 and 08-21-28-0000-00-029

VICINITY MAP



AERIAL MAP



LAKE GEM COMMERCE CENTER

LOCATED IN SECTIONS 8 AND 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST,
CITY OF AOPKA, ORANGE COUNTY, FLORIDA

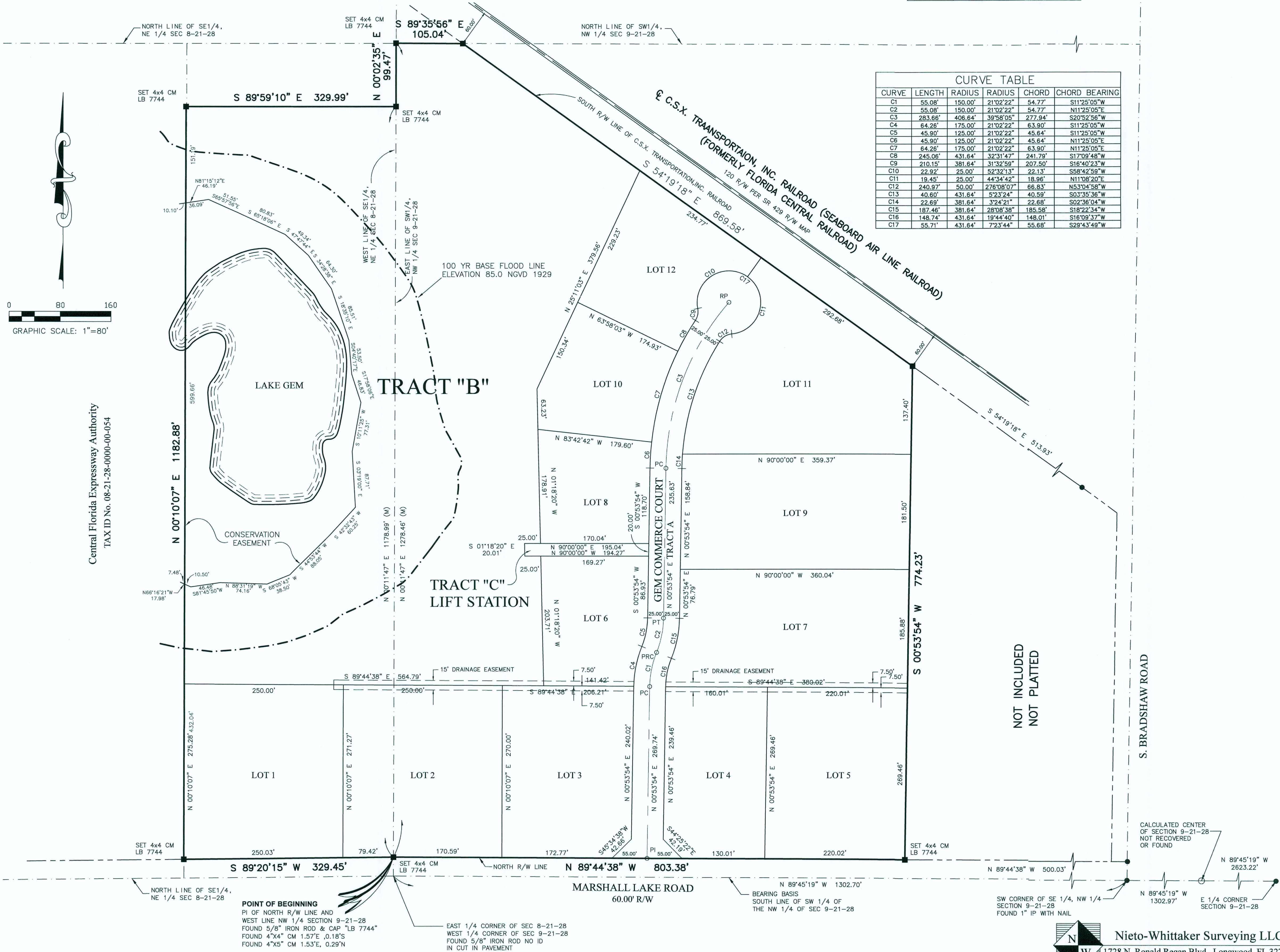
SHEET 2 OF 2

PLAT
BOOK

PAGE

LINE TABLE		
LINE	LENGTH	BEARING
L1	36.99'	N35°40'42"E

CURVE TABLE					
CURVE	LENGTH	RADIUS	RADIUS	CHORD	CHORD BEARING
C1	55.08'	150.00'	21°02'22"	54.77'	S11°25'05"W
C2	55.08'	150.00'	21°02'22"	54.77'	N11°25'05"E
C3	283.66'	406.64'	39°58'05"	277.94'	S20°52'56"W
C4	64.26'	175.00'	21°02'22"	63.90'	S11°25'05"W
C5	45.90'	125.00'	21°02'22"	45.64'	S11°25'05"W
C6	45.90'	125.00'	21°02'22"	45.64'	N11°25'05"E
C7	64.26'	175.00'	21°02'22"	63.90'	N11°25'05"E
C8	245.06'	431.64'	32°31'47"	241.79'	S17°09'48"W
C9	210.15'	381.64'	31°32'59"	207.50'	S16°40'23"W
C10	22.92'	25.00'	52°32'13"	22.13'	S58°42'58"W
C11	19.45'	25.00'	44°34'42"	18.95'	N11°08'20"E
C12	240.97'	50.00'	276°08'07"	66.83'	N53°04'58"W
C13	40.60'	431.64'	5°23'24"	40.59'	S03°35'36"W
C14	22.69'	381.64'	3°24'21"	22.68'	S02°36'04"W
C15	187.46'	381.64'	28°08'38"	185.58'	S18°22'34"W
C16	148.74'	431.64'	19°44'40"	148.01'	S16°09'37"W
C17	55.71'	431.64'	7°23'44"	55.68'	S29°43'49"W

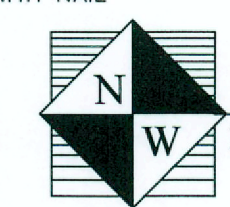


Central Florida Expressway Authority
TAX ID No. 08-21-28-0000-00-054

NOT INCLUDED
NOT PLATTED

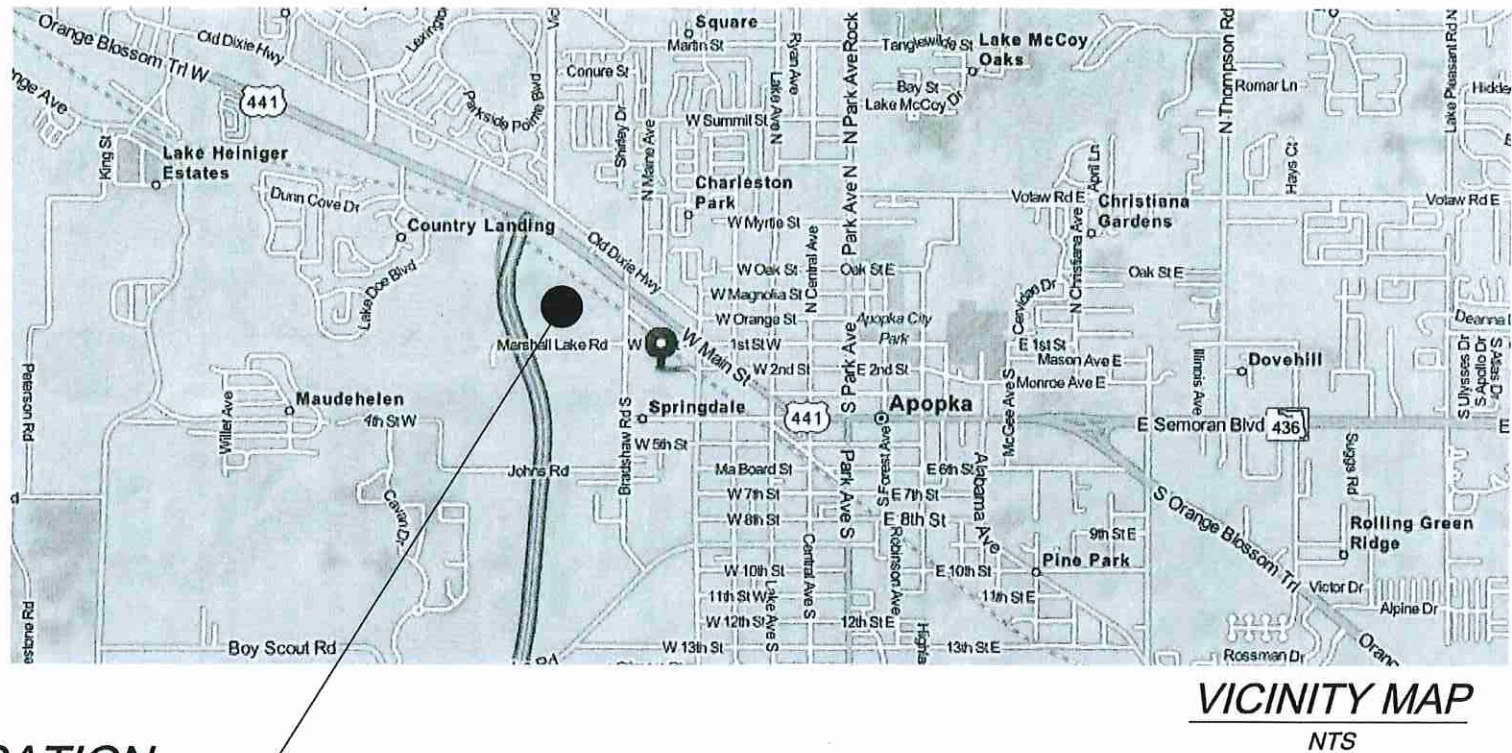
POINT OF BEGINNING
PI OF NORTH R/W LINE AND
WEST LINE NW 1/4 SECTION 9-21-28
FOUND 5/8" IRON ROD & CAP "LB 7744"
FOUND 4"x4" CM 1.57"E, 0.18"S
FOUND 4"x5" CM 1.53"E, 0.29"N

EAST 1/4 CORNER OF SEC 8-21-28
WEST 1/4 CORNER OF SEC 9-21-28
FOUND 5/8" IRON ROD NO ID
IN CUT IN PAVEMENT



Nieto-Whittaker Surveying LLC
1728 N. Ronald Regan Blvd., Longwood, FL 32750
PH: (407) 636-8460 FAX: (407) 636-8461
LB No. 7744

SUBDIVISION PLAN INDEX OF DRAWINGS	
SHEET NO.	SHEET DESCRIPTION
1	COVER
2	LEGEND AND SITE DATA
3	GENERAL NOTES
4	BOUNDARY SURVEY
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6	UTILITY PLAN
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9	DRAINAGE BASIN MAP (PRE-DEVELOPMENT)
10	DRAINAGE BASIN MAP (POST-DEVELOPMENT)
11-12	PLAN AND PROFILE VIEW
13	POND GEOMETRY & CROSS SECTIONS
14	POND OVERFLOW STRUCTURES DETAILS
15	POLLUTION PREVENTION PLAN
16-18	UTILITY DETAILS
19	CONSTRUCTION DETAILS
20	LIFT STATION PLAN
L-1	LANDSCAPE PLAN
L-2	IRRIGATION PLAN PLAN



VICINITY MAP
NTS

SITE LOCATION

NOTES:

- 1- EACH LOT SHALL SUBMIT A SEPARATE PRELIMINARY/ FINAL DEVELOPMENT PLAN TO INCLUDE SITE PLAN, BUILDING, LANDSCAPE, IRRIGATION PLANS FOR EACH LOT WILL BE SUBMITTED TO CITY FOR APPROVAL AT THE TIME OF DEVELOPMENT.
- 2- PERMANENT ENTRANCE CURB CUT LOCATIONS WILL BE DETERMINED AS EACH LOT DEVELOPED.
- 3- ORDINANCE NO. 2447 APPLICABLE REQUIREMENTS WILL BE COMPLIED.
- 4- ALL DISTURBED SOIL SHALL BE SODDED OR SEED AND MULCHED.

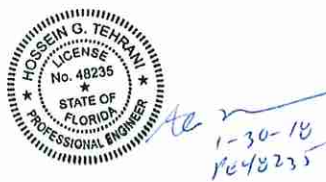
FINAL DEVELOPMENT PLAN

LAKE GEM COMMERCE PARK

SUBDIVISION PLAN

PARCEL ID: 08-21-28-0000-00-029
 PARCEL ID: 09-21-28-0000-00-011

CITY OF APOPKA
 JANUARY, 2018



Plan Notes

COVER

No.	Revision/Issue	Date
1	CITY COMMENTS	1/18

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
**LAKE GEM
 COMMERCE PARK**
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG Sheet 1-3	SHEET 1
Date August, 2017	
Scale As Shown	

GENERAL NOTES

- CONTRACTOR IS ADVISED THAT PRIOR TO BEGINNING ANY WORK ONSITE, THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) REQUIRES THE FILING OF A NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES CONSTRUCTION GENERAL PERMIT. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO FILE THE NOI AND FORWARD COPIES TO TEHRANI CONSULTING ENGINEERING AND THE LOCAL MS4 OPERATOR, IF APPLICABLE. CONTACT FDEP NPDES STORMWATER NOTICES CENTER AT 866-336-6312 FOR MORE INFORMATION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE ONSITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- FOR STORMWATER POLLUTION PREVENTION PLAN, NOTES AND CONTRACTOR'S CERTIFICATION, SEE SHEET 8.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING A SAFE AND SECURE CONSTRUCTION SITE. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL SAFETY CODES AND REQUIREMENTS TO INSURE THAT WORKERS, AND ALL OTHER AFFECTED PERSONS, MATERIALS, ONSITE AND OFFSITE MATERIALS, ONSITE AND OFFSITE PROPERTY, ARE SAFE. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO INSURE THE SITE IS SECURE AND NOT ACCESSIBLE TO UNAUTHORIZED PERSONS.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY TEHRANI CONSULTING ENGINEERING OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS AND THE FIELD CONDITIONS.
- 48 HOURS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING:

APOPKA PUBLIC WORKS	(407) 703-1731
APOPKA BUILDING DEPARTMENT	(407) 703-1713
BELLSOUTH TELEPHONE	(888) 757-6500
DUKE ENERGY	(407) 629-1010
SPECTRUM	(407) 291-2500
TEHRANI CONSULTING ENG.	(407) 948-0811
- CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES THAT ARE TO BE SAVED. IF THERE IS A QUESTION AS TO WHETHER A PARTICULAR AREA SHOULD BE CLEARED, THE CONTRACTOR SHALL CONTACT THE OWNER FOR FURTHER INSTRUCTIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTS. DISTURBED MONUMENTS SHALL BE RESTORED AT CONTRACTOR'S EXPENSE, BY A FLORIDA LICENSED LAND SURVEYOR SELECTED BY THE OWNER.
- THE TOPOGRAPHIC SURVEY INFORMATION SHOWN WAS PROVIDED BY NIETO WHITTAKER SURVEYING, LLC. AND IS NOT CERTIFIED BY TEHRANI CONSULTING ENGINEERING.
- ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
- ALL PAVEMENT MARKERS, STRIPING, SIGNAGE, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE INSTALLED BY CONTRACTOR PER ALL MUNICIPAL AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
- REGULATORY STRIPPING AND SIGNS SHALL BE IN PLACE PRIOR TO FINAL INSPECTION OF PAVING AND DRAINAGE IMPROVEMENTS.
- ALL DISTURBED AREAS, SIGNAGE, AND LIGHTING SHALL BE RETURNED TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
- ALL EQUIPMENT, INCLUDING ROOFTOP AND UTILITY BOXES, MUST BE FULLY SCREENED FROM VIEW OF RIGHTS-OF-WAY AND ADJACENT PROPERTIES.

PAVING AND GRADING NOTES

- SITE GRADING, PAVING, AND DRAINAGE MATERIALS AND CONSTRUCTION SHALL CONFORM TO CITY OF APOPKA DEVELOPMENT STANDARDS AND SPECIFICATIONS AND FDOT ROADWAY DESIGN STANDARD AND SPECIFICATIONS.
- FOR GEOTECHNICAL RECOMMENDATIONS AND FINDING, REFER TO THE GEOTECHNICAL INVESTIGATION PREPARED BY YOVAISH ENGINEERING SCIENCES, INC. UPDATED GEOTECHNICAL RECOMMENDATIONS AND FINDINGS, REFER TO THE GEOTECHNICAL INVESTIGATIONS PREPARED BY YOVAISH ENGINEERING SCIENCES, INC.
- ELEVATIONS AT CURB ARE EDGE OF PAVEMENT; TOP OF CURB SHALL BE 6" ABOVE EDGE OF PAVEMENT.
- CONTRACTOR IS RESPONSIBLE FOR GRADING ALL PARKING AND DRIVEWAYS TO DRAIN POSITIVELY. INTERSECTIONS SHALL BE TRANSITIONED TO PROVIDE SMOOTH DRIVING SURFACE WHILE MAINTAINING POSITIVE DRAINAGE. SHOULD AREAS OF POOR DRAINAGE RESULT FROM THE ADJUSTMENTS DESCRIBED, THE CONTRACTOR SHALL NOTIFY THE SITE SUPERINTENDENT AND THE ENGINEER PRIOR TO PLACING BASE SO THAT RECOMMENDATIONS FOR CORRECTION MAY BE MADE.
- MINIMUM GRADE OF SODDED AREA SHALL BE 1%.
- A SMOOTH FINISHED TRANSITION SHALL BE MADE AT ALL CURB TERMINATIONS (TYPICAL 2 FOOT TAPER) UNLESS OTHERWISE NOTED.
- AFTER THE COMPLETION OF THE STORMWATER FEATURES, INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PERMIT.
- THE FOLLOWING CONSTRUCTION PROCEDURES ARE RECOMMENDED FOR THE DRY POND(S), PER ST. JOHNS RIVER WATER MANAGEMENT DISTRICT:
 - INITIALLY CONSTRUCT THE RETENTION BASIN TO ROUGH GRADE BY UNDER-EXCAVATING THE BASIN BOTTOM AND SIDES BY APPROXIMATELY 12-INCHES.
 - AFTER THE DRAINAGE AREA CONTRIBUTING TO THE BASIN HAS BEEN FULLY STABILIZED, THE INTERIOR SIDE SLOPES AND BASIN BOTTOM SHOULD BE EXCAVATED TO FINAL DESIGN SPECIFICATIONS. THE EXCESS SOIL AND UNDESIRABLE MATERIAL SHOULD BE CAREFULLY EXCAVATED AND REMOVED, SO THAT ALL ACCUMULATED SILTS, CLAYS, ORGANICS, AND OTHER FINE MATERIAL SHOULD BE DISPOSED OF BEYOND THE LIMITS OF THE DRAINAGE AREA OF THE BASIN.
 - ONCE THE BASIN HAS BEEN EXCAVATED TO FINAL GRADE, THE ENTIRE BASIN BOTTOM SHOULD BE DEEP RAKED AND LOOSENEED FOR OPTIMAL INFILTRATION.
 - FINALLY, THE BASIN SHOULD BE STABILIZED WITH PVIOUS MATERIAL OR PERMANENT VEGETATIVE COVER. TO PROVIDE PROPER TREATMENT OF THE RUNOFF IN VERY PERMEABLE SOILS, PERMANENT VEGETATIVE COVER MUST BE UTILIZED WHEN U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE (SCS) HYDROLOGIC GROUP "A" SOILS UNDERLIE THE RETENTION BASIN.
- PRIOR TO FINAL ACCEPTANCE THE CONTRACTOR SHALL PROVIDE TEHRANI CONSULTING ENGINEERING WITH COMPLETE STORMWATER AS-BUILTS INCLUDING CONTROL STRUCTURES, INLETS AND PIPES, SPREADER SWALES (IF ANY), AND POND CONTOURS, DIMENSIONS, AND SLOPES.
- ALL DISTURBED AREAS ONSITE AND OFFSITE SHALL BE RETURNED TO ORIGINAL CONDITIONS OR BETTER, SOD ALL DISTURBED AREAS.
- ALL HIGH-DENSITY POLYETHYLENE (HDPE) PIPE USED FOR STORM DRAIN APPLICATIONS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M294 CURRENT EDITION AND BE CERTIFIED THROUGH THE PLASTIC PIPE INSTITUTE (PPI) THIRD PARTY CERTIFICATION PROGRAM. ALL HDPE PIPE DELIVERED AND USED SHALL BEAR THE THIRD PARTY ADMINISTERED PPI SEAL. ALL HDPE JOINTS SHALL BE WATER TIGHT AND CERTIFIED TO MEET A MINIMUM LAB TEST OF 10.8 PSI PER ASTM D3212.

UTILITY NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND CITY OF APOPKA STANDARDS AND SPECIFICATIONS. IN CASE OF A CONFLICT THE MOST STRINGENT RULE SHALL APPLY.
- GRAVITY SEWER MAIN PIPE SHALL BE PVC EXCEPT AS NOTED AND SHALL MEET ASTM D3034 (SDR 35), JOINTS SHALL CONFORM TO ASTM D3212 AND F477.
- GRAVITY SEWER MAIN SHALL BE TESTED PER CITY OF APOPKA STANDARDS, PIPE SHALL BE LAMPED FOR ALIGNMENT, SLOPE TRUENESS, INFILTRATION, STANDING WATER, AND CLEANLINESS BY A CITY OF APOPKA INSPECTOR AND TEHRANI CONSULTING ENGINEERING REPRESENTATIVE. LEAKAGE TESTING SHALL ALSO BE PERFORMED IF REQUIRED BY CITY OF APOPKA.
- THE ENGINEER AND CITY OF APOPKA INSPECTOR SHALL BE NOTIFIED AT LEAST 5 DAYS PRIOR TO ANY TESTING. FAILURE TO DO SO WILL RESULT IN RETESTING AT THE CONTRACTOR'S EXPENSE.
- COMPLETE AS-BUILT DRAWINGS PREPARED BY A PROFESSIONAL LAND SURVEYOR SHALL BE PROVIDED TO THE ENGINEER IMMEDIATELY AFTER COMPLETION OF THE WATER AND SEWER IMPROVEMENTS. AS-BUILTS SHALL INCLUDE MANHOLE LOCATION WITH TOP AND INVERT ELEVATION; LOCATION OF VALVES, FITTINGS, AND OTHER APPURTENANCES, LENGTHS OF PIPE, TOP OF WATER MAIN ELEVATIONS, SIZE AND MATERIAL OF PIPE, SEPARATION DISTANCES AT PIPE CROSSINGS AND SHALL MEET CITY OF APOPKA REQUIREMENTS.
- CONTRACTOR SHALL NOTIFY UTILITIES AND SUNSHINE PRIOR TO CONSTRUCTION FOR FLAGGING / LOCATION OF EXISTING UTILITY LINES, EXISTING UTILITY LOCATIONS SHOWN ARE ONLY APPROXIMATE.
- SEWER PIPE SHALL BE BURIED WITH IDENTIFICATION TAPE ABOVE THE TOP OF THE PIPE. THE TAPE SHALL INDICATE THE PRESENCE OF GRAVITY SEWERS PLAINLY ON THE TAPE FACE. INDICATOR TAPE SHALL BE DETECTABLE BY STANDARD METAL DETECTION EQUIPMENT.
- ALL WATER MAINS SHALL BE INSTALLED WITH CONTINUOUS INSULATED 10 GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. ALL PIPE AND PIPE FITTINGS SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320 (21) (B) 3, F.A.C., USING BLUE AS A PREDOMINANT COLOR.
- WHERE WATER AND GRAVITY SANITARY SEWER MAINS CROSS WITH LESS THAN 18 INCHES VERTICAL CLEARANCE OR THE SEWER MAIN IS ABOVE THE WATER MAIN, THE SANITARY SEWER WILL BE 20 FEET OF PVC PIPE UPGRADED TO WATER MAIN STANDARDS AND PRESSURE TESTED.
- WHERE WATER MAINS AND STORM SEWER PIPES CROSS WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE WATER MAIN SHALL BE 20 FEET OF DUCTILE IRON PIPE CENTERED ON THE POINT OF CROSSING.
- WHEN A WATER MAIN PARALLELS A GRAVITY SANITARY SEWER MAIN, A SEPARATION (MEASURED EDGE TO EDGE) OF AT LEAST TEN FEET SHOULD BE MAINTAINED. WHERE THIS SEPARATION IS NOT MET, ONE OF THE FOLLOWING MUST OCCUR:
 - THE WATER MAIN IS LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, OR;
 - IF BOTH SANITARY SEWER AND POTABLE WATER MAINS ARE PROPOSED AND THE ABOVE (A) IS NOT MET, THE SANITARY SEWER PIPES SHALL BE UPGRADED TO THE EQUIVALENT PIPE MATERIAL AS THE WATER MAIN AND PRESSURE TESTED.
 - IF THE SANITARY SEWER IS EXISTING AND THE POTABLE WATER MAIN IS PROPOSED, THE WATER MAIN SHALL, AT A MINIMUM, BE UPGRADED TO DUCTILE IRON PIPE, CONSTRUCTED IN SEPARATE TRENCHES, LAID AT A HIGHER ELEVATION THAN THE SANITARY SEWER, AND UTILIZE STAGGERED JOINTS.
- HORIZONTAL SEPARATION OF 10 FEET (EDGE TO EDGE) MINIMUM AND VERTICAL SEPARATION OF 18 INCHES MINIMUM SHALL BE MAINTAINED BETWEEN FORCE MAINS AND WATER MAINS. SEPARATION REQUIREMENTS BETWEEN FORCE MAINS AND POTABLE WATER MAINS MUST BE MAINTAINED UNLESS APPROVED IN ADVANCE BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- THE CONTRACTOR SHALL BE SEPARATELY RESPONSIBLE FOR APPROPRIATE CONSTRUCTION, DISINFECTION AND TESTING BEYOND THE WATER METER TO ASSURE POTABILITY AT THE POINT OF USE.
- POTABLE WATER PIPES SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH SPECIFICATION NUMBERS C600 AND C605/M23 FOR DUCTILE IRON AND PVC PIPES RESPECTIVELY AND WITNESSED BY CITY INSPECTOR AND TEHRANI CONSULTING ENGINEERING REPRESENTATIVE, CHLORINATION AND BACTERIOLOGICAL TESTING SHALL BE PERFORMED PER AWWA C651 AND WITNESSED BY CITY OF APOPKA INSPECTOR.
- POTABLE WATER PIPES MUST BE MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
 - DUCTILE IRON PIPE (3 INCHES TO 54 INCHES) - AWWA C160/C151;
 - PVC (WITH NATIONAL SANITATION FOUNDATIONS SEAL)
 - AWWA C900/ASTM 1784 (4 INCHES TO 12 INCHES) WITH DR18 MINIMUM;
 - AWWA C905 (14 INCHES TO 36 INCHES);
 - ASTM 1785 OR AWWA C905 (LESS THAN 4 INCHES) SCHEDULES 40, 80, AND 120 OR ASTM 2241 (SDR 21 MINIMUM);
 - POLYETHYLENE PIPE - AWWA C901 WITH VALVES AND FITTINGS (AWWA C800); AND
- IF CONNECTION TO THE WATER MAIN WILL RESULT IN A DEPRESSURIZATION OF THE EXISTING SYSTEM BELOW 20 POUNDS PER SQUARE INCH, ONE OF THE FOLLOWING MUST OCCUR:
 - PRECAUTIONARY BOIL WATER NOTICES MUST BE ISSUED IN CASE OF PLANNED DISTRIBUTION INTERRUPTIONS, WHICH ARE DEEMED AN IMMINENT PUBLIC HEALTH THREAT BY THE FDEP CENTRAL DISTRICT OR WILL AFFECT THE BACTERIOLOGICAL QUALITY OF THE DRINKING WATER UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGEMENT, THAT THE INTEGRITY OF THE WATER SYSTEM HAS BEEN MAINTAINED; OR
 - IN CASES OF BRIEF INTERRUPTION IN SERVICE, ADVISORIES (NOT BOIL WATER NOTICES) SHOULD BE ISSUED IF TEMPORARY CHANGES IN WATER QUALITY ARE EXPECTED TO OCCUR AND NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.
- ALL AIR/VACUUM RELIEF VALVES MUST END IN A DOWN-TURNED ELBOW WITH AT LEAST 12 INCHES ABOVE THE SURROUNDING GRADE UNLESS THE WET SEASON WATER TABLE CAN BE SHOWN TO BE BELOW THE VAULT BOTTOM.
- FILLING OF PROPOSED WATER MAINS FROM EXISTING WATER MAINS WILL BE DONE IN ACCORDANCE WITH AWWA SPECIFICATION C651.
- PROPOSED GATE VALVES AT POINTS OF CONNECTION SHALL BE CLOSED AND REMAIN LOCKED UNTIL LINE IS CLEARED. CITY OF APOPKA PUBLIC UTILITIES SHALL LOCK VALVE AND RETAIN KEY. VALVE SHALL BE OPERATED BY CITY OF APOPKA PERSONNEL ONLY.
- MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED PIPES, EXCEPT AS SPECIFICALLY SHOWN ON THESE PLANS. WATER MAINS SHALL BE SUFFICIENTLY DEEP TO PROVIDE CLEARANCE WITH STORM AND SANITARY SEWER LINES.
- ON-SITE WATER DISTRIBUTION SYSTEM SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNERS ASSOCIATION.

- ON-SITE WASTEWATER COLLECTION SYSTEM SHALL BE PRIVATELY OWNED AND MAINTAINED BY PROPERTY OWNERS ASSOCIATION.
- ON-SITE RECLAIMED WATER DISTRIBUTION SYSTEM SHALL BE PRIVATELY OWNED AND MAINTAINED BY PROPERTY OWNERS ASSOCIATION.
- WATER MAIN SHALL NOT COME IN CONTACT WITH OR PASS THROUGH ANY SANITARY OR STORM SEWER MANHOLE OR STRUCTURE.
- CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES AND POINTS OF CONNECTION. IF ANY DISCREPANCIES WITH PIPE, FITTING, VALVE OR STRUCTURE LOCATIONS ARE DISCOVERED DURING STAKEOUT, CONTRACTOR SHALL REFER TO TEHRANI CONSULTING ENGINEERING: (407) 948-0811 FOR CLARIFICATION.
- FIRE HYDRANTS SHALL BE CENTERED WITHIN PROPOSED ISLANDS, APPROXIMATELY THREE FEET FROM THE BACK OF CURB. PUMPER NOZZLE SHALL FACE PARKING LOT.
- ALL PVC PIPE SHALL BEAR THE NATIONAL SANITATION FOUNDATION (NSF) SEAL.
- CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATING. PLANS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS OR SERVICES LINES. THE ONLY SAFE AND PROPER WAY TO LOCATE GAS FACILITIES IS BY AN ON-SITE INSPECTION BY LAKES PROPANE NATIONAL GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO TELEPHONE O.N.I.S. AT 1-800-432-4770 TWO WORKING DAYS BEFORE DIGGING IN A CONSTRUCTION AREA.
- WHERE GRAVITY SEWER PIPES AND STORM SEWER PIPES CROSS WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE GRAVITY SEWER PIPE SHALL BE 20 FEET OF PVC PIPE UPGRADED TO WATER MAIN STANDARDS AND PRESSURE TESTED, CENTERED ON THE POINT OF CROSSING.
- WATER SYSTEM JOINTS SHALL BE INTEGRAL BELL PUSH ON TYPE AND CONFORM TO ASTM 3139.
- CONTRACTOR SHALL MEET ALL CONDITIONS OF THE FDEP PERMITS.
- ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
- ALL MASTER METERS SHALL BE EQUIPPED WITH RADIO READ (AMR) DEVICES COMPATIBLE WITH THE CURRENT CITY AMR SYSTEM.
- ALL WASTEWATER FLOWS ASSOCIATED WITH THIS DEVELOPMENT MUST COMPLY WITH THE REQUIREMENTS SET FORTH IN THE CITY OF APOPKA INDUSTRIAL WASTE GUIDELINES, SECTION 82-38 OF THE CITY MUNICIPAL CODE.

Plan Notes

GENERAL NOTES

No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO.48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
**LAKE GEM
 COMMERCE PARK**
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG Sheet 1-3	SHEET
Date August, 2017	3
Scale As Shown	

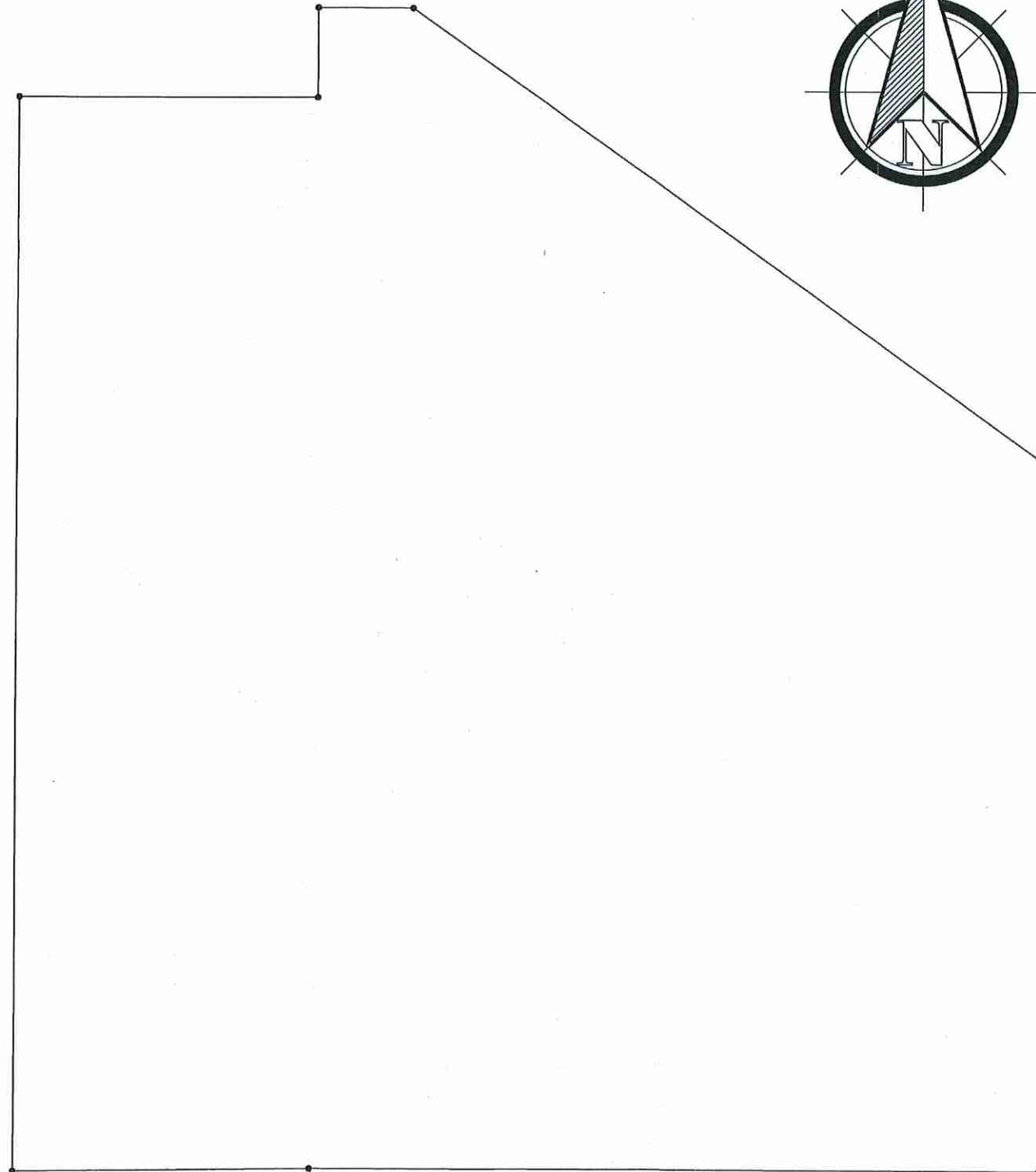
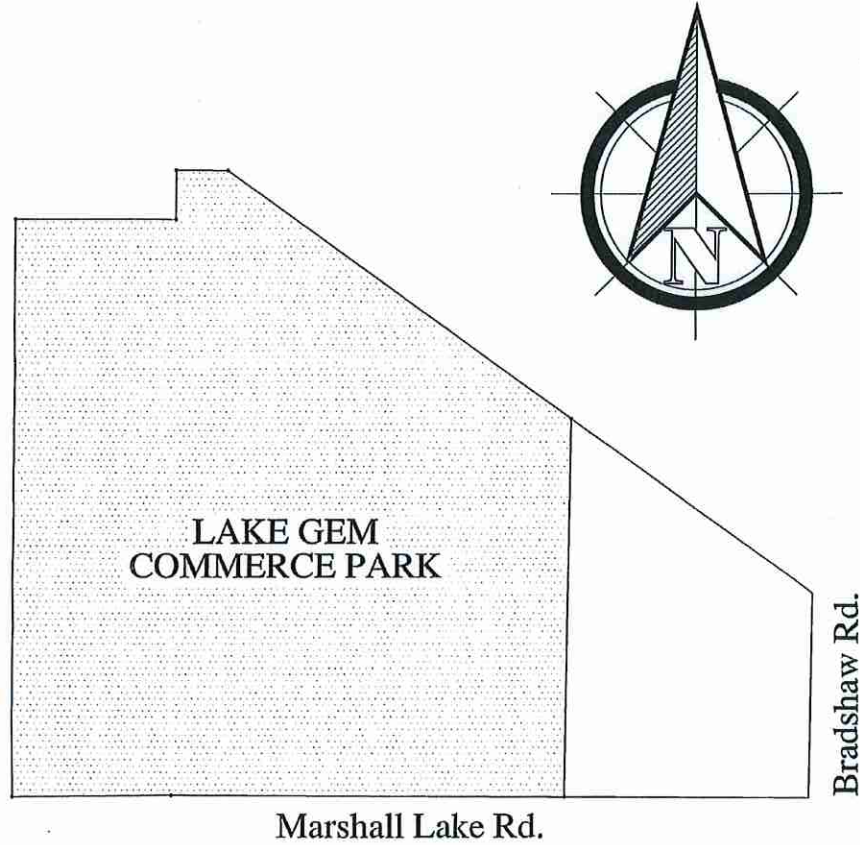


PROPERTY DESCRIPTION

LAKE GEM COMMERCE PARK
 THE ABOVE PARCEL BEING DESCRIBED AS:

BEGIN AT THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 31 EAST AS RECORDED IN THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA, SAID POINT TO BE THE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 20 MINUTES 14.82 SECONDS WEST, A DISTANCE OF 327.985 FEET ALONG THE SOUTHERN LINE OF THE SAID SECTION; THENCE NORTH 00 DEGREES 10 MINUTES 06.68 SECONDS EAST, A DISTANCE OF 1,182.879 FEET; THENCE SOUTH 89 DEGREES 59 MINUTES 10.02 SECONDS EAST, A DISTANCE OF 329.992 FEET; THENCE NORTH 00 DEGREES 02 MINUTES 34.80 SECONDS EAST, A DISTANCE OF 99.466 FEET; THENCE SOUTH 89 DEGREES 35 MINUTES 56.16 SECONDS EAST, A DISTANCE OF 105.036 FEET; THENCE SOUTH 54 DEGREES 19 MINUTES 17.65 SECONDS EAST, A DISTANCE OF 869.477 FEET; THENCE SOUTH 00 DEGREES 53 MINUTES 53.67 SECONDS WEST, A DISTANCE OF 774.292 FEET; THENCE NORTH 89 DEGREES 44 MINUTES 37.94 SECONDS WEST, A DISTANCE OF 804.765 FEET.

THE PARCEL CONTAINS 1,246,196.51 (SF) OR 28.609 (AC), MORE OR LESS.



POINT OF BEGINNING
 SW CORNER OF NW 1/4
 OF SECTION 09-21-31
 SET 5/8" IRON ROD & CAP "LB 7744"
 FOUND 4"x4" CM 1.57'E, 0.18'S
 FOUND 4"x5" CM 1.53'E, 0.29'N

Plan Notes

BOUNDARY SURVEY

No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
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 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

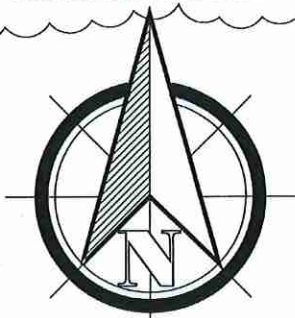
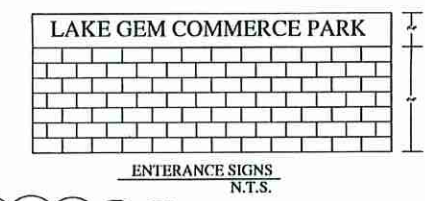
PROJECT NAME
LAKE GEM COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG Sheet 4	SHEET
Date August, 2017	4
Scale As Shown	



- VEHICLE PARKING IS PROHIBITED ON GEM COMMERCE CT.
- GEM COMMERCE CT. IS A PRIVATE ROAD.
- DRIVEWAY CUTS ON EACH LOT WILL BE ON SITE PLAN AS DEVELOPED. AND SHALL MEET REQUIREMENTS OF LDC 6.02.10(B)(2).
- FOR LOT SIZE DIMENSIONS PLEASE REFER TO PLAT SHEETS.

- ☉ DECORATIVE STREET LIGHT POLE
- 1- LIGHT POLE FOOTERS WILL NOT BE EXPOSED ABOVE GROUND.
 - 2- LIGHT POLE FIXTURE WILL NOT EXCEED THE HEIGHT OF THE BUILDING HEIGHT.
 - 3- LUMINERS SHALL NOT EXCEED 1.0 AT THE PROPERTY LINE.
 - 4- ALL POLE FIXTURE LAMPS SHALL BE 120 W, 120-227 VOLTS TYPE TO BE LIGHT EFFICIENT DESIGN, LED ONLY OR EQUAL MD#LED-809M50-5000K



SCALE: 1" = 60'

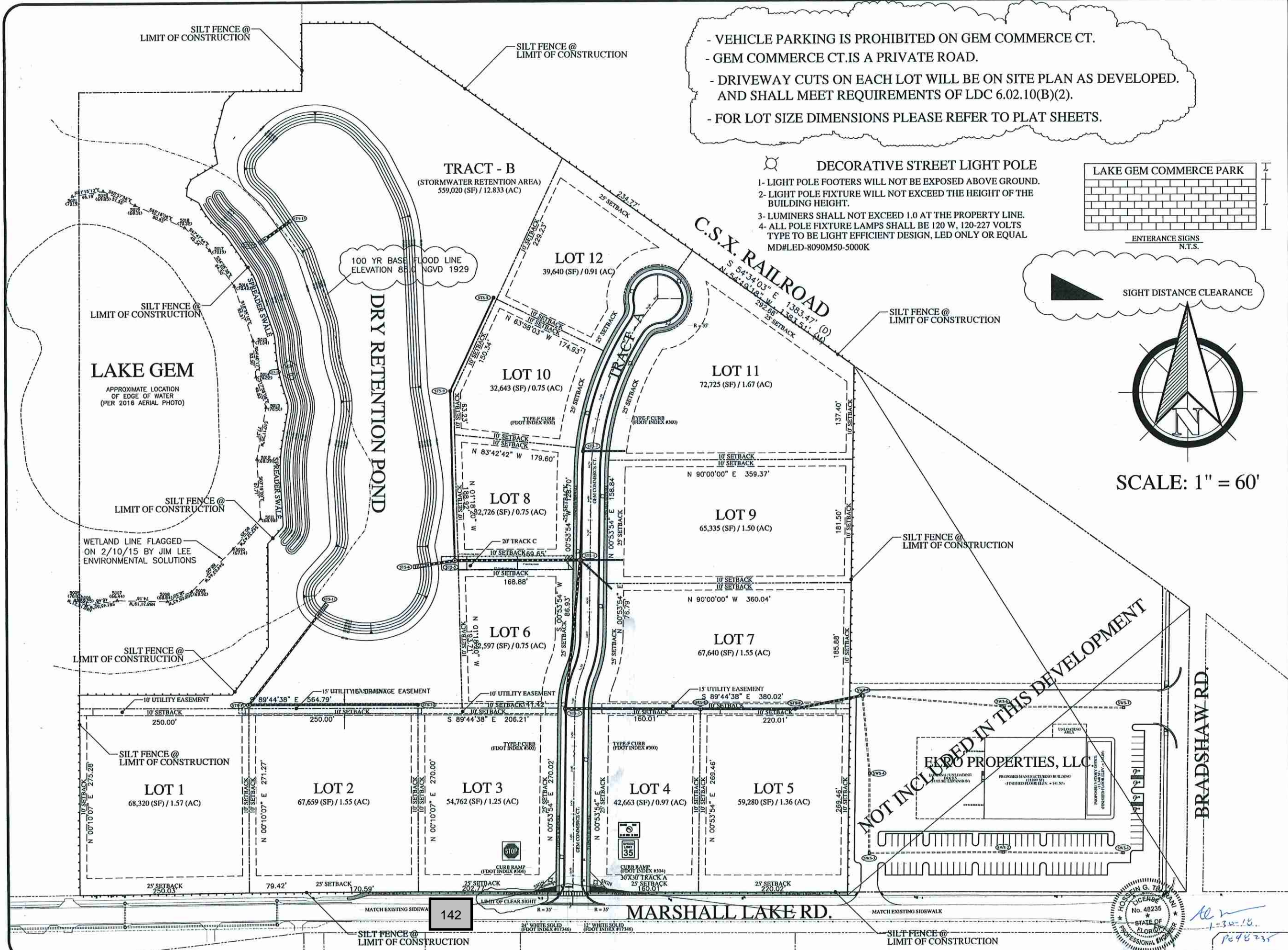
SUBDIVISION PLAN

No.	Revision/Issue	Date
1	CITY COMMENTS	1/18

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
LAKE GEM COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

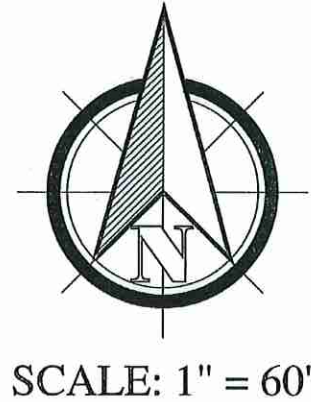
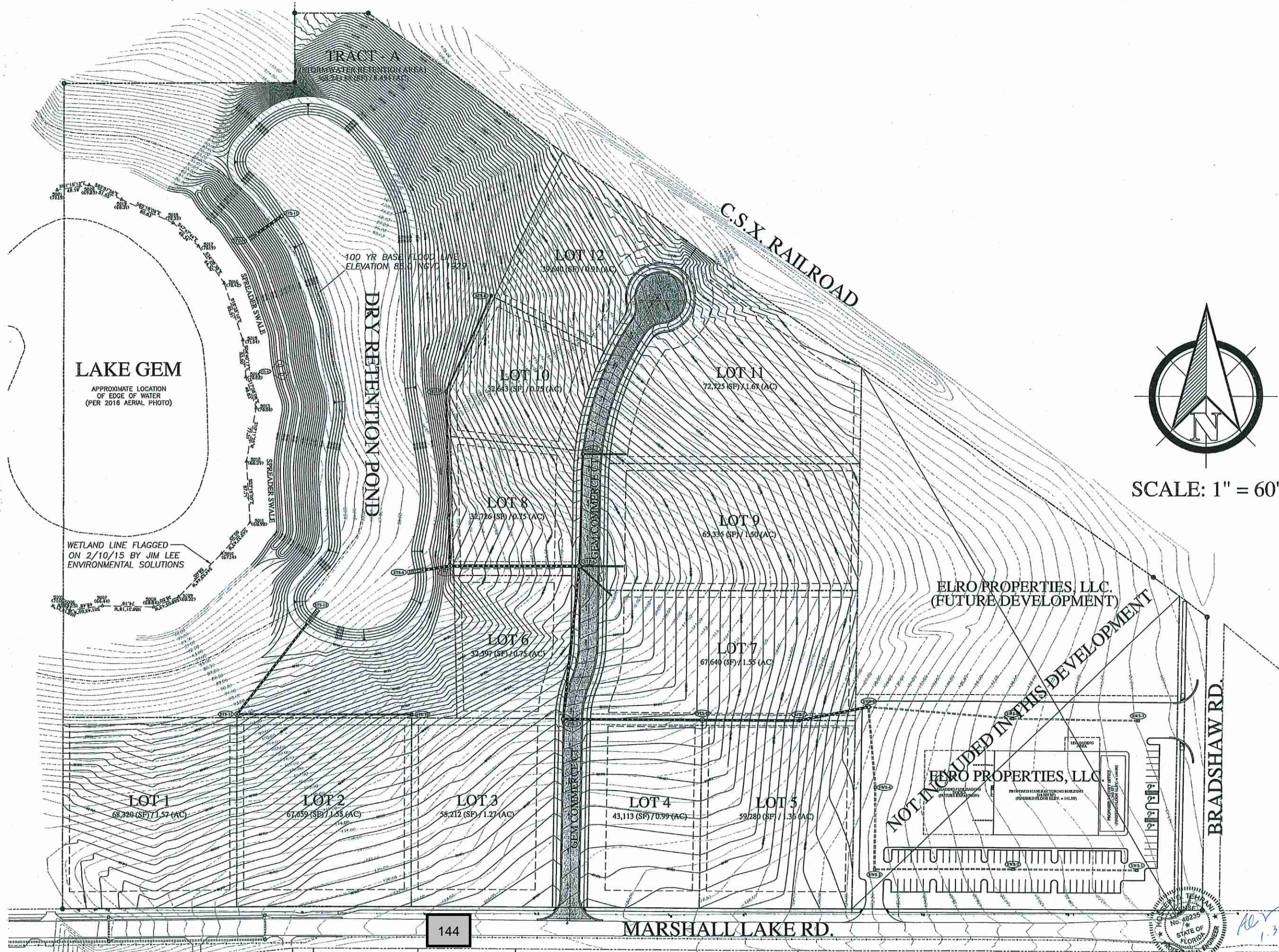
DWG Sheet 5	SHEET
Date August, 2017	5
Scale As Shown	



Professional Engineer Seal for Ali Tehrani, P.E., License No. 48235, State of Florida.

Handwritten notes: "1-30-18" and "Pc 98235"

GRADING PLAN

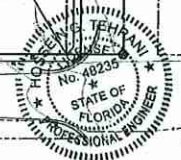


No.	Revision/Issue	Date

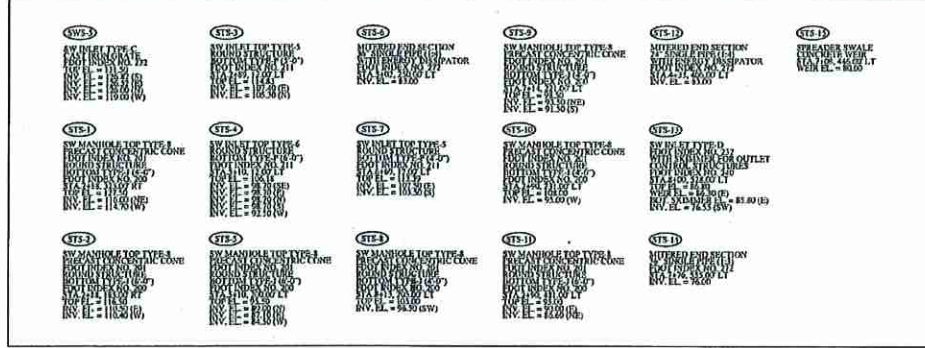
ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
**LAKE GEM
 COMMERCE PARK**
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

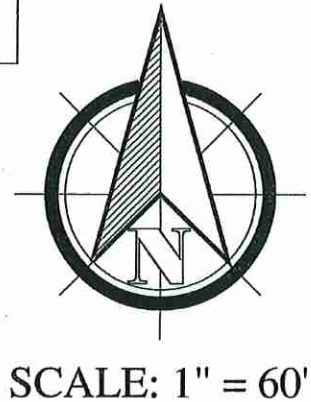
DWG Sheet 7	SHEET
Date August, 2017	7
Scale As Shown	



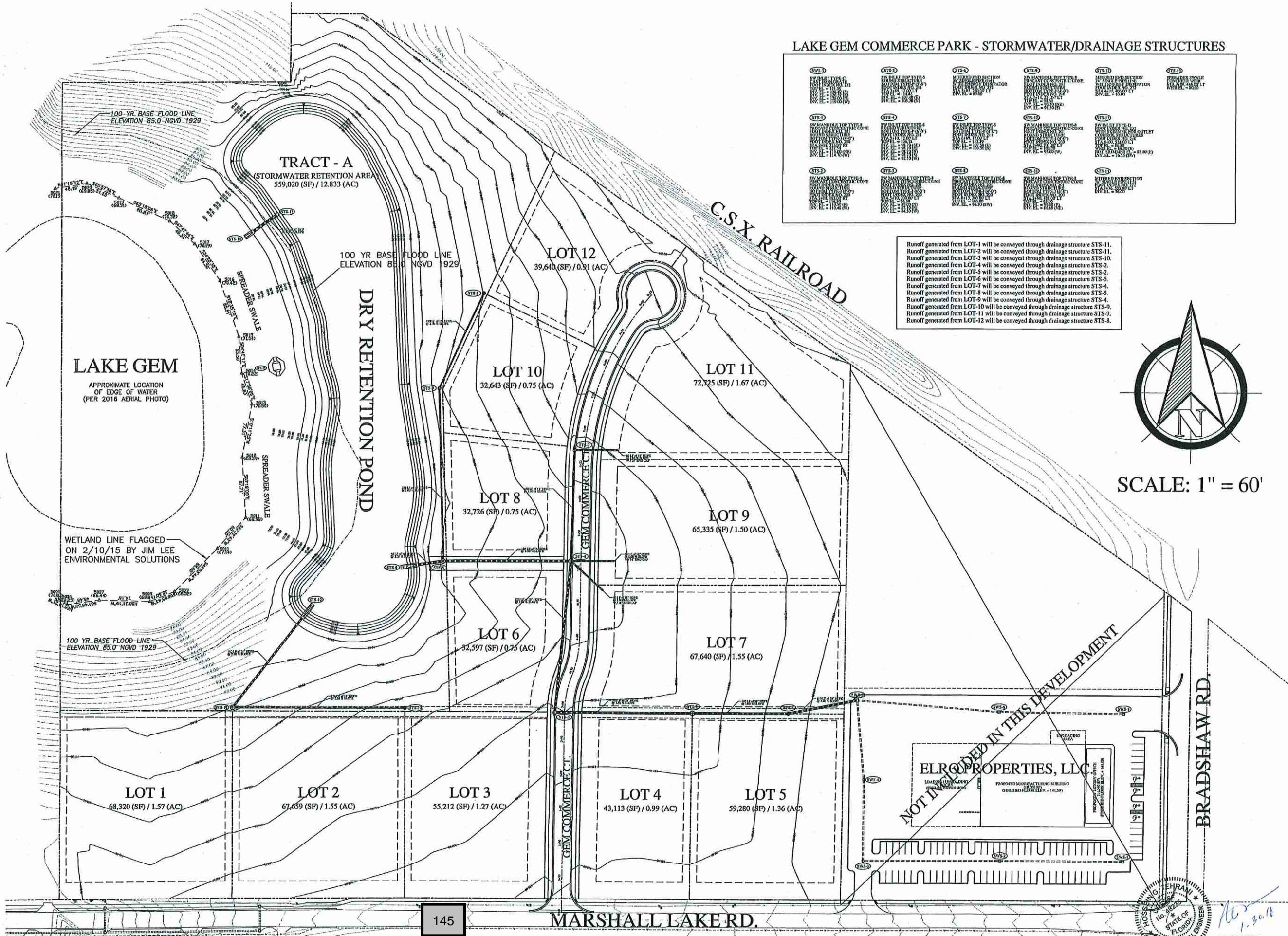
LAKE GEM COMMERCE PARK - STORMWATER/DRAINAGE STRUCTURES



Runoff generated from LOT-1 will be conveyed through drainage structure STS-11.
 Runoff generated from LOT-2 will be conveyed through drainage structure STS-11.
 Runoff generated from LOT-3 will be conveyed through drainage structure STS-10.
 Runoff generated from LOT-4 will be conveyed through drainage structure STS-2.
 Runoff generated from LOT-5 will be conveyed through drainage structure STS-2.
 Runoff generated from LOT-6 will be conveyed through drainage structure STS-5.
 Runoff generated from LOT-7 will be conveyed through drainage structure STS-4.
 Runoff generated from LOT-8 will be conveyed through drainage structure STS-5.
 Runoff generated from LOT-9 will be conveyed through drainage structure STS-4.
 Runoff generated from LOT-10 will be conveyed through drainage structure STS-9.
 Runoff generated from LOT-11 will be conveyed through drainage structure STS-7.
 Runoff generated from LOT-12 will be conveyed through drainage structure STS-8.



STORMWATER PLAN



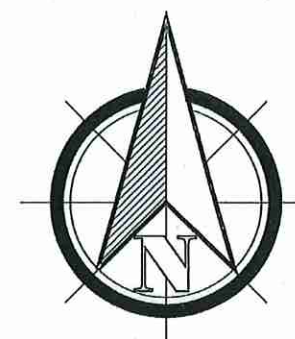
No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
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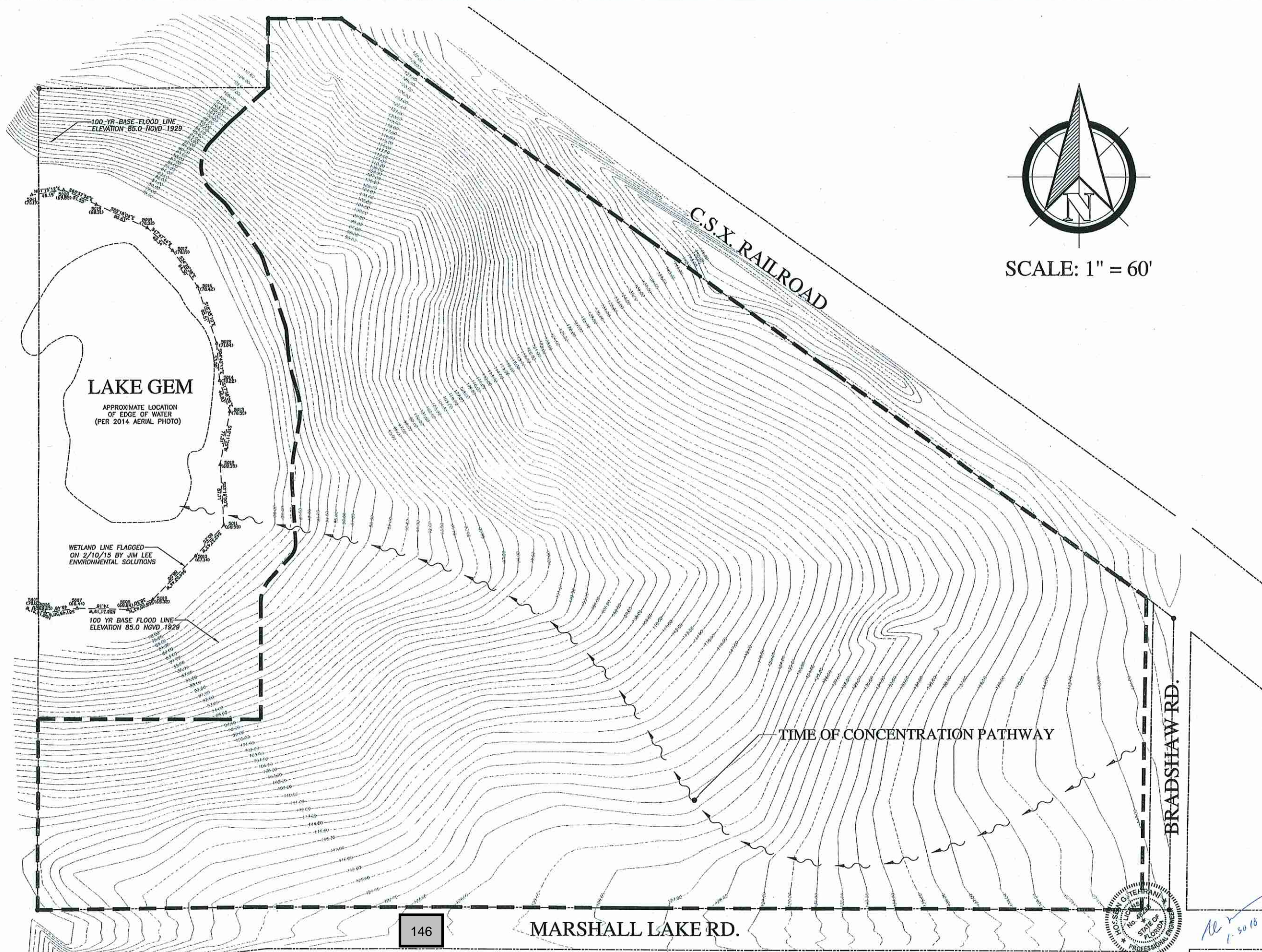
PROJECT NAME
LAKE GEM COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG	SHEET
Sheet 8	8
Date	
August, 2017	
Scale	
As Shown	

Professional Engineer Seal for Ali Tehrani, No. 48235, State of Florida, dated 1-30-18.



SCALE: 1" = 60'



**DRAINAGE BASIN MAP
(PRE-DEVELOPMENT)**

No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
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PROJECT NAME
**LAKE GEM
 COMMERCE PARK**
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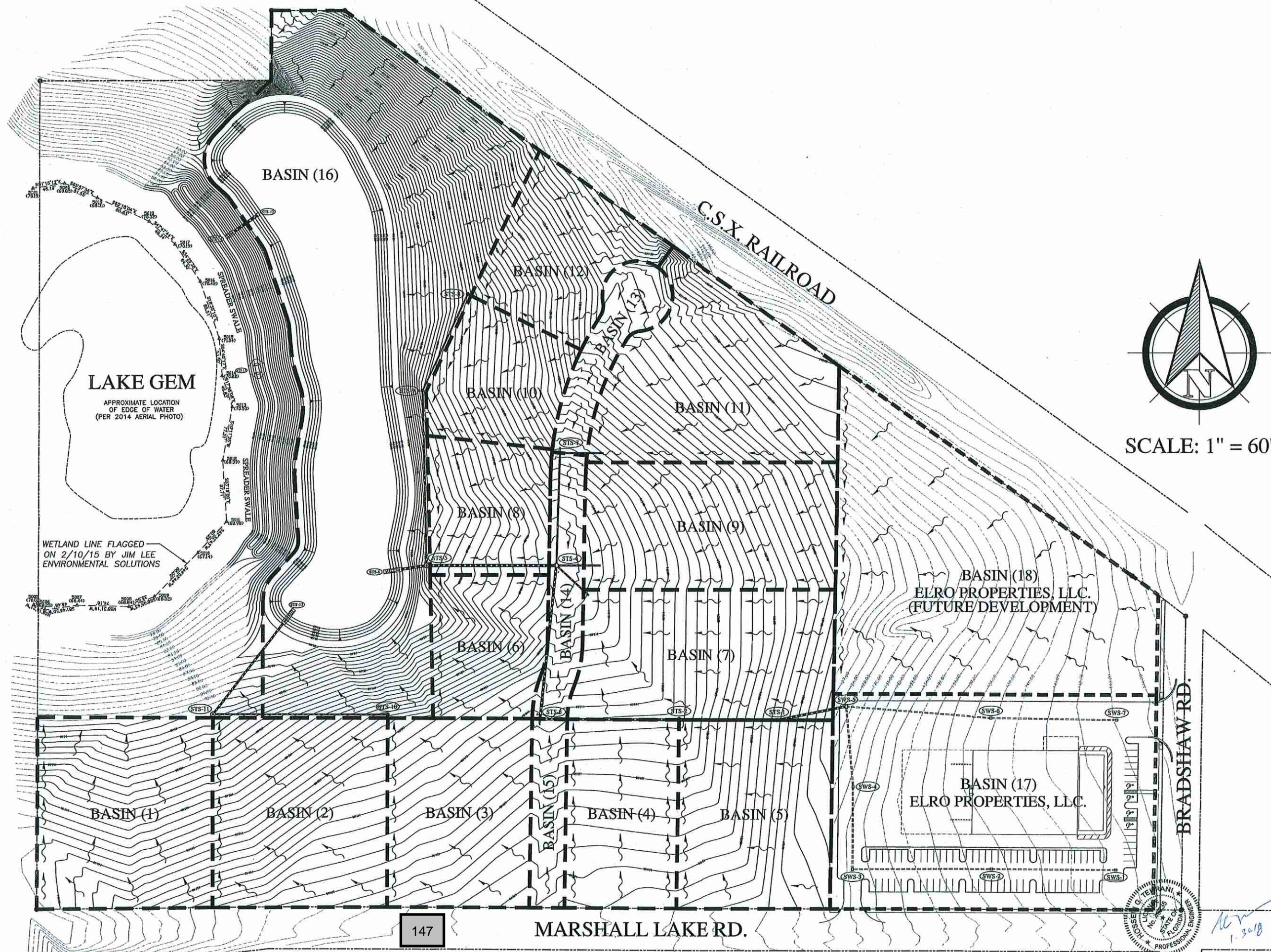
DWG Sheet 9	SHEET
Date August, 2017	9
Scale As Shown	

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MARSHALL LAKE RD.



Ali Tehrani
8/30/17

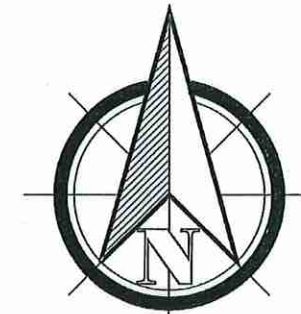


LAKE GEM

APPROXIMATE LOCATION OF EDGE OF WATER (PER 2014 AERIAL PHOTO)

WETLAND LINE FLAGGED ON 2/10/15 BY JIM LEE ENVIRONMENTAL SOLUTIONS

C.S.X. RAILROAD



SCALE: 1" = 60'

BASIN (18)
ELRO PROPERTIES, LLC.
(FUTURE DEVELOPMENT)

BASIN (17)
ELRO PROPERTIES, LLC.

BRADSHAW RD.

MARSHALL LAKE RD.

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Plan Notes

**DRAINAGE BASIN MAP
(POST-DEVELOPMENT)**

No.	Revision/Issue	Date

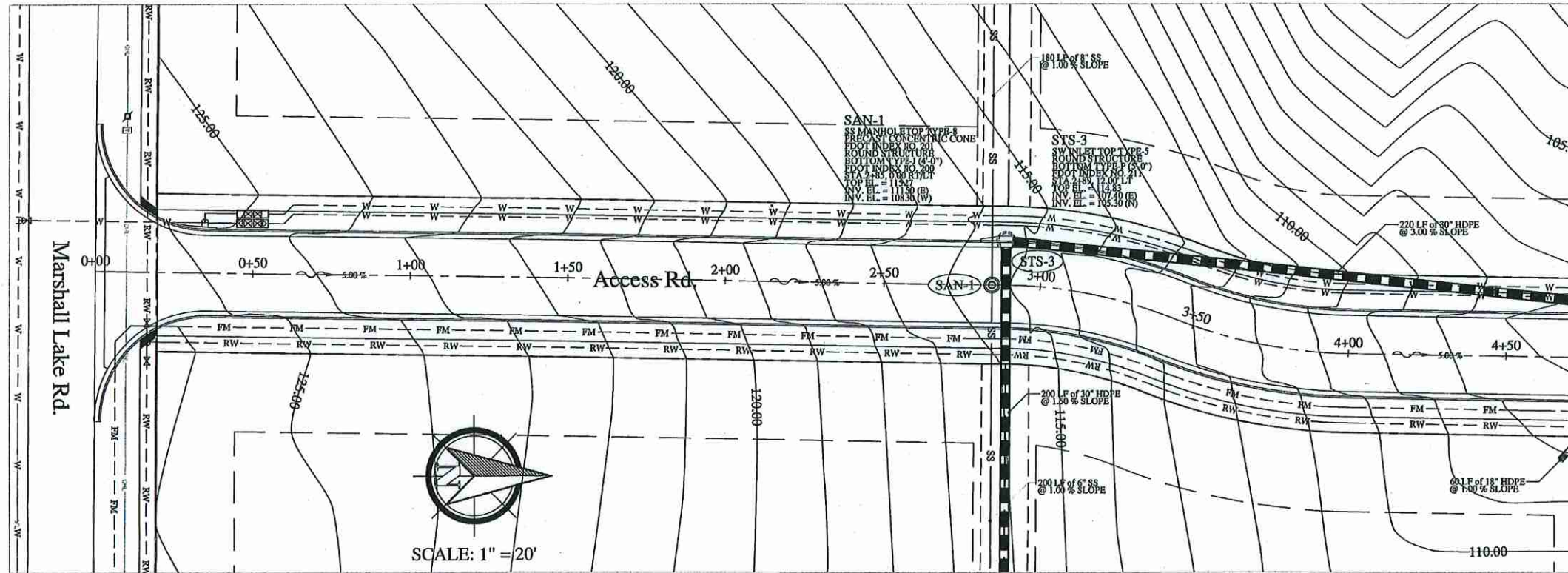
ENGINEER OF RECORD
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FLORIDA P.E. LICENSE NO.48235
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Altamonte Springs, FL 32751
Ph. (407) 948-0811

PROJECT NAME
**LAKE GEM
COMMERCE PARK**
516 Cooper Commerce Dr., Suite 200
Apopka, FL 32703

DWG Sheet 10	SHEET 10
Date August, 2017	
Scale As Shown	

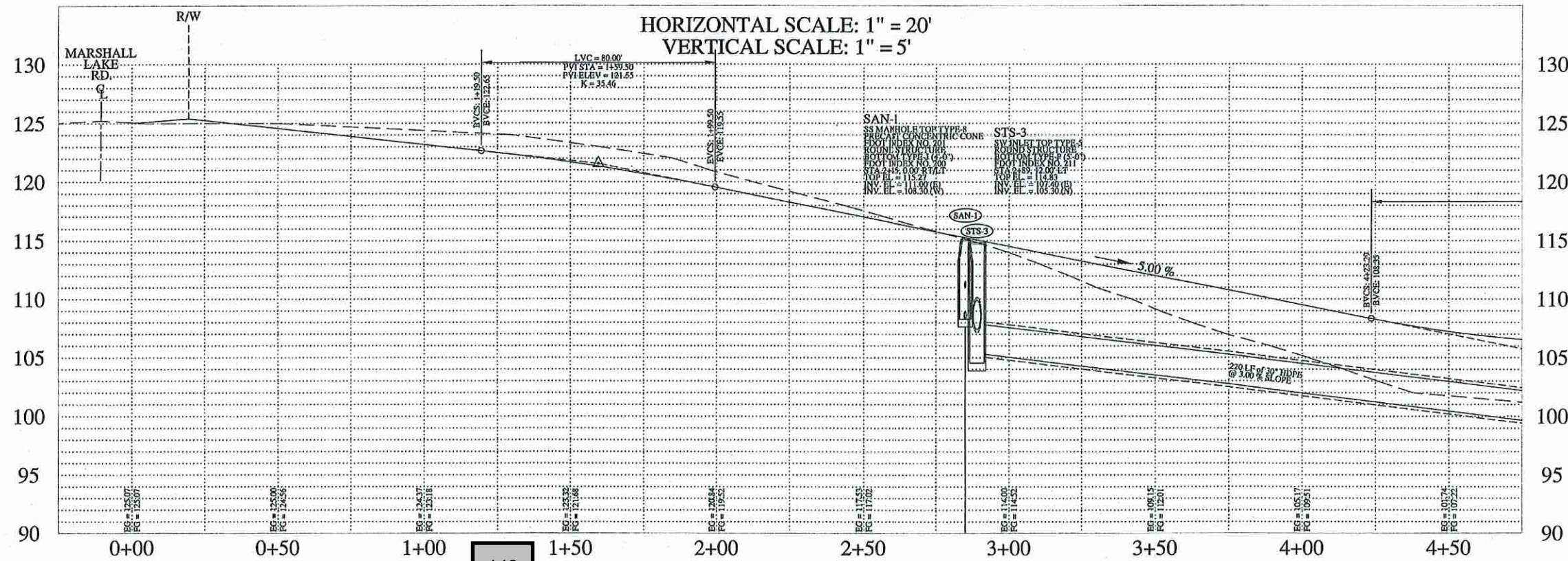


Ali Tehrani
1-2018



MATCH STA. 4+75 @ SHEET-12

PLAN AND PROFILE VIEW



148

No.	Revision/Issue	Date

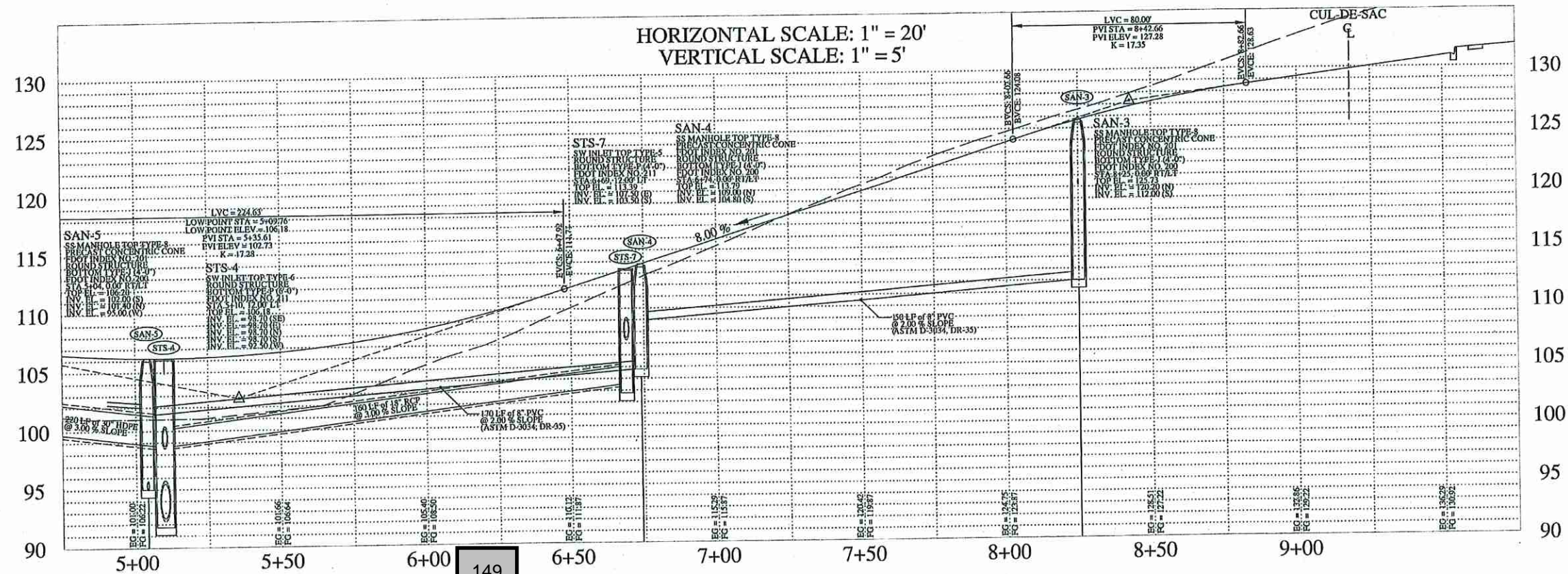
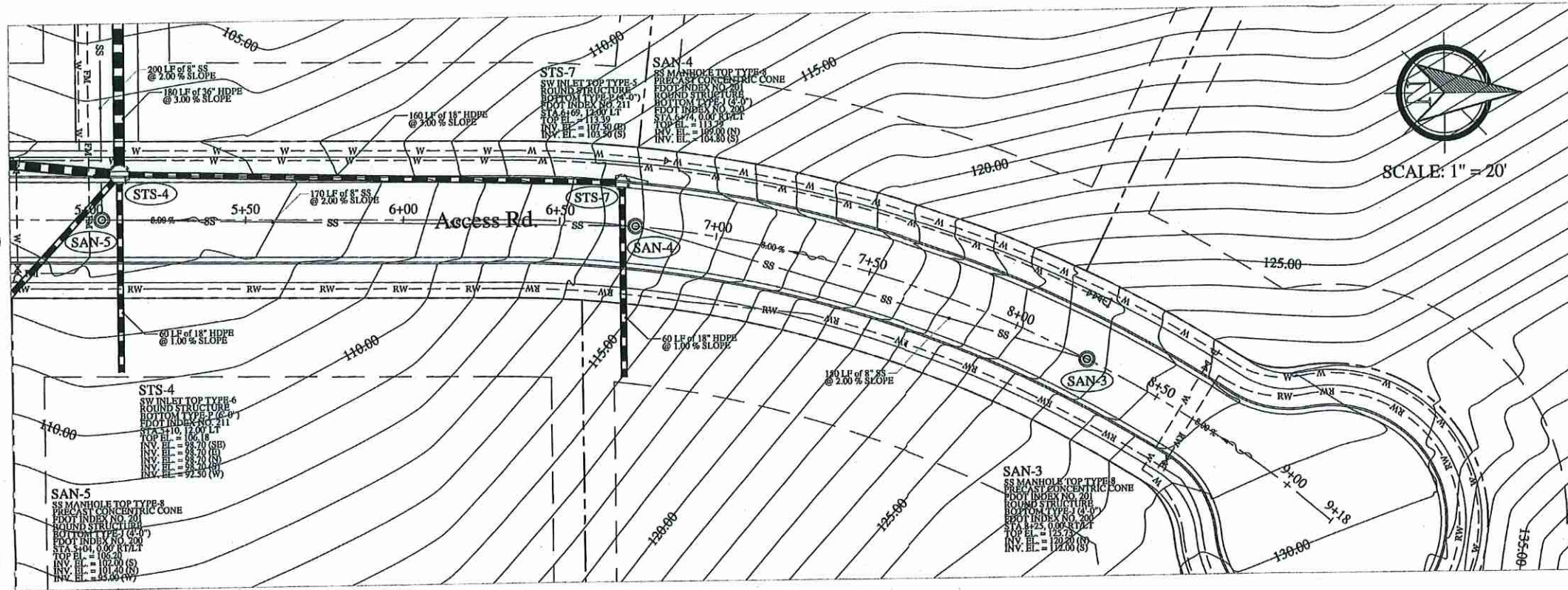
ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
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PROJECT NAME
**LAKE GEM
 COMMERCE PARK**
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG Sheet 11-12	SHEET
Date August, 2017	11
Scale As Shown	

Handwritten signature and date:
 1-30-19

MATCH STA. 4+75 @ SHEET-11



149

ALI
 1. 30.13

PLAN AND PROFILE VIEW

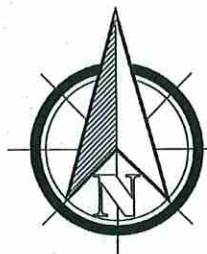
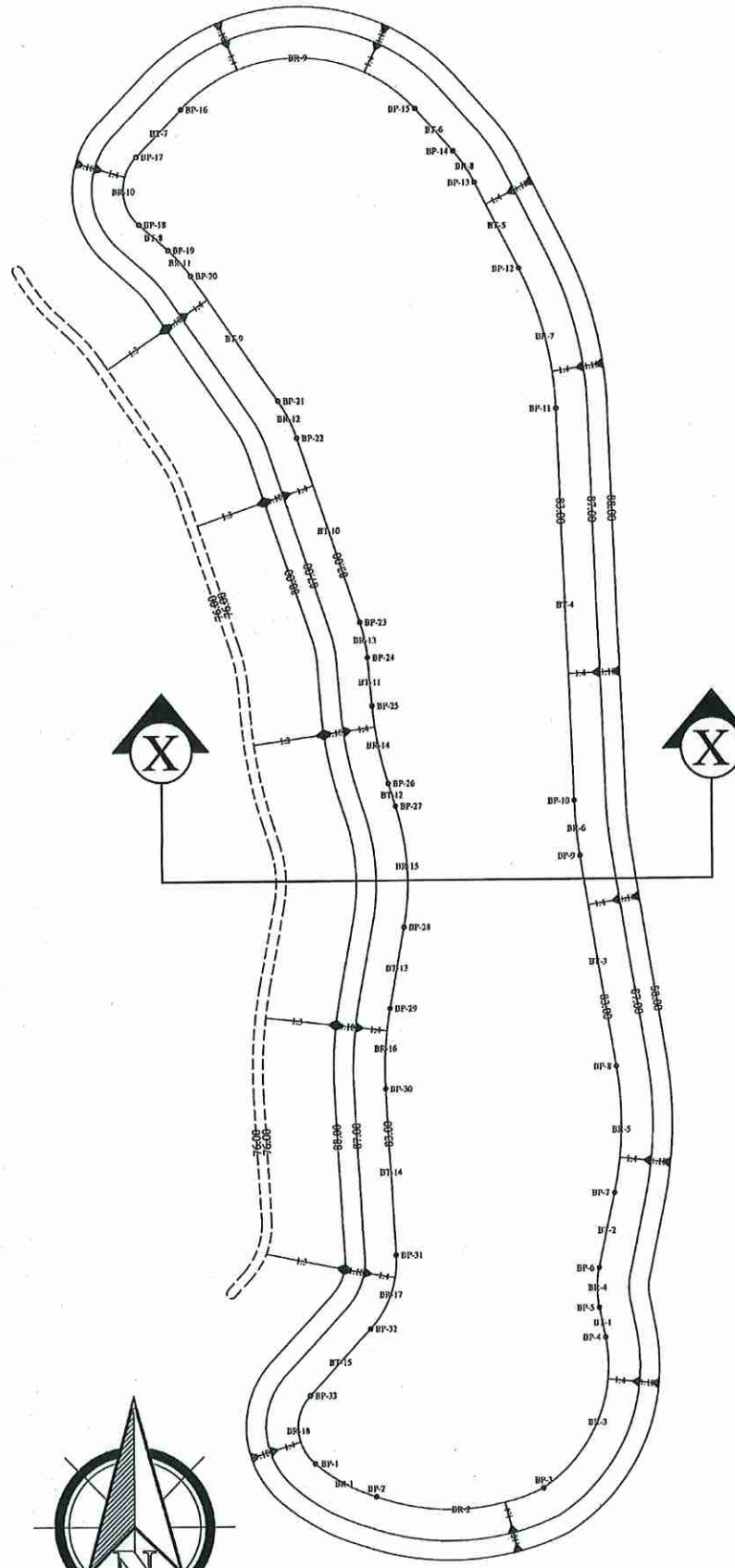
No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 49235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
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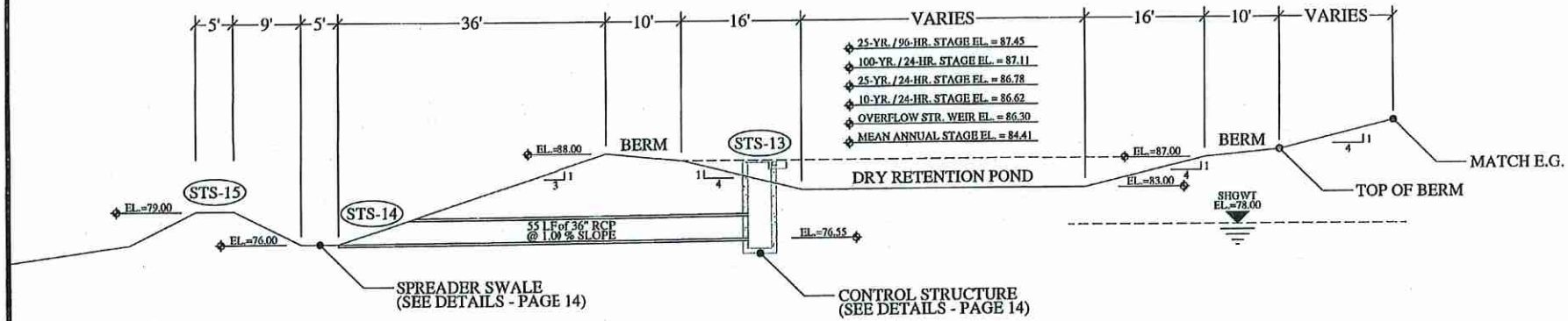
PROJECT NAME
LAKE GEM
COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG Sheet 11-12	SHEET 12
Date August, 2017	
Scale As Shown	

**DRY RETENTION POND GEOMETRY
& CROSS SECTIONAL VIEW**



SCALE: 1" = 40'



**DRY RETENTION POND
SECTIONAL VIEW "X" - "X" (TYP.)**

SCALE: 1" = 10'

POINT DATA				
Point No.	Description	Elevation	Northing	Easting
BP-1	Bottom of Pond	83.00'	79568.4932	87610.2013
BP-2	Bottom of Pond	83.00'	79551.6177	87641.3347
BP-3	Bottom of Pond	83.00'	79555.3097	87726.1020
BP-4	Bottom of Pond	83.00'	79631.5472	87758.2979
BP-5	Bottom of Pond	83.00'	79646.7720	87755.3124
BP-6	Bottom of Pond	83.00'	79666.9847	87755.4306
BP-7	Bottom of Pond	83.00'	79705.0569	87763.3600
BP-8	Bottom of Pond	83.00'	79768.9580	87764.6782
BP-9	Bottom of Pond	83.00'	79876.0346	87746.9490
BP-10	Bottom of Pond	83.00'	79903.9700	87744.0920
BP-11	Bottom of Pond	83.00'	80103.0507	87736.1737
BP-12	Bottom of Pond	83.00'	80174.3142	87717.7592
BP-13	Bottom of Pond	83.00'	80218.3398	87695.6176
BP-14	Bottom of Pond	83.00'	80234.2837	87684.7897
BP-15	Bottom of Pond	83.00'	80255.9705	87665.4919
BP-16	Bottom of Pond	83.00'	80256.4931	87546.6879
BP-17	Bottom of Pond	83.00'	80232.7259	87523.8637
BP-18	Bottom of Pond	83.00'	80198.3242	87525.0515
BP-19	Bottom of Pond	83.00'	80185.1995	87539.5237
BP-20	Bottom of Pond	83.00'	80171.9243	87551.1192
BP-21	Bottom of Pond	83.00'	80108.0391	87594.9888
BP-22	Bottom of Pond	83.00'	80089.2407	87604.3743
BP-23	Bottom of Pond	83.00'	79995.4183	87635.9239
BP-24	Bottom of Pond	83.00'	79977.3843	87639.6352
BP-25	Bottom of Pond	83.00'	79952.8203	87641.6424
BP-26	Bottom of Pond	83.00'	79913.3138	87649.5508
BP-27	Bottom of Pond	83.00'	79901.8425	87653.2711
BP-28	Bottom of Pond	83.00'	79840.6808	87657.4288
BP-29	Bottom of Pond	83.00'	79799.3596	87650.0011
BP-30	Bottom of Pond	83.00'	79758.5090	87647.5478
BP-31	Bottom of Pond	83.00'	79674.2794	87652.4289
BP-32	Bottom of Pond	83.00'	79636.8441	87639.0883
BP-33	Bottom of Pond	83.00'	79603.0511	87608.0736

ARCH DATA				
Arch No.	Direction	Elevation	Radius	Length
BR-1	BP-1 → BP-2	83.00'	77.805'	35.726'
BR-2	BP-2 → BP-3	83.00'	108.842'	87.158'
BR-3	BP-3 → BP-4	83.00'	74.048'	87.819'
BR-4	BP-5 → BP-6	83.00'	51.000'	20.348'
BR-5	BP-7 → BP-8	83.00'	174.000'	64.280'
BR-6	BP-9 → BP-10	83.00'	226.000'	28.099'
BR-7	BP-11 → BP-12	83.00'	174.000'	74.164'
BR-8	BP-13 → BP-14	83.00'	74.000'	19.328'
BR-9	BP-15 → BP-16	83.00'	80.791'	133.475'
BR-10	BP-17 → BP-18	83.00'	24.000'	38.384'
BR-11	BP-19 → BP-20	83.00'	76.000'	17.666'
BR-12	BP-21 → BP-22	83.00'	76.000'	21.079'
BR-13	BP-23 → BP-24	83.00'	76.000'	18.457'
BR-14	BP-25 → BP-26	83.00'	174.000'	40.381'
BR-15	BP-27 → BP-28	83.00'	126.000'	61.924'
BR-16	BP-29 → BP-30	83.00'	174.000'	41.019'
BR-17	BP-31 → BP-32	83.00'	51.000'	40.823'
BR-18	BP-33 → BP-1	83.00'	24.060'	38.637'

TANGENT DATA				
Arch No.	Direction	Elevation	Direction	Length
BT-1	BP-4 → BP-5	83.00'	N 11°05'41" W	15.509'
BT-2	BP-6 → BP-7	83.00'	N 11°45'54" E	38.889'
BT-3	BP-8 → BP-9	83.00'	N 09°24'05" W	108.534'
BT-4	BP-10 → BP-11	83.00'	N 02°16'40" W	199.238'
BT-5	BP-12 → BP-13	83.00'	N 26°41'56" W	49.280'
BT-6	BP-14 → BP-15	83.00'	N 41°39'50" W	29.030'
BT-7	BP-16 → BP-17	83.00'	S 43°50'26" W	32.952'
BT-8	BP-18 → BP-19	83.00'	S 47°47'44" E	19.537'
BT-9	BP-20 → BP-21	83.00'	S 34°28'38" E	77.498'
BT-10	BP-22 → BP-23	83.00'	S 18°35'10" E	98.985'
BT-11	BP-24 → BP-25	83.00'	S 04°40'17" E	24.646'
BT-12	BP-26 → BP-27	83.00'	S 17°58'06" E	12.060'
BT-13	BP-28 → BP-29	83.00'	S 10°11'25" W	41.983'
BT-14	BP-30 → BP-31	83.00'	S 03°19'00" E	84.371'
BT-15	BP-32 → BP-33	83.00'	S 42°32'43" W	45.877'

No.	Revision/Issue	Date

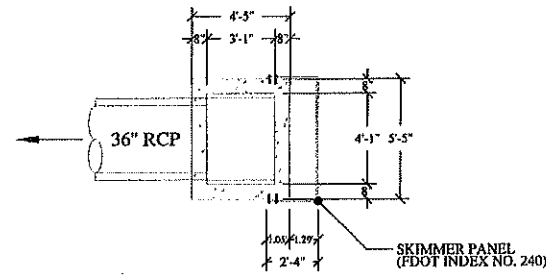
ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
**LAKE GEM
COMMERCE PARK**
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

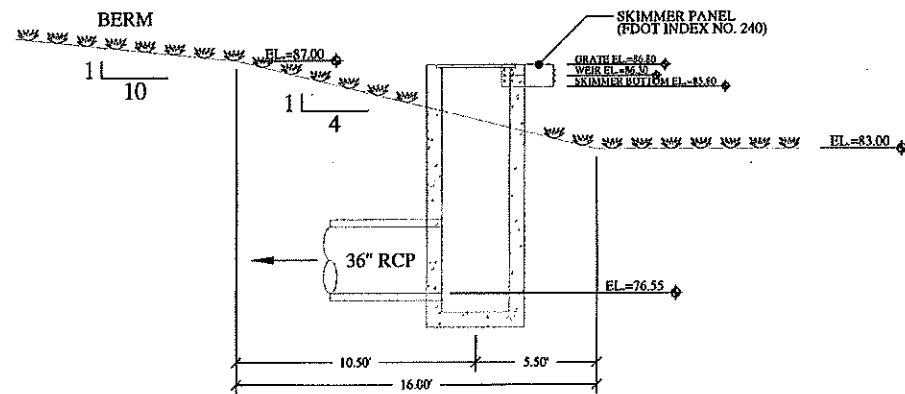
DWG	SHEET
Sheet 13	13
Date August, 2017	Scale As Shown



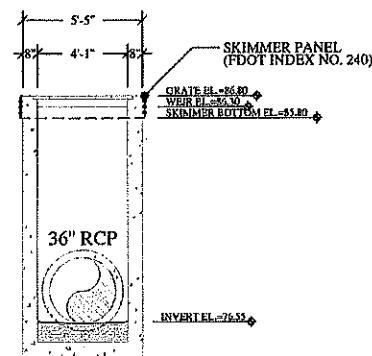
Ali Tehrani
1-30-18



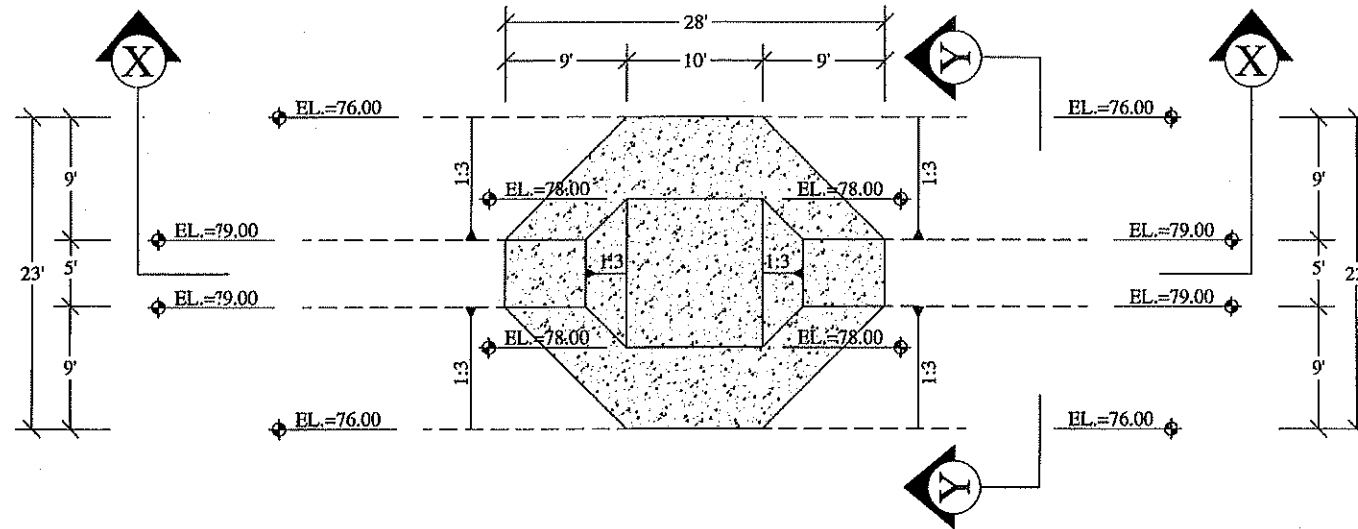
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MODIFIED TYPE-D DBI
FDOT INDEX NO. 232
PLAN VIEW (TYP.)
N.T.S.



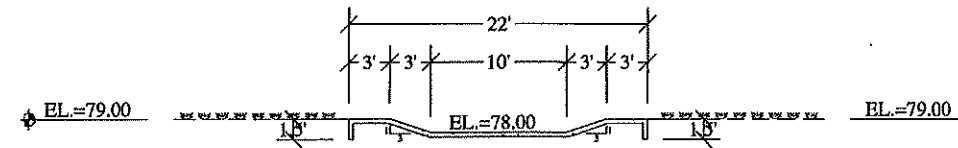
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PROFILE VIEW (TYP.)
N.T.S.



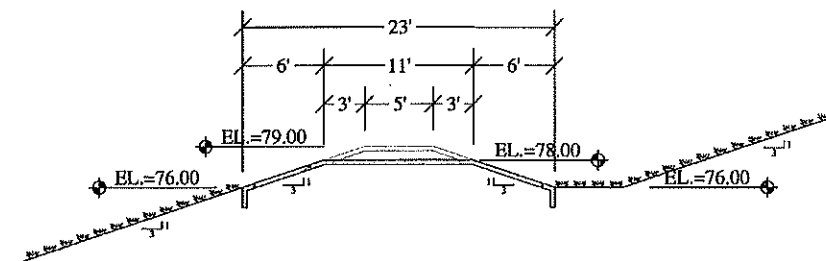
OUTLET CONTROL STRUCTURE
MODIFIED TYPE-D DBI
FDOT INDEX NO. 232
SECTIONAL VIEW (TYP.)
N.T.S.



SPREADER SWALE WEIR
PLAN VIEW (TYP.)
N.T.S.



SPREADER SWALE WEIR
SECTIONAL VIEW (X - X)
N.T.S.



SPREADER SWALE WEIR
SECTIONAL VIEW (Y - Y)
N.T.S.

Plan Notes

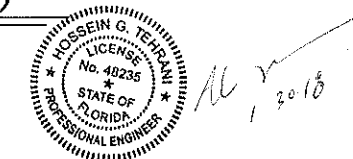
DRY RETENTION POND
OVERFLOW STRUCTURES DETAILS

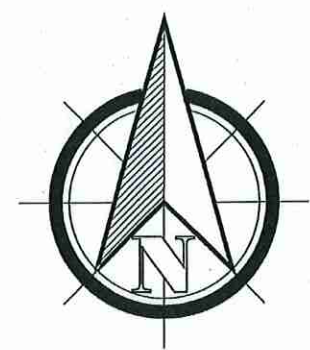
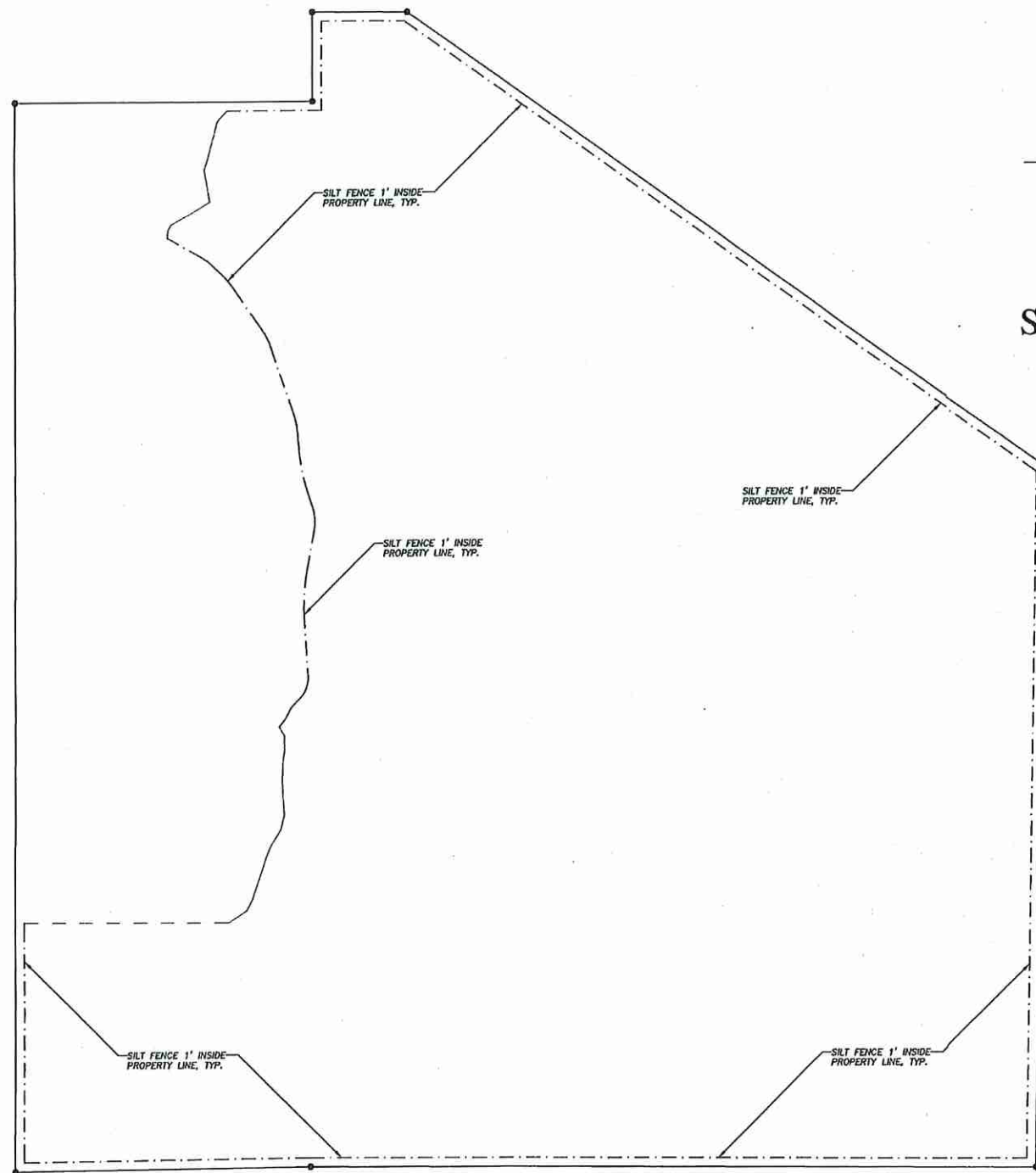
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621 Sherwood Dr.
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PROJECT NAME
LAKE GEM
COMMERCE PARK
516 Cooper Commerce Dr., Suite 200
Apopka, FL 32703

DWG Sheet 14	SHEET 14
Date August, 2017	
Scale As Shown	





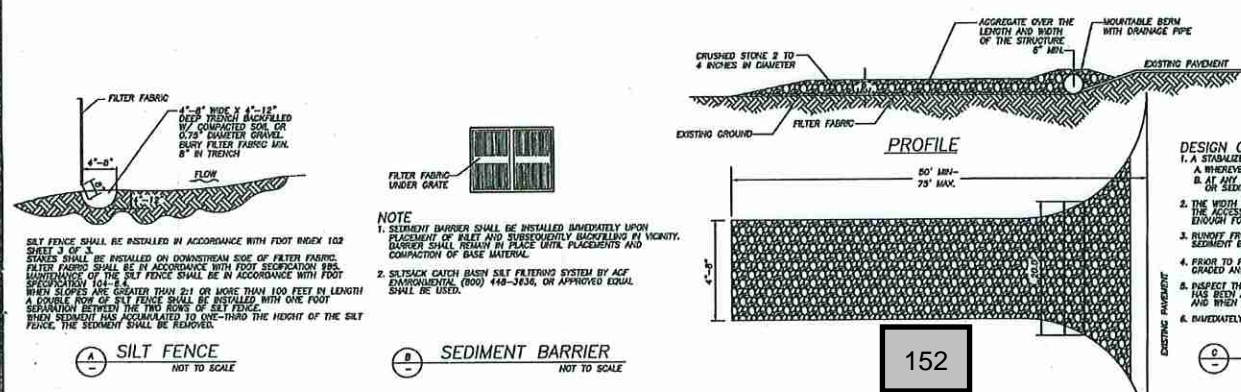
SCALE: 1" = 80'

DESCRIPTION OF PROJECT
 SOIL DISTURBING ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING; INSTALLING A STABILIZED CONSTRUCTION ENTRANCES, PERIMETER AND OTHER EROSION AND SEDIMENT CONTROLS; GRADING; EXCAVATION FOR THE STORMWATER POND, STORM SEWER, UTILITIES, CURB & GUTTER, ROADWAY AND PARCEL DEVELOPMENT AND PREPARATION FOR PERMETER PLANTING AND SEEDING.

- SEQUENCING OF ACTIVITIES**
1. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
 2. INSTALL DOWNSLOPE AND SIDESLOPE PERIMETER CONTROLS. (E.G. SILT FENCE.)
 3. CONDUCT CLEARING, GRUBBING AND, IF APPLICABLE, DEMOLITION ACTIVITIES.
 4. CONSTRUCT STORMWATER POND AND MANAGEMENT SYSTEM.
 5. CONSTRUCT EXCAVATION AND STOCKPILING ACTIVITIES.
 6. STABILIZE EXCAVATED AREAS AND STOCKPILES WITHIN 14 DAYS OF LAST CONSTRUCTION ACTIVITY IN THAT AREA.
 7. ROUGH GRADING AND INSTALLATION OF UTILITIES, STORM SEWER AND CURB AND GUTTER.
 8. FINAL OR FRESH GRADING.
 9. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
 10. COMPLETE FINAL PAVING.
 11. REMOVE ACCUMULATED SEDIMENT FROM INLETS AND, AS NECESSARY, DRY STORMWATER PONDS.
 12. REMOVE DOWNSLOPE AND SIDESLOPE PERIMETER CONTROLS AFTER ALL UPSTREAM AREAS ARE STABILIZED.

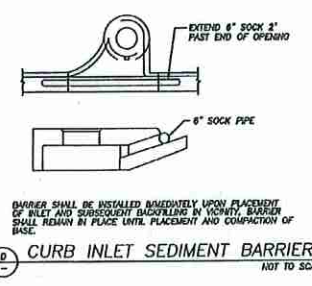
- STORMWATER POLLUTION PREVENTION NOTES**
1. THIS PLAN SHALL BE AVAILABLE ON-SITE AT ALL TIMES DURING THE SITEWORK CONSTRUCTION.
 2. THE "LIMITS OF DISTURBANCE" LINE SHOWN ON THIS PLAN INDICATES THE POINT BEYOND WHICH THE EXISTING VEGETATION SHOULD NOT BE IMPACTED.
 3. STORMWATER POLLUTION PREVENTION MEASURES SHOWN HEREIN ARE THE MINIMUM REQUIRED. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ERECTING AND MAINTAINING AN EROSION AND SEDIMENT CONTROL SYSTEM TO MEET CITY OF APOPKA AND ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT, AND FDEP NPDES REQUIREMENTS.
 4. EACH AREA OF THE SITE SHALL NOT BE DISTURBED UNTIL IT IS NECESSARY FOR THE CONSTRUCTION TO PROCEED. DISTURBED AREAS SHALL BE COVERED OR STABILIZED AS SOON AS POSSIBLE.
 5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE AREA THEY PROJECT HAS BEEN SOODED, PAVEMENT HAS BEEN PLACED, OR THE AREA IS OTHERWISE COMPLETELY STABILIZED.
 6. ALL DISTURBED AREAS OF THE SITE SHALL BE INSPECTED BY QUALIFIED PERSONNEL OF THE RESPONSIBLE CONTRACTOR EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER EVERY RAINFALL EVENT OF 0.2 INCHES OR MORE TO ASSESS THE INTEGRITY OF THE EROSION AND SEDIMENT CONTROLS. THE INSPECTOR SHALL NOTE ANY DAMAGE OR DEFICIENCIES IN THE CONTROL MEASURES IN AN INSPECTION REPORT. PROBLEM AREAS SHALL BE CORRECTED BY THE RESPONSIBLE CONTRACTOR WITHIN SEVEN CALENDAR DAYS FOLLOWING THE INSPECTION.
 7. THE CONTRACTOR SHALL KEEP A RECORD OF CONSTRUCTION ACTIVITIES INCLUDING DATES WHEN MAJOR GRADING ACTIVITIES OCCUR IN A PARTICULAR AREA, DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA WHETHER TEMPORARILY OR PERMANENTLY, AND THE DATES WHEN AN AREA IS STABILIZED.
 8. IF A CHANGE IN CONSTRUCTION SCHEDULE OCCURS OR THIS PLAN PROVES, THROUGH REGULAR INSPECTIONS, TO BE LACKING, TERRAIN CONSULTING ENGINEERING SHALL BE NOTIFIED SO THAT MODIFICATIONS CAN BE MADE.
 9. NO EXCAVATION MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO ALLOW RAINFALL RUNOFF DIRECTLY FROM THE PROJECT SITE.
 10. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT-LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
 11. IN, AFTER FOURTEEN DAYS, GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THOSE AREAS SHALL BE REWORKED AND ADDITIONAL SEED OR SOO APPLIED TO ESTABLISH THE DESIRED VEGETATIVE COVER.
 12. FOR WET STORMWATER PONDS, THE POND SLOPES SHALL BE SOLID SOODED TO THE NORMAL CONTROL ELEVATION.
 13. FOR DRY STORMWATER PONDS, THE POND SLOPES SHALL BE SOLID SOODED AND THE POND BOTTOM SHALL BE SEEDED AND MULCHED TO ESTABLISH VEGETATIVE COVER. THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM THE POND BOTTOM PRIOR TO ACCEPTANCE BY TERRAIN CONSULTING ENGINEERING. SOIL BORINGS PERFORMED BY A GEOTECHNICAL ENGINEER MAY BE NECESSARY TO PROVE THAT THE INTEGRITY OF THE SOILS BENEATH THE POND HAS NOT BEEN NEGATIVELY IMPACTED.
 14. ALL EXPOSED AREAS WITHIN PUBLIC RIGHTS-OF-WAY SHALL BE SOLID SOODED. OTHER NON-POND AREAS WITH THE SLOPES STEEPER THAN 4:1 SHALL BE SOODED AND STAKED AS NECESSARY.
 15. TURF REQUIREMENT MATS SHALL BE INSTALLED WHERE STORMWATER PIPES OUTFALL AT GRADE OR IN SPREADER SWALES.
 16. IF CONSTRUCTION OCCURS ALONG A WATER BODY, TURBIDITY BARRIER SHALL BE INSTALLED IN ACCORDANCE WITH FOOT INDEX 103.
 17. A NOTICE OF TERMINATION FOR THE NPDES CONSTRUCTION GENERAL PERMIT SHALL BE SUBMITTED TO THE FDEP NPDES STORMWATER NOTICES CENTER WITHIN 14 DAYS OF THE DATE WHEN ALL THE AREAS OF THE SITE NOT OTHERWISE COVERED BY A PERMANENT PAVEMENT OR STRUCTURE HAVE BEEN STABILIZED WITH A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OR GREATER.
 18. SILTSACK BASHY SILT FILTERING SYSTEM ACF ENVIRONMENTAL (900) 448-3636, OR APPROVED EQUAL SHALL BE USED.

STORMWATER POLLUTION PREVENTION PLAN



DESIGN CRITERIA:

1. A STABILIZED CONSTRUCTION ENTRANCE (SCE) IS APPROPRIATE IN THE FOLLOWING LOCATIONS:
 - A. WHEREVER VEHICLES ARE LEAVING A CONSTRUCTION SITE AND ENTER ONTO A PUBLIC ROAD.
 - B. AT ANY UNPAVED ENTRANCE/EXIT LOCATION WHERE THERE IS A RISK OF TRANSPORTING MUD OR SEDIMENT ONTO PAVED ROADS.
2. THE WIDTH SHOULD BE AT LEAST 10 FEET TO 12 FEET OR AS WIDE AS THE ENTIRE WIDTH OF THE ACCESS. AT SITES WHERE TRAFFIC VOLUME IS HIGH, THE ENTRANCE SHOULD BE WIDE ENOUGH FOR TWO VEHICLES TO PASS SAFELY.
3. RUNOFF FROM A STABILIZED CONSTRUCTION ENTRANCE SHOULD DRAIN TO A SEDIMENT TRAP OR SEDIMENT BASIN.
4. PRIOR TO PLACING GEOTEXTILE (FILTER FABRIC) MAKE SURE THAT THE ENTRANCE IS PROPERLY GRADED AND COMPACTED.
5. INSPECT THE STABILIZED CONSTRUCTION ENTRANCE ON A REGULAR BASIS AND AFTER THESE HAS BEEN A HIGH VOLUME OF TRAFFIC OR STORM EVENT. APPLY ADDITIONAL STONE PERIODICALLY AND WHEN A REPAIR IS REQUIRED.
6. IMMEDIATELY REMOVE SEDIMENTS OR ANY OTHER MATERIALS TRACKED INTO THE PUBLIC ROADWAY.



CONTRACTORS CERTIFICATION
 ALL CONTRACTORS AND SUBCONTRACTORS IDENTIFIED ON THIS PLAN SHALL SIGN THE CERTIFICATION BELOW BEFORE CONDUCTING ANY PROFESSIONAL SERVICE IDENTIFIED IN THE STORMWATER POLLUTION PREVENTION PLAN.
 I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE OTHER STORMWATER PERMIT ISSUED PURSUANT TO SECTION 403.088, F.S., THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNATURE & DATE	NAME & TITLE	COMPANY ADDRESS AND PHONE NUMBER	RESPONSIBLE FOR

Plan Notes

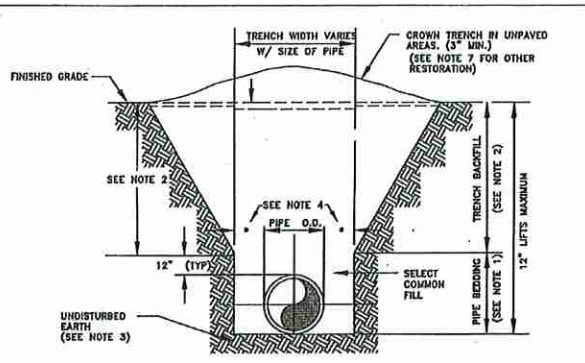
No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
LAKE GEM COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

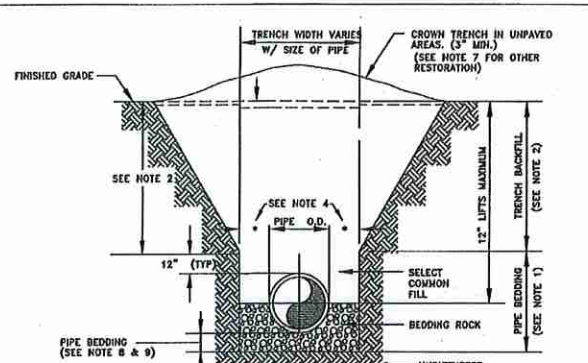
DWG Sheet 15
 Date August, 2017
 Scale As Shown

SHEET 15



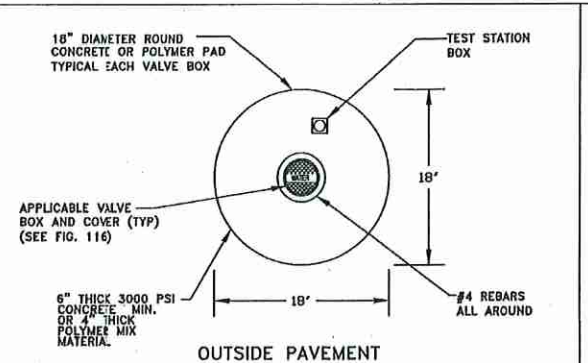
- NOTES:
1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-160.
 2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS TO AASHTO T-160.
 3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
 4. (1): 15" MAX. FOR PIPE DIAMETERS LESS THAN 24", AND 24" FOR PIPE DIAMETER 24" AND LARGER.
 5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
 6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
 7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL COVER DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
 9. ALL UNPAVED DISTURBED AREAS SHALL BE SOODED TO MATCH ADJACENT DOMINANT GRASS SPECIES.
 10. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.

TYPE "B" BEDDING AND OPEN-CUT DETAIL



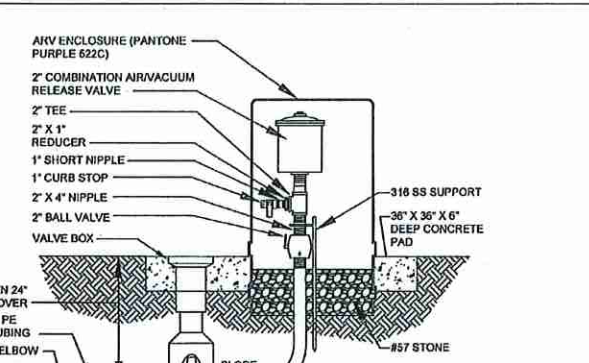
- NOTES:
1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-160.
 2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% UNDER PAVEMENT OF THE MAXIMUM DENSITY AS PER AASHTO T-160.
 3. USE OF TYPE A BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CITY.
 4. (1): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
 5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
 6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
 7. GRAVITY SEWERS SHALL UTILIZE TYPE A BEDDING IF REQUIRED BY THE CITY. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER LESS THAN 15" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
 8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL COVER DEPTH OF BEDDING ROCK BELOW THE PIPE. THE CITY SHALL DETERMINE IN THE FIELD IF REMOVAL OF UNSUITABLE MATERIAL IS REQUIRED TO REACH A SUITABLE FOUNDATION.
 9. ALL UNPAVED DISTURBED AREAS SHALL BE SOODED TO MATCH ADJACENT DOMINANT GRASS SPECIES.
 10. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF THE GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY RIGHT-OF-WAY, SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS.

TYPE "A" BEDDING AND OPEN-CUT DETAIL



- NOTES:
1. 18" DIAMETER ROUND CONCRETE OR POLYMER PAD TYPICAL EACH VALVE BOX
 2. TEST STATION BOX
 3. APPLICABLE VALVE BOX AND COVER (TYP) (SEE FIG. 116)
 4. 6" THICK 3000 PSI CONCRETE OR 4" THICK POLYMER MIX MATERIAL
 5. #4 REBARS ALL AROUND
 6. TOF FLUSH WITH FINISHED GRADE
 7. BRASS OR CASTIRON CLEAN-OUT CAP
 8. LOCATE WIRE TEST STATION BOX
 9. 2-INCH DIAMETER PVC SCH 40
 10. VALVE BOX AND COVER (TYP)

VALVE BOX



- NOTES:
1. FOR RECLAIMED WATER USE ONLY.
 2. OFFSET DISTANCE TO BE FIELD DETERMINED AND AS CLOSE TO THE R/W LINE AS POSSIBLE
 3. ADJUST HORIZONTAL LOCATION OF SIDEWALK, AS REQUIRED TO AVOID ARV ENCLASURE.
 4. LOCATE ARV ENCLASURE WITHIN 6" OF RAW LINE.

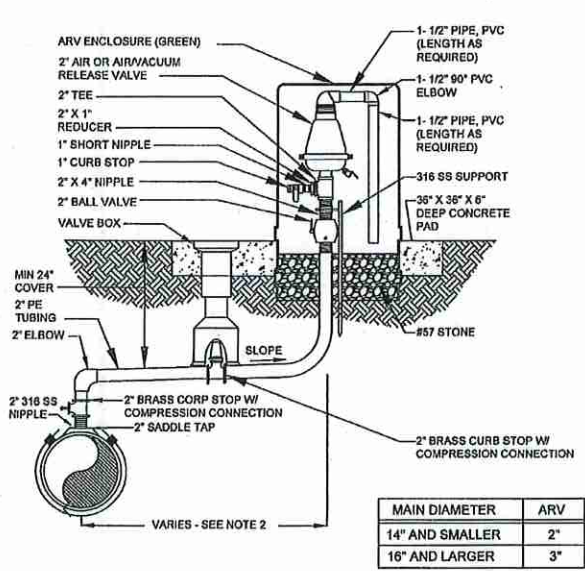
OFFSET COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - RECLAIMED WATER ONLY

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 100

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 101

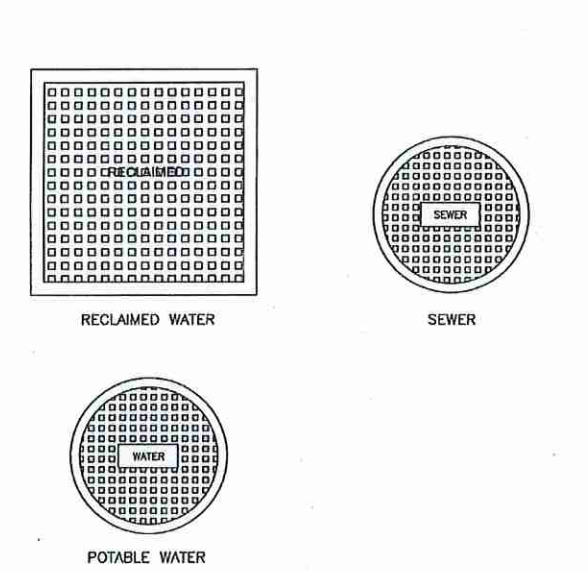
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 109

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 113

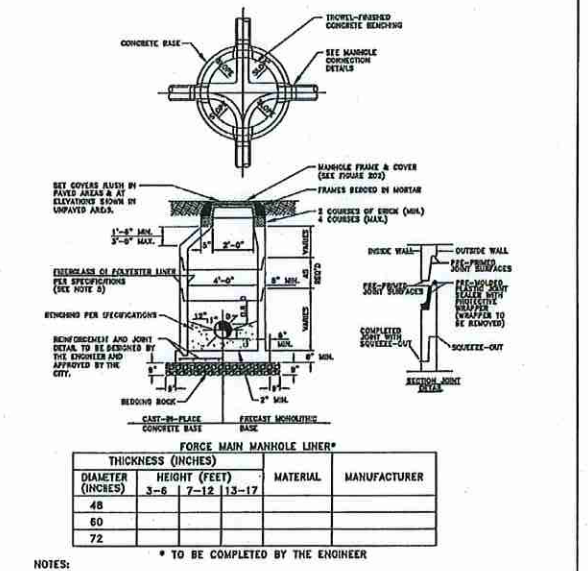


- NOTES:
1. FOR WASTEWATER USE ONLY.
 2. OFFSET DISTANCE TO BE FIELD DETERMINED AND AS CLOSE TO THE R/W LINE AS POSSIBLE
 3. ADJUST HORIZONTAL LOCATION OF SIDEWALK, AS REQUIRED TO AVOID ARV ENCLASURE.
 4. LOCATE ARV ENCLASURE WITHIN 6" OF RAW LINE.

OFFSET AIR OR COMBINATION AIR/VACUUM RELEASE VALVE DETAIL - WASTEWATER ONLY

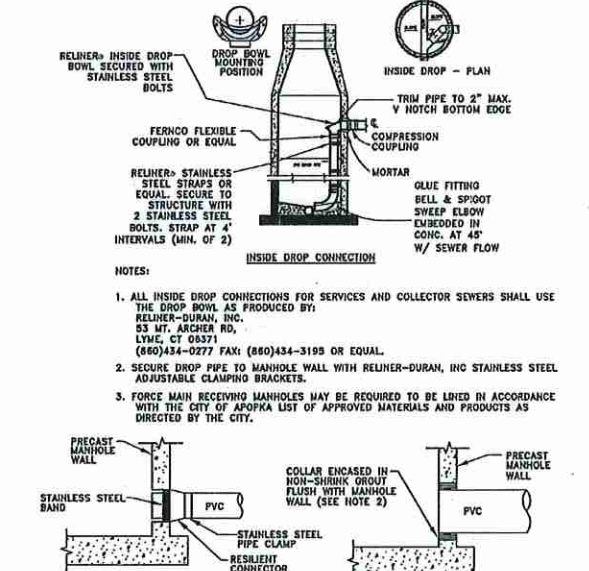


TYPICAL VALVE BOX COVER DETAILS



- NOTES:
1. MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
 2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
 3. THE THICKNESS OF THE LINER SHALL BE 3/8" MINIMUM.
 4. EACH BENCH WALL SHALL BE A MINIMUM OF 18 INCHES LONG FROM THE WALL OF THE MANHOLE TOWARD THE CENTER.
 5. SANITARY SEWER MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.

TYPICAL MANHOLE



- NOTES:
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
 2. THE CITY MAY APPROVE ALTERNATE WATER TIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
 3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
 4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 114

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 116

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 200

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 201

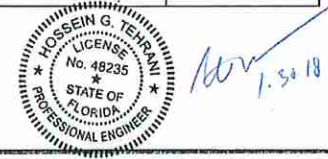
UTILITY DETAILS

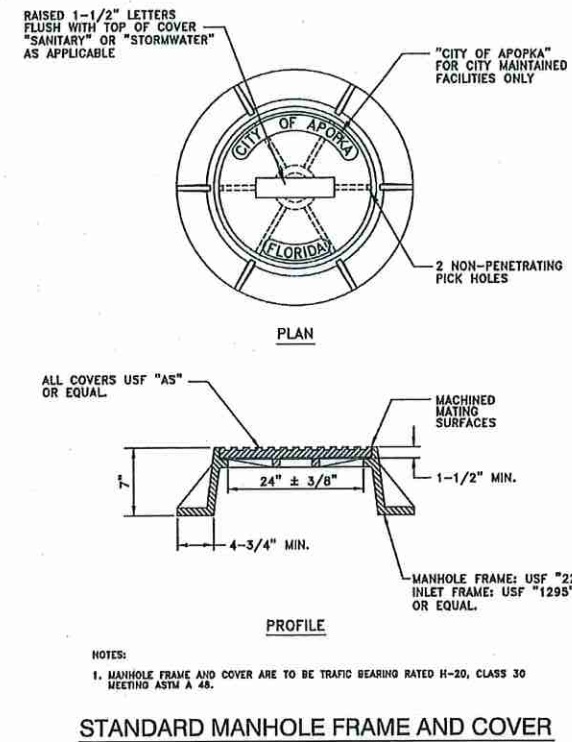
No.	Revision/Issue	Date

ENGINEER OF RECORD
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 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
LAKE GEM COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

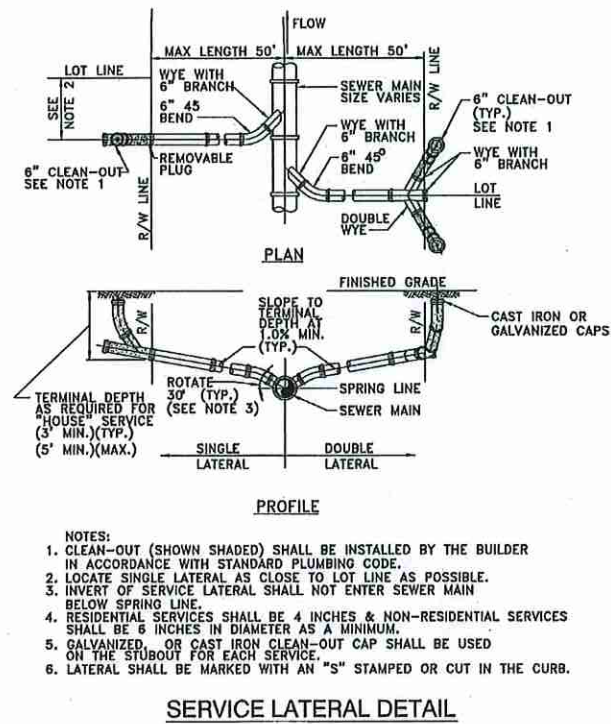
DWG Sheet 16-19	SHEET
Date August, 2017	16
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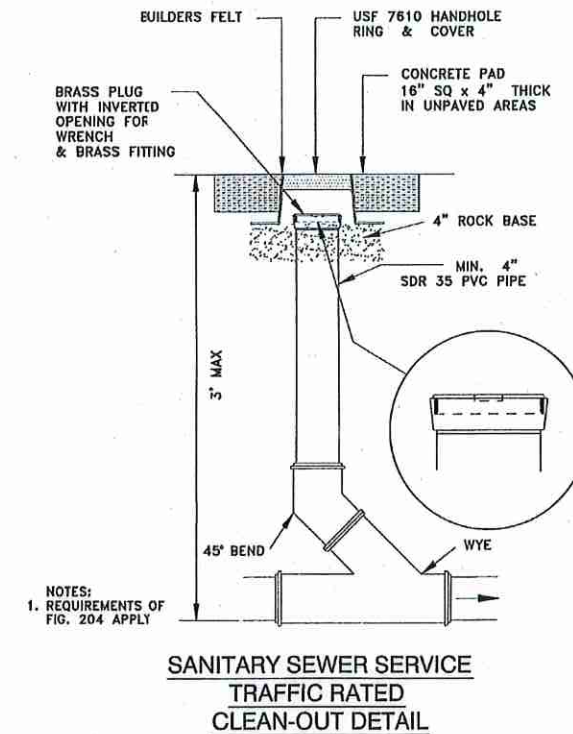
STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 202



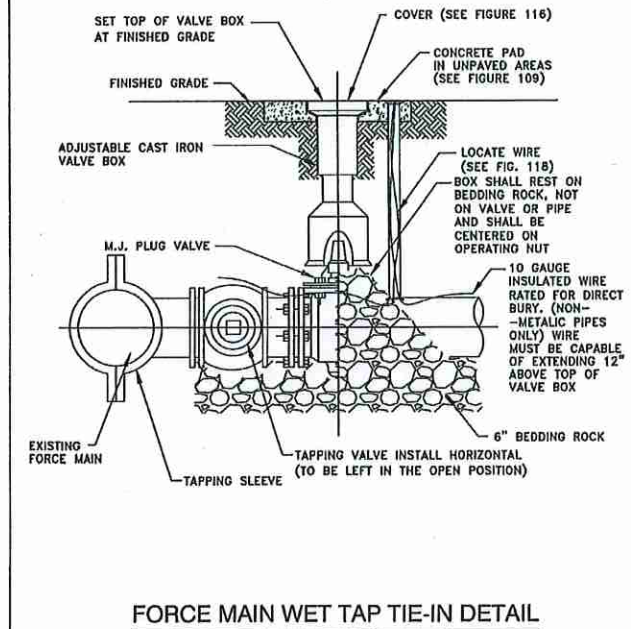
SERVICE LATERAL DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 204



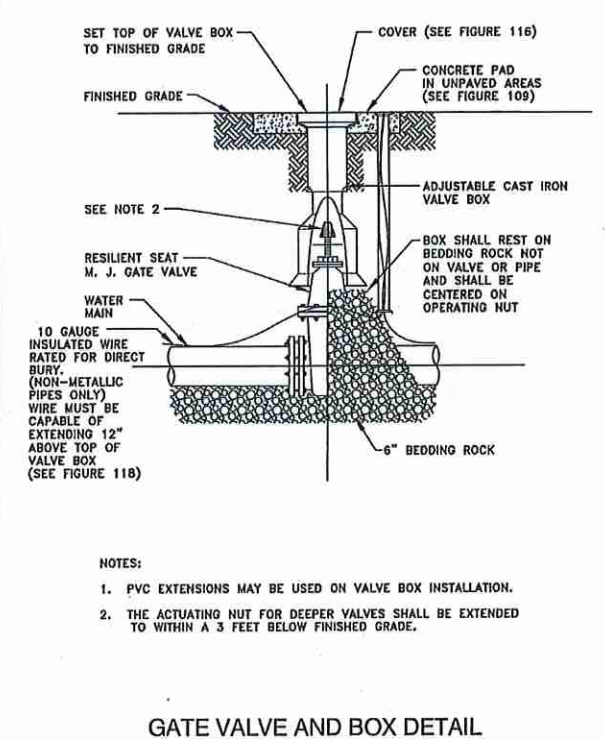
SANITARY SEWER SERVICE
TRAFFIC RATED
CLEAN-OUT DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 205



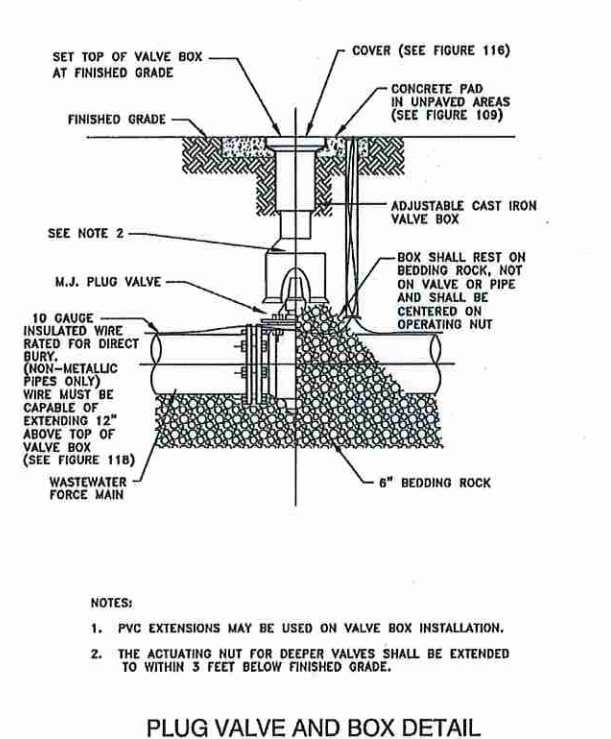
FORCE MAIN WET TAP TIE-IN DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 206



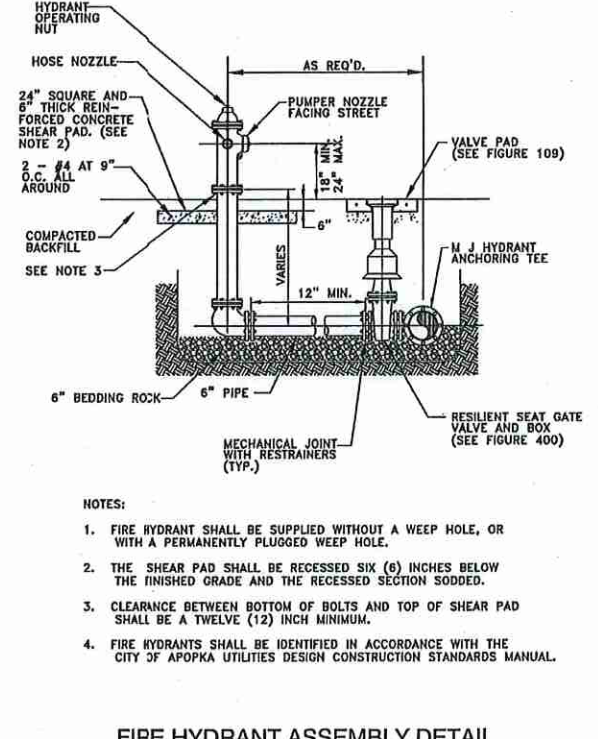
GATE VALVE AND BOX DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 400



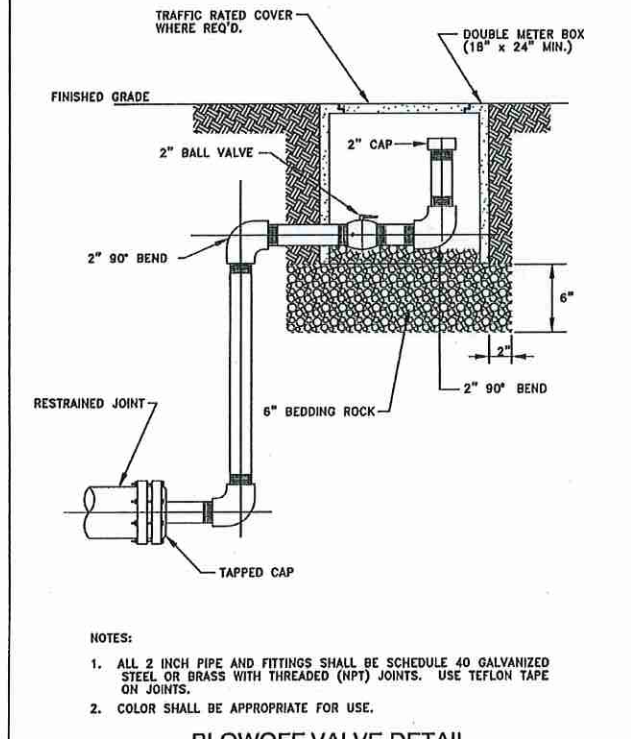
PLUG VALVE AND BOX DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 400 A



FIRE HYDRANT ASSEMBLY DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 402



BLOWOFF VALVE DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2016
FIG. 403

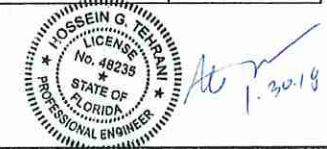
UTILITY DETAILS

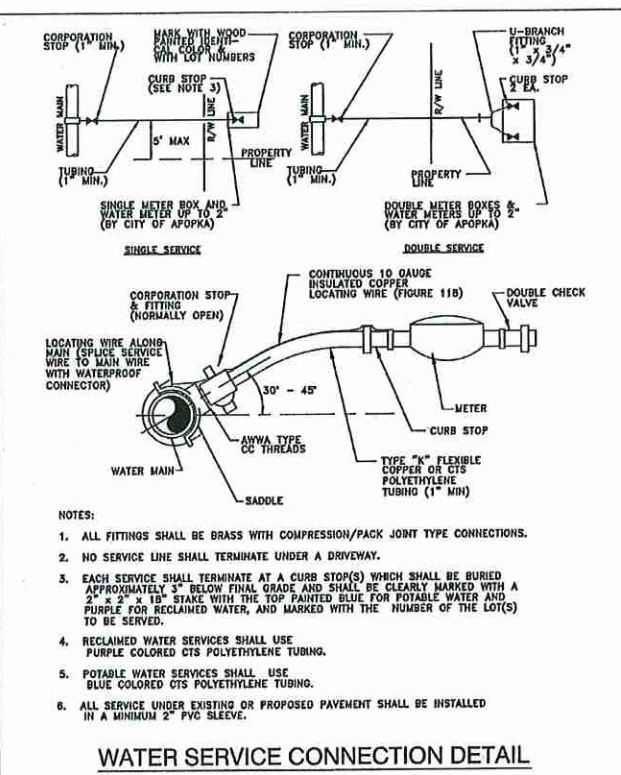
No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
FLORIDA P.E. LICENSE NO. 48235
621 Sherwood Dr.
Altamonte Springs, FL 32751
Ph. (407) 948-0811

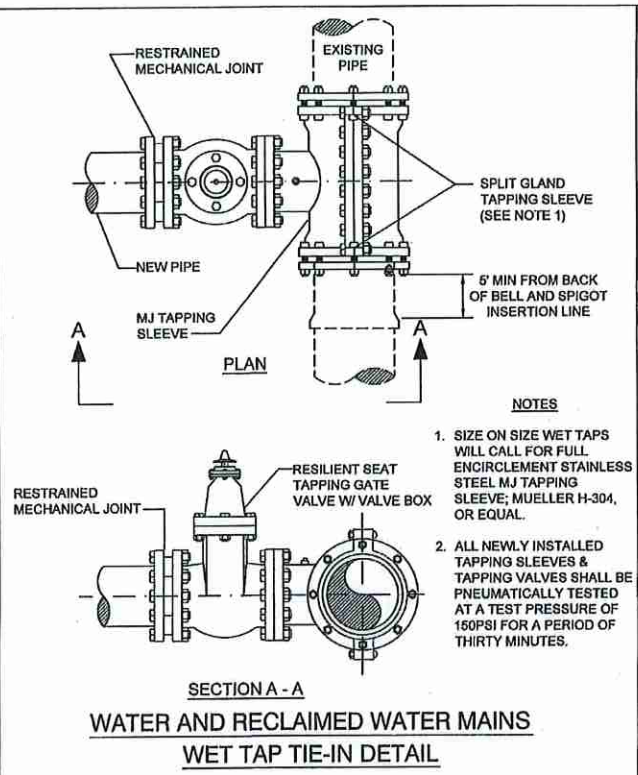
PROJECT NAME
**LAKE GEM
COMMERCE PARK**
516 Cooper Commerce Dr., Suite 200
Apopka, FL 32703

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Date August, 2017	17
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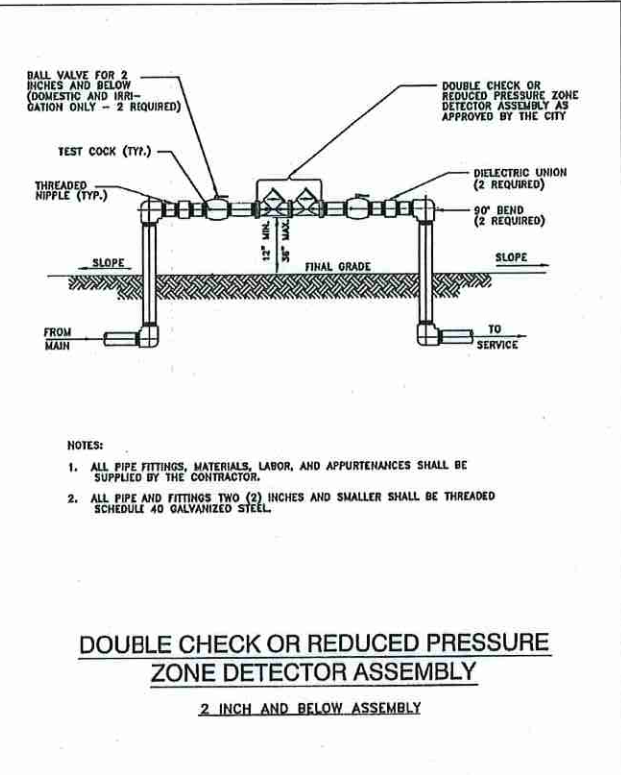




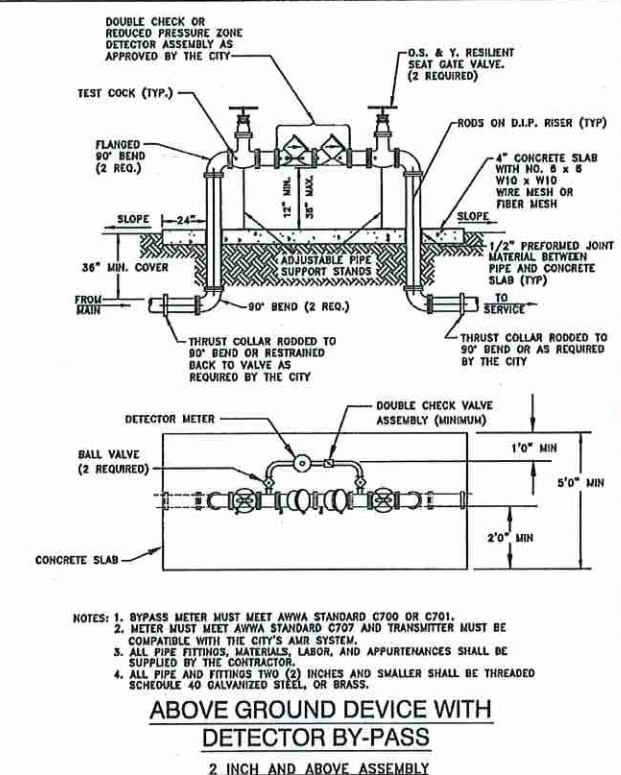
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 405



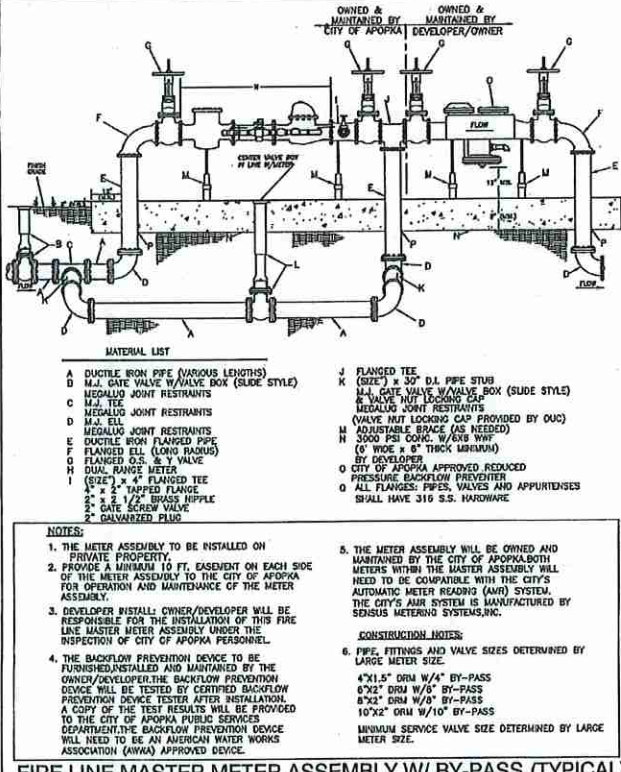
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 406



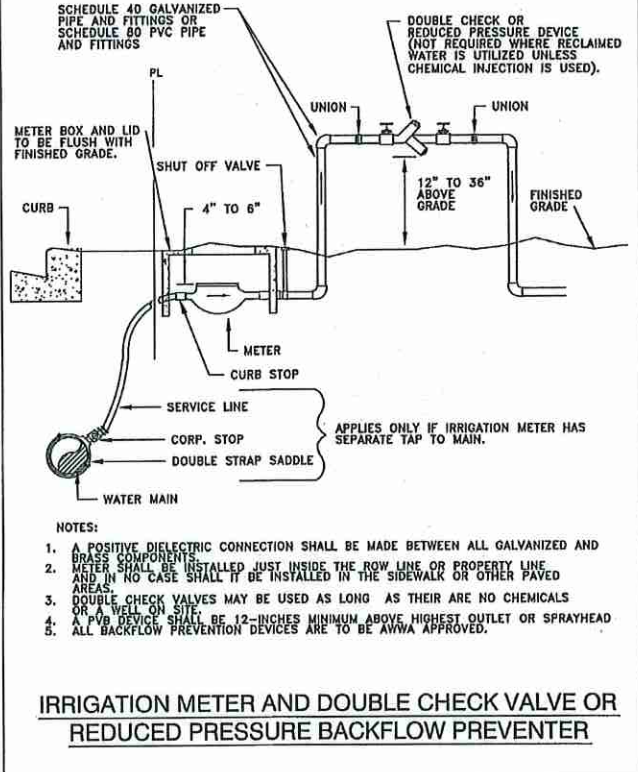
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 500 A



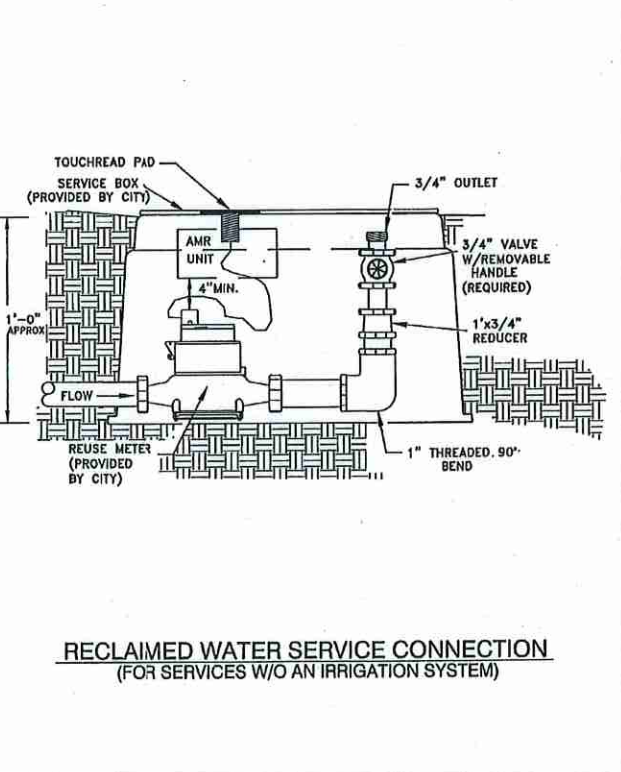
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 500 B



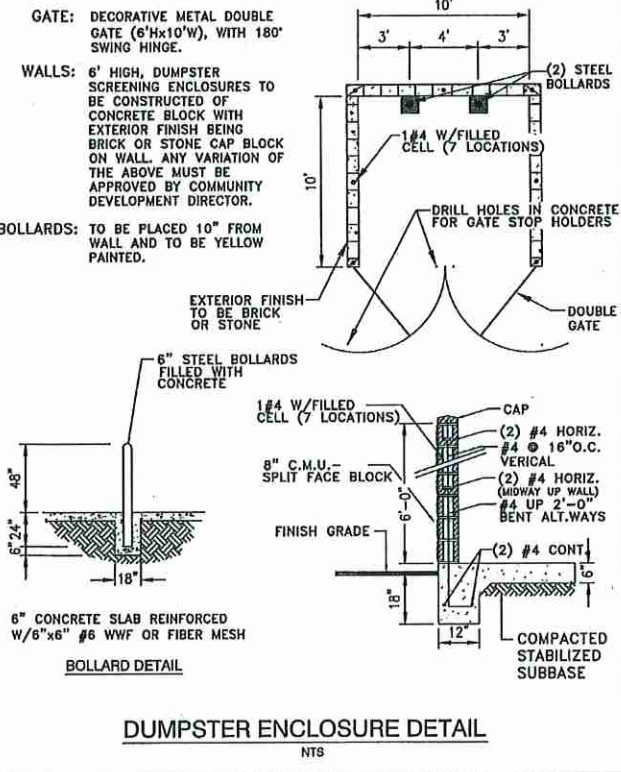
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 500 C



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 502



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 506



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2016 FIG. 601

Professional Engineer Seal for Ali Tehrani, No. 48235, State of Florida, dated 1.30.18.

No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
LAKE GEM COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

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Date August, 2017	Scale As Shown

CONSTRUCTION DETAILS

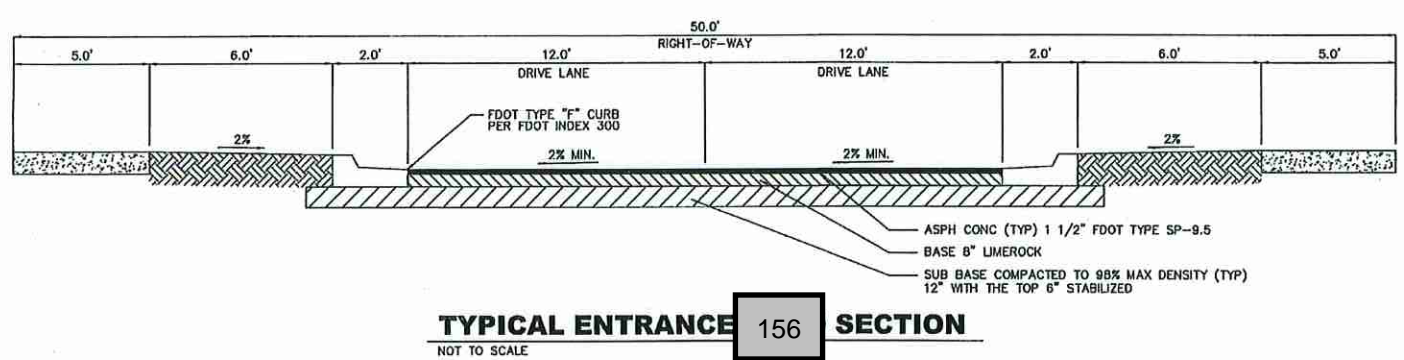
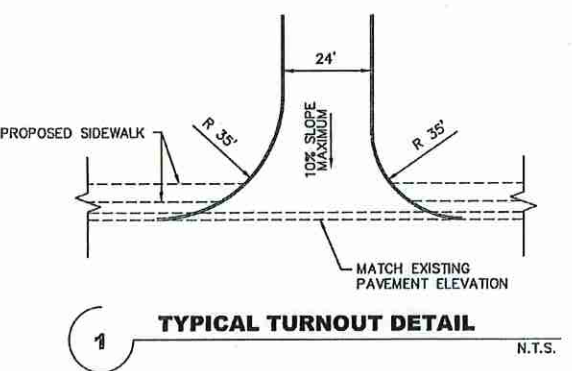
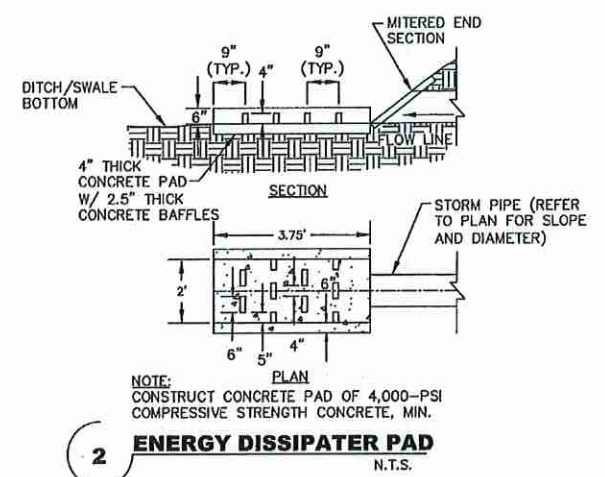
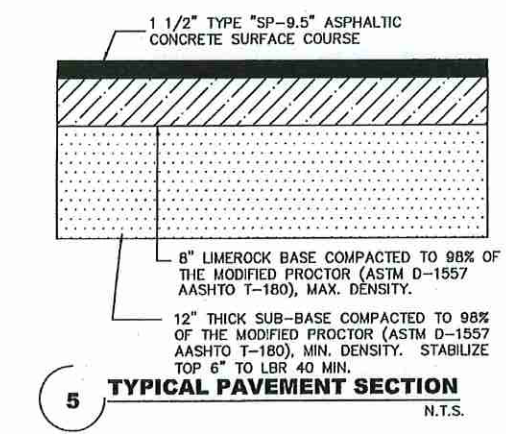
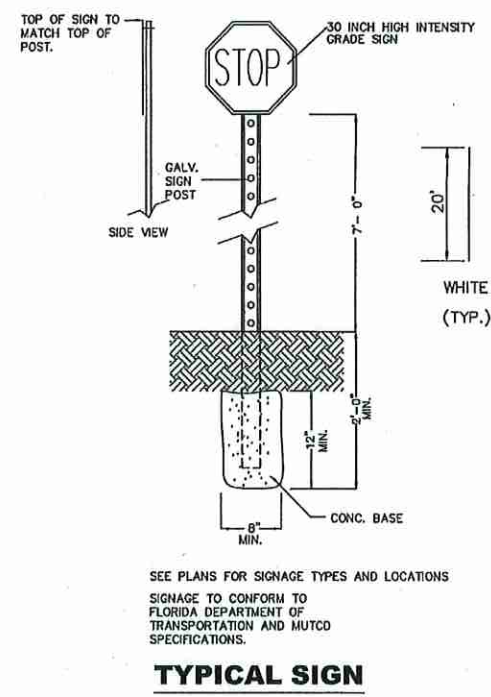
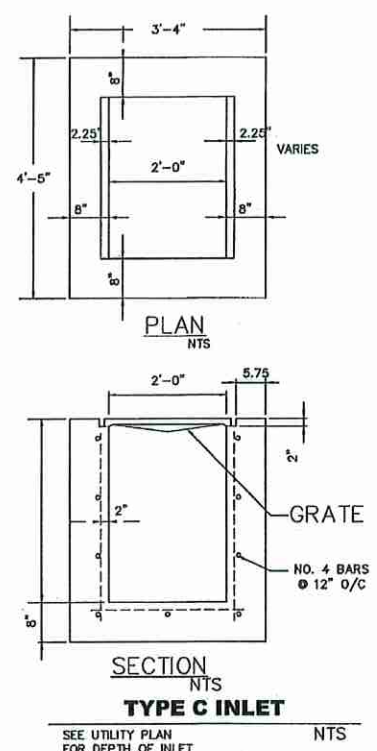
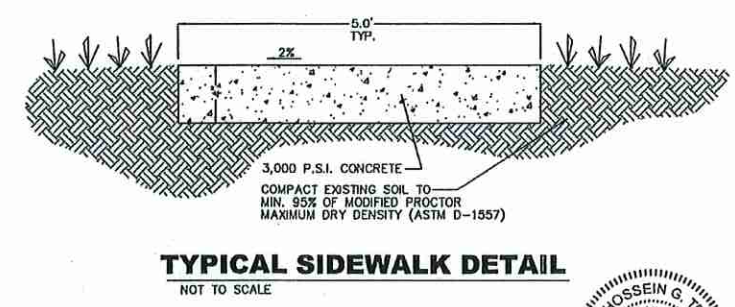
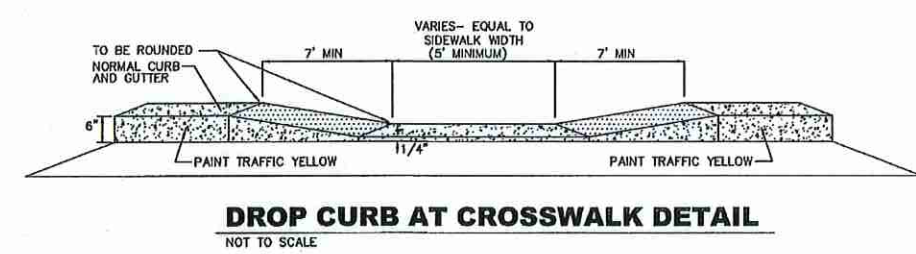
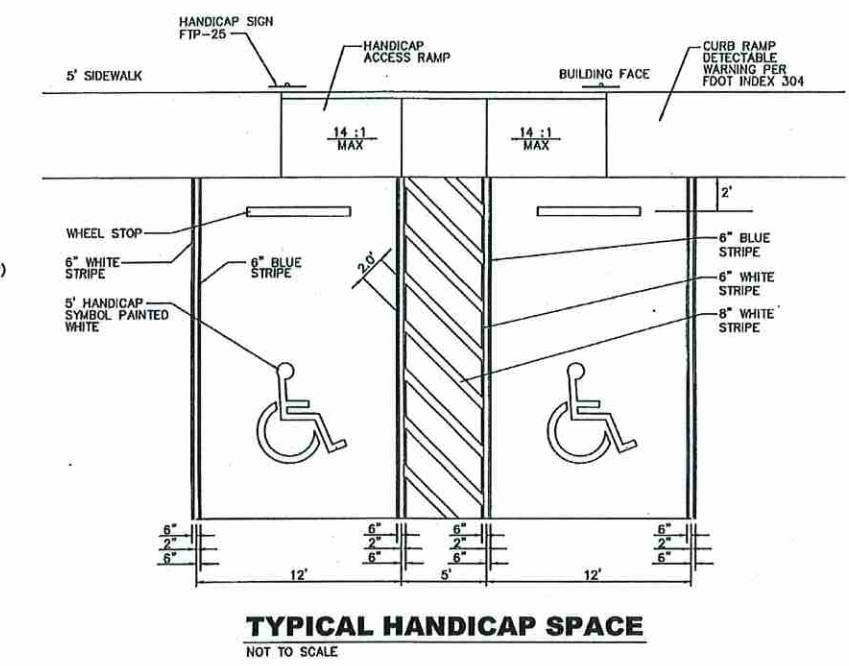
No.	Revision/Issue	Date

ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
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PROJECT NAME
**LAKE GEM
 COMMERCE PARK**
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG Sheet 16-19	SHEET 19
Date August, 2017	
Scale As Shown	


Ali Tehrani
 1.30.18



NOTE: COMPLETE SYSTEM TO BE SUPPLIED BY:

RILEY & COMPANY, INC.
 SANFORD, FL 32773
 (407)265-9963

NO SUBSTITUTIONS - NO ALTERNATES
LIFT STATION WILL BE PRIVATELY OWNED AND MAINTAINED.

The H-20 Load Rated Fiberglass Wetwell Must Be Manufactured By L.F. Manufacturing, Giddings, Texas, Which Includes A Written 20 Yr. Warranty. Certification of the wetwell H-20 load rating must be supplied with submittals. H-20 certification must be signed and sealed by an engineer registered in the State of Florida. After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible.

PUMPS: (3 YR. WARRANTY)
 Submersible grinder pumps shall be HOMA Model GRP44/3. The pumps shall be installed in the H-20 GP FRP wetwell utilizing a slide rail system. The grinder unit shall be capable of macerating materials normally found in domestic and commercial sewage into a fine slurry which will pass through the pump and the Sch.80 PVC discharge piping.

Stator winding shall be open type with Class F insulation and shall be heat-shrink fitted into the stator housing. The use of pins, bolts, or other fastening devices is not acceptable. A heat sensor thermostat shall be attached to the top end of the motor winding and shall be connected in series with the magnetic contactor coil in the control panel to stop motor if winding temperature exceeds 140 C., but shall automatically reset when the winding temperature returns to normal. Two heat sensor thermostats shall be used on three phase motors. The pump motor grinder shaft shall be AISI 430F SS threaded to take the pump impeller and the grinder impeller. Upper & lower mechanical seals shall be Silicon Carbide vs Silicon Carbide.

DUPLEX CONTROL PANEL: (3 YR. WARRANTY)
 To insure complete unit and warranty responsibility the electrical control panel must be manufactured and built by the pump supplier. The pump supplier must be a TUV (UL508A CERTIFIED) manufacturing facility, with a minimum of 5 years history in the manufacturing of electrical control panels.

The enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep fiberglass with 5 point latching system. The enclosure shall have external mounting feet to allow for wall mounting. The following components shall be mounted through the enclosure:
 1- ea. Red Alarm Beacon (Light) 4" x 4" Minimum Diameter
 1- ea. Alarm Horn (minimum 95 DCB)
 1- ea. Generator Receptacle w/ weatherproof cover (SCM460 - UL 1686)
 1- ea. Alarm Silence Pushbutton

The back panel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to back panel:
 2- ea. Motor Contactors
 1- ea. Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts
 1- ea. Control Transformer (480 Volt Only) (Min. 500VA)
 1- ea. Silence Relay Module
 1- ea. Duplex Alternator w/ Pump Selector Switch
 1- ea. Model RCBS5AH Battery Back-Up w/ Smart Charger For The High Level Alarm System
 20- ea. Terminals For Field Connections
 6- ea. Terminals For Motor Connections (Single Phase Only)
 7- ea. Grounding Lugs
 1- ea. Seal Failure Relay

The inner door shall be fabricated from .080, 5052-H32 marine alloy aluminum. The inner door shall have a continuous aluminum piano hinge.

The following components shall be mounted through the inner door:
 1- ea. Main Circuit Breaker
 1- ea. Emergency Circuit Breaker
 1- ea. Mechanical Interlock For Emergency And Main Breakers (UL Listed)
 2- ea. Short Circuit Protectors w/ Auxiliary Contacts
 1- ea. Control Circuit Breaker
 2- ea. Seal Failure Indicator Lights
 1- ea. Hand-Off-Auto Selector Switches
 2- ea. Pump Run Pilot Lights
 1- ea. Power On Pilot Light
 2- ea. Elapse Time Meters (Non-Resetable)
 1- ea. GFI Duplex Convenience Outlet

RILEY & Company, Inc. (H-20 GP)

w/ BATTERY BACK-UP FOR AUDIO AND VISUAL ALARMS

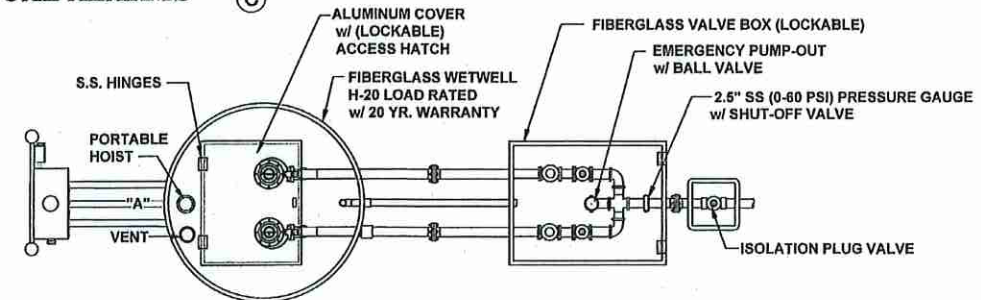
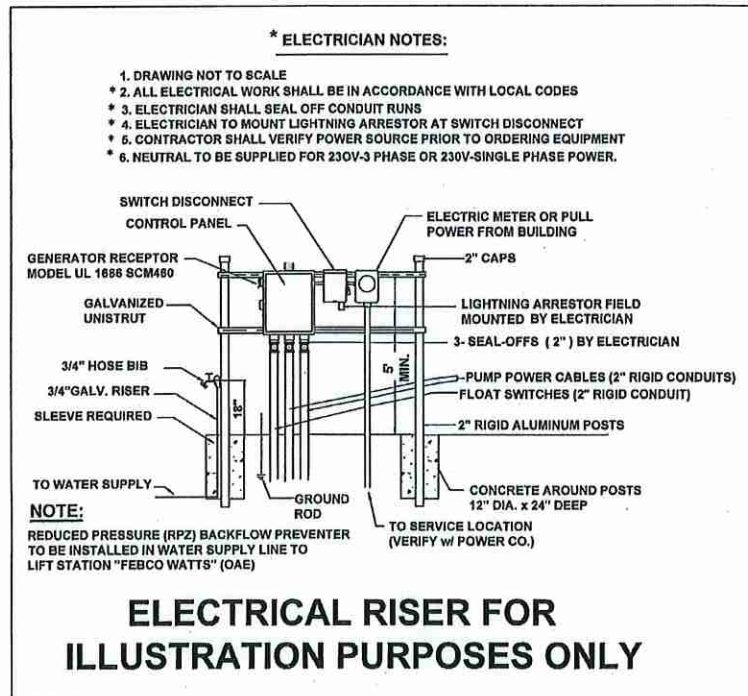
PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	85 GPM	TOP OF WETWELL	93.00
PRIMARY TDH	81' TDH	INLET INVERT	89.00
PUMP MANUFACTURER	HOMA	HIGH LEVEL ALARM (HLA)	88.50
PUMP MODEL #	GRP44/3	2nd PUMP ON (LAG)	87.50
R.P.M.	3450	1st PUMP ON (LEAD)	86.50
HORSEPOWER	5.50	PUMPS OFF (OFF)	85.50
IMPELLER DIAMETER	6 5/16"	BOTTOM OF WETWELL	83.00
ELECTRICAL/ VOLTS / PHASE	230V/3	WETWELL DIAMETER	60"
FULL LOAD AMPS/ PER PUMP	14.20		
PUMP DISCHARGE SIZE	2"		

NOTES:

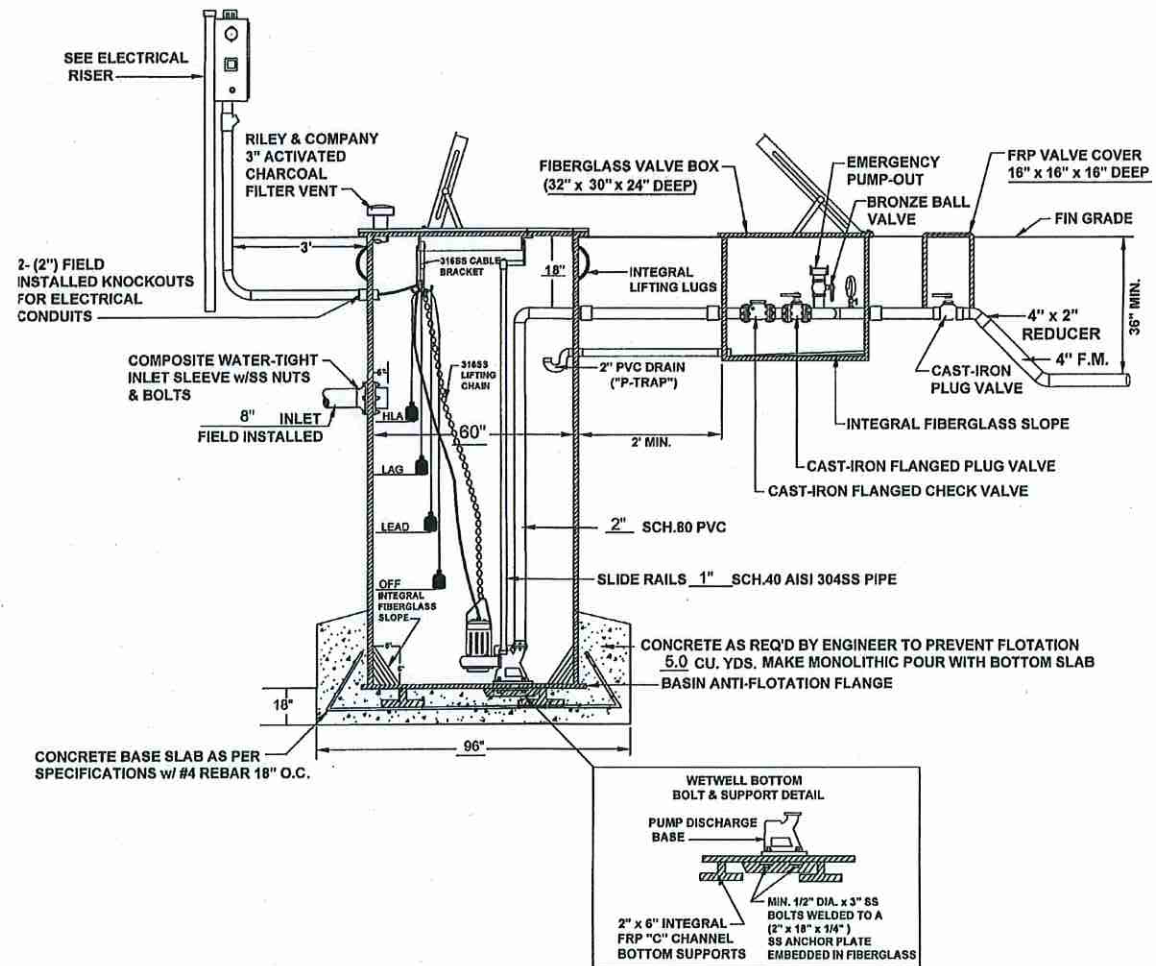
- Water service with hose bibb and reduced pressure backflow preventer to be installed near lift station. (See Electrical Riser Illustration)
- System shall be operated and maintained to provide uninterrupted service as required by DEP Chapter 62-604.500.
- Approved Operation & Maintenance Manual (O&M) shall be kept available for operation and maintenance personnel
- A weather resistant emergency contact sign shall be installed at the lift station and made visible to the public (Lettering shall be min. 2" in height).
- INSPECTION & TESTING: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance for the complete system.
- WIRELESS REMOTE ALARM: Model RCWAU 120V / Transmitter and HLA float to be mounted inside wetwell and wireless receiver to be installed inside building.

*** ELECTRICIAN NOTES:**

- DRAWING NOT TO SCALE
- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
- ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
- ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
- CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT
- NEUTRAL TO BE SUPPLIED FOR 230V-3 PHASE OR 230V-SINGLE PHASE POWER.



NOTE: PUMP CONTROL PANEL SHALL BE LOCATED 3 FEET FROM WETWELL PERIMETER AT POINT "A"



LIFT STATION PLAN

No.	Revision/Issue	Date

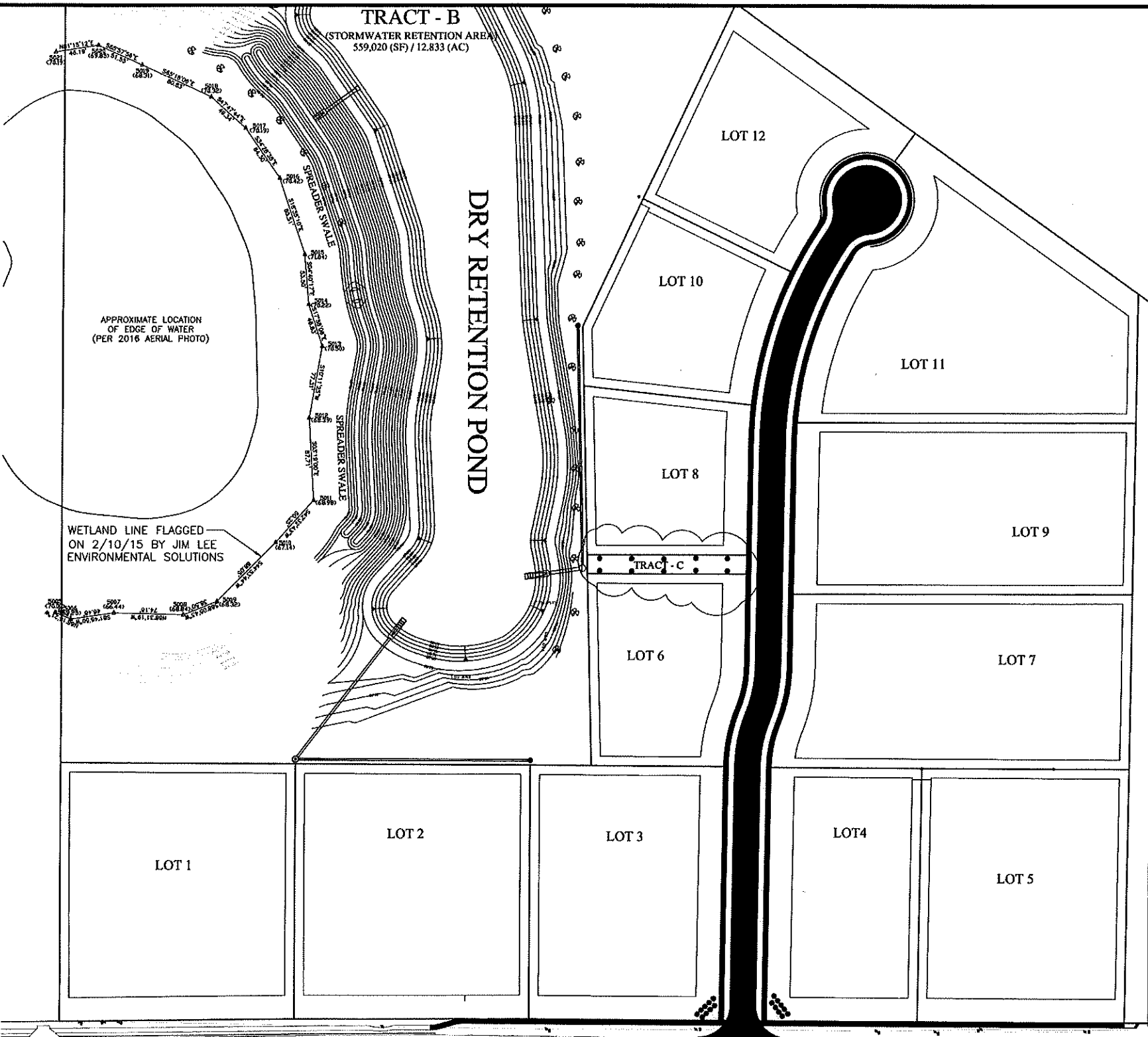
ENGINEER OF RECORD
ALI TEHRANI, P.E.
 FLORIDA P.E. LICENSE NO. 48235
 621 Sherwood Dr.
 Altamonte Springs, FL 32751
 Ph. (407) 948-0811

PROJECT NAME
LAKE GEM COMMERCE PARK
 516 Cooper Commerce Dr., Suite 200
 Apopka, FL 32703

DWG Sheet 20	SHEET
Date August, 2017	20
Scale As Shown	

Professional Engineer Seal for Ali Tehrani, License No. 48235, State of Florida. Includes a handwritten signature and date 1.30.18.

04-12-17



- LANDSCAPE NOTES:**
- The Landscape Contractor shall review architectural/engineering plans and become thoroughly familiar with surface and subsurface utilities.
 - The work shall be coordinated with other trades to prevent conflicts. Coordinate the planting with the irrigation work to ensure availability and proper location of irrigation lines and plants.
 - The Landscape Contractor shall be responsible for all materials and all work as called for on the Landscape Plans and in the Landscape Specifications. In the event of variation between quantities shown on plan and the plants, the plants shall control. The Landscape Contractor shall verify all quantities and report any discrepancies of the time of bidding.
 - Except as otherwise specified, the Landscape Contractor's work shall conform to accepted horticultural practices as used in the trade.
 - Every possible safeguard shall be taken to protect building surfaces, equipment and furnishings. The Landscape Contractor shall be responsible for any damage or injury to person or property which may occur as a result of negligence in the execution of the work.
 - All planting shall be performed by personnel familiar with planting procedure and under the supervision of a qualified planting foreman.
 - All plant material shall be graded Florida No. 1 or better as outlined under Grades and Standards for Nursery Plants, Part 1 and 2, published by the Florida Department of Agriculture and Consumer Services or to the standards as given in the latest "American Standard for Nursery Stock," American National Standards Institute.
 - The minimum acceptable size of all plants, measured after pruning, with branches in normal positions, shall conform to the measurements specified on the plant list or as indicated on the landscape drawing. Height and spread dimensions refer to main body of the plant and not extreme branch tip to tip. The caliper of tree trunks to be taken 6" inches above the root ball.
 - The Landscape Architect or Owner shall have the right, at any stage of the operations, to reject any and all work and materials which, in his opinion, do not meet with the requirements of these specifications.
 - Plants shall be protected upon arrival at the site, by being thoroughly watered and properly maintained until planted.
 - The Landscape Contractor shall be responsible for proper watering of all plants. All plants shall be thoroughly watered at time of planting and kept adequately watered until time of acceptance. It shall be the Landscape Contractor's responsibility to ensure that plants are not over watered.
 - It shall be the Landscape Contractor's responsibility to prevent plants from falling or being blown over, to reestablish and replace all plants which lean or fall and to replace all plants which are damaged due to lack of proper guying or staking. The Landscape Contractor shall be legally liable for any damage caused by instability of any plant material.
 - All trees and all palms shall be guyed or staked or braced. The Landscape Contractor shall determine which shall or multi-trunk trees need to be guyed and staked to protect plants. Staking of trees and shrubs, if required, shall be done as per staking and guying detail prepared by the Landscape Architect. It shall be the responsibility of the Landscape Contractor to remove guys and stakes from the trees & job site after a period of 1 year.
 - Plants blown over by high winds, within the guaranteed period, shall not be cause for additional expense to the Owner, but shall be the responsibility of the Landscape Contractor. Damaged plants shall be replaced by the Landscape Contractor at no additional cost to the Owner.
 - The Landscape Contractor shall prune, shape and remove dead foliage/limbs from existing plant material to remain. Confirm with the Landscape Architect or Owner the extent of work required at time of bidding.
 - Sod shall be ARGENTINE BAHIA AND certified to be free of the imported fire ant. Sod shall have a clean growth of acceptable grass, reasonably free of weeds with not less than 1/2" of soil firmly adhering to roots. It shall be the responsibility of the Landscape Contractor to measure and determine the exact amount required. This amount shall be verified with the Owner or Landscape Architect before installation.
 - All plant beds shall be top dressed with a minimum of 2" shredded organic mulch (or approved equal). All trees are to be mulched.
 - The Landscape Contractor shall insure that his work does not interrupt established or projected drainage patterns.
 - The Landscape Contractor shall insure adequate vertical drainage in all plant beds, planters, and sod areas. Vertical drilling through any compacted fill to native soil shall be accomplished to insure drainage. If soil drilled fill is necessary to assure positive drainage, this issue shall be brought up by the Landscape Contractor at time of bidding.
 - All tree pits shall be excavated to size and depth in accordance with the USDA Standard for Nursery Stock 280.1, unless shown otherwise on the drawings, and backfilled with the specified planting soil. The Landscape Contractor shall test fill at tree pits with water before planting to assure proper drainage permeation is available.
 - The Landscape Contractor shall be responsible for determining and evaluating which plant materials are suitable for transplanting and shall verify this with the Landscape Architect or Owner. The Landscape Contractor shall take all reasonable, horticulturally acceptable measures to ensure the successful transplanting of determined plant materials. The Landscape Contractor shall be responsible for replacing any relocated plant materials which die if such measures are not taken, as determined by the Landscape Architect or Owner. Replacement plants shall be of identical species and size if required.
 - Maintenance shall commence after each plant is planted and the maintenance period shall continue until the job or specific phase of the job is accepted by the Landscape Architect or Owner. Extreme care shall be taken to instruct the Owner or his representative in general maintenance procedures.
 - Plant maintenance shall include watering, pruning, weeding, cultivating, mulching, lightening, and repairing of guys, replacement of sick or dead plants, resetting plants in proper grades or upright positions and restoration of the planting source and all other care needed for proper growth of the plants.
 - During the maintenance period and up to the date of final acceptance, the Landscape Contractor shall do all seasonal spraying and/or dusting of trees and shrubs. Upon completion of all planting, an inspection for acceptance of work will be held. The Landscape Contractor shall notify the Landscape Architect or Owner for scheduling of the inspection 10 days prior to the anticipated date. At the time of the inspection, if all of the materials are acceptable, a written notice will be given by the Landscape Architect or Owner to the Landscape Contractor stating the date when the Maintenance Period ends.
 - At the end of the guarantee period, any plant required under this contract that is dead or not in satisfactory growth, as determined by the Owner or the Landscape Architect, shall be removed and replaced. Replacement plants shall have an extended guarantee, as noted above, from time of replacement. All replacements shall be planted of the same kind and size as specified on the plant list. They shall be the responsibility of the Landscape Contractor.
 - All plant materials shall be guaranteed for one (1) year from the time of final inspection and interim acceptance shall be given and in satisfactory growth for each specific kind of plant at the end of the guarantee period.
 - Topsoil shall be ASTM D 5266, natural, friable, fertile, fine loamy soil possessing characteristics of representative topsoil in the vicinity that produces heavy growth. Topsoil shall have a pH range of 5.5 to 7.4 percent, free from sulfur, objectionable salts, fill, rocks, and clay, heavier than 1-inch in diameter, lumps, roots, trash, toxic substances, or any other material which may be harmful to plant growth or hinder planting operations. Top soil shall contain a minimum of three percent organic material.

LEGEND

PALM TREE (SABAL)		CABBAGE PALM	
BALD CYPRESS Max. 3" in Caliper		TAXODIUM DISTICHUM	

Plan Notes

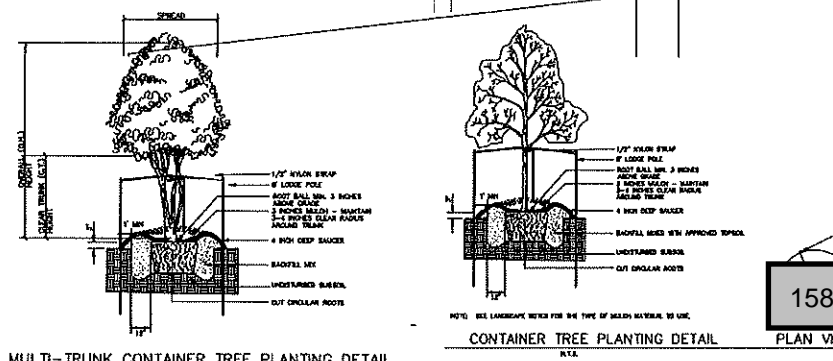
5		
4		
3		
2		
1	REV. TREE PLAN PER COMMENTS	1/18
No.	Revision/Issue	Date

- IF SPECIFIED PLANTS ARE UNAVAILABLE AT TIME OF CONSTRUCTION, CONTRACTOR MAY REPLACE SPECIFIED PLANTS WITH PLANTS OF EQUAL, APPROXIMATE SIZE, AND APPROVED BY CITY OF APOPKA LAND DEVELOPMENT CODE.
- FIELD LOCATE ALL TREES SO AS TO NOT INTERFERE WITH ANY EXISTING AND/OR PROPOSED UTILITIES.

ALI TEHRANI P.E.
621 SHERWOOD DR
Aftonville Springs, Florida 32751
(407)-948-0811
Florida PE #48235

Project Name and Address
LAKE GEM COMMERCE PARK
516 COOPER COMMERCE DR., STE 200
APOPKA, FL 32703

Project	Sheet
Date	5-3-17
Scale	AS SHOWN
	L1

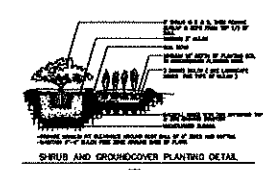
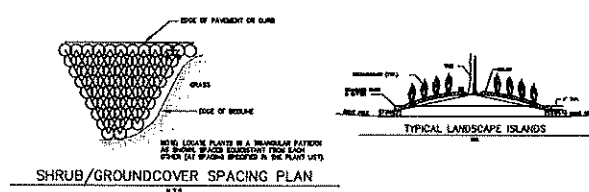


LANDSCAPE PLAN
CERTIFIED SHOP DRAWINGS FOR PERMANENT IRRIGATION 1"=60'-0"
SYSTEM TO BE SUBMITTED PRIOR TO INSTALLATION
NOTE: IRRIGATION RISER ARE NOT ALLOWED

ALL GRASS SHRUBS SHALL BE LOCATED BETWEEN PALM TREES (PAMPAS GRASSES)
LANDSCAPING PLAN FOR EACH LOT WILL BE INCLUDED AS PART OF SITE PLAN FOR THE LOT BEING DEVELOPED TO THE CITY.
ALL DISTURBED SOIL NEEDS TO BE SOODED.

- ALL SOD SHALL BE ARGENTINE BAHIA.
- ALL GREEN AREAS OF TREES, PLANTS, AND SOD TO BE IRRIGATED ACCORDINGLY.
- ALL PLANTS TO BE NO. 1 OR BETTER AND MEET ALL CITY OF APOPKA CODES AND ORDINANCES.
- ALL TREES SHALL RECEIVE THE NECESSARY IRRIGATION UNTIL THE ROOT SYSTEMS AND TREE INSERT CAN SUSTAIN ITS OWN GROWTH THROUGH NATURE AND IRRIGATION SYSTEMS.
- ALL PLANTS AND BEDS SHALL RECEIVE MULCH ACCORDINGLY.
- ALL TREES SHALL BE BRACED/STAKED TO WITHSTAND NATURAL WIND FORCES. TYPE OF BRACE SHALL BE OF A TYPE NOT TO INJURE THE TREES TRUNK.

158
PLAN VIEW



MULTI-TRUNK CONTAINER TREE PLANTING DETAIL

CONTAINER TREE PLANTING DETAIL

PLAN VIEW

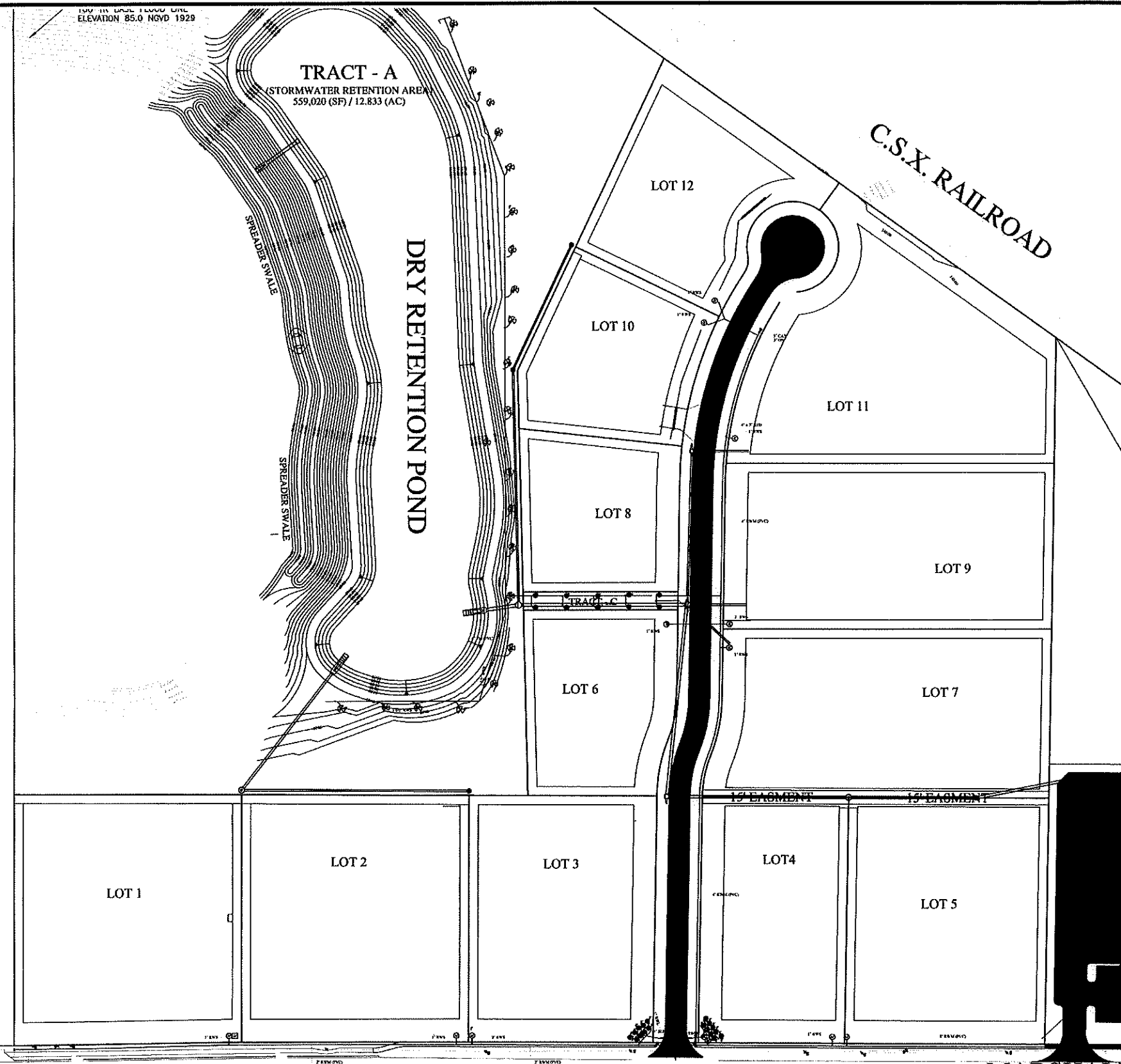
SHRUB AND GROUNDCOVER PLANTING DETAIL

100' TO 1000' CONE
ELEVATION 85.0 NOV 1929

TRACT - A
(STORMWATER RETENTION AREA)
559,020 (SF) / 12.833 (AC)

C.S.X. RAILROAD

DRY RETENTION POND

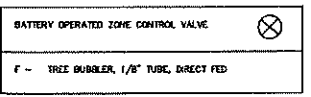


IRRIGATION NOTES:

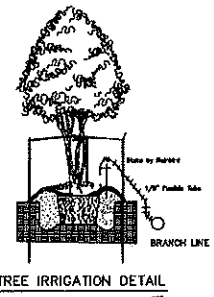
- All pipe shall be the purple reuse type.
- All valve boxes shall have purple lids to indicate the presence of re-use water.
- All equipment shall be installed as per all local, county, state, and federal codes. Provide and install all required reuse signs.
- Refer to the landscape plans when trenching to avoid trees and shrubs. Hand dig around any existing trees and do not cut any roots over 2" in diameter.
- All machine piping shall be buried to a minimum depth of 18" cover. All lateral piping shall be buried to a minimum depth of 12" cover.
- Adjust all nozzles to reduce water waste on hard surfaces & building, well throttle all valves on shrub lines as required to prevent fogging. Use adjustable nozzles where required to avoid any water on building windows.
- No hoses shall be used on this site.
- Any piping shown outside the property line or running outside a landscape area is shown for clarity only. All lines shall be installed on the property and inside the landscape area or inside a Sch. 40 sleeve.
- The exact height of any 12" pop up that is shown in a shrub bed shall be determined by the owner's representative in the field.
- The contractor shall exercise care so as not to damage any existing utilities. The contractor shall be responsible for the immediate repairs and cost of any damage caused by their work.
- All work shall be guaranteed for one year from the date of final acceptance against all defects in equipment and workmanship (or outlined in the written specifications).
- Contractor to call 1-800-432-2770 (Sunshine State One Call Center), 48 hours before digging.
- All reclaimed water lines to be 1" unless otherwise noted.
- Reclaimed water lines shown are for tract only at present. When lots are developed and building plans are developed, site plan will be revised accordingly (Irrigation and Landscape).
- Each lot owner to be responsible for parkway irrigations as well as irrigation around building landscape. Each lot will provide landscape and irrigation plan to the City Of Apopka for approval.

IRRIGATION RISERS ARE NOT ALLOWED.

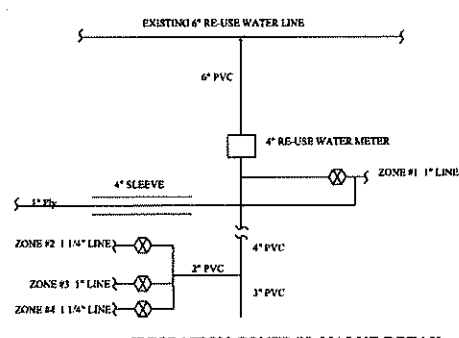
LEGEND



- ZONE #1 - TREES AT MAIN ENTRANCE
- ZONE #2 - TREES NORTH OF TRACT C IN RETENTION POND.
- ZONE #3 - TREES ALONG TRACK C.
- ZONE #4 - TREES SOUTH OF TRACK C IN RETENTION POND.

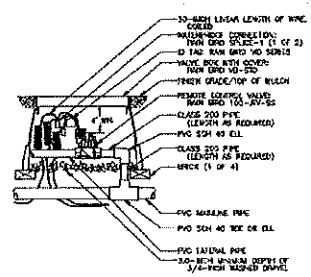


TREE IRRIGATION DETAIL



IRRIGATION CONTROL VALVE DETAIL

ALL CONTROL VALVES ARE BATTERY OPERATED.



ELECTRIC REMOTE-CONTROL VALVE

Plan Notes

IRRIGATION PLAN

5		
4		
3		
2		
1	CITY COMMENTS	1/18
No.	Revision/Issue	Date

Project Name and Address

**LAKE GEM
COMMERCE PARK**
516 COOPER COMMERCE DR., STE 200
APOPKA, FL 32703

I CERTIFY THAT THE LANDSCAPE & IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE W/ C.O.A. ORDINANCE 2008 ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

Project	Sheet
Date	5-3-17
Scale	AS SHOWN
	L2

MARSHAL

BOUNDARY SURVEY PROPOSED SITE PLAN / PRELIMINARY PLAT

PROPERTY DESCRIPTION PARCEL A:

A PORTION OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST, LING SOUTH OF THE SEABOARD AIR LINE RAILROAD, ALL LING AND BEING SITUATE IN ORANGE COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF MARSHALL LAKE ROAD AND THE WEST LINE OF NORTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST AS SHOWN ON THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NUMBER 7532-6460-607 RIGHT-OF-WAY MAP, SHEET ONE OF THREE; THENCE RUN SOUTH 89 DEGREES 44 MINUTES 38 SECONDS WEST ALONG THE NORTH RIGHT-OF-WAY LINE OF MARSHALL LAKE ROAD, 803.38 FEET TO THE POINT OF BEGINNING, THENCE LEAVING SAID NORTH RIGHT-OF-WAY LINE RUN N 00°53'54" E FOR A DISTANCE OF 774.23 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF C.S.X. TRANSPORTATION, INC. RAILROAD (FORMERLY KNOWN AS FLORIDA CENTRAL RAILROAD) AS SHOWN IN THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NO. 7532-6460-607 RIGHT-OF-WAY MAP SHEET NINE OF ELEVEN; THENCE RUN S 54°19'18" E ALONG SAID SOUTH RIGHT-OF-WAY LINE FOR A DISTANCE OF 513.93 FEET TO A POINT OF CURVATURE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 2397.42 FEET AND A CHORD BEARING OF S 57°25'05" E WITH A CHORD LENGTH OF 95.89 FEET THENCE RUN SOUTHWESTERLY ALONG THE ARC OF SAID CURVE THROUGH A DELTA ANGLE OF 0°17'30" FOR AN ARC LENGTH OF 95.89 FEET TO A POINT OF TANGENCY; SAID POINT LING ON THE WEST RIGHT-OF-WAY LINE OF BRADSHAW ROAD AS SHOWN ON THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NUMBER 7532-6460-607 RIGHT-OF-WAY MAP SHEET ONE OF THREE, (LAST TWO COURSES BEING COINCIDENT WITH THE SOUTH RIGHT-OF-WAY LINE OF C.S.X. TRANSPORTATION, INC. RAILROAD); THENCE RUN S 00°53'54" W ALONG SAID SOUTH RIGHT-OF-WAY LINE OF BRADSHAW ROAD FOR A DISTANCE OF 439.54 FEET TO THE AFOREMENTIONED NORTH RIGHT-OF-WAY LINE OF MARSHALL LAKE ROAD; THENCE RUN N 89°44'38" W ALONG SAID NORTH RIGHT-OF-WAY LINE FOR A DISTANCE OF 500.03 FEET TO THE POINT OF BEGINNING.

LESS THE EAST 25 FEET FOR RIGHT-OF-WAY FOR AND A UTILITY EASEMENT PER OFFICIAL RECORDS BOOK 4108 PAGE 2984 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA ALONG BRADSHAW ROAD.

PROPERTY DESCRIPTION PARCEL B:

THE EAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 8, TOWNSHIP 21 SOUTH, RANGE 28 EAST, EXCEPT THREE-QUARTERS OF AN ACRE IN THE NORTHWEST CORNER OF SAID TRACT OF LAND, TOGETHER WITH

THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, LING SOUTH OF THE SEABOARD AIR LINE RAILROAD, ALL LING AND BEING SITUATE IN ORANGE COUNTY, FLORIDA.

THE ABOVE PARCEL ALSO BEING DESCRIBED AS:

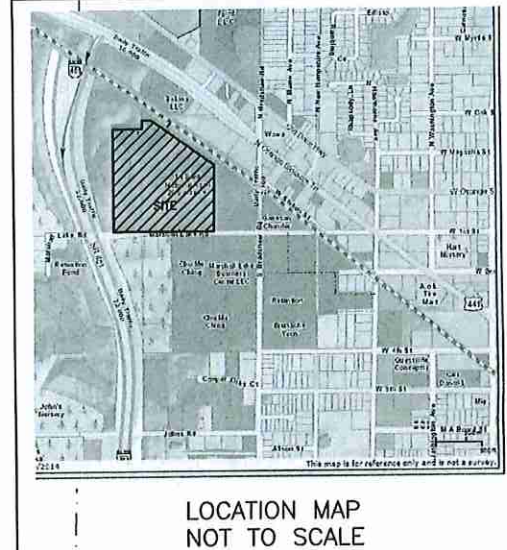
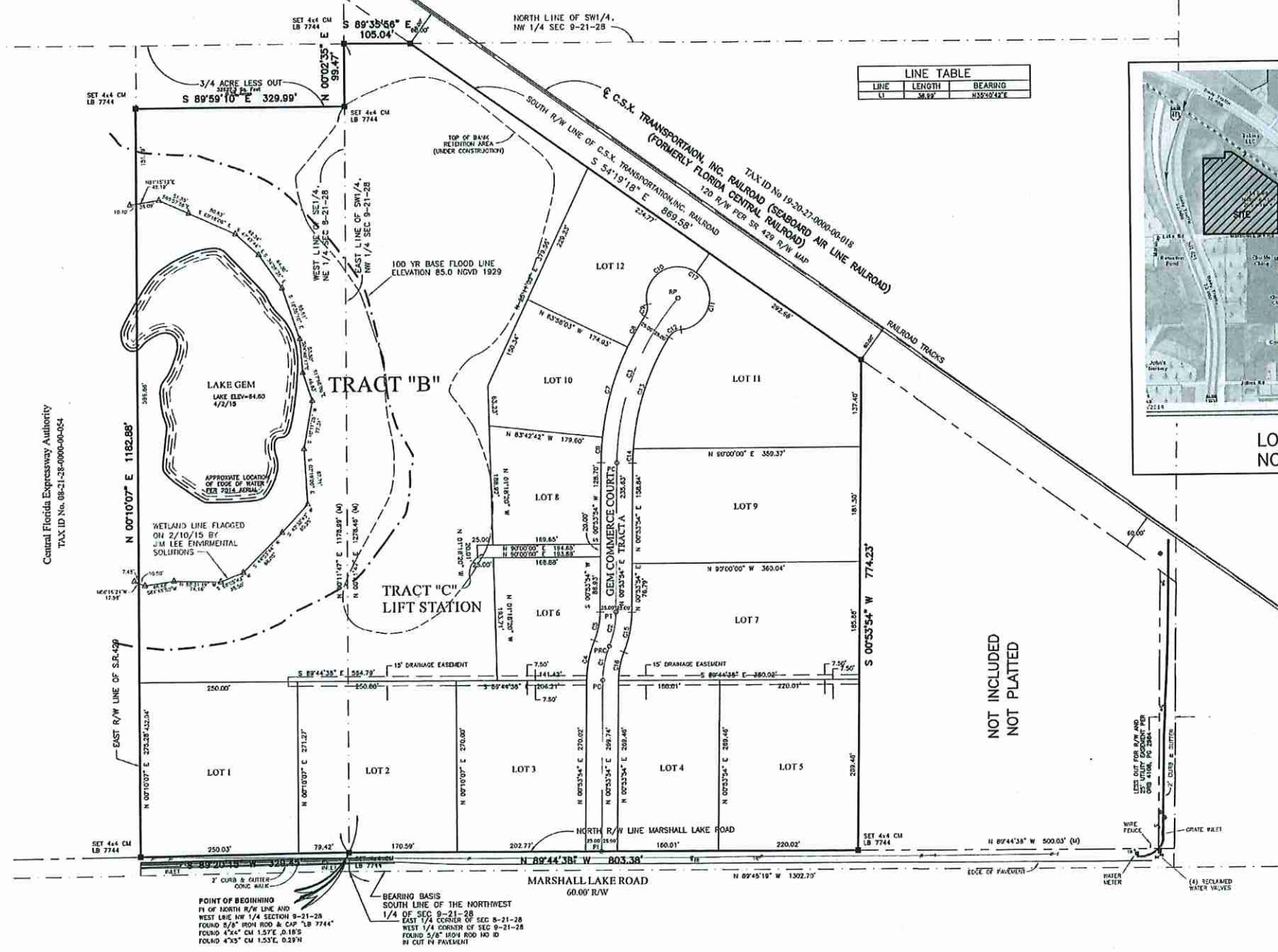
BEGIN AT THE INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF MARSHALL LAKE ROAD AND THE WEST LINE OF NORTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA AS SHOWN ON THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NUMBER 7532-6460-607 RIGHT-OF-WAY MAP, SHEET ONE OF THREE; THENCE RUN S 89°20'15" W ALONG THE NORTH LINE OF SAID NORTH LINE FOR A DISTANCE OF 339.45 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF STATE ROAD 429 AS SHOWN ON THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NUMBER 7532-6460-607 RIGHT-OF-WAY MAP SHEET ONE OF THREE; THENCE RUN N 00°10'07" E ALONG SAID STATE ROAD 429 RIGHT-OF-WAY LINE FOR A DISTANCE OF 1182.85 FEET; THENCE RUN S 89°59'10" E FOR A DISTANCE OF 319.59 FEET TO THE WEST LINE OF THE SW 1/4 OF THE NW 1/4 OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN S 00°25'35" E FOR A DISTANCE OF 99.47 FEET TO THE NORTH LINE OF THE SW 1/4 OF SAID SECTION 9, THENCE RUN S 89°35'56" E FOR A DISTANCE OF 195.04 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF C.S.X. TRANSPORTATION, INC. RAILROAD (FORMERLY KNOWN AS FLORIDA CENTRAL RAILROAD) AS SHOWN IN THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NO. 7532-6460-607 RIGHT-OF-WAY MAP SHEET NINE OF ELEVEN; THENCE RUN S 54°19'18" E ALONG SAID SOUTH RIGHT-OF-WAY LINE FOR A DISTANCE OF 869.58 FEET; THENCE RUN S 00°53'54" W FOR A DISTANCE OF 774.23 FEET TO THE NORTH RIGHT-OF-WAY LINE OF MARSHALL LAKE ROAD; THENCE RUN N 89°44'38" W ALONG SAID NORTH RIGHT-OF-WAY LINE FOR A DISTANCE OF 803.38 FEET TO THE POINT OF BEGINNING, HAVING AN AREA OF 1246267.76 SQUARE FEET OR 28.610 ACRES.

Surveyors Notes:

- Not valid without the signature and the original raised seal of a Florida licensed Surveyor and Mapper.
- This survey was prepared without the benefit of an Abstract or current Title Policy. There may exist matters of record affecting the subject property recorded in the Public Records unknown and not provided to this firm.
- Our research of the property is not an "abstract of title", nor is it a "title opinion" and does not constitute a warranty or guaranty of the property from any claims or interests. We show only the information we found within the Public Records. There may exist easements, liens or matters recorded in the Public Records not found, or provided to the Surveyor which may affect the subject property.
- Legal description prepared by surveyor.
- Adjacent properties have not been abstracted for title matters and are subject to easements and matters of record.
- Bearings are based on South line of the Northwest 1/4 of Section 9, Township 21 South, Range 31 East being N 89°45'12" W (assumed).
- This is not an All/Asm Land Title Survey.
- No interior improvements located per Clients request.
- Symbols shown hereon are not to scale.
- No underground utilities, foundations, installations or improvements have been located by this firm as per client agreement.
- Total area surveyed is 6.651 acres or 288137.9 square feet more or less.
- Ownership of fences along property lines is not to be determined by this survey.
- This Survey does not determine the "ordinary high water line" or the "mean high water line" the State of Florida may own or claim ownership of those lands lying below the "ordinary high water line" or "mean high water line" or within any wetland limits.
- The intended scale for the map/drawing shown SHEET 1 is intended to be displayed at a scale of 1"=400' on 24"x36" sized sheet. The intended scale for SHEETS 2 AND 3 is intended to be displayed at a scale of 1"=100' on 24"x36" sized sheet. Any other sheet size will alter the scale of the drawing. Copies and reproductions made from prints will may alter the scale of the drawing as well.
- The City of Apopka and the Orange County Storm Water Department has responded to this firm that the Normal High Water Line for Lake Gem has not been established.

CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD	CHORD BEARING	
C1	55.06'	150.00'	119.23'	S 44.77'	N 112.05' W
C2	55.06'	150.00'	119.23'	S 44.77'	N 112.05' W
C3	83.62'	174.00'	119.23'	S 44.77'	N 112.05' W
C4	83.62'	174.00'	119.23'	S 44.77'	N 112.05' W
C5	45.89'	124.00'	119.23'	S 44.77'	N 112.05' W
C6	45.89'	124.00'	119.23'	S 44.77'	N 112.05' W
C7	45.89'	124.00'	119.23'	S 44.77'	N 112.05' W
C8	45.89'	124.00'	119.23'	S 44.77'	N 112.05' W
C9	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C10	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C11	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C12	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C13	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C14	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C15	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C16	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W
C17	110.19'	301.64'	119.23'	S 44.77'	N 112.05' W

LINE TABLE		
LINE	LENGTH	BEARING
11	56.97'	N 32°52'42"E



LEGEND AND ABBREVIATIONS		
CM = CONCRETE MONUMENT	○ = IRON PIPE AND CAP FOUND (NUMBER AS INDICATED)	□ = BACKFLOW PREVENTER
LB = LICENSED BUSINESS	○ = IRON ROD AND CAP FOUND (NUMBER AS INDICATED)	□ = WATER METER
PLS = PROFESSIONAL LAND SURVEYOR	○ = NAIL AND DISK FOUND (NUMBER AS INDICATED)	□ = SEWER CLEAN-OUT
PSM = PROFESSIONAL SURVEYOR & MAPPER	○ = 4"x4" CONCRETE MONUMENT FOUND (NUMBER AS INDICATED)	□ = CATV ANCHOR BOX
PCP = PERMANENT CONTROL POINT	○ = NAIL AND DISK SET STAMPED LB #7744	□ = TRAFFIC CONTROL BOX
O.R.B. = OFFICIAL RECORDS BOOK	○ = SET 5/8" IRON ROD/CAP, LB #7744	□ = TELEPHONE JUNCTION BOX
M.B. = MAP BOOK	■ = 4"x4" CONCRETE MONUMENT SET MONUMENT LB #7744	□ = DOWN SPOUT (ROOF DRAIN)
D.B. = DEED BOOK	○ = SIGN	□ = IRRIGATION CONTROL VALVE
PG. = PAGE	○ = UTILITY POLE (WOOD)	□ = SEWER VALVE
PGS. = PAGES	○ = UTILITY POLE (CONCRETE)	□ = WATER VALVE
(P) = PLAT	○ = LIGHT POLE	□ = GAS VALVE
(M) = MEASURED	○ = GUY WIRE	□ = ELECTRIC JUNCTION BOX
(C) = CALCULATED	○ = FIRE HYDRANT	□ = MAIL BOX
R/W = RIGHT-OF-WAY	○ = SANITARY SEWER MANHOLE	□ = TELEPHONE EQUIPMENT ON CONC PAD
R = RADIUS	○ = STORM DRAINAGE MANHOLE	□ = ELECTRIC TRANSFORMER ON CONC PAD
L = LENGTH	○ = ELECTRIC MANHOLE	□ = WATER MAIN (FIRE DEPT)
D = DELTA	○ = TELEPHONE MANHOLE	□ = SIGNAL CONTROLLER ON CONC PAD
CH = CHORD DISTANCE	○ = MANHOLE (UNIDENTIFIABLE)	□ = CHAIN LINK FENCE
CB = CHORD BEARING	○ = CENTER LINE	□ = CURB INLET WITH MANHOLE
LF. = LINEAR FEET	○ = GRATE INLET	□ = CURB INLET
S.F. = SQUARE FEET		□ = FLOW ARROW
AC. = ACRE		□ = RAILROAD TRACK
ELEV. = ELEVATION		
CONC. = CONCRETE		
CEK = CONCRETE BLOCK		
INV. = INVERT		
CLF = CHAIN LINK FENCE		

Surveyors Certification:
I hereby certify that this survey shown hereon was made in accordance with the "Standards of Practice" for land surveying in the State of Florida, Rule 5A-17-.050 to 0.052 Florida Administrative Code, pursuant to Chapters 177 and 472, Florida Statutes and unless it bears the signature and the original raised seal of a Florida Licensed Surveyor and Mapper, this drawing, sketch, plat or map is for informational purposes only and is not valid.

Ralph A. Nieto
Printed Name: Ralph A. Nieto P.S. M. No. 6025
Jan 15, 2018
Print Date

Nieto-Whittaker Surveying LLC
502 W. Springers Way, Lake Mary, FL 32746
PH: (407) 484-0103 Fax: (407) 306-0776
LB No. 7744

N
W
E
S

FIELD BY: DLW	DATE: 4/2/14	ORDER NO.: NW1E-111	SHEET 2 OF 2
DRAWN BY: RN	SCALE: 1"=100'	ADDED WETLAND LINE	REVISIONS
NO. 1	2/20/13	NO.	DATE

**PROPERTY INDUSTRIAL ENTERPRISES
BOUNDARY SURVEY**
MARSHALL LAKE RD & BRADSHAW RD, APOPKA, FLORIDA

PREPARED FOR:

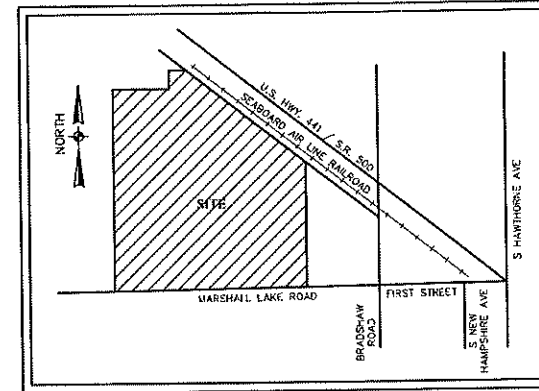


LAKE GEM COMMERCE CENTER
 LOCATED IN SECTIONS 8 AND 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST,
 CITY OF APOPKA, ORANGE COUNTY, FLORIDA

DESCRIPTION:

BEGIN AT THE INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF MARSHALL LAKE ROAD AND THE WEST LINE OF NORTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA AS SHOWN ON THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NUMBER 7532-6460-607 RIGHT-OF-WAY MAP, SHEET ONE OF THREE; THENCE RUN S 89°20'15" W ALONG THE NORTH LINE OF SAID NORTH LINE FOR A DISTANCE OF 329.45 FEET TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF STATE ROAD 429 AS SHOWN ON THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 JOB NUMBER 7532-6460-607 RIGHT-OF-WAY MAP SHEET ONE OF THREE; THENCE RUN N 00°10'07" E ALONG SAID STATE ROAD 429 RIGHT-OF-WAY FOR A DISTANCE OF 1182.88 FEET; THENCE RUN S 89°59'10" E FOR A DISTANCE OF 329.99 FEET TO THE WEST LINE OF THE SW 1/4 OF THE NW 1/4 OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA THENCE RUN N 00°02'35" E FOR A DISTANCE OF 99.47 FEET TO THE NORTH LINE OF THE SW 1/4 OF THE NW 1/4 OF SAID SECTION 9, THENCE RUN S 89°35'56" E FOR A DISTANCE OF 105.04 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF C.S.X. TRANSPORTATION, INC. RAILROAD (FORMERLY KNOWN AS FLORIDA CENTRAL RAILROAD) AS SHOWN N THE ORLANDO-ORANGE COUNTY EXPRESSWAY STATE ROAD 429 NO. 7532-6460-607 RIGHT-OF-WAY MAP SHEET NINE OF ELEVEN; THENCE RUN S 54°19'18" E ALONG SAID SOUTH RIGHT-OF-WAY LINE FOR A DISTANCE OF 869.58 FEET; THENCE RUN S 00°53'54" W FOR A DISTANCE OF 774.23 FEET TO THE NORTH RIGHT-OF-WAY LINE OF AFORESAID MARSHALL LAKE ROAD; THENCE RUN N 89°44'38" W ALONG SAID NORTH RIGHT-OF-WAY LINE FOR A DISTANCE OF 803.38 FEET TO THE POINT OF BEGINNING.

HAVING AN AREA OF 1246267.76 SQUARE FEET, 28.610 ACRES



LOCATION MAP
NOT TO SCALE

GENERAL NOTES:

- BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF FIRST STREET AS BEING S 89°45'10" E, AN ASSUMED DATUM.
- ALL PLATTED UTILITY EASEMENTS SHALL PROVIDE THAT SUCH EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES; PROVIDED, HOWEVER, NO SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SHALL INTERFERE WITH THE FACILITIES AND SERVICES OF AN ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. IN THE EVENT A CABLE TELEVISION COMPANY DAMAGES THE FACILITIES OF A PUBLIC UTILITY, IT SHALL BE SOLELY RESPONSIBLE FOR THE DAMAGES; THIS SECTION SHALL NOT APPLY TO THOSE PRIVATE EASEMENTS GRANTED TO OR OBTAINED BY A PARTICULAR ELECTRIC, TELEPHONE, GAS, OR OTHER PUBLIC UTILITY. SUCH CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL SAFETY CODE AS ADOPTED BY THE FLORIDA PUBLIC SERVICE COMMISSION. -FS177.091(28)
- ALL DRAINAGE EASEMENTS RESERVED OR NOTED ON THIS PLAT ARE PRIVATE UNLESS NOTED OTHERWISE.
- THE PROPERTY AS DEPICTED HEREON IS HEREBY SUBJECT TO THE DECLARATION OF COVENANTS AND RESTRICTIONS, AS RECORDED IN THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA AT OFFICIAL RECORDS BOOK _____ PAGE _____.
- TRACT "A" GEM COMMERCE COURT SHALL BE OWNED AND MAINTAINED BY THE LAKE GEM COMMERCE CENTER PROPERTY OWNERS ASSOCIATION.
- TRACT "B" CONSERVATION AREA SHALL BE OWNED AND MAINTAINED BY THE LAKE GEM COMMERCE CENTER PROPERTY OWNERS ASSOCIATION.
- TRACT "C" LIFT STATION SHALL BE OWNED AND MAINTAINED BY THE LAKE GEM COMMERCE CENTER PROPERTY OWNERS ASSOCIATION.
- THERE IS A BLANKET EASEMENT FOR THE POTABLE WATER, SEWER, RECLAIMED WATER, STORMWATER AND ROADWAY OVER TRACT "A" GEM COMMERCE COURT, THAT IS TO BE OWNED, OPERATED AND MAINTAINED BY THE LAKE GEM COMMERCE CENTER PROPERTY OWNERS ASSOCIATION, INC.
- DEVELOPMENT RIGHTS OF THE JURISDICTIONAL WETLAND AREAS SHALL BE DEDICATED TO THE CITY OF APOPKA WITH OWNERSHIP AND MAINTENANCE THE LAKE GEM COMMERCE CENTER PROPERTY OWNERS ASSOCIATION.
- THE CONSERVATION EASEMENT IN TRACT "B" IS STORM WATER MANAGEMENT AREA AND SHALL BE OWNED AND MAINTAINED BY THE LAKE GEM COMMERCE CENTER PROPERTY OWNERS ASSOCIATION, INC. THE CITY OF APOPKA SHALL BE GRANTED AND EASEMENT OVER TRACT "B".
- THE 15.00' DRAINAGE EASEMENT IS DEDICATED TO THE LAKE GEM COMMERCE CENTER PROPERTY OWNERS ASSOCIATION.

ABBREVIATIONS	
(C)	= CALCULATED
CM	= CONCRETE MONUMENT
CLF	= CHAIN LINK FENCE
CONC	= CONCRETE
CL	= CENTERLINE
(D)	= DEED
EP	= EDGE OF PAVEMENT
ELEV	= ELEVATION
FND	= FOUND
IR	= IRON ROD
IP	= IRON PIPE
LB	= LICENSED BUSINESS
(M)	= MEASURED
NO ID	= NO IDENTIFICATION
ORB	= OFFICIAL RECORD BOOK
(P)	= PLAT
PS	= PLAT BOOK
PC	= POINT OF CURVATURE
PI	= POINT OF INTERSECTION
PO	= PAGE
PCP	= PERMANENT CONTROL POINT
POL	= POINT ON LINE
PRM	= PERMANENT REFERENCE MONUMENT
PRC	= POINT OF REVERSE CURVATURE
PT	= POINT OF TANGENCY
RP	= RADIUS POINT
R/W	= RIGHT-OF-WAY
REC	= RECOVERED

SYMBOLS	
SYMBOLS SHOWN ARE NOT TO SCALE	
●	FOUND IRON ROD AND CAP (NUMBER AS INDICATED)
■	FOUND 4"x4" CONCRETE MONUMENT (STAMPED LB#7744 UNLESS NOTED OTHERWISE)
□	SET 4"x4" CONCRETE MONUMENT (LB#7744)
○	SET NAIL AND DISK STAMPED "LB 7744"
↔	CHANGE IN DIRECTION OR LOT CORNER INDICATED BY "TICK" MARK
SECTION 9-21-28 = SECTION 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST	

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 SUPERANATED 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.

Nieto-Whittaker Surveying LLC
 1728 N. Ronald Regan Blvd., Longwood, FL 32750
 PH: (407) 636-8460 FAX: (407) 636-8461
 I.B No. 7744

PLAT BOOK	PAGE
LAKE GEM COMMERCE CENTER DEDICATION	
KNOW ALL MEN BY THESE PRESENTS, That the limited liability corporation named below, being the owner in fee simple of the lands described in the foregoing caption to this plat, hereby dedicates a blanket easement for the potable water, sewer, reclaimed water, stormwater and roadway over Tract "A", Gem Commerce Court, that is to be owned and maintained by the Lake Gem Commerce Center Property Owners Association, Inc., or the uses and purposes therein expressed by this Plat.	
IN WITNESS WHEREOF, has caused these presents to be signed and attested to by the officers named below and its corporate seal to be fixed hereto on.....	
PROPERTY INDUSTRIAL ENTERPRISES LLC. 370 Cooper Palms Parkway APOPKA, FL. 32703	
By..... MICHAEL R. COOPER, Managing Member Signed and sealed in the presence of:	
PRINTED NAME:	PRINTED NAME:
STATE OF FLORIDA COUNTY OF ORANGE	
THIS IS TO CERTIFY, That on..... before me, an officer duly authorized to take acknowledgements in the State and County aforesaid, personally appeared.....MICHAEL R. COOPER.....MANAGING MEMBER.... of the above named limited liability corporation incorporated under the laws of the State of...FLORIDA.... to me known to be the individuals and officers described in and who executed the foregoing Dedication and severally acknowledged the execution thereof to be their free act and deed as such officers thereunto duly authorized; and that the said Dedication is the act and deed of said limited liability corporation.	
IN WITNESS WHEREOF, I have hereto set my hand and seal on the above date.	
NOTARY PUBLIC PRINTED NAME: My Commission Expires.....	
QUALIFICATION AND STATEMENT OF SURVEYOR AND MAPPER	
KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a licensed and Registered Land Surveyor, does hereby certify that on FEB 20th, 2015 he completed the survey of the said lands shown in the foregoing plat and said survey was made under his responsible direction and that permanent reference monuments have been placed as required by Chapter 177, Florida Statutes; and that said land is located in the City of Apopka, Florida.	
Signed: _____	Date _____
Printed Name: Ralph A. Nieto PSM #5025 Nieto-Whittaker Surveying, LLC Licensed Business #7744	
CERTIFICATE OF REVIEWING SURVEYOR	
I HEREBY CERTIFY, that the undersigned is a licensed Professional Surveyor and Mapper and is either employed by or under contract with the City of Apopka, Florida and I have reviewed the Plat for conformity to Chapter 177 of the Florida Statutes.	
Signed: _____	Date _____
Printed Name: _____	Date _____
Registration No. _____	
CERTIFICATE OF APPROVAL BY APOPKA PLANNING COMMISSION	
THIS IS TO CERTIFY that on _____ the foregoing plat was approved by:	
Signed: _____	Printed name: _____
Chairman	
CERTIFICATE OF APPROVAL BY MUNICIPALITY	
THIS IS TO CERTIFY that on _____ the foregoing plat was approved	
Signed: _____	Attest: _____
Mayor, City of Apopka	City Clerk
CERTIFICATE OF APPROVAL BY CITY ENGINEER	
THIS IS TO CERTIFY that on _____ the foregoing plat was examined and approved by:	
City Engineer	Date: _____
CERTIFICATE OF APPROVAL BY COUNTY COMPTROLLER	
I HEREBY CERTIFY, That the foregoing plat was recorded in the Orange County Records on _____ as File no. _____ County Comptroller in and for Orange County, Florida	
By.....D.C.	

LAKE GEM COMMERCE CENTER
 LOCATED IN SECTIONS 8 AND 9, TOWNSHIP 21 SOUTH, RANGE 28 EAST,
 CITY OF APOPKA, ORANGE COUNTY, FLORIDA

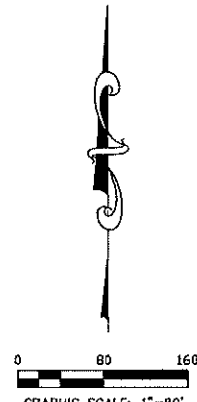
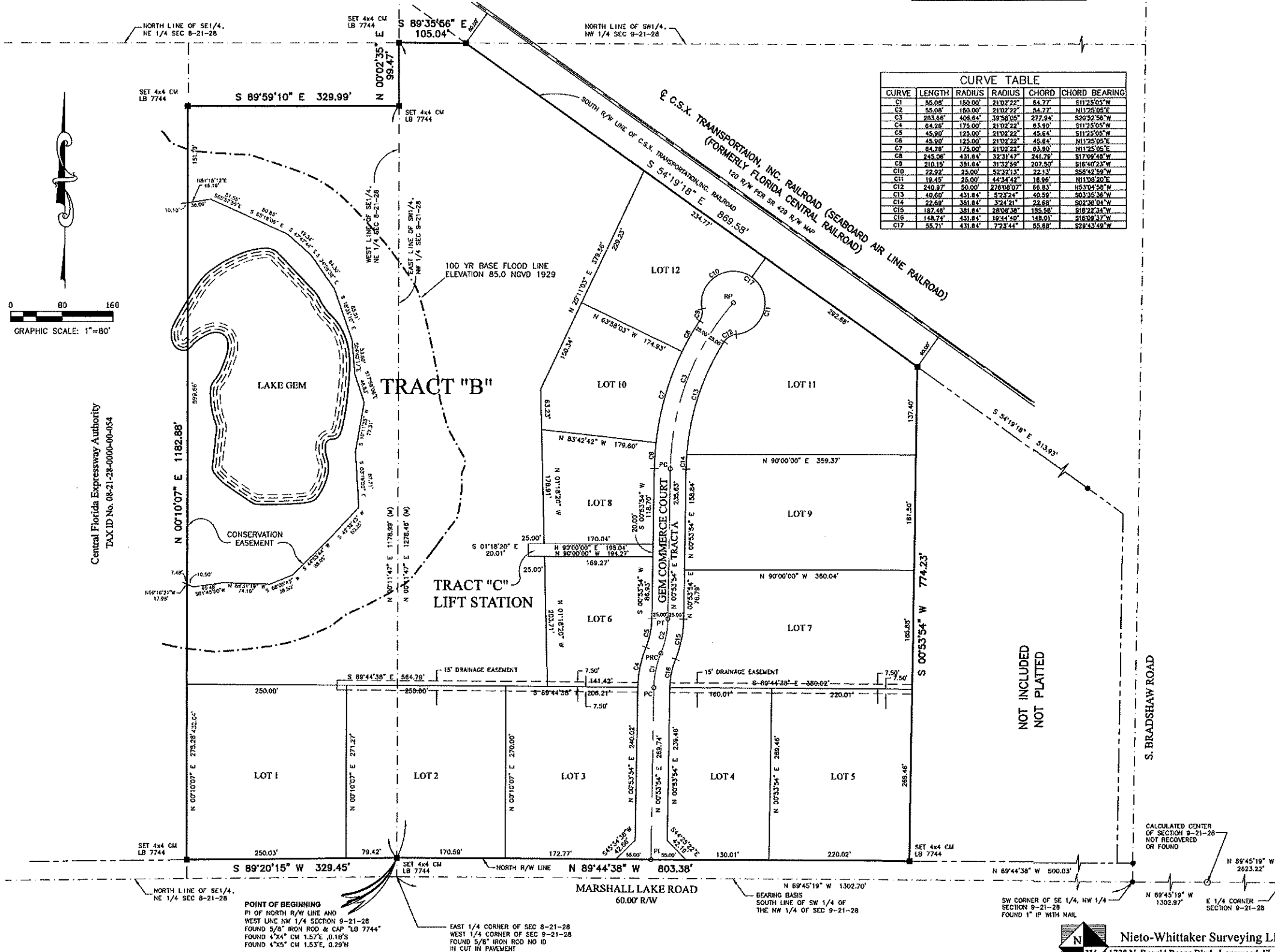
SHEET 2 OF 2

PLAT
BOOK

PAGE

LINE TABLE		
LINE	LENGTH	BEARING
L1	36.89'	N35°42'42"E

CURVE TABLE					
CURVE	LENGTH	RADIUS	RADIUS	CHORD	CHORD BEARING
C1	36.08'	150.00'	2102.22'	84.77'	S11°25'05"W
C2	55.08'	150.00'	2102.22'	84.77'	N11°28'05"E
C3	283.88'	408.84'	3393.05'	277.94'	S90°32'36"W
C4	64.26'	174.00'	2102.22'	85.80'	S11°25'05"W
C5	45.90'	123.00'	2102.22'	45.84'	S11°25'05"W
C6	45.90'	123.00'	2102.22'	45.84'	N11°25'05"E
C7	84.78'	174.00'	2102.22'	85.80'	N11°25'05"E
C8	243.06'	431.84'	3331.47'	241.78'	S17°02'48"W
C9	210.15'	381.84'	3132.55'	207.50'	S16°40'23"W
C10	22.92'	23.00'	2322.15'	22.13'	S88°42'39"W
C11	19.45'	23.00'	2424.44'	18.96'	N11°28'05"E
C12	240.87'	50.00'	226308.07'	68.83'	N53°04'58"W
C13	40.60'	431.84'	573.24'	40.59'	S03°35'36"W
C14	22.69'	381.84'	374.21'	22.68'	S02°38'04"W
C15	182.48'	381.84'	3338.38'	185.58'	S12°22'24"W
C16	148.74'	431.84'	1934.40'	148.01'	S16°09'37"W
C17	55.71'	431.84'	773.44'	55.88'	S28°42'49"W



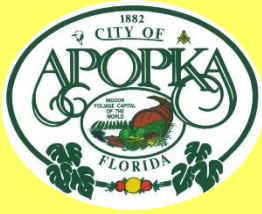
Central Florida Expressway Authority
 TAX ID No. 08-21-28-0000-00-054

NOT INCLUDED
 NOT PLATTED

Nieto-Whittaker Surveying LLC
 1728 N. Ronald Regan Blvd., Longwood, FL 32750
 PH: (407) 636-8460 FAX: (407) 636-8461
 LB No. 7744

Backup material for agenda item:

6. FINAL DEVELOPMENT PLAN – SELF HELP CREDIT UNION - Owned by Self Help Credit Union c/o Randy Chambers, President and located at 667 West Orange Blossom Trail. (Parcel ID #: 09-21-28-5900-04-010)



CITY OF APOPKA PLANNING COMMISSION

- PUBLIC HEARING
- SITE PLAN
- SPECIAL REPORTS
- OTHER: Final Development Plan

MEETING OF: March 13, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Aerial Map
 Site Plan
 Landscape Plan
 Building Renderings

SUBJECT: FINAL DEVELOPMENT PLAN – SELF HELP CREDIT UNION

REQUEST: RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN FOR SELF HELP CREDIT UNION

SUMMARY:

OWNER/APPLICANT: Self Help Credit Union c/o Randy Chambers, President
 ENGINEER: Dewberry Engineers, Inc. c/o Christopher J. Allen, P.E.
 LOCATION: 667 West Orange Blossom Trail
 PARCEL ID #: 09-21-28-5900-04-010
 FUTURE LAND USE: Commercial
 ZONING: C-2
 EXISTING USE: Vacant
 PROPOSED USE: Drive-through Bank
 TRACT SIZE: 1.37 +/- acres
 BUILDING SIZE: 2,320 square feet
 FLOOR AREA RATIO: 0.039

FUNDING SOURCE: N/A

DISTRIBUTION

Mayor Kilsheimer	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)	Institutional/Public Use	R-O-W/PO/I	Old Dixie Highway/Apopka Elementary School
East (County)	Commercial	R-O-W/R-2	Old Dixie Highway/Residential
South (City)	Commercial	R-O-W/C-1	U.S. 441/Vacant
West (City)	Commercial	C-2 (ZIP)	Vacant

PROJECT SUMMARY: The Self Help Credit Union Final Development Plan proposes to construct a building with 2,320 square feet floor area for a bank with two drive-through service stations. The drive-through station is screened from Old Dixie Highway by a 3-foot high garden wall and landscaping. With frontage on two streets, building architecture has the north and south sides of the building have the appearance of a building front wall.

PARKING AND ACCESS: A total of 21 parking spaces are provided of which 2 are reserved as a handicapped parking spaces. Ingress/egress access points for the development will be via full access onto U.S. 441 and Old Dixie Highway.

EXTERIOR ELEVATIONS: The design of the building exterior complies with Section 4.2.1 of the Development Design Guidelines that addresses commercial design standards.

STORMWATER: Stormwater run-off and drainage will be accommodated by an on-site retention pond on the western portion of the project site. The stormwater management system is designed according to standards set forth in the Land Development Code.

CONDITIONS OF APPROVAL: A re-plat will be required prior to issuance of a certificate of occupancy.

BUFFER/TREE PROGRAM: A three-foot tall garden wall is provided to screen the drive through area from Old Dixie Highway. The plan also shows a ten-foot landscape buffer along Old Dixie Highway and U.S. 441. The applicant has provided a detailed landscape and irrigation plan for the property. The planting materials and irrigation system design are consistent with the water-efficient landscape standards set forth in Ordinance No. 2069. The applicant has committed to submit an arbor mitigation payment fee of \$3,629 based on the number of tree inches replaced.

Total inches on-site:	900
Total number of specimen trees:	10
Total inches removed	640
Total inches retained:	260
Total inches required:	363
Total inches replaced:	145
Total inches post development:	162

PUBLIC HEARING SCHEDULE:

March 13, 2018 - Planning Commission (5:30 pm)
 April 4, 2018 - City Council (1:30 pm)

RECOMMENDATION ACTION:

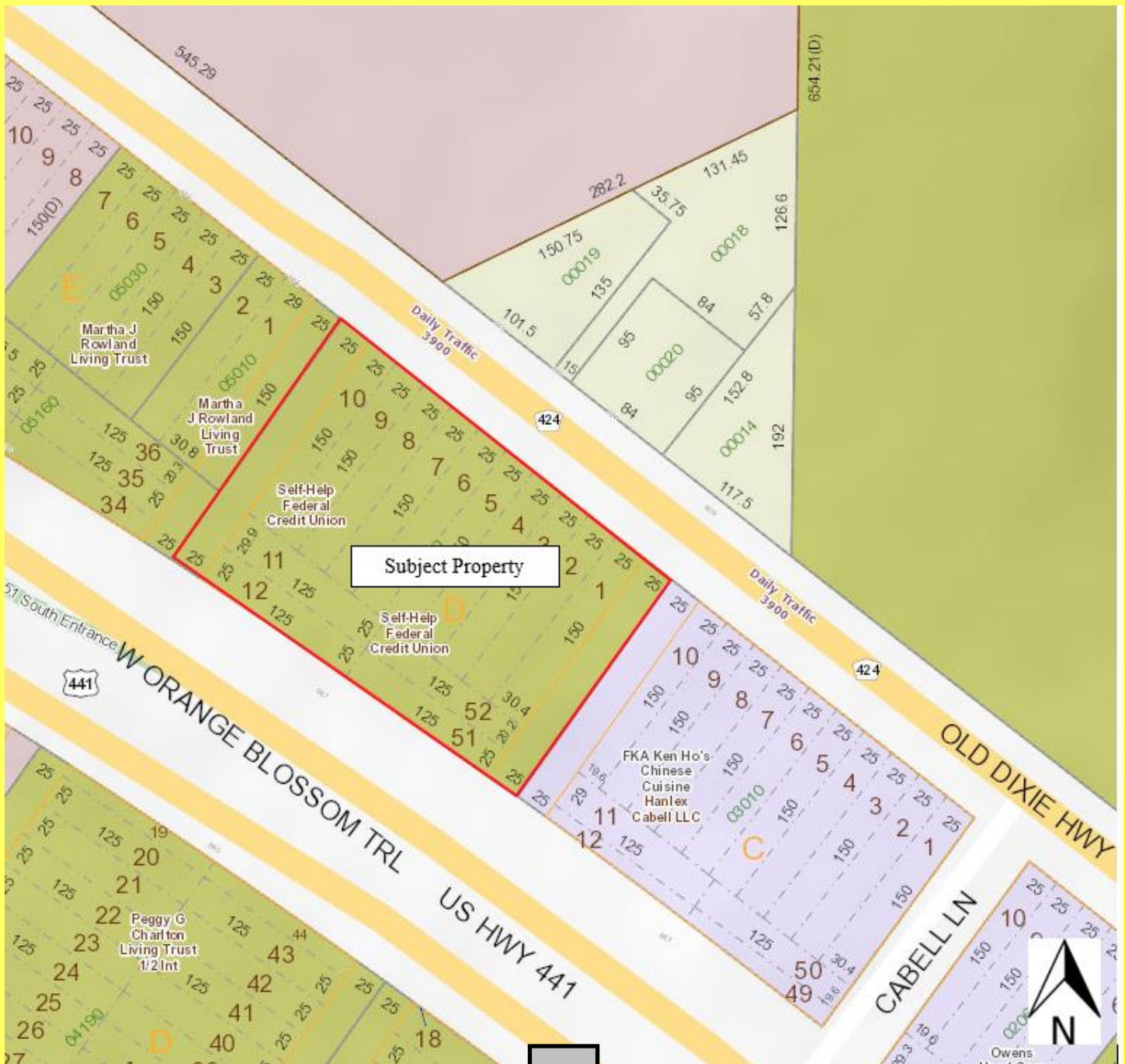
The **Development Review Committee** recommends approval of the Self Help Credit Union – Final Development Plan, subject to the findings of this staff report.

Planning Commission: Find the Self Help Credit Union Final Development Plan consistent with the Comprehensive Plan and Land Development Code, and recommend approval of the Self Help Credit Union – Final Development Plan, subject to the findings of this staff report.

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.

Self Help Credit Union c/o Randy Chambers
Dewberry Engineers, Inc. c/o Christopher J. Allen, P.E.
Self Help Credit Union
1.37 +/- acres
Parcel ID No.: 09-21-28-5900-04-01

VICINITY MAP



AERIAL MAP

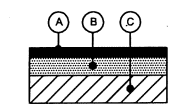


**Self Help Credit Union
667 W. Orange Blossom Trail**
(Minor) Final Development
CITY OF APOPKA, FLORIDA

Christopher J. Albin
FL PE # 77719
Nov 08, 2017

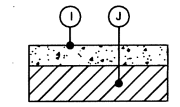
SITE DATA

1. PARCEL NUMBER 09-21-28-5900-04-010
2. PROJECT LOCATION 667 W. ORANGE BLOSSOM TRAIL
3. EXISTING LAND USE VACANT
4. PROPOSED LAND USE DRIVE THRU BANK
5. EXISTING ZONING C2
6. EXISTING FUTURE LAND-USE COMMERCIAL
7. CURRENT VEGETATION TREES AND GRASS
8. FLOOD INFORMATION ZONE 'X'
(PER MAP No.12095C0120F, SEP. 25, 2009)
9. SETBACKS
FRONT: 10'
SIDE: 10'
REAR: 50' (FROM CENTER LINE OF ROAD OLD DIXIE HWY.)
10. TOTAL PROJECT AREA 1.37 AC (59,765 SF)
11. EXISTING IMPERVIOUS 0.00 SF
12. PROPOSED IMPERVIOUS 27,123 SF (45.4%)
BUILDING: 2,320.0 SF
POND: 7,405 SF (12.4%)
OPEN SPACE: 25,237 SF (42.2%)
FAR 0.039
13. PARKING
REQUIRED (1 SPACE PER 200 SF)
DRIVE-THRU BANK: 2,320 SF / 200 = 13 PARKING SPACES.
PROVIDED PARKING SPACES ON SITE = 21 (INCLUDING 2 HANDICAP)
14. FIRE PROTECTION TO BE PROVIDED VIA EXISTING FIRE HYDRANT
15. DUMPSTER PROVIDED ON SITE FOR REFUSE COLLECTION
16. POTABLE WATER PROVIDED BY CITY OF APOPKA UTILITIES
17. SANITARY SEWER PROVIDED BY CITY OF APOPKA UTILITIES
18. NOISE FROM DRIVE THROUGH SPEAKERS SHALL NOT CROSS PARCEL LINES



- (A) 1.5" FDOT TYPE SP 9.5 ASPHALTIC WEARING SURFACE.
- (B) 8" LIMEROCK OR CRUSHED CONCRETEBASE 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, (AASHTO T-180) LBR OF AT LEAST 100.
- (C) 12" SUBBASE STABILIZED TO MINIMUM 98% OF THE MODIFIED PROCTOR (AASHTO T-180) TO YIELD A MINIMUM LBR = 40.

PROPOSED ASPHALT PAVEMENT



- (I) 6" TYPE 1 PORTLAND CEMENT CONCRETE WITH A 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C-39. 12" X 12" CONTROL JOINT SPACING W/ MIN. 1-1/2" SAWCUT DEPTH.
- (J) 18" MIN. CLEAN, FINE SAND SUBGRADE WITH LESS THAN 10% PASSING A NO. 200 SIEVE, COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.

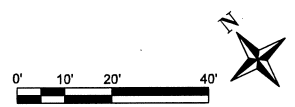
PROPOSED CONCRETE PAVEMENT

LEGEND

- PARCEL BOUNDARY
- MAJOR CONTOUR
- MINOR CONTOUR
- EX. CONC. SIDEWALK
- PROP. CONC. SIDEWALK
- PROP. LIGHT DUTY ASPHALT PAV.

KEY PLAN

SCALE NORTH



No.	DATE	BY	Description

REVISIONS

DRAWN BY _____ GL
APPROVED BY _____ RM
CHECKED BY _____ CJA
DATE _____ 08-14-2017

TITLE

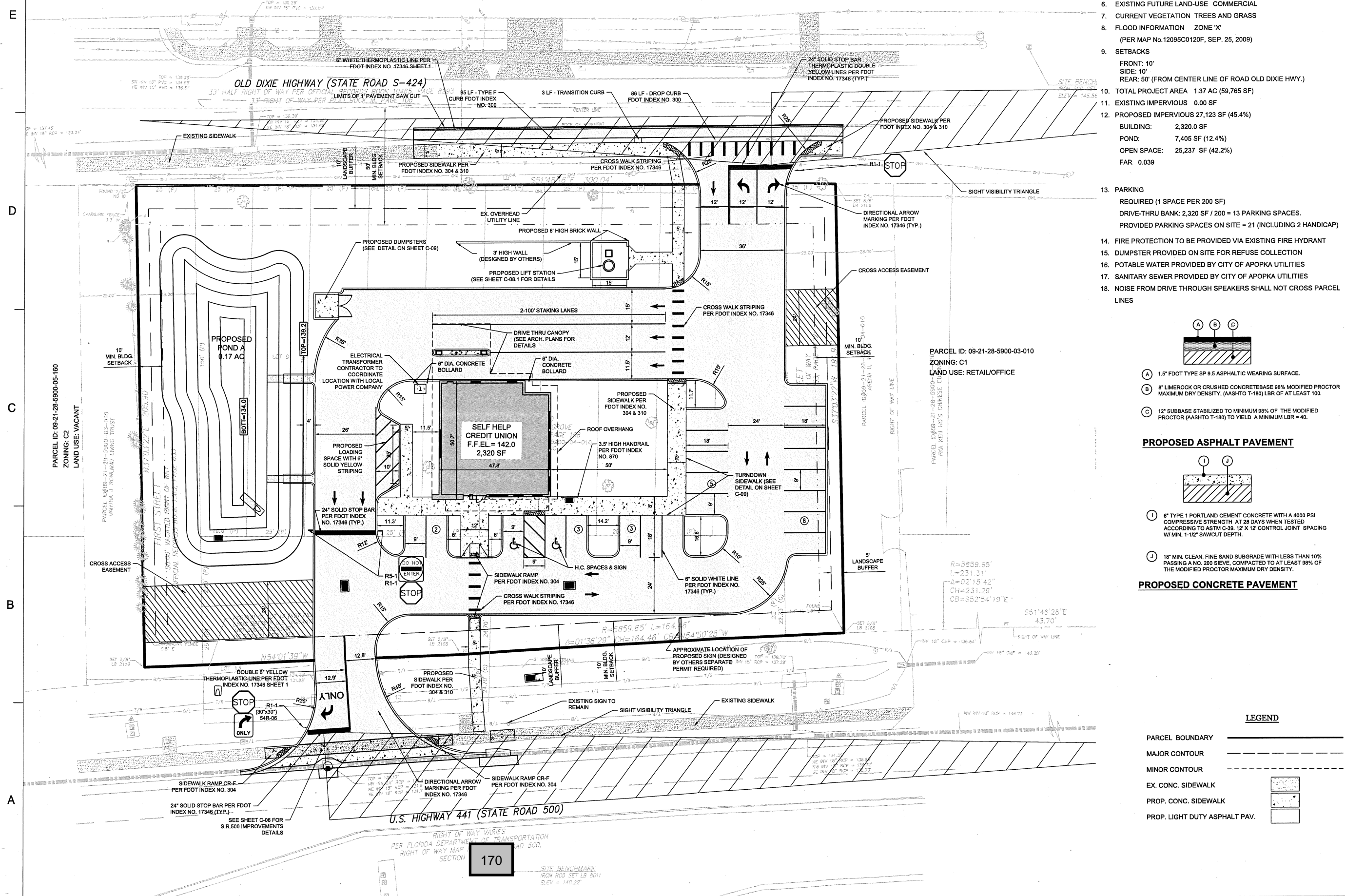
SITE AND GEOMETRY PLAN

PROJECT NO. 50094806 [CRUN1]

SHEET NO.

C-04

OLD DIXIE HIGHWAY (STATE ROAD S-424)
33' HALF RIGHT OF WAY PER ORANGE COUNTY PROPERTY APPRAISER MAP
NO DOCUMENTATION PROVIDED



E
D
C
B
A

PARCEL ID: 09-21-28-5900-05-160
ZONING: C2
LAND USE: VACANT

PARCEL ID: 09-21-28-5900-03-010
MARTHA J. ROWLAND ESTATE TRUST

PARCEL ID: 09-21-28-5900-03-010
ZONING: C1
LAND USE: RETAIL/OFFICE

PARCEL ID: 09-21-28-5900-03-010
PKA KEH HO'S CHINESE CLUB

U.S. HIGHWAY 441 (STATE ROAD 500)

170

SITE BENCHMARK
IRON ROD SET LB 8011
ELEV = 140.22'

SEAL

KEY PLAN



No.	DATE	BY	Description

DRAWN BY _____
 APPROVED BY _____
 CHECKED BY _____
 DATE JULY 6, 2017

LANDSCAPE PLAN

PROJECT NO. 50094806

L2.10

SHEET NO. OF 79

BUFFER SCHEDULE		
NORTHEAST - 10' REQUIRED - 10' PROVIDED		
300 LF	CANOPY: 1/35 LF MIN.	SHRUB: 10/35 LF MIN.
REQUIRED	9	86
PROVIDED	9	0
SOUTHEAST - 5' REQUIRED - 5' PROVIDED		
192 LF	CANOPY: 1/35 LF MIN.	GROUND COVER/HEDGE
REQUIRED	5	CONTINUOUS
PROVIDED	6	CONTINUOUS
SOUTHWEST - 10' REQUIRED - 10' PROVIDED		
300 LF	CANOPY: 1/35 LF MIN.	SHRUB: 10/35 LF MIN.
REQUIRED	9	86
PROVIDED	9	75
NORTHWEST - 5' REQUIRED - 5' PROVIDED		
206 LF	CANOPY: 1/35 LF MIN.	
REQUIRED	6	
PROVIDED	5	

IRRIGATED TURF AREA:	
BAHIA:	20,903 SF (0.4799 ACRES)
ST. AUGUSTINE	2,772 SF

IRRIGATION NOTES:

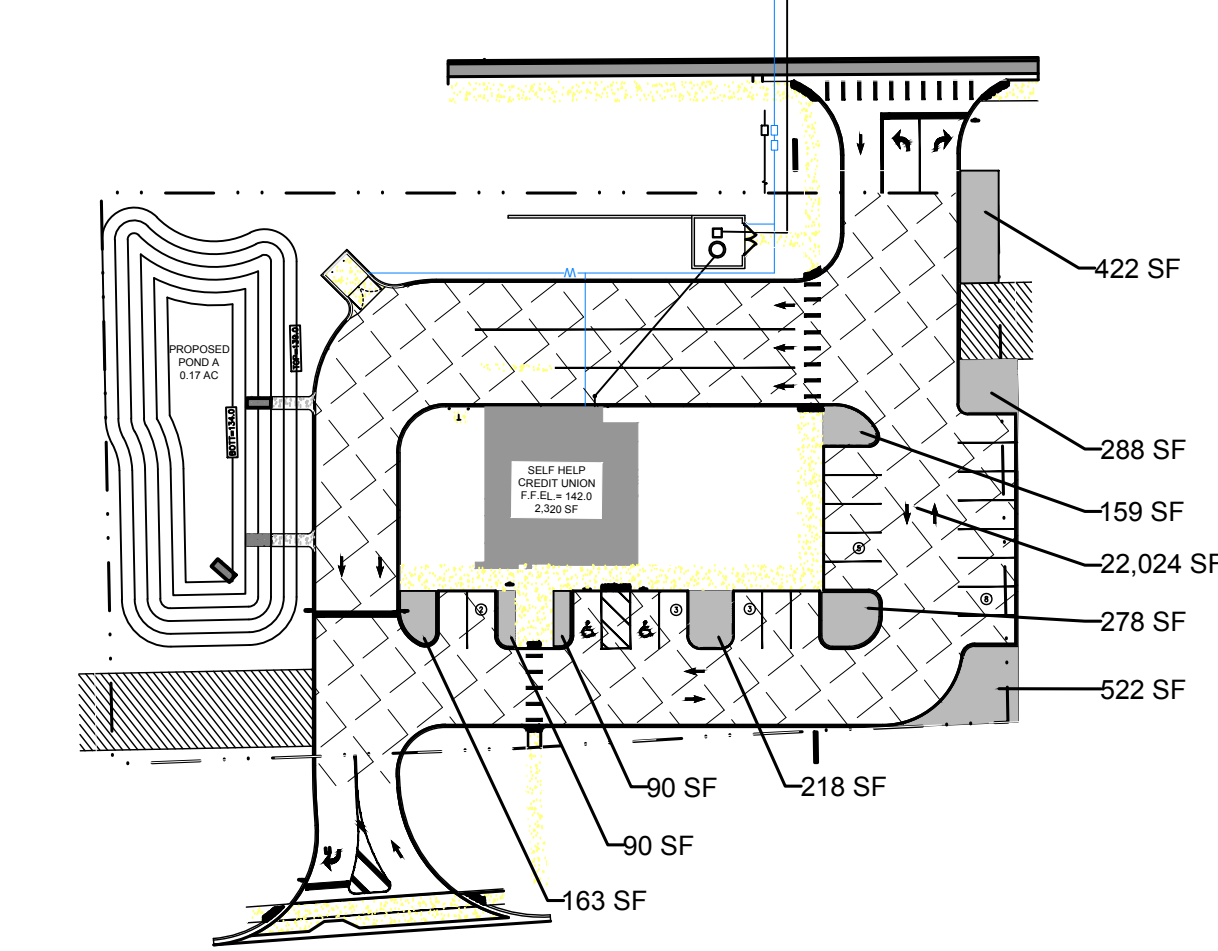
- ALL PLANT WATER USE ZONES SHALL BE IRRIGATED SEPARATELY.
- TURF AREAS SHALL BE IRRIGATED WITH SPRAY HEADS AND SHALL BE IRRIGATED SEPARATELY FROM SHRUBS.
- TREES SHALL BE IRRIGATED SEPARATELY WITH BUBBLERS.
- ALL TURF, SHRUBS AND GROUND COVER AREAS SHALL BE IRRIGATED WITH AN UNDERGROUND SPRINKLER SYSTEM AND BE DESIGNED WITH 100% COVERAGE.
- EXISTING TREES TO REMAIN SHALL NOT BE IRRIGATED AND SHALL NOT HAVE ANY PIPING OR HEADS WITHIN THE ROOT PROTECTION ZONES.
- IRRIGATE ALL LANDSCAPED AREAS UP TO PROPERTY LINES, ROW'S.
- FULL IRRIGATION DESIGN PLAN TO BE SUBMITTED WITH FINAL SITE PLAN SUBMITTAL.

INTERIOR VUA LANDSCAPE AREA CALCULATIONS:

TOTAL VEHICULAR USE AREA:	22,024
INTERIOR LANDSCAPE AREA:	
REQUIRED(10%):	2,202 SF
PROVIDED:	2,230 SF
TREES	
REQUIRED:	4 (21 SPACES - 1/6 SPACES)
PROVIDED:	6 (5 PROVIDED, 1 EXISTING)

LANDSCAPE NOTES:

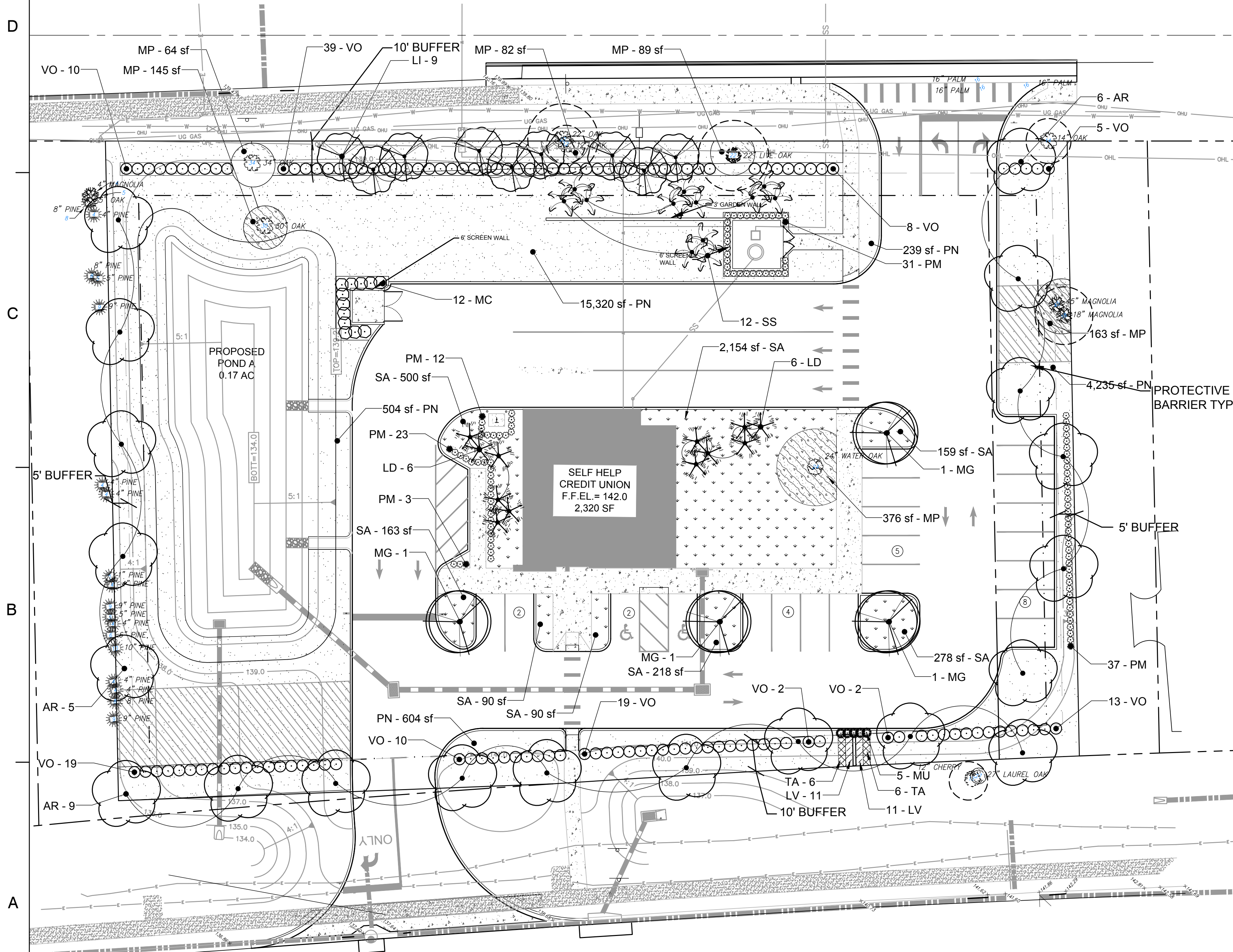
- LANDSCAPE AND IRRIGATION PLANS SHALL BE IN ACCORDANCE WITH LDC ARTICLE V, WATER-WISE ORDINANCE NO. 2069.
- ALL SERVICE EQUIPMENT AND UTILITY BOXES MUST BE FULLY SCREENED.
- ALL AREAS THAT ARE NOT PAVED OR MULCHED SHALL BE SODDED TO THE LIMITS OF SOD AND PROPERTY LINE WITH BAHIA SOD.
- SOD ALL PONDS WITH BAHIA SOD TO TWO(2) FEET BELOW NORMAL WATER ELEVATION. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
- SOD ALL DISTURBED AREAS WITHIN MERCANTILE LANE RIGHT OF WAY.
- ALL TREES AND SHRUBS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM TOHO MAINTAINED UTILITIES.
- ALL PROPOSED TREES SHALL BE MEASURED, FOR DBH, AT 54" ABOVE SOIL.



INTERIOR VUA LANDSCAPE AREA DIAGRAM
 N.T.S.

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	REMARKS	
	AR	20	Acer rubrum / Red Maple	-		2-1/2" DBH		
	LI	9	Lagerstroemia indica / Crape Myrtle	15 gal		2-1/2" DBH		
	LD	12	Livistona decipiens / Livistona Palm	15 gal		10' - 14' CT		
	MG	4	Magnolia grandiflora / Southern Magnolia	15 gal		3" DBH		
	SS	12	Sabal palmetto / Cabbage Palmetto	15 gal		10' - 14' CT		
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT.	SIZE	REMARKS		
	MU	5	Muhlenbergia capillaris / Pink Muhly	1 gal				
	MC	12	Myrica cerifera / Wax Myrtle	5 gal	36" HT & 24" SPR			
	PM	106	Podocarpus macrophyllus / Yew Pine	5 gal	36" HT & 24" SPR			
	VO	127	Viburnum odoratissimum / Sweet Viburnum	5 gal	36" HT & 24" SPR			
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	FIELD2	FIELD3	SPACING	REMARKS
	LV	22	Liriope muscari 'Variegata' / Variegated Lily Turf	1 gal	FULL		18" o.c.	
	MP	1,800 sf	Mulch - / Shredded Hardwood Mulch	flat				3" Depth
	PN	20,903 sf	Paspalum notatum / Bahia Grass	sod				
	SA	2,772 sf	Stenotaphrum secundatum 'Floritam' / Floritam St. Augustine Sod	sod				
	TA	12	Trachelospermum asiaticum 'Asiatic' / Asiatic Jasmine	flat				24" o.c.



LANDSCAPE PLAN

SCALE: 1" = 20'-0"



SMOOTH FACE ARCHITECTURE CMU

SPLIT FACE ARCHITECTURE CMU

SPLIT FACE ARCHITECTURE CMU

PAINTED FIBER CEMENT TRIM

PAINTED FIBER CEMENT PANELS & TRIM

ARCHITECTURAL SHINGLES

MODULAR FACE BRICK

ACCENT FACE BRICK




Self-Help
 Federal Credit Union

PAINTED FIBER CEMENT TRIM

PAINTED FIBER CEMENT PANELS & TRIM

ARCHITECTURAL SHINGLES

MODULAR FACE BRICK

ACCENT FACE BRICK

SMOOTH FACE ARCHITECTURE CMU

SPLIT FACE ARCHITECTURE CMU

SPLIT FACE ARCHITECTURE CMU

**DUNN &
 DALTON**
 ARCHITECTS

Self Help Credit Union- Apopka, FL Branch
 Proposed Exterior Rendering



SPLIT FACE ARCHITECTURE CMU

SMOOTH FACE ARCHITECTURE CMU

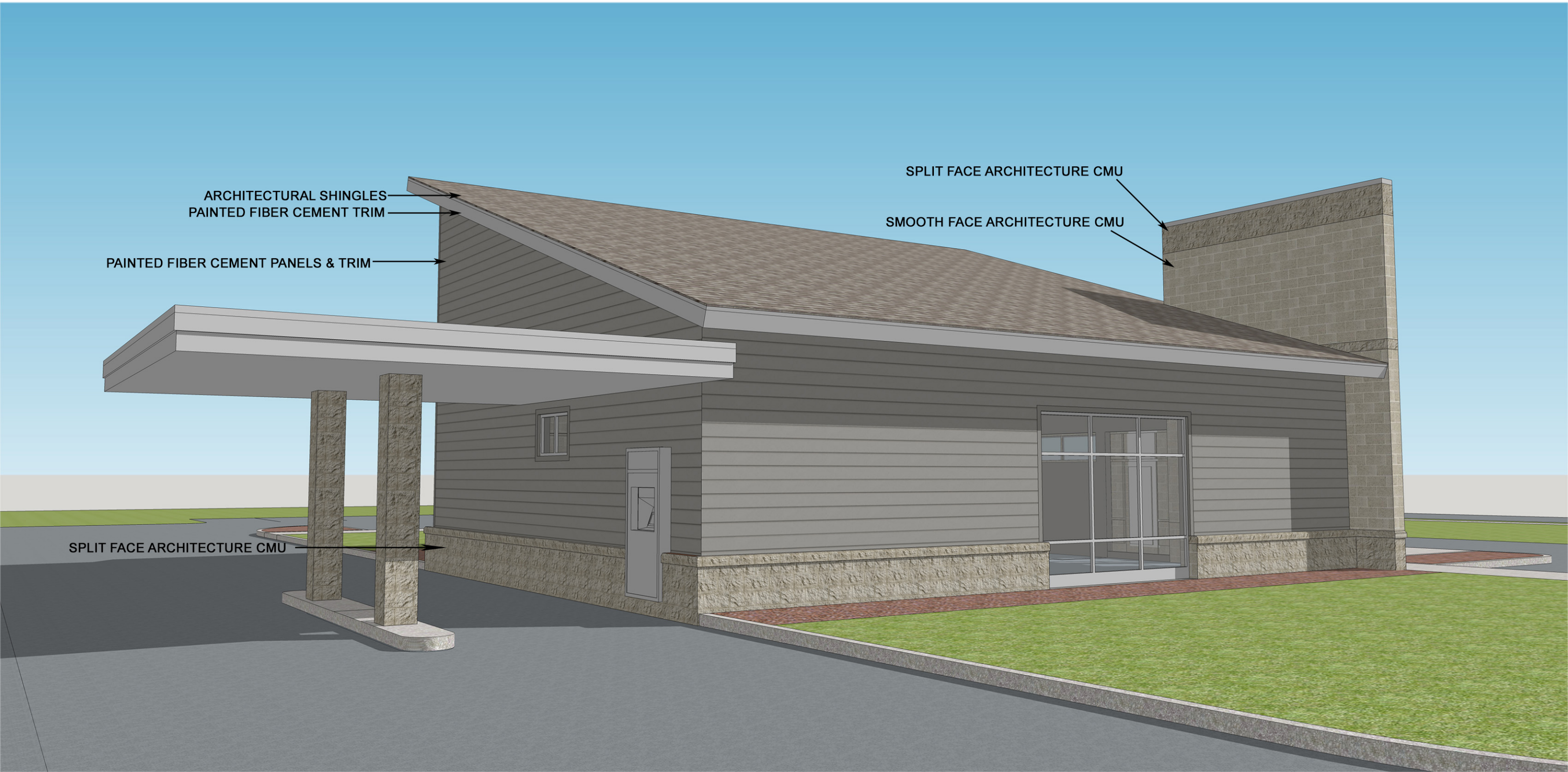
ARCHITECTURAL SHINGLES

PAINTED FIBER CEMENT TRIM

PAINTED FIBER CEMENT PANELS & TRIM

ACCENT FACE BRICK

MODULAR FACE BRICK



ARCHITECTURAL SHINGLES
PAINTED FIBER CEMENT TRIM

PAINTED FIBER CEMENT PANELS & TRIM

SPLIT FACE ARCHITECTURE CMU

SMOOTH FACE ARCHITECTURE CMU

SPLIT FACE ARCHITECTURE CMU



PAINTED FIBER CEMENT PANELS & TRIM

ARCHITECTURAL SHINGLES

PAINTED FIBER CEMENT TRIM

PAINTED FIBER CEMENT PANELS & TRIM

MODULAR FACE BRICK

ACCENT FACE BRICK

SPLIT FACE ARCHITECTURE CMU



MODULAR FACE BRICK

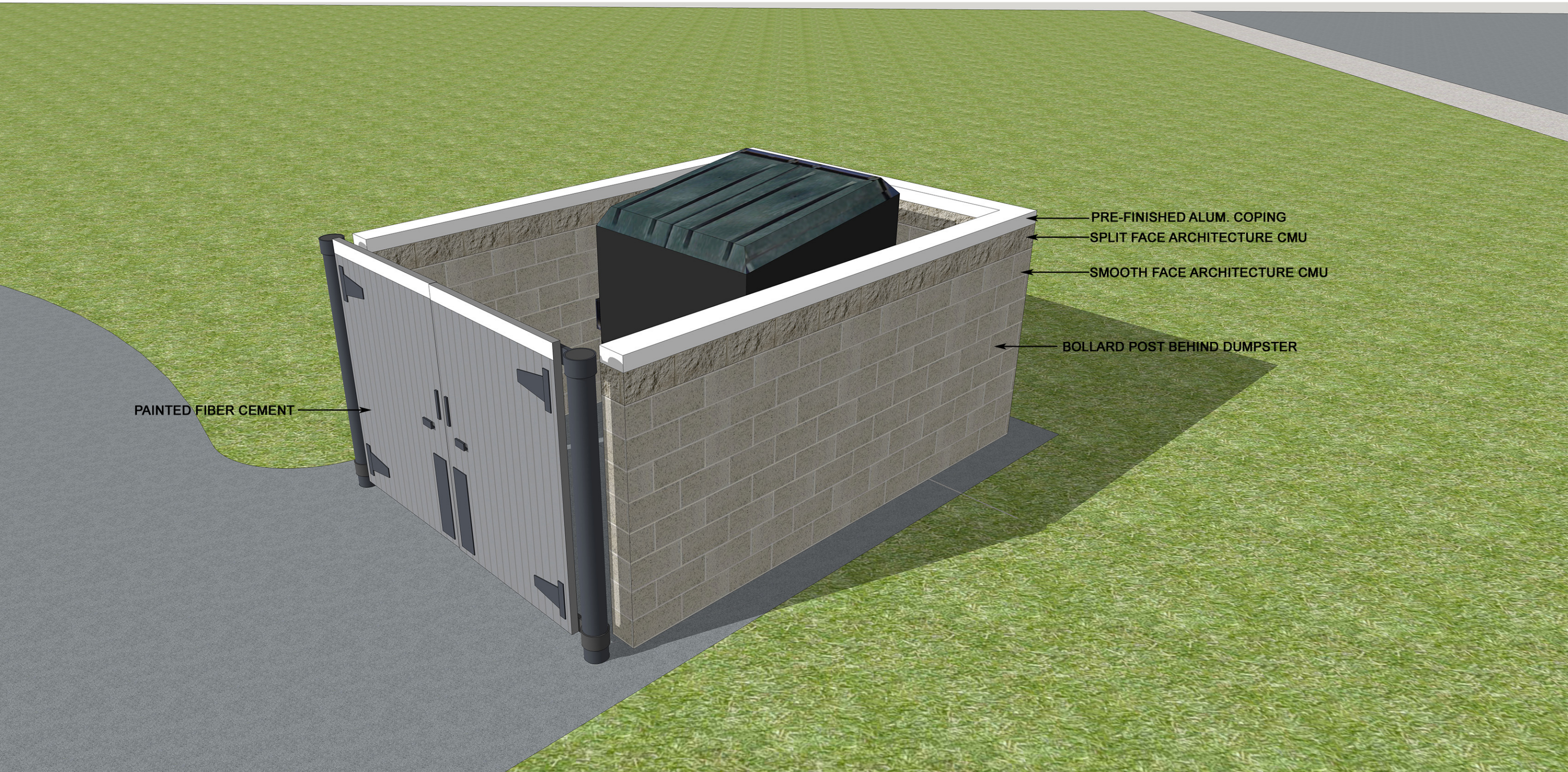
ACCENT FACE BRICK

PAINTED FIBER CEMENT TRIM

PAINTED FIBER CEMENT PANELS & TRIM

ARCHITECTURAL SHINGLES

SPLIT FACE ARCHITECTURE CMU



PAINTED FIBER CEMENT

PRE-FINISHED ALUM. COPING

SPLIT FACE ARCHITECTURE CMU

SMOOTH FACE ARCHITECTURE CMU

BOLLARD POST BEHIND DUMPSTER



Drawing Index

Civil

- C-00 COVER SHEET
- C-01 - C-02 GENERAL NOTES
- C-03 EXISTING CONDITIONS
- C-04 SITE AND GEOMETRY PLAN
- C-05 PAVING, GRADING AND DRAINAGE PLAN
- C-06 S.R. 500 IMPROVEMENTS PLAN
- C-06.1 S.R. 500 IMPROVEMENTS CROSS SECTIONS AND NOTES
- C-07 STORMWATER POLLUTION PREVENTION PLAN & DETAILS
- C-08 UTILITY PLAN
- C-08.1 LIFT STATION
- C-09 PAVING, GRADING AND DRAINAGE DETAILS
- C-10 CITY OF APOPKA GENERAL NOTES
- C-11 UTILITY DETAILS
- C-12 UTILITY DETAILS
- E2.1 LIGHTING PHOTOMETRIC PLAN
- E2.2 ELECTRICAL SITE PAN

Self Help Credit Union Apopka

City of Apopka, Florida
(Minor) Final Development Plan
August 14, 2017

Client:
Dunn & Dalton Architects

Project Information

Owner/Applicant
Self-Help Federal Credit Union
301 West Main Street
Durham, NC 27701
Phone: 919.956.4672
Contact: Randy Chambers

Architectural / Structural
Dunn & Dalton Architects
401 N. Heritage St.
Kinston, NC 28501
Phone: 252.527.1523
Contact: Richard A. King, AIA

Civil Engineer
Dewberry Engineers, Inc.
800 N. Magnolia Avenue
Orlando, FL 32083
Phone: 407.843.5120
Contact: Reinardo Malave, PE

Geotechnical Engineer
Geotechnical and Environmental
Consultants, Inc.
919 Lake Baldwin Lane
Orlando, FL 32814
Phone: 407.898.1818
Contact: Craig G. Ballock, PE

Land Surveyor
Dewberry Engineers, Inc.
800 North Magnolia Avenue
Suite 1000
Orlando, Florida 32803
Ph.407.843.5120
Contact: William D. Donley, P.S.M.

Potable Water
City of Apopka Public Services
748 E. Cleveland Street
Apopka, FL 32703
Phone: 407.703.1731
Contact: R. Jay Davoli, PE

Sanitary Sewer
City of Apopka Public Services
748 E. Cleveland Street
Apopka, FL 32703
Phone: 407.703.1731
Contact: R. Jay Davoli, PE

Electric
Duke Energy
2501 25th Street N.
St. Petersburg, FL 33713
Phone: 727.893.9394
Contact: Megan Vonsteina

Communications
Advanced Cable Solutions, Inc.
331 Oleander Way #1011
Casselberry, FL 32707
Phone: 407.883.8881
Contact: Robert ford

American Traffic Solutions
1150 N. Alma School Road
Mesa, AZ 85201
Phone: 480.596.4595
Contact: Santiago Martinez

Charter Communications
3767 All American Blvd.
Orlando, FL 32810
Phone: 407.532.8509
Contact: Marvin Usry Jr.

Centurylink
33 N. Main Street Ste. 144
Winter Garden, FL 34787
Phone: 407.814.5293
Contact: George McElvain

AT&T
1120 S. Rogers Cir.
Boca Raton, FL 33847
Phone: 561-997-0240
Contact: Dino farruggio

Natural Gas
Lake Apopka Natural Gas District
1320 winter Garden Vineland Road
Winter Garden, FL 34787
Phone: 407.656.2734
Contact: Antonio Gibson



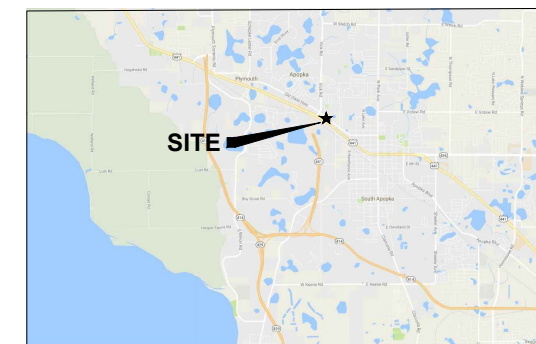
Know what's below.
Call before you dig.

Legal Description

LOTS 1-12, INCLUSIVE, AND LOTS 51 AND 52, AND THE WEST HALF OF THE VACATED STREET ADJOINING THE EAST BOUNDARY AND THE EAST HALF OF THE VACATED STREET ADJOINING THE WEST BOUNDARY, BLOCK D, OF NELLIE GRAY GROVE, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK M, PAGE 106, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA. LESS AND EXCEPT THAT PORTION CONSTITUTING THE RIGHT OF WAY FOR U.S. HIGHWAY 441, A/K/A STATE ROAD NUMBER 500.

180

Location Map



S : 09 | T : 21 S | R : 28 E



Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS -8794

Self Help Credit Union
667 W. Orange Blossom Trail
(Minor) Final Development
CITY OF APOPKA, FLORIDA

SEAL
Christopher J. Allen
FL PE # 77719
Jan 30, 2018

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description
1			

REVISIONS

DRAWN BY _____ GL
APPROVED BY _____ RM
CHECKED BY _____ CJA
DATE _____ 08-14-2017

TITLE

COVER SHEET

PROJECT NO. 50094806 [CRUN1]

C-00

SHEET NO.

GENERAL

- 1. Unless otherwise specified, all construction shall be performed consistent with the most recent publication of the following codes, standards and specifications as well as the latest editions of all other applicable specifications & standards:
 - City of Apopka
 - St. Johns River Water Management District (SJRWMD)
 - Florida Department Of Environmental Protection (FDEP)
 - Florida Department Of Transportation (FDOT)
 - Americans with Disabilities Act (ADA) by U.S. Department Of Justice
 - "Manual On Uniform Traffic Control Devices" (MUTCD) published by the U.S. Department of Transportation, Federal Highway Administration
- 2. All construction is to be governed by all applicable federal, state and local laws, ordinances, building and safety codes.
- 3. In the event that any standards or specifications as described herein are in conflict with each other, or that shown in the plans, the more stringent criteria will apply. Contractor shall notify the engineer of record immediately and in writing should the more stringent criteria be unclear, for engineer's interpretation of the more stringent criteria to be used.
- 4. These plans were based on the boundary & topographic survey by Dewberry.
- 5. All elevations shown on these drawings refer to national geodetic vertical datum (NAVD 88).
- 6. These plans were based on a report by a Geotechnical and Environmental Consultants, Inc. (report # 4053G). It is the contractor's responsibility to acquire a copy of the report(s) from the geotechnical engineer, familiarize themselves with the conditions as described in the report(s), and comply with all recommendations made in the report(s) specifically for soil preparation on the site. It is the contractor's responsibility to obtain a copy all supplemental reports for this project from the owner and to follow the supplemental reports' recommendations.
- 7. Geotechnical recommendations or recommendations as provided in supplemental reports by others are not the responsibility of Dewberry Engineers, Inc., who has relied upon the referenced geotechnical report(s) in the preparation of the plans. Any conflict between information contained in the report(s) and these plans shall be reported to the engineer and owner immediately and in writing. Dewberry Engineers, Inc. assumes no responsibility for the correctness, completeness, or accuracy of the report(s). When the plans and/or specifications contain the results of a soils survey, the contractor shall not assume the information is a guarantee of the depth, extent or character of material present. It is the responsibility of the contractor to make a necessary examination of the site and of any material sources indicated on the plans to be informed of the conditions under which construction is to occur.
- 8. The contractor shall obtain from the owner copies of permits for all agencies having jurisdiction, such as governmental, regulatory or local entities. The contractor shall be expected to review and abide by all the terms, conditions, requirements and limitations set forth in all of these permits. A copy of the permits shall be kept on the construction site and made available for review at all times.
- 9. The standards and specifications as listed herein, the geotechnical report(s), boundary and topographic survey(s), and required permits are hereby incorporated along with the plans by Dewberry Engineers, Inc. as the complete "Site Civil Construction Documents."
- 10. If items appearing to be historical or archeological artifacts are discovered at any time during construction within the project limits, immediate notification shall be provided to the owner, the engineer, and the Bureau of Historical Preservation, Division of Historical Resources R.A. Gray Building, 500 S. Bronough St. Tallahassee, Florida 32399-0250.

CONTRACTOR RESPONSIBILITIES

- 1. Contractor shall familiarize himself with the site, including all surface and subsurface conditions, the work required and all other conditions that may effect the successful completion of the job prior to commencement of work.
- 2. The location of existing utility services, facilities, and structural features shown on these plans have been determined from the best information and are provided for the convenience of the contractor. The engineer does not guarantee the accuracy or the completeness of the location information provided. Any inaccuracy or omission in such information shall not relieve the contractor of his responsibility to protect the existing features from damage or unscheduled interruption of service. Should a discrepancy arise between these plans and actual field conditions, which would appreciably affect the execution of these plans, the contractor shall stop all construction and notify the engineer immediately.
- 3. The contractor shall give all notices and comply with all laws, ordinances, rules, regulations and permit conditions bearing on the conduct of the work, as drawn and specified. If the contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the engineer, in writing, and any necessary changes shall be adjusted, as provided in the agreement for changes in the work.
- 4. The contractor shall be responsible for the maintenance of all landscape buffers, retention and detention facilities until the project has been accepted by the owner. All disturbed areas shall be returned to equal or better condition.
- 5. The contractor shall be responsible to the owner and the engineer for the acts and omissions of contractor's employees and all his subcontractors and their agents and employees and other persons performing any of the work under a contract with the contractor.
- 6. All work and furnished materials shall be in reasonable conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements and testing requirements that are specified in the contract, plans, details or specifications.
- 7. The contractor shall be responsible for making all necessary arrangements with governmental departments, public utilities, public carriers, service companies, and corporations owning or controlling roadways, railways, water, sewer, gas, electrical, telephone, and telegraph facilities such as pavements, tracks, piping, wires, cables, conduits, poles, guys, or other similar facilities, including incidental structures connected therewith that are encountered in the work in order that such items may be properly supported, protected or located.
- 8. Prior to commencing work, the contractor shall furnish, erect and maintain all barricades, lights, warning signs, and pavement markings for hazards and the control of traffic through the construction zone in conformity with the all agencies having jurisdiction standards to effectively prevent accidents at all locations where construction causes an obstruction to the normal flow of traffic or creates a hazard in any way to the public.
- 9. In the event the contractor discovers any errors or omissions in the plans he shall immediately notify the owner or owner's agent.
- 10. The contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the contractor of liability for any damage that may result from the moving of materials

- and equipment.
- 11. The contractor shall be responsible for protecting all existing survey monumentation, such as the preservation of all permanent reference monuments, permanent control points, permanent bench marks, property corners, points or markers. In the event any monumentation is disturbed, it shall be restored by a Florida licensed surveyor and mapper selected by the owner at the contractor's expense.
- 12. The owner, owner's representatives and inspectors of applicable government agencies having jurisdiction, shall at all times have access to the work site wherever and whenever it is in preparation or progress. The contractor shall provide proper facilities for such access and inspections.
- 13. It is the contractor's responsibility to take all reasonable and prudent precautions to insure that all completed work, materials and equipment stored on site are safe and secured from unauthorized access or use. Such precautions may include installation of signs, fences, or posting of security guards.
- 14. Contractor shall, at all times, utilize all normally accepted and reasonably expected safety practices and comply with all federal, state and local regulations, ordinances and guidelines pertaining to safe utilization of equipment or materials as published by manufacturer.
- 15. Adequate traffic control, signage, barricades and flagman services shall be furnished and maintained by the contractor at all points where construction equipment engaged in work enters onto or crosses functioning traffic-carrying roadway.
- 16. Those parts of work in place that are subject to damage because of operations being carried on adjacent thereto shall be covered, boarded up or substantially enclosed with adequate protection by the contractor at contractor's expense, protecting work completed.
- 17. The contractor shall comply in every respect with the Federal Occupational Health and Safety Act of 1970 and all rules and regulations now or hereafter in effect under said Act, and the contractor further agrees to comply with any and all applicable state laws and regulations pertaining to job safety and health.
- 18. The contractor shall protect and keep owner (including their agents and employees) free and harmless from any and all liability, public or private, penalties, contractual or otherwise, losses, damages, costs, attorney's fees, expenses, causes of action, claims or judgments resulting from the Federal Occupational Health and Safety Act of 1970 as amended or any rule or regulation promulgated thereunder or of any state laws or regulations pertaining to job safety and health arising out of or in any way connected with the performance of work or work to be performed under this contract, and contractor shall indemnify owner from any such claims, penalties, suits or actions, public or private, administrative or judicial, including attorney's fees paid or incurred by or on behalf of owner, jointly or severally, and/or their agents and employees. The contractor further agrees, in the event of a claimed violation of any federal or state safety and health law or regulation arising out of or in any way connected with the performance of work or work to be performed under this contract, owner may immediately take whatever action is deemed necessary by owner to remedy the claimed violation. Any and all costs or expenses paid or incurred by owner in taking such action shall be borne by contractor, and contractor agrees to protect, hold harmless and indemnify owner against any and all such costs or expenses.
- 19. The contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to:
 - a. All employees on the work site and all other persons who may be affected thereby;
 - b. All the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the contractor or any of its subcontractors; and
 - c. Other property at the site or adjacent thereto, including trees, shrubs, lawns walks, pavements, roadway, structures and utilities not designated for demolition in the course of construction.
- 20. The contractor shall comply with all applicable safety codes and with all applicable laws, ordinances, rules, regulations and lawful orders of any public, quasi public or other authority having jurisdiction for the safety of persons or property or for their protection against damage, injury or loss, or designed to protect the environment. The contractor shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities of the existence of hazards and of the safety regulations.
- 21. All damage or loss to any property referred to in herein caused in whole or in part by the contractor, a subcontractor, or by anyone for whose acts any of them may be liable, shall be remedied by the contractor, except damage or loss properly attributable solely to the acts or omissions of the owner, or the engineer or anyone employed by them, or for whose acts any of them may be liable, and not properly attributable in whole or in part, to the fault or negligence of the contractor.
- 22. Until final acceptance of the work by owner, the contractor shall have the charge and care of and shall bear the risk of injury or damage, loss or expense to any part thereof, or to any materials stored on site, by the action of the elements or from any other cause whether arising from the execution or non-execution of the work. The contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expenses thereof.
- 23. The contractor shall be responsible for meeting all inspection criteria and schedules, and signing for said inspections.
- 24. The contractor shall control and be responsible for their operations and those of their subcontractors and all suppliers, to assure the least inconvenience to the public. The contractor shall maintain free and unobstructed movement of vehicular traffic and shall limit their operations in relation to the safety and convenience of the traveling public. Under all circumstances, safety shall be the most important consideration.
- 25. The contractor shall familiarize himself with the policies and guidelines established by all agencies having jurisdiction for the preservation of all public and private property. The contractor shall be responsible for all damage or injury to property of any character, during the execution of the work, resulting from any act, omission, neglect, or misconduct in their manner or method of executing the work, or at anytime due to defective work or materials.
- 26. The contractor shall not excavate, remove, or otherwise disturb any material, structure or part of a structure which is located outside the lines, grades or grading sections established for this project, except where such excavation or removal is provided for in the contract, plans or specifications.
- 27. The contractor should verify the quantities and lengths of materials shown on the plans. Any discrepancy between material callouts and actual shown in plan view is to be brought to the engineer's attention by the contractor prior to bidding. It is the engineer's intention to construct what is shown on the plans.
- 28. Any discrepancy between the dimensions and measurements shown on the plans and the actual field conditions shall immediately be brought to the engineer's

EROSION CONTROL

attention. Failure to do so and to continue construction shall make the contractor responsible for all errors and necessary corrections that may subsequently arise.

- 1. The contractor shall comply with all federal, state and local laws and all regulations controlling pollution of the environment.
- 2. The contractor shall develop and implement a stormwater pollution prevention plan (SWPPP) according to EPA/FDEP NPDES criteria to minimize erosion and insure proper functioning of storm water management system upon completion of construction. In addition to meeting EPA/FDEP NPDES criteria, the SWPPP shall be submitted to and comply with local agency having jurisdiction's minimum erosion control criteria.
- 3. Contractor shall execute all measures necessary to limit the transportation of sediments outside the limits of the project to the volume and amount as those that exist prior to commencement of construction. This condition must be satisfied until project is fully completed and accepted. Contractor shall provide routine maintenance on temporary erosion control features at his expense. Provision must be made to preserve the integrity and capacity of check weirs, sediment basins, slope drains, grading patterns, etc. Required to meet this provision throughout out the life of construction. Contractor shall provide synthetic hay bales, silt barriers, muraft filters, temporary grassing, etc., as required to fully comply with the intent of this specification. Contractor shall provide continuous monitoring of erosion and sediment controls taken and shall document all corrective measures. A copy of the approved SWPPP shall be kept on site at all times for review by owner's representative and by NPDES inspectors.
- 4. The owner and/or contractor shall provide a notice of intent in accordance with criteria set forth in the NPDES permit requirements 48 hours prior to beginning construction, clearing, or demolition.
- 5. Provide effective temporary and permanent erosion control following the requirements in FDOT INDEX NO. 104 and 105 of the Florida Department of Transportation Design Standards and Specifications (current edition).
- 6. Inlets and catch basins shall be protected from sedimentation resulting from surface runoff until completion of all construction operation that may cause sediment runoff. Filter fabric shall be placed and maintained under the grate and filter socks placed in front of the throat of curb inlets, during construction.
- 7. Turbidity barriers must be installed at all locations where the possibility of transferring sediments and suspended solids into the receiving water body exists due to construction. Turbidity barriers shall remain in place until construction is completed, soils are stabilized and vegetation has been established.

DEMOLITION AND CLEARING

- 1. Prior to construction, the contractor shall clearly designate the limits of construction on-site. The contractor shall not perform any work outside the limits of construction.
- 2. The contractor shall be extremely cautious when working near trees that are to be saved, whether shown in the plans or designated in the field.
- 3. All practical and necessary effort shall be taken during construction to prevent unnecessary tree removal.
- 4. Any proposed cut or fill material to be removed or placed within the drip line of specimen trees to remain, including trenching for proposed improvements such as utilities, will require the advanced pre-treatment of each impacted tree by a qualified arborist or at the direction of the landscape architect to minimize the potentially adverse impacts of construction.
- 5. Tree protection barricades or equivalent protective measures will be constructed according to the local jurisdiction's criteria for trees to remain within the limits of construction.
- 6. In areas requiring fill material, the contractor shall strip or otherwise remove all vegetation such as brush, heavy sods, heavy growth of grass, decayed vegetation matter, rubbish and any other deleterious material before embankment is placed. Immediately prior to the placing of fill material, the entire area upon which fill is to be placed, shall be scarified in a direction approximately parallel to the axis of fill. The geotechnical engineer shall approve the area prior to the placement of fill.

PAVING, GRADING & DRAINAGE

- 1. The contractor shall perform all work pertaining to drainage including excavation of stormwater management ponds or equivalent facilities prior to the commencement of other work included in these plans.
- 2. The contractor shall stake all improvements using the record plat. The contractor shall verify with the engineer that the plat is correct prior to any construction. If a plat does not exist, contractor is to verify use of the survey for layout with engineer prior to starting work. It is the contractor's responsibility to completely stake and check all improvements to insure correct positioning, both horizontal and vertical, including minimum building setbacks prior to the installation of any improvement. Any discrepancy between platted information and the plans shall be reported to the engineer immediately and in writing.
- 3. Prior to initiating any excavation (including but not limited to tunnels, ditches, storm water ponds, canals, artificial lakes) contractor shall install fences and take all other reasonable and prudent steps to insure that access to excavation by unauthorized personnel is prevented.
- 4. All drainage structures are to be traffic bearing unless otherwise noted. All precast circular structures shall be constructed with a minimum 5-inch wall thickness.
- 5. All proposed paving surfaces in intersections and adjacent existing sections shall be graded to drain positively in the direction shown by the proposed grades and flow arrows on the plans and to provide a smoothly transitioned driving surface for vehicles with no sharp breaks in grade, and no unusually steep or reverse cross slopes. Approaches to intersections and entrance and exit grades to intersections may require minor local field adjustments should actual conditions vary from the surveyed information the design was based upon in order to accomplish the intent of the plans. In addition, the standard crown will have to be changed in order to drain positively in the area of intersections. It is the contractor's responsibility to accomplish the above and consult the engineer as needed to make any and all required interpretations of the plans or give supplementary instructions should the intent of the plans be unclear.
- 6. Construction of roadways shall meet the minimum standards and specifications of the local agency(s) having jurisdiction and the minimum suggested sections as outlined in the soils report's recommendations, unless otherwise noted.
- 7. The contractor is responsible for removing any excess cuts or supplying fill as necessary to grade the site to the proposed elevations as shown on the construction documents.
- 8. If limestone bedrock is encountered during excavation of the site, or a sinkhole or solution cavity forms during construction, excavation of the basin must be halted immediately, the owner, engineer, and water management district must

- be notified, and remedial action will be required. The permittee must inspect all permitted surface water management basins monthly for the occurrence of sinkholes and document these inspections on water management district condition compliance form number EN-33. Two copies of the completed forms must be sent to the water management district and the local agency having jurisdiction annually by May 31st. of each year. The permittee must report any sinkhole that develops within the surface water management system. The permittee must notify the water management district and local agency having jurisdiction of any sinkhole development in the surface water management system within 48 hours of its discovery and complete sinkhole repair within 10 days of such discovery using a district approved methodology.
- 9. After the roadway has been constructed to subgrade, it shall be proof-rolled to assure that proper compaction has been attained. The proof-rolling and compaction operations shall be inspected and tested by a Florida licensed geotechnical engineer to assure that the specified compaction is maintained and all deleterious materials have been removed.
- 10. The contractor shall insure that a minimum soil density of 98% compaction is achieved unless otherwise noted for placement of all headwall/endlwall footings, retaining wall footings, and in general, any footing support described on these plans. It will also be the responsibility of the contractor to insure that sufficient geotechnical testing and design has been performed prior to construction.
- 11. Blue reflective pavement markers shall be placed in the center of the driving lane opposite each fire hydrant.
- 12. Storm pipe lengths shown on the plans include mitered end sections. If the contractor elects to use an approved alternate, the pipe lengths must be adjusted.
- 13. Inlet offsets are to the centerlines shown on F.D.O.T. design standards indexes.
- 14. The contractor is responsible for paving all roadways to drain positively. Intersections shall be transitioned to provide a smooth driving surface while maintaining positive drainage. If an area of poor drainage is observed, the contractor shall notify the engineer prior to paving. All reinforced concrete pipe (R.C.P.) shall be minimum Class III, unless otherwise approved or noted on the plans or specifications, so that a solution or recommendation for correction may be made.
- 15. All reinforced concrete pipe (R.C.P.) shall be minimum Class III, unless otherwise approved or noted on the plans or specifications.
- 16. All stormwater pipe joints shall be wrapped with filter fabric.

PUBLIC RIGHTS-OF-WAY

- 1. The contractor shall coordinate all work within public rights-of-way with the respective local agency(s) having jurisdiction (city or county) Director of Public Works and the jurisdiction's engineer. In addition, any work within a state road right-of-way must be approved and coordinated with the FDOT through the local maintenance office for each district.
- 2. Prior to performing any work within any public or utility right-of-way, contractor shall obtain authorization and permit from all jurisdictions responsible for such right-of-way.
- 3. Prior to performing any work within any public right-of-way, contractor shall develop and submit a maintenance of traffic plan to the local agency having jurisdiction over said ROW for their approval. This plan must meet the minimum requirements as outlined in the "Manual On Uniform Traffic Control Devices" published by the U.S. Department of Transportation, Federal Highway Administration and the Florida Department Of Transportation Index 600; specifically 601, 602 and 603.

UTILITIES

- 1. The existing utilities shown are approximate. The contractor shall field locate all existing utilities as to size, location, and elevation. The contractor shall notify the engineer of any and all conflicts prior to beginning construction.
- 2. The contractor shall be responsible for locating and verifying size, type, location, and elevation of all existing utilities prior to construction and notifying the involved utility providers to make any necessary arrangements for relocation, disruption of service, or clarification of activity regarding said utility. The contractor shall use extreme caution when crossing an underground utility, whether shown on these plans or field located. The respective utility providers shall relocate utilities that interfere with the proposed construction and the contractor shall cooperate with the utility providers during relocation operations. Any delay or inconvenience caused by the involved utilities shall be incidental to the contract. The contractor shall conform to Florida Statute Chapter 556 and the Sunshine State One-Call of Florida.
- 3. Contractor shall notify all utility owners and the Sunshine Underground Utilities Notification Center at 1-800-432-4770 at least 72 hours prior to start of work. Contractor is responsible for continual maintenance of all utility locates, flags, marking, et cetera through the entire duration of construction.
- 4. Utility services to the proposed building(s) shall terminate 5 feet outside of the building unless otherwise noted. Prior to construction, the contractor shall review building architectural and plumbing plans to verify proper continuation of the proposed utilities for location, alignment and elevation(s) for each service to the building(s). Should utility service laterals shown on the site civil construction plans not correspond with building architectural or plumbing plans the contractor shall notify the engineer immediately.
- 5. The power distribution system shall be designed and installed by the power service provider. The contractor shall coordinate with said power service provider to insure proper construction phasing is achieved, and to allow the installation of street crossings, sleeves, conduits, poles, transformers, and other required equipment. It is the owner's responsibility to acquire any necessary easements as a result of the power service provider's design and respective installation locations.
- 6. The telephone, cable TV, data, and/or communication systems shall be designed and installed by their respective service provider. The contractor shall coordinate with said service provider to insure proper construction phasing is achieved, conflict free, and to allow the installation of street crossings, sleeves, conduits, poles, and other required equipment. It is the owner's responsibility to acquire any necessary easements as a result of the service providers' designs and respective installation locations.
- 7. It is the contractor's responsibility to properly coordinate the final designs and subsequent installations of all service providers' utilities and their minimum criteria as set forth therein for items such as maintaining the minimum separation distances between the various utilities.
- 8. Unless otherwise noted, the top 24 inches of all utility trenches within roadways in maximum 12" lifts, shall be compacted to 98% of the modified proctor maximum density; all other utility trenches shall be compacted to 95% of the modified proctor maximum density.
- 9. The contractor shall notify the applicable utilities construction department for the corresponding local utility provided a minimum of 48 hours prior to starting any utilities construction.
- 10. Pipe alignment, deflection, and integrity testing shall be performed by the 'lapping'

POTABLE WATER

- method and utilizing video inspection. The contractor shall perform internal video inspection for the gravity sewer to check pipe alignment and deflection.
 - 11. All fire hydrants and apparatus must comply with FFPC Section 3-5.6 and Section 3-7.1 when applicable.
- POTABLE WATER**
- 1. All PVC watermains 2" or less shall be SDR21 (200 psi) unless otherwise noted.
 - 2. Water mains shall comply with AWWA standards. All PVC pipe 3 to 12 inches shall be AWWA C900 DR18; all PVC pipe 14 inches and larger shall comply with AWWA C905 DR25. All water mains shall bear the NSF logo and shall be color-coded or marked using blue as a predominant color to differentiate drinking water from other water lines.
 - 3. Where ductile iron pipe is required for water mains, it shall conform to ANSI/AWWA A21.51. A minimum thickness for pressure class 350 per ANSI/AWWA shall be supplied. Dip sizes up to 12 inches in diameter shall be pressure Class 350. Dip sizes 14 inches and larger shall be pressure Class 250.
 - 4. All water main fittings, valves, restraints, couplings, pipe, and in general, those materials required for installing the water supply system, shall comply with the minimum material standards, ratings and classifications established by the respective utility provider. All water main fittings shall be DIP for all 3" thru 12" PVC and DIP water mains conforming to the requirements of ANSI/AWWA C153/A21.53 and epoxy coated exterior, unless noted otherwise. These fittings shall incorporate restraining rings, mega-lugs or other approved equivalent mechanical devices.
 - 5. Ductile iron pipe and fittings shall have a cement mortar interior lining conforming to the requirements of ANSI/AWWA C104/A21.4.
 - 6. Valves for potable and raw water mains shall be ductile iron (D.I.) epoxy coated gate valves or butterfly valves. See specifications for details.
 - 7. All polyethylene pressure pipe and fittings 4-inch and larger shall conform to AWWA Standard C906-99 (DR11) Pressure Class 160 and ASTM Standard D3350, D2837 PE 3408.
 - 8. All polyethylene pipes for service tubing shall conform to AWWA Standard C901 (DR9) Pressure Class 200 and Standard D2737 PE 3408.
 - 9. All pipe and polyethylene service tubing shall bear the National Sanitation Foundation (NSF) seal of approval for potable water service.
 - 10. PVC pipe less than 2-inches shall conform to ASTM D1785. Threaded pipe and fittings shall be Sch. 80 and conform to ASTM D2464. Unthreaded pipe and fittings shall be Sch. 40 with solvent-cemented joints. Cemented joints and fittings shall comply with ASTM D2466 and D2855.
 - 11. 2", 21/2" and 3" PVC pipe shall conform to ASTM D2241. Pipe shall be furnished in 20-foot lengths, shall have dimension ratio (DR21) and a water pressure rating of 200 psi.
 - 12. Pipe measurements shall be center to center of fittings or valves.
 - 13. Contractor shall provide temporary thrust restraints, bracing, test plugs and/or other devices necessary to successfully complete pressure testing of all pressure piping systems, ancillary to the work.
 - 14. Automatic air release/vacuum air release valves for underground instillation shall conform with 62-555.320(2)(b)FAC & RSWW 8.4.2.
 - 15. All buried piping specified for pressure service shall be provided with restraining devices at all directional changes, unless noted otherwise.
 - 16. All fasteners shall be manufactured of non-corrosive materials.
 - 17. Locations and dimensions of existing rights-of-way and easements are based on the best available information. The contractor shall verify all the limits of rights-of-way and easements in order to avoid encroachments.
 - 18. The contractor shall repair or replace with equal materials in kind or as directed by the owner or inspector any items disturbed or damaged by the utility construction or its related activities for items such as but not limited to, paving, stabilized earth, driveways, etc.
 - 19. Contractor shall paint the hydrants according to fire department requirements.
 - 20. Where applicable fire hydrants shall be installed within the ROW.
 - 21. Proper backflow prevention assemblies shall be provided in accordance with Rule 62-555.360, F.A.C. and AWWA Manual M14, "Recommended Practice for Backflow Prevention And Cross Connection Control" (latest editions) as incorporated in rule 62-555-330 FAC. The method of connection to the existing active main should be chosen to ensure that the pressure does not drop below 20psi otherwise a boil water notice is required to be issued by the utility supplying the water.
 - 22. Contractor shall coordinate with agency having jurisdiction and water service provider to have water samples taken at locations as specified by their minimum standards and as outlined in the Florida Department Of Environmental Protection permit for construction of the water distribution system (if permit is required). Documentation of the minimum testing results such as bacteriological reports with residual CL levels shall be submitted to the engineer within 4 days from the day of sample. It is the contractor's responsibility to review and verify the results as passing prior to submittal to the engineer.
 - 23. All water mains shall be hydrostatically tested and disinfected in accordance with AWWA Standards, latest revisions. Hydrostatic testing for PVC mains shall be 150 psi for minimum of 2 hours and meet AWWA Standard C605/M23. Ductile iron mains shall be tested at 150 psi for 2 hours per AWWA C600. All new mains shall be disinfected per AWWA Standard C651. Bacteriological tests for 2 consecutive days shall be approved prior to placing system into service.
 - 24. All water mains shall have an "Early Warning" protection tape installed continuously along the entire length. The protection tape shall be installed during the backfilling 6 to 12 inches below finish grade directly over the pipe and be continuously marked with "Caution - Water Main Buried Below". The tape shall have an embedded metallic detectable strip and be blue in color for potable water.
 - 25. The contractor shall submit shop drawings on all equipment and materials for approval to the engineer and water service provider prior to procurement.



Dewberry Engineers Inc. 800 NORTH MAGNOLIA AVE SUITE 1000 ORLANDO, FL 32803 PHONE: 407.343.5130 ENGINEERING BUSINESS -8794

Self Help Credit Union 667 W. Orange Blossom Trail (Minor) Final Development CITY OF APOPKA, FLORIDA

SEAL

Christopher J. Allen FL PE # 77719 Jan 30, 2018

KEY PLAN

SCALE NORTH

Table with 4 columns: No., DATE, BY, Description

REVISIONS

DRAWN BY GL

APPROVED BY RM

CHECKED BY CJA

DATE 08-14-2017

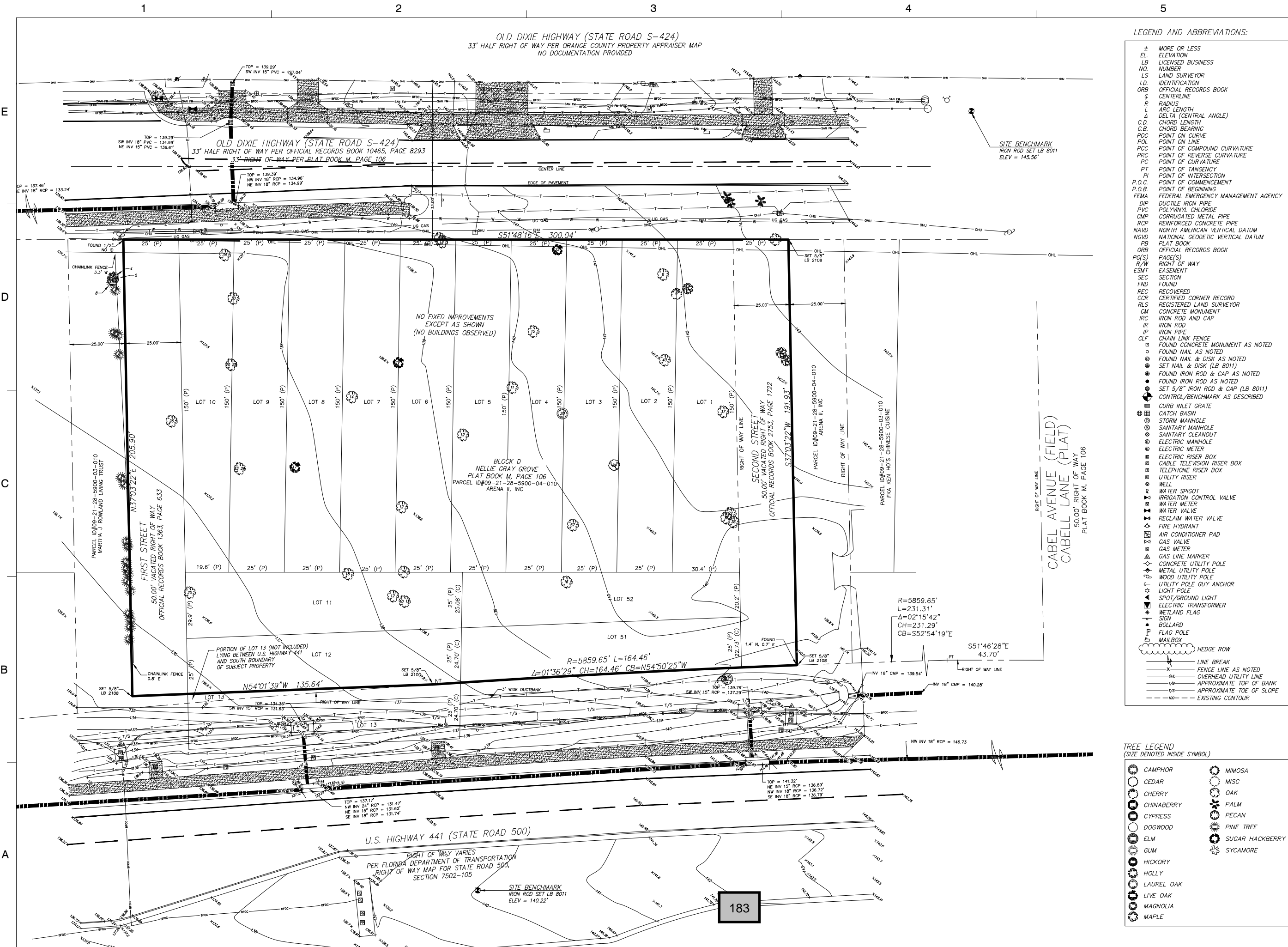
TITLE

PROJECT NO. 50094806 [CRUN1]

SHEET NO.



C-01



OLD DIXIE HIGHWAY (STATE ROAD S-424)
33' HALF RIGHT OF WAY PER ORANGE COUNTY PROPERTY APPRAISER MAP
NO DOCUMENTATION PROVIDED

OLD DIXIE HIGHWAY (STATE ROAD S-424)
33' HALF RIGHT OF WAY PER OFFICIAL RECORDS BOOK 10465, PAGE 8293
33' RIGHT OF WAY PER PLAT BOOK M, PAGE 106

SITE BENCHMARK
IRON ROD SET LB 8011
ELEV = 145.56'

NO FIXED IMPROVEMENTS
EXCEPT AS SHOWN
(NO BUILDINGS OBSERVED)

BLOCK D
NELLIE GRAY GROVE
PLAT BOOK M, PAGE 106
PARCEL ID#09-21-28-5900-04-010
ARENA II, INC

SECOND STREET
50.00' VACATED RIGHT OF WAY
OFFICIAL RECORDS BOOK 2753, PAGE 1722

CABEL AVENUE (FIELD)
CABELL LANE (PLAT)
50.00' RIGHT OF WAY
PLAT BOOK M, PAGE 106

R=5859.65'
L=231.31'
Δ=02°15'42"
CH=231.29'
CB=S52°54'19"E

R=5859.65' L=164.46'
Δ=01°36'29" CH=164.46' CB=N54°50'25"W

PORTION OF LOT 13 (NOT INCLUDED)
LYING BETWEEN U.S. HIGHWAY 441
AND SOUTH BOUNDARY
OF SUBJECT PROPERTY

U.S. HIGHWAY 441 (STATE ROAD 500)

RIGHT OF WAY VARIES
PER FLORIDA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY MAP FOR STATE ROAD 500,
SECTION 7502-105

SITE BENCHMARK
IRON ROD SET LB 8011
ELEV = 140.22'

183

LEGEND AND ABBREVIATIONS:

- ± MORE OR LESS
- EL. ELEVATION
- LB LICENSED BUSINESS
- NO. NUMBER
- LS. LAND SURVEYOR
- ID. IDENTIFICATION
- ORB OFFICIAL RECORDS BOOK
- C CENTERLINE
- R RADIUS
- L ARC LENGTH
- Δ DELTA (CENTRAL ANGLE)
- C.D. CHORD LENGTH
- C.B. CHORD BEARING
- P.O.C. POINT OF CURVATURE
- P.O.L. POINT ON LINE
- P.C.C. POINT OF COMPOUND CURVATURE
- P.R.C. POINT OF REVERSE CURVATURE
- P.C. POINT OF CURVATURE
- P.T. POINT OF TANGENCY
- P.I. POINT OF INTERSECTION
- P.O.C. POINT OF COMMENCEMENT
- P.O.B. POINT OF BEGINNING
- FEMA FEDERAL EMERGENCY MANAGEMENT AGENCY
- DIP DUCTILE IRON PIPE
- PVC POLYVINYL CHLORIDE
- CMP CORRUGATED METAL PIPE
- RCP REINFORCED CONCRETE PIPE
- NAVD NORTH AMERICAN VERTICAL DATUM
- NGVD NATIONAL GEODETIC VERTICAL DATUM
- PB PLAT BOOK
- ORB OFFICIAL RECORDS BOOK
- PG(S) PAGE(S)
- R/W RIGHT OF WAY
- ESMT EASEMENT
- SEC SECTION
- FND FOUND
- REC RECOVERED
- CCR CERTIFIED CORNER RECORD
- RLS REGISTERED LAND SURVEYOR
- CM CONCRETE MONUMENT
- IRC IRON ROD AND CAP
- IR IRON ROD
- IP IRON PIPE
- CLF CHAIN LINK FENCE
- FOUND CONCRETE MONUMENT AS NOTED
- FOUND NAIL AS NOTED
- ⊙ FOUND NAIL & DISK AS NOTED
- ⊙ SET NAIL & DISK (LB 8011)
- ⊙ FOUND IRON ROD & CAP AS NOTED
- ⊙ FOUND IRON ROD AS NOTED
- ⊙ SET 5/8" IRON ROD & CAP (LB 8011)
- ⊙ CONTROL/BENCHMARK AS DESCRIBED
- ⊙ CURB INLET GRATE
- ⊙ CATCH BASIN
- ⊙ STORM MANHOLE
- ⊙ SANITARY MANHOLE
- ⊙ SANITARY CLEANOUT
- ⊙ ELECTRIC MANHOLE
- ⊙ ELECTRIC METER
- ⊙ ELECTRIC RISER BOX
- ⊙ CABLE TELEVISION RISER BOX
- ⊙ TELEPHONE RISER BOX
- ⊙ UTILITY RISER
- ⊙ WELL
- ⊙ WATER SPIGOT
- ⊙ IRRIGATION CONTROL VALVE
- ⊙ WATER METER
- ⊙ WATER VALVE
- ⊙ RECLAIM WATER VALVE
- ⊙ FIRE HYDRANT
- ⊙ AIR CONDITIONER PAD
- ⊙ GAS VALVE
- ⊙ GAS METER
- ⊙ GAS LINE MARKER
- ⊙ CONCRETE UTILITY POLE
- ⊙ METAL UTILITY POLE
- ⊙ WOOD UTILITY POLE
- ⊙ UTILITY POLE GUY ANCHOR
- ⊙ LIGHT POLE
- ⊙ SPOT/GROUND LIGHT
- ⊙ ELECTRIC TRANSFORMER
- ⊙ WETLAND FLAG
- ⊙ SIGN
- ⊙ BOLLARD
- ⊙ FLAG POLE
- ⊙ MAILBOX
- ⊙ HEDGE ROW
- LINE BREAK
- FENCE LINE AS NOTED
- OVERHEAD UTILITY LINE
- APPROXIMATE TOP OF BANK
- APPROXIMATE TOE OF SLOPE
- EXISTING CONTOUR

TREE LEGEND
(SIZE DENOTED INSIDE SYMBOL)

- ⊙ CAMPHOR
- ⊙ CEDAR
- ⊙ CHERRY
- ⊙ CHINABERRY
- ⊙ CYPRESS
- ⊙ DOGWOOD
- ⊙ ELM
- ⊙ GUM
- ⊙ HICKORY
- ⊙ HOLLY
- ⊙ LAUREL OAK
- ⊙ LIVE OAK
- ⊙ MAGNOLIA
- ⊙ MAPLE
- ⊙ MIMOSA
- ⊙ MISC
- ⊙ OAK
- ⊙ PALM
- ⊙ PECAN
- ⊙ PINE TREE
- ⊙ SUGAR HACKBERRY
- ⊙ SYCAMORE



Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS - 8794

Self Help Credit Union
667 W. Orange Blossom Trail
(Minor) Final Development
CITY OF APOPKA, FLORIDA

SEAL
Christopher J. Allen
FL PE # 77719
Jan 30, 2016

KEY PLAN

SCALE NORTH
0' 10' 20' 40'

No.	DATE	BY	Description

REVISIONS
DRAWN BY _____ GL
APPROVED BY _____ RM
CHECKED BY _____ CJA
DATE _____ 08-14-2017
TITLE

EXISTING CONDITIONS

PROJECT NO. 50094806 [CRUN1]

C-03

SHEET NO.

SEAL

KEY PLAN

SCALE NORTH

0' 10' 20' 40'

No.	DATE	BY	Description

REVISIONS

DRAWN BY _____ GL

APPROVED BY _____ RM

CHECKED BY _____ CJA

DATE _____ 08-14-2017

TITLE

SITE AND GEOMETRY PLAN

PROJECT NO. 50094806 [CRUN1]

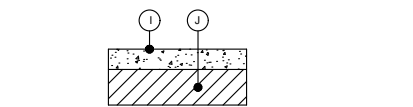
C-04

SHEET NO.

SITE DATA

1. PARCEL NUMBER 09-21-28-5900-04-010
2. PROJECT LOCATION 667 W. ORANGE BLOSSOM TRAIL
3. EXISTING LAND USE VACANT
4. PROPOSED LAND USE DRIVE THRU BANK
5. EXISTING ZONING C2
6. EXISTING FUTURE LAND-USE COMMERCIAL
7. CURRENT VEGETATION TREES AND GRASS
8. FLOOD INFORMATION ZONE 'X'
(PER MAP No.12095C0120F, SEP. 25, 2009)
9. SETBACKS
FRONT: 10'
SIDE: 10'
REAR: 50' (FROM CENTER LINE OF ROAD OLD DIXIE HWY.)
10. TOTAL PROJECT AREA 1.37 AC (59,765 SF)
11. EXISTING IMPERVIOUS 0.00 SF
12. PROPOSED IMPERVIOUS 27,123 SF (45.4%)
BUILDING: 2,320.0 SF
POND: 7,405 SF (12.4%)
OPEN SPACE: 25,237 SF (42.2%)
FAR 0.039
13. PARKING
REQUIRED (1 SPACE PER 200 SF)
DRIVE-THRU BANK: 2,320 SF / 200 = 13 PARKING SPACES.
PROVIDED PARKING SPACES ON SITE = 21 (INCLUDING 2 HANDICAP)
14. FIRE PROTECTION TO BE PROVIDED VIA EXISTING FIRE HYDRANT
15. DUMPSTER PROVIDED ON SITE FOR REFUSE COLLECTION
16. POTABLE WATER PROVIDED BY CITY OF APOPKA UTILITIES
17. SANITARY SEWER PROVIDED BY CITY OF APOPKA UTILITIES
18. NOISE FROM DRIVE THROUGH SPEAKERS SHALL NOT CROSS PARCEL LINES
19. ALL CROSS ACCESS EASEMENT DOCUMENTS MUST BE ACCEPTED BY THE CITY ENGINEER AND RECORDED PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY

PROPOSED ASPHALT PAVEMENT



- (A) 1.5" FDOT TYPE SP 9.5 ASPHALTIC WEARING SURFACE
- (B) 8" LIMEROCK OR CRUSHED CONCRETEBASE 98% MODIFIED PROCTOR MAXIMUM DRY DENSITY, (AASHTO T-180) LBR OF AT LEAST 100.
- (C) 12" SUBBASE STABILIZED TO MINIMUM 98% OF THE MODIFIED PROCTOR (AASHTO T-180) TO YIELD A MINIMUM LBR = 40.

PROPOSED CONCRETE PAVEMENT

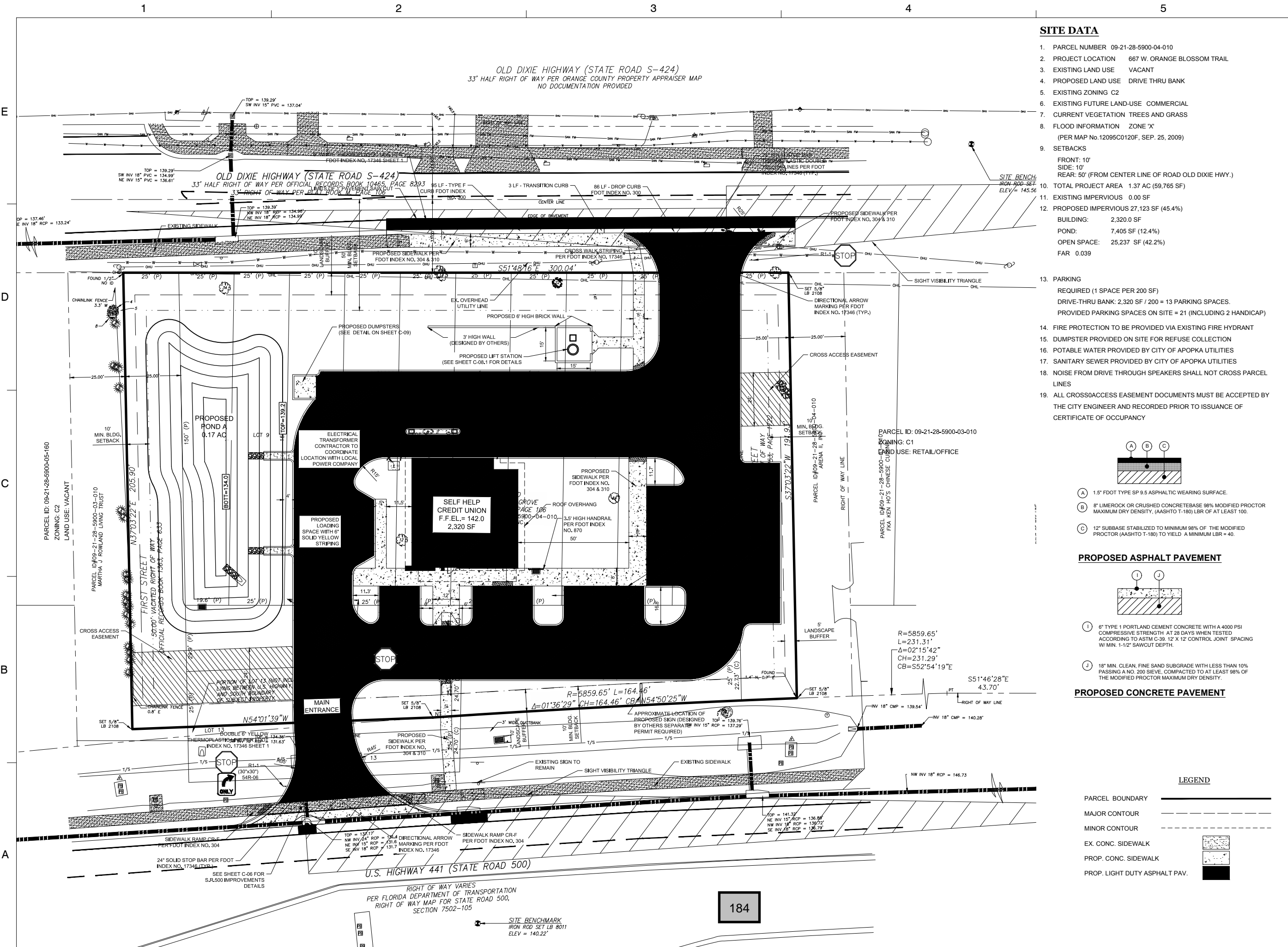


- (I) 6" TYPE 1 PORTLAND CEMENT CONCRETE WITH A 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS WHEN TESTED ACCORDING TO ASTM C-39. 12" X 12" CONTROL JOINT SPACING W/ MIN. 1-1/2" SAWCUT DEPTH.
- (J) 18" MIN. CLEAN, FINE SAND SUBGRADE WITH LESS THAN 10% PASSING A NO. 200 SIEVE, COMPACTED TO AT LEAST 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.

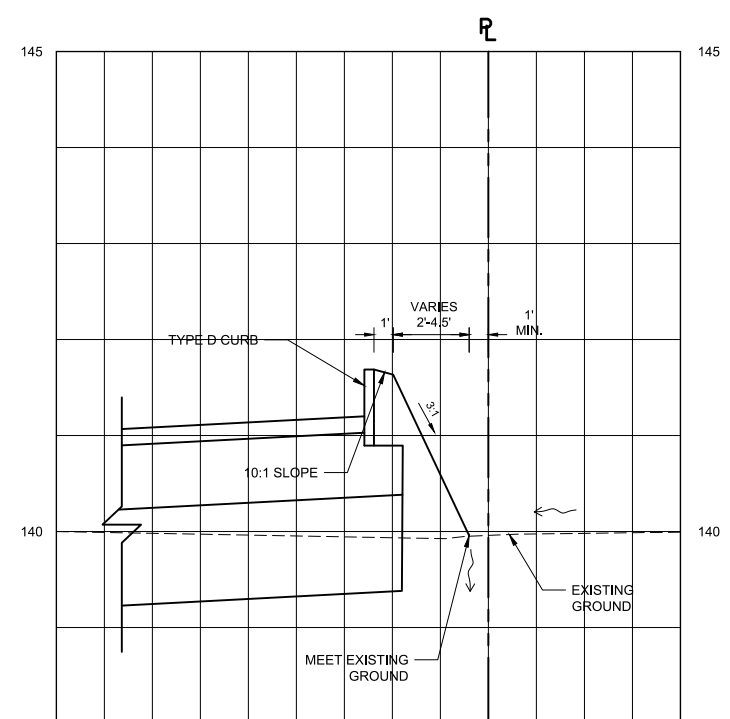
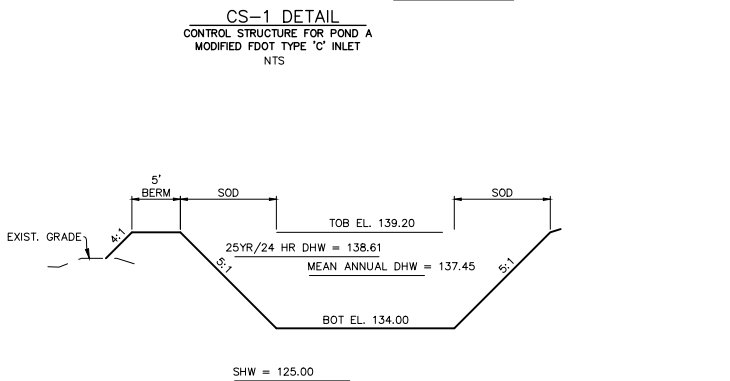
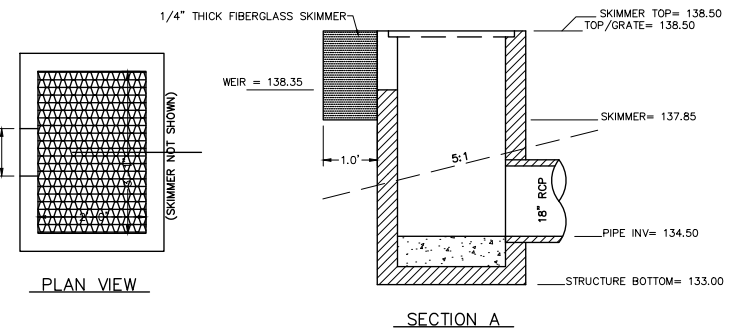
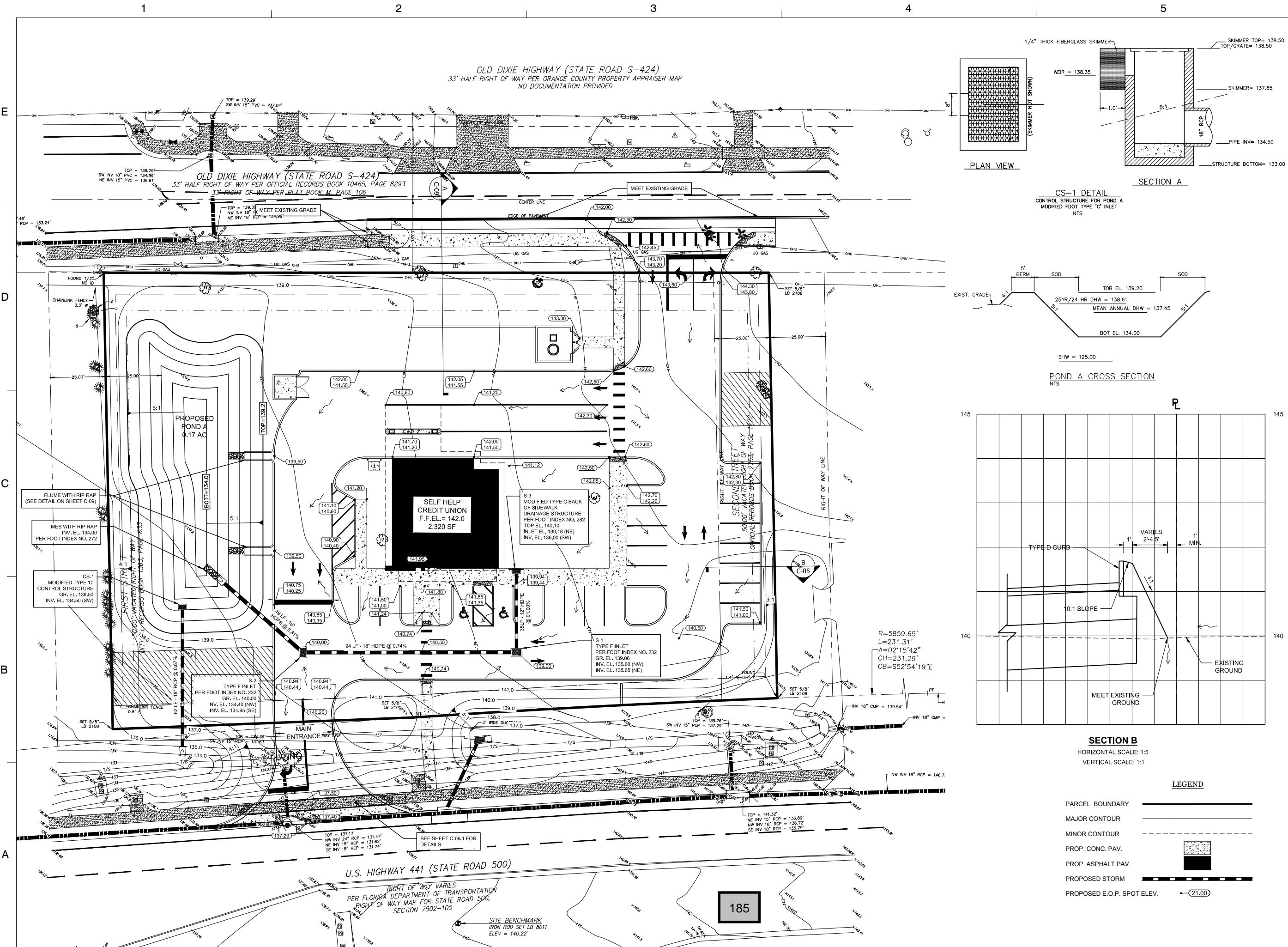
LEGEND

- PARCEL BOUNDARY
- MAJOR CONTOUR
- MINOR CONTOUR
- EX. CONC. SIDEWALK
- PROP. CONC. SIDEWALK
- PROP. LIGHT DUTY ASPHALT PAV.

OLD DIXIE HIGHWAY (STATE ROAD S-424)
33' HALF RIGHT OF WAY PER ORANGE COUNTY PROPERTY APPRAISER MAP
NO DOCUMENTATION PROVIDED



OLD DIXIE HIGHWAY (STATE ROAD S-424)
33' HALF RIGHT OF WAY PER ORANGE COUNTY PROPERTY APPRAISER MAP
NO DOCUMENTATION PROVIDED



SECTION B
HORIZONTAL SCALE: 1:5
VERTICAL SCALE: 1:1

- LEGEND**
- PARCEL BOUNDARY ———
 - MAJOR CONTOUR ———
 - MINOR CONTOUR - - - - -
 - PROP. CONC. PAV. [Pattern]
 - PROP. ASPHALT PAV. [Pattern]
 - PROPOSED STORM [Pattern]
 - PROPOSED E.O.P. SPOT ELEV. (21.00)

SEAL

KEY PLAN

SCALE

NORTH

No.	DATE	BY	Description

DRAWN BY: _____ GL

APPROVED BY: _____ RM

CHECKED BY: _____ CJA

DATE: _____ 08-14-2017

TITLE

**PAVING, GRADING
AND DRAINAGE
PLAN**

PROJECT NO. 50094806 [CRUN1]

C-05

SHEET NO.

SEAL

Christopher J. Allen
FL PE # 77719
Jan 30, 2018

KEY PLAN

SCALE NORTH

0' 5' 10' 20'

No.	DATE	BY	Description

REVISIONS

DRAWN BY: _____ GL

APPROVED BY: _____ RM

CHECKED BY: _____ CJA

DATE: _____ 08-14-2017

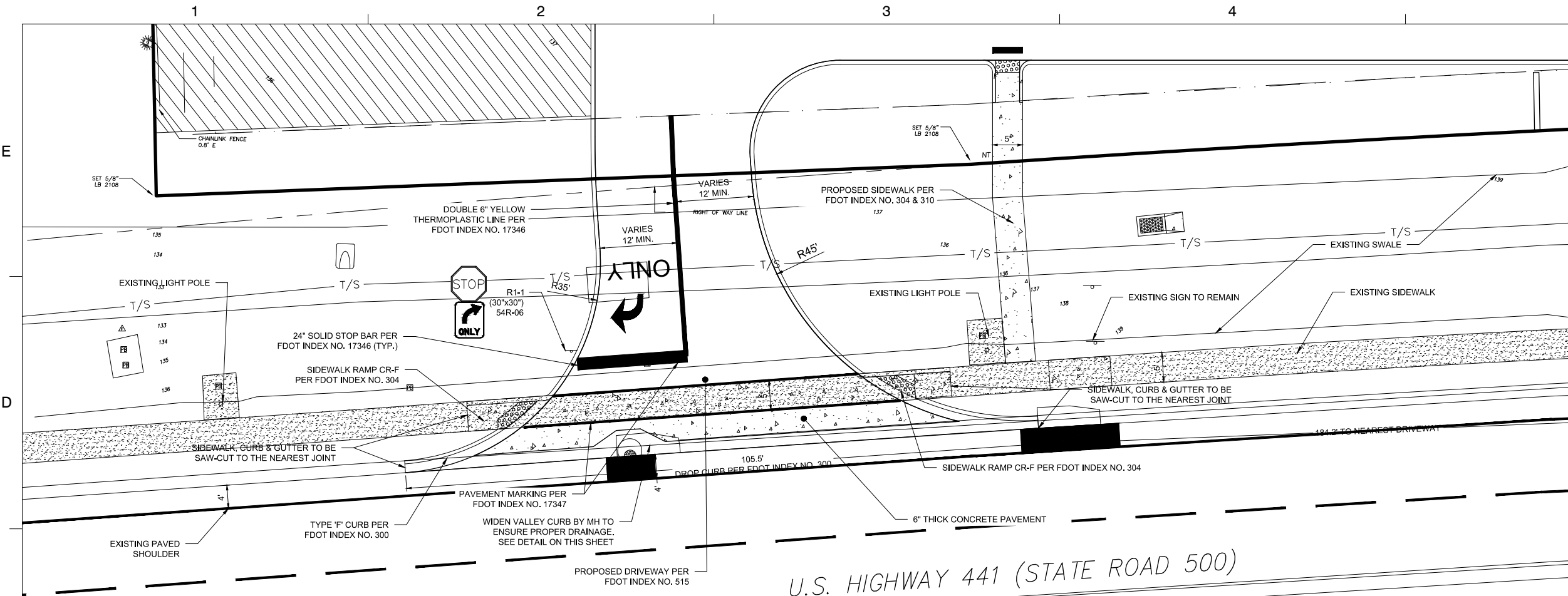
TITLE

S.R. 500
IMPROVEMENTS
PLAN

PROJECT NO. 50094806 [CRUN1]

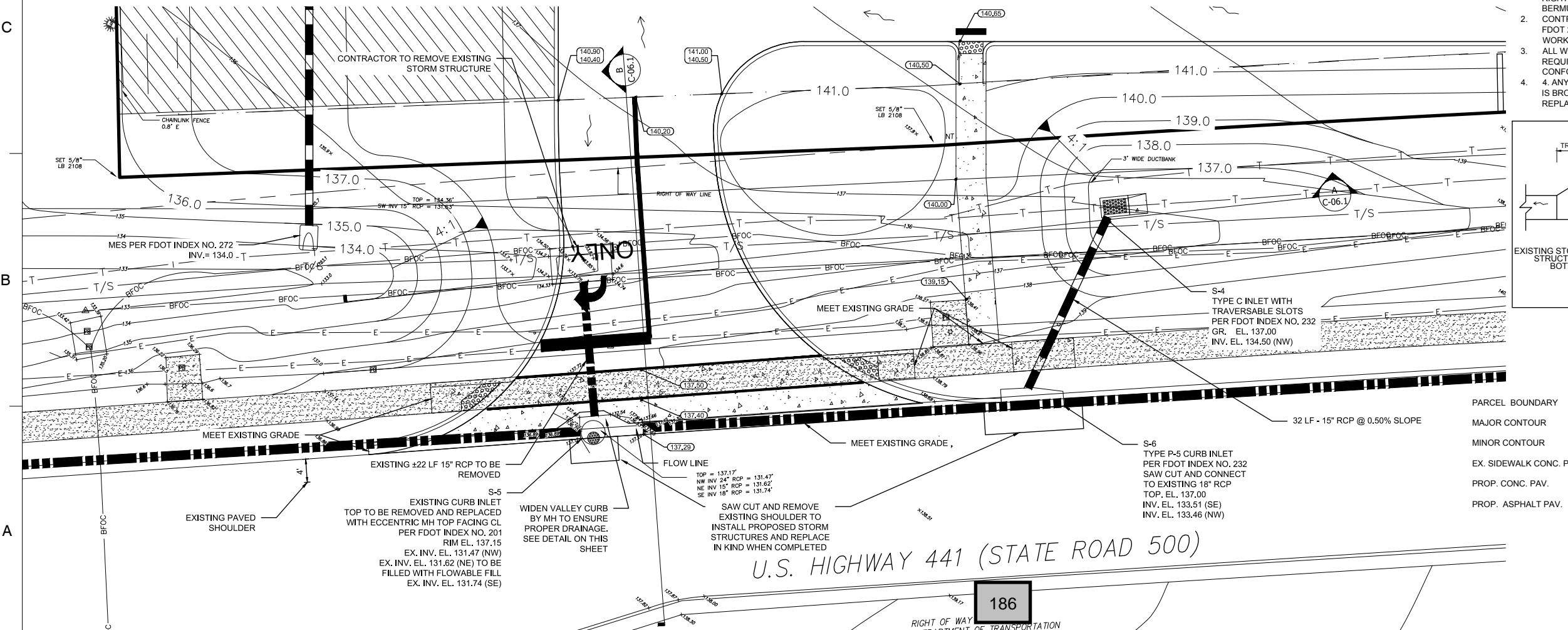
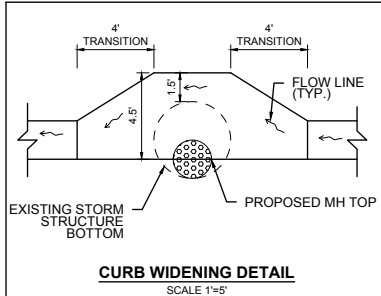
C-06

SHEET NO.



PAVEMENT MARKING AND SIGNAGE PLAN

1. ALL DISTURBED AREAS WITHIN THE FDOT RIGHT-OF-WAY SHALL BE RESTORED WITH BERMUDA GRASS PER FDOT DETAIL NO. 105.
2. CONTRACTOR SHALL REFERENCE TO THE FDOT 2016-2017 DESIGN STANDARDS FOR ALL WORK WITHIN THE FDOT RIGHT-OF-WAY.
3. ALL WORK WITHIN THE FDOT ROW SHALL REQUIRE A FDOT PERMIT AND SHALL CONFORM TO FDOT GUIDELINES.
4. ANY EXISTING SIDEWALK THAT IS BROKE OR IS BROKEN DURING CONSTRUCTION MUST BE REPLACED.

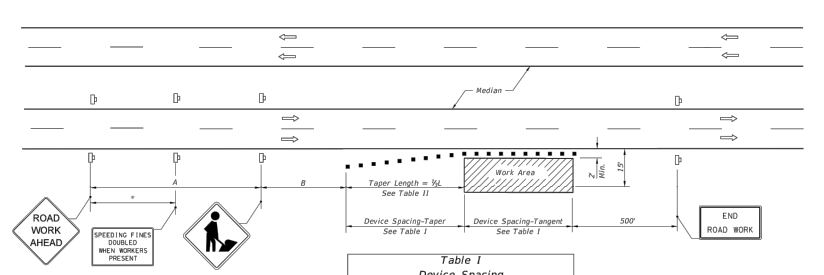


GRADING AND DRAINAGE PLAN

LEGEND

PARCEL BOUNDARY	—————
MAJOR CONTOUR	—————
MINOR CONTOUR	—————
EX. SIDEWALK CONC. PAV.	[Pattern]
PROP. CONC. PAV.	[Pattern]
PROP. ASPHALT PAV.	[Pattern]

RIGHT OF WAY PER FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP FOR STATE ROAD 500, SECTION 7502-105



**Table II
Taper Length - Shoulder**

Speed (mph)	SL (ft.)			Notes
	8'	10'	12'	
25	28	35	42	L=WS
30	40	50	60	
35	55	68	82	L=WS
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	L=WS
60	160	200	240	
65	173	217	260	L=WS
70	187	233	280	

SL = Length of shoulder taper in feet
W = Width of total shoulder in feet (combined paved and unpaved width)
S = Posted speed limit (mph)

**Table I
Device Spacing**

Speed (mph)	Cones or Tubular Markers		Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS

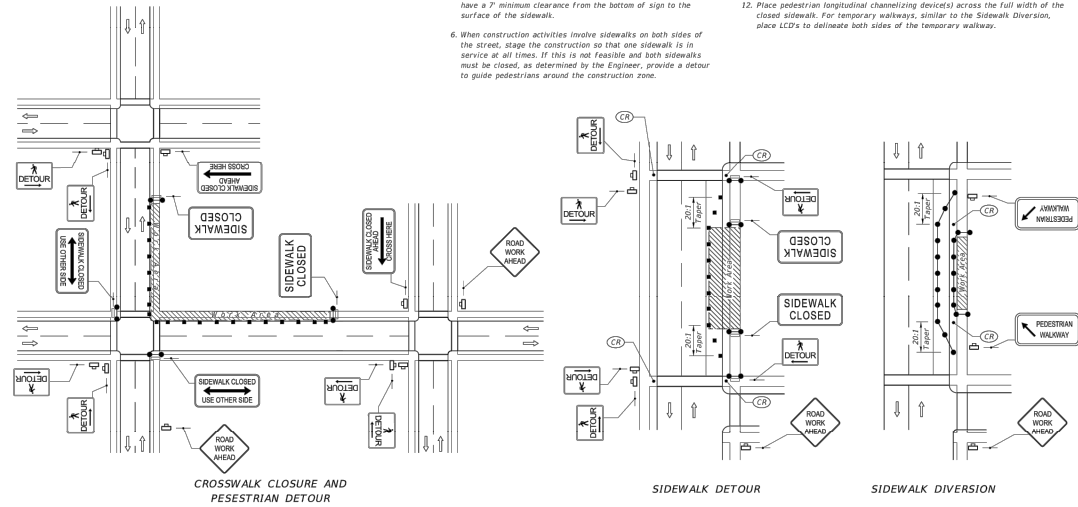
Speed	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

* 200' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

- GENERAL NOTES**
- When a high volume of work vehicles are entering and leaving the Work Area at speeds slower than 15 MPH below the posted speed, place an W17-506 sign in the ROAD WORK AHEAD sign location and shift the ROAD WORK AHEAD sign upstream 500 ft.
 - This TTC plan also applies to work performed in the median more than 2' but less than 12' from the edge of travelway.
 - When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
 - WORKERS signs to be removed or fully covered when no work is being performed.
 - SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign.
 - When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TTC indexes.
 - For general TTC requirements and additional information, refer to Index No. 600.
- DURATION NOTES**
- Signs and channelizing devices may be omitted if all of the following conditions are met:
 - Work operations are 90 minutes or less.
 - Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- CONDITIONS**
- WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRUSH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

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

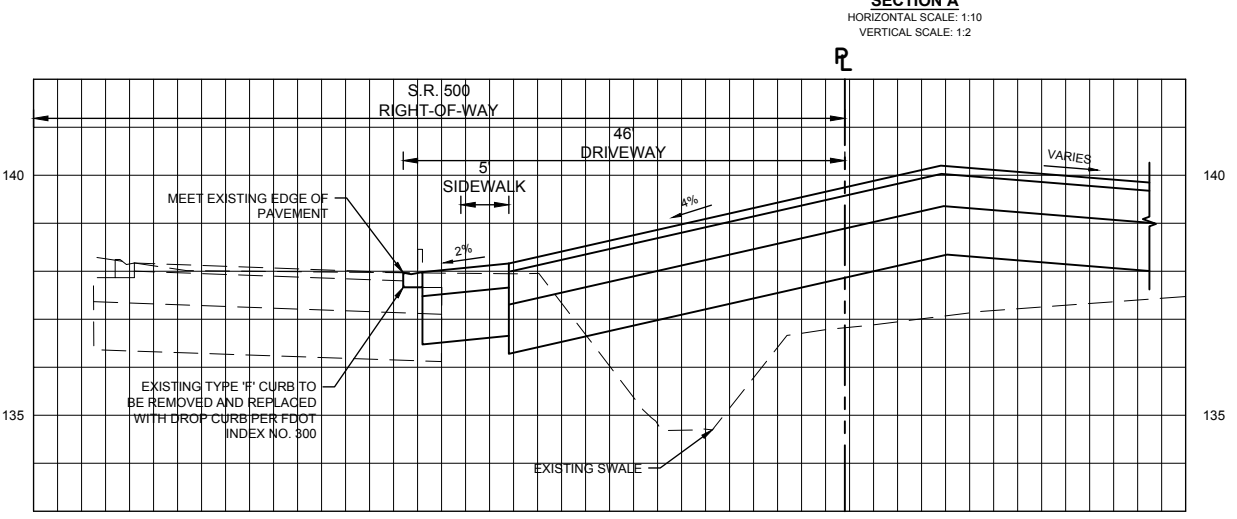
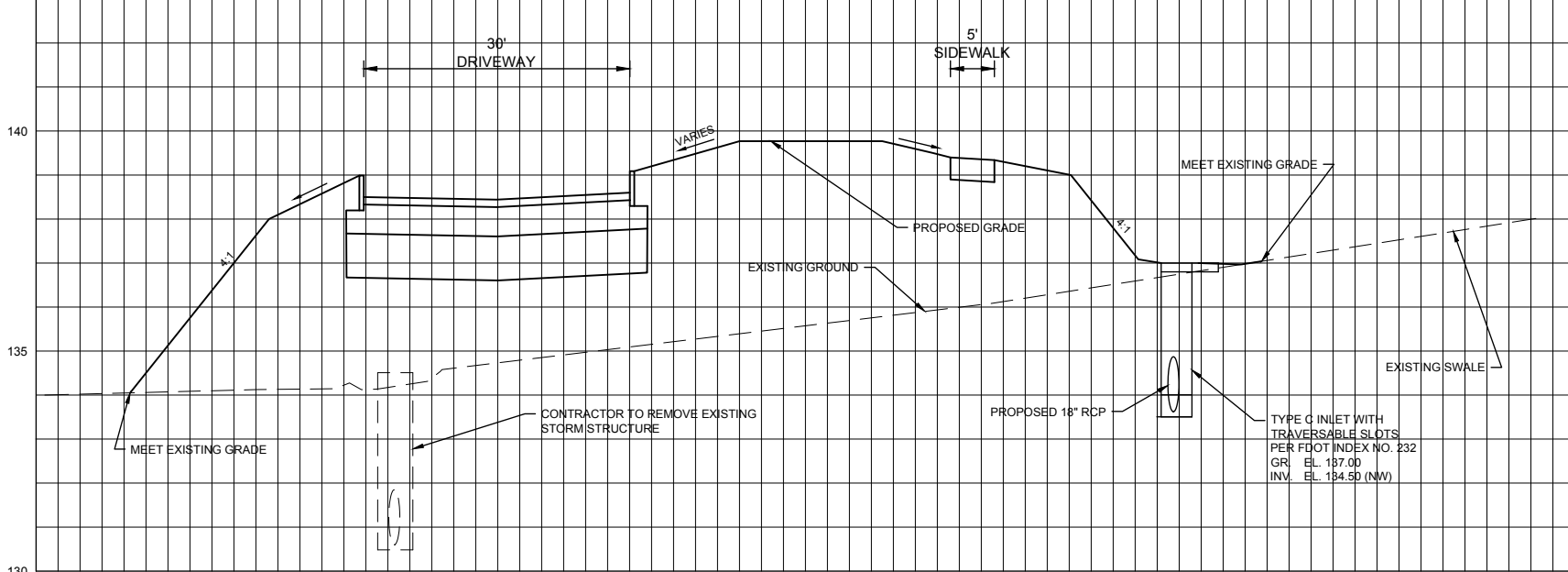
- GENERAL NOTES**
- Route pedestrian traffic around work areas when construction activities encroach on the sidewalk for more than 60 minutes using the devices and remedies shown on this Index. Use project specific designs for scenarios not included on this Index.
 - For spacing of traffic control devices and general TCZ requirements refer to Index 600. The maximum spacing between barricades, vertical panels, drums or tubular markers is 25'.
 - Use delineators on longitudinal channelizing devices separating the work area from vehicular traffic.
 - Cover or deactivate pedestrian traffic signal displays controlling closed crosswalks.
 - Post mounted signs located near or adjacent to a sidewalk must have a 7' minimum clearance from the bottom of sign to the surface of the sidewalk.
 - When construction activities involve sidewalks on both sides of the street, stage the construction so that one sidewalk is in service at all times. If this is not feasible and both sidewalks must be closed, as determined by the Engineer, provide a detour to guide pedestrians around the construction zone.
 - Provide a 5' wide temporary walkway, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary walkways less than 5' in width at intervals not to exceed 200'.
 - Provide a cross-slope with a maximum value of 0.02 for all temporary walkways.
 - Temporary walkway surfaces and ramps must be stable, firm, slip resistant, and kept free of any obstructions and hazards such as holes, debris, mud, construction equipment and stored materials.
 - Remove temporary walkways immediately after reopening of the sidewalk, unless otherwise noted in the plans.
 - Meet the requirements of Index 304 for temporary curb ramps.
 - Place pedestrian longitudinal channelizing devices across the full width of the closed sidewalk. For temporary walkways, similar to the Sidewalk Diversion, place LCDs to delineate both sides of the temporary walkway.



- F.D.O.T. NOTES**
- TRAFFIC CONTROL NOTES:**
- The maintenance of traffic for minor improvements shall be in accordance with the U.S. Department of Transportation Manual on Uniform Traffic control devices (current version) and the Florida Department of Transportation Roadway and Traffic Design Standards (current version).
 - Advance warning signs shall be installed before construction begins and shall remain throughout construction period. (see typical advance warning signs for details)
 - See Florida Department of Transportation (FDOT) Index 600 series for additional information and typical construction signing within limits of work zone.
 - Maintenance of traffic signing locations are approximate and may be varied as deemed necessary by the engineer to avoid any conflicts. minimum signing distances shall be maintained during construction.
 - Existing signs that conflict with construction signs shall be removed or covered during construction.
 - Conflicting misleading pavement markings shall be removed.
 - All existing pavement markings outside the limits of construction that have been altered because of construction operations shall be replaced in kind upon completion of the project.
 - The contractor shall comply with the drop off criteria during construction in accordance with Index 600.
 - Existing posted speed limits shall be maintained throughout the project.
 - Cost of driveway maintenance shall be included in the lump sum maintenance of traffic pay item.
 - The traffic and travel way shall not be altered by the contractor to create a work area until all labor and material are available for the construction in that area.
 - The contractor, at his own expense, may prepare an alternate traffic control plan and submit to the engineer and Santa Rosa County for approval prior to commencement of any construction.
 - The Department will review ALL lane closures, detour, and lane shift requests separately from the permit process. FDOT approval is required before commencement of work involving the closure, detour, or lane shift for work along the State highway system. If a lane closure is needed, submit a written request with proposed dates/times/MOT indices or plan. Allow at least 2 weeks in your scheduling for this special review.
 - Contractor's liability insurance and 48 hour start construction notification is required before construction begins. no construction or other access to this project via the FDOT right of way is allowed until a permit is issued.

- R.O.W. STRIPING NOTES:**
- All markings are to conform to the most current issue of FDOT standard specifications for road and bridge construction (current version) along with the most current issue of Florida Roadway and Traffic Design Standard Handbooks (current version).
 - All pavement striping and markings are to be thermoplastic with raised pavement markers where applicable to meet FDOT Standards and Specifications as appropriate.
 - Arrow spacing to conform with FDOT Index NO. 17346.
 - Temporary tape to be installed prior to darkness on day of existing markings removal. No conflicting markings permitted.
 - The signing and striping details show on these plans provide general guidelines only. the contractor will follow the current versions of FDOT Roadway and Traffic Design Standards (R.T.D.S.) and the Manual of Uniform Traffic Control Devices (M.U.T.C.D.) for additional details.
 - A 14 day pavement curing time will be provided prior to application of the pavement markings.
 - The physical construction of all signs, pavement markings, delineators, etc., are to be in conformance with FDOT standard specifications as appropriate.
 - Existing signs to be relocated and/or removed per FDOT specifications.
 - Reflective pavement markers will be installed according to the F.D.O.T.R.T.D.S. (current version), the following FDOT Index NO. is applicable : 17352.
 - Contractor is to provide flagmen, and other traffic control measures necessary to protect and facilitate traffic movement during construction.
 - The locations of all signs, striping, and pavement markings are to be delineated by the contractor by staking and applications of a light coat of temporary paint for final approval by the project engineer and Santa Rosa County as appropriate prior to final construction.
 - Existing striping designated for removal shall be milled and resurfaced in accordance with FDOT requirements and specifications, section A711-7.

LAST REVISION 01/01/16	DESCRIPTION: MULTILANE, WORK ON SHOULDER	INDEX NO. 612	SHEET NO. 1 of 1	LAST REVISION 07/01/15	DESCRIPTION: PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS	INDEX NO. 660	SHEET NO. 1 of 1
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LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND CONTACT THE UTILITY PROVIDER OWNER AND COORDINATE ANY RELOCATION IF NEEDED

APPROXIMATE LOCATION OF ELECTRICAL BURIED LINE

APPROXIMATE LOCATION OF EXISTING BURIED CABLE & TELEPHONE LINES



Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS -8794

Self Help Credit Union
667 W. Orange Blossom Trail
(Minor) Final Development
CITY OF APOPKA, FLORIDA

SEAL
Christopher J. Allen
FL PE # 77719
Jan 30, 2016

KEY PLAN
SCALE NORTH

No.	DATE	BY	Description

REVISIONS
DRAWN BY _____ GL
APPROVED BY _____ RM
CHECKED BY _____ CJA
DATE _____ 08-14-2017

TITLE
S.R. 500
IMPROVEMENTS
CROSS SECTIONS
AND NOTES

PROJECT NO. 50094806 [CRUN1]

C-06.1

SHEET NO.

SWPP / EROSION CONTROL PLAN

PROJECT NAME SELF-HELP CREDIT UNION PROJECT #: 50094806 FDEP PERMIT#: TBD SWFWMD PERMIT #: TBD

SITE PLAN

- DRAINAGE PATTERS (FLOW LINES): SEE GRADING PLANS (SHEET C-05)
- SLOPES: SEE GRADING PLANS (SHEET C-05)
- AREA DISTURBED/ AREAS NOT TO BE DISTURBED: SEE GRADING PLANS (SHEET C-05)
- LOCATION AND DETAILS OF BMPs: SEE THIS SHEET (STRUCTURAL CONTROLS SUCH AS (BUT NOT LIMITED TO) SILT FENCES OR TURBIDITY BARRIERS AND NO- STRUCTURAL CONTROLS SUCH AS (BUT NOT LIMITED TO) ALUM SYSTEMS OR POLYCLAMIDE)
- LOCATION OF WETLANDS AND SURFACE WATERS N/A
- LOCATION (LATITUDE AND LONGITUDE) OF ALL OUTFALL(S) TO EXISTING POND, OR SURFACE WATER SEE GRADING PLAN (SHEET C-05)

OTHER INFORMATION

LOCATION (ADDRESS): NORTHEAST CORNER OF U.S. HWY 90 AND SPEARS ST., PACE FL
 DESCRIPTION OF CONSTRUCTION ACTIVITIES: RETAIL BUILDING WITH PARKING LOT AND STORMWATER MANAGEMENT & CONVEYANCE SYSTEM
 CONSTRUCTION SEQUENCE: EROSION PROTECTION INSTALLATION, REMOVING UNSUBTLE SOIL, CONSTRUCTION OF PROPOSED IMPROVEMENTS.

SOIL TYPES: 44-TROUP LOAMY SAND (A), FILL MATERIAL, SEE GEOTECHNICAL REPORT

DEWATERING METHOD AND LOCATION: ANY DEWATERING REQUIRED BY CONTRACTOR IS TO BE PERMITTED BY THE APPROPRIATE AGENCY. DEWATERING FOR THE PROPOSED POND IS PERMITTED THROUGH NWFWM.

BMPs (DESCRIPTION): SEE THIS SHEET

PERMANENT STABILIZATION (DESCRIPTION): SEE CONSTRUCTION PLANS

PERMANENT STORMWATER MANAGEMENT CONTROL (DESCRIPTION): SEE CONSTRUCTION PLANS

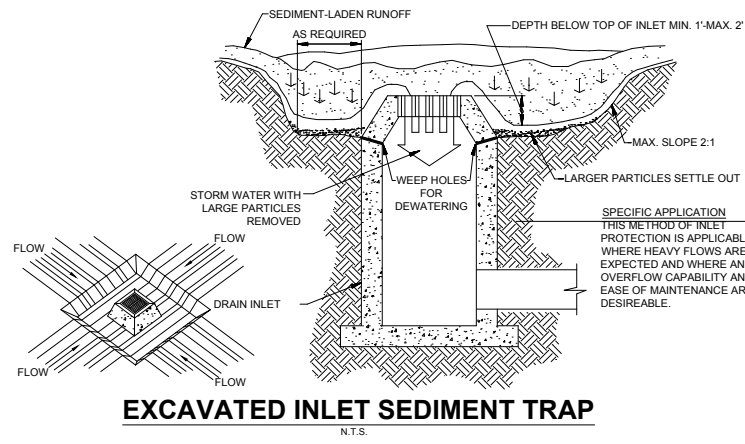
POTENTIAL POLLUTANTS DURING CONSTRUCTION: SEE CONSTRUCTION PLANS

INSPECTIONS: CONSTRUCTION SITE WILL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5". AN RAIN GAUGE WILL BE ONSITE TO MEASURE THE RAINFALL AMOUNTS

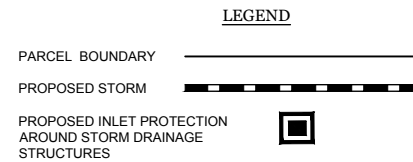
ADDITIONAL NOTES

CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL IF IT BECOMES NECESSARY TO MEET STATE AND LOCAL STANDARDS

OPERATOR AND/OR RESPONSIBLE AUTHORITY: SELF-HELP FEDERAL CREDIT UNION
 CONTRACTOR: TBD

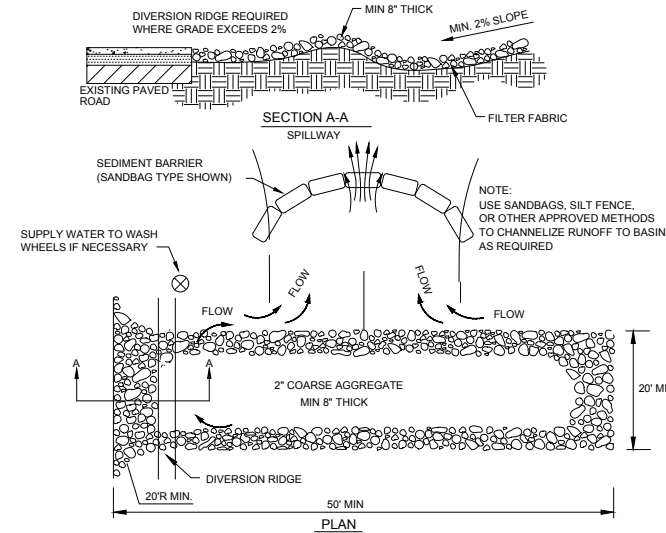


EXCAVATED INLET SEDIMENT TRAP

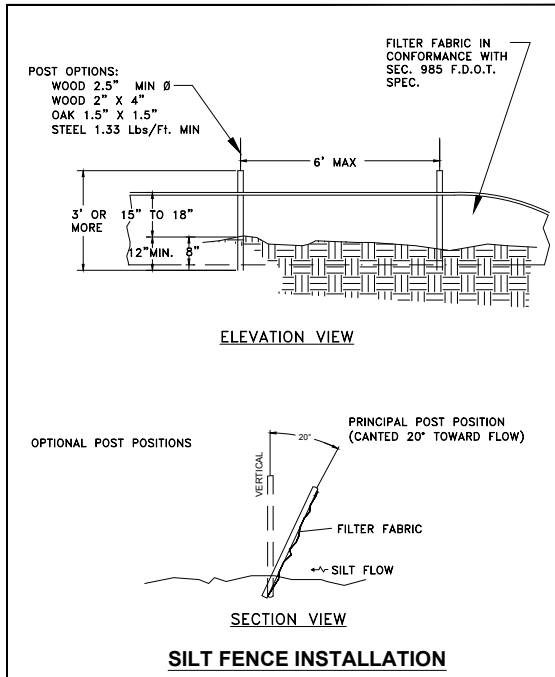
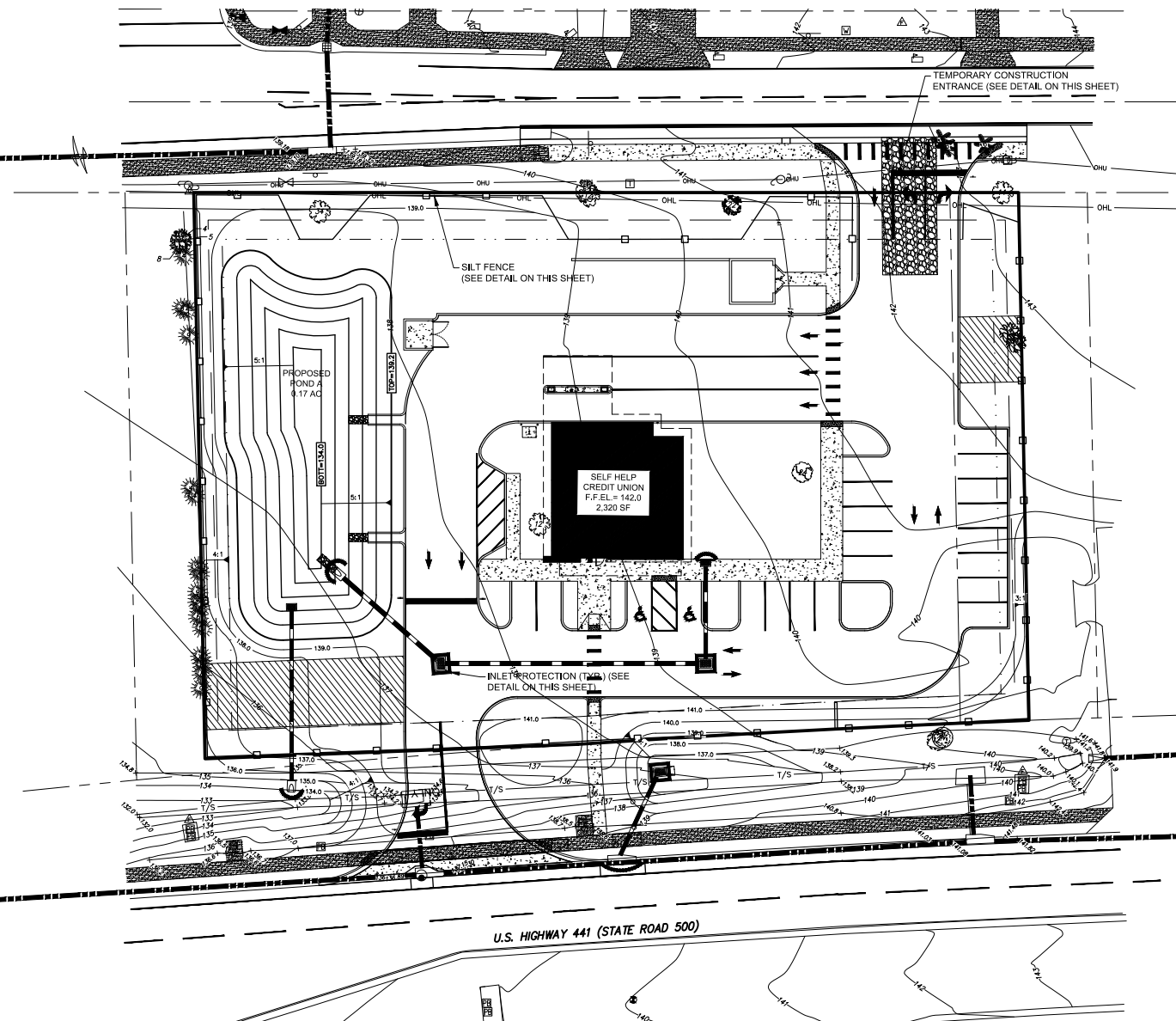


STABILIZED CONSTRUCTION ENTRANCE

- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET
- THICKNESS - NOT LESS THAN SIX (6) INCHES
- WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



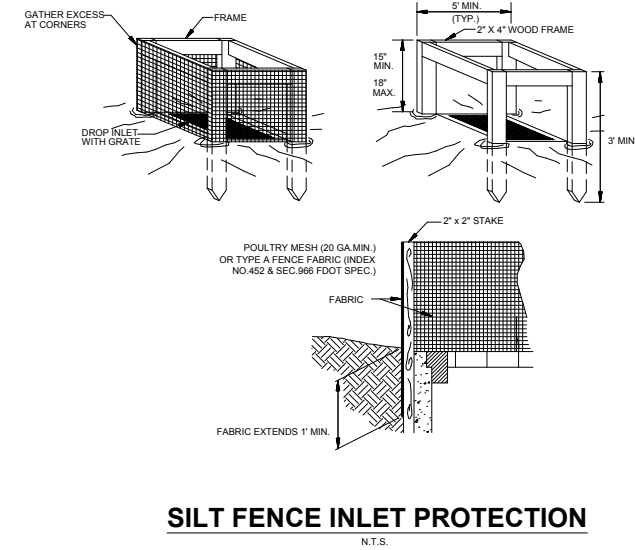
TEMPORARY CONSTRUCTION ACCESS DETAIL



CITY OF APOPKA JANUARY 2014 FIG. 602

CONTRACTOR CERTIFICATION
 I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERIC STORMWATER PERMIT ISSUED PURSUANT TO SECTION 403.0885, FLORIDA STATUTES, THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH THE ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNATURE _____ PRINTED NAME & TITLE _____
 OWNER NAME _____ OWNER ADDRESS _____
 OWNER TELEPHONE _____ DATE _____
 SITE ADDRESS CITY STATE, ZIP _____



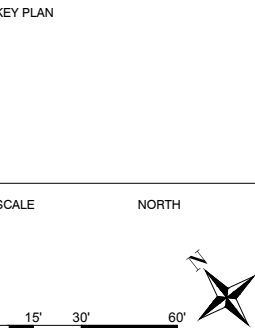
SILT FENCE INLET PROTECTION



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 800 NORTH MAGNOLIA AVE
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 ENGINEERING BUSINESS - 8794

Self Help Credit Union
 667 W. Orange Blossom Trail
 (Minor) Final Development
 CITY OF APOPKA, FLORIDA

SEAL
 Christopher J. Allen
 FL PE # 77719
 Jan 30, 2016



No.	DATE	BY	Description

REVISIONS
 DRAWN BY _____ GL
 APPROVED BY _____ RM
 CHECKED BY _____ CJA
 DATE _____ 08-14-2017

TITLE
 STORMWATER POLLUTION PREVENTION PLAN & DETAILS

PROJECT NO. 50094806 [CRUN1]

C-07
 SHEET NO.



**Self Help Credit Union
667 W. Orange Blossom Trail
(Minor) Final Development**
CITY OF APOPKA, FLORIDA

Christopher J. Allen
FL PE # 77719
Jan 30, 2016

SEAL

KEY PLAN

SCALE NORTH



No.	DATE	BY	Description

REVISIONS

DRAWN BY _____ GL

APPROVED BY _____ RM

CHECKED BY _____ CJA

DATE _____ 08-14-2017

TITLE

UTILITY PLAN

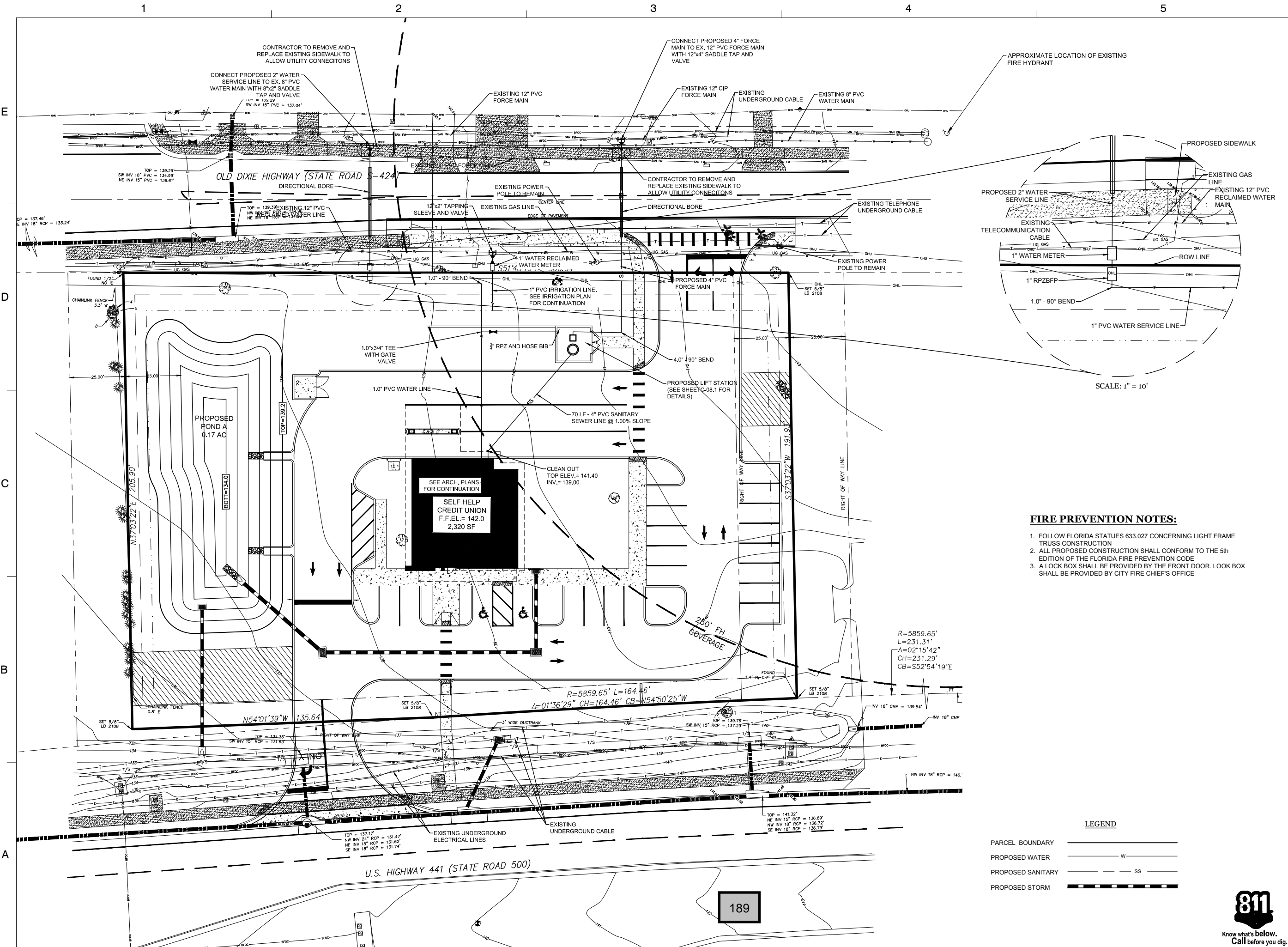
PROJECT NO. 50094806 [CRUN1]

C-08

SHEET NO.



Know what's below.
Call before you dig.



FIRE PREVENTION NOTES:

1. FOLLOW FLORIDA STATUTES 633.027 CONCERNING LIGHT FRAME TRUSS CONSTRUCTION
2. ALL PROPOSED CONSTRUCTION SHALL CONFORM TO THE 5th EDITION OF THE FLORIDA FIRE PREVENTION CODE
3. A LOCK BOX SHALL BE PROVIDED BY THE FRONT DOOR. LOOK BOX SHALL BE PROVIDED BY CITY FIRE CHIEF'S OFFICE

LEGEND

- PARCEL BOUNDARY _____
- PROPOSED WATER _____ W _____
- PROPOSED SANITARY _____ SS _____
- PROPOSED STORM _____

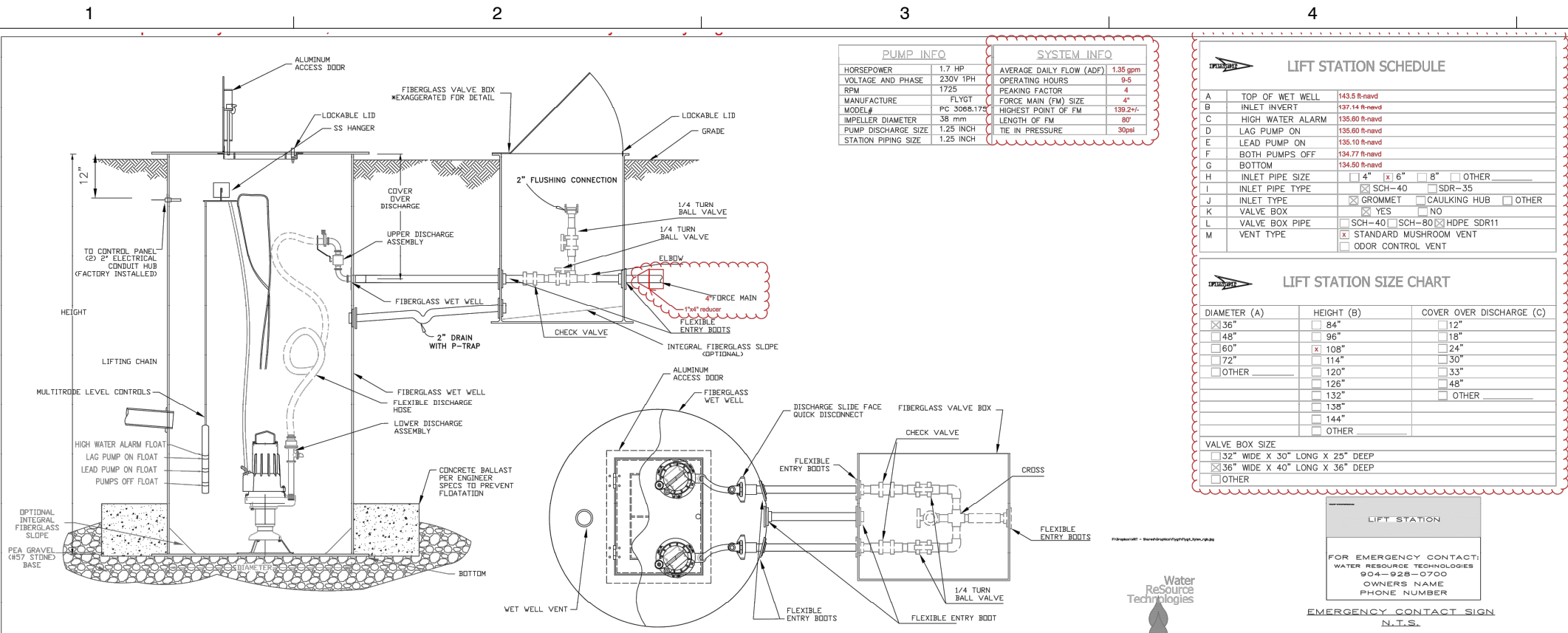
No.	DATE	BY	Description

REVISIONS

DRAWN BY	_____	GL
APPROVED BY	_____	RM
CHECKED BY	_____	CJA
DATE	_____	08-14-2017
TITLE	LIFT STATION	

PROJECT NO.	50094806 [CRUN1]
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C-08.1



PUMP INFO		SYSTEM INFO	
HORSEPOWER	1.7 HP	AVERAGE DAILY FLOW (ADF)	1.35 gpm
VOLTAGE AND PHASE	230V 1PH	OPERATING HOURS	9-5
RPM	1725	PEAKING FACTOR	4
MANUFACTURE	FLYGT	FORCE MAIN (FM) SIZE	4"
MODEL#	PC 3068.172	HIGHEST POINT OF FM	139.2'-H
IMPELLER DIAMETER	38 mm FM	LENGTH OF FM	90'
PUMP DISCHARGE SIZE	1.25 INCH	TIE IN PRESSURE	30psi
STATION PIPING SIZE	1.25 INCH		

LIFT STATION SCHEDULE	
A	TOP OF WET WELL 143.5 ft-nvd
B	INLET INVERT 137.14 ft-nvd
C	HIGH WATER ALARM 135.60 ft-nvd
D	LAG PUMP ON 135.60 ft-nvd
E	LEAD PUMP ON 135.10 ft-nvd
F	BOTH PUMPS OFF 134.77 ft-nvd
G	BOTTOM 134.60 ft-nvd
H	INLET PIPE SIZE 4" x 6" x 8" OTHER
I	INLET PIPE TYPE SCH-40 SDR-35
J	INLET TYPE GROMMET CAULKING HUB OTHER
K	VALVE BOX YES NO
L	VALVE BOX PIPE SCH-40 SCH-80 HDPE SDR11
M	VENT TYPE STANDARD MUSHROOM VENT ODOR CONTROL VENT

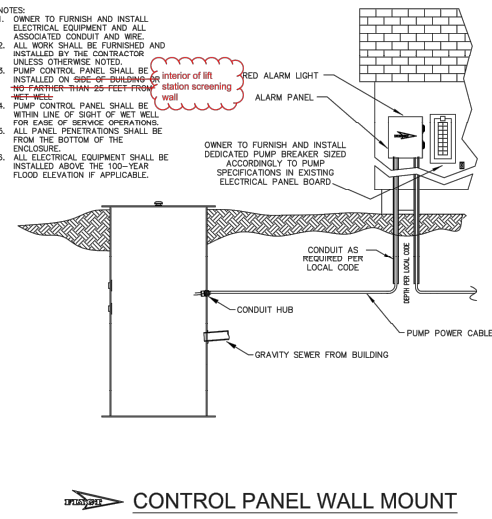
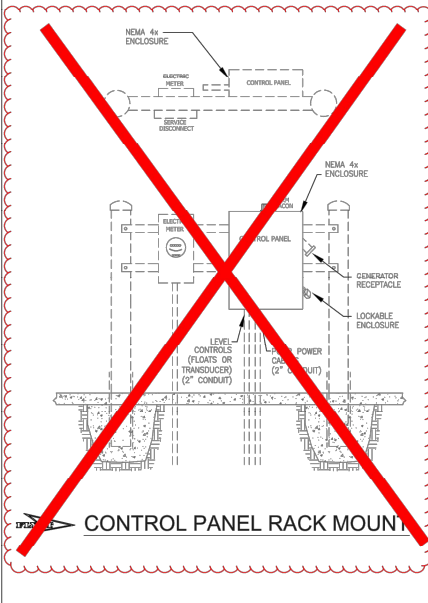
LIFT STATION SIZE CHART		
DIAMETER (A)	HEIGHT (B)	COVER OVER DISCHARGE (C)
<input checked="" type="checkbox"/> 36"	<input type="checkbox"/> 84"	<input type="checkbox"/> 12"
<input type="checkbox"/> 48"	<input type="checkbox"/> 96"	<input type="checkbox"/> 18"
<input type="checkbox"/> 60"	<input checked="" type="checkbox"/> 108"	<input type="checkbox"/> 24"
<input type="checkbox"/> 72"	<input type="checkbox"/> 114"	<input type="checkbox"/> 30"
<input type="checkbox"/> OTHER	<input type="checkbox"/> 120"	<input type="checkbox"/> 33"
	<input type="checkbox"/> 126"	<input type="checkbox"/> 48"
	<input type="checkbox"/> 132"	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 138"	
	<input type="checkbox"/> 144"	
	<input type="checkbox"/> OTHER	

EMERGENCY CONTACT SIGN
N.T.S.

FOR EMERGENCY CONTACT:
WATER RESOURCE TECHNOLOGIES
904-928-0700
OWNERS NAME
PHONE NUMBER

LIFT STATION SECTION VIEW
*NOTE VIEWS EXAGGERATED FOR DETAIL
N.T.S.

LIFT STATION PLAN VIEW



- NOTES:**
- OWNER TO FURNISH AND INSTALL ELECTRICAL EQUIPMENT AND ALL ASSOCIATED CONDUIT AND WIRE.
 - ALL WORK SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
 - PUMP CONTROL PANEL SHALL BE INSTALLED ON ONE OF BUILDING'S MAIN-FLOOR-TRANSFORMER-FROM station screening wall.
 - PUMP CONTROL PANEL SHALL BE WITHIN LINE OF SIGHT OF WET WELL FOR EASE OF SERVICE OPERATIONS.
 - ALL PANEL PENETRATIONS SHALL BE FROM THE BOTTOM OF THE ENCLOSURE.
 - ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED ABOVE THE 100-YEAR FLOOD ELEVATION IF APPLICABLE.

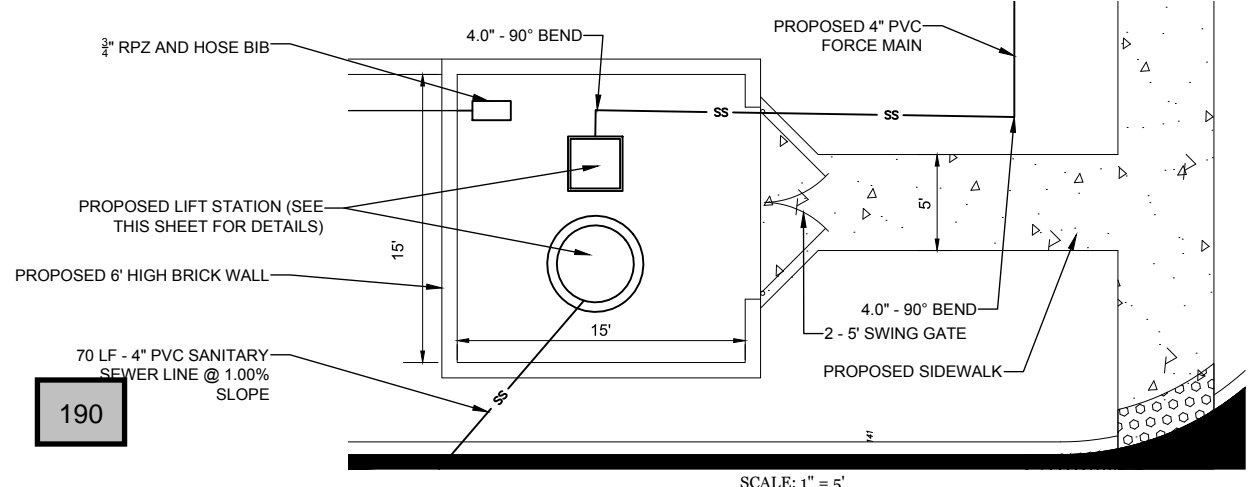
- DUPLICATE CONTROL PANEL:**
ALL CIRCUIT BREAKERS SHALL BE ASSEMBLED AND BUILT BY A UL508A CERTIFIED MANUFACTURING FACILITY.
THE ENCLOSURE SHALL BE NEMA 4X FIBERGLASS WITH PADLOCKABLE LATCHES.
THE FOLLOWING COMPONENTS SHALL BE MOUNTED THROUGH THE ENCLOSURE:
• RED ALARM BEACON (LIGHT)
• ALARM HORN
• GENERATOR RECEPTACLE WITH WEATHERPROOF COVER
• ALARM SILENCE PUSH-BUTTON
THE BACKPANEL SHALL BE FABRICATED FROM 0.125 MARINE ALLOY ALUMINUM. ALL COMPONENTS SHALL BE MOUNTED BY MACHINED STAINLESS STEEL SOCKETS.
THE FOLLOWING COMPONENTS SHALL BE MOUNTED TO BACKPANEL:
• MOTOR CONTACTORS
• VOLTAGE MONITOR FOR SINGLE PHASE MOTORS OR PHASE MONITOR FOR THREE PHASE MOTORS
• CONTROL TRANSFORMER FOR 480 VOLT
• SILENCE RELAY
• DUPLEX ALTERNATOR
• TERMINALS FOR FIELD CONNECTIONS
• TERMINALS FOR MOTOR CONNECTORS FOR SINGLE PHASE MOTORS
• GROUNDING LUGS
THE INNERDOOR SHALL BE FABRICATED FROM 0.08 MARINE ALLOY ALUMINUM. THE INNERDOOR SHALL HAVE A CONTINUOUS ALUMINUM FINISH RING.
THE FOLLOWING COMPONENTS SHALL BE MOUNTED THROUGH THE INNERDOOR:
• MAIN CIRCUIT BREAKER
• EMERGENCY CIRCUIT BREAKER
• MECHANICAL INTERLOCK FOR EMERGENCY AND MAIN BREAKERS
• CONTROL CIRCUIT BREAKER
• SHORT CIRCUIT PROTECTORS
• SEAL FAILURE INDICATOR SWITCHES
• HAND-OFF-AUTO SELECTOR SWITCHES
• PUMP RUN PILOT LIGHTS
• POWER ON PILOT LIGHT
• ELAPSE TIME METERS (NON-RESETTABLE)
• OPTI DUPLEX CONVENIENCE OUTLET
MISCELLANEOUS: ALL WIRING ON THE BACKPANEL SHALL BE CONTAINED WITHIN THE WIRING DUCT. ALL WIRING BETWEEN THE INNERDOOR AND THE BACKPANEL SHALL BE CONTAINED WITH A PLASTIC SPIRAL WEAPO.
EACH WIRE SHALL HAVE A WIRE NUMBER AT EACH END TO CORRESPOND TO THE AS BUILT DRAWING FOR FIELD TROUBLESHOOTING.
THE CONTROL PANEL SHALL BE ASSEMBLED BY A UL508A CERTIFIED MANUFACTURING FACILITY. ANY VARIATIONS TO THIS PLAN SHALL BE SUBMITTED TO WATER RESOURCE TECHNOLOGIES, LLC 904-928-0700 TO CONFIRM THAT THE PROPOSED CHANGE DOES NOT CREATE AN EQUIPMENT CONFLICT.

- COMPONENT SPECIFICATIONS:**
ALL CIRCUIT BREAKERS SHALL BE MOLDED THERMAL MAGNETIC.
THE MECHANICAL INTERLOCK SHALL PREVENT THE NORMAL AND EMERGENCY MAIN BREAKERS BEING ENERGIZED AT THE SAME TIME.
AN EMERGENCY GENERATOR RECEPTACLE SHALL BE SUPPLIED IN ACCORDANCE WITH DEF STANDARDS. THE GENERATOR RECEPTACLE SHALL BE ADEQUATELY SIZED TO MEET THE EQUIPMENT OPERATING CONDITIONS.
NEUTRAL TO BE SUPPLIED FOR BOTH 230 VOLT 3 PHASE OR 230 VOLT SINGLE PHASE POWER.
ALL MOTOR SHORT CIRCUIT PROTECTION DEVICES MUST PROVIDE FOR UNDERVOLTAGE RELEASE AND CLASS 10 OVERLOAD PROTECTION ON ALL THREE PHASES. VISIBLE RIF INDICATION, TEST, AND RESET CAPABILITY MUST BE PROVIDED WITHOUT OPENING INNER DOOR.
OPEN FRAME, ACROSS THE LINE, CONTRACTORS SHALL BE RATED PER IEC STANDARDS AND PROPERLY SIZED PER THE MOTOR REQUIREMENTS.
CONTACTOR SHALL PROVIDE FOR SAFE TOUCH POWER AND CONTROL TERMINALS.
LIGHTNING ARRESTOR SHALL MEET OR EXCEED THE REQUIREMENTS OF ANSI/IEEE AND SHALL BE SUPPLIED BY ELECTRICIAN AND MOUNTED ON THE BOTTOM SIDE OF THE SWITCH DISCONNECT AHEAD OF THE PUMP CONTROL PANEL.
A VOLTAGE MONITOR SHALL BE SUPPLIED FOR SINGLE PHASE SERVICE.
A PHASE MONITOR SHALL BE SUPPLIED FOR THREE PHASE SERVICE.
A GREEN PILOT LIGHT SHALL BE SUPPLIED FOR EACH MOTOR. THE PILOT LIGHT SHALL ILLUMINATE EACH TIME THE MOTOR IS CALLED TO RUN.
EACH PUMP SHALL HAVE AN ELAPSED TIME METER TO RECORD THE ACCUMULATED RUN TIME. THE ETM SHALL BE 2" DIAMETER, NON-RESETTABLE, SIX DIGIT, TOTALLY ENCAPSULATED UNIT.
RELAYS SHALL BE ICE-CUBE PLUG IN TYPE OR PLC TYPE. RELAY CONTACTS SHALL BE RATED TO AMPS MINIMUM - DPDT.
TWENTY TERMINALS SHALL BE SUPPLIED FOR FIELD CONNECTIONS.
THE TERMINALS SHALL BE RATED FOR A MINIMUM OF 25 AMPS.
EACH MOTOR OVER-TEMPERATURE CONTACT SHALL BE CONNECTED TO THE TERMINAL STRIP AND SHALL OPEN A CONTACT TO DE-ENERGIZE THE APPROPRIATE MOTOR UPON A HIGH TEMPERATURE WITHIN THE MOTOR.
A 15 AMP GFI DUPLEX RECEPTACLE SHALL BE SUPPLIED AND MOUNTED ON THE INNERDOOR.
GROUND LUGS SHALL BE SUPPLIED AND APPROPRIATELY SIZED FOR EACH MOTOR AND FOR SERVICE ENTRANCE.
NAMEPLATES FOR THE INNERDOOR AND BACK PANEL SHALL BE OF A GRAPHIC DESIGN, SPECIFICALLY DEPICTING THE INTENT FOR EACH DEVICE.

- FASTENERS AND APPURTENANCES:** ALL FASTENERS, LIFTING CABLES, FLOAT CABLE BRACKET, TRINEX, AND APPURTENANCES SHALL BE MADE OF 304SS MINIMUM.
• A 304SS SLIDE/LATCH ASSEMBLY SHALL BE PROVIDED FOR HOLDING THE DOORS OPEN ON THE WET WELL AND VALVE BOX.
• SLIDE BALLS SHALL BE MADE OF SCH 40 304SS PIPE.
• PUMP LIFTING CABLES/CHAINS SHALL BE 304SS.
• PUMP LIFTING SALES SHALL BE MADE OF 304SS.
EXCEPTION:
INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS IN THE LOCATIONS SHOWN ON THE DRAWINGS.
CERTIFIED ELECTRICIAN SHALL MOUNT CONTROL PANEL AND CONNECT POWER SERVICE TO PANEL PRIOR TO STARTUP AND FACTORY REP SITE VISIT.
INSPECTION AND TESTING:
A FACTORY REPRESENTATIVE FROM WATER RESOURCE TECHNOLOGIES, LLC 904-928-0700 SHALL BE PROVIDED FOR ONE TIME START-UP AND SHALL HAVE COMPLETE KNOWLEDGE OF THE PROPER OPERATION AND MAINTENANCE OF COMPLETE SYSTEM.
WATER RESOURCE TECHNOLOGIES, LLC 904-928-0700 WILL LAND MOTOR CABLE WIRES TO CONTROL PANEL AT START UP.
THE PUMP CONTROLS AND PUMPS SHALL BE CHECKED FOR PROPER OPERATION AND INSURE THAT ALL LEVEL CONTROLS ARE IN ACCORDANCE WITH THE PLANS AND FULLY FUNCTIONING.
PUMP STATION SHALL BE VENTED PER MANUFACTURER'S RECOMMENDATIONS.
Basin Installation Instructions:
1. INSPECT ALL MATERIALS SUPPLIED TO ENSURE THERE ARE NO DAMAGES DUE TO SHIPPING PRIOR TO INSTALLATION.
2. EXCAVATE HOLE LARGE ENOUGH TO ACCOMMODATE BASIN, UNDERGROUND PIPING, BACKFILL MATERIAL, AND ASSOCIATE WORKING SPACE.
3. PREPARE THE BOTTOM OF THE EXCAVATED HOLE WITH 6" OF BACKFILL MATERIAL OR CONCRETE PAD, CHECK BACK TO INSURE IT IS LEVEL AND SMOOTH.
4. INSTALL BASIN ON GRAVEL BASE OR CONCRETE PAD, ANCHOR IF NECESSARY.
5. CONCRETE MAY BE PORED AROUND BASIN BOTTOM IF BALLAST IS REQUIRED FOR BUOYANCY.
6. BACKFILL WITH PEA GRAVEL 4" TO 6" AROUND THE ENTIRE PERIPHERY OF THE BASIN/COMPACTED BACKFILL MATERIAL IN 12" LIFTS. STOP AND CONNECT PIPING AS REQUIRED.
RECOMMENDED BACKFILL MATERIAL:
GRAVEL OR STONE TO BE FREE FLOWING, NATURALLY ROUNDED AGGREGATE WITH A PARTICLE SIZE OF NOT LESS THAN 3/8" OR LARGER THAN 3/4" IN DIAMETER.
ELECTRICAL NOTES:
1. DISCONNECT IS REQUIRED WITHIN SIGHT OR 50' MAX FROM PANEL LOCATION.
2. CONDUIT SHALL BE MANUFACTURED TO UNDERWRITERS LABORATORIES (UL) LISTED AND LABELED ACCORDINGLY.
3. EACH FLEXIBLE CABLE SHALL BE PROVIDED WITH A WATERTIGHT SEAL AND A 15VOLT POWER RECEPTACLE WITH GROUND FAULT INTERRUPTION (GFI) PROTECTION SHALL BE AVAILABLE TO FACILITATE MAINTENANCE EITHER INSIDE THE CONTROL PANEL OR WITHIN 5 FEET OF CONTROL PANEL.
4. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
5. ELECTRICAL SHALL SEAL OFF CONDUIT BUNS WITH APPROPRIATE MATERIAL.
6. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO OBERBERG EQUIPMENT.
7. NEUTRAL TO BE SUPPLIED FOR SINGLE PHASE AND THREE PHASE POWER.
8. ELECTRICAL EQUIPMENT SHALL BE INSTALLED ABOVE THE 100-YEAR FLOOD ELEVATION (WHERE APPLICABLE).

WATER RESOURCE TECHNOLOGIES, LLC.
11221 ST. JOHNS INDUSTRIAL PARKWAY NORTH
JACKSONVILLE, FL 32246
PHONE: 904-928-0700 - FAX: 904-928-0790

By: _____
Date: 06/15/2015
Scale: AS NOTED
Drawn: BDS
Checked By: VH
Sheet: 1

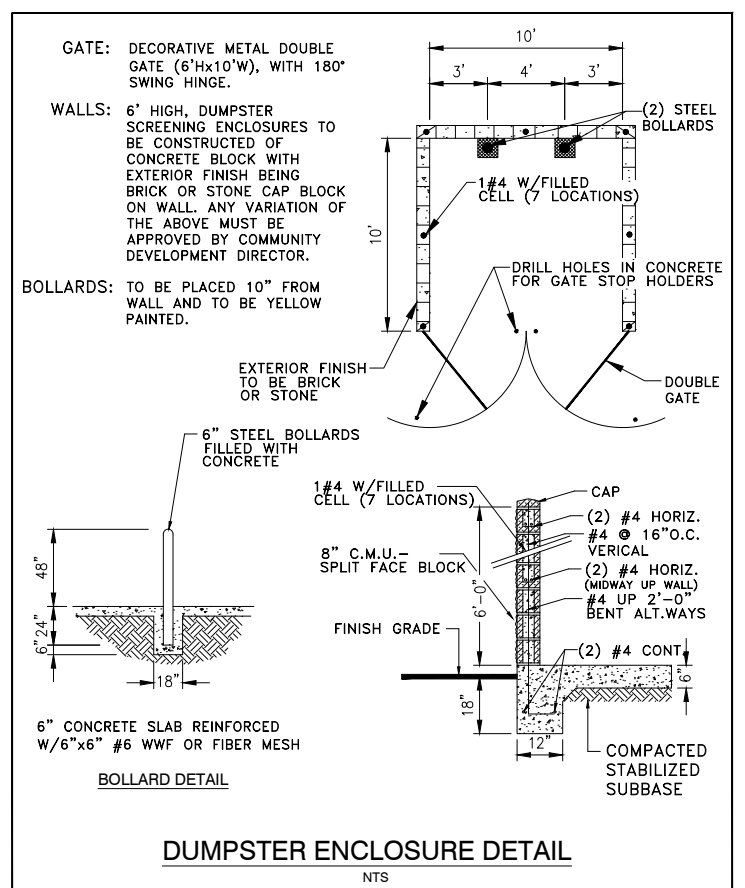




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ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS -8794

Self Help Credit Union
667 W. Orange Blossom Trail
(Minor) Final Development
CITY OF APOPKA, FLORIDA

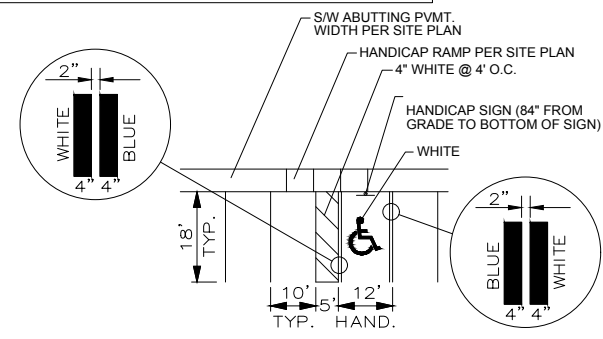
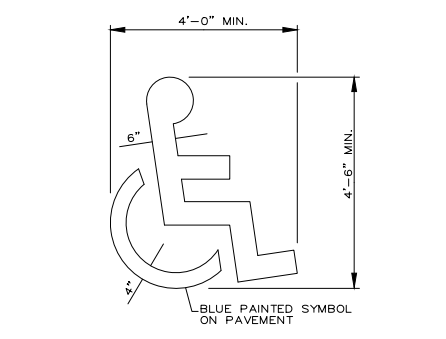
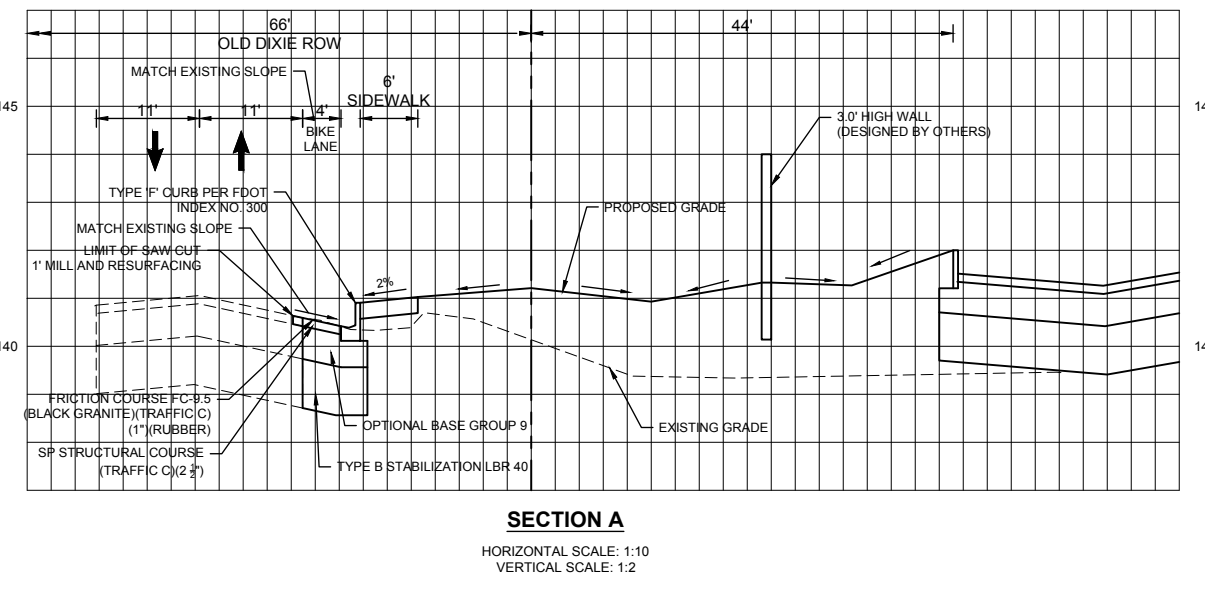
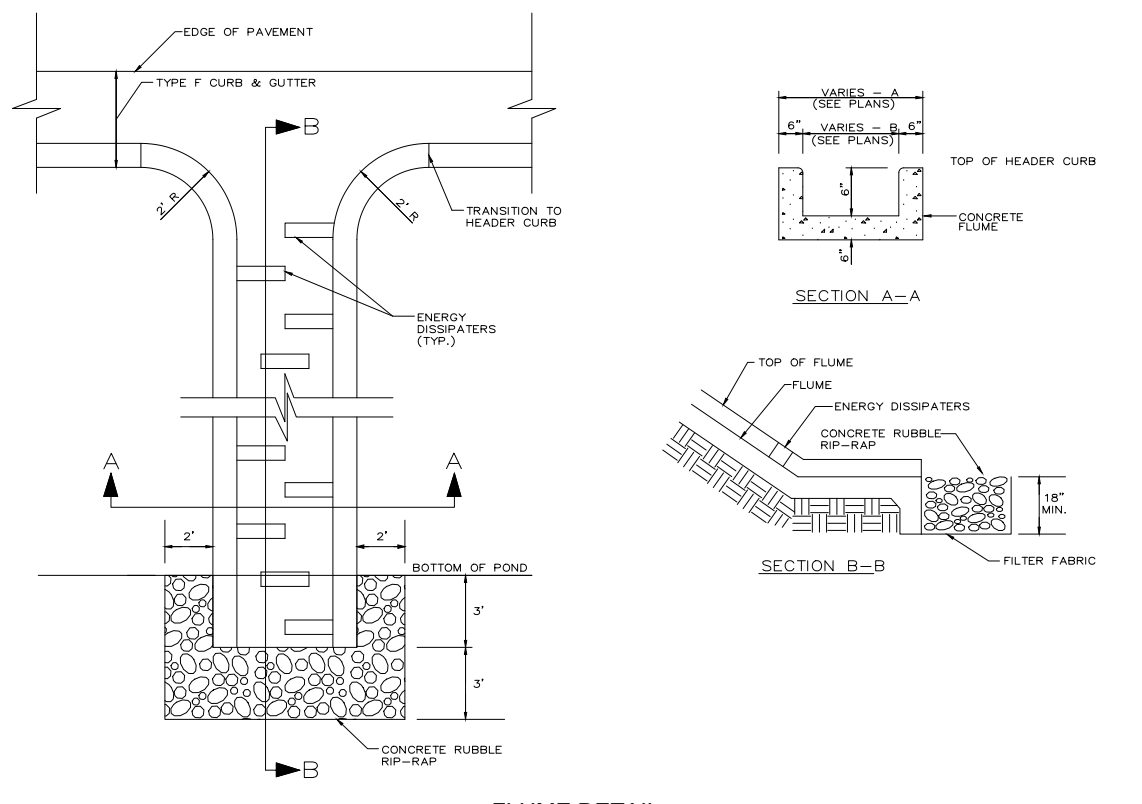
Christopher J. Allen
FL PE # 77719
Jan 30, 2016



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

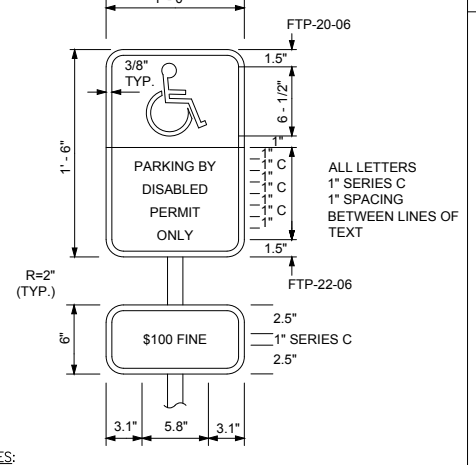
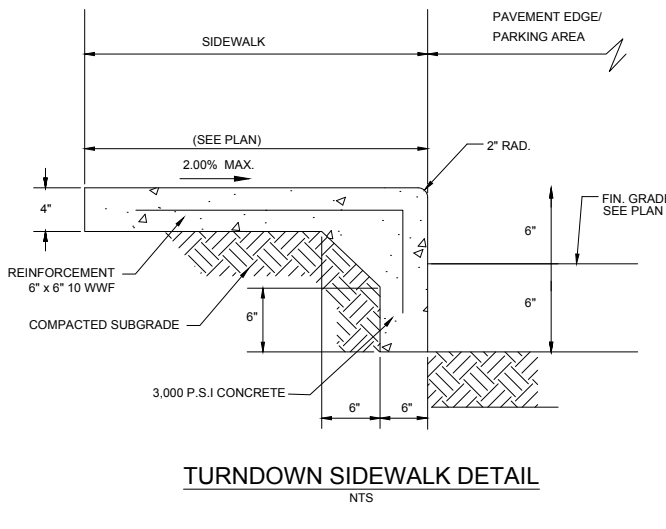
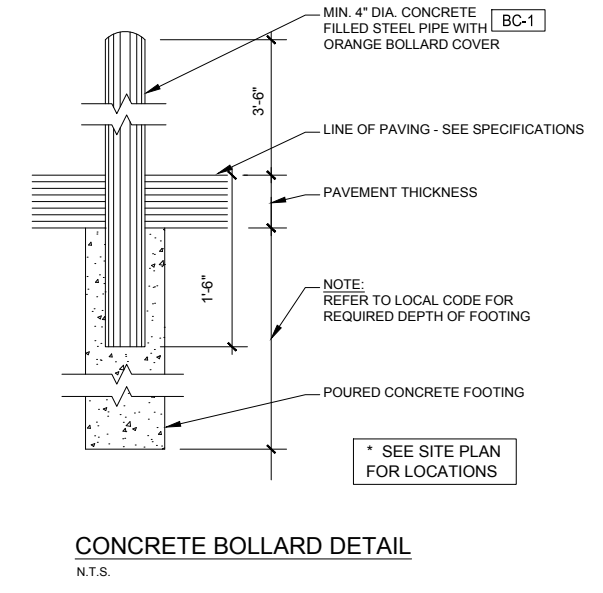
JANUARY 2014

FIG. 601

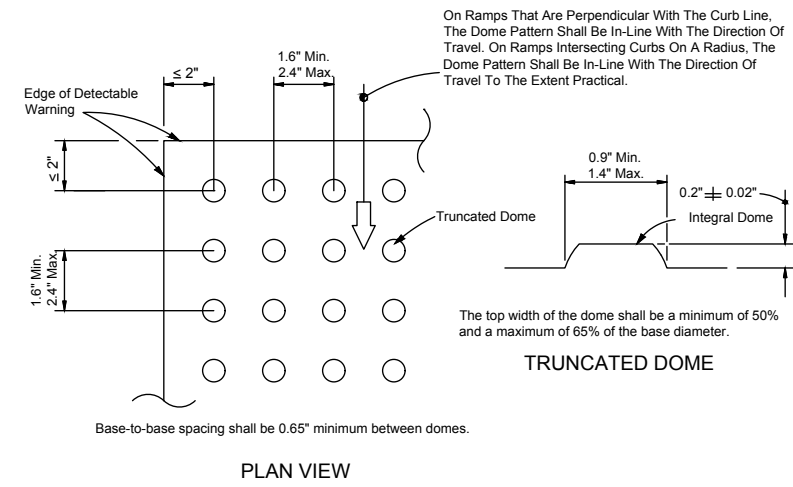


HANDICAP SIGN DETAILS
REFERENCE FDOT INDEX 17355

NOTE: WHEEL STOPS TO BE USED WHEN SIDEWALK IS FLUSH WITH PAVEMENT.



- NOTES:**
- SIGN FTP-20-06
- ALL LETTERS ARE 1" SERIES "C".
 - TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND & BORDER.
 - BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED WHITE BACKGROUND WITH BLACK OPAQUE LEGEND & BORDER.
- SIGN FTP-22-06
- ALL LETTERS ARE 1" SERIES "C".
 - BACKGROUND WHITE, LEGEND AND BORDER BLACK.



All sidewalk Curb Ramps Shall Have Detectable Warning Surfaces That Extend The Full Width Of The Ramp And In The Direction Of Travel 24 Inches (610 mm) From The Back Of Curb.

CURB RAMP DETECTABLE WARNING DETAIL

PER FOOT INDEX 304

SEAL

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description

REVISIONS

DRAWN BY _____ GL

APPROVED BY _____ RM

CHECKED BY _____ CJA

DATE _____ 08-14-2017

TITLE

PAVING, GRADING AND DRAINAGE DETAILS

PROJECT NO. 50094806 [CRUN1]

C-09

SHEET NO.



GENERAL NOTES

1. Governing standards and specifications on this project are considered the Florida Department of Transportation (FDOT) Design Standards (2013 Edition), FDOT Standard Specifications for Road and Bridge Construction (2013 Edition), and City of Apopka Utilities Design and Construction Standards Manual (2014 Edition).
2. All personal property, except mail boxes located within the public right-of-way (not relocated by the property owner), shall be removed by the Contractor as necessary to construct the project in accordance with the Construction Plans. Mail boxes shall be relocated by the Contractor in accordance with FDOT Index No. 532.
3. The disposal of excess earthwork materials shall be the responsibility of the Contractor. Approval of disposal sites shall be obtained from the City of Apopka prior to disposal.
4. All existing trees and stumps within the right-of-way and limit of the project are to be removed as clearing and grubbing unless otherwise directed.
5. Seed and mulch all disturbed areas not covered by sod unless otherwise directed.
6. All pavement offsets shown are to the proposed centerline of construction, as where radius dimensions are to the edge of pavement, unless otherwise noted.
7. Turnout locations and widths shown in the Construction Plans are approximate and may be adjusted as necessary or as directed by the Engineer. All turnouts shall be constructed in accordance with FDOT Index No. 515.
8. The various permits included in the bid specifications payment are included in the bid price for Section 104. The Contractor shall perform his work in accordance with the requirements of "Prevention, Control, and Abatement of Erosion and Water Pollution", excluding items specified elsewhere. Environmental controls shall be used at locations designated in the plans and/or designated by the Engineer.
9. The information shown on these drawings concerning type and location of underground and other utilities are based on available records and surveys, but is not guaranteed to be accurate or all inclusive. The Contractor shall make his own determination as to the type and location of utilities as may be necessary to avoid damage there to, and is responsible for coordinating utility relocation.
10. Prior to ordering drainage structures, the Contractor shall determine if drainage utility conflicts exist. Information about possible conflicts shall be submitted to the Engineer as soon as possible after discovery of such for resolution.
11. The Contractor shall notify all gas utility companies a minimum of two working days prior to excavation as required by Chapter 77-153 of the Florida Statutes.
12. All inlet/manhole - pipe joints shall be filled with non-shrink grout, covered with an asphaltic mastic coating, and wrapped with a filter fabric material per Section 13.03.03 of the Orange County Road Construction Specifications.
13. All curb inlets, ditch bottom inlets, and manholes shall have traffic bearing frames and covers or grates meeting AASHTO-20 loading requirements.
14. Changes of pipe inverts not exceeding plus or minus one foot will not be considered as a basis for additional compensation for the pertinent pipe bid item or for modification of precast structures.
15. All benchmarks (irons and monuments) shown in the Construction Plans, or found, shall be preserved. Those shown in proposed pavement shall be protected with a cast iron valve box.
16. Public land corners within the limits of construction shall be protected. If a corner monument is in danger of being destroyed or disturbed, the Contractor shall notify the Engineer, without delay, by telephone. The Contractor shall provide written follow up confirmation within 48-hours of telephone notification.
17. Prior to beginning of any construction, the Contractor shall submit to the Engineer a set of field notes verifying the benchmark elevations and the reference point connections on the plan and profile view sheets, and/or a set of field notes for all additional benchmark and reference point connections proposed to be used in constructing the project with their location, description and elevation, based on North American Vertical Datum (NAVD88). All submittals shall be signed and sealed by a Professional Land Surveyor registered in the State of Florida.
18. Within 21 calendar days after notice to proceed, the Contractor shall stake the public right-of-way at 50 foot intervals and the right-of-way breaks with corresponding stations shown on the stakes. No invoice for payment for mobilization (Pay Item No. 101-1) will be processed until the right-of-way has been staked to the satisfaction of the Engineer.
19. Any United States Code (USC) and National Geodetic Survey (NGS) monuments within the limits of construction shall be protected. If in danger of damage, the Contractor shall notify the Engineer, and both shall notify:
State Geodetic Advisor, NOAA
3900 Commonwealth Blvd. - MS105
Tallahassee, FL Phone (850) 245-2606
20. It shall be the responsibility of the Contractor to acquire all necessary right-of-way and maintenance of traffic permits. The City will waive all permits required for construction activities within the limits of public right-of-way owned and maintained by the City of Apopka. For construction activity within the limits of public right-of-way maintained by the City but owned by Orange County or the State of Florida, the Contractor shall acquire the required permits from the agencies. It shall be the responsibility of the Contractor to insure that all required permits are obtained and in-hand before beginning any construction.
21. The location of all existing utilities, storm drainage systems, and topographic features shown on the plans have been determined from the best available information and are provided for the convenience of the Contractor. The Engineer assumes no responsibility for their inaccuracy. Should a discrepancy arise between these plans and actual field conditions, which would appreciably affect the execution of these plans, the Contractor shall halt construction and notify the Engineer immediately.
22. The Contractor shall be responsible for notifying the City within 48 hours before any inspections. Also, the Contractor shall be responsible for meeting all inspection criteria, schedules and signing said inspections.
23. The Contractor shall not excavate, remove or otherwise disturb any material, structure or part of a structure which is located outside the lines, grades or grading section, established for this project, except where such excavations or removal is provided or in the Contract Construction Plans or Technical Specifications.
24. All work and all materials furnished shall be in conformity with the lines, grades, grading sections, cross sections, dimensions, material requirements, and testing requirements that are specified in the Contract Construction Plans or Technical Specifications.
25. All work shall be accomplished in strict accordance with all applicable federal, state and local codes, ordinances and regulations.
26. Apparent errors, discrepancies or omissions in the Construction Plans shall be brought to the Engineer's attention before bidding.
27. After completion of construction, the Contractor shall provide to the City a completed as-built plan one week prior to the final inspection. Before the final acceptance it shall be the Contractor's responsibility to perform a site cleanup for the removal of trash, debris, excess materials, and equipment to present the project site clean and in good order.
28. No extra payments shall be allowed for any work required due to misunderstanding of job or site conditions affecting the work as described in the Technical Specifications or shown on the Construction Plans. The Contractor shall not take advantage of any apparent error or omission in the Construction Plans or Technical Specifications and the Engineer shall be permitted to make corrections and interpretation as may be deemed necessary for the fulfillment of the intent of the Contract Documents. By entering the bidding process the bidders acknowledge acceptance of these conditions.
29. The Contractor shall submit four (4) sets of detailed shop drawings of all major items proposed for this project to the Engineer prior to ordering any of the equipment or material. Two (2) copies of the shop drawings will be returned to the Contractor. Upon the Contractor's receipt of approved shop drawings from the Engineer, the Contractor may proceed with the work.
30. The Contractor shall comply with the legal load restrictions in hauling of materials in public roads beyond the limits of construction work. A special permit will not relieve the Contractor of liability for damage which may result from the moving of material and equipment.
31. During construction, no direct discharge of water to downstream receiving waters will be allowed. The Contractor is responsible for maintaining water quality and route discharge water in such a manner as to adequately remove silt prior to runoff from the site.
32. Connection to existing lines to which utility pipe of the Contract must connect, the following work shall be performed:
A. Expose buried lines to confirm or determine end connection, pipe material and diameter.
B. Furnishing and installing piping and making proper connections.



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800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS - 8794

Self Help Credit Union
667 W. Orange Blossom Trail

(Minor) Final Development
CITY OF APOPKA, FLORIDA

SEAL

Christopher J. Allen
FL PE # 77719
Jan 30, 2018

KEY PLAN

SCALE NORTH

No.	DATE	BY	Description

REVISIONS

DRAWN BY _____ GL
APPROVED BY _____ RM
CHECKED BY _____ CJA
DATE _____ 08-14-2017

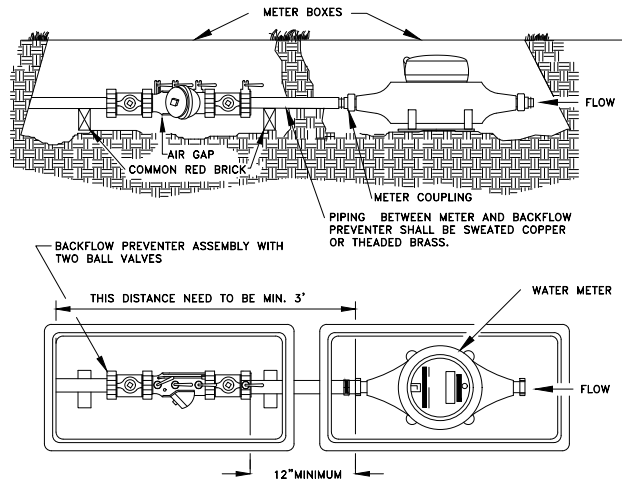
TITLE

CITY OF APOPKA
GENERAL NOTES

PROJECT NO. 50094806 [CRUN1]

C-10

SHEET NO.



1. A 3' PIECE OF STRAIGHT PIPE MUST BE CONNECTED TO METER USING THE DESIGNATED HOLES IN THE METER BOX BEFORE ANY ANGLES ARE CONNECTED. THE SAME RULES APPLY FOR DOUBLE METER HOOK-UPS.
2. BACKFLOW DEVICE AND METER ARE TO BE SET BY THE CITY FOR METERS 2-INCH OR LESS IN SIZE.

**POTABLE WATER SERVICE DETAIL
FOR LOTS SERVED WITH RECLAIMED WATER**

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 505

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 506

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

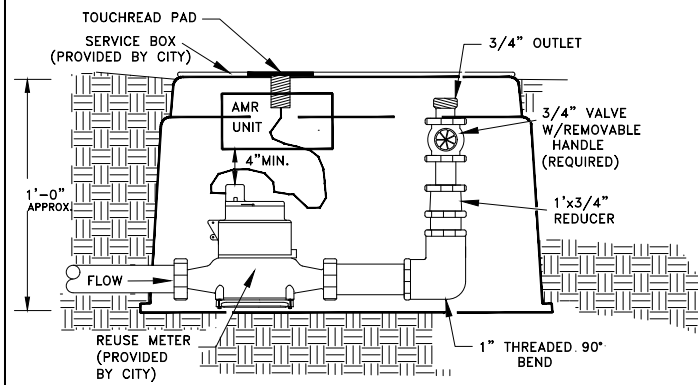
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FIG. 406

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 118



**RECLAIMED WATER SERVICE CONNECTION
(FOR SERVICES W/O AN IRRIGATION SYSTEM)**

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 506

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

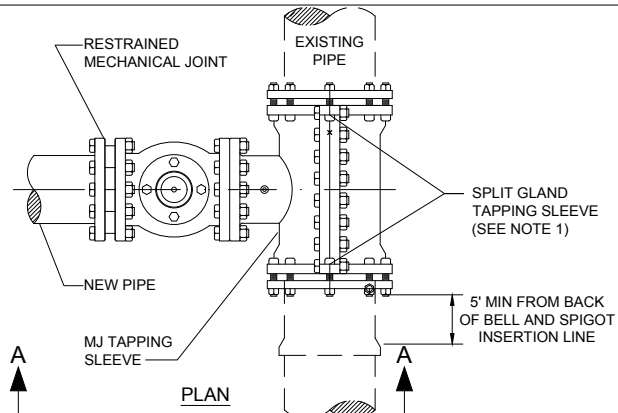
JANUARY 2014

FIG. 406

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 118



- NOTES**
1. SIZE ON SIZE WET TAPS WILL CALL FOR FULL ENCIRCLEMENT STAINLESS STEEL MJ TAPPING SLEEVE; MUELLER H-304, OR EQUAL.
 2. ALL NEWLY INSTALLED TAPPING SLEEVES & TAPPING VALVES SHALL BE PNEUMATICALLY TESTED AT A TEST PRESSURE OF 150PSI FOR A PERIOD OF THIRTY MINUTES.

**SECTION A - A
WATER AND RECLAIMED WATER MAINS
WET TAP TIE-IN DETAIL**

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

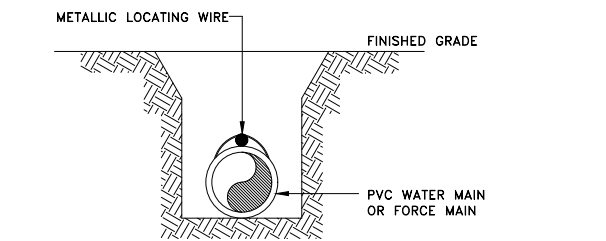
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FIG. 406

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 118



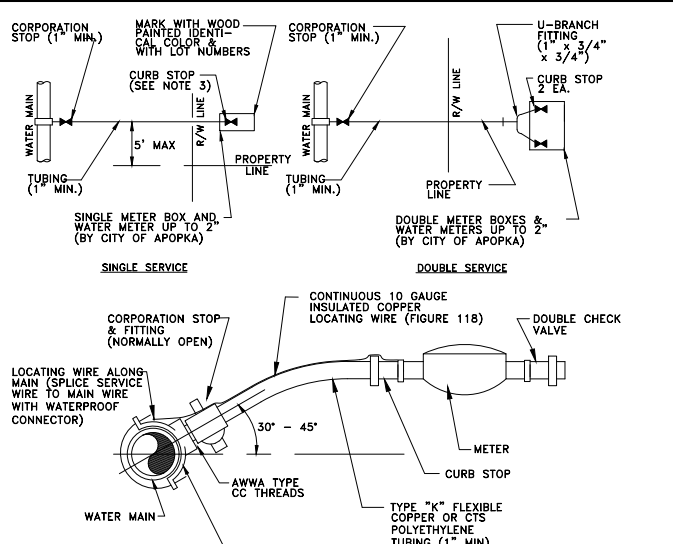
- NOTES:**
1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
 2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
 3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
 4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
 5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 118



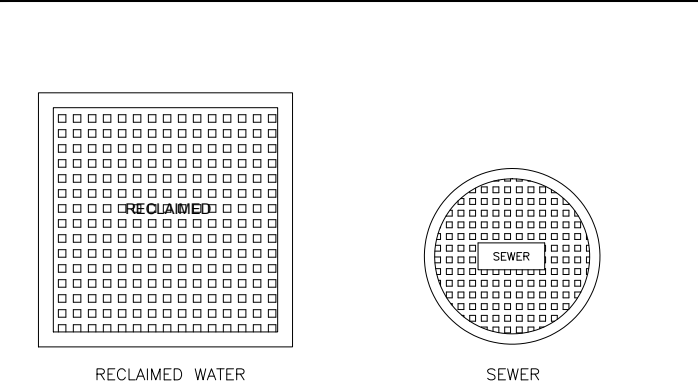
- NOTES:**
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
 2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
 3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3" BELOW FINAL GRADE AND SHALL BE CLEARLY MARKED WITH A 2" x 2" x 18" STAKE WITH THE TOP PAINTED BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER, AND MARKED WITH THE NUMBER OF THE LOT(S) TO BE SERVED.
 4. RECLAIMED WATER SERVICES SHALL USE PURPLE COLORED CTS POLYETHYLENE TUBING.
 5. POTABLE WATER SERVICES SHALL USE BLUE COLORED CTS POLYETHYLENE TUBING.
 6. ALL SERVICE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE INSTALLED IN A MINIMUM 2" PVC SLEEVE.

WATER SERVICE CONNECTION DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 405



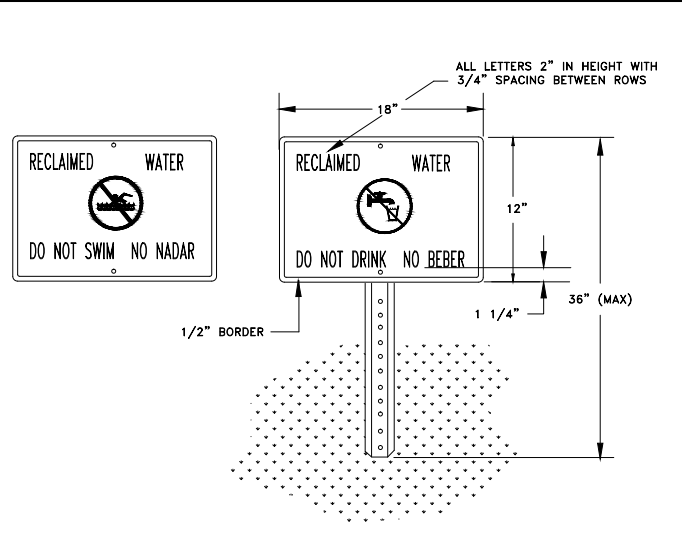
TYPICAL VALVE BOX COVER DETAILS

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

193

FIG. 116



- NOTES:**
1. HEIGHT OF SIGN WILL DEPEND ON LOCATION AND SURROUNDING LANDSCAPE PLANT TYPES. IN ALL CASES, THE SIGN SHALL BE VISIBLE TO THE PUBLIC.
 2. BACKGROUND SHALL BE WHITE. LETTERS AND FIGURES SHALL BE BLACK. PROHIBITIVE SYMBOL SHALL BE RED.
 3. ENGINEERING GRADE REFLECTIVE MATERIALS SHALL BE USED.
 4. POST SHALL BE U CHANNEL 12 FT. 2 LB. HOT ROLLED HIGH TENSILE RAIL OR BILLET STEEL, HOT DIP GALVANIZED PER ASTM A-123.
 5. MOUNTING HARDWARE SHALL BE STAINLESS STEEL.
 6. SIGNS SHALL BE PLACED BY THE CONTRACTOR IN ACCORDANCE WITH THE CITY APPROVED ENGINEERING PLANS AND/OR AS APPROVED BY PUBLIC SERVICES DEPARTMENT.

RECLAIMED WATER ADVISORY SIGN

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 115

Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
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PHONE: 407.843.5120
ENGINEERING BUSINESS - 8794

Self Help Credit Union
667 W. Orange Blossom Trail

(Minor) Final Development
CITY OF APOPKA, FLORIDA

Christopher J. Allen
FL PE # 77719
Jan 30, 2016

SEAL
KEY PLAN

SCALE NORTH

No.	DATE	BY	Description

REVISIONS
DRAWN BY _____ GL
APPROVED BY _____ RM
CHECKED BY _____ CJA
DATE _____ 08-14-2017
TITLE

UTILITY DETAILS

PROJECT NO. 50094806 [CRUN1]

C-11

SHEET NO.

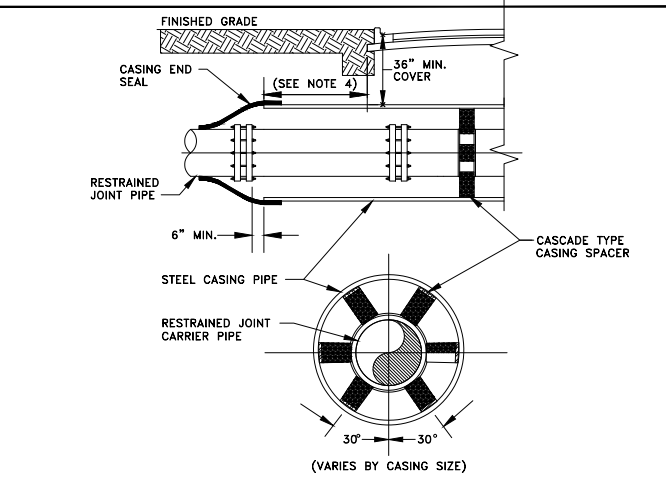
Table with columns for PIPE SIZE (6" to 48") and rows for fitting types: 90° BEND, 45° BEND, 22-1/2° BEND, 11-1/4° BEND, TEE**, REDUCER (ONE SIZE SMALLER), DEAD END.

* 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: SM(SAND SILT) 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.

RESTRAINED PIPE TABLE (PVC)



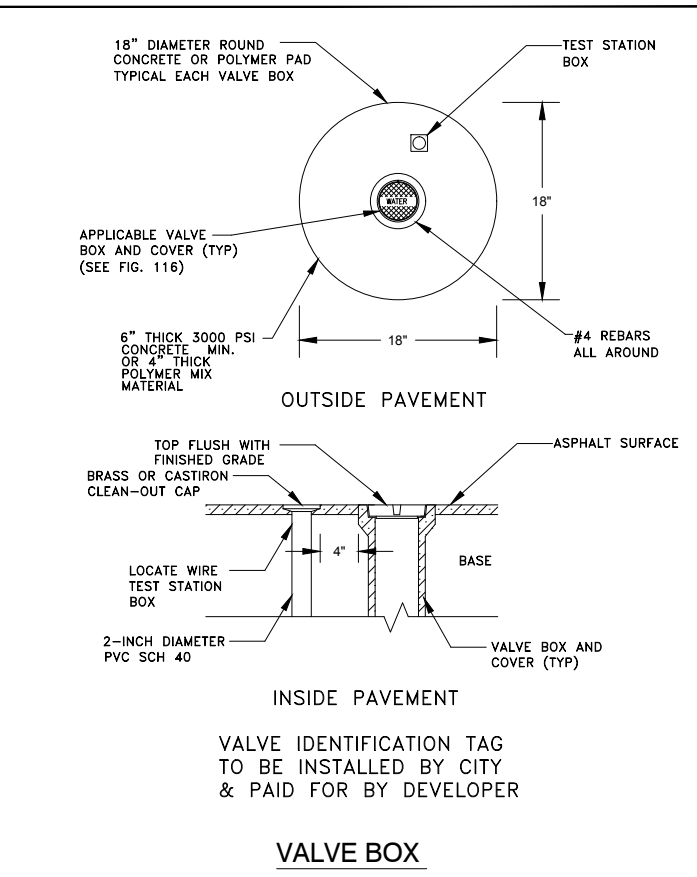
(VARIES BY CASING SIZE)

Table with columns for CARRIER PIPE NOMINAL DIAMETER (4, 6, 8, 10, 12, 16, 20, 24, 30, 36, 42) and rows for MINIMUM CASING OUTSIDE DIAMETER (INCHES) and MINIMUM CASING WALL THICKNESS (INCHES).

NOTES:

- 1. WHEN CONSTRUCTION IS WITHIN FDOT OR RAILROAD JURISDICTION, ADDITIONAL REQUIREMENTS SHALL BE MET. 2. DISTANCE BETWEEN SPACERS TO BE PER MANUFACTURER'S SPECIFICATIONS. 3. NO FLOWABLE FILL BETWEEN THE ANNULAR SPACE OF THE CASING OR CARRIER PIPE. 4. WHERE PRACTICAL, CASING SHALL EXTEND 10 FEET BEYOND EDGE OF PAVEMENT AND SHALL NOT BE LESS THAN 6 FEET BEYOND EDGE OF PAVEMENT IN ANY CASE. THE CITY MAY REQUIRE LONGER CASING FOR DEEPER BORES.

BORING AND JACKING DETAIL

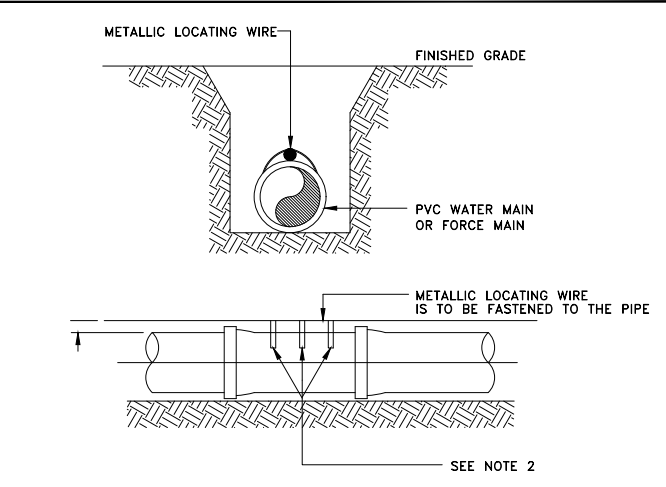


VALVE BOX

Table with columns for DI FITTINGS (≤24", >24"), PIPE MATERIAL* (PVC, DI, HDPE), GATE VALVE** (≤12", >12"), FORCEMAIN* (PVC, HDPE) and rows for PSI (100, 150, 200, 250, 350).

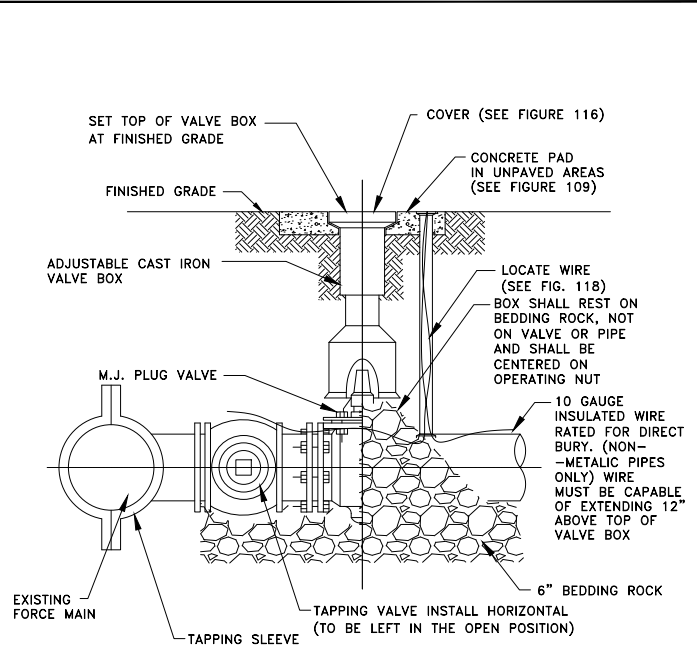
* PVC SHALL HAVE A MAXIMUM DIMENSION RATIO (DR) OF 18 AND HDPE SHALL BE MAX DR11. FORCEMAIN: PVC SHALL BE MAX DR18 UNLESS DESIGN REQUIRES OTHERWISE AND HDPE SHALL BE MAX DR17. ** BUTTERFLY VALVES SHALL BE CLASS 150B

PIPE AND APPURTENANCES PRESSURE RATING



- 1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR. 2. SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109. 3. BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION. 4. SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS. 5. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

PVC PIPE LOCATING WIRE DETAIL



FORCE MAIN WET TAP TIE-IN DETAIL

TREE LEGEND

	CYPRESS	CYPRESS
	LAUREL OAK	QUERCUS LAURIFOLIA
	LIVE OAK	QUERCUS VIRGINIANA
	MAGNOLIA	MAGNOLIA GRANDIFLORA
	PINE TREE	PINUS PALUSTRIS
	PALM	SABAL PALMETTO
	LIVE OAK	Q.V. HYBRID
	CHERRY	PRUNUS SPP.
	WATER OAK	QUERCUS NIGRA

- TREE TO BE REMOVED
- SPECIMEN TREE
- TREE TO BE PRESERVED WITH TREE PROTECTION FENCE

TREE DATA:

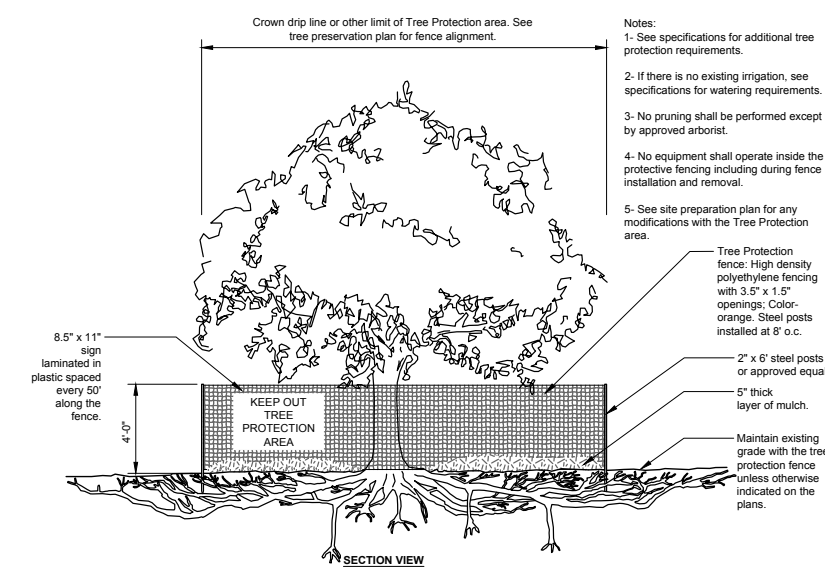
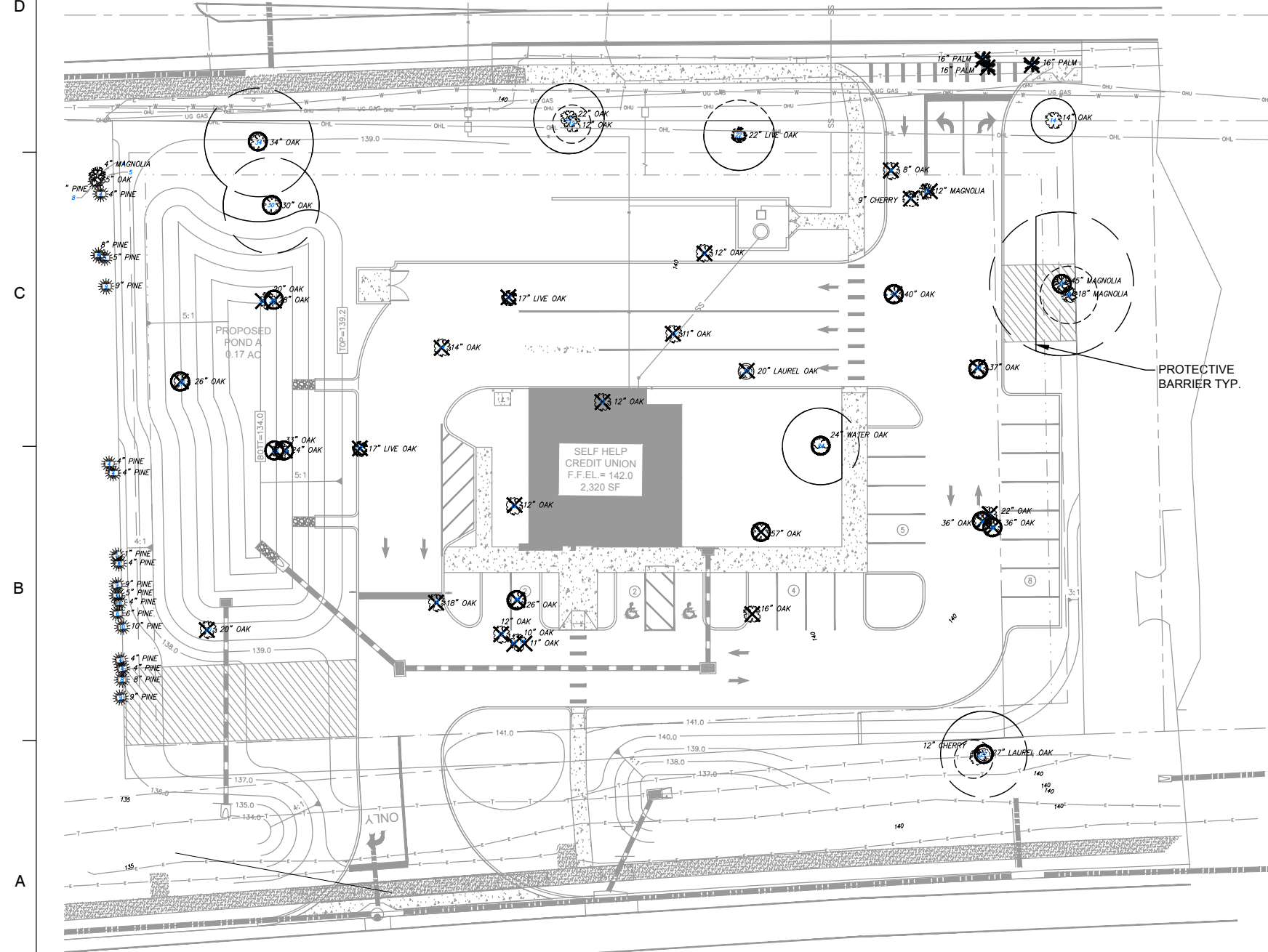
- TREE INCHES ON-SITE: 900 INCHES
- SITE CLEARING AREA: 1.24± ACRES (54,014 SF)
- TOTAL TREE INCHES REMOVED: 640 INCHES
- TOTAL INCHES RETAINED: 260 INCHES
- TOTAL SPECIMEN INCHES RETAINED: 160 INCHES
- TOTAL TREE INCHES TO BE REPLACED: 583 INCHES
- 3" DBH TREES (4): 12 INCHES
- 2.5" DBH TREES (53): 133 INCHES
- TOTAL INCHES POST DEVELOPMENT: 405 INCHES
- QUANTITY OF SPECIMEN TREES REMOVED: 343 INCHES (10 TREES)
- MAXIMUM TREE STOCK: (DEVELOPABLE AREA) 1.37 ACRES 59,677 SF
- SPECIMEN/HISTORIC TREES:
 - 30" DBH FOR 6,000 SF: 30 INCHES
 - 5" DBH PER 1,000 SF ABOVE 6,000 SF: 268.5 INCHES
- OTHER PROTECTED TREES:
 - 21" DBH FOR 6,000 SF: 21 INCHES
 - 3.5" DBH PER 1,000 SF ABOVE 6,000 SF: 187.9 INCHES
- TOTAL MAXIMUM REPLACEMENT: 507.4 INCHES
- DBH REPLACEMENT: 144.5 INCHES
- TOTAL BALANCE REQUIRED: 362.9
- MITIGATION RATE PER DBH INCH: 10
- TREE MITIGATION FEE: \$3,629.00

TREE PROTECTION NOTE:

1. A PROTECTIVE BARRIER SHALL BE PLACED AROUND ALL PROTECTED TREES PRIOR TO LAND PREPARATION OR CONSTRUCTION ACTIVITIES, IN ACCORDANCE WITH LDC 5.01.11.

EXISTING TREE CHART

COMMON	BOTANICAL	DBH	SAVED	REMOVED
LIVE OAK	Q.V. HYBRID	34	X	
LIVE OAK	Q.V. HYBRID	30	X	
LIVE OAK	Q.V. HYBRID	20		X
LIVE OAK	Q.V. HYBRID	28		X
LIVE OAK	Q.V. HYBRID	26		X
LIVE OAK	Q.V. HYBRID	33		X
LIVE OAK	Q.V. HYBRID	24		X
LIVE OAK	Q.V. HYBRID	20		X
LIVE OAK	Q.V. HYBRID	22	X	
LIVE OAK	Q.V. HYBRID	12	X	
LIVE OAK	QUERCUS VIRGINIANA	22	X	
LIVE OAK	QUERCUS VIRGINIANA	17		X
LIVE OAK	QUERCUS VIRGINIANA	17		X
LIVE OAK	Q.V. HYBRID	14		X
LIVE OAK	Q.V. HYBRID	18		X
LIVE OAK	Q.V. HYBRID	26		X
LIVE OAK	Q.V. HYBRID	12		X
LIVE OAK	Q.V. HYBRID	10		X
LIVE OAK	Q.V. HYBRID	11		X
LIVE OAK	Q.V. HYBRID	16		X
LIVE OAK	Q.V. HYBRID	57		X
WATER OAK	QUERCUS NIGRA	24	X	
LIVE OAK	Q.V. HYBRID	20		X
LIVE OAK	Q.V. HYBRID	11		X
LIVE OAK	Q.V. HYBRID	12		X
PALM	SABAL PALMETTO	16		X
PALM	SABAL PALMETTO	16		X
LIVE OAK	Q.V. HYBRID	8		X
MAGNOLIA	MAGNOLIA GRANDIFLORA	12		X
CHERRY	PRUNUS SPP.	9		X
LIVE OAK	Q.V. HYBRID	14	X	
MAGNOLIA	MAGNOLIA GRANDIFLORA	45	X	
MAGNOLIA	MAGNOLIA GRANDIFLORA	18	X	
LIVE OAK	Q.V. HYBRID	40		X
LIVE OAK	Q.V. HYBRID	37		X
LIVE OAK	Q.V. HYBRID	22		X
LIVE OAK	Q.V. HYBRID	36		X
LIVE OAK	Q.V. HYBRID	36		X
LIVE OAK	Q.V. HYBRID	27	X	
CHERRY	PRUNUS SPP.	12	X	
		900		



- Notes:**
- 1- See specifications for additional tree protection requirements.
 - 2- If there is no existing irrigation, see specifications for watering requirements.
 - 3- No pruning shall be performed except by approved arborist.
 - 4- No equipment shall operate inside the protective fencing including during fence installation and removal.
 - 5- See site preparation plan for any modifications with the Tree Protection area.

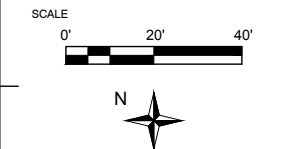


Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS-8794
LAND ARCH - LC20000569

SELF HELP CREDIT UNION
 FINAL SITE PLAN
 APOPKA, FLORIDA

SEAL
 Michael J. Uchik
 FL REG. # 669875
 Feb 20, 2018

KEY PLAN



No.	DATE	BY	Description

REVISIONS

DRAWN BY _____
 APPROVED BY _____
 CHECKED BY _____
 DATE JULY 6, 2017

TREE REMOVAL PLAN

PROJECT NO. 50094806

L1.10

SHEET NO. OF 79

TREE REMOVAL PLAN
 SCALE: 1" = 20'-0"

195

1 TREE PROTECTION
 1/4" = 1'-0"

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 FX-PL-FX-TRMT-02

SEAL

KEY PLAN



No.	DATE	BY	Description

REVISIONS

DRAWN BY _____
APPROVED BY _____
CHECKED BY _____
DATE JULY 6, 2017

TITLE

LANDSCAPE PLAN

PROJECT NO. 50094806

L2.10

SHEET NO. OF 79

BUFFER SCHEDULE		
NORTHEAST - 10' REQUIRED - 10' PROVIDED		
300 LF	CANOPY: 1/35 LF MIN.	SHRUB: 10/35 LF MIN.
REQUIRED	9	86
PROVIDED	9	0
SOUTHEAST - 5' REQUIRED - 5' PROVIDED		
192 LF	CANOPY: 1/35 LF MIN.	GROUND COVER/HEDGE
REQUIRED	5	CONTINUOUS
PROVIDED	6	CONTINUOUS
SOUTHWEST - 10' REQUIRED - 10' PROVIDED		
300 LF	CANOPY: 1/35 LF MIN.	SHRUB: 10/35 LF MIN.
REQUIRED	9	86
PROVIDED	9	75
NORTHWEST - 5' REQUIRED - 5' PROVIDED		
206 LF	CANOPY: 1/35 LF MIN.	
REQUIRED	6	
PROVIDED	5	

IRRIGATED TURF AREA:	
BAHIA:	20,903 SF (0.4799 ACRES)
ST. AUGUSTINE	2,772 SF

IRRIGATION NOTES:

1. ALL PLANT WATER USE ZONES SHALL BE IRRIGATED SEPARATELY.
2. TURF AREAS SHALL BE IRRIGATED WITH SPRAY HEADS AND SHALL BE IRRIGATED SEPARATELY FROM SHRUBS.
3. TREES SHALL BE IRRIGATED SEPARATELY WITH BUBBLERS.
4. ALL TURF, SHRUBS AND GROUND COVER AREAS SHALL BE IRRIGATED WITH AN UNDERGROUND SPRINKLER SYSTEM AND BE DESIGNED WITH 100% COVERAGE.
5. EXISTING TREES TO REMAIN SHALL NOT BE IRRIGATED AND SHALL NOT HAVE ANY PIPING OR HEADS WITHIN THE ROOT PROTECTION ZONES.
6. IRRIGATE ALL LANDSCAPED AREAS UP TO PROPERTY LINES, ROW'S.
7. FULL IRRIGATION DESIGN PLAN TO BE SUBMITTED WITH FINAL SITE PLAN SUBMITTAL.

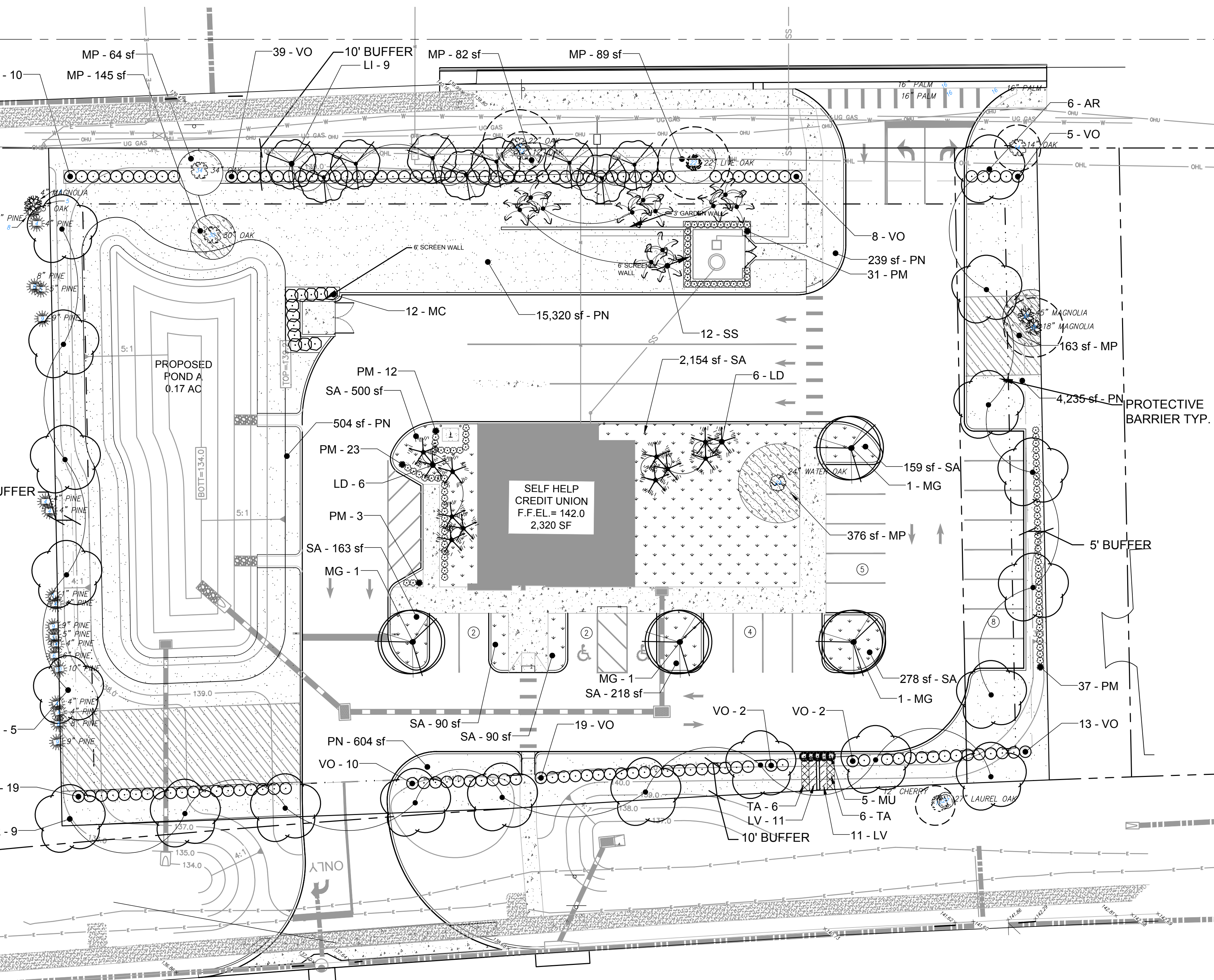
INTERIOR VUA LANDSCAPE AREA CALCULATIONS:

TOTAL VEHICULAR USE AREA:	22,024
INTERIOR LANDSCAPE AREA:	
REQUIRED(10%):	2,202 SF
PROVIDED:	2,230 SF
TREES	
REQUIRED:	4 (21 SPACES - 1/6 SPACES)
PROVIDED:	6 (5 PROVIDED, 1 EXISTING)

LANDSCAPE NOTES:

1. LANDSCAPE AND IRRIGATION PLANS SHALL BE IN ACCORDANCE WITH LDC ARTICLE V, WATER-WISE ORDINANCE NO. 2069.
2. ALL SERVICE EQUIPMENT AND UTILITY BOXES MUST BE FULLY SCREENED.
3. ALL AREAS THAT ARE NOT PAVED OR MULCHED SHALL BE SODDED TO THE LIMITS OF SOD AND PROPERTY LINE WITH BAHIA SOD.
4. SOD ALL PONDS WITH BAHIA SOD TO TWO(2) FEET BELOW NORMAL WATER ELEVATION. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
5. SOD ALL DISTURBED AREAS WITHIN MERCANTILE LANE RIGHT OF WAY.
6. ALL TREES AND SHRUBS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM TOHO MAINTAINED UTILITIES.
7. ALL PROPOSED TREES SHALL BE MEASURED, FOR DBH, AT 54" ABOVE SOIL.

INTERIOR VUA LANDSCAPE AREA DIAGRAM
N.T.S.



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	REMARKS	
AR	20	Acer rubrum / Red Maple				2-1/2" DBH		
LI	9	Lagerstroemia indica / Crape Myrtle	15 gal			2-1/2" DBH		
LD	12	Livistona decipiens / Livistona Palm	15 gal			10' - 14' CT		
MG	4	Magnolia grandiflora / Southern Magnolia	15 gal			3" DBH		
SS	12	Sabal palmetto / Cabbage Palmetto	15 gal			10' - 14' CT		
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT.	SIZE	REMARKS		
MU	5	Muhlenbergia capillaris / Pink Muhly	1 gal					
MC	12	Myrica cerifera / Wax Myrtle	5 gal			36" HT & 24" SPR		
PM	106	Podocarpus macrophyllus / Yew Pine	5 gal			36" HT & 24" SPR		
VO	127	Viburnum odoratissimum / Sweet Viburnum	5 gal			36" HT & 24" SPR		
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	FIELD2	FIELD3	SPACING	REMARKS
LV	22	Liriope muscari 'Variegata' / Variegated Lily Turf	1 gal	FULL			18" o.c.	
MP	1,800 sf	Mulch - / Shredded Hardwood Mulch	flat					3" Depth
PN	20,903 sf	Paspalum notatum / Bahia Grass	sod					
SA	2,772 sf	Stenotaphrum secundatum 'Floritam' / Floritam St. Augustine Sod	sod					
TA	12	Trachelospermum asiaticum 'Asiatic' / Asiatic Jasmine	flat					24" o.c.

LANDSCAPE PLAN

SCALE: 1" = 20'-0"

SEAL

KEY PLAN

SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY _____

APPROVED BY _____

CHECKED BY _____

DATE JULY 6, 2017

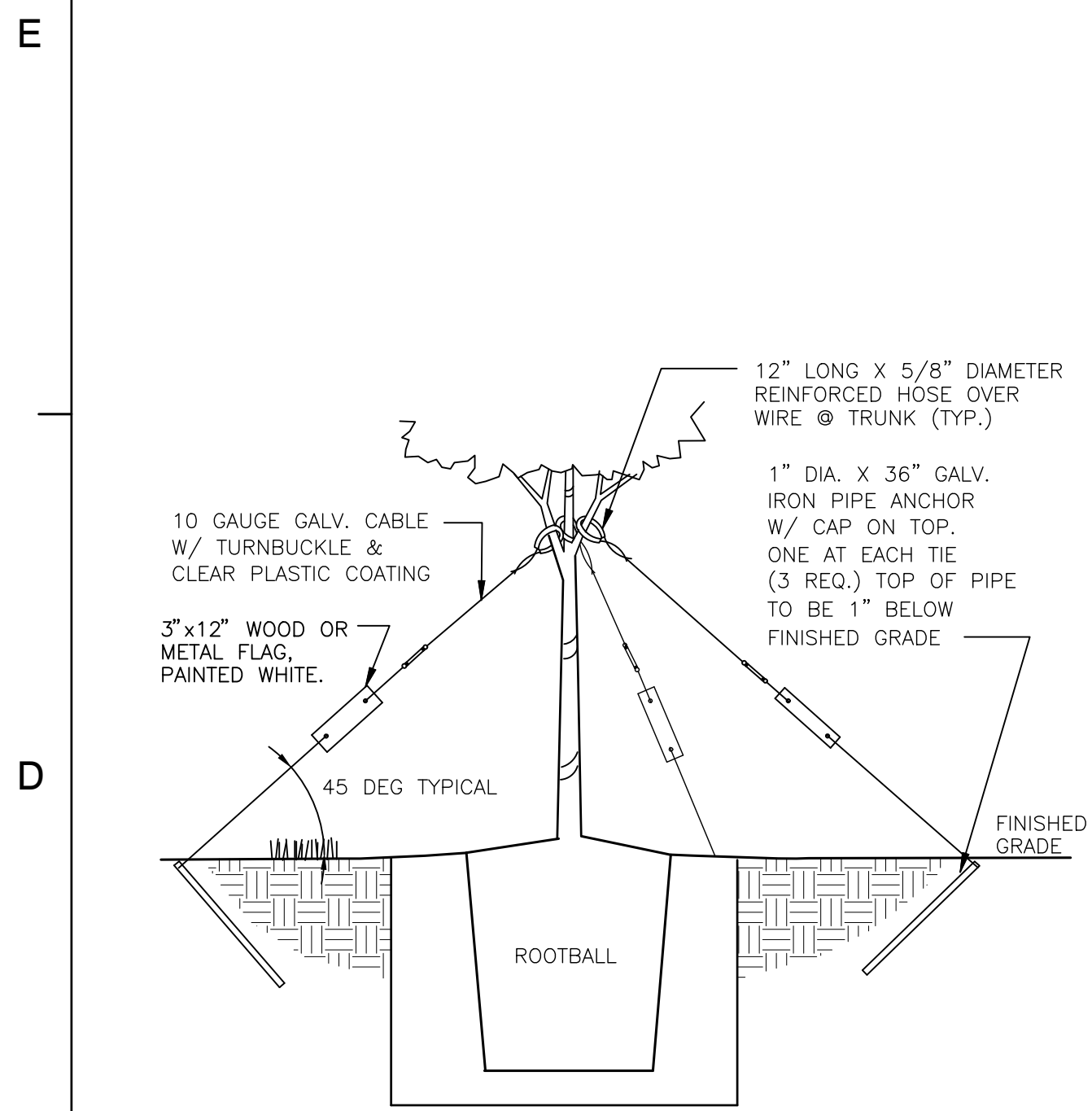
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**LANDSCAPE
 DETAILS**

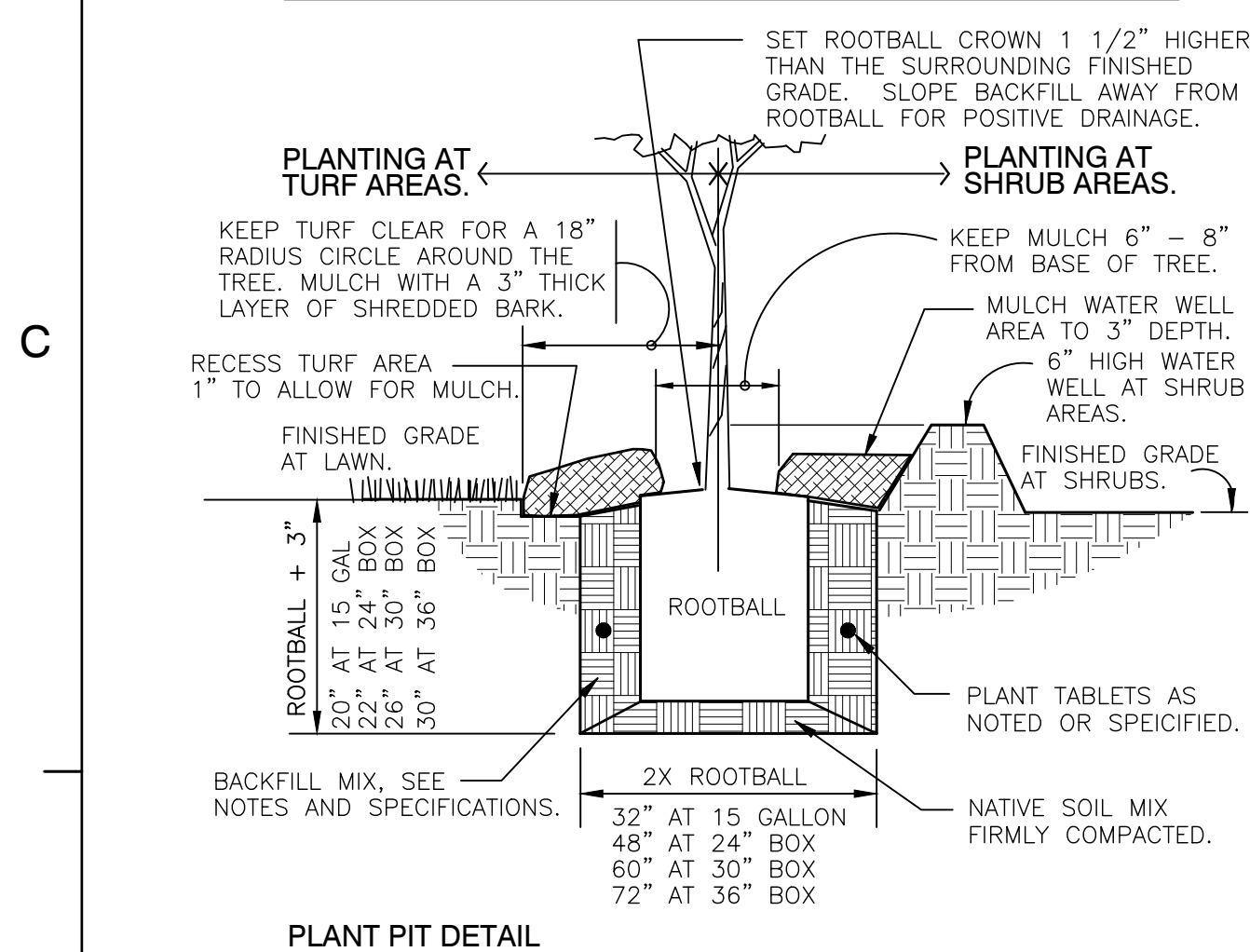
PROJECT NO. 50094806

L3.00

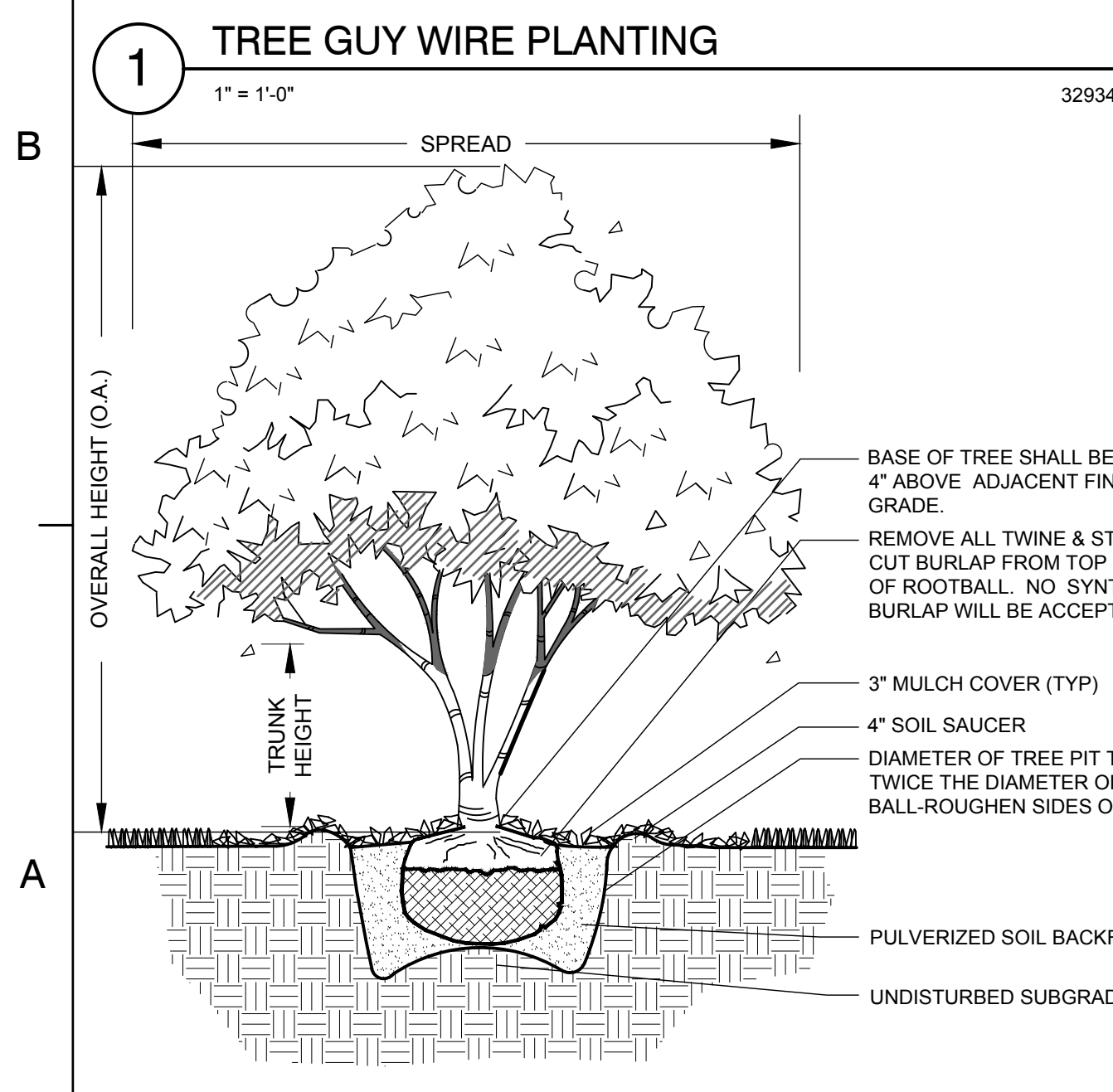
SHEET NO. OF 79



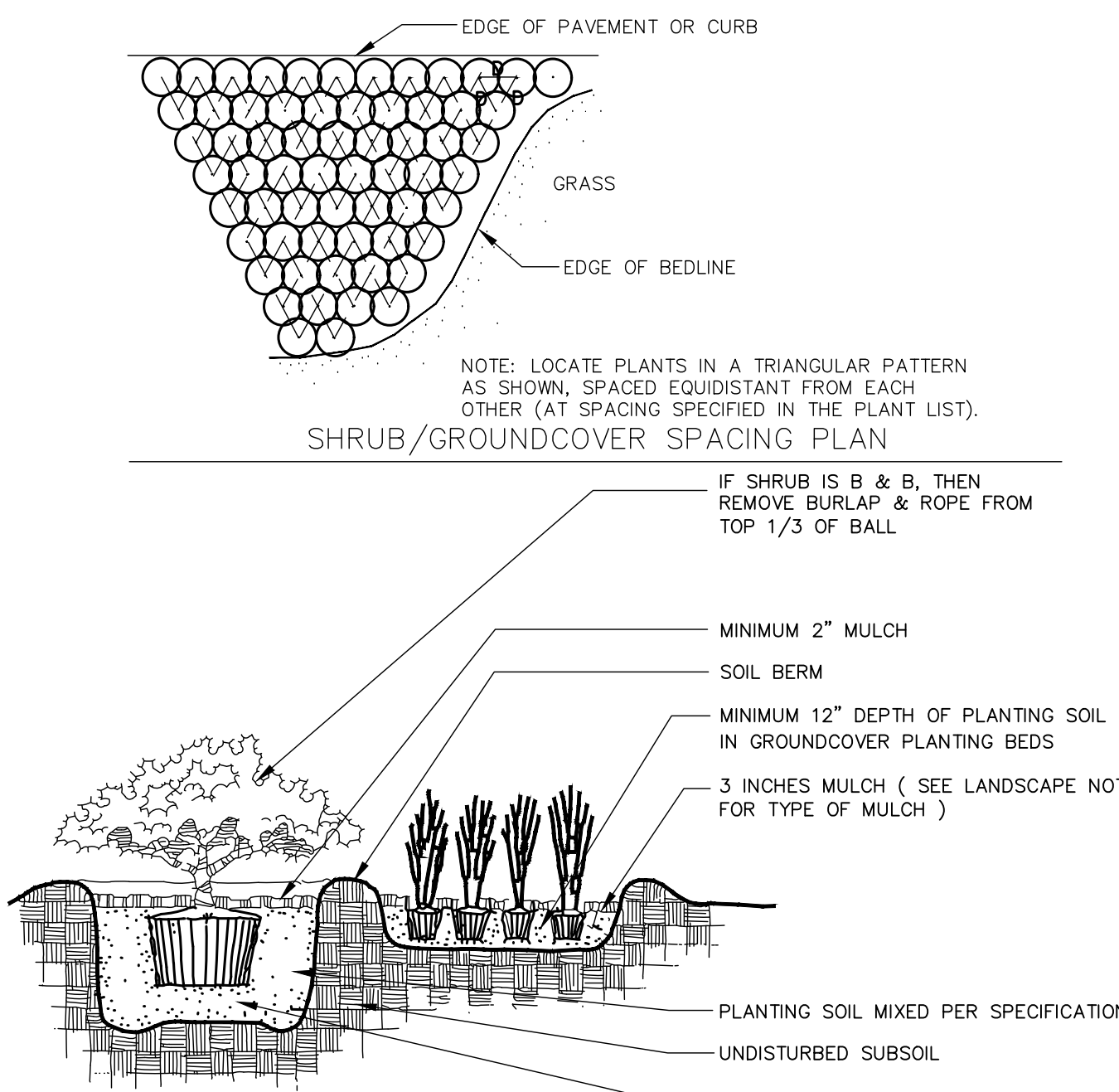
6 PALM STAKING
 N.T.S. 329343.32-01



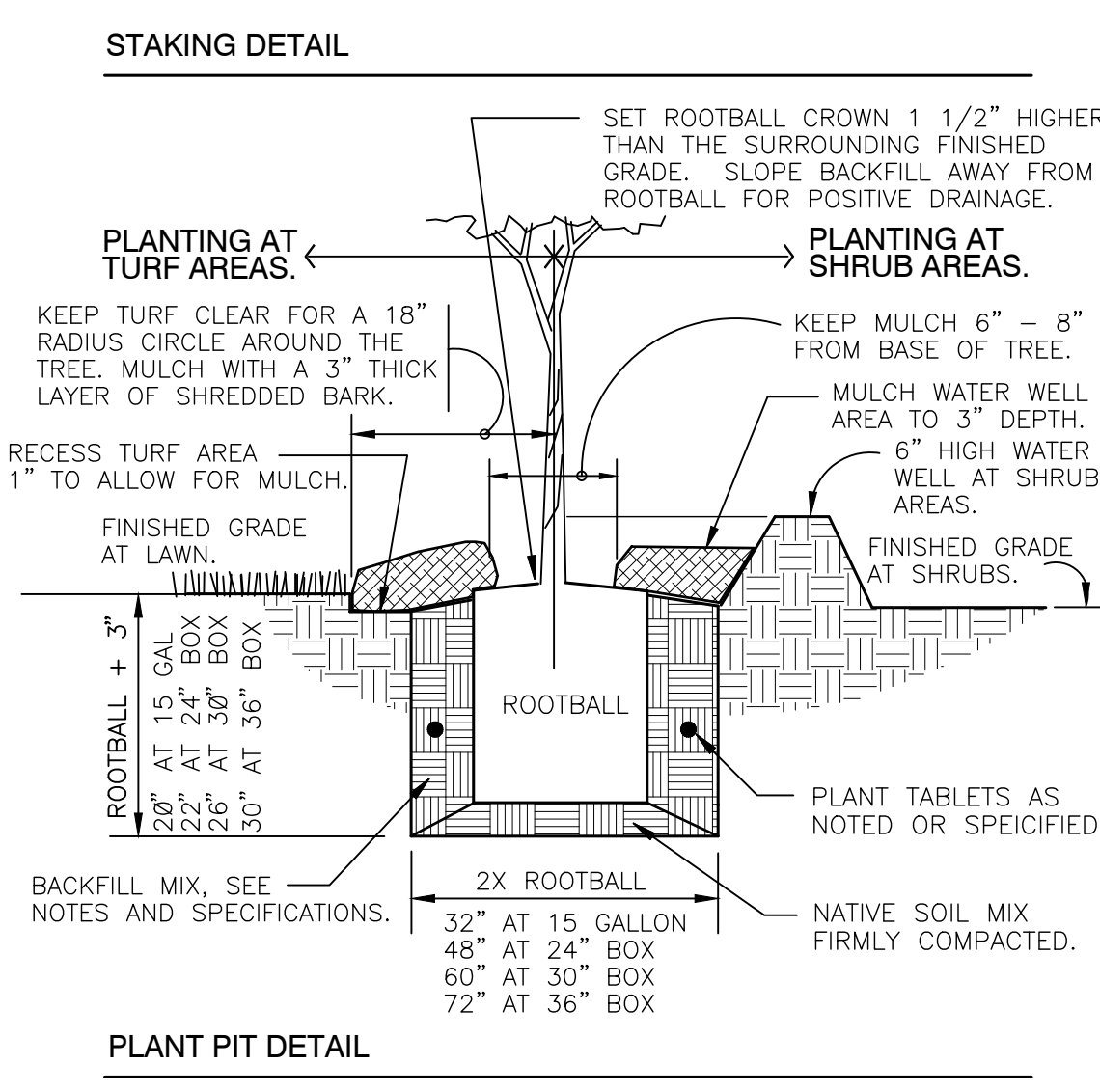
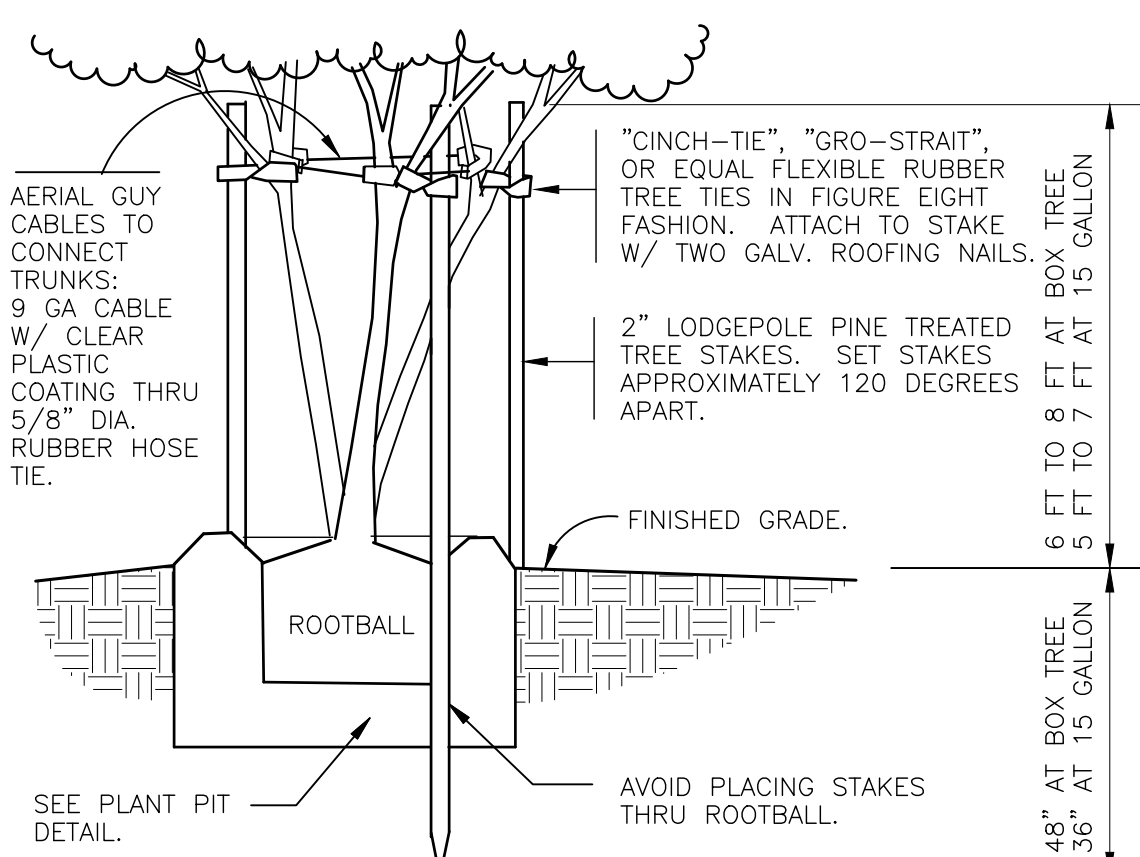
5 ROOT BARRIER TREE PLANTING
 1" = 1'-0" FX-PL-FX-TREE-12



1 TREE GUY WIRE PLANTING
 1" = 1'-0" 329343.26-03



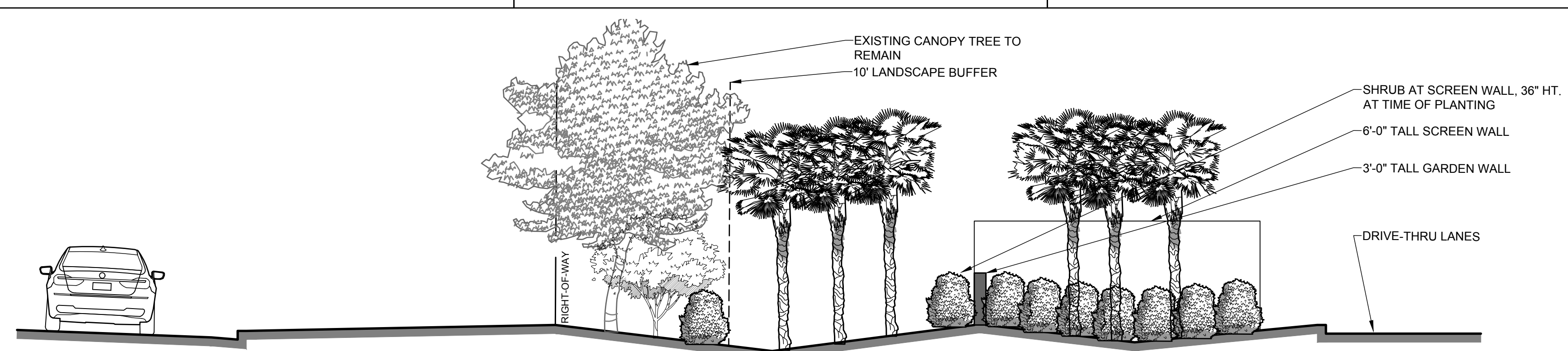
3 SHRUB AND GROUNDCOVER PLANTING
 N.T.S. 329333.13-04



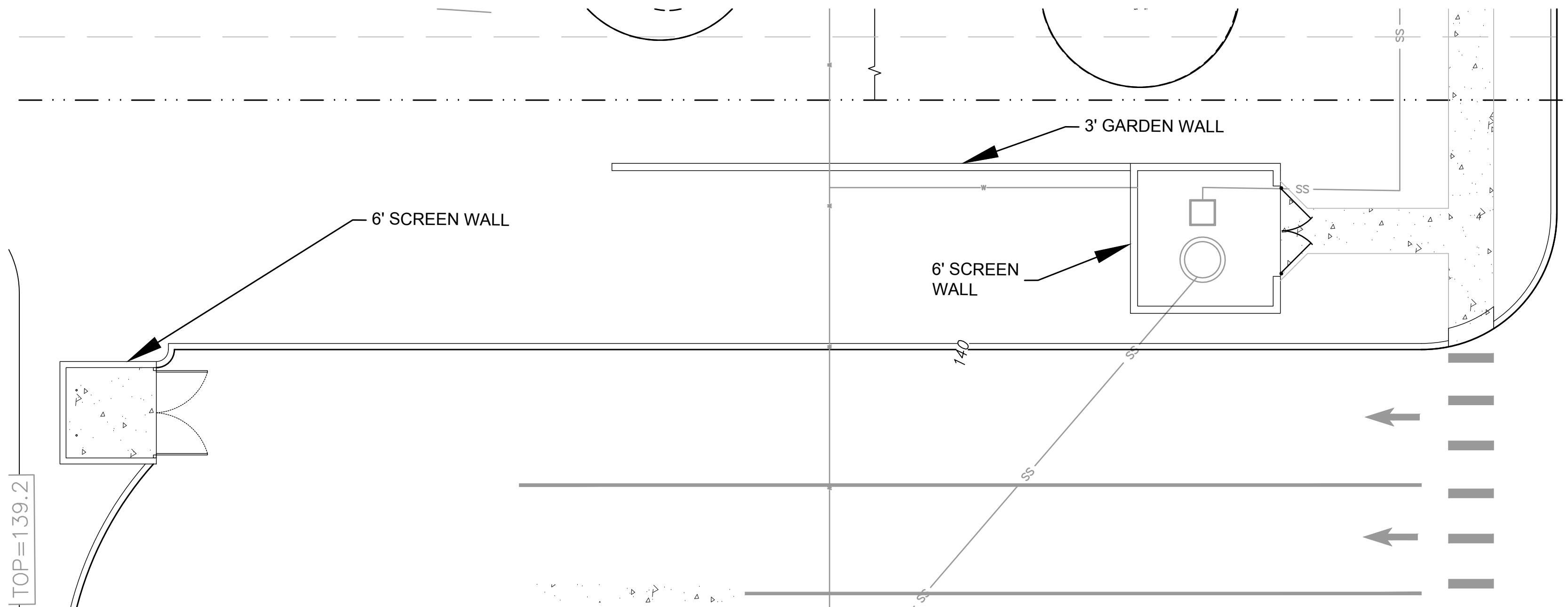
2 MULTI-STEM TREE PLANTING
 N.T.S. 329343.33-01

LANDSCAPE NOTES:

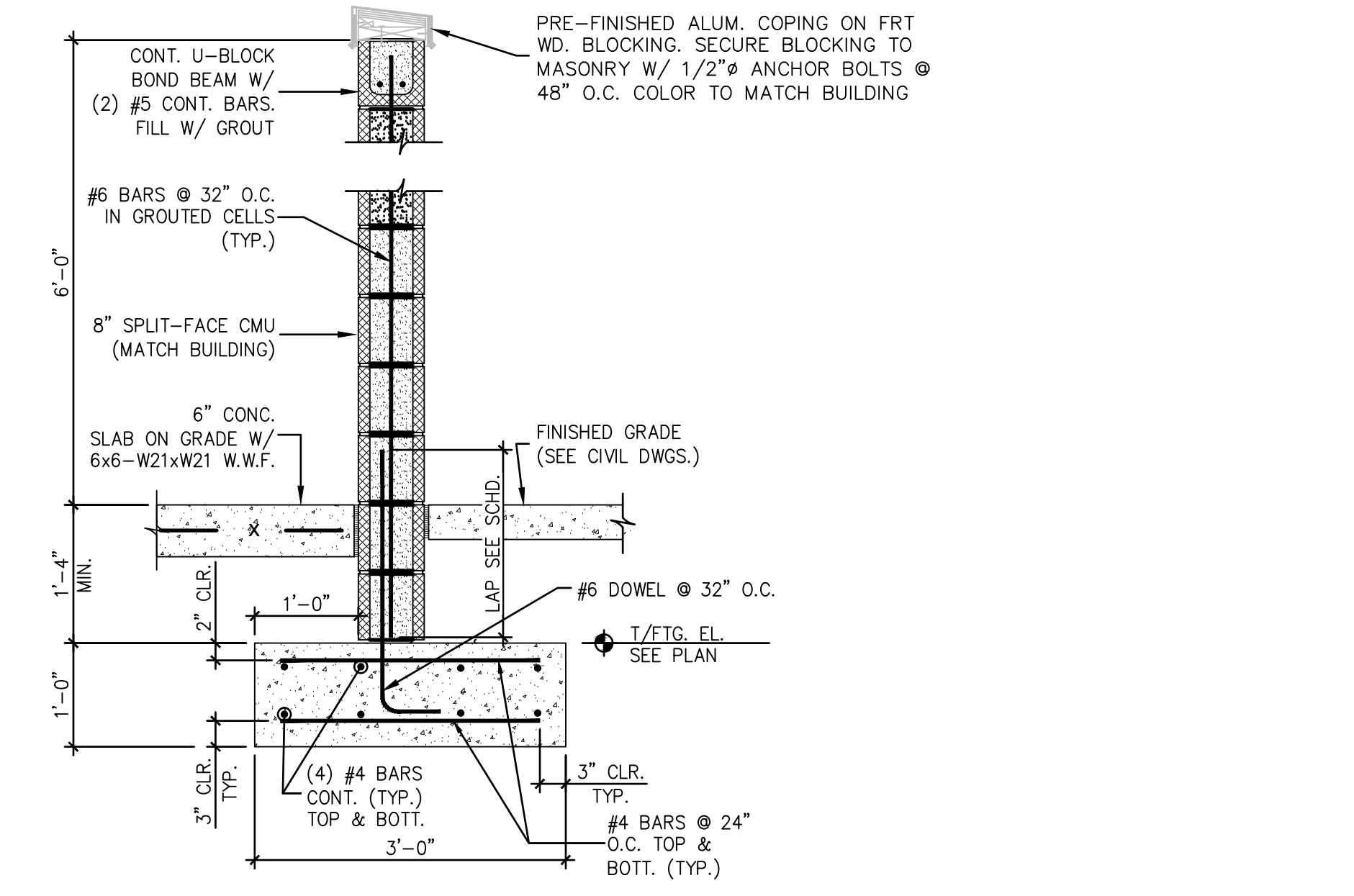
- The Landscape Contractor shall be responsible for all materials and all work as called for on the Landscape Plans and in the Landscape Specifications. In the event of variation between quantities shown on plant list and the plans, the plans shall control. The Landscape Contractor shall verify all quantities and report any discrepancies at the time of bidding.
- The Landscape Contractor shall review architectural/engineering plans and become thoroughly familiar with surface and subsurface utilities.
- Every possible safeguard shall be taken to protect building surfaces, equipment and furnishings. The Landscape Contractor shall be responsible for any damage or injury to person or property which may occur as a result of negligence in the execution of the work.
- The work shall be coordinated with other trades to prevent conflicts. Coordinate the planting with the irrigation work to assure availability and proper location of irrigation items and plants.
- All planting shall be performed by personnel familiar with planting procedure and under the supervision of a qualified planting foreman.
- All plant material shall be graded Florida No. 1 or better as outlined under Grades and Standards for Nursery Plants, Part I and II, published by the Florida Department of Agriculture and Consumer Services.
- The Landscape Architect or Owner shall have the right, at any stage of the operations, to reject any and all work and materials which, in his opinion, do not meet with the requirements of these specifications.
- Except as otherwise specified, the Landscape Contractor's work shall conform to accepted horticultural practices as used in the trade.
- The minimum acceptable size of all plants, measured after pruning, with branches in normal positions, shall conform to the measurements specified on the plant list or as indicated on the landscape drawing. Height and spread dimensions refer to main body of the plant and not extreme branch tip to tip. The caliper of tree trunks is to be taken one foot above the ground level.
- Plants shall be protected upon arrival at the site, by being thoroughly watered and properly maintained until planted.
- All tree pits shall be excavated to size and depth in accordance with the USDA Standard for Nursery Stock 260.1, unless shown otherwise on the drawings, and backfilled with the specified planting soil. The Landscape Contractor shall first fill all tree pits with water before planting to assure proper drainage percolation is available.
- The Landscape Contractor shall be responsible for proper watering of all plants. All plants shall be thoroughly watered at time of planting and kept adequately watered until time of acceptance. It shall be the Landscape Contractor's responsibility to assure that plants are not over-watered.
- It shall be the Landscape Contractor's responsibility to prevent plants from falling or being blown over, to re-straighten and replant all plants which lean or fall and to replace all plants which are damaged due to lack of proper guying or staking. The Landscape Contractor shall be legally liable for any damage caused by instability of any plant material.
- All trees and all palms shall be guyed or staked or braced. The Landscape Contractor shall determine which small or multi-trunk trees need to be guyed and staked to maintain plumb. Staking of trees and shrubs, if required, shall be done as per staking and guying detail prepared by the Landscape Architect. It shall be the responsibility of the Landscape Contractor to remove guys and stakes from the trees and job site after a period of 90 days.
- Plants blown over by high winds, within the guaranteed period, shall not be cause for additional expense to the Owner, but shall be the responsibility of the Landscape Contractor. Damaged plants shall be replaced by the Landscape Contractor at no additional cost to the Owner.
- Sod shall be certified to be free of the imported fire ant. Sod shall have a clean growth of acceptable grass, reasonably free of weeds with not less than 1 1/2" of soil firmly adhering to roots. It shall be the responsibility of the Landscape Contractor to measure and determine the exact amount required. This amount shall be verified with the Owner or Landscape Architect before installation.
- The Landscape Contractor shall insure adequate vertical drainage in all plant beds, planters, and sod areas. Vertical drilling through any compacted fill to native soil shall be accomplished to insure drainage. If well drained fill is necessary to assure positive drainage, this issue shall be brought up by the Landscape Contractor at time of bidding.
- The Landscape Contractor shall insure that his work does not interrupt established or projected drainage patterns.
- The Landscape Contractor shall prune, shape and remove dead foliage/limbs from existing plant material to remain. Confirm with the Landscape Architect or Owner the extent of work required at time of bidding.
- Mulch - All plant beds shall be top dressed with 3" shredded hardwood mulch (or approved equal).
- Transplanted Material - The Landscape Contractor shall be responsible for determining and evaluating which plant materials are suitable for transplanting and shall verify this with the Landscape Architect or Owner. The Landscape Contractor shall take all reasonable, horticulturally acceptable measures to assure the successful transplanting of determined plant materials. The Landscape Contractor shall be responsible for replacing any relocated plant materials which die if such measures are not taken, as determined by the Landscape Architect or Owner. Replacement plants shall be of identical species and size if required.
- MAINTENANCE PRIOR TO FINAL INSPECTION AND ACCEPTANCE:
 - Maintenance shall commence after each plant is planted and the maintenance period shall continue until the job or specific phase of the job is accepted by the Landscape Architect or Owner. Extreme care shall be taken to instruct the Owner or his representatives in general maintenance procedures.
 - Plant maintenance shall include watering, pruning, weeding, cultivating, mulching, tightening, and repairing of guys, replacement of sick or dead plants, resetting plants to proper grades or upright positions and restoration of the planting saucer and all other care needed for proper growth of the plants.
 - During the maintenance period and up to the date of final acceptance, the Landscape Contractor shall do all seasonal spraying and/or dusting of trees and shrubs. Upon completion of all planting, an inspection for acceptance of work will be held. The Landscape Contractor shall notify the Landscape Architect or Owner for scheduling of the inspection 10 days prior to the anticipated date.
 - At the time of the inspection, if all of the materials are acceptable, a written notice will be given by the Landscape Architect or Owner to the Landscape Contractor Stating the date when the Maintenance Period ends.
- GUARANTEE AND REPLACEMENT:
 - All plant materials shall be guaranteed for one (1) year from the time of final inspection and interim acceptance shall be alive and in satisfactory growth for each specific kind of plant at the end of the guaranteed period.
 - At the end of the guarantee period, any plant required under this contract that is dead or not in satisfactory growth, as determined by the Owner or the Landscape Architect, shall be removed and replaced. Replacement plants shall have an extended guarantee, as noted above, from time of replacement.
 - All replacements shall be planted of the same kind and size as specified on the plant list. They shall be the responsibility of the Landscape Contractor.



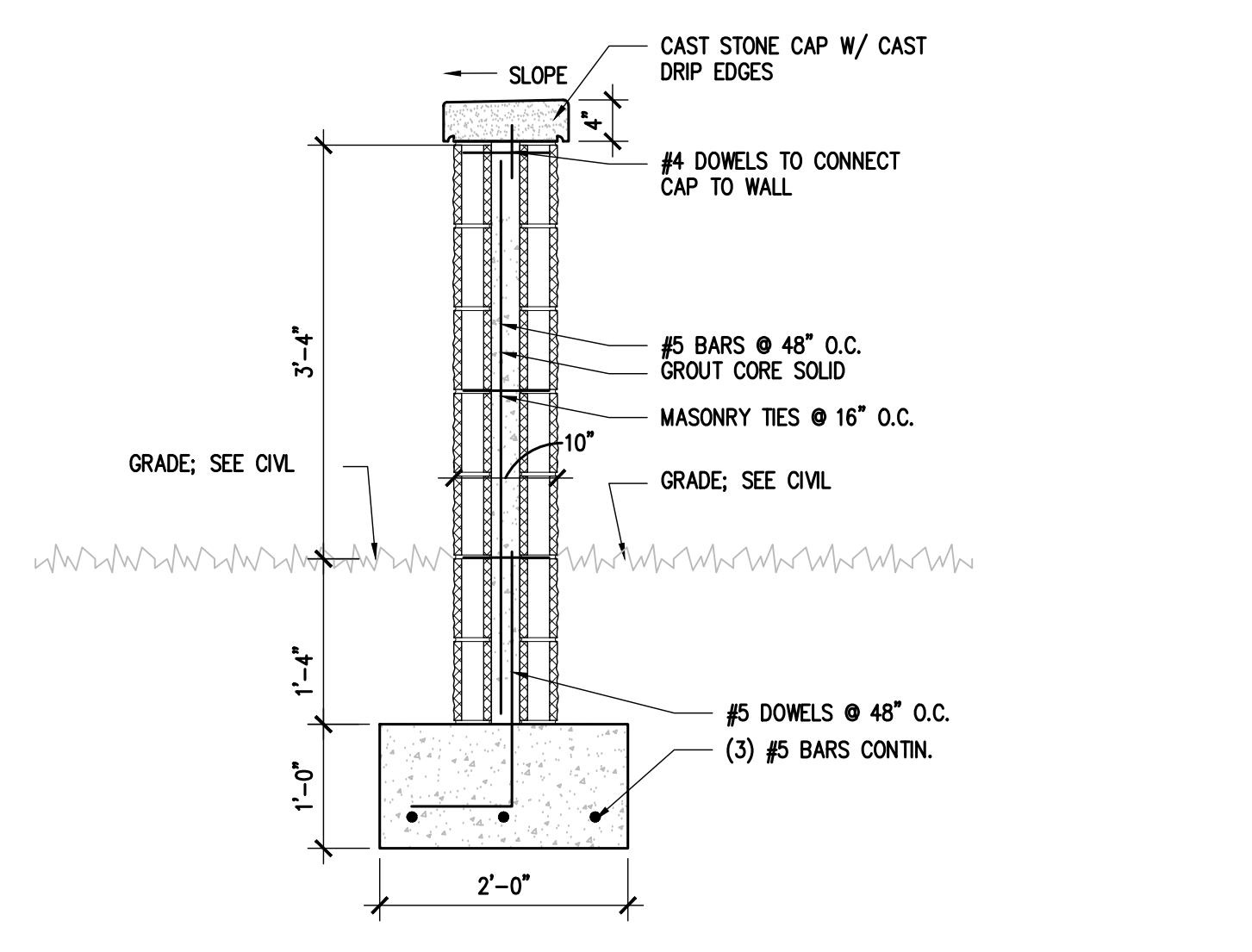
SECTION AT GARDEN WALL
 SCALE: 1" = 5'-0"



WALL LAYOUT PLAN
 SCALE: 1" = 10'-0"



1 MASONRY SCREEN WALL W/ FTG.
 3/4" = 1'-0"



2 MASONRY GARDEN WALL W/ FTG.
 3/4" = 1'-0"

SEAL

KEY PLAN

SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY _____

APPROVED BY _____

CHECKED BY _____

DATE JULY 6, 2017

TITLE

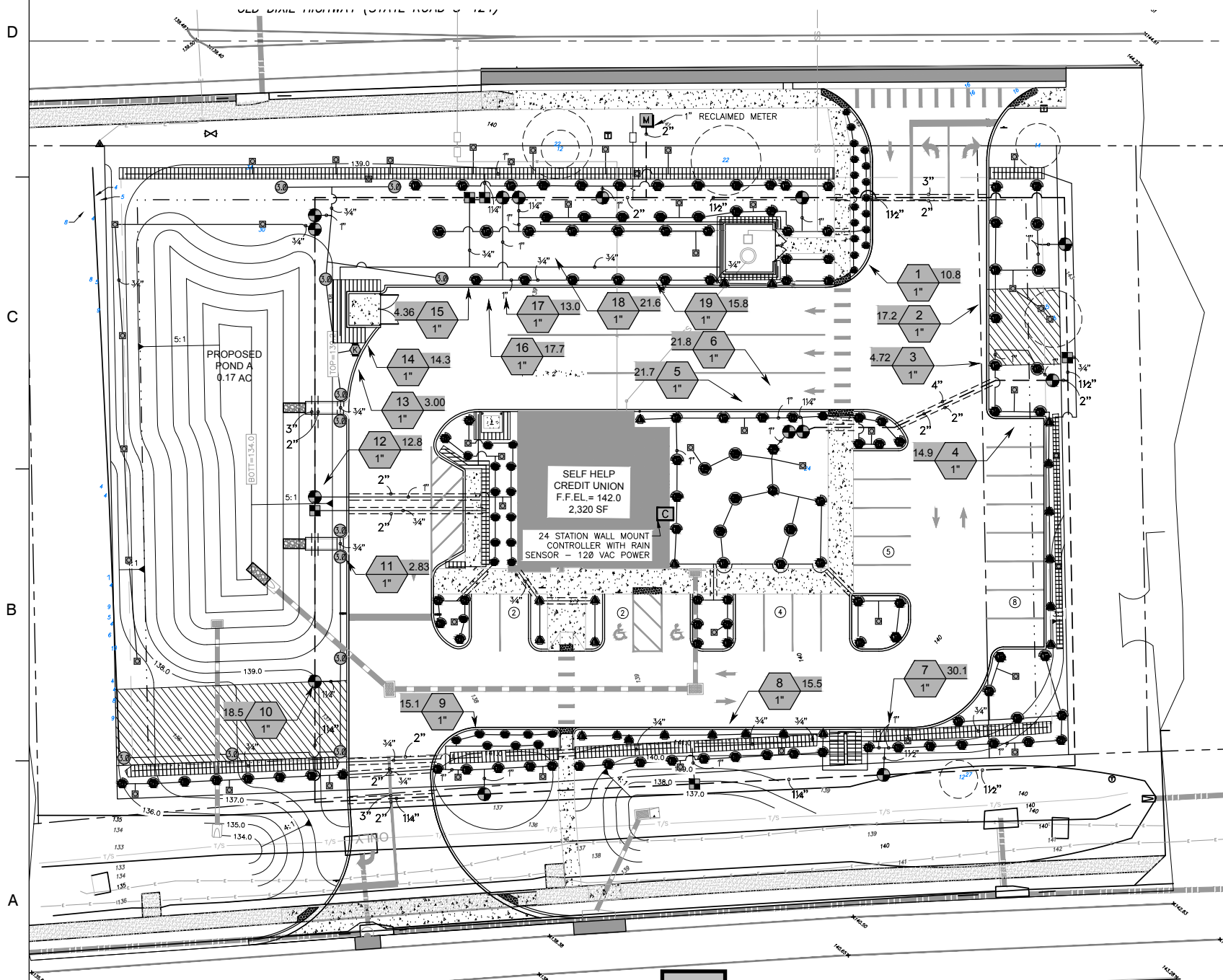
DETAILS

PROJECT NO. 50094806

- Notes:
1. Bubblers shall not be installed on the same zone as rotors.
 2. All distribution equipment must be 24" from vertical structures.
 3. No water allowed on sidewalk or parking lot (make sure to adjust overspray from all heads.)
 4. Irrigation zones shall not exceed the Five (5) feet / second flow velocity.
 5. Plants and turf shall not be irrigated on the same zone.



MAINLINE AND LATERAL LOCATION, WHERE SHOWN, IS FOR GRAPHIC CLARITY PURPOSES ONLY. INSTALL AT THE BACK OF CURB, FRONT OF WALK, BACK OF WALK, OR ADJACENT TO OTHER HARDSCAPES TO FACILITATE FUTURE LOCATION AND TO PROTECT FROM DAMAGE. ENSURE MAINLINE IS INSTALLED ACCORDING FDEP GUIDELINES AND TO IRRIGATION SPECIFICATIONS AND DETAILS.



IRRIGATION PLAN
SCALE: 1" = 20'-0"

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	DETAIL
EST LCS RCS CST SST	Rain Bird 1806-PRS-NP 15 Strip Series Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. Pressure Regulating. With Non Potable Purple Cap.	22	30	
Q H F	Rain Bird 1806-PRS-NP 5 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. Pressure Regulating. With Non Potable Purple Cap.	18	30	
Q T H F	Rain Bird 1806-PRS-NP 8 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. Pressure Regulating. With Non Potable Purple Cap.	22	30	
Q T H F	Rain Bird 1806-PRS-NP 10 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. Pressure Regulating. With Non Potable Purple Cap.	41	30	
Q T H F	Rain Bird 1806-PRS-NP 12 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. Pressure Regulating. With Non Potable Purple Cap.	23	30	
Q T H F	Rain Bird 1806-PRS-NP 15 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. Pressure Regulating. With Non Potable Purple Cap.	43	30	
88HE-VAN 12HE-VAN 18HE-VAN 15HE-VAN	Rain Bird 1806-PRS-NP ADJ Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. Pressure Regulating. With Non Potable Purple Cap.	4	30	
X G R	Hunter MP2000 PROS-06-PRS40-CV-R Turf Rotator, 6" (15.24 cm) pop-up with check valve, reclaimed body cap, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on PRS40 body. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc.	1	40	
▲ 1481 1482 1484 1486	Rain Bird 1800-1400 Flood Fixed flow rate (0.25-2.0GPM), full circle bubbler, 1/2" FIPT.	48	30	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS	DETAIL
⊙	Rain Bird 5006-PC, FC-NP Turf Rotor, 6.0" Pop-Up, Plastic Riser. Adjustable and Full Circle. Standard Angle Nozzle. With Non-Potable Purple Cover.	8	45	3.04	40'	
⊙	Rain Bird 5004-PC, FC (2) Turf Rotor, 4.0" Pop-Up, Plastic Riser. Adjustable and Full Circle. Standard Angle Nozzle.	4	35	2.71	38'	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
■	Rain Bird XGZ-100-PRF Medium Flow Drip Control Kit, 1" DV valve, 1" pressure regulating filter, 40psi pressure regulator. 3gpm - 15gpm.	5	
▨	Area to Receive Dripline Netafim TLDL-4-12 (12) Techline Pressure Compensating Landscape Dripline. 0.95GPH emitters at 12.0" O.C. Dripline laterals spaced at 12.0" apart, with emitters offset for triangular pattern. Surface and Sub Surface Installations. UV Resistant.	2,318 s.f.	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
⊙	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability. Globe Configuration.	14	
⊙	Rain Bird ESPBLXME with (O) ESPLXMSM12 20 Station Commercial Controller. Mounted on a Plastic Wall Mount. Without flow sensing.	1	
M	Water Meter 1" 1" Meter	1	
---	Irrigation Lateral Line: PVC Class 200 SDR 21-NP	3829 I.F.	
---	Irrigation Mainline: PVC Schedule 40-NP	961.6 I.F.	
---	Pipe Sleeve: PVC Schedule 40	357.5 I.F.	

Valve Callout

Valve Number

Valve Flow

Valve Size

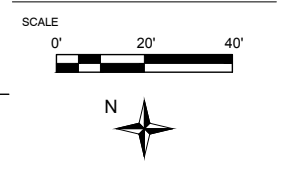


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ENGINEERING BUSINESS 4794
LAND ARCH - LC26000569

SELF HELP
CREDIT UNION
FINAL SITE PLAN
APOPKA, FLORIDA

SEAL
Michael J. Urchuk
FL RLA # 6666675
Feb 20, 2018

KEY PLAN



No.	DATE	BY	DESCRIPTION
1	1/24/18	JAS	CITY COMMENTS

REVISIONS

DRAWN BY _____

APPROVED BY _____

CHECKED BY _____

DATE JULY 6, 2017

TITLE

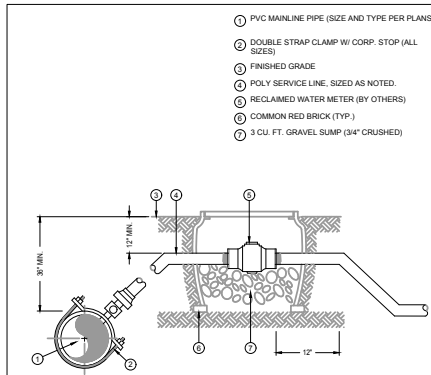
IRRIGATION PLAN

PROJECT NO. 50094806

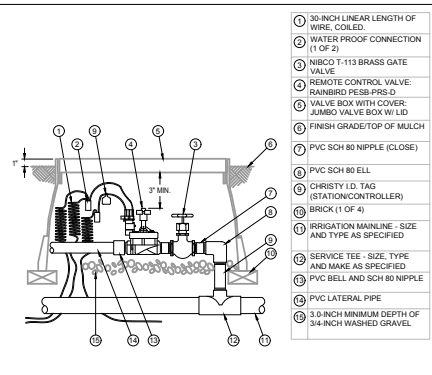
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SHEET NO. OF 79

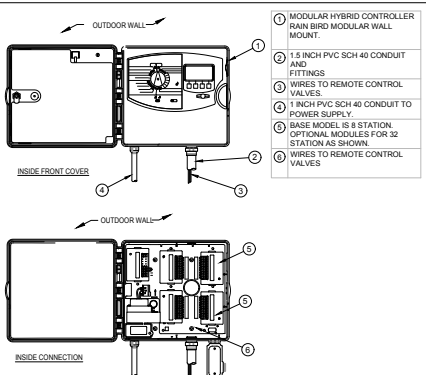
NUMBER	MODEL	SIZE	TYPE	GPM
1	Rain Bird PEB	1"	Turf Spray	10.79
2	Rain Bird PEB	1"	Turf Spray	17.22
3	Rain Bird XCZ-100-PRF	1"	Area for Dripline	4.72
4	Rain Bird PEB	1"	Turf Spray	14.88
5	Rain Bird PEB	1"	Turf Spray	21.69
6	Rain Bird PEB	1"	Turf Spray	21.83
7	Rain Bird PEB	1"	Turf Spray	30.05
8	Rain Bird XCZ-100-PRF	1"	Area for Dripline	14.06
9	Rain Bird PEB	1"	Turf Spray	15.07
10	Rain Bird PEB	1"	Turf Rotor	18.54
11	Rain Bird XCZ-100-PRF	1"	Area for Dripline	2.83
12	Rain Bird PEB	1"	Turf Spray	12.75
13	Rain Bird PEB	1"	Bubbler	9.00
14	Rain Bird PEB	1"	Turf Rotor	14.31
15	Rain Bird XCZ-100-PRF	1"	Area for Dripline	4.36
16	Rain Bird XCZ-100-PRF	1"	Area for Dripline	17.67
17	Rain Bird PEB	1"	Turf Spray	12.95
18	Rain Bird PEB	1"	Turf Spray	21.55
19	Rain Bird PEB	1"	Turf Spray	15.84



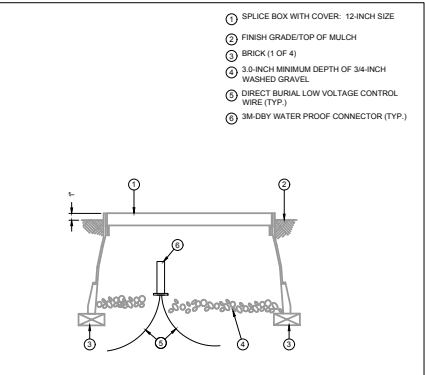
A CORP STOP METER CONNECTION



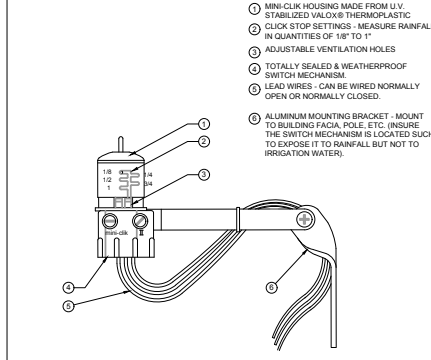
B RAIN BIRD RCV W/GATE VALVE



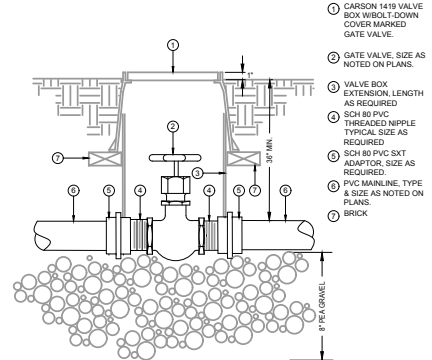
C CONTROLLER WALL MOUNT



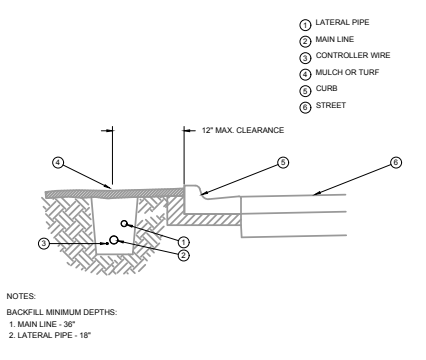
C WIRE SPLICE



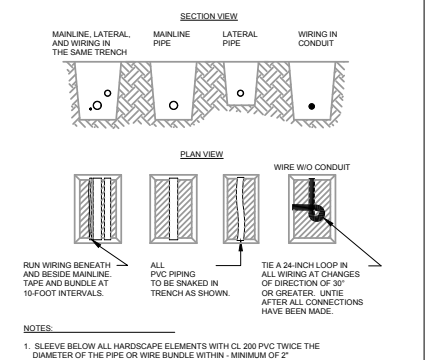
C MINI-CLICK II RAIN SENSOR



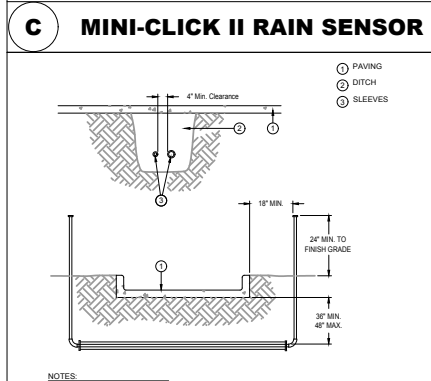
D T-113 GATE VALVE



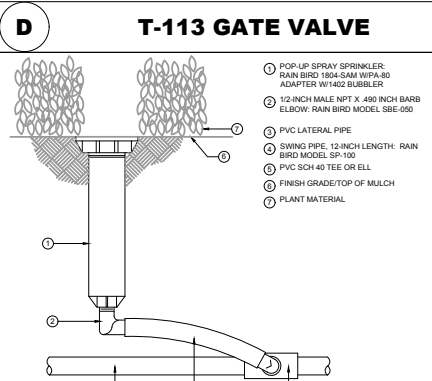
L MAINLINE AND LATERAL PIPING DETAIL



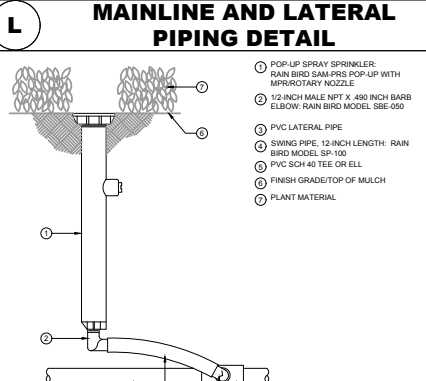
L PIPE AND WIRE TRENCHING



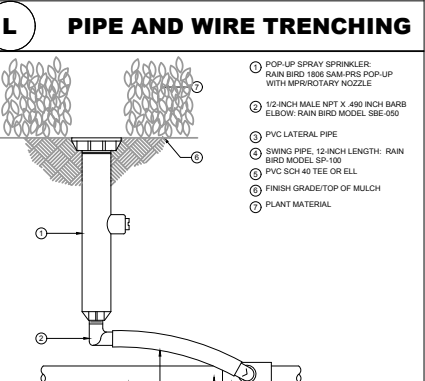
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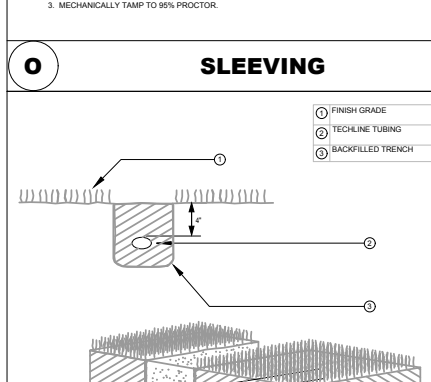
D T-113 GATE VALVE



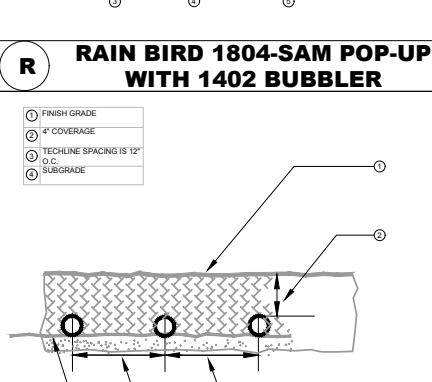
L MAINLINE AND LATERAL PIPING DETAIL



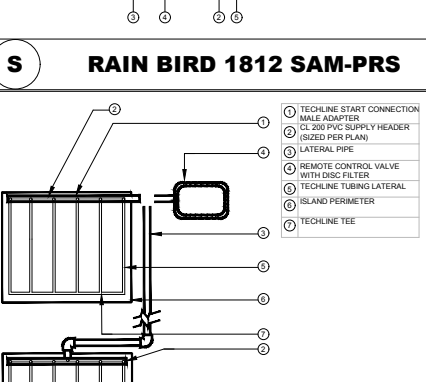
L PIPE AND WIRE TRENCHING



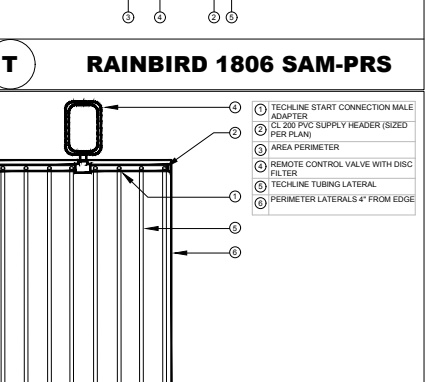
O SLEAVING



R RAIN BIRD 1804-SAM POP-UP WITH 1402 BUBBLER



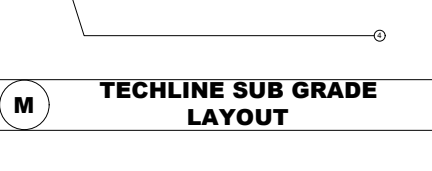
S RAIN BIRD 1812 SAM-PRS



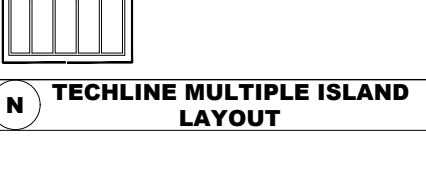
T RAINBIRD 1806 SAM-PRS



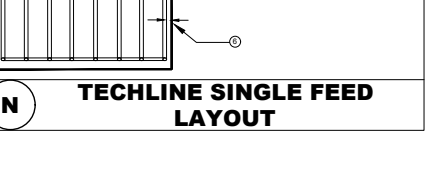
M TECHLINE TRENCHING DETAIL



M TECHLINE SUB GRADE LAYOUT



N TECHLINE MULTIPLE ISLAND LAYOUT



N TECHLINE SINGLE FEED LAYOUT



SEAL

KEY PLAN

SCALE

No.	DATE	BY	DESCRIPTION
1	1/24/18	JAS	CITY COMMENTS

DRAWN BY _____
 APPROVED BY _____
 CHECKED BY _____
 DATE JULY 6, 2017
 TITLE

IRRIGATION
 DETAILS

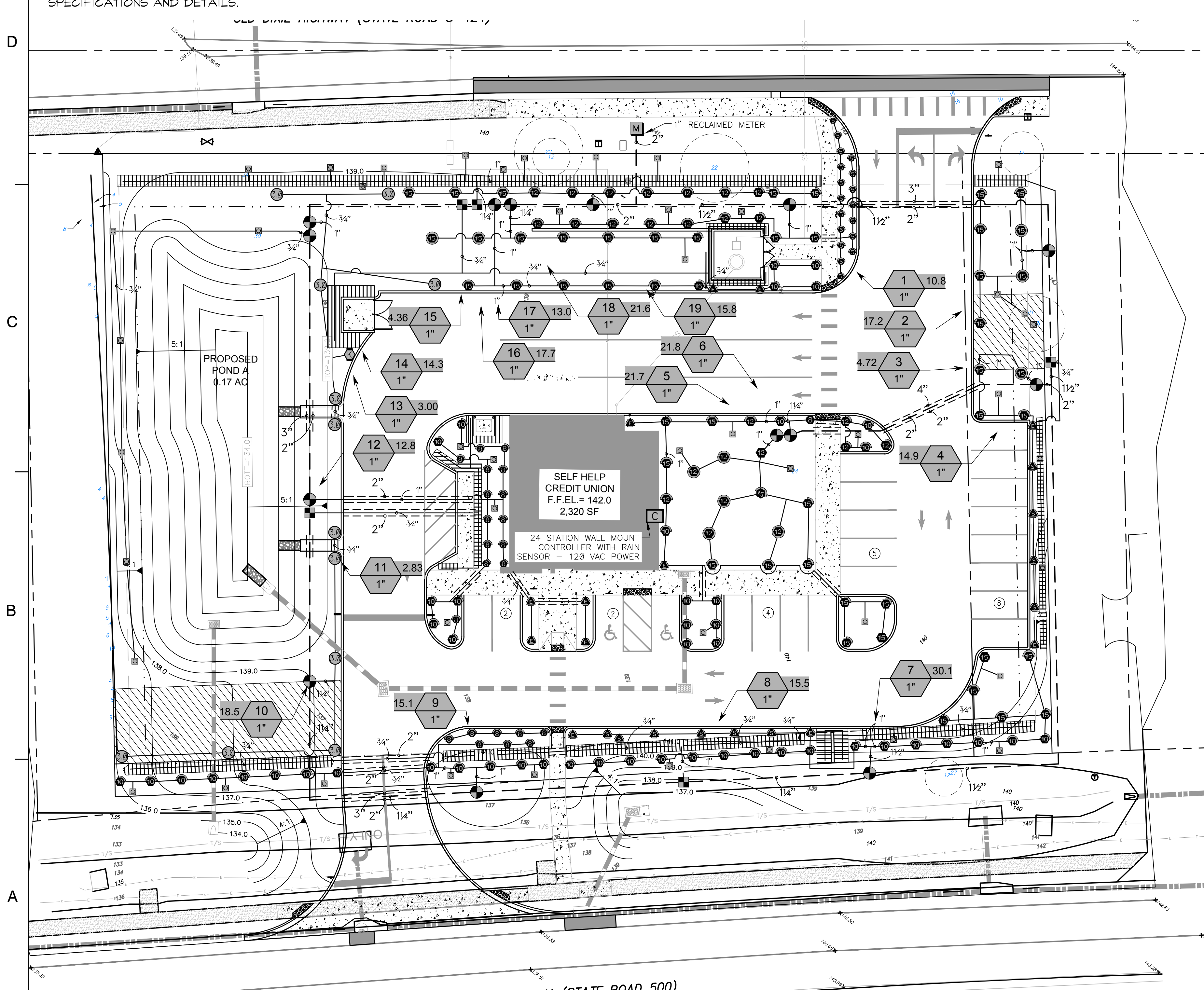
PROJECT NO. 50094806

IR3.00

- Notes:
1. Bubblers shall not be installed on the same zone as rotors.
 2. All distribution equipment must be 24" from vertical structures.
 3. No water allowed on sidewalk or parking lot (make sure to adjust overspray from all heads.)
 4. Irrigation zones shall not exceed the Five (5) feet / second flow velocity.
 5. Plants and turf shall not be irrigated on the same zone.



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IRRIGATION PLAN
SCALE: 1" = 20'-0"

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	DETAIL
EST LCS RCS CST SST	Rain Bird 1806-FRS-NP 15 Strip Series Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet, 1/2" NPT Female Threaded Inlet, Pressure Regulating, With Non Potable Purple Cap.	22	30	
Q H F	Rain Bird 1806-FRS-NP 5 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet, 1/2" NPT Female Threaded Inlet, Pressure Regulating, With Non Potable Purple Cap.	18	30	
Q T H F	Rain Bird 1806-FRS-NP 8 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet, 1/2" NPT Female Threaded Inlet, Pressure Regulating, With Non Potable Purple Cap.	22	30	
Q T H F	Rain Bird 1806-FRS-NP 10 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet, 1/2" NPT Female Threaded Inlet, Pressure Regulating, With Non Potable Purple Cap.	41	30	
Q T H F	Rain Bird 1806-FRS-NP 12 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet, 1/2" NPT Female Threaded Inlet, Pressure Regulating, With Non Potable Purple Cap.	23	30	
Q T H F	Rain Bird 1806-FRS-NP 15 Series MPR Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet, 1/2" NPT Female Threaded Inlet, Pressure Regulating, With Non Potable Purple Cap.	43	30	
18HE-VAN 12HE-VAN 18HE-VAN 15HE-VAN	Rain Bird 1806-FRS-NP ADJ Turf Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal, Side and Bottom Inlet, 1/2" NPT Female Threaded Inlet, Pressure Regulating, With Non Potable Purple Cap.	4	30	
Q T H F	Hunter MP2000 PROS-06-FRS40-CV-R Turf Rotator, 6" (15.24 cm) pop-up with check valve, reclaimed body cap, pressure regulated to 40 psi (2.76 bar), MP Rotator nozzle on FRS40 body, K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc.	1	40	
1481 1482 1484 1488	Rain Bird 1800-1400 Flood Fixed flow rate (0.25-2.0GPM), full circle bubbler, 1/2" FIPT.	48	30	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS	DETAIL
1	Rain Bird 5006-FC, FC-NP Turf Rotor, 6.0" Pop-Up, Plastic Riser, Adjustable and Full Circle, Standard Angle Nozzle, With Non-Potable Purple Cover.	8	45	3.09	40'	
2	Rain Bird 5004-FC, FC (2) Turf Rotor, 4.0" Pop-Up, Plastic Riser, Adjustable and Full Circle, Standard Angle Nozzle.	4	35	2.71	38'	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
3	Rain Bird XGZ-100-PRF Medium Flow Drip Control Kit, 1" DV valve, 1" pressure regulating filter, 40psi pressure regulator, 3gpm - 15gpm.	5	
4	Area to Receive Dripline Netafim TLDL-4-12 (12) Techline Pressure Compensating Landscape Dripline, 0.95PH emitters at 12.0" O.C. Dripline laterals spaced at 12.0" apart, with emitters offset for triangular pattern. Surface and Sub Surface Installations, UV Resistant.	2,318 s.f.	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
5	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves, Low Flow Operating Capability, Globe Configuration.	14	
6	Rain Bird ESP8LXME with (O) ESFLXMSM12 20 Station Commercial Controller, Mounted on a Plastic Wall Mount, Without flow sensing.	1	
7	Water Meter 1" 1" Meter	1	
8	Irrigation Lateral Line: PVC Class 200 SDR 21-NP	3,829 l.f.	
9	Irrigation Mainline: PVC Schedule 40-NP	961.6 l.f.	
10	Pipe Sleeve: PVC Schedule 40	357.5 l.f.	

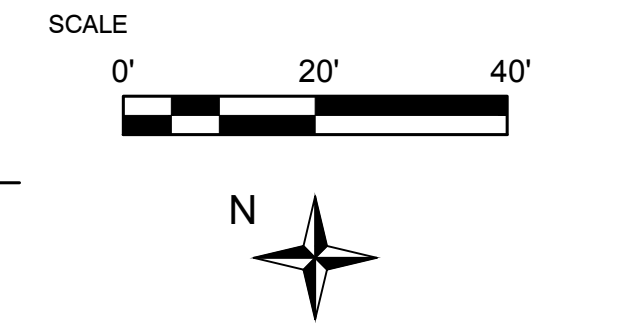


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ENGINEERING BUSINESS-8794
LAND ARCH - LC26000569

SELF HELP
CREDIT UNION
FINAL SITE PLAN
APOPKA, FLORIDA

SEAL
Michael J. Urchuk
FL P.L.A. # 6668875
Feb 20, 2018

KEY PLAN



REVISIONS			
No.	DATE	BY	DESCRIPTION
1	1/24/18	JAS	CITY COMMENTS

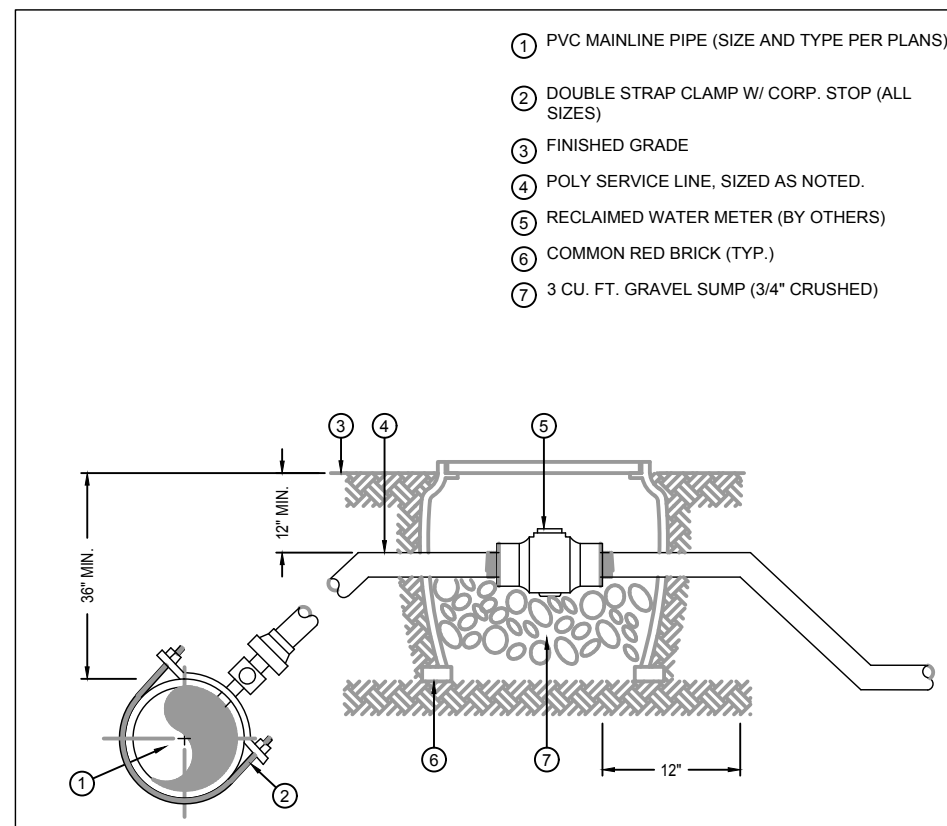
DRAWN BY _____
APPROVED BY _____
CHECKED BY _____
DATE JULY 6, 2017
TITLE

IRRIGATION PLAN

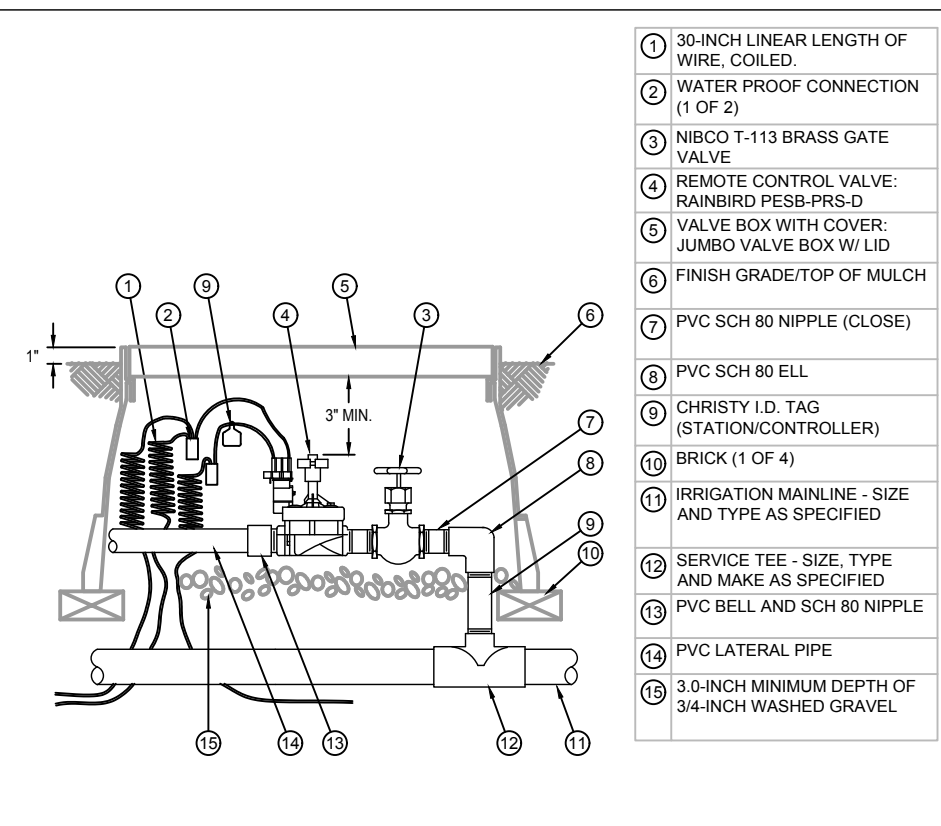
PROJECT NO. 50094806

IR2.10

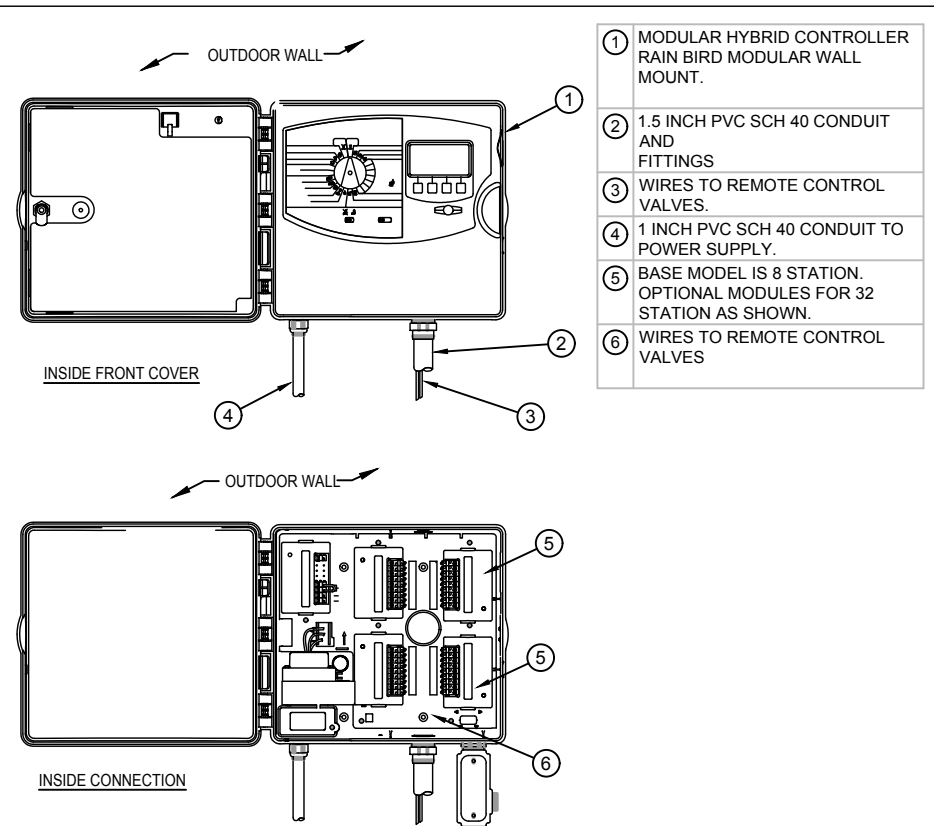
VALVE SCHEDULE				
NUMBER	MODEL	SIZE	TYPE	GPM
1	Rain Bird PEB	1"	Turf Spray	10.79
2	Rain Bird PEB	1"	Turf Spray	17.22
3	Rain Bird XCZ-100-PRF	1"	Area for Dripline	4.72
4	Rain Bird PEB	1"	Turf Spray	14.88
5	Rain Bird PEB	1"	Turf Spray	21.69
6	Rain Bird PEB	1"	Turf Spray	21.83
7	Rain Bird PEB	1"	Turf Spray	30.05
8	Rain Bird XCZ-100-PRF	1"	Area for Dripline	14.06
9	Rain Bird PEB	1"	Turf Spray	15.07
10	Rain Bird PEB	1"	Turf Rotor	18.54
11	Rain Bird XCZ-100-PRF	1"	Area for Dripline	2.83
12	Rain Bird PEB	1"	Turf Spray	12.15
13	Rain Bird PEB	1"	Bubbler	3.00
14	Rain Bird PEB	1"	Turf Rotor	14.31
15	Rain Bird XCZ-100-PRF	1"	Area for Dripline	4.36
16	Rain Bird XCZ-100-PRF	1"	Area for Dripline	17.67
17	Rain Bird PEB	1"	Turf Spray	12.95
18	Rain Bird PEB	1"	Turf Spray	21.55
19	Rain Bird PEB	1"	Turf Spray	15.84



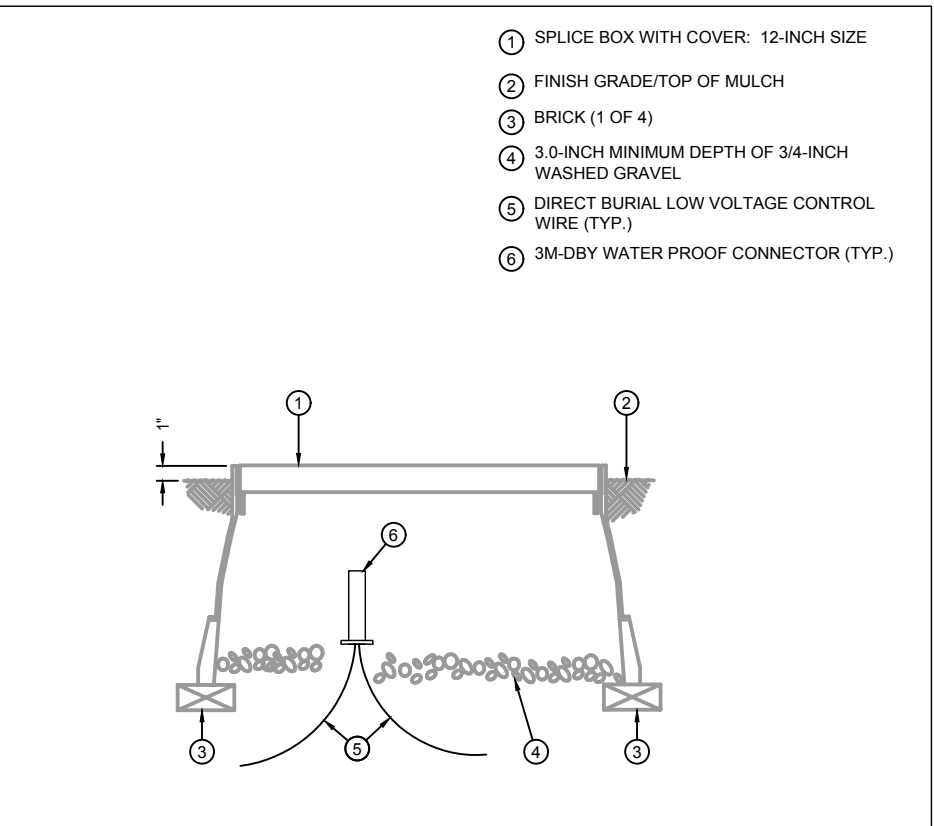
A CORP STOP METER CONNECTION



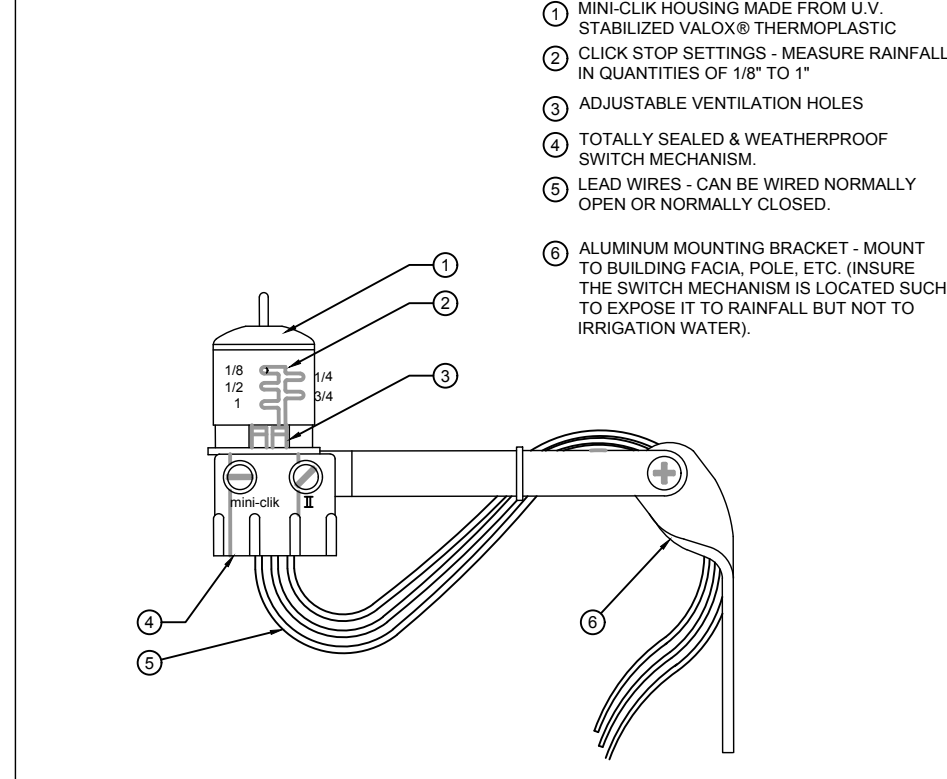
B RAIN BIRD RCV W/GATE VALVE



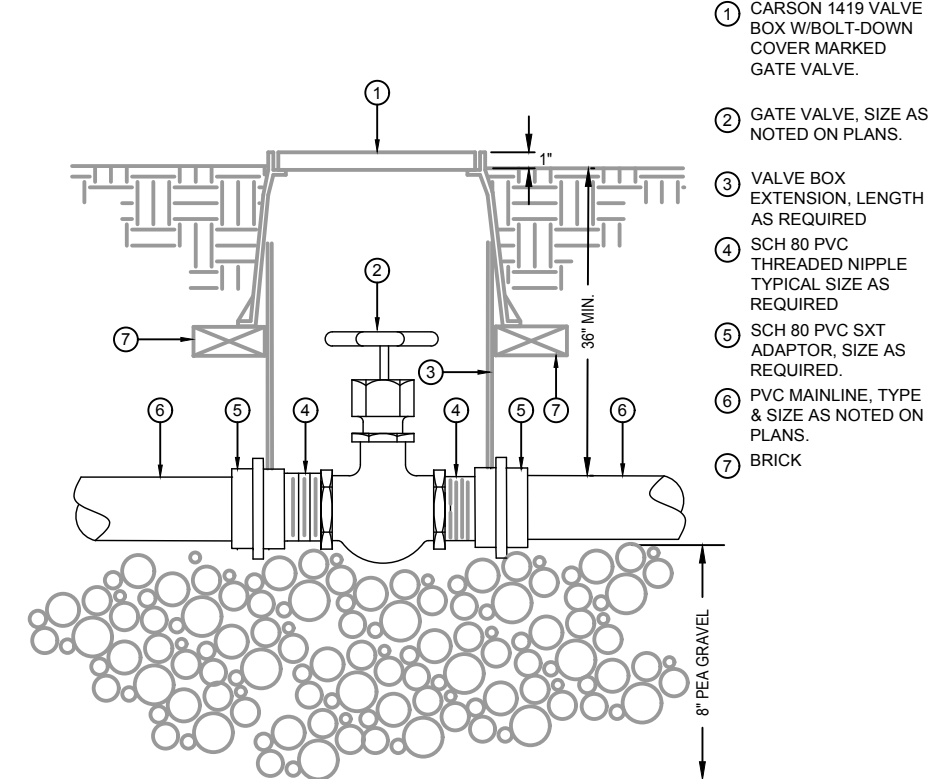
C CONTROLLER WALL MOUNT



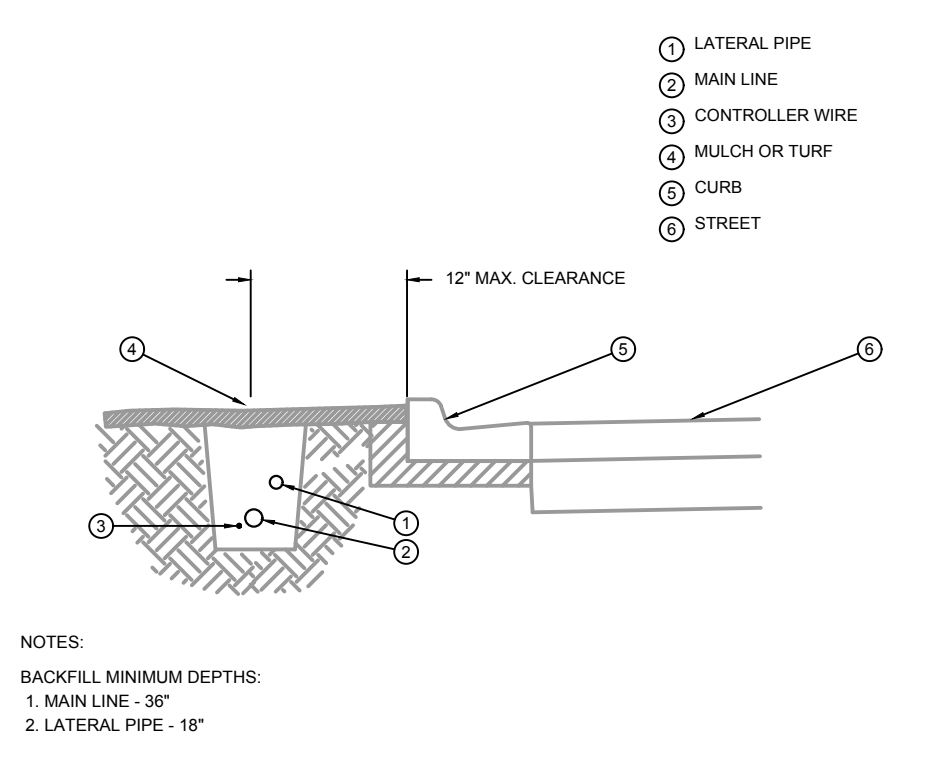
C WIRE SPLICE



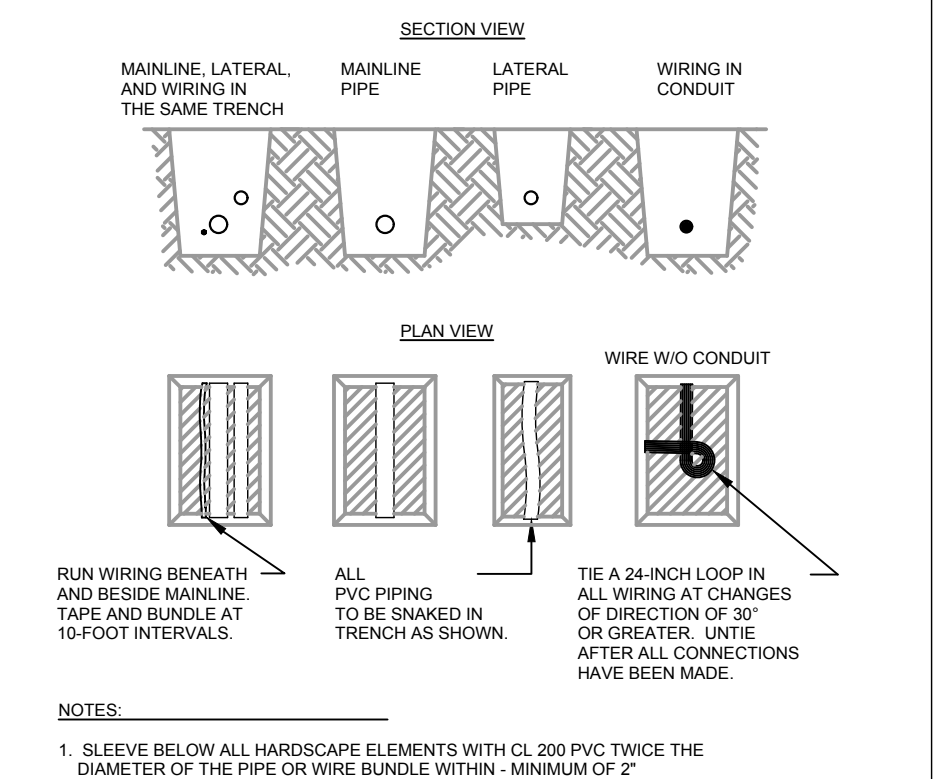
C MINI-CLICK II RAIN SENSOR



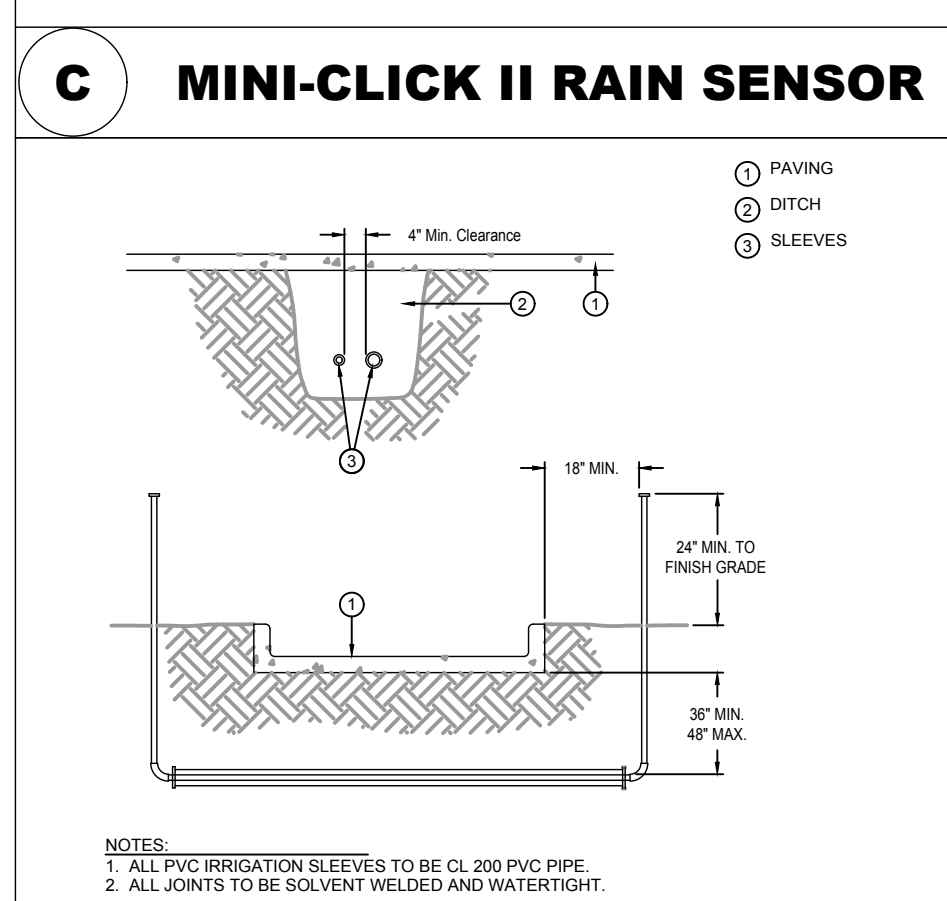
D T-113 GATE VALVE



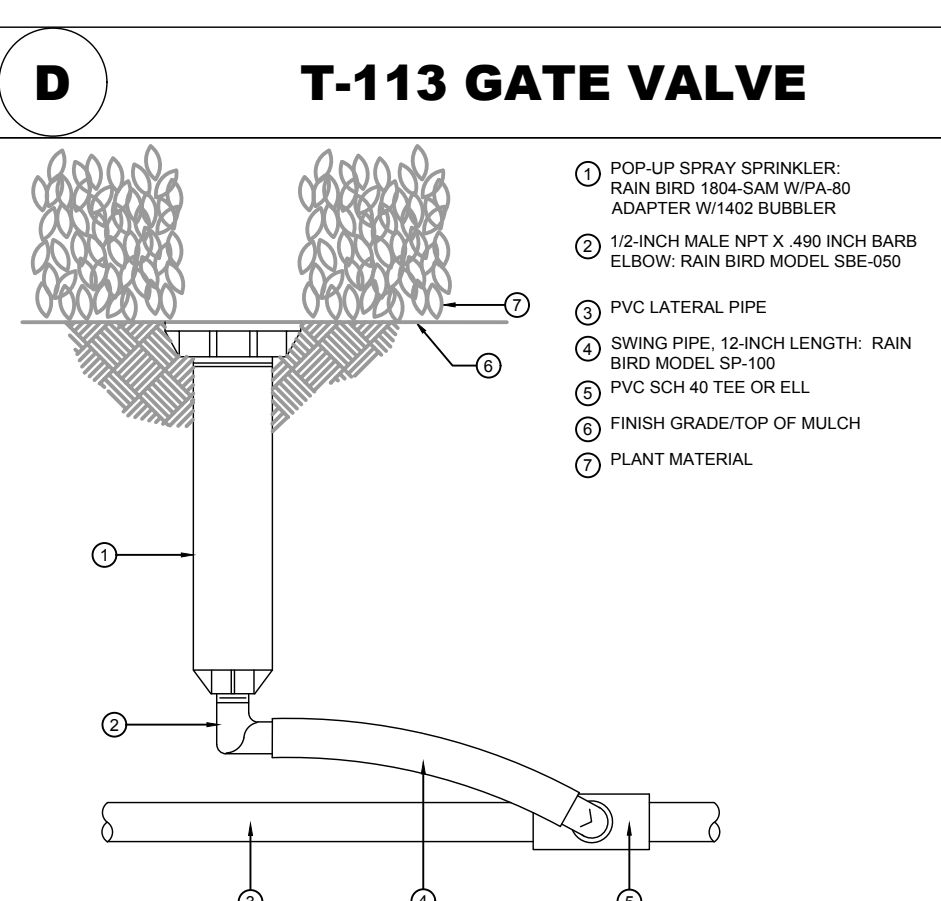
L MAINLINE AND LATERAL PIPING DETAIL



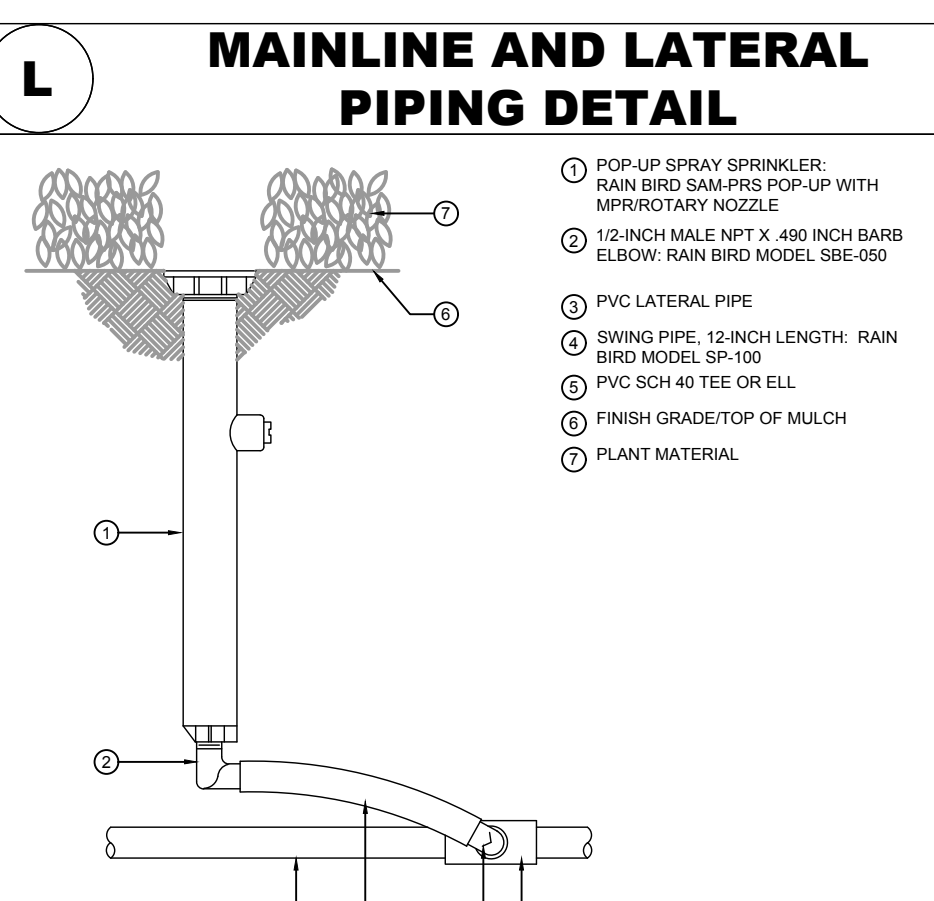
L PIPE AND WIRE TRENCHING



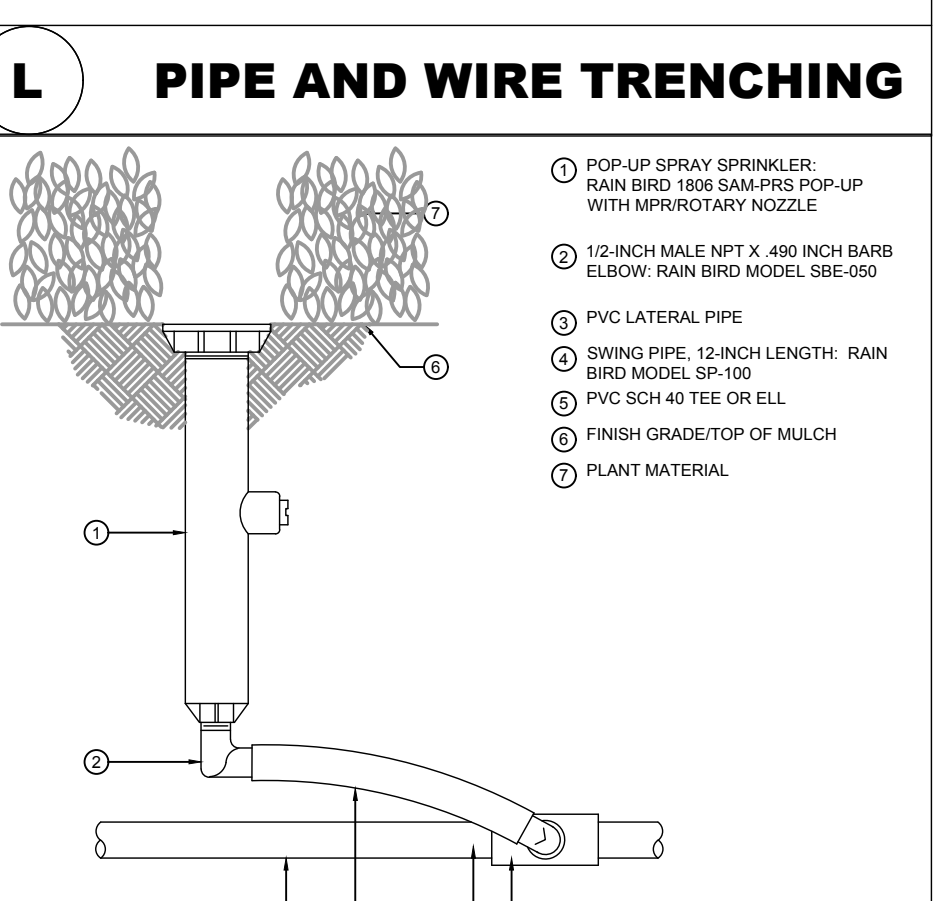
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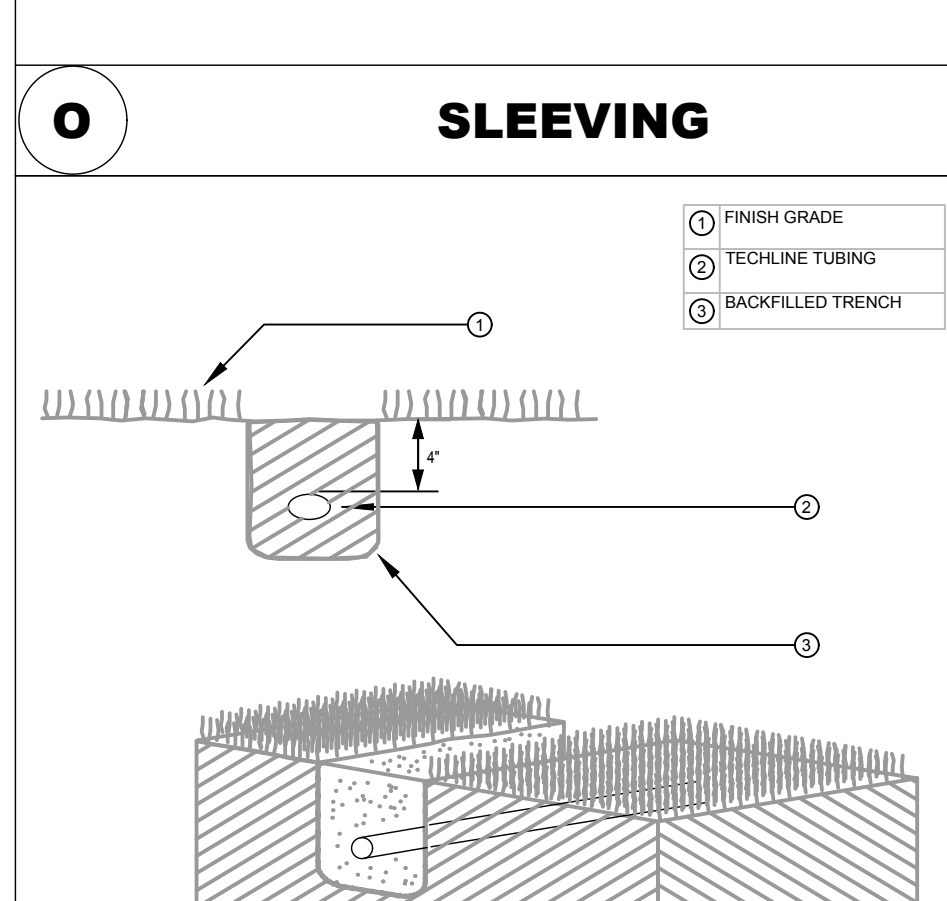
D T-113 GATE VALVE



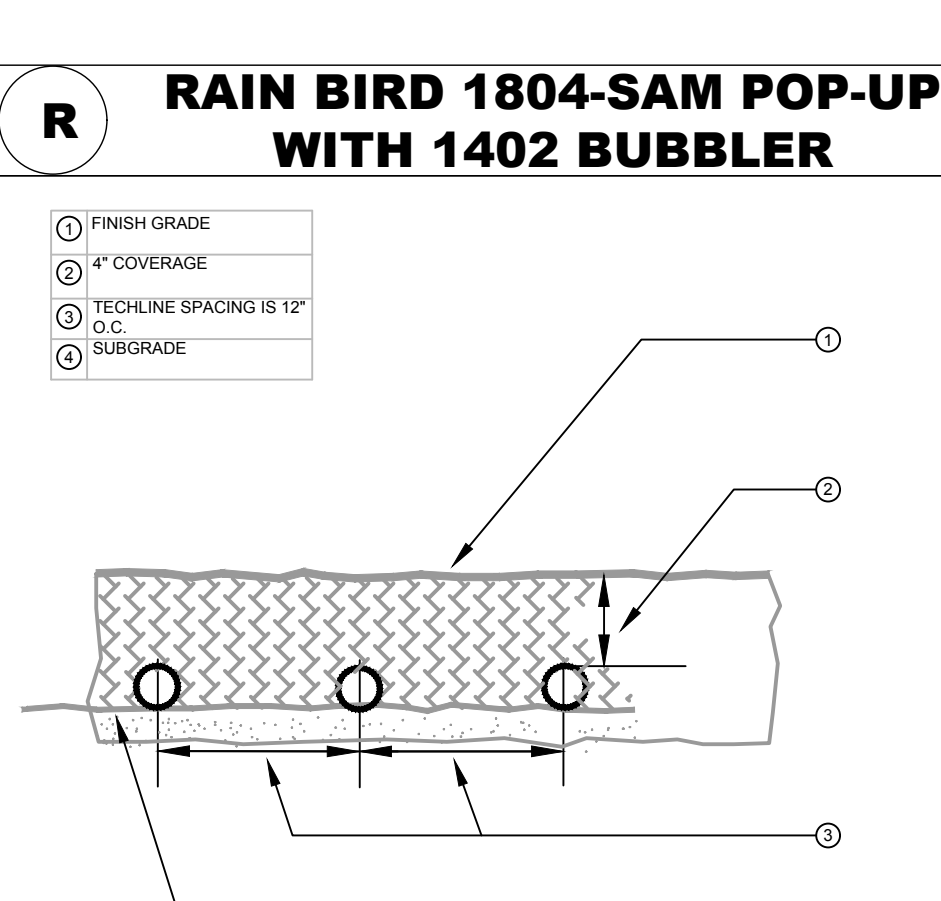
L MAINLINE AND LATERAL PIPING DETAIL



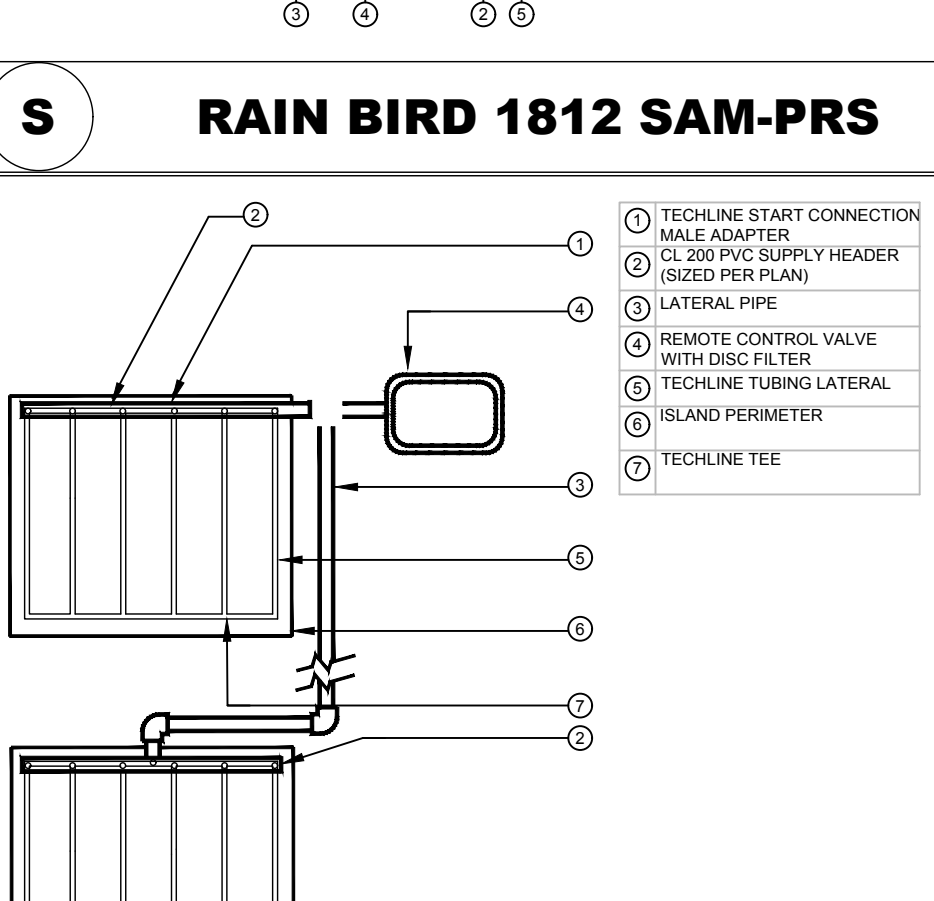
L PIPE AND WIRE TRENCHING



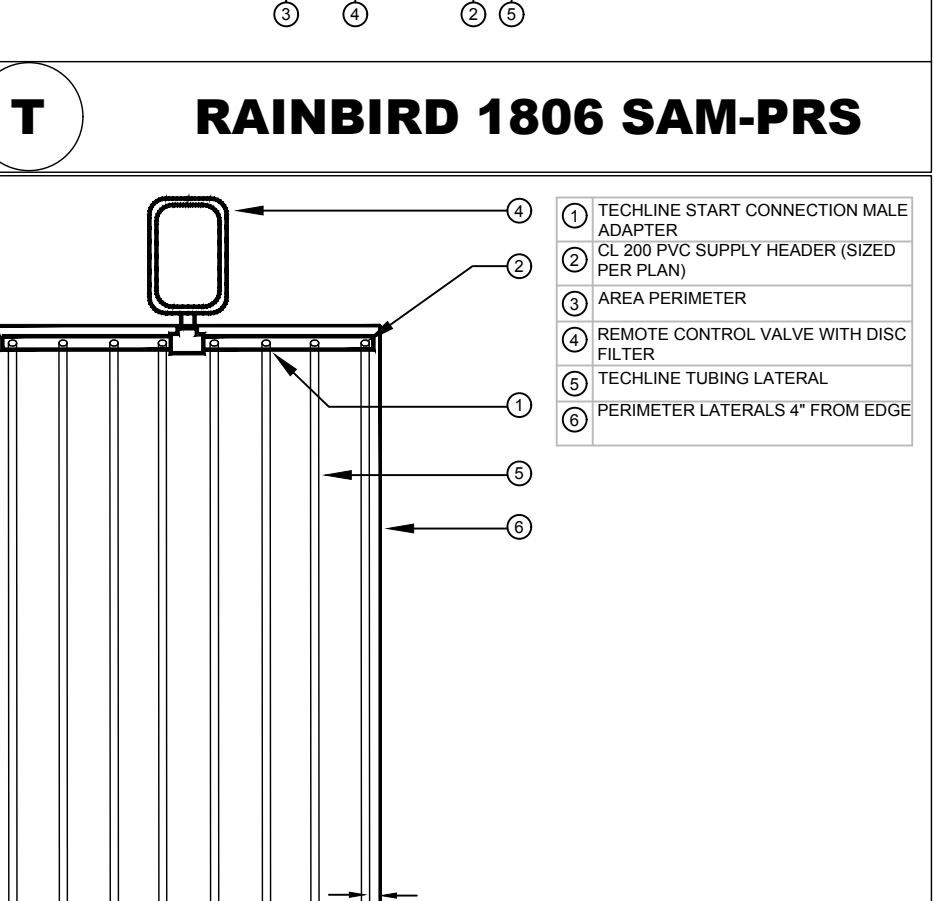
O SLEAVING



R RAIN BIRD 1804-SAM POP-UP WITH 1402 BUBBLER



S RAIN BIRD 1812 SAM-PRS



T RAINBIRD 1806 SAM-PRS



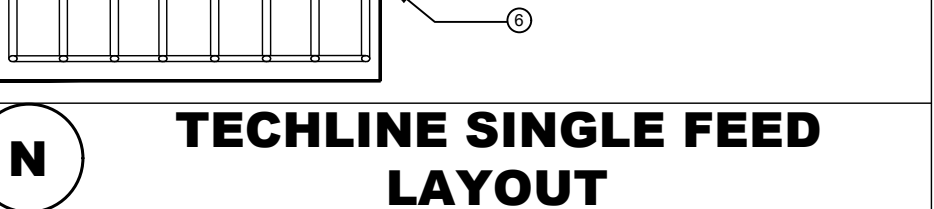
M TECHLINE TRENCHING DETAIL



M TECHLINE SUB GRADE LAYOUT



N TECHLINE MULTIPLE ISLAND LAYOUT



N TECHLINE SINGLE FEED LAYOUT



SEAL

KEY PLAN

SCALE

No.	DATE	BY	DESCRIPTION
1	1/24/18	JAS	CITY COMMENTS

DRAWN BY _____
 APPROVED BY _____
 CHECKED BY _____
 DATE JULY 6, 2017
 TITLE

IRRIGATION
 DETAILS

PROJECT NO. 50094806

IR3.00

SHEET NO. OF 79

TREE LEGEND

	CYPRESS	CYPRESS
	LAUREL OAK	QUERCUS LAURIFOLIA
	LIVE OAK	QUERCUS VIRGINIANA
	MAGNOLIA	MAGNOLIA GRANDIFLORA
	PINE TREE	PINUS PALUSTRIS
	PALM	SABAL PALMETTO
	LIVE OAK	Q.V. HYBRID
	CHERRY	PRUNUS SPP.
	WATER OAK	QUERCUS NIGRA

- TREE TO BE REMOVED
- SPECIMEN TREE
- TREE TO BE PRESERVED WITH TREE PROTECTION FENCE

TREE DATA:

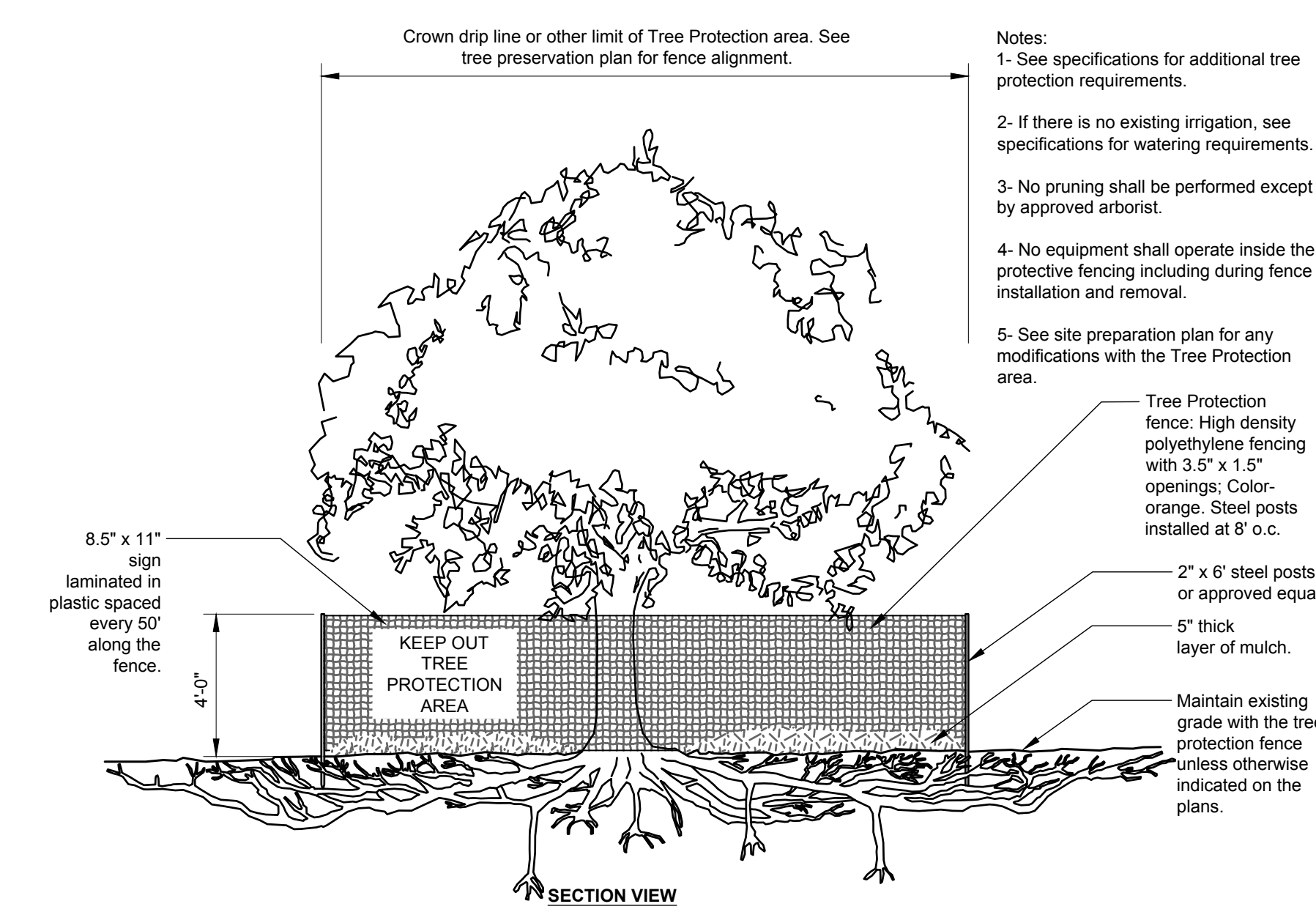
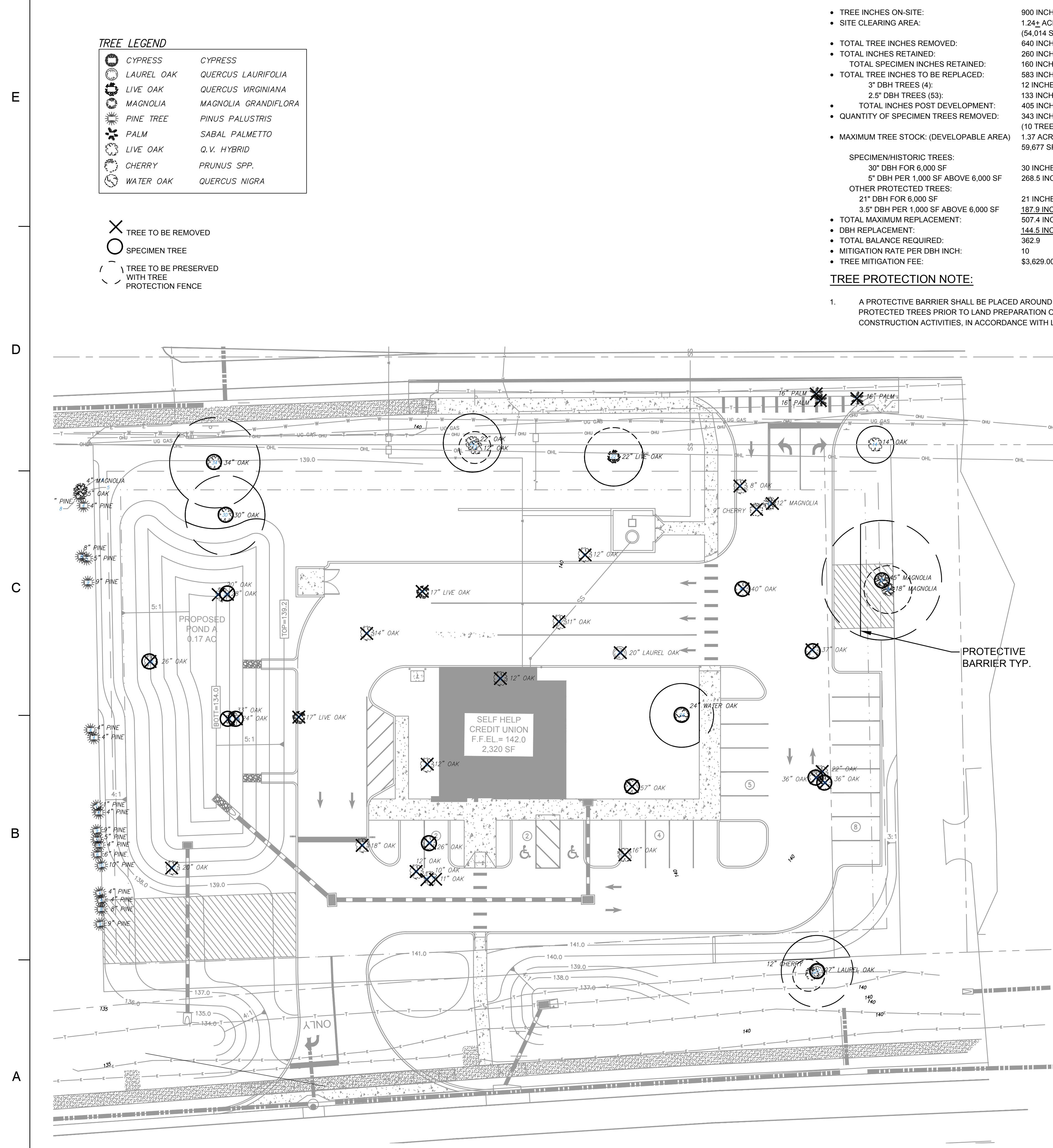
- TREE INCHES ON-SITE: 900 INCHES
- SITE CLEARING AREA: 1.24± ACRES (54,014 SF)
- TOTAL TREE INCHES REMOVED: 640 INCHES
- TOTAL INCHES RETAINED: 260 INCHES
- TOTAL SPECIMEN INCHES RETAINED: 160 INCHES
- TOTAL TREE INCHES TO BE REPLACED: 583 INCHES
- 3" DBH TREES (4): 12 INCHES
- 2.5" DBH TREES (53): 133 INCHES
- TOTAL INCHES POST DEVELOPMENT: 405 INCHES
- QUANTITY OF SPECIMEN TREES REMOVED: 343 INCHES (10 TREES)
- MAXIMUM TREE STOCK: (DEVELOPABLE AREA) 1.37 ACRES 59,677 SF
- SPECIMEN/HISTORIC TREES:
 - 30" DBH FOR 6,000 SF 30 INCHES
 - 5" DBH PER 1,000 SF ABOVE 6,000 SF 268.5 INCHES
- OTHER PROTECTED TREES:
 - 21" DBH FOR 6,000 SF 21 INCHES
 - 3.5" DBH PER 1,000 SF ABOVE 6,000 SF 187.9 INCHES
- TOTAL MAXIMUM REPLACEMENT: 507.4 INCHES
- DBH REPLACEMENT: 144.5 INCHES
- TOTAL BALANCE REQUIRED: 362.9
- MITIGATION RATE PER DBH INCH: 10
- TREE MITIGATION FEE: \$3,629.00

TREE PROTECTION NOTE:

1. A PROTECTIVE BARRIER SHALL BE PLACED AROUND ALL PROTECTED TREES PRIOR TO LAND PREPARATION OR CONSTRUCTION ACTIVITIES, IN ACCORDANCE WITH LDC 5.01.11.

EXISTING TREE CHART

COMMON	BOTANICAL	DBH	SAVED	REMOVED
LIVE OAK	Q.V. HYBRID	34	X	
LIVE OAK	Q.V. HYBRID	30	X	
LIVE OAK	Q.V. HYBRID	20		X
LIVE OAK	Q.V. HYBRID	28		X
LIVE OAK	Q.V. HYBRID	26		X
LIVE OAK	Q.V. HYBRID	33		X
LIVE OAK	Q.V. HYBRID	24		X
LIVE OAK	Q.V. HYBRID	20		X
LIVE OAK	Q.V. HYBRID	22	X	
LIVE OAK	Q.V. HYBRID	12	X	
LIVE OAK	QUERCUS VIRGINIANA	22	X	
LIVE OAK	QUERCUS VIRGINIANA	17		X
LIVE OAK	QUERCUS VIRGINIANA	17		X
LIVE OAK	Q.V. HYBRID	14		X
LIVE OAK	Q.V. HYBRID	18		X
LIVE OAK	Q.V. HYBRID	26		X
LIVE OAK	Q.V. HYBRID	12		X
LIVE OAK	Q.V. HYBRID	10		X
LIVE OAK	Q.V. HYBRID	11		X
LIVE OAK	Q.V. HYBRID	16		X
LIVE OAK	Q.V. HYBRID	57		X
WATER OAK	QUERCUS NIGRA	24	X	
LIVE OAK	Q.V. HYBRID	20		X
LIVE OAK	Q.V. HYBRID	11		X
LIVE OAK	Q.V. HYBRID	12		X
PALM	SABAL PALMETTO	16		X
PALM	SABAL PALMETTO	16		X
PALM	SABAL PALMETTO	16		X
LIVE OAK	Q.V. HYBRID	8		X
MAGNOLIA	MAGNOLIA GRANDIFLORA	12		X
CHERRY	PRUNUS SPP.	9		X
LIVE OAK	Q.V. HYBRID	14	X	
MAGNOLIA	MAGNOLIA GRANDIFLORA	45	X	
MAGNOLIA	MAGNOLIA GRANDIFLORA	18	X	
LIVE OAK	Q.V. HYBRID	40		X
LIVE OAK	Q.V. HYBRID	37		X
LIVE OAK	Q.V. HYBRID	22		X
LIVE OAK	Q.V. HYBRID	36		X
LIVE OAK	Q.V. HYBRID	36		X
LIVE OAK	Q.V. HYBRID	27	X	
CHERRY	PRUNUS SPP.	12	X	
		900		



- Notes:**
- 1- See specifications for additional tree protection requirements.
 - 2- If there is no existing irrigation, see specifications for watering requirements.
 - 3- No pruning shall be performed except by approved arborist.
 - 4- No equipment shall operate inside the protective fencing including during fence installation and removal.
 - 5- See site preparation plan for any modifications with the Tree Protection area.
- Tree Protection fence: High density polyethylene fencing with 3.5" x 1.5" openings. Color-orange. Steel posts installed at 8' o.c.
 - 2" x 6" steel posts or approved equal.
 - 5" thick layer of mulch.
 - Maintain existing grade with the tree protection fence unless otherwise indicated on the plans.

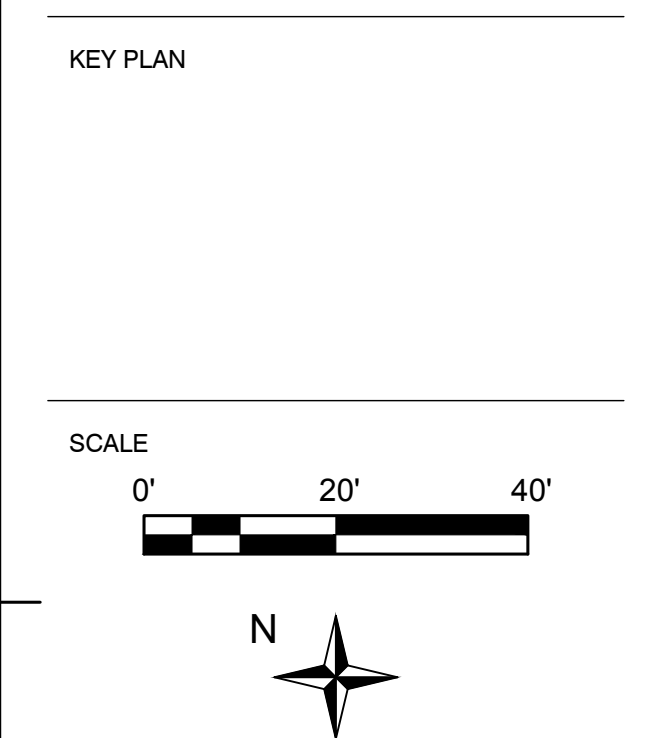


Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS-8794
LAND ARCH - LC26000569

SELF HELP CREDIT UNION
 FINAL SITE PLAN
 APOPKA, FLORIDA

SEAL

Michael J. Lichtner
 FL REG. # 66905
 Feb. 20, 2018



No.	DATE	BY	Description

REVISIONS

DRAWN BY _____

APPROVED BY _____

CHECKED BY _____

DATE JULY 6, 2017

TITLE

TREE REMOVAL PLAN

PROJECT NO. 50094806

L1.10

SHEET NO. OF 79

TREE REMOVAL PLAN
SCALE: 1" = 20'-0"

1 TREE PROTECTION
1/4" = 1'-0"

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE
FX-PL-FX-TRMT-02

SEAL

KEY PLAN



No.	DATE	BY	Description

DRAWN BY _____
APPROVED BY _____
CHECKED BY _____
DATE JULY 6, 2017

TITLE

LANDSCAPE PLAN

PROJECT NO. 50094806

L2.10

SHEET NO. OF 79

BUFFER SCHEDULE		
NORTHEAST - 10' REQUIRED - 10' PROVIDED		
300 LF	CANOPY: 1/35 LF MIN.	SHRUB: 10/35 LF MIN.
REQUIRED	9	86
PROVIDED	9	0
SOUTHEAST - 5' REQUIRED - 5' PROVIDED		
192 LF	CANOPY: 1/35 LF MIN.	GROUND COVER/HEDGE
REQUIRED	5	CONTINUOUS
PROVIDED	6	CONTINUOUS
SOUTHWEST - 10' REQUIRED - 10' PROVIDED		
300 LF	CANOPY: 1/35 LF MIN.	SHRUB: 10/35 LF MIN.
REQUIRED	9	86
PROVIDED	9	75
NORTHWEST - 5' REQUIRED - 5' PROVIDED		
206 LF	CANOPY: 1/35 LF MIN.	
REQUIRED	6	
PROVIDED	5	

IRRIGATED TURF AREA:	
BAHIA:	20,903 SF (0.4799 ACRES)
ST. AUGUSTINE	2,772 SF

IRRIGATION NOTES:

- ALL PLANT WATER USE ZONES SHALL BE IRRIGATED SEPARATELY.
- TURF AREAS SHALL BE IRRIGATED WITH SPRAY HEADS AND SHALL BE IRRIGATED SEPARATELY FROM SHRUBS.
- TREES SHALL BE IRRIGATED SEPARATELY WITH BUBBLERS.
- ALL TURF, SHRUBS AND GROUND COVER AREAS SHALL BE IRRIGATED WITH AN UNDERGROUND SPRINKLER SYSTEM AND BE DESIGNED WITH 100% COVERAGE.
- EXISTING TREES TO REMAIN SHALL NOT BE IRRIGATED AND SHALL NOT HAVE ANY PIPING OR HEADS WITHIN THE ROOT PROTECTION ZONES.
- IRRIGATE ALL LANDSCAPED AREAS UP TO PROPERTY LINES, ROW'S.
- FULL IRRIGATION DESIGN PLAN TO BE SUBMITTED WITH FINAL SITE PLAN SUBMITTAL.

INTERIOR VUA LANDSCAPE AREA CALCULATIONS:

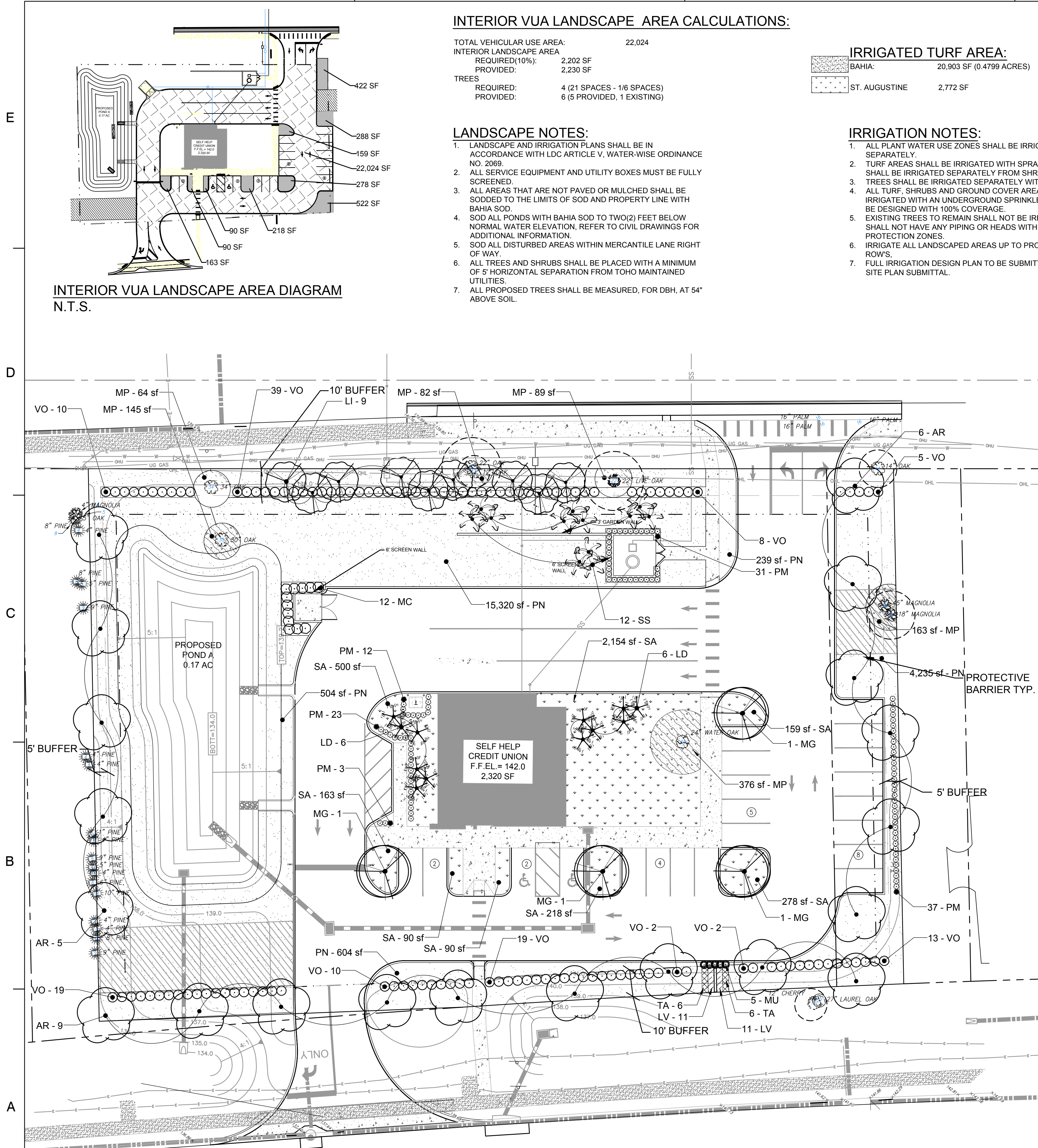
TOTAL VEHICULAR USE AREA:	22,024
INTERIOR LANDSCAPE AREA:	
REQUIRED(10%):	2,202 SF
PROVIDED:	2,230 SF
TREES	
REQUIRED:	4 (21 SPACES - 1/6 SPACES)
PROVIDED:	6 (5 PROVIDED, 1 EXISTING)

LANDSCAPE NOTES:

- LANDSCAPE AND IRRIGATION PLANS SHALL BE IN ACCORDANCE WITH LDC ARTICLE V, WATER-WISE ORDINANCE NO. 2069.
- ALL SERVICE EQUIPMENT AND UTILITY BOXES MUST BE FULLY SCREENED.
- ALL AREAS THAT ARE NOT PAVED OR MULCHED SHALL BE SODDED TO THE LIMITS OF SOD AND PROPERTY LINE WITH BAHIA SOD.
- SOD ALL PONDS WITH BAHIA SOD TO TWO(2) FEET BELOW NORMAL WATER ELEVATION. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
- SOD ALL DISTURBED AREAS WITHIN MERCANTILE LANE RIGHT OF WAY.
- ALL TREES AND SHRUBS SHALL BE PLACED WITH A MINIMUM OF 5' HORIZONTAL SEPARATION FROM TOHO MAINTAINED UTILITIES.
- ALL PROPOSED TREES SHALL BE MEASURED, FOR DBH, AT 54" ABOVE SOIL.

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	CAL	SIZE	REMARKS	
	AR	20	Acer rubrum / Red Maple	-		2-1/2" DBH		
	LI	9	Lagerstroemia indica / Crape Myrtle	15 gal		2-1/2" DBH		
	LD	12	Livistona decipiens / Livistona Palm	15 gal		10' - 14' CT		
	MG	4	Magnolia grandiflora / Southern Magnolia	15 gal		3" DBH		
	SS	12	Sabal palmetto / Cabbage Palmetto	15 gal		10' - 14' CT		
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT.	SIZE	REMARKS		
	MU	5	Muhlenbergia capillaris / Pink Muhly	1 gal				
	MC	12	Myrica cerifera / Wax Myrtle	5 gal	36" HT & 24" SPR			
	PM	106	Podocarpus macrophyllus / Yew Pine	5 gal	36" HT & 24" SPR			
	VO	127	Viburnum odoratissimum / Sweet Viburnum	5 gal	36" HT & 24" SPR			
GROUND COVERS	CODE	QTY	BOTANICAL NAME / COMMON NAME	CONT	FIELD2	FIELD3	SPACING	REMARKS
	LV	22	Liriope muscari 'Variegata' / Variegated Lily Turf	1 gal	FULL		18" o.c.	
	MP	1,800 sf	Mulch - / Shredded Hardwood Mulch	flat			3" Depth	
	PN	20,903 sf	Paspalum notatum / Bahia Grass	sod				
	SA	2,772 sf	Stenotaphrum secundatum 'Floritam' / Floritam St. Augustine Sod	sod				
	TA	12	Trachelospermum asiaticum 'Asiatic' / Asiatic Jasmine	flat			24" o.c.	



LANDSCAPE PLAN

SCALE: 1" = 20'-0"

SEAL

KEY PLAN

SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY _____

APPROVED BY _____

CHECKED BY _____

DATE JULY 6, 2017

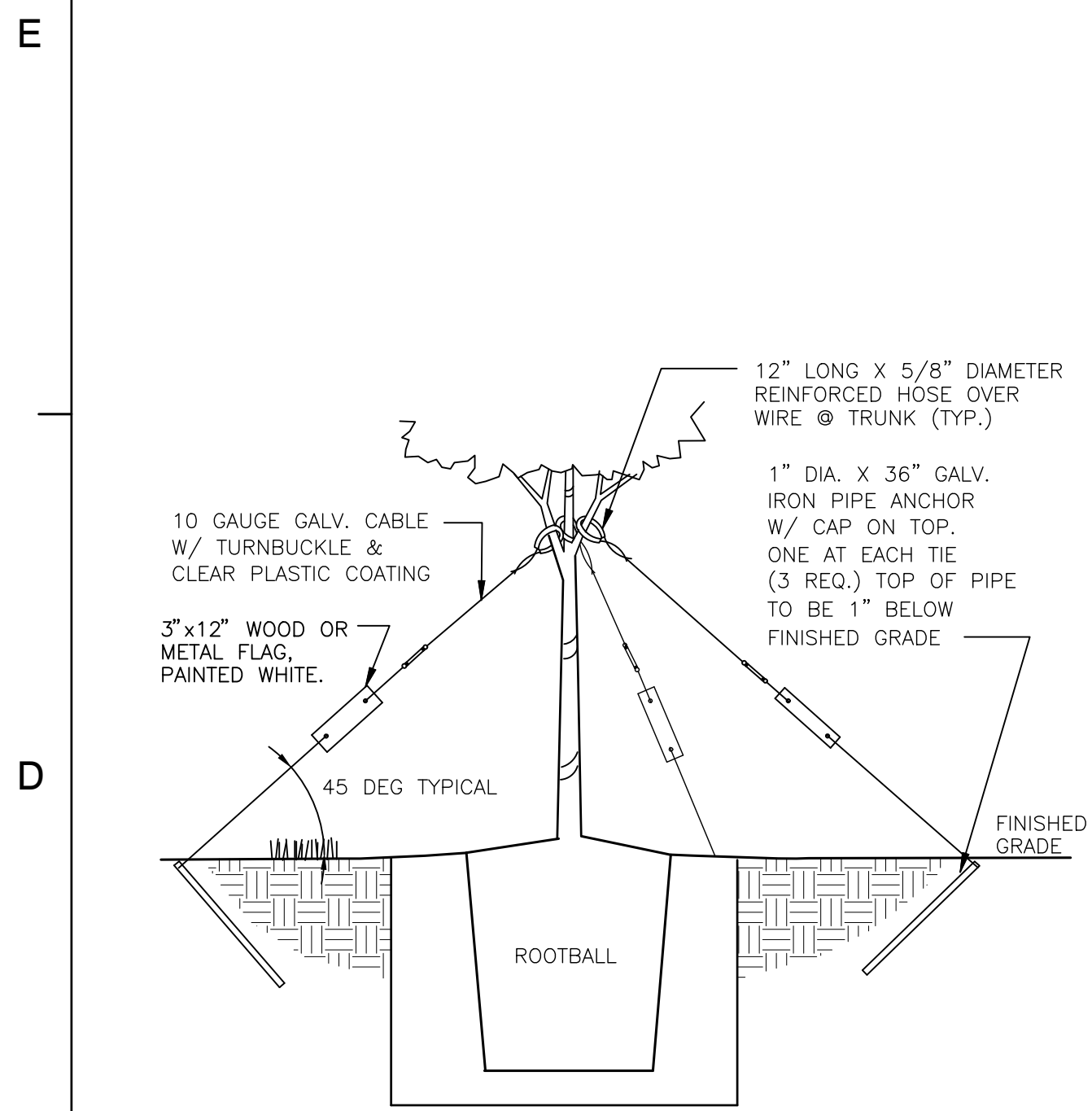
TITLE

**LANDSCAPE
DETAILS**

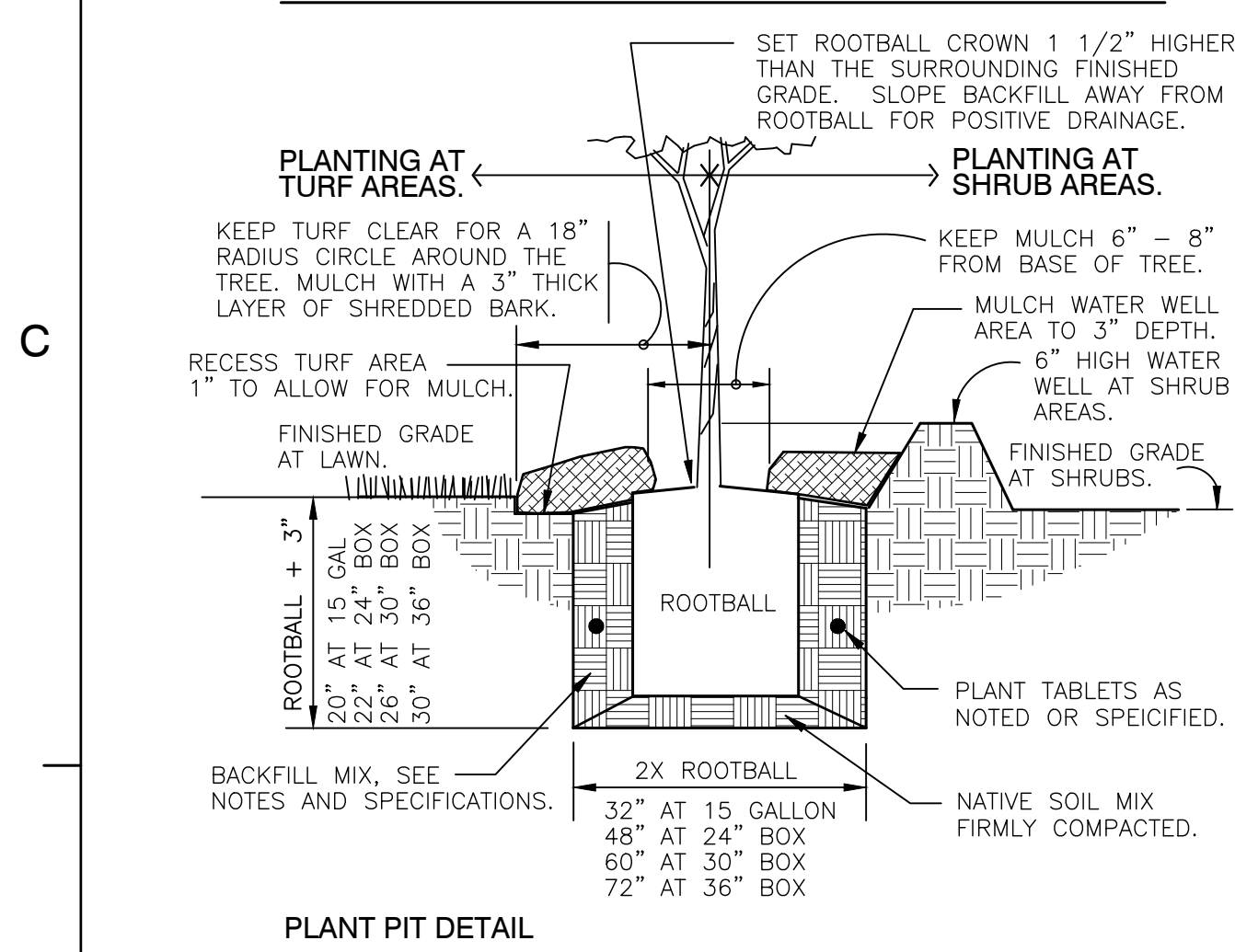
PROJECT NO. 50094806

L3.00

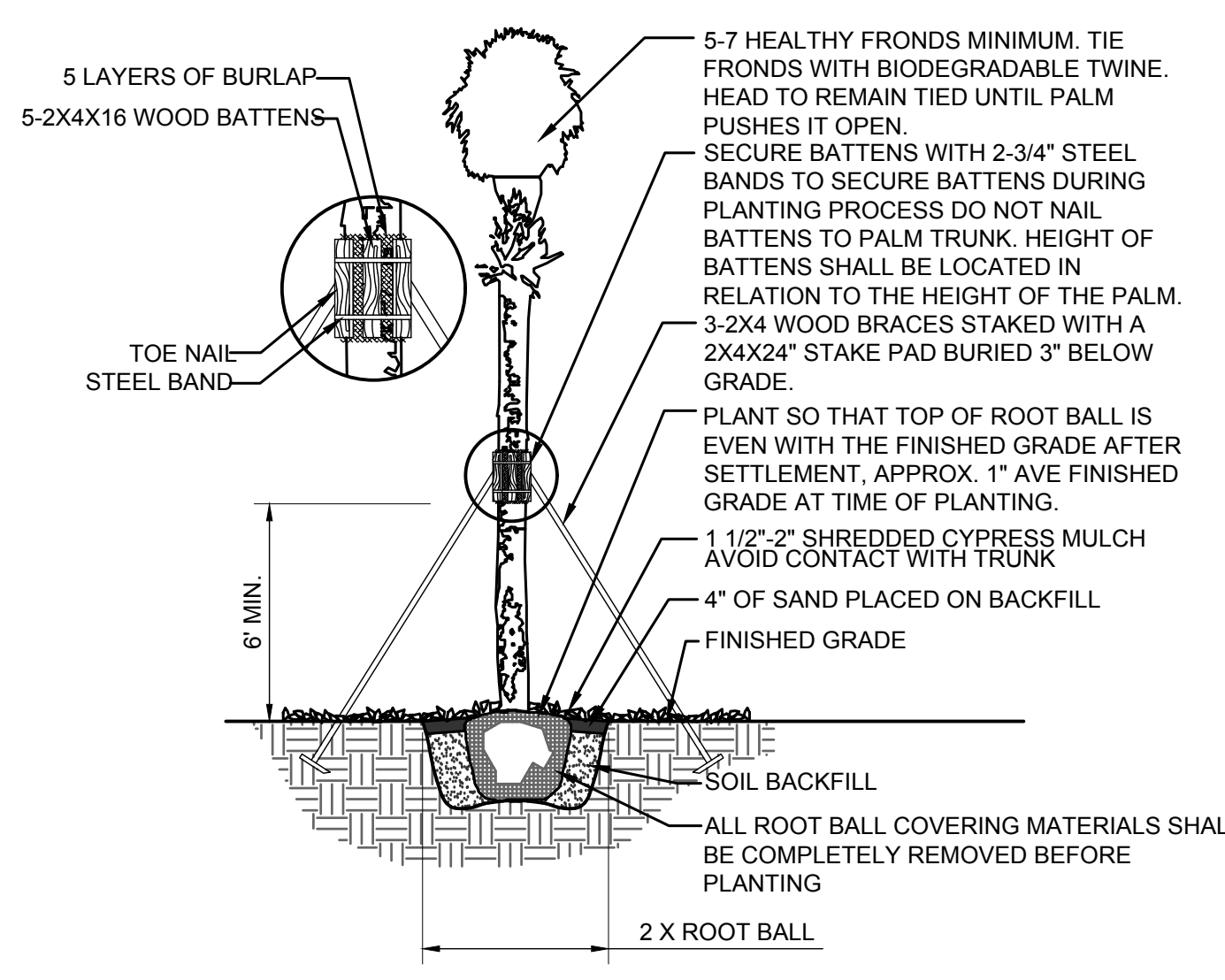
SHEET NO. OF 79



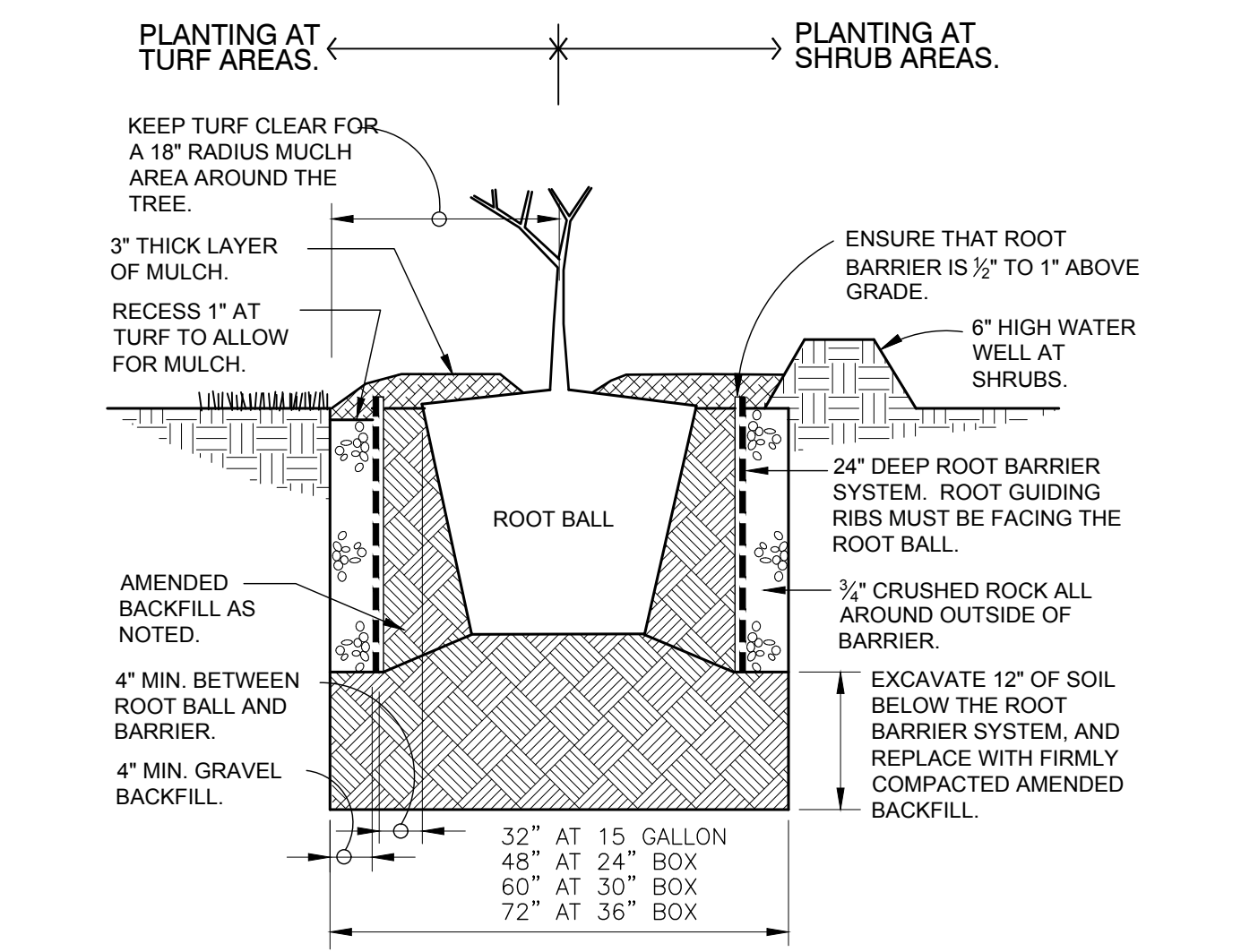
1 TREE GUY WIRE PLANTING
1" = 1'-0"
329343.26-03



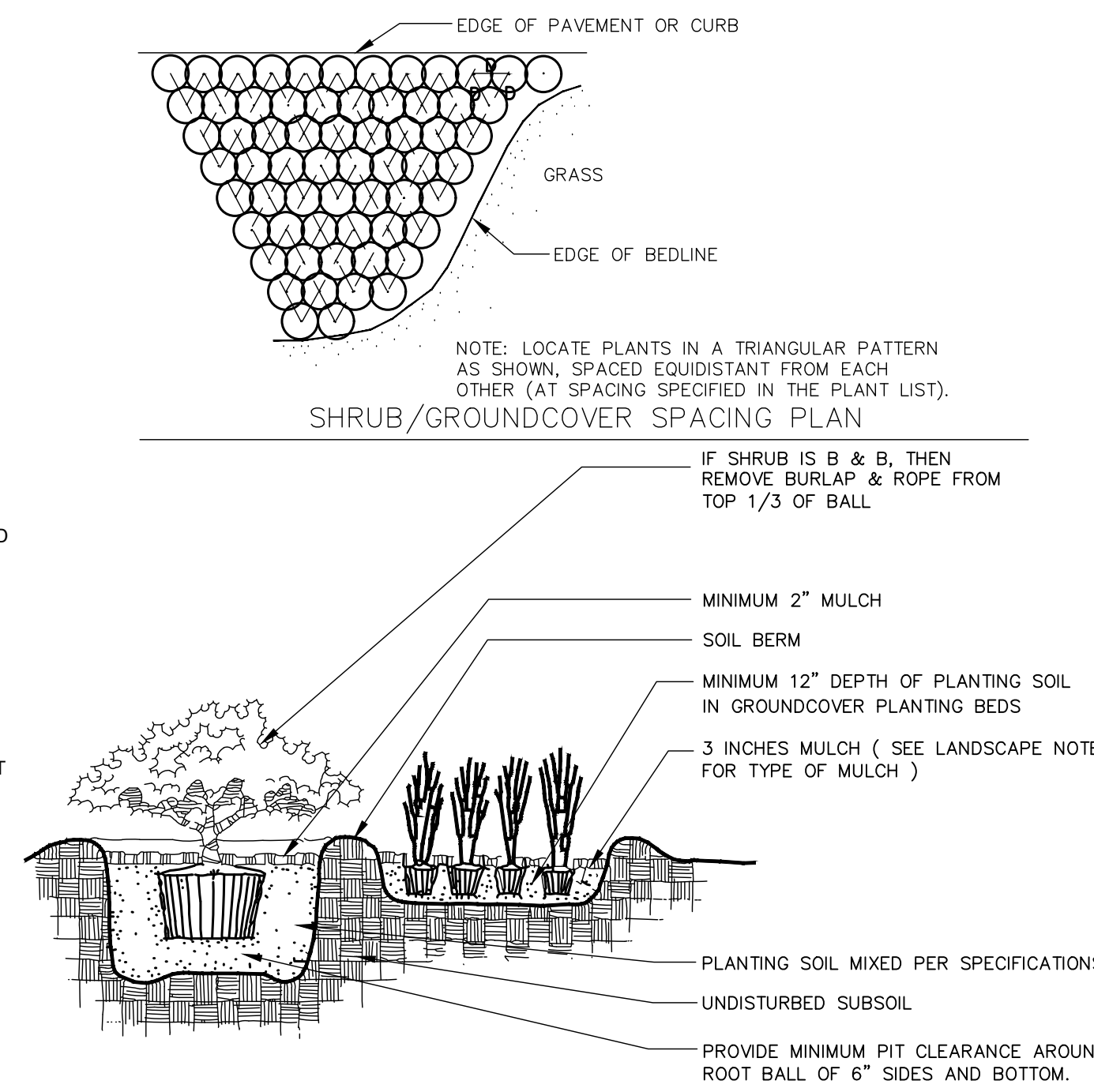
2 MULTI-STEM TREE PLANTING
N.T.S.
329343.33-01



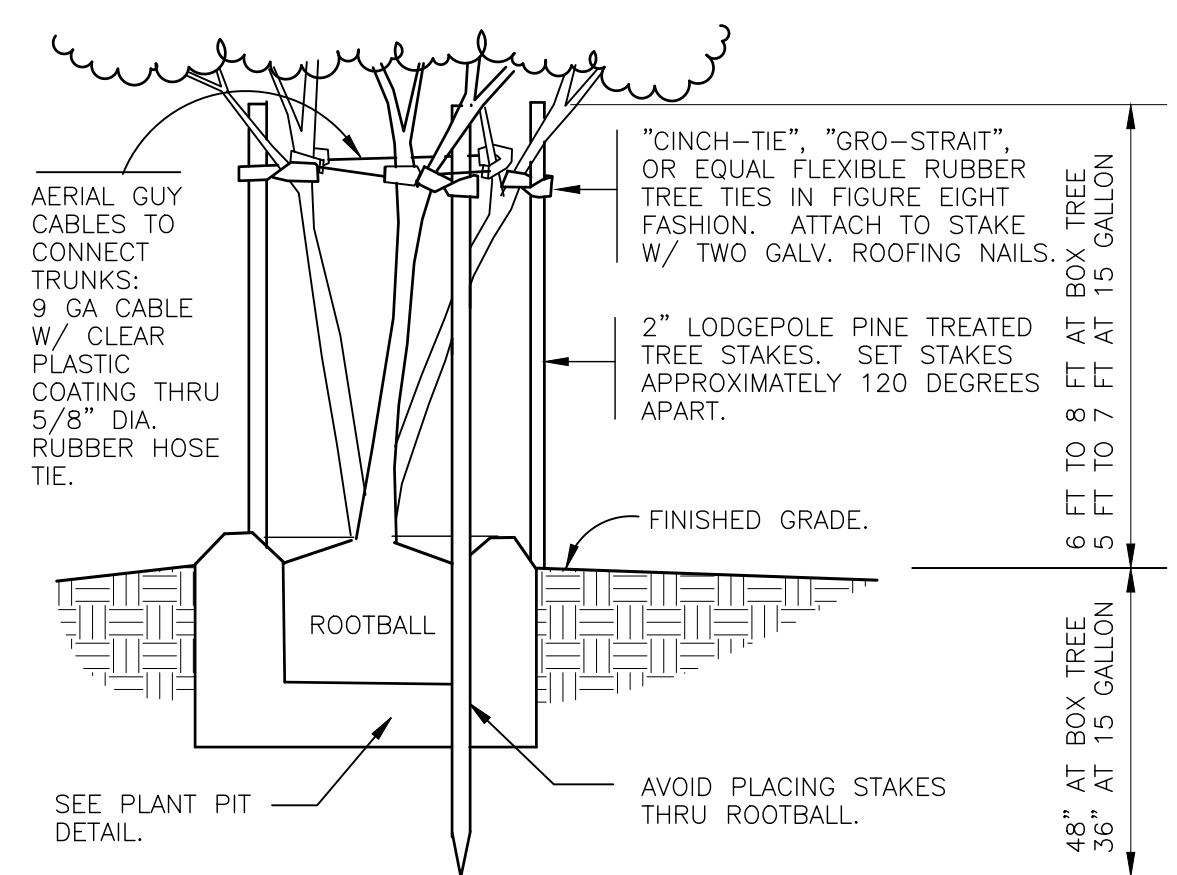
3 PALM STAKING
N.T.S.
329343.32-01



4 ROOT BARRIER TREE PLANTING
1" = 1'-0"
FX-PL-FX-TREE-12



5 SHRUB AND GROUNDCOVER PLANTING
NTS
329333.13-04



6 TREE PLANTING MULTI-STAKE
1" = 1'-0"
329343.23-03

LANDSCAPE NOTES:

- The Landscape Contractor shall be responsible for all materials and all work as called for on the Landscape Plans and in the Landscape Specifications. In the event of variation between quantities shown on plant list and the plans, the plans shall control. The Landscape Contractor shall verify all quantities and report any discrepancies at the time of bidding.
- The Landscape Contractor shall review architectural/engineering plans and become thoroughly familiar with surface and subsurface utilities.
- Every possible safeguard shall be taken to protect building surfaces, equipment and furnishings. The Landscape Contractor shall be responsible for any damage or injury to person or property which may occur as a result of negligence in the execution of the work.
- The work shall be coordinated with other trades to prevent conflicts. Coordinate the planting with the irrigation work to assure availability and proper location of irrigation items and plants.
- All planting shall be performed by personnel familiar with planting procedure and under the supervision of a qualified planting foreman.
- All plant material shall be graded Florida No. 1 or better as outlined under Grades and Standards for Nursery Plants, Part I and II, published by the Florida Department of Agriculture and Consumer Services.
- The Landscape Architect or Owner shall have the right, at any stage of the operations, to reject any and all work and materials which, in his opinion, do not meet with the requirements of these specifications.
- Except as otherwise specified, the Landscape Contractor's work shall conform to accepted horticultural practices as used in the trade.
- The minimum acceptable size of all plants, measured after pruning, with branches in normal positions, shall conform to the measurements specified on the plant list or as indicated on the landscape drawing. Height and spread dimensions refer to main body of the plant and not extreme branch tip to tip. The caliper of tree trunks is to be taken one foot above the ground level.
- Plants shall be protected upon arrival at the site, by being thoroughly watered and properly maintained until planted.
- All tree pits shall be excavated to size and depth in accordance with the USDA Standard for Nursery Stock 260.1, unless shown otherwise on the drawings, and backfilled with the specified planting soil. The Landscape Contractor shall first fill all tree pits with water before planting to assure proper drainage percolation is available.
- The Landscape Contractor shall be responsible for proper watering of all plants. All plants shall be thoroughly watered at time of planting and kept adequately watered until time of acceptance. It shall be the Landscape Contractor's responsibility to assure that plants are not over-watered.
- It shall be the Landscape Contractor's responsibility to prevent plants from falling or being blown over, to re-straighten and replant all plants which lean or fall and to replace all plants which are damaged due to lack of proper guying or staking. The Landscape Contractor shall be legally liable for any damage caused by instability of any plant material.
- All trees and all palms shall be guyed or staked or braced. The Landscape Contractor shall determine which small or multi-trunk trees need to be guyed and staked to maintain plumb. Staking of trees and shrubs, if required, shall be done as per staking and guying detail prepared by the Landscape Architect. It shall be the responsibility of the Landscape Contractor to remove guys and stakes from the trees and job site after a period of 90 days.
- Plants blown over by high winds, within the guaranteed period, shall not be cause for additional expense to the Owner, but shall be the responsibility of the Landscape Contractor. Damaged plants shall be replaced by the Landscape Contractor at no additional cost to the Owner.
- Sod shall be certified to be free of the imported fire ant. Sod shall have a clean growth of acceptable grass, reasonably free of weeds with not less than 1 1/2" of soil firmly adhering to roots. It shall be the responsibility of the Landscape Contractor to measure and determine the exact amount required. This amount shall be verified with the Owner or Landscape Architect before installation.
- The Landscape Contractor shall insure adequate vertical drainage in all plant beds, planters, and sod areas. Vertical drilling through any compacted fill to native soil shall be accomplished to insure drainage. If well drained fill is necessary to assure positive drainage, this issue shall be brought up by the Landscape Contractor at time of bidding.
- The Landscape Contractor shall insure that his work does not interrupt established or projected drainage patterns.
- The Landscape Contractor shall prune, shape and remove dead foliage/limbs from existing plant material to remain. Confirm with the Landscape Architect or Owner the extent of work required at time of bidding.
- Mulch - All plant beds shall be top dressed with 3" shredded hardwood mulch (or approved equal).
- Transplanted Material - The Landscape Contractor shall be responsible for determining and evaluating which plant materials are suitable for transplanting and shall verify this with the Landscape Architect or Owner. The Landscape Contractor shall take all reasonable, horticulturally acceptable measures to assure the successful transplanting of determined plant materials. The Landscape Contractor shall be responsible for replacing any relocated plant materials which die if such measures are not taken, as determined by the Landscape Architect or Owner. Replacement plants shall be of identical species and size if required.
- MAINTENANCE PRIOR TO FINAL INSPECTION AND ACCEPTANCE:
 - Maintenance shall commence after each plant is planted and the maintenance period shall continue until the job or specific phase of the job is accepted by the Landscape Architect or Owner. Extreme care shall be taken to instruct the Owner or his representatives in general maintenance procedures.
 - Plant maintenance shall include watering, pruning, weeding, cultivating, mulching, tightening, and repairing of guys, replacement of sick or dead plants, resetting plants to proper grades or upright positions and restoration of the planting saucer and all other care needed for proper growth of the plants.
 - During the maintenance period and up to the date of final acceptance, the Landscape Contractor shall do all seasonal spraying and/or dusting of trees and shrubs. Upon completion of all planting, an inspection for acceptance of work will be held. The Landscape Contractor shall notify the Landscape Architect or Owner for scheduling of the inspection 10 days prior to the anticipated date.
 - At the time of the inspection, if all of the materials are acceptable, a written notice will be given by the Landscape Architect or Owner to the Landscape Contractor Stating the date when the Maintenance Period ends.
- GUARANTEE AND REPLACEMENT:
 - All plant materials shall be guaranteed for one (1) year from the time of final inspection and interim acceptance shall be alive and in satisfactory growth for each specific kind of plant at the end of the guaranteed period.
 - At the end of the guarantee period, any plant required under this contract that is dead or not in satisfactory growth, as determined by the Owner or the Landscape Architect, shall be removed and replaced. Replacement plants shall have an extended guarantee, as noted above, from time of replacement.
 - All replacements shall be planted of the same kind and size as specified on the plant list. They shall be the responsibility of the Landscape Contractor.

**SELF HELP
CREDIT UNION
FINAL SITE PLAN**
APOPKA, FLORIDA

SEAL

KEY PLAN

SCALE

No.	DATE	BY	Description

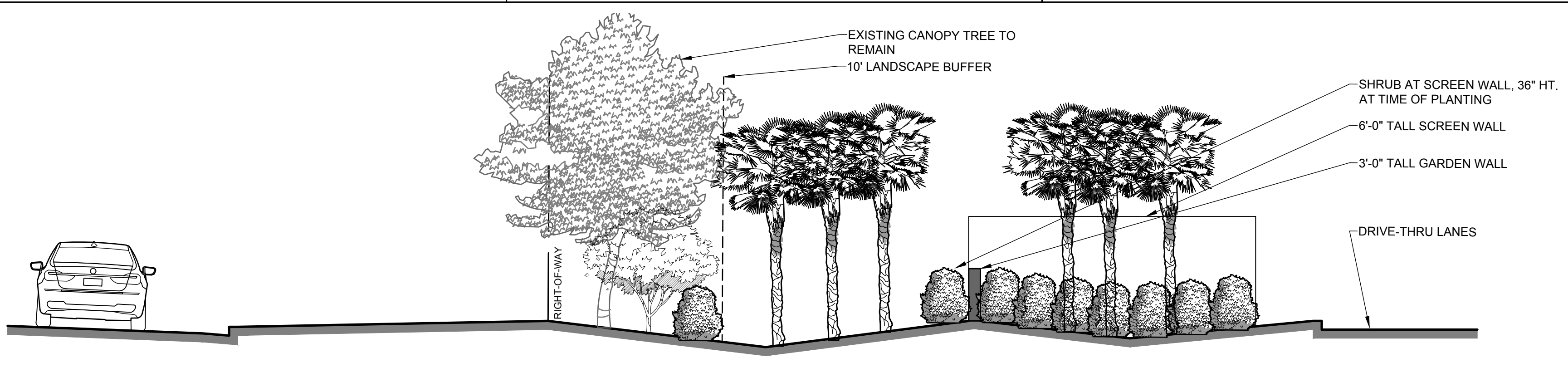
REVISIONS

DRAWN BY _____
APPROVED BY _____
CHECKED BY _____
DATE JULY 6, 2017
TITLE

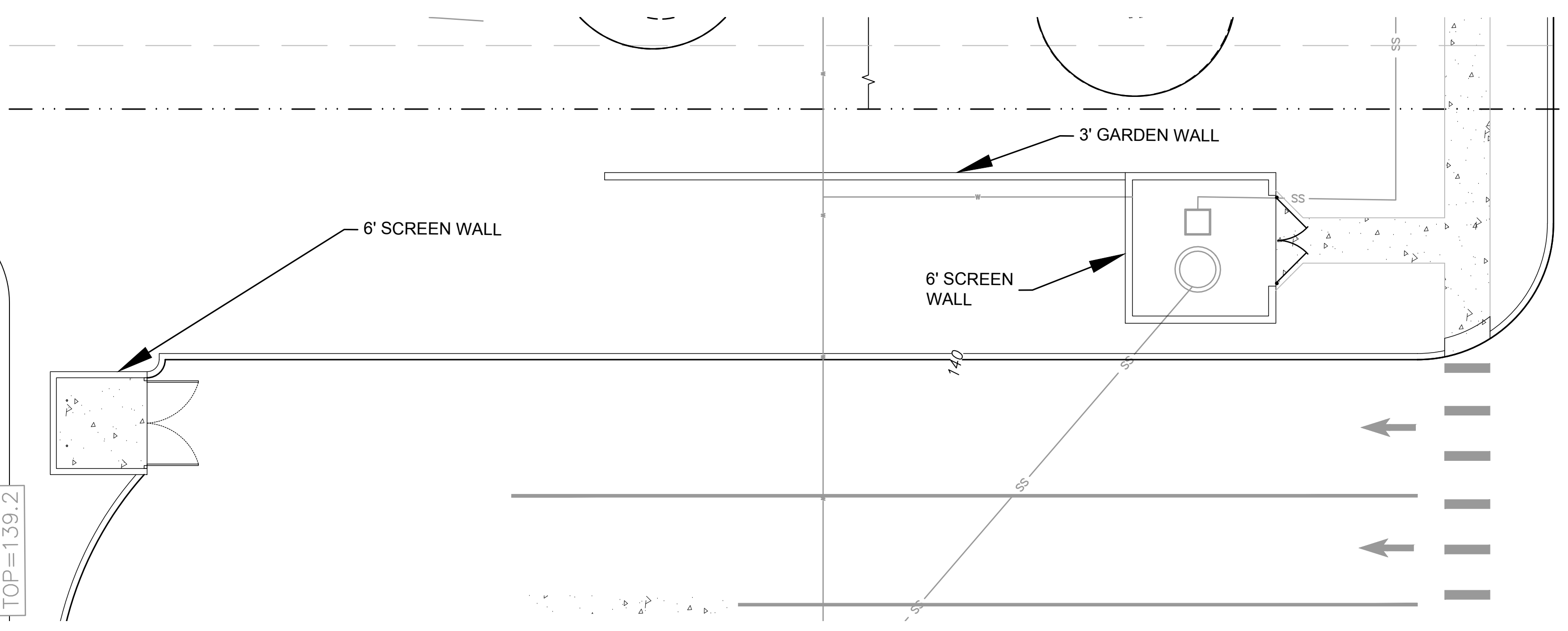
DETAILS

PROJECT NO. 50094806

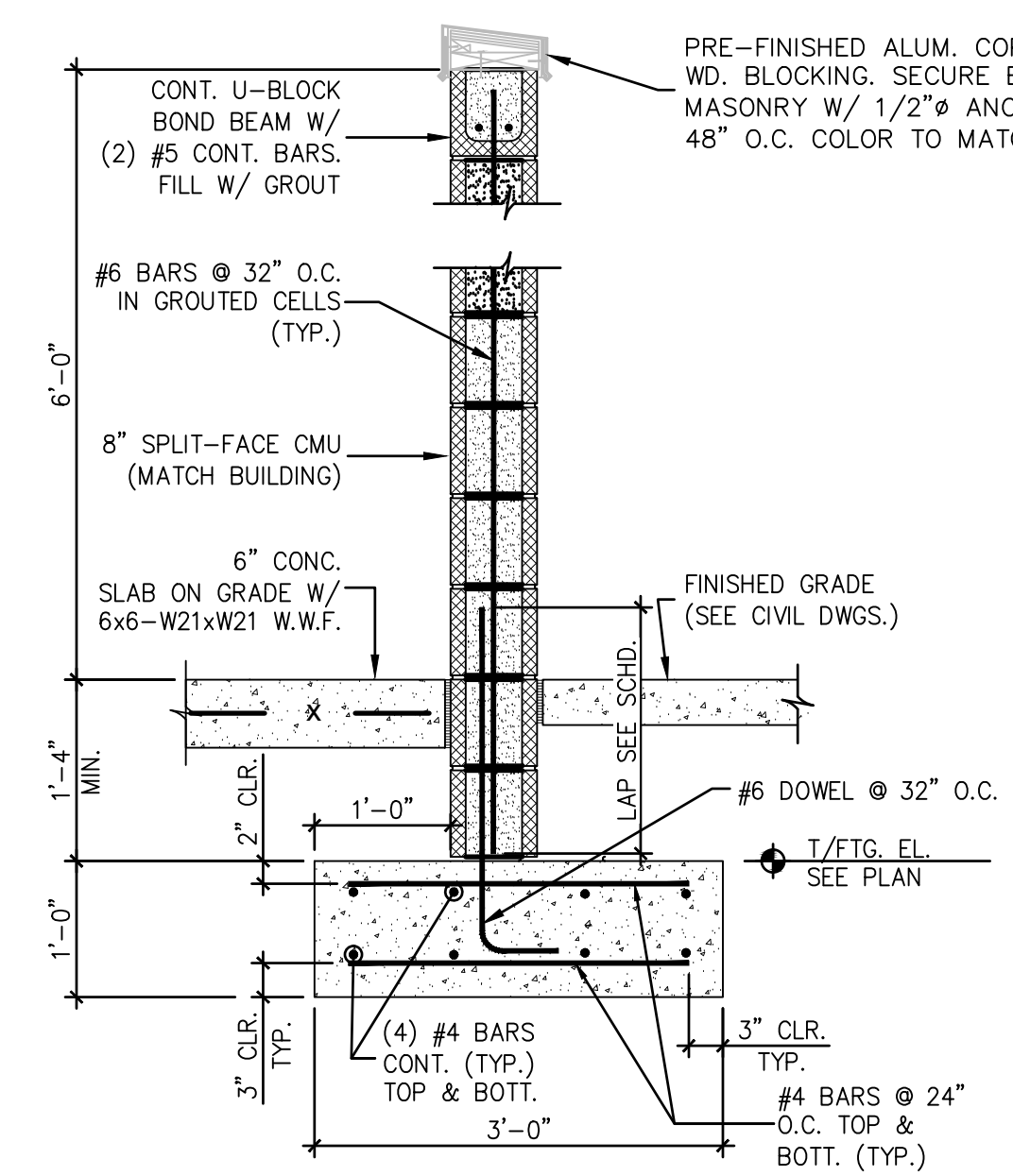
L3.11



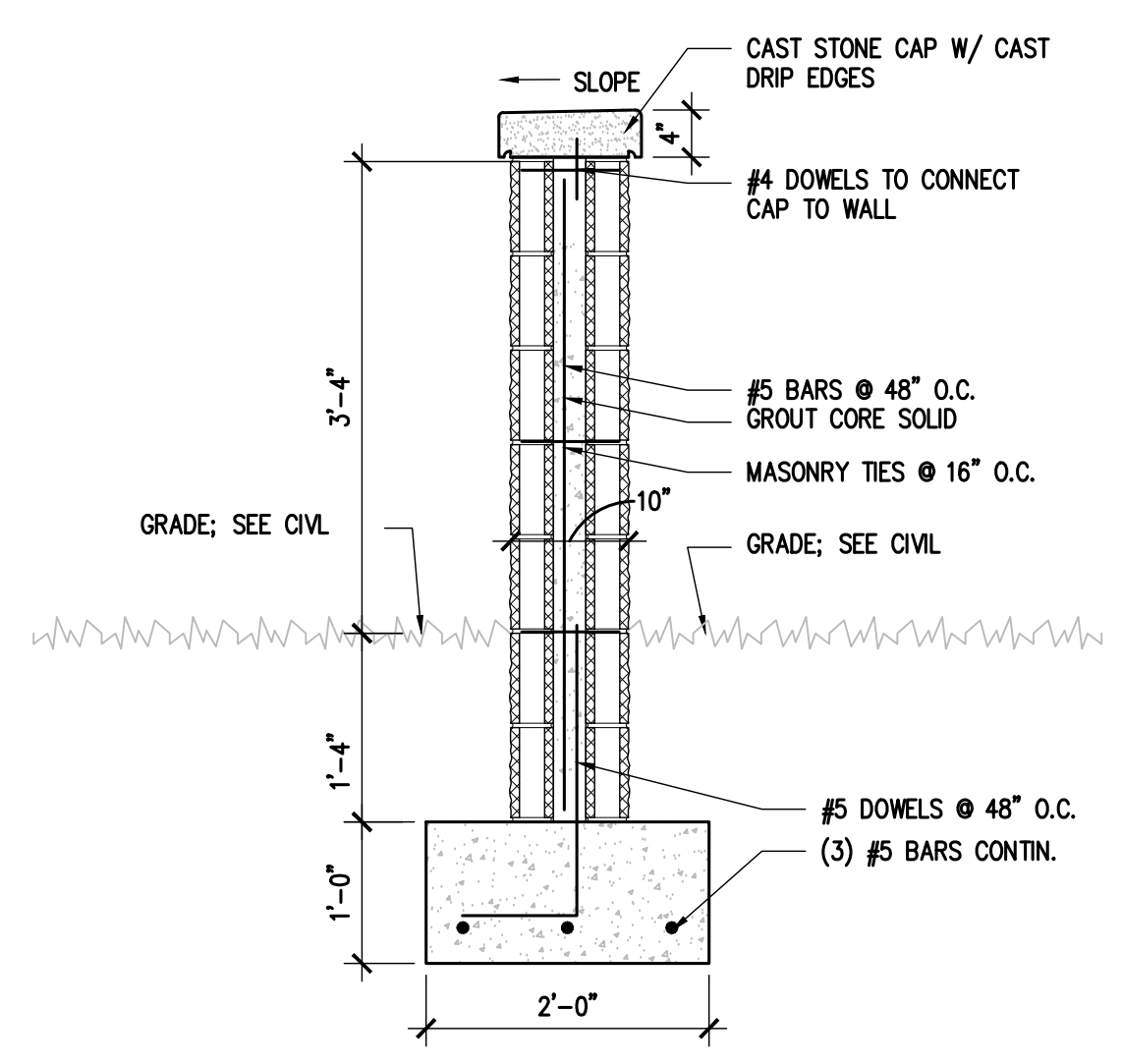
D1 SECTION AT GARDEN WALL
SCALE: 1" = 5'-0"



C1 WALL LAYOUT PLAN
SCALE: 1" = 10'-0"



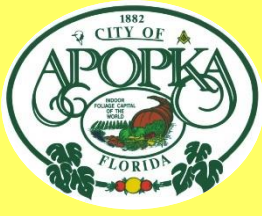
1 MASONRY SCREEN WALL W/ FTG.
SCALE: 3/4" = 1'-0"



2 MASONRY GARDEN WALL W/ FTG.
SCALE: 3/4" = 1'-0"

Backup material for agenda item:

7. FINAL DEVELOPMENT PLAN/PLAT – ZARABROOKE SUBDIVISION - Owned by Zarabrooke, LLC, c/o Barry Kalmanson and located at 829 Paradiso Court. (Parcel ID #: 05-21-28-0000-00-056)



CITY OF APOPKA PLANNING COMMISSION

- PUBLIC HEARING
- SITE PLAN
- SPECIAL REPORTS
- OTHER: Final Development Plan/Plat

MEETING OF: March 13, 2018
 FROM: Community Development
 EXHIBITS: Vicinity Map
 Aerial Map
 Final Development Plan/Plat
 Landscape Plan

SUBJECT: FINAL DEVELOPMENT PLAN/PLAT FOR ZARABROOKE SUBDIVISION

REQUEST: RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN/PLAT FOR ZARABROOKE SUBDIVISION

SUMMARY:

OWNER: Zarabrooke, LLC c/o Barry Kalmanson
 APPLICANT/ENGINEER: Lochrane Engineering, Inc. c/o Edgardo Garcia-Luna
 LOCATION: 829 Paradiso Court
 PARCEL ID NUMBER: 05-21-28-0000-00-056
 FUTURE LAND USE: Residential Low Density (max. 0-5 du/ac)
 ZONING: R-3 (Residential Multiple Family)
 EXISTING USE: Vacant
 PROPOSED USE: Single Family Residential Subdivision (14) Lots
 Minimum Lot Size: 9808 square feet; Minimum Lot Width: 70 feet
 TRACT SIZE: 5.59 +/- acres
 DENSITY: 2.68 du/ac (proposed)

FUNDING SOURCE: N/A

DISTRIBUTION

Mayor Kilsheimer	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\SUBDIVISION PLANS\2018\Zarabrooke Subdivision\4 Planning Com Hearing

RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Residential Estates	R-3	The Courtyards Residential Subdivision
East (City)	Office	PO/I	Vick Road Right-of-Way/Apopka High School
South (City)	Residential Low	PUD	Parkside at Errol Estates Subdivision
West (City)	Residential Low	PUD	Parkside at Errol Estates Subdivision

Project Use: The Zarabrooke Subdivision Final Development Plan proposes the development of 14 single family residential lots. The minimum typical lot width is 70 feet with a minimum lot size of 9,808 square feet. The required minimum living area for the subdivision is 1,350 square feet as set forth in Chapter 2 of the Land Development Code for single-family lots located within the R-3 zoning.. The minimum setbacks applicable to this project are:

Setback	Min. Standard
Front	25’*
Side	7.5’**
Rear	20’
Corner	25’

*Front-entry garage must be setback 30 feet.

**15 feet distance requirement between structures.

Access: Ingress/egress access points for the development will be via full access onto Vick Road.

Stormwater: The retention pond on the western portion of the site has been designed to meet the City’s Land Development Code requirements.

Buffer and Tree Program: A 6-foot tall masonry or concrete or brick-finished wall will be located on the east boundary of the project site with a subdivision entry sign and feature, abutting Vick Road. The plans shows a wrought-iron style fence with a brink posts on a portion of the stormwater pond, Tract A.

Buffers are provided consistent with the Land Development Code. A buffer wall is not located along the western boundary of the Duke Energy property. A screen wall is not required by the Land Development Code when a development abuts single family residential uses, and screen wall is not proposed by within the Final Development Plan. Future homeowners will have the option to install a fence along their rear lot lines.

Tree Program:

The following is a summary of the tree replacement program:

- Total number of specimen trees: 107
- Total number of non-specimen trees: 53
- Total inches retained: 1054
- Total inches replaced: 480
- Total inches post development: 1534

Based on the number of tree inches preserved and additional tree inches replaced, a tree mitigation fee is not required for this project.

All preserved trees shall be protected during lot construction and grading. Appropriate tree barricades shall be installed around each tree or group of trees along the tree drip line.

SCHOOL CAPACITY REPORT: No development activity can occur until such time that a concurrency mitigation agreement has been approved by OCPS.

PUBLIC HEARING SCHEDULE:

March 13, 2018 - Planning Commission, 5:30 p.m.

April 4, 2018 - City Council, 1:30 p.m.

RECOMMENDATION ACTION:

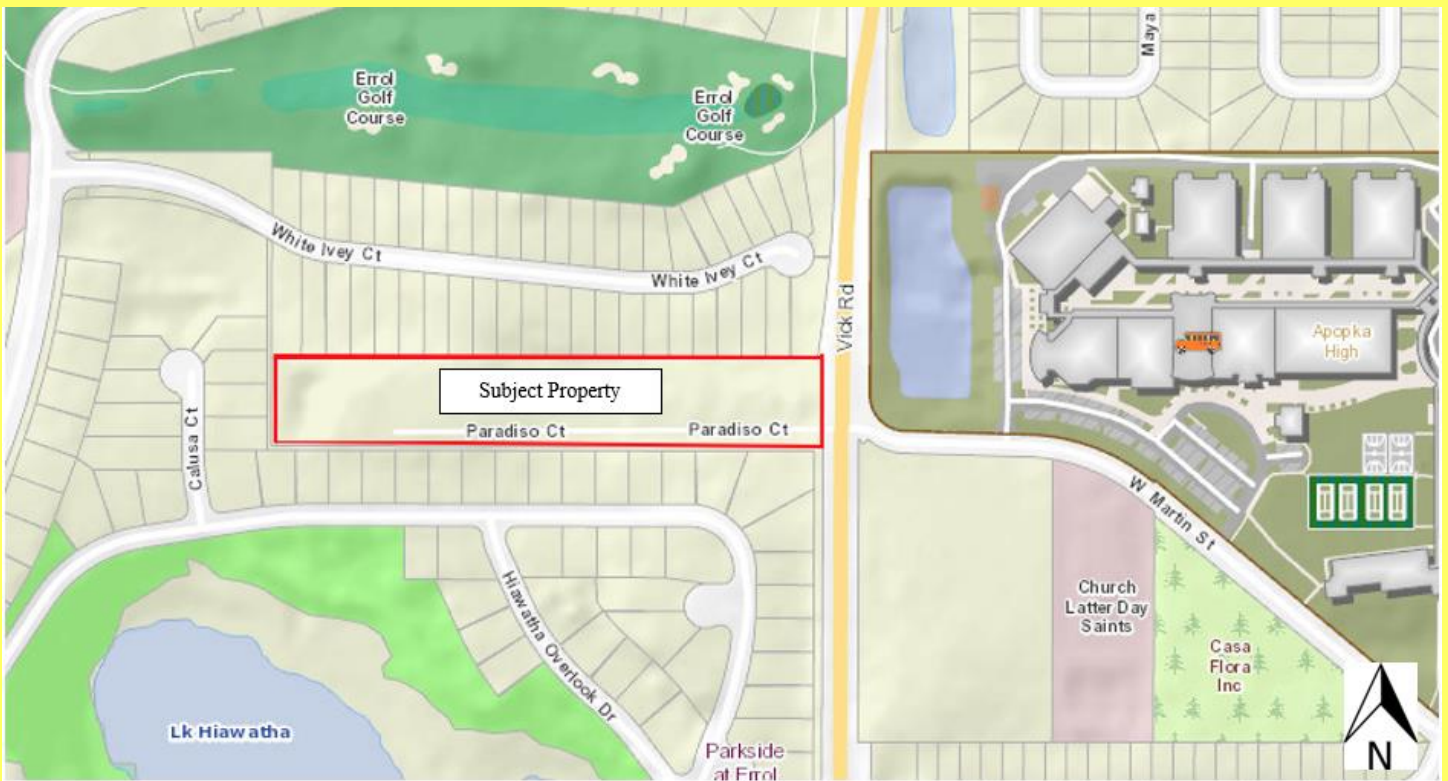
The **Development Review Committee (DRC)** recommends approval of the Zarabrooke Subdivision Final Development Plan/Plat subject to the findings of this staff report.

Planning Commission: Find the Zarabrooke Subdivision Final Development Plan consistent with the Comprehensive Plan and Land Development Code, and recommend approval of the Zarabrooke Subdivision Final Development Plan/Plat subject to the findings of this staff report.

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.

Zarabrooke, LLC c/o Barry Kalmanson
Lochrane Engineering, Inc.,
c/o Edgardo Garcia-Luna
Zarabrooke Subdivision
5.59 +/- Acres
Proposed number of units: 14
Parcel ID #: 05-21-28-0000-00-056

VICINITY MAP



AERIAL MAP



**Parkside at Errol Estates Phase Three Northern Buffer Tract “H”:
Landscape/Wall/Buffer**



SITE DATA:

- TOTAL GROSS ACREAGE: 5.59 ACRES +/-
- EXISTING ZONING: R-3, (5 UNITS/ACRE).
- FUTURE LAND USE: RESIDENTIAL LOW (0-5 DU/AC)
- WATER SERVICE: CITY OF APOPKA PUBLIC SERVICES
- WATER DEMAND:
FIRE FLOW: ON-SITE FIRE HYDRANTS MIN. OF 1000 GPM PER HYDRANT
- SANITARY SEWER SERVICE: CITY OF APOPKA PUBLIC SERVICES.
- LAND UTILIZATION:

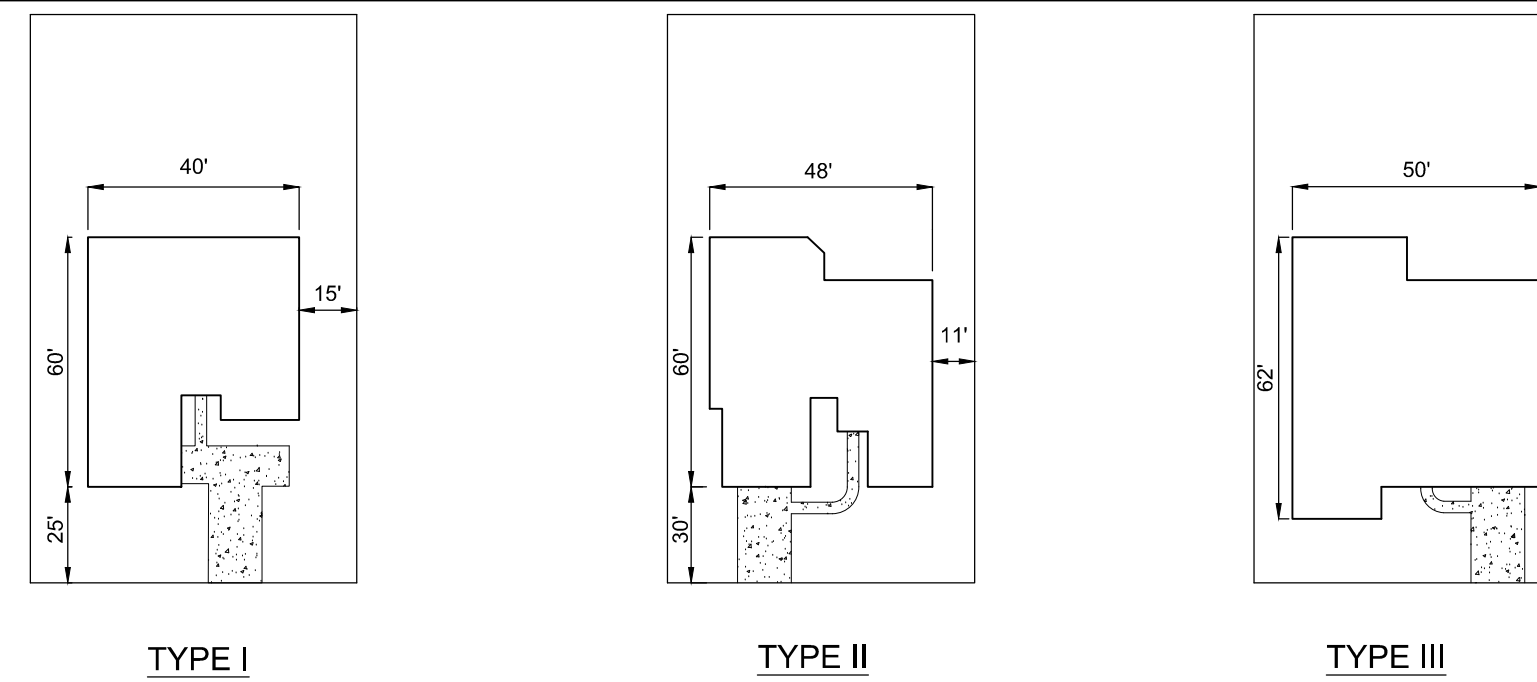
LAND USE	AREA (SF)	AREA (ACRES)	%
SINGLE-FAMILY RESIDENTIAL	148,143.83	3.401	60.9
TRACT 'A' (STORMWATER DETENTION POND)	35,935.90	0.825	14.8
TRACT 'B' (SCREEN WALL)	1,380.00	0.032	0.6
TRACT 'C' (ENTRANCE LANDSCAPE ISLAND)	552.75	0.013	0.2
TRACT 'D' (STORMWATER MAINTENANCE)	1,480.00	0.034	0.6
PUBLIC ROW (ZARABROOKE CT.)	55,851.00	1.282	23.0
TOTAL	243,343.48	5.586	100.0

7. PVIOUS/IMPERVIOUS AREA:

DESCRIPTION	AREA (SF)	AREA (ACRES)	%
PVIOUS (GREEN AREA)	153,523.48	3.524	63.1
IMPERVIOUS (BUILDING)	43,288.00	0.994	17.8
IMPERVIOUS (PAVERS AND SIDEWALK)	17,216.00	0.395	7.1
IMPERVIOUS (ROADWAY)	29,316.00	0.673	12.0
TOTAL	243,343.48	5.586	100.0

INDIVIDUAL LOT INFORMATION

LOT NO.	LOT FRONTAGE (LF)	LOT AREA (SF)
1	69.00	9,808.62
2	71.59	9,835.00
3	70.00	10,360.00
4	70.00	10,360.00
5	70.00	10,360.00
6	70.00	10,360.00
7	70.00	10,360.00
8	70.00	10,360.00
9	70.00	10,360.00
10	70.00	10,360.00
11	70.00	10,360.00
12	90.00	11,260.00
13	92.98	11,000.31
14	54.97	12,999.90
TOTAL	148,143.83	

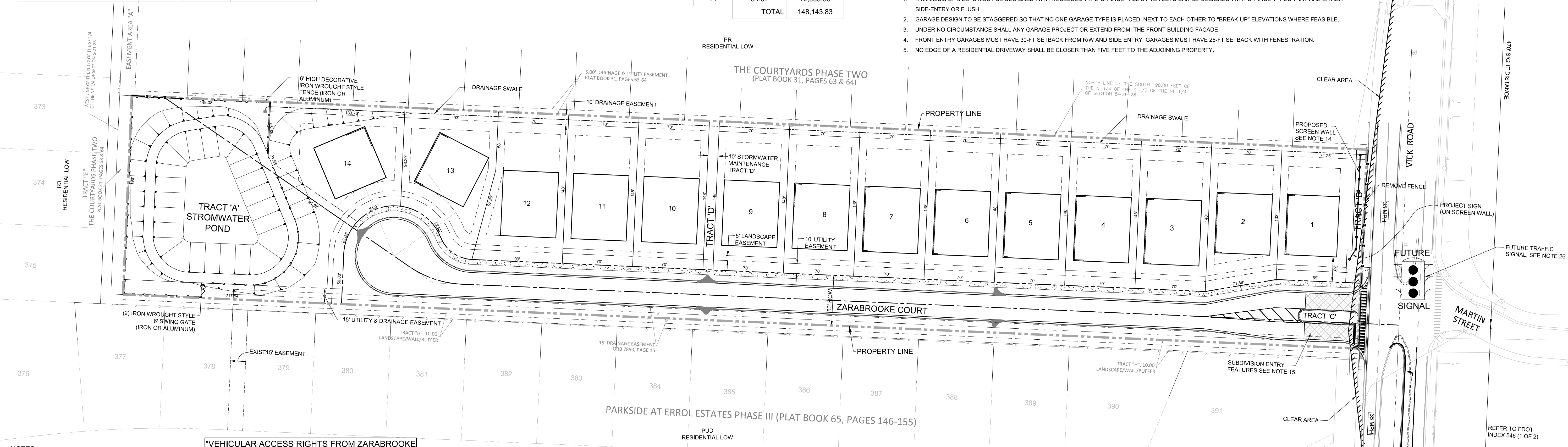


* ALL UNITS WILL PROVIDE MIN. 2 CAR GARAGE

TYPICAL BUILDING LAYOUTS
NTS

NOTES:

- A MINIMUM OF 3 LOTS MUST BE DESIGNED WITH RECESSED TYPE GARAGE. ALL OTHER LOTS CAN BE DESIGNED WITH GARAGE TYPES THAT ARE EITHER SIDE-ENTRY OR FLUSH.
- GARAGE DESIGN TO BE STAGGERED SO THAT NO ONE GARAGE TYPE IS PLACED NEXT TO EACH OTHER TO 'BREAK-UP' ELEVATIONS WHERE FEASIBLE.
- UNDER NO CIRCUMSTANCE SHALL ANY GARAGE PROJECT OR EXTEND FROM THE FRONT BUILDING FACADE.
- FRONT ENTRY GARAGES MUST HAVE 30-FT SETBACK FROM RW AND SIDE ENTRY GARAGES MUST HAVE 25-FT SETBACK WITH FENESTRATION.
- NO EDGE OF A RESIDENTIAL DRIVEWAY SHALL BE CLOSER THAN FIVE FEET TO THE ADJOINING PROPERTY.



NOTES:

- TYPE OF UNIT: SINGLE FAMILY DETACHED
- MINIMUM NET LIVING AREA: 1,800 SF
- MINIMUM BUILDING SETBACKS:
FRONT - 25 FEET
REAR - 20 FEET
SIDE - 7.5 FEET (25 FEET, CORNER LOT) (15' BETWEEN BUILDINGS)
SIDE STREET - 25 FEET
- MAXIMUM BUILDING HEIGHT: 35 FEET
- MAXIMUM BUILDING COVERAGE PER LOT: 3,575 SF (0.08 AC)
- MAXIMUM IMPERVIOUS SURFACE PER LOT 3,825 SF (0.09 AC)
- MAXIMUM NUMBER OF LOTS: 15
- MINIMUM LOT SIZE REQUIREMENT: 7,500 SF (0.172 AC.)
- MINIMUM LOT WIDTH: 70 FEET
- MAXIMUM GROSS DENSITY: 15 LOTS / 5.59 AC. = 2.68 DU/AC
- ALL ROADS WITHIN THE SUBDIVISION WILL BE DEDICATED PUBLIC ROADS WITH 50' RIGHT-OF-WAY
- LANDSCAPE BUFFERS 10' MINIMUM.
- DUE TO THE NUMBER OF LOTS PROPOSED (LESS THAN 20) A PARK IS NOT REQUIRED TO BE PROVIDED PER THE CITY'S LDC.
- WALL WILL HAVE BRICK FINISH SIMILAR IN FINISH & COLOR TO EXISTING WALLS ALONG VICK ROAD. COLUMNS WILL BE SPACED AT 12' INTERVALS. (REFER TO DETAIL ON SHEET C5.2)
- SUBDIVISION ENTRY WILL CONSIST OF ONE OR MORE OF THE FOLLOWING:
A. EXTENSIVE LANDSCAPE / IRRIGATION AT ENTRY (TRACT 'C' MAINTAINED BY HOA).
B. HARDSCAPE / PAVER DESIGN.
C. DECORATIVE SUBDIVISION IDENTIFICATION SIGNAGE W/ LANDSCAPING.
D. POSSIBLE ABOVE GROUND FEATURES AS DEEMED APPROPRIATE FOR STYLE / THEME OF SUBDIVISION.
- STREET LIGHT POLES AND FIXTURES WILL BE OF DECORATIVE TYPE MATCHING STYLE / THEME OF SUBDIVISION, AND SHALL BE PROVIDED BY DUKE ENERGY.
- STREET TREES SPACED AT 25' TO 30' ON CENTER (NOT INCLUDING LOT TREES) MEETING CITY'S MINIMUM REQUIREMENTS WILL BE SHOWN ON LANDSCAPE PLAN PROVIDED WITH THE FINAL DEVELOPMENT PLAN.
- TRACT 'A' WILL BE LANDSCAPED IN ADDITION TO THE DECORATIVE FENCE AS A MEANS OR MITIGATING THE RECTILINEAR SHADE OF THE POND. PERPETUAL MAINTENANCE WILL BE ADDRESSED BY THE HOA COVENANTS AND RESTRICTIONS.
- STREET TREES AND A CONTINUOUS HEDGE ALONG VICK ROAD WILL BE PROVIDED PER CITY REQUIREMENTS AND SPACED AT 35' ON CENTER.
- ALL ABOVE GROUND UTILITY EQUIPMENT W/ IN EASEMENT WILL BE SCREENED BY LANDSCAPING PLAN - ON SITE / PRIVATE EQUIPMENT WHICH REQUIRES SCREENING WILL BE ADDRESSED BY THE HOA COVENANTS AND RESTRICTIONS.

"VEHICULAR ACCESS RIGHTS FROM ZARABROOKE COURT RIGHT-OF-WAY SHALL BE DEDICATED TO THE CITY OF APOPKA"

- IN LIEU OF CONSTRUCTING SIDEWALKS ON BOTH SIDES OF ZARABROOKE COURT 'A' DEVELOPER ELECTS TO CONTRIBUTE TO THE CITY'S SIDEWALK CONSTRUCTION FUND FOR THE EQUIVALENT OF 5,000 SF OF 4" SIDEWALK.
- ALL LANDSCAPE REQUIREMENTS INCLUDING MIN. DBH TREES PER LOT, ETC. MAY BE NECESSARILY UPGRADED OR ENHANCED BEYOND THE CITY'S MINIMUM STANDARDS IN ORDER TO MEET THE TREE REPLACEMENT REQUIREMENTS.
- LANDSCAPING CONSISTING OF UNDERSTORY TREES (HOLLY, ETC.) AND HEDGES WILL BE PROVIDED ALONG THE SOUTH PROPERTY LINE AND MAINTAINED BY THE HOA.
- LOT TREES (3 CANOPY, 1 UNDERSTORY) WILL BE PROVIDED AT TIME OF LOT DEVELOPMENT. CANOPY TREES WILL BE OF MAPLE, OAK OR SIMILAR VARIETY. LOT TREES WILL BE MINIMUM 3" DBH AT TIME OF PLANTING.
- STREET LIGHTS AND FIXTURES SHALL BE PROVIDED BY DUKE ENERGY. THE CITY OF APOPKA SHALL COVER THE COST FOR STANDARD LIGHT STYLE; THE DEVELOPER SHALL BE RESPONSIBLE FOR THE UPGRADE COST TO LED AND DECORATIVE LIGHTING.
- CITY OF APOPKA IS PLANNING TO CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF VICK ROAD AND MARTIN STREET. ZARABROOKE, LLC WILL ENTER INTO A COST-SHARING AGREEMENT WITH THE CITY FOR THE ADDITION OF A WEST LEG OF THE INTERSECTION FOR ZARABROOKE COURT.
- STREET TREES SOUTH OF ZARABROOKE COURT WILL BE PLANTED AT TIME OF C.O. OF THE CORRESPONDING RESIDENTIAL LOTS ACROSS THE STREET.
- ARCHITECTURAL RENDERINGS FOR ALL RESIDENTIAL BUILDINGS MUST BE SUBMITTED TO, AND APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT BEFORE SUBMITTING FOR BUILDING PERMIT.



High-pressure sodium	100 watts
Mounting height	12'
Color	Black
Pole	Decorative concrete

**DUKE ENERGY OCALA MODEL
OUTSIDE LIGHT POLE / FIXTURE**

ENGINEER
EDGARDO GARCIALUNA, P.E.
FL. LIC. #76902

RECORD DRAWING
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ZARABROOKE
VICK & W. MARTIN STREET
APOPKA, FLORIDA

MASTER DEVELOPMENT PLAN

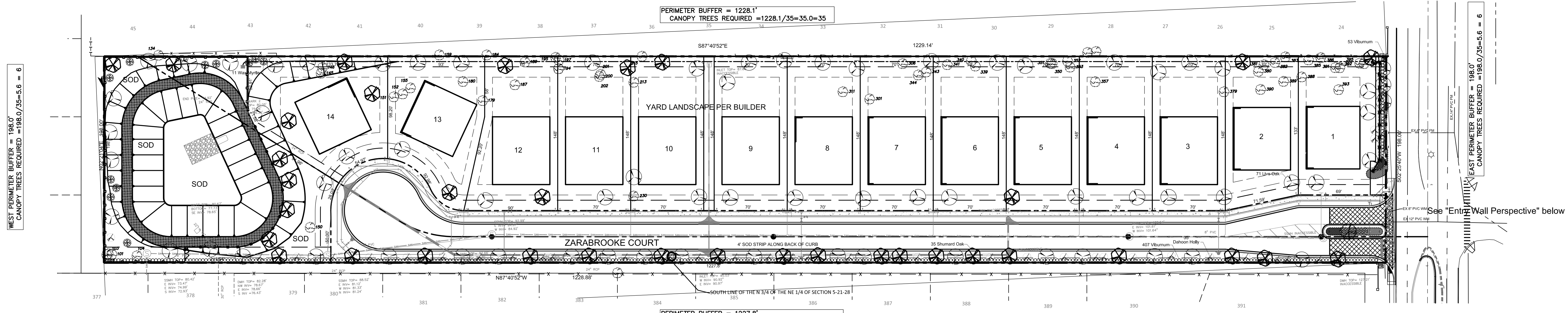
LOCHRANE
Consulting Engineers • Surveyors
An NVIS Company

201 SOUTH BUNBY AVENUE | ORLANDO, FL 32803
PH: (407) 888-3317 | FAX: (407) 888-5187
WWW.LOCHRANE.COM

CERTIFICATE OF AUTHORIZATION # 0002856

DATE: JAN. 29, 2018

DRAWING NO. C0.2 SHEET 3 OF 22



LANDSCAPE PLAN Scale: 1"=50'

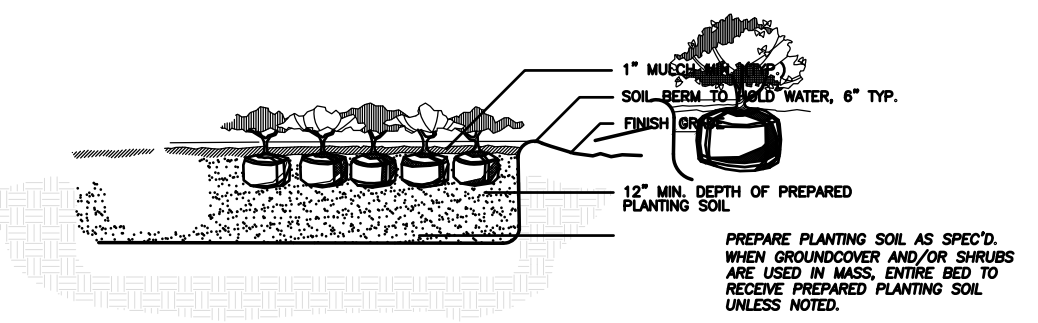
GENERAL NOTES

- THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION.
- LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO INITIATING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGE TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- THE OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
- ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON-SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE PRIOR TO START OF CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.
- REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.
- THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
- NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE DURING THE COURSE OF THIS WORK. EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY FROM THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HRS MINIMUM PRIOR TO DIGGING FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITIES.
- ALL EXISTING SITE ROADS, PARKING LOTS, CURBS, UTILITIES, SEWERS, AND OTHER ELEMENTS TO REMAIN SHALL BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.

LANDSCAPE NOTES

- THE CONTRACTOR SHALL REVIEW ARCHITECTURE/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
- THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
- ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK.
- PRIOR TO PLANTING INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF TREE MATERIAL AND SPECIMEN PLANT MATERIAL TO THE OWNER'S REPRESENTATIVE FOR REVIEW.
- ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. CONTAINER SIZE SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
- IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED AND FOUND TO BE ACCEPTABLE.
- THE CONTRACTOR SHALL TEST THE PROJECT SOILS TO VERIFY THAT THE SOILS ON-SITE ARE ACCEPTABLE FOR PROPER GROWTH OF PLANT MATERIALS AND ADEQUATE DRAINAGE IN PLANT BEDS AND PLANTERS. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PROCUREMENT OF EXISTING ON-SITE SOIL SAMPLES WITH THE OWNER'S REPRESENTATIVE. REPRESENTATIVE SAMPLES SHALL BE SUBMITTED TO A CERTIFIED TESTING LABORATORY FOR ANALYSIS. THE FINDINGS, TOGETHER WITH RECOMMENDATIONS FOR AMENDING THE SOILS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE AND PRIOR TO DELIVERY AND INSTALLATION OF PLANT MATERIALS AT THE JOB.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS, AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE.
- PEG SOD ON SLOPES GREATER THAN 3:1.
- THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK.
- CONTRACTOR SHALL FIELD-ADJUST LOCATION OF PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE 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.
- ALL PLANTING BEDS SHALL BE TOP-DRESSED WITH A 1" LAYER OF MULCH AS SPECIFIED. ALL TREES SHALL HAVE NO MORE THAN 1" THICK, 24" RADIUS (FROM THE TRUNK) MULCH RING PLACED ON TOP OF THE ROOT BALL.
- SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED ON THE PLANT LIST. PLANT ACCENT SHRUBS AND TREES AS SHOWN ON THE LANDSCAPE PLANTING PLANS WHEN INDIVIDUAL PLANTS ARE DELINEATED.
- PALM HEIGHTS, IF INDICATED ON THE PLANS, REFER TO CLEAR TRUNK (C.T.), GRAY WOOD (G.W.), OR OVERALL HEIGHT (O.A.) AS SPECIFIED ON THE PLANT LIST.
- CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
- CONTRACTOR SHALL REGRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
- MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, MULCHING, REPLACEMENTS OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL.

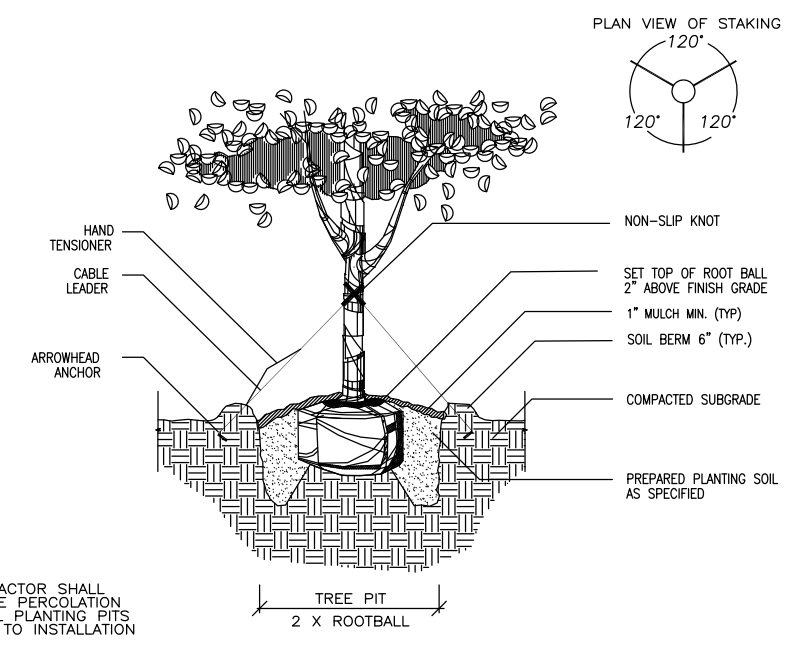
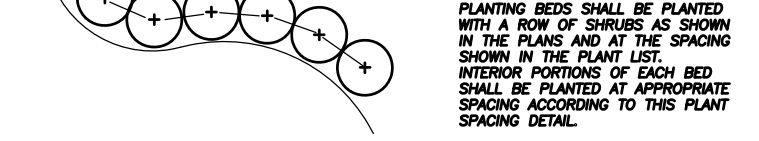
- UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
- CONTRACTOR SHALL SUBMIT WRITTEN GUARANTEE OF SURVIVABILITY OF ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- CONTRACTOR MUST APPROVE ALL GRADED AREAS PRIOR TO THE COMMENCEMENT OF PLANTING.
- THE CONTRACTOR SHALL ENGAGE A QUALIFIED ARBORIST WHO HAS SUCCESSFULLY COMPLETED TREE PROTECTION AND TREE TRIMMING WITH FIVE YEARS OR MORE EXPERIENCE, TO PERFORM THE FOLLOWING WORK:
 - CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AS SHOWN ON DRAWINGS OR BY MEANS APPROVED BY THE OWNER'S REPRESENTATIVE.
 - CONTRACTOR TO CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
 - PERFORM INITIAL PRUNING OF BRANCHES AND STIMULATION OF ROOT GROWTH WHERE REMOVED TO ACCOMMODATE NEW CONSTRUCTION.
 - PERFORM TREE REPAIR WORK FOR DAMAGE INCURRED BY NEW CONSTRUCTION.
 - CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
 - IF TREES ARE RELOCATED, CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION SYSTEM.



SHRUB AND GROUND COVER DETAIL



PLANT SPACING DETAIL



TREE PLANTING DETAIL (65 TO 100 GAL.)



ENTRY WALL PERSPECTIVE

TREE REPLACEMENT PLAN:

TOTAL SITE NEW = 107 CANOPY, 53 UNDERSTORY
REPLACEMENT INCHES = 160 X 3" = 480"
TOTAL SITE SAVED = 1,054"
TOTAL INCHES POST DEVELOPMENT 1,534"

PLANT SCHEDULE

Quan.	Common Name	Botanical Name	Size	Spacing
35	Shumard Oak	Quercus shumardii	3" Caliper DBH; 12' Height	As Shown
71	Live Oak	Quercus virginiana	3" Caliper DBH; 12' Height	As Shown
1	Magnolia	Magnolia grandiflora	3" Caliper DBH; 10' Height	As Shown
42	Dahoon holly	Ilex cassine	3" Caliper DBH; 10' Height	As Shown
11	Wax Myrtle	Myrica cerifera	3" Caliper DBH; 10' Height	As Shown
25	Indian Hawthorn	Raphiropes indica	3 Gallon; 15-18" x 15-18"	As Shown
460	Viburnum	Viburnum odoratissimum	3 Gallon; 30" Height	As Shown
36	Lorepetalum	Loropetalum chinensis	3 Gallon; 15-18" x 15-18"	24" on Center
350	Dwarf Confederate Jasmine	Trachelospermum asiaticum	1 Gallon; 9-12" spread	24" on Center
TBD	Bahiagrass	SOD Paspalum Notatum 'Argentine'	NA	NA
TBD	Pine bark	NA	NA	3" thick in all planting beds

- *NOTE:
1. THE FINAL LANDSCAPE PLAN MAY VARY IN THE DISTRIBUTION OF TREE TYPE, DBH, OR SPECIES BUT THE TOTAL INCHES PROPOSED MUST BE PROVIDED.
2. THE DEVELOPER REQUESTS THE 9" OF REQUIRED MISSING REPLACEMENT TREES, BE WAIVED BY THE CITY IF THE CITY DETERMINES THAT THE REMAINING NUMBER OF TREES PRESERVED ON SITE AND THE PROPOSED 780" OF NEW CALIPER ARE OF SUFFICIENT NUMBER AND QUALITY TO SUBSTANTIALLY COMPLY WITH THE PURPOSE AND INTENT OF THE CODE.
3. ALL TREES LOCATED IN THE ENTRY AND RETENTION AREA WILL BE PLANTED BY THE DEVELOPER. ALL TREES LOCATED ON LOTS AND ALONG ZARABROOKE CT WILL BE PLANTED BY THE BUILDER AND INSTALLED PRIOR TO CERTIFICATE OF OCCUPANCY OF THE RESIDENCE.

IF THIS SHEET IS LESS THAN 24" X 36"
IT IS A REDUCED DRAWING

REV	DATE	REVISION
1	10.16.2017	CITY MODIFICATIONS
2	1.30.2018	CITY COMMENTS
3	2.13.2018	CITY COMMENTS

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ARCHITECTURE, INC.
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Maitland, Florida 32789
P-407 539 2412
F-407 539 2041
RMillerArchitecture.com

ZARABROOKE
VICK & MARTIN STREET
APOPKA, FLORIDA

PROJECT:
DATE:
DRAWN BY:
CHECKED BY:
TITLE:
LANDSCAPE PLAN
SCALE: AS NOTED
SHEET:
L-1

FINAL DEVELOPMENT PLANS

SITE DATA

PARCEL ID NO.	05-21-28-0000-00-022, 056, 057, 058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069, 070, 071		
FUTURE LAND USE	RESIDENTIAL LOW		
ZONING	R-3		
ADJACENT LAND USE	NORTH: RESIDENTIAL LOW	EAST: PUBLIC RIGHT OF WAY	
	SOUTH: RESIDENTIAL LOW	WEST: RESIDENTIAL LOW	
ADJACENT ZONING	NORTH: PR	EAST: PUBLIC RIGHT OF WAY	
	SOUTH: PUD	WEST: PUD	
ACREAGE/SQUARE FOOTAGE	ACRES: 5.59	SF: 243,343	
BUILDING HEIGHT	PROPOSED: 35 FEET	MAX: 35 FEET	
DENSITY	PROPOSED: 2.68 DU/AC		
BUILDING SETBACKS	PROPOSED: FRONT: 25' SIDE: 7.5' REAR: 20' CORNER: 25'		
	REQUIRED: FRONT: 25' SIDE: 7.5' REAR: 20' CORNER: 25'		
TREE BANK MITIGATION FEE	N/A		
WAIVER REQUEST	N/A		
VARIANCE REQUEST	N/A		

LEGAL DESCRIPTION

THE SOUTH 198.00 FEET OF THE NORTH 3/4 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; LESS THE WEST 12 FEET THEREOF AND LESS AND EXCEPT ROAD RIGHT-OF-WAY ON THE EAST.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE EAST 1/4 CORNER OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°25'40"E ALONG THE EAST LINE OF NORTHEAST 1/4 SAID SECTION 5, A DISTANCE OF 663.59 FEET TO THE SOUTHEAST CORNER OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF SAID SECTION 5; THENCE RUN N 87°40'52"W ALONG THE SOUTH LINE OF SAID NORTH 3/4 A DISTANCE OF 80.00 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD (80' RIGHT-OF-WAY) FOR A POINT OF BEGINNING; THENCE CONTINUE N 87°40'52"W ALONG SAID SOUTH LINE OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF AFORESAID SECTION 5 A DISTANCE OF 1228.88 FEET TO THE SOUTHEAST CORNER OF TRACT "E", THE COURTYARDS PHASE TWO, AS RECORDED IN PLAT BOOK 31, PAGES 63 & 64, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°21'04"E ALONG THE EAST LINE OF SAID "TRACT "E" 198.00 FEET TO THE SOUTHERLY LINE OF LOT 45, OF SAID "THE COURTYARDS PHASE TWO"; THENCE RUN S 87°40'52"E ALONG THE SOUTHERLY LINES OF LOTS 24 THRU 45, OF SAID "THE COURTYARDS PHASE TWO" 1229.14 FEET TO THE AFORESAID WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD; THENCE RUN S 02°25'40"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE 198.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 5.59 ACRES MORE OR LESS.

NOTE:

LETTER SHALL BE OBTAINED FROM THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWCC) REGARDING MANAGEMENT PLAN FOR ENDANGERED SPECIES, PRIOR TO ANY CONSTRUCTION ACTIVITIES ON SITE.

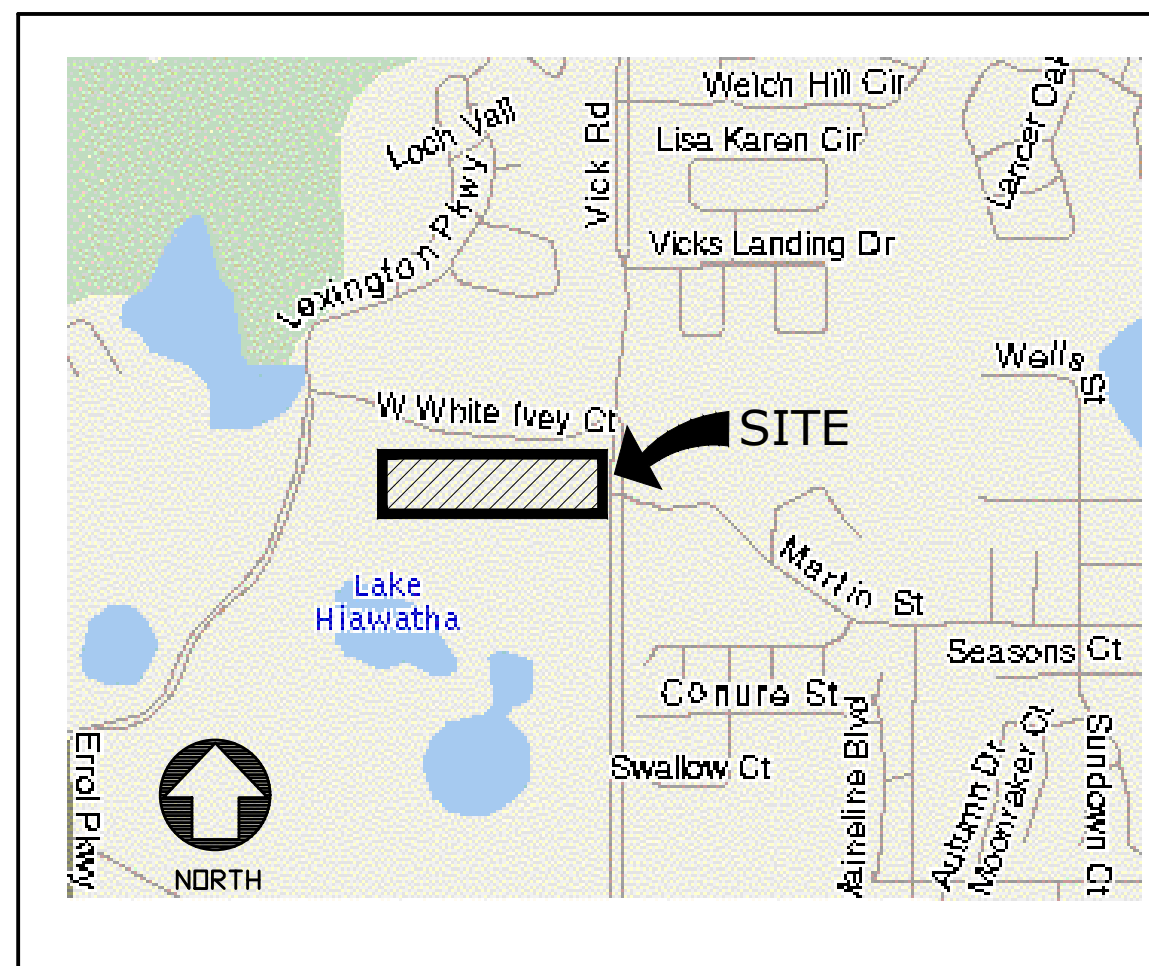
ZARABROOKE SUBDIVISION

AT
VICK ROAD AND WEST MARTIN STREET
APOPKA, FLORIDA
ORANGE COUNTY

FOR

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ZARABROOKE, LLC
500 N. MAITLAND AVENUE SUITE #305
MAITLAND, FLORIDA 32751
PH. (407) 645-4500

CIVIL ENGINEER
LOCHRANE ENGINEERING, INC.
201 SOUTH BUMBY AVENUE
ORLANDO, FLORIDA 32803
PH. (407) 896-3317



VICINITY MAP



AERIAL PHOTO

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JOB #:	1701220
ENGINEER	EDGARDO GARCIA-LUNA, P.E. FL LIC #78932
PRJ. MGR.	EGL
DESIGNER	EGL
CHECKED	JM
DATE:	Jan. 04, 2018

NO.	DATE	REVISIONS
1	01/08/17	CITY OF APOPKA REVISIONS
2	10/28/17	CITY OF APOPKA REVISIONS
3	10/24/17	SURVIMD REVISIONS

RECORD DRAWING
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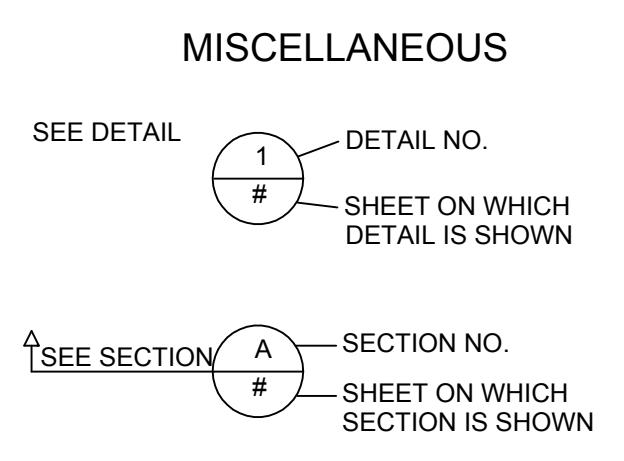
ZARABROOKE
AT
VICK & W. MARTIN STREET
APOPKA, FLORIDA
FOR
ZARABROOKE, LLC

COVER SHEET

LOCHRANE
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PH: (407) 896-3317 | FAX: (407) 896-9167
WWW.LOCHRANE.COM
CERTIFICATE OF AUTHORIZATION # 0002856

DRAWING NO. C0.0
SHEET 1 OF 22

STANDARD SYMBOLS FOR EXISTING/PROPOSED TOPOGRAPHY AND UTILITIES					
DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
GRASSED SWALE OR PAVT. FLOW LINE			WATER METER	1" W.M.	1" W.M.
DRAINAGE FLOW ARROWS			BLOW OFF	B.O.	B.O.
RIP-RAP SAND CEMENT BAGS			FITTINGS	TEE BENDCROSSWYE	TEE BENDCROSSWYE
FENCE/GATE			REDUCER		
SOIL BORING			PLUG OR FLANGE		
MISC. SHRUB OR HEDGE			SEWER LATERALS	SAN 8	SAN 8
TREE			WATER SERVICES	WM 8	WM 8
B.M. OR T.B.M.			DIRECTION ARROW STRAIGHT		
LIGHT POLE			DIRECTION ARROW LEFT TURN		
TELEPHONE POLE			DIRECTION ARROW RIGHT TURN		
POWER POLE			WATER MAIN	WM	WM
COMBINATION POLE			RECLAIM WATER MAIN	RW	RW
SIGN			SANITARY SEWER	SAN	SAN
MANHOLE			STORM SEWER		
CURB INLET			UNDERDRAIN	UD 6	UD 6
FIRE HYDRANT			UNDERGROUND TELEPHONE CABLE	TEL	TEL
GATE VALVE			UNDERGROUND CABLE T.V.	CATV	CATV
GAS MARKER			CONTOUR LINE	100	100
CLEAN OUT			SILT FENCE	SF	SF



- ### GENERAL NOTES
- GOVERNING STANDARDS AND SPECIFICATIONS ON THIS PROJECT ARE CONSIDERED THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS (2011 EDITION), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2013 EDITION), AND CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION STANDARDS MANUAL (2014 EDITION).
 - PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL POST AT THE JOB SITE ALL REQUIRED CONSTRUCTION PERMITS AND A COPY OF THE RECORDED "NOTICE OF COMMENCEMENT".
 - CONTRACTOR SHALL PROVIDE EROSION & SEDIMENT CONTROL MEASURE IN ACCORDANCE TO CONSTRUCTION PLANS, REFER TO EROSION CONTROL & TREE PROTECTION PLAN, SHEET C0.3.
 - ALL PERSONAL PROPERTY, EXCEPT MAIL BOXES LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY (NOT RELOCATED BY THE PROPERTY OWNER), SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE CONSTRUCTION PLANS.
 - THE DISPOSAL OF EXCESS EARTHWORK MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. APPROVAL OF DISPOSAL SITES SHALL BE OBTAINED FROM THE CITY OF APOPKA PRIOR TO DISPOSAL.
 - ALL EXISTING TREES AND STUMPS WITHIN THE RIGHT-OF-WAY AND LIMIT OF THE PROJECT ARE TO BE REMOVED AS CLEARING AND GRUBBING UNLESS OTHERWISE DIRECTED.
 - SEED AND MULCH ALL DISTURBED AREAS NOT COVERED BY SOIL UNLESS OTHERWISE DIRECTED.
 - ALL PAVEMENT OFFSETS SHOWN ARE TO THE PROPOSED CENTERLINE OF CONSTRUCTION, AS WHERE RADIUS DIMENSIONS ARE TO THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH THE REQUIREMENTS OF "PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION", EXCLUDING ITEMS SPECIFIED ELSEWHERE. ENVIRONMENTAL CONTROLS SHALL BE USED AT LOCATIONS DESIGNATED IN THE PLANS AND/OR DESIGNATED BY THE ENGINEER.
 - THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES ARE BASED ON AVAILABLE RECORDS AND SURVEYS, BUT IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERE TO, AND IS RESPONSIBLE FOR COORDINATING UTILITY RELOCATION.
 - PRIOR TO ORDERING DRAINAGE STRUCTURES, THE CONTRACTOR SHALL DETERMINE IF DRAINAGE UTILITY CONFLICTS EXIST. INFORMATION ABOUT POSSIBLE CONFLICTS SHALL BE SUBMITTED TO THE ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY OF SUCH FOR RESOLUTION.
 - THE CONTRACTOR SHALL NOTIFY ALL GAS UTILITY COMPANIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATION AS REQUIRED BY CHAPTER 77-15 OF THE FLORIDA STATUTES.
 - ALL INLET/MANHOLE - PIPE JOINTS SHALL BE FILLED WITH NON-SHRINK GROUT, COVERED WITH AN ASPHALTIC MASTIC COATING, AND WRAPPED WITH A FILTER FABRIC MATERIAL PER SECTION 13 03 03 OF THE ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS.
 - ALL CURB INLETS, DITCH BOTTOM INLETS, AND MANHOLES SHALL HAVE TRAFFIC BEARING FRAMES AND COVERS OR GRATES MEETING AASHTO-20 LOADING REQUIREMENTS.
 - CHANGES OF PIPE INVERTS NOT EXCEEDING PLUS OR MINUS ONE FOOT WILL NOT BE CONSIDERED AS A BASIS FOR ADDITIONAL COMPENSATION FOR THE PERTINENT PIPE BID ITEM OR FOR MODIFICATION OF PRECAST STRUCTURES.
 - ALL BENCHMARKS (IRONS AND MONUMENTS) SHOWN IN THE CONSTRUCTION PLANS, OR FOUND, SHALL BE PRESERVED. THOSE SHOWN IN PROPOSED PAVEMENT SHALL BE PROTECTED WITH A CAST IRON VALVE BOX.
 - PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED OR DISTURBED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, WITHOUT DELAY, BY TELEPHONE. THE CONTRACTOR SHALL PROVIDE WRITTEN FOLLOW UP CONFIRMATION WITHIN 48 HOURS OF TELEPHONE NOTIFICATION.
 - PRIOR TO BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A SET OF FIELD NOTES VERIFYING THE BENCHMARK ELEVATIONS AND THE REFERENCE POINT CONNECTIONS ON THE PLAN AND PROFILE VIEW SHEETS, AND/OR A SET OF FIELD NOTES FOR ALL ADDITIONAL BENCHMARK AND REFERENCE POINT CONNECTIONS PROPOSED TO BE USED IN CONSTRUCTING THE PROJECT WITH THEIR LOCATION, DESCRIPTION AND ELEVATION, BASED ON NORTH AMERICAN VERTICAL DATUM (NAV83). ALL SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA.
 - WITHIN 21 CALENDAR DAYS AFTER NOTICE TO PROCEED, THE CONTRACTOR SHALL STAKE THE PUBLIC RIGHT-OF-WAY AT 50 FOOT INTERVALS AND THE RIGHT-OF-WAY BREAKS WITH CORNER STATIONS SHOWN ON THE STAKES. NO INVOICE FOR PAYMENT FOR MOBILIZATION WILL BE PROCESSED UNTIL THE RIGHT-OF-WAY HAS BEEN STAKED TO THE SATISFACTION OF THE ENGINEER.
 - ANY UNITED STATES CODE (USC) AND NATIONAL GEODETIC SURVEY (NGS) MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, AND BOTH SHALL NOTIFY: STATE GEODETIC ADVISOR, NOAA 3900 COMMONWEALTH BLVD. - MS105 TALLAHASSEE, FL PHONE (850) 245-2606
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE ALL NECESSARY RIGHT-OF-WAY AND MAINTENANCE OF TRAFFIC PERMITS. THE CITY WILL WAIVE ALL PERMITS REQUIRED FOR CONSTRUCTION ACTIVITIES WITHIN THE LIMITS OF PUBLIC RIGHT-OF-WAY OWNED AND MAINTAINED BY THE CITY OF APOPKA. FOR CONSTRUCTION ACTIVITY WITHIN THE LIMITS OF PUBLIC RIGHT-OF-WAY MAINTAINED BY THE CITY BUT OWNED BY ORANGE COUNTY OR THE STATE OF FLORIDA, THE CONTRACTOR SHALL ACQUIRE THE REQUIRED PERMITS FROM THE AGENCIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND IN-HAND BEFORE BEGINNING ANY CONSTRUCTION.
 - THE LOCATION OF ALL EXISTING UTILITIES, STORM DRAINAGE SYSTEMS, AND TOPOGRAPHIC FEATURES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE RECORDS AND SURVEYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACCURACY. SHOULD A DISCREPANCY ARISE BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, WHICH WOULD APPRECIABLY AFFECT THE EXECUTION OF THESE PLANS, THE CONTRACTOR SHALL HALT CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CITY, AND THE ENGINEER WITHIN 48 HOURS BEFORE ANY INSPECTIONS. ALSO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL INSPECTION CRITERIA, SCHEDULES AND SIGNING SAID INSPECTIONS.
 - THE CONTRACTOR SHALL NOT EXCAVATE, REMOVE OR OTHERWISE DISTURB ANY MATERIAL, STRUCTURE OR PART OF A STRUCTURE WHICH IS LOCATED OUTSIDE THE LINES, GRADES OR GRADING SECTION ESTABLISHED FOR THIS PROJECT, EXCEPT WHERE SUCH EXCAVATIONS OR REMOVAL IS PROVIDED OR IN THE CONTRACT CONSTRUCTION PLANS OR TECHNICAL SPECIFICATIONS.
 - ALL WORK AND ALL MATERIALS FURNISHED SHALL BE IN CONFORMITY WITH THE LINES, GRADES, GRADING SECTIONS, CROSS SECTIONS, DIMENSIONS, MATERIAL REQUIREMENTS, AND TESTING REQUIREMENTS THAT ARE SPECIFIED IN THE CONTRACT CONSTRUCTION PLANS OR TECHNICAL SPECIFICATIONS.
 - ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS.
 - APPARENT ERRORS, DISCREPANCIES OR OMISSIONS IN THE CONSTRUCTION PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BIDDING.
 - AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TO THE CITY A COMPLETED AS-BUILT PLAN ONE WEEK PRIOR TO THE FINAL INSPECTION. BEFORE THE FINAL ACCEPTANCE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A SITE CLEANUP FOR THE REMOVAL OF TRASH, DEBRIS, EXCESS MATERIALS, AND EQUIPMENT TO PRESENT THE PROJECT SITE CLEAN AND IN GOOD ORDER.
 - NO EXTRA PAYMENTS SHALL BE ALLOWED FOR ANY WORK REQUIRED DUE TO MISUNDERSTANDING OF JOB OR SITE CONDITIONS AFFECTING THE WORK AS DESCRIBED IN THE TECHNICAL SPECIFICATIONS OR SHOWN ON THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION IN THE CONSTRUCTION PLANS OR TECHNICAL SPECIFICATIONS AND THE ENGINEER SHALL BE PERMITTED TO MAKE CORRECTIONS AND INTERPRETATION AS MAY BE DEEMED NECESSARY FOR THE FULFILLMENT OF THE INTENT OF THE CONTRACT DOCUMENTS, BY ENTERING THE BIDDING PROCESS THE BIDDERS ACKNOWLEDGE ACCEPTANCE OF THESE CONDITIONS.
 - THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF DETAILED SHOP DRAWINGS OF ALL MAJOR ITEMS PROPOSED FOR THIS PROJECT TO THE ENGINEER PRIOR TO ORDERING ANY OF THE EQUIPMENT OR MATERIAL. TWO (2) COPIES OF THE SHOP DRAWINGS WILL BE RETURNED TO THE CONTRACTOR UPON THE CONTRACTOR'S RECEIPT OF APPROVED SHOP DRAWINGS FROM THE ENGINEER. THE CONTRACTOR MAY PROCEED WITH THE WORK.
 - THE CONTRACTOR SHALL COMPLY WITH THE LEGAL LOAD RESTRICTIONS IN HAULING OF MATERIALS IN PUBLIC ROADS BEYOND THE LIMITS OF CONSTRUCTION WORK. A SPECIAL PERMIT WILL NOT RELIEVE THE CONTRACTOR OF LIABILITY FOR DAMAGE WHICH MAY RESULT FROM THE MOVING OF MATERIAL AND EQUIPMENT.
 - DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY AND ROUTE DISCHARGE WATER IN SUCH A MANNER AS TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM THE SITE.
 - CONNECTION TO EXISTING LINES TO WHICH UTILITY PIPE OF THE CONTRACT MUST CONNECT, THE FOLLOWING WORK SHALL BE PERFORMED:
 - EXPOSE BURIED LINES TO CONFIRM OR DETERMINE END CONNECTION, PIPE MATERIAL AND DIAMETER.
 - FURNISHING AND INSTALLING PIPING AND MAKING PROPER CONNECTIONS.
 - THE CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, A RECORD COPY OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS ON WHICH ALL FIELD CHANGES ARE TO BE SHOWN. THESE "AS-BUILT" DOCUMENTS ARE TO BE MADE AVAILABLE TO OWNER/ENGINEER DURING CONSTRUCTION AND SHALL BE DELIVERED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
 - DEVELOPER SHALL BE RESPONSIBLE FOR THE PORTION OF THE TRAFFIC SIGNAL THAT SERVES ZARABROOKE COURT.

ABBREVIATIONS

AASHO	AMERICAN ASSOC. OF STATE HIGHWAY OFFICIALS	C&G	CURB AND GUTTER	D	DEGREE OF CURVATURE	GA	GAUGE	L	LENGTH	PAVT	PAVEMENT	S	SOUTH
AASHTO	AMERICAN ASSOC. STATE HWY. OFFICIALS & TRANSPORTATION OFFICIALS	CAP	CORRUGATED ALUMINUM PIPE	DA	DRAINAGE AREA	GAL	GALLON	LAT	LATERAL	PCS	POLLUTION CONTROL STRUCTURE	SCHED	SCHEDULE
ASPH	ASPHALT	CB	CATCH BASIN	DBL	DOUBLE	GALV	GALVANIZED	LBS	POUNDS	PCC	POINT OF COMPOUND CURVE	SE	SOUTHEAST
ABD	ABANDONED	CC	CONCRETE BOX CULVERT	DI	DROP INLET	GAR	GARAGE	LBR	LIMBEROCK BEARING RATIO	PEP	POLYETHYLENE PIPE	SECT	SECTION
AC	ACRE	CB	CENTER TO CENTER	DIA	DIAMETER	GIP	GALVANIZED IRON PIPE	LF	LINEAR FEET	PI	POINT OF INTERSECTION	SG	SUB-GRADE
ACP	ASBESTOS CEMENT PIPE	CEM	CEMENT	DIP	DUCTILE IRON PIPE	GM	GAS MAIN	LT	LEFT	P/L	PROPERTY LINE	SQL	SINGLE
ADDL	ADDITIONAL	CFS	CUBIC FEET PER SECOND	DMH	DROP MANHOLE	GPM	GALLONS PER MINUTE	LWL	LOW WATER LEVEL	POB	POINT OF BEGINNING	SHTG	SHEETING
ALT	ALTERNATE	CI	CAST IRON	DR	DRAIN	GR	GRADE	LDC	LAND DEVELOPMENT CODE	PC	POINT OF CURVE	SL	SLOPE
ALUM	ALUMINUM	CIP	CAST IRON PIPE	DRWG	DRAWING	GRT	GRATE	POE	POINT OF ENTRY	POJ	PUSH ON JOINT	SPCG	SPACING
APPROX	APPROXIMATE	CV	CHECK VALVE	E	EAST	GRTG	GRATING	POJ	PUSH ON JOINT	PP	POWER POLE	SPEC	SPECIFICATION
ARV	AIR RELEASE VALVE	CL	CLEARANCE	EA	EACH	GSP	GALVANIZED STEEL PIPE	PPR	POINT OF REVERSE CURVE	PRC	POINT OF REVERSE CURVE	SQ FT	SQUARE FOOT
ARVV	AIR RELEASE VACUUM VALVE	CM	CONCRETE MONUMENT	ECC	ECCENTRIC	GV	GATE VALVE	PRM	PERMANENT REFERENCE MONUMENT	PRSE	PRESSURE	SQ	SQUARE
ASSEM	ASSEMBLY	CMP	CORRUGATED METAL PIPE	EEL	ELEVATION	GPH	GALLONS PER HOUR	PROP	PROPOSED	PRM	PERMANENT REFERENCE MONUMENT	SAN	SANITARY SEWER
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	CMPA	CORRUGATED METAL PIPE ARCH	EL	EASEMENT LINE	HB	HOSE BIBB	PROJ	PROJECT	PRM	PERMANENT REFERENCE MONUMENT	SST	STAINLESS STEEL
BCCMP	BITUMINOUS COATED CORRUGATED METAL PIPE CULVERT	CND	CONDUIT	ELEC	ELECTRIC	HDWL	HEAD WALL	PRVC	POINT OF REVERSE VERTICAL CURVE	PROP	PROPOSED	STA	STATION
BCAP	BITUMINOUS COATED PIPE ARCH CULVERT	CO	CLEAN OUT	ENC	ENCASEMENT	HNDRL	HAND RAIL	PSIG	POUNDS PER SQUARE INCH (GAUGE)	PROJ	PROJECT	STD	STANDARD
BCPCMP	BITUMINOUS COATED AND PAVED CORRUGATED METAL PIPE CULVERT	COL	COLUMN	ENGR	ENGINEER	HOA	HOMEOWNER ASSOCIATION	PT	POINT OF TANGENCY	PRVC	POINT OF REVERSE VERTICAL CURVE	STL	STEEL
BCPPA	BITUMINOUS COATED AND PAVED PIPE ARCH CULVERT	CONC	CONCRETE	EOP	EDGE OF PAVEMENT	HT	HEIGHT	PVC	POLYVINYL CHLORIDE	PRVC	POINT OF REVERSE VERTICAL CURVE	STS	STORM SEWER
BFP	BACKFLOW PREVENTER	CONN	CONNECTION	EOS	END OF SURVEY	HWL	HIGH WATER LEVEL	Q	DISCHARGE (FLOW RATE)	PRVC	POINT OF REVERSE VERTICAL CURVE	SUPPT	SUPPORT
BIT	BITUMINOUS	CONST	CONSTRUCT	EOR	ENGINEER OF RECORD	I	EXTERNAL ANGLE (DELTA)	R	RADIUS	PRVC	POINT OF REVERSE VERTICAL CURVE	SW	SOUTHWEST
BHP	BREAK HORSEPOWER	CONT	CONTINUOUS	EQ	EQUATION	ID	INSIDE DIAMETER	RNG	RANGE	PRVC	POINT OF REVERSE VERTICAL CURVE	S/W	SEWAGE
BL	BASE LINE	CONTR	CONTRACTOR	ERP	ELLIPTIC REINFORCED CONCRETE PIPE	IN	INCHES	RCP	REINFORCED CONCRETE PIPE	PRVC	POINT OF REVERSE VERTICAL CURVE	SYM	SYMMETRICAL STRUCTURE
BLDG	BUILDING	COR	CORNER	EW	END WALL	INL	INLET	RCPA	REINFORCED CONCRETE PIPE ARCH	PRVC	POINT OF REVERSE VERTICAL CURVE	STR	STRUCTURE
BLK	BLOCK	CP	CONCRETE PIPE	EXCAV	EXCAVATION	INSTL	INSTALL	RD	ROAD	PRVC	POINT OF REVERSE VERTICAL CURVE	T	TANGENT
BM	BENCHMARK	CPLG	COUPLING	EXIST	EXISTING	INTR	INTERIOR	RED	REDUCER	PRVC	POINT OF REVERSE VERTICAL CURVE	TOB	TOP OF BANK
BO	BLOW-OFF	CR	CONTROL RADIUS	EXP	EXPANSION	IP	IRON PIPE	REINF	REINFORCED	PRVC	POINT OF REVERSE VERTICAL CURVE	TBM	TEMPORARY BENCHMARK
BOC	BACK OF CURB	CTG	COATING	EXT	EXTENSION	INV	INVERT	REQD	REQUIRED	PRVC	POINT OF REVERSE VERTICAL CURVE	TC	TANGENT TO CURVE
BOT	BOTTOM	CTR	CENTER	FAB	FABRICATE	JB	JUNCTION BOX	R/W	RIGHT-OF-WAY	PRVC	POINT OF REVERSE VERTICAL CURVE	TCP	TERRA COTTA PIPE
BRG	BEARING	CULV	CULVERT	FOUND	FOUNDATION	JCT	JUNCTION	RT	RIGHT	PRVC	POINT OF REVERSE VERTICAL CURVE	TEL	TELEPHONE
BSP	BLACK STEEL PIPE	CY	CUBIC YARD	FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	JT	JOINT	R/W	RIGHT-OF-WAY	PRVC	POINT OF REVERSE VERTICAL CURVE	TEMP	TEMPERATURE
BV	BUTTERFLY VALVE			F.F.E.	FINISH FLOOR ELEVATION			ROW	RIGHT-OF-WAY	PRVC	POINT OF REVERSE VERTICAL CURVE	THK	THICKNESS
BW	BARBED WIRE			F.G.	FINISH GRADE			RTW	RETAINING WALL	PRVC	POINT OF REVERSE VERTICAL CURVE	TN	TON
				FH	FIRE HYDRANT			REIN	REINFORCED	PRVC	POINT OF REVERSE VERTICAL CURVE	TWP	TOWNSHIP
				FIN	FINISH			REQD	REQUIRED	PRVC	POINT OF REVERSE VERTICAL CURVE	TYP	TYPICAL
				FIT	FITTING			R/W	RIGHT-OF-WAY	PRVC	POINT OF REVERSE VERTICAL CURVE	UD	UNDERDRAIN
				FLG	FLANGE			RTW	RETAINING WALL	PRVC	POINT OF REVERSE VERTICAL CURVE	USC&GS	U.S. COASTAL & GEODETIC SURVEY (NOW NATIONAL GEODETIC SURVEY)
				FM	FORCEMAIN			ROW	RIGHT-OF-WAY	PRVC	POINT OF REVERSE VERTICAL CURVE	USGS	U.S. GEODETIC SURVEY
				FL	FLOW LINE			RTW	RETAINING WALL	PRVC	POINT OF REVERSE VERTICAL CURVE	UTC	UNDERGROUND TELEPHONE CABLE
				FT	FEET OR FOOT			OVFL	OVERFLOW	PRVC	POINT OF REVERSE VERTICAL CURVE	UTVC	UNDERGROUND TELEVISION CABLE
								OVHD	OVERHEAD	PRVC	POINT OF REVERSE VERTICAL CURVE	UELEC	UNDERGROUND ELECTRICAL CABLE

JOB # 1701220
 EDGARDO GARCIA, P.E.
 ENGINEER
 FL LIC # 93822

PRJ MGR: EGI
 DESIGNER: EGI
 CHECKED: JM

DATE: JAN. 04, 2018

REVISIONS

NO	DATE	REVISIONS
1	01/08/17	CITY OF APOPKA REVISIONS
2	10/26/17	CITY OF APOPKA REVISIONS
3	10/24/17	SJRWMD REVISIONS

RECORD DRAWING
 THIS RECORD DRAWING IS BASED ON THE RECORD CONSTRUCTION DRAWINGS AND SPECIFICATIONS AND IS NOT A CONTRACT DOCUMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND PROTECT THIS RECORD DRAWING. ANY CHANGES TO THE RECORD DRAWING SHALL BE MADE BY THE CONTRACTOR AND SHALL BE SUBJECT TO THE CITY OF APOPKA APPROVAL.

ENGINEER:
 FL LIC #

ZARABROOKE
 AT
 VICK & W. MARTIN STREET
 APOPKA, FLORIDA
 FOR
 ZARABROOKE, LLC

GENERAL NOTES, ABBREVIATIONS & SYMBOLS

205 SOUTH BUNNY AVENUE (ORLANDO, FL 32803)
 PH: (407) 896-3377 / FAX: (407) 896-9167
 WWW.LOCHRANE.COM
 Certificate of Authorization # 0002858
 An NWS Company

DRAWING NO. SHEET
 C0.1 2
 OF 22

SITE DATA:

- TOTAL GROSS ACREAGE: 5.59 ACRES +/-
- EXISTING ZONING: R-3, (5 UNITS/ACRE).
- FUTURE LAND USE: RESIDENTIAL LOW (0-5 DU/AC)
- WATER SERVICE: CITY OF APOPKA PUBLIC SERVICES
- WATER DEMAND:
FIRE FLOW: ON-SITE FIRE HYDRANTS MIN. OF 1000 GPM PER HYDRANT
- SANITARY SEWER SERVICE: CITY OF APOPKA PUBLIC SERVICES.
- LAND UTILIZATION:

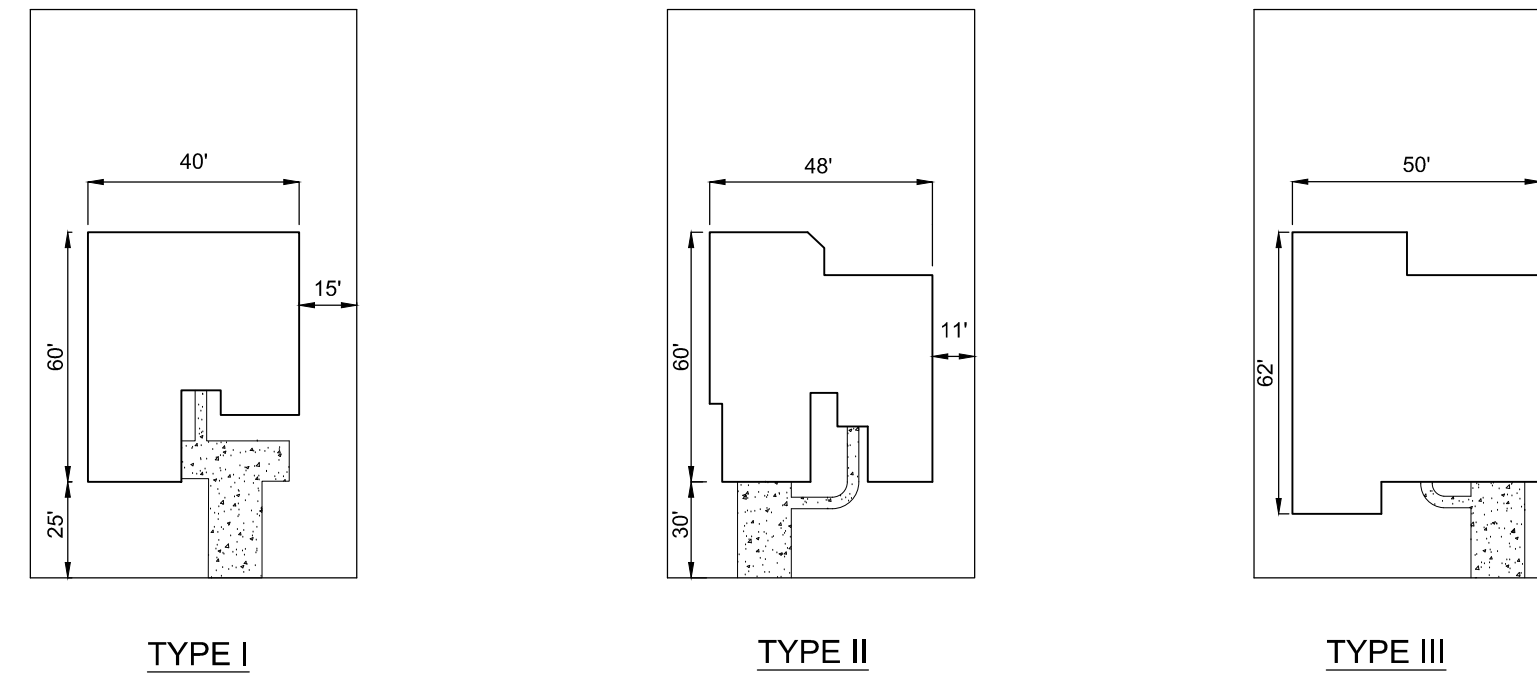
LAND USE	AREA (SF)	AREA (ACRES)	%
SINGLE-FAMILY RESIDENTIAL	148,143.83	3.401	60.9
TRACT 'A' (STORMWATER DETENTION POND)	35,935.90	0.825	14.8
TRACT 'B' (SCREEN WALL)	1,380.00	0.032	0.6
TRACT 'C' (ENTRANCE LANDSCAPE ISLAND)	552.75	0.013	0.2
TRACT 'D' (STORMWATER MAINTENANCE)	1,480.00	0.034	0.6
PUBLIC ROW (ZARABROOKE CT.)	55,851.00	1.282	23.0
TOTAL	243,343.48	5.586	100.0

7. PVIOUS/IMPERVIOUS AREA:

DESCRIPTION	AREA (SF)	AREA (ACRES)	%
PVIOUS (GREEN AREA)	153,523.48	3.524	63.1
IMPERVIOUS (BUILDING)	43,288.00	0.994	17.8
IMPERVIOUS (PAVERS AND SIDEWALK)	17,216.00	0.395	7.1
IMPERVIOUS (ROADWAY)	29,316.00	0.673	12.0
TOTAL	243,343.48	5.586	100.0

INDIVIDUAL LOT INFORMATION

LOT NO.	LOT FRONTAGE (LF)	LOT AREA (SF)
1	69.00	9,808.62
2	71.59	9,835.00
3	70.00	10,360.00
4	70.00	10,360.00
5	70.00	10,360.00
6	70.00	10,360.00
7	70.00	10,360.00
8	70.00	10,360.00
9	70.00	10,360.00
10	70.00	10,360.00
11	70.00	10,360.00
12	90.00	11,260.00
13	92.98	11,000.31
14	54.97	12,999.90
TOTAL	148,143.83	

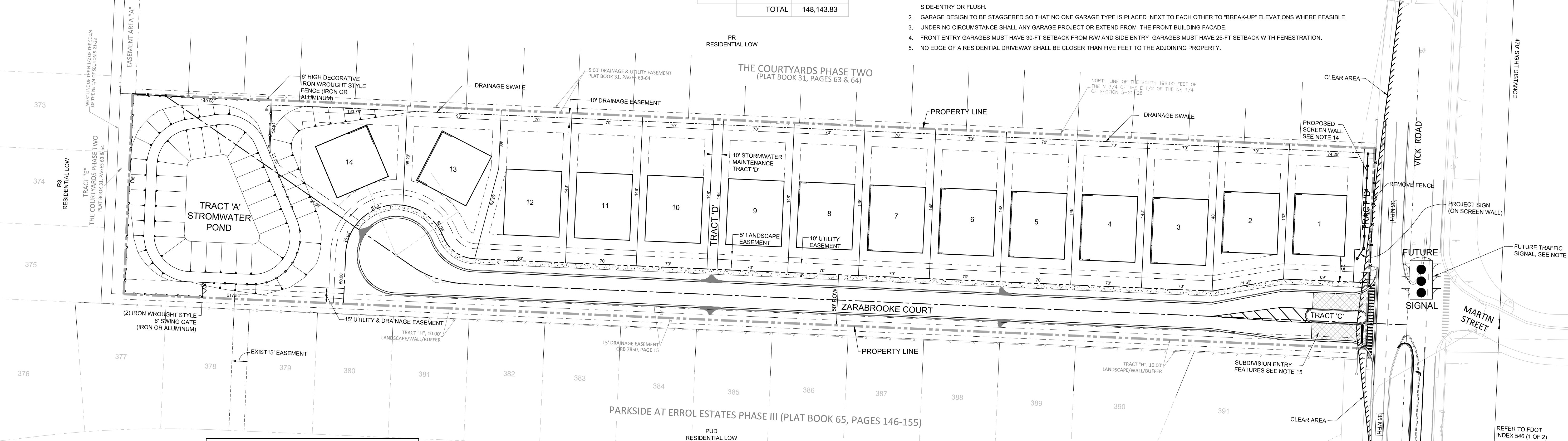


* ALL UNITS WILL PROVIDE MIN. 2 CAR GARAGE

TYPICAL BUILDING LAYOUTS
NTS

NOTES:

- A MINIMUM OF 3 LOTS MUST BE DESIGNED WITH RECESSED TYPE GARAGE. ALL OTHER LOTS CAN BE DESIGNED WITH GARAGE TYPES THAT ARE EITHER SIDE-ENTRY OR FLUSH.
- GARAGE DESIGN TO BE STAGGERED SO THAT NO ONE GARAGE TYPE IS PLACED NEXT TO EACH OTHER TO 'BREAK-UP' ELEVATIONS WHERE FEASIBLE.
- UNDER NO CIRCUMSTANCE SHALL ANY GARAGE PROJECT OR EXTEND FROM THE FRONT BUILDING FACADE.
- FRONT ENTRY GARAGES MUST HAVE 30-FT SETBACK FROM RW AND SIDE ENTRY GARAGES MUST HAVE 25-FT SETBACK WITH FENESTRATION.
- NO EDGE OF A RESIDENTIAL DRIVEWAY SHALL BE CLOSER THAN FIVE FEET TO THE ADJOINING PROPERTY.



NOTES:

- TYPE OF UNIT: SINGLE FAMILY DETACHED
- MINIMUM NET LIVING AREA: 1,800 SF
- MINIMUM BUILDING SETBACKS:
FRONT: 25 FEET
REAR: 20 FEET
SIDE: 7.5 FEET (25 FEET, CORNER LOT) (15' BETWEEN BUILDINGS)
SIDE STREET: 25 FEET
- MAXIMUM BUILDING HEIGHT: 35 FEET
- MAXIMUM BUILDING COVERAGE PER LOT: 3,575 SF (0.08 AC)
- MAXIMUM IMPERVIOUS SURFACE PER LOT 3,825 SF (0.09 AC)
- MAXIMUM NUMBER OF LOTS: 15
- MINIMUM LOT SIZE REQUIREMENT: 7,500 SF (0.172 AC.)
- MINIMUM LOT WIDTH: 70 FEET
- MAXIMUM GROSS DENSITY: 15 LOTS / 5.59 AC. = 2.68 DU/AC
- ALL ROADS WITHIN THE SUBDIVISION WILL BE DEDICATED PUBLIC ROADS WITH 50' RIGHT-OF-WAY
- LANDSCAPE BUFFERS 10' MINIMUM.
- DUE TO THE NUMBER OF LOTS PROPOSED (LESS THAN 20) A PARK IS NOT REQUIRED TO BE PROVIDED PER THE CITY'S LDC.
- WALL WILL HAVE BRICK FINISH SIMILAR IN FINISH & COLOR TO EXISTING WALLS ALONG VICK ROAD. COLUMNS WILL BE SPACED AT 12' INTERVALS. (REFER TO DETAIL ON SHEET C5.2)
- SUBDIVISION ENTRY WILL CONSIST OF ONE OR MORE OF THE FOLLOWING:
A. EXTENSIVE LANDSCAPE / IRRIGATION AT ENTRY (TRACT 'C' MAINTAINED BY HOA).
B. HARDSCAPE / PAVER DESIGN.
C. DECORATIVE SUBDIVISION IDENTIFICATION SIGNAGE W/ LANDSCAPING.
D. POSSIBLE ABOVE GROUND FEATURES AS DEEMED APPROPRIATE FOR STYLE / THEME OF SUBDIVISION.
- STREET LIGHT POLES AND FIXTURES WILL BE OF DECORATIVE TYPE MATCHING STYLE / THEME OF SUBDIVISION, AND SHALL BE PROVIDED BY DUKE ENERGY.
- STREET TREES SPACED AT 25' TO 30' ON CENTER (NOT INCLUDING LOT TREES) MEETING CITY'S MINIMUM REQUIREMENTS WILL BE SHOWN ON LANDSCAPE PLAN PROVIDED WITH THE FINAL DEVELOPMENT PLAN.
- TRACT 'A' WILL BE LANDSCAPED IN ADDITION TO THE DECORATIVE FENCE AS A MEANS OF MITIGATING THE RECTILINEAR SHADE OF THE POND. PERPETUAL MAINTENANCE WILL BE ADDRESSED BY THE HOA COVENANTS AND RESTRICTIONS.
- STREET TREES AND A CONTINUOUS HEDGE ALONG VICK ROAD WILL BE PROVIDED PER CITY REQUIREMENTS AND SPACED AT 35' ON CENTER.
- ALL ABOVE GROUND UTILITY EQUIPMENT W/ IN EASEMENT WILL BE SCREENED BY LANDSCAPING PLAN - ON SITE / PRIVATE EQUIPMENT WHICH REQUIRES SCREENING WILL BE ADDRESSED BY THE HOA COVENANTS AND RESTRICTIONS.

"VEHICULAR ACCESS RIGHTS FROM ZARABROOKE COURT RIGHT-OF-WAY SHALL BE DEDICATED TO THE CITY OF APOPKA"

- IN LIEU OF CONSTRUCTING SIDEWALKS ON BOTH SIDES OF ZARABROOKE COURT 'A' DEVELOPER ELECTS TO CONTRIBUTE TO THE CITY'S SIDEWALK CONSTRUCTION FUND FOR THE EQUIVALENT OF 5,000 SF OF 4" SIDEWALK.
- ALL LANDSCAPE REQUIREMENTS INCLUDING MIN. DBH TREES PER LOT, ETC. MAY BE NECESSARILY UPGRADED OR ENHANCED BEYOND THE CITY'S MINIMUM STANDARDS IN ORDER TO MEET THE TREE REPLACEMENT REQUIREMENTS.
- LANDSCAPING CONSISTING OF UNDERSTORY TREES (HOLLY, ETC.) AND HEDGES WILL BE PROVIDED ALONG THE SOUTH PROPERTY LINE AND MAINTAINED BY THE HOA.
- LOT TREES (3 CANOPY, 1 UNDERSTORY) WILL BE PROVIDED AT TIME OF LOT DEVELOPMENT. CANOPY TREES WILL BE OF MAPLE, OAK OR SIMILAR VARIETY. LOT TREES WILL BE MINIMUM 3" DBH AT TIME OF PLANTING.
- STREET LIGHTS AND FIXTURES SHALL BE PROVIDED BY DUKE ENERGY. THE CITY OF APOPKA SHALL COVER THE COST FOR STANDARD LIGHT STYLE; THE DEVELOPER SHALL BE RESPONSIBLE FOR THE UPGRADE COST TO LED AND DECORATIVE LIGHTING.
- CITY OF APOPKA IS PLANNING TO CONSTRUCT A TRAFFIC SIGNAL AT THE INTERSECTION OF VICK ROAD AND MARTIN STREET. ZARABROOKE, LLC WILL ENTER INTO A COST-SHARING AGREEMENT WITH THE CITY FOR THE ADDITION OF A WEST LEG OF THE INTERSECTION FOR ZARABROOKE COURT.
- STREET TREES SOUTH OF ZARABROOKE COURT WILL BE PLANTED AT TIME OF C.O. OF THE CORRESPONDING RESIDENTIAL LOTS ACROSS THE STREET.
- ARCHITECTURAL RENDERINGS FOR ALL RESIDENTIAL BUILDINGS MUST BE SUBMITTED TO, AND APPROVED BY THE COMMUNITY DEVELOPMENT DEPARTMENT BEFORE SUBMITTING FOR BUILDING PERMIT.



High-pressure sodium	100 watts
Mounting height	12'
Color	Black
Pole	Decorative concrete

**DUKE ENERGY OCALA MODEL
OUTSIDE LIGHT POLE / FIXTURE**

ENGINEER
EDGARDO GARCIALUNA, P.E.
FL. LIC. #76902

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ZARABROOKE
VICK & W. MARTIN STREET
APOPKA, FLORIDA

MASTER DEVELOPMENT PLAN

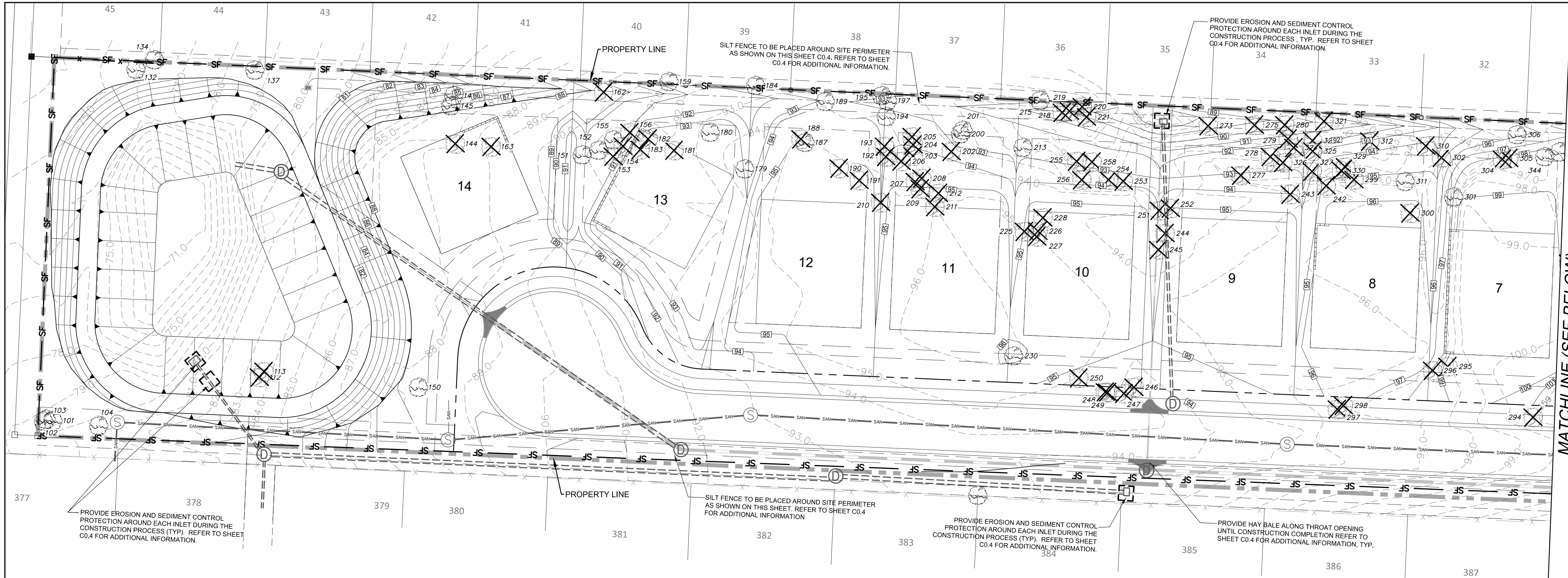
LOCHRANE
Consulting Engineers • Surveyors
An NV15 Company

201 SOUTH BUNBY AVENUE | ORLANDO, FL 32803
PH: (407) 888-3317 | FAX: (407) 888-5187
WWW.LOCHRANE.COM

CERTIFICATE OF AUTHORIZATION # 0002856

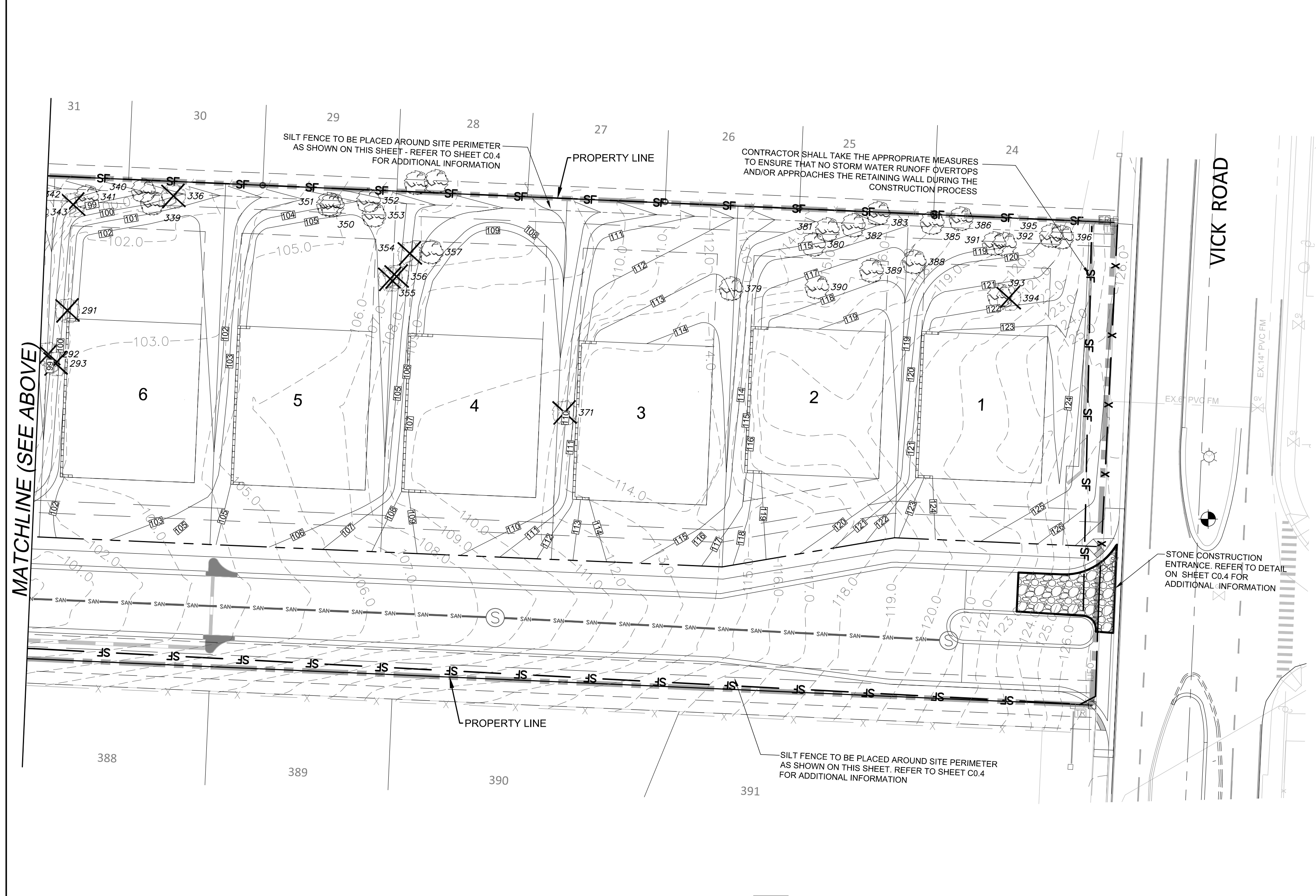
DRAWING NO. C0.2 SHEET 3 OF 22

DATE: JAN. 29, 2018



- LEGEND:**
- TEMPORARY STORM INLET PROTECTION
 - STAKED SILT FENCE
 - STONE CONSTRUCTION ENTRANCE (TEMPORARY)
 - EXISTING TREE TO BE SAVED
 - EXISTING TREE TO BE REMOVED
- EROSION/SEDIMENTATION CONTROL NOTES:**
- CONTRACTOR SHALL COMPLY WITH NPDES PHASE II REGULATIONS AND PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
 - CONTRACTOR IS TO PROVIDE EROSION CONTROL & SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS.
 - CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT SITE. IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. EROSION CONTROL BARRIER SHALL BE ESTABLISHED AS SITE CLEARING PROCEEDS AND MAINTAINED UNTIL SUCH TIME AS VEGETATION OR OTHER CONTROLS BECOME EFFECTIVE.
 - ALL EROSION CONTROL DEVICES MUST BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROPRIATE EROSION AND SEDIMENTATION CONTROL RULES AND GUIDELINES.
 - ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
 - ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN SEVEN DAYS AFTER BACKFILL. NO MORE THAN FIVE HUNDRED FEET ARE TO BE OPEN AT ONE TIME.
 - ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
 - ELECTRIC POWER, TELEPHONE, CABLE TELEVISION AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN FIFTEEN DAYS AFTER BACKFILL.
 - TEMPORARY SEEDING WILL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY DAYS. FOR TEMPORARY SEEDING USE FIFTY PERCENT OF THE RECOMMENDED RATES OF FERTILIZER AND LIME AMOUNTS OF SEED AND MULCH REQUIRED FOR REGULAR SEEDING.
 - DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY THE APPROPRIATE DEVICE, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
 - CONSTRUCTION SHALL BE SEQUENCED SO THAT ALL EARTH MOVING AND GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
 - FINAL REMOVAL OF EROSION CONTROL DEVICES SHALL NOT OCCUR UNTIL THE LOCAL EROSION CONTROL INSPECTOR HAS DEEMED THE SITE STABILIZED.
 - AFTER THE COMPLETION OF THE STORM SEWER SYSTEM FOR THE PROJECT SITE, THE CONTRACTOR SHALL TAKE THE APPROPRIATE MEASURES TO ENSURE THAT THE STORMWATER RUNOFF IS TREATED PROPERLY BEFORE DISCHARGING INTO THE OVERALL STORM SEWER SYSTEM BY USING THE APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES.
 - CONTACT THE LOCAL ENVIRONMENTAL INSPECTOR PRIOR TO CONNECTING TO THE OVERALL STORM SEWER SYSTEM TO ENSURE THAT THE PROJECT SITE HAS BEEN STABILIZED PER HIS SATISFACTION.

MATCHLINE (SEE BELOW)



TREE PROTECTION DATA:

TREE INCHES ON PROPERTY = 781
 SPECIMEN TREE INCHES = 1,017
 NON-SPECIMEN EXOTIC = 594
 NON-SPECIMEN NON-EXOTIC = 187
 TOTAL TREE INCHES ON PROPERTY = 2,382

TREE INCHES TO BE REMOVED:
 SPECIMEN TREE INCHES = 196
 NON-SPECIMEN EXOTIC = 1,017
 NON-SPECIMEN NON-EXOTIC = 125
 TOTAL TREE INCHES TO BE REMOVED = 1,338

TREE INCHES TO BE SAVED:
 SPECIMEN TREE INCHES = 585
 NON-SPECIMEN EXOTIC = 0
 NON-SPECIMEN NON-EXOTIC = 469
 TOTAL TREE INCHES TO BE SAVED = 1,054

NUMBER TREE SAVED = 55
 UNDISTURBED TREE SAVE AREA (20" DIA.) = 314 SF
 UNDISTURBED AREA = (# TREE SAVED) x 314 SF = 55 x 314 = 17,270 SF
 SITE CLEARING AREA = 243,343 (TOTAL SITE) - 17,270 SF = 226,073 SF

TREE INCHES TO BE REPLACED:
 SPECIMEN TREE INCHES = 196
 NON-SPECIMEN EXOTIC = 0
 NON-SPECIMEN NON-EXOTIC = 125
 TOTAL TREE INCHES TO BE REPLACED = 321

TOTAL MAX PER 5.01.07-2C = 21 + (30/1000 SF)(226,073 - 6,000) = 791

THEFORE, MAXIMUM TREE STOCK REPLACEMENT BY CITY CODE IS 791 INCHES

NOTE:
 1. ALL EXISTING TREES TO BE SAVED SHALL BE PROTECTED DURING CONSTRUCTION. REFER TO SHEET C0.4 FOR TREE PROTECTION DETAIL.

TREE REPLACEMENT PLAN:

REFER TO LANDSCAPE PLAN, SHEET L-1 FOR TREE REPLACEMENT INFORMATION.

TREE SCHEDULE

ID	TYPE	SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)	ID	TYPE	SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)	ID	TYPE	SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)	ID	TYPE	SIZE (INCHES)	TO REMAIN (O)	TO BE REMOVED (X)
101	PINE	8"	O		189	OAK	16"	O		228	EAR	13"		X	297	OAK	24"		X
102	PINE	8"	O		190	CHBY	13"		X	230	OAK	33"	O		298	CHBY	10"		X
103	PINE	8"	O		191	CHBY	8"		X	242	CHBY	15"		X	299	CHBY	7"		X
104	PINE	8"	O		192	CHBY	10"		X	243	EAR	12-12-12"		X	300	EAR	7"		X
112	OAK	15x2		X	193	CHBY	12"		X	244	EAR	28"		X	301	OAK	18"	O	
113	OAK	10"		X	194	OAK	20"	O		245	EAR	7"		X	302	EAR	12"		X
132	PINE	6"	O		195	OAK	6"	O		246	EAR	19-15"		X	304	EAR	10"		X
134	OAK	15x2	O		197	OAK	6"	O		247	EAR	7-10"		X	305	EAR	15"		X
137	CMPH	18"	O		200	OAK	6"	O		248	EAR	7-12"		X	306	OAK	18"	O	
144	OAK	30"		X	201	OAK	16"	O		249	EAR	7-12"		X	310	EAR	16"		X
145	OAK	30"	O		202	CHBY	9"		X	250	OAK	30" DEAD		X	311	OAK	10-13"	O	
146	OAK	36"	O		203	CHBY	9"		X	251	EAR	7-11"		X	312	EAR	22"		X
150	OAK	24-12-12"	O		204	CHBY	9"		X	252	EAR	13-11"		X	321	CMPH	6"		X
151	OAK	15"	O		205	CHBY	7"		X	253	EAR	15"		X	322	CMPH	8-15"		X
152	OAK	13"	O		206	CHBY	7"		X	254	EAR	18"		X	324	EAR	17"		X
153	OAK	13"		X	207	CHBY	8"		X	255	EAR	8"		X	325	EAR	13"		X
154	OAK	6"		X	208	CHBY	7"		X	256	CHBY	15"		X	326	EAR	15-15"		X
155	OAK	24"	O		209	CHBY	9"		X	257	EAR	10"		X	327	EAR	16"		X
156	CHBY	9"		X	210	EAR	12-12"		X	258	CHBY	9"		X	329	CHBY	8"		X
159	OAK	15-10"	O		211	OAK	20-20"		X	275	EAR	16-16-16"		X	330	CHBY	8-8-6"		X
162	CHBY	10"		X	212	OAK	24"		X	277	EAR	18"		X	336	EAR	20"		X
163	CHBY	16"		X	213	OAK	12-18-20"	O		278	CHBY	10-10"		X	339	OAK	15"	O	
179	OAK	30"	O		215	OAK	24"	O		279	EAR	10"		X	340	OAK	17"	O	
180	OAK	24"	O		218	EAR	8"		X	280	CHBY	12"		X	341	OAK	16"	O	
181	CHBY	9"		X	219	EAR	9"		X	291	CHBY	6"		X	342	EAR	16"		X
182	CHBY	7"		X	220	EAR	20"		X	292	EAR	8-8"		X	343	OAK	12-12"	O	
183	CHBY	10"		X	221	CHBY	9"		X	293	EAR	8-8-8-8"		X	344	OAK	20"	O	
184	OAK	60"	O		225	CHBY	10"		X	294	OAK	48"		X	350	PALM	9"	O	
187	OAK	13"	O		226	CHBY	10"		X	295	CMPH	8"		X	351	OAK	27"	O	
188	CHBY	6"		X	227	CHBY	10"		X	296	PALM	15"		X	352	OAK	8"	O	

ZARABROOKE
 VICK & W. MARTIN STREET
 APOPKA, FLORIDA
 ZARABROOKE, LLC

EROSION CONTROL & TREE PROTECTION PLAN

281 SOUTH BUNNY AVENUE | ORLANDO, FL 32803
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 WWW.LOCHRANE.COM

LOCHRANE
 Consulting Engineers • Surveyors
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 CERTIFICATE OF AUTHORIZATION # 0008285

ENGINEER: EDGAR GARCIA, P.E., F.L.C. #78922
 PRL MGR: EGL
 DESIGNER: EGL
 CHECKED: JM
 DATE: JAN. 04, 2018

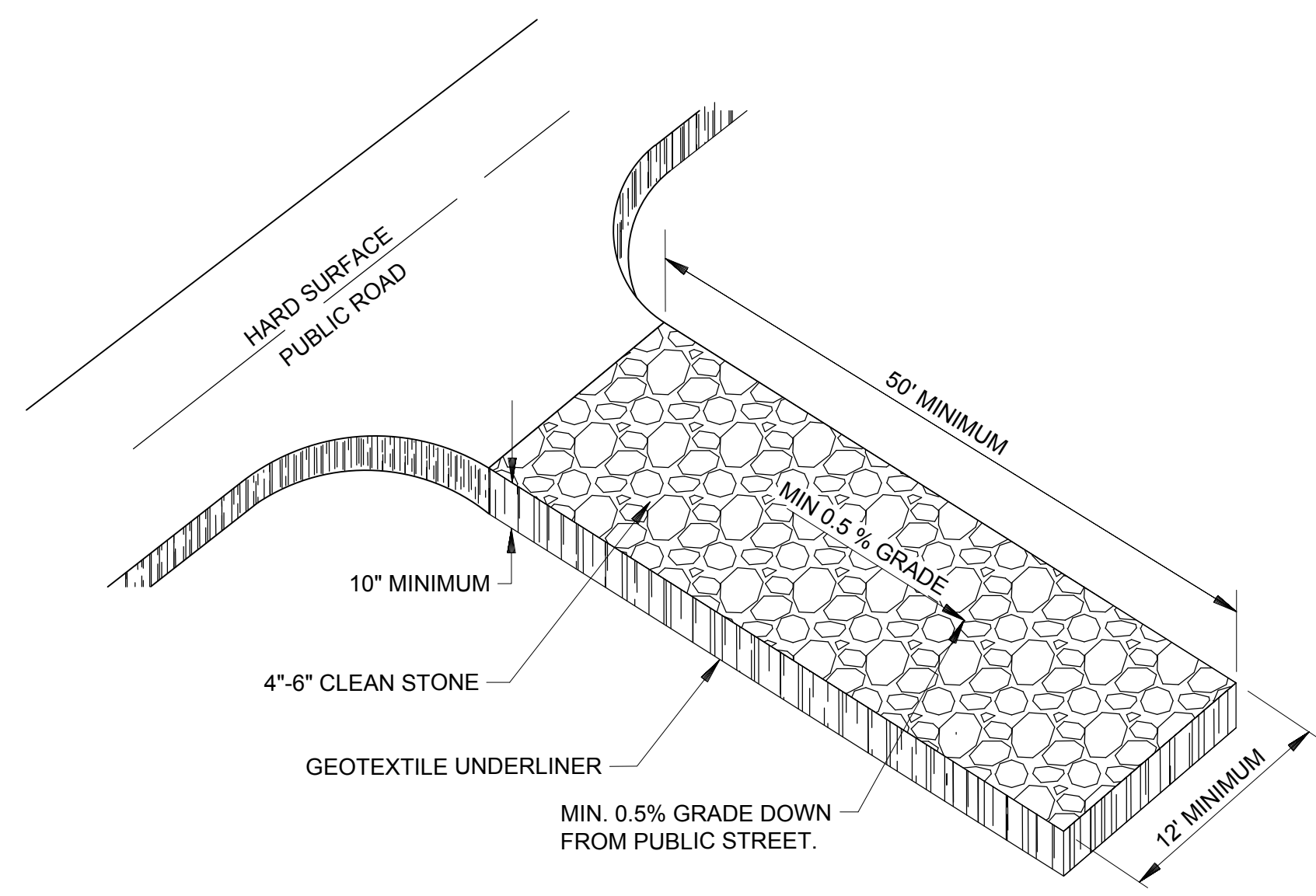
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ENGINEER: F.L.C. #
 DATE:
 NO. DATE REVISIONS

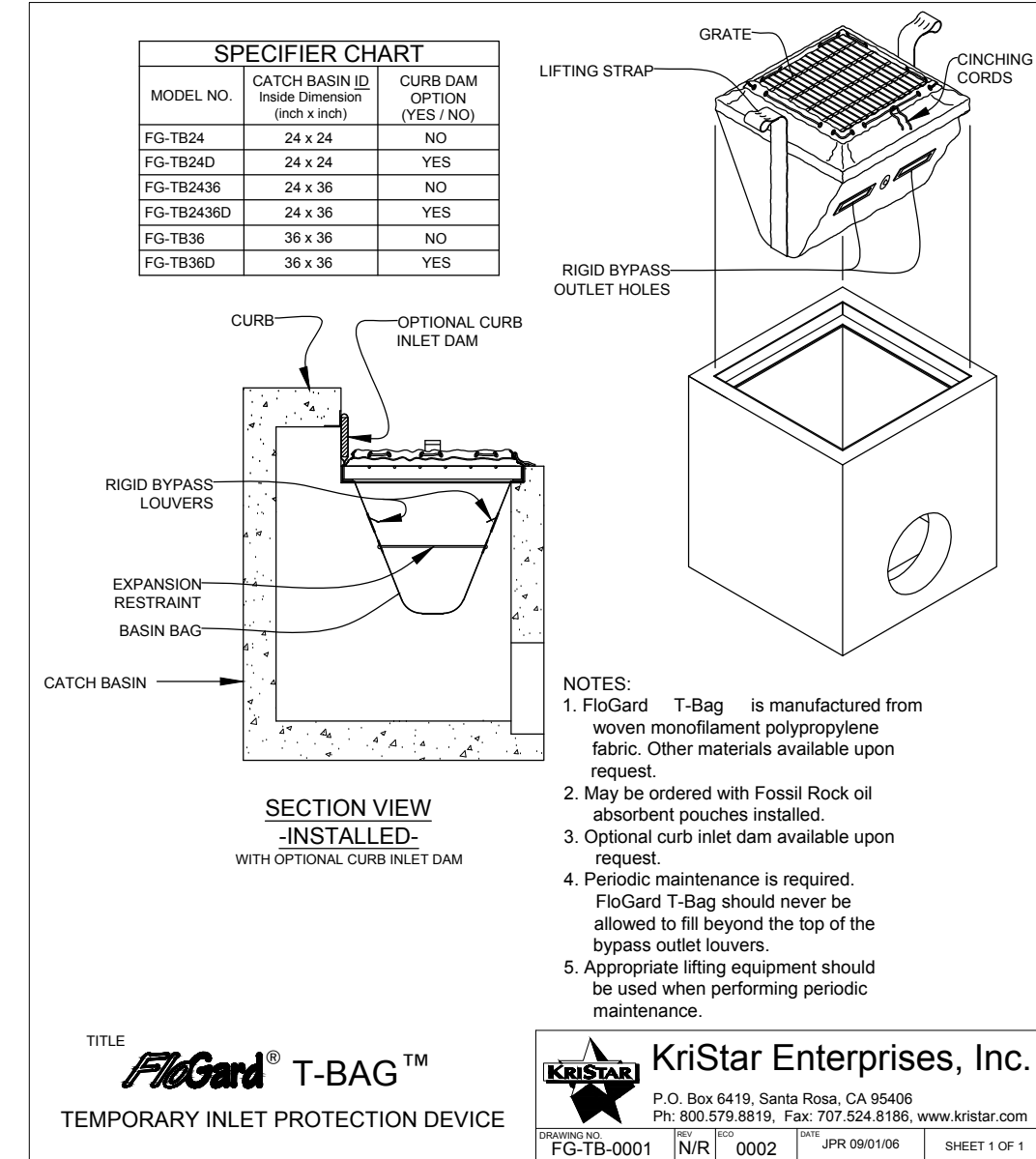
DRAWING NO. C0.3 SHEET 4 OF 22

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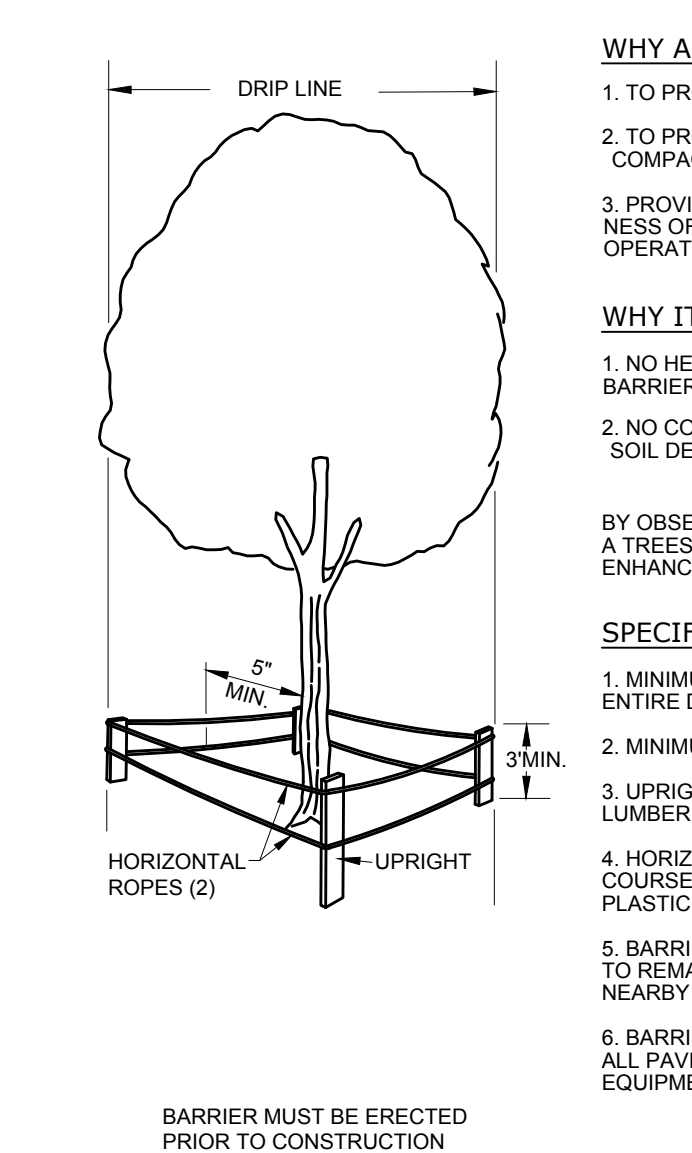
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1 CONSTRUCTION ENTRANCE NTS



2 INLET SEDIMENT FILTER NTS



WHY A BARRIER?

1. TO PROTECT ALL ABOVE GROUND PORTIONS
2. TO PROTECT SOIL NEAR TREE FROM COMPACTION
3. PROVIDES PHYSICAL AND MENTAL AWARENESS OF TREES' PRESENCE TO EQUIPMENT OPERATORS

WHY IT WORKS

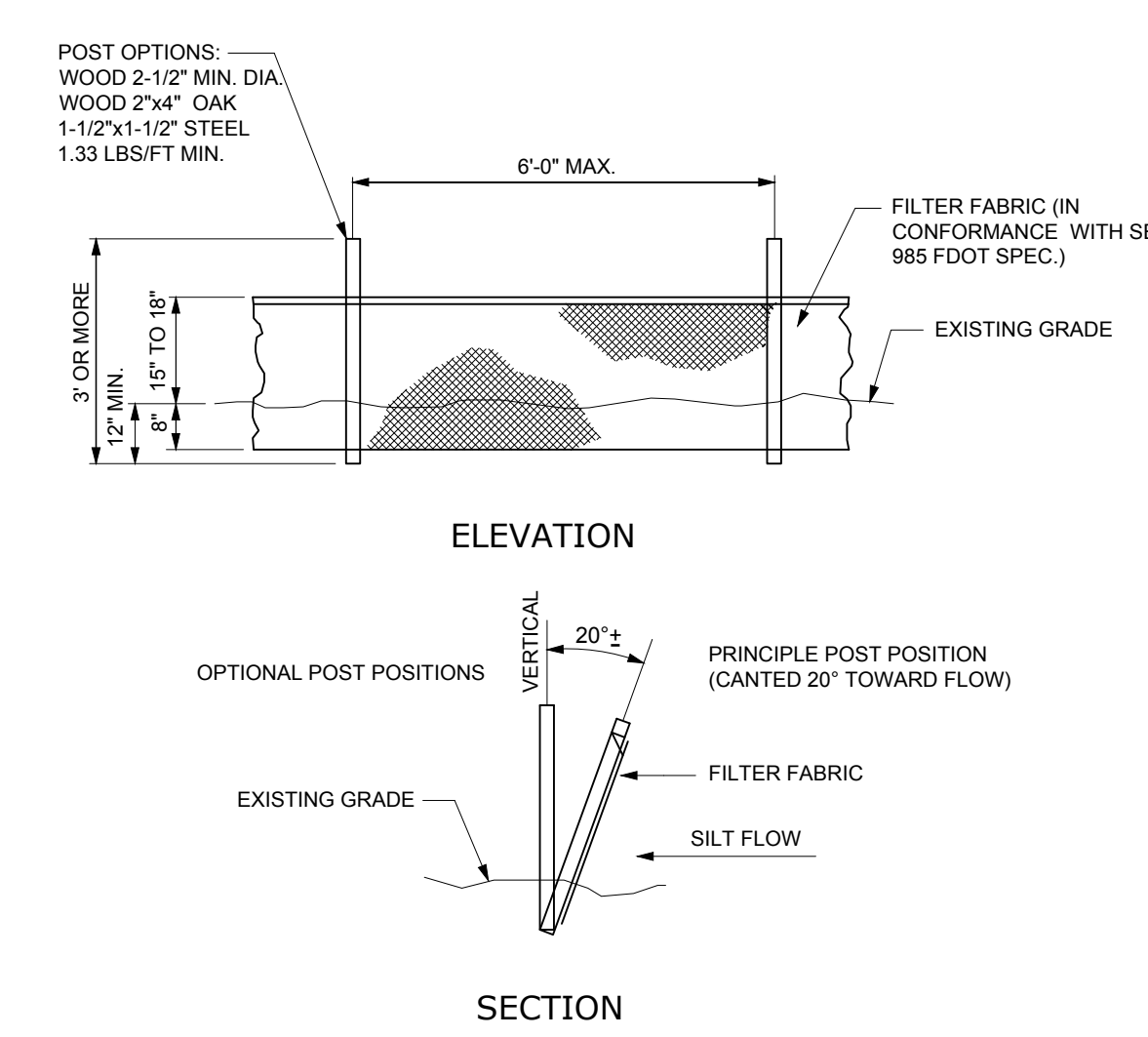
1. NO HEAVY EQUIPMENT ALLOWED INSIDE BARRIER, ONLY HAND LABOR
2. NO CONSTRUCTION MATERIALS OR TEMPORARY SOIL DEPOSITS ALLOWED INSIDE THIS AREA

BY OBSERVING THESE TWO SIMPLE PRINCIPLES, A TREES' CHANCE FOR SURVIVAL IS GREATLY ENHANCED

SPECIFICATIONS FOR WOOD BARRIER

1. MINIMUM RADIUS TO BE PROTECTED IS ENTIRE DRIP LINE
2. MINIMUM 3' IN HEIGHT
3. UPRIGHTS- THE EQUIVALENT OF 2"x4" LUMBER ON 6' MINIMUM CENTERS
4. HORIZONTAL- THE EQUIVALENT OF TWO COURSES OF 1/2" ROPING WITH YELLOW PLASTIC TAPE FLAGGING
5. BARRIERS TO BE ERECTED AROUND TREES TO REMAIN BEFORE CONSTRUCTION OR NEARBY TREES ARE REMOVED
6. BARRIERS TO REMAIN IN PLACE UNTIL ALL PAVING CONSTRUCTION AND HEAVY EQUIPMENT IS OUT OF AREA

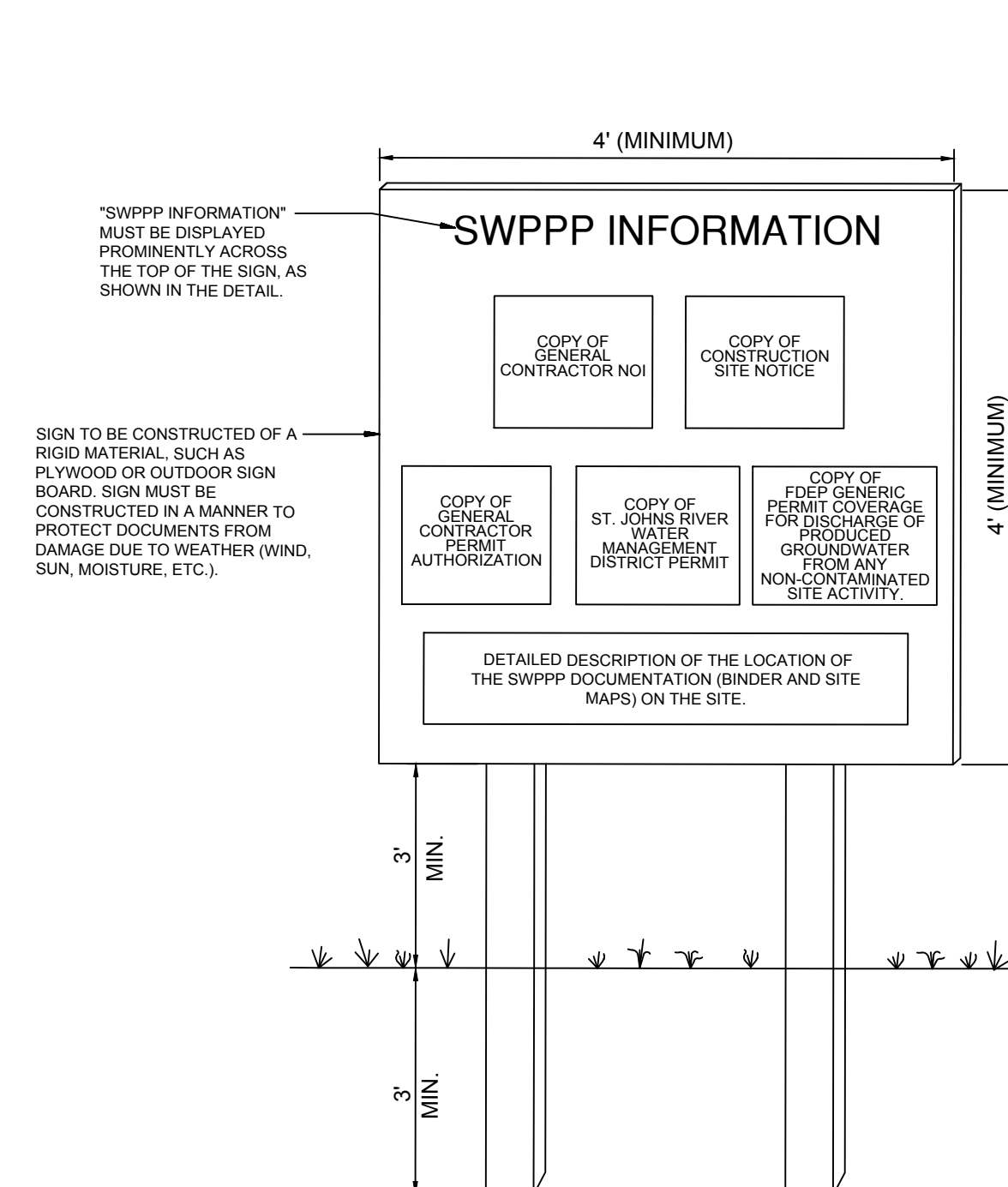
3 TREE PROTECTION DETAIL NTS



NOTES:

1. PRIOR TO ANY DISTURBANCE OF PROPERTY, THE ENTIRE SILT FENCE MUST BE IN PLACE.
2. THE EROSION CONTROL PROVISIONS DELINEATED ON THE PLANS ARE THE MINIMUM REQUIRED. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE NEEDED DEPENDANT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATIONS.

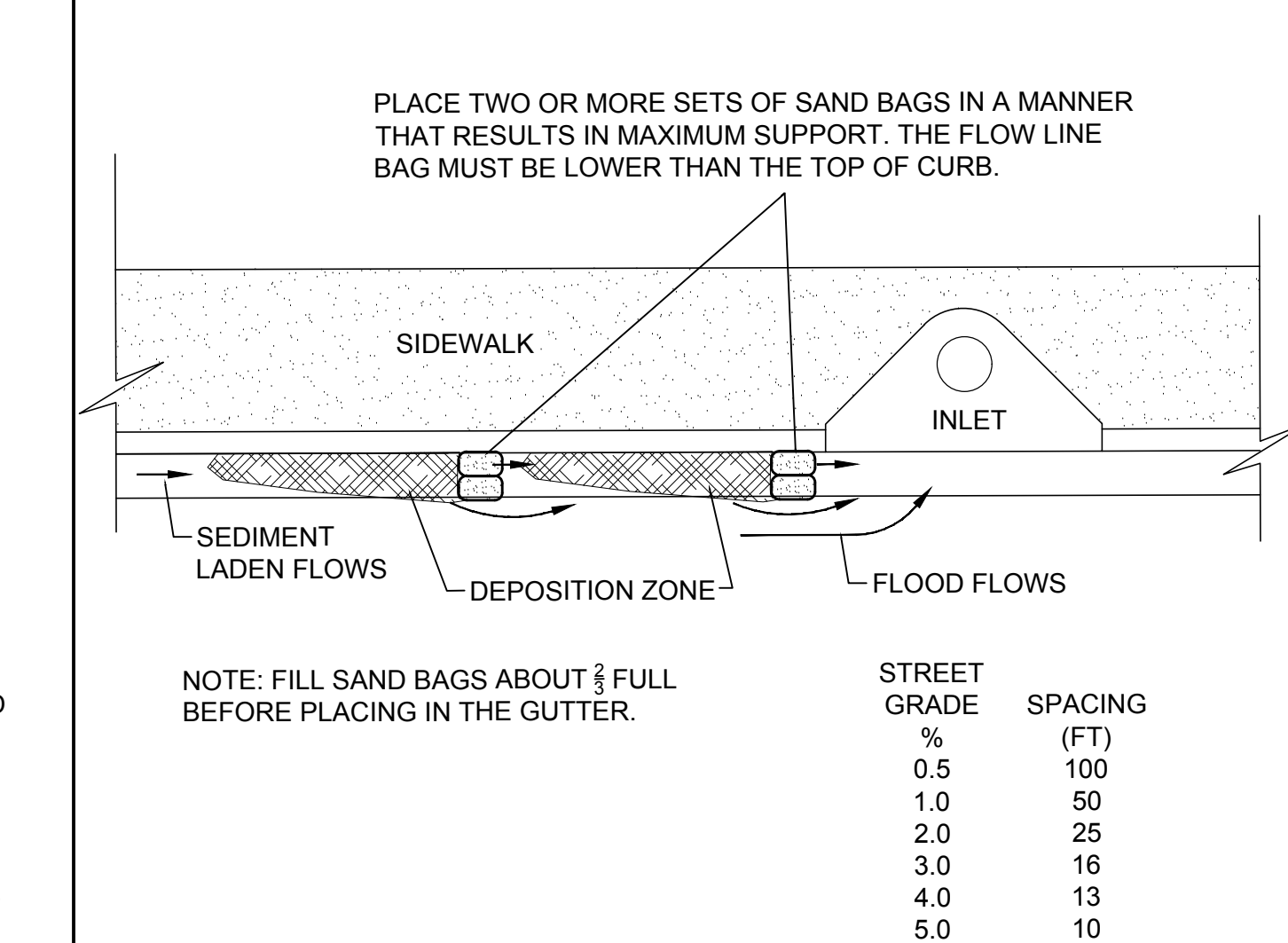
4 SILT FENCE NTS



NOTES:

- 1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
- 2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
- 3) CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
- 4) SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
- 5) CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

5 SWPPP INFORMATION SIGN NTS



6 CURB & GUTTER SEDIMENT CONTAINMENT SYSTEM NTS

ENGINEER: EDGAR A. VANA, P.E., F.L.C. #78932

DESIGNER: EGL

CHECKED: JM

DATE: Jan. 04, 2018

REVISIONS:

NO.	DATE	REVISIONS
1	10/28/17	CITY OF APOPKA REVISIONS
2	10/28/17	CITY OF APOPKA REVISIONS
3	10/24/17	SURVIVOR REVISIONS

RECORD DRAWING

ZARABROOKE AT VICK & W. MARTIN STREET APOPKA, FLORIDA FOR ZARABROOKE, LLC

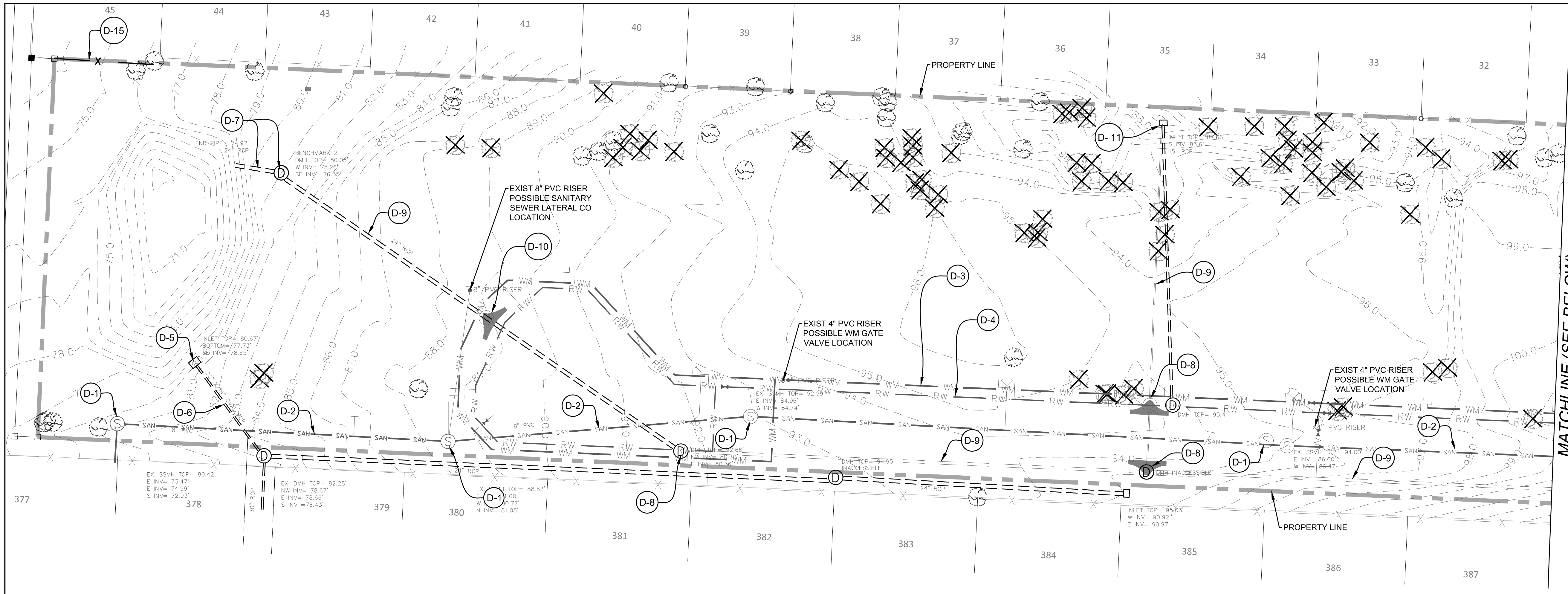
EROSION CONTROL & TREE PROTECTION DETAILS

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CERTIFICATE OF AUTHORIZATION # 00002856

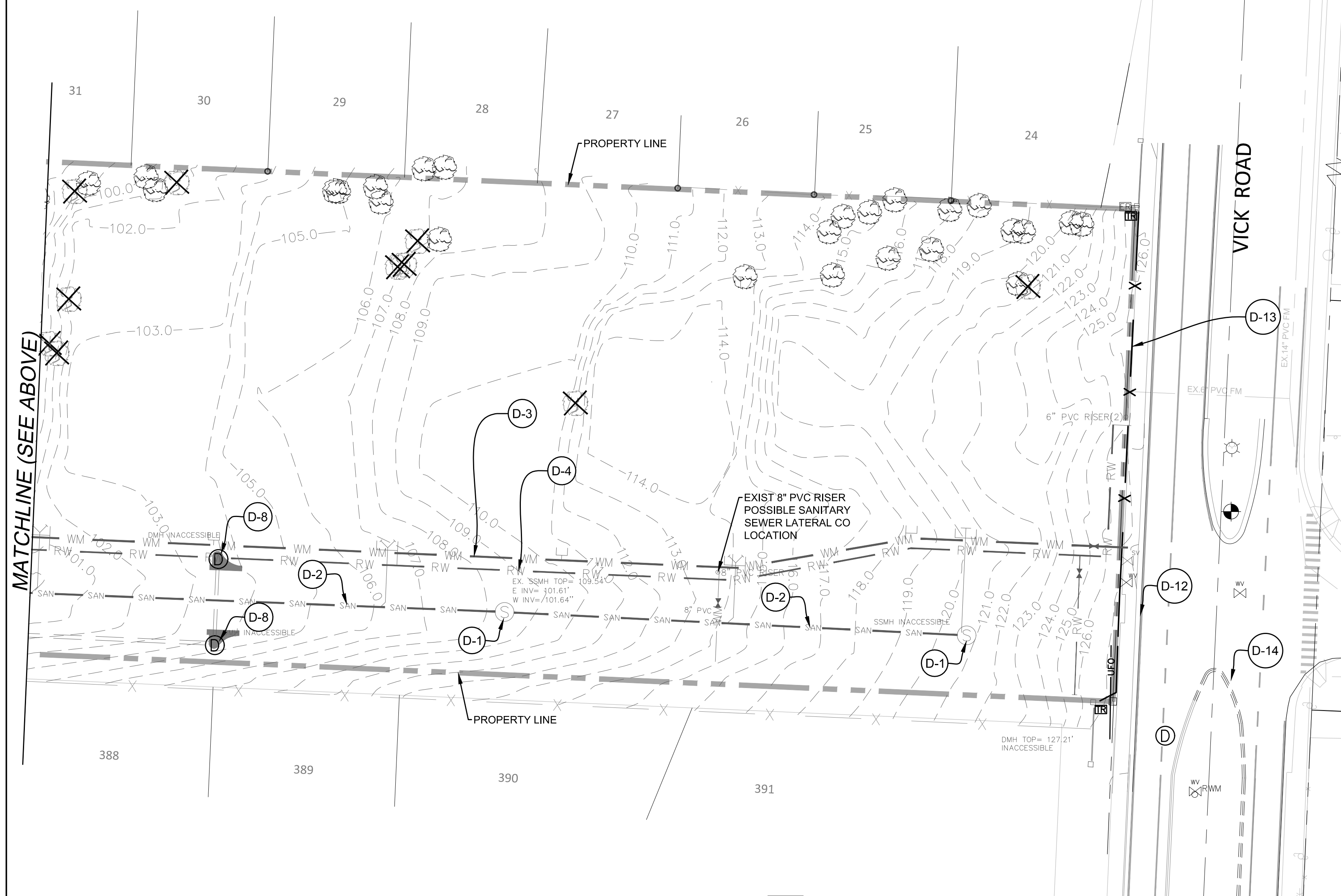
DRAWING NO. C0.4 SHEET 5 OF 22



- LEGEND:**
- (D#) DEMOLITION ITEM NO.
 - (X) EXISTING TREE TO BE SAVED (REFER TO SHEET C0.3 FOR TREE SCHEDULE)
 - (X) EXISTING TREE TO BE REMOVED (REFER TO SHEET C0.3 FOR TREE SCHEDULE)

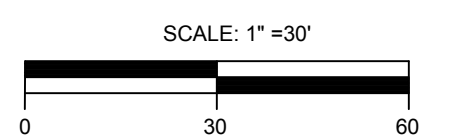
DEMOLITION SCHEDULE

ITEM NO.	DESCRIPTION/ACTION
D-1	EXISTING SANITARY MANHOLE (6 MANHOLES TOTAL). SEE DEMOLITION NOTE 17.
D-2	EXISTING 8" PVC SANITARY SEWER (APPROX 1,135 LF). SEE DEMOLITION NOTE 17.
D-3	EXISTING 8" PVC WATER MAIN (APPROX 1,300 LF). SEE DEMOLITION NOTE 19.
D-4	EXISTING 6" PVC RECLAIM WATER MAIN (APPROX 1,300 LF). SEE DEMOLITION NOTE 19.
D-5	EXISTING TYPE "E" INLET TO BE REMOVED.
D-6	EXISTING 14"x22" ERCP TO BE REMOVED AND REPLACED.
D-7	EXISTING 24" RCP & MANHOLE TO BE REMOVED.
D-8	EXISTING STORM SEWER STRUCTURE. SEE DEMOLITION NOTE 18.
D-9	EXISTING STORM SEWER RCP. SEE DEMOLITION NOTE 18.
D-10	EXISTING STORM SEWER STRUCTURE (NOT FOUND). SEE DEMOLITION NOTE 18.
D-11	EXISTING TYPE "C" INLET TO REMAIN.
D-12	EXISTING CONC CURB & GUTTER TO BE REMOVED (APPROX 55 LF).
D-13	EXISTING CHAIN LINKED FENCE TO BE REMOVED (APPROX 190 LF).
D-14	EXISTING CONC CURB & GUTTER TO BE REMOVED (APPROX 220 LF).
D-15	EXISTING FENCE TO BE REMOVED (APPROX 55 LF).



DEMOLITION NOTES:

1. CHAPTER 553.851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING.
2. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, SUPERVISION AND EQUIPMENT REQUIRED FOR THE ORDERLY DEMOLITION AND REMOVAL OF EXISTING STRUCTURES, PAVEMENT AND UTILITIES AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN.
3. THE CONTRACTOR IS REQUIRED TO FAMILIARIZE HIMSELF WITH THE STRUCTURES TO BE DEMOLISHED. A BRIEF DESCRIPTION OF THE STRUCTURES IS INCLUDED FOR THE CONTRACTOR'S CONVENIENCE ONLY.
4. ALL EXISTING STRUCTURES, PAVEMENTS, SLABS, FOUNDATIONS, STEPS, AND OTHER EXISTING FEATURES INDICATED ON THE DRAWINGS TO BE REMOVED SHALL BE DEMOLISHED AND REMOVED BY THE CONTRACTOR. REMOVE NO STRUCTURE SUBSTANTIALLY AS A WHOLE; DEMOLISH COMPLETELY ON THE PREMISES.
5. ELECTRICAL, TELEPHONE, CABLE, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS A NECESSITY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
6. PROVIDE ADEQUATE PROTECTION FOR PERSONS AND PROPERTY AT ALL TIMES. EXECUTE THE WORK IN A MANNER TO AVOID HAZARDS TO PERSONS AND PROPERTY AND PREVENT INTERFERENCE WITH THE USE OF AND ACCESS TO ADJACENT BUILDINGS, STREETS AND SIDEWALKS SHALL NOT BE UNNECESSARILY BLOCKED BY DEBRIS AND EQUIPMENT.
7. CONTRACTOR MUST STOP OPERATION AND NOTIFY THE OWNER FOR PROPER DIRECTION IF ANY ENVIRONMENTAL OR HEALTH RELATED CONTAMINATE IS ENCOUNTERED DURING DEMOLITION/EXCAVATION PROCESS.
8. DISPOSAL
 - A. REMOVE AND LEGALLY DISPOSE OF ALL OTHER RUBBISH, RUBBLE, AND DEBRIS. COMPLY WITH ALL APPLICABLE LAWS AND REGULATIONS GOVERNING DISPOSAL OF WASTES AND DEBRIS.
9. PAVEMENT REMOVAL
 - A. WHERE EXISTING PAVEMENT IS TO BE REMOVED, SAW-CUT THE SURFACE LEAVING A UNIFORM AND STRAIGHT EDGE WITH MINIMUM DISTURBANCE TO THE REMAINING ADJACENT SURFACING. IF CONSTRUCTION RESULTS IN RAVELING OF THE SAW-CUT SURFACE, RECUT BACK FROM THE RAVELED EDGE PRIOR TO RESTORATION.
 - B. WHERE EXISTING PAVEMENT, CURB, GUTTER AND GUTTER, SIDEWALK, DRIVEWAY OR VALLEY GUTTER IS REMOVED FOR THE PURPOSE OF CONSTRUCTING OR REMOVING BOX CULVERTS, PIPES, INLETS, MANHOLES, APPURTENANCES, FACILITIES OR STRUCTURES SAID PAVEMENT, ETC. SHALL BE REPLACED AND RESTORED IN EQUAL OR BETTER CONDITION THAN THE ORIGINAL.
10. PERMITTING: IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY REQUIRED PERMITTING FOR DEMOLITION FROM RESPONSIBLE AGENCIES AND FULLY ACKNOWLEDGE AND COMPLY WITH ALL REQUIREMENTS PRIOR TO COMMENCING DEMOLITION WORK.
11. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED IN ORDER TO PERFORM THE CONTRACT WORK FOR THIS PROJECT. THE CONTRACTOR SHALL CONDUCT SITE VISITS AND SHALL EXAMINE ALL OF THE INFORMATION WITHIN THESE DOCUMENTS. ALL DISCREPANCIES AND/OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BID SUBMITTAL.
12. PRIOR TO DEMOLITION WORK OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
13. CONTRACTOR SHALL LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AND SHOWN ON THIS SHEET. IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, SIDEWALK, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
14. IF THE EXISTING STORM AND SANITARY SEWER MANHOLES HAVE EXISTING PIPES REMOVED THE HOLE WILL BE PLUGGED WITH BRICK, MORTAR AND CONCRETE UNLESS THE EXISTING PIPE IS REPLACED WITH A PROPOSED PIPE. ALL EXISTING MANHOLES SHALL BE CORE DRILLED TO RECEIVE PROPOSED PIPES.
15. ANY BURIED UTILITIES/CONDUITS THAT ARE TO BE ABANDONED IN PLACE SHOULD BE GROUT FILLED.
16. EXCAVATIONS RESULTING FROM THE REMOVAL OF BURIEDE ELEMENTS SHOULD BE BACKFILLED WITH CLEAN, COMPACTED, ENGINEERED FILL.
17. SANITARY SEWER SYSTEM REMOVAL
 - A. OPTION "A" - CONTRACTOR SHALL REMOVE ALL SANITARY MANHOLES AND PIPES WITHIN THE PROJECT LIMITS.
 - B. OPTION "B" - EXISTING GRAVITY SEWER SYSTEMS SHALL BE CLEARED AND FLUSHED, AND SHALL BE TESTED FOR ALIGNMENT, DEFLECTION, AND INTEGRITY, IN ACCORDANCE TO SECTION 44 OF THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION MANUAL. EXISTING CONDITION SURVEY SHALL BE PROVIDED TO THE ENGINEER FOR RECORD, AND THE CITY OF APOPKA FOR REVIEW AND APPROVAL. ALL TESTING, PROCEDURES, AND VIDEO INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF CITY INSPECTION PERSONNEL AND CERTIFIED BY THE DEVELOPER'S ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY LABOR AND EQUIPMENT FOR ALL SUCH TESTING AND INSPECTIONS. SANITARY MANHOLES SHALL BE LINED PER CITY OF APOPKA REQUIREMENTS.
18. STORM SEWER SYSTEM REMOVAL
 - A. OPTION "A" - CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING STORM SEWER STRUCTURES AND PIPES WITHIN THE PROJECT LIMITS.
 - B. OPTION "B" - EXISTING STORM SEWER SYSTEMS SHALL BE CLEARED AND FLUSHED, AND SHALL BE TESTED FOR ALIGNMENT, DEFLECTION, AND INTEGRITY.
19. WATER, AND RECLAIM WATER MAIN REMOVAL
 - A. ALL EXISTING WATER, AND RECLAIM WATER MAIN PIPES, FITTING AND APPURTENANCES LOCATED WITHIN THE PROPERTY LIMITS SHALL BE REMOVED AND REPLACED.
 - B. EXISTING PIPES, FITTINGS AND APPURTENANCES ARE SHOWN IN THEIR APPROXIMATE LOCATION; CONTRACTOR SHALL FIELD VERIFY AND CONFIRM QUANTITY AND LOCATION.



JOB #: 1701220
 ENGINEER: EDGAR G. MARTIN, P.E.
 FL. LIC. #76802

PRL MGR: EGL
 DESIGNER: EGL
 DATE: Jan. 04, 2018

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REVISIONS
 NO. DATE DESCRIPTION
 01/08/17 CITY OF APOPKA REVISIONS
 10/28/17 CITY OF APOPKA REVISIONS
 10/24/17 SURVIVOR REVISIONS

ZARABROOKE
 VICK & W. MARTIN STREET
 APOPKA, FLORIDA

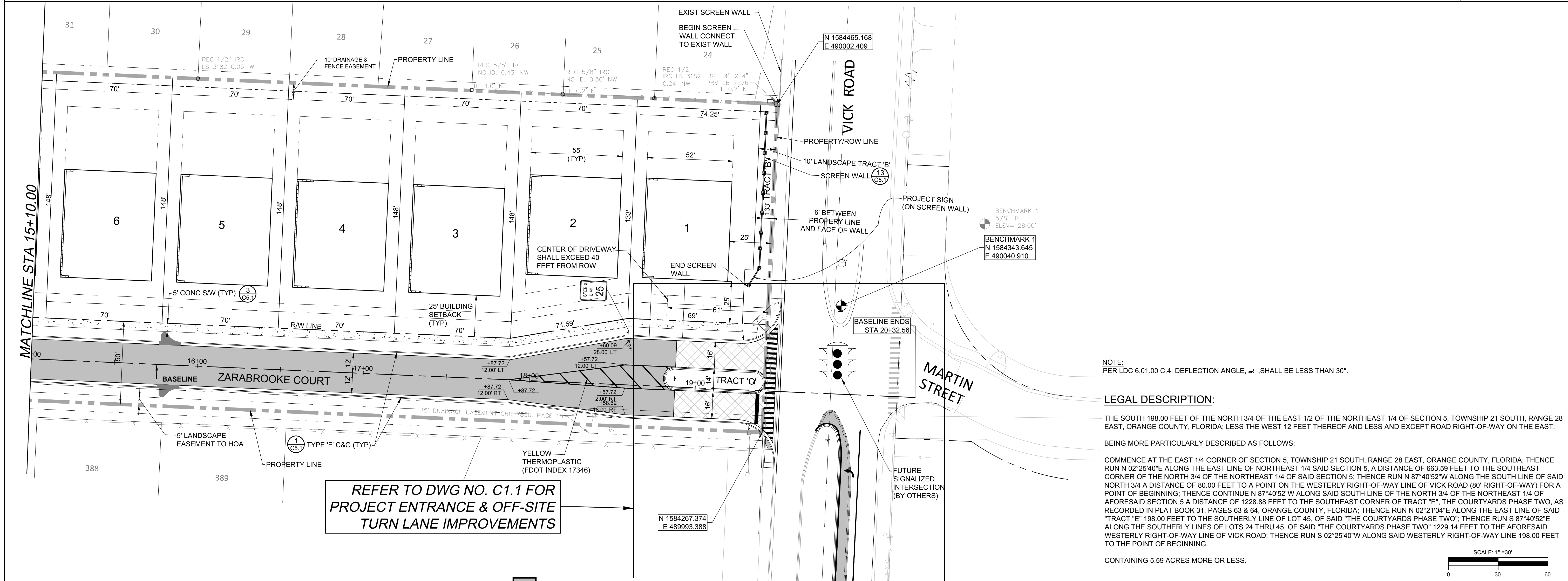
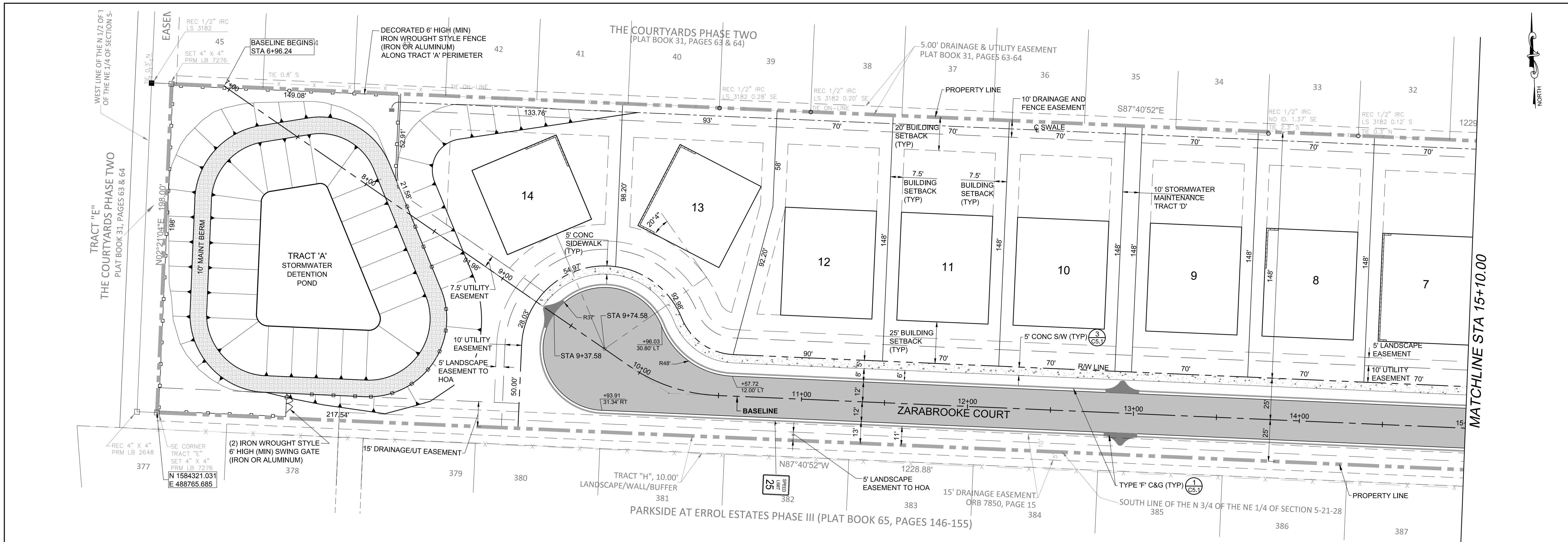
ENGINEER:
 FL. LIC. #

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DRAWING NO.
C0.5

SHEET
 6
 OF
 22

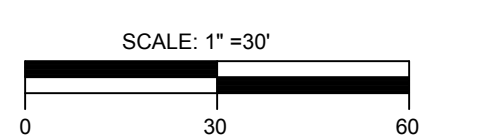


REFER TO DWG NO. C1.1 FOR PROJECT ENTRANCE & OFF-SITE TURN LANE IMPROVEMENTS

NOTE:
PER LDC 6.01.00 C.4, DEFLECTION ANGLE, α , SHALL BE LESS THAN 30°.

LEGAL DESCRIPTION:
THE SOUTH 198.00 FEET OF THE NORTH 3/4 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; LESS THE WEST 12 FEET THEREOF AND LESS AND EXCEPT ROAD RIGHT-OF-WAY ON THE EAST.
BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE EAST 1/4 CORNER OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°25'40"E ALONG THE EAST LINE OF NORTHEAST 1/4 SAID SECTION 5, A DISTANCE OF 663.59 FEET TO THE SOUTHEAST CORNER OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF SAID SECTION 5; THENCE RUN N 87°40'52"W ALONG THE SOUTHERLY LINE OF SAID NORTH 3/4 A DISTANCE OF 80.00 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD (80' RIGHT-OF-WAY) FOR A POINT OF BEGINNING; THENCE CONTINUE N 87°40'52"W ALONG SAID SOUTHERLY LINE OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF AFORESAID SECTION 5 A DISTANCE OF 1228.88 FEET TO THE SOUTHEAST CORNER OF TRACT "E", THE COURTYARDS PHASE TWO, AS RECORDED IN PLAT BOOK 31, PAGES 63 & 64, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°21'04"E ALONG THE EAST LINE OF SAID "TRACT "E" 198.00 FEET TO THE SOUTHERLY LINE OF LOT 45, OF SAID "THE COURTYARDS PHASE TWO"; THENCE RUN S 87°40'52"E ALONG THE SOUTHERLY LINES OF LOTS 24 THRU 45, OF SAID "THE COURTYARDS PHASE TWO" 1229.14 FEET TO THE AFORESAID WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD; THENCE RUN S 02°25'40"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE 198.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 5.59 ACRES MORE OR LESS.



ENGINEER	EDGAR ANNA, P.E.	DATE: Jun. 29, 2018
PROJECT MGR.	EGL	
DESIGNER	EGL	
CHECKED	JM	

NO.	DATE	REVISIONS

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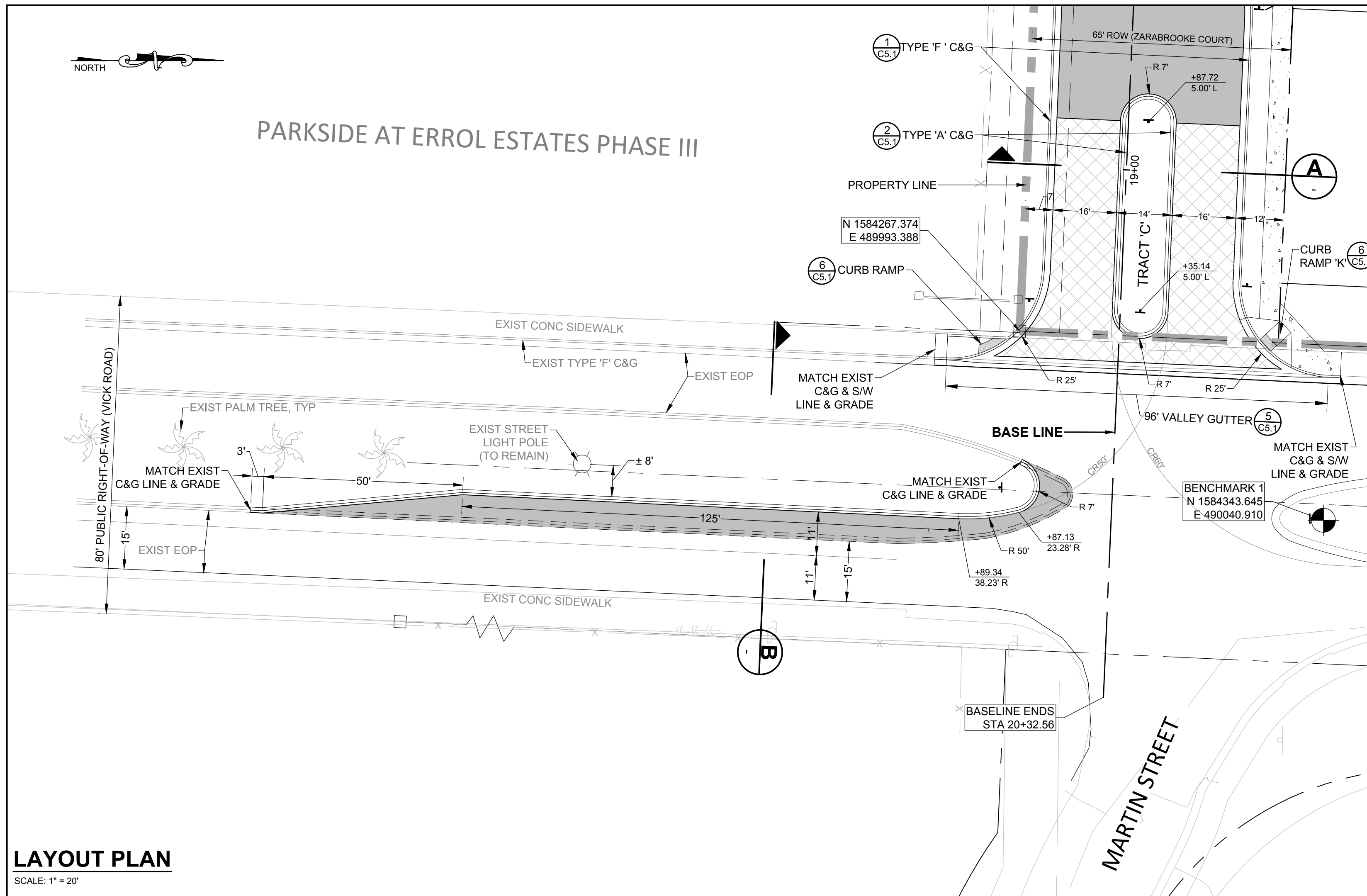
ZARABROOKE
at
VICK & W. MARTIN STREET
APOPKA, FLORIDA
FOR
ZARABROOKE, LLC

**LAYOUT
GEOMETRY
PLAN**

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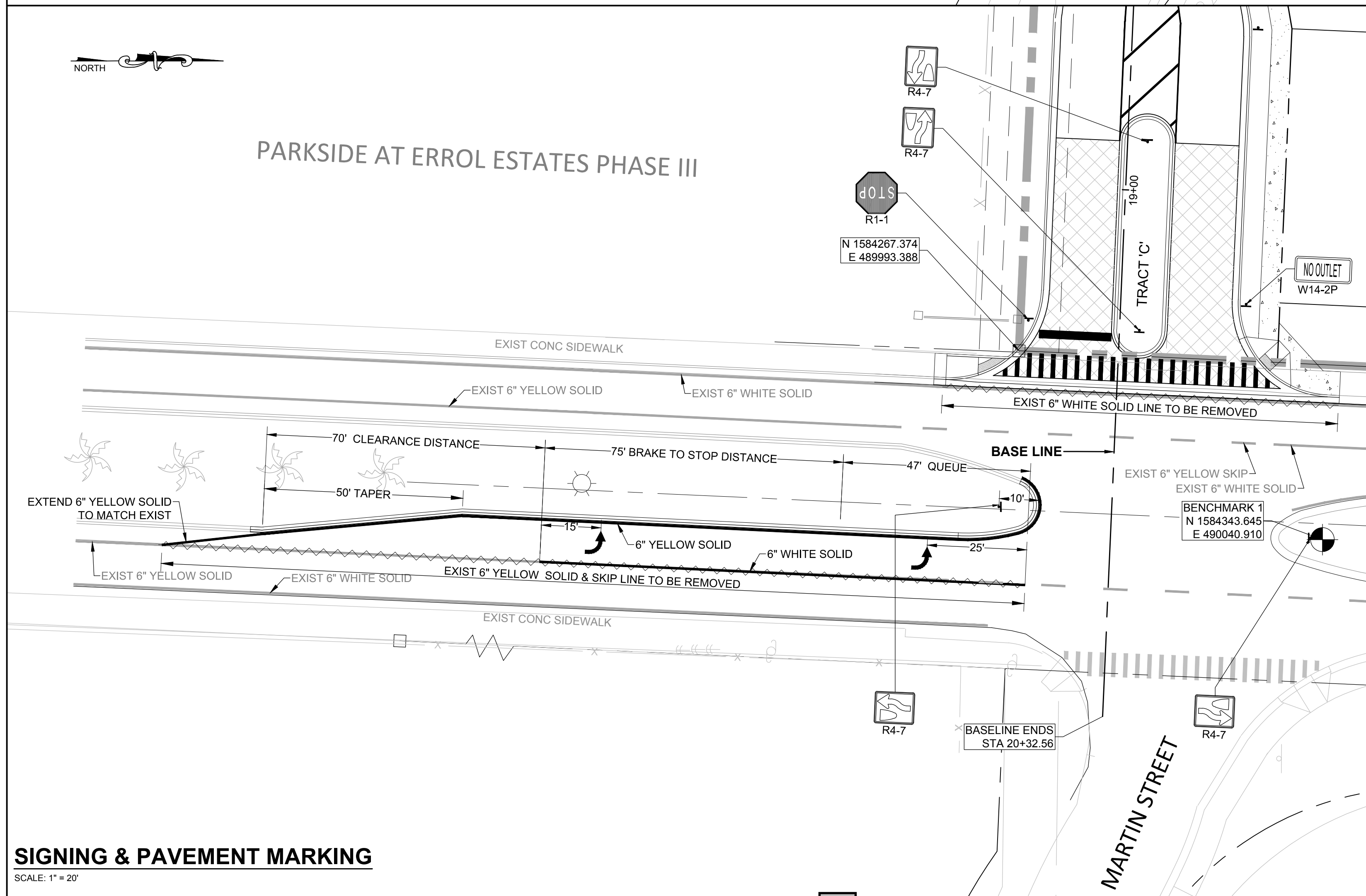
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DRAWING NO. **C1.0** SHEET **7** OF **22**



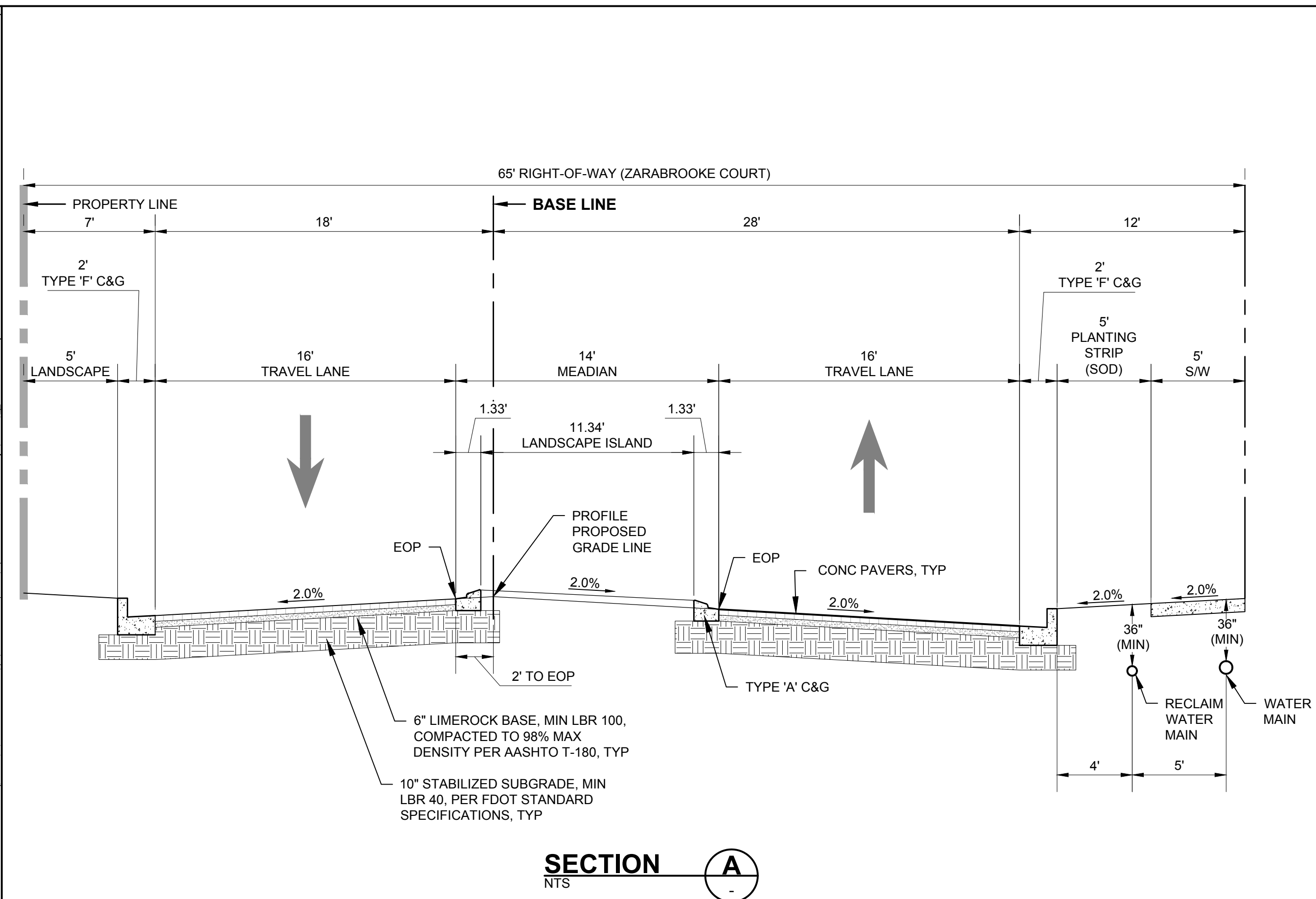
LAYOUT PLAN

SCALE: 1" = 20'



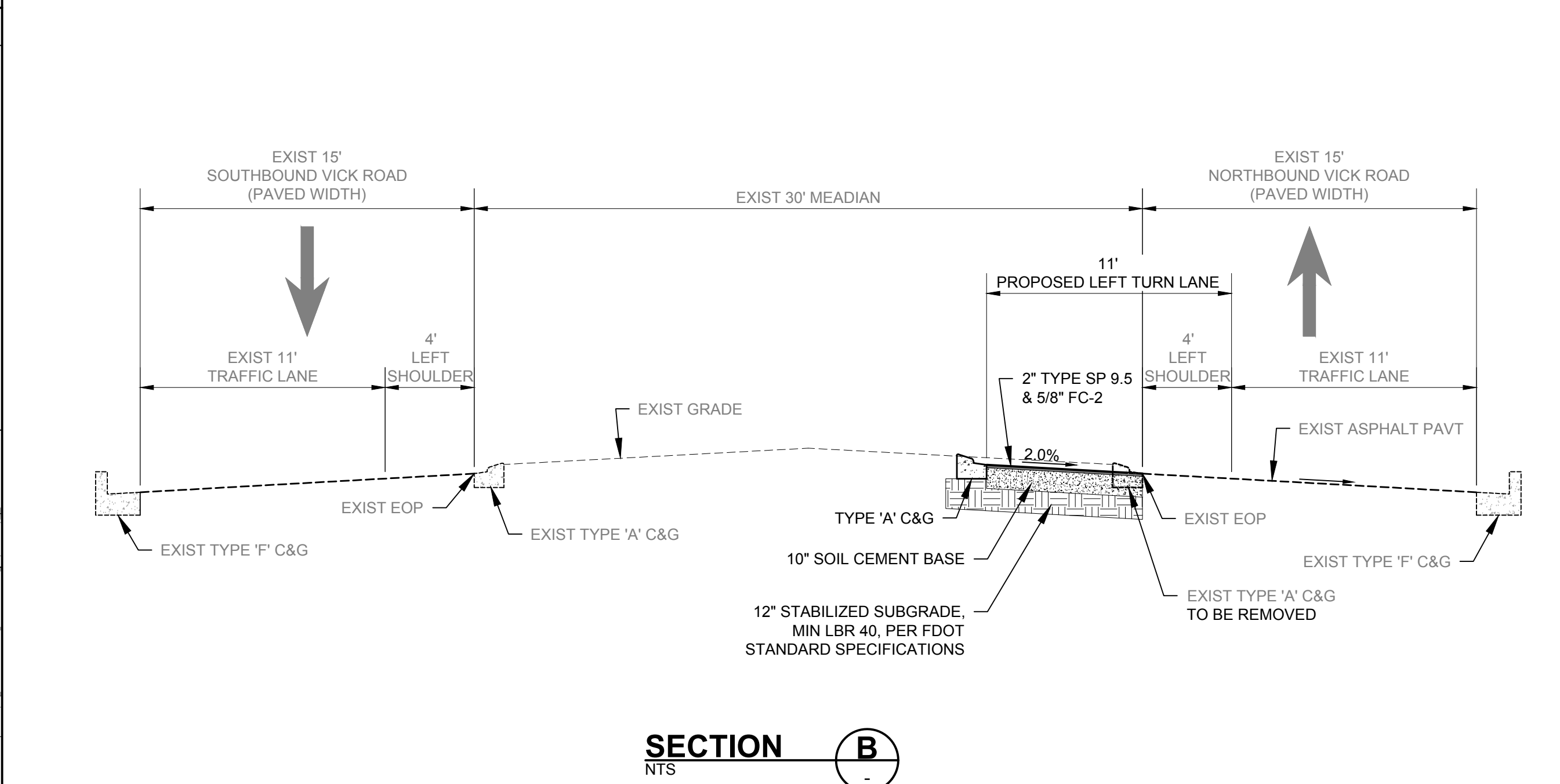
SIGNING & PAVEMENT MARKING

SCALE: 1" = 20'



SECTION A

NTS

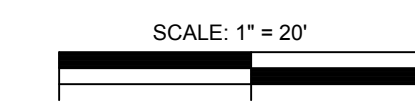


SECTION B

NTS

NOTES:

1. THE LEFT TURN LANE IMPROVEMENTS ON VICK ROAD HAVE BEEN DESIGNED PER FDOT 2017 DESIGN STANDARDS:
 - a. INDEX NO. 300 FOR CURB AND GUTTER
 - b. INDEX NO. 301 FOR TURN LANE
 - c. INDEX NO. 17346 FOR PAVEMENT MARKINGS
2. CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC (MOT) PER FDOT INDEX NO. 602.
3. CONTRACTOR SHALL REPLACE ALL DISTURBED LANDSCAPING AND SOD WITHIN THE EXISTING MEDIAN.
4. CONTRACTOR SHALL PRACTICE CAUTION, AND SHALL PROTECT EXISTING INFRASTRUCTURE.



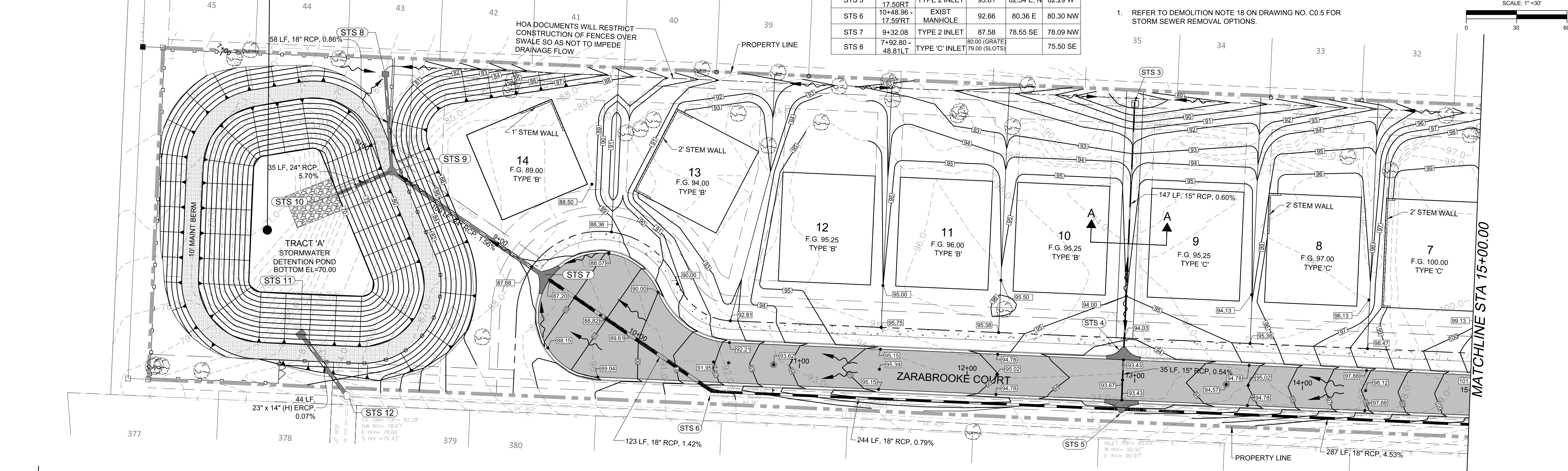
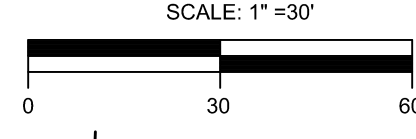
<p>ENGINEER EDGAR GAGLIARDI, P.E. FL LIC. #78932</p>	<p>PRJ. MGR. EGL</p>	<p>DESIGNER EGL</p>	<p>CHECKED JM</p>	<p>DATE: Jan. 04, 2018</p>
<p>RECORD DRAWING</p> <p><small>THIS DRAWING IS THE PROPERTY OF LOCHRANE CONSULTING ENGINEERS & SURVEYORS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF LOCHRANE CONSULTING ENGINEERS & SURVEYORS IS STRICTLY PROHIBITED. THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR VERIFYING ALL INFORMATION AND DATA PROVIDED HEREON IS ACCURATE AND COMPLETE. THE ENGINEER ASSUMES NO LIABILITY FOR ANY DAMAGE OR INJURY TO PERSONS OR PROPERTY ARISING FROM THE USE OF THIS DRAWING.</small></p>				
<p>ZARABROOKE at VICK & W. MARTIN STREET APOPKA, FLORIDA for ZARABROOKE, LLC</p>				
<p>PROJECT ENTRANCE & OFF-SITE TURN LANE IMPROVEMENTS</p>				
<p>LOCHRANE Consulting Engineers & Surveyors An ENVIS Company</p> <p><small>201 SOUTH BUNNY AVENUE ORLANDO, FL 32803 PH: (407) 886-3317 FAX: (407) 886-9167 WWW.LOCHRANE.COM</small></p> <p><small>CERTIFICATE OF AUTHORIZATION # 0002856</small></p>				
DRAWING NO.	SHEET	OF		
C1.1	8	22		

REFER TO DWG NO. C2.1
FOR DETENTION POND
PLAN, SECTIONS & DETAILS

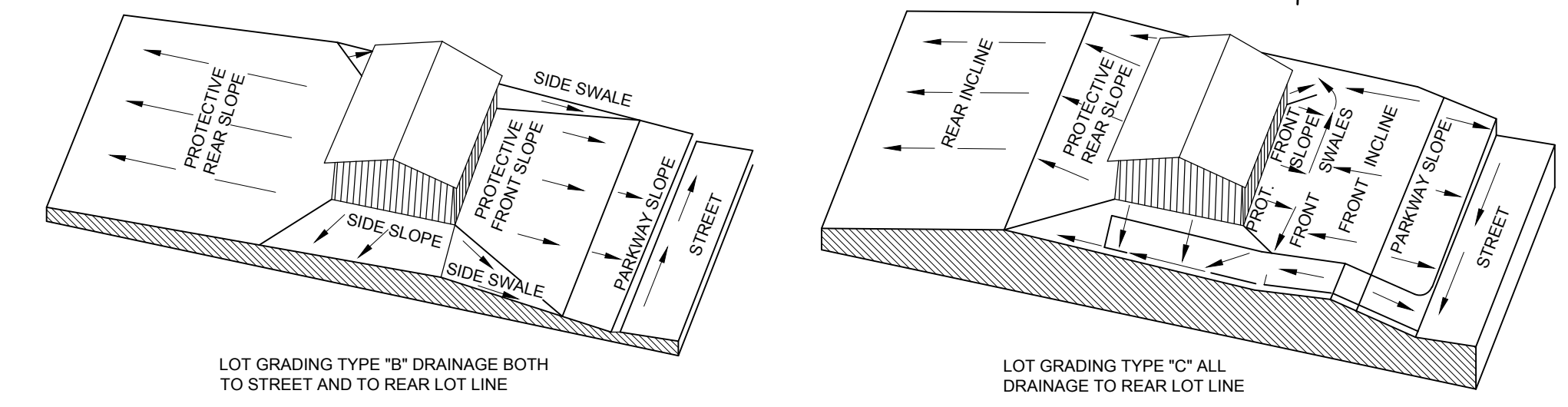
STORM SEWER SCHEDULE					
STRUCTURE NUMBER	STA/OFF	STRUCTURE TYPE	RIM/GRATE	INVERT ELEVATIONS	
STS 1	15+79.54 - 17.50LT	TYPE 1 INLET	104.75	-	95.67 S
STS 2	15+79.54 - 17.50RT	TYPE 1 INLET	104.75	94.59N	95.59 W
STS 3	12+93.68 - 164.78LT	EXIST TYPE 'C' INLET	87.66	-	83.61 S
STS 4	12+92.72 - 17.50LT	TYPE 2 INLET	93.81	82.73N	82.73 S
STS 5	12+92.72 - 17.50RT	TYPE 2 INLET	93.81	82.54 E, N	82.29 W
STS 6	10+48.96 - 17.59RT	EXIST MANHOLE	92.66	80.36 E	80.30 NW
STS 7	9+32.08	TYPE 2 INLET	87.58	78.55 SE	78.09 NW
STS 8	7+92.80 - 48.81LT	TYPE 'C' INLET	80.00 (GRATE) 79.00 (SLOTS)	-	75.50 SE

STORM SEWER SCHEDULE					
STRUCTURE NUMBER	STA/OFF	STRUCTURE TYPE	RIM/GRATE	INVERT ELEVATIONS	
STS 9	8+23.47	TYPE 'P' MH	80.50	75.00 NE 76.39 SE	72.00 NW
STS 10	8+06.14 - 29.82RT	HEADWALL	-	-	70.00 SE
STS 11	8+34.33 - 111.01RT	TYPE 'D' INLET	81.00 (GRATE) 78.65 (SLOT)	-	78.75 SE
STS 12	-	EXIST MANHOLE	82.28	78.67 NW 78.66 E	76.43 S

NOTE:
1. REFER TO DEMOLITION NOTE 18 ON DRAWING NO. C0.5 FOR STORM SEWER REMOVAL OPTIONS.

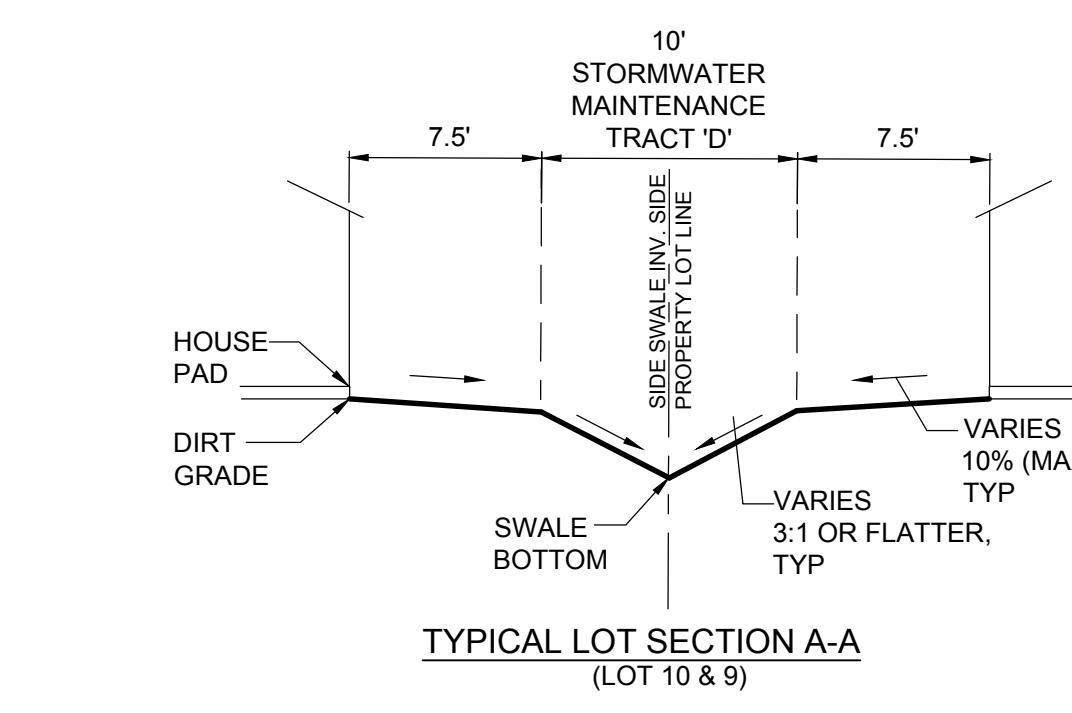
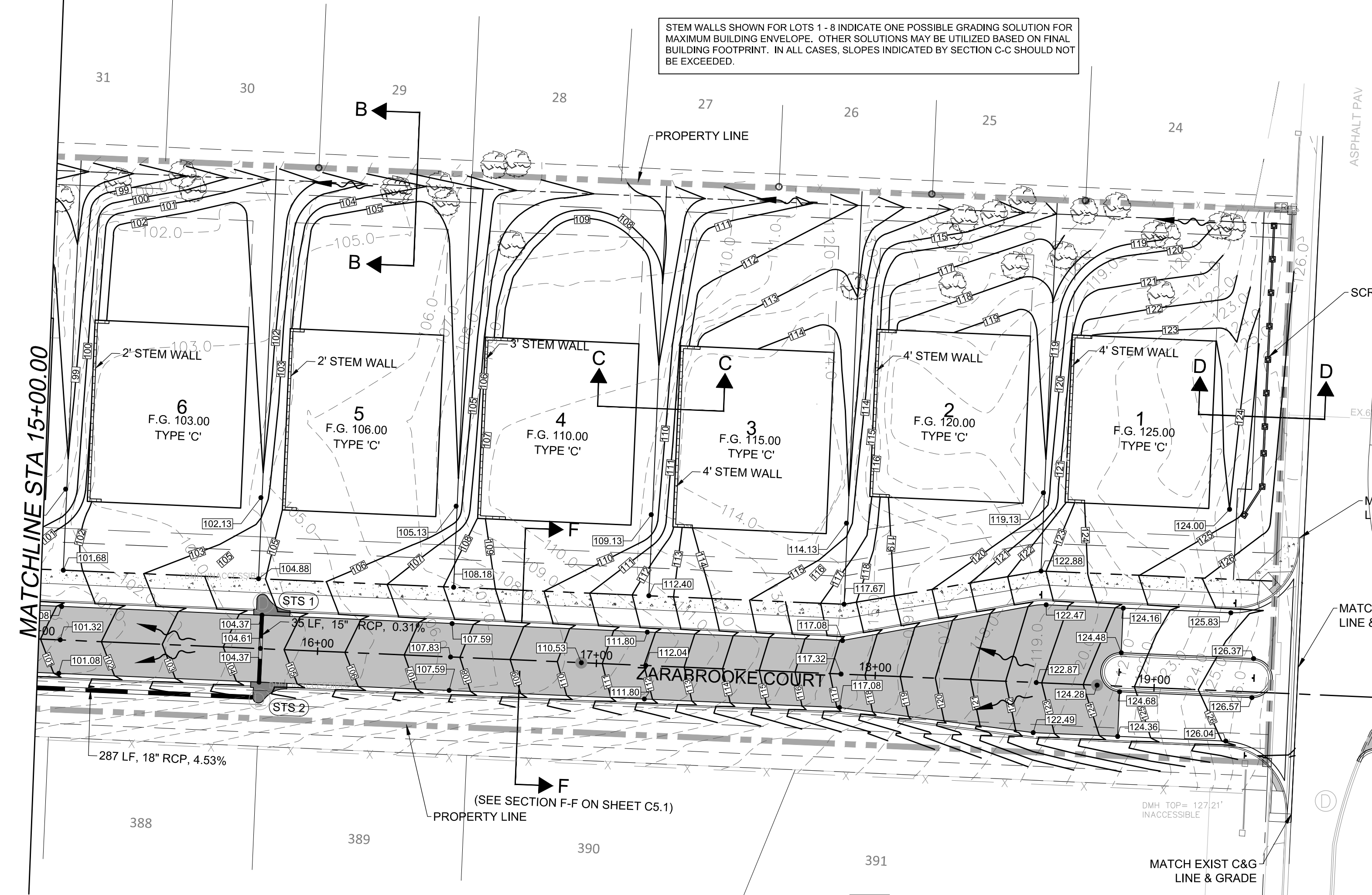


STEM WALLS SHOWN FOR LOTS 1-8 INDICATE ONE POSSIBLE GRADING SOLUTION FOR MAXIMUM BUILDING ENVELOPE. OTHER SOLUTIONS MAY BE UTILIZED BASED ON FINAL BUILDING FOOTPRINT. IN ALL CASES, SLOPES INDICATED BY SECTION C-C SHOULD NOT BE EXCEEDED.

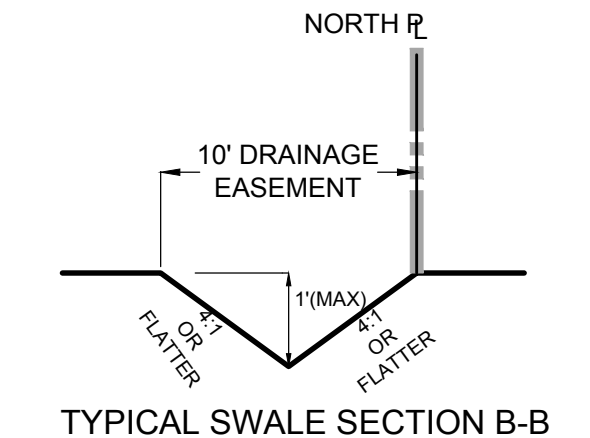


LOT GRADING PLAN - MODIFIED TYPE "B"
NTS

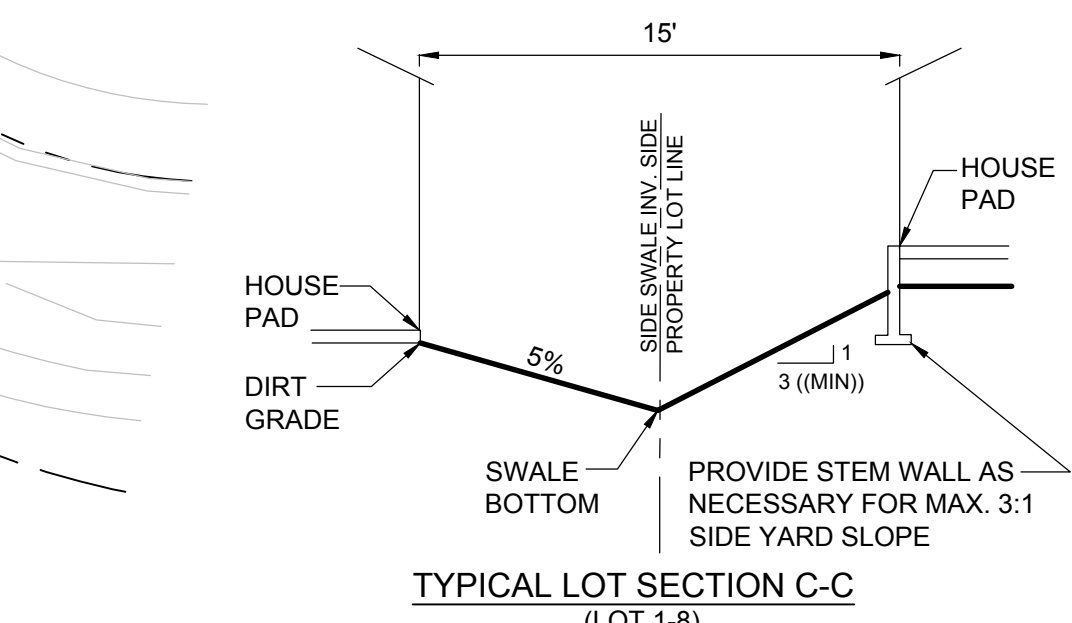
LOT GRADING PLAN - TYPE "C"
NTS



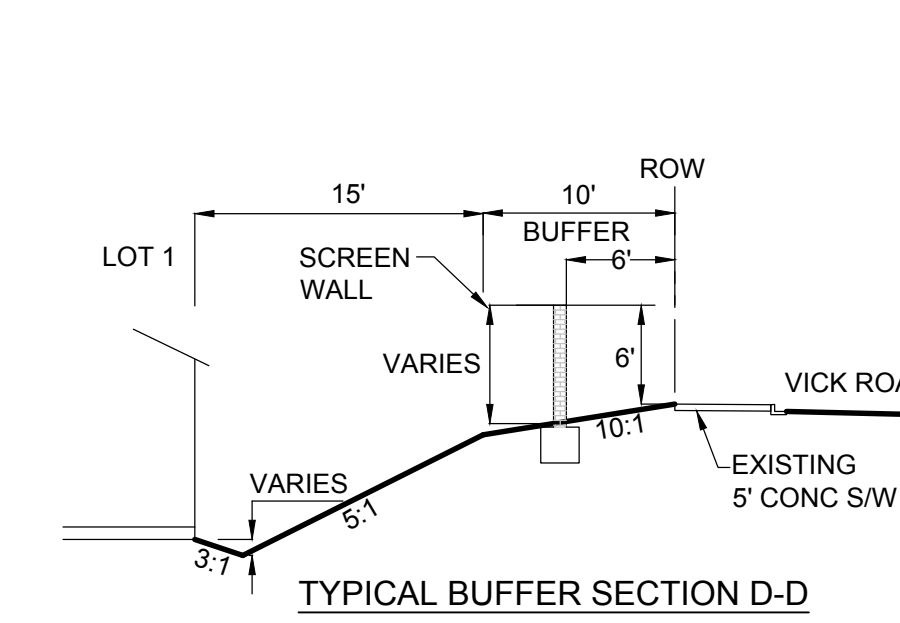
TYPICAL LOT SECTION A-A
(LOT 10 & 9)



TYPICAL SWALE SECTION B-B



TYPICAL LOT SECTION C-C
(LOT 1-8)



TYPICAL BUFFER SECTION D-D

ENGINEER: EDGAR GAGNON, P.E., F.L.C. #78922
 DESIGNER: J.M.
 CHECKED: J.M.
 DATE: JAN. 29, 2018

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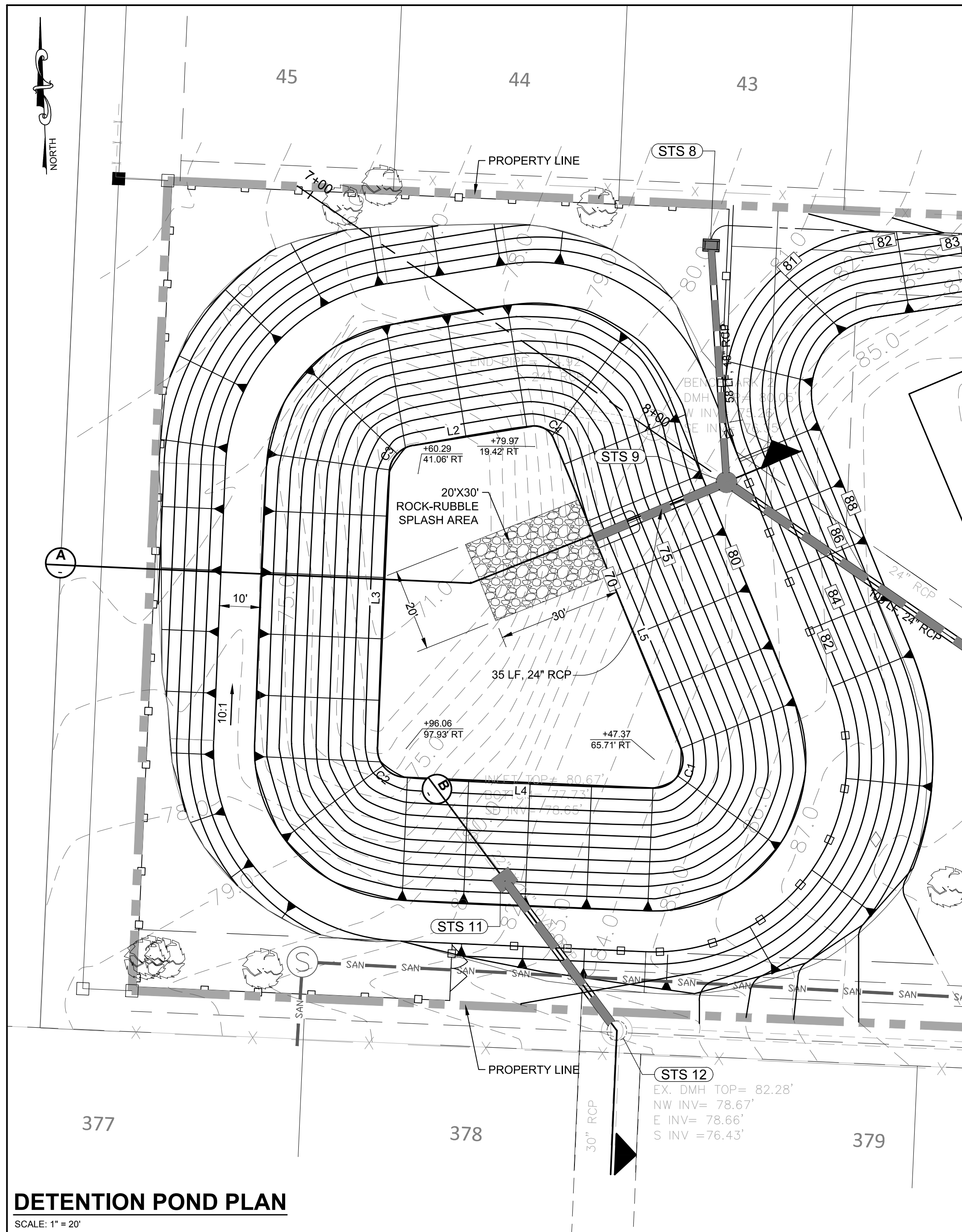
REVISIONS
 NO. DATE REVISIONS

ZARABROOKE
 VICK & W. MARTIN STREET
 APOPKA, FLORIDA
 FOR ZARABROOKE, LLC

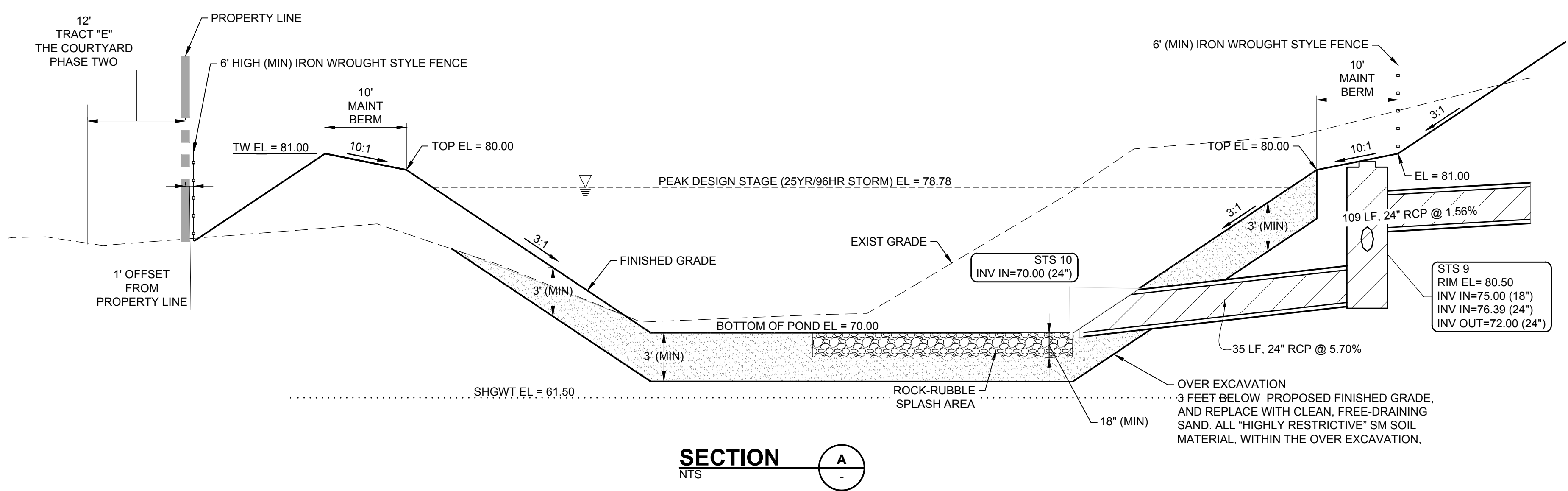
GRADING AND DRAINAGE PLAN

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DRAWING NO. C2.0 SHEET 9 OF 22



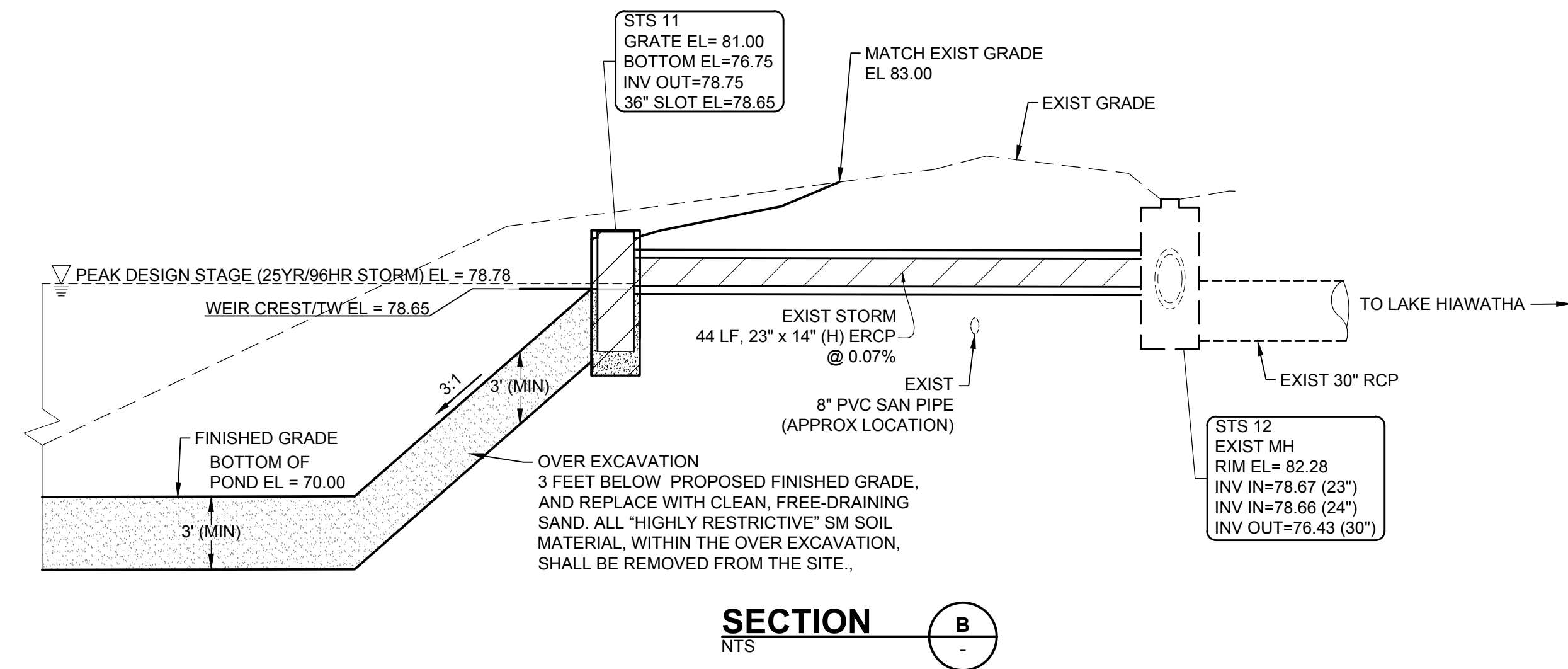
DETENTION POND PLAN
SCALE: 1" = 20'



SECTION A
NTS

DETENTION POND BOTTOM GEOMETRY

LINE & CURVE TABLE			
LINE #/ CURVE #	LENGTH	BEARING/DELTA	RADIUS
L5	81.73	S22° 17' 58.36"E	
C1	14.02	114.79	7.00
L4	60.59	N87° 30' 34.19"W	
C2	10.99	89.96	7.00
C3	9.58	78.39	7.00
L2	29.18	N80° 50' 28.64"E	
C4	6.71	76.86	5.00



SECTION B
NTS

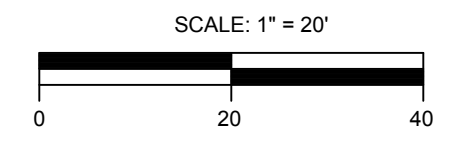
ENGINEER EDGAR ANNA, P.E. FL LIC. #76802	DATE: Jan. 29, 2018
REVISIONS	
NO.	DATE
1	10/28/17 CITY OF APOPKA REVISIONS
2	10/24/17 SURVIVOR REVISIONS
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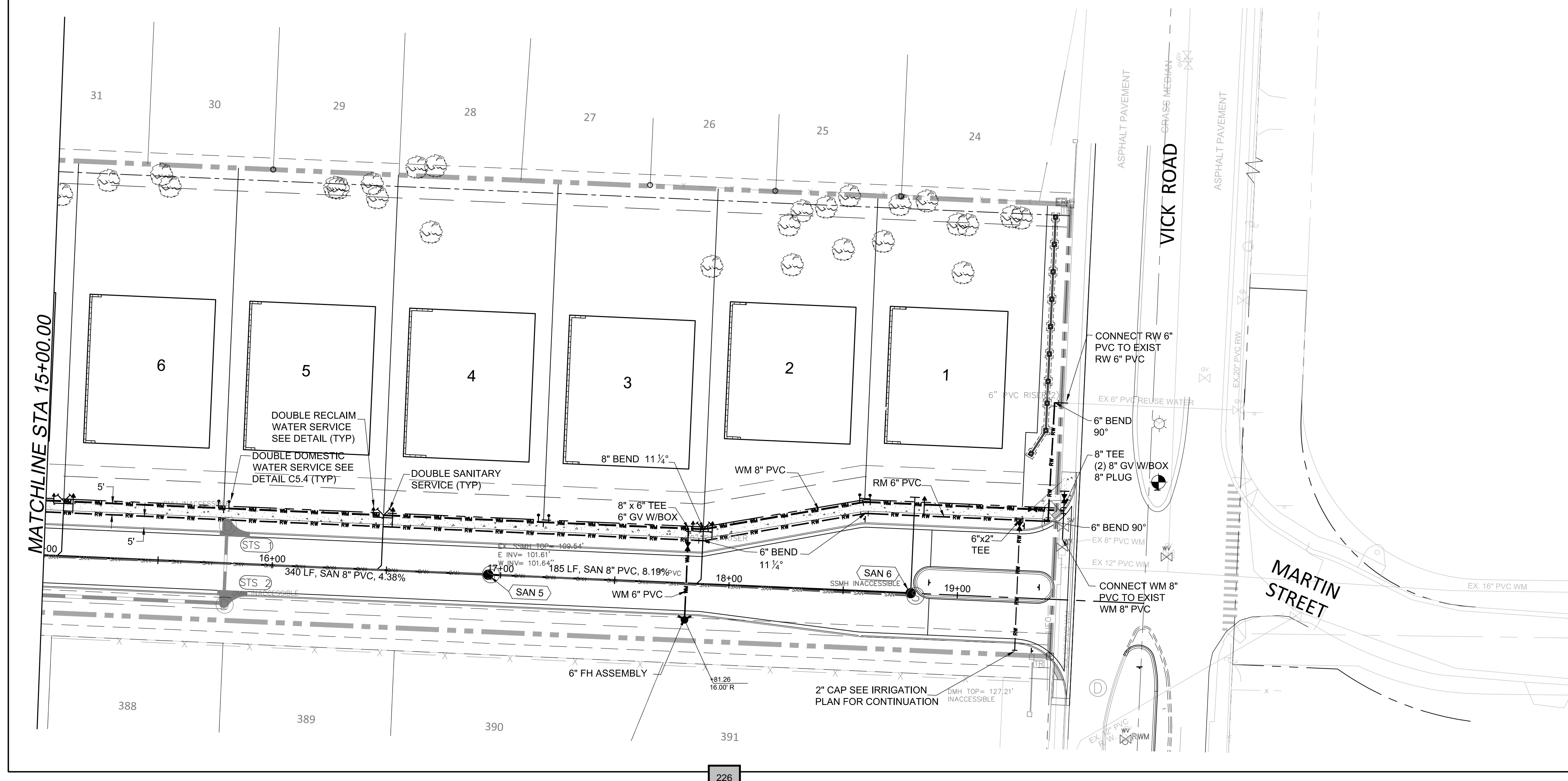
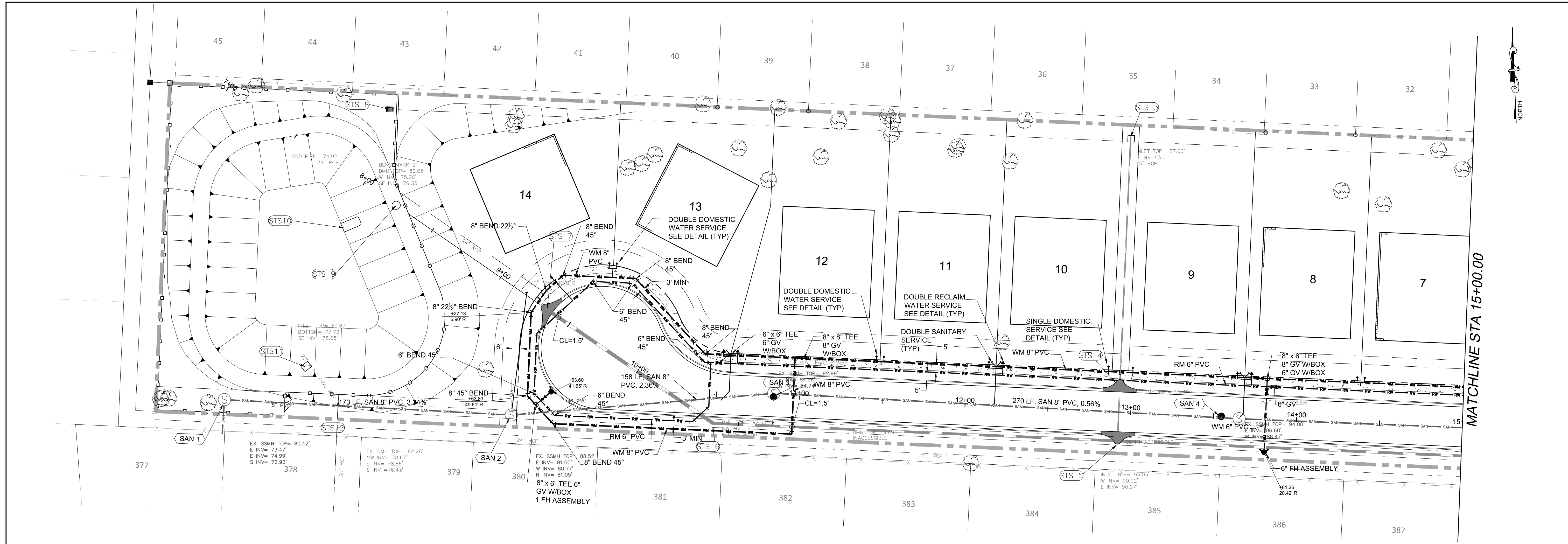
ZARABROOKE
AT
VICK & W. MARTIN STREET
APOPKA, FLORIDA
FOR
ZARABROOKE, LLC

DETENTION POND PLAN, SECTIONS & DETAILS

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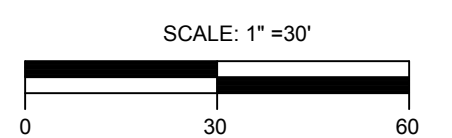
DRAWING NO. **C2.1**
SHEET **10** OF **22**





SANITARY SEWER SCHEDULE				
STRUCTURE NUMBER	STA/OFF	STRUCTURE TYPE	RIM EL.	INVERT ELEVATIONS
SAN 1	8+04.83 - 155.15RT	EXIST MH (DROP)	80.42	74.99 E 72.93 S
SAN 2	9+52.39 - 64.54RT	EXIST MH	88.52	81.05 N 81.00 E
SAN 3	10+84.58	EXIST MH	93.62	84.96 E 84.74 W
SAN 4	13+54.58	EXIST MH	94.55	86.60 E 86.47 W
SAN 5	16+94.58	EXIST MH	110.51	101.61 E 101.51 W
SAN 6	18+79.58	EXIST MH	124.30	- 116.77 W

- NOTE:**
- SANITARY SEWER SYSTEM:
 - OPTION "A" - CONTRACTOR SHALL REMOVE ALL EXISTING SANITARY SEWER PIPES AND MANHOLE, AND REPLACE WITH NEW MATERIALS. NEW SANITARY SEWER SYSTEM SHALL BE INSTALLED PER INFORMATION SHOWN ON THE SANITARY SEWER SCHEDULE.
 - OPTION "B" - EXISTING GRAVITY SEWER SYSTEMS SHALL BE CLEARED AND FLUSHED, AND SHALL BE TESTED FOR ALIGNMENT, DEFLECTION, AND INTEGRITY, IN ACCORDANCE TO SECTION 44 OF THE CITY OF APOPKA UTILITIES DESIGN AND CONSTRUCTION MANUAL. EXISTING CONDITION SURVEY SHALL BE PROVIDED TO THE ENGINEER OF RECORD, AND THE CITY OF APOPKA FOR REVIEW AND APPROVAL. ALL TESTING, PROCEDURES, AND VIDEO INSPECTIONS SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF CITY INSPECTION PERSONNEL AND CERTIFIED BY THE DEVELOPER'S ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY LABOR AND EQUIPMENT FOR ALL SUCH TESTING AND INSPECTIONS. SANITARY MANHOLES SHALL BE LINED PER CITY OF APOPKA REQUIREMENTS
 - POTABLE WATER / SANITARY SEWER / STORM SEWER SEPARATION:
 - IN ALL CASES WHERE SANITARY SEWER MAINS CROSS UNDER WATER MAINS WITH LESS THAN 18" OF VERTICAL CLEARANCE, AND IN ALL CASES WHERE SANITARY SEWER MAINS CROSS OVER WATER MAINS, THE SEWER MAIN SHALL BE DR-18 PVC PIPE FOR A DISTANCE OF 20 FEET, CENTERED ON THE POINT OF CROSSING. IN ALL CASES WHERE THE WATER MAIN OR SANITARY SEWER CROSSES UNDER OR OVER THE STORM SEWER MAIN WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE WATER MAIN SHALL BE DUCTILE IRON PIPE, THE SANITARY SEWER MAIN SHALL BE SDR-26 PVC PIPE FOR A DISTANCE OF 20 FEET, CENTERED ON THE POINT OF CROSSING.
 - A HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN ALL WATER, STORM, AND SANITARY SEWER MAINS. WHERE CONDITIONS DO NOT PERMIT THE 10 FOOT SEPARATION, THE SEWER MAIN MUST BE LAID IN A SEPARATE TRENCH OR THE SAME TRENCH DIVIDED BY A BENCH OF UNDISTURBED EARTH, AND THE SEWER MAIN MUST BE 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE SEPARATION BETWEEN WATER / STORM CAN NOT BE MAINTAINED, THE WATER MAIN MUST BE UPGRADED TO DUCTILE IRON PIPE OR ENCASED IN CONCRETE UNTIL THE SPECIFIED 10 FOOT SEPARATION IS REGAINED. IN ANY CASE WHERE SEPARATE TRENCHES CAN NOT BE DUG, THE SANITARY LINE MUST BE UPGRADED TO DR-18 PVC PIPE.



JOB #: 1701220
 PRL MGR: EGL
 DESIGNER: EGL
 CHECKED: JM

ENGINEER
 EDGAR GAGLIARDI, P.E.
 FL LIC #78902

DATE: JUN 29, 2018

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ENGINEER
 FL LIC #

ZARABROOKE
 at
 VICK & W. MARTIN STREET
 APOPKA, FLORIDA
 FOR
 ZARABROOKE, LLC

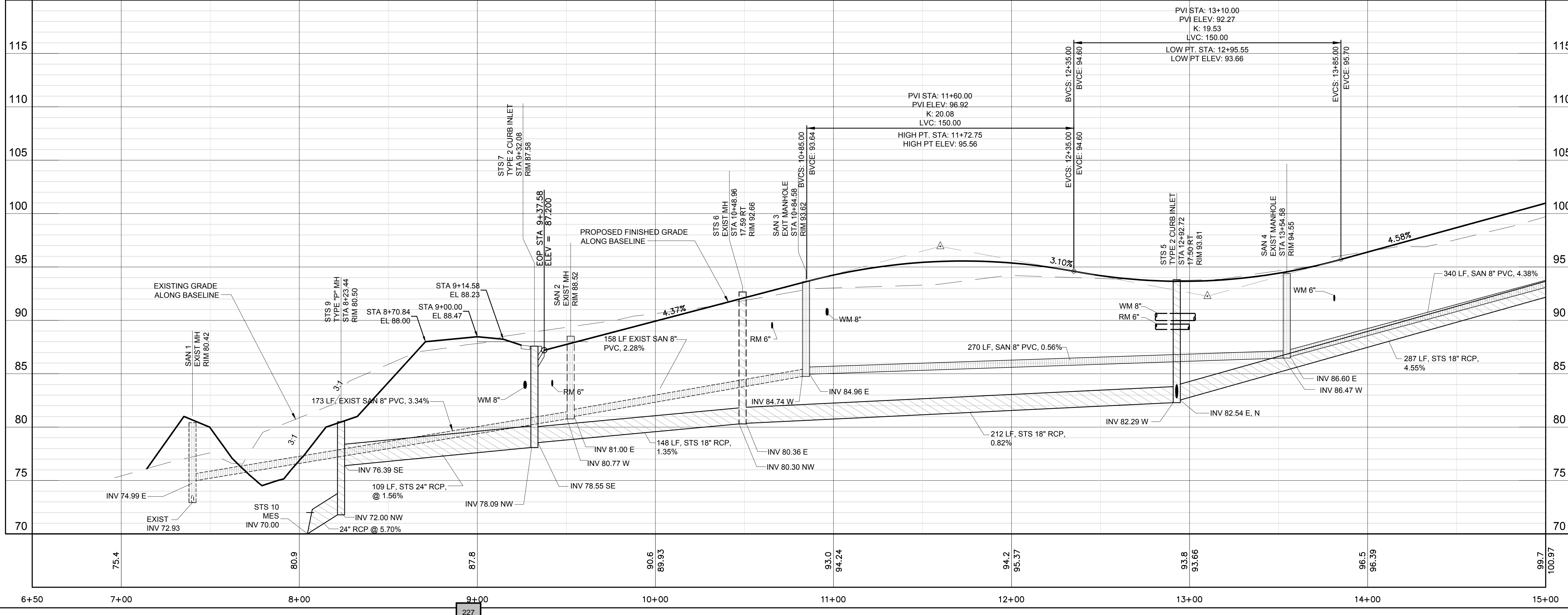
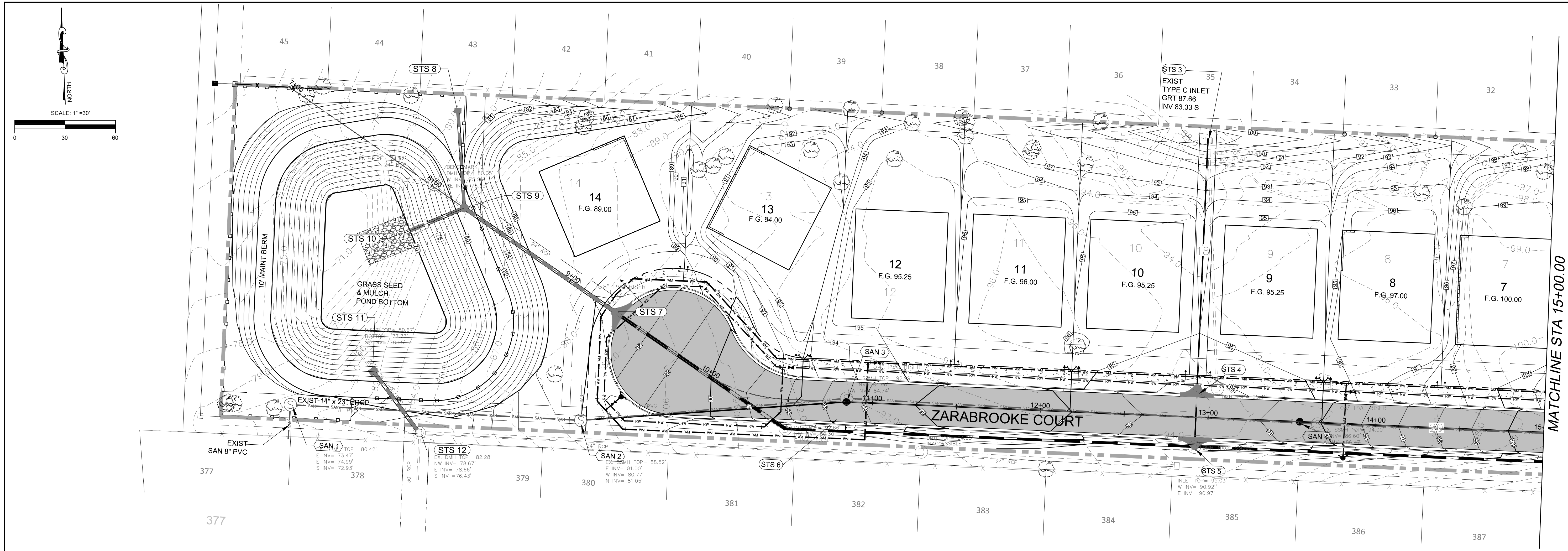
REVISIONS
 NO. DATE REVISIONS

UTILITY PLAN

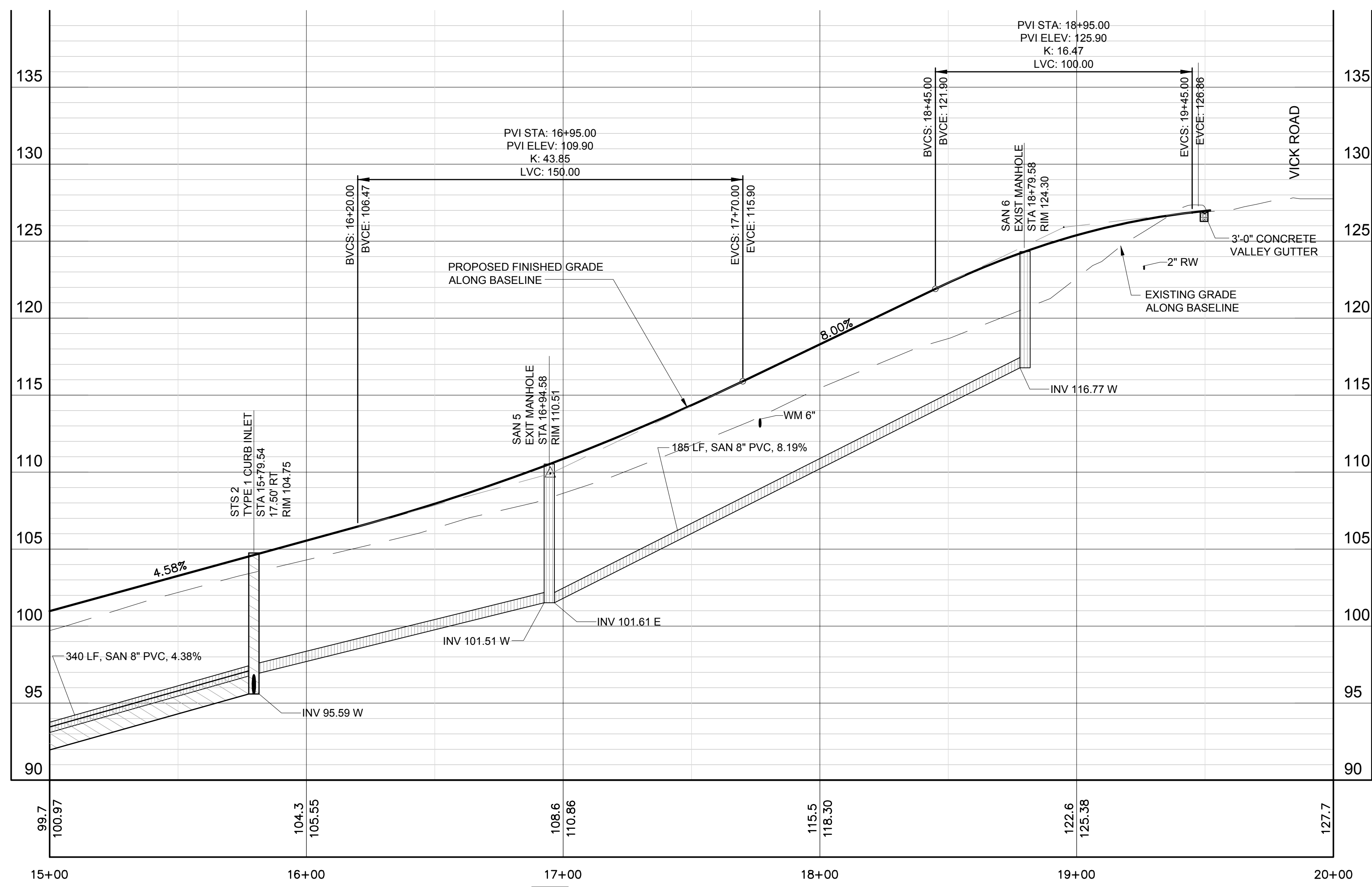
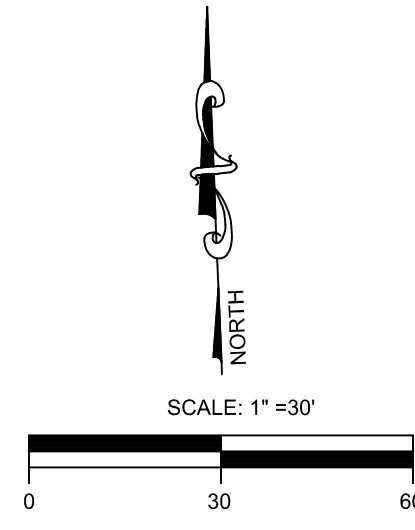
DRAWING NO. C3.0
 SHEET 11 OF 22

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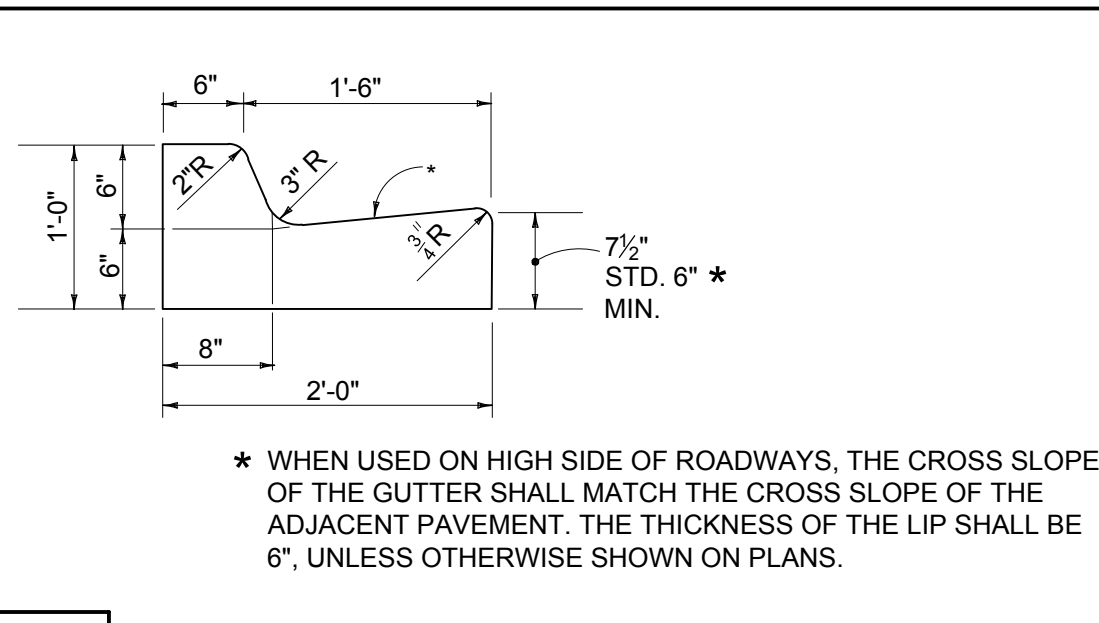
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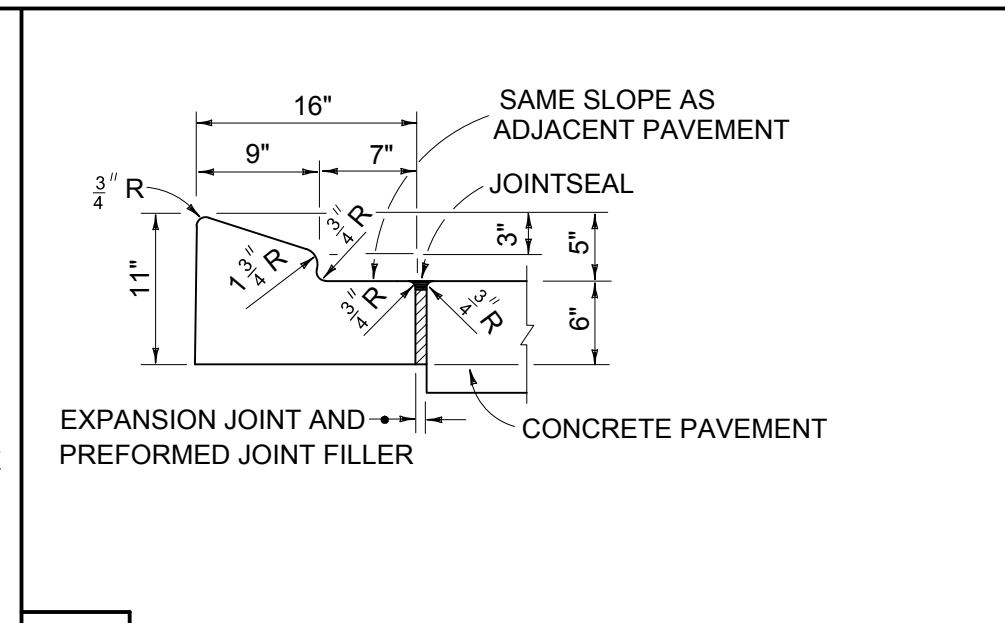
<p>ENGINEER EDGAR W. MARTIN, P.E. FL LIC # 78932</p>	<p>RECORD DRAWING THIS DRAWING IS THE PROPERTY OF LOCHRANE CONSULTING ENGINEERS AND SURVEYORS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LOCHRANE CONSULTING ENGINEERS AND SURVEYORS. THE ENGINEER ASSUMES NO LIABILITY FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING OR FOR ANY DAMAGE TO PERSONS OR PROPERTY ARISING FROM THE USE OF THIS DRAWING.</p>	<p>ZARABROOKE at VICK & W. MARTIN STREET APOPKA, FLORIDA</p>	<p>PLAN & PROFILE</p>	<p>LOCHRANE Consulting Engineers • Surveyors An ENVIS Company</p>	<p>201 SOUTH BUNNY AVENUE ORLANDO, FL 32803 PH: (407) 886-3317 FAX: (407) 886-9167 WWW.LOCHRANE.COM CERTIFICATE OF AUTHORIZATION # 0002856</p>	<p>ENGINEER FL LIC #</p> <p>DATE: Jan. 04, 2018</p>	<p>NO. DATE REVISIONS</p>	<p>JOB #: 1701220</p> <p>PRJ. MGR: EGL</p> <p>DESIGNER: EGL</p> <p>CHECKED: JM</p>
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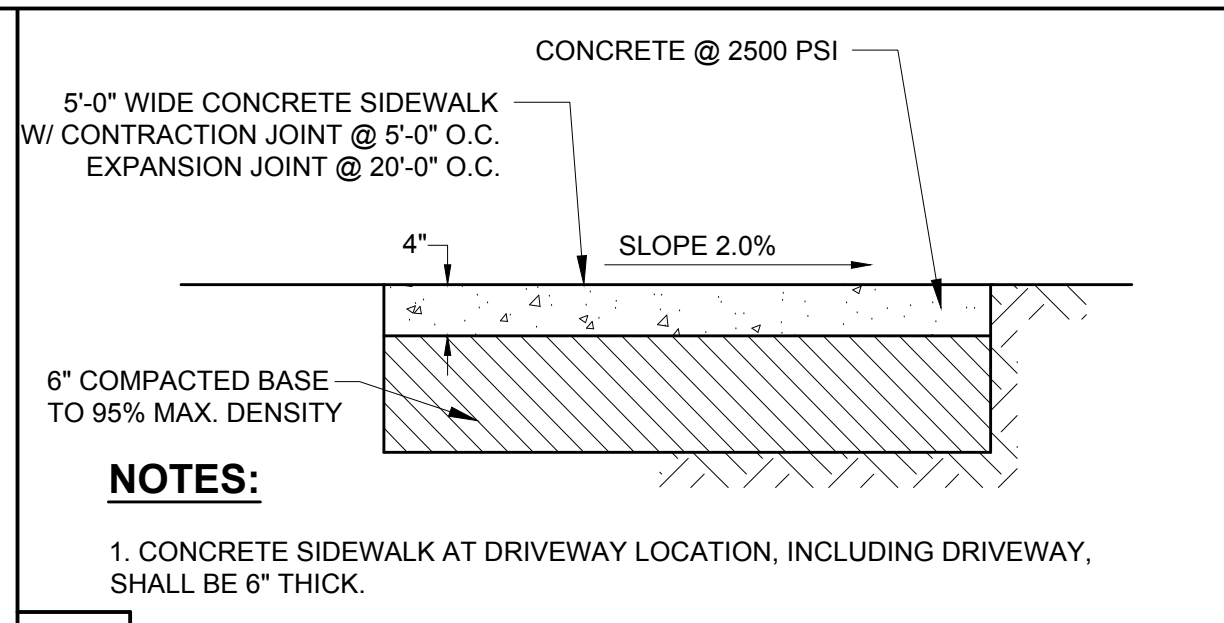
LOCHRANE Consulting Engineers • Surveyors An NV5 Company	201 SOUTH BUNNY AVENUE ORLANDO, FL 32803 PH: (407) 886.3317 FAX: (407) 886.9167 WWW.LOCHRANE.COM CERTIFICATE OF AUTHORIZATION # 0002856	PLAN & PROFILE	ZARABROOKE at VICK & W. MARTIN STREET APOPKA, FLORIDA for ZARABROOKE, LLC	RECORD DRAWING <small>THIS DRAWING IS THE PROPERTY OF LOCHRANE CONSULTING ENGINEERS AND SURVEYORS. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED HEREON. NO PART OF THIS DRAWING IS TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF LOCHRANE CONSULTING ENGINEERS AND SURVEYORS. THE RECORD DRAWING IS SUBJECT TO THE FULL SCOPE OF OUR PROFESSIONAL LIABILITY POLICY.</small> ENGINEER: EDGAR GARCIA, P.E. F.L.C. # 76802 DATE: Jan. 04, 2018
DRAWING NO. C4.2	SHEET 13 of 22	JOB # 1701220	PREL. MGR.: EGL DESIGNER: EGL CHECKED: JM	



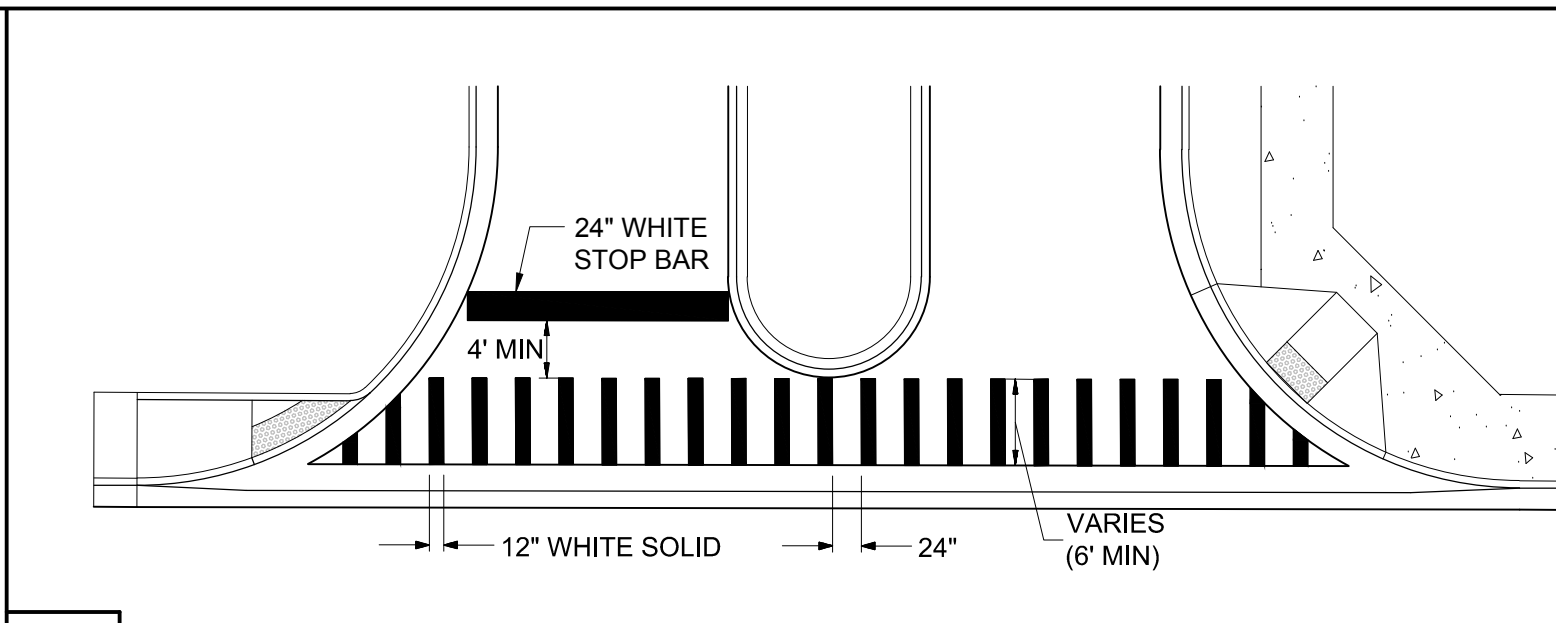
1 TYPE 'F' CURB AND GUTTER NTS



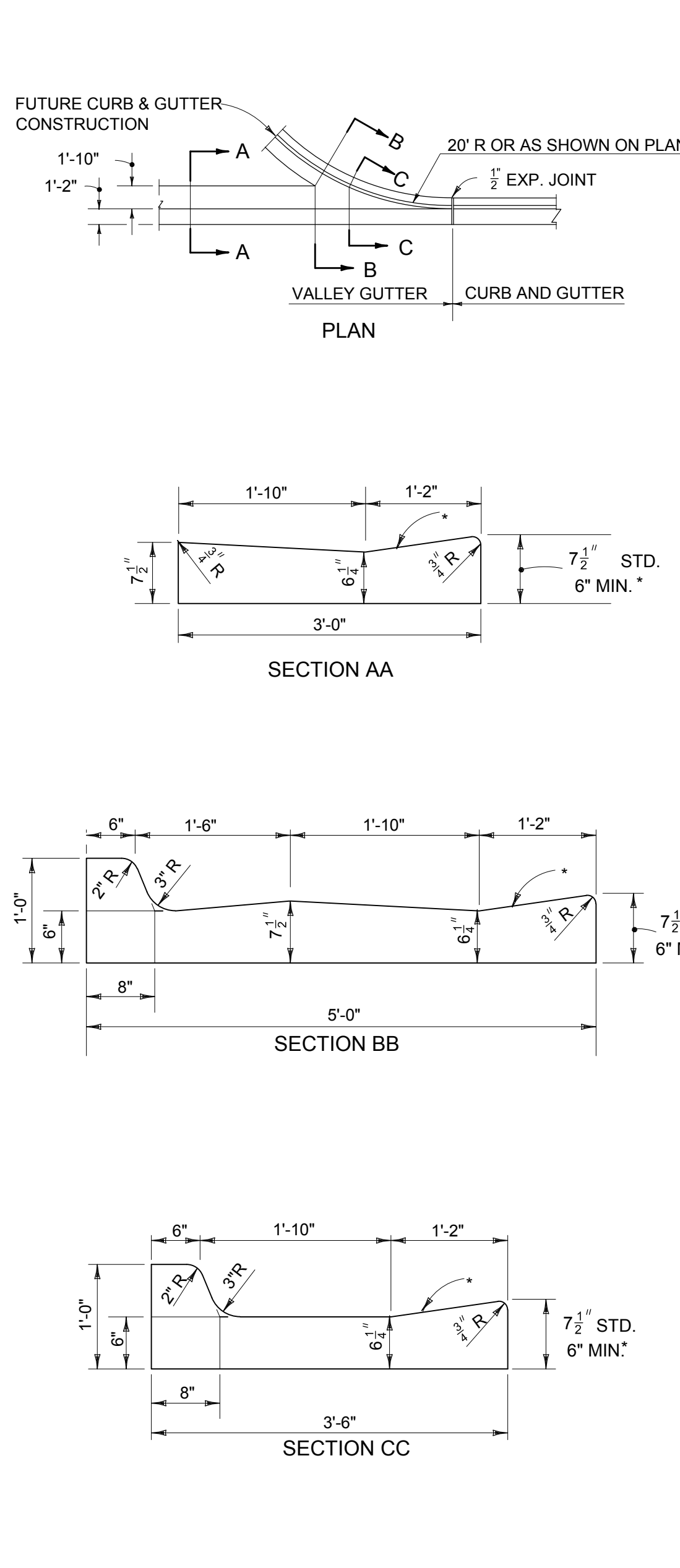
2 TYPE 'A' CURB AND GUTTER NTS



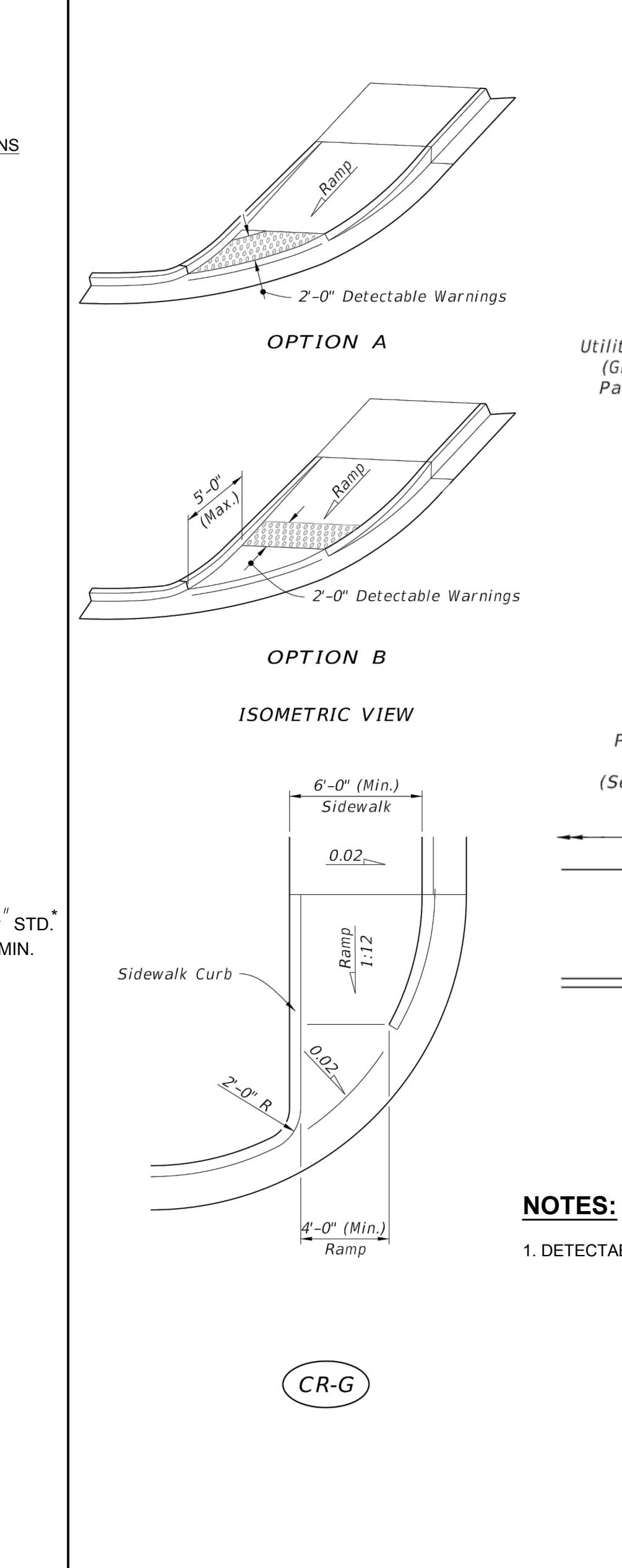
3 CONCRETE SIDEWALK NTS



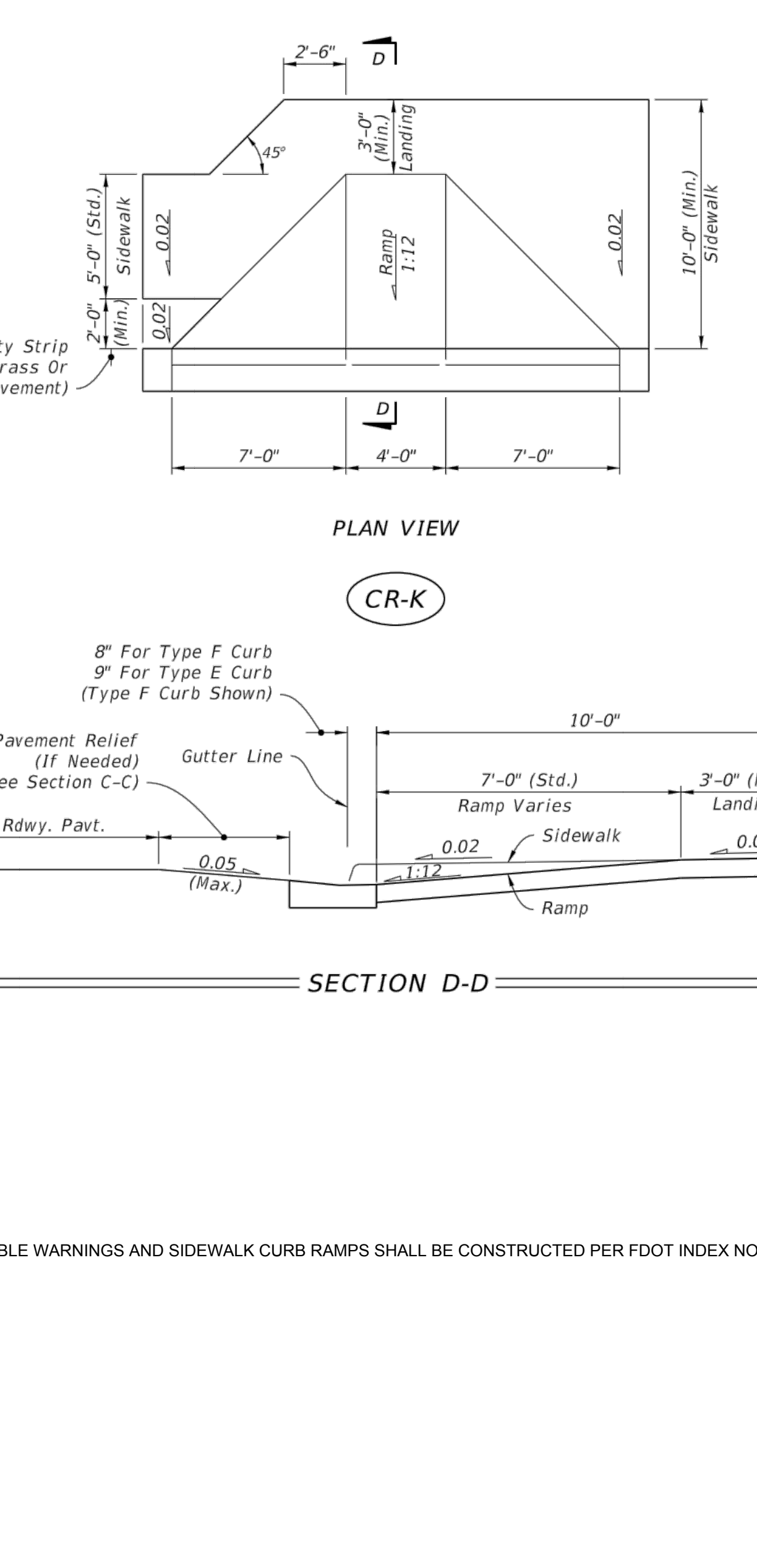
4 STOP BAR & CROSSWALK MARKING NTS



5 VALLEY GUTTER NTS



6 CURB RAMP 'G' & 'K' NTS



7 ZARABROOKE COURT TYPICAL SECTION 'F-F' NTS

JOB #	1701220
ENGINEER	EDGAR GARCIA, P.E.
FL LIC #	17692
PRJ. MGR. ECL	
DESIGNER ECL	
CHECKED	JM
DATE	Jan. 04, 2018

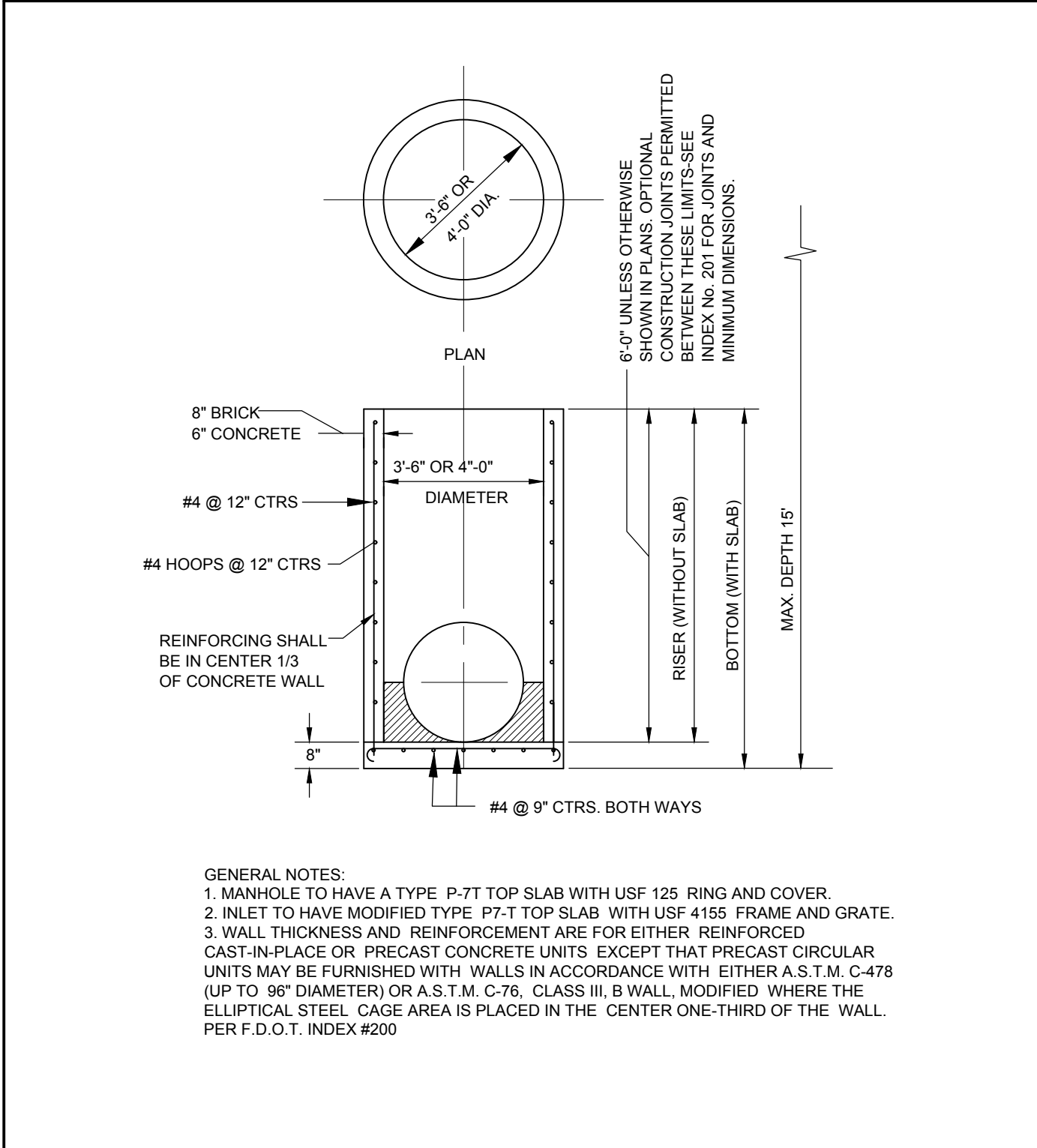
NO.	DATE	REVISIONS
1	10/28/17	CITY OF APOPKA REVISIONS
2	10/24/17	SURVIMID REVISIONS

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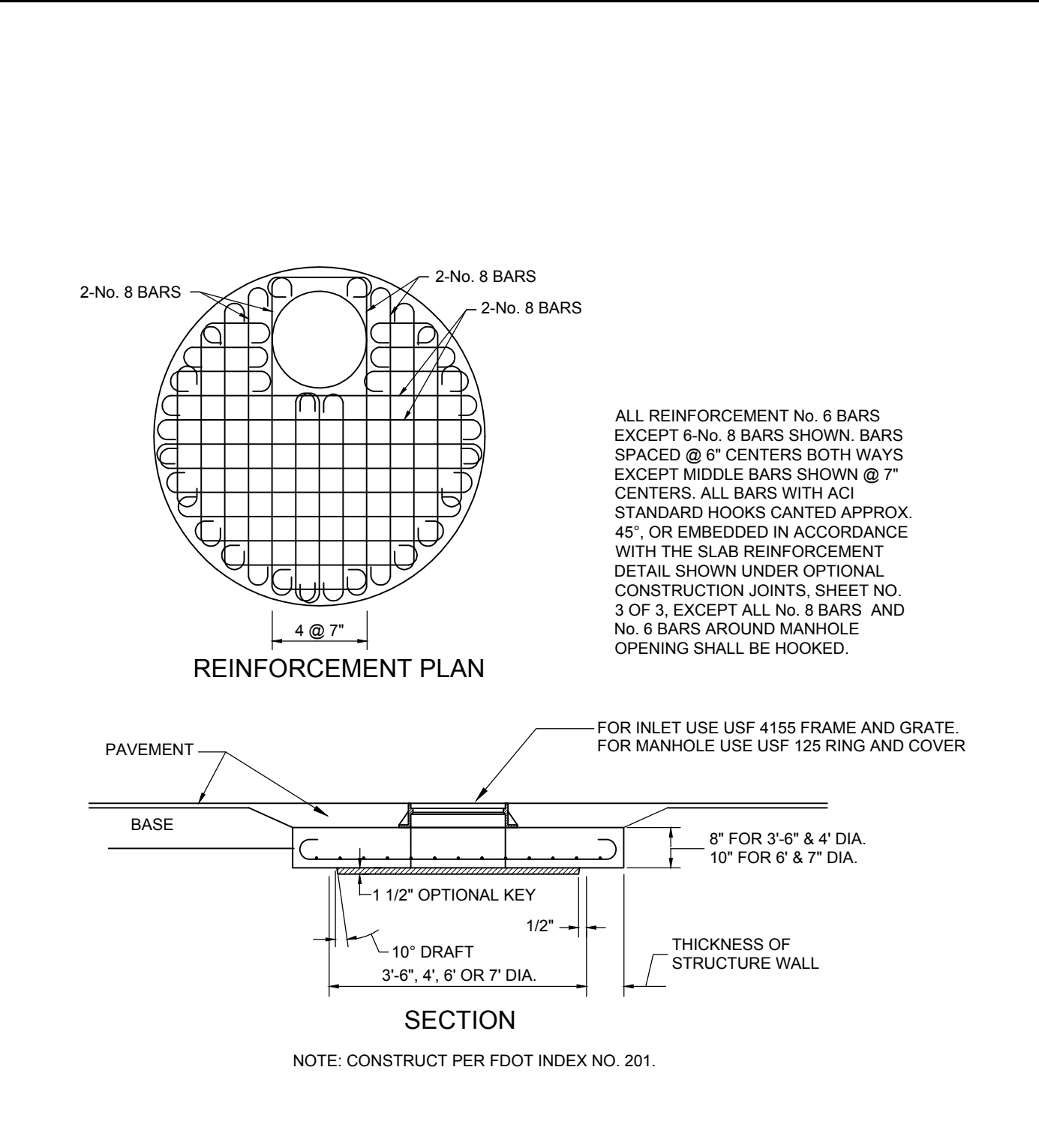
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 AT
VICK & W. MARTIN STREET
 APOPKA, FLORIDA
 FOR
ZARABROOKE, LLC

PAVEMENT DETAILS

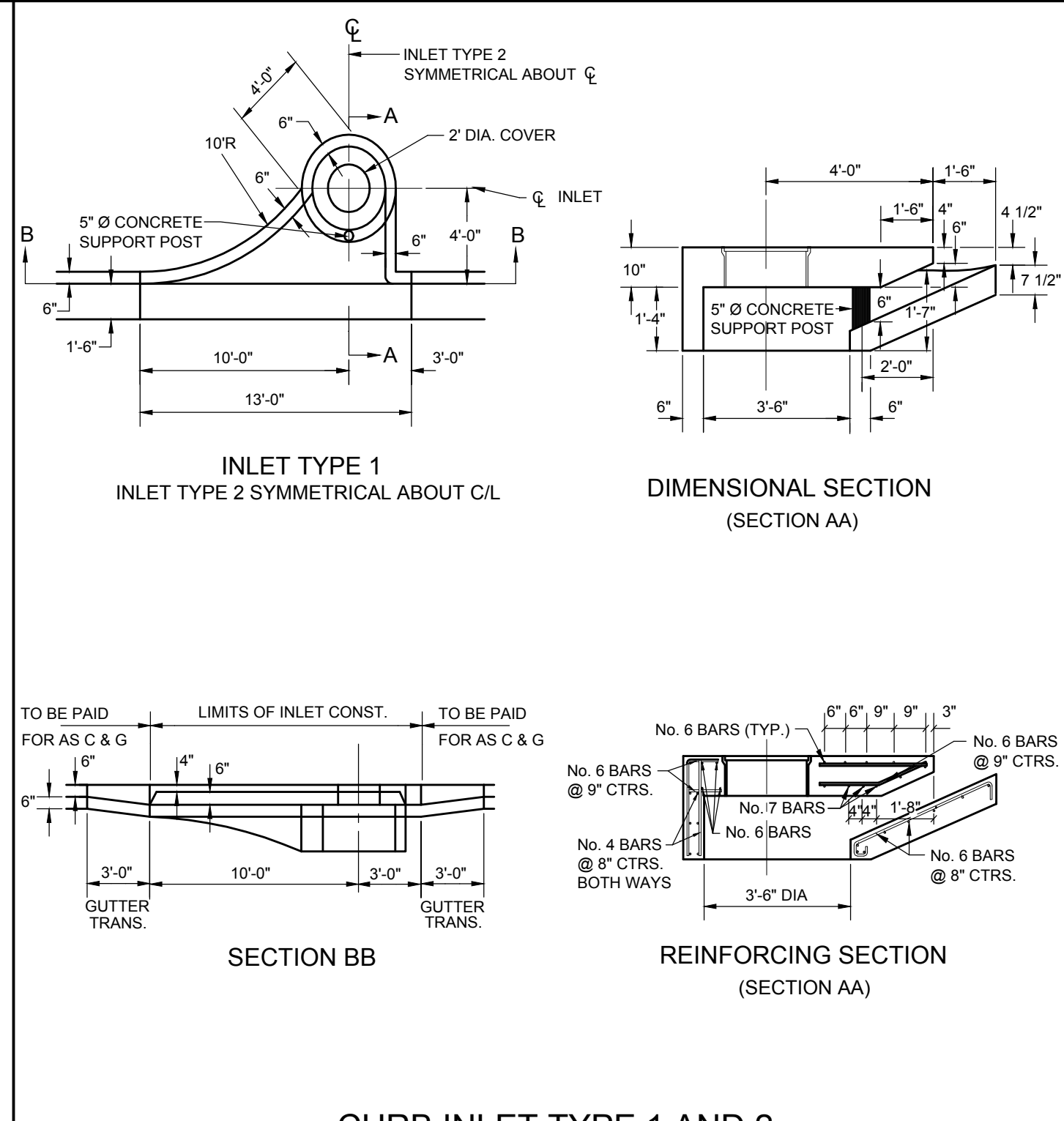
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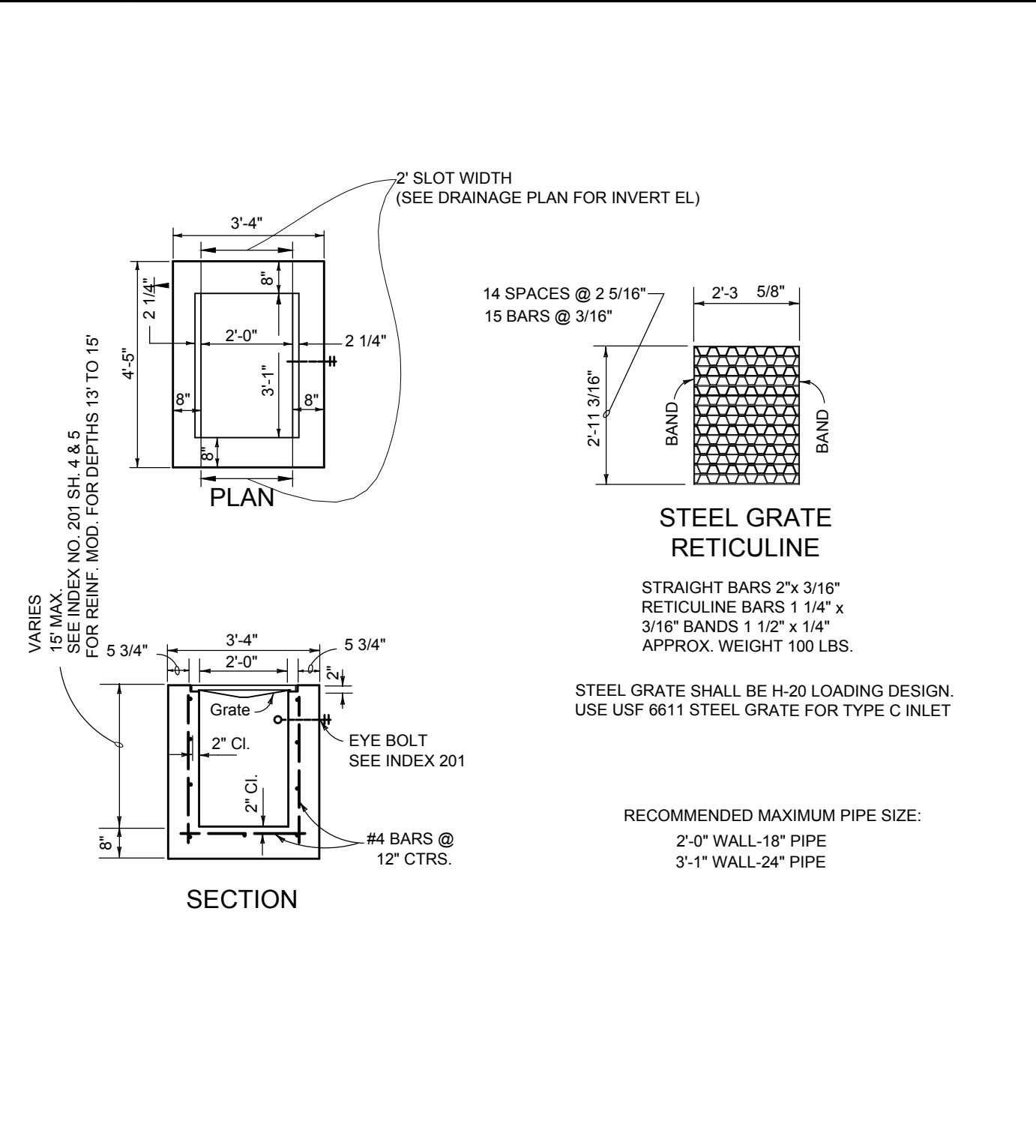
6 TYPE "P" STRUCTURE BOTTOM NTS



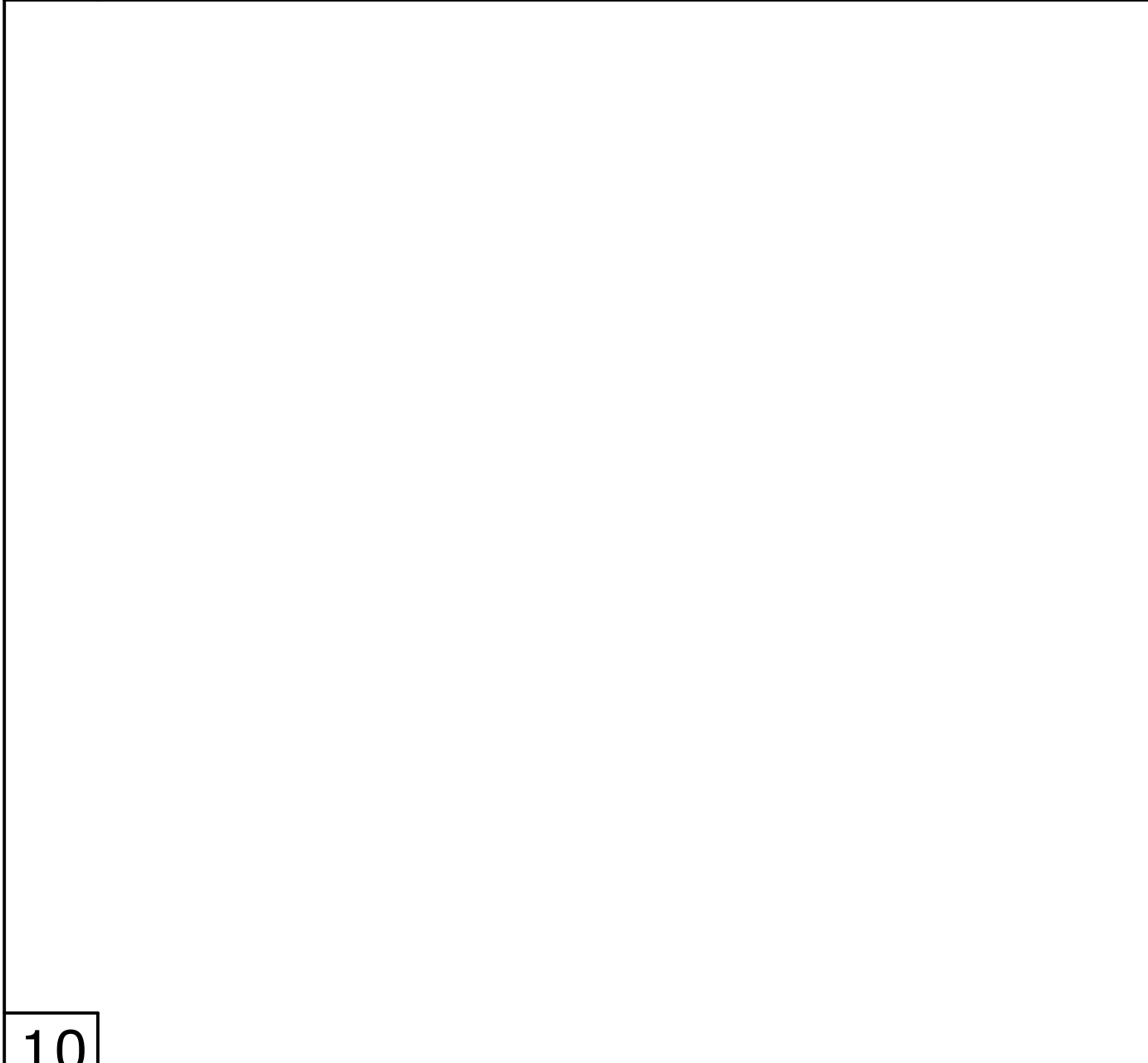
1 TYPE 7 STRUCTURE TOP NTS



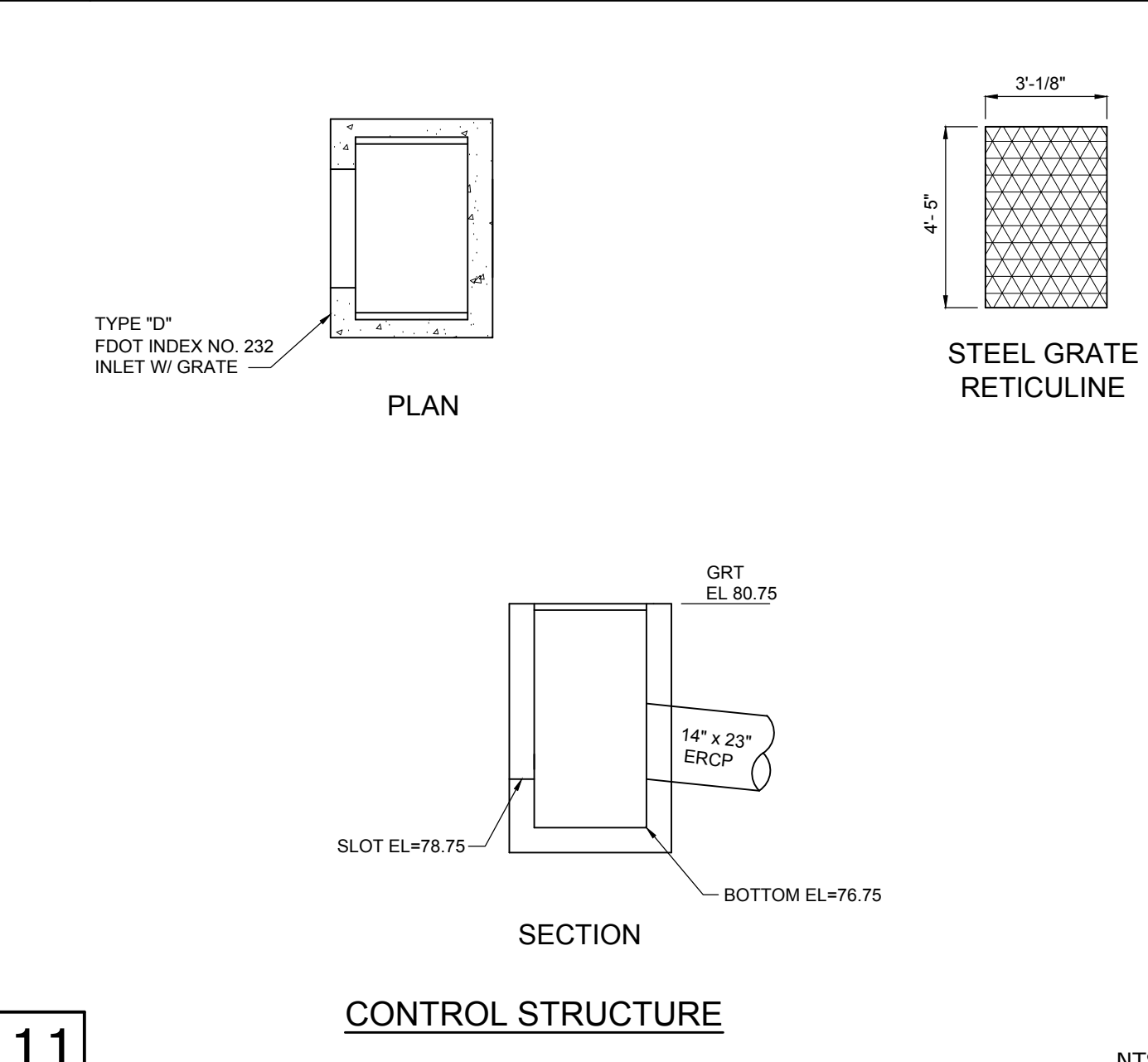
7 CURB INLET TYPE 1 AND 2 (FDOT INDEX 210) NTS



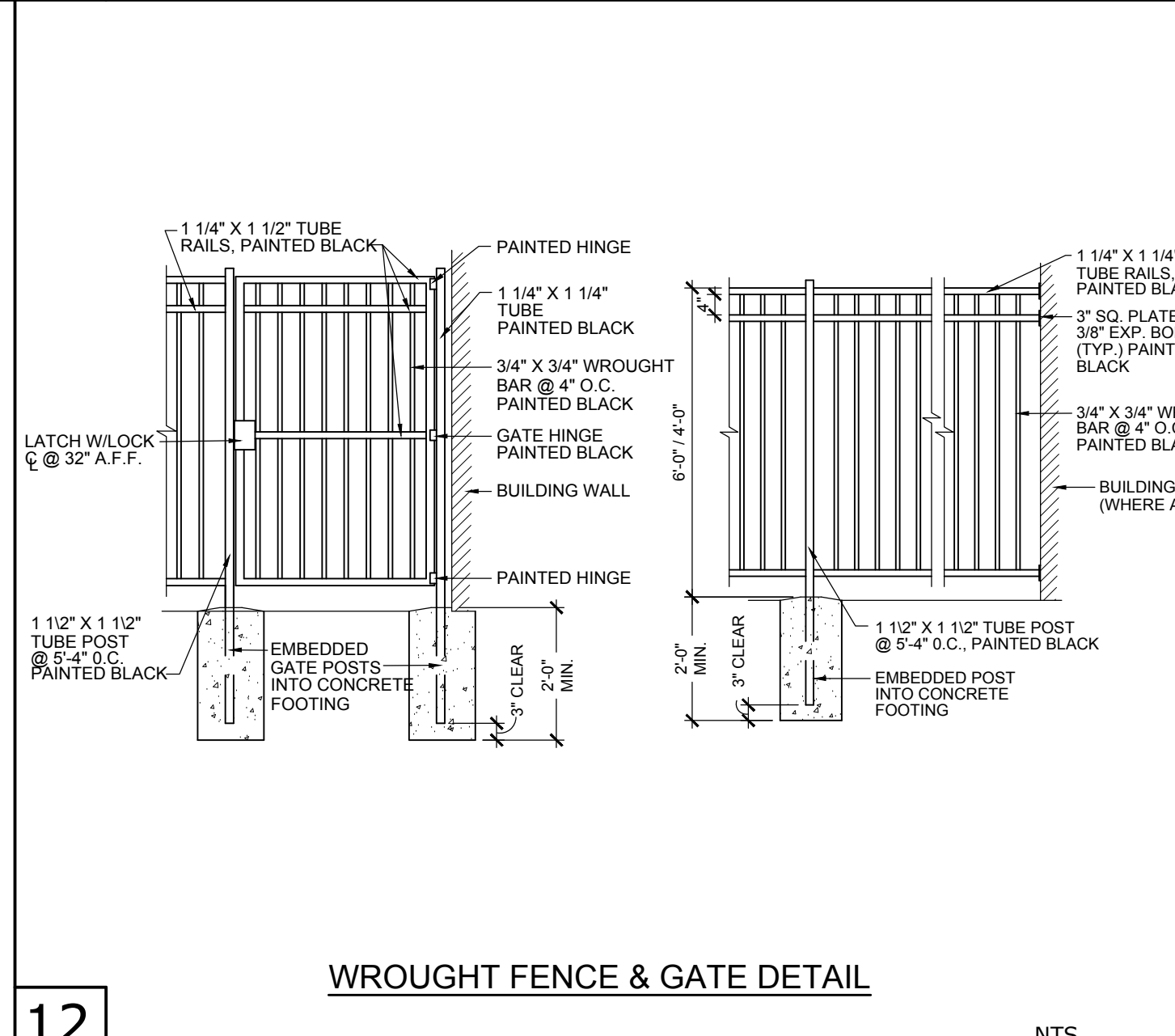
8 FDOT TYPE 'C' INLET NTS



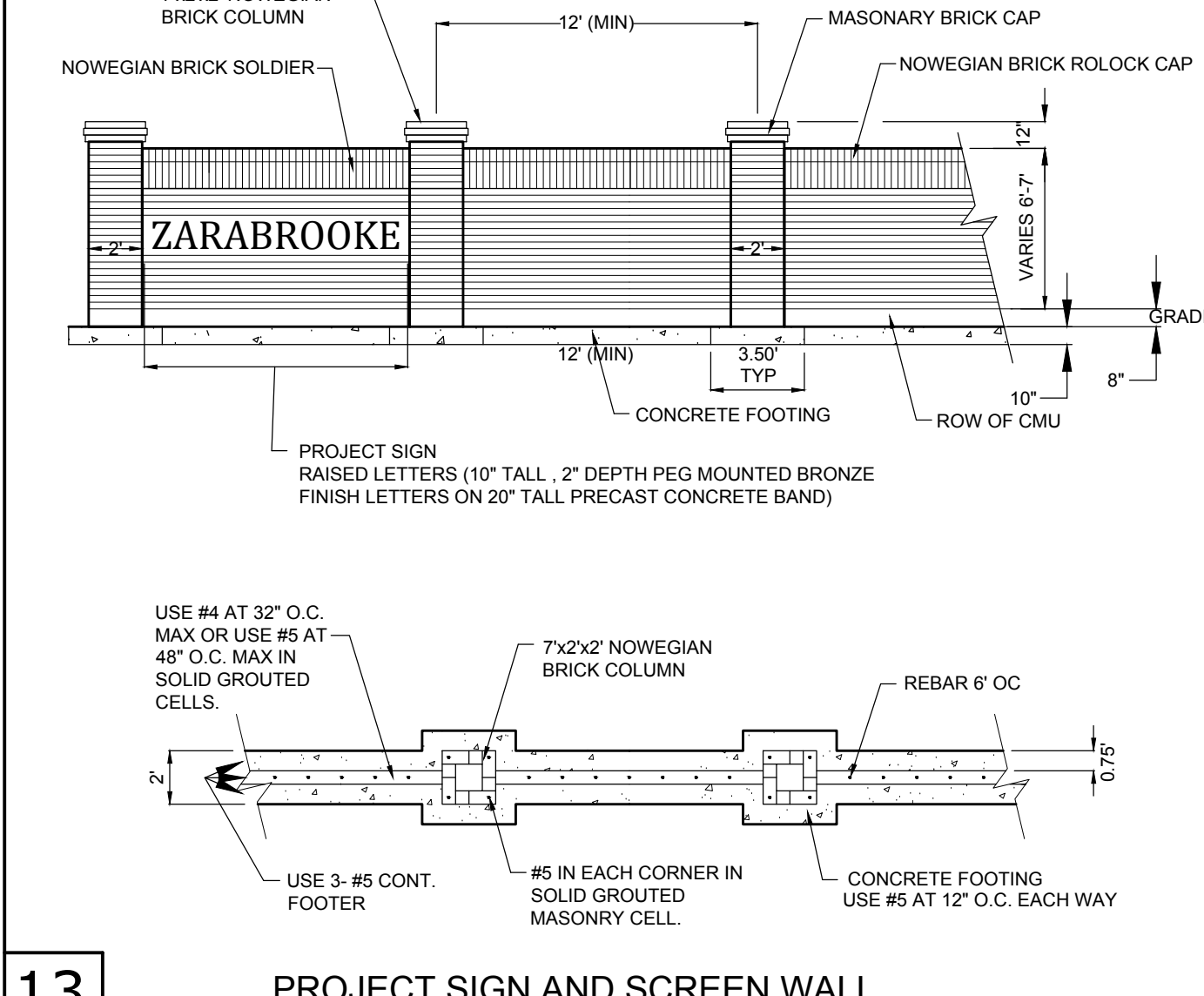
10 CONTROL STRUCTURE NTS



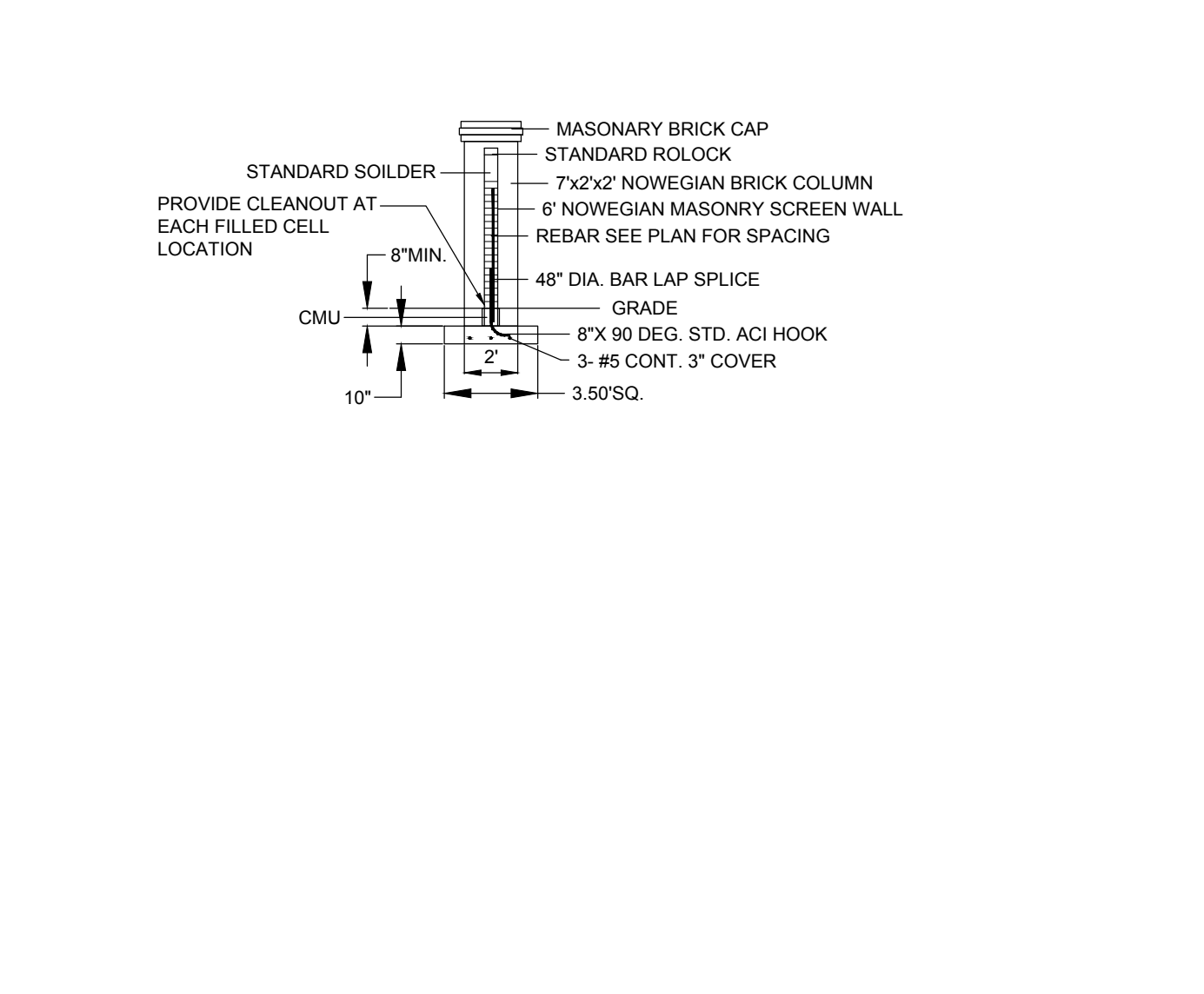
11 WROUGHT FENCE & GATE DETAIL NTS



12 PROJECT SIGN AND SCREEN WALL NTS



13 PROJECT SIGN AND SCREEN WALL NTS



13 PROJECT SIGN AND SCREEN WALL NTS

SCREEN WALL NOTES

1. WALL DESIGN IS BASED ON MINIMUM 110 MPH WIND LOAD IN ACCORDANCE WITH THE 2001 FLORIDA BUILDING CODE.
2. WALL AND FOUNDATION DESIGN IS BASED ON A GRANULAR COHESIONLESS SOIL WITH THE FOLLOWING PROPERTIES:
TOTAL UNIT WEIGHT COMPACTED.....100 PCF
ALLOWABLE BEARING PRESSURE.....2000 PSF
PASSIVE LATERAL COEFFICIENT.....3.00
ACTIVE LATERAL COEFFICIENT.....0.33
MAXIMUM % PASSING #200 SIEVE.....12
3. PROVIDE WALL JOINT AT 20' O.C. MINIMUM. DISCONTINUE HORIZONTAL REINFORCEMENT AND PROVIDE 1-#5 IN SOLID GROUTED CELL ON EACH SIDE OF JOINT.
4. CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 301301-89
5. *SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS*
6. CONCRETE MASONRY WORK SHALL BE IN ACCORDANCE WITH ACI 530.1-92
7. *SPECIFICATIONS FOR CONCRETE MASONRY STRUCTURES*
8. CONCRETE MASONRY UNITS SHALL BE IN ACCORDANCE WITH ASTM C90, GRADE N, TYPE II AND SHALL BE OF A TYPE SUCH THAT THE CORES LINE UP VERTICALLY.
9. HOLLOW MASONRY CLAY UNITS SHALL BE IN ACCORDANCE WITH ASTM C652 AND SHALL HAVE A NET COMPRESSIVE STRENGTH OF 5000 PSI.
10. MASONRY MORTAR SHALL BE IN ACCORDANCE WITH ASTM C270, TYPE S OR M.
11. GROUT FOR MASONRY WORK SHALL BE IN ACCORDANCE WITH ASTM C476, COARSE TYPE, AND SHALL ATTAIN A COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
12. PROVIDE 9 GAUGE LADDER TYPE JOINT REINFORCING AT 16\"/>

JOB #:	1701220	
PREP. MGR.:	EGL	
DESIGNER:	EGL	
CHECKED:	JM	
ENGINEER:	EDGAGARONA, P.E. FL LIC. #78932	
DATE:	Jan. 29, 2018	
NO.	DATE	REVISIONS
1	01/08/17	CITY OF APOPKA REVISIONS
2	10/28/17	CITY OF APOPKA REVISIONS
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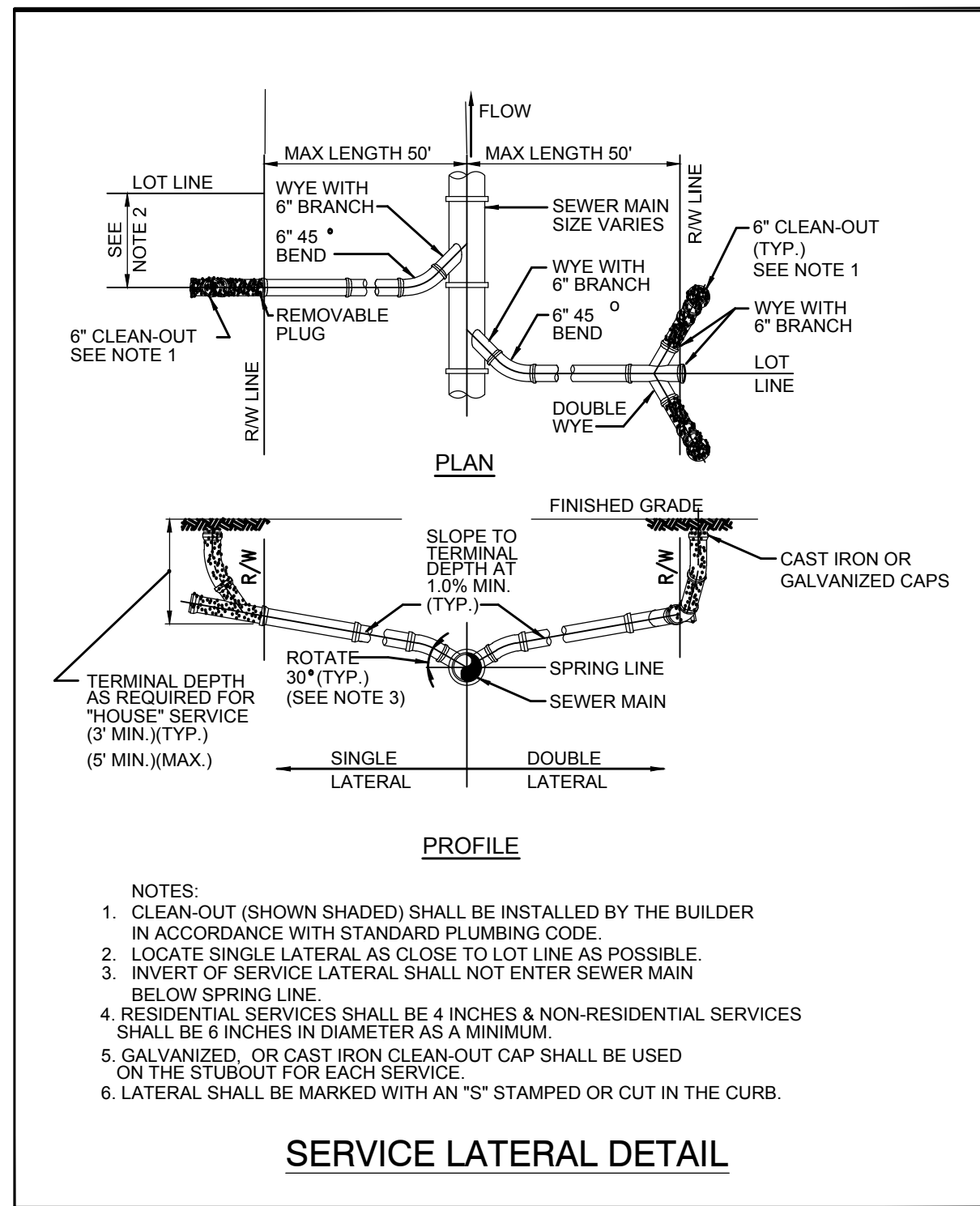
ZARABROOKE
at
VICK & W. MARTIN STREET
APOPKA, FLORIDA
FOR
ZARABROOKE, LLC

SITE DETAILS

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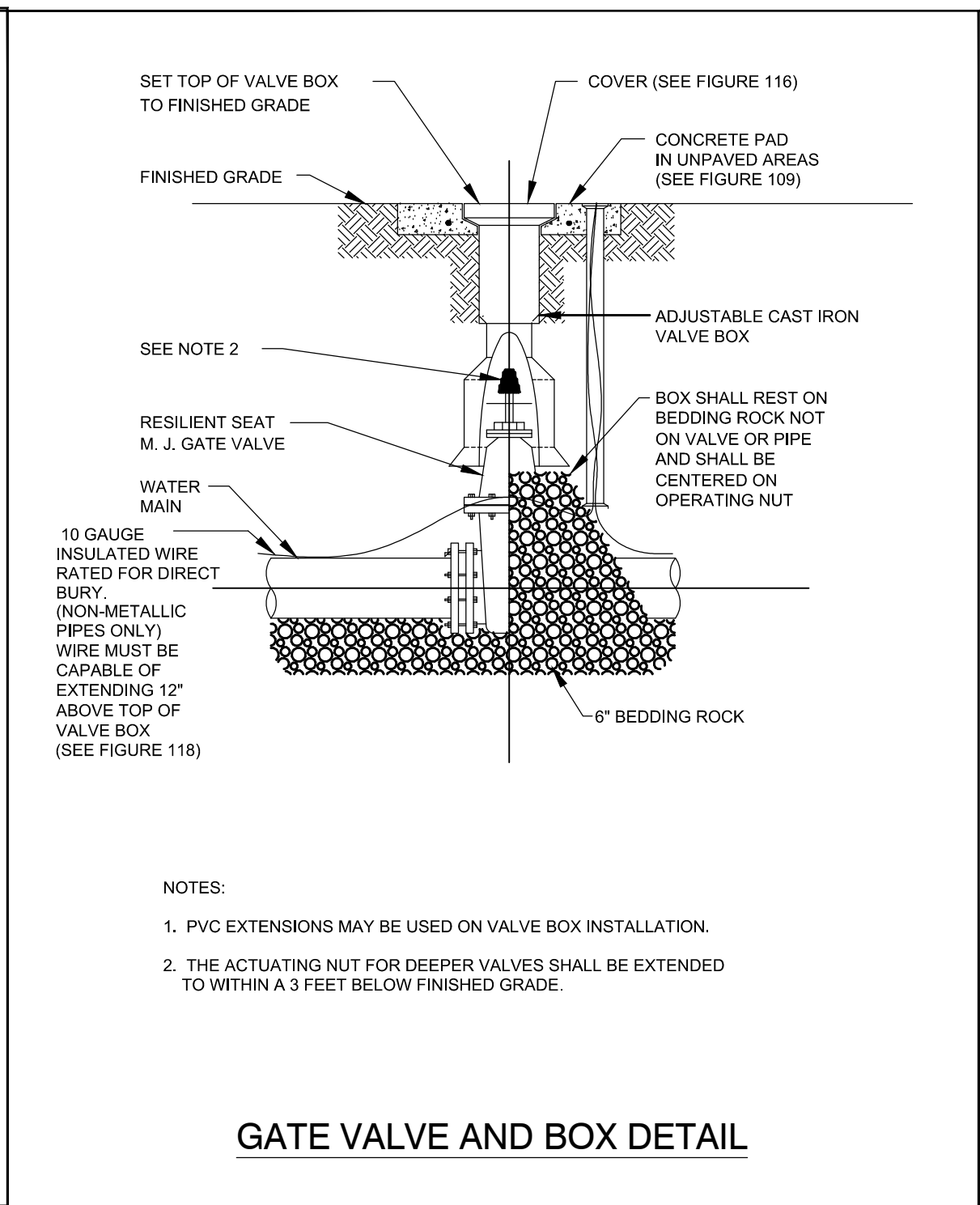
DRAWING NO. **C5.2** SHEET **15** OF **22**



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

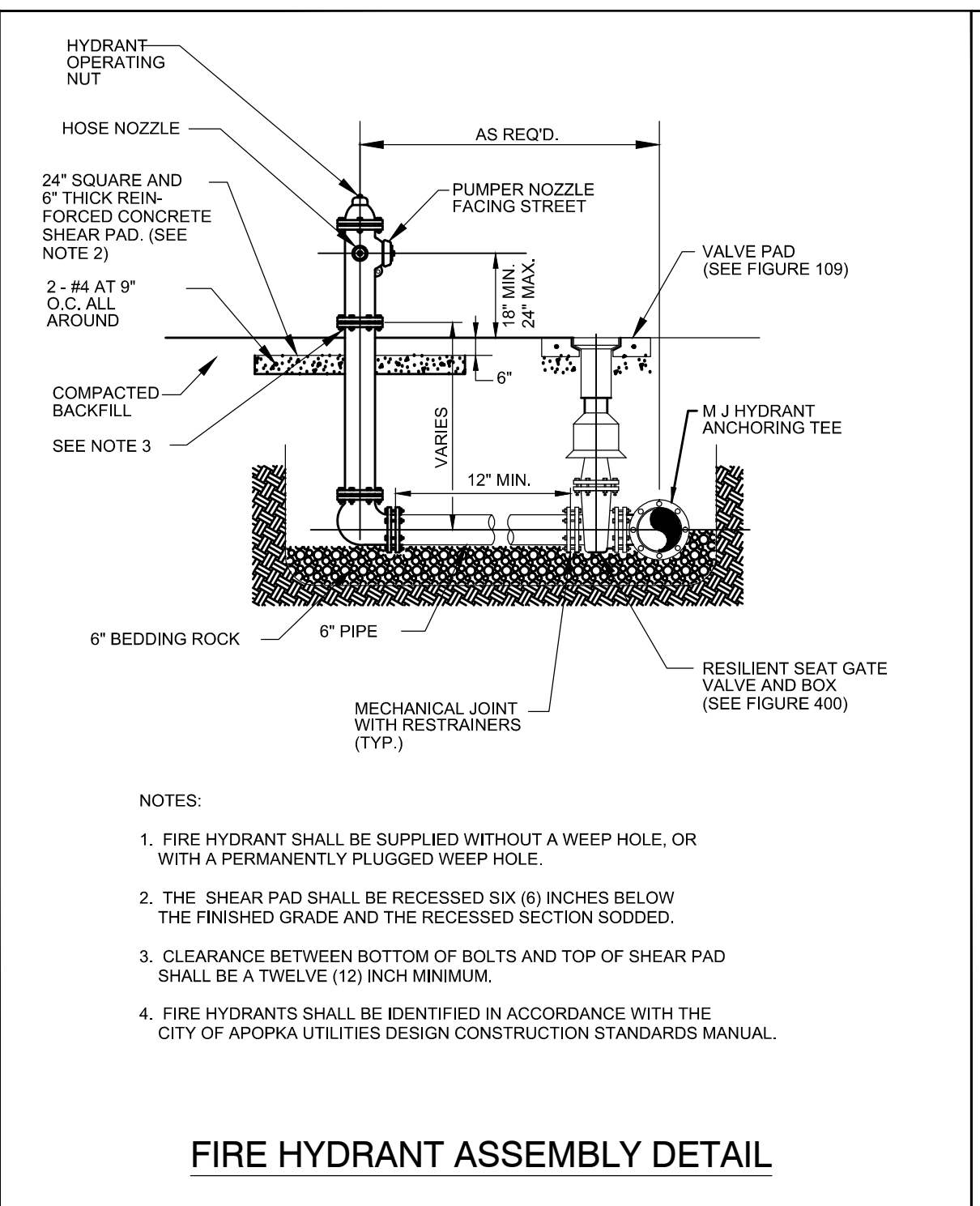
FIG. 204



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

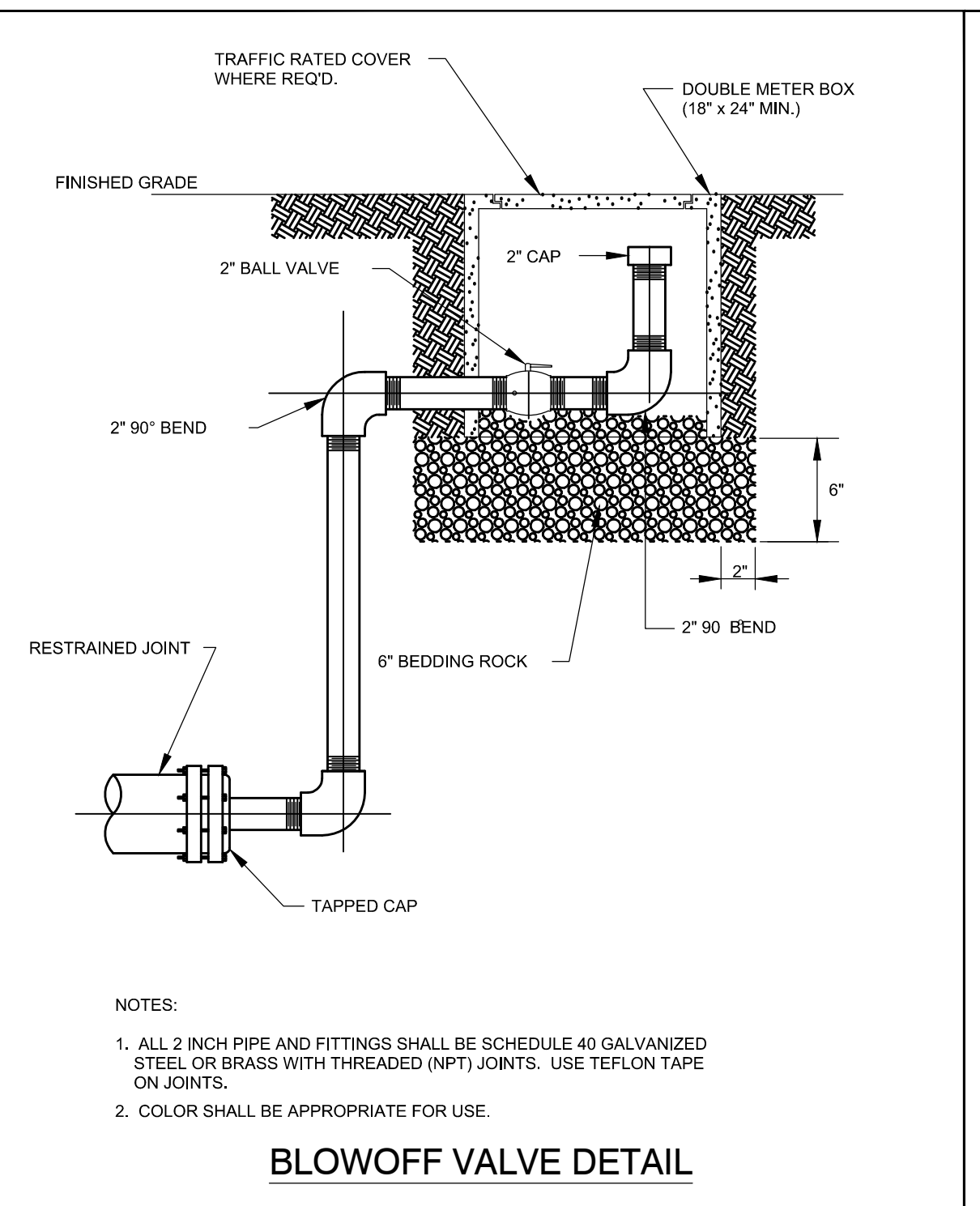
FIG. 400



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

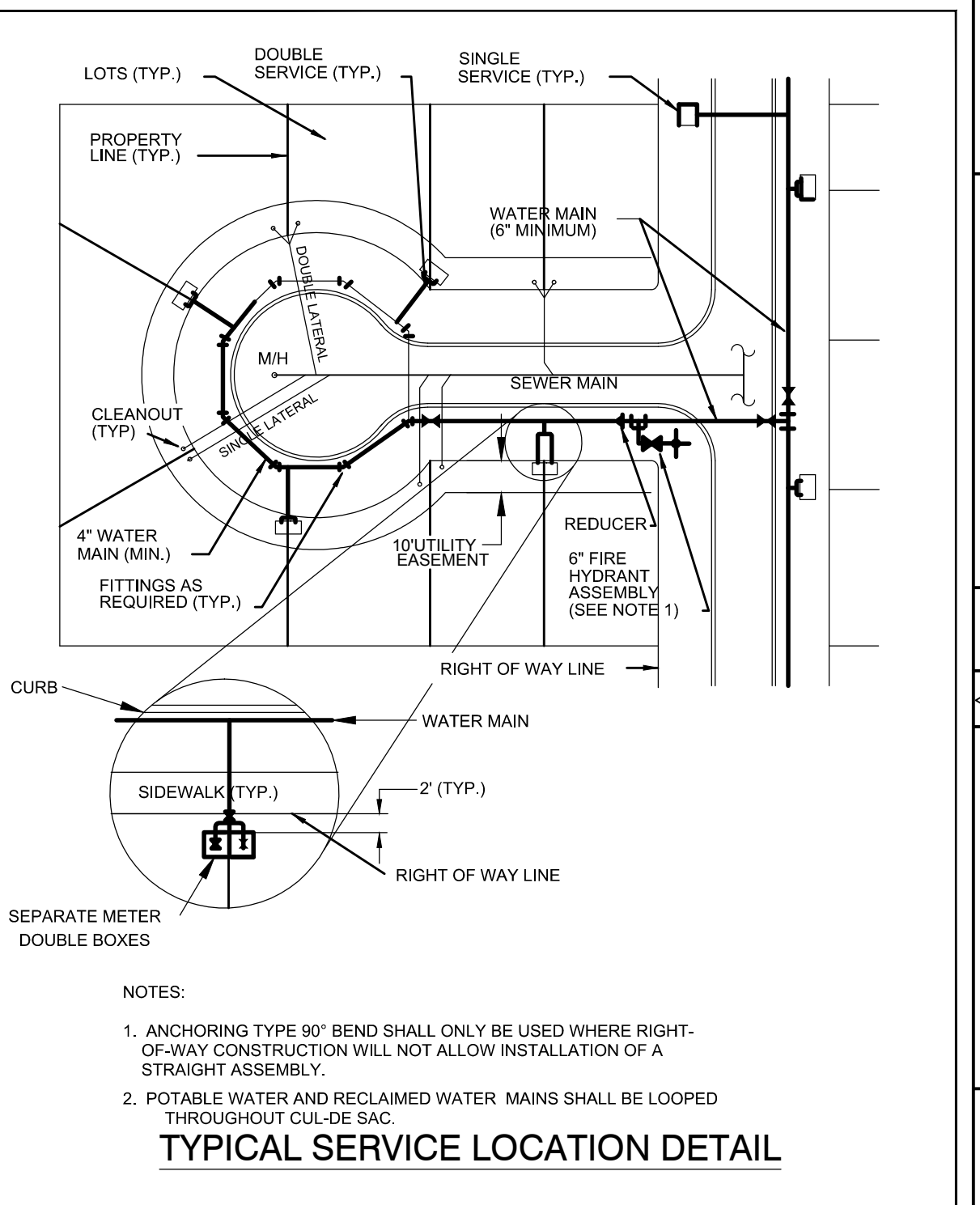
FIG. 402



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

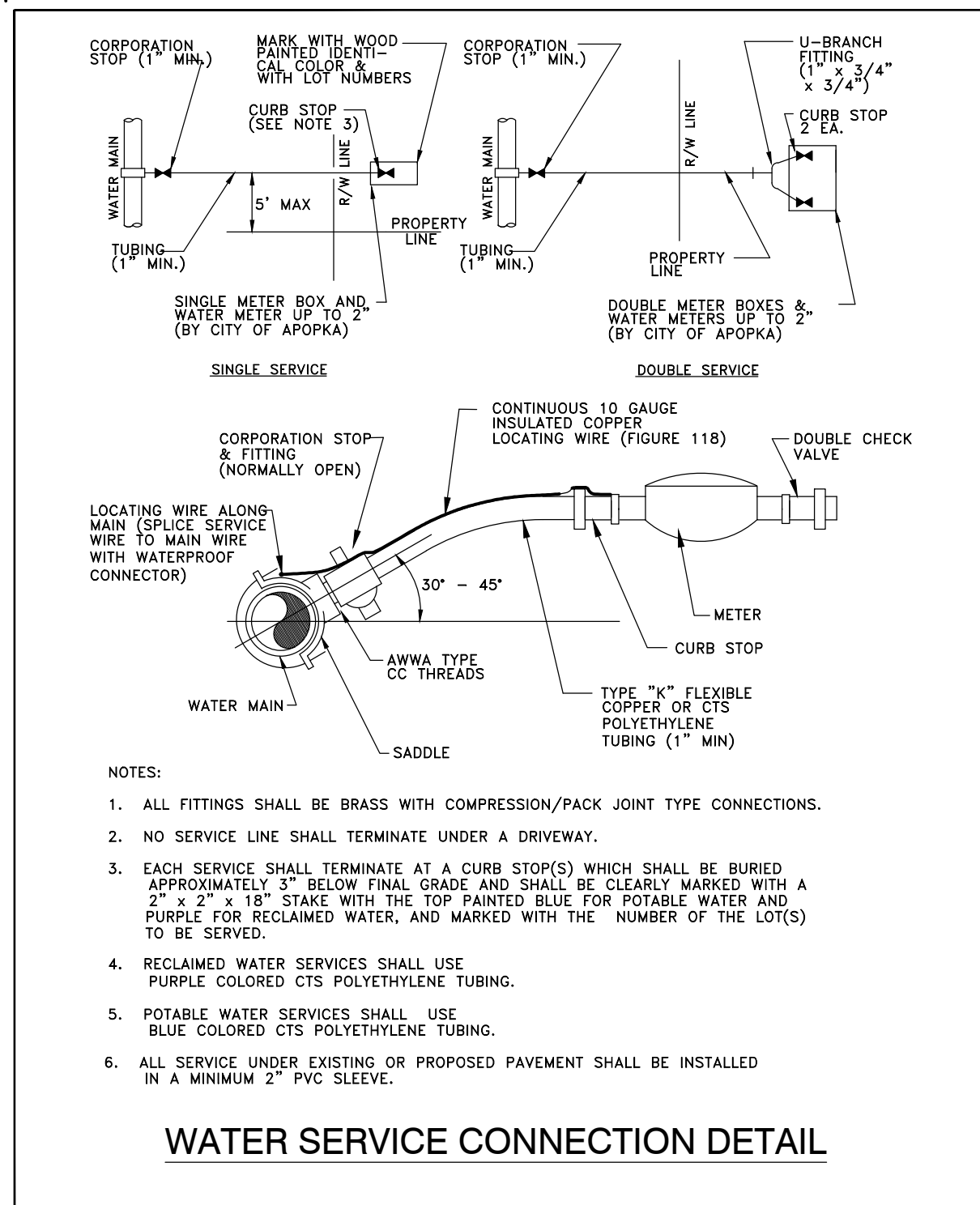
FIG. 403



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

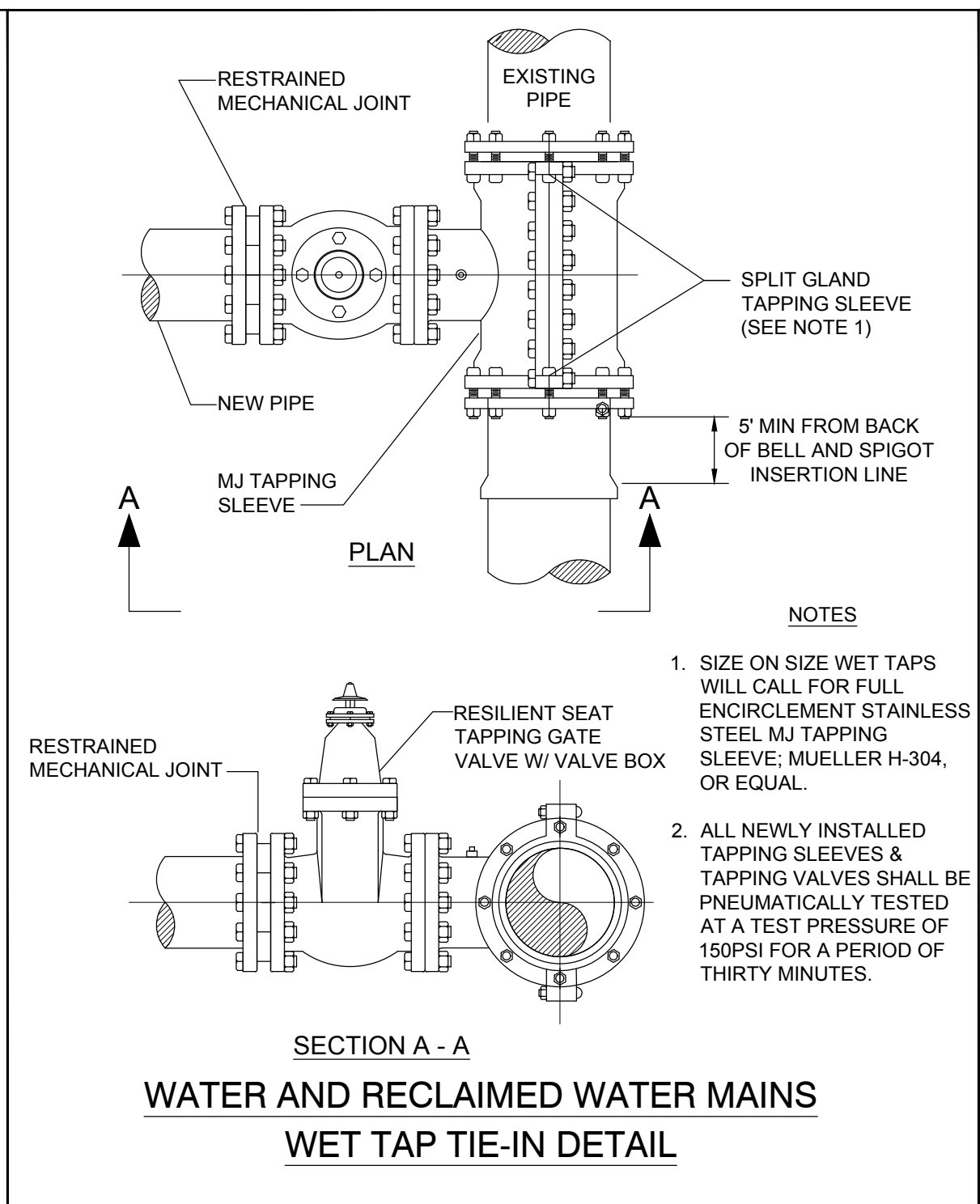
FIG. 404



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

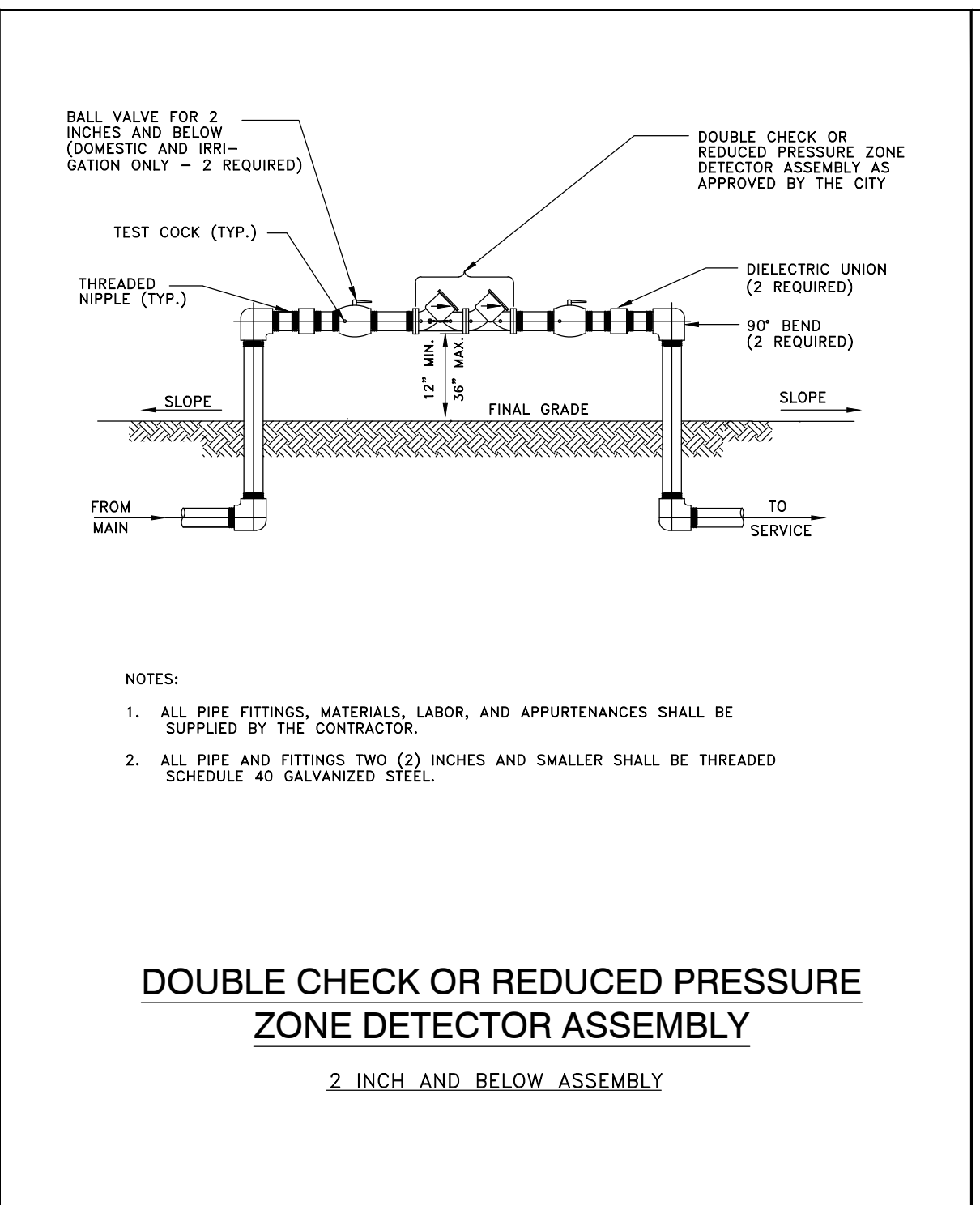
FIG. 405



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

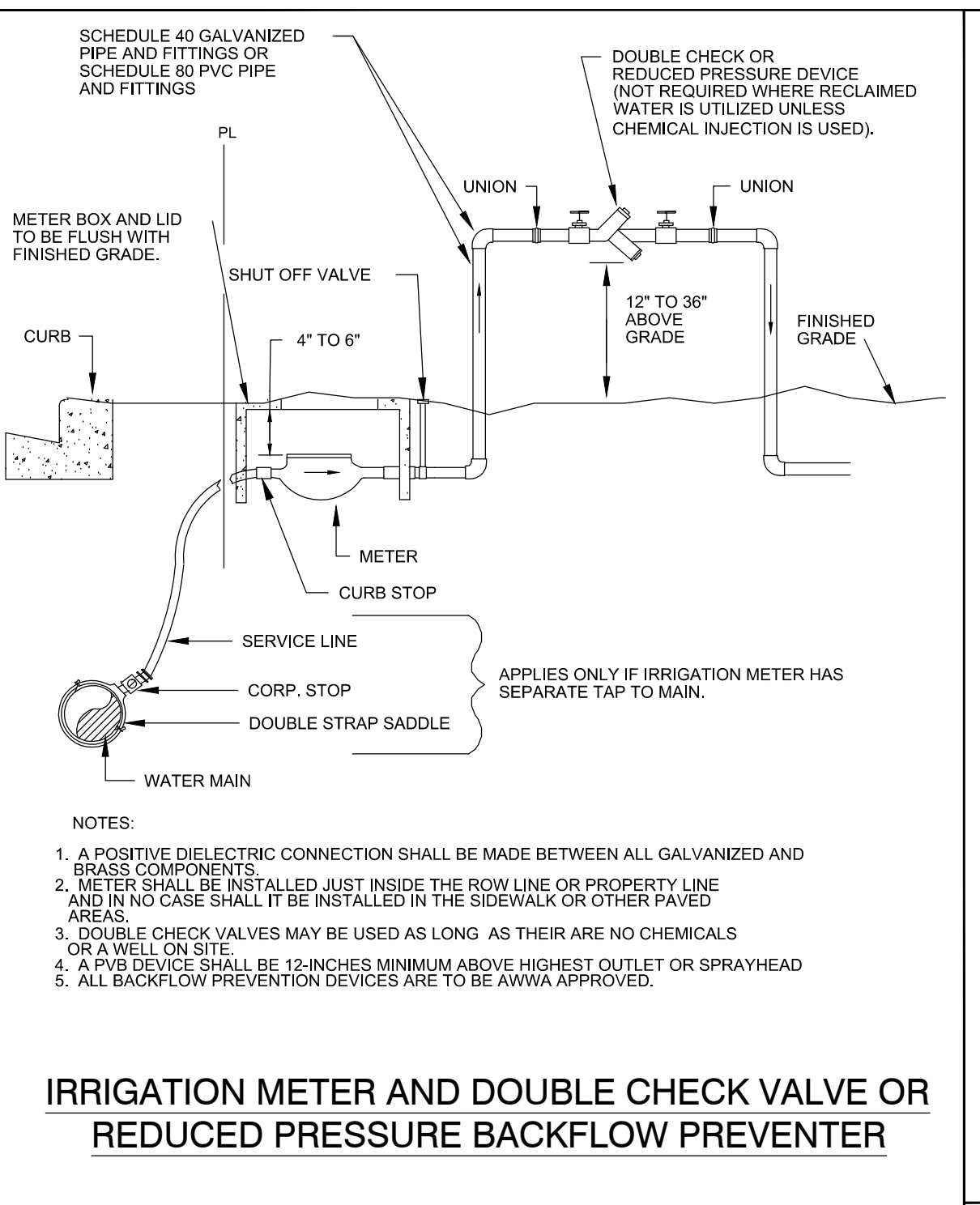
FIG. 406



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

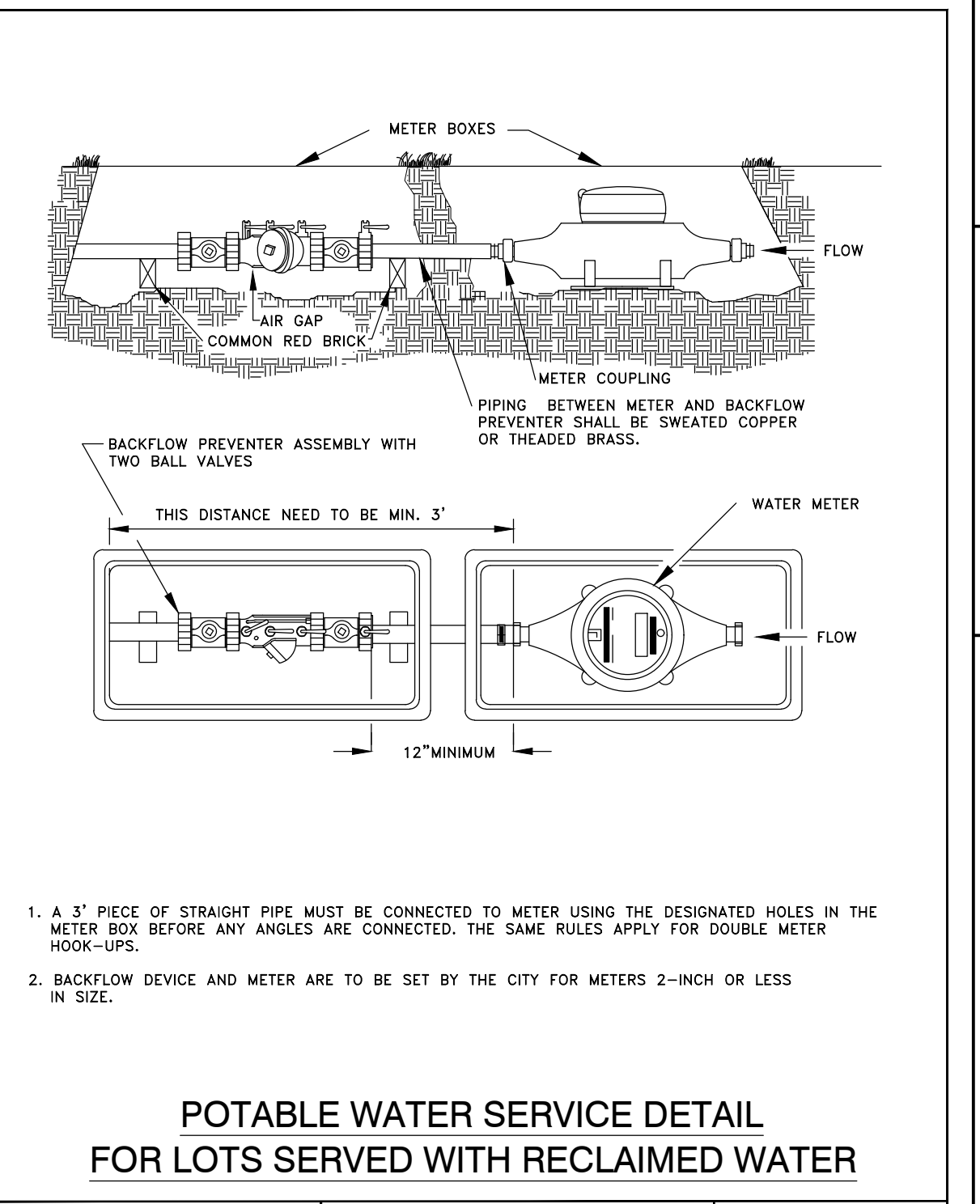
FIG. 500 A



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 502



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 505

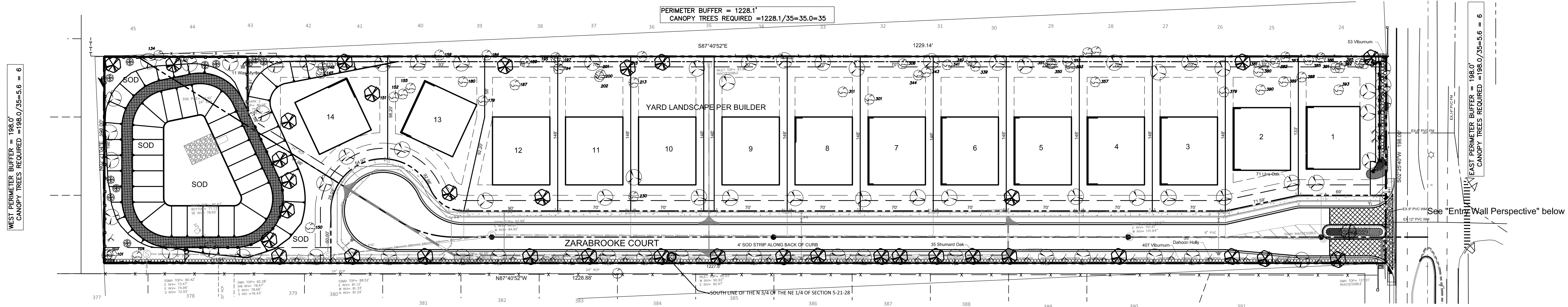
ENGINEER EDGAR GAGNON, P.E. FL LIC. #78922	DATE: Jan. 04, 2018
PRJ. MGR. ECL	DESIGNER ECL
CHECKED JM	
NO.	DATE
REVISIONS	REVISIONS
01/08/17 CITY OF APOPKA REVISIONS	
10/28/17 CITY OF APOPKA REVISIONS	
10/24/17 SURVIVOR REVISIONS	
ENGINEER FL LIC. #	

ZARABROOKE
at
VICK & W. MARTIN STREET
APOPKA, FLORIDA
FOR
ZARABROOKE, LLC

UTILITY DETAILS

201 SOUTH BUNNY AVENUE | ORLANDO, FL 32803
PH: (407) 886.3317 | FAX: (407) 886.9167
WWW.LOCHRANE.COM
CERTIFICATE OF AUTHORIZATION # 00005859

LOCHRANE
Consulting Engineers • Surveyors
An NVS Company



WATER RETENTION AREA
17 CANOPY TREES
11 UNDERSTORY TREES

LANDSCAPE PLAN Scale: 1"=50'

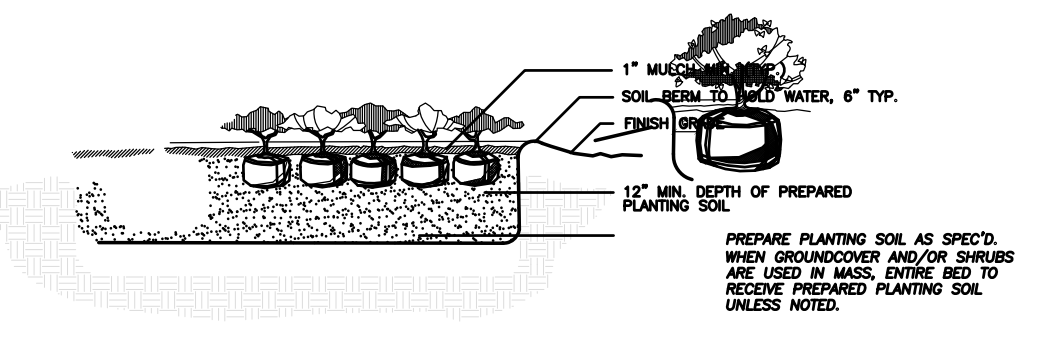
GENERAL NOTES

- THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION.
- LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO INITIATING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGE TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- THE OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
- ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON-SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE PRIOR TO START OF CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.
- REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.
- THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
- NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. DURING THE COURSE OF THIS WORK, EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY FROM THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HRS MINIMUM PRIOR TO DIGGING FOR FIELD VERIFICATION OF ALL UNDERGROUND UTILITIES.
- ALL EXISTING SITE ROADS, PARKING LOTS, CURBS, UTILITIES, SEWERS, AND OTHER ELEMENTS TO REMAIN SHALL BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.

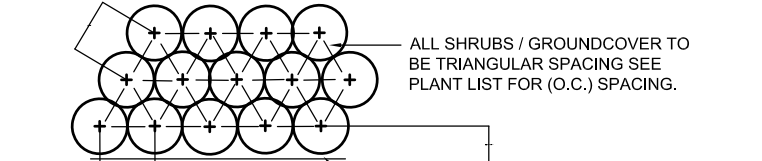
LANDSCAPE NOTES

- THE CONTRACTOR SHALL REVIEW ARCHITECTURE/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
- THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
- ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK.
- PRIOR TO PLANTING INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF TREE MATERIAL AND SPECIMEN PLANT MATERIAL TO THE OWNER'S REPRESENTATIVE FOR REVIEW.
- ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. CONTAINER SIZE SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
- IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED AND FOUND TO BE ACCEPTABLE.
- THE CONTRACTOR SHALL TEST THE PROJECT SOILS TO VERIFY THAT THE SOILS ON-SITE ARE ACCEPTABLE FOR PROPER GROWTH OF PLANT MATERIALS AND ADEQUATE DRAINAGE IN PLANT BEDS AND PLANTERS. THE CONTRACTOR SHALL COORDINATE THE LOCATION AND PROCUREMENT OF EXISTING ON-SITE SOIL SAMPLES WITH THE OWNER'S REPRESENTATIVE. REPRESENTATIVE SAMPLES SHALL BE SUBMITTED TO A CERTIFIED TESTING LABORATORY FOR ANALYSIS. THE FINDINGS, TOGETHER WITH RECOMMENDATIONS FOR AMENDING THE SOILS SHALL BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE AND PRIOR TO DELIVERY AND INSTALLATION OF PLANT MATERIALS AT THE JOB.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS, AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE.
- PEG SOD ON SLOPES GREATER THAN 3:1.
- THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK.
- CONTRACTOR SHALL FIELD-ADJUST LOCATION OF PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE 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.
- ALL PLANTING BEDS SHALL BE TOP-DRESSED WITH A 1" LAYER OF MULCH AS SPECIFIED. ALL TREES SHALL HAVE NO MORE THAN 1" THICK, 24" RADIUS (FROM THE TRUNK) MULCH RING PLACED ON TOP OF THE ROOT BALL.
- SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED ON THE PLANT LIST. PLANT ACCENT SHRUBS AND TREES AS SHOWN ON THE LANDSCAPE PLANTING PLANS WHEN INDIVIDUAL PLANTS ARE DELINEATED.
- PALM HEIGHTS, IF INDICATED ON THE PLANS, REFER TO CLEAR TRUNK (C.T.), GRAY WOOD (G.W.), OR OVERALL HEIGHT (O.A.) AS SPECIFIED ON THE PLANT LIST.
- CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
- CONTRACTOR SHALL REGRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
- MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, MULCHING, REPLACEMENTS OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL.

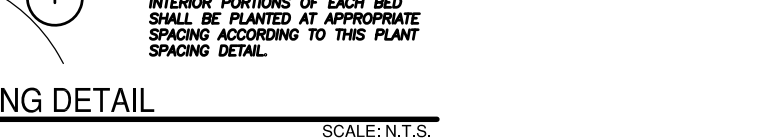
- UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
- CONTRACTOR SHALL SUBMIT WRITTEN GUARANTEE OF SURVIVABILITY OF ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- CONTRACTOR MUST APPROVE ALL GRADED AREAS PRIOR TO THE COMMENCEMENT OF PLANTING.
- THE CONTRACTOR SHALL ENGAGE A QUALIFIED ARBORIST WHO HAS SUCCESSFULLY COMPLETED TREE PROTECTION AND TREE TRIMMING WITH FIVE YEARS OR MORE EXPERIENCE, TO PERFORM THE FOLLOWING WORK:
 - CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AS SHOWN ON DRAWINGS OR BY MEANS APPROVED BY THE OWNER'S REPRESENTATIVE.
 - CONTRACTOR TO CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
 - PERFORM INITIAL PRUNING OF BRANCHES AND STIMULATION OF ROOT GROWTH WHERE REMOVED TO ACCOMMODATE NEW CONSTRUCTION.
 - PERFORM TREE REPAIR WORK FOR DAMAGE INCURRED BY NEW CONSTRUCTION.
 - CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
 - IF TREES ARE RELOCATED, CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION SYSTEM.



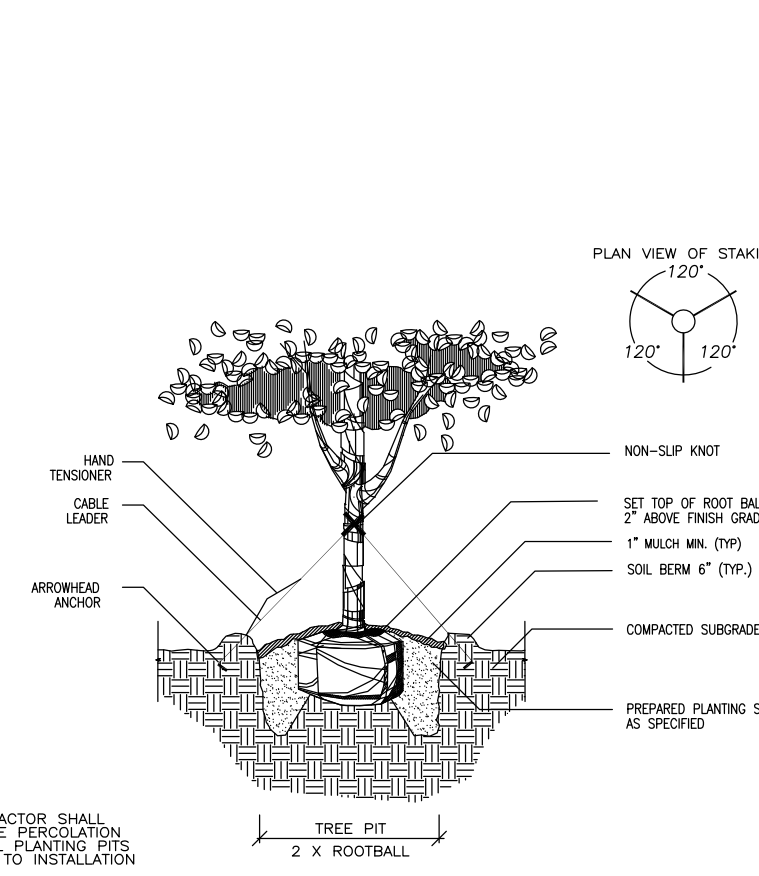
SHRUB AND GROUND COVER DETAIL



PLANT SPACING DETAIL



TREE PLANTING DETAIL (65 TO 100 GAL.)



ENTRY WALL PERSPECTIVE

TREE REPLACEMENT PLAN:

TOTAL SITE NEW = 107 CANOPY, 53 UNDERSTORY
REPLACEMENT INCHES = 160 X 3" = 480"
TOTAL SITE SAVED = 1,054"
TOTAL INCHES POST DEVELOPMENT 1,534"

PLANT SCHEDULE

Quan.	Common Name	Botanical Name	Size	Spacing
35	Shumard Oak	Quercus shumardii	3" Caliper DBH; 12' Height	As Shown
71	Live Oak	Quercus virginiana	3" Caliper DBH; 12' Height	As Shown
1	Magnolia	Magnolia grandiflora	3" Caliper DBH; 10' Height	As Shown
42	Dahoon holly	Ilex cassine	3" Caliper DBH; 10' Height	As Shown
11	Wax Myrtle	Myrica cerifera	3" Caliper DBH; 10' Height	As Shown
25	Indian Hawthorn	Raphiropes indica	3 Gallon; 15-18" x 15-18"	As Shown
460	Viburnum	Viburnum odoratissimum	3 Gallon; 30" Height	As Shown
36	Lorepetalum	Loropetalum chinensis	3 Gallon; 15-18" x 15-18"	24" on Center
350	Dwarf Confederate Jasmine	Trachelospermum asiaticum	1 Gallon; 9-12" spread	24" on Center
TBD	Bahiagrass	SOD Paspalum Notatum 'Argentine'	NA	NA
TBD	Pine bark	NA	NA	3" thick in all planting beds

- *NOTE:
- THE FINAL LANDSCAPE PLAN MAY VARY IN THE DISTRIBUTION OF TREE TYPE, DBH, OR SPECIES BUT THE TOTAL INCHES PROPOSED MUST BE PROVIDED.
 - THE DEVELOPER REQUESTS THE 9' OF REQUIRED MISSING REPLACEMENT TREES, BE WAIVED BY THE CITY IF THE CITY DETERMINES THAT THE REMAINING NUMBER OF TREES PRESERVED ON SITE AND THE PROPOSED 780" OF NEW CALIPER ARE OF SUFFICIENT NUMBER AND QUALITY TO SUBSTANTIALLY COMPLY WITH THE PURPOSE AND INTENT OF THE CODE. ALL TREES LOCATED IN THE ENTRY AND RETENTION AREA WILL BE PLANTED BY THE DEVELOPER. ALL TREES LOCATED ON LOTS AND ALONG ZARABROOKE CT WILL BE PLANTED BY THE BUILDER AND INSTALLED PRIOR TO CERTIFICATE OF OCCUPANCY OF THE RESIDENCE.

IF THIS SHEET IS LESS THAN 24" X 36" IT IS A REDUCED DRAWING

REV	DATE	REVISION
1	10.16.2017	CITY MODIFICATIONS
2	1.30.2018	CITY COMMENTS
3	2.13.2018	CITY COMMENTS

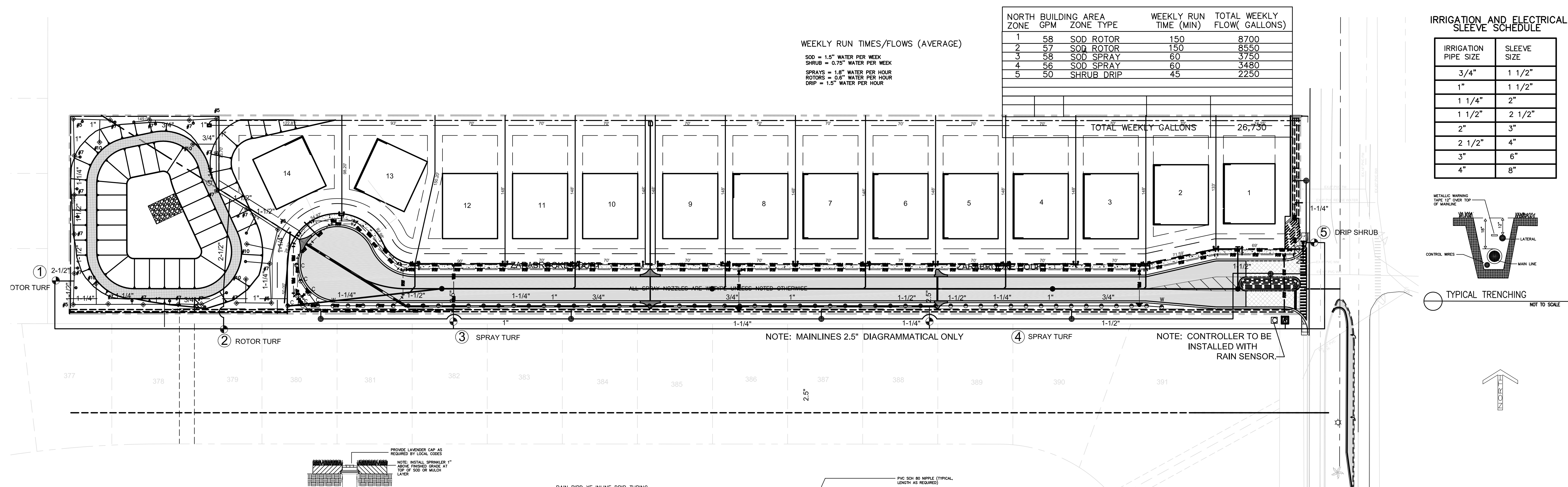
R. Miller
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125 South Swoppe Avenue
Suite 105
Maitland, Florida 32789
P-407 539 2412
F-407 539 2041
RMillerArchitecture.com

ZARABROOKE

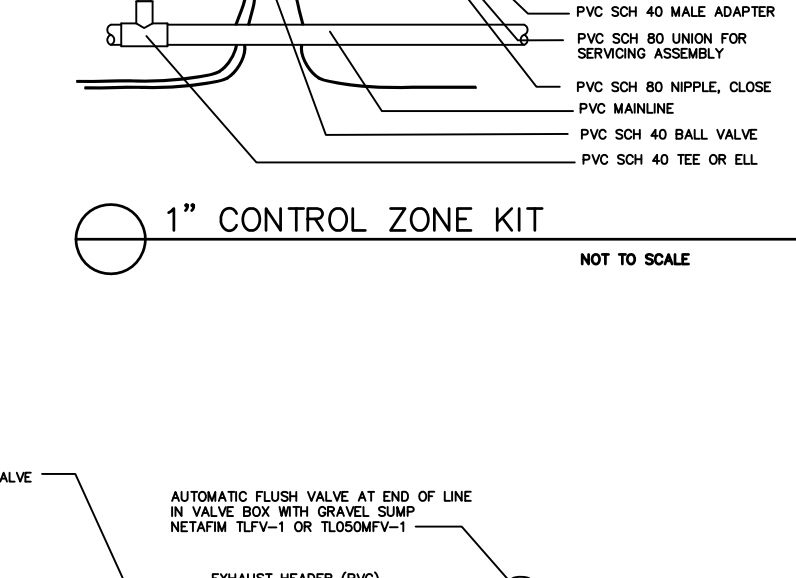
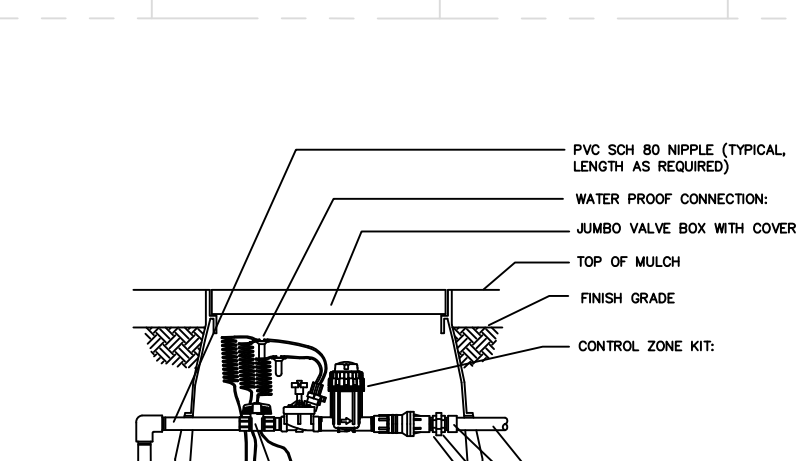
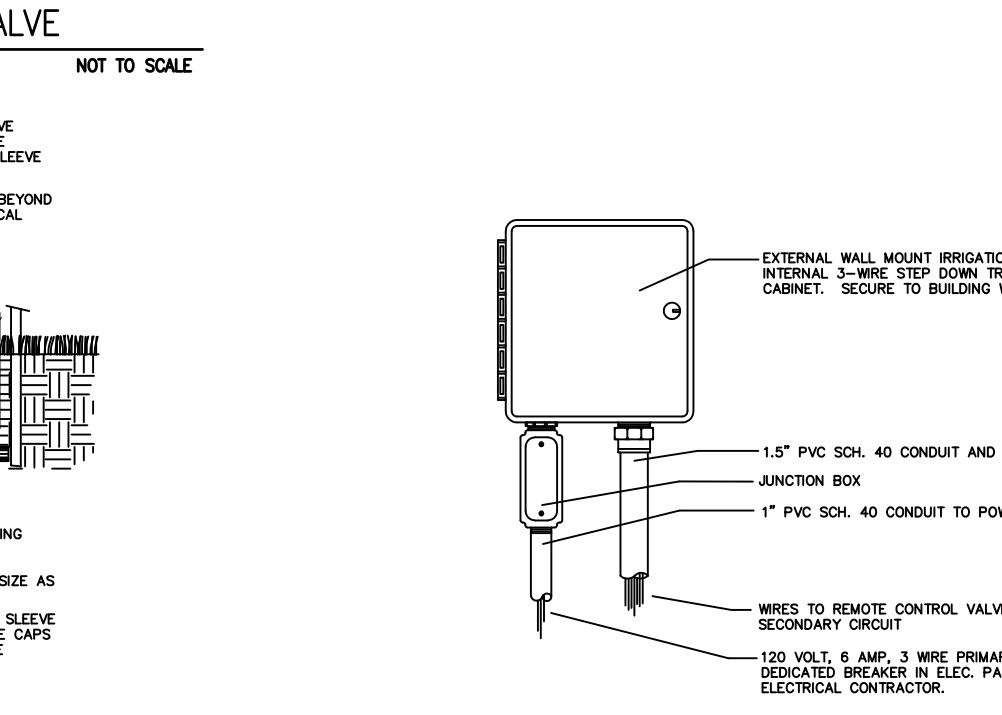
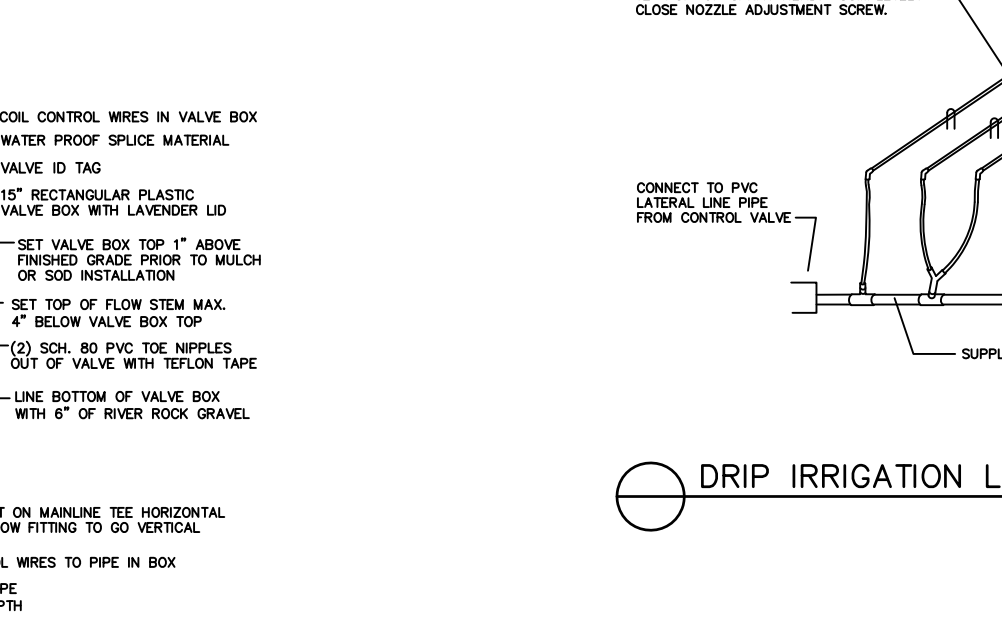
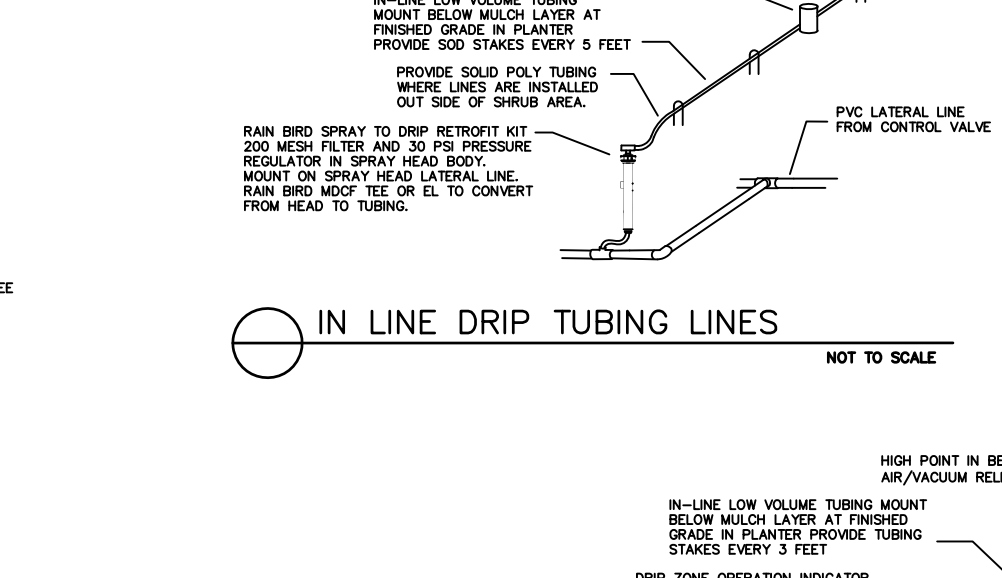
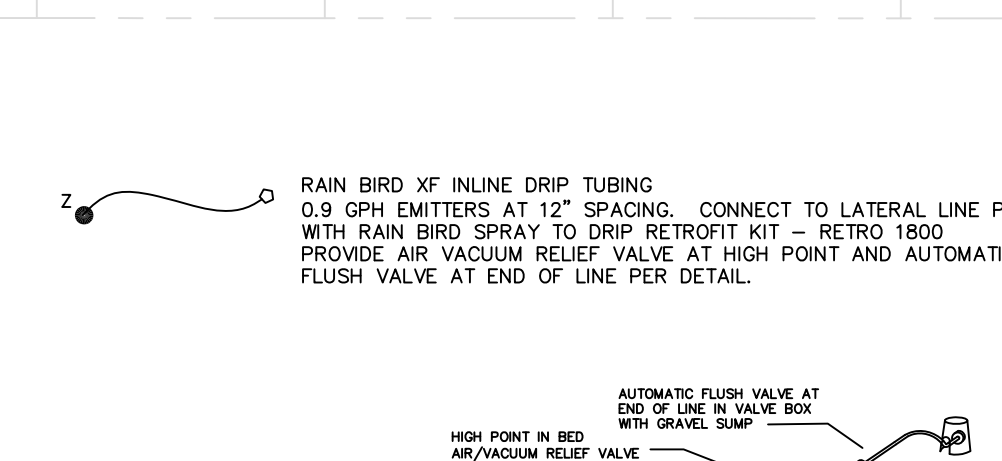
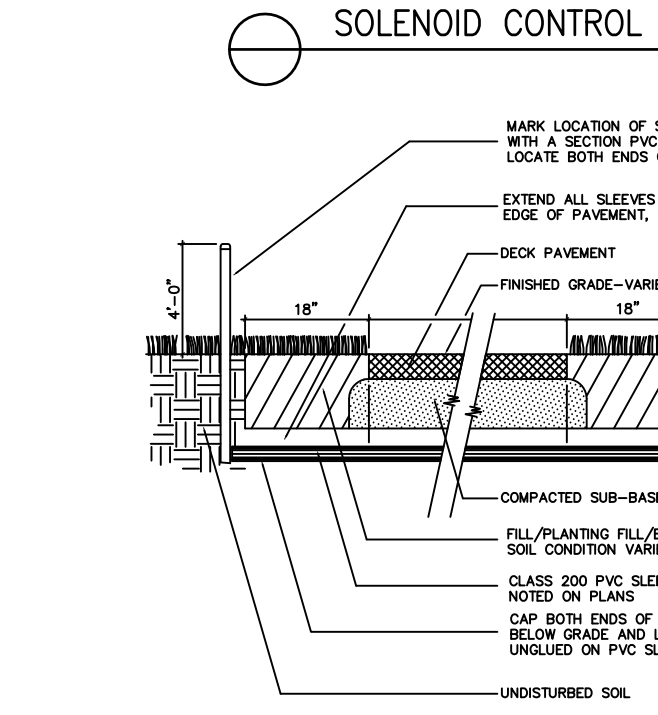
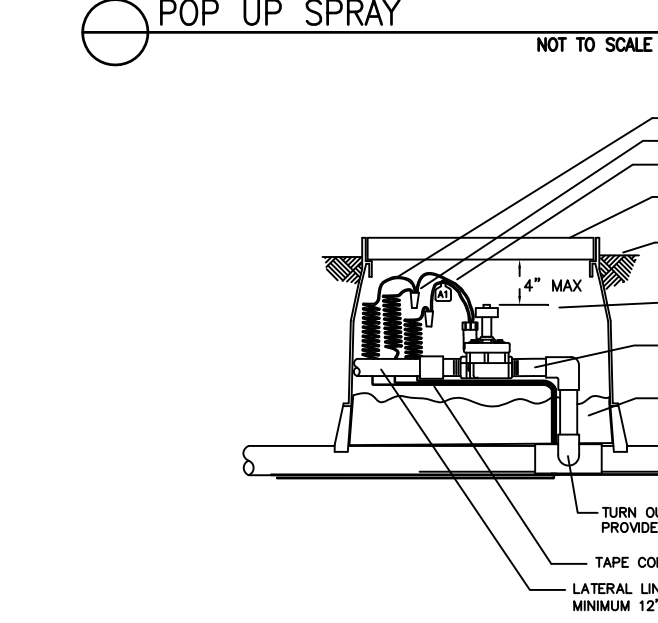
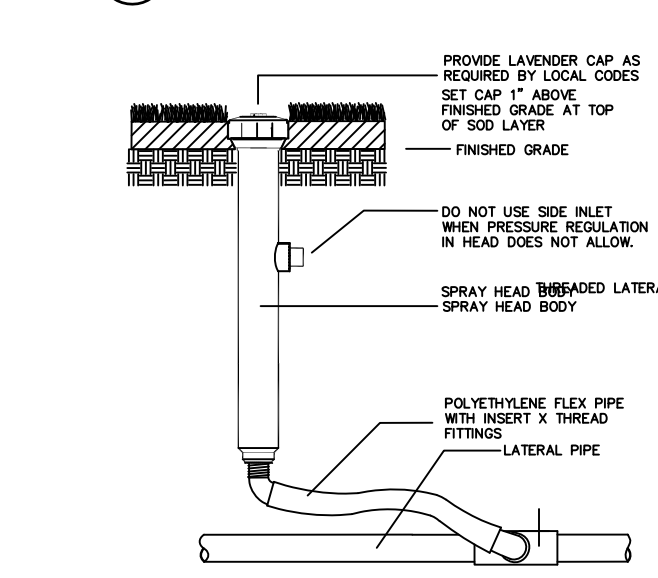
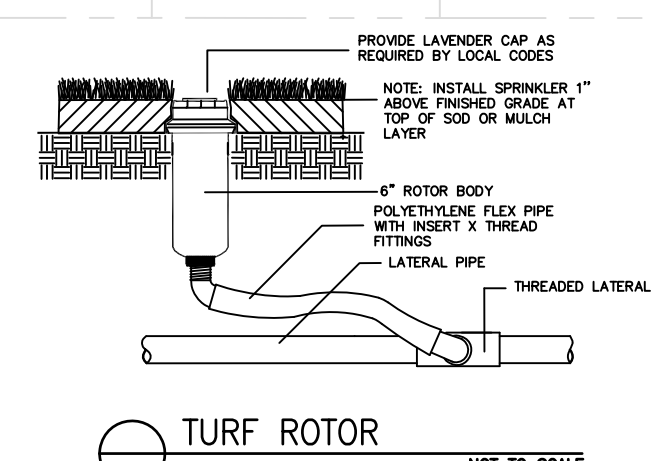
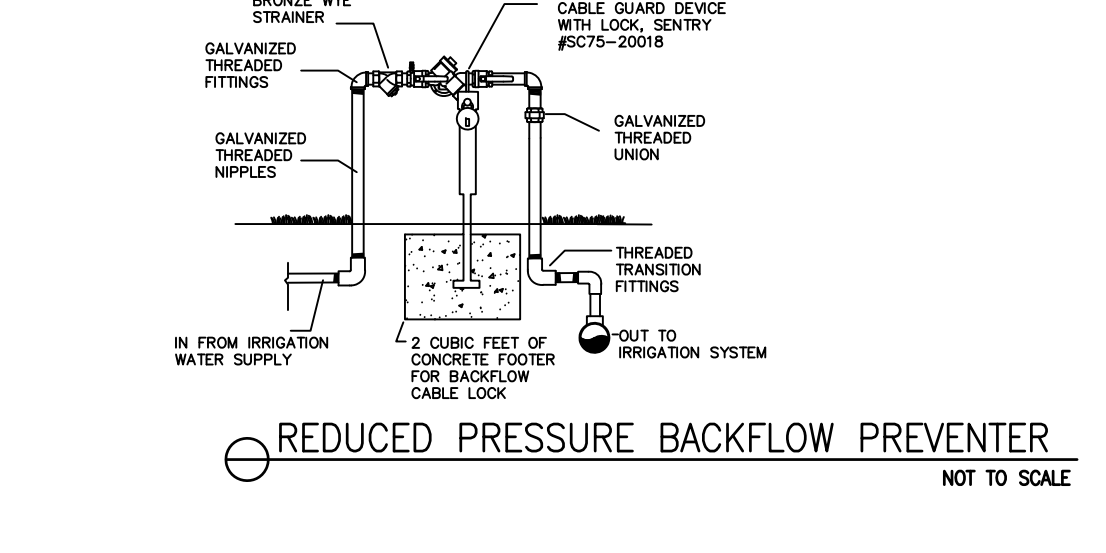
VICK & MARTIN STREET

APOPKA, FLORIDA

PROJECT:
DATE:
DRAWN BY:
CHECKED BY:
TITLE:
LANDSCAPE PLAN
SCALE: AS NOTED
SHEET:
L-1



IRRIGATION PLAN Scale: 1"=50'



- ### IRRIGATION NOTES
- SOME PIPE LINES ARE DRAWN OFF SET FOR CLARITY. INSTALL ALL IRRIGATION LINES IN LANDSCAPED AREAS.
 - REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREE ROOT BALLS AND TO INSTALL HEADS AT APPROPRIATE LOCATIONS.
 - ADJUST ALL NOZZLES TO REDUCE OVERTHROW ON PAVING & WALLS. THROTTLE ALL IRRIGATION CONTROL VALVES AS REQUIRED TO PREVENT FOGGING. SET CONTROLLER RUN TIMES TO MATCH PLANT WATER NEEDS AND SOIL CONDITIONS.
 - INSTALL RISERS 10" FROM WALLS OR BUILDINGS, AND 24" FROM PAVED SURFACES. PAINT ALL RISERS AND SUPPORTS FLAT BLACK.
 - INSTALL POP-UP HEADS 24" FROM WALLS, 6" FROM WALKS, DECKS AND CURBS, 6 FEET FROM CURBLESS ROADS, AND 30" FROM THE END OF PARKING SPACES. PROVIDE LAVENDER CAPS AS REQUIRED.
 - SET TOP OF POP-UP HEAD CAPS 1" ABOVE FINISHED GRADE PRIOR TO SOD OR MULCH INSTALLATION.
 - REFER TO UTILITY PLANS PRIOR TO TRENCHING. THE IRRIGATION INSTALLER SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO UTILITIES CAUSED BY THEIR WORK DURING THE PROJECT.
 - ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.
 - ELECTRIC POWER SUPPLY FOR THE IRRIGATION CONTROLLER SHALL BE BROUGHT TO A JUNCTION BOX AT THE CONTROLLER LOCATION BY THE ELECTRICAL CONTRACTOR. IRRIGATION INSTALLER TO PROVIDE ELECTRICAL PERMITS AND LICENSED ELECTRICIAN TO CONNECT THE IRRIGATION CONTROLLER EQUIPMENT TO THE POWER SUPPLY.
 - IRRIGATION WATER CONNECTIONS AND SYSTEM CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF LOCAL CODES FOR IRRIGATION INSTALLATION, SIGNAGE, PLACARDS AND CONNECTIONS TO THE RECLAIMED WATER SUPPLY. THE TERM LAVENDER COLOR ON THESE PLANS REFERS TO PANTONE COLOR #512, PER PLUMBING CODES AND THE USE OF RECLAIMED WATER FOR LANDSCAPE IRRIGATION.
 - IRRIGATION INSTALLER TO ACQUIRE ALL PERMITS AND UTILIZE ALL SAFETY PRECAUTIONS REQUIRED TO WORK IN ROW OF ROADWAY.
 - SIXTY (60) PSI MINIMUM STATIC WATER PRESSURE IS REQUIRED FOR THE EFFICIENT OPERATION OF THE IRRIGATION SYSTEM AS DESIGNED. VERIFY THE MINIMUM STATIC WATER PRESSURE AND VOLUME IS AVAILABLE AT THE PROJECT SITE PRIOR TO BEGINNING THE IRRIGATION INSTALLATION. NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IF THE MINIMUM STATIC WATER PRESSURE OR WATER VOLUME IS NOT AVAILABLE.
 - AT THE END OF PARKING SPACES PLACE HEADS IN LINE WITH PARKING STRIPES OR 2.5 FEET FROM BACK OF CURB. (TYPICAL)
 - TREE BUBBLER ON FLEX PE PIPE ALL NEW TREES IN ROTOR ZONE 1 & 2.

- ### LEGEND
- RAINBIRD 1800 SERIES, 6" POP UP
 - HUNTER PGP ULTRA
 - HUNTER 1.5" PGV VALVE IRRIGATION CONTROL VALVE. PLASTIC BODY WITH FLOW CONTROL. MOUNT IN 15" RECTANGULAR VALVE BOX WITH PURPLE LID FOR RECLAIMED WATER. PROVIDE PURPLE COLOR VALVE ID TAG AND USE 3M-DBYR SPLICE MATERIAL.
 - NEW IRRIGATION CONTROLLER WITH RAIN SWITCH (RSD-BEX RAIN SENSOR). RAINBIRD ESP TM2 SERIES 6 STATION. 120 VOLT, 6 AMP. ELECTRIC CIRCUIT REQUIRED FROM NEAREST ELECTRICAL PANEL, BY THE SITE ELECTRICAL CONTRACTOR.
 - REUSE WATER TAP AND REUSE WATER METER, PER LOCAL OUC CODES. SIZE INDICATED ON CIVIL PLAN.
- SIZE** PVC MAIN LINE PIPE. CLASS 200, LAVENDER PVC. INSTALL 18" DEEP. 2.5" AND SMALLER, SOLVENT WELD PVC PIPE AND FITTINGS. 3" AND LARGER, GASKET JOINT PIPE AND DUCTILE IRON GASKET JOINT FITTINGS AND TRUST BLOCKS.
SIZE PVC LATERAL LINE PIPE. CLASS 315, LAVENDER PVC. INSTALL 12" DEEP. 2.5" AND SMALLER, SOLVENT WELD PVC PIPE AND FITTINGS.
SIZE SLV. PVC SLEEVE PIPE. SCHEDULE 40, PVC. SOLVENT WELD PVC PIPE AND FITTINGS. ALL PAVEMENT CROSSINGS

- ### LOW VOLUME
- DRIP IRRIGATION VALVE, FILTER AND REGULATOR ASSEMBLY. 1-15 GPM (75") - HUNTER DRIP ZONE KIT (ACZ-075-25) 2-20 GPM (17") - HUNTER DRIP ZONE KIT (CZ-101-25) 40-60 GPM (1.5") - HUNTER DRIP ZONE KIT (CZ-151-40)
 - DRIP IRRIGATION VALVE, FILTER AND REGULATOR ASSEMBLY. 3-5 GPM (3/4") - RAIN BIRD LOW FLOW CONTROL ZONE KIT (XCZ-075-PRF) 3-15 GPM (17") - RAIN BIRD MEDIUM CONTROL ZONE KIT (XCZ-RPB-100-COM) 15-40 GPM (1.5") - RAIN BIRD CONTROL ZONE KIT (XCZ-RPB-150-COM) 40-60 GPM (1.5") - HUNTER DRIP ZONE KIT (CZ-151-40)
- DRIP EMITTER TUBING** - 9 GPHX 12" EMITTER SPACING, AND 18" ROW SPACING. PVC PIPE SUPPLY AND EXHAUST HEADERS WITH AIR RELEASE VALVES, AND AUTO FLUSH VALVES IN VALVE BOXES PER HIGH, LOW, AND END POINTS OF THE TUBING. PROVIDE A 12" POP-UP SPRAY HEAD WITH THE NOZZLE SHUT OFF AS A SYSTEM OPERATION INDICATOR. USE PVC PIPE TO, AND BETWEEN, EACH PLANTING AREA.
 NETAEM LINE-TECHLINE-ON - 1 GPH - 12" OC, OR EQUAL.
 DENOTES TREE IN THIS AREA. REFER TO TREE DRIP COIL DETAIL
- DRIP EMITTER TUBING** - 9 GPHX 12" EMITTER SPACING, AND 18" ROW SPACING. PVC PIPE SUPPLY AND EXHAUST HEADERS WITH AIR RELEASE VALVES, AND AUTO FLUSH VALVES IN VALVE BOXES PER HIGH, LOW, AND END POINTS OF THE TUBING. PROVIDE A 12" POP-UP SPRAY HEAD WITH THE NOZZLE SHUT OFF AS A SYSTEM OPERATION INDICATOR. USE PVC PIPE TO, AND BETWEEN, EACH PLANTING AREA.
 HUNTER PLD-10-12 - 1 GPH - 12" EMITTER SPACING, OR EQUAL.
 DENOTES TREE IN THIS AREA. REFER TO TREE DRIP COIL DETAIL

SCHEDULE

SUGGESTED IRRIGATION SCHEDULES

SHRUB DRIP ZONES - OPERATE 10 MINUTES TWO TIMES ON TWO DAYS OF THE WEEK PER LOCAL IRRIGATION SCHEDULING TIMETABLES TO APPLY .75" OF WATER IN A WEEK WITHOUT RAINFALL.

~~SHRUB SPRAY ZONES - OPERATE 10 MINUTES TWO TIMES ON TWO DAYS OF THE WEEK PER LOCAL IRRIGATION SCHEDULING TIMETABLES TO APPLY .75" OF WATER IN A WEEK WITHOUT RAINFALL.~~

TURF SPRAY ZONES - OPERATE 16 MINUTES TWO TIMES ON TWO DAYS OF THE WEEK PER LOCAL IRRIGATION SCHEDULING TIMETABLES TO APPLY 1.25" OF WATER A WEEK WITHOUT RAINFALL.

SUGGESTED IRRIGATION SCHEDULE FOR THE FIRST SIXTY DAYS AFTER PLANTING FOR PLANT ESTABLISHMENT - INCREASE STATION RUN TIMES BY 3.5% AND ADD ONE EXTRA DAY OF IRRIGATION TO APPLY .50% EXTRA WATER A WEEK WITHOUT RAINFALL.

INSTALLER SHALL ADJUST THIS SCHEDULE AS NEEDED ACCORDING TO ACTUAL FIELD CONDITIONS, CLIMATE AND PLANT WATER NEEDS.

LETTER	GPM AT 30 PSI	RADIUS	PATTERN
A	0.9	15'	QUARTER
B	1.25	15'	ONE THIRD
C	1.85	15'	HALF
D	2.5	15'	TWO THIRD
E	2.8	15'	THREE QTR.
F	3.7	15'	FULL
G	0.65	12"	QUARTER
H	0.9	12"	ONE THIRD
J	1.3	12"	HALF
K	1.75	12"	TWO THIRD
L	1.95	12"	THREE QTR.
M	2.6	12"	FULL
N	0.4	10"	QUARTER
P	0.5	10"	ONE THIRD
R	0.8	10"	HALF
U	0.6	4' X 15'	END STRIP
V	1.2	4' X 30'	SIDE STRIP
W	1.2	4' X 30'	CENTER STRIP
X	1.7	9' X 18'	SIDE STRIP
Z10	VARIES	10'	10' ADJUSTABLE ARC
Z12	VARIES	12'	12' ADJUSTABLE ARC
Z	VARIES	15'	15' ADJUSTABLE ARC
Y	0.5	1'	FLOOD BUBBLER
O	1.0	5'	STREAM BUBBLER
T	0.3	8"	QUARTER
S	0.5	8"	ONE THIRD
3	0.5	8"	HALF

REV	DATE	REVISION
1	10.16.2017	CIVIL MODIFICATIONS
2	1.30.2018	CITY COMMENTS
3	2.13.2018	CITY COMMENTS

R. Miller Architecture, Inc.
 125 South Swcope Avenue
 Suite 105
 Maitland, Florida 32793
 P-407 539 2412
 F-407 539 2041
 RMI@rmiarchitecture.com

ZARABROOKE
 VICK & MARTIN STREET
 APOPKA, FLORIDA

PROJECT:
 DATE:
 DRAWN BY:
 CHECKED BY:
 TITLE:
IRRIGATION PLAN
 SCALE: AS NOTED
 SHEET:
L-2

ALTA \ NSPS LAND TITLE SURVEY

ZARABROOKE

SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF APOPKA
ORANGE COUNTY, FLORIDA

Legal Description

THE SOUTH 198.00 FEET OF THE NORTH 3/4 OF THE EAST 1/2 OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; LESS THE WEST 12 FEET THEREOF AND LESS AND EXCEPT ROAD RIGHT-OF-WAY ON THE EAST.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE EAST 1/4 CORNER OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°25'40"E ALONG THE EAST LINE OF NORTHEAST 1/4 SAID SECTION 5, A DISTANCE OF 663.59 FEET TO THE SOUTHEAST CORNER OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF SAID SECTION 5; THENCE RUN N 87°40'52"W ALONG THE SOUTH LINE OF SAID NORTH 3/4 A DISTANCE OF 80.00 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD (80' RIGHT-OF-WAY) FOR A POINT OF BEGINNING; THENCE CONTINUE N 87°40'52"W ALONG SAID SOUTH LINE OF THE NORTH 3/4 OF THE NORTHEAST 1/4 OF AFORESAID SECTION 5 A DISTANCE OF 1228.88 FEET TO THE SOUTHEAST CORNER OF TRACT "E"; THE COURTYARDS PHASE TWO, AS RECORDED IN PLAT BOOK 31, PAGES 63 & 64, ORANGE COUNTY, FLORIDA; THENCE RUN N 02°21'04"E ALONG THE EAST LINE OF SAID "TRACT "E" 198.00 FEET TO THE SOUTHERLY LINE OF LOT 45, OF SAID "THE COURTYARDS PHASE TWO"; THENCE RUN S 87°40'52"E ALONG THE SOUTHERLY LINE OF LOTS 24 THRU 45, OF SAID "THE COURTYARDS PHASE TWO" 1229.14 FEET TO THE AFORESAID WESTERLY RIGHT-OF-WAY LINE OF VICK ROAD; THENCE RUN S 02°25'40"W ALONG SAID WESTERLY RIGHT-OF-WAY LINE 198.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 5.59 ACRES MORE OR LESS.

Notes:

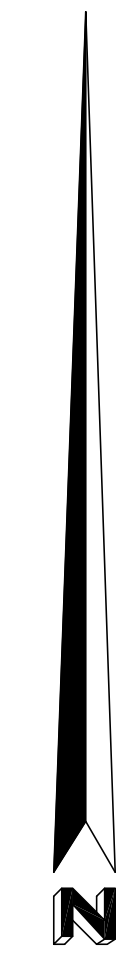
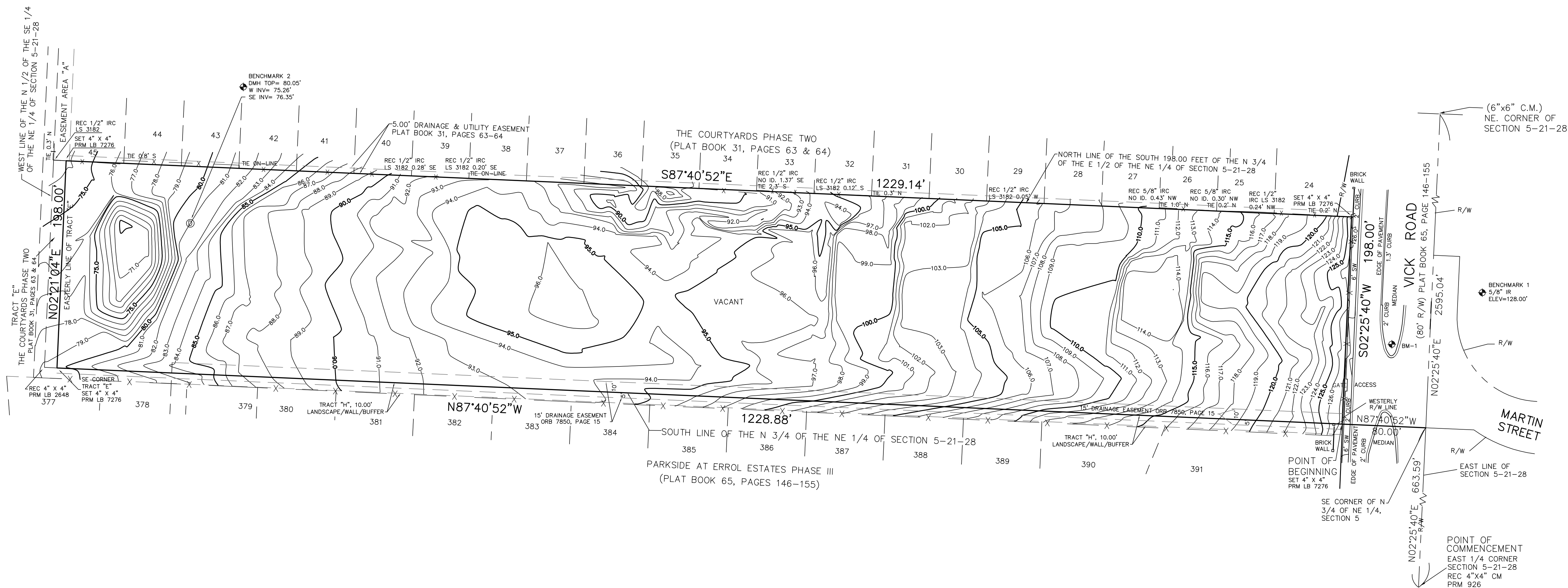
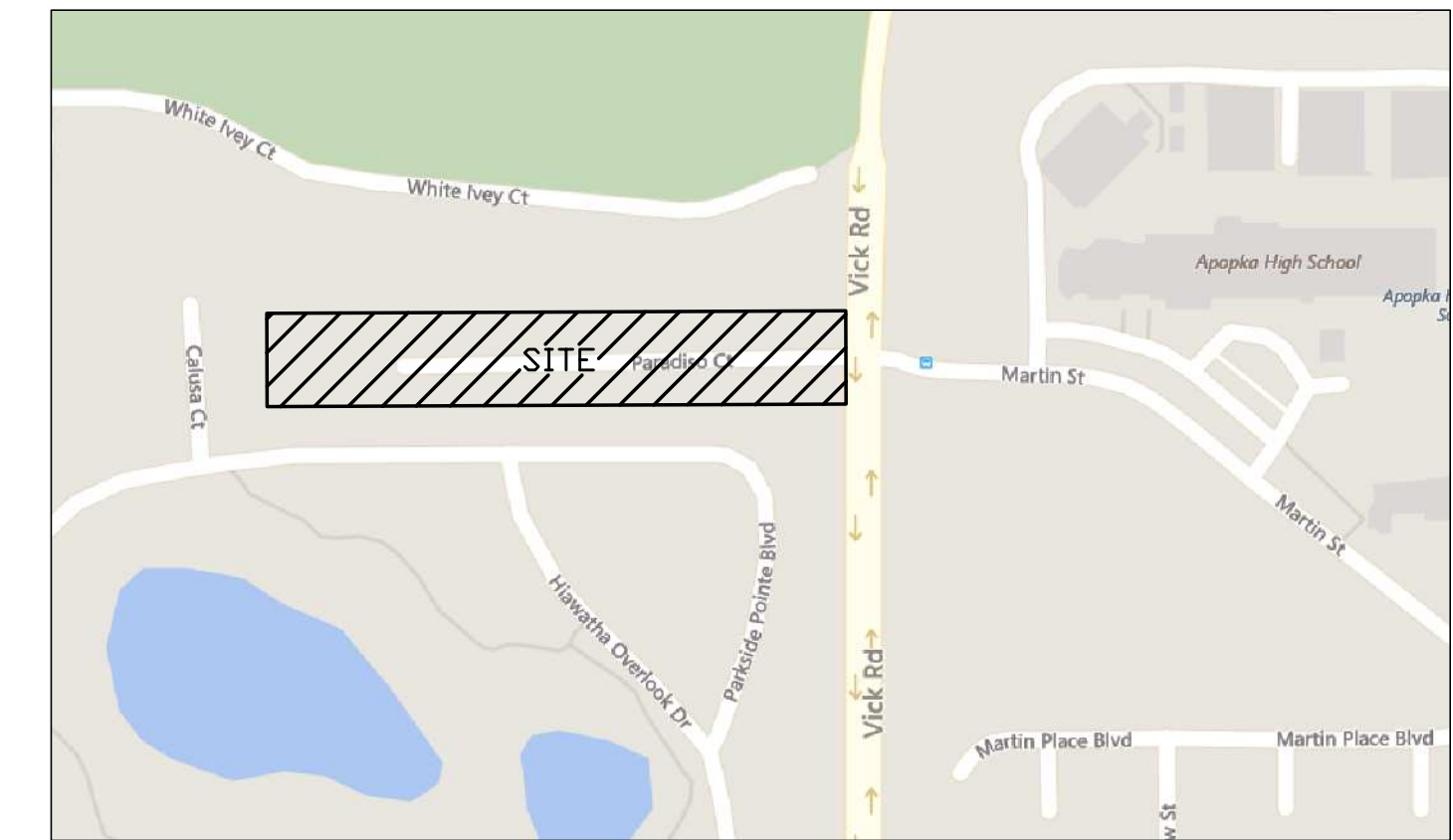
- Bearing structure is based on the East Line of the Northeast 1/4 of Section 5, Township 21 South, Range 28 East, Orange County, Florida; having an assumed bearing of North 02°25'40" East.
- This survey does not reflect or determine ownership.
- Underground improvements or underground foundations have not been located.
- According to the Federal Insurance Rate Map, this property lies in Zone "X", Map number 12095C01101, dated September 25, 2009.
- This property lies in Section 5, Township 21 S., Range 28 E., Orange County, Florida.
- Elevations and Contours are based on Orange County Benchmark, Designation Number S817002, having an Elevation of 108.912 feet (NAVD 88 datum).
- Contours are shown at 1.0 Foot intervals.
- No title commitment was provided to the surveyor at the time of survey.
- A new legal description was prepared for the subject property for plotting purposes.
- The new legal description is intended to describe the same property recorded in official records book 7704, page 4871, public records of Orange County, Florida.
- No zoning information was provided to the surveyor at the time of survey.
- There is a 15.00 drainage easement as recorded in official records book 7580, page 15, that affects subject property and is depicted hereon.
- Site address is 800 Vick Road, Apopka, Florida 32751.
- Subject property contains 5.59 acres of land plus or minus.
- There is no evidence of recent earth moving work, building construction or additions at the time of survey.
- The surveyor is not aware of proposed changes in street right of way lines and has not evidenced sidewalk or street construction.

Legend:

- R/W Right-of-Way
- P.R.M. Permanent Reference Monument
- P.C.P. Permanent Control Point
- C.M. Concrete Monument
- R.L.S. Registered Land Surveyor
- TYP Typical
- UE Utilities Easement
- UFO Underground Fiber Optic
- SW Sidewalk
- BM Benchmark
- IR Iron Rod
- SV Sewer Valve
- WV Water Valve
- TR Telephone Riser
- LP Light Pole
- RWM Re-Use Water Main
- ER Electric Riser
- DMH DRAINAGE MANHOLE
- INV INVERT
- PVC POLYVINYL CHLORIDE PIPE
- RCP REINFORCED CONCRETE PIPE
- SMH SANITARY SEWER MANHOLE
- CHBY CHINABERRY
- CMPH CAMPHOR
- C CENTERLINE
- ORB OFFICIAL RECORDS BOOK

VICINITY MAP

(NOT TO SCALE)



SHEET 1 OF 2
SEE SHEET 2 FOR TREES & STRUCTURES

BOUNDARY & TOPOGRAPHICAL SURVEY
OF
ZARABROOKE
FOR
ZARABROOKE, LLC

HLSM, LLC
Henrich-Luke-Saggarby-Menard
Professional Surveyors & Mappers
Licensed Business No. 7876
794 Big Tree Drive, Suite 108
Longwood, Florida 32750
P. (407) 647-7346
F. (407) 988-7166
Survey@HLSM.US

REVISIONS	
Rev. INVERT INFO	Date: 5-16-17
Rev. _____	Date: _____
Rev. _____	Date: _____
Rev. _____	Date: _____

THIS SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

Job No:	H-113
Field Date:	3/15/17
Drawn By:	GJS
Field By:	WKP/TH
Scale:	1"=60'

William F. Menard
Professional Surveyor & Mapper
Florida Registration #5625

SURVEYOR'S CERTIFICATE

To:
ZARABROOKE, LLC

This is to certify 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, 11, 13, 14, 16 and 17 of Table A thereof. The field work was completed on March 16, 2017.

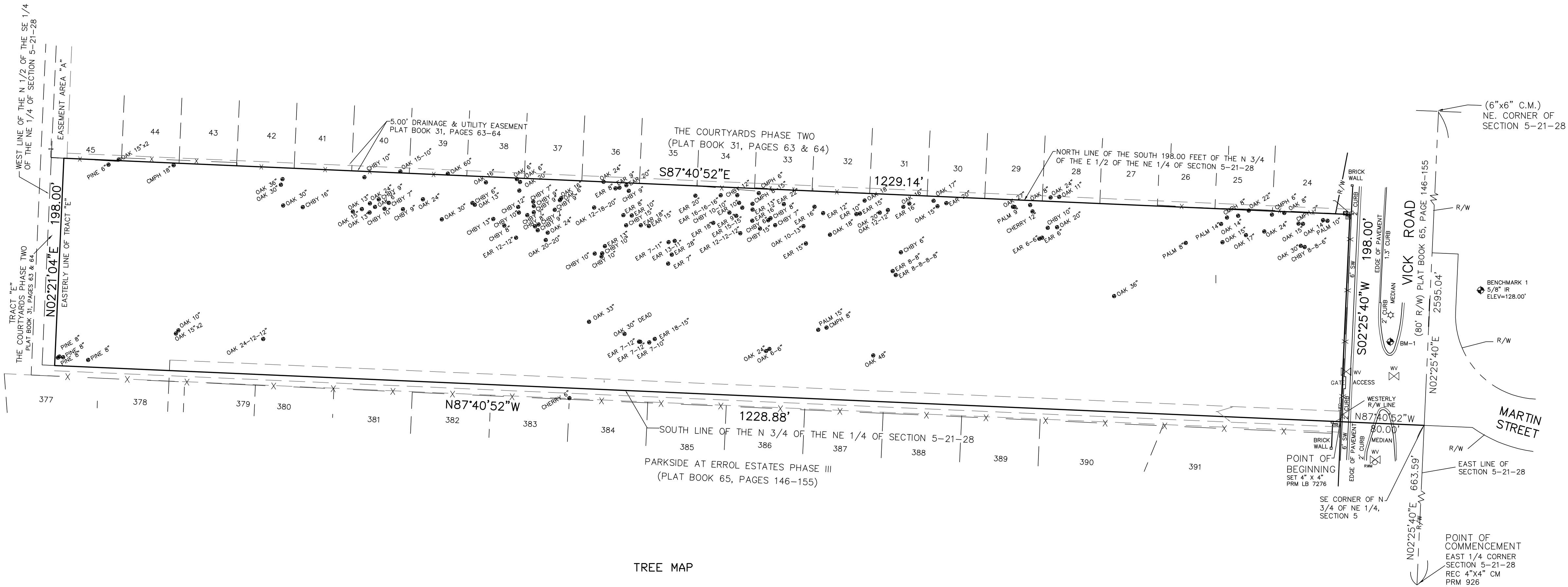
Date of Map: April 13, 2017.

No. 155625

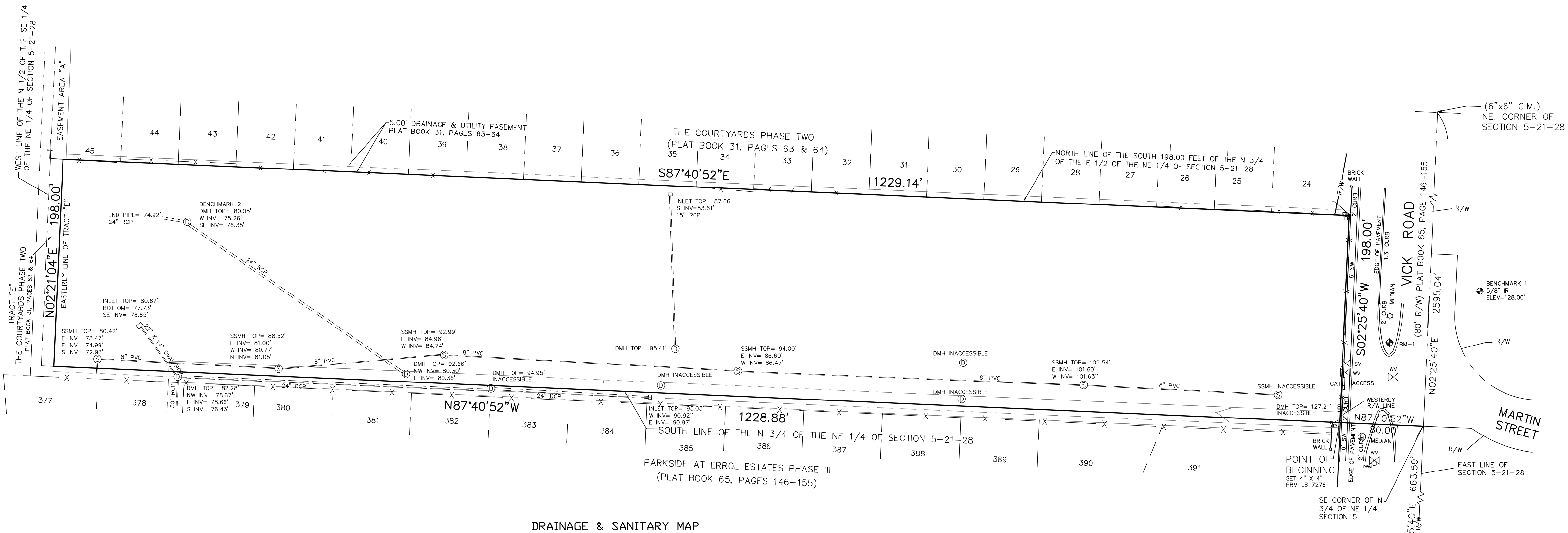
William F. Menard
Professional Surveyor & Mapper
Florida Registration No. 5625

ALTA \ NSPS LAND TITLE SURVEY ZARABROOKE

SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF AOPKA
ORANGE COUNTY, FLORIDA



- Legend:**
- R/W Right-of-Way
 - P.R.M. Permanent Reference Monument
 - P.C.P. Permanent Control Point
 - C.M. Concrete Monument
 - R.L.S. Registered Land Surveyor
 - TYP Typical
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 - SV Sewer Valve
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 - TR Telephone Riser
 - LP Light Pole
 - RWM Re-Use Water Main
 - ER Electric Riser
 - DMH DRAINAGE MANHOLE
 - INV INVERT
 - PVC POLYVINYL CHLORIDE PIPE
 - RCP REINFORCED CONCRETE PIPE
 - SSMH SANITARY SEWER MANHOLE
 - CHBY CHINABERRY
 - CMPH CAMPHOR
 - CL CENTERLINE
 - ORB OFFICIAL RECORDS BOOK



SHEET 2 OF 2
SEE SHEET 1 FOR BOUNDARY AND TOPOGRAPHICAL SURVEY

BOUNDARY & TOPOGRAPHICAL SURVEY
OF
ZARABROOKE
FOR
ZARABROOKE, LLC

HLSM, LLC
Henrich-Lucas-Saggarby-Merand
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794 Big Tree Drive, Suite 108
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P. (407) 647-7346
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REVISIONS	
Rev. INVERT INFO	Date: 5-16-17
Rev. _____	Date: _____
Rev. _____	Date: _____
Rev. _____	Date: _____

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Job No: H-113
Field Date: 3/15/17
Drawn By: GJS
Field By: WKP/JH
Scale: 1"=60'

ZARABROOKE

SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST
CITY OF APOPKA
ORANGE COUNTY, FLORIDA

ZARABROOKE DEDICATION

KNOWN TO ALL MEN BY THESE PRESENTS. That the undersigned, are the lawful owners in fee simple of the lands described in the caption of this Plat, hereby dedicates said lands and plot for the uses and purposes therein expressed and dedicates the STREETS AND EASEMENTS shown hereon to the perpetual use of the public and the City of Apopka,

IN WITNESS WHEREOF, said Declarant has caused these presents to be executed by the undersigned Owner, thereunto duly authorized on this _____ day of _____, 2018.

Zarabrooke, LLC

By: Barry Kalmanson, Owner

Signature _____

Signed, sealed and delivered in the presence of the following witnesses:

Signature of Witness _____ Signature of Witness _____

Printed Name of Witness _____ Printed Name of Witness _____

STATE OF FLORIDA COUNTY OF _____

The foregoing Dedication was acknowledged before me this _____ day of _____, 2018 by _____ Zarabrooke, LLC, on behalf of said company. He is personally known to me or has produced _____ as identification, and did (did not) take an oath that he is the person described in and who executed the foregoing dedication and severally acknowledged the execution thereof to his free act and deed.

IN WITNESS WHEREOF, I have hereto set my hand and seal on the above date.

Notary Public - State of Florida

Commission No.: _____

My Commission Expires: _____ NOTARY SEAL

CERTIFICATE OF APPROVAL BY CITY COUNCIL

THIS IS TO CERTIFY, That on _____ the foregoing plat was approved by City Council.

Mayor _____

Attest: _____

City Clerk _____ By _____ D.C.

CERTIFICATE OF SURVEYOR

I hereby certify that this plat is a true and correct representation of the lands surveyed, that the survey was made under my responsible direction and supervision, and that the survey data contained herein complies with all of the requirements of Chapter 177 of the Florida Statutes. I further certify that I have complied with the requirements of Chapter 177.091(7) regarding "permanent reference monuments", and that the land is located within Orange County, Florida.

Dated: _____

Signature: _____
WILLIAM F. MENARD H L S M, LLC
Registration No. 5625 HENRICH-LUKE-SWAGGERTY-MENARD
794 Big Tree Drive, Suite 108
Longwood, Florida 32750
Certificate of Authorization No. 7276

CERTIFICATE OF REVIEW BY CITY SURVEYOR

This Plat has been reviewed for conformity with chapter 177, Florida Statutes.

REVIEWED BY: _____

Date _____

CERTIFICATE OF APPROVAL BY PLANNING COMMISSION

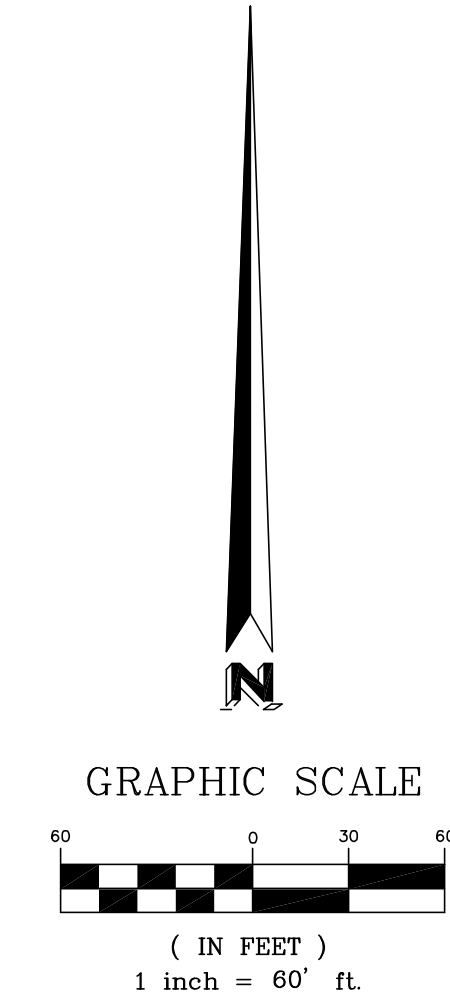
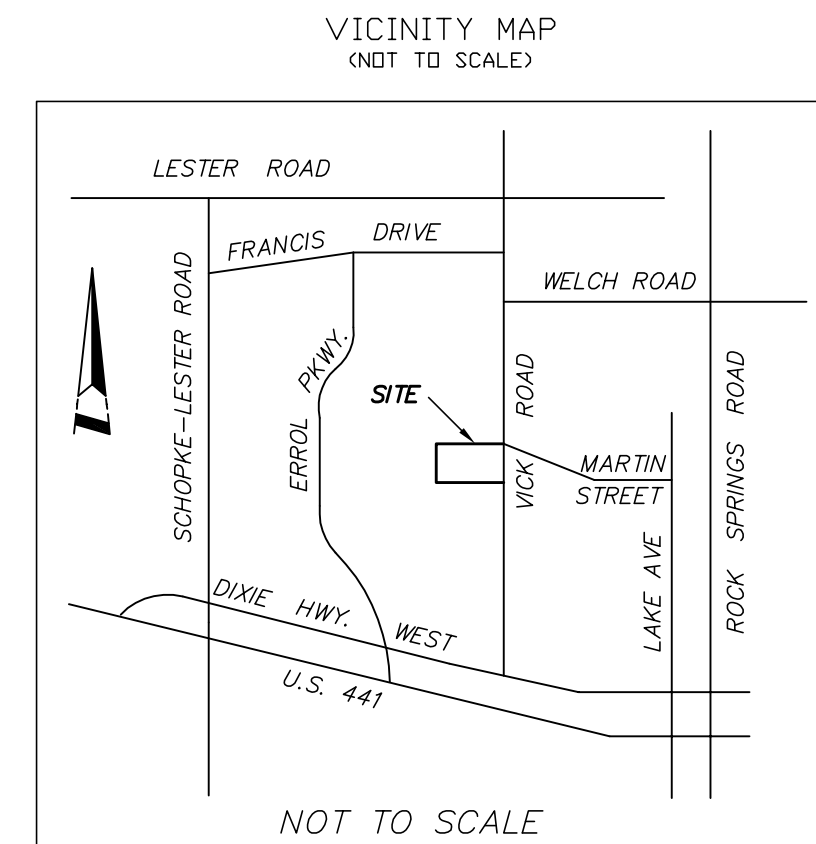
Examined and Approved. _____

Chairman _____ Date _____

CERTIFICATE OF APPROVAL BY CITY ENGINEER

Examined and Approved. _____

City Engineer _____ Date _____



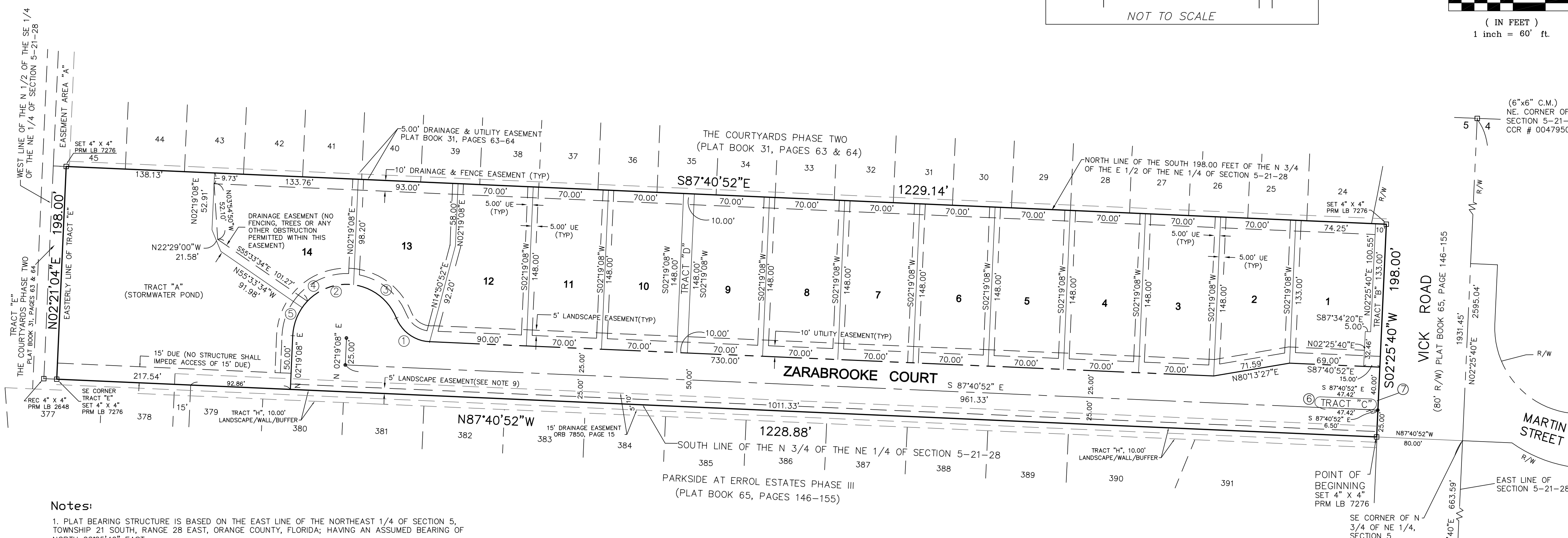
Legal Description

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CONTAINING 5.59 ACRES MORE OR LESS.



Notes:

- PLAT BEARING STRUCTURE IS BASED ON THE EAST LINE OF THE NORTHEAST 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; HAVING AN ASSUMED BEARING OF NORTH 02°25'40" EAST.
- TRACT "A" IS FOR STORMWATER RETENTION PURPOSES OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- TRACT "B" IS FOR LANDSCAPE/WALL PURPOSES OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- TRACT "C" IS FOR A LANDSCAPED ISLAND OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- TRACT "D" IS A DRAINAGE TRACT OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- ALL PLATTED UTILITY EASEMENTS HEREBY PROVIDE THAT SUCH EASEMENTS SHALL ALSO BE EASEMENTS FOR THE CONSTRUCTION, INSTALLATION, MAINTENANCE, AND OPERATION OF CABLE TELEVISION SERVICES SUBJECT TO STATUTORY LIMITATIONS THEREON.
- VEHICULAR ACCESS RIGHTS (INGRESS/EGRESS) OFF ZARABROOKE COURT RIGHT-OF-WAY SHALL BE DEDICATED TO THE CITY OF APOPKA, AS APPROVED BY THE CITY ENGINEER.
- THE 5 FOOT WIDE LANDSCAPE EASEMENT IS FOR THE MAINTENANCE AND PROTECTION OF STREET TREES BY THE HOME OWNER'S ASSOCIATION.
- THE 5 FOOT WIDE LANDSCAPE EASEMENT ALONG THE SOUTH BOUNDARY OF THIS PLAT IS TO BE MAINTAINED BY THE HOME OWNER'S ASSOCIATION.
- THE 10 FOOT WIDE FENCE EASEMENT ALONG LOTS 1-14 IS FOR THE PROTECTION AND MAINTENANCE OF THE FENCE BY THE HOME OWNER'S ASSOCIATION.
- SUBJECT PROPERTY FORMERLY KNOWN AS PARADISO PARK, AN UNPLATTED SUBDIVISION.
- A 15 FOOT DRAINAGE EASEMENT RECORDED IN OFFICIAL RECORDS BOOK 7850, PAGE 15 AFFECTS THIS PROPERTY AND IS DEPICTED HEREON.

CURVE DATA						
No.	RADIUS	DELTA	LENGTH	TANGENT	CHORD	CHORD BEARING
1	35.00'	65°41'03"	40.12'	22.59'	37.96'	N54°50'20"W
2	50.00'	155°41'03"	135.86'	232.09'	97.76'	N80°09'40"E
3	50.00'	60°34'01"	52.85'	28.20'	50.43'	N52°16'49"E
4	50.00'	62°59'44"	54.97'	30.64'	52.25'	S65°56'18"W
5	50.00'	32°07'18"	28.03'	14.39'	27.67'	S18°22'47"W
6	5.00'	180°00'00"	15.71'	---	10.00'	N02°19'08"E
7	5.00'	180°00'00"	15.71'	---	10.00'	S02°19'08"W

Legend:

- R/W RIGHT-OF-WAY
- P.R.M. PERMANENT REFERENCE MONUMENT
- P.C.P. PERMANENT CONTROL POINT
- C.M. CONCRETE MONUMENT
- R.L.S. REGISTERED LAND SURVEYOR
- TYP TYPICAL
- UE UTILITIES EASEMENT
- IR IRON ROD
- ORB OFFICIAL RECORDS BOOK
- DUE DRAINAGE & UTILITY EASEMENT
- CL CENTERLINE
- SET NAIL & DISK PCP LB 7276
- SET 4" X 4" CONCRETE MONUMENT PRM 7276

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

CERTIFICATE OF 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 _____ at _____ File No. _____

County Comptroller _____
in and for Orange County, Florida

BY _____ D.C.

HLSM, LLC
Henrich-Luke-Swaggerty-Menard
Professional Surveyors & Mappers
Licensed Business No. 7276
794 Big Tree Drive, Suite 108
Longwood, Florida 32750
P. (407) 647-7346
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