



**City of Apopka
Planning Commission
Meeting Agenda
August 14, 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 July 10, 2018.

IV. PUBLIC HEARING:

1. Kelly Park Interchange Form-Based Code, Employment District’s MEdTech Campus Overlay District
2. PUD Master Plan Amendment – Avian Pointe – Property owned by Apopka Clear Lake Investments, LLC and located on the east side of SR 429, north of Lust Road. (Parcel ID #: 07-21-28-0000-00-002; 07-21-28-0000-00-015; 07-21-28-0000-00-064)

V. SITE PLANS:

1. FINAL DEVELOPMENT PLAN – AUTOZONE STORE – Property owned by Calmil Investment Group LP (95% Interest) Kenneth Lee Jureit Trust (5% Interest) and located 1120 West Orange Blossom Trail. (Parcel ID #: 05-21-28-0000-00-025 - portion)
2. FINAL DEVELOPMENT PLAN – IHOP RESTAURANT – Property owned by Calmil Investment Group LP (95% Interest) Kenneth Lee Jureit Trust (5% Interest) and located 1120 West Orange Blossom Trail. (Parcel ID #: 05-21-28-0000-00-025 - portion)
3. PLAT – BRIDLEWOOD SUBDIVISION (FKA EQUESTRIAN CENTER SUBDIVISION) – Property owned by Laura R. Murphy and located at 359 West Lester Road. (Parcel ID #: 28-20-28-0000-00-060)
4. PRELIMINARY DEVELOPMENT PLAN – CARRIAGE HILL PHASE II SUBDIVISION – Property owned by JTD Land at Rogers Road, LLC, and located at 1455 West Lester Road. (Parcel ID #: 29-20-28-0000-00-005; 29-20-28-0000-00-049)

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.

MINUTES OF THE PLANNING COMMISSION REGULAR MEETING HELD ON JUNE 26, 2018, AT 5:30 P.M. IN THE CITY COUNCIL CHAMBERS, APOPKA, FLORIDA.

MEMBERS PRESENT: James Greene, Linda Laurendeau, Roger Simpson, John Sprinkle, and Butch Stanley

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

STAFF PRESENT: James Hitt, FRA-RA – Community Development Director, David Moon, AICP - Planning Manager, Richard Earp – City Engineer, Patrick Brackins – City Attorney, Bobby Howell - Senior Planner, Pamela Richmond – Senior Planner, Jean Sanchez – Planner II, Phil Martinez – Planner I, Chuck Carnesale – Fire Chief, and Jeanne Green – Recording Secretary

OTHERS PRESENT: Ken Ehlers, Andrea Cardo, Richard C. Wohlfarth, P.E., Chris Blurton, John Perry – Apopka Chief

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

APPROVAL OF MINUTES: Chairperson Greene stated the June 26, 2018, meeting minutes were re-sent to the Planning Commission with a revision that reflected the following correction to the Greystone Skilled Nursing Facility motion as follows:

Motion: Jose Molina made a motion to find the Greystone Skilled Nursing Facility Master/Preliminary Development Plan consistent with the Comprehensive Plan and Land Development Code; and recommend approval of the Greystone Skilled Nursing Facility Master/Preliminary Development Plan subject to the Conditions of Approval and findings of the staff report for the property owned by Residences at Emerson Park, LLC and located at 1601 Alston Bay Boulevard. Motion seconded by John Sprinkle. Aye votes were cast by James Greene, Linda Laurendeau, Jose Molina, and John Sprinkle, ~~and Butch Stanley~~ (5 4-0). Butch Stanley abstained from voting due to his position on the Emerson Park Homeowners' Association and will file a Form 8B for the record. (Vote taken by poll.)

He asked if there were any additional corrections or additions to the regular meeting minutes of June 26, 2018, at 5:30 p.m.

Motion: Butch Stanley made a motion to approve the Planning Commission minutes from the regular meeting held on June 26, 2018, at 5:30 p.m. and seconded by Linda Laurendeau. Aye votes were cast by James Greene, Linda Laurendeau, John Sprinkle, and Butch Stanley (4-0).

QUASI-JUDICIAL – PLANNED UNIT DEVELOPMENT AMENDMENT – ORANGE BLOSSOM APOPKA RV RESORT - Chairperson Greene stated this is a request to request to find the proposed PUD amendment consistent with the Comprehensive Plan and Land Development Code; and recommend to approve an amendment to Ordinance 2345, to allow a maximum of 92 campground sites at the Orange Blossom Apopka RV Resort located at 3800 West Orange Blossom Trail.

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 ex parte communications occurred.

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Staff Presentation: Phil Martinez, Planner I, stated this is a request to find the proposed PUD amendment consistent with the Comprehensive Plan and Land Development Code; and recommend to approve an amendment to Ordinance 2345, to allow a maximum of 92 campground sites at the Orange Blossom Apopka RV Resort owned by Orange Blossom Apopka RV Resort Inc., c/o Robert Vesely, and located at 3800 West Orange Blossom Trail. The existing use is a RV Resort Park (Caravan Park). The proposed use is to maintain the existing RV park and add 11 more lots. The land use is Mixed Use and the zoning is PUD (Planned Unit Development). The total tract size is 10.2 +/-.

The subject property is located at 3800 West Orange Blossom Trail. Annexed on January 16, 2008, via Ordinance number 2006, the site comprised of a RV Resort Park. On January 15, 2014, the subject area was assigned PUD zoning, via Ordinance number 2345.

Ordinance No. 2345 permits 81 campground sites for recreation vehicles, campers, or manufactured homes for commercial temporary lodging and associated accessory uses or structures. Any additional campground sites must be approved by City Council. The applicant proposes 11 additional sites along the southern boundary line. Parallel to the southern boundary line is a solid, opaque fence and Fudge Road. The predominant uses south of Fudge Road are mostly agriculture and industrial oriented. Due to the surrounding uses, Planning staff does not object to 11 additional campground sites along the southern border. If the PUD amendment is approved, a maximum of 92 campground sites will be allowed.

A maximum number of campground sites was established within Ordinance No. 2345 to manage the intensity of the use of the property for public health, safety and welfare reasons. At the time of the original PUD zoning application, the campground owner proposed 81 campground sites. At this time the owner desires to expand the campground to accommodate 11 additional campground sites. The Development Review Committee did not identify any concerns regarding public health, safety, or welfare, or with compatibility with adjacent land uses.

The proposed amendment to Ordinance 2345 is consistent with the City's Mixed Use Future Land Use category. Development plans shall not exceed the intensity allowed under the adopted Mixed Use Future Land Use designation.

The Property is located on a major arterial road (West Orange Blossom Trail).The proposed amendment to Ordinance 2345 will not create any land use or traffic compatibility issues with adjacent uses. Development of the site must occur consistent with standards set forth in the Land Development Code and Development Design Guidelines unless otherwise approved within the PUD master plan.

The only revisions PUD Ordinance 2345 is the maximum number of campground sites.

Proposed Amendment to Ord. No. 2345:

Section I: The maximum number of campsites is proposed to be increased from 81 to 92 campsites. The following amendment (strike-through/underscore) is proposed to Ord. No. 2345:

A. The uses permitted within the PUD district are:

- A maximum of ~~81~~ 92 campground sites for recreation vehicles, campers, or manufactured homes for commercial temporary lodging and associated accessory uses or structures. Any additional campground sites must be approved by the City Council.

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- One permanent single family residential structure or manufacture home for the campground operator.
- Outdoor storage of recreation vehicles or campers, boats, and boat trailers, and outdoor recreational motor craft. Outdoor storage of automobiles, commercial trucks and trailers, and other large vehicles is not allowed.
- Any use or activity allowed within the C-1 commercial zoning category. Development standards and setbacks shall comply with those established for the C-1 zoning category unless otherwise approved by the City Council within the Master Plan.

The Development Review Committee recommends approval of the amendment to Ordinance 2345, for the property owned by Orange Blossom Apopka RV Resort Inc., located at 3800 West Orange Blossom Trail, subject to PUD Recommendations and the information and findings in the staff report.

Staff recommended the Planning Commission find the proposed PUD amendment consistent with the Comprehensive Plan and Land Development Code; and recommend to approve an amendment to Ordinance 2345, to allow a maximum of 92 campground sites at the Orange Blossom Apopka RV Resort located at 3800 West Orange Blossom Trail.

The role of the Planning Commission is advisory to the City Council. Planning Commission can recommend to approve, deny or to 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 question by Mr. Sprinkle, Ms. Sanchez stated that if it is found that the applicant needs to replace trees, the City's Land Development Code addresses the types of trees that the applicant can use for replacements; and the Tree Bank policy addresses the option to make a contribution to the City's Tree Bank to mitigate any remaining tree inches needed.

In response to questions by Mr. Sprinkle, Mr. Moon stated that when the change of zoning to PUD occurred in 2014, staff had concerns regarding the ZIP zoning on the subject parcel and felt the need to restrict the number of campsites.

The Petitioner did not have a presentation.

Mr. Simpson arrived at 5:36 p.m.

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

Motion: Linda Laurendeau made a motion to request to find the proposed PUD amendment consistent with the Comprehensive Plan and Land Development Code; and recommend to approve an amendment to Ordinance 2345, to allow a maximum of 92 campground sites at the Orange Blossom Apopka RV Resort located at 3800 West Orange Blossom Trail. Motion seconded by John Sprinkle. Aye votes were cast by Aye votes were cast by James Greene, Linda Laurendeau, John Sprinkle, and Butch Stanley (4-0). Roger Simpson abstained from voting due to his arrival missing the presentations and will file a Form 8B for the record. (Vote taken by poll.)

QUASI-JUDICIAL – PRELIMINARY DEVELOPMENT PLAN – FAIRFIELD INN & SELF-STORAGE - Chairperson Greene stated this is a request to find the Fairfield Inn and Self-Storage Preliminary Development Plan consistent with the Land Development Code and Comprehensive Plan; and recommend approval of Preliminary Development Plan Subdivision Plan and Site Plan, subject to the findings of this staff report for the property owned by Farish Enterprises, LLC, and located at 1616 East Semoran Boulevard.

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 ex parte communications occurred.

Staff Presentation: Jean Sanchez, Planner II, stated this is a request to find the Fairfield Inn and Self-Storage Preliminary Development Plan consistent with the Land Development Code and Comprehensive Plan; and recommend approval of Preliminary Development Plan Subdivision Plan and Site Plan, subject to the findings of this staff report for the property owned by Farish Enterprises, LLC, and located at 1616 East Semoran Boulevard. The engineer is Interplan, LLC, c/o Stuart Anderson, P.E. The land use is Commercial and the zoning is C-2 (General Commercial District). The existing use is vacant land and the proposed uses are a hotel, self-storage facility and RV parking. The hotel proposed with 91 rooms and a building size of 51,588 sq. ft. The storage facility building size is proposed to be 60,732 sq. ft. The building height for the hotel is proposed at 53 feet and 35 feet for the storage facility. The Floor Area Ratio is 0.2499 (maximum of 0.25 allowed. The tract size is 12.12 +/- Acres (527,937 square feet).

Farish Enterprises proposes to replat the McVilla Commerce Park Plat from three lots to four lots. Lot 3 of the McVilla Commerce Center Plat will be subdivided into Lots 3A and 3B. Lot 3B, is the proposed location of a hotel and a storage facility. Lot 3A is proposed as an outparcel and is situated on Semoran Boulevard. A site plan for Lot 3B is included in this Preliminary Development Plan. At a future date, a site plan will be submitted for the vacant outparcel, Lot 3A. The site plans for the self-storage facility and the hotel are designed so that the parcel can be further subdivided into separate lots at some time in the future.

The site plan for Lot 3B includes the hotel and self-storage facility. A service driveway\road connects McVilla Avenue to the western end of Lot 3B and to an outparcel in Lot 3A. A multi-tenant monument sign will be placed in a sign easement at the northeast corner of Lot 3A, and dedicated to the Lot 3B owner.

At four stories, the hotel includes 91-lodging units and an outdoor pool. At three stories, the 60,732 square feet self-storage facility will include outdoor storage for recreational vehicles, trucks and other equipment. Located behind the Aldi Grocery Store and the RaceTrac on East Semoran Boulevard, the hotel and self-storage facility have a proposed connection to Semoran from the private driveway, McVilla Avenue.

Section 2.02.01(A) of the City's Land Development Code, mandates a maximum building height of 35' for all districts. On December 13, 2016, the Planning Commission approved a special exception to

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allow a maximum building height of fifty-five (55) feet for the hotel. The self-storage facility is in accordance with the previously mentioned building height rule of 35'. The hotel is proposed to have a height of 53 feet.

The hotel site contains 106 parking spaces of which five are handicapped spaces. And the self-storage facility contains 67 parking spaces of which two are handicapped spaces. In total, the applicant proposes 69 more parking spaces than what is required by the Land Development Code. The applicant has not declared whether joint parking will be allowed between the hotel and self-storage sites, but that capability exists as Lot 3B will occur under one ownership.

Access to the site is via a single full access points on US 441/Semoran Boulevard at McVilla Avenue, a signalized intersection. McVilla Avenue dead ends into this project and provides access to US 441/Semoran Boulevard for Aldi on the west and RaceTrac on the right.

A. Road Jurisdiction.

1. US 441/Semoran Boulevard – State Road.
2. McVilla Avenue – Private.
3. A cross-access easement provides connection between Lot 3A and the Aldi lot, connecting to Semoran Blvd.

B. The project is anticipated to generate 71 PM Peak Hour trips. All project generated traffic is anticipated to exit the site to US 441/Semoran Boulevard, half heading east and half heading west. Sufficient capacity exists to accommodate the addition of trips generated by this project.

C. Road/Intersection Improvements. No roadway or intersection improvements are required.

Stormwater run-off and drainage will be accommodated by an on-site retention pond located on the south portion of the project site abutting residential uses/districts and surrounded by a 6-foot tall aluminum fence. The on-site stormwater management system is designed according to standards set forth in the Land Development Code.

The site plan shows that parking lots and buildings are proposed to be lined with predominantly Live Oaks and Slash Pines. Live oaks are shown, in addition to a 6-foot tall masonry, concrete or brick wall on the southern boundary and portion of the eastern boundary line abutting residential zoning districts. The planting materials are consistent with the standards set forth in Ordinance No. 2069.

Four hundred (400) square feet of area within the proposed outparcel on the northeastern portion that abuts Semoran Boulevard is designated as an area for multitenant monument signage. The Lot 3A outparcel will be created by plat at the time of Final Development Plan. Signage for this development will be permitted separately and must comply with Article VIII of the City's Land Development Code.

The Development Review Committee recommends approval of the Fairfield Inn and Self-Storage Preliminary Development Plan, subject to the findings of this staff report.

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Staff recommended the Planning Commission find the Fairfield Inn and Self-Storage Preliminary Development Plan consistent with the Land Development Code and Comprehensive Plan; and recommend approval of Preliminary Development Plan Subdivision Plan and Site Plan, subject to the findings of this staff report for the property owned by Farish Enterprises, LLC, and located at 1616 East Semoran Boulevard.

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

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.

Chris Blurton, Interplan LLC, 604 Courtland Street, Suite 100, Orlando, stated he represented the owner, supported the staff report, and was available to answer any questions.

In response to a question by Ms. Laurendeau, Mr. Moon stated that the current Preliminary Development Plan is consistent with the initial concept plan.

In response to a question by Ms. Laurendeau, Mr. Blurton stated that the building height code limitation of 35 feet contained does not apply to appurtenances usually required to be placed above the roof level and not intended for human occupancy such as elevator shafts.

In response to concerns expressed by Mr. Sprinkle regarding buffering of the adjacent residential properties, Mr. Blurton stated they wanted to be good neighbors. He stated that there are no windows on the east side of the building. There is a large 150' retention pond and many trees on the south side of the property; and the building would be approximately 100' feet from the adjacent homes.

Mr. Moon added that, if needed, more trees can be added to the Final Development Plan; however, the final development plan goes directly to City Council after the Development Review Committee reviews the plan.

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

Motion: Butch Stanley made a motion to find the Fairfield Inn and Self-Storage Preliminary Development Plan consistent with the Land Development Code and Comprehensive Plan and compatible with the surrounding area; and recommend approval of Preliminary Development Plan Subdivision Plan and Site Plan, subject to the findings of this staff report for the property owned by Farish Enterprises, LLC, and located at 1616 East Semoran Boulevard. Motion seconded by Linda Laurendeau. Aye votes were cast by James Greene, Linda Laurendeau, Roger Simpson, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)

QUASI-JUDICIAL – FINAL DEVELOPMENT PLAN – GREATER FAITH WORLD CENTER, INC., PHASE 1 - Chairperson Greene stated this is a request to find the Greater Faith World Center, Phase 1 Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of the Greater Faith World Center, Phase 1 Final Development Plan, subject to the findings of this staff report for the property owned by Center of Faith Church, Inc. and located at 700 Vick Road.

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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 ex parte communications occurred.

Staff Presentation: Bobby Howell, AICP, Senior Planner, stated this is a request to find the Greater Faith World Center, Phase 1, Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of the Greater Faith World Center, Phase 1 Final Development Plan, subject to the findings of this staff report for the property owned by Center of Faith Church, Inc. and located at 700 Vick Road. The applicant/engineer is Kenneth H. Ehlers, P.E. The land use is Institutional/Public Use and the zoning is PO/I (Professional Office/Institution). The existing use and proposed use is a church with a building size of 10,669 sq. ft. The tract size is 3.25 +/- acres.

The applicant has submitted a Final Development Plan for a 10,669 square foot church. The subject property is located at 700 Vick Road, at the northeast corner of the intersection of Martin Street and Vick Road, south of Apopka High School. The subject property is approximately 3.25 acres in size and is zoned PO/I (Professional Office/Institutional District). The Final Development Plan is for Phase I of the Greater Faith World Center church. Phases II and III appear on the development plan for information and planning purposes only, and will require a Final Development Plan approval from the City Council at such time each phase moves forward. There is an existing two-story residence on the property that will be used as a parsonage.

A total of 106 parking spaces will be provided for the church building. Five parking spaces are reserved as a handicapped parking spaces.

Access to the site is provided via a full access point located on Martin Street which lines up with the high school entrance, and a right-in/right-out on Martin Street, approximately 120-feet west of the right-in/right-out. An additional entrance consisting of a right-in/right-out is proposed on Vick Road.

TRANSPORTATION:

A. Road Jurisdiction.

1. Martin Street – City of Apopka
2. Vick Road – City of Apopka.

B. A Traffic Impact Analysis (TIA) was not required for this project because it is expected to generate less than 400 daily trips. The trip generation is anticipated to generate 97 daily trips and 6 PM Peak Hour trips.

C. Road/Intersection Improvements. A signal at the intersection of Vick Road and Martin Street has been warranted and will be installed by the City. The Church has conveyed right-of-way to the City along Martin Street to accommodate a slight realignment of the intersection at the time of the signal installation.

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The architectural elevations provided for the church building propose a one story building with architectural design elements including a porte-cochere, an architectural grade composition asphalt shingle roof, eifs, and stone veneer provided around the perimeter of the building. The building exhibits high quality architectural elements that are required in the Development Design Guidelines.

Stormwater run-off and drainage will be accommodated onsite with a dry stormwater retention pond that is located in the southwestern corner of the site along Vick Road.

The applicant has provided a detailed landscape and irrigation plan that complies with the requirements of the City's Land Development Code. The planting materials and irrigation system design are consistent with the water-efficient, Florida-friendly landscape standards set forth in Ordinance No. 2069.

In lieu of a masonry or brick wall along the southern property line, a 25-foot wide area of existing trees and landscaping will be preserved to provide a buffer for the adjacent residential neighborhood to the south. A standard five-foot wide buffer is provided along the eastern property line. A standard ten-foot wide buffer will be provided along Vick Road and Martin Street.

A tree mitigation payment will be assessed to mitigate existing trees that are proposed to be removed.

Total inches on-site:	1,440
Total inches removed	540
Total inches retained:	900
Total inches added:	178
Total inches post development:	1,078

The Development Review Committee recommends approval of the Greater Faith World Center, Phase 1 Final Development Plan, subject to the findings of this staff report.

Staff recommended the Planning Commission find the Greater Faith World Center, Phase 1 Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of the Greater Faith World Center, Phase 1 Final Development Plan, subject to the findings of this staff report for the property owned by Center of Faith Church, Inc. and located at 700 Vick Road.

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 Comprehensive Plan and Land Development Code.

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.

The Petitioner did not have a presentation.

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

Motion: John Sprinkle made a motion to find the Greater Faith World Center, Phase 1 Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of the Greater Faith World Center, Phase 1 Final Development Plan, subject to the findings of this staff report for the property owned by Center of Faith Church, Inc. and located at 700 Vick Road. Motion seconded by Roger Simpson. Aye votes were cast by James Greene, Linda Laurendeau, Roger Simpson, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)

QUASI-JUDICIAL – PLAT – SAN SEBASTIAN RESERVE - Chairperson Greene stated this is a request to find the San Sebastian Reserve – Plat to be consistent with the Preliminary Development Plan and Final Development Plan subject to revision to the FDP and Plat to reflect consistency with the northeast corner of the Master Plan\PDP -- Lots 101 to 105; and recommend approval of San Sebastian Reserve Subdivision – Plat subject to the Conditions of Approval for the property owned by A.D Raulerson, Sr. & A.D. Raulerson, Jr. and Curtis & Karen Pumphrey and located north of Lester Road and west of Rock Springs Road.

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 ex parte communications occurred.

Staff Presentation: Ms. Sanchez stated this is a request to find the San Sebastian Reserve – Plat to be consistent with the Preliminary Development Plan and Final Development Plan subject to revision to the FDP and Plat to reflect consistency with the northeast corner of the Master Plan\PDP -- Lots 101 to 105; and recommend approval of San Sebastian Reserve Subdivision – Plat subject to the Conditions of Approval for the property owned by A.D Raulerson, Sr. & A.D. Raulerson, Jr. and Curtis & Karen Pumphrey and located north of Lester Road and west of Rock Springs Road. The applicant is Apopka Development II, LLC, c/o Richard C. Wohlfarth, P.E. The existing use is vacant land and the proposed use is a single-family subdivision with 112 Lots, a pool facility, and a dog park. The land use is Residential Medium Low Density (0-7.5 du/ac) and the zoning is PUD (Planned Unit Development). The minimum lot width is 40' and the minimum lot size is 4,400 sq. ft. The tract size is 23.14 +/- acres.

Planning Commission reviewed and recommended approval of the San Sebastian Reserve Preliminary Development Plan PUD Master Plan\PDP on February 13, 2018. The Planning Commission role is to review the Plat for consistency with the PDP/PUD Master Plan, as the Planning Commission Chair is required to sign the Plat.

The site comprises 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. The proposed development, San Sebastian Reserve, is a private and gated subdivision of 112 detached, single family homes. All infrastructure, bufferyards, and other common areas will be maintained privately and by the Homeowners' Association.

The HOA will be responsible for maintaining the landscaping and irrigation within the public right-of-way portion of Sebastian Springs Way (Tract RW-1) until the properties on to the north and south side of the road develop, at the City may remove the landscaping or the adjacent property owners can agree to maintain.

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 a minimum of 25 feet (per PUD design standards).

Ingress/egress access points for the development will be via full access Lester Road and to Rock Springs Road (via Sebastian Springs Way.)

The applicant is in the process of obtaining an executed school Concurrency Mitigation Agreement (CMA) with Orange County Public Schools (OCPS) to address school impacts generated by this residential development. The plat shall not be recorded and no construction activity will occur until after an executed CMA with OCPS has been obtained.

The Conditions of Approval include: (1) the revision of the Final Development Plan and Plat for consistency with the Master Plan\ Preliminary Development Plan for Lots 101 to 105; and (2) the HOA will be responsible for maintaining the landscaping and irrigation within the public right-of-way portion of Sebastian Springs Way (Tract RW-1) until the properties on to the north and south side of the road develop, at the City may remove the landscaping or the adjacent property owners can agree to maintain

The County was notified at the time of the plat application for this property through the DRC agenda distribution.

The Development Review Committee finds the San Sebastian Reserve – Plat to be consistent with the Preliminary Development Plan and Final Development Plan subject to revision to the FDP and Plat to reflect consistency with the northeast corner of the Master Plan\PDP -- Lots 101 to 105, and recommends approval of San Sebastian Reserve Subdivision – Plat subject to the Conditions of Approval.

Staff recommended the Planning Commission find the San Sebastian Reserve – Plat to be consistent with the Preliminary Development Plan and Final Development Plan subject to revision to the FDP and Plat to reflect consistency with the northeast corner of the Master Plan\PDP -- Lots 101 to 105; and recommend approval of San Sebastian Reserve Subdivision – Plat subject to the Conditions of Approval for the property owned by A.D Raulerson, Sr. & A.D. Raulerson, Jr. and Curtis & Karen Pumphrey and located north of Lester Road and west of Rock Springs Road.

The role of the Planning Commission is advisory to the City Council to approve or deny the proposed plat for San Sebastian Reserve Plat based on consistency with the approved San Sebastian Reserve PUD Master Plan/Preliminary Development Plan, Comprehensive Plan and Land Development Code and subject to PUD Ordinance No. 2634.

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.

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Petitioner: Richard C. Wohlfarth, P.E., W.C. Group, LLC, 246 N. Westmonte Drive, Altamonte Springs, stated he represented the owner, supported the staff report, and was available to answer any questions.

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 San Sebastian Reserve – Plat to be consistent with the Preliminary Development Plan and Final Development Plan subject to revision to the FDP and Plat to reflect consistency with the northeast corner of the Master Plan\ PDP -- Lots 101 to 105; and recommend approval of San Sebastian Reserve Subdivision – Plat subject to the Conditions of Approval for the property owned by A.D Raulerson, Sr. & A.D. Raulerson, Jr. and Curtis & Karen Pumphrey and located north of Lester Road and west of Rock Springs Road. Motion seconded by Butch Stanley. Aye votes were cast by James Greene, Linda Laurendeau, Roger Simpson, John Sprinkle, and Butch Stanley (5-0). (Vote taken by poll.)

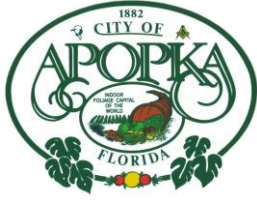
OLD BUSINESS: None.

NEW BUSINESS: None

ADJOURNMENT: The meeting was adjourned at 6:02 p.m.

James Greene, Chairperson

James K. Hitt, FRA-RA
Community Development Director



CITY OF APOPKA PLANNING COMMISSION

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

MEETING OF: August 14, 2018
 FROM: Community Development
 EXHIBITS: MEdTech Campus Overlay District
 Form Based Code

SUBJECT: KELLY PARK INTERCHANGE FORM-BASED CODE, EMPLOYMENT DISTRICT’S MEdTech CAMPUS OVERLAY DISTRICT

REQUEST: RECOMMEND APPROVAL OF THE MEdTech CAMPUS OVERLAY DISTRICT WITHIN THE KELLY PARK INTERCHANGE FORM-BASED CODE (ARTICLE III, LAND DEVELOPMENT CODE)

SUMMARY:

The Kelly Park Interchange Form-Based Code was approved by the Apopka City Council on June 21, 2017. The Form-Based Code was developed to guide and regulate development within the Wekiva Parkway Interchange Plan area to achieve a specific urban form or character and physical urban form – such as building design and scale while placing less focus on land use or zoning.

This is in accordance with Objective 19 of the Future Land Use Element (Comp Plan) directs the City to implement a form-based code to further the Wekiva Parkway Interchange Plan; and, Objective 20 of the Comprehensive Plan, Future Land Use Element.

A primary purpose of the proposed development standards is to create a sustainable community in the Interchange area – a place where people can live, work, play and shop.

The proposed MEdTech Campus Overlay District is being created within the existing Employment District as a means to establish specific development criteria for a campus-type area for **Medical, Educational and Technology**. This overlay district standards include, but are not limited to: permitted uses, district size (40 to 100 acres), building materials, building step-backs, buffers, size, orientation, pedestrian, bicycle and auto connectivity, and other guidelines for the campus development.

This MEdTech Overlay District is only applicable within the Employment District to the Kelly Park Interchange Form-Based Code. This area is west of S.R. 429, generally east of Effie Drive, and is both north and south of Kelly Park Rd, all within the Kelly Park Interchange Form-Based Code area. (Please see next page for the map)

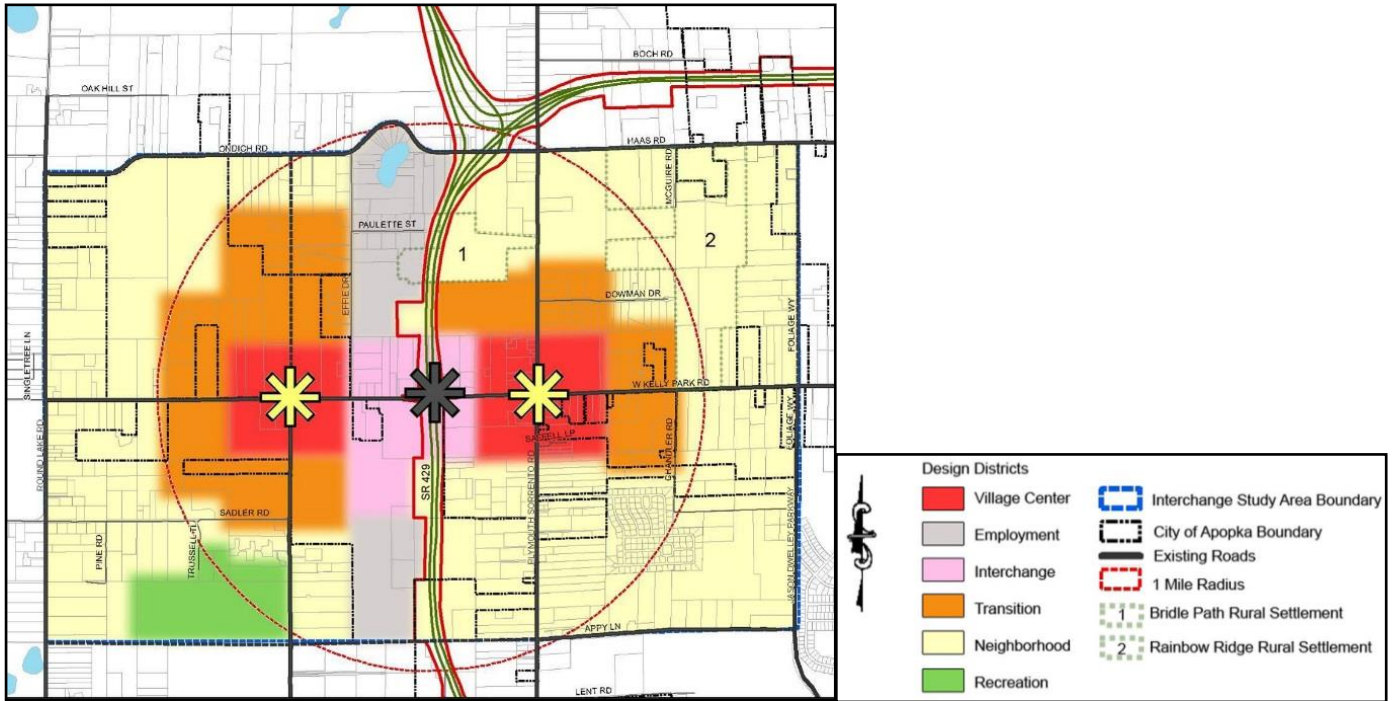
DISTRIBUTION

Mayor Nelson
 Commissioners
 City Administrator
 Community Development Director

Finance Director
 HR Director
 IT Director
 Police Chief

Public Services Director
 Recreation Director
 City Clerk
 Fire Chief

Form-Based Code development area map



PUBLIC HEARING SCHEDULE:

August 14, 2018 – Planning Commission (5:30 pm)
 September 5, 2018 – City Council (1:30 pm)
 September 19, 2018 – City Council (7:00 pm)

DULY ADVERTISED:

August 3, 2018 – Public Notice and Notification
 September 7, 2018 – Ordinance Heading Ad

RECOMMENDATION ACTION:

Find the MEdTech Campus Overlay District within Employment District of the Kelly Park Form-Based Code for the Wekiva Parkway Interchange Plan Area to be consistent with the Comprehensive Plan, and Recommend that City Council adopt this overlay district.

2.A MEdTech Campus Overlay District

As a means to enhance a campus like environment in coordination with staff, the primary intent of the MEdTech – Medical, Education & Technology Campus Overlay District is for the development of major educational, governmental and medical facilities and other complimentary and supporting uses such as office developments. The MEdTech Campus Overlay District encourages a campus-type character, which includes landscaped open space between buildings, a green buffer at the perimeter and uniform site design and details. Please refer to Appendix B for specific development standards for the size, orientation, massing and frontage design which will help deliver buildings whose scale and character are compatible with their urban context.

Appendix B: MEdTech Campus Overlay District Development Standards

A. Permitted Uses

Uses allowed within the Institutional Campus Overlay District include the following:

- Hospitals
- Freestanding Emergency Departments
- Urgent Care Facilities
- Skilled Nursing Facilities
- Senior Housing/Assisted Living Facilities
- Educational facilities/training
- Medical and Professional Office
- Imaging/Diagnostic Centers
- Surgery Centers
- Birthing Centers.
- Central Energy Plants (Hospitals)
- Parking structures
- Helipads are permitted and shall comply with FAA safety requirements.
- Other complementary Health & Wellness uses
- Public use (library, post office, Police, Fire and other municipal offices, and similar uses)

The following uses are permitted as accessory uses when contained within a primary structure:

- Commercial Retail
- Pharmacies
- Restaurants

Whenever there is uncertainty as to whether a use is permitted or not, or when a use is not listed the Community Development Director shall determine the classification.

B. District Size and Standards

1. The MEdTech Campus Overlay shall only be applied to property previously designated as “Employment Overlay District.”
2. The minimum size for a MEdTech Campus Overlay District project shall be forty (40) contiguous acres; the maximum size shall be no more than one hundred (100) acres
3. Blocks do not have to be orthogonal
4. Internal private streets and drives shall be interconnected for vehicle, bicycle and pedestrian circulation.
5. A proposed MEdTech Campus project shall contain multiple buildings, which may be developed in phases.

F. Building Design Standards

1. Architecture

There is not a requirement for a specific architectural style to be used. All architecture shall be uniform and complimentary across the campus.

2. Green Building

Green building principles related to energy efficiency, resource protection and environmental protection (e.g. reusable building materials, light colored roof materials, living roofs to treat stormwater, energy efficient windows, solar energy, etc.) set forth by agencies such as, but not limited to, the United States Green Building Council, the Florida Green Building Coalition and similar agencies are encouraged, not required.

3. Building Massing

Buildings shall respect and reflect pedestrian scale throughout the campus. Because of the unique nature of a campus-type development, the building massing standards for the MEdTech Campus Overlay District shall be reviewed on a case by case basis with the Community Development Director. Rendered building elevations shall be included with the Master Plan.

4. Facade Articulation

The standards contained in this section apply to all buildings and structures, including parking garages. The elements that make up a building facade are key components for defining the public realm. The façade design standards contained in this section are not intended to regulate style or appeal. The purpose of these standards is to ensure facades are designed to:

- Reduce the uniform monolithic appearance of large unadorned walls by requiring architectural detail;
- Increase public safety by designing buildings that provide human surveillance of the street.

Building facades along public or private streets and drives shall maintain a pedestrian scale and integrate the public and private spaces throughout the campus.

5. Building Entrances

- a. The main entrance of all buildings shall be oriented toward the internal private streets and drives.
- b. Where parking areas are located behind the building, a secondary entrance may be provided from the parking area into the building. Awnings, landscaping, and appropriate signage may be used to mark the secondary entrance.
- c. Pedestrian connections from the public sidewalk and parking areas to the building entrance shall be provided.

6. Windows and Doors

Development within the MEdTech Campus Overlay District shall meet the following standards:

- a. Buildings are subject to glazing requirements and shall be reflective.

- b. Non-Residential Upper Floors: The combined area of glass on all floors above the first divided by the total area of the building façade for those floors shall be no less than fifteen (15) percent.
- c. Windows and doors should be glazed in clear glass with no more than ten (10) percent daylight reduction (transmittance) for retail establishments, and fifty (50) percent for office uses. Glass block is not considered transparent and shall not count toward the minimum glazing requirement.
- d. Reflectance shall not exceed fifteen (15) percent.
- e. Stained or art glass shall only be permitted if consistent with the style of the building (churches, office, hospital, etc.).

7. Building Materials

Building materials that are visible from the street should not be selected on the basis of cost alone, but rather on compatibility with the building style and neighborhood character.

- a. Required Materials:
 - i. Concrete Masonry Units with Stucco
 - ii. Reinforced Concrete with Stucco
 - iii. Pre-Cast Concrete Panels
 - iv. Tilt up Concrete
 - v. Brick
 - vi. Stone
 - vii. Glass
 - viii. Steel

8. Roof Design

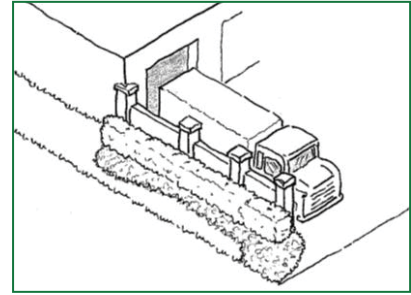
- a. Roofs shall be in scale with the building mass.
- b. Building elevations shall have a defined top edge consisting of, but not limited to, cornice treatments, roof overhangs and brackets.
- c. Buildings with flat roofs shall have a cornice treatment or a parapet. The cornice shall be at least eighteen (18) inches in height. Parapet shall be a minimum of two (2) feet in height.
- d. Roof materials shall be light-colored or a planted surface (green roof).
- e. Prohibited roof types and materials:
 - i. Mansard roofs and canopies
 - ii. Roofs with a 2/12 pitch or less without full parapet coverage
 - iii. Back-lit awnings used as a mansard or canopy roof

9. Service Areas

The following standards apply to non-residential developments.

- a. To the extent possible, areas for outdoor storage, trash collection, and loading shall be incorporated into the primary building design (see Figure 36) and shall not be located within 50 feet of single family residential lots.
- b. Loading areas, outdoor storage, waste disposal, mechanical equipment, satellite dishes, truck parking, and other service support equipment shall be located behind the building line and shall be fully screened from the view of the street.
- c. Mechanical equipment should be integrated into the overall mass of a building by screening it behind parapets or by recessing equipment into hips, gables, parapets, or similar features.

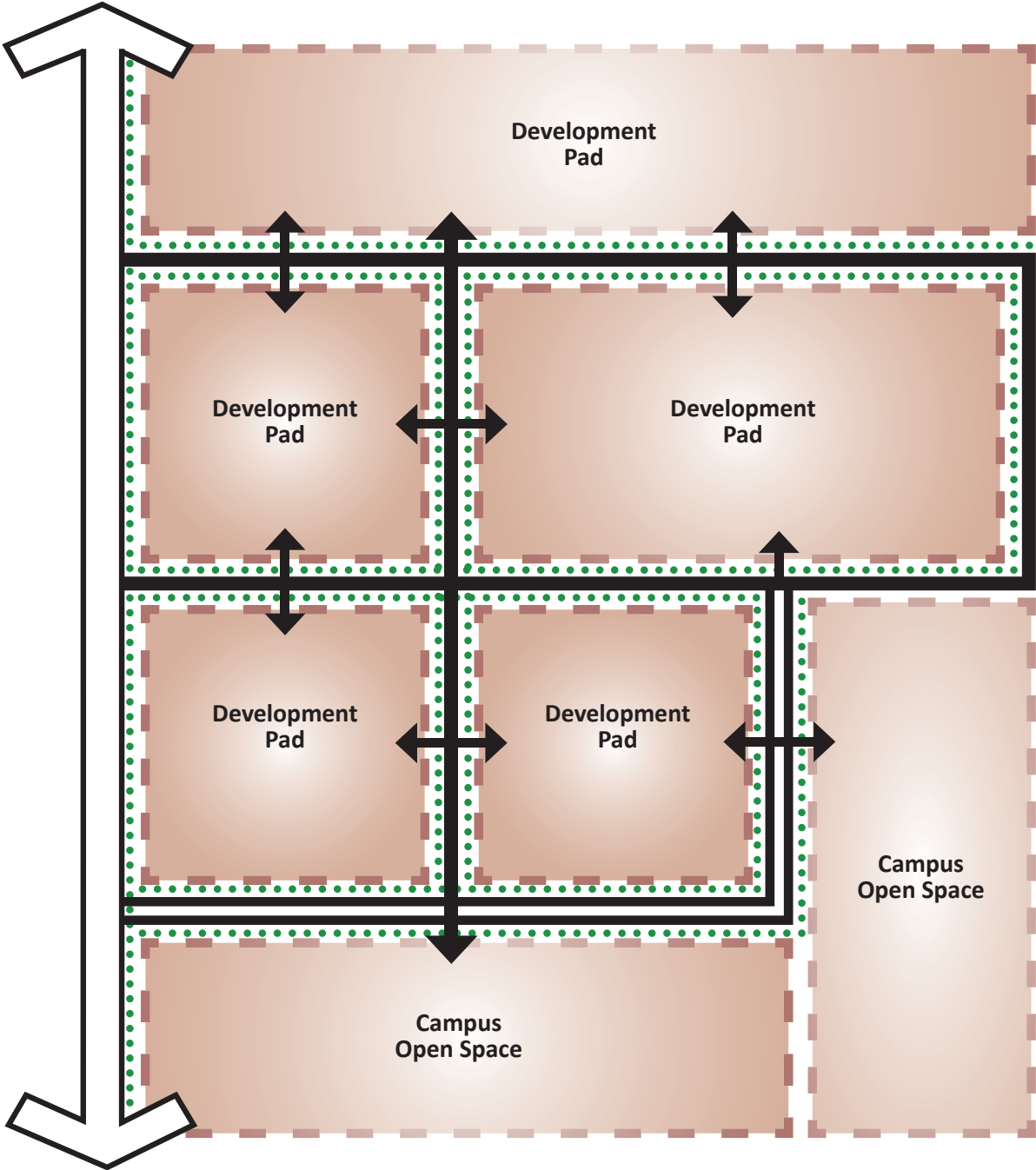
Figure 36. Loading Area Screening



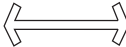




G. Access, Circulation and Parking Requirements

1. On-Site Circulation

- a. New developments must seek to create a balanced transportation system that accommodates pedestrians, bicyclists, and transit riders, as well as motor vehicles, and provides a system of connections to maximize choices for all modes of travel. The Typical Campus Circulation Diagram provides an illustrative example of pedestrian, transit and parking linkages.
- b. The use of joint access driveways is required between commercial sites to reduce the number of access points and driveways that cross sidewalks.
- c. Safe pedestrian connections shall be provided throughout the interior of development sites.
- d. Direct pedestrian access shall be provided from the principal entrance of the building to the sidewalk on the closest public right-of-way.
- e. Additional/secondary pedestrian access to businesses may be provided from parking facilities directly to ground floor uses, either through rear building entrances, sidewalks along the perimeter of buildings, or by pedestrian alleyways which connect the rear parking lots to the sidewalks along the front street.
- f. Pedestrian walkways within the development shall be differentiated from driving surfaces through a change in materials (including thermoplastic paint) and/or grade elevation.
- g. Crosswalks are required wherever a pedestrian sidewalk or alleyway intersects a vehicular area. All crosswalks shall be a minimum of five (5) feet wide and shall be demarkated for pedestrians.
- h. All new development shall provide connections to existing bike and pedestrian pathways and to bus stops and transit facilities.
- i. Installed bicycle racks shall be designed to accommodate the minimum number of bicycles as set forth in the City of Apopka Land Development Code.
- j. Bicycle racks shall be permanently fixed to the ground through mechanical fasteners or the use of concrete footings.



TYPICAL CAMPUS CIRCULATION DIAGRAM

-  Collector Road
-  Primary Road
-  Secondary Road
-  Internal Vehicular Connection
-  Pedestrian Connection

- k. The design of bicycle racks placed within the development site shall coordinate with the overall design scheme of the subject site in terms of color and material. Bike racks placed within the right-of-way shall comply with the requirements of Section K, Street Standards.
- l. Location of bus stops shall be identified on the Development Plans.

2. Location of Parking Facilities

- a. Surface parking lots shall be located adjacent to buildings so that the parking areas are screened from public sidewalks and streets, including, to the extent feasible, the Wekiva Parkway, by street walls or landscaped buffer.
- b. Any surface parking areas located along a public street shall be screened from street view by a street wall or landscaped buffer.
- c. Parking garages shall be designed to blend with adjacent architecture so as to not appear like a parking garage. Awnings and faux windows are sample add-ons.
- d. Electric charge stations shall be encouraged in all parking lots and/or garages.

3. Parking for Single Uses

Off-street parking requirements for the MEdTech Campus Overlay District shall comply with the minimum requirements listed in Section 6.03.00 of the City of Apopka Land Development Code.

H. Landscape, Buffering and Screening

Landscape and irrigation shall be consistent with Section 5.01.00 of the City of Apopka Land Development Code, except for the following:

1. Parking Lot Landscaping and Lighting

- a. Large parking lots shall be visually and functionally segmented into smaller lots with landscape island and canopy trees. The design of parking areas should avoid the appearance of large masses of parked cars. Landscape strips at least ten (10) feet wide shall be intermittently provided between parking bays of either head-in or diagonal parking. Trees shall be planted a maximum of fifty (50) feet on center along the length of the landscape strip.
- b. Parking lot layout, landscaping, buffering, and screening should minimize direct views of parked vehicles from streets and sidewalks; prevent spill-over light, glare, noise, and exhaust fumes from infringing on adjacent properties; and provide the required tree canopy shade. The landscape buffers will provide intermittent view corridors of campus buildings from streets and sidewalks.
- c. Any landscaping adjacent to the front of a parking space shall include a two (2) foot wide strip of gravel, mulch, or grass, so that the front of the parked vehicle can overhang without interfering with taller plantings.
- d. Parking spaces adjacent to a sidewalk must have wheel stops placed two (2) feet from the sidewalks so that the car overhang does not reduce the width of the sidewalk.
- e. Parking lot light fixtures shall be designed so that light is directed onto the parking area and away from neighboring residential lots.
- f. The design, color, shape, style, and materials of the fixtures shall match or complement the style and materials of the buildings served.

- g. Lighting fixtures in parking lots adjacent to residential zones shall not exceed twenty (20) feet in height as measured from the adjacent grade to the top of the light fixture.

2. Buffers and Screening

Buffers shall be provided as required by Section 5.01.00 of the Land Development Code, except that no buffer shall be required between the building and the street, or between similar uses unless specifically required as part of a Public Hearing review.

Urban street walls are the only type of fence/wall allowed facing streets and alleys. A street wall shall be required along fifty (50) percent of the perimeter of a surface parking lot that abuts a street or alley. Whenever a street wall is provided, it shall meet the following standards:

- a. The wall shall be a minimum of three (3) feet and a maximum of five (5) feet in height.
- b. Street walls may be constructed of wrought iron, brick, masonry, stone, concrete, powder-coated aluminum, a combination of materials, i.e. split rail fence with stone columns or other decorative materials that complement the finish on the primary building. Chain link and PVC street walls shall be prohibited.
- c. When a parking lot abuts a public right-of-way, ground cover, hedges, or shrubs shall be installed in the street setback zone. The street setback zone landscaping shall be a minimum of three (3) feet wide. The area in front of a street wall may be landscaped or used to expand the public sidewalk.
- d. Breaks should be permitted in the street wall to provide pedestrian access to the site and for the purpose of tree protection.

I. Stormwater

Developers are encouraged to connect to a master stormwater system, rather than providing an on-site facility. If a master stormwater system is anticipated, site specific ponds shall be removed and connection to the master system shall be required. Until such time as a master system is available, development is subject to the following requirements:

- 1. All retention areas shall be incorporated into the overall design of the project.
- 2. Dry stormwater areas shall be designed as amenities, and count towards open space.
- 3. Wet bottom ponds may only be allowed subject to Special Exception approval.
- 4. Landscaping is required to soften the visual appearance of dry retention pond edges. Native trees and shrubs shall be used. No exotic invasive plants are permitted.
- 5. Where slopes require fencing, only ornamental metal will be allowed.
- 6. To reduce the size of stormwater ponds that are not designed as amenities, the use of porous concrete, underground storage, and exfiltration is greatly encouraged, but not required.

J. Signs

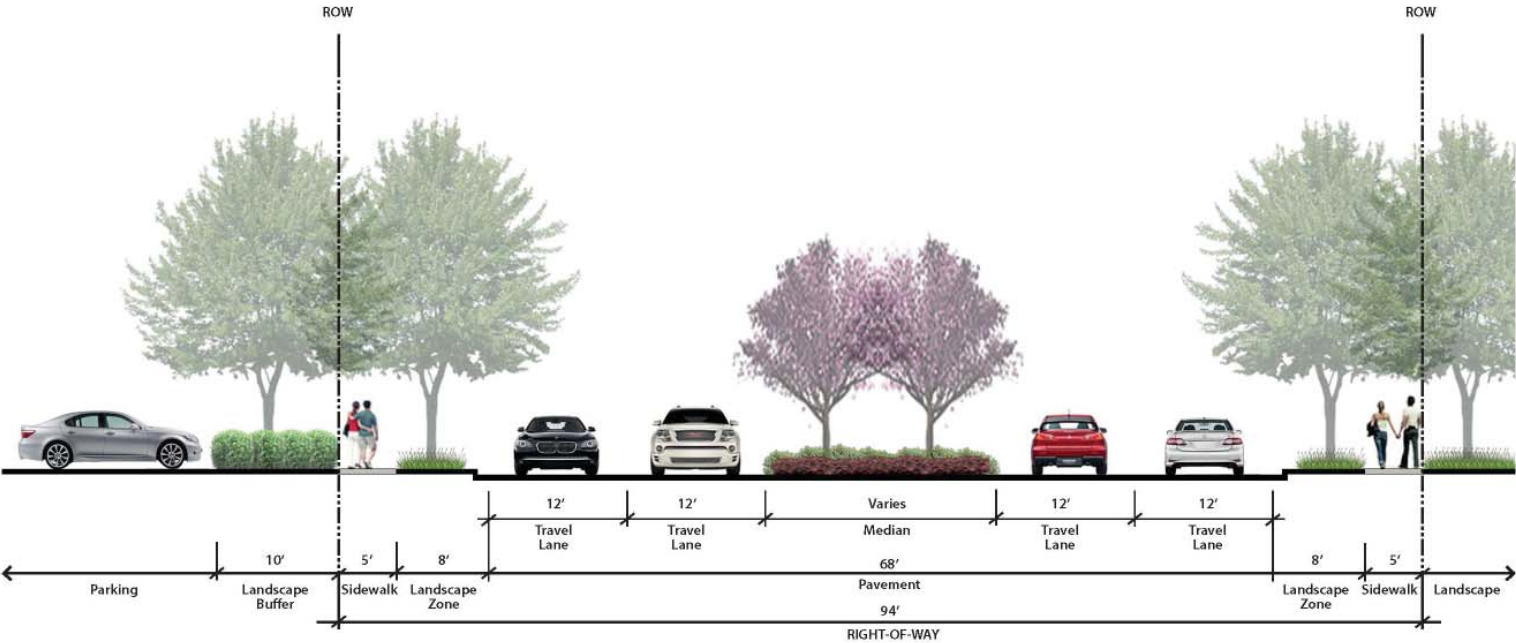
Development within the MEdTech Campus Overlay District shall include a Master Sign Plan with the Master Plan submittal.

K. Street Standards

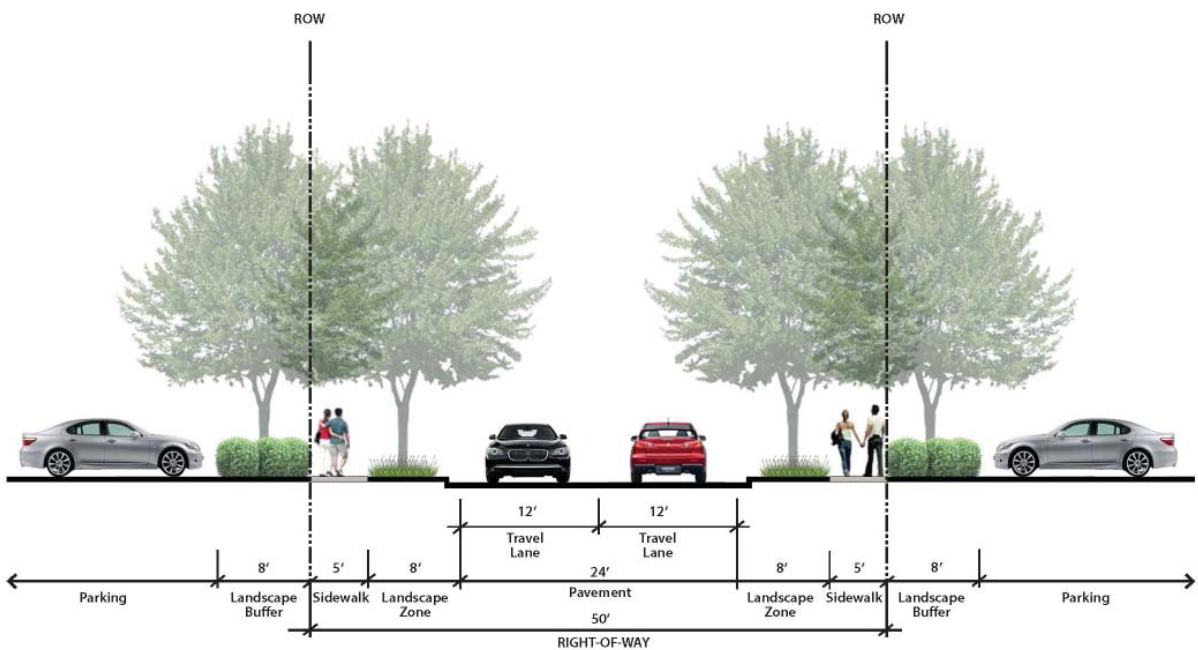
1. Complete Streets

Private internal streets, drives and pedestrian facilities should incorporate the Complete Streets design concept wherever possible. Complete Streets serves the transportation needs of transportation users for all ages and abilities, including but not limited to pedestrians, bicyclists, transit riders, motorists, and freight handlers.

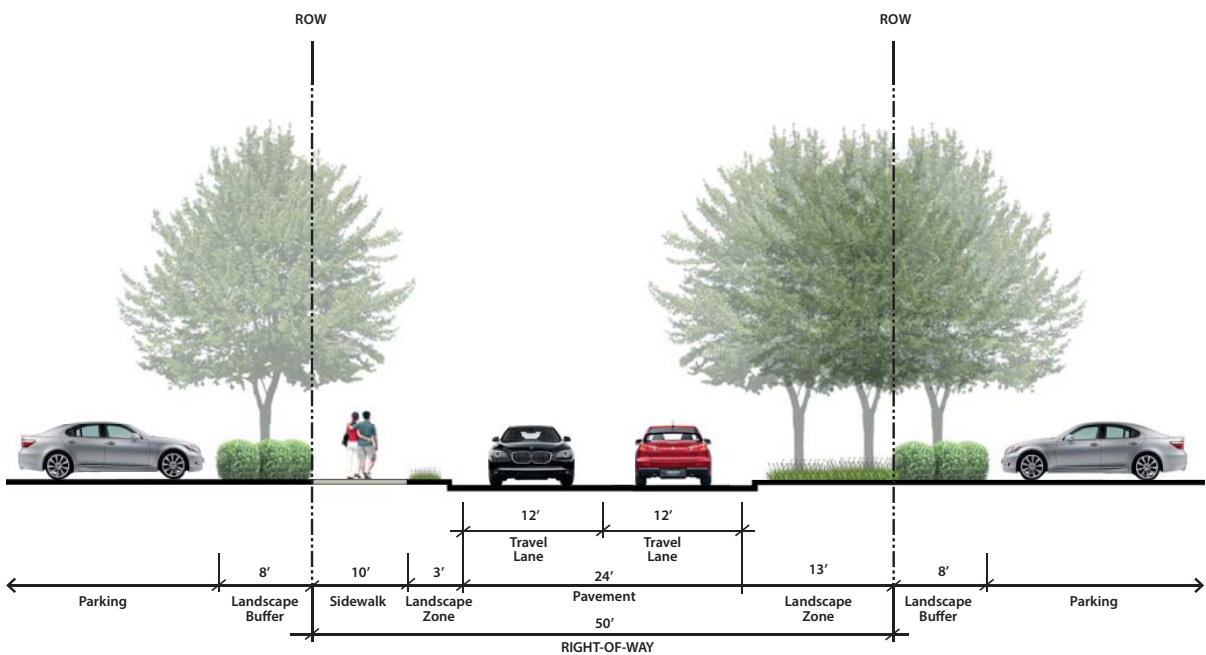
a. Typical cross sections for streets permitted within the MEdTech Campus Overlay District are found below.



TYPICAL INTERNAL PRIMARY ROAD SECTION



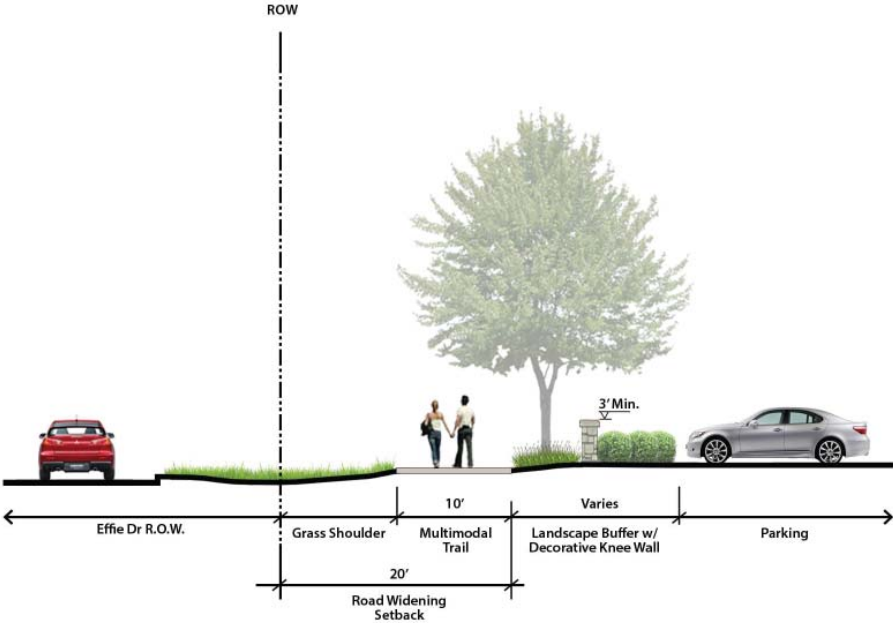
TYPICAL INTERNAL SECONDARY ROAD SECTION



TYPICAL INTERNAL SECONDARY ROAD SECTION
Option #2

2. Effie Drive Streetscape

- a. Effie Drive shall be improved using the street standards for Type D, Option 1, see Typical Effie Drive cross-section.



TYPICAL EFFIE DRIVE SECTION

3. Street Trees

- a. A four-(4) inch canopy tree (minimum caliper at planting) shall be planted every forty (40) feet on center in the landscape zone and central median.
- b. There shall be a minimum of twenty-five (25) square feet of mulch around each tree, unless a tree well is used.
- c. The recommended street trees include D. D. Blanchard Magnolia, Live Oak Cultivar and palm trees. Alternative species may be approved through the site plan review process.
- d. Palm trees shall be limited to forty (40) percent of the total tree requirement.
- e. The use of structural soils (aggregate based soil mix) or modular suspended pavement systems such as Silva Cell (www.deepproot.com) should be considered for street trees. Both methods have been proven to be effective in areas with limited planting space. Additionally, these planting techniques provide a sub-base that can support the above ground infrastructure, promote healthy root growth, and reduce root damage to streets, sidewalks and utilities.
- f. The use of root barriers (e.g. BioBarrier® or DeepRoot Tree Barrier systems) should be considered to prevent damage to utility pipes from tree roots,. When installed correctly, a root barrier forces roots to grow downward against the wall surface of the barrier and away from streets, sidewalks and utilities. Each method will increase the cost of tree installation, but will minimize the need for future street, sidewalk and utility repairs as well as corresponding damage to trees during maintenance activities.

4. Sidewalks and Crosswalks

- a. Construction specifications for public sidewalks can be requested from City of Apopka Engineering Department. Sidewalk and crosswalks within internal private streets and drives shall also meet the following standards:
 - i. Crosswalks are required at all intersections of primary and secondary roads.
 - ii. All internal private streets and drives shall have, at minimum, painted crosswalks consistent with FDOT standards.

5. Street Furniture

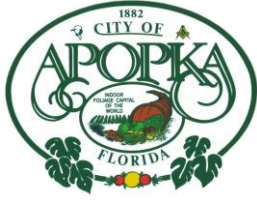
- a. Street furniture includes benches, waste receptacles, and bike racks. Developers will be required to provide the required street furniture along all primary internal private streets and drives within their project. It shall be the property owners' responsibility to ensure proper maintenance of the street furniture within their project. Similar themed furniture is recommended as to be approved with the site plan.
- b. Developers are encouraged to place the required bike racks within the primary internal private streets and drives between the curb and required sidewalk. The bike rack shall be set perpendicular to the street so that parked bicycles do not impede pedestrian circulation. Required bike parking may also be installed within public open spaces.

6. Street Lighting

- a. Lighting shall address both pedestrian as well as vehicular areas and shall be appropriately designed for the width of the roadway, as follows:
 - i. Street lights shall be installed in all character zones. Pedestrian lighting may be provided in the Institutional Campus Overlay District.
 - ii. All lights shall be LED, and shall have Dark Sky optics and cut-off luminaries to reduce light pollution.
 - iii. Double head streetlights may be placed in the landscaped median.
 - iv. Developers may work with Duke Energy to obtain a type of street lights suitable for their project. The design will be reviewed in conjunction with the development plan.

L. Open Space Requirements

- 1. Open space includes active and passive outdoor recreational areas and visually open areas designed to be used by the general public.
- 2. Open space shall be provided at a minimum of twenty (20) percent.
- 3. Open space areas shall include the following:
 - a. Amenitized stormwater areas, as per Section I, Stormwater.
 - b. Landscaped areas.
 - c. Pedestrian access areas such as plazas, sidewalks, bike paths and walkways.



CITY OF APOPKA PLANNING COMMISSION

- PUBLIC HEARING
- SITE PLAN
- SPECIAL REPORTS
- OTHER: PUD Master Plan

MEETING OF: August 14, 2018
 FROM: Community Development
 EXHIBITS: Zoning Report
 Vicinity Map
 Adjacent Zoning Map
 Adjacent Uses Map
 Existing Use Map
 PUD Master Plan
 Comparison Table

SUBJECT: AMENDMENT TO PUD ZONING AND MASTER PLAN – AVIAN POINTE

REQUEST: RECOMMEND APPROVAL OF THE AMENDMENT TO THE PUD ZONING AND MASTER PLAN FOR AVIAN POINTE

SUMMARY:

OWNER: Apopka Clear Lake Investments, LLC
 APPLICANT: Frank Bombbeck
 LOCATION: East side of SR 429, north of Lust Road
 PARCEL ID NUMBERS: 07-21-28-0000-00-002; 07-21-28-0000-00-015; 07-21-28-0000-00-064
 EXISTING USE: Vacant
 FLUM DESIGNATION: Residential Low Density, Residential Medium Density
 CURRENT ZONING: PUD (Planned Unit Development)
 PROPOSED DEVELOPMENT: 56 single family homes; 222 townhomes, 480 apartments
 PROPOSED ZONING: Planned Unit Development (PUD)
 TRACT SIZE: 127.21 +/- acres

DISTRIBUTION

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

SUMMARY: The subject property is approximately 127.21 acres in size and is zoned PUD (Planned Unit Development) and has a future land use designations of Residential Medium Density and Residential Low Density. The subject property is located on the east side of SR 429, north of Lust Road, and south of Peterson Road. Access to the development is proposed via Lust Road and Peterson Road.

The original Avian Pointe PUD Master Plan was approved via Ordinance No. 2433 and permitted up to 758 residential units consisting of single-family, townhomes, apartments, a shared use recreation area, and a flex use parcel consisting of either a school or daycare facility, senior housing facility, or a 100 room boutique hotel. The PUD Master Plan was amended in 2017 to allow the apartment units to be up to four stories, not to exceed 50-feet in height. The applicant is requesting an amendment to the PUD (Planned Unit Development) zoning and Master Plan, and proposed revisions to the Master Plan appear in the attached phase-by-phase comparison table.

The amendment to the PUD Zoning and Master Plan does not propose an increase in the total amount of residential units that are permitted pursuant to Ordinance No. 2433. Development design standards from the current Master Plan are carried over to the Proposed Master Plan.

Residential development profile:

Unit type	Number of units	Minimum Livable Area (Square Feet)	Building Height
Single Family (75' width; 8,400 sq.ft. min.) (60-feet by 125-feet, 60-feet by 132-feet, 70-feet by 120-feet)	58 56	1,700	35-foot maximum height
Townhomes:	216 222	1,350	3 stories; 45-feet
Apartments:	484 480		4 stories; 50-feet
	1-Bedroom:	750 minimum	
	2-Bedroom:	900 minimum	
	3-Bedroom:	1,050 minimum	
Total Residential units:	758		

B. Deviations. The applicant is requesting one deviation 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, Land Development Code Section 2.02.18.D.11. 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. The developer is proposing 39, 60-foot wide lots with minimum lots sizes of 7,500 square feet. 17 units are proposed at 75-feet in width.

C. Justification for Deviations/Development Standard. The following justifications are provided for the deviations that is proposed.

1. Dedication of right-of-way - The PUD Master Plan proposes the dedication of right-of-way to the City referred to as Grand Avian Parkway on the PUD Master Plan which will connect Lust Road to Peterson Road. The right-of-way is proposed to range in width from 75-feet to 80-feet. An 11-foot wide bike path/trail will be provided on the west side of the right-of-way. A 5-foot wide sidewalk will be provided on the east side. A landscape median ranging in width between 10-feet and 15-feet is provided.
2. An improved recreation amenities package is proposed – The PUD Master Plan proposes the construction of a 7.071 acre Community Park and Recreation area that will consist of a tot lot, restrooms, basketball courts, tennis courts, soccer field, and baseball field.
3. Abutting Site Characteristics - The PUD Master Plan proposes a 20-foot landscape buffer between the proposed single-family homes and the Clear Lake Estates subdivision to the east. The development will not be visible from the homes within Clear Lake Estates and separation between the larger lots in Clear Lake Estates and the smaller lots within the Avian Pointe PUD will be provided with the landscape buffer. The developer is proposing 75-foot wide lots adjacent to the Clear Lake Estates subdivision. 60-foot wide lots will be provided adjacent to Clearwater Lake and within the interior of the single-family subdivision.
4. Protection of Environmentally Sensitive Areas and Preservation of Open Space - The PUD Master Plan protects wetlands adjacent to Clearwater Lake. Single-family homes will be setback approximately 190-feet from Clearwater Lake.
5. Flex Zone Development tract – The PUD Master Plan reserves a 14.998 acre tract for either of the following uses: 1) School or daycare facility, 2) Senior Housing Facility, or 3) 100 room boutique hotel. The School site was expanded to

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.

COMPREHENSIVE PLAN COMPLIANCE: The proposed use of the property is consistent with the Low Density and Medium Density Residential Future Land Use designation and is consistent with the Land Development Code.

SCHOOL CAPACITY REPORT: Per Orange County Public Schools, the project is vested to satisfy capacity, however there are outstanding concurrency issues that will be required to be satisfied prior to approval of a residential plat or prior to a final development plan for a multi-family apartment site plan..

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 parcels are not adjacent to unincorporated Orange County.

PUBLIC HEARING SCHEDULE:

August 14, 2018 - Planning Commission (5:30 pm)
September 5, 2018 - City Council (1:30 pm) - 1st Reading
September 19, 2018 – City Council (7:00 pm) - 2nd Reading

DULY ADVERTISED:

August 3, 2018 – Public Notice; Letter, Poster

RECOMMENDATION ACTION:

The **Development Review Committee** finds the proposed amendment to the PUD zoning and Master Plan consistent with the Comprehensive Plan and Land Development Code and recommends approval of the Avian Pointe Planned Unit Development Master Plan.

Recommended Motion: Recommend to approve the amendment to the PUD zoning and Master Plan for Avian Pointe based on the findings and facts presented in the staff report and exhibits.

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)	Mixed Use (0-5 du/ac) Rural	Mixed-EC (City) A-1 (County)	Vacant, Agricultural buildings and uses
East (City)	Low Density Residential (0-5 du/ac)	R-1AA	Clear Lake Estates subdivision
South (City)	Low Density Residential (0-5 du/ac); Residential Low Suburban	R-1AA, R-1	Vacant, Clearwater Lake
West (City)	N/A	N/A	SR 429 right-of-way

LAND USE &

TRAFFIC COMPATIBILITY:

The property is accessed via Lust Road and Peterson Road. Internal streets are public and private and will be owned and maintained by the City of Apopka and a yet to be established homeowners association. Future land use designations and zoning categories assigned to properties to the north, south, east, and west are predominantly residential.

**COMPREHENSIVE
 PLAN COMPLIANCE:**

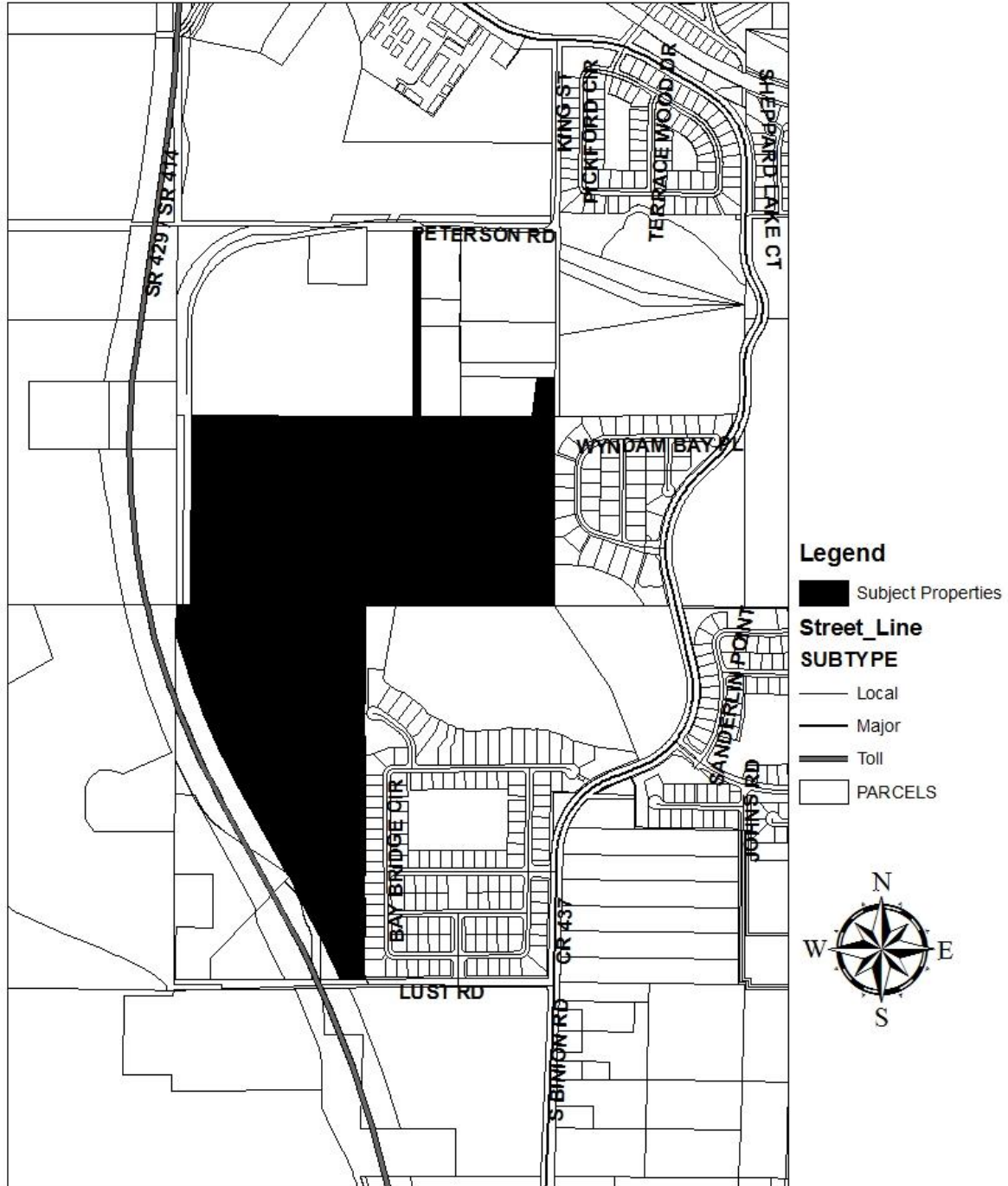
The proposed PUD zoning and Master Plan is compatible with policies set forth in the Comprehensive Plan.

**ALLOWABLE
 USES:**

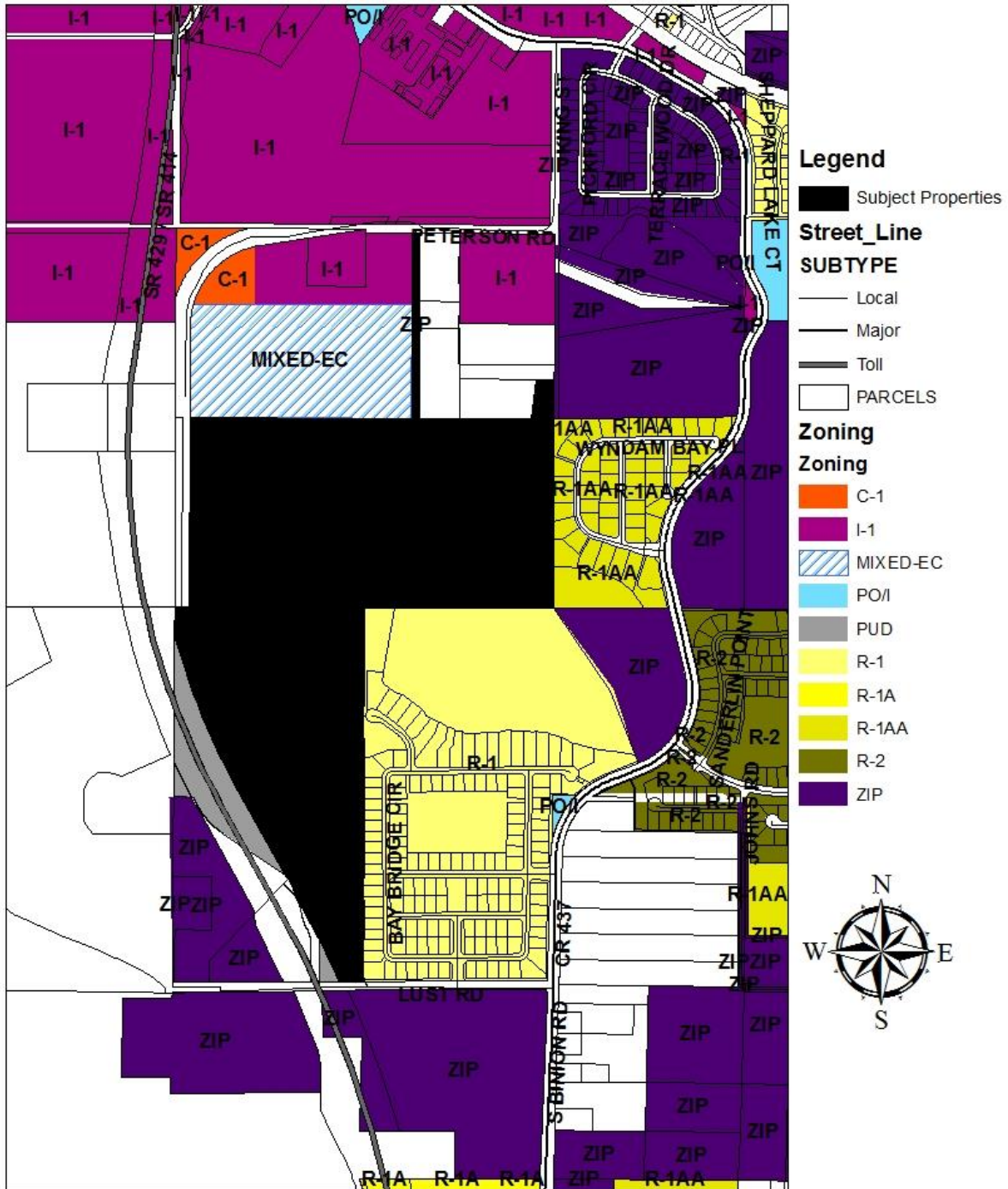
Uses as set forth within the Planned Unit Development Master Plan.

Project: AVIAN POINTE
Owned by: Apopka Clear Lake Investments, LLC
Located: East side of SR 429, north of Lust Road
Parcel ID#s: 07-21-28-0000-00-002; 07-21-28-0000-00-015; 07-21-28-0000-00-064

VICINITY MAP



ADJACENT ZONING



ADJACENT USES



GENERAL NOTES

- 1. PROJECT SHALL COMPLY WITH THE FOLLOWING:
• AMERICANS WITH DISABILITIES ACT
• CITY OF APOPKA MUNICIPAL & LAND USE CODES, DESIGN GUIDELINES & STANDARDS.
• CITY OF APOPKA FIRE DEPARTMENT
• FLORIDA FIRE MARSHAL
• FLORIDA DEPARTMENT OF TRANSPORTATION
• ST JOHNS WATER MANAGEMENT DISTRICT
2. ON-SITE ROADS & STORM SEWER SYSTEM WITHIN PROPOSED PRIVATE RIGHT-OF-WAY, INCLUDING THE STORMWATER MANAGEMENTS DETENTION PONDS, WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER WITH A MUNICIPAL SERVICE TAXING UNIT ESTABLISHED FOR STORMWATER SYSTEM FUNCTIONALITY. ROUTINE MAINTENANCE, INCLUDING MOWING SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
3. ALL STORMWATER PONDS SHALL BE DESIGNED IN ACCORDANCE WITH SMM&D & CITY OF APOPKA STANDARDS.
4. BUFFER, LANDSCAPING, CREATION & COMMON AREAS WILL BE PRIVATELY OWNED & MAINTAINED BY THE PROPERTY OWNER.
5. BUFFER, WHERE REQUIRED, WILL CONSIST OF LANDSCAPING, BERMS, APPROVED FENCING, EXISTING & NEW CITY APPROVED TREES.
6. PROJECT INFRASTRUCTURE WILL BE DEVELOPED IN ONE PHASE.
7. UTILITIES SHALL BE PROVIDED BY THE CITY OF APOPKA.
8. PROJECT SHALL COMPLY WITH CITY OF APOPKA DEVELOPMENT REQUIREMENTS PER MUNICIPAL CODE PART III ARTICLE II LAND USE: TYPE, DENSITY AND INTENSITY.
9. STRUCTURES SHALL COMPLY WITH FLORIDA BUILDING CODE, CURRENT ENFORCED EDITION.
10. ROADS AND PARKING AREAS SHALL COMPLY WITH FDOT DESIGN AND ENGINEERING REQUIREMENTS. PUBLIC RIGHT-OF-WAY PAVEMENT WORK MUST UTILIZE TYP SP-9.5 ASPHALT.
11. MASTER PLAN AS SHOWN IS CONCEPTUAL. ALL FEATURES NOTED HEREIN SHALL BE SUBJECT TO JURISDICTIONAL APPROVALS AND CML ENGINEERING REFINEMENTS IN ACCORD WITH AGENCY REQUIREMENTS.
12. LANDSCAPE & IRRIGATION PLANS SHALL BE DESIGNED IN ACCORDANCE WITH CITY ORDINANCE NO. 2069.
13. DEVELOPER AGREEMENT SHALL BE REQUIRED FOR OFF-SITE RIGHT-OF-WAY IMPROVEMENTS FROM THE NORTH ENTRANCE DRIVE TO THE INTERSECTION OF W. ORANGE AVENUE AND KING STREET.

PROJECT

AVIAN POINTE
CITY OF APOPKA, FLORIDA
PUD MASTER PLAN AMENDMENT
(MIXED USE MASTER PLAN)

PARCEL I.D. NUMBERS

07-21-28-0000-00-002
07-21-28-0000-00-015
07-21-28-0000-00-064

SUBMITTED JULY 25, 2018

VICINITY MAP

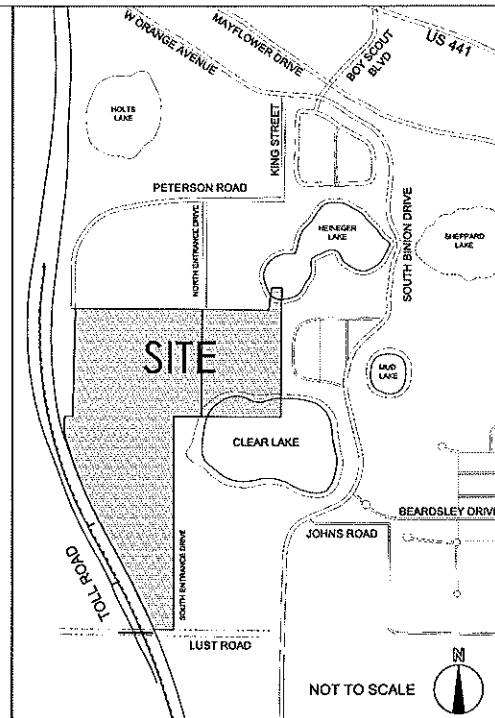
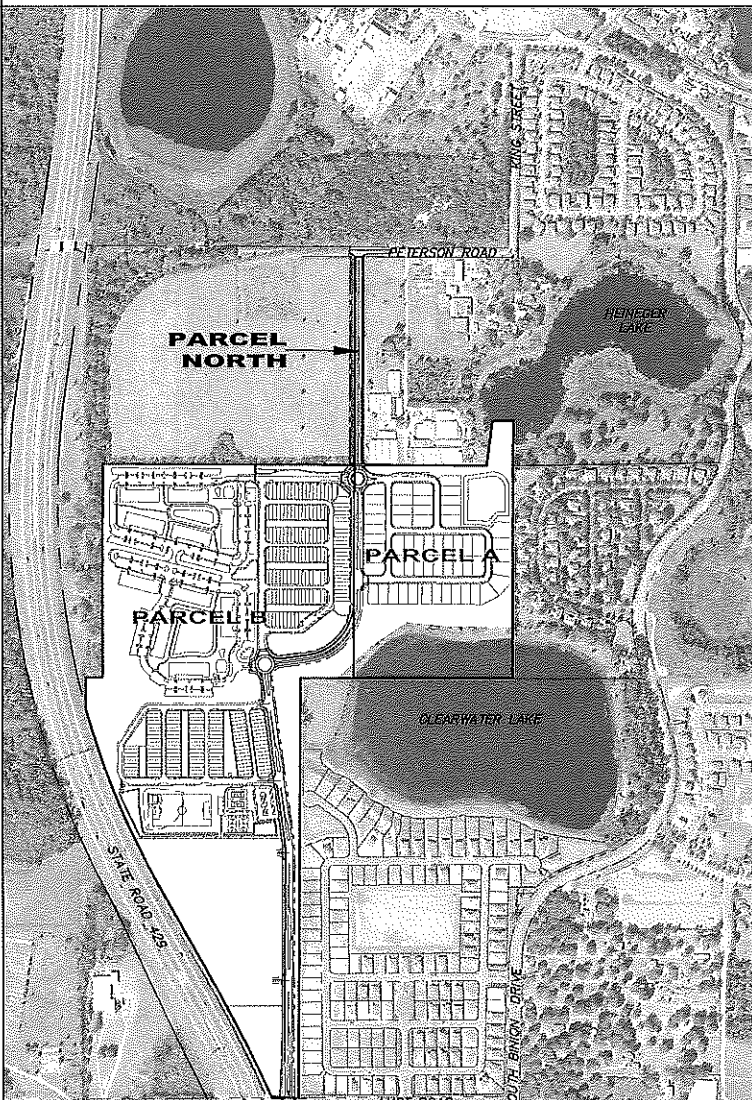


Table with columns: JOB #, PREPARED BY, DESIGNER, CHECKED, DATE, REVISIONS. Includes a revision table with columns: NO., DATE, REVISIONS.

LEGAL DESCRIPTION

PARCEL A LEGAL DESCRIPTION: (PARCEL ID # 07-21-28-0000-00-015)
THE WEST 1/2 OF THE EAST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, EAST 1/2 OF THE WEST 1/2 OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, EAST 1/4 OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, AND BEGINNING AT THE SOUTHWEST CORNER OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, RUN THENCE WEST 160 FEET, THENCE NORTH 7' 18" EAST 277.24 FEET, THENCE EAST 124.28 FEET, THENCE SOUTH 295 FEET TO THE P.O.B., ALL IN ORANGE COUNTY, FLORIDA.
PARCEL B LEGAL DESCRIPTION: (PARCEL ID # 07-21-28-0000-00-022)
PARCEL 1
COMMENCE AT THE NORTHWEST CORNER OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, THENCE RUN SOUTH 01 DEGREES 00 MINUTES 22 SECONDS WEST A DISTANCE OF 282.56 FEET TO A FOUND 4X4 CONCRETE MONUMENT, SAID MONUMENT BEING THE POINT OF BEGINNING; THENCE RUN SOUTH 88 DEGREES 53 MINUTES 02 SECONDS EAST A DISTANCE OF 100 FEET; THENCE RUN NORTH 01 DEGREES 00 MINUTES 22 SECONDS WEST A DISTANCE OF 1316.28 FEET; THENCE RUN SOUTH 89 DEGREES 45 MINUTES 54 SECONDS EAST A DISTANCE OF 150.70 FEET; THENCE RUN SOUTH 00 DEGREES 28 MINUTES 18 SECONDS WEST A DISTANCE OF 1312.90 FEET; THENCE RUN NORTH 09 DEGREES 53 MINUTES 02 SECONDS WEST A DISTANCE OF 332.87 FEET TO A FOUND AXLE AT THE NORTHWEST CORNER OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST; THENCE RUN SOUTH 00 DEGREES 09 MINUTES 28 SECONDS EAST A DISTANCE OF 185.24 FEET; THENCE RUN NORTH 89 DEGREES 47 MINUTES 20 SECONDS WEST A DISTANCE OF 518.81 FEET TO A POINT OF CURVATURE OF A NON-TANGENT CURVE BEING CONVEX SOUTHWESTERLY, HAVING A RADIUS OF 597.96 FEET, A CHORD BEARING OF NORTH 54 DEGREES 41 MINUTES 55 SECONDS WEST, A CENTRAL ANGLE OF 5 DEGREES 10 MINUTES 09 SECONDS, THENCE RUN ALONG ARC OF SAID CURVE A DISTANCE OF 538.9 FEET; THENCE RUN NORTH 57 DEGREES 14 MINUTES 32 SECONDS WEST A DISTANCE OF 601.30 FEET TO A POINT OF CURVATURE OF A CURVE CONVEX NORTHEASTERLY, HAVING A RADIUS OF 547.95 FEET, A CHORD BEARING OF NORTH 39 DEGREES 16 MINUTES 28 SECONDS WEST, A CENTRAL ANGLE OF 35 DEGREES 56 MINUTES 07 SECONDS, THENCE RUN ALONG ARC OF SAID CURVE A DISTANCE OF 343.88 FEET; THENCE RUN NORTH 89 DEGREES 50 MINUTES 05 SECONDS WEST A DISTANCE OF 131.12 FEET; THENCE RUN NORTH 09 DEGREES 24 MINUTES 43 SECONDS WEST A DISTANCE OF 1311.51 FEET TO THE POINT OF BEGINNING.
AND:
PARCEL 2
A TRACT OF LAND LYING IN SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, DESCRIBED AS FOLLOWS:
COMMENCE AT THE SOUTHWEST CORNER OF THE ABOVE-REFERENCED SECTION 7 FOR A POINT OF REFERENCE; THENCE RUN SOUTH 89°47'20" EAST, ALONG THE SOUTH LINE OF SAID SECTION 7, 1024.55 FEET TO A POINT OF BEGINNING; THENCE DEPARTING SAID SOUTH SECTION LINE, RUN NORTH 00°12'40" EAST, 274.53 FEET TO A POINT OF CURVATURE OF A CURVE CONVEX SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 306.00 FEET, A CENTRAL ANGLE OF 30°33'31", AN ARC LENGTH OF 162.67 FEET, A CHORD LENGTH OF 150.75 FEET, AND A CHORD BEARING OF NORTH 15°46'00" WEST TO A POINT OF CURVATURE OF A CURVE CONVEX NORTHEASTERLY; THENCE RUN NORTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 245.00 FEET, A CENTRAL ANGLE OF 22°15'56", AN ARC LENGTH OF 95.21 FEET, A CHORD LENGTH OF 84.61 FEET, AND A CHORD BEARING OF NORTH 19°12'53" WEST TO A POINT OF REVERSE CURVATURE OF A CURVE CONVEX SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 305.00 FEET, A CENTRAL ANGLE OF 34°19'29", AN ARC LENGTH OF 182.36 FEET, AND A CHORD BEARING OF NORTH 20°29'29" WEST TO A POINT OF COMPOUND CURVATURE OF A CURVE CONVEX SOUTHWESTERLY; THENCE RUN NORTHWESTERLY ALONG SAID CURVE, HAVING A RADIUS OF 597.96 FEET, A CENTRAL ANGLE OF 09°49'29", AN ARC LENGTH OF 102.00 FEET, A CHORD LENGTH OF 101.88 FEET, AND A CHORD BEARING OF NORTH 47°13'57" WEST; THENCE RUN SOUTH 89°47'20" EAST, NON-TANGENT TO SAID CURVE, 518.82 FEET TO THE EAST LINE OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 7; THENCE RUN SOUTH 00°09'22" EAST, ALONG SAID EAST LINE, 750.02 FEET TO THE SOUTHWEST CORNER OF THE SOUTHWEST 1/4 OF SAID SECTION 7; THENCE RUN NORTH 89°47'20" WEST, ALONG SAID SOUTH SECTION LINE, 285.64 FEET TO THE POINT OF BEGINNING.
LESS AND EXCEPT RIGHT OF WAY FOR LUST ROAD AS DESCRIBED IN RIGHT-OF-WAY AGREEMENT RECORDED IN O.R. BOOK 521, PAGE 280; AND RIGHT-OF-WAY AGREEMENT RECORDED IN O.R. BOOK 538, PAGE 804, AS RE-RECORDED IN O.R. BOOK 554, PAGE 516, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.
ALSO LESS AND EXCEPT THOSE PORTIONS DESCRIBED IN STIPULATED ORDER OF TAKING RECORDED IN O.R. BOOK 10106, PAGE 2611, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.
AND TOGETHER WITH:
A PARCEL OF LAND SITUATED IN SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE SOUTHWEST CORNER OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN NORTH 00°23'17" EAST, ALONG THE WEST LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 7, FOR A DISTANCE OF 30.00 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF LUST ROAD, AS RECORDED IN DEED BOOK 521, PAGE 280 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE DEPARTING SAID WEST LINE, RUN NORTH 89°39'30" EAST, ALONG THE SAID NORTH RIGHT OF WAY LINE, FOR A DISTANCE OF 1192.54 FEET TO A POINT ON THE EASTERLY LIMITED ACCESS RIGHT OF WAY LINE OF STATE ROAD 429 PER ORANGE COUNTY EXPRESSWAY AUTHORITY RIGHT OF WAY MAP PROJECT NUMBER 429-201, SAID POINT LYING ON A CURVE, CONVEX SOUTHWESTERLY, HAVING A RADIUS OF 8150.00 FEET, A CHORD BEARING OF NORTH 29°38'44" WEST AND A CHORD DISTANCE OF 720.85 FEET; THENCE DEPARTING SAID NORTH RIGHT OF WAY LINE, RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE, AND SAID LIMITED ACCESS RIGHT OF WAY LINE, THROUGH A CENTRAL ANGLE OF 05°04'10" FOR AN ARC DISTANCE OF 721.09 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 29°06'49" WEST, ALONG SAID LIMITED ACCESS RIGHT OF WAY LINE, FOR A DISTANCE OF 75.30 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 29°06'49" WEST, ALONG SAID LIMITED ACCESS RIGHT OF WAY LINE, FOR A DISTANCE OF 142.70 FEET TO A POINT ON A NON-TANGENT CURVE, CONVEX SOUTHWESTERLY, HAVING A RADIUS OF 597.96 FEET, A CHORD BEARING OF SOUTH 52°05'17" EAST AND A CHORD DISTANCE OF 49.58 FEET; THENCE DEPARTING SAID LIMITED ACCESS RIGHT OF WAY LINE, RUN SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 04°45'11" FOR AN ARC DISTANCE OF 46.86 FEET TO A POINT; THENCE DEPARTING SAID CURVE, RUN NORTH 89°47'20" WEST FOR A DISTANCE OF 22.18 FEET TO THE POINT OF BEGINNING.
AND TOGETHER WITH:
A PARCEL OF LAND SITUATED IN SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE SOUTHWEST CORNER OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN NORTH 00°23'17" EAST, ALONG THE WEST LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 7, FOR A DISTANCE OF 30.00 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF LUST ROAD, AS RECORDED IN DEED BOOK 521, PAGE 280 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE DEPARTING SAID WEST LINE, RUN NORTH 89°39'30" EAST, ALONG THE SAID NORTH RIGHT OF WAY LINE, FOR A DISTANCE OF 1192.54 FEET TO A POINT ON THE EASTERLY LIMITED ACCESS RIGHT OF WAY LINE OF STATE ROAD 429 PER ORANGE COUNTY EXPRESSWAY AUTHORITY RIGHT OF WAY MAP PROJECT NUMBER 429-201, SAID POINT LYING ON A CURVE, CONVEX SOUTHWESTERLY, HAVING A RADIUS OF 8150.00 FEET, A CHORD BEARING OF NORTH 29°38'44" WEST AND A CHORD DISTANCE OF 720.85 FEET; THENCE DEPARTING SAID NORTH RIGHT OF WAY LINE, RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE, AND SAID LIMITED ACCESS RIGHT OF WAY LINE, THROUGH A CENTRAL ANGLE OF 05°04'10" FOR AN ARC DISTANCE OF 721.09 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 29°06'49" WEST, ALONG SAID LIMITED ACCESS RIGHT OF WAY LINE, FOR A DISTANCE OF 75.30 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE NORTH 29°06'49" WEST, ALONG SAID LIMITED ACCESS RIGHT OF WAY LINE, THROUGH A CENTRAL ANGLE OF 04°45'11" FOR AN ARC DISTANCE OF 46.86 FEET TO A POINT; THENCE DEPARTING SAID CURVE, RUN NORTH 89°47'20" WEST FOR A DISTANCE OF 22.18 FEET TO THE POINT OF BEGINNING.
ALSO TOGETHER WITH:
A PARCEL OF LAND SITUATED IN SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCE AT THE SOUTHWEST CORNER OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA; THENCE RUN NORTH 00°23'17" EAST, ALONG THE WEST LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 7, FOR A DISTANCE OF 30.00 FEET TO A POINT ON THE NORTH RIGHT OF WAY LINE OF LUST ROAD, AS RECORDED IN DEED BOOK 521, PAGE 280 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA; THENCE DEPARTING SAID WEST LINE, RUN NORTH 89°39'30" EAST, ALONG THE SAID NORTH RIGHT OF WAY LINE, FOR A DISTANCE OF 1192.54 FEET TO A POINT ON THE EASTERLY LIMITED ACCESS RIGHT OF WAY LINE OF STATE ROAD 429 PER ORANGE COUNTY EXPRESSWAY AUTHORITY RIGHT OF WAY MAP PROJECT NUMBER 429-201, SAID POINT LYING ON A CURVE, CONVEX SOUTHWESTERLY, HAVING A RADIUS OF 8150.00 FEET, A CHORD BEARING OF NORTH 29°38'44" WEST AND A CHORD DISTANCE OF 720.85 FEET; THENCE DEPARTING SAID NORTH RIGHT OF WAY LINE, RUN NORTHWESTERLY ALONG THE ARC OF SAID CURVE, AND SAID LIMITED ACCESS RIGHT OF WAY LINE, THROUGH A CENTRAL ANGLE OF 05°04'10" FOR AN ARC DISTANCE OF 721.09 FEET TO A POINT OF TANGENCY; THENCE RUN NORTH 29°06'49" WEST, ALONG SAID LIMITED ACCESS RIGHT OF WAY LINE, FOR A DISTANCE OF 75.30 FEET; THENCE DEPARTING SAID LIMITED ACCESS RIGHT OF WAY LINE, RUN SOUTH 89°47'20" EAST FOR A DISTANCE OF 22.18 FEET TO THE POINT OF CURVATURE OF A CURVE, CONVEX SOUTHWESTERLY HAVING A RADIUS OF 597.96 FEET, A CHORD BEARING OF SOUTH 52°05'17" EAST AND A CHORD DISTANCE OF 49.58 FEET; THENCE RUN SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 43°01'07" FOR AN ARC DISTANCE OF 183.95 FEET TO A POINT OF REVERSE CURVATURE OF A CURVE, CONVEX NORTHEASTERLY, HAVING A RADIUS OF 245.00 FEET, A CENTRAL ANGLE OF 22°15'56", AN ARC LENGTH OF 95.21 FEET, A CHORD BEARING OF SOUTH 19°34'31" EAST AND A CHORD DISTANCE OF 116.11 FEET; THENCE RUN SOUTHEASTERLY ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 21°56'42" FOR AN ARC DISTANCE OF 116.82 FEET TO THE POINT OF BEGINNING.
PARCEL NORTH LEGAL DESCRIPTION: (PARCEL ID # 07-21-28-0000-00-064)
THE WEST 50.00 FEET OF THE EAST 1/2 OF THE WEST 1/2 OF THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, LESS THE NORTH 30.00 FEET FOR RIGHT OF WAY.

AERIAL SITE LOCATION MAP



PROJECT DATA

Table with columns: PARCEL ID NUMBER, FUTURE LAND USE, ZONING, ADJACENT LAND USE, ACREAGE, BUILDING HEIGHT, BUILDING SETBACKS, OPEN SPACE. Includes site data tables for Parcel A and Parcel B.

PROJECT DIRECTORY

OWNER/APPLICANT: FRANK BOMBEECKEN STOLTENBERG
APOPKA CLEAR LAKE INVESTMENTS, LLC
1810 WEST KENNEDY BLVD
TAMPA, FL 33608
(813) 321-1984
CIVIL ENGINEER: EDGARDO GARCIA LUNA, PE
LOCHRANE ENGINEERING, INC.
201 SOUTH BUMBY AVENUE
ORLANDO FLORIDA, FL 32803
(407) 890-3317
LAND SURVEYOR: JAMES RICKMAN, PSM
ALLEN & COMPANY INC.
15 EAST PLANT STREET
WINTER GARDEN, FL 34787
(407) 854-5355
TRAFFIC ENGINEER: JOE ROVIARO, PE
LUKE TRANSPORTATION ENGINEERING CONSULTANTS
29 EAST PINE STREET
ORLANDO, FL 32828
(407) 423-8055

SHEET INDEX

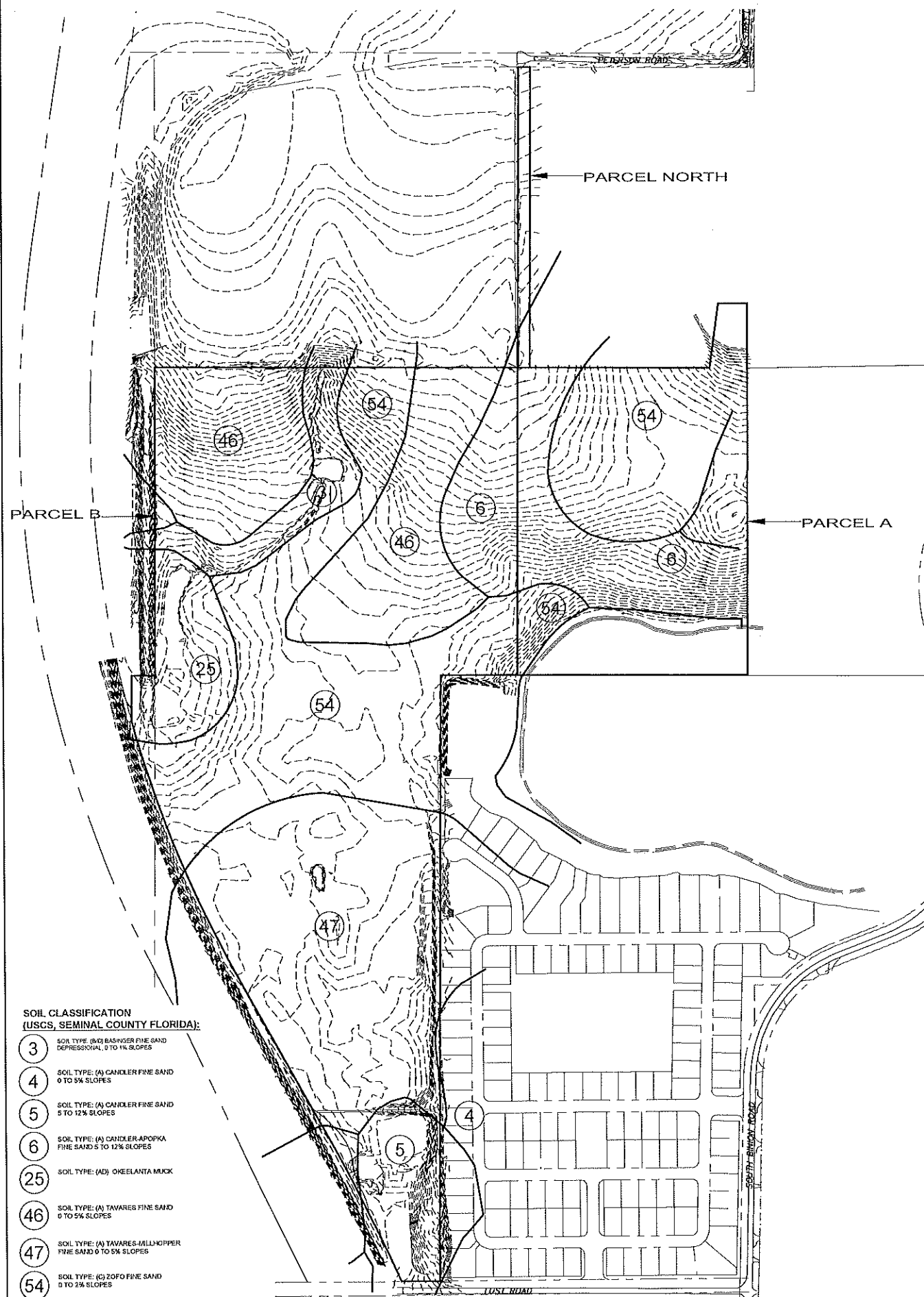
Table with columns: SHEET NO., DRAWING NO., COVER SHEET. Lists sheets 1 through 15 and their corresponding drawing numbers and titles.

MASTER PLAN IS SUBJECT TO PRELIMINARY OR FINAL DEVELOPMENT PLAN APPROVAL

AVIAN POINTE
PUD MASTER PLAN AMENDMENT
(MIXED USE MASTER PLAN)
COVER SHEET
LOCHRANE
Consulting Engineers - Surveyors
An NVI Company
JOB # 1605620
PREPARED BY: [Name]
DESIGNER: [Name]
CHECKED: [Name]
DATE: JUL 25, 2018
DRAWING NO. ZA.00
SHEET 1 OF 15

EXISTING SOILS & TOPOGRAPHY PLAN

AERIAL LAND USE PLAN



MASTER PLAN IS SUBJECT TO PRELIMINARY OR FINAL DEVELOPMENT PLAN APPROVAL

MASTER PLAN IS SUBJECT TO PRELIMINARY OR FINAL DEVELOPMENT PLAN APPROVAL

<p>ENGINEER: F. LUC B</p> <p>RECORD DRAWING</p> <p>THIS DRAWING IS BASED ON THE RESULTS OF FIELD SURVEY AND PHOTOGRAPHIC INTERPRETATION OF AERIAL PHOTOGRAPHS. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS AND HAS NOT CONDUCTED A FIELD SURVEY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED HEREON. THE ENGINEER IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED HEREON.</p>		<p>NO. 1</p> <p>DATE</p> <p>REVISIONS</p>
<p>DESIGNER: ECL</p> <p>CHECKED: JN</p>	<p>DATE: JUL 25, 2018</p>	<p>PROJECT: AVIAN POINTE PUD MASTER PLAN AMENDMENT (MIXED USE MASTER PLAN)</p> <p>2777 LUST ROAD, APOPKA, FLORIDA</p> <p>APOPKA CLEAR LAKE INVESTMENTS, LLC</p>
<p>LOCHRANE Consulting Engineers - Surveyors An AVI Company</p>		
<p>DRAWING NO: ZA.01</p>	<p>SHEET: 2 OF 15</p>	<p>DATE: JUL 25, 2018</p>

DEVELOPMENT SUMMARY

PARKING SUMMARY

SUB-DIVISION	USE	TOTAL # OF UNITS	PARKING SPACE			
			REQUIRED PER UNIT	PROVIDED PER UNIT	ENCLOSED PER UNIT	OVERFLOW/ GUEST
A	SINGLE FAMILY	55	2	4	2	12
B1	TOWNHOMES	118	2	4	1	60
B2	APARTMENTS	480	SEE APARTMENT UNIT SUMMARY BELOW			
B3	TOWNHOMES	104	2	2	3	56
B4	COMMUNITY PARK	N/A	N/A	N/A	N/A	
B5	FLEX ZONE	N/A	PER LDC STANDARDS BY USE			

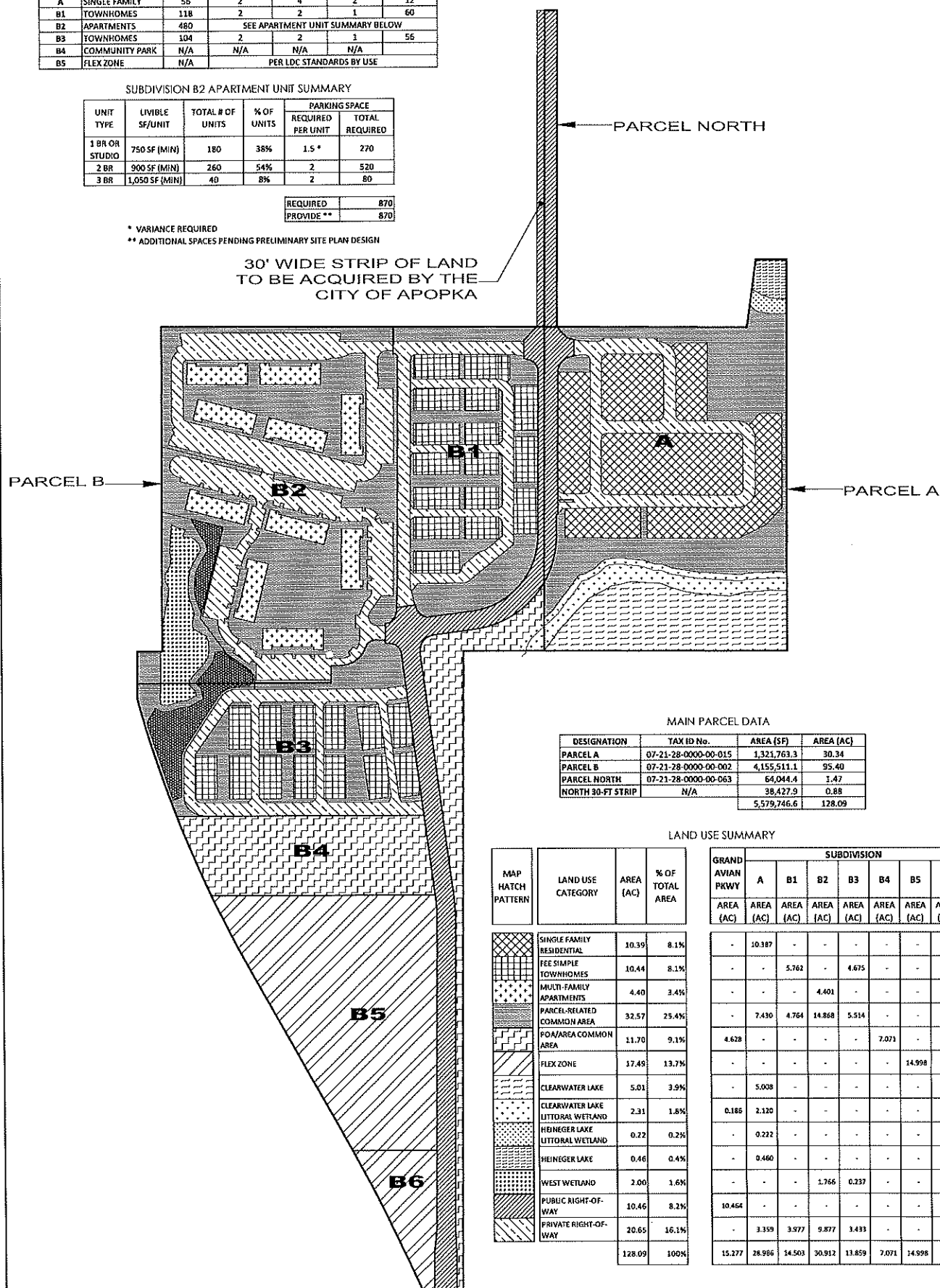
SUBDIVISION B2 APARTMENT UNIT SUMMARY

UNIT TYPE	LIVABLE SF/UNIT	TOTAL # OF UNITS	% OF UNITS	PARKING SPACE REQUIRED PER UNIT	TOTAL REQUIRED
1 BR OR STUDIO	750 SF (MIN)	180	38%	1.5 *	270
2 BR	900 SF (MIN)	260	54%	2	520
3 BR	1,050 SF (MIN)	40	8%	2	80

REQUIRED = 870
PROVIDE ** = 870

* VARIANCE REQUIRED
** ADDITIONAL SPACES PENDING PRELIMINARY SITE PLAN DESIGN

30' WIDE STRIP OF LAND TO BE ACQUIRED BY THE CITY OF APOPKA



MAIN PARCEL DATA

DESIGNATION	TAX ID No.	AREA (SF)	AREA (AC)
PARCEL A	07-21-28-0000-00-015	1,321,763.3	30.34
PARCEL B	07-21-28-0000-00-002	4,155,511.1	95.40
PARCEL NORTH	07-21-28-0000-00-063	84,044.4	1.47
NORTH 30-FT STRIP	N/A	38,427.9	0.88
		5,579,746.6	128.09

LAND USE SUMMARY

MAP HATCH PATTERN	LAND USE CATEGORY	AREA (AC)	% OF TOTAL AREA	SUBDIVISION										
				GRAND AVIAN PKWY	A	B1	B2	B3	B4	B5	B6			
[Hatch]	SINGLE FAMILY RESIDENTIAL	10.39	8.1%	-	10.187	-	-	-	-	-	-	-	-	-
[Hatch]	FEE SIMPLE TOWNHOMES	10.44	8.1%	-	-	5.762	-	4.675	-	-	-	-	-	-
[Hatch]	MULTI-FAMILY APARTMENTS	4.40	3.4%	-	-	-	4.401	-	-	-	-	-	-	-
[Hatch]	PARCEL-RELATED COMMON AREA	32.57	25.4%	-	7.430	4.764	14.868	5.514	-	-	-	-	-	-
[Hatch]	POA/AREA COMMON AREA	11.70	9.1%	4.628	-	-	-	-	7.071	-	-	-	-	-
[Hatch]	FLEX ZONE	17.49	13.7%	-	-	-	-	-	-	14.998	2.487	-	-	-
[Hatch]	CLEARWATER LAKE	5.01	3.9%	-	5.008	-	-	-	-	-	-	-	-	-
[Hatch]	CLEARWATER LAKE LITTORAL WETLAND	2.31	1.8%	0.186	2.120	-	-	-	-	-	-	-	-	-
[Hatch]	HEINERGER LAKE LITTORAL WETLAND	0.22	0.2%	-	0.222	-	-	-	-	-	-	-	-	-
[Hatch]	HEINERGER LAKE	0.46	0.4%	-	0.460	-	-	-	-	-	-	-	-	-
[Hatch]	WEST WETLAND	2.00	1.6%	-	-	-	1.766	0.237	-	-	-	-	-	-
[Hatch]	PUBLIC RIGHT-OF-WAY	10.46	8.2%	10.464	-	-	-	-	-	-	-	-	-	-
[Hatch]	PRIVATE RIGHT-OF-WAY	20.65	16.1%	-	3.359	3.977	9.877	3.493	-	-	-	-	-	-
		128.09	100%	15.277	28.956	14.503	30.912	13.859	7.071	14.998	2.487	-	-	-

MASTER PLAN IS SUBJECT TO PRELIMINARY OR FINAL DEVELOPMENT PLAN APPROVAL

OVERALL MASTER PLAN

FLOODPLAIN NOTES:

- PER FEMA FIRM MAP NO. 12065C0120F PARTS OF PARCEL A AND B ARE WITHIN FLOOD ZONES "A" AND "AE". FLOOD COMPENSATING VOLUME WILL BE PROVIDED FOR ALL FILL ENCROACHMENTS MADE TO THE EXISTING FLOODPLAIN.

WETLAND NOTES:

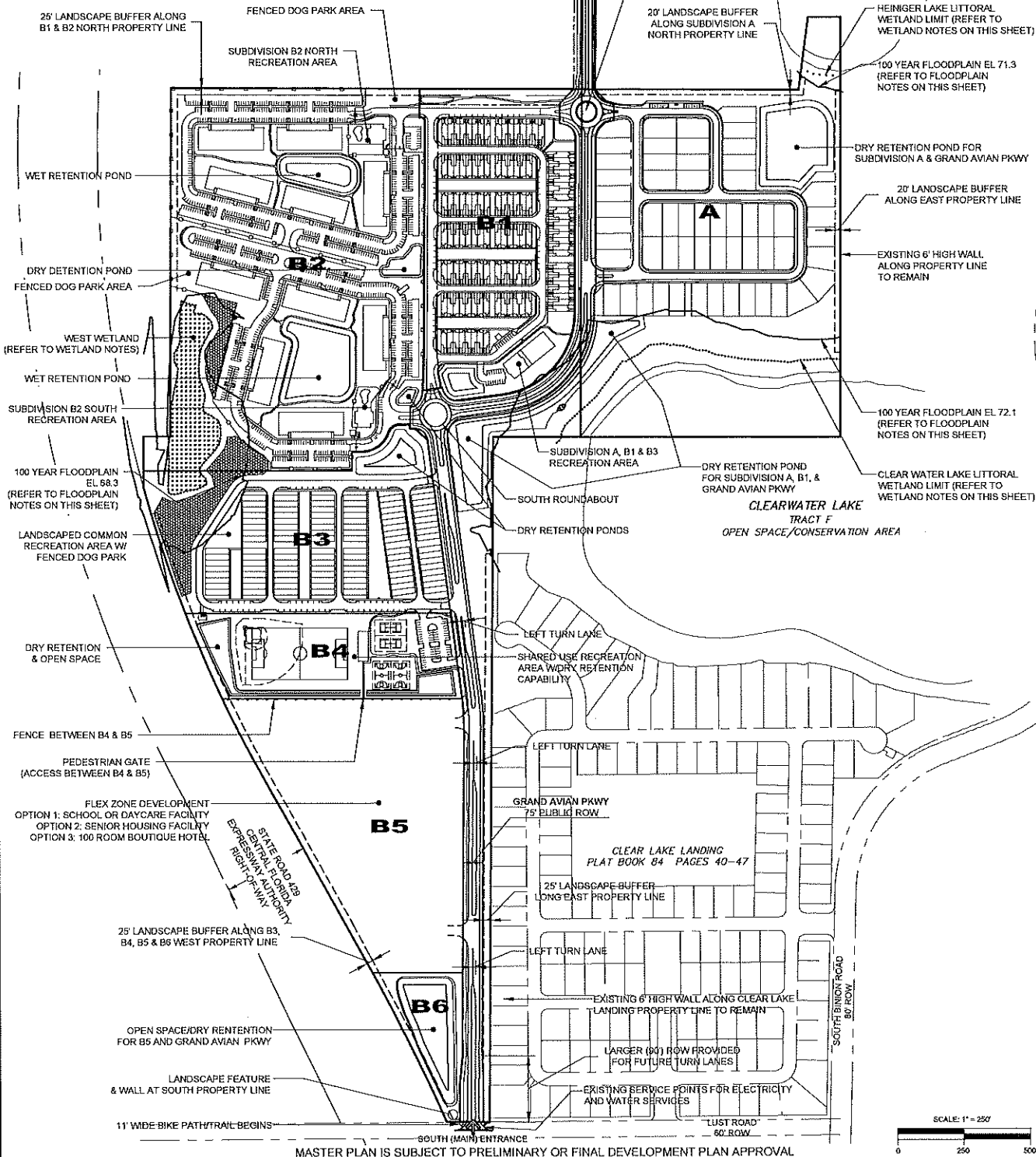
- CLEAR WATER LAKE & LAKE HEINERGER, NO IMPACTS TO THESE WATER BODIES AND ASSOCIATED WETLANDS SHALL OCCUR. THEREFORE, NO MITIGATION SHOULD BE REQUIRED AS LONG AS AN UPLAND BUFFER OF 25-FT AVERAGE WIDTH AND 15-FT MINIMUM WIDTH IS PROVIDED BETWEEN THE WETLANDS AND PROPOSED DEVELOPMENT.
- THE CLEAR WATER LAKE LITTORAL WETLAND LIMIT HAS BEEN DETERMINED AND ESTABLISHED AT ELEVATION 85-FT (94VDS) CONTOUR LINE, PER SURVEY.
- WETLAND LOCATED AT THE WEST PROPERTY LINE, SOUTHWEST CORNER OF SUBDIVISION B2, IS OF LOW QUALITY, AND WILL REQUIRE COMPENSATORY MITIGATION FOR PROPOSED IMPACTS.

ROADWAY NOTES:

- CURB RADIUS AT INTERSECTIONS AND APARTMENT BLOCK PERIMETERS SHALL BE 35' MINIMUM.
- CURB RADIUS AT APARTMENT PARKING AISLE MEDIANS SHALL BE 25' MINIMUM.
- ALL PAVING SHALL COMPLY WITH CITY OF APOPKA & FDOT DESIGN STANDARDS.
- PUBLIC RIGHTS OF WAY ALONG PROPOSED GRAND AVIAN PARKWAY AS FOLLOWS:
SEGMENT A (FROM LUST ROAD TO SOUTH ROUNDABOUT) - VARIES FROM 60' TO 75'
SEGMENT B (FROM SOUTH ROUNDABOUT TO NORTH ROUNDABOUT) - VARIES FROM 75' TO 80'
SEGMENT C (FROM NORTH ROUNDABOUT TO PETERSON ROAD) - 60'

UTILITIES NOTES:

- WATER & ELECTRIC SERVICES SHALL CONNECT TO EXISTING SERVICE POINTS LOCATED IN THE LUST ROAD RIGHT OF WAY SUBJECT TO CITY REVIEW & APPROVAL.



SCALE: 1" = 250'
0 250 500

MASTER PLAN IS SUBJECT TO PRELIMINARY OR FINAL DEVELOPMENT PLAN APPROVAL

JOB #: 1605520
ENGINEER: EDUARDO ORTIZ/AVIAN P.L.L.C. F.L.C. F.L.E.C.
DATE: JUL 25, 2018

NO.	DATE	REVISIONS
1	07/25/18	CITY OF APOPKA PUD MASTER REVIEW #1
2	07/25/18	CITY OF APOPKA PUD MASTER REVIEW #2
3	08/05/18	CITY OF APOPKA PUD MASTER REVIEW #1

RECORD DRAWING
THIS RECORD DRAWING IS BASED ON THE ENCLOSED RECORD DRAWING. A RECORD OF CONSTRUCTION SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. ANY CHANGES TO THE RECORD DRAWING SHALL BE MADE TO THE RECORD DRAWING BY THE ENGINEER. THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE RECORD DRAWING.

AVIAN POINTE
PUD MASTER PLAN AMENDMENT
(MIXED USE MASTER PLAN)
2771 LUST ROAD
APOPKA, FLORIDA
APOPKA CLEAR LAKE INVESTMENTS, LLC

DEVELOPMENT
SUMMARY & OVERALL
MASTER PLAN

LOCHRANE
Consulting Engineers - Surveyors
An AVIAN Company

DRAWING NO: ZA.02
SHEET 3 OF 15

DEVELOPMENT STANDARDS & GUIDELINES

PROPOSED VILLAGE NAMES:

SUBDIVISION A THE LAKES AT AVIAN POINTE
 SUBDIVISION B1 NORTH MEWS AT AVIAN POINTE
 SUBDIVISION B2 THE COMMONS AT AVIAN POINTE
 SUBDIVISION B3 SOUTH MEWS AT AVIAN POINTE
 SUBDIVISION B4 (COMMUNITY PARK) TO BE DETERMINED & SUBMITTED WITH THE PRELIMINARY DEVELOPMENT PLAN
 SUBDIVISION B5 (FLEX ZONE) TO BE DETERMINED & SUBMITTED WITH THE PRELIMINARY DEVELOPMENT PLAN

PROPOSED STREET NAMES:

NAME	AVAILABLE		ALTERNATE										SUBDIVISION
	YES	NO	BLVD	DRIVE	STREET	AVENUE	ROAD	LANE	COURT	PLACE	WAY		
			Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N		
GRAND AVIAN PARKWAY	✓		Y	Y	Y	Y	Y	Y	Y	Y	Y	AVIAN POINTE	
CLEAR WATER DRIVE	✓		Y		Y	Y	Y	Y	Y	Y	Y	A	
BASS ROAD		✓	Y	N	N	Y		Y	Y	Y	Y	A	
BLUEGIL WAY	✓		Y	Y	N	Y	Y	Y	Y	Y	Y	A	
GALLINULE DRIVE	✓		Y		Y	Y	Y	Y	Y	Y	Y	B1	
AYTHYA WAY	✓		Y	Y	Y	Y	Y	Y	Y	Y	Y	B1	
AMHINGUS COURT	✓		Y	Y	Y	Y	Y	Y	Y	Y	Y	B1	
HARRIER COURT	✓		Y	N	Y	Y	Y	Y	Y	Y	Y	B1	
BLUE HERON WAY	✓		Y	N	Y	Y	Y	Y	Y	Y	Y	B2	
EAST COMMONS DRIVE	✓		Y		Y	Y	Y	Y	Y	Y	Y	B2	
WEST COMMONS DRIVE	✓		Y		Y	Y	Y	Y	Y	Y	Y	B2	
EGERT DRIVE	✓		Y		Y	Y	Y	Y	Y	Y	Y	B3	
PEREGRINE COURT		✓	Y	Y	Y	N	Y	Y	Y	Y	Y	B3	
ARDEA COURT	✓		Y	Y	Y	N	Y	Y	Y	Y	Y	B3	

NOTES:

- ALL STREET NAMES DEEMED AVAILABLE PER ORANGE COUNTY MASTER STREET ADDRESS GUIDE.
- VILLAGES (SUBDIVISIONS) NAMES LISTED ABOVE ARE PRELIMINARY & SUBJECT TO CHANGE PENDING PRELIMINARY SITE PLAN SUBMITTAL.
- STREET NAMES ARE PRELIMINARY & SUBJECT TO CHANGE PENDING ORANGE COUNTY AVAILABILITY & PRELIMINARY SITE PLAN SUBMITTAL.

1. COMMUNITY DESIGN

- GRAND AVIAN PKWY NORTHERN & SOUTHERN ENTRANCES FEATURE DESIGN & LANDSCAPING SHALL BE PROVIDED AT PRELIMINARY DEVELOPMENT PLAN.
- POSTAL SERVICE:
 - ALL SUBDIVISIONS SHALL HAVE USPS/ADA APPROVED MAIL KIOSKS. THESE KIOSKS SHALL BE COVERED BY A SHELTER STRUCTURE SUFFICIENT TO PROTECT THE PATRON AND DELIVERY PERSONNEL FROM INCLEMENT WEATHER, AND SHALL BE LOCATED ON PAVED AREAS WITH SUFFICIENT MANEUVERING CLEARANCES & PROPER GRADING TO ACCOMMODATE BOTH MAIL CARRIERS & PERSONS WITH DISABILITIES. A LETTER FROM THE APOPKA USPS SHALL BE REQUIRED PRIOR TO APPROVAL OF THE PRELIMINARY DEVELOPMENT PLAN.
- PUBLIC & PRIVATE ROADS
 - REFER TO ENLARGED MASTER PLAN SHEETS ZA.03 & ZA.04 FOR ROAD DESIGNATION (PUBLIC OR PRIVATE).
 - REFER TO STREET NAME TABLE SHOWN ON THIS SHEET FOR PROPOSED STREET NAMES. FINAL STREET NAMES SHALL BE SUBMITTED WITH THE PRELIMINARY DEVELOPMENT PLANS.
- FENCED DOG PARK AREA
 - TWO FENCED DOG PARK AREAS SHALL BE PROVIDED WITHIN SUBDIVISION B2, AND ONE FENCED DOG PARK AREA WITHIN SUBDIVISION B3.
 - DELINEATED DOG PARK PLANS SHALL BE SUBMITTED WITH THE PRELIMINARY DEVELOPMENT PLAN.
- A LIST OF POTENTIAL "VILLAGES" OR NEIGHBORHOOD NAMES SHALL BE INCLUDED WITH THE PRELIMINARY SITE PLAN. EACH VILLAGE WILL BE NAMED "XXXX" AT AVIAN POINTE.
- COMMUNITY SIGNAGE WILL BE UNIFORM, DEVELOPED, SUBMITTED & APPROVED PER CITY OF APOPKA SIGNAGE STANDARDS AT THE PRELIMINARY SITE PLAN.
- COMMUNITY STREET LIGHTING WILL BE UNIFORMED, SELECTED, SUBMITTED & APPROVED PER CITY OF APOPKA STREET LIGHTING STANDARDS AT THE PRELIMINARY SITE PLAN.

2. PARKING

- REFER TO ZA.02 FOR PARKING SUMMARY TABLE.
- ON-STREET PARALLEL PARKING SPACES SHALL BE A MINIMUM OF 9' WIDE BY 22' IN LENGTH.
- HEAD-IN 90° STANDARD PARKING SPACES SHALL BE A MINIMUM OF 9' WIDE X 18' IN LENGTH.
- HEAD-IN 90° STANDARD PARKING SPACES AT SUBDIVISION B2 PARKING AISLES MAY BE DECREASED TO 9' WIDE X 16' DEEP TO INCREASE LANDSCAPE MEDIAN PER CITY OF APOPKA LDC.
- HEAD-IN 90° ADA PARKING SPACES SHALL BE A MINIMUM OF 12' WIDE X 19' LONG & MEET BOTH FLORIDA BUILDING CODE & FEDERAL ADA STANDARDS. A 5' WIDE ACCESSIBLE AISLE SHALL BE REQUIRED AT EACH ADA PARKING SPACE. EACH SPACE SHALL BE MARKED WITH THE UNIVERSAL ADA SYMBOL & BE PROVIDED WITH APPROPRIATE SIGNAGE IN ACCORDANCE WITH CODE REQUIREMENTS.
- COMPACT SPACES ARE NOT ALLOWED.
- GARAGE SETBACKS:
 - SUBDIVISION A (SINGLE FAMILY): 30' MINIMUM CLEAR DRIVEWAY DEPTH TO RIGHT OF WAY SIDEWALK.
 - SUBDIVISION B1 & B3 (TOWNHOMES): 29' MIN CLEAR DRIVEWAY DEPTH TO RIGHT OF WAY SIDEWALK. GARAGE SETBACK MUST BE SUFFICIENT TO ACCOMMODATE A 20' LONG VEHICLE WITHOUT EXTENDING OVER A SIDEWALK OR STREET/ALLEY.
- TOWNHOME DRIVEWAYS SHALL BE SEPARATED BY A LANDSCAPE AREA TO SEPARATE VEHICLES & DEFINE PROPERTY BOUNDARIES.

3. BUILDING DESIGN/ARCHITECTURE

- VILLAGE STRUCTURES SHALL BE COMPLEMENTARY TO BUT DISTINCT FROM ADJACENT VILLAGES.
- BUILDING FACADES SHALL BE VARIED IN DEPTH WITH MULTIPLE PITCHED ROOF HEIGHTS TO PROVIDE VISUAL INTEREST. FLAT AND/OR MANSARD ROOFS SHALL NOT BE PERMITTED.
- FACADE MATERIALS SHALL BE VARIED AND MAY CONSIST OF STUCCO, HORIZONTAL SIDING, STONE AND/OR BRICK VENEER.
- COLOR PALETTES SHALL BE COMPLEMENTARY TO BUT DISTINCT FROM ADJACENT VILLAGES. FIELD COLORS & TRIM SHALL BE DISTINCT FROM ONE ANOTHER.
- UNITS SHALL HAVE A USEABLE FRONT PORCH ACCESSIBLE FROM THE SIDEWALK. UPPER UNITS AT THE APARTMENTS SHALL ALSO HAVE PORCHES AND/OR USEABLE OUTDOOR SEATING AREAS LOCATED ALONG THE UPPER FLOOR VERANDAS.
- ONE COMMUNITY CLUBHOUSE AND RESORT STYLE POOL SHALL BE PROVIDED FOR, AND SHALL BE SHARED BY THE SINGLE FAMILY AND TOWNHOME VILLAGES.
- TWO COMMUNITY CLUBHOUSES AND RESORT STYLE POOLS SHALL BE PROVIDED IN THE APARTMENT VILLAGE.
- ALL COMMUNITY CLUBHOUSES SHALL BE EQUIPPED WITH RESTROOMS, COMMUNAL KITCHEN (INDOOR AND/OR OUTDOOR), SEATING AREAS AND EXERCISE AREAS.
- ALL COMMUNITY CLUBHOUSES SHALL BE DESIGNED TO ACCOMMODATE PERSONS WITH DISABILITIES AS REQUIRED BY FLORIDA BUILDING CODE AND ADA, CURRENT ENFORCED EDITIONS.
- ACCESS TO COMMUNITY CLUBHOUSES SHALL BE RESTRICTED TO VILLAGE RESIDENTS AND THEIR GUESTS.
- ENTRANCE TO EACH TOWNHOME UNIT MUST ACCESS A SIDEWALK. TOWNHOMES ABUTTING A STREET SHALL HAVE THEIR MAIN ENTRY FROM THAT STREET. THIS APPLIES TO THE PERIMETER UNITS ON SUBDIVISION B1 & B3.
- TOWNHOMES SHALL HAVE A MINIMUM OF ONE ENCLOSED GARAGE SPACE.
- SINGLE FAMILY RESIDENCES SHALL HAVE A MINIMUM OF 2 ENCLOSED GARAGED SPACES.
- TOWNHOUSE & APARTMENT UNIT PRELIMINARY LAYOUTS & DIMENSIONS USED FOR THIS SUBMITTAL SHALL BE PROVIDED AS SUPPLEMENTAL DOCUMENTS AT TIME OF PUBLIC HEARING.

4. BUILDING SETBACKS

- 4.12 SINGLE FAMILY RESIDENCES
 - FRONT YARD: 25' MINIMUM
 - FRONT-FACING GARAGE: 30' MINIMUM
 - SIDE YARD: 7.5' MINIMUM
 - REAR YARD: 20' MINIMUM
 - 4.12.1 TWO STORY RESIDENCES SHALL BE SETBACK AN ADDITIONAL 2.5' FROM THE SIDE YARD PROPERTY LINES.
 - 4.12.2 FRONT PORCHES MAY ENCRoACH INTO FRONT YARD SETBACK NO MORE THAN 5'.
 - 4.12.3 FENCE SHALL NOT BE INSTALLED ALONG THE BACK OF LOTS 1 TO 8 (REAR GARAGE ENTRANCE LOTS).
 - 4.12.4 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 THE CURVE THROUGH A MID-POINT OF THE LOT FRONTAGE.
- 4.1 TOWNHOMES
 - FRONT YARD: 15' MINIMUM, 17' TO 20' SHOWN ON PLAN TO PUBLIC SIDEWALK WHERE FACING STREET
 - FRONT YARD: 5' MINIMUM TO PUBLIC SIDEWALK WHERE FACING CENTRAL GREENBELT
 - FACE OF BLDG TO FACE TO BLDG: 60' MINIMUM WHERE FACING CENTRAL GREENBELT
 - SIDE YARD BETWEEN BLDGS: 20' MINIMUM
 - GARAGE DRIVEWAY: 20' MINIMUM TO PUBLIC SIDEWALK/EDGE OF RIGHT OF WAY
 - 4.1.1 TOWNHOMES ABUTTING THE SINGLE FAMILY RESIDENTIAL VILLAGE SHALL BE SETBACK A MINIMUM OF 30' FROM THE PROPERTY LINE SEPARATING THE TWO VILLAGES.
 - 4.1.2 A 6" HIGH PRECAST CONCRETE WALL WITH STONE VENEER SHALL BE LOCATED ALONG THAT PROPERTY LINE. REFER TO MASTER PLAN & LANDSCAPE PLAN FOR LOCATION.
 - 4.1.3 FRONT PORCHES AT TOWNHOMES MAY NOT ENCRoACH INTO THE FRONT YARD SETBACK.
- 4.2 APARTMENTS
 - FRONT YARDS: 12' MINIMUM TO PUBLIC SIDEWALK WHERE FACING STREET
 - SIDE YARD: NOT APPLICABLE
 - FACE OF BLDG TO FACE TO BLDG: 60' MINIMUM WHERE FACING CENTRAL GREENBELT
 - 4.2.1 GROUND FLOOR APARTMENT UNITS FACING THE STREET SHALL HAVE USABLE FRONT PORCHES AND ENTRANCES ACCESSIBLE FROM THE PUBLIC SIDEWALK.
 - 4.2.2 UNITS FACING THE CENTRAL GREENSPACE SHALL HAVE USABLE PORCHES ACCESSIBLE FROM COMMON AREA SIDEWALK.
 - 4.2.3 FRONT PORCHES AT THE APARTMENTS MAY NOT ENCRoACH INTO THE FRONT YARD SETBACK OR CENTRAL GREENSPACE SETBACK.

5. LOT AREA & DIMENSIONS

- 5.1 SINGLE FAMILY RESIDENCES
 - MINIMUM LOT AREA: 7,500 SQUARE FEET (R-3 MINIMUM LOT AREA)
 - INTERIOR LOTS: 60' X 125', 60' X 132', 70' X 120'
 - CORNER LOTS: 75' X 125', 70' X 132'
 - PERIMETER LOT: 75' X 107' (LOTS ALONG EAST PROPERTY LINE)
 - 5.1.1 LOT WIDTHS AT INTERNAL BLOCKS VARY BUT MUST MAINTAIN MINIMUM STANDARDS LISTED ABOVE.

5.2. TOWNHOMES

- INTERIOR LOTS: 23' X 89' MINIMUM
- END LOTS: 23'-4" WIDE X 89' DEEP TO ACCOMMODATE END WALL THICKNESS
- 5.2.1. COMMON AREAS ABUTTING THE TOWNHOME LOTS SHALL BE THE RESPONSIBILITY OF AND MAINTAINED BY THE VILLAGE H.O.A.

6. UNIT SIZES

- 6.1 SINGLE FAMILY RESIDENCES
 - MINIMUM LIVABLE AREA: 1,700 SQUARE FEET
- TOWNHOMES
 - MINIMUM LIVABLE AREA: 1,350 SQUARE FEET

6.2. APARTMENTS

- MINIMUM LIVABLE AREA:
 - 1 BR UNIT: 750 SQUARE FEET
 - 2 BR UNIT: 900 SQUARE FEET
 - 3 BR UNIT: 1,050 SQUARE FEET
- 6.2.1. REFER TO DEVELOPMENT AGREEMENT FOR THIS PROJECT FOR LIST OF LUXURY APARTMENT FEATURES.

7. COMMUNITY PARK (DEVELOPMENT B4) GUIDELINES

- PARK FACILITIES SHALL MEET ADA ACCESSIBILITY REQUIREMENTS.
- RESTROOMS SHALL BE PROVIDED FOR PARK USERS.
- ON-SITE PARKING SHALL BE PROVIDED FOR PARK USERS.
- BICYCLE RACKS SHALL BE PROVIDED. NUMBER AND LOCATIONS TO BE DETERMINED AT THE PRELIMINARY DEVELOPMENT PLAN.
- DRINKING FOUNTAINS SHALL BE PROVIDED. NUMBER AND LOCATIONS TO BE DETERMINED AT THE PRELIMINARY DEVELOPMENT PLAN.
- RECREATIONAL FACILITIES SHOWN ON PLANS ARE CONCEPTUAL, FINAL FACILITIES TO BE DETERMINED AT THE PRELIMINARY DEVELOPMENT PLAN.
- ALL DEVELOPMENT RESIDENTS SHALL HAVE SHARED-USE ACCESS TO THE COMMUNITY PARK.
- A BACKSTOP SHALL BE PROVIDED AT THE BASEBALL FIELD; DETAIL SHALL BE PROVIDED AT THE PRELIMINARY DEVELOPMENT PLAN.

8. FLEX ZONE (DEVELOPMENT B5)

- 8.1. PROPOSED THREE (3) OPTIONS:
 - OPTION 1: SCHOOL/DAYCARE FACILITY
 - OPTION 2: SENIOR HOUSING FACILITY
 - OPTION 3: 100 ROOM BOUTIQUE HOTEL

- 8.2. FLEX ZONE DEVELOPMENT STANDARD TO FOLLOW LAND DEVELOPMENT CODE.
- 8.3. REFER TO DEVELOPMENT AGREEMENT FOR FLEX ZONE ADDITIONAL INFORMATION.

9. FIRE DEPARTMENT NOTES

- 9.1. ALL ROADWAYS, WATER LINE INFRASTRUCTURE AND FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
- 9.2. FIRE HYDRANTS MUST BE WITHIN 500 FEET OF EACH HOME.
- 9.3. FIRE HYDRANT SHALL BE MARKED WITH A BLUE ROAD REFLECTOR.
- 9.4. FIRE LANES SHALL BE PROVIDED FOR THE MULTI RESIDENTIAL BUILDINGS.
- 9.5. ALL MULTI RESIDENTIAL TOWN HOMES OR APARTMENTS MUST BE EQUIPPED WITH FIRE SPRINKLER SYSTEMS, AND FIRE ALARM SYSTEMS MEETING FLORIDA FIRE PREVENTION CODE.
- 9.6. FIRE DEPARTMENT CONNECTIONS (FDC) FOR SPRINKLER SYSTEMS MUST BE REMOTE FROM THE BUILDINGS WITH FIRE LANES.
- 9.7. IF THE DEVELOPMENT IS GATED, THE GATE SHALL BE EQUIPPED WITH AN OPTI-COM TYPE SIGNALING DEVICE THAT IS COMPATIBLE WITH CITY OF APOPKA EMERGENCY VEHICLES. IT MUST ALSO BE EQUIPPED WITH A YELP SIREN ACTIVATION AND GATE CODE REQUESTED BY THE FIRE DEPARTMENT.
- 9.8. CONNECTOR ROAD TO THE NORTH ALL THE WAY TO ORANGE AVENUE SHALL MEET CITY OF APOPKA STANDARDS TO ALLOW SAFE TRAVEL FOR FIRE APPARATUS.

10. PUBLIC SERVICES DEPARTMENT NOTES

- 10.1. ROADS, DRIVEWAYS & ROUNDABOUTS SHALL FOLLOW FDOT STANDARDS.
- 10.2. UTILITIES SHALL BE COORDINATED WITH AND PROVIDED BY THE CITY OF APOPKA.
- 10.3. SANITATION SERVICE SHALL BE COORDINATED WITH AND PROVIDED BY THE CITY OF APOPKA.
- 10.4. SINGLE FAMILY & TOWNHOME SANITATION SERVICE SHALL BE VIA INDIVIDUAL UNIT CURBSIDE WASTE BINS PER CITY SCHEDULE.
- 10.5. APARTMENT SANITATION SERVICE SHALL BE VIA ROLL-OFF BINS LOCATED WITHIN AN ENCLOSED COMPACTOR BAY ON SITE. APARTMENT MAINTENANCE STAFF SHALL BE RESPONSIBLE FOR TRANSPORTATION OF TRASH FROM THE APARTMENT BUILDINGS TO THE COMPACTORS AND COORDINATING PICK UP WITH THE CITY SANITATION DEPARTMENT.
- 10.6. NO TREES OR SHRUBS SHALL BE PLANTED WITHIN THE ROAD RIGHT OF WAYS WITH CONTAIN CITY-MAINTAINED POTABLE WATER, RECLAIMED WATER, STORMWATER OR SEWER MAINS.
- 10.7. LANDSCAPE & IRRIGATION DESIGN SHALL BE IN ACCORDANCE WITH THE CITY OF APOPKA ORDINANCE 2009, ADOPTED MAY 21, 2009 WHICH ESTABLISHES WATER WISE LANDSCAPE & IRRIGATION STANDARDS.

11. ADDITIONAL NOTES

- 11.1. DEVELOPMENT STANDARDS TO FOLLOW LAND DEVELOPMENT CODE.
- 11.2. REFER TO DEVELOPER AGREEMENT FOR ADDITIONAL PROJECT INFORMATION REGARDING DEVELOPMENT STANDARDS & GUIDELINES.
- 11.3. ALL RESIDENTIAL UNITS SHALL COMPLY WITH FAIR HOUSING ACT ACCESSIBILITY STANDARDS.
- 11.4. ALL SINGLE FAMILY AND TOWNHOME UNITS SHALL HAVE A FAIR HOUSING ACT COMPLIANT BATH OR 1/2 BATH LOCATED ON THE GROUND FLOOR OF THE UNIT.
- 11.5. ALL RESIDENTIAL UNITS SHALL HAVE LAUNDRY FACILITIES LOCATED WITHIN THE LIVABLE AREA.
- 11.6. BICYCLES AND/OR PERSONAL ITEMS OTHER THAN OUTDOOR FURNISHINGS AND PLANTS SHALL NOT BE STORED ON PORCHES. BICYCLE RACKS SHALL BE PROVIDED AT COMMUNITY CLUBHOUSES, RECREATION AREAS AND EACH APARTMENT BLOCK.
- 11.7. SINGLE FAMILY WASTE BINS SHALL BE STORED EITHER EACH UNIT'S GARAGE OR BEHIND AN OPAQUE SCREEN WALL OR FENCE LOCATED WITHIN THE SIDE YARD SETBACK.
- 11.8. TOWNHOME WASTE BINS SHALL BE STORED WITHIN EACH UNIT'S GARAGE OR BEHIND AN OPAQUE SCREEN WALL OR FENCE LOCATED WITHIN THE REAR YARD SETBACK.

JOB #: 180520
 POL. MGR.: ECL
 DESIGNER: ECL
 CHECKED: JM

REVISIONS

NO.	DATE	REVISIONS
1		
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DATE: JUL 25, 2018

ENGINEER: ECL
 FL DC #

AVIAN POINTE
 PUD MASTER PLAN AMENDMENT
 (MIXED USE MASTER PLAN)

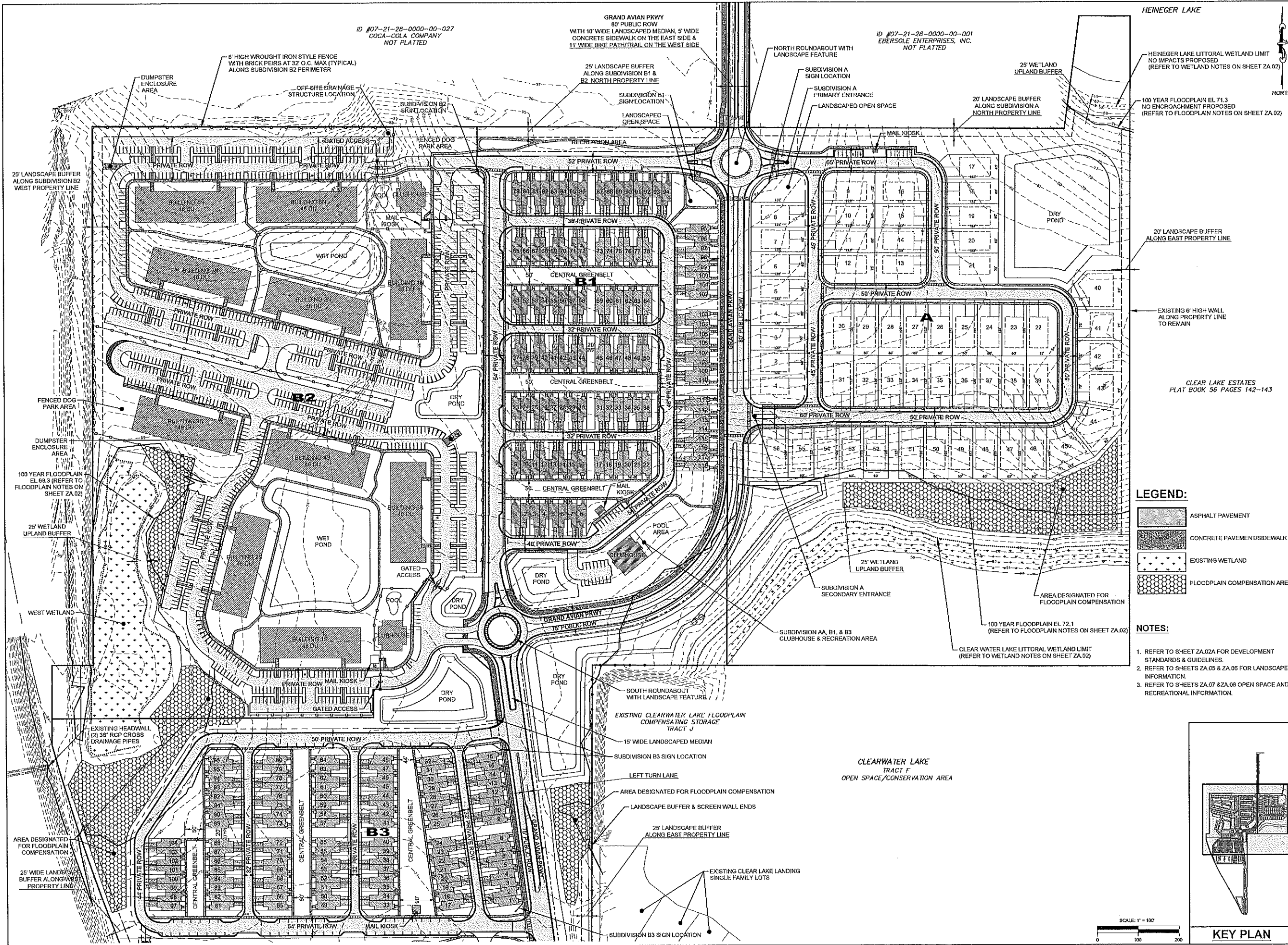
2774 LUST ROAD
 APOPKA, FLORIDA

APOPKA CLEAR LAKE INVESTMENTS, LLC

DEVELOPMENT STANDARDS & GUIDELINES

LOCHRANE
 Consulting Engineers - Surveyors
 An AECOM Company

DRAWING NO. 4A.02A
 SHEET 4 OF 15



ID #07-21-28-0000-00-027
COCA-COLA COMPANY
NOT PLATTED

GRAND AVIAN PKWY
80' PUBLIC ROW
WITH 10' WIDE LANDSCAPED MEDIAN, 5' WIDE
CONCRETE SIDEWALK ON THE EAST SIDE &
11' WIDE BIKE PATH/TRAIL ON THE WEST SIDE

ID #07-21-28-0000-00-001
EBERSOLE ENTERPRISES, INC.
NOT PLATTED

HEINEGER LAKE



HEINEGER LAKE LITTORAL WETLAND LIMIT
NO IMPACTS PROPOSED
(REFER TO WETLAND NOTES ON SHEET ZA.02)

100 YEAR FLOODPLAIN EL 71.3
NO ENCROACHMENT PROPOSED
(REFER TO FLOODPLAIN NOTES ON SHEET ZA.02)

20' LANDSCAPE BUFFER
ALONG EAST PROPERTY LINE

EXISTING 6' HIGH WALL
ALONG PROPERTY LINE
TO REMAIN

CLEAR LAKE ESTATES
PLAT BOOK 56 PAGES 142-143

100 YEAR FLOODPLAIN EL 72.1
(REFER TO FLOODPLAIN NOTES ON SHEET ZA.02)

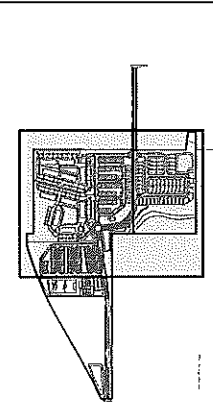
CLEAR WATER LAKE LITTORAL WETLAND LIMIT
(REFER TO WETLAND NOTES ON SHEET ZA.02)

LEGEND:

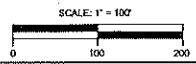
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT/SIDEWALK
- EXISTING WETLAND
- FLOODPLAIN COMPENSATION AREA

NOTES:

1. REFER TO SHEET ZA.02A FOR DEVELOPMENT STANDARDS & GUIDELINES.
2. REFER TO SHEETS ZA.05 & ZA.06 FOR LANDSCAPE INFORMATION.
3. REFER TO SHEETS ZA.07 & ZA.08 OPEN SPACE AND RECREATIONAL INFORMATION.



KEY PLAN



JOB # 165823 EDDWARDS CONSULTANTS, P.C. FL DC #19622	PRL MGR: ECL DESIGNER: ECL CHECKED: JN	DATE: 04.25.2018 REVISIONS NO. DATE 1 07/25/18 CITY OF APOPKA PUD MASTER REVIEW #2 2 07/25/18 CITY OF APOPKA PUD MASTER REVIEW #1 3 08/28/18 CITY OF APOPKA PUD MASTER REVIEW #1	<p style="text-align: center;">AVIAN POINTE PUD MASTER PLAN AMENDMENT (MIXED USE MASTER PLAN)</p> <p style="text-align: center;">2774 LUST ROAD APOPKA, FLORIDA</p> <p style="text-align: center;">APOPKA CLEAR LAKE INVESTMENTS, LLC</p> <hr/> <p style="text-align: center;">ENLARGED MASTER PLAN (1 OF 2)</p>
RECORD DRAWING THIS RECORD DRAWING IS BASED ON THE FINAL PLAT RECORD DRAWING FOR THE AVIAN POINTE PUD MASTER PLAN AMENDMENT (MIXED USE MASTER PLAN) AND IS NOT TO BE USED FOR ANY OTHER PURPOSES. ANY CHANGES TO THIS DRAWING MUST BE MADE TO THE ORIGINAL RECORD DRAWING. THE USER OF THIS DRAWING IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THE INFORMATION SHOWN HEREON. THE USER OF THIS DRAWING IS ADVISED THAT THE INFORMATION SHOWN HEREON IS NOT TO BE USED FOR ANY OTHER PURPOSES.			
ENGINEER: F.L.C.#			
DRAWING NO: ZA.03 SHEET 5 OF 15			

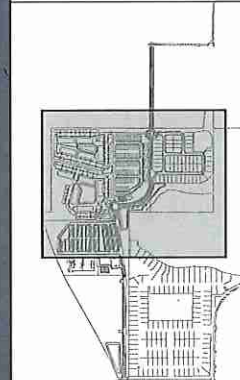


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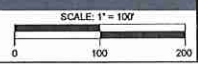
- STREET TREE
- BUFFER TREE
- STORMWATER POND PERIMETER TREE
- LOT TREE
- OPEN SPACE TREE
- LANDSCAPE FEATURE
- SOD OR SEED & MULCH
- CONCRETE PAVEMENT/SIDEWALK
- EXISTING WETLAND
- FLOODPLAIN COMPENSATION AREA
- 4' HIGH SCREEN WALL (HEDGE GREEN WALL)

NOTES:

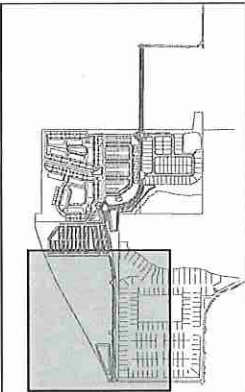
1. LANDSCAPE & IRRIGATION DESIGN FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2009, ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.
2. ALL TREE SPECIES AND CALIPER SHALL COMPLY WITH THE CITY OF APOPKA LANDSCAPE REQUIREMENTS.



KEY PLAN



JOB #: 18058.20		DATE: JUL 25, 2018
DESIGNER: ECL		REVISIONS
CHECKED: JM		NO. DATE
PROJECT: AVIAN POINTE PUD MASTER PLAN AMENDMENT (MIXED USE MASTER PLAN)		NO. DATE
DRAWING NO: ZA.05		NO. DATE
SHEET 7 OF 15		NO. DATE
<p>LOCHRANE Consulting Engineers - Surveyors An IVIS Company</p> <p>101 NORTH HUNTER AVENUE SUITE 1000 APOPKA, FL 33511 PH: 888.788.2277 FAX: 888.788.2277 WWW.LOCHRANE.COM</p>		<p>ENGINEER: F.L.C. #</p> <p>RECORD DRAWING</p> <p>THIS RECORD DRAWING IS BASED ON THE RESULTS OF FIELD SURVEY AND CONSTRUCTION OF THE RECORD DRAWING. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS AND VERIFIED THE DIMENSIONS AND LOCATIONS OF THE FEATURES SHOWN ON THIS DRAWING. A FLOODPLAIN AND WETLAND STUDY HAS BEEN CONDUCTED AND THE RESULTS ARE SHOWN ON SHEET ZA.02. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS AND VERIFIED THE DIMENSIONS AND LOCATIONS OF THE FEATURES SHOWN ON THIS DRAWING.</p>
<p>AVIAN POINTE PUD MASTER PLAN AMENDMENT (MIXED USE MASTER PLAN)</p> <p>2777 LUST ROAD APOPKA, FLORIDA</p> <p>APOPKA CLEAR LAKE INVESTMENTS, LLC</p>		<p>LANDSCAPE MASTER PLAN (1 OF 2)</p>



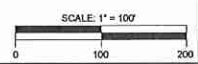
KEY PLAN

LEGEND:

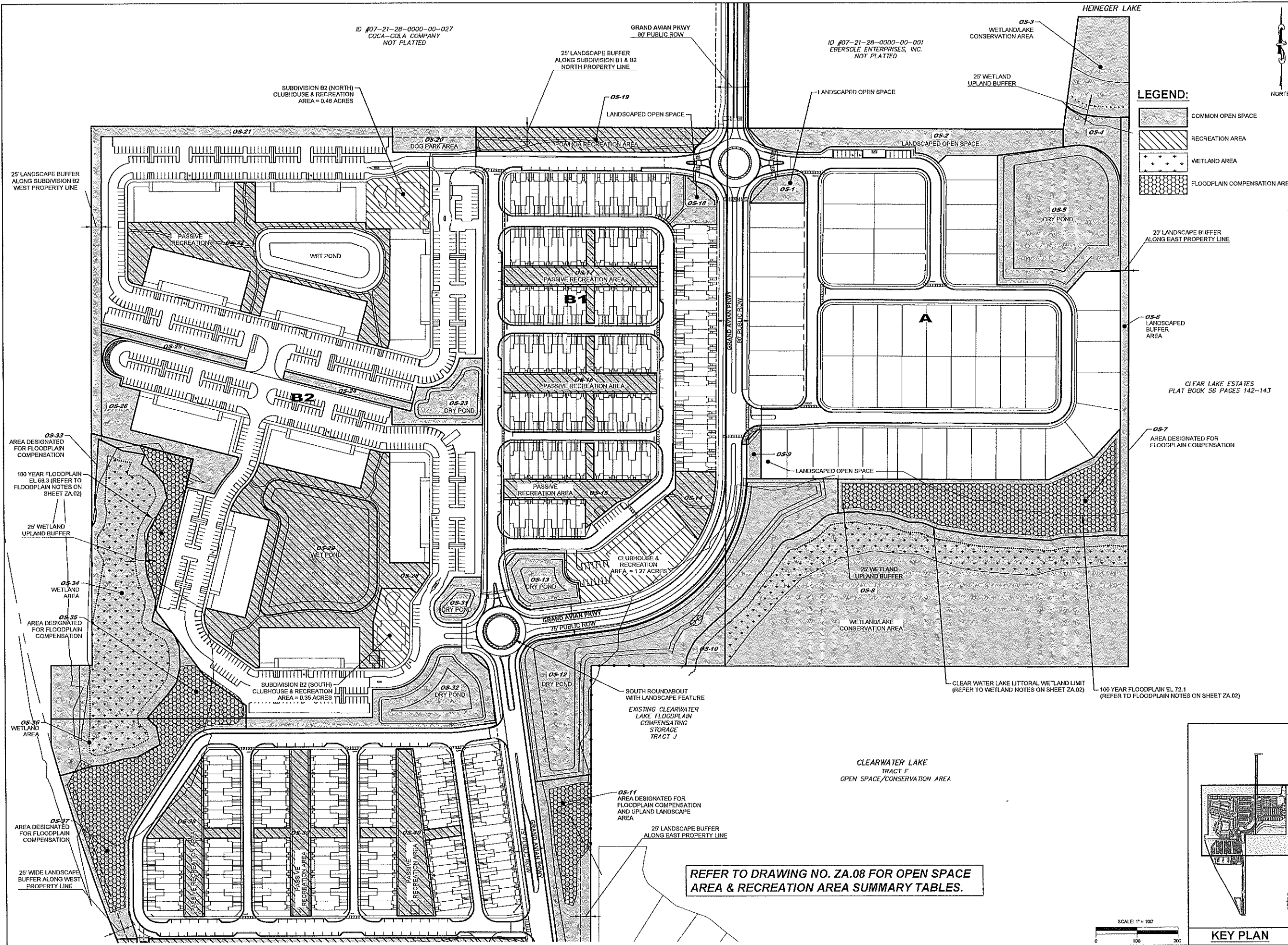
- STREET TREE
- BUFFER TREE
- STORMWATER POND PERIMETER TREE
- LOT TREE
- OPEN SPACE TREE
- LANDSCAPE FEATURE
- SOD OR SEED & MULCH
- CONCRETE PAVEMENT/SIDEWALK
- FLOODPLAIN COMPENSATION AREA
- 4' HIGH SCREEN WALL (HEDGE GREEN WALL)

NOTES:

1. LANDSCAPE & IRRIGATION DESIGN FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2009, ADOPTED MAY 21, 2008 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.
2. ALL TREE SPECIES AND CALIPER SHALL COMPLY WITH THE CITY OF APOPKA LANDSCAPE REQUIREMENTS.



<p>NORTH</p>	<p>ENGINEER: EDUARDO ORTIZ/AVIAN, P.E. FL Lic. #168620</p>	<p>JOB # : 180520</p>	<p>DATE: JUL 25, 2018</p>
<p>RECORD DRAWING</p> <p><small>THIS RECORD DRAWING IS BASED ON THE RECORD DRAWING SUBMITTED FOR PERMITTING AND SHALL BE CONSIDERED A PART OF THE RECORD DRAWING. ANY CHANGES TO THIS RECORD DRAWING SHALL BE INDICATED BY A REVISION TABLE AND SHALL BE APPROVED BY THE ENGINEER OF RECORD. THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE RECORD DRAWING.</small></p>		<p>PRJ. MGR: EGL</p>	<p>DESIGNER: EGL</p>
<p>ENGINEER: FL Lic. #</p>		<p>NO. DATE</p>	<p>REVISIONS</p>
<p>LANDSCAPE MASTER PLAN (2 OF 2)</p>		<p>17/25/18 CITY OF APOPKA PUD MASTER REVIEW #3</p>	<p>18/05/18 CITY OF APOPKA PUD MASTER REVIEW #1</p>
<p>AVIAN POINTE PUD MASTER PLAN AMENDMENT (MIXED USE MASTER PLAN)</p>		<p>2774 LUST ROAD APOPKA, FLORIDA</p>	
<p>APOPKA CLEAR LAKE INVESTMENTS, LLC</p>		<p>ENGINEER: FL Lic. #</p>	
<p>LOCHRANE Consulting Engineers - Surveyors An NVIS Company</p>		<p>DRAWING NO: ZA.06</p>	
<p>180520\CONSTR\PUD - MASTER PLAN\07_08 - AVIAN POINTE PUD - ZA.05_06.dwg - Jul 25, 2018 - 2:16pm</p>		<p>SHEET OF 15</p>	



LEGEND:

[Pattern]	COMMON OPEN SPACE
[Pattern]	RECREATION AREA
[Pattern]	WETLAND AREA
[Pattern]	FLOODPLAIN COMPENSATION AREA

ENGINEER: EDUARDO DUCALANA, P.E.
 FL. LIC. #19822

DATE: JUL 25, 2018

NO.	DATE	REVISIONS
1	07/25/18	CITY OF APOPKA PUD MASTER REVIEW #3
2	07/25/18	CITY OF APOPKA PUD MASTER REVIEW #2
3	08/02/18	CITY OF APOPKA PUD MASTER REVIEW #1

RECORD DRAWING

THIS RECORD DRAWING IS BASED ON THE RESULTS OF THE FIELD SURVEY AND THE RECORD DRAWING IS THE FINAL DESIGN. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS AND VERIFIED THE ACCURACY OF THE INFORMATION PROVIDED TO HIM. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS AND VERIFIED THE ACCURACY OF THE INFORMATION PROVIDED TO HIM. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS AND VERIFIED THE ACCURACY OF THE INFORMATION PROVIDED TO HIM.

AVIAN POINTE
 PUD MASTER PLAN AMENDMENT
 (MIXED USE MASTER PLAN)

2774 LUST ROAD
 APOPKA, FLORIDA

APOPKA CLEAR LAKE INVESTMENTS, LLC

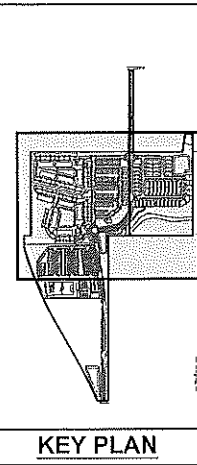
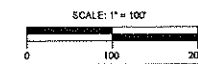
OPEN SPACE & RECREATION PLAN
 (1 OF 2)

LOCHRANE
 Consulting Engineers - Surveyors
 An IVE Company

DRAWING NO: ZA.07

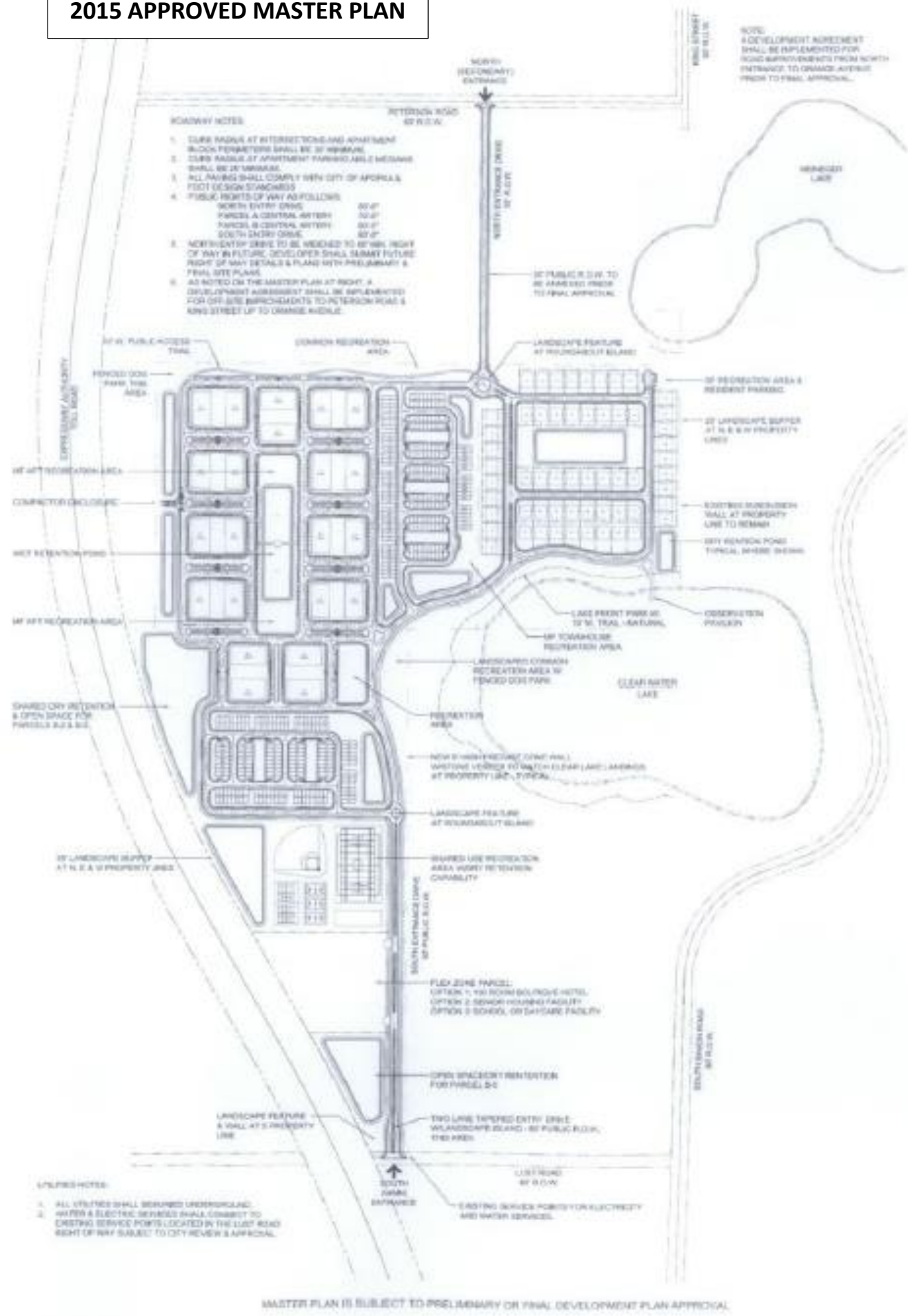
SHEET 9 OF 15

REFER TO DRAWING NO. ZA.08 FOR OPEN SPACE AREA & RECREATION AREA SUMMARY TABLES.

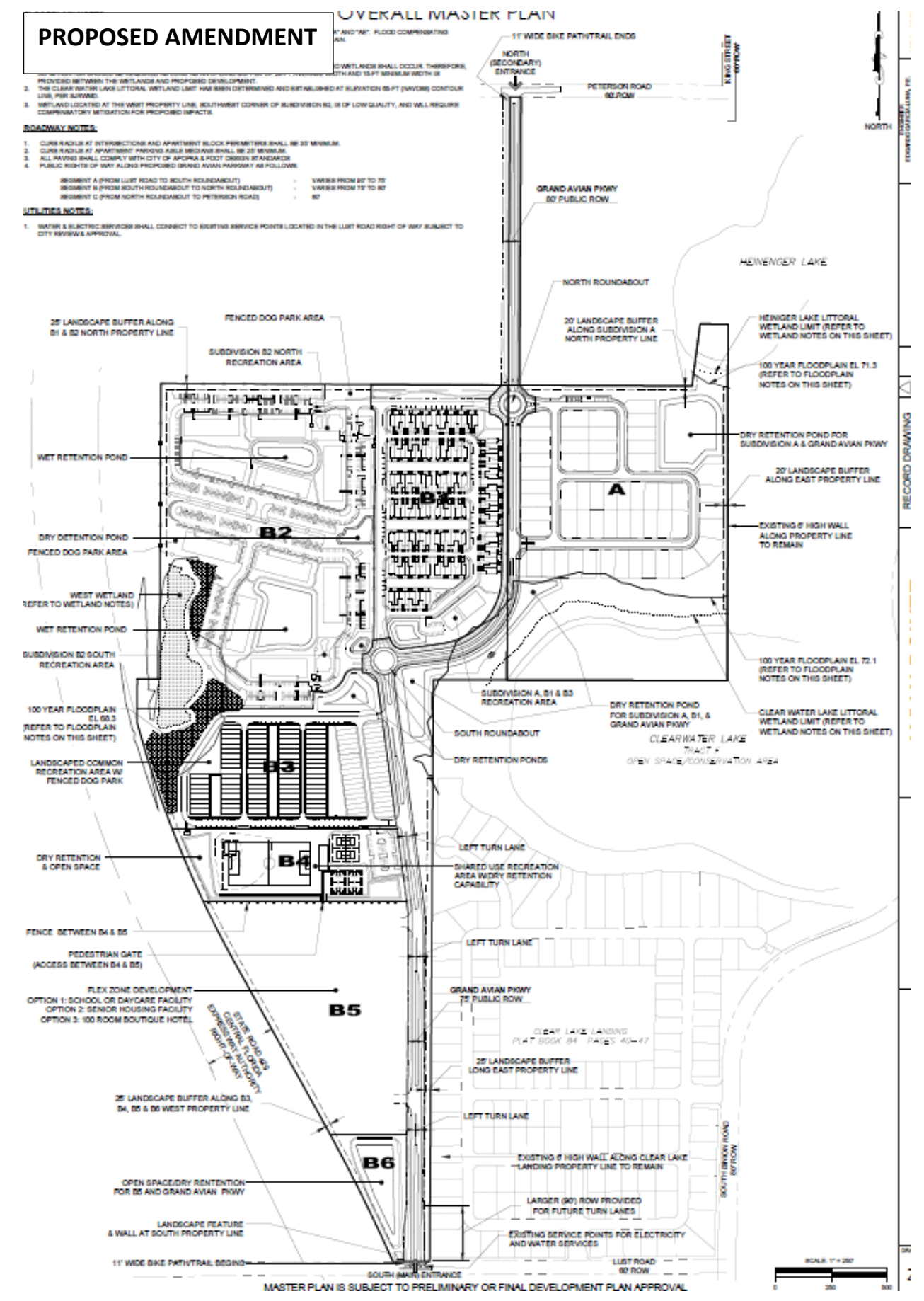


O:\1805620\CONST\PUD - MASTER PLAN\09_10 - AVIAN POINTE PUD - ZA.07_08.dwg - Jul 25, 2018 - 2:20pm

2015 APPROVED MASTER PLAN



PROPOSED AMENDMENT



AVIAN POINTE MASTER PLAN PHASE-BY-PHASE CHANGES

PHASE A:

Use: Single Family homes

Park: Clubhouse and pool moved to Phase B-1 for joint use between A, B-1, and B-3 homes; no other park proposed in Phase A; no lake front open space area with multi-use trail to spine road trail

Road System: Spine road moved to west side of Phase A; no longer interior to neighborhood
r

	Proposed Master Plan	Current Master Plan
No. of Lots\Homes	56	58
Lot Width*	60, 70, 75'	75'
Lot Area	7,500 – 8,750 sq. ft.	8,250 sq. ft.
Home Min. Livable Area	1,700 sq. ft.	1,700 sq. ft.
Acres	10.387	
20'wide landscape buffer tract next to Clear Lake Estates/no wall	Yes	Yes

*Proposed Lot Width\Area		
Lot Width	No. of Lots	Typical Lot Area
60	39	7,500 sq. ft.
70	12	8.750 sq. ft.
75	5	7,950 sq. ft.

PHASE B-1 AND B-3:

Use: Townhomes

Park: Clubhouse and pool at B-1 combined with B-3 for joint use between Phases A, B-1, and B-3 homes

	Proposed Master Plan	Current Master Plan
No. of Lots\Homes	118 + 104 = 222	114 + 102 = 216
Lot Width*	20'	20'
Home Min. Livable Area	1,350 sq. ft.	1,350 sq. ft.
Acres	14.5 + 13.86 = 28.3	11.59 + 8.82 = 20.4

PHASE B-2:

Use: Apartments

Park: Two community recreation areas proposed (swimming pools and clubhouse); one for each apartment phase

	Proposed Master Plan	Current Master Plan
No. of Apartment Units	480	484
Acres	30.91	39.63
Gated Community	Yes	No

Bedrooms per Apt.	Proposed Master Plan			Current Master Plan		
	#	%	Min. Sq. Ft.	#	%	Min. Sq. Ft.
1 BR	180	38	750	194	40	750
2 BR	260	54	900	194	40	900
3 BR	40	8	1,050	96	20	1,050

PHASE B-4:

Use: Community Park for Phase A, B-1, B-2, B-3, and B-4

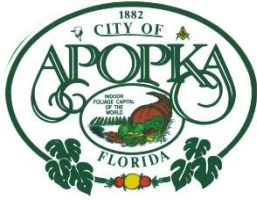
Facilities: As shown each Master Plan

	Proposed Master Plan	Current Master Plan
Acres	7.071	10.36

PHASE B-5:

Use: Flex Use – Boutique hotel, public or private school, Assisted Living Facility, Mixed-Use Vertical Commercial-Residential

	Proposed Master Plan	Current Master Plan
Acres	14.998	6.09



CITY OF APOPKA PLANNING COMMISSION

PUBLIC HEARING
 SITE PLAN: Final Development Plan
 SPECIAL REPORTS
 OTHER:

MEETING OF: August 14, 2018
FROM: Community Development
EXHIBITS: Vicinity Map
Zoning Map
Aerial Map
Final Development Plan
Architectural Renderings
Access & Utility Easement

SUBJECT: FINAL DEVELOPMENT PLAN – SITE PLAN – AUTOZONE STORE

REQUEST: RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN FOR THE AUTOZONE STORE

SUMMARY:

OWNER/APPLICANT: Calmil Investment Group LP 95% Int Kenneth Lee Jureit Trust 5% Int
ENGINEER: Rogers Engineering, LLC, c/o Wallace L. Brinkman III, P.E.
LOCATION: 1120 West Orange Blossom Trail
PARCEL ID #s: 05-21-28-0000-00-025 (portion)
FUTURE LAND USE: Commercial
ZONING: C-2 (General Commercial)
EXISTING USE: Vacant
PROPOSED USE: Retail Sales
TRACT SIZE: 1.07 +/- acres
BUILDING SIZE: 6,815 square feet
FLOOR AREA RATIO 0.146 (0.25 Maximum)

DISTRIBUTION

Mayor Nelson
Commissioners
City Administrator
Community Development Director

Finance Director
HR Director
IT Director
Police Chief

Public Services Director
Recreation Director
City Clerk
Fire Chief

RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Commercial	PUD (Commercial)	Automobile Service Station and Multi-tenant Center
East (City)	Commercial	C-1 (Retail Commercial)	Retention Pond
South (County and City)	Residential	County Ind-4 (Heavy Industrial District) and City R-1 (Residential Single-Family District)	Railroad and Single Family Residential Subdivision
West (City)	Commercial	C-2 (General Commercial District)	Retail Sales

PROJECT SUMMARY: This is a request to approve the AutoZone Store Final Development Plan that includes a building size of 6,815 square feet. A preliminary development plan is not required for development proposing less than 10,000 sq. ft. of building floor area. The site plan takes into consideration the future potential to plat the property into separate lots.

PARKING: Per Land Development Code parking requirements, 35 parking spaces are required while the applicant is proposing 42 parking spaces, two of which are reserved as a handicapped accessible spaces.

ACCESS/TRANSPORTATION: The site will have access to U.S. 441 via a cross-access easement through the Verizon Store to Lake Doe Boulevard. Two other access points will be available through cross-access easement across the IHOP property.

AutoZone and IHOP are proposed on a single parcel and will share all access; accordingly, a single transportation impact analysis (TIA) was submitted to evaluate the combined impacts of AutoZone and IHOP on the surrounding roadway segments and intersections. Included in the analysis were segments of U.S 441/W Orange Blossom Trail, Errol Parkway, Lake Doe Boulevard, and Old Dixie Highway. Intersections analyzed were U.S. 441/W Orange Blossom Trail and Vick Road; U.S. 441/W Orange Blossom Trail and Errol Parkway; Old Dixie Highway and Errol Parkway; Old Dixie Highway and Vick Road; Lake Doe Boulevard site entrance; and U.S. 441/W Orange Blossom Trail site entrances.

The projects will generate 503 daily and 44 P.M. Peak Hour Net New trips. The addition of these project trips to the study roadways and intersections will not cause the Level of Service (LOS) to fall below the City’s adopted LOS standard.

Right and left turn warrant analyses were conducted for the site entrances on U.S. 441 and concluded that turn lanes are not needed to safely accommodate project traffic.

Both access driveways on U.S. 441/W Orange Blossom Trail are required for the site at the time of development of either project if they are not developed simultaneously.

EXTERIOR ELEVATIONS: The height of the proposed building is 25 feet, well below the maximum allowable height of 35 feet. Staff has found the proposed building elevations meet the intent of the City’s Development Design Standards\Guidelines.

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

BUFFER/SCREENING/LANDSCAPING/TREE PROGRAM: As part of the development plan approval, Ligustrum and Crepe Myrtles, and Indian Hawthorn shrubs line the 10-foot wide buffer adjacent to the U.S. Highway 441. Magnolias are placed in the parking landscaped islands

Arbor Assessment

Total inches on-site (before removal):	163
Total specimen inches removed	110
Total inches retained:	17
Total inches added:	174
Total inches post development:	97

CONDITION OF APPROVAL: All access driveways must be constructed and all associated cross access easements must be recorded across both the IHOP and AutoZone sites prior to issuance of a certificate of occupancy on either site.

PUBLIC HEARING SCHEDULE:

August 14, 2018 – Planning Commission, 5:30 pm
September 5, 2018 – City Council, 1:30 pm

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the AutoZone Store – Final Development Plan, subject to the findings of this staff report.

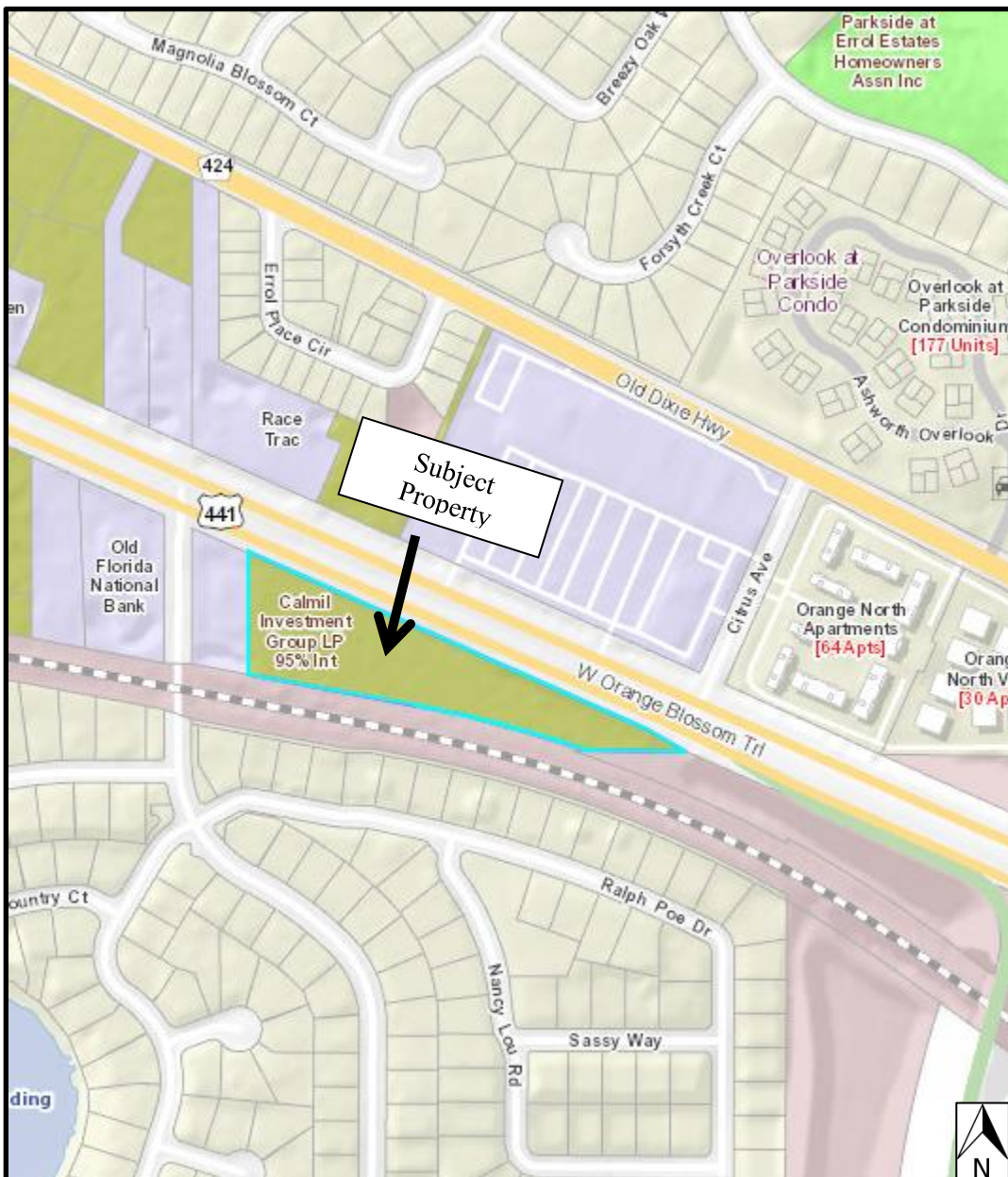
Planning Commission Recommendation: Find the AutoZone Store – Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of Final Development Plan, subject to the Condition of Approval and the findings of this staff report.

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

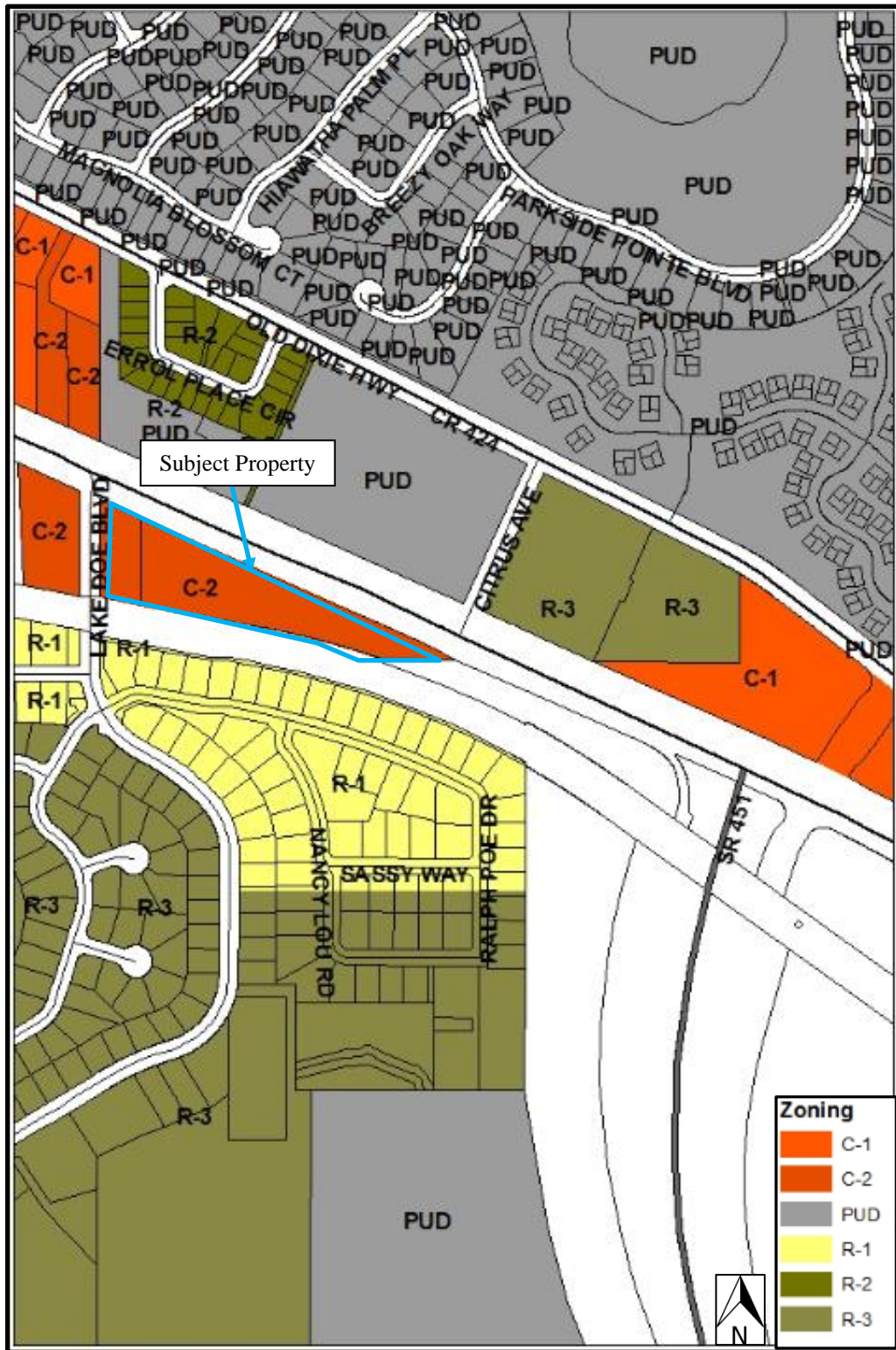
Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Application: AutoZone Final Development Plan
Owner/Applicant: Calmil Investment Group LP 95% Int; Kenneth Lee Jureit Trust 5% Int
Engineer: Rogers Engineering, LLC, c/o Wallace L. Brinkman III, P.E.
Location: 1120 West Orange Blossom Trail
Parcel I.D. #: 05-21-28-0000-00-025
Total Site Area: 3.30 acres +/-

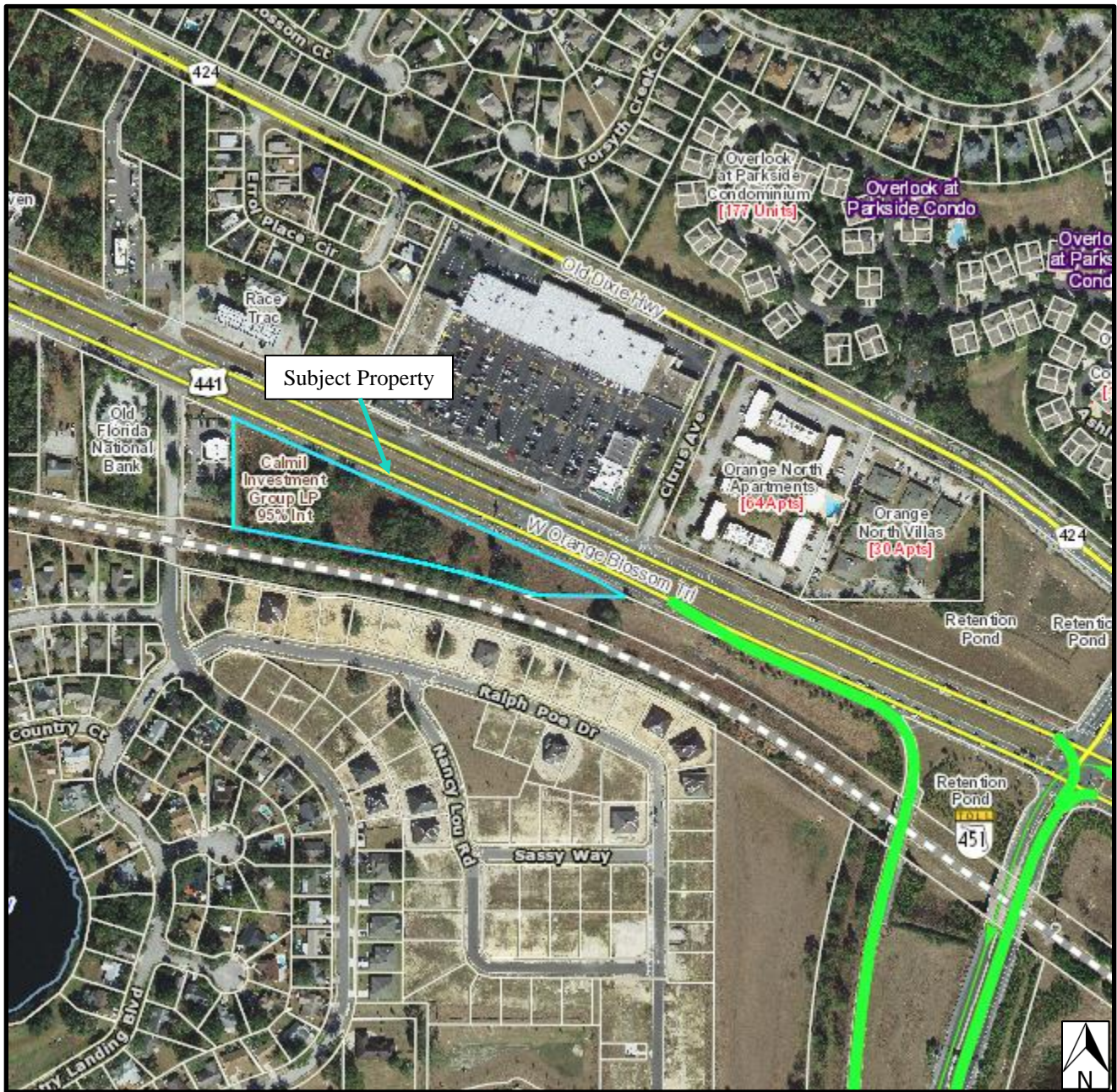
VICINITY MAP

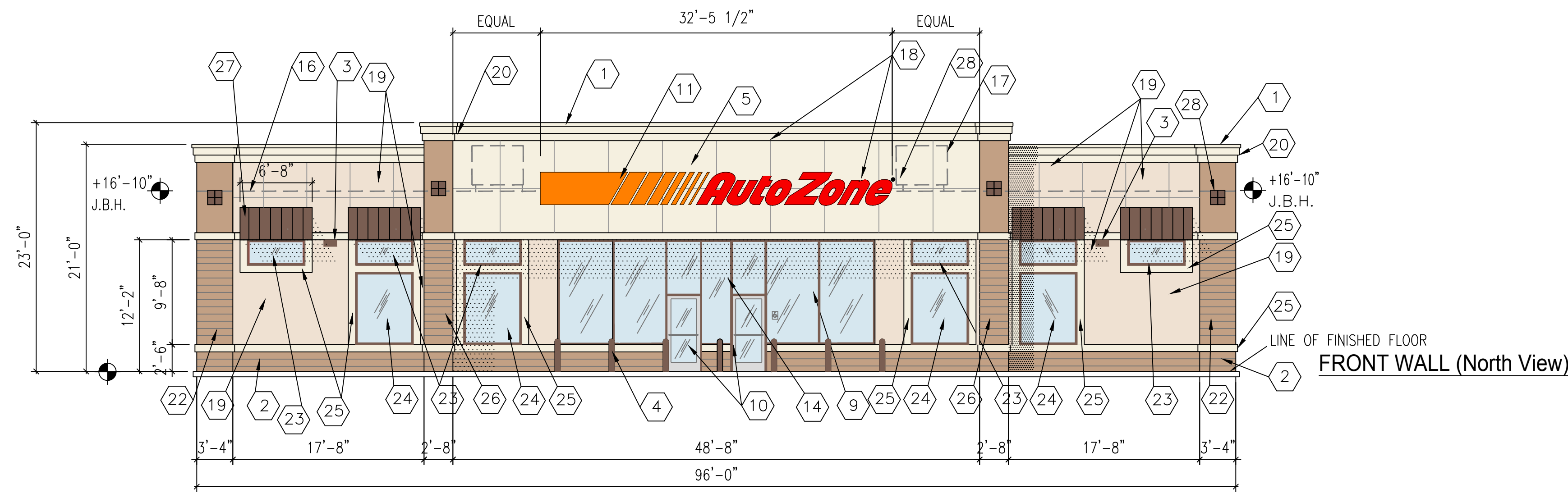


ZONING MAP

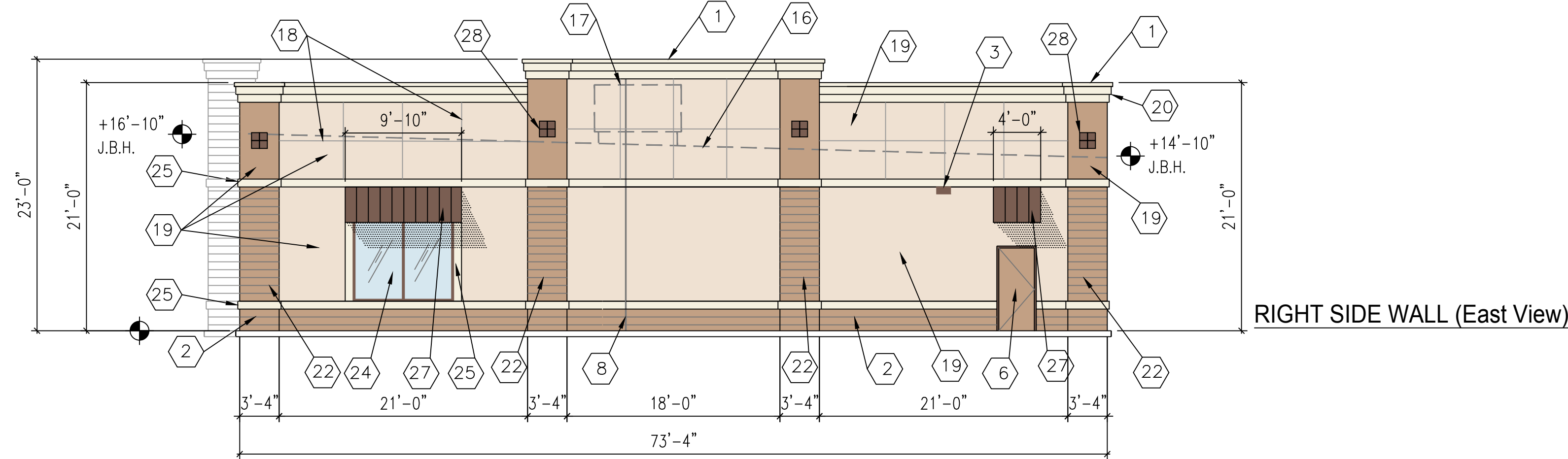


AERIAL MAP

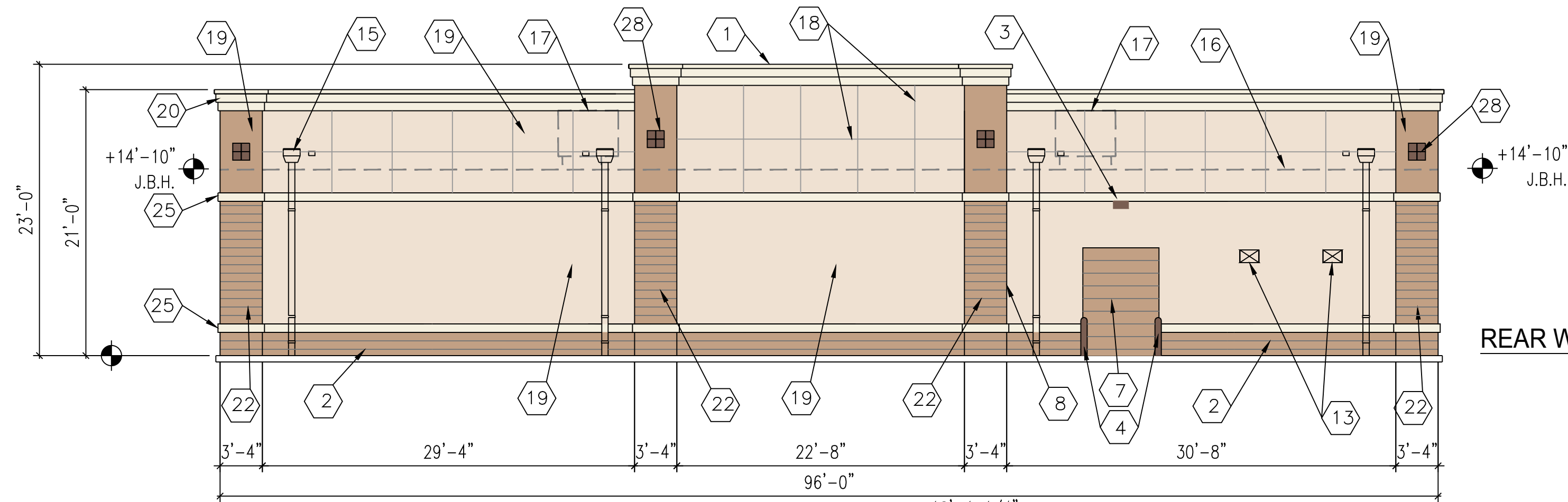




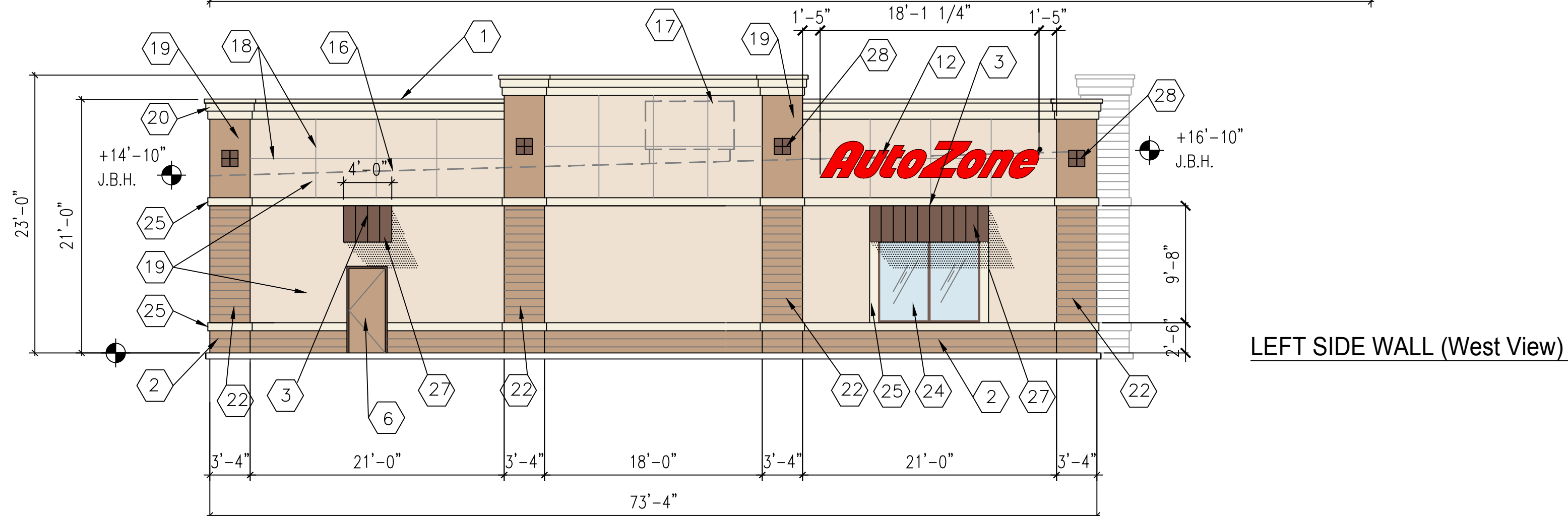
FRONT WALL (North View)



RIGHT SIDE WALL (East View)



REAR WALL (South View)

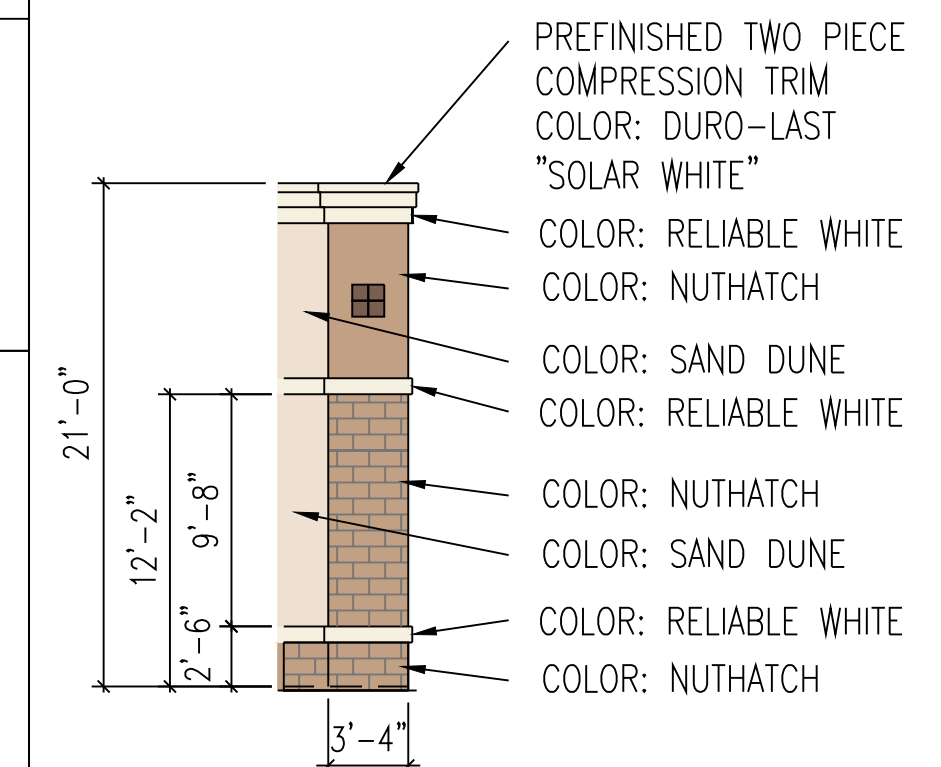


LEFT SIDE WALL (West View)

- 1 PREFINISHED TWO PIECE COMPRESSION TRIM
COLOR: DURO-LAST "SOLAR WHITE"
- 2 SPLIT FACE CONCRETE MASONRY UNITS SEE PAINT
DETAIL SCHEME THIS SHEET
- 3 WALL MOUNTED LIGHT FIXTURE - BRONZE FINISH
- 4 PIPE GUARD WITH ARCHITECTURAL BROWN SLEEVE
- 5 MFG. EXTERIOR INSULATED FINISH SYSTEM
COLOR: SW 6091 "RELIABLE WHITE"
- 6 PAINT MAN DOOR COLOR: SW 6088 "NUTHATCH",
PAINT METAL FRAMES COLOR: SW "ANTIQU BRONZE"
- 7 PAINT OVERHEAD DOOR COLOR: SW 6088 "NUTHATCH"
PAINT ANGLE COLOR: SW "ANTIQU BRONZE"
- 8 EXPANSION JOINT
- 9 ALUMINUM STOREFRONT - BRONZE FINISH
TINTED GLASS WINDOWS VISIBLE LIGHT TRANSMITTANCE=66%
VISIBLE LIGHT REFLECTANCE=6%
- 10 GLASS AND ALUMINUM DOORS - CLEAR ANODIZED FINISH
- 11 FRONT WALL SIGN - 36" HIGH CHANNEL LETTERS
- 12 SIDE WALL SIGN - 36" HIGH CHANNEL LETTERS
- 13 TOILET WALL VENTS PAINT TO MATCH WALL
- 14 STORE ADDRESS - 6" WHITE REFLECTIVE NUMBERS
- 15 SCUPPERS AND DOWNSPOUTS, PAINTED TO MATCH
BACKGROUND WALL COLOR. ADJACENT 4" H. X 6" W.
OVERFLOW SCUPPER. FLOWLINE 2" ABOVE ROOF.
- 16 BOND BEAM AT ROOF LINE
- 17 HVAC UNITS SCREENED BEHIND PARAPET WALL
- 18 1" WIDE SCORED JOINT (TYP.)
- 19 CMU BLOCK W/ STUCCO FINISH - SEE PAINT
SCHEME DETAIL THIS SHEET
- 20 DECORATIVE FOAM CORNICE COLOR: RELIABLE WHITE
- 21 N/A
- 22 SPLIT FACE CMU PILASTER (8" PROJECTION)
ALUMINUM STOREFRONT - BRONZE FINISH
TINTED CLERESTORY GLASS WINDOWS
VISIBLE LIGHT TRANSMITTANCE=66%
VISIBLE LIGHT REFLECTANCE=6"
- 23 ALUMINUM STOREFRONT - BRONZE FINISH
TINTED OPAQUE GLASS FAUX WINDOWS
VISIBLE LIGHT TRANSMITTANCE=66%
VISIBLE LIGHT REFLECTANCE=6"
- 24 8" HIGH X 2" DEPTH FOAM BOARD TRIM WITH E.F.S.
- 25 SPLIT FACE CMU PILASTER (3'-4" PROJECTION)
- 26 3'-0" HIGH X 3'-0" DEEP STANDING SEAM METAL AWNING
COLOR: DARK BRONZE
- 27 (4) 8" X 8" GLAZED CERMIC TILE RECESSED 1/2"
COLOR: DARK BRONZE

2 ELEVATION KEYNOTES

COLORS:
SHERWIN WILLIAMS "RELIABLE WHITE" - SW 6091
SHERWIN WILLIAMS "SAND DUNE" - SW 6086
SHERWIN WILLIAMS "NUTHATCH" - SW 6088



3 EXTERIOR WALL COLOR SCHEME

- GENERAL NOTES:
- REFER TO SECTION 09900 OF THE SPECIFICATIONS FOR PAINT AND EXTERIOR COATINGS. ALL COLORS ARE BY SHERWIN-WILLIAMS PAINT COMPANY.
 - PAINT RESTROOM WALL VENTS TO MATCH THE ADJACENT WALL COLOR.
 - SEALANT AT EXPANSION JOINTS TO MATCH ADJACENT WALL COLOR.
 - ALL MASONRY JOINTS TO BE CONCAVE TOOLED.

4 GENERAL NOTES

- SIGNAGE NOTES:
- AUTOZONE'S SIGN VENDOR WILL FURNISH AND INSTALL ALL SIGNS UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OTHERWISE. WALL SIGNS TO BE INSTALLED ON SURFACES THAT ARE FURNISHED AND PREPARED BY GENERAL CONTRACTOR.
 - SIGN INSTALLER SHALL OBTAIN SIGN PERMITS AND INSTALL ALL FREESTANDING SIGNS AND THEIR FOUNDATIONS UNLESS NOTED OTHERWISE. GENERAL CONTRACTOR SHALL INSURE SIGN LOCATION IS TO GRADE AND SHALL MARK WHERE SIGN IS TO BE LOCATED.
 - GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF PRIMARY ELECTRICAL, AND FINAL ELECTRICAL HOOK-UP. SEE "SN" SHEETS FOR ADDITIONAL INFORMATION.
 - SEE SHEET E3 FOR LOCATIONS OF J-BOXES TERMINATING EACH WALL SIGN CIRCUIT.

5 SIGNAGE NOTES - BUILDING

REVISIONS

1	4	5	6
2			
3			

AutoZone Store No. 3666
US HIGHWAY 441

APOPKA FL 32726

EXTERIOR ELEVATIONS AND NOTES

Architect: George Callow
123 South Front Street
Memphis, Tennessee 38103
TEL: 901-495-8705 FAX: (901) 495-8969
For Bidding & Contractor Information Contact:
McGrav-Hill Construction Tel. 615-884-1017
www.construction.com

02/09/18

65W2-L

CE1

A FINAL DEVELOPMENT PLAN
FOR

AutoZone

STORE # 3666

1120 W. Orange Blossom Trail
Apopka, Florida

PROJECT TEAM

DEVELOPER:

RETAIL DEVELOPMENT PROPERTIES, LLC
140 E. MORSE BLVD. #J
WINTER PARK, FLORIDA 32789
PHONE: 407-766-1000
CONTACT: ROBERT GIERKE
EMAIL: rgierke@retaildevelopmentproperties.com

OWNER:

CALMIL INVESTMENT GROUP LP (95% INT.)
KENNETH LEE JUREIT TRUST (5% INT.)
5905 MORAY CT NW
CONCORD, NC 28027
PHONE: 704-787-9017
CONTACT: KENNETH JUREIT
EMAIL: kj54@carolina.rr.com

ARCHITECT/CONSTRUCTION MANAGER:

AUTOZONE STORES, LLC
123 S. FRONT STREET, 3RD FLOOR
MEMPHIS, TENNESSEE 38103
PHONE: 901-495-8701
CONTACT: WADE DAVIS
EMAIL: wade.davis@autozone.com

CIVIL ENGINEER:

ROGERS ENGINEERING, LLC
1105 S.E. 3RD AVE.
OCALA, FLORIDA 34471
PHONE: 352-622-9214
CONTACT: WALLY BRINKMAN, P.E.
EMAIL: wbrinkman@rogerseng.com

SURVEYOR:

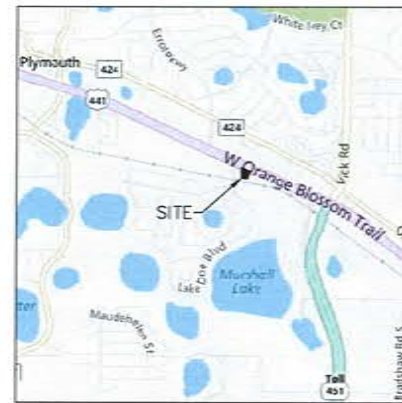
ROGERS ENGINEERING, LLC
1105 S.E. 3RD AVE.
OCALA, FLORIDA 34471
PHONE: 352-622-9214
CONTACT: RODNEY ROGERS, P.S.M.
EMAIL: rrogers@rogerseng.com

LANDSCAPE ARCHITECT:

EDK - ENVIRONMENTAL DESIGN
1920 S.E. 8TH ST.
OCALA, FLORIDA 34478
PHONE: 352-622-8899
CONTACT: ANDY KESSELING, P.L.A., A.S.L.A., I.S.A.
EMAIL: akesselin@aol.com

GENERAL NOTES:

1. ALL GROUND AREAS DISTURBED BY CONSTRUCTION SHALL BE IMMEDIATELY SODDED FOLLOWING FINAL GRADING. ALLOW FOR THICKNESS OF SOD WITH A 2-INCH UNDERCOAT. SOD SHALL BE ARGENTINA BAHIA UNLESS OTHERWISE NOTED ON LANDSCAPE PLAN, AND SHALL BE REGULARLY WATERED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION DURATION.
2. TO PREVENT EROSION DURING CONSTRUCTION, SILT FENCING SHALL BE INSTALLED AS INDICATED ON THE TREE REMOVAL & EROSION CONTROL PLAN AND MAINTAINED UNTIL THE COMPLETION OF SODDING AND LANDSCAPING.
3. ALL STRIPING SHALL BE 6" WIDE TRAFFIC PAINT, UNLESS OTHERWISE INDICATED, APPLIED WITH DOUBLE COAT A MINIMUM OF 24 HOURS APART. ALL STOP BARS SHALL BE LEAD FREE THERMOPLASTIC.
4. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE SITE VIA THE GRAVEL CONSTRUCTION ENTRANCE SHOWN ON THE TREE REMOVAL & EROSION CONTROL PLAN.
5. IRRIGATION SHALL BE PROVIDED FOR 100% OF THE SITE'S OPEN SPACE THROUGH THE ESTABLISHMENT PERIOD.
6. ALL STORM WATER MANAGEMENT SYSTEMS SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF IMPERVIOUS AREAS.
7. ALL UTILITY CONSTRUCTION SHALL MEET THE CURRENT CITY OF APOPKA STANDARDS.
8. LIGHT POLE FIXTURES CANNOT EXCEED THE HEIGHT OF THE BUILDING.
9. LIGHT POLE FOOTERS CANNOT BE EXPOSED ABOVE FINISH GRADE.
10. NO OUTDOOR STORAGE OR DISPLAY WILL OCCUR UNLESS AN AREA IS DESIGNATED AS SUCH.



SCALE: 1" = 2,000 S.F.

SECTION 5, TOWNSHIP 21 S., RANGE 28 E.
LOCATION MAP

SHEET INDEX

SHEET NO.	TITLE SHEET
C0.0	TITLE SHEET
C1.0	BOUNDARY & TOPOGRAPHIC SURVEY
C2.0	EROSION CONTROL & TREE REMOVAL PLAN
C2.1	STORMWATER POLLUTION PREVENTION PLAN
C3.0	SITE LAYOUT PLAN
C4.0	PAVING, GRADING, & DRAINAGE PLAN
C5.0	UTILITY PLAN
C6.0	GENERAL CONSTRUCTION DETAILS
C6.1	PRIVATE LIFT STATION DETAILS
C7.0-C7.1	CITY OF APOPKA STANDARD DETAILS
C8.0	VEHICLE ROUTING PLAN
C9.0	EASEMENT PLAN
L001	LANDSCAPE PLAN
L002	IRRIGATION PLAN
L003	LANDSCAPE & IRRIGATION DETAILS
LP.1	SITE PHOTOMETRIC PLAN
LP.2	PHOTOMETRIC DETAILS

SITE DATA:

PROJECT NAME: AUTOZONE - STORE #3666
PARCEL NO.: 05-21-28-0000-00-025
OVERALL PARCEL AREA: 3.32 ACRES (144,593 S.F.)
PROJECT AREA: 1.07 ACRES (46,681 S.F.)
LAND USE/ZONING: COMMERCIAL/C-2
PROPOSED USE: RETAIL SALES
THIS SITE IS NOT LOCATED IN A FLOOD ZONE PER FEMA MAP NUMBER 12095C0120F

IMPERVIOUS AREA CALCULATIONS:

PROJECT AREA: 46,681 S.F. (1.07 ACRES)
PROPOSED IMPERVIOUS AREA
BUILDING 6,815 S.F.
PVTM & CONC 21,769 S.F.
TOTAL = 28,584 S.F. (61.2%)
PERVIOUS = 18,097 S.F. (38.8%)

PARKING CALCULATIONS:

GENERAL COMMERCIAL:
1 SPACE/200 S.F. OF GROSS FLOOR AREA
6815/200 = 35 SPACES
TOTAL PARKING REQUIRED: 35 SPACES
PARKING SPACES PROVIDED: 42 SPACES
HANDICAP PARKING REQUIRED:
1 SPACE/25 SPACES = 2 H/C SPACE
HANDICAP PARKING PROVIDED:
2 H/C SPACE

SITE DATA TABLE				
PARCEL ID NUMBER	05-21-28-000-00-025			
FUTURE LAND USE	COMMERCIAL			
ZONING	C-2			
ACREAGE/S.F.	1.07/46,681			
BUILDING HEIGHT	25 FT			
FLOOR AREA RATIO	6,815/46,681 = 0.146			
BUILDING SETBACKS	PROPOSED	FRONT: 75 FT	SIDE: 13 FT	REAR: 75 FT
	REQUIRED	FRONT: 10 FT	SIDE: 10 FT	REAR: 10 FT
PARKING SPACES	PROVIDED: 42	REQUIRED: 35 (1 SPACE / 200 SF GFA)		
TREE BANK MITIGATION FEE	N/A			
NUMBER OF EMPLOYEES	6			
WAVES REQUEST	YES: TWO			
VARIANCE REQUEST	NO			

DRAINAGE CERTIFICATION:

THE REQUIRED DRAINAGE PATTERNS AND STORAGE CAPACITY OF THE RETENTION AREAS ARE NOT ADVERSELY AFFECTED BY THE ADDITIONAL USE OF LAND WITHIN THE BUFFER YARDS.

STATEMENT OF INTENDED USE:

THIS PROJECT CONSISTS OF CONSTRUCTING A 6,815 S.F. BUILDING FOR AUTO PARTS SALES WITH PAVED PARKING AND DRIVEWAY ACCESS TO US 441 AND LAKE DOE BOULEVARD THROUGH ADJACENT DEVELOPMENTS.

NOTICE!

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE MOST CURRENT APPROVED PLANS PRIOR TO CONSTRUCTION.



WALLACE L. BRINKMAN III
PROFESSIONAL ENGINEER
REGISTRATION NO. 82306
STATE OF FLORIDA

06/29/18
DATE

NO.	DATE	REVISION

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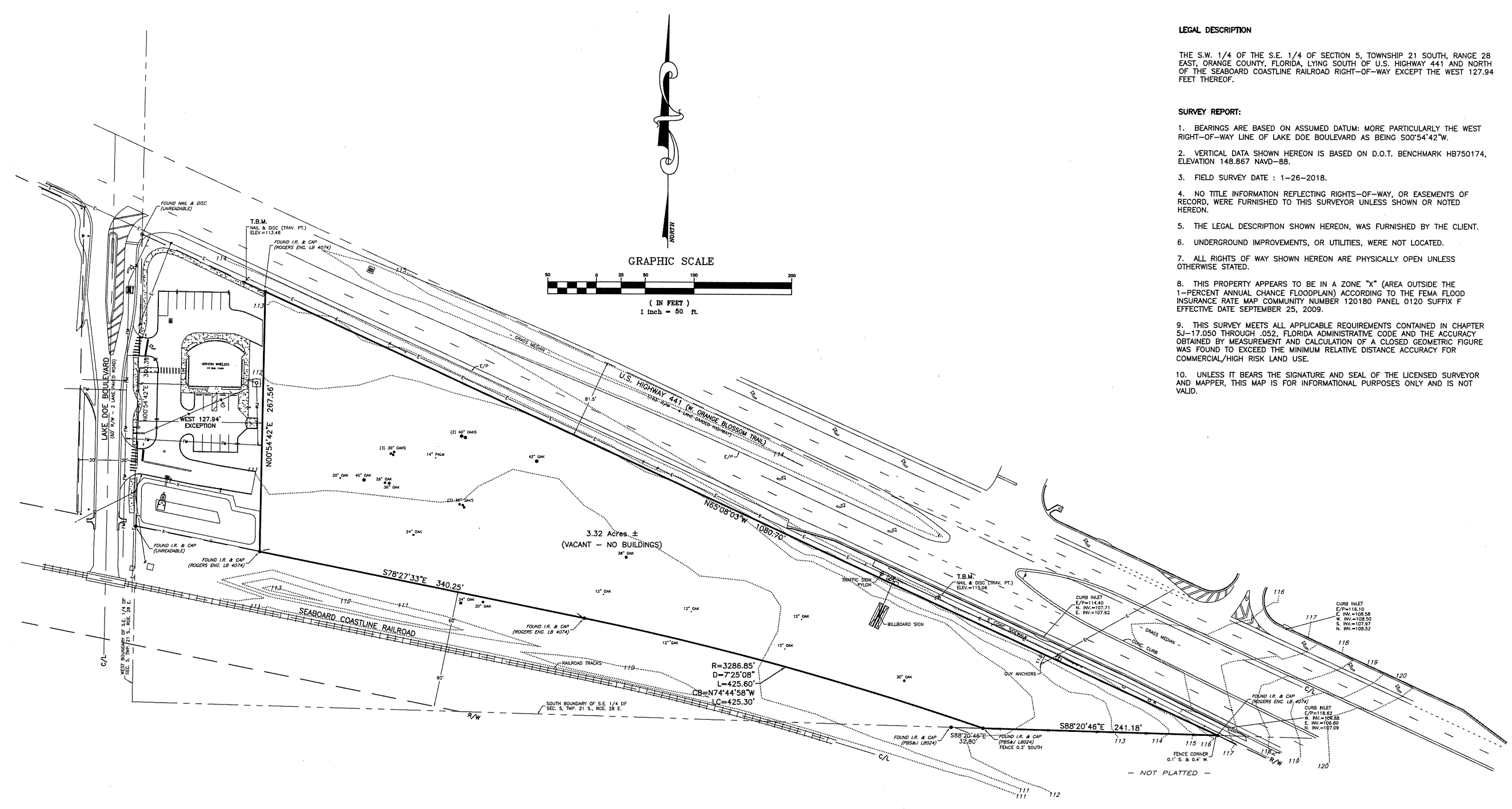
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Civil Engineering & Land Surveying
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A FINAL DEVELOPMENT SITE PLAN
FOR
AUTOZONE
CITY OF APOPKA, FL
Title Sheet

JOB No. 18_052128000000025
DATE 06-29-2018
SCALE AS SHOWN
SHEET C0.0

LEGEND

C.M.	CONCRETE MONUMENT
I.R.	IRON ROD
R/W	RIGHT OF WAY
E/P	EDGE OF PAVEMENT
C/L	CENTERLINE
R	RADIUS
L	ARC LENGTH
LC	LENGTH OF CHORD
CB	CHORD BEARING
SEC.	SECTION
TWP.	TOWNSHIP
RNG.	RANGE
(P)	PLAT MEASUREMENT
(F)	FIELD MEASUREMENT
U.P.	UTILITY POLE AND GUY ANCHOR
OW	OVERHEAD WIRES
F	FENCE
CONC.	CONCRETE
T	TREE (SEE TREE SCHEDULE)
G.C.	GROUND CONTOUR
T.B.M.	TEMPORARY BENCHMARK
F.F.	FINISH FLOOR
ELEV.	ELEVATION
INV.	INVERT
ES-1	EXISTING STRUCTURE
RS-1	REMOVED STRUCTURE
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
C.D.	CLEAN-OUT
G.I.	GREASE INTERCEPTOR
PVC	POLYVINYL CHLORIDE



LEGAL DESCRIPTION

THE S.W. 1/4 OF THE S.E. 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, LYING SOUTH OF U.S. HIGHWAY 441 AND NORTH OF THE SEABOARD COASTLINE RAILROAD RIGHT-OF-WAY EXCEPT THE WEST 127.94 FEET THEREOF.

SURVEY REPORT:

- BEARINGS ARE BASED ON ASSUMED DATUM; MORE PARTICULARLY THE WEST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD AS BEING S00°54'42"W.
- VERTICAL DATA SHOWN HEREON IS BASED ON D.O.T. BENCHMARK HB750174, ELEVATION 148.867 NAVD-88.
- FIELD SURVEY DATE : 1-26-2018.
- NO TITLE INFORMATION REFLECTING RIGHTS-OF-WAY, OR EASEMENTS OF RECORD, WERE FURNISHED TO THIS SURVEYOR UNLESS SHOWN OR NOTED HEREON.
- THE LEGAL DESCRIPTION SHOWN HEREON, WAS FURNISHED BY THE CLIENT.
- UNDERGROUND IMPROVEMENTS, OR UTILITIES, WERE NOT LOCATED.
- ALL RIGHTS OF WAY SHOWN HEREON ARE PHYSICALLY OPEN UNLESS OTHERWISE STATED.
- THIS PROPERTY APPEARS TO BE IN A ZONE "X" (AREA OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAIN) ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 120180 PANEL 0120 SUFFIX F EFFECTIVE DATE SEPTEMBER 25, 2009.
- THIS SURVEY MEETS ALL APPLICABLE REQUIREMENTS CONTAINED IN CHAPTER 5J-17.050 THROUGH .052, FLORIDA ADMINISTRATIVE CODE AND THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS FOUND TO EXCEED THE MINIMUM RELATIVE DISTANCE ACCURACY FOR COMMERCIAL/HIGH RISK LAND USE.
- UNLESS IT BEARS THE SIGNATURE AND SEAL OF THE LICENSED SURVEYOR AND MAPPER, THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

- LEGEND**
- C.M. CONCRETE MONUMENT
 - I.R. IRON ROD
 - R/W RIGHT OF WAY
 - E/P EDGE OF PAVEMENT
 - C/L CENTERLINE
 - D or Δ CENTRAL ANGLE
 - R RADIUS
 - L ARC LENGTH
 - LC LENGTH OF CHORD
 - CB CHORD BEARING
 - SEC. SECTION
 - TWP. TOWNSHIP
 - RGE. RANGE
 - (P) PLAT MEASUREMENT
 - (F) FIELD MEASUREMENT
 - UTILITY POLE AND GUY ANCHOR
 - OVERHEAD WIRES
 - FENCE
 - CONC. CONCRETE
 - GROUND CONTOUR
 - T.B.M. TEMPORARY BENCHMARK
 - F.F. FINISH FLOOR
 - ELEV. ELEVATION
 - INV. INVERT

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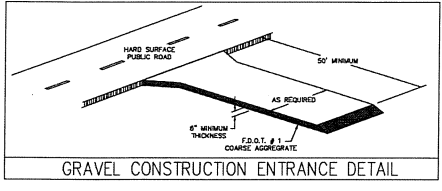
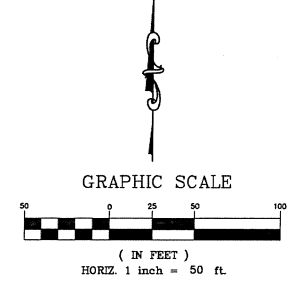
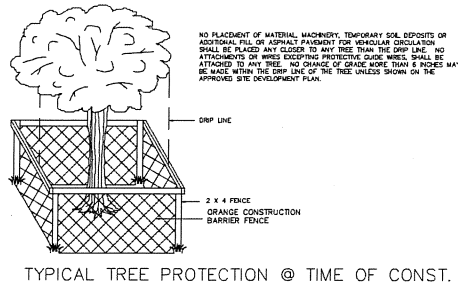
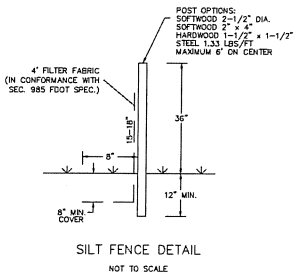
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A BOUNDARY AND TOPOGRAPHIC SURVEY
 FOR
 RETAIL DEVELOPMENT PROPERTIES, LLC

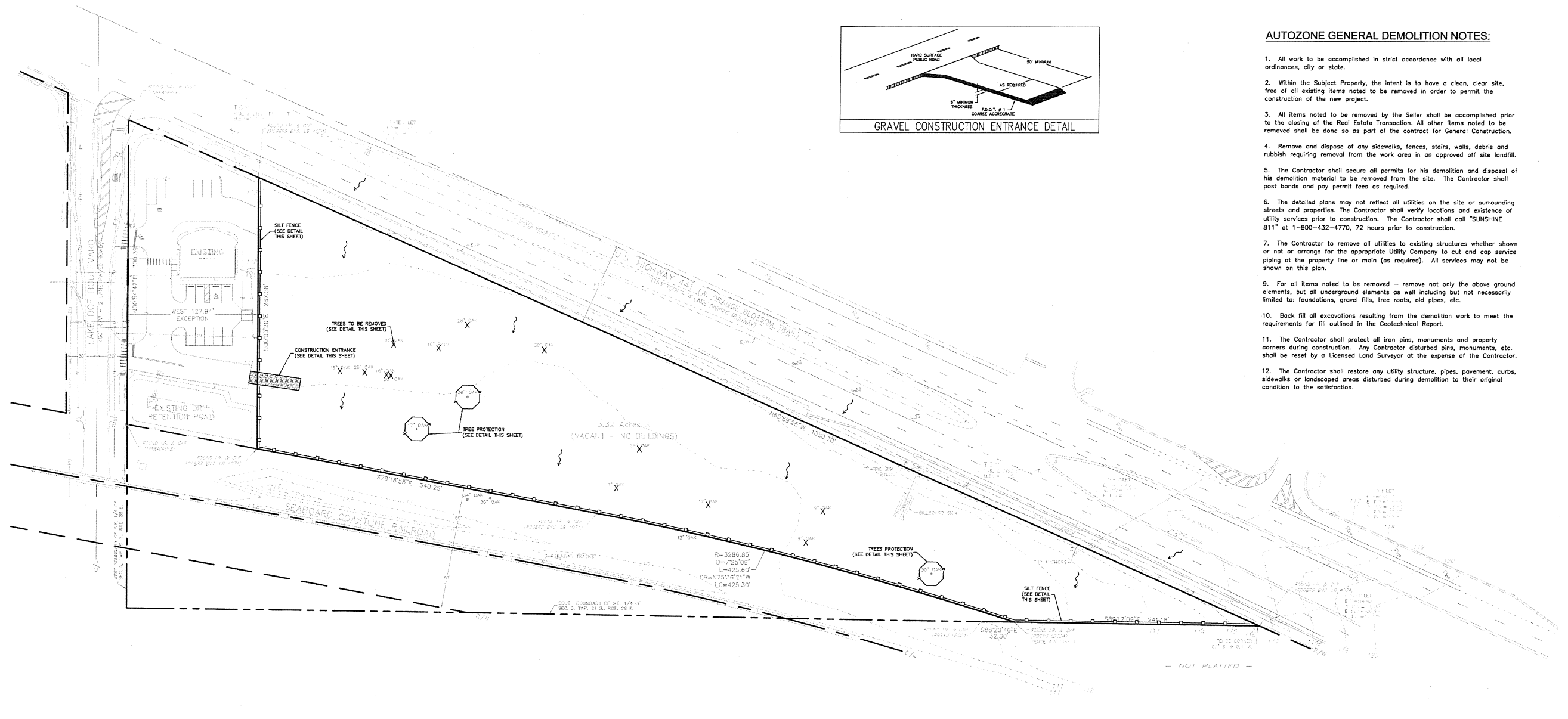
JOB No.	
DATE	1-29-2018
SCALE	1" = 50'
SHEET	C1.0

RODNEY K. ROGERS DATE
 PROFESSIONAL SURVEYOR & MAPPER
 REGISTRATION NO. 5274
 STATE OF FLORIDA



AUTOZONE GENERAL DEMOLITION NOTES:

- All work to be accomplished in strict accordance with all local ordinances, city or state.
- Within the Subject Property, the intent is to have a clean, clear site, free of all existing items noted to be removed in order to permit the construction of the new project.
- All items noted to be removed by the Seller shall be accomplished prior to the closing of the Real Estate Transaction. All other items noted to be removed shall be done so as part of the contract for General Construction.
- Remove and dispose of any sidewalks, fences, stairs, walls, debris and rubbish requiring removal from the work area in an approved off site landfill.
- The Contractor shall secure all permits for his demolition and disposal of his demolition material to be removed from the site. The Contractor shall post bonds and pay permit fees as required.
- The detailed plans may not reflect all utilities on the site or surrounding streets and properties. The Contractor shall verify locations and existence of utility services prior to construction. The Contractor shall call "SUNSHINE 811" at 1-800-432-4770, 72 hours prior to construction.
- The Contractor to remove all utilities to existing structures whether shown or not or arrange for the appropriate Utility Company to cut and cap service piping at the property line or main (as required). All services may not be shown on this plan.
- For all items noted to be removed - remove not only the above ground elements, but all underground elements as well including but not necessarily limited to: foundations, gravel fills, tree roots, old pipes, etc.
- Back fill all excavations resulting from the demolition work to meet the requirements for fill outlined in the Geotechnical Report.
- The Contractor shall protect all iron pins, monuments and property corners during construction. Any Contractor disturbed pins, monuments, etc. shall be reset by a Licensed Land Surveyor at the expense of the Contractor.
- The Contractor shall restore any utility structure, pipes, pavement, curbs, sidewalks or landscaped areas disturbed during demolition to their original condition to the satisfaction.



- EROSION CONTROL NOTES:**
- PRIOR TO ANY CLEARING ACTIVITIES, THE CONTRACTOR SHALL HAVE ALL ON-SITE UTILITIES LOCATED.
 - THE SILT FENCE SHALL BE INSTALLED BEFORE ANY CONSTRUCTION ACTIVITIES AND MAINTAINED UNTIL ALL DISTURBED AREAS ARE SODDED.
 - ALL CONSTRUCTION VEHICLES SHALL ENTER THE PROJECT AREA VIA THE GRAVEL CONSTRUCTION ENTRANCE. THERE SHALL BE NO CONSTRUCTION ACTIVITIES, MACHINERY, OR VEHICLES BEYOND THE INTERIOR OF THE PROJECT AREA.
 - THE CONTRACTOR SHALL PERIODICALLY SWEEP EXISTING ON-SITE PAVED SURFACES AS WELL AS ALL ABUTTING CITY STREETS, COUNTY ROADS, AND STATE HIGHWAYS TO KEEP THOSE SURFACES IN A SUBSTANTIALLY SEDIMENT-FREE CONDITION. SWEEPING SHALL BE DONE ON A PERIODIC, AS-NEEDED BASIS THROUGHOUT THE WORK WEEK INCLUDING, MOST IMPORTANTLY, AFTER EVERY RAIN EVENT AND EVERY FRIDAY AFTERNOON PRIOR TO CEASING WORK FOR THE WEEK.
 - ALL MATERIALS, MACHINERY, AND VEHICLES SHALL BE STORED ON-SITE IN AN ORDERLY, ORGANIZED FASHION.
 - CONTRACTOR SHALL DEVELOP AND IMPLEMENT A PLAN TO ASSURE THAT ALL DEBRIS RESULTING FROM THE CLEARING, SUCH AS LIMBS, STUMPS AND UNDERBRUSH, ARE PROPERLY CONTROLLED WHILE ON-SITE AND TRANSPORTED AND DISPOSED OF (OFF-SITE) IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. NO WASTE MATERIALS OF ANY KIND ARE PERMITTED TO BE BURIED ON-SITE OR DISCHARGED TO SURFACE WATERS OF THE STATE OR TO THE FDOT STORM WATER SYSTEM.

- PRE-CONSTRUCTION TREE PROTECTION:**
- THE OWNER SHALL BE RESPONSIBLE FOR INSURING THAT ALL MEASURES ARE TAKEN TO AVOID DAMAGE TO TREES NOT APPROVED FOR REMOVAL.
 - PRIOR TO ANY CLEARING, GRUBBING, OR ANY CONSTRUCTION, TREE PROTECTION BARRICADES SHALL BE ERECTED AROUND ALL TREES, OR GROUPS OF TREES, WITHIN THE CONSTRUCTION AREA WHICH ARE TO BE PRESERVED.
 - TREE PROTECTION SHALL CONTINUE DURING THE COURSE OF CONSTRUCTION. THE FOLLOWING REQUIREMENTS SHALL BE CONDITIONS OF TREE REMOVAL PERMITS, ALL PERMITS FOR CONSTRUCTION IN PUBLIC RIGHTS-OF-WAY, AND ALL DEVELOPMENT PERMITS ISSUED UNDER AND PURSUANT TO THIS CODE:
 - THE CLEANING OF CONSTRUCTION EQUIPMENT OR MATERIAL OR THE DISPOSAL OF WASTE MATERIALS INCLUDING BUT NOT LIMITED TO, PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, AND MORTAR WITHIN THE TPZ OF ANY TREE WHICH IS BEING PROTECTED IS NOT ALLOWED.
 - THE MOVEMENT OF EQUIPMENT OR THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL WITHIN THE TPZ OF ANY TREE WHICH IS BEING PROTECTED IS NOT ALLOWED.
 - THE CONTRACTOR SHALL INSPECT ALL TREE PROTECTION BARRICADES AND SIGNS ON A WEEKLY BASIS DURING THE COURSE OF CONSTRUCTION. ANY BARRICADE OR SIGN WHICH HAS BEEN DAMAGED OR IS MISSING SHALL BE REPLACED IMMEDIATELY.
 - IF ANY TREE WHICH HAS NOT BEEN APPROVED TO BE REMOVED, OR RECEIVES MAJOR DAMAGE DURING CONSTRUCTION, WITH THE EXCEPTION OF NATURAL EVENTS, SO AS TO PLACE ITS LONG TERM SURVIVAL IN QUESTION, THE TREE(S) MUST BE REPLACED AT AN INCH-TO-INCH BASIS OF THE TOTAL (COMBINED) DBH OF THE TREE(S) SO DESTROYED OR DAMAGED. THE REPLACEMENT TREE(S) SHALL BE OF COMPARABLE SPECIES OF THE DESTROYED OR DAMAGED TREE(S) WITH A MINIMUM REPLACEMENT SIZE OF 3.5-INCH CALIPER. THE CITY RESERVES THE RIGHT TO ESTABLISH A REPLACEMENT VALUE FOR SUCH TREES AND PAYMENT INTO THE TREE MITIGATION FUND MAY BE AUTHORIZED BY THE CITY'S LANDSCAPE ARCHITECT.



WALLACE L. BRINKMAN III
PROFESSIONAL ENGINEER
REGISTRATION NO. 82306
STATE OF FLORIDA

06/29/18
DATE

REVISION
DATE

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A FINAL DEVELOPMENT SITE PLAN
FOR
AUTOZONE
CITY OF APOPKA, FL
Erosion Control & Tree Removal Plan

JOB No. 18_05212800000025
DATE 06-29-2018
SCALE AS SHOWN
SHEET C2.0

1. SITE DESCRIPTION:

- (1) NATURE OF CONSTRUCTION ACTIVITY:
THIS PROJECT INCLUDES CONSTRUCTION OF A BERM AND SWALE WITHIN AUTOZONE/HOP PROJECT LIMITS.
- (2) SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
 - (a) THE CONTRACTOR SHALL BE REQUIRED TO PREPARE A SITE SPECIFIC EROSION CONTROL PLAN ALONG WITH A DETAILED CONSTRUCTION SCHEDULE TO INDICATE DATES OF MAJOR GRADING ACTIVITIES AND DETERMINE SEQUENCES OF TEMPORARY AND PERMANENT SOIL DISTRIBUTING ACTIVITIES ON ALL PORTIONS OF THE PROJECT.
 - (b) THE CONTRACTOR WILL BE REQUIRED TO MODIFY THE PLAN OR MATERIALS TO ADAPT TO SEASONAL VARIATIONS, CONSTRUCTION ACTIVITY VARIATIONS, OR AS DIRECTED BY THE ENGINEER.
 - (c) APPLICABLE EROSION CONTROL DEVICES AND IMPLEMENTATION PROCEDURES ARE SUPPLIED IN THE FOOT EROSION AND SEDIMENT CONTROL MANUAL.
 - (d) THE ENGINEER IS RESPONSIBLE FOR DETERMINING IF ANY MODIFICATIONS OR ADDITIONAL CONTROLS ARE REQUIRED AND TO OBTAIN DEPLOYMENT SCHEDULES FOR THE IMPLEMENTATION OF ALL ADDITIONAL EROSION CONTROL DEVICES FROM THE CONTRACTOR.
- (3) GENERAL NOTES:
 - (a) ALL EROSION AND SEDIMENT CONTROL DEVICES FOR EACH PHASE OF WORK ARE TO BE INSTALLED PRIOR TO BEGINNING WORK ON THAT PHASE.
 - (b) INSTALL EROSION AND SEDIMENT CONTROL DEVICES WHERE LISTED IN THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR PERIMETER CONTROLS BEFORE THE LAND IS DISTURBED.
 - (c) PROVIDE SEDIMENT BARRIERS WHERE LISTED IN THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR DITCH BLOCKS DURING CONSTRUCTION.
 - (d) PROVIDE INLET PROTECTION SYSTEMS AT INLET OPENINGS.
 - (e) COVER OR STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE.
 - (f) DO NOT DISTURB AN AREA UNTIL IT IS NECESSARY FOR CONSTRUCTION TO PROCEED.
 - (g) TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT FROM SEASONAL CLIMATE CHANGES OR WEATHER EVENTS.
 - (h) DO NOT REMOVE PERIMETER CONTROLS UNTIL AFTER ALL UPSTREAM AREAS ARE FULLY STABILIZED AND PERMANENT VEGETATION IS ESTABLISHED.
- (4) PROJECT AREAS:
THE ESTIMATED TOTAL PROJECT AREA IS 3.32 ACRES.
- (5) RUNOFF COEFFICIENTS BEFORE Cw(B), DURING Cw(D) AND AFTER Cw(A) CONSTRUCTION:
RUNOFF COEFFICIENT FOR:
GRASSED SHOULDERS ADJACENT TO ROADWAY: C=0.20
IMPERVIOUS ROADWAYS AND PAVED SHOULDER: C=0.95
DISTURBED AREAS, EXPOSED SOIL, ETC., DURING CONSTRUCTION: C=0.20

WEIGHTED RUNOFF COEFFICIENT:
BEFORE: Cw(B)=0.44 DURING: Cw(D)=0.59 AFTER: Cw(A)=0.59
THE RUNOFF COEFFICIENT DURING CONSTRUCTION, Cw(D), IS CALCULATED ASSUMING THAT THE MAXIMUM ALLOWABLE AREA OF SOIL IS DISTURBED DURING CONSTRUCTION, AND THE REMAINING AMOUNT IS THE EXISTING IMPERVIOUS AND GRASSED SHOULDER AREAS.
- (6) DESCRIPTION OF SOIL OR QUALITY OF DISCHARGE:
THE SOIL SURVEY INDICATES THAT THE MAJORITY OF THE SURFICIAL SOILS LOCATED ALONG ON-SITE ARE PREDOMINANTLY SAND.

NRCS SOILS DATA FOR ORANGE COUNTY IS PROVIDED IN THE DRAINAGE DOCUMENTATION. MORE DETAILED INFORMATION REGARDING GENERALIZED SOIL INFORMATION IS PROVIDED IN THE DRAINAGE DESIGN DOCUMENT FOR THIS PROJECT.
- (7) ESTIMATED DRAINAGE AREA AND AVERAGE SLOPE OF DRAINAGE AREA FOR EACH OUTFALL:
 - (a) SITE MAP: THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAP.
 - (b) DRAINAGE MAP: PLEASE REFER TO DRAINAGE REPORT.
- (8) RECEIVING WATERS:
THE PROPOSED STORMWATER RUNOFF WITHIN WILL BE FULLY RETAINED ON-SITE WITH NO DISCHARGE.
- (9) THE OUTFALLS DRAIN INTO WBD 1329E (VERIFIED IMPAIRED) FOR MERCURY IN FISH PER FDEP 303(d) LIST.
- (10) OUTFALL LOCATIONS: (TEMPORARY AND PERMANENT)
DESCRIPTION LATITUDE LONGITUDE
(a) N/A N/A N/A
- (11) NO WETLAND IMPACTS ARE PROPOSED.
- (12) DESCRIPTION OF STORMWATER MANAGEMENT: (EXISTING/PROPOSED)
 - (a) EXISTING, STORMWATER PRIMARILY INFILTRATES INTO THE EXISTING SANDY SOILS, WITH DISCHARGE TO THE ADJACENT RAILROAD RIGHT-OF-WAY.
 - (b) PROPOSED STORMWATER RUNOFF WILL BE RETAINED IN ON-SITE DRY RETENTION PONDS WITH NO OFF-SITE DISCHARGE.

II. CONTROLS:

- EROSION AND SEDIMENT CONTROLS
- (1) WATER QUALITY MONITORING:
 - (a) WATER QUALITY MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIAL CONDITIONS OF ALL ENVIRONMENTAL PERMITS OR BY THE CONTRACTOR UPON THE OBSERVATION THAT WATER QUALITY STANDARDS MAY BE VIOLATED BY THE CONTRACTOR'S ACTIVITIES. MONITORING LOCATIONS MAY BE SPECIFIED IN THE ENVIRONMENTAL PERMIT OR MAY BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE PROJECT ADMINISTRATOR.
 - (b) THE PROJECT ADMINISTRATOR WILL BE RESPONSIBLE FOR MONITORING ANY ACTIVITIES FOR VIOLATION OF WATER QUALITY STANDARDS AS THEY RELATE TO TURBIDITY [NO GREATER THAN 29 NEPHELOMETRIC TURBIDITY UNITS (NTU) ABOVE BACKGROUND OR GREATER THAN 1 NTU ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OUTSTANDING FLORIDA WATERS (OFW)].
 - (c) IF WATER QUALITY STANDARDS ARE VIOLATED, CONSTRUCTION SHOULD BE STOPPED IMMEDIATELY, THE ENVIRONMENTAL PERMIT CONDITIONS FOLLOWED AND EROSION AND SEDIMENT CONTROL DEVICES REEVALUATED AND APPROVED BY THE ENGINEER PRIOR TO ANY CONTINUATION OF ACTIVITY. MONITORING ACTIVITIES AND TURBIDITY READINGS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION REPORT AND CONTINUED UNTIL TURBIDITY READINGS FALL BELOW AN ACCEPTABLE LEVEL (29 NTU ABOVE BACKGROUND OR 1 NTU ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFW).
 - (d) WATER QUALITY MONITORING MAY BE CONDUCTED DURING ANY PHASE OF CONSTRUCTION AS DIRECTED BY THE PROJECT ENGINEER.
- (2) STABILIZATION PRACTICES:
 - (a) STABILIZATION MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO MAINTAINING, ESTABLISHING AND USING VEGETATION, APPLYING MULCHES, SODDING, SEEDING, BMP'S AND THE USE OF ROLLED EROSION CONTROLLED PRODUCTS. WHEN CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, SIDE SLOPES SHALL BE STABILIZED WITH PERFORMANCE SODDING OR SEEDING OR ANY OTHER APPROVED METHOD OF STABILIZATION INCLUDED IN THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGN AND REVIEW MANUAL (E&S MANUAL).
 - (b) STABILIZATION SHALL TAKE PLACE AS SOON AS PRACTICAL IN PORTIONS OF THE PROJECT WHERE CONSTRUCTION ACTIVITIES HAVE CEASED, BUT NO LATER THAN 7 DAYS AFTER ANY CONSTRUCTION ACTIVITY CEASES EITHER TEMPORARILY OR PERMANENTLY.
 - (c) ALL EROSION CONTROL DEVICES SHALL BE INSTALLED ACCORDING TO THE CONTRACT DOCUMENTS, AND THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN.
 - (d) ANY TEMPORARY MATERIAL USED FOR POLLUTION OR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT AND FINAL STABILIZATION OF THE PROJECT HAS BEEN ACHIEVED.
 - (e) SEDIMENT BARRIERS SHOULD BE USED ALONG THE LENGTH OF THE PROJECT WHERE THE GROUND SLOPES AWAY FROM THE RIGHT-OF-WAY OR WHERE THERE IS POTENTIAL FOR SEDIMENT TO BE DIRECTED OFF-SITE. PARTICULAR CARE SHOULD BE USED WHEN THERE ARE WETLANDS OR WATERS OF THE U.S. ARE INVOLVED. SEDIMENT BARRIERS SHOULD BE USED AROUND THE PERIMETER OF STOCKPILE AREAS.
 - (f) SPACING OF SEDIMENT BARRIERS USED AS DITCH OR SWALE CHECKS/DAMS SHOULD BE BASED UPON THE HEIGHT OF THE BARRIER AND THE SLOPE OF THE DITCH OR SWALE.
 - (g) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING SOIL TRACKING PREVENTION SYSTEMS OR PROCEDURES AS NEEDED.
- (3) STRUCTURAL PRACTICES FOR EROSION AND SEDIMENT CONTROL:
 - (a) ROLLED EROSION CONTROL PRODUCTS (ARTIFICIAL COVERINGS)
PURPOSE: TO PROTECT DISTURBED SOLE SURFACES AGAINST EROSION DUE TO RAINFALL OR FLOWING WATER.
 - (1) USED FOR PAUSES IN CONSTRUCTION DUE TO INCLEMENT WEATHER OR OTHER CIRCUMSTANCES. COULD INCLUDE NATURAL OR SYNTHETIC FIBER MATS, PLASTIC SHEETING OR NETS.
 - (2) USED FOR EROSION CONTROL THAT FACILITATES PLANT GROWTH WHILE PERMANENT GRASS IS ESTABLISHED. COULD INCLUDE BIODEGRADABLE EROSION CONTROL BLANKETS INSTALLED ON A SEEDING AREA, ON FILL SLOPES OR IN DITCHES.
 - (3) USED TO STABILIZE DRAINAGE CHANNELS. CONSULT E&S MANUAL TO DETERMINE CORRECT PRODUCT TYPE FOR CHANNEL STABILIZATION.
 - (b) RUNOFF CONTROL STRUCTURE (TEMPORARY SLOPE DRAIN)
PURPOSE: TO PROTECT HILLSIDE SURFACES AGAINST EROSION DUE TO CONCENTRATED FLOW OF RUNOFF WATER.
 - (1) USED ON FILL SLOPES AND CUT SLOPES TO REDUCE SEDIMENT TRANSPORT AND COULD INCLUDE TEMPORARY SLOPE DRAINS, GRASS-LINED CHANNELS, ROCK-LINED CHANNELS AND CHECK DAMS.
 - (2) RUNOFF CONTROL STRUCTURES TYPICALLY DISCHARGE TO A SEDIMENT BASIN.

- (c) SEDIMENT BASIN (CONTAINMENT SYSTEM)
PURPOSE: A CONTAINMENT SYSTEM IS DESIGNED TO DETAIN AN ADEQUATE VOLUME OF RUNOFF, REDUCE THE VELOCITY OF FLOW THROUGH THE SYSTEM, ALLOW FOR SETTLEMENT OF SUSPENDED SOLIDS AND REGULATE THE DISCHARGE RATE FROM THE SEDIMENT BASIN.
 - (1) SEDIMENT BASINS MUST BE PLACED IN STRATEGIC LOCATIONS WITHIN THE ACTIVE AREAS OF CONSTRUCTION. CONTRIBUTING AREA AND SIZE OF TARGET SOIL PARTICLES WILL DICTATE WHETHER THE SEDIMENT BASIN WILL BE TYPE 1, TYPE 2 OR TYPE 3 SYSTEM.
 - (2) THE USE OF SMALLER PRE-SEDIMENTATION BASINS IN CONJUNCTION WITH LARGER PERMANENT RETENTION/DETENTION PONDS ARE EFFECTIVE IN CAPTURING LARGER VOLUMES OF SEDIMENTS. THIS TECHNIQUE REQUIRES PERIODICALLY SCHEDULED REMOVAL OF THE ACCUMULATED SEDIMENTS.
- (d) SEDIMENT BARRIERS (TEMPORARY CONSTRUCTION SITE BMP)
PURPOSE: SEDIMENT BARRIERS EITHER RESTRICT FLOW OR PREVENT THE PASSAGE OF WATER WHILE CONSTRUCTION ACTIVITIES OCCUR. SMALLER SEDIMENT BARRIERS MAY FUNCTION AS A SMALL SEDIMENT CONTAINMENT SYSTEM OR AS A METHOD TO REDUCE FLOW VELOCITY.
 - (1) THESE CONSTRUCTION BMP CAN INCLUDE SYNTHETIC BALES, STAKED SILT FENCE, TURBIDITY BARRIERS, STORM SEWER INLET BARRIERS, ROCK BARRIERS, GEOSYNTHETIC BARRIERS, ETC.
 - (2) APPROPRIATE LOCATIONS INCLUDE SITE PERIMETER, BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION, BELOW THE TOE OF EXPOSED AND ERODIBLE SLOPES, ALONG THE TOE OF STREAM AND CHANNEL BANKS, AROUND DRAINS AND INLETS LOCATED IN LOWPOINTS OR THE DOWNSTREAM EDGE OF AREAS UNDERGOING VERTICAL OR BOX CULVERT CONSTRUCTION ACTIVITIES.
 - (3) INAPPROPRIATE LOCATIONS FOR THESE SAME MEASURES INCLUDE PARALLEL TO A HILLSIDE CONTOUR, IN CHANNELS WITH CONCENTRATED FLOW (UNLESS PROPERLY REINFORCED), UPSTREAM OR DOWNSTREAM OF CULVERTS WITH CONCENTRATED FLOW, IN FRONT OF OR AROUND INLETS ON A GRADE WITH CONCENTRATED FLOW OR IN FLOWING STREAMS.
- (e) FLOATING TURBIDITY BARRIER
PURPOSE: USED IN PERMANENT BODIES OF WATER TO RETAIN SEDIMENT AND FLOATING DEBRIS FROM A CONSTRUCTION AREA SO THAT REMOVAL OR CONTAINMENT OF THE MATERIAL IS POSSIBLE.
 - (1) TYPE I, LIGHT DUTY, IS USED WHERE THERE IS LITTLE OR NO CURRENT, NO WIND AND NO WAVE ACTION.
 - (2) TYPE II, MODERATE DUTY, IS USED WITH SOME CURRENT (<3.5 FT. PER SECOND) AND SOME EXPOSURE TO WIND.
 - (3) TYPE III, HEAVY DUTY, IS USED WITH GREATER CURRENT (3.5-5.0 FT. PER SECOND), MODERATE WIND AND WAVE ACTION.
 - (4) BARRIER MUST BE ATTACHED AT BOTH ENDS AND WEIGHTED ON THE BOTTOM.
 - (5) MULTIPLE LINES OF BARRIER MAY BE USED IN SOME CIRCUMSTANCES FOR ADDITIONAL PROTECTION.
 - (6) STANDARD PANELS FOR WATER DEPTHS ARE 5.0'. ADDITIONAL PANELS CAN BE USED FOR WATER DEPTHS > 5.0'.
- (f) STAKED TURBIDITY BARRIER
PURPOSE: THIS ITEM IS COMMONLY USED IN AREAS WHERE CONTINUOUS CONSTRUCTION ACTIVITIES CHANGE THE NATURAL CONTOURS AND DRAINAGE RUNOFF PATTERNS.
 - (1) COMMONLY USED IN LAKES AND STREAMS AS A SEDIMENT CONTAINMENT SYSTEM. SHOULD NOT BE USED WHERE WATER CURRENTS MOVE THE CURTAIN AND DISLODGE COLLECTED SEDIMENTS.
 - (2) MAXIMUM DEPTH OF PANEL IS 3'-8".
 - (3) POST MUST BE A MINIMUM LENGTH OF 5.0' AND A MINIMUM OF 10" OF FABRIC MUST BE IMBEDDED IN THE GROUND.
- (g) INLET PROTECTION SYSTEM
PURPOSE: ANY OF A NUMBER OF SEDIMENT BARRIERS THAT EITHER PREVENT SEDIMENT FROM ENTERING AN INLET OR TRAP THE SEDIMENTS ONCE THEY ENTER THE INLET.
 - (1) TYPICAL APPLICATIONS INCLUDE ROCK BARRIERS, FRAME AND FILTER BARRIERS, CURB INLET "SUMP" BARRIER, CURB INLET DIVERSION BERM, CURB AND GUTTER SEDIMENT CONTAINMENT SYSTEM OR CURB INLET INSET.
 - (2) SHOULD BE INSTALLED ONLY WHEN CONSTRUCTION ACTIVITIES ARE ON-GOING AND ONLY WHERE SUMP CONDITIONS EXIST.
 - (3) SHOULD NOT BE USED WHEN CONSTRUCTION IS COMPLETE AND SHOULD NOT BE USED IN AREAS WHERE FLOODING COULD ENCRGOACH INTO THE TRAVEL LANES.
- (h) SOIL TRACKING PREVENTION DEVICE
PURPOSE: TEMPORARY STRUCTURES TO ASSIST WITH THE REMOVAL OF SOIL MATERIAL CAPTURED ON VEHICLE TIRES BEFORE THE VEHICLES ENTER THE ROADWAY.
 - (1) USE ONE DEVICE PER MILE WITH A MINIMUM OF TWO PER PROJECT.
 - (2) USE ADDITIONAL DEVICES FOR CONSTRUCTION AREAS THAT ARE NOT ADJACENT TO THE ROAD RIGHT-OF-WAY AND NO ACCESS IS PROVIDED THROUGH A SOIL TRACKING PREVENTION DEVICE.
 - (3) RRR PROJECTS SHOULD BE HANDLED ON A CASE BY CASE BASIS.
- (4) CHEMICAL TREATMENTS FOR EROSION AND SEDIMENT CONTROL:
 - (a) CHEMICAL TREATMENT- POLYACRYLAMIDES (PAM AND PAM BLENDS)
PURPOSE: REDUCE SOIL EROSION THROUGH SOIL BINDING, USED AS A WATER TREATMENT ADDITIVE TO REMOVE SUSPENDED SOLIDS FROM RUNOFF, PROVIDES APPROPRIATE MEDIUM FOR GROWTH OF VEGETATION FOR STABILIZATION AND INCREASES INFILTRATION BY INCREASING SIZE OF SOIL PARTICLE.
 - (1) CAN BE USED ON DISTURBED SOILS. CAN BE USED IN CONJUNCTION WITH OTHER BMP'S TO ENHANCE PERFORMANCE. CAN BE APPLIED IN DISSOLVED FORM WITH WATER, CAN BE USED AS A DRY POWDER, CAN BE USED IN GRANULAR FORM OR MAY BE USED IN THE FORM OF FLOC LOGS.
 - (2) HIGHER CONCENTRATIONS OF PAM'S DON'T INCREASE THE EFFECTIVENESS OF THE PRODUCT.
 - (3) ACTIVELY WORKED AREAS WILL REQUIRE REAPPLICATION TO REMAIN EFFECTIVE.
 - (4) PAM SHOULD NOT BE USED WHERE THERE IS A POTENTIAL FOR EQUIPMENT CLOGGING OR TOXICITY IS A CONCERN.
 - (b) CHEMICAL TREATMENT - ALUM
PURPOSE: REMOVE SUSPENDED SOLIDS AND POLLUTANTS BY ENMESHMENT AND ABSORPTION INTO ALUM. COLLECT FLOCS OF SUSPENDED SEDIMENTS IN RUNOFF AND STORE THEM IN SEDIMENT BASINS OR STORMWATER MANAGEMENT FACILITIES.
 - (1) ALUM IS INJECTED INTO THE FLOW STREAM CONTAINING TURBID WATER. INJECTION IS CONTROLLED BY VARIABLE SPEED CHEMICAL PUMP TO FEED ALUM AT MULTIPLE TREATMENT POINTS. ALUM TREATMENT IS EFFECTIVE IN TREATMENT OF RUNOFF THAT CONTAINS LIMEROCK FROM UNPAVED SURFACES.
 - (2) ALUM TREATMENT REQUIRES CLOSE MONITORING OF DOSAGE. COMBINATION WITH OTHER COMPOUNDS MAY VIOLATE TOXICITY REQUIREMENTS AND THE USE OF ALUM MAY LOWER PH LEVELS.
- (5) DEWATERING OPERATIONS (OPTIONAL - BASED ON PROJECT APPLICABILITY):
DESCRIPTION: DEWATERING OPERATIONS ARE PRACTICES THAT MANAGE THE DISCHARGE OF TURBID WATER WHEN WATERS OTHER THAN STORMWATER AND ACCUMULATED SURFACE WATERS MUST BE REMOVED FROM A LOCATION SO THAT CONSTRUCTION WORK MAY BE ACCOMPLISHED. THESE WATERS CAN INCLUDE GROUNDWATER, WATER FROM COFFERDAMS, WATER DIVERSIONS AND WATERS USED DURING CONSTRUCTION THAT MUST BE REMOVED FROM A WORK AREA.
 - (a) ENVIRONMENTAL AGENCIES ARE ESPECIALLY CONCERNED WITH THE PROTECTION OF WETLANDS FROM DRAWDOWN EFFECTS, PROTECTING RECEIVING BODIES FROM SEDIMENTATION AND POSSIBLE CAPACITY LIMITATIONS.
 - (b) THREE PRIMARY METHODS OF DEWATERING COMMONLY USED IN FLORIDA ARE RIM-DITCHING, SOCK/PIPE/HORIZONTAL WELLS AND WELL-POINT SYSTEMS.
 - (c) METHODS FOR CONTAINING SEDIMENTATION CAN INCLUDE A COMBINATION OF BMP AND SEDIMENT TRAPS, SEDIMENT BASINS, GRAVITY BAG FILTERS, WEIR TANKS, DEWATERING TANKS, SAND MEDIA/PRESSURIZED BAGS AND CHEMICAL TREATMENTS.
- (6) COASTAL OPERATIONS (OPTIONAL - BASED UPON PROJECT LOCATION):
DESCRIPTION: CONSTRUCTION SITES IN COASTAL AREAS PRESENT UNIQUE CHALLENGES DUE TO HIGHER WIND SPEEDS, SALINE LADEN AIR MOISTURE AND WAVE ACTION THAT REQUIRE USING APPROPRIATE EROSION CONTROL TECHNIQUES THAT CAN WITHSTAND THESE ELEMENTS.
 - (a) PARTICULAR CONCERNS DURING THE DEVELOPMENT OF EROSION CONTROL PLANS IN COASTAL OPERATIONS CAN INCLUDE THE RESISTANCE OF EROSION CONTROL MATERIALS TO SALT WATER, HIGH WATER TABLES, SOIL COMPACTION AND SITE DEVELOPMENT DUE TO THE TYPICAL SANDY SOILS LOCATED IN THESE AREAS AND SOIL STABILIZING VEGETATION MUST BE SALT TOLERANT.
 - (b) HIGH ENERGY ENVIRONMENT SHOULD BE CONSIDERED WHEN SELECTING CONTROL DEVICES. FREQUENT MAINTENANCE IS NORMALLY REQUIRED FOR EROSION CONTROL DEVICES AND TIDAL FLUCTUATIONS MUST BE CONSIDERED WHEN SELECTING THE METHODS OF EROSION CONTROL.
 - (c) TEMPORARY CONTROL TECHNOLOGIES FOR THE COASTAL ENVIRONMENT COULD INCLUDE THE USE OF COMPOST/WOOD MULCHING, HYDRAULIC MULCHING, SOIL BINDERS AND TEMPORARY HYDROSEEDING.
 - (d) PERMANENT CONTROLS COULD INCLUDE THE USE OF POLYMER-ENHANCED ARMORING, PRESERVING EXISTING VEGETATION WHEN POSSIBLE, ESTABLISHING PERMANENT SALT-TOLERANT VEGETATION, CONSTRUCTION SITE BARRIERS (SHEET PILES/CONCRETE WALLS/EARTHEN BERMS), NATURAL/SYNTHETIC GEOTEXTILES, MATS, OR GEOGRIDS.

III. OTHER CONTROLS:

- (1) WASTE DISPOSAL:
 - (a) THE CONTRACTOR WILL PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION ACTIVITIES.
 - (b) ALL FERTILIZER AND CHEMICAL CONTAINERS SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.
 - (c) NO SOLID MATERIALS, INCLUDING BUILDING AND CONSTRUCTION MATERIALS, SHALL BE DISCHARGED TO WETLANDS OR BURIED ON-SITE.
 - (d) ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS.
- (2) OFF-SITE VEHICLE TRACKING - WILL BE CONTROLLED BY THE FOLLOWING METHODS:
 - (a) LOADED HAUL TRUCKS ARE TO BE COVERED BY A TARPULIN AT ALL TIMES.
 - (b) EXCESS DIRT ON ROAD WILL BE REMOVED DAILY.
- (3) STATE AND LOCAL REGULATIONS: PERMITS WILL BE REQUIRED FROM THE FOLLOWING AGENCIES:
CITY OF APOPKA SJRWMD FDOT
- (4) NON-STORMWATER (INCLUDING SPILL REPORTING)
THE CONTRACTOR WILL PROVIDE THE ENGINEER WITH AN EROSION CONTROL PLAN THAT WILL INCLUDE SPILL CONTAINMENT, REPORTING, AND RESPONSES. THE PLAN SHALL SPECIFY WHAT MANAGEMENT PRACTICES AND CONTAINMENT METHODS WILL BE USED TO PREVENT POTENTIAL POLLUTANTS (FUEL, LUBRICANTS, HERBICIDES, ETC.) FROM SPILLING ONTO THE SOIL OR INTO THE SURFACE WATERS. IF A SPILL DOES OCCUR, OR IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, CONTACT THE DISTRICT CONTAMINATION IMPACT COORDINATOR.

IV. MAINTENANCE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF ALL EROSION AND SEDIMENT CONTROL DEVICES AND REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES WHEN NOTICE OF TERMINATION IS MAILED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF SEDIMENT BUILDUP THROUGH THE LIFE OF THE INSTALLED DEVICES AND SEDIMENT CONTROL DEVICES:

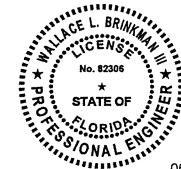
- (1) ALL CONTROL MEASURES WILL BE MAINTAINED DAILY BY THE CONTRACTOR AND ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED IMMEDIATELY.
- (2) SODDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- (3) SYNTHETIC BALES SHALL BE MAINTAINED TO ENSURE THEIR USEFULNESS AND NOT BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.
- (4) STABILIZED CONSTRUCTION ENTRANCES SHALL BE MAINTAINED TO PREVENT CLOGGING OF ROCK BEDDING WHICH MAY IMPEDE THE USEFULNESS OF THE STRUCTURE.

V. INSPECTION

- (1) THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES ON THE PROJECT SITE AND RECORD WEEKLY RAINFALL IN ACCORDANCE WITH THE NPDES PERMIT. ALL EROSION CONTROL DEVICES MUST BE INSPECTED WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.5 INCHES OR GREATER.
- (2) ALL EROSION AND WATER POLLUTION ABATEMENT AND CONTROL MEASURES WILL BE INSPECTED DAILY BY CONTRACTOR'S PERSONNEL WHO ARE F.D.E.P. CERTIFIED STORMWATER MANAGEMENT INSPECTORS.
- (3) THE CONTRACTOR SHALL COMPLETE ALL SWPPP INSPECTION REPORT FORMS REQUIRED FOR THE NPDES PERMIT.

VI. TRACKING AND REPORTING

- (1) THE CONTRACTOR SHALL SUBMIT A WEEKLY REPORT TO THE DEPARTMENT DOCUMENTING THE DAILY INSPECTIONS AND MAINTENANCE OR REPAIRS TO THE SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL MAINTAIN ALL REQUIRED REPORTS AND COMPLETE ALL SWPPP INSPECTION FORMS.
- (2) PREPARATION OF ALL THE CONTRACTOR'S REPORTS OF INSPECTION, MAINTENANCE AND REPAIRS REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION, SHALL BE INCLUDED IN THE INDIVIDUAL COSTS OF THE EROSION CONTROL DEVICES OF THE PROJECT.
- (3) THE CONTRACTOR SHALL USE THE SWPPP CONSTRUCTION INSPECTION REPORT FORM #650-040-03, FOR DAILY INSPECTIONS.



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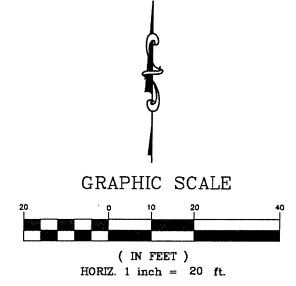
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A FINAL DEVELOPMENT SITE PLAN
FOR
AUTOZONE
CITY OF APOPKA, FL
Stormwater Pollution Prevention Plan

AUTOZONE GENERAL NOTES:

- Property line and right-of-way monuments shall not be disturbed by construction. If disturbed, they shall be reset to their original locations at the Contractor's expense by a Registered Land Surveyor.
- Proof Roll Building and all parking areas. Notify AutoZone Inc. of any unacceptable areas.
- Building dimensions shown on the Civil Engineering Plans are for reference purposes only. Contractor shall use the Architectural and Structural Plans for exact Building dimensions.
- All site dimensions are referenced to the face of curbs or edge of paving unless otherwise noted.
- All sidewalks, curb and gutter, street paving, curb cuts, driveway approaches, handicap ramps, etc. constructed outside the property line in the right-of-way shall conform to all municipal and/or State specifications and requirements.
- All disturbance incurred to any adjoining property due to construction or demolition shall be restored to the previous condition or better, and to the satisfaction of the City or State Authority.
- The Contractor shall provide As-Built records of all construction (including underground utilities) to AutoZone Inc. at the end of construction.
- Information on existing utilities has been compiled from available information including utility company and municipal record maps and field survey and is not guaranteed correct and complete. Utilities are shown to alert the Contractor to their presence and the Contractor is solely responsible for determining actual locations and elevations of all utilities including services. Prior to demolition or construction, the Contractor shall contact "SUNSHINE 811" 72 hours before commencement of work at 1-800-432-4770 and verify all utility locations.
- The Contractor shall abide by all OSHA, Federal, State and Local Regulations when operating cranes, booms, hoists, ETC., in close proximity to overhead electric lines. If Contractor must operate equipment close to electrical lines, contact Power Company to make arrangements for proper safeguards.
- The Contractor shall obtain Florida Department of Transportation permits for work within the road right-of-ways, including local curb cut permit, sewer and water connection permit and erosion control bond if required before the start of any activity. The Contractor shall post all bonds, pay all fees, provide proof of insurance, and provide traffic protection necessary for the work.
- The Contractor shall provide and maintain traffic devices for protection of vehicles and pedestrians consisting of drums, barriers, signs, lights, fences and uniformed traffic officers as required, ordered by AutoZone or required by the Local Governing Authority.
- All material schedules shown on the plans are for general information only. The Contractor shall prepare his own material schedules based upon his plan review. All schedules shall be verified in the field by the Contractor prior to ordering materials or performing work.

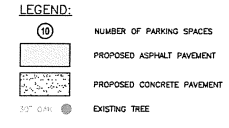


KEYNOTES

- Building & Paving**
- Concrete curb - Type "D" per FDOT Index #300
 - Concrete paving - see detail 4/C1.A. Expansion and Control joints - see details 21 & 22/C6.0. Maximum spacing for Control joints is 15'-0" o.c. each way.
 - Asphalt paving - see detail 5/C6.0
 - Handicap parking area - see details 6 & 7/C6.0
 - Handicap parking sign - see detail 12/C6.0
 - Pipe guard - see details 14, 15 & 16/C6.0
 - Concrete sidewalk - see detail 19 & 20/C6.0 for sidewalks around building.
 - Dumpster layout - 6" high wood enclosure w/ gates - see details 8, 9, 10 & 11/C6.0
 - 6'-0" long concrete wheel stop, pinned to pavement - see detail 17/C6.0. Locate 2'-0" from face of curb or sidewalk.
 - Monument Sign. See signage drawings (Under separate permit)
 - 4" wide parking stripe painted white (typ.)
 - 4" wide diagonal stripes painted white @ 2 ft. o.c.
 - Concrete handicap ramp - maximum slope 1:12 (8.33%) (per A.D.A. requirements). Maximum cross slope 1:50 (2.00%)
 - New landscape area - provide sod and 3" topsoil - see sheet L001 for additional information
 - Drainage downspout connection location - see detail 3/C6.0
 - 5' x 5' concrete pad
 - Stop Sign - see detail 26/C6.0
 - Pavement markings - see detail 24 & 25/C6.0
 - New sidewalk to meet all local & state D.O.T. requirements
 - Crosswalk pavement markings - 12" white 3' O/C
 - Concrete transformer pad
 - Concrete light pole bases - see sheet LP-1 for lighting specifications. Locate 3'-0" from back of curb or sidewalk to center of base. Aim light fixture in direction as indicated.
 - Asphalt speed bump - 18" wide x 3.5" max. height
 - Segmental retaining wall with safety railing - see Paverscape plans (separate permit required)
 - 4' decorative fence - see Note #1
 - 3-loop wave style bike rack (5-bike capacity) (or approved equal)

NOTES:

- ALL REQUIRED FENCING SHALL BE OF A DECORATIVE TYPE AND SHALL BE IN KEEPING WITH THE REQUIRED BUFFER TREATMENTS, CHARACTER, AND ARCHITECTURE OF THE PROJECT. CHAIN-LINK AND/OR STOCKADE FENCING SHALL NOT BE USED.
- THE WALL AND GROUND SIGNS ARE TO BE PERMITTED SEPARATELY.



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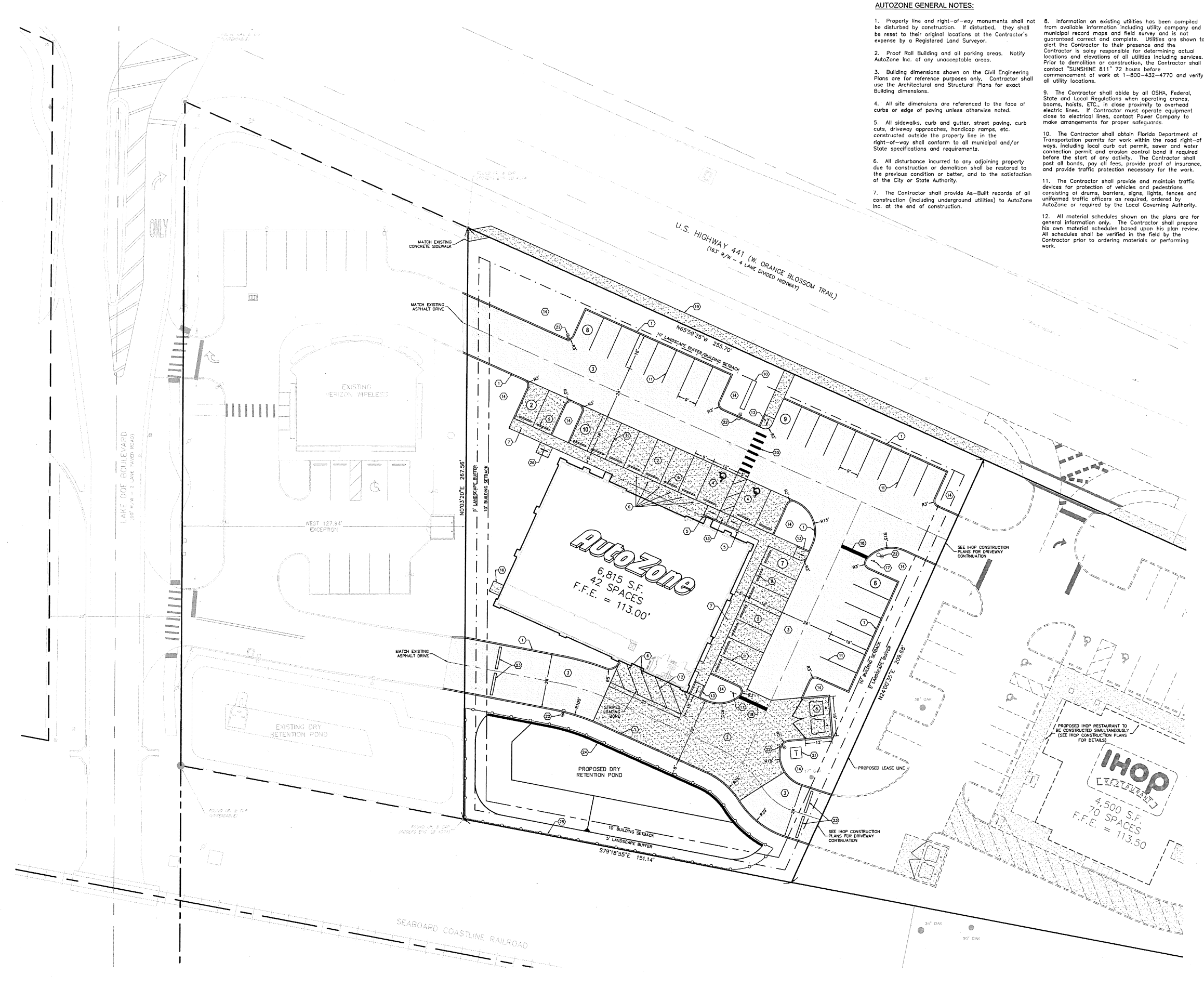
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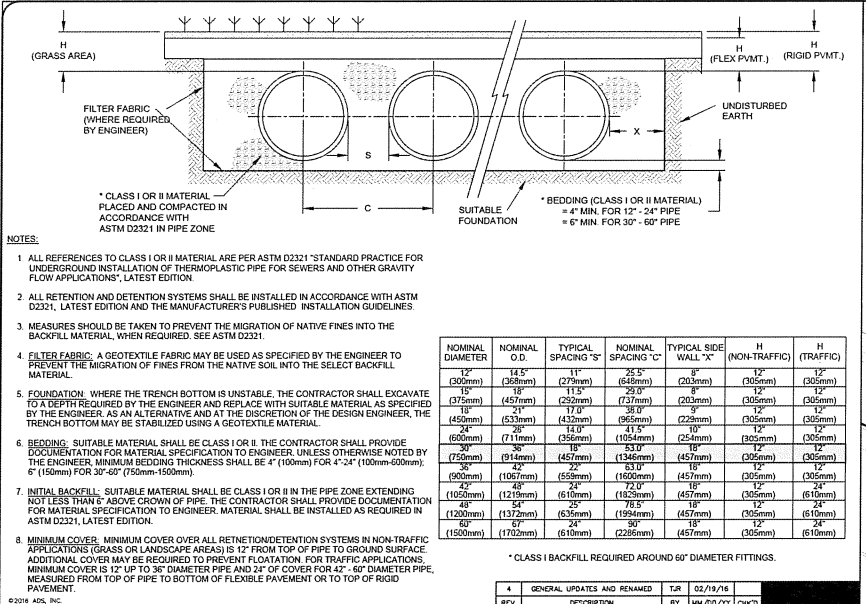
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A FINAL DEVELOPMENT SITE PLAN
FOR
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CITY OF APOPKA, FL
Site Layout Plan

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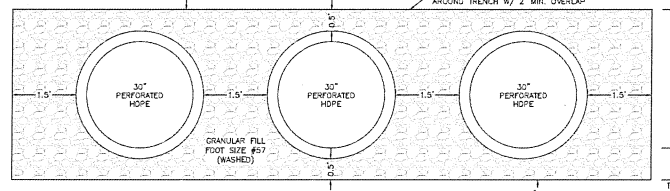
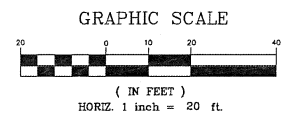
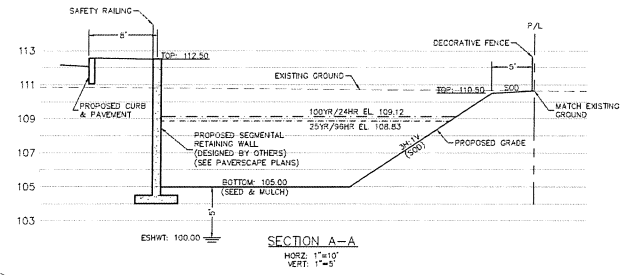


- NOTES:**
1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
 2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
 3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL WHEN REQUIRED. SEE ASTM D2321.
 4. FILTER FABRIC, A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
 5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4" (100mm-600mm), 6" (150mm) FOR 6" (150mm-1500mm).
 7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 8. MINIMUM COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE. MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	NOMINAL SPACING "C"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300mm)	14.5" (368mm)	11" (279mm)	25.5" (648mm)	8" (203mm)	12" (305mm)	12" (305mm)
15" (375mm)	18" (457mm)	11.5" (292mm)	29" (737mm)	8" (203mm)	12" (305mm)	12" (305mm)
18" (450mm)	21" (533mm)	12" (305mm)	33" (838mm)	8" (203mm)	12" (305mm)	12" (305mm)
24" (600mm)	28" (711mm)	13" (330mm)	41.5" (1054mm)	8" (203mm)	12" (305mm)	12" (305mm)
30" (750mm)	36" (914mm)	14" (354mm)	51" (1296mm)	8" (203mm)	12" (305mm)	12" (305mm)
36" (900mm)	42" (1067mm)	15" (381mm)	61" (1549mm)	8" (203mm)	12" (305mm)	12" (305mm)
42" (1050mm)	48" (1219mm)	16" (406mm)	71" (1793mm)	8" (203mm)	12" (305mm)	12" (305mm)
48" (1200mm)	54" (1372mm)	17" (430mm)	81" (2057mm)	8" (203mm)	12" (305mm)	12" (305mm)
60" (1500mm)	66" (1676mm)	18" (457mm)	91" (2301mm)	8" (203mm)	12" (305mm)	12" (305mm)

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

REV.	GENERAL UPDATES AND RENAMED	DATE	BY	CHK'D	APP'D
1	GENERAL UPDATES AND RENAMED	02/19/16	MM/20/YY	CHD	WLS

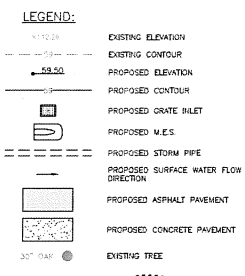


TYPICAL EXFILTRATION TRENCH SECTION
SEE A05 DETAIL THIS SHEET FOR ADDITIONAL INFORMATION

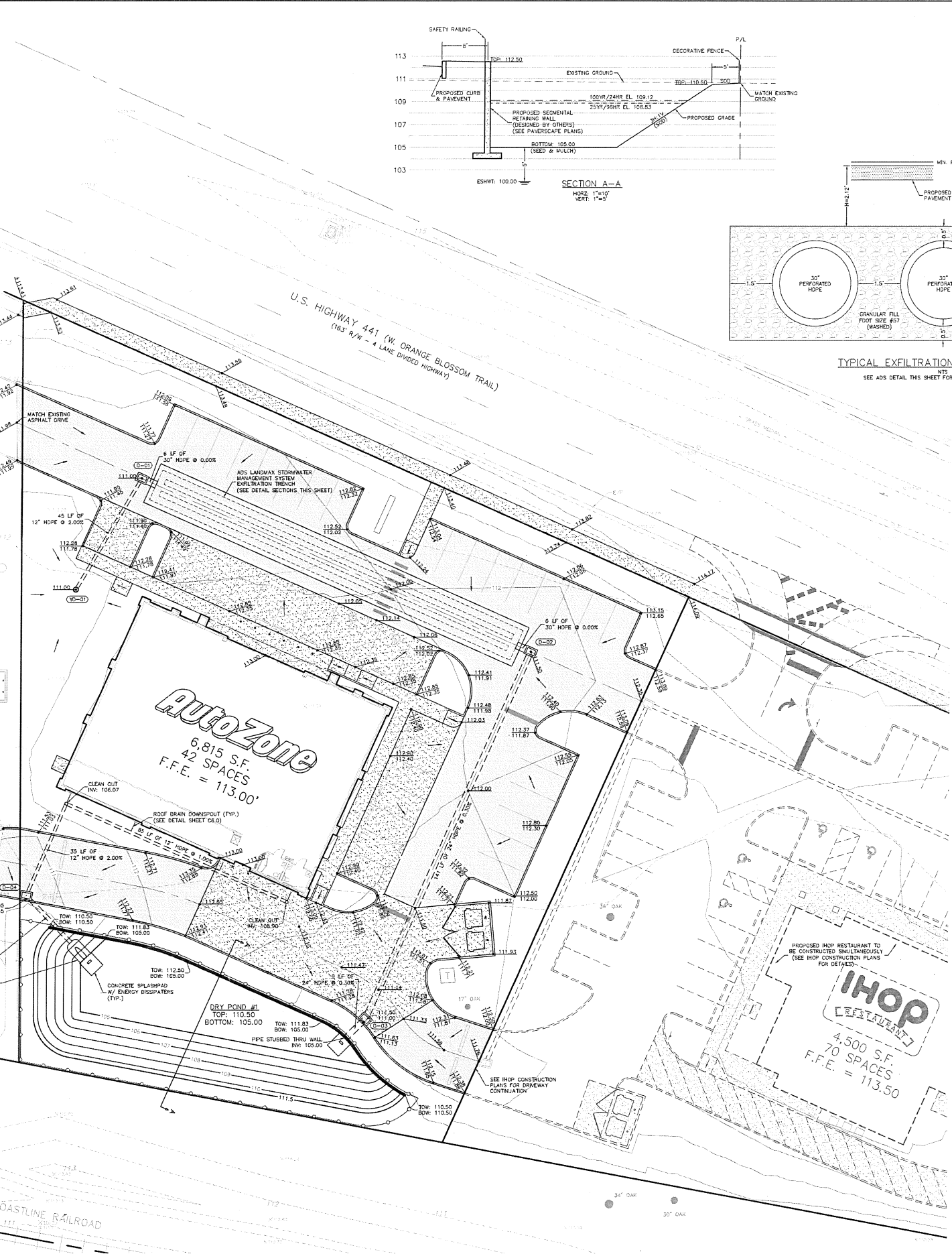
Storm Structure Table	
Structure Name	Details
D-01	TYPE "C" GRATE INLET TOP = 111.00 SW. INV. IN = 106.00 SE. INV. OUT = 105.50
D-02	TYPE "C" GRATE INLET TOP = 111.50 NW. INV. IN = 105.50 SW. INV. OUT = 105.45
D-03	TYPE "C" GRATE INLET TOP = 111.00 NE. INV. IN = 105.03 SW. INV. OUT = 105.03
D-04	TYPE "C" GRATE INLET TOP = 110.55 NE. INV. IN = 105.37 SE. INV. OUT = 105.12
YD-01	YARD DRAIN TOP = 111.00 NE. INV. OUT = 106.91

AUTOZONE GRADING NOTES:

1. Topsoil may be stripped and stockpiled for use in final landscaping.
 2. All site work, materials of construction, and construction methods shall conform to the Specifications and Details and Applicable Sections of AutoZone Inc., the City of Apopka, and the State of Florida Department of Transportation Standards. All fill material under structures and paved areas shall meet the requirements of the Geotechnical Engineer's Engineering Report.
 3. The Contractor shall obtain a copy of the Geotechnical Engineering Report & shall refer to the report for pavement, foundation and slab, placement, construction and design criteria.
- NOTES:**
1. ALL PEDESTRIAN SIDEWALKS, PATHWAYS, AND CROSSWALKS SHALL BE A.D.A. COMPLIANT, CONSTRUCTED NOT TO EXCEED 2.0% CROSS SLOPE NOR 5% LONGITUDINALLY. SLOPES IN ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION. IN CASES OF SIDEWALK LANDINGS AT BUILDING ENTRANCES, GRADES SHALL NOT EXCEED 2% IN ANY DIRECTION. ACCESSIBLE CURB RAMP SHALL NOT EXCEED 6' IN LENGTH AND 1:12 SLOPE. LANDINGS AT CHANGE IN DIRECTION SHALL BE MINIMUM 60"x60" AND SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
 2. FINISH GRADE OF SODDED AND LANDSCAPED AREAS SHALL MATCH TOP OF CURBS.
 3. ALL CURB TRANSITIONS TO FLUSH W/PAVEMENT SHALL BE 2'-0".
 4. STORMWATER STRUCTURES ARE TO BE BUILT PER F.D.O.T. SPECIFICATIONS (LATEST EDITION).



06/29/18
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PROFESSIONAL ENGINEER
REGISTRATION NO. 82306
STATE OF FLORIDA



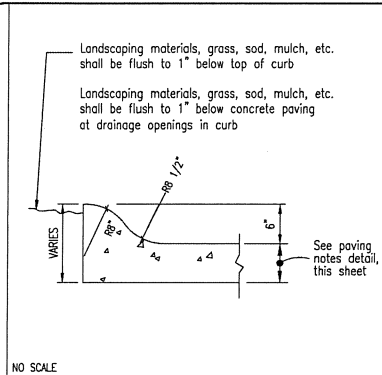
NO.	REVISION

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rlrogers@rogerseng.com

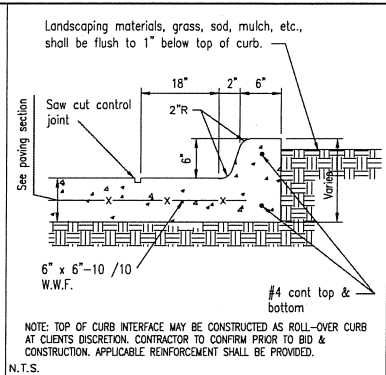
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying
1105 S.E. 3rd Avenue • Ocala, Florida 34471 • Ph. (352) 622-9214 • Lic. Bus. #4074

A FINAL DEVELOPMENT SITE PLAN
FOR
AUTOZONE
CITY OF APOPKA, FL
Paving, Grading, & Drainage Plan

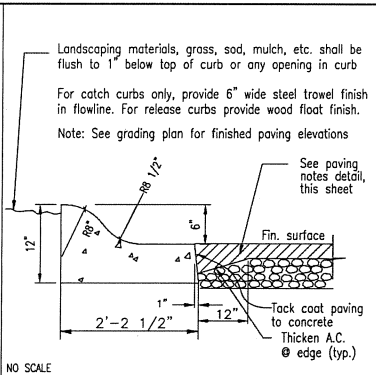
JOB No.
18_05212800000025
DATE
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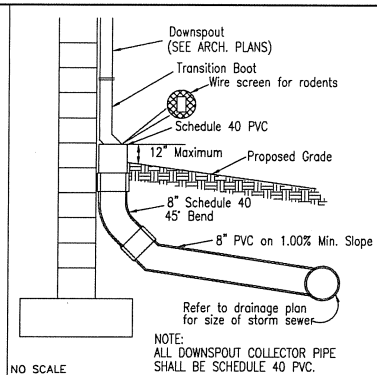
1 TYPICAL ROLL-OVER CURB



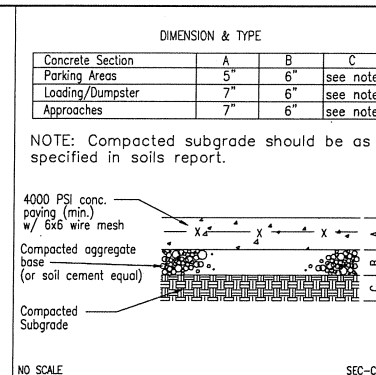
1A CONCRETE MONOLITHIC CURB



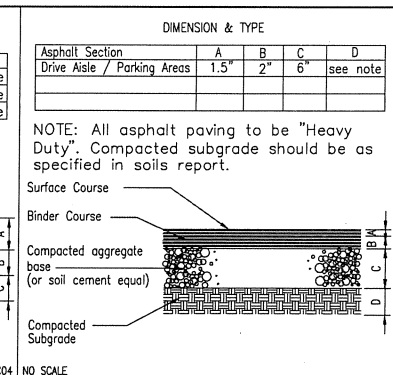
2 ROLL-OVER CURB at ASPHALT PAVING



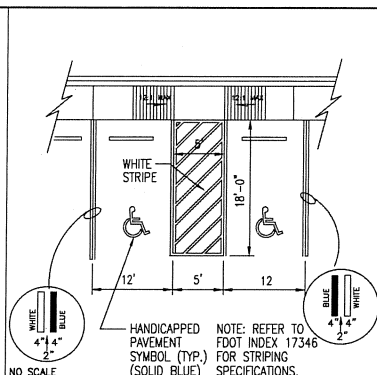
3 DOWNSPOUT DETAIL



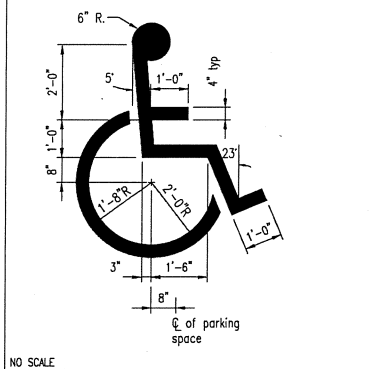
4 CONCRETE PAVING SECTION



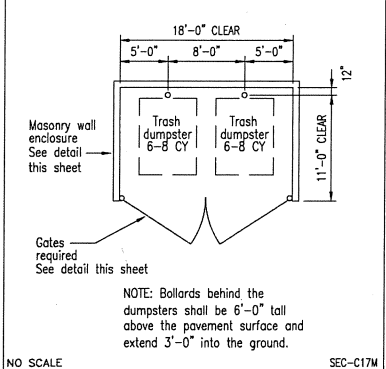
5 ASPHALT PAVING SECTION



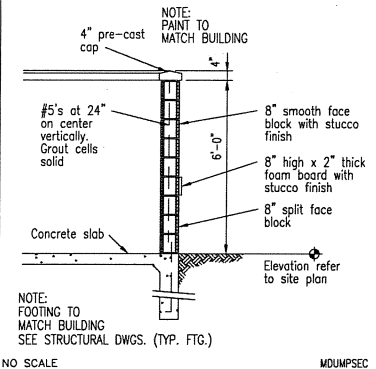
6 HANDICAP PARKING DETAIL



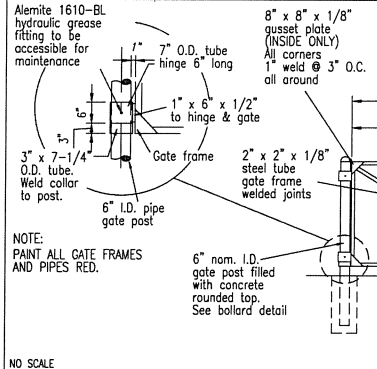
7 INT'L BARRIER FREE SYMBOL



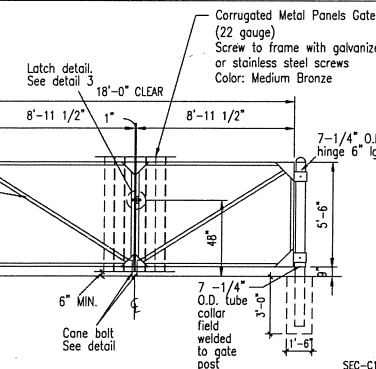
8 DUMPSTER LAYOUT



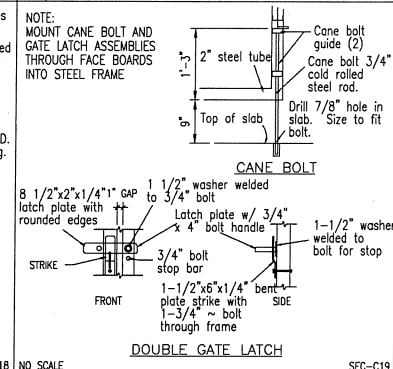
9 DUMPSTER SECTION



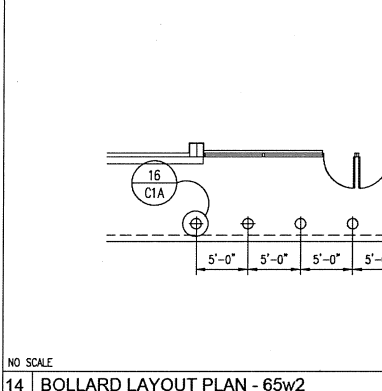
10 GATE DETAIL FOR DUMPSTER ENCLOSURE



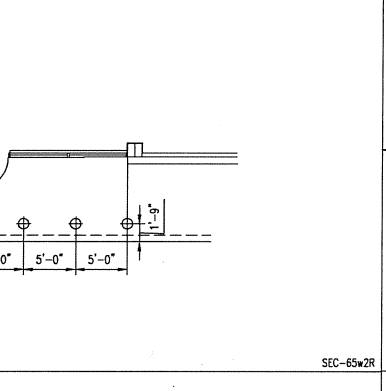
11 GATE LATCH / BOLT DETAILS



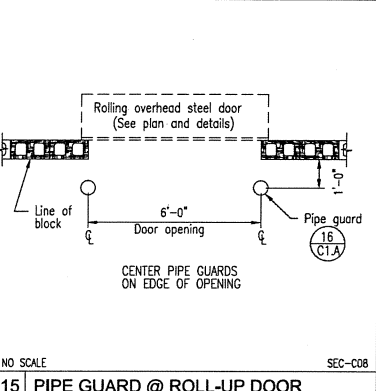
12 TYPICAL HANDICAP SIGN



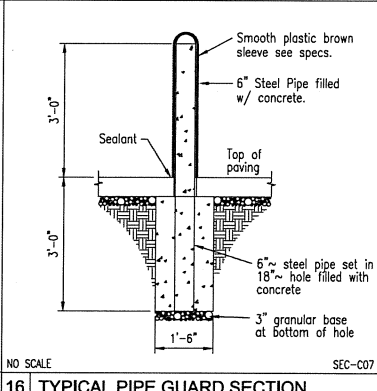
14 BOLLARD LAYOUT PLAN - 65w2



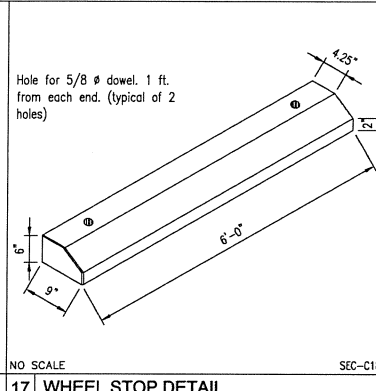
15 PIPE GUARD @ ROLL-UP DOOR



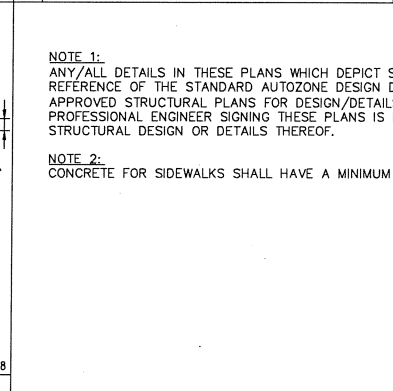
16 TYPICAL PIPE GUARD SECTION



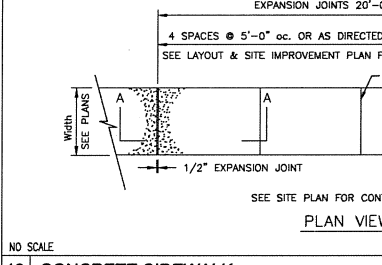
17 WHEEL STOP DETAIL



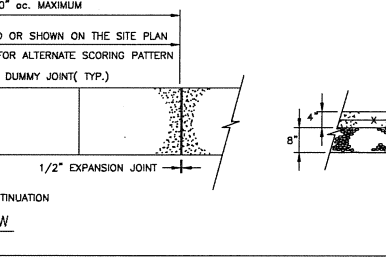
20 TYPICAL WALK SECTION



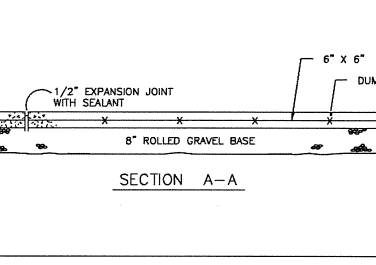
21 TYPICAL EXPANSION JOINT



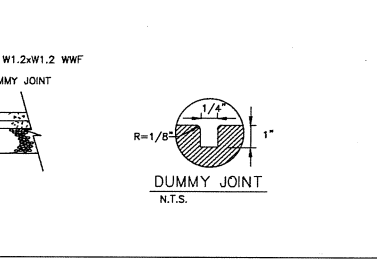
19 CONCRETE SIDEWALK



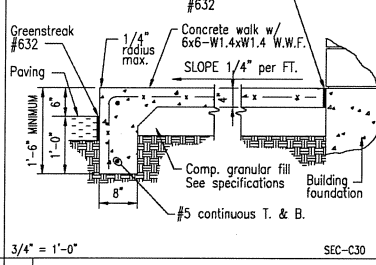
23 HANDICAP PARKING RAMP



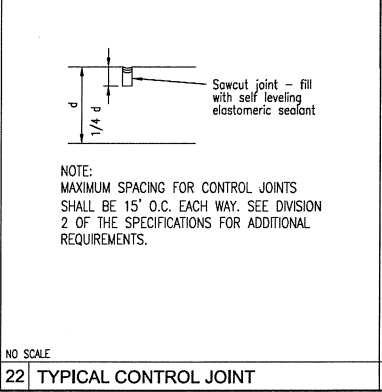
24 TYPICAL PAVEMENT MARKINGS



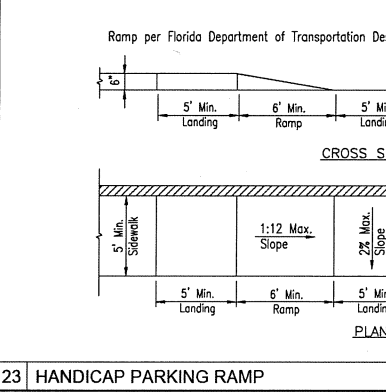
25 TYPICAL PAVEMENT MARKINGS



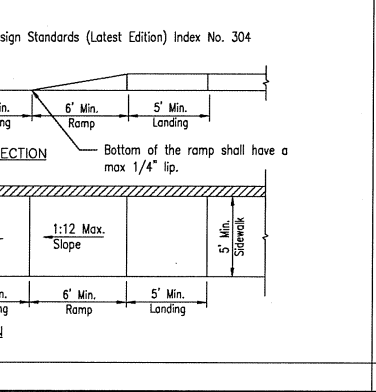
26 STOP SIGN DETAIL



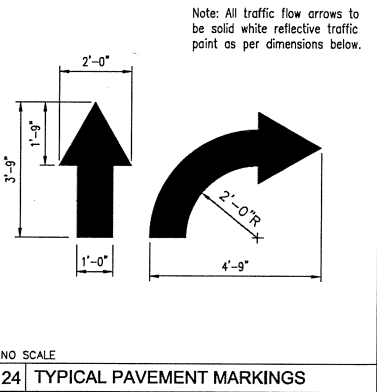
22 TYPICAL CONTROL JOINT



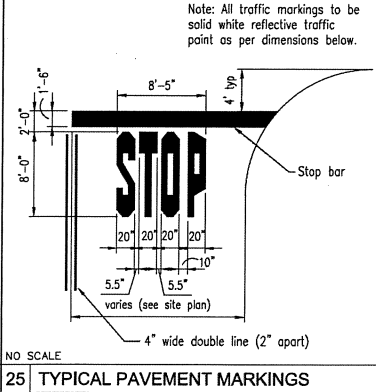
23 HANDICAP PARKING RAMP



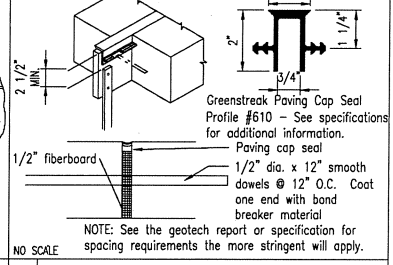
24 TYPICAL PAVEMENT MARKINGS



25 TYPICAL PAVEMENT MARKINGS



26 STOP SIGN DETAIL



21 TYPICAL EXPANSION JOINT

22 TYPICAL CONTROL JOINT

23 HANDICAP PARKING RAMP

24 TYPICAL PAVEMENT MARKINGS

25 TYPICAL PAVEMENT MARKINGS

26 STOP SIGN DETAIL

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying
1105 S.E. 3rd Avenue • Ocala, Florida 34471 • Ph. (352) 622-9214 • Lic. #4074

A FINAL DEVELOPMENT SITE PLAN FOR
AUTOZONE
CITY OF APOPKA, FL
General Construction Details

WALLACE L. BRINKMAN III
PROFESSIONAL ENGINEER
No. 82306
STATE OF FLORIDA

JOB No. 18_052128000000025
DATE 06-29-2018
SCALE AS SHOWN
SHEET C6.0

RILEY & Company, Inc. (ECONO - GP) [©]

SCOPE: Supply one complete ECONO-GP Pre-Fab Lift Station, per design.

Pumps shall be capable of grinding and pumping domestic & commercial sewage.

Complete system shall be supplied by:

RILEY & Company, Inc.
Sanford, FL 32773 (Ph. 407-265-9963)

NO SUBSTITUTIONS - NO ALTERNATES

PUMPS: Submersible grinder pumps shall be HOMA Model GRP. The pumps shall be installed in the ECONO-GP FRP wetwell utilizing a dual 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.

Oil filled motors are not considered equal to air filled motors and therefore will not be considered an equal to the HOMA PUMPS.

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:

Control panel shall be assembled and built by a TUV (UL508A CERTIFIED) manufacturing facility.

The Enclosure shall be NEMA 4X, Fiberglass, minimum 18" high x 16" wide x 6" deep with padlockable draw latches.

The enclosure shall have external mounting feet to allow for wall mounting. All hardware shall be stainless steel.

The following components shall be mounted through the enclosure:

- 1- ea. Red Alarm Beacon (Light)
- 1- ea. Alarm Horn
- 1- ea. Generator Receptacle w/ weatherproof cover
- 1- ea. Alarm Silence Pushbutton

The backpanel 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 backpanel:

- 2- ea. Motor Contactors
- 1- ea. Silence Relay
- 1- ea. Duplex Alternator
- 20- ea. Terminals For Field Connections
- 6- ea. Terminals For Motor Connections (Single Phase Only)
- 3- ea. Grounding Lugs
- 1- ea. Battery Back-Up for HL Alarm

The following components shall be included:

- 1- ea. Main Circuit Breaker
- 1- ea. Emergency Circuit Breaker
- 1- ea. Mechanical Interlock For Emergency And Main Breakers
- 2- ea. Short Circuit Protectors
- 1- ea. Control Circuit Breaker
- 1- ea. Hand-Off-Auto Selector Switches
- 2- ea. Pump Run Pilot Lights

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 DEP standards. The generator receptacle shall be adequately sized to meet the equipment operating conditions.

All motor short circuit protection devices must provide for undervoltage release and class 10 overload protection on all three phases. Visible trip indication, test, and reset capability must be provided without opening inner door. Open frame, across the line, contactors shall be rated per IEC standards and properly sized per the motor requirements. Contactors shall provide for safe touch power and control terminals.

Lightning Arrestor shall meet or exceed the requirements of ANSI/IEEE Std. C62.21-1984 section 8.6.1. and 8.7.3 shall be supplied by electrician and mounted on the bottom side of the switch disconnect ahead of the pump control panel.

A green pilot light shall be supplied for each motor. The pilot light shall illuminate each time the motor is called to run. A red pilot light shall be supplied for control power. The pilot light shall illuminate when the control power is available inside the control panel.

Relays shall be ice-cube plug in type. Relay contacts shall be rated 10 amp minimum, DPDT. Twenty (20) terminals shall be supplied for field connections. The terminals shall be rated 25 amps minimum.

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. Ground lugs shall be supplied and appropriately sized for each motor and for service entrance.

MISCELLANEOUS:

The control panel shall be assembled by a TUV (UL508A Certified) manufacturing facility.

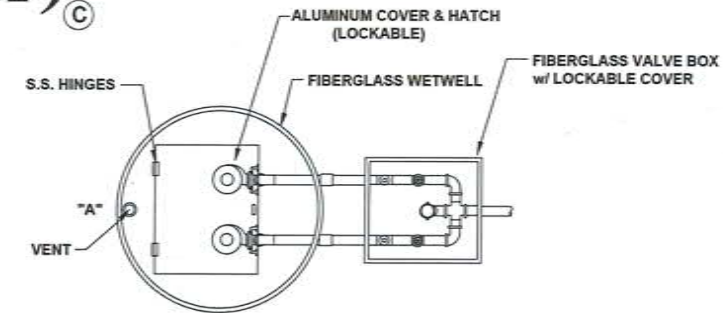
FASTNERS & APPURTANCES: All fasteners, lifting cables, float cable bracket, hinges, and appurtances shall be made of AISI 304SS.

A 304SS slide/latch assembly shall be provided for holding the doors open on the wetwell and valve box. Slide rails shall be made of SCH.40 AISI 304SS pipe. Pump lifting cables shall be made of AISI 304 SS. Pump lifting bales shall be made of AISI 304 SS.

EXECUTION:

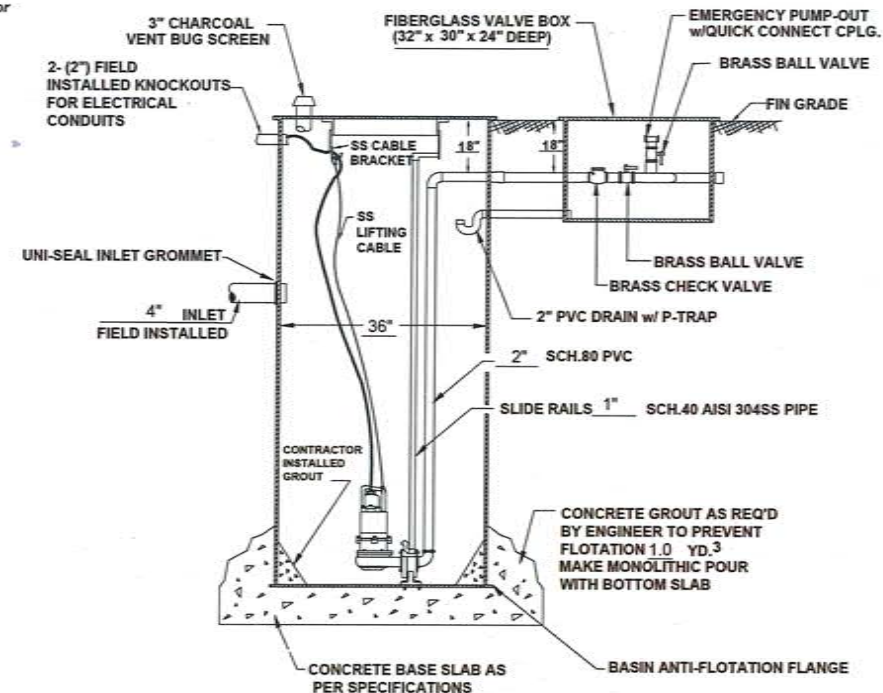
Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the drawing.

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 of complete system. Megger the motors. The pump motors shall be megged out prior to the start-up to ensure that the insulation of the pump motor/cable is intact. The pump controls and pumps shall be checked for mechanical reliability and proper operation.

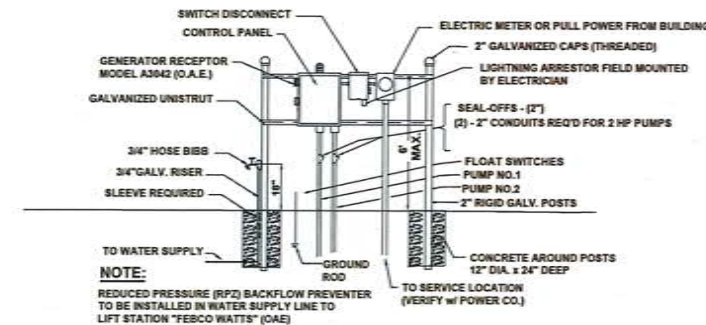


NOTE: PUMP CONTROL PANEL SHALL BE LOCATED 3 FEET FROM WETWELL PERIMETER AT POINT "A"

LIFT STATION PLAN



LIFT STATION SECTION



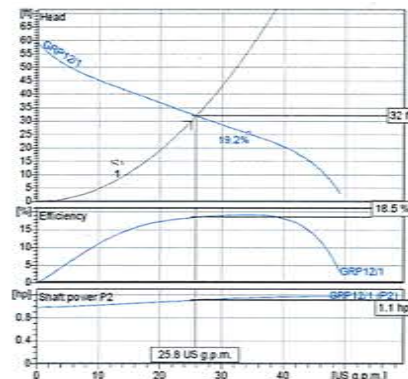
ELECTRICAL RISER FOR ILLUSTRATION ONLY

PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	26 GPM	TOP OF WETWELL	112.50
PRIMARY TDH	32 TDH	INLET INVERT	108.50
PUMP MANUFACTURER	HOMA	HIGH LEVEL ALARM	108.00
PUMP MODEL #	GRP12/1	2nd PUMP ON	107.50
R.P.M.	3450	1st PUMP ON	107.00
HORSEPOWER	1.2	PUMPS OFF	106.50
ELECTRICAL/ VOLTS / PHASE	230/1	BOTTOM OF WETWELL	105.50
PUMP DISCHARGE SIZE	1.25"	WETWELL DIAMETER	36"
IMPELLER DIAMETER	4.41"		

*** ELECTRICIAN NOTES:**

1. DRAWING NOT TO SCALE
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
5. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT

RILEY & CO. / ECONO - GP 06-11-18



REVISION	DATE

Wallace L. Brinkman III, PE
No. 82306
Rodney K. Rogers, PSM
No. 5274
Robert L. Rogers, PE
No. 1027

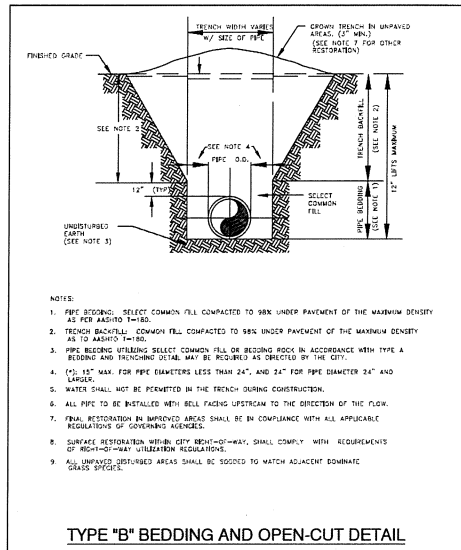
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying
1105 S.E. 3rd Avenue • Ocala, Florida 34471 • Ph. (352) 622-9214 • Lic. Bus. #4074

A FINAL DEVELOPMENT SITE PLAN FOR
AUTOZONE
CITY OF APOPKA, FL
Private Lift Station Details

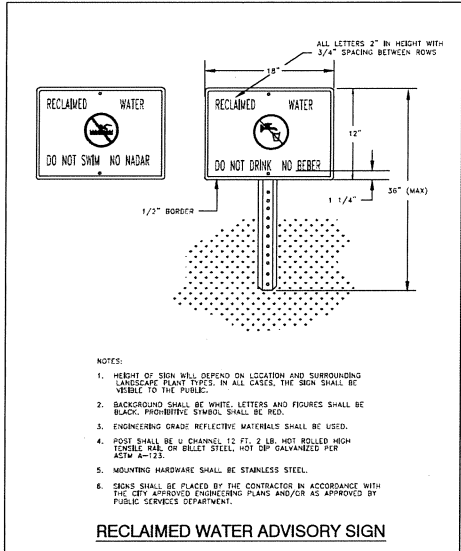
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DATE 06-29-2018
SCALE AS SHOWN
SHEET 06.1

WALLACE L. BRINKMAN III
PROFESSIONAL ENGINEER
REGISTRATION NO. 82306
STATE OF FLORIDA

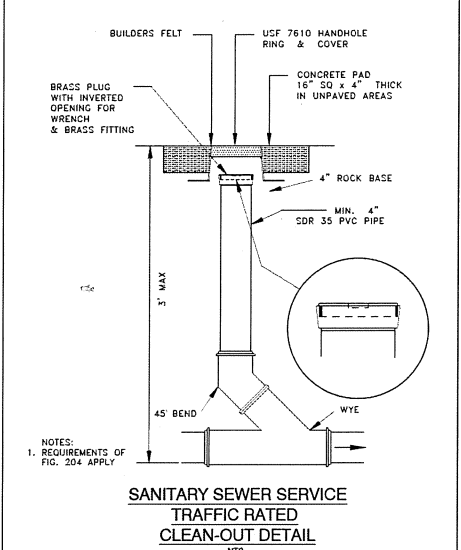
06/29/18
DATE



CITY OF APOPKA JANUARY 2014 FIG. 100



CITY OF APOPKA JANUARY 2014 FIG. 115



CITY OF APOPKA JANUARY 2014 FIG. 205

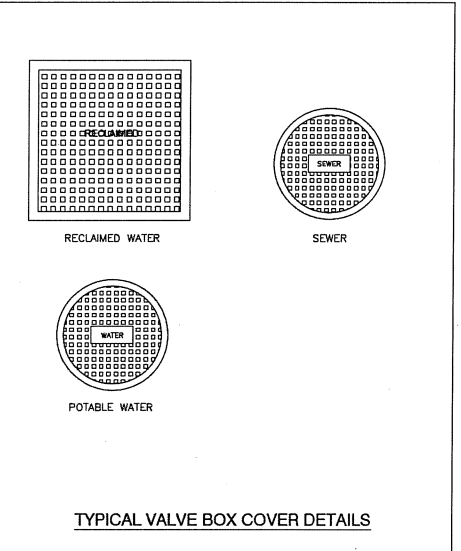
HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY	HORIZONTAL SEPARATION REQUIREMENTS				VERTICAL SEPARATION REQUIREMENTS			
	SEWER	WATER	RECLAIMED WATER	TELEPHONE	SEWER	WATER	RECLAIMED WATER	TELEPHONE
SEWER	12"	12"	12"	12"	12"	12"	12"	12"
WATER	12"	12"	12"	12"	12"	12"	12"	12"
RECLAIMED WATER	12"	12"	12"	12"	12"	12"	12"	12"
TELEPHONE	12"	12"	12"	12"	12"	12"	12"	12"

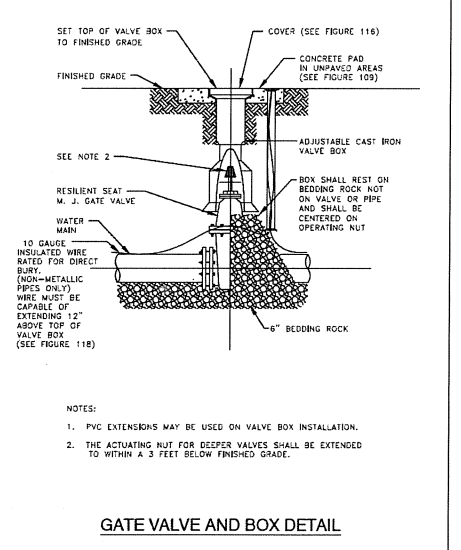
GENERAL NOTES:

- THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.P.C.A. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEARLY ADJACENT UTILITY LINES AND EXISTING OR PROPOSED UTILITY LINES.
- FOR THE PURPOSE OF THIS TABLE, RECLAIMED WATER SHALL MEAN UNIMPROVED PAVEMENT ACCESSIBLE WALKER AS DEFINED BY F.A.C. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED SANITARY AND SEPARATION DETAIL FOR SANITARY COVER SHALL APPLY.
- ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. SEPARATION PRODUCING GREATER CLEARANCE SHALL BE USED.
- C/S = DENOTES CENTER OF PIPE TO CENTER OF PIPE.
- S/O = DENOTES SURFACE OF PIPE TO CENTER OF PIPE.
- ACCEPTABLE VARIANCES:
 - WHERE HORIZONTAL SEPARATION IS NOT ATTAINABLE, PVC-1100 SDR-14 OR CONCRETE ENCASUREMENT MUST BE USED FOR THE SANITARY COVER LINE FOR AT LEAST ONE OF THE PIPES. PER SD-14 OR CONCRETE ENCASUREMENT MUST BE USED UNTIL MINIMUM CLEARANCE IS OBTAINED.
 - WHERE 18 INCH VERTICAL SEPARATION IS NOT ATTAINABLE AT CROSSINGS, THE ONE FULL LENGTH OF PVC-1100 SDR-14 FOR SANITARY COVER OR ENCASED PIPE CENTERED AT THE POINT OF CROSSING SHALL BE USED.
- NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY OR SEWER WATER MAIN-OR STRUCTURE.
- CONCRETE ENCASUREMENT SHALL NOT BE USED UNLESS APPROVED BY PUBLIC SERVICES DIRECTOR OR HIS DESIGNEE.

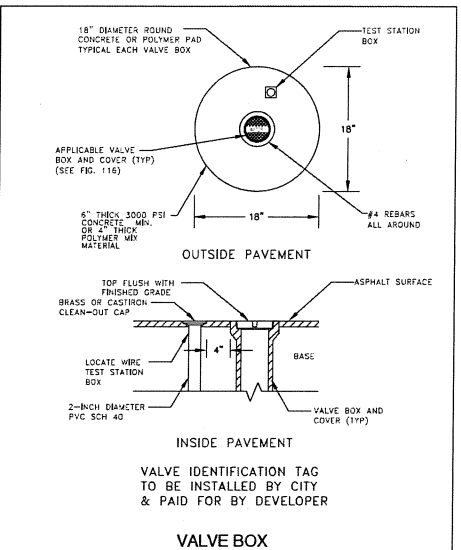
CITY OF APOPKA JUNE 2012 FIG. 104



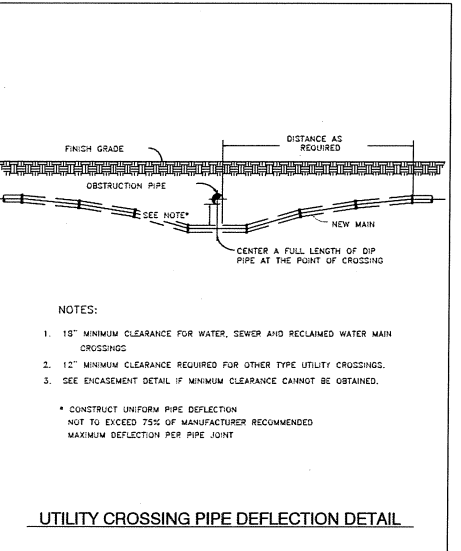
CITY OF APOPKA JANUARY 2014 FIG. 116



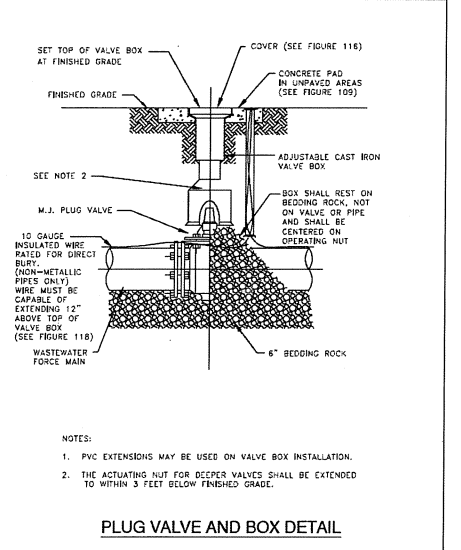
CITY OF APOPKA JANUARY 2014 FIG. 400



CITY OF APOPKA JANUARY 2014 FIG. 109



CITY OF APOPKA JANUARY 2014 FIG. 117



CITY OF APOPKA JANUARY 2014 FIG. 400 A

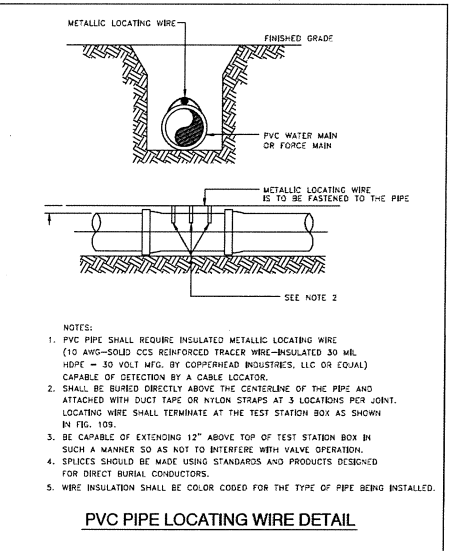
PIPE AND APPURTENANCES PRESSURE RATING

PSI	DI FITTINGS		PIPE MATERIAL*		GATE VALVE**		FORCE MAIN*
	≤24"	>24"	PVC	DI HDPE	≤12"	>12"	PVC HDPE
100							
150							
200							
250							
350							

* PVC SHALL HAVE A MAXIMUM DIMENSION RATIO (DR) OF 15 AND HDPE SHALL BE MAX DR11. FORCE MAIN: PVC SHALL BE MAX DR16 UNLESS DESIGN REQUIRES OTHERWISE AND HDPE SHALL BE MAX DR17.

** BUTTERFLY VALVES SHALL BE CLASS 150B

CITY OF APOPKA JANUARY 2014 FIG. 110



CITY OF APOPKA JANUARY 2014 FIG. 118

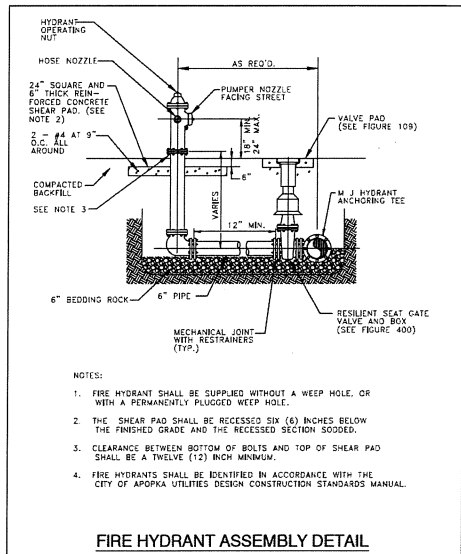
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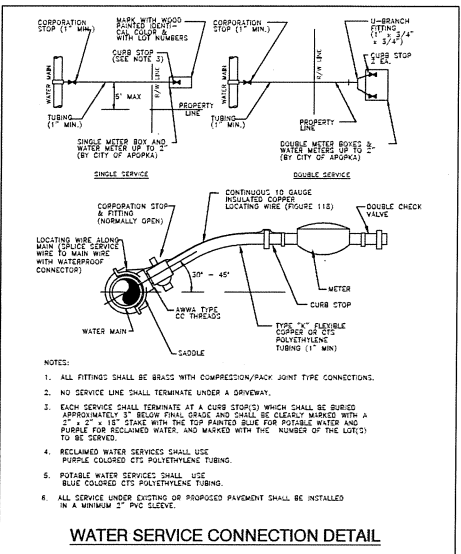
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A FINAL DEVELOPMENT SITE PLAN
 FOR
AUTOZONE
 CITY OF APOPKA, FL
 City of Apopka Standard Details

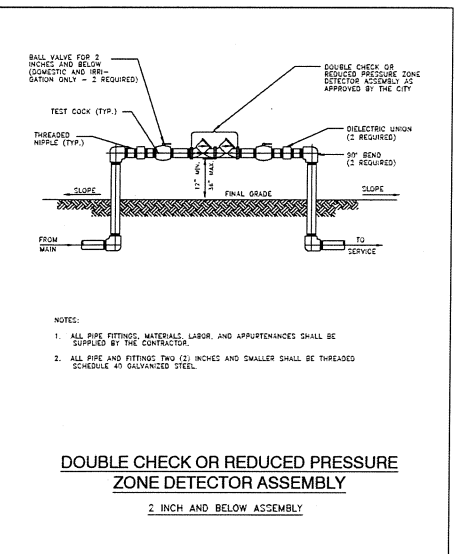
JOB No.
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 DATE
 06-29-2018
 SCALE
 AS SHOWN
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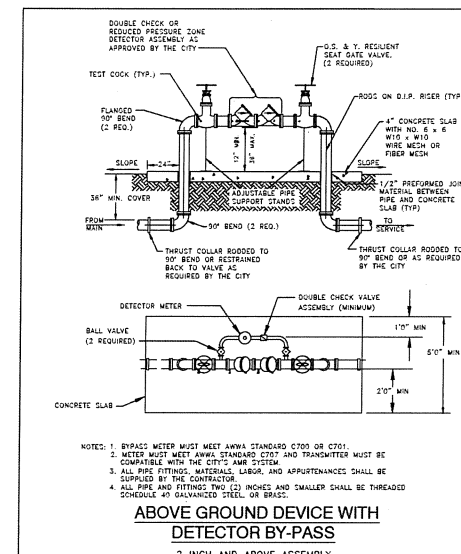
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 402



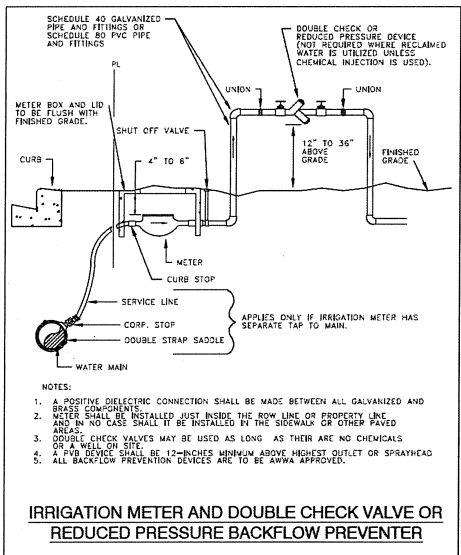
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 405



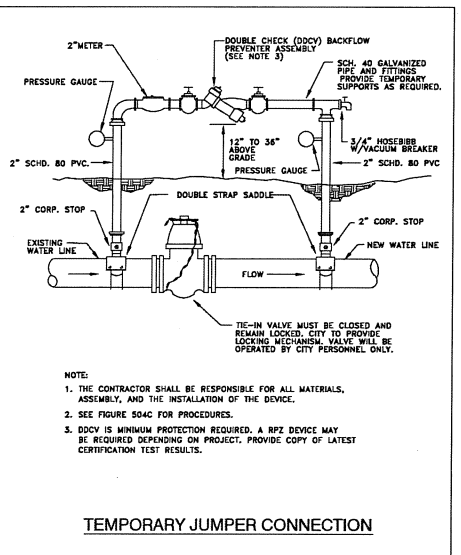
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 500 A



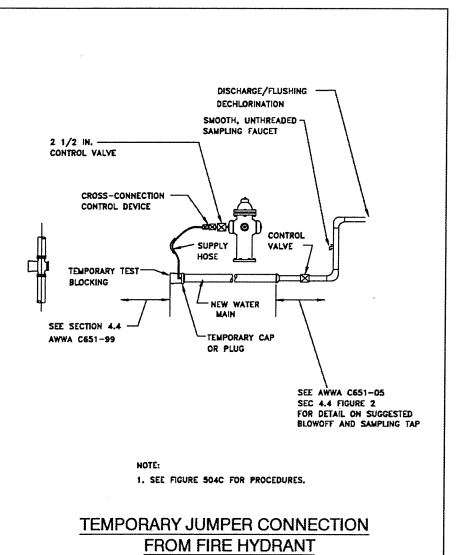
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 500 B



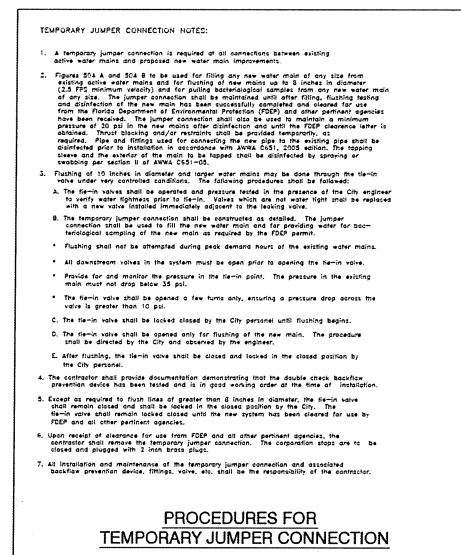
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 502



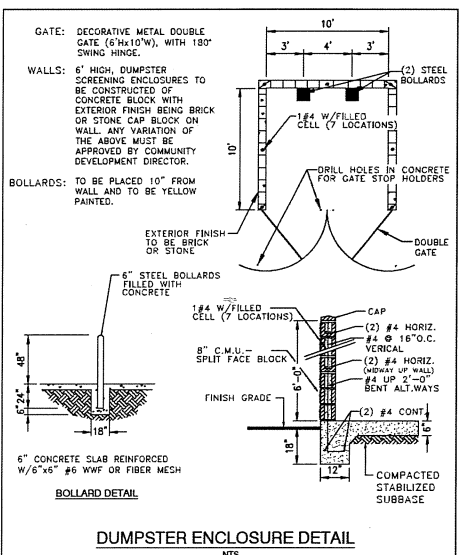
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 504 A



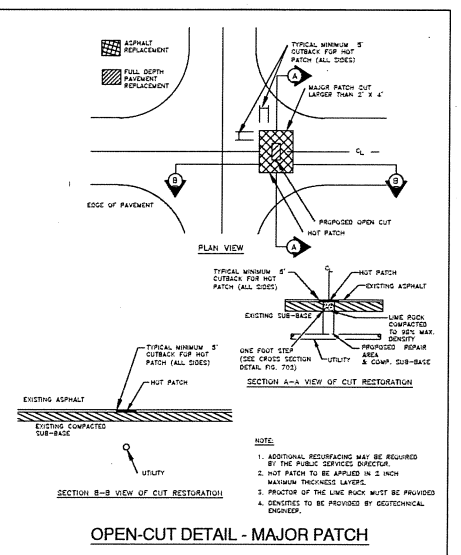
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 504 B



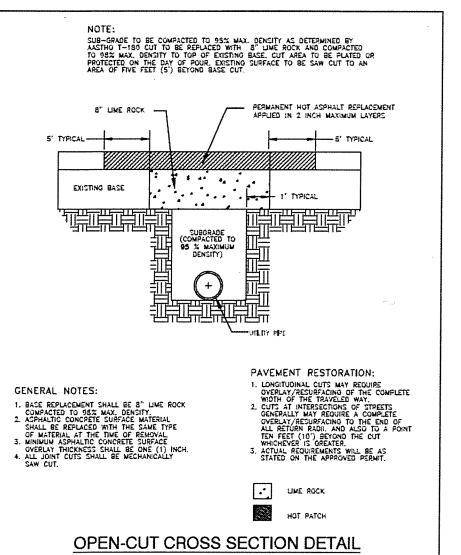
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 504 C



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 601



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 701



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 702

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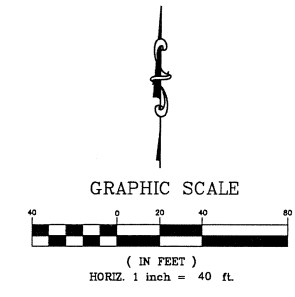
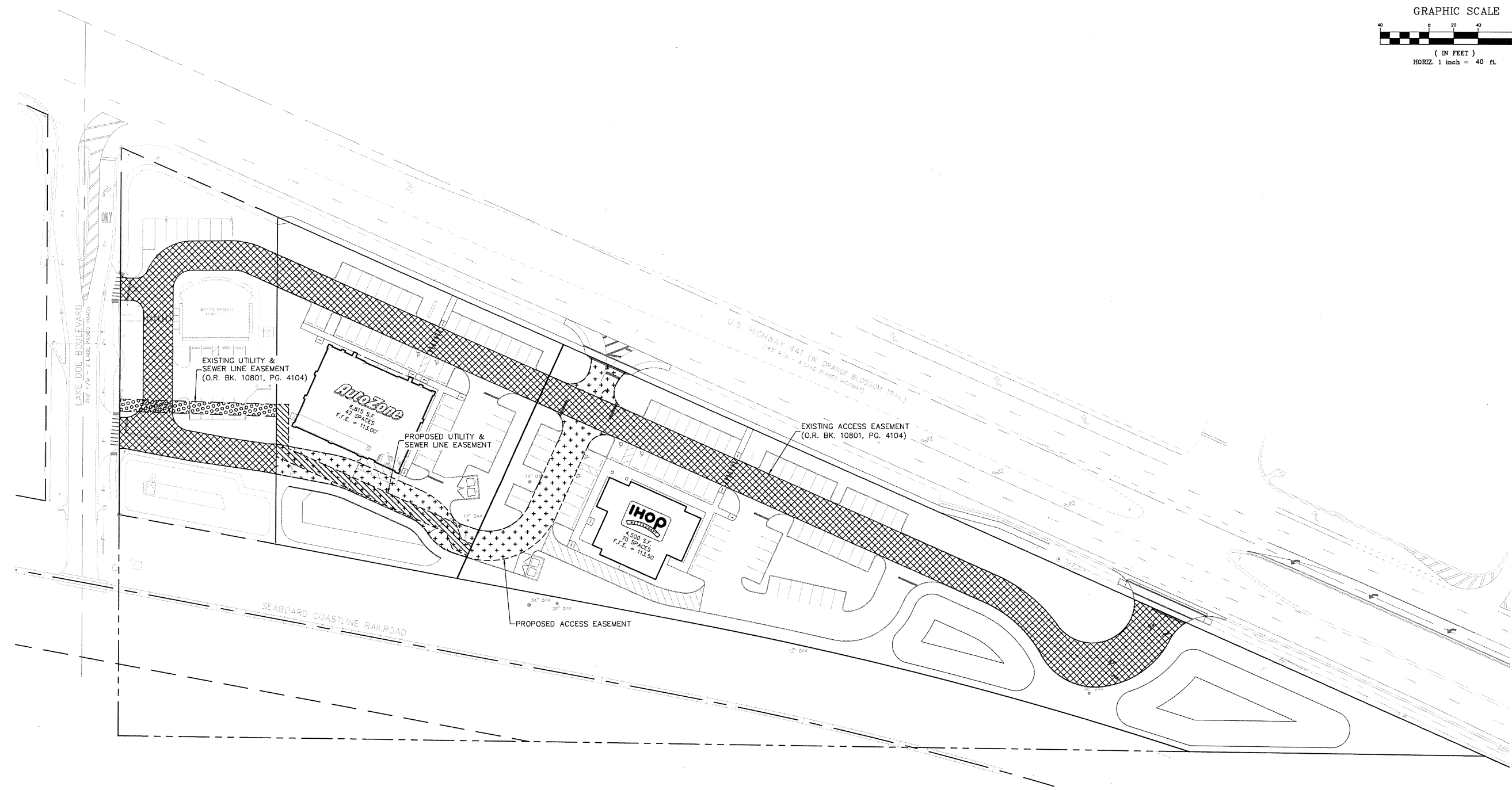
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A FINAL DEVELOPMENT SITE PLAN FOR AUTOZONE CITY OF APOPKA, FL
 City of Apopka Standard Details

JOB No. 18_052128000000025
 DATE 06-29-2018
 SCALE AS SHOWN
 SHEET C7.1

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- LEGEND:**
- EXISTING ACCESS EASEMENT
 - EXISTING UTILITY & SEWER LINE EASEMENT
 - PROPOSED ACCESS EASEMENT
 - PROPOSED UTILITY & SEWER LINE EASEMENT

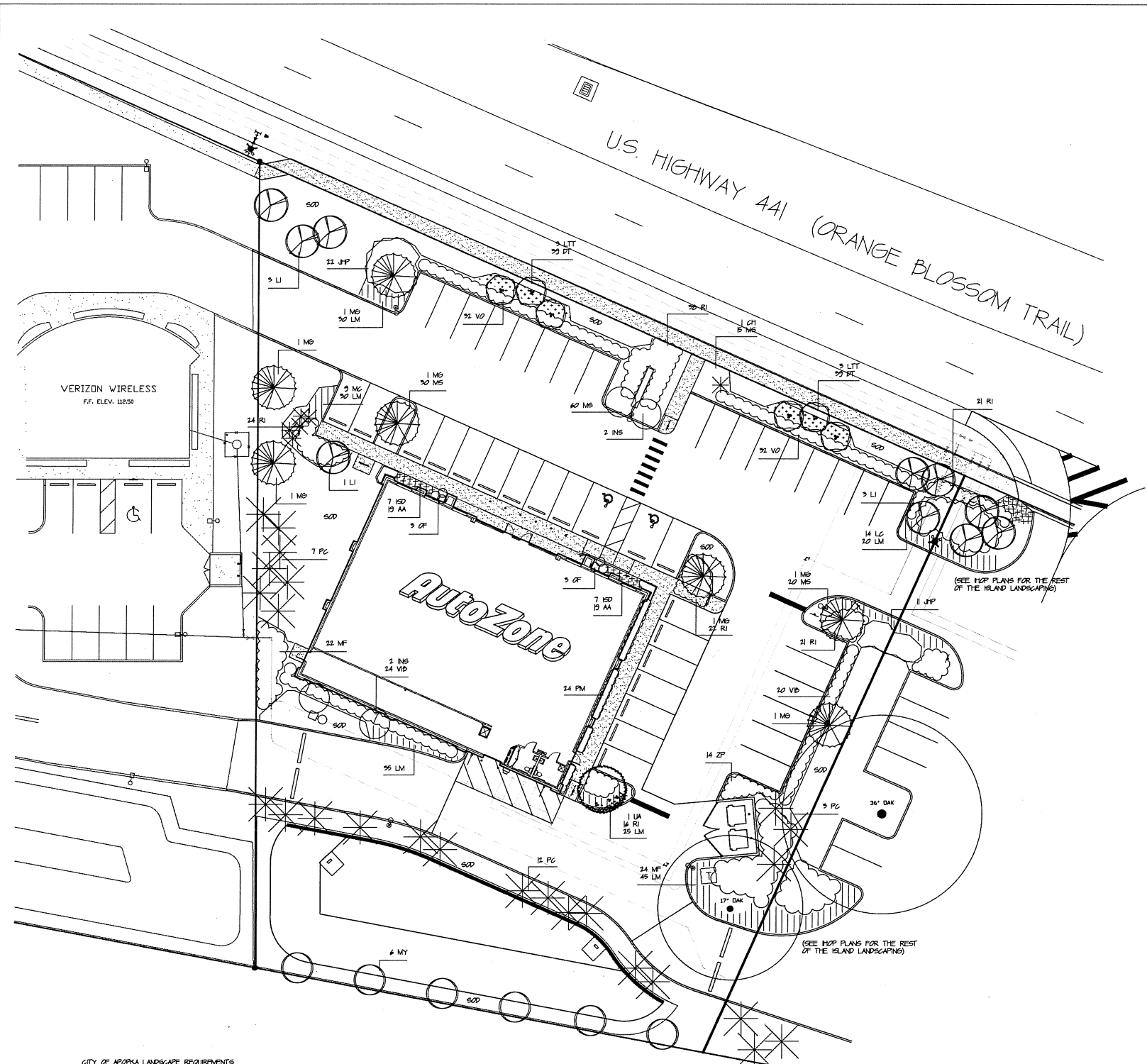
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A FINAL DEVELOPMENT SITE PLAN
FOR
AUTOZONE
CITY OF APOPKA, FL
Easement Plan

JOB No.
18_052128000000025
DATE
06-29-2018
SCALE
AS SHOWN
SHEET
C9.0



LANDSCAPE MATERIAL LIST

SHADE & ORNAMENTAL TREES

4	INS	LEX X NELLE STEVENS	NELLE STEVENS HOLLY	45	6AL 3" CAL 8" - 9" TALL SINGLE LEADER, 4' CT. FULL CANOPY
7	LI	LAGERSTROMIA INDICA 'TUSCARORA'	GRAPE NYRTLE	45	6AL 3" CAL 8" - 9" TALL MULTI-TRUNK, FULL CANOPY
8	LTT	LEUCOSTRUM JAPONICA TREE-TYPE	PRIVET TREE	45	6AL 3" CAL 8" - 9" TALL MULTI-TRUNK, FULL CANOPY
7	MS	MANGOLIA GRANDIFLORA 'DDLANGHARD'	SOUTHERN MAGNOLIA	N	45 6AL 3" CAL 10" - 11" TALL SINGLE LEADER, 5' CT. FULL CANOPY
6	MY	MYRTIA GENIFERA	WAX MYRTLE	N	45 6AL 3" CAL 7" - 8" TALL MULTI-TRUNK, FULL CANOPY
22	PC	PNIS CLUSA	SAND PINE	N	45 6AL 3" CAL 10" - 11" TALL SINGLE LEADER, 6' CT. FULL CANOPY
1	LA	LLMUS ALATA	WINEED ELM	N	45 6AL 3" CAL 10" - 11" TALL SINGLE LEADER, 5' CT. FULL CANOPY

SHRUBS

1	CH	CHAMEROPS HUMILIS	EUROPEAN FAN PALM	N	10 6AL 12" - 20" FULL SPECIMEN
14	ISD	LEX VICTORIA 'STOKES DWARF'	STOKES DWARF HOLLY	N	10 6AL 15" - 18" WELL-ROUNDED, SET 30" O.C.
33	JFP	JUNIPERUS CHINENSIS 'YUMPEYS PRIDE'	HUMPEYS PRIDE JUNPER	N	3 6AL 18" - 24" FULL SET 3' O.C.
14	LZ	LOROPETALUM CHINENSIS	LOROPETALUM	N	3 6AL 18" - 24" FULL
2	NC	NELENDROSIA CAPILLARIS	NEELY GRASS	N	3 6AL 18" - 24" FULL
46	MF	MYRSANTHES FRANCES	SIMPSONS STOPPER	N	3 6AL 18" - 24" FULL
2	OF	OBANATHUS FRANGENS	TEA OLIVE	N	3 6AL 18" - 24" FULL
24	PM	PODOCARPUS MARGOPHYLLUM	FLORIDA YEW	N	3 6AL 18" - 24" FULL SET 25" O.C.
142	RI	RAPHIOLEPIS INDICA	INDIAN HAWTHORN	N	3 6AL 18" - 24" WELL-ROUNDED, SET 30" O.C.
44	VO	VIORNUM OBOVATUM	WALTERS VIORNUM	N	3 6AL 18" - 24" FULL SET 3' O.C.
14	VB	VIORNUM OBOVATISSIMUM	SWEET VIORNUM	N	3 6AL 18" - 24" FULL SET 3' O.C.
14	ZP	ZANIA FUNEA	COOTE	N	3 6AL 18" - 24" FULL

GRANDCOVERS

30	AA	AGAPATHUS AFRICANUS	BLUE NILE IRIS	N	1 6AL MIN 7-9 PPS, FULL SET 24" O.C. DOUBLE STAGGERED ROW
75	DT	DANIELA TABANCA	FLUX LILY	N	1 6AL FULL SET 24" O.C. DOUBLE STAGGERED ROW
110	LN	LIRIOPE MURGARI 'DIO DILE'	ROPER GRASS	N	1 6AL MIN 7-9 PPS, FULL
115	MS	MUNDA STRELLLOSA	SUNSHINE MIMOSA	N	1 6AL MIN 3-5 RUNNERS

4500 SF - ST AUGUSTINE PALMETTO SOD
4200 SF - ARGENTINE-DANIA SOD

- LANDSCAPE NOTES**
- ALL MATERIAL SHALL BE FLORIDA #1 GRADE OR BETTER
 - ALL LANDSCAPED AREAS SHALL BE MULCHED WITH 3" - 4" OF PINE DARK MULCH
 - MULCH SHALL NOT BE INSTALLED ON TOP OF THE ROOT BALLS OF ANY SHADE OR ORNAMENTAL TREES
 - ALL MATERIAL INSTALLED SHALL MEET THE SOD GRADES AND STANDARDS FOR LANDSCAPE INSTALLATION
 - CERTIFICATION IS REQUIRED FROM THE NURSERY AND/OR THE LANDSCAPE CONTRACTOR THAT THE TREE ROOT BALL HAS BEEN SHAVED PER GRADES AND STANDARDS
 - ALL TREES MUST BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ACCEPTANCE
 - ALL NEW TREES MUST BE GATED OR STAKED AS DETAILED
 - EXISTING TREES THAT ARE TO REMAIN MUST BE PROTECTED THROUGHOUT CONSTRUCTION
 - THE LANDSCAPE ARCHITECT SHALL REVIEW WITH THE CONTRACTOR ALL LANDSCAPING THAT IS TO BE DONE AND SHALL IDENTIFY THE SCOPE OF WORK
 - PLACEMENT OF ALL LANDSCAPE MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT
 - ALL LANDSCAPE MATERIAL MUST BE INSTALLED WITH NATIVE PEAT AND SLOW-RELEASE NITROGEN FERTILIZER
 - ALL MATERIAL SHALL BE GUARANTEED FOR 30 DAYS FROM THE DATE OF ACCEPTANCE
 - LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING IN ALL TREES AND REMOVING AIR-POCKETS
 - DURING THE ESTABLISHMENT PERIOD (FIRST 30 DAYS) THE LANDSCAPE CONTRACTOR SHALL APPLY A MINIMUM OF 40 - 60 GPD TO ALL NEW TREES AS DIRECTED
 - LANDSCAPE CONTRACTOR MUST LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY INSTALLATION
 - ALL MATERIAL SHALL BE GUARANTEED FOR 30 DAYS FROM THE DATE OF ACCEPTANCE
 - NO PLANTINGS OR OTHER OBSTRUCTIONS MAY BE WITHIN THE 2' VEHICULAR OVERHANG AREA
 - SOD SHALL BE INSTALLED IN ALL DISTURBED AREAS OUTSIDE OF THE PLANTING BEDS
 - SOD AROUND THE BUILDING AND PARKING ISLANDS SHALL BE ST AUGUSTINE PALMETTO AS DIRECTED
 - SOD ALONG THE ROW, AND THE DRA SHALL BE ARGENTINE-DANIA AS DIRECTED
 - ALL SOD SHALL BE INSTALLED WITH NO GAPS OR OVERLAPS AND SHALL BE SANDED AS NEEDED
 - SCODDING INSIDE THE DRA SHALL BE SHOWN ON THE CIVIL PLANS AND IS NOT PART OF THESE QUANTITIES
 - PLANTING SOIL USED FOR THE BUILDING PLANTERS AND BACKFILLING OF THE LANDSCAPE ISLANDS, ETC. MUST BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION. ALL SOIL SHALL BE WEED-FREE, CONTAIN NO STICKS, ROCKS, OR OTHER FOREIGN OBJECTS, AND SHALL BE A MIXTURE OF 40% SAND, 50% LOAM, AND 10% TOP-SOIL
 - THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL PLANT MATERIAL, ROOTS, SOIL, AND OTHER LANDSCAPE ITEMS REMOVED FROM THIS SITE
 - THE LANDSCAPE CONTRACTOR MUST PROVIDE AN AS-BUILT OF THE IRRIGATION SYSTEM TO THE LANDSCAPE ARCHITECT PRIOR TO REQUESTING ANY INSPECTIONS AND/OR APPROVALS
 - THE CONTRACTOR SHALL KEEP THE SITE CLEAN OF ALL DEBRIS, SEDIMENT, DIRT, ETC. AND ENSURE THAT THAT DRAINAGE SYSTEM REMAINS CLEAR AND THAT PEDESTRIAN WAYS ARE NOT PLUGGED
 - DO NOT PLANT NEW TREES TOO DEEP. UNCOVER THE TRUNK FLARE AND SET THIS AT OR ABOVE THE SURROUNDING SOIL LEVEL
 - REMOVE ANY TREE WRAP FROM AROUND THE TRUNK OF NEW TREES TO BE INSTALLED
 - ALL NEW TREES AND SHRUBS MUST MEET THE 'AMERICAN STANDARDS FOR NURSERY STOCK' (ANSI 240)
 - LANDSCAPE ARCHITECT MAY REQUIRE PRUNING OF NEW TREES AFTER INSTALLATION IF IT IS DETERMINED THAT THE TREES NEED A SINGLE DOMINANT LEADER ESTABLISHED OR CLUSTER BRANCHES REMOVED
 - ALL PLANT MATERIAL MUST MEET ALL OF THE SIZE SPECIFICATIONS, NOT JUST THE CONTAINER SIZE
 - HAVING THE LANDSCAPE ARCHITECT APPROVAL OF PLANT PLACEMENT IS ESSENTIAL FOR ACCEPTANCE
 - ALL SIZE SPECIFICATIONS SHOWN ON THE MATERIAL LIST ARE FOR THE HEIGHT OF THE MATERIAL UNLESS OTHERWISE NOTED. MEASUREMENT SHALL BE AS PER THE CURRENT INDUSTRY GRADES AND STANDARDS
 - LANDSCAPE INSTALLATION MUST BE COORDINATED WITH THE INSTALLATION TO BE DONE ON THE ADJACENT HOP PROJECT
 - WORK MUST PROTECT THE EXISTING LANDSCAPE PLANTINGS ON THE ADJACENT VERIZON PROPERTY
 - ALL LANDSCAPE PLANTS ARE FLORIDA-FRIENDLY FOR CENTRAL FLORIDA PLANT HARDNESS ZONE
 - ALL LANDSCAPING MUST BE A MINIMUM OF 30' (15) FROM THE BUILDING FOUNDATION

CITY OF APOPKA LANDSCAPE REQUIREMENTS

TOTAL PROJECT AREA = 46,681 SF (11 AC)
PROPERTY ZONING = C-2 GENERAL COMMERCIAL

5.0107 TREE REPLACEMENT

TOTAL EXISTING TREE INCHES ON SITE = 146"
TOTAL TREE INCHES TO BE REMOVED = 146" (ALL TREES @ 95%)
TOTAL TREE INCHES REPLACEMENT REQUIRED = 174" (SEE PLANT SCHEDULE)
SPECIMEN TREES (14" & GREATER) TO BE REMOVED = 4 (107)
TOTAL PROJECT AREA = 46,681 SF

5.0107 A1 QUANTITY OF REPLACEMENT TREES

14 INCHES DBH PROPOSED FOR REMOVAL = 14 INCHES DBH REQUIRED FOR REPLACEMENT

5.0107 A1c MAXIMUM TREE STOCK REQUIRED

21 INCHES DBH PLUS 95 INCHES DBH PER 1000 SF OF SITE OVER 4000 SF
46,681 SF - 4,000 SF = 42,681 / 1000 = 42.681 X 95 = 4055
4055 + 21 + 107 OF SPECIMEN TREES REMOVED = 4183 MAXIMUM TREE STOCK
REPLACEMENT INCHES IS LESS THAN THE MAXIMUM TREE STOCK THEREFORE ALL REMOVED INCHES MUST BE REPLACED

5.0108 REQUIRED LANDSCAPING

5.0108 A MINIMUM TREE REQUIREMENTS

1 CANOPY SHADE TREE REQUIRED PER 6,000 SF OF SITE
46,681 SF / 6,000 = 7.78 = 8 CANOPY SHADE TREES REQUIRED
30 CANOPY SHADE TREES PROPOSED (SEE PLANT SCHEDULE)

5.0108 B1 NON-VEHICULAR OPEN SPACE

1 CANOPY SHADE TREE REQUIRED PER 95 LF OF PERIMETER LANDSCAPING NOT ABUTTING A STREET OR PARKING AREA

WEST PERIMETER (244 LF)
TREES REQUIRED = 2 (1 / 95 LF)
TREES PROPOSED = 2 (2 MS, 1 PC)

SOUTH PERIMETER (91 LF)
TREES REQUIRED = 1 (1 / 95 LF)
TREES PROPOSED = 1 (1 PC, 1 MY = 1)

EAST PERIMETER (109 LF)
TREES REQUIRED = 1 (1 / 95 LF)
TREES PROPOSED = 1 (1 EX, 1 MS, 1 PC, 1 LI = 1)

5.0108 B3 NON-VEHICULAR OPEN SPACE

1 CANOPY SHADE TREE AND 10 SHRUBS REQUIRED PER 95 LF OF PERIMETER LANDSCAPING ABUTTING A STREET

NORTH PERIMETER (255 LF)
TREES REQUIRED = 2 (1 / 95 LF)
TREES PROPOSED = 2 (1 MS, 1 MS, 1 LI, 1 LTT = 2)
SHRUBS REQUIRED = 20 (10 / 95 LF)
SHRUBS PROPOSED = 20 (22 JFP, 14 LZ, 44 VO)

5.0108 C1 PARKING OR OTHER VEHICULAR USE AREAS

1 CANOPY SHADE TREE PLUS 1 CANOPY SHADE TREE FOR EVERY 20 SPACES
41 PARKING SPACES = 3 + 1 = 4 CANOPY SHADE TREES REQUIRED
6 CANOPY SHADE TREES PROPOSED (1 EX, 4 MS, 1 LA)



RICHARD A KESSELRING JR., PLA, ASLA
LANDSCAPE ARCHITECT, STATE OF FLORIDA #858

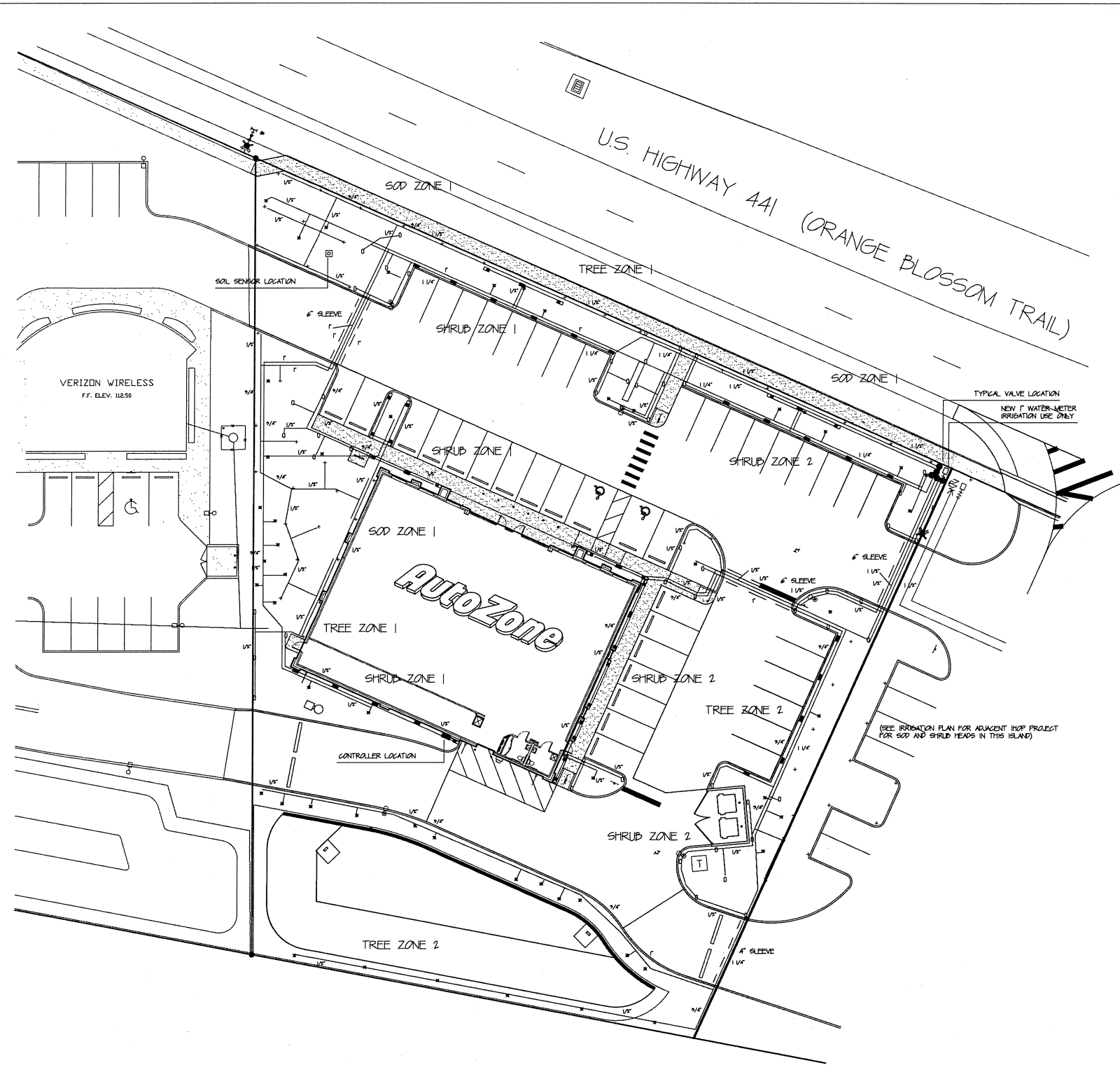
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CITY COMMENTS:	
NO.:	
DATE:	
BY:	

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1920 ST. BETH STREET
OCALA, FLORIDA 34478 (352) 832-8889
LANDSCAPE ARCHITECTURE, SITE PLANNING,
GOLF COURSE DESIGN, COMMERCIAL/RESIDENTIAL DESIGN

EDK

LANDSCAPE PLAN
AUTO ZONE
APOPKA FLORIDA

SHEET 0201 of 02



IRRIGATION LEGEND

- HUNTER MP 1000 SERIES SPRAY HEADS
- HUNTER MP 1000 SERIES SIDE-SPRAY POP-UP HEADS
- + HUNTER MP 1000 SERIES POP-UP SPRAY HEADS FOR SOD
- × HUNTER P02 SERIES BUBBLER HEADS FOR TREES
- 1" WATER METER - IRRIGATION USE ONLY
- ⊗ SOL SENSOR LOCATION
- ⊞ HUNTER I-CORE (I-100-M-FL) CONTROLLER
- 1" NELSON VALVES IN WATER-RESISTENT BOXES
- == SLEEVING - SCH 40 P.V.C.

IRRIGATION ZONE DATA

ZONE	GPM USAGE	VALVE SIZE	HEAD TYPE	APPLICATION	LANDSCAPE TYPE
TREE ZONE 1	280 GPM	1"	BUBBLER (5 GPM)	LOW-VOLUME	TREES ONLY
TREE ZONE 2	250 GPM	1"	BUBBLER (5 GPM)	LOW VOLUME	TREES ONLY
SHRUB ZONE 1	156 GPM	1"	SPRAY (4 GPM)	LOW VOLUME	SHRUBS ONLY
SHRUB ZONE 2	232 GPM	1"	SPRAY (4 GPM)	LOW-VOLUME	SHRUBS ONLY
SOD ZONE 1	204 GPM	1"	SPRAY (4 GPM)	LOW-VOLUME	SOD ONLY

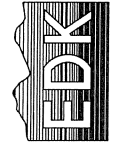
IRRIGATION NOTES

1. MINOR CHANGES MAY BE MADE IN THIS LAYOUT WITH APPROVAL BY THE LANDSCAPE ARCHITECT AND SHALL BE DOCUMENTED ON RECORD DRAWINGS PROVIDED TO CITY PRIOR TO C.O.
2. ALL HEAD LOCATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION
3. HEADS SHALL BE 1/4, 1/2, OR FULL CIRCLE AS EACH LOCATION REQUIRES
4. SPRAYS PATTERNS SHALL BE SET TO MINIMIZE SPRAY ONTO ADJACENT WALKS, DRIVES, AND BUILDINGS
5. WATER SOURCE FOR SYSTEM SHALL BE A NEW 1" WATER METER INSTALLED IN THE GENERAL AREA SHOWN. METER SHALL BE FOR IRRIGATION USE ONLY AND PERMITTED AS SUCH
6. PRIOR TO ANY INSTALLATION, THE IRRIGATION CONTRACTOR SHALL REVIEW THE PLANS AND THE SITE AND PROVIDE WRITTEN VERIFICATION TO THE LANDSCAPE ARCHITECT THAT THE EXISTING COMPONENTS ARE SUFFICIENT FOR THE SYSTEM AS DESIGNED. ANY MODIFICATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION
7. COORDINATE WITH THE CIVIL PLANS FOR THE WATER METER AND VALVE INSTALLATION
8. THE CONTROLLER SHALL BE LOCATED IN THE GENERAL AREA SHOWN AND SHALL BE MOUNTED AS APPROVED BY THE LANDSCAPE ARCHITECT IN A LOCKABLE CASE
9. THE OWNER WILL PROVIDE AN ELECTRICAL OUTLET IN THE CONTROLLER AREA
10. ALL VALVES SHALL BE INSTALLED IN WATER-RESISTENT BOXES
11. ALL SLEEVING MUST BE INSTALLED PRIOR TO THE LIMEGRADING OF THE PAVED AREAS
12. ALL SLEEVING SHALL BE SCH 40 P.V.C. AND INSTALLED A MINIMUM OF 18" DEEP
13. ALL FEEDER LINES SHALL BE INSTALLED A MINIMUM OF 12" DEEP
14. RAINFALL (RANGEBACK) DEVICE SHALL BE INSTALLED TO MINIMIZE IRRIGATION DURING SUFFICIENT RAINFALL (RSD SERIES). IN ADDITION, AN AQUAMA TDT SENSOR WITH SOX CONTROL MONITOR MUST BE INSTALLED AS LOCATED BY THE LANDSCAPE ARCHITECT FOR PROPER IRRIGATION AMOUNTS
15. THE ENTIRE SYSTEM MUST BE OPERATIONAL, REVIEWED, AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE
16. THE CONTRACTOR SHALL RETURN WITHIN THE FIRST 90 DAYS TO ADJUST THE SYSTEM AS NECESSARY AND DIRECTED BY THE LANDSCAPE ARCHITECT
17. ALL LABOR AND MATERIALS SHALL BE GUARANTEED FOR 1 YEAR FOR FINAL ACCEPTANCE
18. THE CONTRACTOR MUST PROVIDE AN AS-BUILT DRAWING TO THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE
19. BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED AT THE METER LOCATION PER APPLICABLE CODES
20. SLEEVES MUST BE INSTALLED IN ALL AREAS WHERE IRRIGATION PIPING IS INSTALLED UNDER PAVEMENT
21. ZONES ARE DESIGNED TO FUNCTION AT 35 GPM AND 40 PSI AT THE VALVE LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AT ALL HEADS TO INSURE PROPER PRESSURE AND WATER QUANTITY FOR THE DESIGNED COVERAGE
22. CONTRACTOR SHALL CONSULT WITH BOTH OWNER AND THE LANDSCAPE ARCHITECT FOR THE TIMING OF THE SYSTEM, BASED ON CURRENT WATER RESTRICTIONS
23. SYSTEM DOES NOT PROVIDE 100% COVERAGE OF THE ENTIRE PROJECT SITE. CONTRACTOR MUST ADJUST HEADS TO COVER NEW PLANT INSTALLATION AND SOD AREAS AS DIRECTED BY THE LANDSCAPE ARCHITECT
24. ALL LINE LOCATIONS MUST BE ADJUSTED ON-SITE TO INSURE THAT THEY DO NOT IMPACT THE MAJOR ROOT SYSTEMS OF THE TREES TO BE PRESERVED
25. ALL IRRIGATION HEADS SHALL BE LOW-VOLUME, MICRO-IRRIGATION TO MINIMIZE WATER CONSUMPTION
26. SET RUN TIMES FOR THE SYSTEM PER RECOMMENDATIONS BY FAS @ EDIS/FAJULFEDU/AL220
27. ON HEADS LOCATED BELOW THE VALVE LOCATIONS, INSURE CHECK VALVES ARE INSTALLED AT THE HEAD
28. POP-UP HEIGHTS WITHIN SOD AREAS SHALL BE SET AT 6"
29. ALL VALVES SHALL HAVE A FACTORY-INSTALLED FILTER SCREEN AND VERIFIED BY CONTRACTOR
30. VERIFY CONTROLLER SET-UP WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
31. ALL IRRIGATION INSTALLATION SHALL MEET 2015 GRADES AND STANDARDS
32. NO IRRIGATION HEADS SHALL BE INSTALLED ON RISERS PER CITY CODE REQUIREMENTS
33. ALL AS-BUILTS, VERIFICATIONS, ETC. MUST BE SUBMITTED PRIOR TO FINAL INSPECTION AND ACCEPTANCE
34. BUBBLERS AT ALL TREES AND PALMS SHALL BE STAKED AT THEIR PROPER LOCATIONS
35. ALL IRRIGATION DISTRIBUTION EQUIPMENT SHALL BE A MINIMUM OF 24" FROM VERTICAL STRUCTURES

NO.	DATE	DESCRIPTION	RAK	BY
1	6/18			

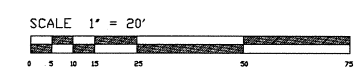
DATE:	5 / 18
DRAWING NO.:	
NEW NAME:	
SCALE:	1" = 20'
JOB NO.:	
RAK	
FB	
PC	

ENVIRONMENTAL DESIGN
 ANDY KESSELRING, LANDSCAPE ARCHITECT
 1920 SE 8th STREET
 OCALA, FLORIDA 34478
 (352) 622-8889
 LANDSCAPE ARCHITECTURE, SITE PLANNING
 6007 COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN

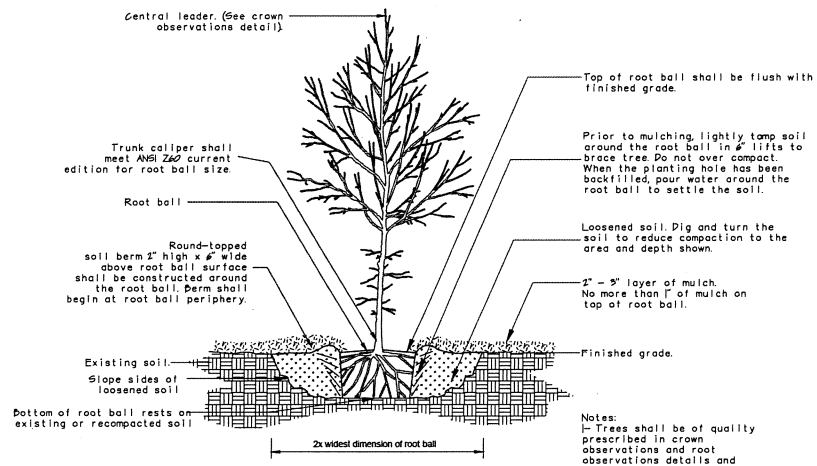


IRRIGATION PLAN
 AUTO ZONE
 APOPKA FLORIDA

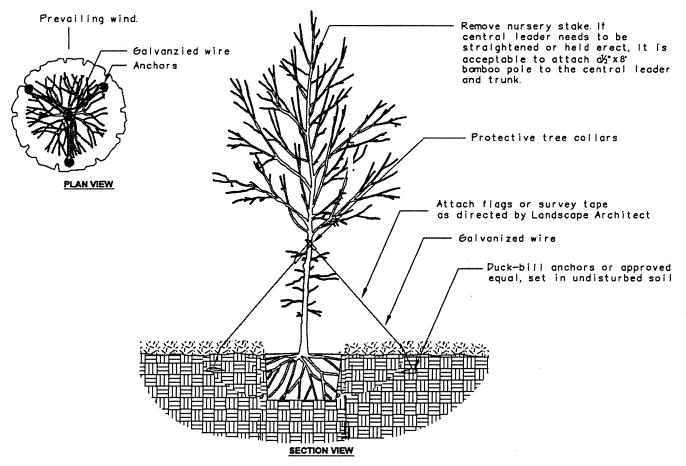
SHEET 002 of 002



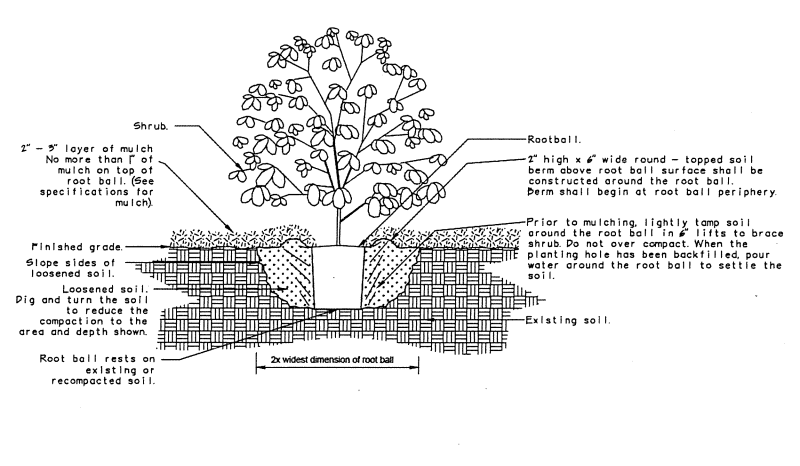
RICHARD A KESSELRING JR., PLA, ASLA
 LANDSCAPE ARCHITECT, STATE OF FLORIDA #858



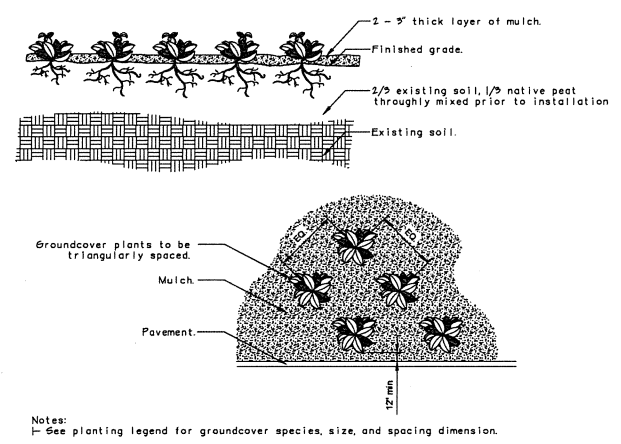
TREE INSTALLATION



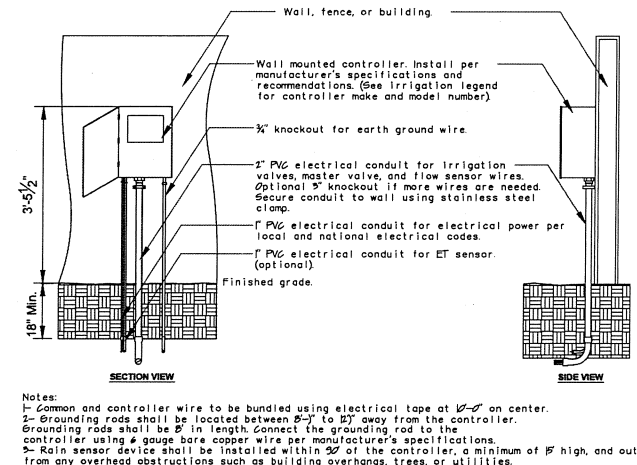
TREE STAKING - TREES < 2" CALIPER



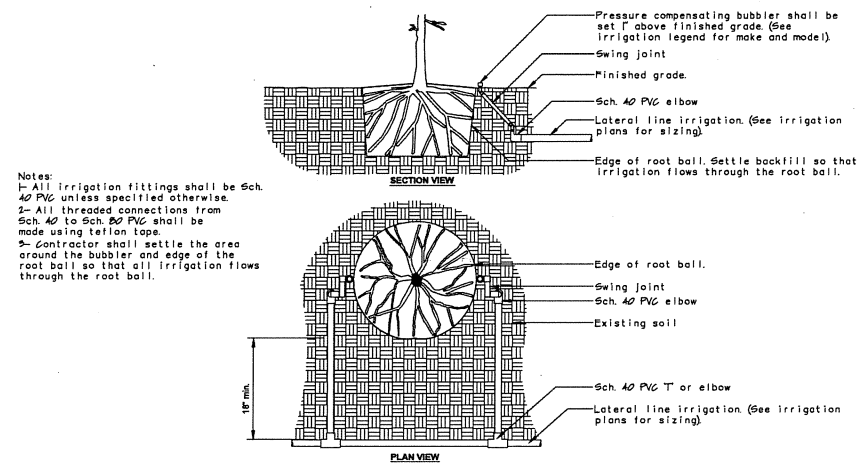
SHRUB INSTALLATION



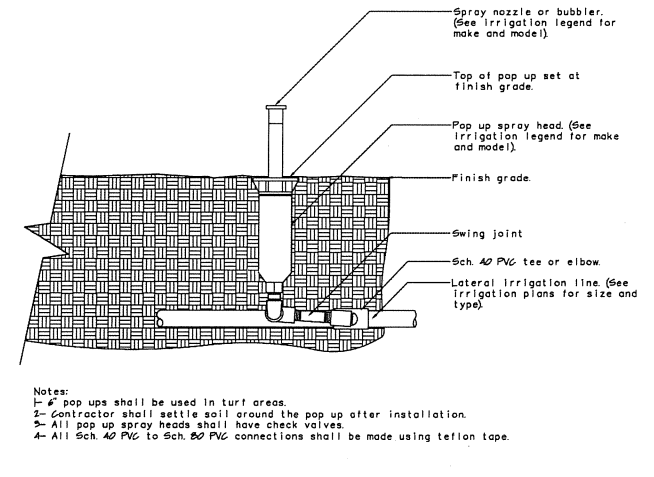
GROUNDCOVER INSTALLATION



WALL MOUNTED CONTROLLER



TREE BUBBLER LAYOUT



POP UP-SPRAY HEAD

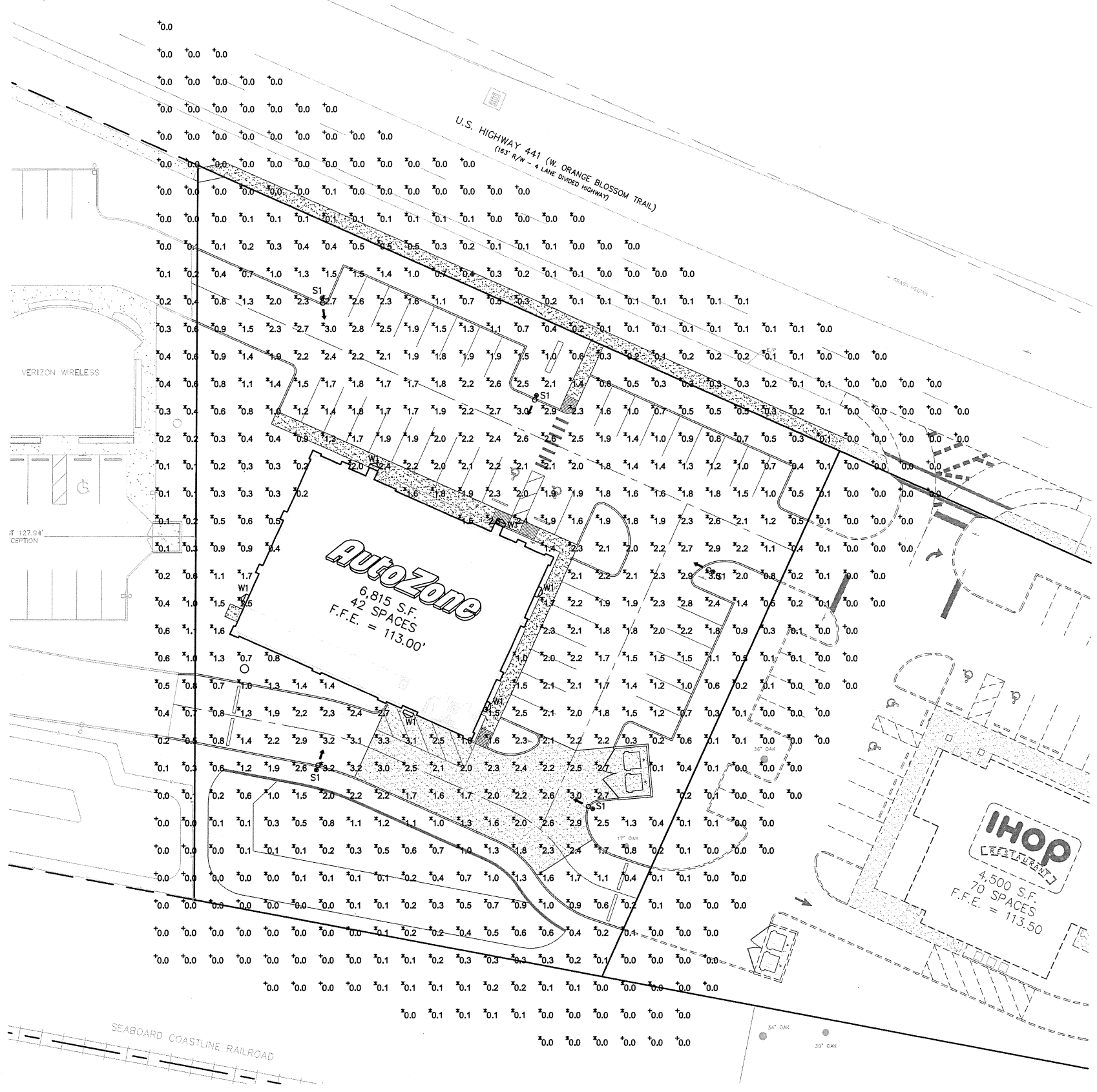
NO.	DATE	CITY COMMENTS	RAK	BY
1	6/19			

DATE:	5 / 18
DRAWING NO.:	
VIEW NAME:	
SCALE:	1" = 20'
JOB NO.:	
RAK	
FB	
PC	

ENVIRONMENTAL DESIGN
 ANDY KESSELRING, LANDSCAPE ARCHITECT
 1920 SE 8th STREET
 DALLA, FLORIDA 34478
 (352) 622-8889
 LANDSCAPE ARCHITECTURE, SITE PLANNING,
 GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN



LANDSCAPE & IRRIGATION DETAILS
 AUTO ZONE
 APOPKA FLORIDA



LUMINAIRE SCHEDULE						
TYP	SYMBOL	DESCRIPTION	LAMP	LUMENS	LLF	QTY
S1	☉	ANP - BVF2401 (P046LD4) - LED POST ARM - PA1613 - BRONZE FINISH 5" BOLT DOWN ROUND ALUMINUM SMOOTH POLE - BD5520.25 - 20' TALL - BRONZE FINISH IES FULL CUTOFF DISTRIBUTION MOUNTED 0° DOWN POSITION MOUNTED HEIGHT = 23'-0"	LED - 117 WATTS	ABSOLUTE	1.00	5
W1	☽	LITHONIA - DSW1 LED 10C IESNA FULL CUTOFF DISTRIBUTION MOUNTED 0° DOWN POSITION MOUNTED HEIGHT = 12'-0"	LED - 40 WATTS	ABSOLUTE	0.95	6

STATISTICS						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking Lot	X	1.9 fc	3.3 fc	0.2 fc	16.5:1	9.5:1
Overall Site	X	0.9 fc	3.3 fc	0.0 fc	N/A	N/A

- LIGHTING NOTES:**
1. TIME CONTROLS: ALL SITE LIGHTING IS CONTROLLED AND MONITORED BY AN ENERGY MANAGEMENT SYSTEM CALLED VENSTAR WHICH IS CONTROLLED AT AUTOZONE CORPORATE OFFICES. ALL SITE LIGHTING IS PROGRAMMED TO AUTOMATICALLY TURN ON AT DUSK AND REDUCED BY 50 PERCENT AFTER THE CLOSE OF BUSINESS TO THE MINIMUM LEVEL NEEDED UNDER THE IESNA TO ENSURE SAFETY AND SECURITY.
 2. ALL FIXTURES ARE FULL CUTOFF DISTRIBUTION AND MOUNTED @ 0° DOWN POSITION.
 3. NO FLOODLIGHTS ARE PROPOSED.

Owner / Developer:
AutoZone Inc.
 123 South Front Street, 3rd Floor
 Memphis, Tennessee 38103
 Tel: (901) 495-8709 Fax: (901) 495-8969
 For Bidding & Contractor Information Contact:
 F.W. Dodge Plan Room Tel: (615) 884-1017

Prepared for: **AutoZone Store Development**
 Store No.: 3666 US HIGHWAY 441
 APOPKA, FL 32726
SITE PHOTOMETRIC PLAN



SCALE: 1" = 20'

REVISIONS
1.
2.
3.
4.
5.
6.
7.
ARCHITECT:
DRAFTSMAN:
CHECKED BY:
DATE: 06/06/18
PROTOTYPE SIZE: 65W2-L

LP.1

ANP Lighting
Bolt Down Round Aluminum Smooth Poles

Project: _____
Quantity: _____
Customer: _____

BD3510.125 - BAA - CCS1902 - 41
BD3520.25 - CCS1301 - 51

Material
Aluminum pole bases and base plates shall be cast from 305 aluminum alloy. Bases shall be extruded 6061-T6 aluminum. Available in 3", 4" or 5" diameter. Wall thickness 0.125" or 0.188" or 0.250".

Mounting
Four anchor bolts provided are 1/2" x 10". Anchor bolts, nuts and washers are hot dipped galvanized steel. Spun aluminum bolt cover provided.

Access
All poles are provided with a hand access opening and cover. Hand hole cover is secured by two stainless steel machine screws. (Temper-proof screws provided upon request).

Grounding
All poles are provided with an aluminum grounding lug integrated to inner wall of shaft, 180 degrees to hand hole. Grounding lug is drilled and tapped to accommodate 1/4-20 stainless steel machine screw.

Pole Height
Maximum pole height is 25-feet.

Accessories
Banner arms, ladder runs, storage, flag pole holder and GFI receptacles are optional.

Finish
A polyester powder coat high quality finish is electro-statically applied and baked at 400° for exceptional durability and color retention. Products undergo an intensive five-step cleaning and pretreatment process for maximum paint adhesion. Marine grade finish provides superior salt, humidity, and UV protection. This coating withstands up to 3000 hours of continuous salt spray, comes with a 5-year warranty and is available in either a textured or glass surface.

Item Number	Qty	Height	Wall	Min. WT	Max. WT
BD3510	4	10	0.125	1.75	1.75
BD3510	4	15	0.125	2.25	2.25
BD3510	4	20	0.125	2.75	2.75
BD3510	4	25	0.125	3.25	3.25
BD3520	4	10	0.188	2.25	2.25
BD3520	4	15	0.188	2.75	2.75
BD3520	4	20	0.188	3.25	3.25
BD3520	4	25	0.188	3.75	3.75
BD3525	4	10	0.250	2.75	2.75
BD3525	4	15	0.250	3.25	3.25
BD3525	4	20	0.250	3.75	3.75
BD3525	4	25	0.250	4.25	4.25

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ANP Lighting
Bolt Down Round Aluminum Smooth Poles

Project: _____
Quantity: _____
Customer: _____

ACCESSORIES

2-PRICE CLAM-SHELLS

FINISHES

Item	Part Number	Material	Finish
1	CCS1301	Aluminum	Dark Bronze
2	CCS1302	Aluminum	Dark Bronze
3	CCS1303	Aluminum	Dark Bronze
4	CCS1304	Aluminum	Dark Bronze
5	CCS1305	Aluminum	Dark Bronze
6	CCS1306	Aluminum	Dark Bronze
7	CCS1307	Aluminum	Dark Bronze
8	CCS1308	Aluminum	Dark Bronze
9	CCS1309	Aluminum	Dark Bronze
10	CCS1310	Aluminum	Dark Bronze
11	CCS1311	Aluminum	Dark Bronze
12	CCS1312	Aluminum	Dark Bronze
13	CCS1313	Aluminum	Dark Bronze
14	CCS1314	Aluminum	Dark Bronze
15	CCS1315	Aluminum	Dark Bronze
16	CCS1316	Aluminum	Dark Bronze
17	CCS1317	Aluminum	Dark Bronze
18	CCS1318	Aluminum	Dark Bronze
19	CCS1319	Aluminum	Dark Bronze
20	CCS1320	Aluminum	Dark Bronze

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ANP Lighting
Specifications BVF2401

Project: _____
Quantity: _____
Customer: _____

BVF2401 - LED
Dark Sky Friendly

Weight: 2.0 lbs
EPA: 0.04
SKU: "See table below"

BVF2401 - P078LD4 - N - T3 - 40K - PC - PA1613 - 72

Light Source & HATINGS

ACCESSORIES

MOUNTING SOURCE

OPTICS

COLOR TEMPERATURE (CCT)

BUS RATING TABLE

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ANP Lighting
Specifications PA161

Project: _____
Quantity: _____
Customer: _____

Weight: 7.0 lbs
EPA: 0.04

PA161 - POST ARM
Extruded aluminum post arm for pendant fixtures.

PA161 - 3 - 4 - N - 3 - S - 72

POST ARM ORIENTATION

CENTER MOUNT OPTIONS

FINISHES

NUMBER OF ARMS

POLE DIAMETER

POLE STYLE

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ANP Lighting
D-Series Size 1 LED Wall Luminaire

Project: _____
Quantity: _____
Customer: _____

Weight: 12 lbs
EPA: 0.04

D-Series Luminaire

Specifications

Back Box (BSW, ELCW)

Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance. With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K TSM VMC/LT DOSTXID

Series	Accessories	Material	Finish	Mounting	Color Options	Optics	Dimming	Temp. Control
DSXW1	1000	Aluminum	Dark Bronze	Surface Mount	40K	10° Beam	0-10V	None
DSXW1	2000	Aluminum	Dark Bronze	Surface Mount	40K	15° Beam	0-10V	None
DSXW1	3000	Aluminum	Dark Bronze	Surface Mount	40K	20° Beam	0-10V	None
DSXW1	4000	Aluminum	Dark Bronze	Surface Mount	40K	25° Beam	0-10V	None
DSXW1	5000	Aluminum	Dark Bronze	Surface Mount	40K	30° Beam	0-10V	None
DSXW1	6000	Aluminum	Dark Bronze	Surface Mount	40K	35° Beam	0-10V	None
DSXW1	7000	Aluminum	Dark Bronze	Surface Mount	40K	40° Beam	0-10V	None
DSXW1	8000	Aluminum	Dark Bronze	Surface Mount	40K	45° Beam	0-10V	None
DSXW1	9000	Aluminum	Dark Bronze	Surface Mount	40K	50° Beam	0-10V	None
DSXW1	10000	Aluminum	Dark Bronze	Surface Mount	40K	55° Beam	0-10V	None
DSXW1	11000	Aluminum	Dark Bronze	Surface Mount	40K	60° Beam	0-10V	None
DSXW1	12000	Aluminum	Dark Bronze	Surface Mount	40K	65° Beam	0-10V	None
DSXW1	13000	Aluminum	Dark Bronze	Surface Mount	40K	70° Beam	0-10V	None
DSXW1	14000	Aluminum	Dark Bronze	Surface Mount	40K	75° Beam	0-10V	None
DSXW1	15000	Aluminum	Dark Bronze	Surface Mount	40K	80° Beam	0-10V	None
DSXW1	16000	Aluminum	Dark Bronze	Surface Mount	40K	85° Beam	0-10V	None
DSXW1	17000	Aluminum	Dark Bronze	Surface Mount	40K	90° Beam	0-10V	None
DSXW1	18000	Aluminum	Dark Bronze	Surface Mount	40K	95° Beam	0-10V	None
DSXW1	19000	Aluminum	Dark Bronze	Surface Mount	40K	100° Beam	0-10V	None
DSXW1	20000	Aluminum	Dark Bronze	Surface Mount	40K	105° Beam	0-10V	None
DSXW1	21000	Aluminum	Dark Bronze	Surface Mount	40K	110° Beam	0-10V	None
DSXW1	22000	Aluminum	Dark Bronze	Surface Mount	40K	115° Beam	0-10V	None
DSXW1	23000	Aluminum	Dark Bronze	Surface Mount	40K	120° Beam	0-10V	None
DSXW1	24000	Aluminum	Dark Bronze	Surface Mount	40K	125° Beam	0-10V	None
DSXW1	25000	Aluminum	Dark Bronze	Surface Mount	40K	130° Beam	0-10V	None
DSXW1	26000	Aluminum	Dark Bronze	Surface Mount	40K	135° Beam	0-10V	None
DSXW1	27000	Aluminum	Dark Bronze	Surface Mount	40K	140° Beam	0-10V	None
DSXW1	28000	Aluminum	Dark Bronze	Surface Mount	40K	145° Beam	0-10V	None
DSXW1	29000	Aluminum	Dark Bronze	Surface Mount	40K	150° Beam	0-10V	None
DSXW1	30000	Aluminum	Dark Bronze	Surface Mount	40K	155° Beam	0-10V	None
DSXW1	31000	Aluminum	Dark Bronze	Surface Mount	40K	160° Beam	0-10V	None
DSXW1	32000	Aluminum	Dark Bronze	Surface Mount	40K	165° Beam	0-10V	None
DSXW1	33000	Aluminum	Dark Bronze	Surface Mount	40K	170° Beam	0-10V	None
DSXW1	34000	Aluminum	Dark Bronze	Surface Mount	40K	175° Beam	0-10V	None
DSXW1	35000	Aluminum	Dark Bronze	Surface Mount	40K	180° Beam	0-10V	None
DSXW1	36000	Aluminum	Dark Bronze	Surface Mount	40K	185° Beam	0-10V	None
DSXW1	37000	Aluminum	Dark Bronze	Surface Mount	40K	190° Beam	0-10V	None
DSXW1	38000	Aluminum	Dark Bronze	Surface Mount	40K	195° Beam	0-10V	None
DSXW1	39000	Aluminum	Dark Bronze	Surface Mount	40K	200° Beam	0-10V	None
DSXW1	40000	Aluminum	Dark Bronze	Surface Mount	40K	205° Beam	0-10V	None
DSXW1	41000	Aluminum	Dark Bronze	Surface Mount	40K	210° Beam	0-10V	None
DSXW1	42000	Aluminum	Dark Bronze	Surface Mount	40K	215° Beam	0-10V	None
DSXW1	43000	Aluminum	Dark Bronze	Surface Mount	40K	220° Beam	0-10V	None
DSXW1	44000	Aluminum	Dark Bronze	Surface Mount	40K	225° Beam	0-10V	None
DSXW1	45000	Aluminum	Dark Bronze	Surface Mount	40K	230° Beam	0-10V	None
DSXW1	46000	Aluminum	Dark Bronze	Surface Mount	40K	235° Beam	0-10V	None
DSXW1	47000	Aluminum	Dark Bronze	Surface Mount	40K	240° Beam	0-10V	None
DSXW1	48000	Aluminum	Dark Bronze	Surface Mount	40K	245° Beam	0-10V	None
DSXW1	49000	Aluminum	Dark Bronze	Surface Mount	40K	250° Beam	0-10V	None
DSXW1	50000	Aluminum	Dark Bronze	Surface Mount	40K	255° Beam	0-10V	None
DSXW1	51000	Aluminum	Dark Bronze	Surface Mount	40K	260° Beam	0-10V	None
DSXW1	52000	Aluminum	Dark Bronze	Surface Mount	40K	265° Beam	0-10V	None
DSXW1	53000	Aluminum	Dark Bronze	Surface Mount	40K	270° Beam	0-10V	None
DSXW1	54000	Aluminum	Dark Bronze	Surface Mount	40K	275° Beam	0-10V	None
DSXW1	55000	Aluminum	Dark Bronze	Surface Mount	40K	280° Beam	0-10V	None
DSXW1	56000	Aluminum	Dark Bronze	Surface Mount	40K	285° Beam	0-10V	None
DSXW1	57000	Aluminum	Dark Bronze	Surface Mount	40K	290° Beam	0-10V	None
DSXW1	58000	Aluminum	Dark Bronze	Surface Mount	40K	295° Beam	0-10V	None
DSXW1	59000	Aluminum	Dark Bronze	Surface Mount	40K	300° Beam	0-10V	None
DSXW1	60000	Aluminum	Dark Bronze	Surface Mount	40K	305° Beam	0-10V	None
DSXW1	61000	Aluminum	Dark Bronze	Surface Mount	40K	310° Beam	0-10V	None
DSXW1	62000	Aluminum	Dark Bronze	Surface Mount	40K	315° Beam	0-10V	None
DSXW1	63000	Aluminum	Dark Bronze	Surface Mount	40K	320° Beam	0-10V	None
DSXW1	64000	Aluminum	Dark Bronze	Surface Mount	40K	325° Beam	0-10V	None
DSXW1	65000	Aluminum	Dark Bronze	Surface Mount	40K	330° Beam	0-10V	None
DSXW1	66000	Aluminum	Dark Bronze	Surface Mount	40K	335° Beam	0-10V	None
DSXW1	67000	Aluminum	Dark Bronze	Surface Mount	40K	340° Beam	0-10V	None
DSXW1	68000	Aluminum	Dark Bronze	Surface Mount	40K	345° Beam	0-10V	None
DSXW1	69000	Aluminum	Dark Bronze	Surface Mount	40K	350° Beam	0-10V	None
DSXW1	70000	Aluminum	Dark Bronze	Surface Mount	40K	355° Beam	0-10V	None
DSXW1	71000	Aluminum	Dark Bronze	Surface Mount	40K	360° Beam	0-10V	None
DSXW1	72000	Aluminum	Dark Bronze	Surface Mount	40K	365° Beam	0-10V	None
DSXW1	73000	Aluminum	Dark Bronze	Surface Mount	40K	370° Beam	0-10V	None
DSXW1	74000	Aluminum	Dark Bronze	Surface Mount	40K	375° Beam	0-10V	None
DSXW1	75000	Aluminum	Dark Bronze	Surface Mount	40K	380° Beam	0-10V	None
DSXW1	76000	Aluminum	Dark Bronze	Surface Mount	40K	385° Beam	0-10V	None
DSXW1	77000	Aluminum	Dark Bronze	Surface Mount	40K	390° Beam	0-10V	None
DSXW1	78000	Aluminum	Dark Bronze	Surface Mount	40K	395° Beam	0-10V	None
DSXW1	79000	Aluminum	Dark Bronze	Surface Mount	40K	400° Beam	0-10V	None
DSXW1	80000	Aluminum	Dark Bronze	Surface Mount	40K	405° Beam	0-10V	None
DSXW1	81000	Aluminum	Dark Bronze	Surface Mount	40K	410° Beam	0-10V	None
DSXW1	82000	Aluminum	Dark Bronze	Surface Mount	40K	415° Beam	0-10V	None
DSXW1	83000	Aluminum	Dark Bronze	Surface Mount	40K	420° Beam	0-10V	None
DSXW1	84000	Aluminum	Dark Bronze	Surface Mount	40K	425° Beam	0-10V	None
DSXW1	85000	Aluminum	Dark Bronze	Surface Mount	40K	430° Beam	0-10V	None
DSXW1	86000	Aluminum	Dark Bronze	Surface Mount	40K	435° Beam	0-10V	None
DSXW1	87000	Aluminum	Dark Bronze	Surface Mount	40K	440° Beam	0-10V	None
DSXW1	88000	Aluminum	Dark Bronze	Surface Mount	40K	445° Beam	0-10V	None
DSXW1	89000	Aluminum	Dark Bronze	Surface Mount	40K	450° Beam	0-10V	None
DSXW1	90000	Aluminum	Dark Bronze	Surface Mount	40K	455° Beam	0-10V	None
DSXW1	91000	Aluminum	Dark Bronze	Surface Mount	40K	460° Beam	0-10V	None
DSXW1	92000	Aluminum	Dark Bronze	Surface Mount	40K	465° Beam	0-10V	None
DSXW1	93000	Aluminum	Dark Bronze	Surface Mount	40K	470° Beam	0-10V	None
DSXW1	94000	Aluminum	Dark Bronze	Surface Mount	40K	475° Beam	0-10V	None
DSXW1	95000	Aluminum	Dark Bronze	Surface Mount	40K	480° Beam	0-10V	None
DSXW1	96000	Aluminum	Dark Bronze	Surface Mount	40K	485° Beam	0-10V	None
DSXW1	97000	Aluminum	Dark Bronze	Surface Mount	40K	490° Beam	0-10V	None
DSXW1	98000	Aluminum	Dark Bronze	Surface Mount	40K	495° Beam	0-10V	None
DSXW1	99000	Aluminum	Dark Bronze	Surface Mount	40K	500° Beam	0-10V	None
DSXW1	100000	Aluminum	Dark Bronze	Surface Mount	40K	505° Beam	0-10V	None

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ANP Lighting
Specifications BVF2401

Project: _____
Quantity: _____
Customer: _____

BVF2401 - LED
Dark Sky Friendly

Weight: 2.0 lbs
EPA: 0.04
SKU: "See table below"

BVF2401 - P078LD4 - N - T3 - 40K - PC - PA1613 - 72

Light Source & HATINGS

ACCESSORIES

MOUNTING SOURCE

OPTICS

COLOR TEMPERATURE (CCT)

BUS RATING TABLE

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Prepared for: **AutoZone Store Development**
Store No.: 3666
US HIGHWAY 441
APOKA, FL 32726

PHOTOMETRIC DETAILS

SCALE: 1" = 20'

REVISIONS

Rev.	Description
1.	
2.	
3.	
4.	
5.	
6.	
7.	

ARCHITECT:
DRAFTSMAN:
CHECKED BY:
DATE: 06/06/18
PROTOTYPE SIZE: 65W2-L

LP.2

This instrument was prepared by and should be returned to:
William P. Weatherford, Jr.
Marlowe & Weatherford, P.A.
1150 Louisiana Avenue, Suite 4
Winter Park, Florida 32789
(407) 629-5008

DOC# 20140454685 B: 10801 P: 4104
09/08/2014 02:58:37 PM Page 1 of 21
Rec Fee: \$180.00
Deed Doc Tax: \$0.70
DOR Admin Fee: \$0.00
Intangible Tax: \$0.00
Mortgage Stamp: \$0.00
Martha O. Haynie, Comptroller
Orange County, FL
MB - Ret To: WOODS & WOODS PA



ACCESS & UTILITY EASEMENT AGREEMENT

THIS ACCESS & UTILITY EASEMENT AGREEMENT (the "Agreement") is made and entered into this 5th day of September, 2014, by and between **Rock RDP 1, LLC**, a Florida limited liability company ("Rock RDP 1"), whose mailing address is 145 Lincoln Avenue, Suite B, Winter Park, Florida 32789, and Calmil Investment Group LP and Kenneth L. Jureit (collectively, the "Calmil"), whose mailing address is 5905 Moray Court NW, Concord, NC 28027.

WITNESSETH:

WHEREAS, simultaneous with the execution of this Agreement, Rock RDP 1 has acquired from Calmil a fee simple ownership interest in certain real property, located in Orange County, Florida, more particularly described in **Exhibit "A"**, attached hereto and incorporated herein (the "Rock RDP 1 Property").

WHEREAS, Calmil has retained ownership of certain real property, located in Orange County, Florida, more particularly described on **Exhibit "B"** attached hereto and by this reference incorporated herein (the "Calmil Property") which Calmil Property is adjacent to the Rock RDP 1 Property; and

WHEREAS, Calmil is conveying the Rock RDP 1 Property to Rock RDP 1 on the condition that Rock RDP 1 grant to Calmil to the easements granted in this Agreement; and

WHEREAS, Calmil desires an easement over and across a portion of the Rock RDP 1 Property to the benefit of the Calmil Property, for the purpose of a non-exclusive easement for vehicular and pedestrian access, ingress, egress but not parking, subject to the terms and provisions hereinafter set forth; and

WHEREAS, Calmil desires an easement over and across a portion of the Rock RDP 1 Property the benefit of Calmil Property, for the purpose of installing and maintaining utility lines subject to the terms and provisions hereinafter set forth.

NOW THEREFORE, in consideration of the premises hereof and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Rock RDP 1 and Calmil hereby agree as follows:

1. **Grant of Mutual Access, Ingress and Egress Easements.**
 - a. Rock RDP 1 hereby grants and conveys to Calmil, for the use and

benefit of Calmil and its successors, assigns, purchasers, tenants, employees, agents, invitees and licensees and guests, a non-exclusive easement across any driveways, roads, access ways, sidewalks, walkways, exits and entrances which may, from time to time, be located on the Rock RDP 1 Property solely for purposes of vehicular and pedestrian ingress and egress to and from the Calmil Property to Lake Doe Boulevard, but not for parking, as generally depicted on Exhibit E, attached hereto. The depiction of particular driveways on Exhibit "E" shall not be construed as an obligation to establish or maintain those particular driveways.

b. Calmil hereby grants and conveys to Rock RDP 1, for the use and benefit of Rock RDP 1 and its successors, assigns, purchasers, tenants, employees, agents, invitees and licensees and guests, a non-exclusive easement across any driveways, roads, access ways, sidewalks, walkways, exits and entrances which may, from time to time, be located on the Calmil Property solely for purposes of vehicular and pedestrian ingress and egress to and from the Rock RDP 1 Property to United States Highway 441, but not for parking, as generally depicted on Exhibit E, attached hereto. The depiction of particular driveways on Exhibit "E" shall not be construed as an obligation to establish or maintain those particular driveways.

c. Rock RDP 1 shall, at its sole cost and expense, design and construct such driveways, access ways, exits and entrances as may be reasonably necessary to provide a point of access from the Rock RDP 1 Property to Calmil Property (the "Rock RDP 1 Driveway Construction Obligation"). The driveways, access ways, exits and entrances designed and constructed by Rock RDP 1 on the Rock RDP 1 Property shall comply with the requirements of the City of Apopka. Rock RDP 1 shall perform the Rock RDP 1 Driveway Construction Obligation on or before the issuance of a certificate of occupancy for any occupant of any portion of the Rock RDP 1 Property but no later than December 31, 2015.

d. Calmil or its successor shall, at its sole cost and expense, design and construct such driveways, access ways, exits and entrances as may be reasonably necessary to provide a point of access from the Calmil Property to Rock RDP 1 Property. The driveways, access ways, exits and entrances designed and constructed by Calmil on the Calmil Property shall comply with the requirements of the City of Apopka. Calmil shall complete the construction of such driveways, access ways, exits and entrances on or before the issuance of a certificate of occupancy for any occupant of any portion of the Calmil Property.

e. Notwithstanding the easements granted hereunder, Rock RDP 1 shall not permit construction vehicles seeking access to the Rock RDP 1 Property to obtain ingress and egress to the Rock RDP 1 Property across Calmil Property. Likewise, Calmil shall not permit construction vehicles seeking access to Calmil Property to obtain ingress and egress to Calmil Property across the Rock RDP 1 Property.

f. Calmil reserves the right to establish, from time to time, reasonable rules and regulations for the use of the driveways, access ways, sidewalks, walkways, exits and entrances of the Calmil Property. Likewise, Rock RDP 1 reserves the right to establish, from time to time, reasonable rules and regulations for the use of the driveways, access ways, sidewalks, walkways, exits and entrances of the Rock RDP 1 Property.

g. Calmil shall not establish or erect signs directing traffic from Calmil Property to the driveways, access ways, sidewalks, walkways, exits and entrances of the

Rock RDP 11 Property. Likewise, Rock RDP 1 shall not establish or erect signs directing traffic from the Rock RDP 1 Property to the driveways, access ways, sidewalks, walkways, exits and entrances of Calmil Property.

h. Each party reserves the right, subject to the approval of the other party, which approval shall not be unreasonably withheld, to record an instrument containing the legal description and a sketch of such legal description of the driveways, access ways, sidewalks, walkways, exits and entrances of its Property. Upon the recordation of such instrument the rights of ingress and egress described in this instrument shall apply solely to the real property included in such description.

2. **Grant of Utility Easement.** Rock RDP 1 hereby grants and conveys to Calmil, for the use and benefit of Calmil Property, the owners of any portion thereof or interest therein, their successors and assigns, a non-exclusive easement for utility purposes over, under and across the property legally described in **Exhibit "C"** and as depicted in **Exhibit "C-1"**, both attached hereto and incorporated herein a. ("Utility Easement Area"). Utility installations within the Utility Easement Area may, without limitation, include water (potable, fire protection and irrigation water), telephone, cable, gas and electric power. Calmil may from time to time, at its sole cost and expense, install, maintain and repair, within the Utility Easement Area underground utility lines to provide services to Calmil Property.

Prior to beginning any Utility installations in the Utility Easement Area, Calmil will provide written notice to Rock RDP 1 not later than twenty (20) days from the date Calmil anticipates commencing its' work.

Notwithstanding the foregoing, Calmil hereby agrees that during the any installations within the Utility Easement Area and at all times thereafter for the purposes of maintenance or repair, it shall make every reasonable effort not to impede the driveways, access ways, sidewalks, walkways, exits and entrances of the Rock RDP 1 Property or in any way restrict the access to and from the Rock RDP 1 Property of any automobile, pedestrian, employee or agent of Rock RDP 1.

3. **Grant of Sewer Line Easement.** Rock RDP 1 hereby grants and conveys to Calmil, for the use and benefit of Calmil Property, the owners of any portion thereof or interest therein, their successors and assigns, a non-exclusive easement for the for the conduct and passage of waste water through certain sanitary sewer mains, pipes, conduits, valves, meters and related appurtenances located within the property legally described in **Exhibit "D"** and as depicted in **Exhibit "D-1"**, both attached hereto and incorporated herein ("Sewer Line Easement Area") Rock RDP 1 shall, at its sole cost and expense, design and construct the following improvements to be located in the Sewer Line Easement Area:

Construction of a 4" PVC sanitary sewer force main from the common Calmil/Rock RDP 1 property line, westerly across the Rock RDP 1 parcel, with connection to the City's force main in Lake Doe Boulevard

which improvements shall comply with the requirements of the City of Apopka (the "Sewer Line Construction Obligation"). Rock RDP 1 shall perform the Sewer Line Construction Obligation on or before the issuance of a certificate of occupancy for any occupant of any

portion of the Rock RDP 1 Property but no later than December 31, 2015. Calmil may, from time to time and at its sole cost and expense, connect to the lines and facilities located within the Sewer Line Easement Area to provide services to Calmil Property.

Notwithstanding the foregoing, Calmil hereby agrees that during the construction of the Sewer Line Construction Obligation improvements and at all times thereafter for the purposes of maintenance or repair, it shall make every reasonable effort to not impede the driveways, access ways, sidewalks, walkways, exits and entrances of the Rock RDP 1 Property or in any way restrict the access of any automobile, pedestrian, employee or agent of Rock RDP 1 to the Rock RDP 1 Property.

4. **Duration.** The easements hereby created, granted and conveyed shall remain in effect in perpetuity, subject to the right of Rock RDP 1 to relocate the Utility Easement Area and Sewer Line Easement Area as more particularly set forth in Section 5.

5. **Relocation of the Utility Easement Area and Sewer Line Easement.** Rock RDP 1 reserves the right to relocate all or any part of Utility Easement Area or Sewer Line Easement Area, and the utility lines and facilities installed therein, lying within the Rock RDP 1 Property to one or more other easement areas constituting a part of the Rock RDP 1 Property, provided that Rock RDP 1 pays all costs of relocation, at its sole cost and expense, the reasonable needs of Calmil continue to be met in a reasonable manner during relocation, and Rock RDP 1 executes and delivers to Calmil an amendment to this Agreement, or a separate instrument in form and content acceptable to Rock RDP 1 and Calmil, in which Calmil is granted an easement in and to the new easement area(s), and in which the easement granted herein affecting the relocated easement area(s) will be terminated. Rock RDP 1 shall provide not less than sixty (60) days written notice to Calmil that Rock RDP 1 intends to relocate such easement areas and shall provide plans and specification providing reasonable information about its plans for such relocation (hereafter the "Relocation Notice"). Provided that Calmil does not object within twenty (20) days from the date of the Relocation Notice, then Rock RDP 1 may proceed with such relocation in accordance with such plans. Notwithstanding the foregoing, without the express written consent of Calmil, Rock RDP 1 may not commence its' activities to relocate the Utility Easement Area or Sewer Line Easement area until the sixtieth (60th) day from the date of the Relocation Notice.

6. **Maintenance of Utility Easement Area and Sewer Line Easement Area.** Calmil, at its sole cost and expense, shall be responsible for the repair and maintenance of the utility lines and facilities located within the Utility Easement Area and Sewer Line Easement Area which lines and facilities exclusively serve the Calmil Property. Rock RDP 1, at its cost and expense, shall be responsible for the repair and maintenance of the utility lines and facilities located within the Utility Easement Area and Sewer Line Easement Area which lines and facilities serve the Rock RDP 1 Property.

7. **Remedies.** If Rock RDP 1 fails to maintain and repair the utility lines and facilities serving both the Rock RDP 1 Property and the Calmil Property and/or driveways, roads, access ways, sidewalks, walkways, exits and entrances serving the Calmil Property so that they shall at all times be in good and operable condition and in compliance with all applicable governmental codes and regulations or, if Rock RDP 1 shall fail to perform the Rock RDP 1 Driveway Construction Obligation or the Sewer Line Construction Obligation within the time specified herein, Calmil shall have the right after twenty (20) days written

notice to Rock RDP 1 or, in case of an emergency, at any time, to undertake reasonable construction, repairs and maintenance and Rock RDP 1 shall reimburse Calmil for all reasonable costs and expenses related to Calmil's construction, maintenance and repair activities within thirty (30) days of receipt of an invoice for such costs. In the event Rock RDP 1 does not pay when due Calmil's costs and expenses, Calmil shall be entitled to execute and record among the Public Records of Orange County, Florida a claim of lien encumbering Rock RDP 1 Property. The claim of lien shall be in an amount equal to the reimbursement due to Calmil, plus interest at the highest rate allowed by law from the date said reimbursement was due, together with all costs and reasonable attorneys' fees (at all trial and appellate levels) incurred in connection therewith. Calmil shall be entitled to pursue any or all available remedies to enforce the lien and collect the amounts due, including without limitation foreclosure of the lien or an action to collect the indebtedness.

If Calmil fails to maintain and repair any driveways, roads, access ways, sidewalks, walkways, exits and entrances serving the Rock RDP 1 Property so that they shall at all times be in good and operable condition and in compliance with all applicable governmental codes and regulations or, if Calmil shall fail to perform its' obligations related to the Utility Easement Area within the time specified herein, Rock RDP 1 shall have the right after twenty (20) days written notice to Calmil or, in case of an emergency, at any time, to undertake reasonable construction, repairs and maintenance and Calmil shall reimburse Rock RDP 1 for all reasonable costs and expenses related to Rock RDP 1's construction, maintenance and repair activities within thirty (30) days of receipt of an invoice for such costs. In the event Calmil does not pay when due any Rock RDP 1's costs and expenses, Rock RDP 1 shall be entitled to execute and record among the Public Records of Orange County, Florida a claim of lien encumbering the Calmil Property. The claim of lien shall be in an amount equal to the reimbursement due to Rock RDP 1, plus interest at the highest rate allowed by law from the date said reimbursement was due, together with all costs and reasonable attorneys' fees (at all trial and appellate levels) incurred in connection therewith. Rock RDP 1 shall be entitled to pursue any or all available remedies to enforce the lien and collect the amounts due, including without limitation foreclosure of the lien or an action to collect the indebtedness.

8. **Estoppel Certificates.** In the event that Calmil or Rock RDP 1, or their respective successors or assigns, shall desire to inquire as to the status of any party's performance of or compliance of the obligations imposed in this Agreement, the inquiring party shall be entitled to demand and receive from the other party within ten (10) days prior written notice, an estoppel certificate which states whether any party hereto is in default of its obligations hereunder and whether, when, and to what extent any monies may be due to from one party to another hereunder. Any such written demand must be forwarded pursuant to the notice provision hereunder.

9. **Incidental Rights.** Except as otherwise specifically provided or limited herein, the easements, rights and obligations hereby created, granted and conveyed include all incidental rights reasonably necessary for the use and enjoyment of the easements granted herein and for their intended purposes.

10. **No Common Ownership.** Notwithstanding anything herein set forth, the parties hereto expressly negate any construction of this Agreement which implies the joint or common ownership of any part of Calmil Property or the Rock RDP 1 Property, or which implies the creation, establishment or existence of any partnership, joint venture or other such scheme of common ownership or common operation of the respective properties.

11. **Indemnification.** Rock RDP 1, its successors and assigns, shall indemnify and hold Calmil, its successors and assigns, harmless from and against any and all loss, cause, damage, expense, injury, claim and liability (including reasonable attorney's fees and paraprofessional fees at any pre-trial, trial or appellate proceedings) which Calmil, its successors and assigns, may suffer or incur as the result of, arising out of, or attributable to, use of the Calmil Property by Rock RDP 1, its successors and assigns, or the exercise of any rights granted to Rock RDP 1 herein, except to the extent resulting from the negligent, intentional or willful acts or omissions of the party being indemnified, its contractors, employees, agents or others acting by, through, under or on behalf of such party. Calmil, its successors and assigns, shall indemnify and hold Rock RDP 1, its successors and assigns, harmless from and against any and all loss, cause, damage, expense, injury, claim and liability (including reasonable attorney's fees and paraprofessional fees at any pre-trial, trial or appellate proceedings) which Rock RDP 1, its successors and assigns, may suffer or incur as the result of, or arising out of, or attributable to, use of the Rock RDP 1 Property by Calmil, its successors and assigns, or the exercise of any rights granted to Calmil herein, except to the extent resulting from the negligent, intentional or willful acts or omissions of the party being indemnified, its contractors, employees, agents or others acting by, through, under or on behalf of such party.

12. **No Merger.** If any party shall become the fee owner of any part of the subject real property who is also the holder of a beneficial easement interest created hereunder, said fee interest and beneficial interest shall not merge into the fee estate.

13. **Attorney's Fees.** In the event of a dispute arising under this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs, including attorneys' fees and costs incurred in litigating entitlement to attorneys' fees and costs, as well as in determining or quantifying the amount of recoverable attorneys' fees and costs. The reasonable costs to which the prevailing party is entitled shall include costs that are taxable under any applicable statute, rule or guideline, as well as non-taxable costs, including, but not limited to, costs of investigation, copying costs, electronic discovery costs, telephone charges, mailing and delivery charges, information technology support charges, consultant and expert witness fees, travel expenses, court reporter fees, and mediator fees, regardless of whether such costs are otherwise taxable. The party prevailing in said legal proceedings shall be entitled to recover from the party not prevailing in said legal proceedings reasonable attorneys' fees and court costs incurred incidental thereto, including, without limitation, fees and costs incurred in appellate proceedings and in bankruptcy.

14. **Applicable Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Florida, exclusive of any conflict of laws provisions thereof that would apply the laws of another jurisdiction. Calmil and Rock RDP 1 hereby submit to the jurisdiction of, and agree that venue for actions hereunder shall be, in the Circuit Court of the State of Florida sitting in Orange County, Florida, and Calmil and Rock RDP 1 each hereby waive any objection to venue in such courts and any objection to any action or proceeding on the basis of forum non-conveniens.

15. **Entire Agreement.** This Agreement contains the entire agreement between Rock RDP 1 and Calmil with respect to the subject matter contained herein, and no representations, inducements, promises or agreements, oral or otherwise, not embodied herein shall be binding upon the owners hereto.

16. **Notices.** Any notice required or permitted to be given hereunder shall be in writing and shall be (i) personally delivered, (ii) transmitted by postage pre-paid registered mail, or (iii) transmitted by a recognized overnight courier service to Calmil and Rock RDP 1, their successor and/or assigns, to the address used by the Orange County Tax Collector, or any successor thereto, for the delivery of invoices for the payment of ad valorem property taxes. Any notice required or given hereunder shall only be deemed as having been received (i) upon actual receipt if delivered by hand, (ii) the day following deposit thereof if sent via nationally recognized overnight courier service for next day delivery or (iii) upon receipt or refusal if sent by certified mail, return receipt requested or upon refusal to accept delivery from any overnight courier. Either party may, from time to time, give notice to the other party of some other address to which notices or other communications to such party shall be sent, in which event, notices or other communications to such party shall be sent to such address. If any notice or other communication described in this Agreement is sent by either party hereto to the other and such notice or other communication was not sent in accordance with the foregoing terms of this Section but was, in fact, actually received by the other party, then such notice or other communication shall be deemed to have been duly given by the sending party and received by the recipient party effective as of such date of actual receipt. If any notice is tendered and is refused by the intended recipient, such notice shall nonetheless be considered to have been given and shall be effective as of the date provided herein.

17. **Force Majeure.** Except with respect to any failure to pay any sum due hereunder as a result of bankruptcy, insolvency or refusal or inability to pay, if either party shall be delayed or hindered in whole or in part, or prevented from, the performance of any non-monetary covenant or obligation hereunder as a result of acts of God, fire or other casualty, earthquake, hurricane, flood, epidemic, landslide, enemy act, acts of war, acts of terrorism or bioterrorism, riot, intervention by civil or military authorities of government, insurrection or other civil commotion, general unavailability of certain materials, strikes, boycotts, lockouts, labor disputes or work stoppage beyond the control of either party hereto, then the performance of such covenant or obligation, shall be excused for the period of such delay, hindrance or prevention and the period of the performance of such covenant or obligation shall be extended by the number of days equivalent to the number of days of such delay, hindrance or prevention. The delayed or hindered party shall promptly notify the other party of any force majeure event affecting the delayed or hindered party's performance under this Agreement.

18. **Severability.** The invalidity or unenforceability of any provision or portion of this Agreement will not affect the validity of the remainder of this Agreement. If any provision of this Agreement is determined to be invalid or unenforceable, Calmil and Rock RDP 1 will negotiate in good faith to agree upon substitute provisions to carry out the purpose and intent of the invalid or unenforceable provision.

19. **Miscellaneous.** With or without specific reference thereto, the conveyance of an interest in all or any portion of either Calmil Property or the Rock RDP 1 Property shall be subject to the benefits and burdens of the easements hereby created, granted and conveyed to the same extent as if all the terms and conditions of this Agreement were set forth in full in such conveyance. The easements, covenants, agreements, obligations and conditions contained herein shall not be personal, but shall run with the land and shall be binding upon and inure to the benefit of the owners of all portions of Calmil Property and the Rock RDP 1 Property, the successors and assigns of said owners, and the tenants, agents, licensees, guests and invitees of each of them. The caption included herein are for reference only and should not be used in construing any of the terms hereof.

Signed, sealed and delivered
in the presence of:

CALMIL

Calmil Investment Group, LP

Frank J. Chin
Print: Frank J. Chin

By: Kenneth L. Jureit
Kenneth L. Jureit, General Partner

Katelyn Bayer
Print: Katelyn Bayer

Kenneth L. Jureit
Kenneth L. Jureit as Trustee of THE KENNETH
LEE JUREIT LIVING TRUST dated February
12, 2002, as amended

Frank J. Chin
Print: Frank J. Chin

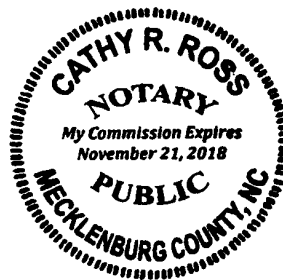
Katelyn Bayer
Print: Katelyn Bayer

STATE OF NORTH CAROLINA)
COUNTY OF Cabarrus

The foregoing instrument was acknowledged before me this 28th day of August,
2014, by Kenneth L. Jureit, as trustee and as general partner of Calmil Investment Group,
L.P., on behalf of the limited partnership, who is personally known to me or who presented
a valid driver's license as identification.

Cathy R. Ross
NOTARY PUBLIC
STATE OF NORTH CAROLINA
Print Name: Cathy R. Ross

My commission expires: 11/21/18


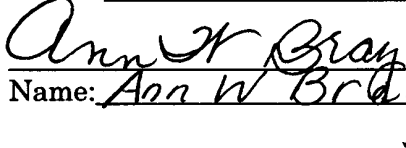


Rock RDP 1

Rock RDP 1, LLC,
A Florida limited liability company

By: ROCK CELLULAR, LLC,
A Florida limited liability company,
As it's sole Manager

By: ROCK PROPERTIES, INC.,
a Florida corporation,
as its sole Manager


Name: David R. Woods

Name: Ann W. Brady

By: 
Name: Greg I. Zuckerman
Title: President

STATE OF FLORIDA)
COUNTY OF ORANGE)

The foregoing instrument was acknowledged before me this 9th day of September, 2014, by Greg I. Zuckerman, as President of Rock RDP 1, LLC, a Florida limited liability company, on behalf of the limited liability company, who is personally known to me or who presented a valid driver's license as identification.




NOTARY PUBLIC STATE OF FLORIDA

Print Name: _____
My commission expires: _____

EXHIBIT "A"
ROCK RDP 1PROPERTY

EXHIBIT "A"

ROCK RDP 1 PROPERTY LEGAL DESCRIPTION

THE WEST 127.94 FEET OF THE S.W. 1/4 OF THE S.E. 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, LYING SOUTH OF U.S. HIGHWAY 441 AND NORTH OF THE SEABOARD COASTLINE RAILROAD RIGHT-OF-WAY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441 (163 FEET WIDE) WITH THE WEST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 5, SAID POINT BEING ON THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD (60 FEET WIDE); THENCE S00°54'42"W ALONG SAID WEST BOUNDARY AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 300.39 FEET TO THE NORTH RIGHT-OF-WAY LINE OF THE SEABOARD COASTLINE RAILROAD (120 FEET WIDE); THENCE DEPARTING SAID WEST BOUNDARY AND EAST RIGHT-OF-WAY LINE, PROCEED S78°27'33"E ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 130.18 FEET; THENCE DEPARTING SAID NORTH RIGHT-OF-WAY LINE, PROCEED N00°54'42"E, A DISTANCE OF 267.56 FEET TO A POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441; THENCE N65°08'03"W ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 140.00 FEET TO THE POINT OF BEGINNING.

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

6-02-14

EXHIBIT "B"
CALMIL PROPERTY

EXHIBIT "B"

CALMIL PROPERTY LEGAL DESCRIPTION

THE S.W. 1/4 OF THE S.E. 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH,
RANGE 28 EAST, ORANGE COUNTY, FLORIDA, LYING SOUTH OF U.S.
HIGHWAY 441 AND NORTH OF THE SEABOARD COASTLINE RAILROAD
RIGHT-OF-WAY EXCEPT THE WEST 127.94 FEET THEREOF.

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

6-02-14

EXHIBIT "C"
UTILITY EASEMENT AREA

EXHIBIT "C"
UTILITY EASEMENT

LEGAL DESCRIPTION - UTILITY EASEMENT

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441 (163 FEET WIDE) WITH THE WEST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 5, SAID POINT BEING ON THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD (60 FEET WIDE); THENCE S00°54'42"W ALONG SAID WEST BOUNDARY AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 220.39 FEET TO THE POINT OF BEGINNING; THENCE DEPARTING SAID RIGHT-OF-WAY LINE, PROCEED S78°27'33"E, A DISTANCE OF 130.18 FEET TO A POINT ON THE EAST PROPERTY LINE OF THE PARENT PARCEL; THENCE S00°54'42"W ALONG SAID EAST PROPERTY LINE, A DISTANCE OF 24.42 FEET; THENCE DEPARTING SAID EAST PROPERTY LINE, PROCEED N78°27'33"W, A DISTANCE OF 130.18 FEET TO A POINT ON THE AFOREMENTIONED EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD; THENCE N00°54'42"E ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 24.42 FEET TO THE POINT OF BEGINNING.

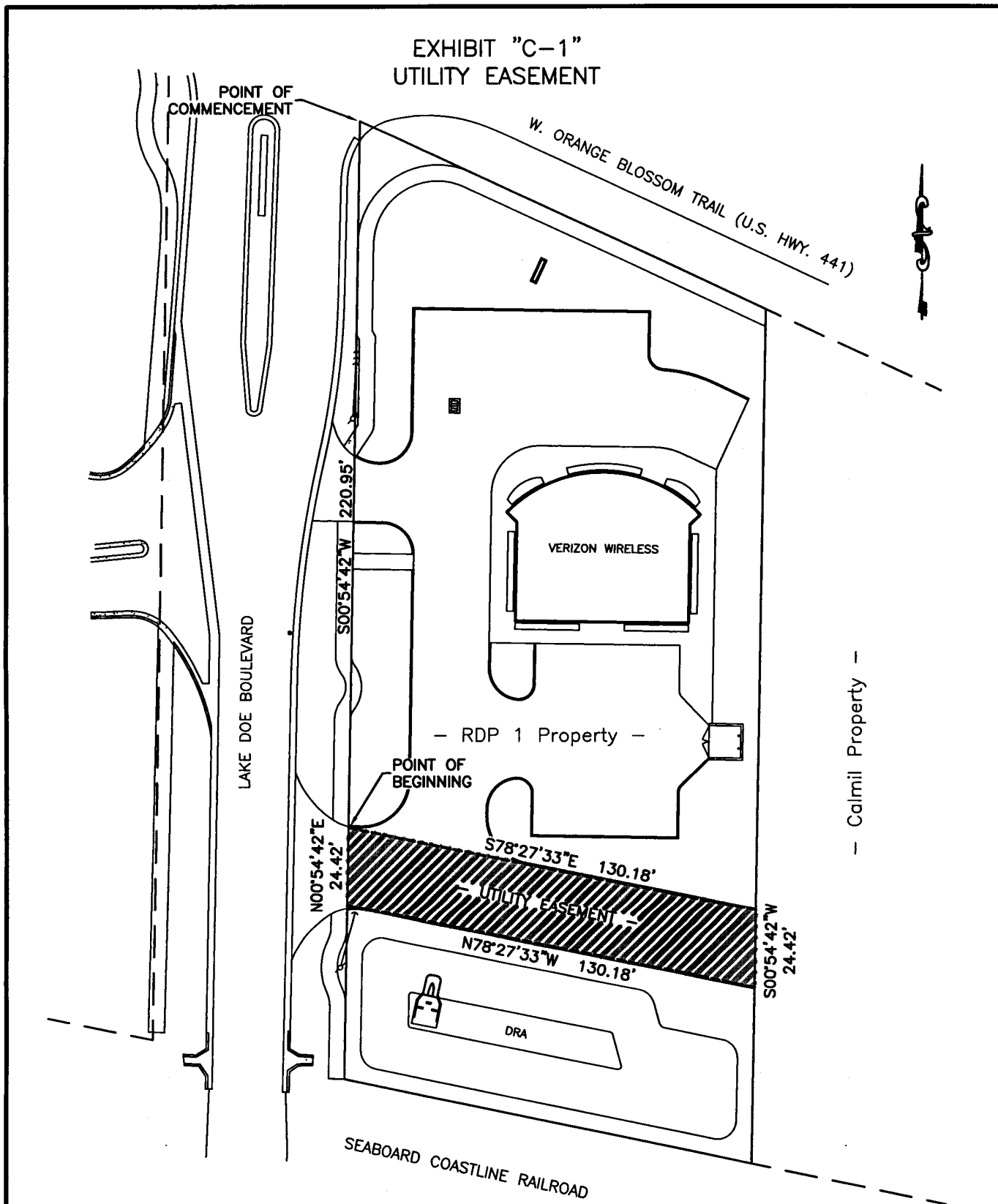
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

7-28-14



ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE
1" = 40'

DATE
7-28-14

EXHIBIT "D"

SEWER LINE EASEMENT AREA

EXHIBIT "D"
SEWER EASEMENT

LEGAL DESCRIPTION – SEWER EASEMENT

A 10 FEET WIDE EASEMENT, LYING 5 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441 (163 FEET WIDE) WITH THE WEST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 5, SAID POINT BEING ON THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD (60 FEET WIDE); THENCE S00°54'42"W ALONG SAID WEST BOUNDARY AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 219.47 FEET TO THE POINT OF BEGINNING OF SAID CENTERLINE; THENCE DEPARTING SAID RIGHT-OF-WAY LINE, PROCEED S89°59'36"E, A DISTANCE OF 127.96 FEET TO THE POINT OF TERMINUS, SAID POINT BEING ON THE EAST PROPERTY LINE OF THE PARENT PARCEL, LENGTHENING AND SHORTENING THE SIDE LINES TO INTERSECT THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD AND THE EAST PROPERTY LINE OF THE PARENT PARCEL.

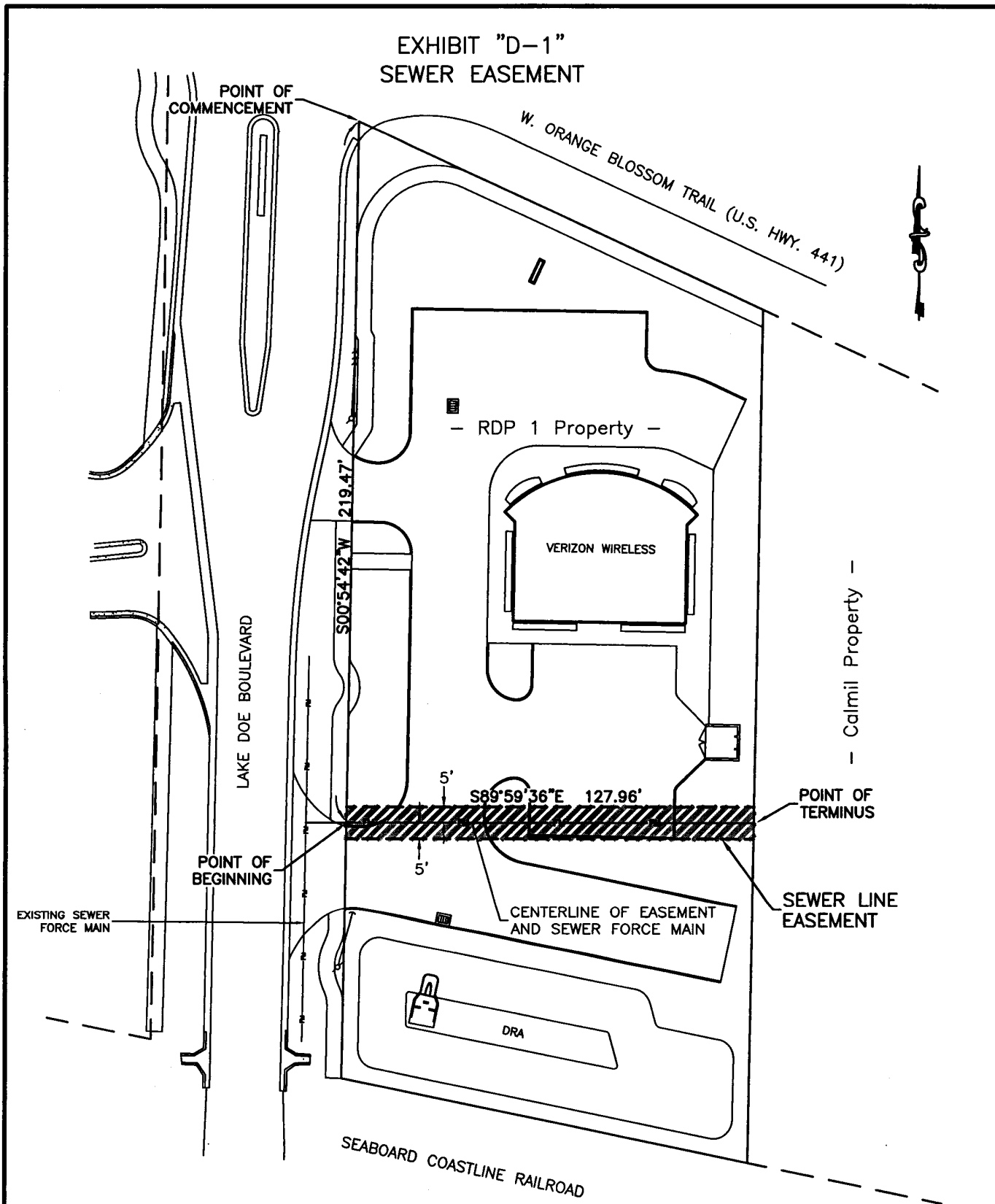
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

7-28-14



ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

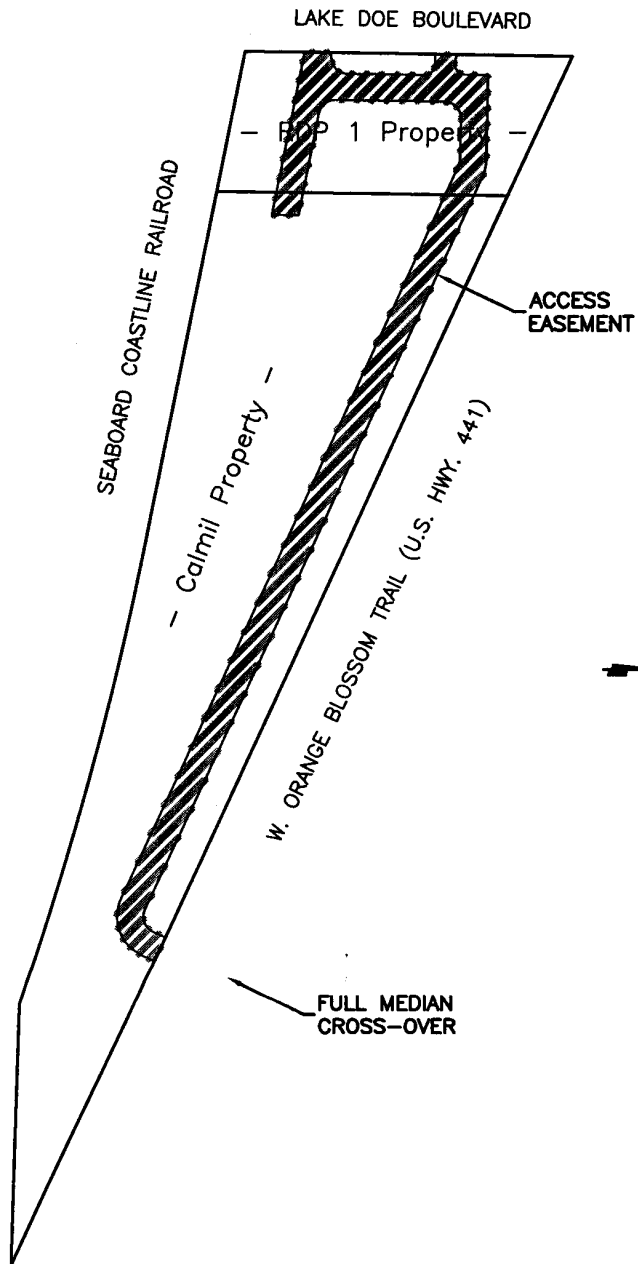
SCALE
1" = 40'

DATE
7-28-14

EXHIBIT "E"

MUTUAL ACCESS, INGRESS AND EGRESS EASEMENT AREA

EXHIBIT "E" ACCESS EASEMENT



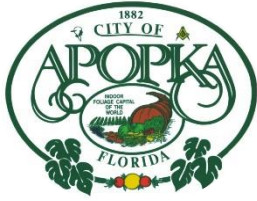
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

7-28-14



CITY OF APOPKA PLANNING COMMISSION

<input checked="" type="checkbox"/> PUBLIC HEARING	MEETING OF:	August 14, 2018
<input checked="" type="checkbox"/> SITE PLAN: Final Development Plan	FROM:	Community Development
<input type="checkbox"/> SPECIAL REPORTS	EXHIBITS:	Vicinity Map
<input type="checkbox"/> OTHER:		Zoning Map
		Aerial Map
		Final Development Plan
		Architectural Renderings
		Access & Utility Easement

SUBJECT: FINAL DEVELOPMENT PLAN – SITE PLAN – IHOP RESTAURANT

REQUEST: RECOMMEND APPROVAL OF THE FINAL DEVELOPMENT PLAN/SITE PLAN FOR THE IHOP RESTAURANT

SUMMARY:

OWNER/APPLICANT: Calmil Investment Group LP 95% Int Kenneth Lee Jureit Trust 5% Int

ENGINEER: Rogers Engineering, LLC, c/o Wallace L. Brinkman III, P.E.

LOCATION: 1120 West Orange Blossom Trail

PARCEL ID #s: 05-21-28-0000-00-025 (portion)

FUTURE LAND USE: Commercial

ZONING: C-2 (General Commercial)

EXISTING USE: Vacant

PROPOSED USE: Restaurant

TRACT SIZE: 2.25 +/- acres

BUILDING SIZE: 4,500 square feet

FLOOR AREA RATIO 0.046 (0.25 Maximum)

DISTRIBUTION

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

RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Commercial	PUD (Commercial)	Automobile Service Station and Multi-tenant Center
East (City)	Commercial	C-1 (Retail Commercial)	Retention Pond
South (County and City)	Residential	County I-4 (Heavy Industrial District) and City R-1 (Residential Single-Family District)	Railroad and Single Family Residential Subdivision (Poe Reserve)
West (City)	Commercial	C-2 (General Commercial District)	Retail Sales

PROJECT SUMMARY: This is a request to approve the IHOP Restaurant – Final Development Plan that includes a building size of 4,500 square feet. A preliminary development plan is not required for development proposing less than 10,000 sq. ft. of building floor area.

PARKING: Per Land Development Code parking requirements, 48 parking spaces are required while the applicant is proposing 70 parking spaces, four of which are reserved as a handicapped accessible spaces.

ACCESS/TRANSPORTATION: The site will have access to U.S. 441 via a full access at the northern end through cross-access easement within the Verizon Store and AutoZone parcels, and two access driveways along U.S. 441 within the IHOP site, one full-access and one right-in,right-out only.

AutoZone and IHOP are proposed on a single parcel and will share all access; accordingly, a single transportation impact analysis (TIA) was submitted to evaluate the combined impacts of AutoZone and IHOP on the surrounding roadway segments and intersections. Included in the analysis were segments of U.S 441/W Orange Blossom Trail, Errol Parkway, Lake Doe Boulevard, and Old Dixie Highway. Intersections analyzed were U.S. 441/W Orange Blossom Trail and Vick Road; U.S. 441/W Orange Blossom Trail and Errol Parkway; Old Dixie Highway and Errol Parkway; Old Dixie Highway and Vick Road; Lake Doe Boulevard site entrance; and U.S. 441/W Orange Blossom Trail site entrances.

The projects will generate 503 daily and 44 P.M. Peak Hour Net New trips. The addition of these project trips to the study roadways and intersections will not cause the Level of Service (LOS) to fall below the City’s adopted LOS standard.

Right and left turn warrant analyses were conducted for the site entrances on U.S. 441 and concluded that turn lanes are not needed to safely accommodate project traffic.

Both access driveways on U.S. 441/W Orange Blossom Trail are required for the site at the time of development of either project if they are not developed simultaneously.

EXTERIOR ELEVATIONS: The height of the proposed building is 27 feet, well below the maximum allowable height of 35 feet. Staff has found the proposed building elevations meet the intent of the City’s Development Design Standards\Guidelines.

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

BUFFER/SCREENING/LANDSCAPING/TREE PROGRAM: As part of the development plan approval, Ligustrum and Crepe Myrtles, and Indian Hawthorn shrubs line the 10-foot wide buffer adjacent to the U.S. Highway 441. Magnolias are placed in the parking landscaped islands

Arbor Assessment

Total inches on-site (before removal):	161
Total specimen inches removed	56
Total non-specimen inches removed	95
Total inches retained:	10
Total inches added:	281
Total inches post development:	291

CONDITION OF APPROVAL: All access driveways must be constructed and all associated cross access easements must be recorded across both the IHOP and AutoZone sites prior to issuance of a certificate of occupancy on either site.

PUBLIC HEARING SCHEDULE:

August 14, 2018 – Planning Commission, 5:30 pm
September 5, 2018 – City Council, 1:30 pm

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the IHOP Restaurant – Final Development Plan, subject to the Conditions of Approval and the findings of this staff report.

Planning Commission Recommendation: Find the IHOP Restaurant – Final Development Plan consistent with the Land Development Code and Comprehensive Plan, and recommend approval of Final Development Plan, subject to the Conditions of Approval and 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 or deny based on consistency with the Comprehensive Plan and Land Development Code.

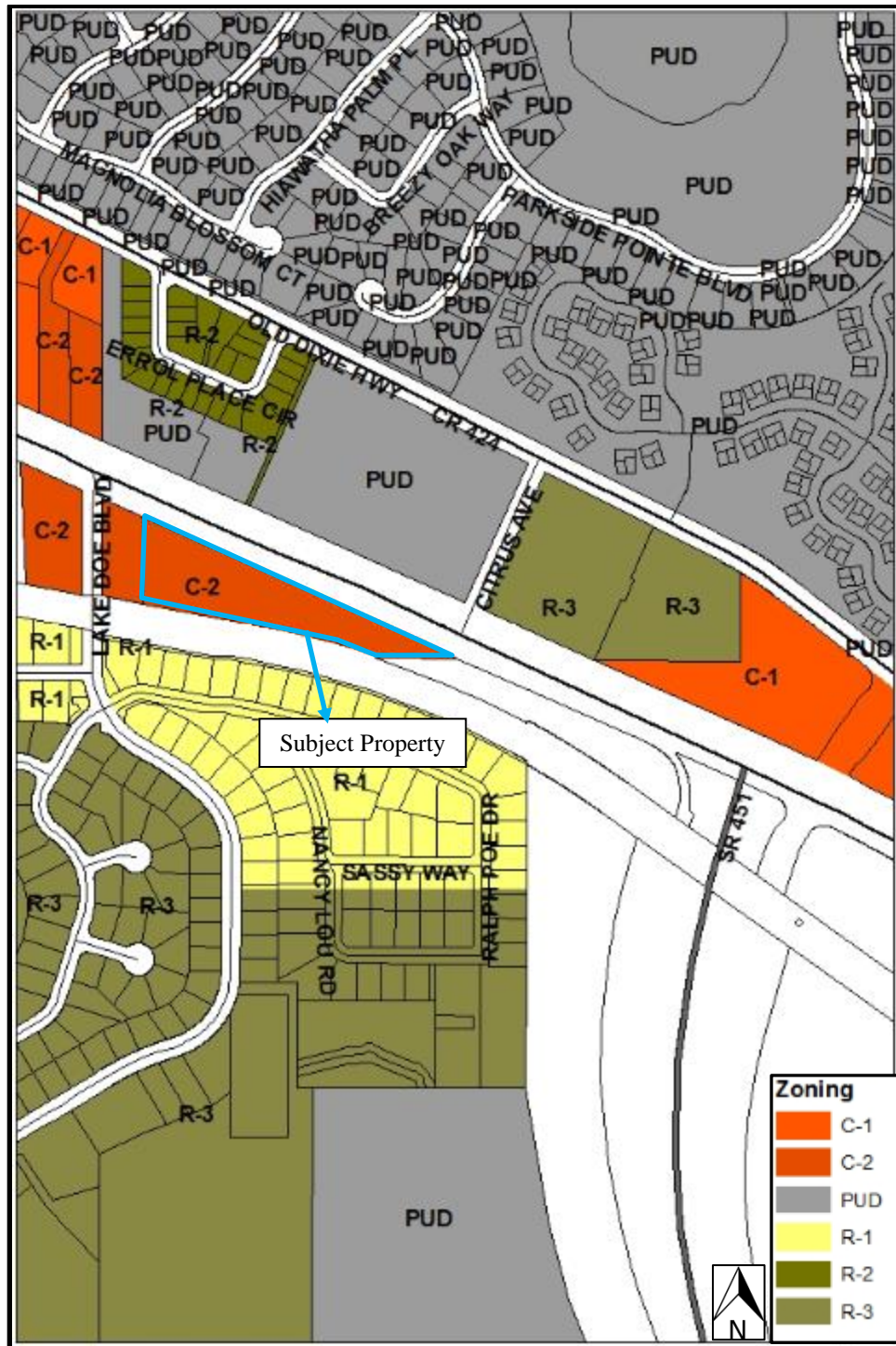
Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

Application: IHOP Restaurant Final Development Plan
Owner/Applicant: Calmil Investment Group LP 95% Int; Kenneth Lee Jureit Trust 5% Int
Engineer: Rogers Engineering, LLC, c/o Wallace L. Brinkman III, P.E.
Location: 1120 West Orange Blossom Trail
Parcel I.D. #: 05-21-28-0000-00-025
Total Site Area: 3.30 acres +/-

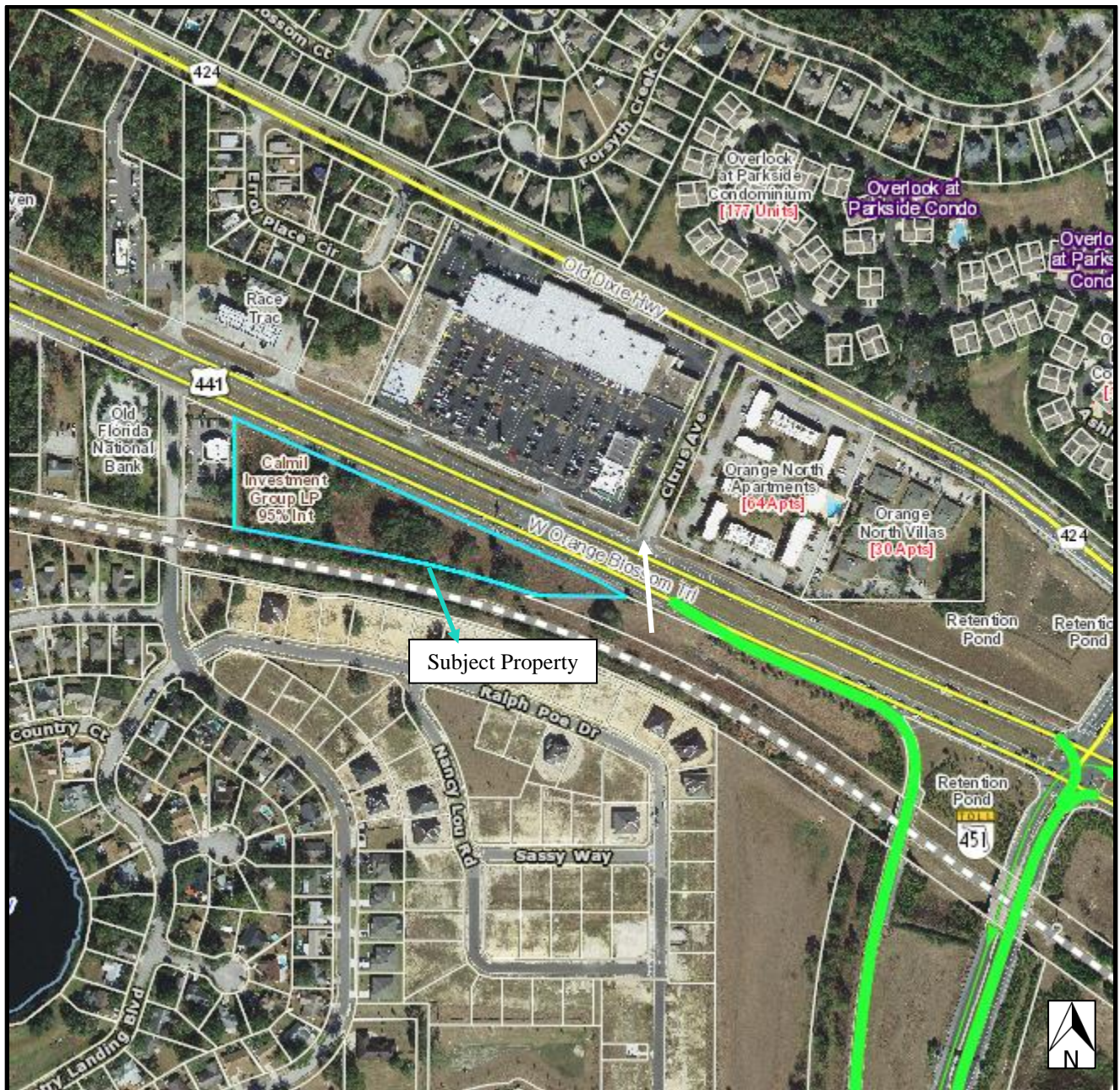
VICINITY MAP

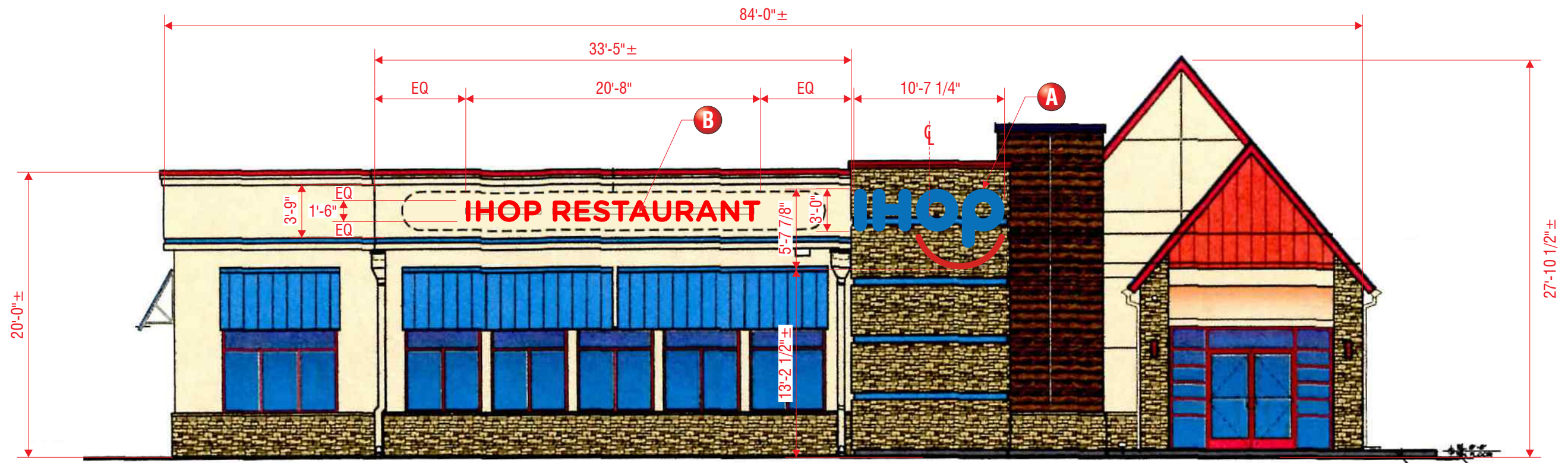


ZONING MAP



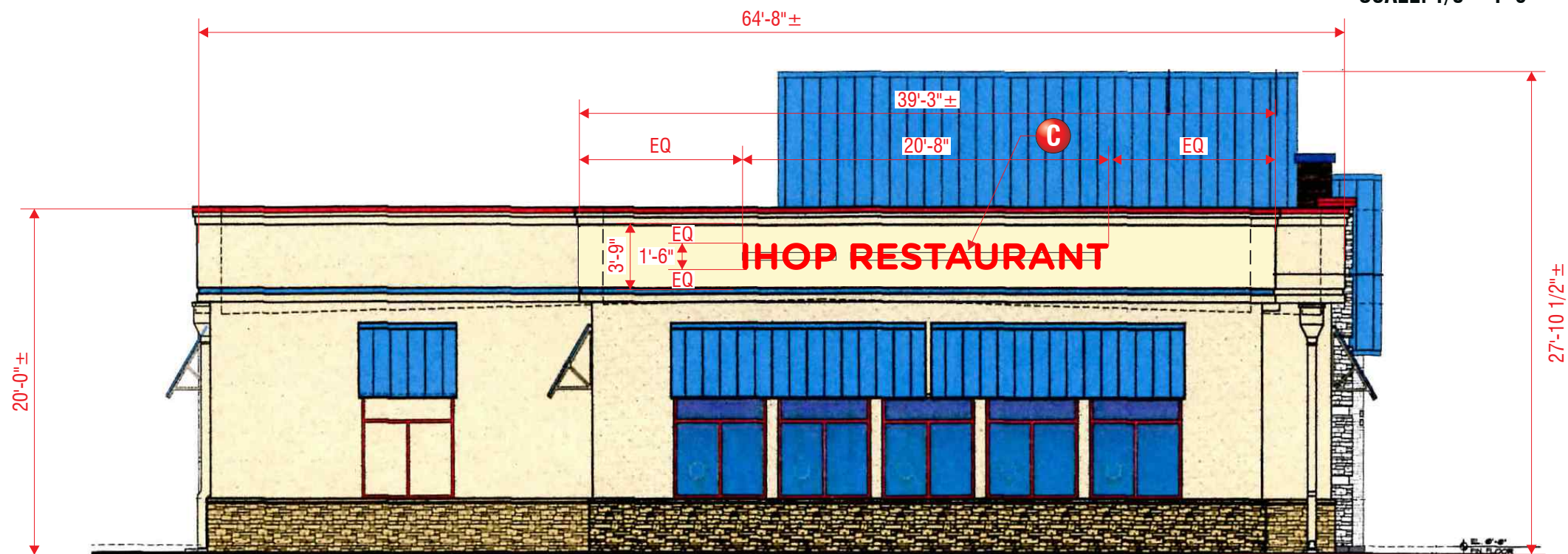
AERIAL MAP





FRONT ELEVATION

SCALE: 1/8" = 1'-0"



LEFT SIDE ELEVATION

SCALE: 1/8" = 1'-0"

FEDERAL HEATH
VISUAL COMMUNICATIONS
 www.FederalHeath.com
 2300 North Highway 121 Euless, Texas 76039
 (817) 685-9077 (800) 527-9495 Fax (817) 685-9103

Manufacturing Facilities:
 Oceanside, CA - Euless, TX - Jacksonville, TX
 Delaware, OH - Racine, WI
 Office Locations:
 Oceanside, CA - Las Vegas, NV - Laughlin, AZ
 Idaho Falls, ID - Euless, TX - Jacksonville, TX - San Antonio, TX
 Houston, TX - Corpus Christi, TX - Indianapolis, IN
 Louisville, KY - Knoxville, TN - Grafton, WI - Delaware, OH
 Willowbrook, IL - Tunica, MS - Atlanta, GA
 Tampa, FL - Daytona Beach, FL - Orlando, FL
Building Quality Signage Since 1901

Revisions: R1 2.16.17 JDR Update F to monument
 R2 6.8.17 MH Add New Site Plan
 Colors Depicted In This Rendering May Not Match Actual Finished Materials. Refer To Product Samples For Exact Color Match.
 Client Approval/Date: _____
 Landlord Approval/Date: _____

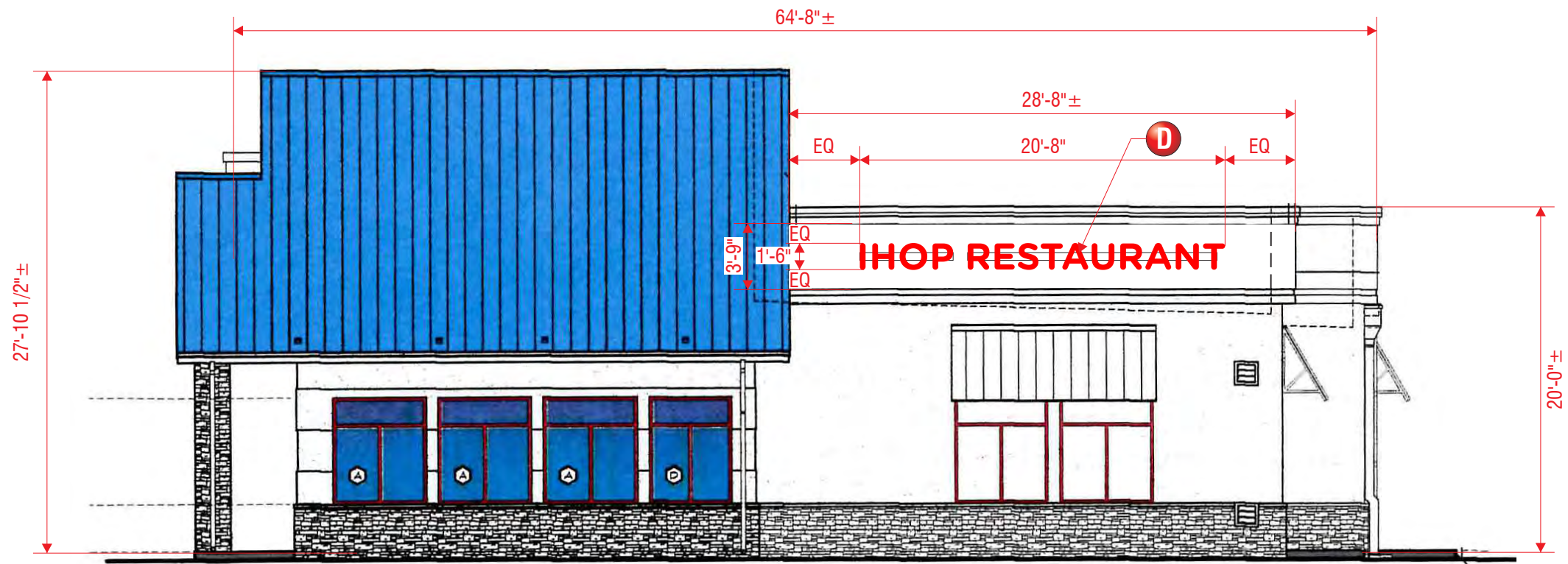
Account Rep: **Matt Smith**
 Project Manager: **Amber Rhodes**
 Drawn By: **Virgo Argones/CHC**
 UL Underwriters Laboratories Inc. ncc
 ALL ELECTRICAL SIGNS ARE TO COMPLY WITH U.L. 48 AND ARTICLE 600 OF THE N.E.C. STANDARDS, INCLUDING THE PROPER GROUNDING AND BONDING OF ALL SIGNS.

Project / Location:

 2803 RIDGEWAY
 LAKE WALES, FL 33859

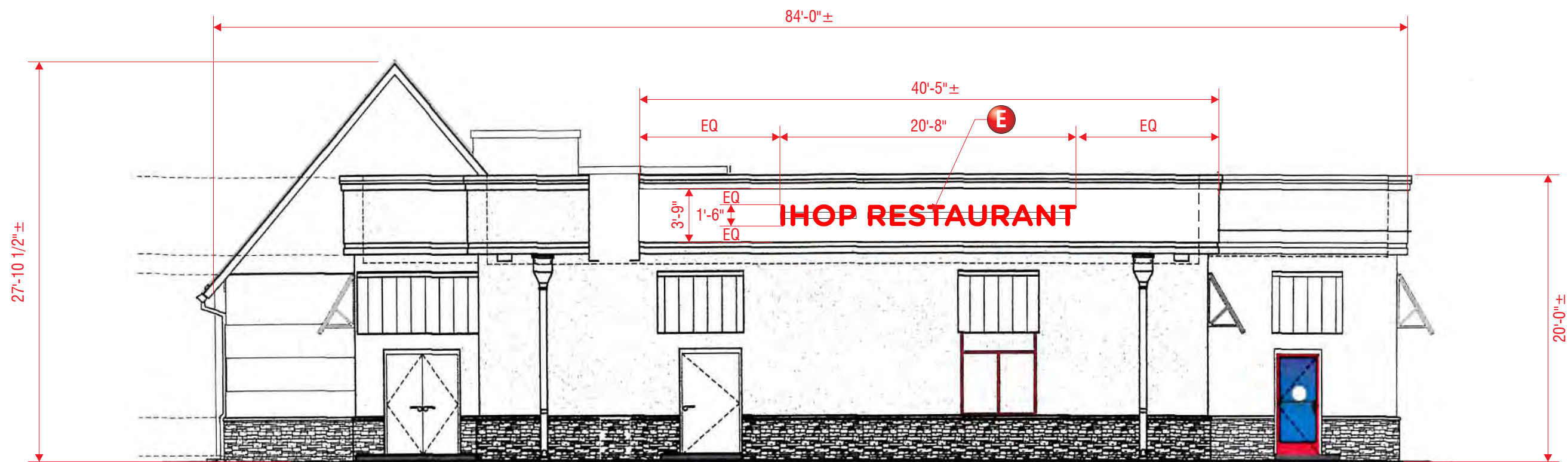
Job Number: **23-41474-10**
 Date: **FEBRUARY 09, 2017**
 Sheet Number: **2** Of **6**
 Design Number: **23-41474-10 R2**

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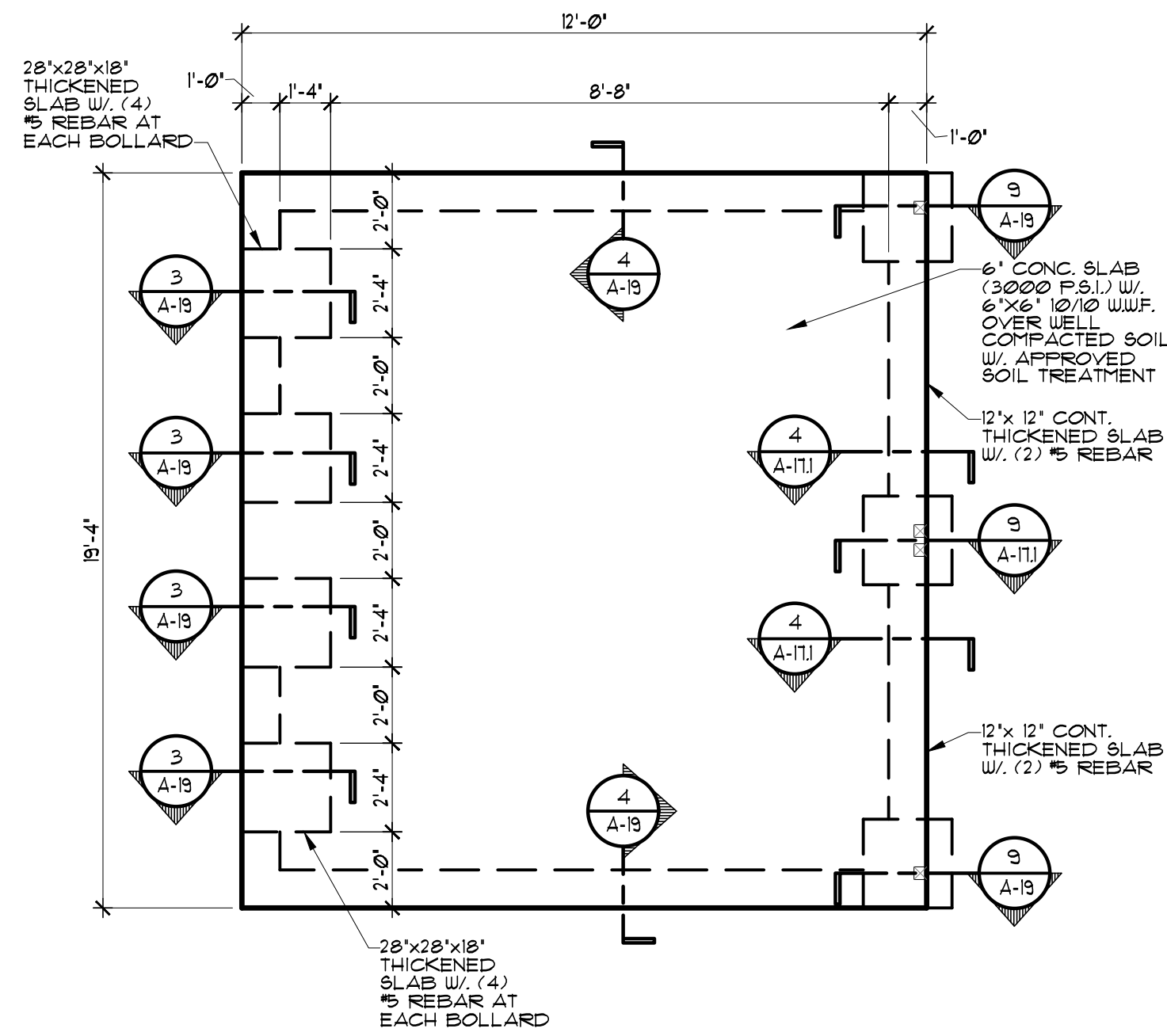
RIGHT SIDE ELEVATION

SCALE: 1/8"=1'-0"



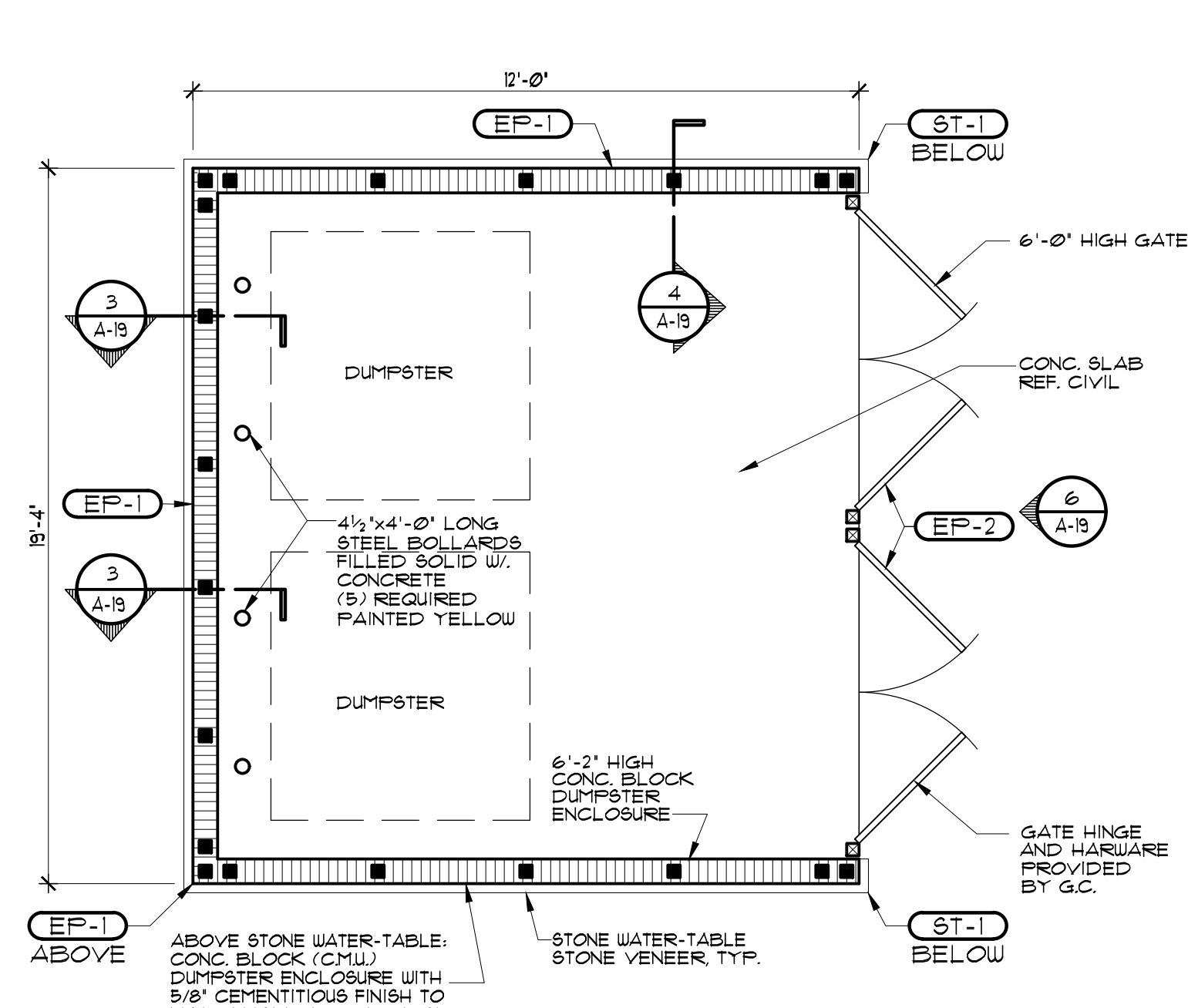
REAR ELEVATION

SCALE: 1/8"=1'-0"



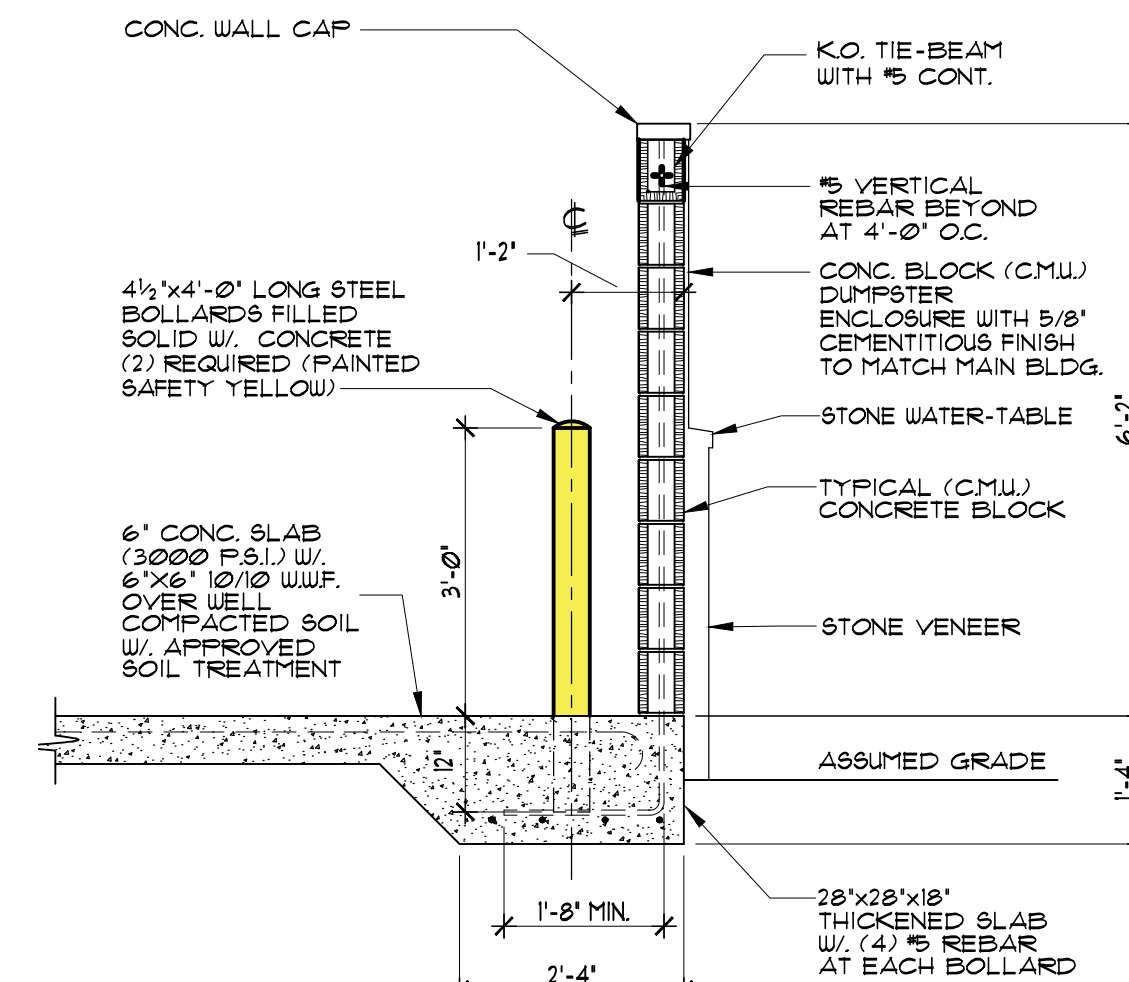
1 FOUNDATION

A-19 AT DUMPSTER ENCLOSURE Scale: 1/4" = 1'-0"



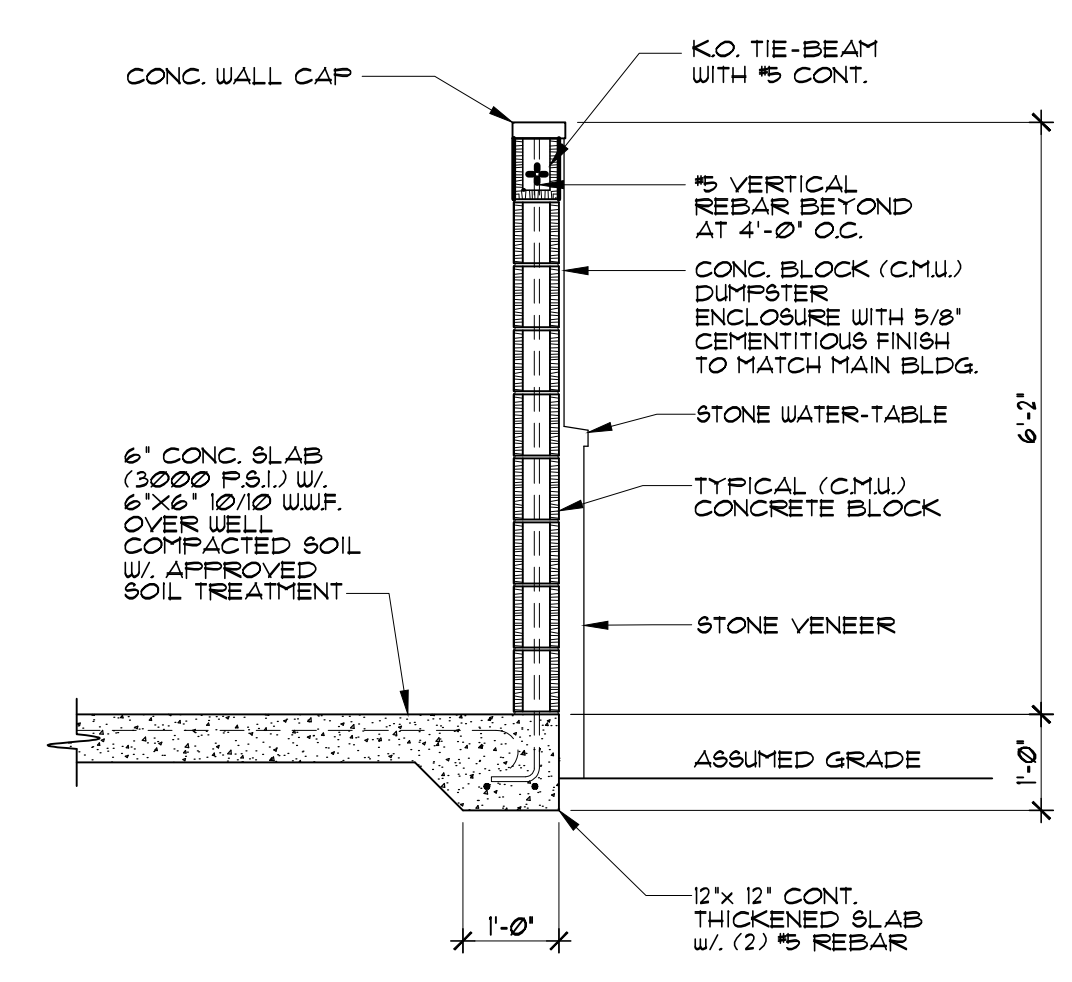
2 FLOOR PLAN

A-11 AT DUMPSTER ENCLOSURE Scale: 1/4" = 1'-0"



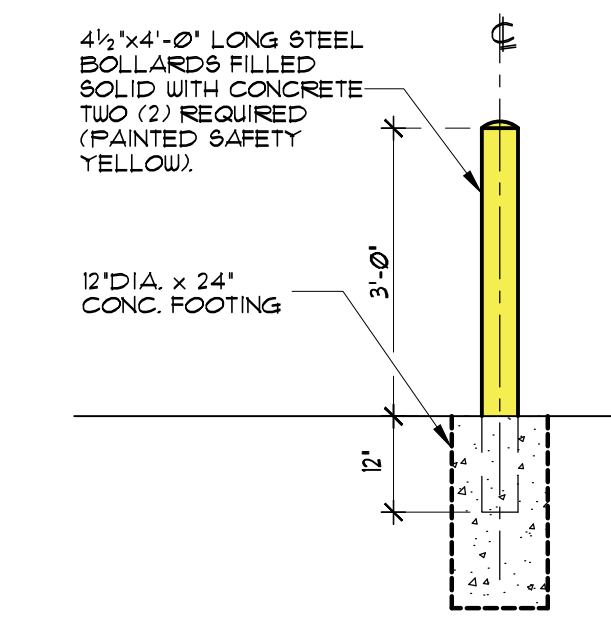
3 WALL SECTION

A-19 DUMPSTER ENCLOSURE Scale: 1/2" = 1'-0"



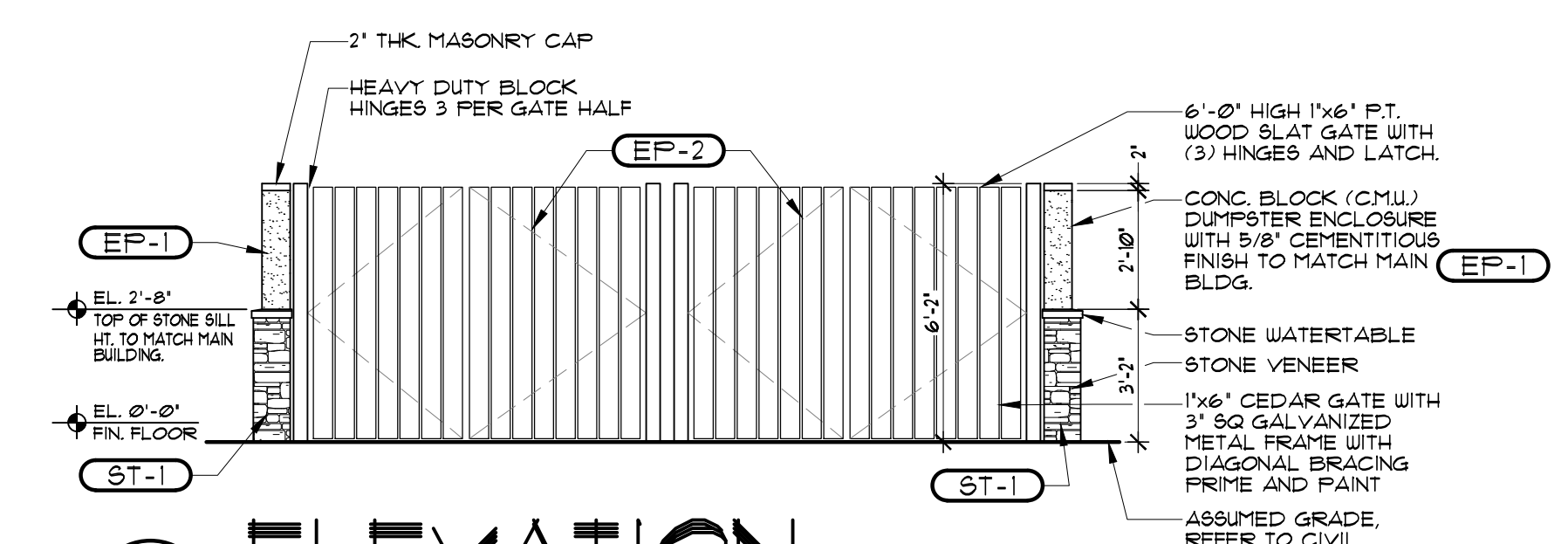
4 WALL SECTION

A-19 DUMPSTER ENCLOSURE Scale: 1/2" = 1'-0"



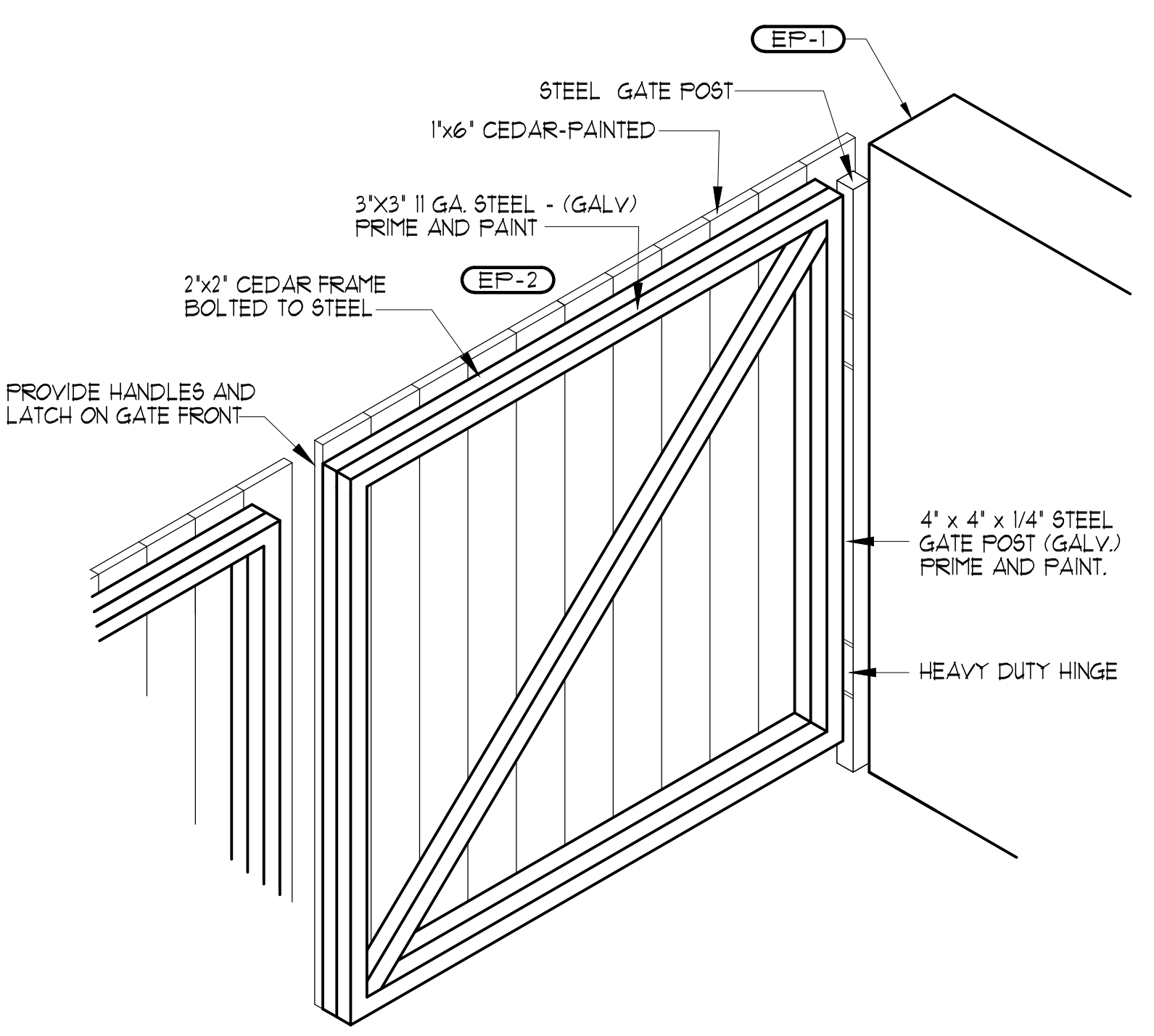
5 DETAIL

A-19 BOLLARD Scale: 1/2" = 1'-0"



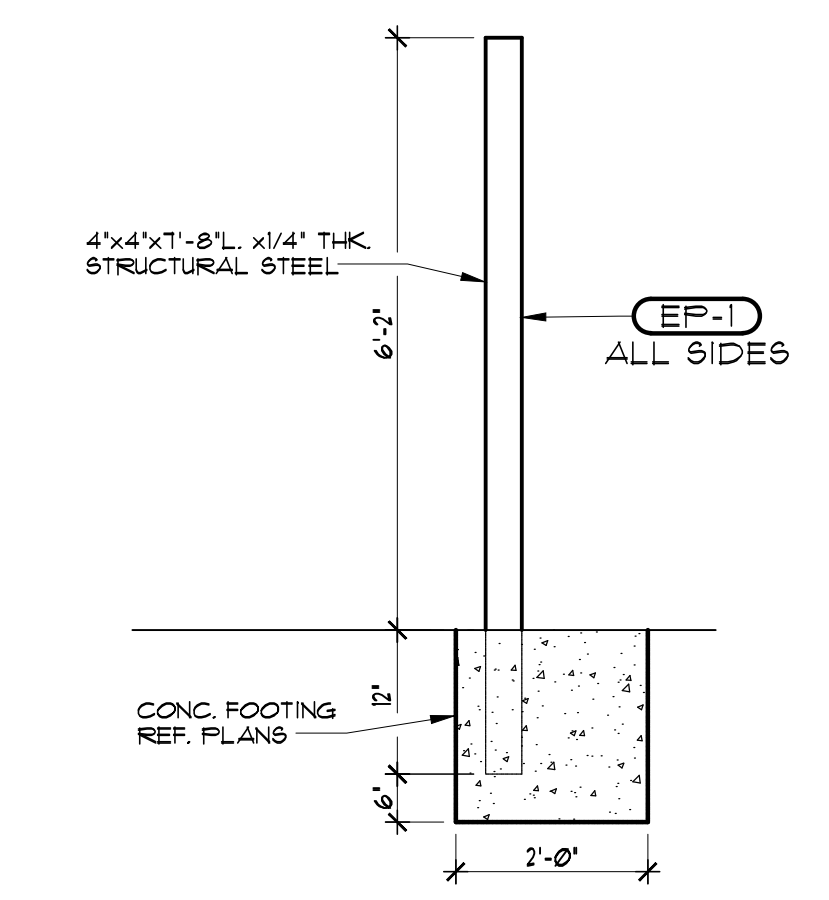
6 ELEVATION

A-19 DUMPSTER ENCLOSURE Scale: 1/4" = 1'-0"



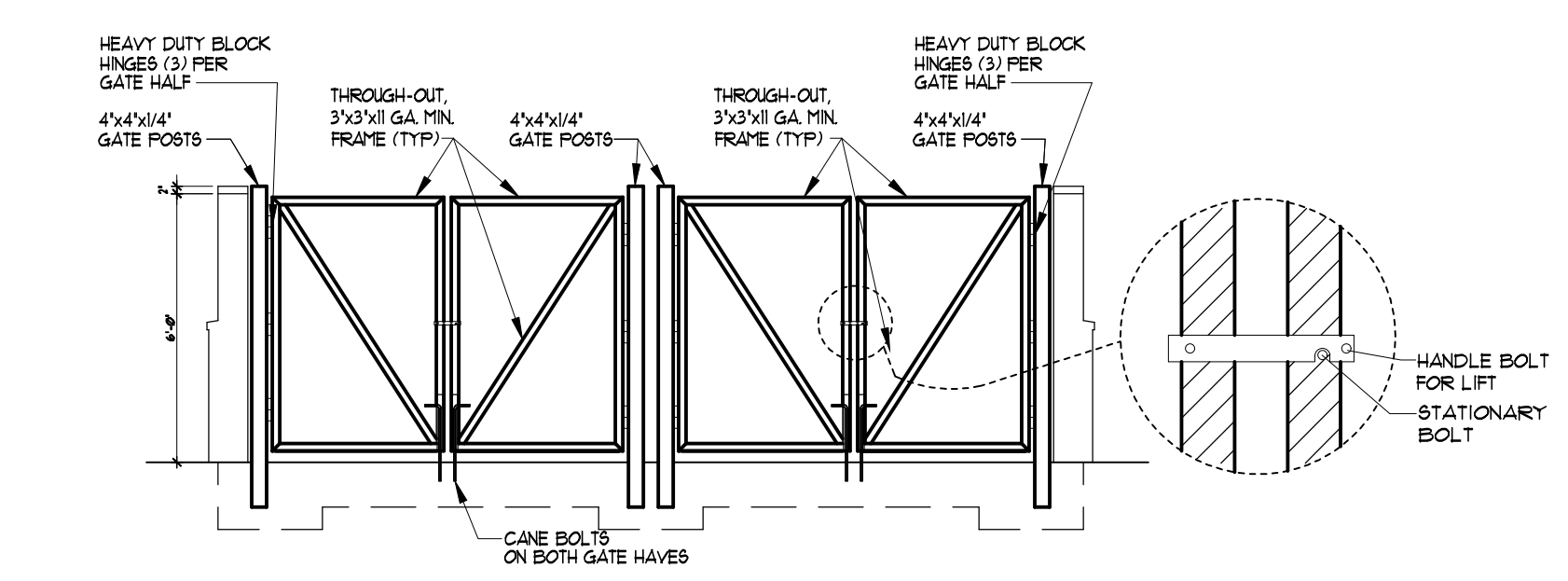
8 DUMPSTER ENCLOSURE GATE DETAIL

A-19 N.T.S.



9 DETAIL

A-19 COLUMN Scale: 1/2" = 1'-0"

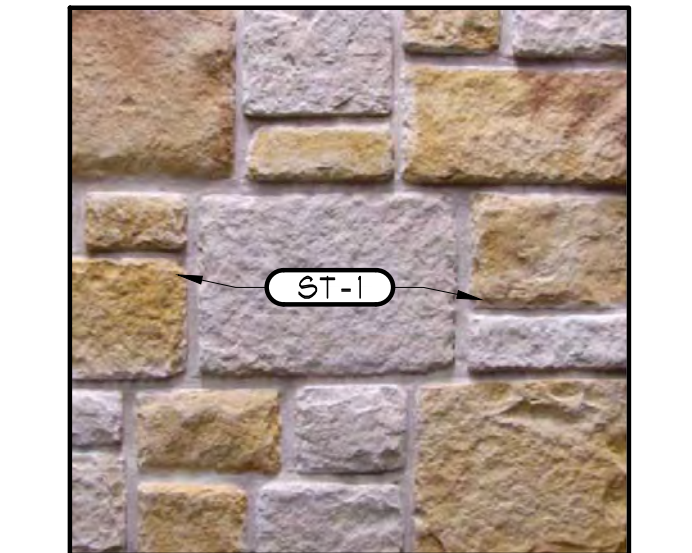


7 GATE FRAME ELEV.

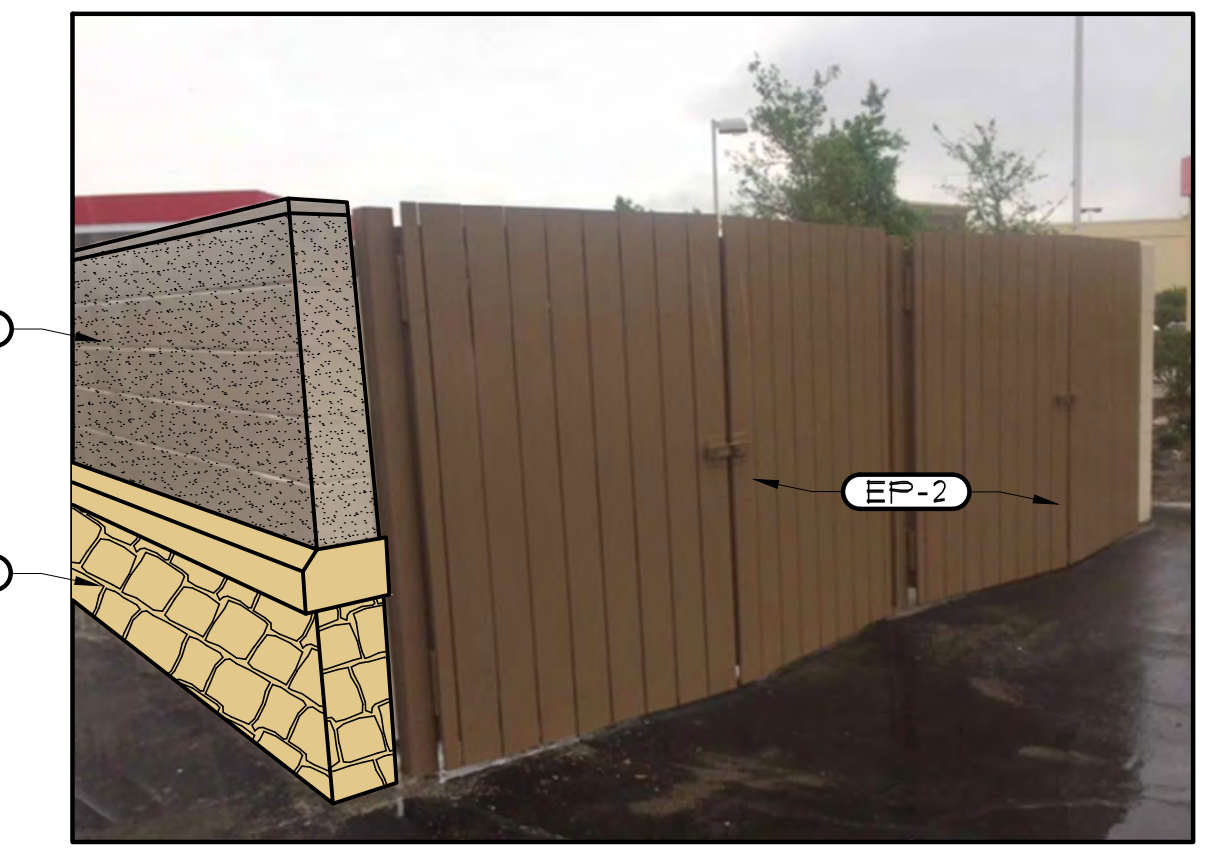
A-19 Scale: 1/4" = 1'-0"

EXTERIOR PAINT
 EP-1 EXTERIOR PAINT:
 COLOR : SW 1031, BALANCED BEIGE
 MANUFACTURER : SHERWIN WILLIAMS
 EP-2 EXTERIOR PAINT:
 COLOR : SW 2855 SYCAMORE TAN
 MANUFACTURER : SHERWIN WILLIAMS

STONE VENEER :
 ST-1 = STONE VENEER : CULTURED STONE
 LONE STAR STONE HILL COUNTRY CAULK



STONE VENEER N.T.S.



A ENCLOSURE ELEVATION

A-19 FIELD PHOTO N.T.S.

ISSUED FOR:
 PERMIT
 STATE OF FLORIDA
 MICHAEL F. SOFARELLI, JR.
 AR 0014577
 07-18-2018
 REGISTERED ARCHITECT
 MICHAEL F. SOFARELLI, JR.
 FLORIDA STATE BOARD
 OF ARCHITECTURE
 REGISTRATION No. :
 AR 0014577

IHOQ
 PROJECT: NEW RESTAURANT
 LAKE DOE BLVD. at HWY. 441
 (W. ORANGE BLOSSOM TRAIL)
 APOPKA, FLORIDA 32712
 STORE # T.B.D.

SOFARELLI & ASSOCIATES ARCHITECTURE
 MICHAEL F. SOFARELLI, JR., A.I.A.
 6365 142ND AVENUE NORTH
 CLEARWATER, FLORIDA 33760 P. 727.530.9535
 EMAIL : sofarelli@verizon.net

Revisions:

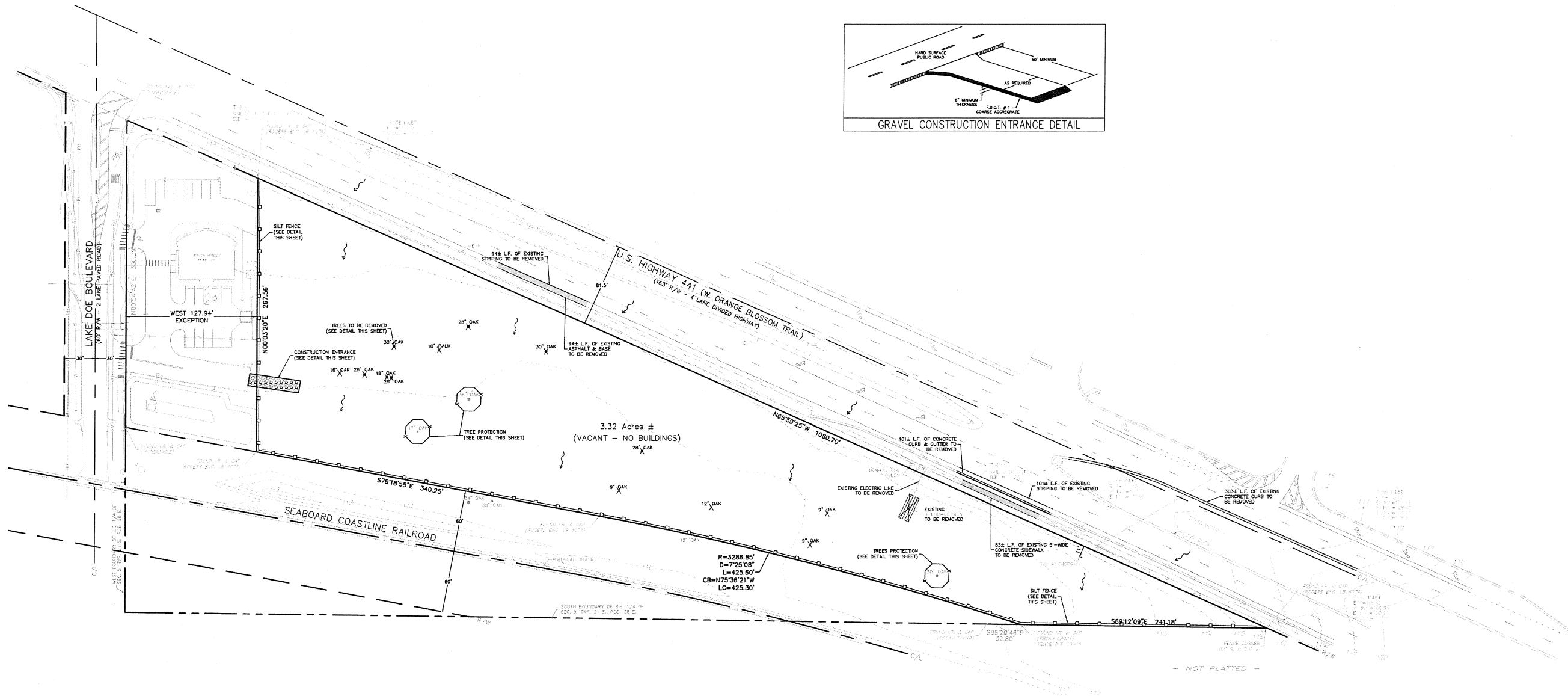
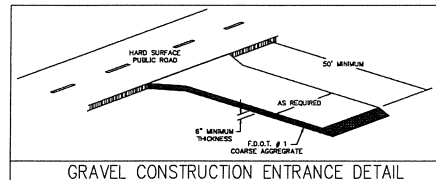
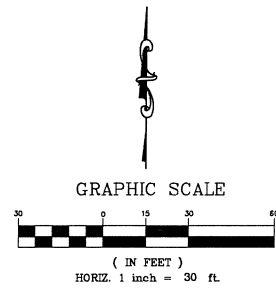
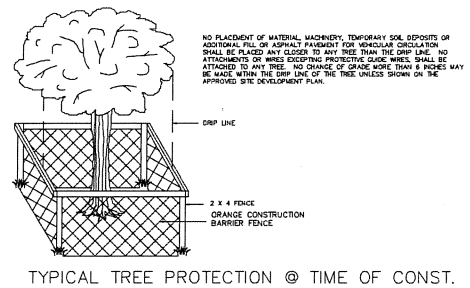
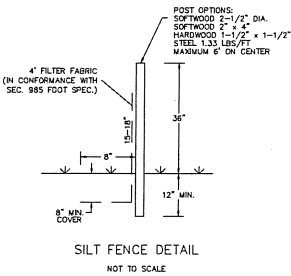
Content:
 DUMPSTER ENCLOSURE DETAILS

Filename:
 ICON PHOTO - RH
 APOPKA, FLORIDA

Date:
 06-28-2018

Proj. no.
 18048

Sheet:
A-19

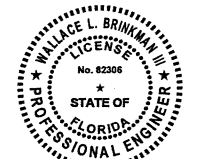
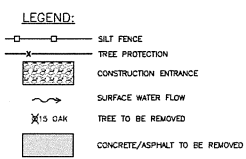


EROSION CONTROL NOTES:

- PRIOR TO ANY CLEARING ACTIVITIES, THE CONTRACTOR SHALL HAVE ALL ON-SITE UTILITIES LOCATED.
- THE SILT FENCE SHALL BE INSTALLED BEFORE ANY CONSTRUCTION ACTIVITIES AND MAINTAINED UNTIL ALL DISTURBED AREAS ARE SOODED.
- ALL CONSTRUCTION VEHICLES SHALL ENTER THE PROJECT AREA VIA THE GRAVEL CONSTRUCTION ENTRANCE. THERE SHALL BE NO CONSTRUCTION ACTIVITIES, MACHINERY, OR VEHICLES BEYOND THE INTERIOR OF THE PROJECT AREA.
- THE CONTRACTOR SHALL PERIODICALLY SWEEP EXISTING ON-SITE PAVED SURFACES AS WELL AS ALL ADJUTING CITY STREETS, COUNTY ROADS, AND STATE HIGHWAYS TO KEEP THOSE SURFACES IN A SUBSTANTIALLY SOUND-TREE CONDITION. SWEEPING SHALL BE DONE ON A PERIODIC, AS-NEEDED BASIS THROUGHOUT THE WORK WEEK INCLUDING, MOST IMPORTANTLY, AFTER EVERY RAIN EVENT AND EVERY FRIDAY AFTERNOON PRIOR TO CEASING WORK FOR THE WEEK.
- ALL MATERIALS, MACHINERY, AND VEHICLES SHALL BE STORED ON-SITE IN AN ORDERLY, ORGANIZED FASHION.
- CONTRACTOR SHALL DEVELOP AND IMPLEMENT A PLAN TO ASSURE THAT ALL DEBRIS RESULTING FROM THE CLEARING, SUCH AS LIMBS, STUMPS AND UNDERBRUSH, ARE PROPERLY CONTROLLED WHILE ON-SITE AND TRANSPORTED AND DISPOSED OF (OFF-SITE) IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. NO WASTE MATERIALS OF ANY KIND ARE PERMITTED TO BE BURIED ON-SITE OR DISCHARGED TO SURFACE WATERS OF THE STATE OR TO THE FOOT STORM WATER SYSTEM.

PRE-CONSTRUCTION TREE PROTECTION:

- THE OWNER SHALL BE RESPONSIBLE FOR INSURING THAT ALL MEASURES ARE TAKEN TO AVOID DAMAGE TO TREES NOT APPROVED FOR REMOVAL.
- PRIOR TO ANY CLEARING, GRUBBING, OR ANY CONSTRUCTION, TREE PROTECTION BARRICADES SHALL BE ERRECTED AROUND ALL TREES, OR GROUPS OF TREES, WITHIN THE CONSTRUCTION AREA WHICH ARE TO BE PRESERVED.
- TREE PROTECTION SHALL CONTINUE DURING THE COURSE OF CONSTRUCTION. THE FOLLOWING REQUIREMENTS SHALL BE CONDITIONS OF TREE REMOVAL PERMITS, ALL PERMITS FOR CONSTRUCTION IN PUBLIC RIGHTS-OF-WAY, AND ALL DEVELOPMENT PERMITS ISSUED UNDER AND PURSUANT TO THIS CODE:
 - THE CLEARING OF CONSTRUCTION EQUIPMENT OR MATERIAL, OR THE DISPOSAL OF WASTE MATERIALS INCLUDING BUT NOT LIMITED TO, PAINT, OIL, SOLVENTS, ASPHALT, CONCRETE, AND MORTAR WITHIN THE TPZ OF ANY TREE WHICH IS BEING PROTECTED IS NOT ALLOWED.
 - THE MOVEMENT OF EQUIPMENT OR THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, OR FILL WITHIN THE TPZ OF ANY TREE WHICH IS BEING PROTECTED IS NOT ALLOWED.
 - THE CONTRACTOR SHALL INSPECT ALL TREE PROTECTION BARRICADES AND SIGNS ON A WEEKLY BASIS DURING THE COURSE OF CONSTRUCTION. ANY BARRICADE OR SIGN WHICH HAS BEEN DAMAGED OR IS MISSING SHALL BE REPLACED IMMEDIATELY.
 - IF ANY TREE WHICH HAS NOT BEEN APPROVED TO BE REMOVED IS DESTROYED, OR RECEIVES MAJOR DAMAGE DURING CONSTRUCTION, WITH THE EXCEPTION OF NATURAL EVENTS, SO AS TO PLACE ITS LONG TERM SURVIVAL IN QUESTION, THE TREE(S) MUST BE REPLACED AT AN INCH-TO-INCH BASIS OF THE TOTAL (COMBINED) DBH OF THE TREE(S) SO DESTROYED OR DAMAGED. THE REPLACEMENT TREE(S) SHALL BE OF COMPARABLE SPECIES OF THE DESTROYED OR DAMAGED TREE(S) WITH A MINIMUM REPLACEMENT SIZE OF 1.5-INCH CALIPER. THE CITY RESERVES THE RIGHT TO ESTABLISH A REPLACEMENT VALUE FOR SUCH TREES AND PAYMENT INTO THE TREE MITIGATION FUND MAY BE AUTHORIZED BY THE CITY'S LANDSCAPE ARCHITECT.



WALLACE L. BRINKMAN III
PROFESSIONAL ENGINEER
REGISTRATION NO. 82306
STATE OF FLORIDA

06/29/18 DATE

A FINAL DEVELOPMENT SITE PLAN
FOR
IHOP
CITY OF APOPKA, FLORIDA
Erosion Control & Tree Removal Plan

JOB No.
18_05212600000025
DATE
06-29-2018
SCALE
AS SHOWN
SHEET
C2.0

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying
1105 S.E. 3rd Avenue • Ocala, Florida 34471 • Ph. (352) 622-9214 • Lic. Bus. #4074

Wallace L. Brinkman III, PE
Fl. Reg. No. 82306
wallace@rogerseng.com
Rodney K. Rogers, PSM
Fl. Reg. No. 8274
rkr@rogerseng.com
Robert L. Rogers, PE
Fl. Reg. No. 10027
rlr@rogerseng.com

REVISION	DATE

I. SITE DESCRIPTION:

- (1) NATURE OF CONSTRUCTION ACTIVITY:
THIS PROJECT INCLUDES CONSTRUCTION OF A BERM AND SWALE WITHIN AUTOZONE/HOP PROJECT LIMITS.
- (2) SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
 - (a) THE CONTRACTOR SHALL BE REQUIRED TO PREPARE A SITE SPECIFIC EROSION CONTROL PLAN ALONG WITH A DETAILED CONSTRUCTION SCHEDULE TO INDICATE DATES OF MAJOR GRADING ACTIVITIES AND DETERMINE SEQUENCES OF TEMPORARY AND PERMANENT SOIL DISTRIBUTING ACTIVITIES ON ALL PORTIONS OF THE PROJECT.
 - (b) THE CONTRACTOR WILL BE REQUIRED TO MODIFY THE PLAN OR MATERIALS TO ADAPT TO SEASONAL VARIATIONS, CONSTRUCTION ACTIVITY VARIATIONS, OR AS DIRECTED BY THE ENGINEER.
 - (c) APPLICABLE EROSION CONTROL DEVICES AND IMPLEMENTATION PROCEDURES ARE SUPPLIED IN THE FDOT EROSION AND SEDIMENT CONTROL MANUAL.
 - (d) THE ENGINEER IS RESPONSIBLE FOR DETERMINING IF ANY MODIFICATIONS OR ADDITIONAL CONTROLS ARE REQUIRED AND TO OBTAIN DEPLOYMENT SCHEDULES FOR THE IMPLEMENTATION OF ALL ADDITIONAL EROSION CONTROL DEVICES FROM THE CONTRACTOR.
- (3) GENERAL NOTES
 - (a) ALL EROSION AND SEDIMENT CONTROL DEVICES FOR EACH PHASE OF WORK ARE TO BE INSTALLED PRIOR TO BEGINNING WORK ON THAT PHASE.
 - (b) INSTALL EROSION AND SEDIMENT CONTROL DEVICES WHERE LISTED IN THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR PERIMETER CONTROLS BEFORE THE LAND IS DISTURBED.
 - (c) PROVIDE SEDIMENT BARRIERS WHERE LISTED IN THE CONTRACTOR'S APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR DITCH BLOCKS DURING CONSTRUCTION.
 - (d) PROVIDE INLET PROTECTION SYSTEMS AT INLET OPENINGS.
 - (e) COVER OR STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE.
 - (f) DO NOT DISTURB AN AREA UNTIL IT IS NECESSARY FOR CONSTRUCTION TO PROCEED.
 - (g) TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT FROM SEASONAL CLIMATE CHANGES OR WEATHER EVENTS.
 - (h) DO NOT REMOVE PERIMETER CONTROLS UNTIL AFTER ALL UPSTREAM AREAS ARE FULLY STABILIZED AND PERMANENT VEGETATION IS ESTABLISHED.
- (4) PROJECT AREAS:
THE ESTIMATED TOTAL PROJECT AREA IS 3.32 ACRES.
- (5) RUNOFF COEFFICIENTS BEFORE Cw(B), DURING Cw(D) AND AFTER Cw(A) CONSTRUCTION:
RUNOFF COEFFICIENT FOR:
GRASSED SHOULDERS ADJACENT TO ROADWAY: C=0.20
IMPERVIOUS ROADWAYS AND PAVED SHOULDER: C=0.95
DISTURBED AREAS, EXPOSED SOIL, ETC. DURING CONSTRUCTION: C=0.20

WEIGHTED RUNOFF COEFFICIENT:
BEFORE: Cw(B)=0.44 DURING: Cw(D)=0.59 AFTER: Cw(A)=0.59
THE RUNOFF COEFFICIENT DURING CONSTRUCTION, Cw(D), IS CALCULATED ASSUMING THAT THE MAXIMUM ALLOWABLE AREA OF SOIL IS DISTURBED DURING CONSTRUCTION, AND THE REMAINING AMOUNT IS THE EXISTING IMPERVIOUS AND GRASSED SHOULDER AREAS.
- (6) DESCRIPTION OF SOIL OR QUALITY OF DISCHARGE:
THE SOIL SURVEY INDICATES THAT THE MAJORITY OF THE SURFICIAL SOILS LOCATED ALONG ONSITE ARE PREDOMINANTLY SAND.

NRCS SOILS DATA FOR ORANGE COUNTY IS PROVIDED IN THE DRAINAGE DOCUMENTATION. MORE DETAILED INFORMATION REGARDING GENERALIZED SOIL INFORMATION IS PROVIDED IN THE DRAINAGE DESIGN DOCUMENT FOR THIS PROJECT.
- (7) ESTIMATED DRAINAGE AREA AND AVERAGE SLOPE OF DRAINAGE AREA FOR EACH OUTFALL:
 - (a) SITE MAP: THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAP.
 - (b) DRAINAGE MAP: PLEASE REFER TO DRAINAGE REPORT.
- (8) RECEIVING WATERS:
THE PROPOSED STORMWATER RUNOFF WITHIN WILL BE FULLY RETAINED ON-SITE WITH NO DISCHARGE.
- (9) THE OUTFALLS DRAIN INTO WBID 1329E (VERIFIED IMPAIRED) FOR MERCURY IN FISH PER FDP 303(d) LUST.
- (10) OUTFALL LOCATIONS: (TEMPORARY AND PERMANENT)

DESCRIPTION	LATITUDE	LONGITUDE
(a) N/A	N/A	N/A
- (11) NO WETLAND IMPACTS ARE PROPOSED.
- (12) DESCRIPTION OF STORMWATER MANAGEMENT: (EXISTING/PROPOSED)
 - (a) EXISTING, STORMWATER PRIMARILY INFILTRATES INTO THE EXISTING SANDY SOILS, WITH DISCHARGE TO THE ADJACENT RAILROAD RIGHT-OF-WAY.
 - (b) PROPOSED STORMWATER RUNOFF WILL BE RETAINED IN ON-SITE DRY RETENTION PONDS WITH NO OFF-SITE DISCHARGE.

II. CONTROLS:

EROSION AND SEDIMENT CONTROLS

- (1) WATER QUALITY MONITORING:
 - (a) WATER QUALITY MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIAL CONDITIONS OF ALL ENVIRONMENTAL PERMITS OR BY THE CONTRACTOR UPON THE OBSERVATION THAT WATER QUALITY STANDARDS MAY BE VIOLATED BY THE CONTRACTOR'S ACTIVITIES. MONITORING LOCATIONS MAY BE SPECIFIED IN THE ENVIRONMENTAL PERMIT OR MAY BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE PROJECT ADMINISTRATOR.
 - (b) THE PROJECT ADMINISTRATOR WILL BE RESPONSIBLE FOR MONITORING ANY ACTIVITIES FOR VIOLATION OF WATER QUALITY STANDARDS AS THEY RELATE TO TURBIDITY (NO GREATER THAN 29 NEPHELOMETRIC TURBIDITY UNITS (NTU) ABOVE BACKGROUND OR GREATER THAN 1 NTU ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OUTSTANDING FLORIDA WATERS (OFW)).
 - (c) IF WATER QUALITY STANDARDS ARE VIOLATED, CONSTRUCTION SHOULD BE STOPPED IMMEDIATELY, THE ENVIRONMENTAL PERMIT CONDITIONS FOLLOWED AND EROSION AND SEDIMENT CONTROL DEVICES REEVALUATED AND APPROVED BY THE ENGINEER PRIOR TO ANY CONTINUATION OF ACTIVITY. MONITORING ACTIVITIES AND TURBIDITY READINGS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION REPORT AND CONTINUED UNTIL TURBIDITY READINGS FALL BELOW AN ACCEPTABLE LEVEL (29 NTU ABOVE BACKGROUND OR 1 NTU ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFW).
 - (d) WATER QUALITY MONITORING MAY BE CONDUCTED DURING ANY PHASE OF CONSTRUCTION AS DIRECTED BY THE PROJECT ENGINEER.
- (2) STABILIZATION PRACTICES:
 - (a) STABILIZATION MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO MAINTAINING, ESTABLISHING AND USING VEGETATION, APPLYING MULCHES, SODDING, SEEDING, BMP'S AND THE USE OF ROLLED EROSION CONTROLLED PRODUCTS. WHEN CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, SLOPE SLOPES SHALL BE STABILIZED WITH PERFORMANCE SODDING OR SEEDING OR ANY OTHER APPROVED METHOD OF STABILIZATION INCLUDED IN THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGN AND REVIEW MANUAL (EASC MANUAL).
 - (b) STABILIZATION SHALL TAKE PLACE AS SOON AS PRACTICAL IN PORTIONS OF THE PROJECT WHERE CONSTRUCTION ACTIVITIES HAVE CEASED, BUT NO LATER THAN 7 DAYS AFTER ANY CONSTRUCTION ACTIVITY CEASES EITHER TEMPORARILY OR PERMANENTLY.
 - (c) ALL EROSION CONTROL DEVICES SHALL BE INSTALLED ACCORDING TO THE CONTRACT DOCUMENTS, AND THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN.
 - (d) ANY TEMPORARY MATERIAL USED FOR POLLUTION OR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT AND FINAL STABILIZATION OF THE PROJECT HAS BEEN ACHIEVED.
 - (e) SEDIMENT BARRIERS SHOULD BE USED ALONG THE LENGTH OF THE PROJECT WHERE THE GROUND SLOPES AWAY FROM THE RIGHT-OF-WAY OR WHERE THERE IS POTENTIAL FOR SEDIMENT TO BE DIRECTED OFF-SITE. PARTICULAR CARE SHOULD BE USED WHEN THERE ARE WETLANDS OR WATERS OF THE U.S. ARE INVOLVED. SEDIMENT BARRIERS SHOULD BE USED AROUND THE PERIMETER OF STOCKPILE AREAS.
 - (f) SPACING OF SEDIMENT BARRIERS USED AS DITCH OR SWALE CHECKS/DAMS SHOULD BE BASED UPON THE HEIGHT OF THE BARRIER AND THE SLOPE OF THE DITCH OR SWALE.
 - (g) THE CONTRACTOR SHALL BE RESPONSIBLE FOR MODIFYING SOIL TRACKING PREVENTION SYSTEMS OR PROCEDURES AS NEEDED.
- (3) STRUCTURAL PRACTICES FOR EROSION AND SEDIMENT CONTROL:
 - (a) ROLLED EROSION CONTROL PRODUCTS (ARTIFICIAL COVERINGS)
PURPOSE: TO PROTECT DISTURBED SLOPE SURFACES AGAINST EROSION DUE TO RAINFALL OR FLOWING WATER.
 - (1) USED FOR PAUSES IN CONSTRUCTION DUE TO INCLEMENT WEATHER OR OTHER CIRCUMSTANCES. COULD INCLUDE NATURAL OR SYNTHETIC FIBER MATS, PLASTIC SHEETING OR NETS.
 - (2) USED FOR EROSION CONTROL THAT FACILITATES PLANT GROWTH WHILE PERMANENT GRASS IS ESTABLISHED. COULD INCLUDE BIODEGRADABLE EROSION CONTROL BLANKETS INSTALLED ON A SEEDED AREA, ON FILL SLOPES OR IN DITCHES.
 - (3) USED TO STABILIZE DRAINAGE CHANNELS. CONSULT EASC MANUAL TO DETERMINE CORRECT PRODUCT TYPE FOR CHANNEL STABILIZATION.
 - (b) RUNOFF CONTROL STRUCTURE (TEMPORARY SLOPE DRAIN)
PURPOSE: TO PROTECT HILLSIDE SURFACES AGAINST EROSION DUE TO CONCENTRATED FLOW OF RUNOFF WATER.
 - (1) USED ON FILL SLOPES AND CUT SLOPES TO REDUCE SEDIMENT TRANSPORT AND COULD INCLUDE TEMPORARY SLOPE DRAINS, GRASS-LINED CHANNELS, ROCK-LINED CHANNELS AND CHECK DAMS.
 - (2) RUNOFF CONTROL STRUCTURES TYPICALLY DISCHARGE TO A SEDIMENT BASIN.

(c) SEDIMENT BASIN (CONTAINMENT SYSTEM)

PURPOSE: A CONTAINMENT SYSTEM IS DESIGNED TO DETAIN AN ADEQUATE VOLUME OF RUNOFF, REDUCE THE VELOCITY OF FLOW THROUGH THE SYSTEM, ALLOW FOR SETTLEMENT OF SUSPENDED SOLIDS AND REGULATE THE DISCHARGE RATE FROM THE SEDIMENT BASIN.
SEDIMENT CONTAINMENT SYSTEM OR AS A METHOD TO REDUCE FLOW VELOCITY.
(1) SEDIMENT BASINS MUST BE PLACED IN STRATEGIC LOCATIONS WITHIN THE ACTIVE AREAS OF CONSTRUCTION. CONTRIBUTING AREA AND SIZE OF TARGET SOIL PARTICLES WILL DICTATE WHETHER THE SEDIMENT BASIN WILL BE TYPE 1, TYPE 2 OR TYPE 3 SYSTEM.
(2) THE USE OF SMALLER PRE-SEDIMENTATION BASINS USED IN CONJUNCTION WITH LARGER PERMANENT RETENTION/DETENTION PONDS ARE EFFECTIVE IN CAPTURING LARGER VOLUMES OF SEDIMENTS. THIS TECHNIQUE REQUIRES PERIODICALLY SCHEDULED REMOVAL OF THE ACCUMULATED SEDIMENTS.

(d) SEDIMENT BARRIERS (TEMPORARY CONSTRUCTION SITE BMP)

PURPOSE: SEDIMENT BARRIERS EITHER OBSTRUCT FLOW OR PREVENT THE PASSAGE OF WATER WHILE CONSTRUCTION ACTIVITIES OCCUR. SMALLER SEDIMENT BARRIERS MAY FUNCTION AS A SMALL SEDIMENT CONTAINMENT SYSTEM.
(1) THESE CONSTRUCTION BMP CAN INCLUDE SYNTHETIC BALES, STAKED SILT FENCE, TURBIDITY BARRIERS, STORM SEWER INLET BARRIERS, ROCK BARRIERS, GEOSYNTHETIC BARRIERS, ETC.
(2) APPROPRIATE LOCATIONS INCLUDE SITE PERIMETER, BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION, BELOW THE TOE OF EXPOSED AND ERODIBLE SLOPES, ALONG THE TOE OF STREAM AND CHANNEL BANKS, AROUND DRAINS AND INLETS LOCATED IN LOWPOINTS OR THE DOWNSTREAM EDGE OF AREAS UNDERGOING VERTICAL OR BOX CULVERT CONSTRUCTION ACTIVITIES.
(3) INAPPROPRIATE LOCATIONS FOR THESE SAME MEASURES INCLUDE PARALLEL TO A HILLSIDE CONTOUR, IN CHANNELS WITH CONCENTRATED FLOW (UNLESS PROPERLY REINFORCED), UPSTREAM OR DOWNSTREAM OF CULVERTS WITH CONCENTRATED FLOW, IN FRONT OF OR AROUND INLETS ON A GRADE WITH CONCENTRATED FLOW OR IN FLOWING STREAMS.

(e) FLOATING TURBIDITY BARRIER

PURPOSE: USED IN PERMANENT BODIES OF WATER TO RETAIN SEDIMENT AND FLOATING DEBRIS FROM A CONSTRUCTION AREA SO THAT REMOVAL OR CONTAINMENT OF THE MATERIAL IS POSSIBLE.
(1) TYPE I, LIGHT DUTY, IS USED WHERE THERE IS LITTLE OR NO CURRENT, NO WIND AND NO WAVE ACTION.
(2) TYPE II, MODERATE DUTY, IS USED WITH SOME CURRENT (<3.5 FT. PER SECOND) AND SOME EXPOSURE TO WIND.
(3) TYPE III, HEAVY DUTY, IS USED WITH GREATER CURRENT (2.5-5.0 FT. PER SECOND), MODERATE WIND AND WAVE ACTION.
(4) BARRIER MUST BE ATTACHED AT BOTH ENDS AND WEIGHTED ON THE BOTTOM.
(5) MULTIPLE LINES OF BARRIER MAY BE USED IN SOME CIRCUMSTANCES FOR ADDITIONAL PROTECTION.
(6) STANDARD PANELS FOR WATER DEPTHS ARE 5.0'. ADDITIONAL PANELS CAN BE USED FOR WATER DEPTHS > 5.0'.

(f) STAKED TURBIDITY BARRIER

PURPOSE: THIS ITEM IS COMMONLY USED IN AREAS WHERE CONTINUOUS CONSTRUCTION ACTIVITIES CHANGE THE NATURAL CONTOURS AND DRAINAGE RUNOFF PATTERNS.
(1) COMMONLY USED IN LAKES AND STREAMS AS A SEDIMENT CONTAINMENT SYSTEM. SHOULD NOT BE USED WHERE WATER CURRENTS MOVE THE CURTAIN AND DISLODGE COLLECTED SEDIMENTS.
(2) MAXIMUM DEPTH OF PANEL IS 3'-6"
(3) POST MUST BE A MINIMUM LENGTH OF 5.0' AND A MINIMUM OF 10' OF FABRIC MUST BE IMBEDDED IN THE GROUND.

(g) INLET PROTECTION SYSTEM

PURPOSE: ANY OF A NUMBER OF SEDIMENT BARRIERS THAT EITHER PREVENT SEDIMENT FROM ENTERING AN INLET OR TRAP THE SEDIMENTS ONCE THEY ENTER THE INLET.
(1) TYPICAL APPLICATIONS INCLUDE ROCK BARRIERS, FRAME AND FILTER BARRIERS, CURB INLET "SLUMP" BARRIER, CURB INLET DIVERSION BERM, CURB AND GUTTER SEDIMENT CONTAINMENT SYSTEM OR CURB INLET INSET.
(2) SHOULD BE INSTALLED ONLY WHEN CONSTRUCTION ACTIVITIES ARE ON-GOING AND ONLY WHERE SLUMP CONDITIONS EXIST.
(3) SHOULD NOT BE USED WHEN CONSTRUCTION IS COMPLETE AND SHOULD NOT BE USED IN AREAS WHERE FLOODING COULD ENVOACH INTO THE TRAVEL LANES.

(h) SOIL TRACKING PREVENTION DEVICE

PURPOSE: TEMPORARY STRUCTURES TO ASSIST WITH THE REMOVAL OF SOIL MATERIAL CAPTURED ON VEHICLE TIRES BEFORE THE VEHICLES ENTER THE ROADWAY.
(1) USE ONE DEVICE PER MILE WITH A MINIMUM OF TWO PER PROJECT.
(2) USE ADDITIONAL DEVICES FOR CONSTRUCTION AREAS THAT ARE NOT ADJACENT TO THE ROAD RIGHT-OF-WAY AND NO ACCESS IS PROVIDED THROUGH A SOIL TRACKING PREVENTION DEVICE.
(3) RRR PROJECTS SHOULD BE HANDLED ON A CASE BY CASE BASIS.

(4) CHEMICAL TREATMENTS FOR EROSION AND SEDIMENT CONTROL:

(a) CHEMICAL TREATMENT - POLYACRYLAMIDES (PAM AND PAM BLENDS)
PURPOSE: REDUCE SOIL EROSION THROUGH SOIL BINDING, USED AS A WATER TREATMENT ADDITIVE TO REMOVE SUSPENDED SOLIDS FROM RUNOFF, PROVIDES APPROPRIATE MEDIUM FOR GROWTH OF VEGETATION FOR STABILIZATION AND INCREASES INFILTRATION BY INCREASING SIZE OF SOIL PARTICLE.
(1) CAN BE USED ON DISTURBED SOILS. CAN BE USED IN CONJUNCTION WITH OTHER BMP'S TO ENHANCE PERFORMANCE. CAN BE APPLIED IN DISSOLVED FORM WITH WATER, CAN BE USED AS A DRY POWDER, CAN BE USED IN GRANULAR FORM OR MAY BE USED IN THE FORM OF FLOC LOGS.
(2) HIGHER CONCENTRATIONS OF PAM'S DON'T INCREASE THE EFFECTIVENESS OF THE PRODUCT.
(3) ACTIVELY WORKED AREAS WILL REQUIRE REAPPLICATION TO REMAIN EFFECTIVE.
(4) PAM SHOULD NOT BE USED WHERE THERE IS A POTENTIAL FOR EQUIPMENT CLOGGING OR TOXICITY IS A CONCERN.

(b) CHEMICAL TREATMENT - ALUM:

PURPOSE: REMOVE SUSPENDED SOLIDS AND POLLUTANTS BY ENMESHMENT AND ADSORPTION INTO ALUM. COLLECT FLOCS OF SUSPENDED SEDIMENTS IN RUNOFF AND STORE THEM IN SEDIMENT BASINS OR STORMWATER MANAGEMENT FACILITIES.
(1) ALUM IS INJECTED INTO THE FLOW STREAM CONTAINING TURBID WATER. INJECTION IS CONTROLLED BY VARIABLE SPEED CHEMICAL PUMP TO FEED ALUM AT MULTIPLE TREATMENT POINTS. ALUM TREATMENT IS EFFECTIVE IN TREATMENT OF RUNOFF THAT CONTAINS LIMELOCK FROM UNPAVED SURFACES.
(2) ALUM TREATMENT REQUIRES CLOSE MONITORING OF DOSAGE. COMBINATION WITH OTHER COMPOUNDS MAY VIOLATE TOXICITY REQUIREMENTS AND THE USE OF ALUM MAY LOWER PH LEVELS.

(5) DEWATERING OPERATIONS (OPTIONAL - BASED ON PROJECT APPLICABILITY):

DESCRIPTION: DEWATERING OPERATIONS ARE PRACTICES THAT MANAGE THE DISCHARGE OF TURBID WATER WHEN WATERS OTHER THAN STORMWATER AND ACCUMULATED SURFACE WATERS MUST BE REMOVED FROM A LOCATION SO THAT CONSTRUCTION WORK MAY BE ACCOMPLISHED. THESE WATERS CAN INCLUDE GROUNDWATER, WATER FROM COFFERDAMS, WATER DIVERSIONS, WATER DIVERSIONS AND WATERS USED DURING CONSTRUCTION THAT MUST BE REMOVED FROM A WORK AREA.
(a) ENVIRONMENTAL AGENCIES ARE ESPECIALLY CONCERNED WITH THE PROTECTION OF WETLANDS FROM DROWDOWN EFFECTS, PROTECTING RECEIVING BODIES FROM SEDIMENTATION AND POSSIBLE CAPACITY LIMITATIONS.
(b) THREE PRIMARY METHODS OF DEWATERING COMMONLY USED IN FLORIDA ARE RIM-DITCHING, SOCK/PIPE/HORIZONTAL WELLS AND WELL-POINT SYSTEMS.
(c) METHODS FOR CONTAINING SEDIMENTATION CAN INCLUDE A COMBINATION OF BMP AND SEDIMENT TRAPS, SEDIMENT BASINS, GRAVITY BAG FILTERS, WEIR TANKS, DEWATERING TANKS, SAND MEDIA/PRESSURIZED BAGS AND CHEMICAL TREATMENTS.

(6) COASTAL OPERATIONS (OPTIONAL - BASED UPON PROJECT LOCATION):

DESCRIPTION: CONSTRUCTION SITES IN COASTAL AREAS PRESENT UNIQUE CHALLENGES DUE TO HIGHER WIND SPEEDS, SALINE LADEN AIR MOISTURE AND WAVE ACTION THAT REQUIRE USING APPROPRIATE EROSION CONTROL TECHNIQUES THAT CAN WITHSTAND THESE ELEMENTS.
(a) PARTICULAR CONCERNS DURING THE DEVELOPMENT OF EROSION CONTROL PLANS IN COASTAL OPERATIONS CAN INCLUDE THE RESISTANCE OF EROSION CONTROL MATERIALS TO SALT WATER, HIGH WATER TABLES, SOIL COMPACTION AND SITE DEVELOPMENT DUE TO THE TYPICAL SANDY SOILS LOCATED IN THESE AREAS AND SOIL STABILIZING VEGETATION MUST BE SALT TOLERANT.
(b) HIGH ENERGY ENVIRONMENT SHOULD BE CONSIDERED WHEN SELECTING CONTROL DEVICES. FREQUENT MAINTENANCE IS NORMALLY REQUIRED FOR EROSION CONTROL DEVICES AND TIDAL FLUCTUATIONS MUST BE CONSIDERED WHEN SELECTING THE METHODS OF EROSION CONTROL.
(c) TEMPORARY CONTROL TECHNOLOGIES FOR THE COASTAL ENVIRONMENT COULD INCLUDE THE USE OF COMPOST/WOOD MULCHING, HYDRAULIC MULCHING, SOIL BINDERS AND TEMPORARY HYDROSEEDING.
(d) PERMANENT CONTROLS COULD INCLUDE THE USE OF POLYMER-ENHANCED ARMORING, PRESERVING EXISTING VEGETATION WHEN POSSIBLE, ESTABLISHING PERMANENT SALT-TOLERANT VEGETATION, CONSTRUCTION SITE BARRIERS (SHEET PILES/CONCRETE WALLS/EARTHEN BERM), NATURAL/SYNTHETIC GEOTEXTILES, MATS, OR GEODRIDS.

III. OTHER CONTROLS:

(1) WASTE DISPOSAL:

(a) THE CONTRACTOR WILL PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION ACTIVITIES.
(b) ALL FERTILIZER AND CHEMICAL CONTAINERS SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.
(c) NO SOLID MATERIALS, INCLUDING BUILDING AND CONSTRUCTION MATERIALS, SHALL BE DISCHARGED TO WETLANDS OR BURIED ON-SITE.
(d) ALL SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS.

(2) OFF-SITE VEHICLE TRACKING - WILL BE CONTROLLED BY THE FOLLOWING METHODS:

(a) LOADED HAIL TRUCKS ARE TO BE COVERED BY A TARPAULIN AT ALL TIMES.
(b) EXCESS DIRT ON ROAD WILL BE REMOVED DAILY.

(3) STATE AND LOCAL REGULATIONS: PERMITS WILL BE REQUIRED FROM THE FOLLOWING AGENCIES:

CITY OF APOPKA SJRWMD FDOT

(4) NON-STORMWATER (INCLUDING SPILL REPORTING)

THE CONTRACTOR WILL PROVIDE THE ENGINEER WITH AN EROSION CONTROL PLAN THAT WILL INCLUDE SPILL CONTAINMENT, REPORTING, AND RESPONSES. THE PLAN SHALL SPECIFY WHAT MANAGEMENT PRACTICES AND CONTAINMENT METHODS WILL BE USED TO PREVENT POTENTIAL POLLUTANTS (FUEL, LUBRICANTS, HERBICIDES, ETC.) FROM SPILLING ONTO THE SOIL OR INTO THE SURFACE WATERS. IF A SPILL DOES OCCUR, OR IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, CONTACT THE DISTRICT CONTAMINATION IMPACT COORDINATOR.

IV. MAINTENANCE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF ALL EROSION AND SEDIMENT CONTROL DEVICES AND REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES WHEN NOTICE OF TERMINATION IS MAILED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF SEDIMENT BUILDUP THROUGH THE LIFE OF THE INSTALLED EROSION AND SEDIMENT CONTROL DEVICES.

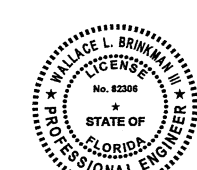
- (1) ALL CONTROL MEASURES WILL BE MAINTAINED DAILY BY THE CONTRACTOR AND ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED IMMEDIATELY.
- (2) SODDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- (3) SYNTHETIC BALES SHALL BE MAINTAINED TO ENSURE THEIR USEFULNESS AND NOT BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.
- (4) STABILIZED CONSTRUCTION ENTRANCES SHALL BE MAINTAINED TO PREVENT CLOGGING OF ROCK BEDDING WHICH MAY IMPEDE THE USEFULNESS OF THE STRUCTURE.

V. INSPECTION

- (1) THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES ON THE PROJECT SITE AND RECORD WEEKLY RAINFALL IN ACCORDANCE WITH THE NPDES PERMIT. ALL EROSION CONTROL DEVICES MUST BE INSPECTED WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.5 INCHES OR GREATER.
- (2) ALL EROSION AND WATER POLLUTION ABATEMENT AND CONTROL MEASURES WILL BE INSPECTED DAILY BY CONTRACTOR'S PERSONNEL WHO ARE F.D.E.P. CERTIFIED STORMWATER MANAGEMENT INSPECTORS.
- (3) THE CONTRACTOR SHALL COMPLETE ALL SWPPP INSPECTION REPORT FORMS REQUIRED FOR THE NPDES PERMIT.

VI. TRACKING AND REPORTING

- (1) THE CONTRACTOR SHALL SUBMIT A WEEKLY REPORT TO THE DEPARTMENT DOCUMENTING THE DAILY INSPECTIONS AND MAINTENANCE OR REPAIRS TO THE SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL MAINTAIN ALL REQUIRED REPORTS AND COMPLETE ALL SWPPP INSPECTION FORMS.
- (2) PREPARATION OF ALL THE CONTRACTOR'S REPORTS OF INSPECTION, MAINTENANCE AND REPAIRS REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION, SHALL BE INCLUDED IN THE INDIVIDUAL COSTS OF THE EROSION CONTROL DEVICES OF THE PROJECT.
- (3) THE CONTRACTOR SHALL USE THE SWPPP CONSTRUCTION INSPECTION REPORT FORM #650-040-03, FOR DAILY INSPECTIONS.



06/29/18

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REVISION	DATE

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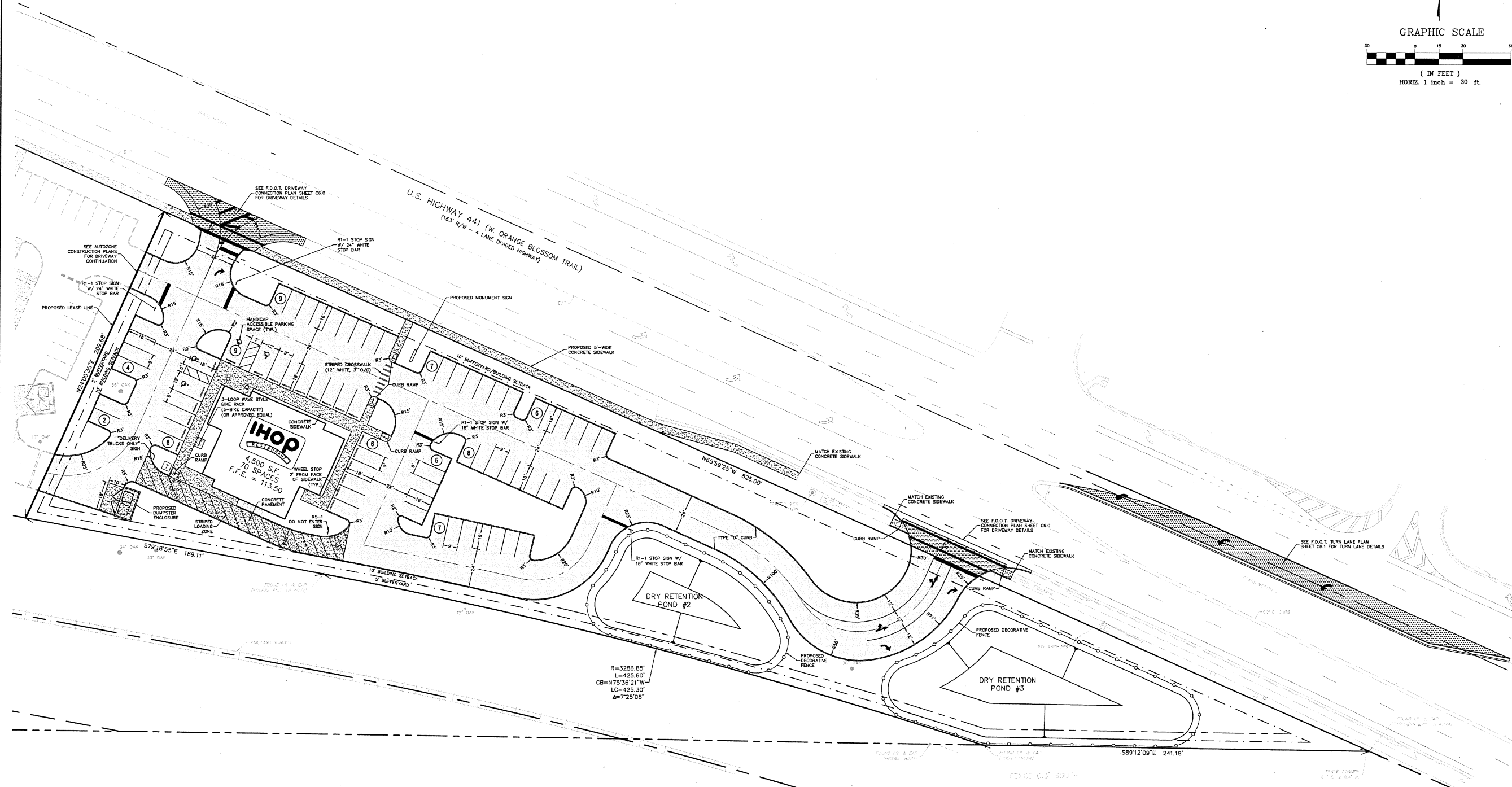
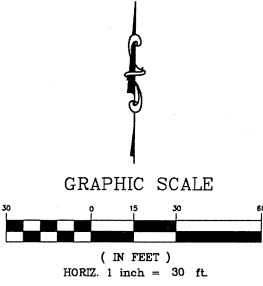
A FINAL DEVELOPMENT SITE PLAN
FOR
IHOP
CITY OF APOPKA, FLORIDA
Stormwater Pollution Prevention Plan

JOB No.
18_052128000000025

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NOTES:
 1. ALL REQUIRED FENCING SHALL BE OF A DECORATIVE TYPE AND SHALL BE IN KEEPING WITH THE REQUIRED BUFFER TREATMENTS, CHARACTER, AND ARCHITECTURE OF THE PROJECT. CHAIN-LINK AND/OR STOCKADE FENCING SHALL NOT BE USED.
 2. THE WALL AND GROUND SIGNS ARE TO BE PERMITTED SEPARATELY.

LEGEND:

	NUMBER OF PARKING SPACES
	PROPOSED ASPHALT PAVEMENT
	PROPOSED FDOT ASPHALT PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	EXISTING TREE



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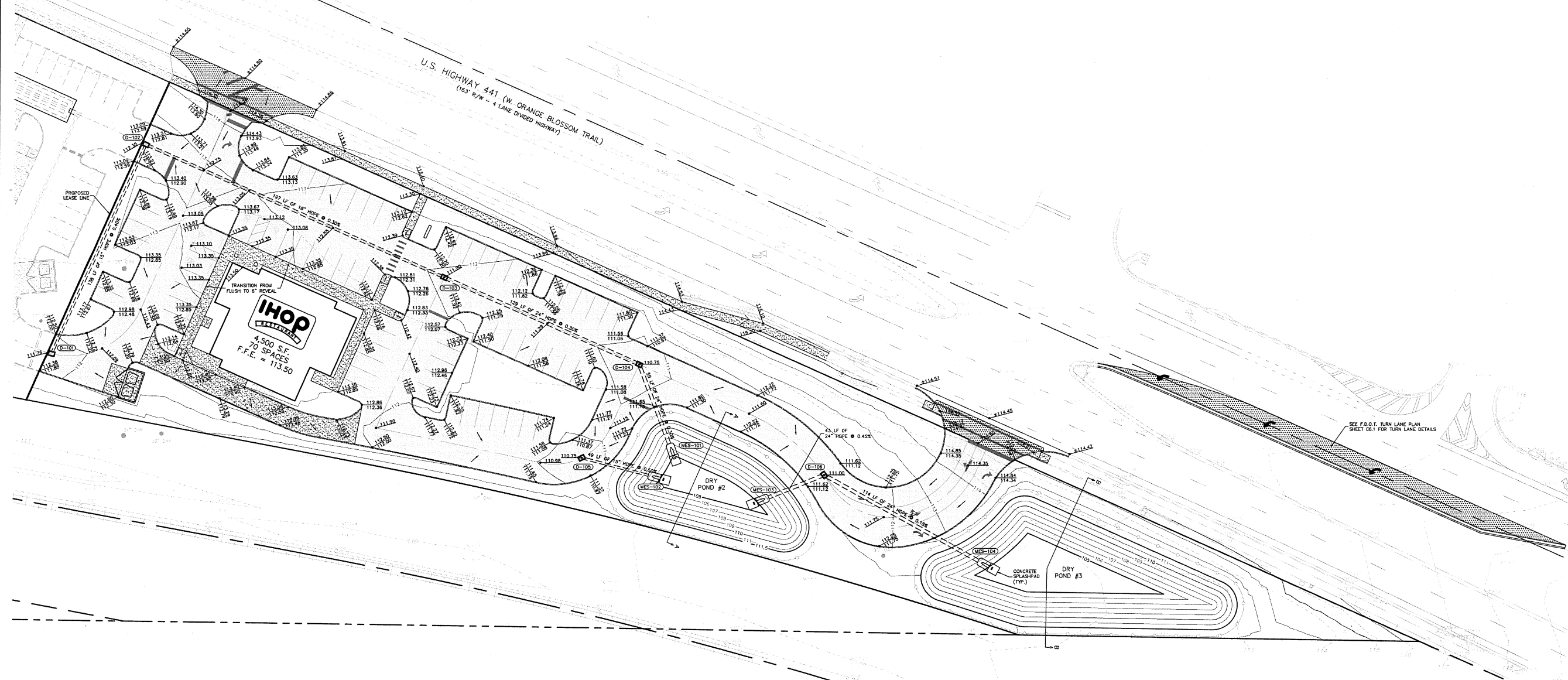
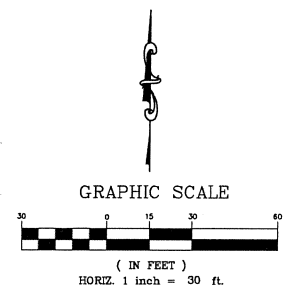
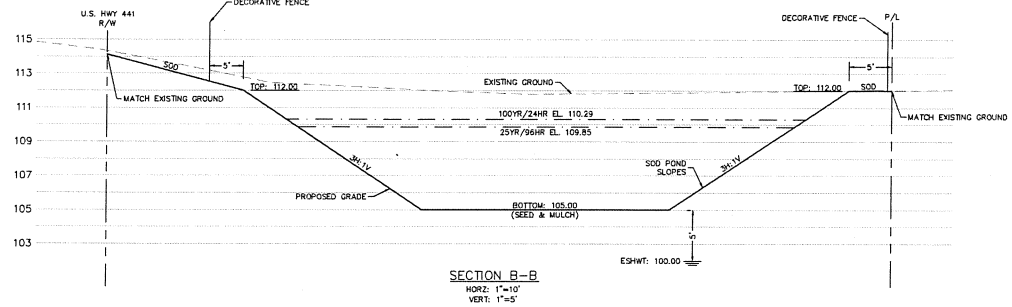
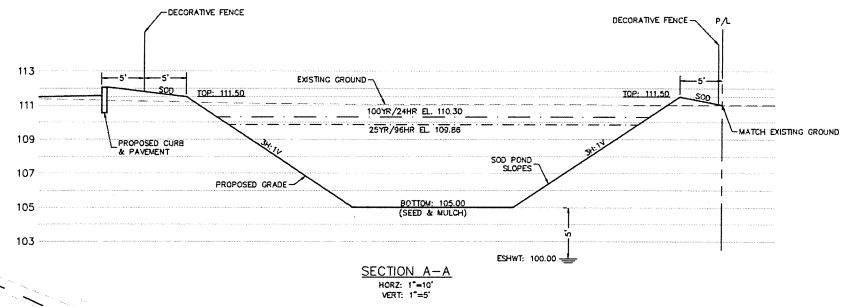
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A FINAL DEVELOPMENT SITE PLAN
 FOR
 IHOP
 CITY OF APOPKA, FLORIDA
 Site Layout Plan

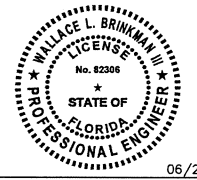
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- NOTES:**
1. ALL PEDESTRIAN SIDEWALKS, PATHWAYS, AND CROSSWALKS SHALL BE A.S.A. COMPLIANT. CONSTRUCTION NOT TO EXCEED 2% CROSS SLOPE NOR 5% LONGITUDINAL. SLOPES IN ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% IN ANY DIRECTION. IN CASES OF SIDEWALK LANDINGS AT BUILDING ENTRANCES, GRADES SHALL NOT EXCEED 2% IN ANY DIRECTION. ACCESSIBLE CURB RAMP SHALL NOT EXCEED 8" IN LENGTH AND 1:12 SLOPE. LANDINGS AT CHANGE IN DIRECTION SHALL BE MINIMUM 60"x60" AND SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
 2. FINISH GRADE OF SOODED AND LANDSCAPED AREAS SHALL MATCH TOP OF CURBS.
 3. ALL CURB TRANSITIONS TO FLUSH W/PAVEMENT SHALL BE 2"-0".
 4. STORMWATER STRUCTURES ARE TO BE BUILT PER F.D.O.T. SPECIFICATIONS (LATEST EDITION).

LEGEND:

	EXISTING ELEVATION
	EXISTING CONTOUR
	PROPOSED ELEVATION
	PROPOSED CONTOUR
	PROPOSED GRATE INLET
	PROPOSED M.E.S.
	PROPOSED STORM PIPE
	PROPOSED SURFACE WATER FLOW DIRECTION
	PROPOSED ASPHALT PAVEMENT
	PROPOSED FOOT ASPHALT PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	EXISTING TREE



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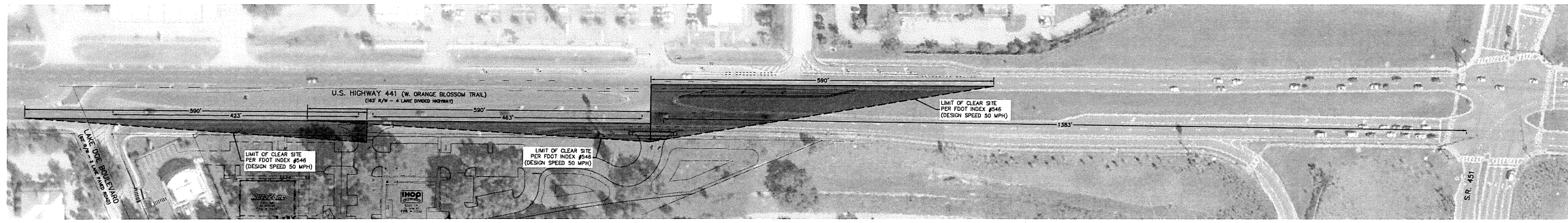
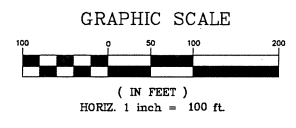
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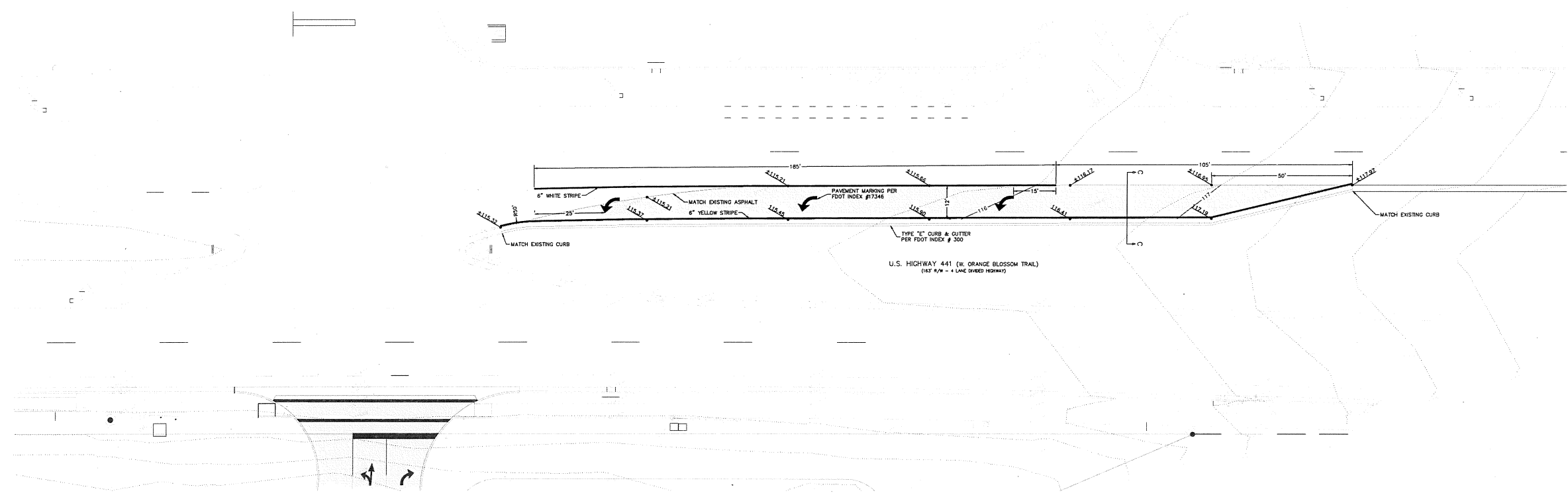
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A FINAL DEVELOPMENT SITE PLAN
FOR
IHOP
CITY OF APOPKA, FLORIDA
Paving, Grading, & Drainage Plan

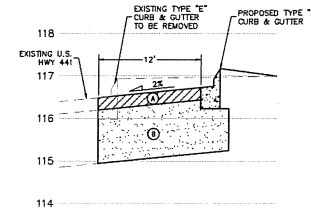
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SIGHT DISTANCE & DRIVEWAY SPACING PLAN
SCALE: 1"=100'



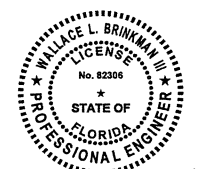
US 441 LEFT TURN LANE PLAN
SCALE: 1"=20'



SECTION C-C
HORZ: 1"=10'
VERT: 1"=2'

MATERIAL REQUIREMENTS:

- (A) 3.5" TRAFFIC LEVEL C SUPERPAVE ASPHALT
- (B) 15" LIMEROCK BASE (TWO LIFTS AND COMPACTED TO 98% OF MAXIMUM DENSITY)



06/29/18
DATE
WALLACE L. BRINKMAN III
PROFESSIONAL ENGINEER
REGISTRATION NO. 82306
STATE OF FLORIDA

REVISION	DATE

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A FINAL DEVELOPMENT SITE PLAN
 FOR
 IHOP
 CITY OF APOPKA, FLORIDA
 F.D.O.T. Turn Lane Plan

JOB No. 18_052128000000025
DATE 06-29-2018
SCALE AS SHOWN
SHEET C6.1

P:\2018\18_052128000000025\18_052128000000025_C6.1.dwg

RILEY & Company, Inc. (ECONO - GP)

SCOPE: Supply one complete ECONO-GP Pre-Fab Lift Station, per design.

Pumps shall be capable of grinding and pumping domestic & commercial sewage.

Complete system shall be supplied by:

RILEY & Company, Inc.
Sanford, FL 32773 (Ph. 407-265-9963)

NO SUBSTITUTIONS - NO ALTERNATES

PUMPS: Submersible grinder pumps shall be HOMA Model GRP. The pumps shall be installed in the ECONO-GP FRP wetwell utilizing a dual 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.

Oil filled motors are not considered equal to air filled motors and therefore will not be considered an equal to the HOMA PUMPS.

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:

Control panel shall be assembled and built by a TUV (UL508A CERTIFIED) manufacturing facility.

The Enclosure shall be NEMA 4X, Fiberglass, minimum 18" high x 16" wide x 6" deep with padlockable draw latches.

The enclosure shall have external mounting feet to allow for wall mounting. All hardware shall be stainless steel.

The following components shall be mounted through the enclosure:

- 1- ea. Red Alarm Beacon (Light)
- 1- ea. Alarm Horn
- 1- ea. Generator Receptacle w/ weatherproof cover
- 1- ea. Alarm Silence Pushbutton

The backpanel 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 backpanel:

- 2- ea. Motor Contactors
- 1- ea. Silence Relay
- 1- ea. Duplex Alternator
- 20- ea. Terminals For Field Connections
- 6- ea. Terminals For Motor Connections (Single Phase Only)
- 3- ea. Grounding Lugs
- 1- ea. Battery Back-Up for HL Alarm

The following components shall be included:

- 1- ea. Main Circuit Breaker
- 1- ea. Emergency Circuit Breaker
- 1- ea. Mechanical Interlock For Emergency And Main Breakers
- 2- ea. Short Circuit Protectors
- 1- ea. Control Circuit Breaker
- 1- ea. Hand-Off-Auto Selector Switches
- 2- ea. Pump Run Pilot Lights

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 DEP standards. The generator receptacle shall be adequately sized to meet the equipment operating conditions.

All motor short circuit protection devices must provide for undervoltage release and class 10 overload protection on all three phases. Visible trip indication, test, and reset capability must be provided without opening inner door. Open frame, across the line, contactors shall be rated per IEC standards and properly sized per the motor requirements. Contactors shall provide for safe touch power and control terminals.

Lightning Arrestor shall meet or exceed the requirements of ANSIEEE Std. C62.21-1984 section 8.6.1. and 8.7.3 shall be supplied by electrician and mounted on the bottom side of the switch disconnect ahead of the pump control panel.

A green pilot light shall be supplied for each motor. The pilot light shall illuminate each time the motor is called to run. A Red pilot light shall be supplied for control power. The pilot light shall illuminate when the control power is available inside the control panel.

Relays shall be ice-cube plug in type. Relay contacts shall be rated 10 amp minimum, DPDT. Twenty (20) terminals shall be supplied for field connections. The terminals shall be rated 25 amps minimum.

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. Ground lugs shall be supplied and appropriately sized for each motor and for service entrance.

MISCELLANEOUS:

The control panel shall be assembled by a TUV (UL508A Certified) manufacturing facility.

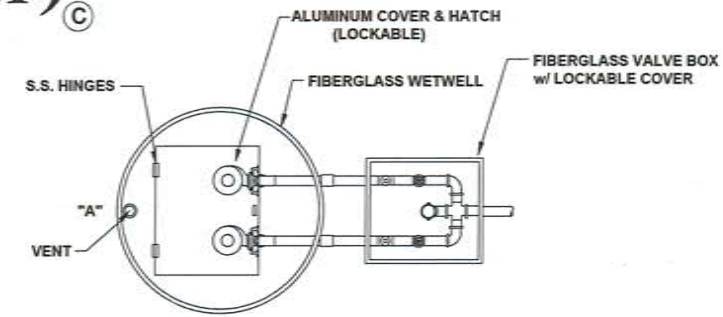
FASTNERS & APPURTANCES: All fasteners, lifting cables, float cable bracket, hinges, and appurtances shall be made of AISI 304SS.

A 304SS slide/latch assembly shall be provided for holding the doors open on the wetwell and valve box. Slide rails shall be made of SCH.40 AISI 304SS pipe. Pump lifting cables shall be made of AISI 304 SS. Pump lifting bales shall be made of AISI 304 SS.

EXECUTION:

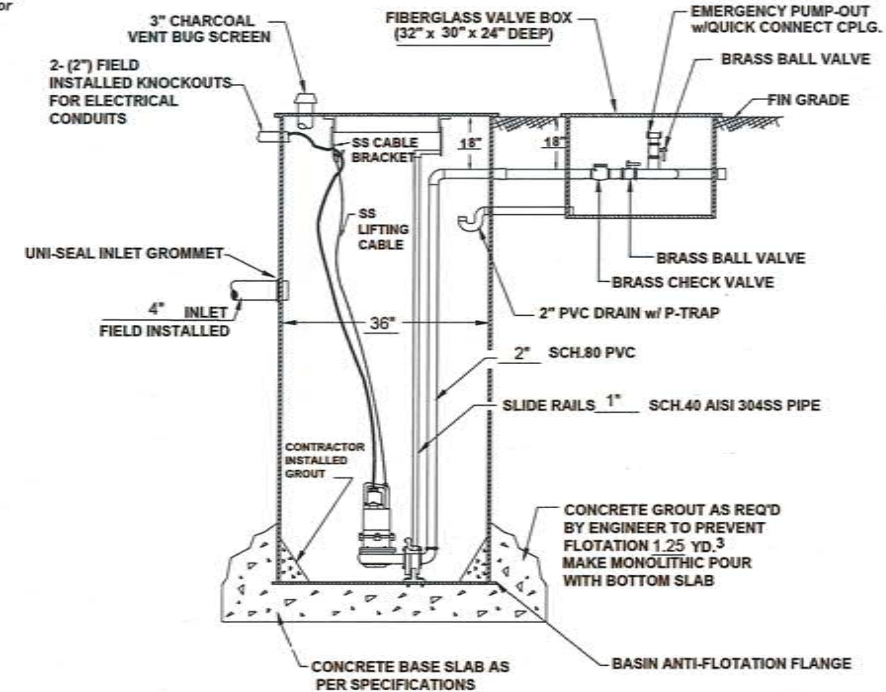
Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the drawing.

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 of complete system. Megger the motors. The pump motors shall be meggered out prior to the start-up to ensure that the insulation of the pump motor/cable is intact. The pump controls and pumps shall be checked for mechanical reliability and proper operation.

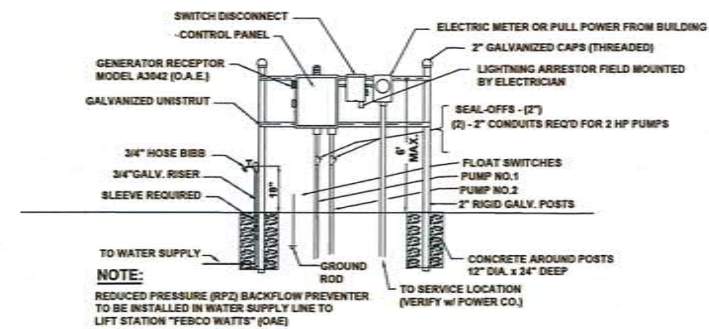


NOTE: PUMP CONTROL PANEL SHALL BE LOCATED 3 FEET FROM WETWELL PERIMETER AT POINT "A"

LIFT STATION PLAN



LIFT STATION SECTION



NOTE: REDUCED PRESSURE (RP2) BACKFLOW PREVENTER TO BE INSTALLED IN WATER SUPPLY LINE TO LIFT STATION "FEBCO WATTS" (OAE)

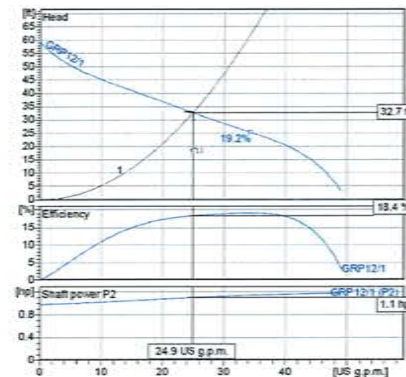
ELECTRICAL RISER FOR ILLUSTRATION ONLY

PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	25 GPM	TOP OF WETWELL	113.25
PRIMARY TDH	33 TDH	INLET INVERT	108.25
PUMP MANUFACTURER	HOMA	HIGH LEVEL ALARM	107.75
PUMP MODEL #	GRP12/1	2nd PUMP ON	107.25
R.P.M.	3450	1st PUMP ON	106.75
HORSEPOWER	1.2	PUMPS OFF	105.00
ELECTRICAL/ VOLTS / PHASE	230/1	BOTTOM OF WETWELL	104.00
PUMP DISCHARGE SIZE	1.25"	WETWELL DIAMETER	36"
IMPELLER DIAMETER	4.41"		

* ELECTRICIAN NOTES:

1. DRAWING NOT TO SCALE
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
5. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT

RILEY & CO. / ECONO - GP 06-11-18



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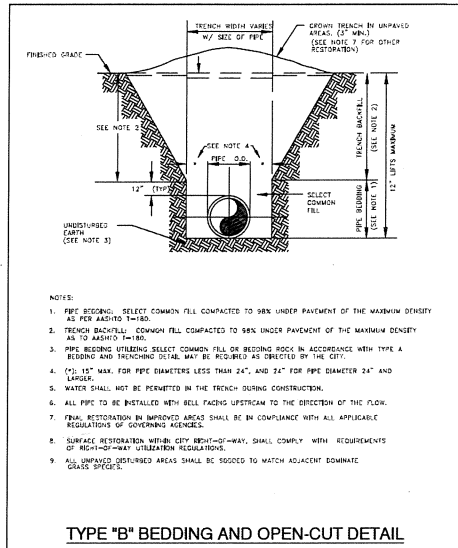
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A FINAL DEVELOPMENT SITE PLAN FOR I-HOP CITY OF APOPKA, FLORIDA Private Lift Station Details



WALLACE L. BRINKMAN III DATE 06/29/18
PROFESSIONAL ENGINEER
REGISTRATION NO. 82306
STATE OF FLORIDA

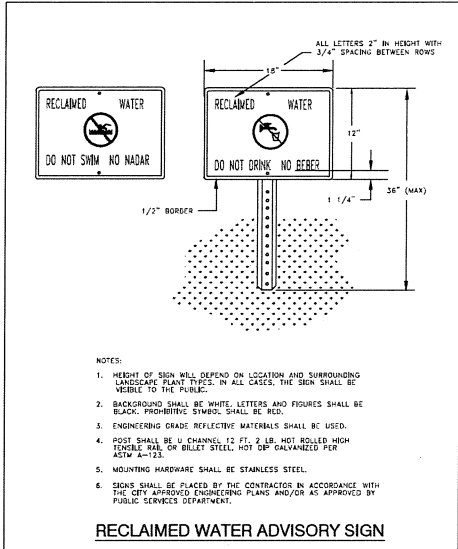
JOB No. 18_052128000000025
DATE 06-29-2018
SCALE AS SHOWN
SHEET C7.1



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

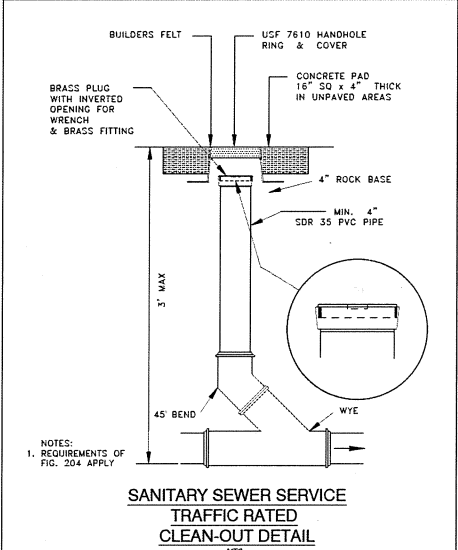
FIG. 100



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 115



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 205

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY	NORMAL WATER		RECLAIMED WATER		SEWER		STORM WATER	
	SEPARATION	MIN. CLEARANCE	SEPARATION	MIN. CLEARANCE	SEPARATION	MIN. CLEARANCE	SEPARATION	MIN. CLEARANCE
18" DIA. WATER	18"	12"	18"	12"	18"	12"	18"	12"
18" DIA. RECLAIMED WATER	18"	12"	18"	12"	18"	12"	18"	12"
18" DIA. SEWER	18"	12"	18"	12"	18"	12"	18"	12"
18" DIA. STORM WATER	18"	12"	18"	12"	18"	12"	18"	12"

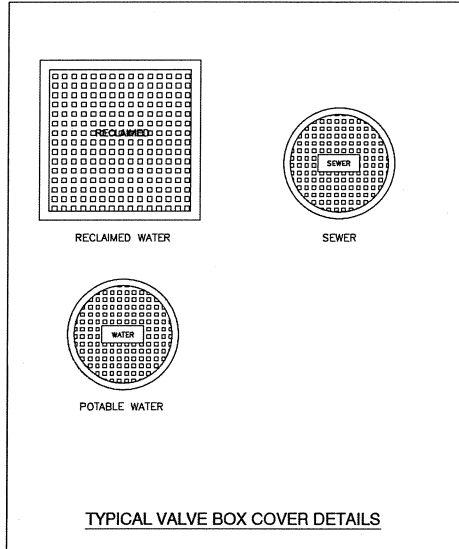
GENERAL NOTES:

- THE TABLE REPRESENTS THE MINIMUM SEPARATION REQUIREMENTS AS DESCRIBED IN F.O.P.A. RULES OF THE FLORIDA ADMINISTRATION CODE (F.A.C.). THESE SEPARATION REQUIREMENTS SHALL APPLY BETWEEN NEWLY PROPOSED UTILITY LINES AND EXISTING OR PROPOSED UTILITY LINES.
- FOR THE PURPOSE OF THIS TABLE, RECLAIMED WATER SHALL MEAN UNIMPROVED PUBLIC ACCESS TO PUBLIC WATER AS DEFINED BY F.A.C. 62B.02. OTHER TYPES OF RECLAIMED WATER ARE CONSIDERED AS SEWER AND SEPARATIONS LISTED FOR SEWER SHALL APPLY.
- ALL SEPARATION DISTANCES ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE UNLESS OTHERWISE SPECIFIED. CIRCUMFERENTIAL CLEARANCE SHALL BE USED.
- C/C = DENOTES CENTER OF PIPE TO CENTER OF PIPE.
- S/O = DENOTES SURFACE OF PIPE TO SURFACE OF PIPE.
- ACCEPTABLE VARIANCES:
 - WHERE HORIZONTAL SEPARATION IS NOT ATTAINABLE, PVC-CH-500 100-4 OR CONCRETE ENCASUREMENT MUST BE USED FOR THE SANITARY SEWER LINE FOR AT LEAST 50% OF THE PIPE. PVC-CH-500 100-4 OR CONCRETE ENCASUREMENT MUST BE USED UNTIL MINIMUM CLEARANCE IS RESTORED.
 - WHERE 18 INCH VERTICAL SEPARATION IS NOT ATTAINABLE AT CROSSINGS, USE ONE FULL LENGTH OF PVC-CH-500 100-4 FOR SANITARY SEWERS OR ENCASED PIPE CENTERED AT THE POINT OF CROSSING. SUPPORT MAY BE REQUIRED.
- NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SANITARY OR STORM WATER HANDHOLE OR STRUCTURE.
- CONCRETE ENCASUREMENT SHALL NOT BE USED UNLESS APPROVED BY PUBLIC SERVICES DEPARTMENT ON HIS BEHALF.

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JUNE 2012

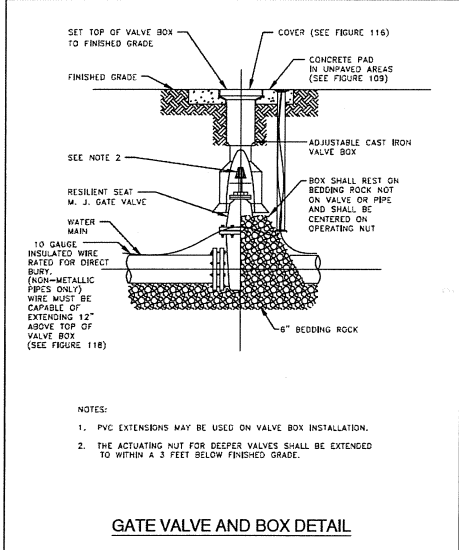
FIG. 104



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

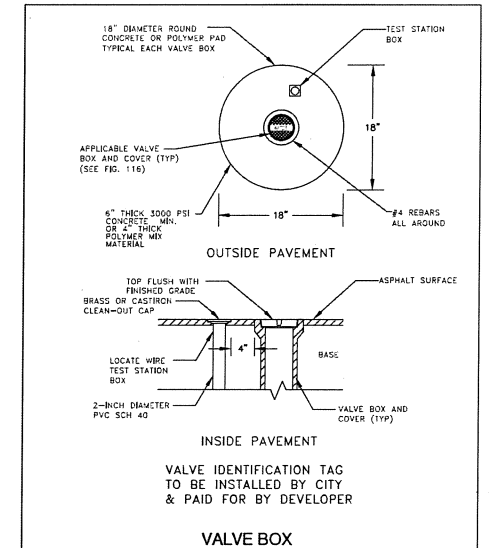
FIG. 116



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

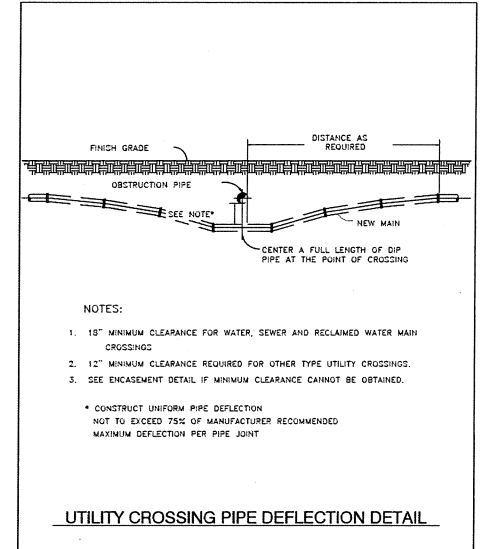
FIG. 400



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

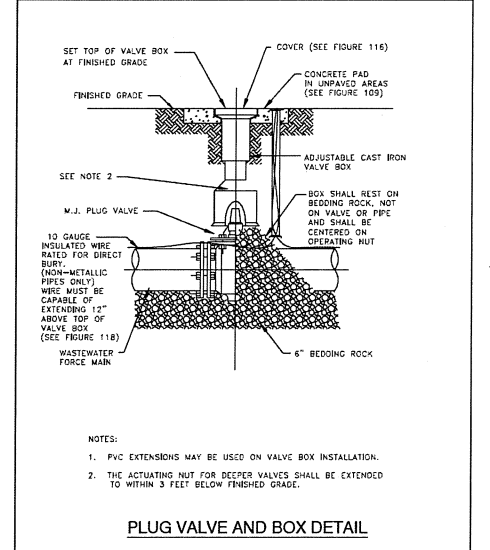
FIG. 109



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 117



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 400 A

PIPE AND APPURTENANCES PRESSURE RATING

PSI	DI FITTINGS		PIPE MATERIAL*		GATE VALVE**		FORCEMAIN*		
	≤24"	>24"	PVC	DI	HDPE	≤12"	>12"	PVC	HDPE
100									
150									
200									
250									
300									
350									

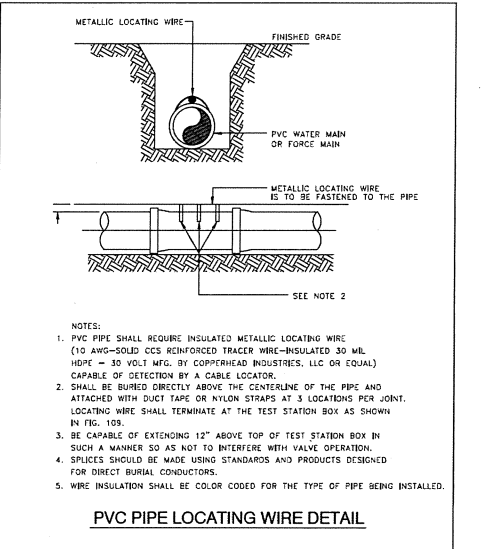
* PVC SHALL HAVE A MAXIMUM DIMENSION RATIO (DR) OF 18 AND HDPE SHALL BE MAX DR11. FORCEMAIN PVC SHALL BE MAX DR18 UNLESS DESIGN REQUIRES OTHERWISE AND HDPE SHALL BE MAX DR17.

** BUTTERFLY VALVES SHALL BE CLASS 150B

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

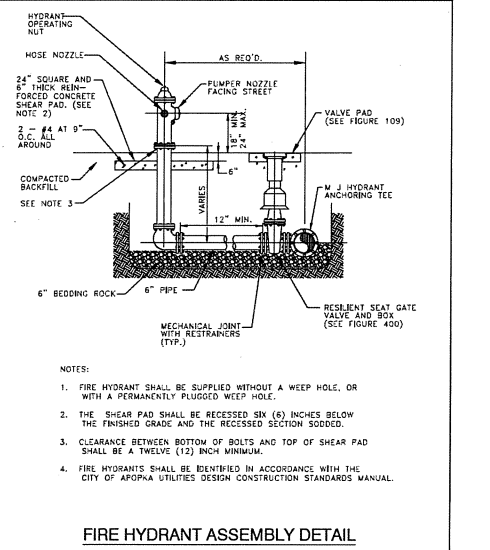
FIG. 110



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 118



CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

FIG. 402

NO.	DATE	REVISION

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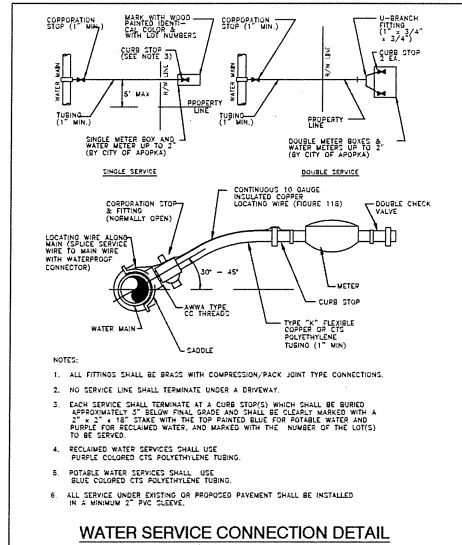
A FINAL DEVELOPMENT SITE PLAN
FOR
IHOP
CITY OF APOPKA, FLORIDA
City of Apopka Standard Details

JOB No.
18_05212800000025

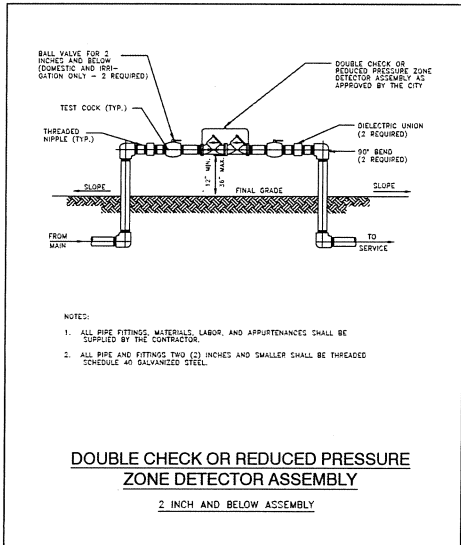
DATE
06-29-2018

SCALE
AS SHOWN

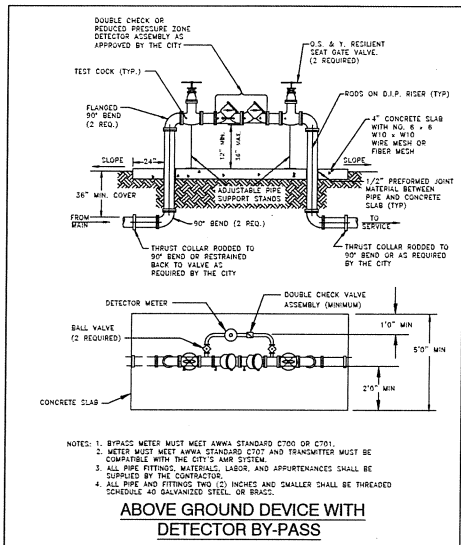
SHEET
CB.0



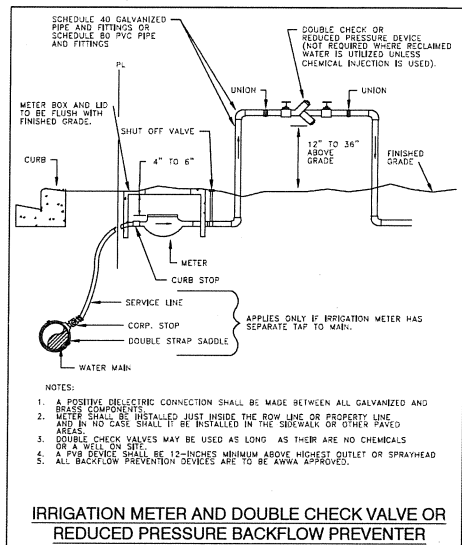
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 405



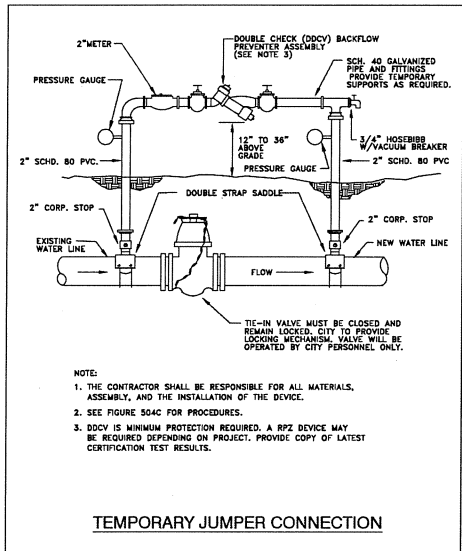
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 500 A



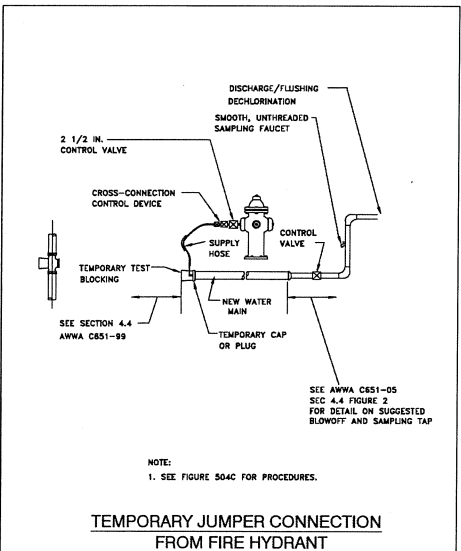
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 500 B



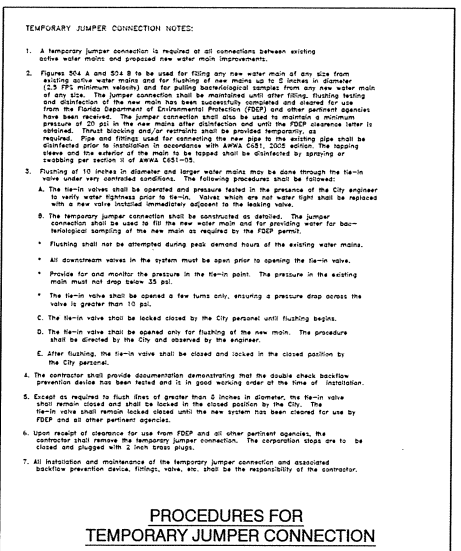
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 502



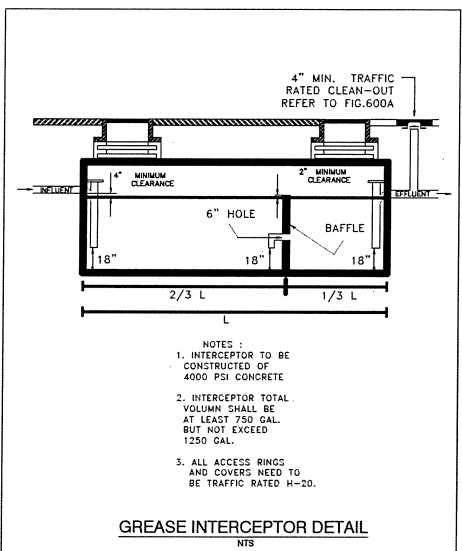
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 504 A



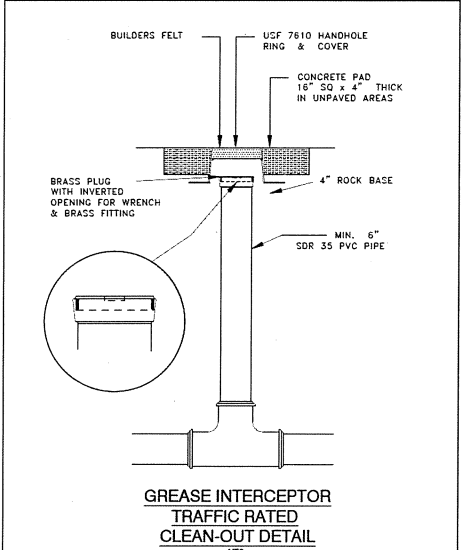
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 504 B



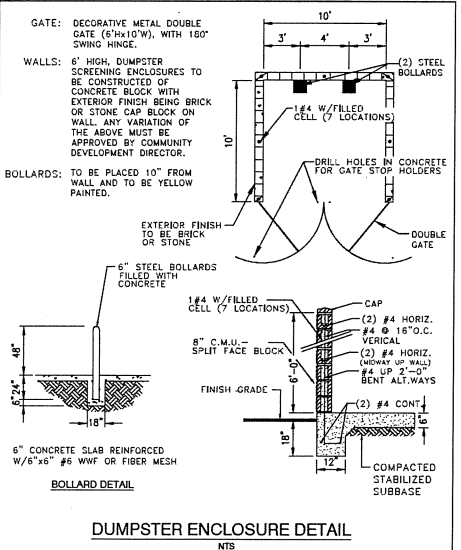
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 504 C



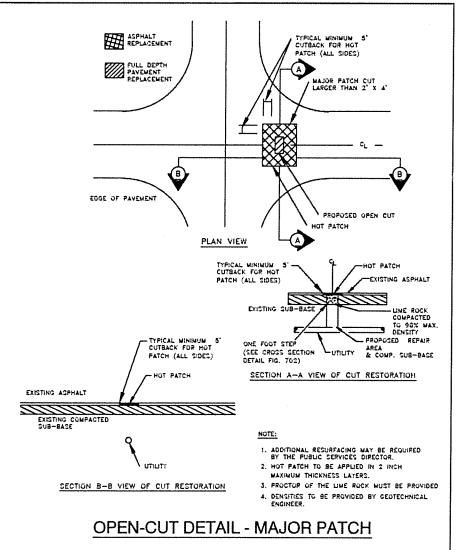
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 600



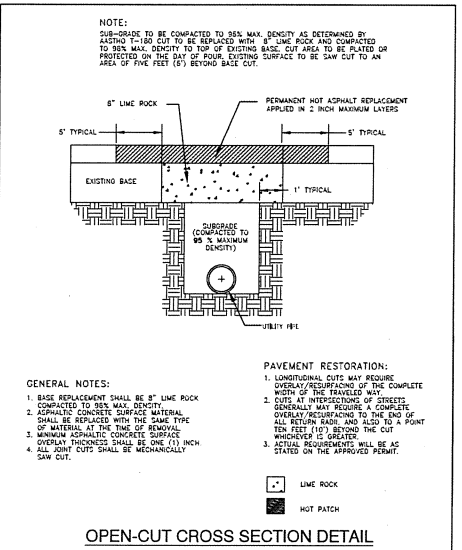
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 600 A



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 601



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 701



CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2015 FIG. 702

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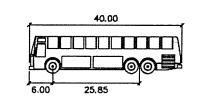
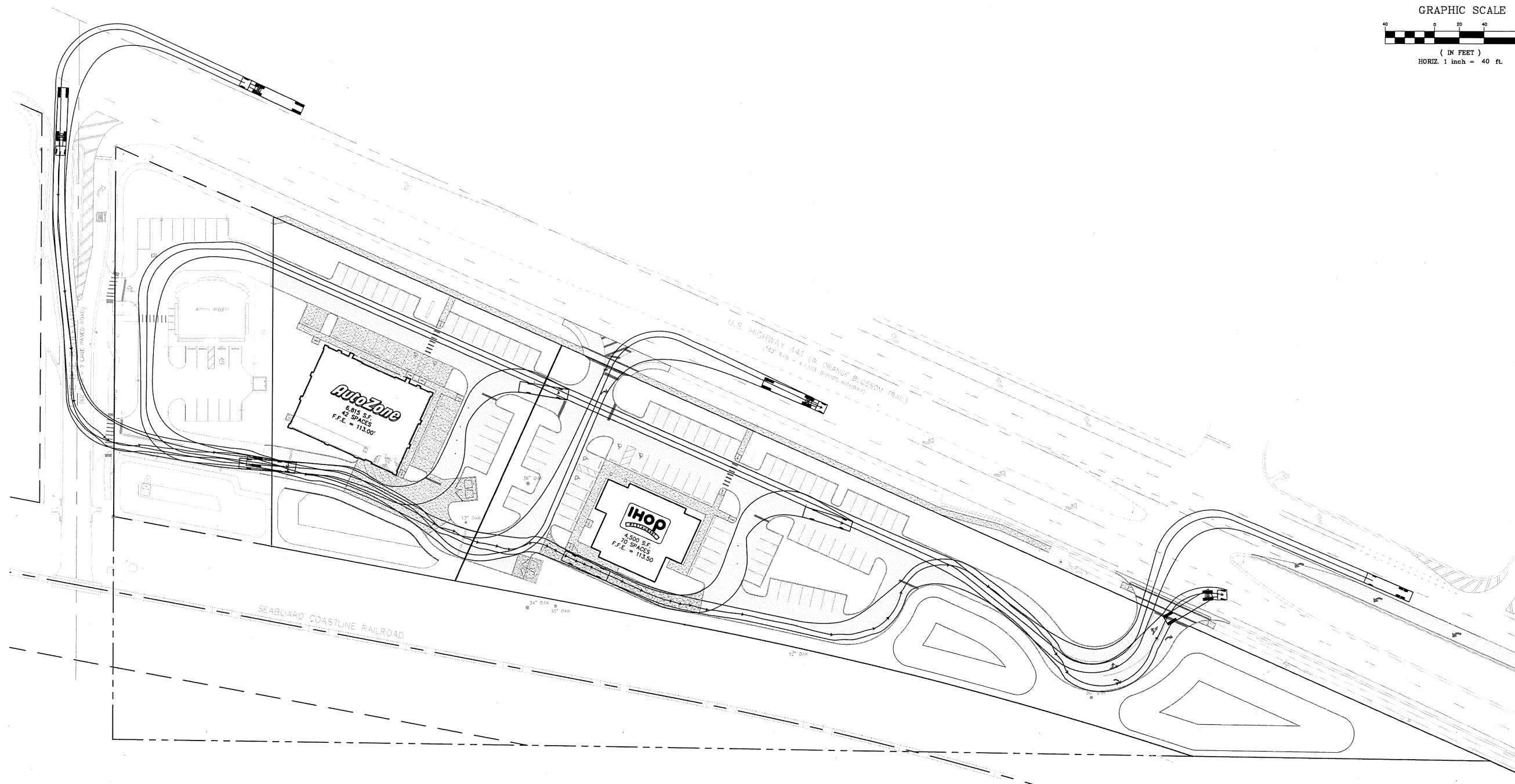
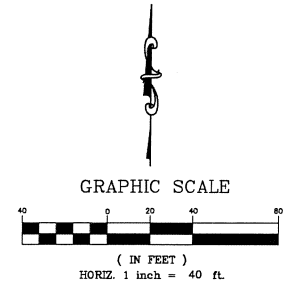
A FINAL DEVELOPMENT SITE PLAN FOR IHOP CITY OF APOPKA, FLORIDA City of Apopka Standard Details

JOB No. 18_05212800000025

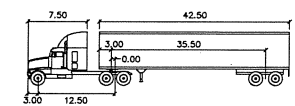
DATE 06-29-2018

SCALE AS SHOWN

SHEET C8.1



BUS-40 feet
 Width : 8.50
 Track : 8.50
 Lock to Lock Time : 6.00
 Steering Angle : 39.30



WE-50 feet
 Tractor Width : 8.00
 Trailer Width : 8.50
 Tractor Track : 8.00
 Trailer Track : 8.50
 Lock to Lock Time : 6.00
 Steering Angle : 17.70
 Articulating Angle : 70.00

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A FINAL DEVELOPMENT SITE PLAN
 FOR
IHOP
 CITY OF APOPKA, FLORIDA
Vehicle Routing Plan

JOB No.
 18_052128000000025

DATE
 06-29-2018

SCALE
 AS SHOWN

SHEET
 CS.0

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LANDSCAPE MATERIAL LIST

SHADE & ORNAMENTAL TREES

CF CORNUS FLORIDA
 INS LEX X NELLE STEVENS
 LJ LAGERSTRÖMIA INDICA 'TUSCARORA'
 LTT LIQUIDUM JAPONICA TREE-TYPE
 MG MAGNOLIA GRANDIFLORA 'DDBLANCHARD'
 MY MYRSICA CERIFERA
 PC PINUS GLAUBA
 QV QUERCUS VIRGINIANA
 UA ULMUS ALATA

DOGWOOD
 NELLE STEVENS HOLLY
 GRAPE MYRTLE
 PRIVET TREE
 SOUTHERN MAGNOLIA
 WAX MYRTLE
 SAMP PINE
 LIVE OAK
 WINGED ELM

SHRUBS

AF AZALEA INDICA 'FORMOSA'
 GH GOMMERS RUMELIS
 EP ELEANUS PLUNENS
 HD LEX VAMITORIA 'STONES DWARY'
 JFP JUNCUS CHINENSIS 'HUMPHREYS PRIDE'
 LC LOROPETALUM CHINENSIS
 MG MUELENBERGIA CAPILLARIS
 NP MYRSANTHES FRANGENS
 OF OSMANTHUS FRANGENS
 RA ROSICARPUS MARGOPHYLLUM
 RI RAPHAELIS INDICA
 VD VIBURNUM OBOVATUM
 VIB VIBURNUM COCCINEUM

COMMON AZALEA
 BERGIAN PAN PALM
 ELEANUS
 STONES DWARY HOLLY
 HUMPHREYS PRIDE JUNPER
 LOROPETALUM
 MULEY GRASS
 SIMPSONS STOPPER
 TEA OLIVE
 FLORIDA YEW
 INDIAN HAWTHORN
 WALTERS VIBURNUM
 SWEET VIBURNUM

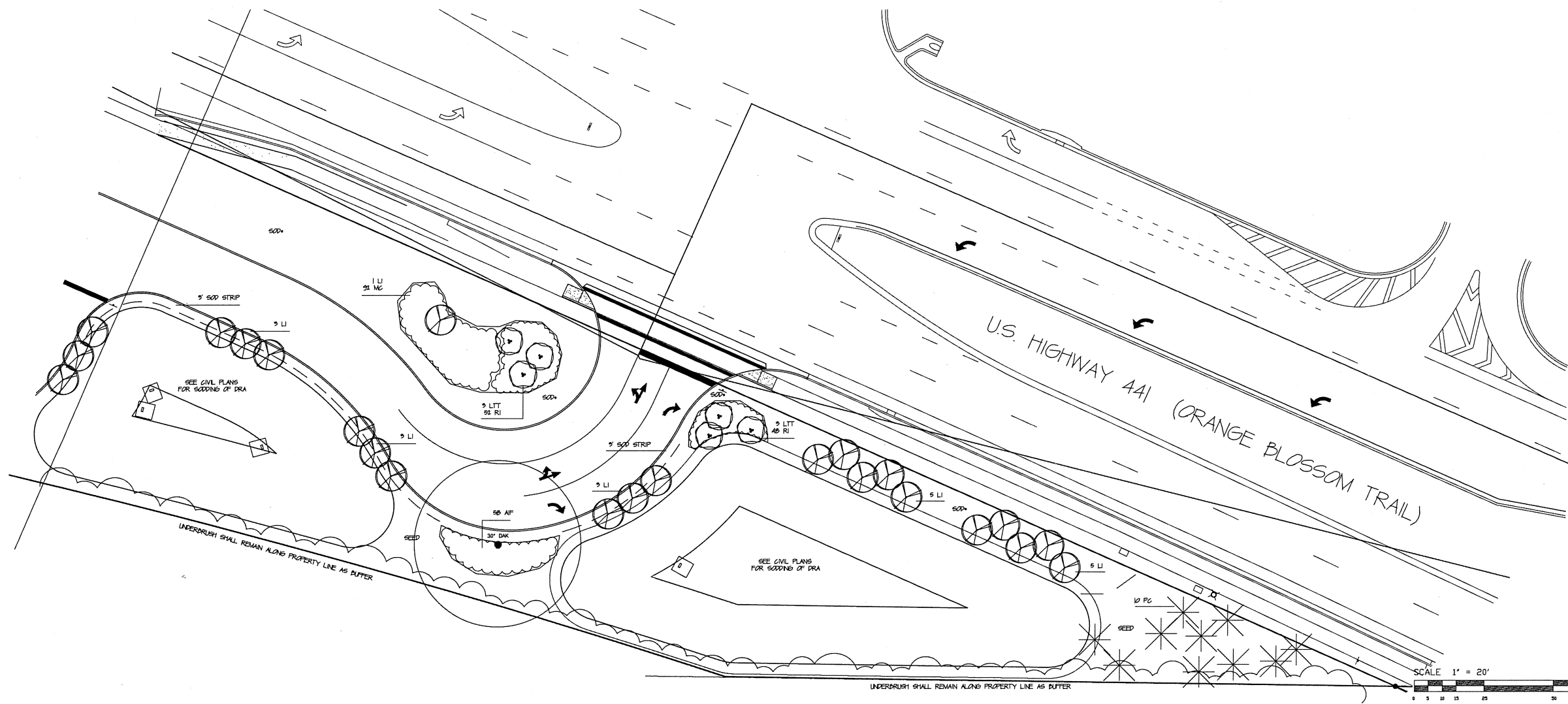
GRASSCOVERS

AA ASPHATHUS AFRICANS
 DT DANIELLA TAMANICA
 LM LIRIOPE MUSCARI 'BIG BLUE'
 MS MIMOSA STINGILLOSA

MILE NILE RIS
 FLAX LILY
 BORDER GRASS
 SUNSHINE MIMOSA

LANDSCAPE NOTES

1. ALL MATERIAL SHALL BE FLORIDA #1 GRADE OR BETTER
2. ALL LANDSCAPED AREAS SHALL BE MULCHED WITH 3" - 4" OF FINE DARK MULCH
3. MULCH SHALL NOT BE INSTALLED ON TOP OF THE ROOT BALLS OF ANY SHADE OR ORNAMENTAL TREES
4. ALL MATERIAL INSTALLED SHALL MEET THE 2015 GRADES AND STANDARDS FOR LANDSCAPE INSTALLATION
5. CERTIFICATION IS REQUIRED FROM THE NURSERY AND/OR THE LANDSCAPE CONTRACTOR THAT THE TREE ROOT BALL HAS BEEN SHAVED PER GRADES AND STANDARDS
6. ALL TREES MUST BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ACCEPTANCE
7. ALL NEW TREES MUST BE GUAYED OR STAKED AS DETAILED
8. EXISTING TREES THAT ARE TO REMAIN MUST BE PROTECTED THROUGHOUT CONSTRUCTION
9. THE LANDSCAPE ARCHITECT SHALL REVIEW WITH THE CONTRACTOR ALL LANDSCAPING THAT IS TO BE DONE AND SHALL IDENTIFY THE SCOPE OF WORK
10. PLACEMENT OF ALL LANDSCAPE MATERIAL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT
11. ALL LANDSCAPE MATERIAL MUST BE INSTALLED WITH NATIVE PEAT AND SLOW-RELEASE NITROGEN FERTILIZER
12. ALL MATERIAL SHALL BE GUARANTEED FOR 90 DAYS FROM THE DATE OF ACCEPTANCE
13. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING IN ALL TREES AND REMOVING AIR-POCKETS
14. DURING THE ESTABLISHMENT PERIOD (FIRST 90 DAYS) THE LANDSCAPE CONTRACTOR SHALL APPLY A MINIMUM OF 40 - 80 GPD TO ALL NEW TREES AS DIRECTED
15. LANDSCAPE CONTRACTOR MUST LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY INSTALLATION
16. ALL MATERIAL SHALL BE GUARANTEED FOR 90 DAYS FROM THE DATE OF ACCEPTANCE
17. NO PLANTINGS OR OTHER OBSTRUCTIONS MAY BE WITHIN THE 1' VEHICULAR OVERHANG AREA
18. SOD SHALL BE INSTALLED IN ALL DISTURBED AREAS OUTSIDE OF THE PLANTING BEDS
19. SOD AROUND THE BUILDING AND PARKING ISLANDS SHALL BE ST. AUGUSTINE PALMETTO AS DIRECTED
20. SOD ALONG THE ROW AND THE DRA SHALL BE ARGENTINE-BAMA AS DIRECTED
21. ALL SOD SHALL BE INSTALLED WITH NO GAPS OR OVERLAPS AND SHALL BE SANDED AS NEEDED
22. SODDING INSIDE THE DRA SHALL BE SHOWN ON THE CIVIL PLANS AND IS NOT PART OF THESE QUANTITIES
23. PLANTING SOIL USED FOR THE BUILDING PLANTERS AND BACKFILLING OF THE LANDSCAPE ISLANDS, ETC. MUST BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION. ALL SOIL SHALL BE WEED-FREE, CONTAIN NO STICKS, ROCKS, OR OTHER FOREIGN OBJECTS, AND SHALL BE A MIXTURE OF 40% SAND, 50% LOAM, AND 10% TOP-SOIL
24. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL PLANT MATERIAL, ROOTS, SOIL, AND OTHER LANDSCAPE ITEMS REMOVED FROM THIS SITE
25. THE LANDSCAPE CONTRACTOR MUST PROVIDE AN AS-BUILT OF THE IRRIGATION SYSTEM TO THE LANDSCAPE ARCHITECT PRIOR TO REQUESTING ANY INSPECTIONS AND/OR APPROVALS
26. THE CONTRACTOR SHALL KEEP THE SITE CLEAN OF ALL DEBRIS, SEDIMENT, DIRT, ETC., AND ENSURE THAT THAT DRAINAGE SYSTEM REMAINS CLEAR AND THAT PEDESTRIAN WAYS ARE NOT BLOCKED
27. DO NOT PLANT NEW TREES TOO DEEP. UNCOVER THE TRUNK FLARE AND SET THIS AT OR ABOVE THE SURROUNDING SOIL LEVEL.
28. REMOVE ANY TREE WRAP FROM AROUND THE TRUNK OF NEW TREES TO BE INSTALLED
29. ALL NEW TREES AND SHRUBS MUST MEET THE 'AMERICAN STANDARDS FOR NURSERY STOCK' (ANSI 260)
30. LANDSCAPE ARCHITECT MAY REQUIRE PRUNING OF NEW TREES AFTER INSTALLATION IF IT IS DETERMINED THAT THE TREES NEED A SINGLE DOMINANT LEADER ESTABLISHED OR CLUSTER BRANCHES REMOVED
31. ALL PLANT MATERIAL MUST MEET ALL OF THE SIZE SPECIFICATIONS, NOT JUST THE CONTAINER SIZE
32. HAVING THE LANDSCAPE ARCHITECT APPROVAL OF PLANT PLACEMENT IS ESSENTIAL FOR ACCEPTANCE
33. ALL SIZE SPECIFICATIONS SHOWN ON THE MATERIAL LIST ARE FOR THE HEIGHT OF THE MATERIAL UNLESS OTHERWISE NOTED. MEASUREMENT SHALL BE AS PER THE CURRENT INDUSTRY GRADES AND STANDARDS
34. LANDSCAPE INSTALLATION MUST BE COORDINATED WITH THE INSTALLATION TO BE DONE ON THE ADJACENT IHOP PROJECT
35. WORK MUST PROTECT THE EXISTING LANDSCAPE PLANTINGS ON THE ADJACENT VERIZON PROPERTY
36. ALL LANDSCAPE PLANTS ARE FLORIDA-FRIENDLY FOR CENTRAL FLORIDA PLANT HARDINESS ZONE
37. ALL LANDSCAPING MUST BE A MINIMUM OF 30' (2.5) FROM THE BUILDING FOUNDATION



RICHARD A. KESSELRING, JR., PLA, ASLA
 LANDSCAPE ARCHITECT, STATE OF FLORIDA #858

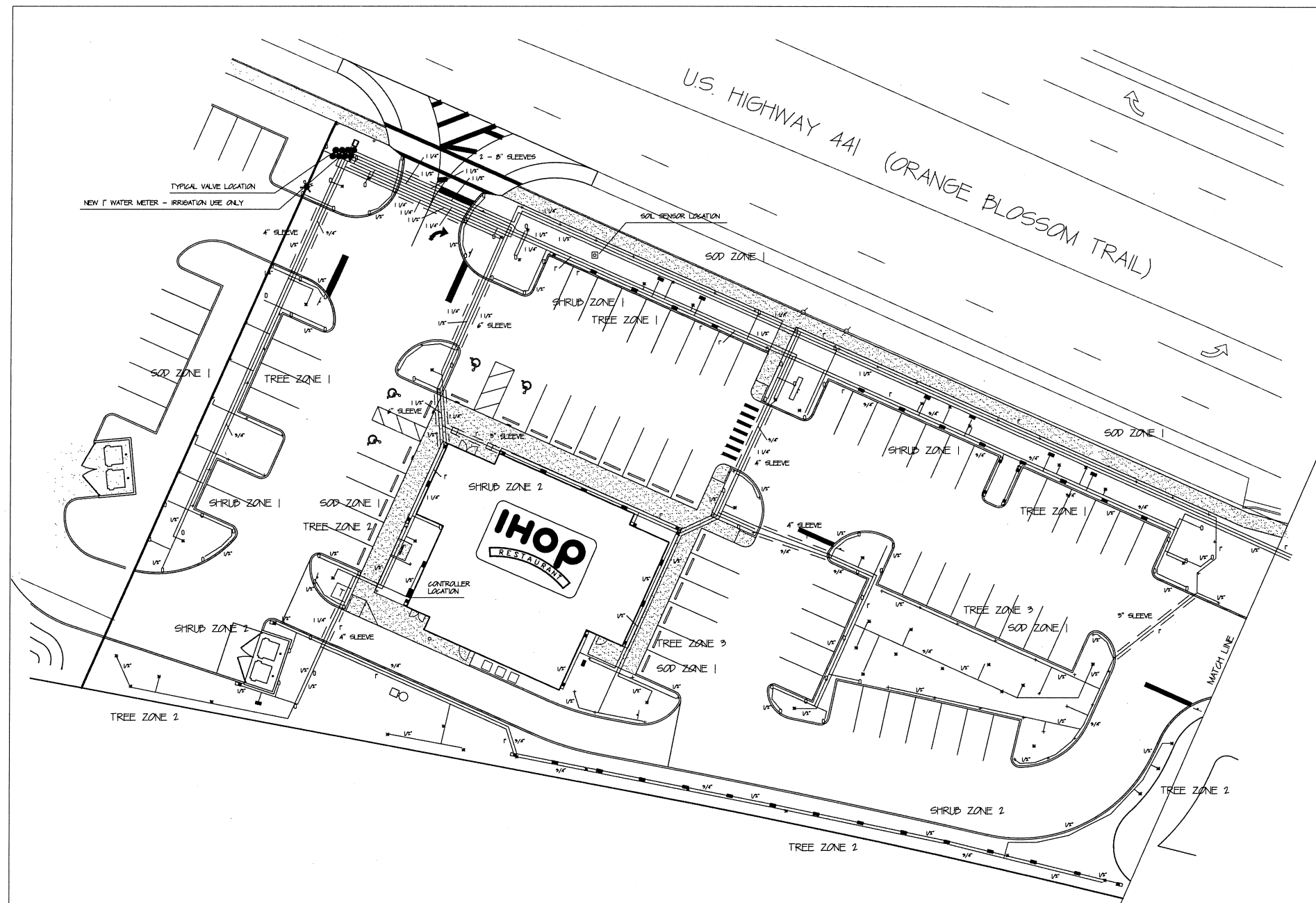
NO.	DATE	DESCRIPTION	BY
1	6/15	CITY COMMENTS	RAK

DRAWN BY:	RAK	DATE:	5 / 18
SCALE:	1" = 20'	DRAWING NO.:	
JOB NO.:		REV. NAME:	
		FE.	PC.

ENVIRONMENTAL DESIGN
 ANDY KESSELRING, LANDSCAPE ARCHITECT
 P.O. BOX 6121
 1920 SE. 8th STREET
 OCALA, FLORIDA 34478
 (352) 822-8899
 LANDSCAPE ARCHITECTURE, SITE PLANNING,
 GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN

LANDSCAPE PLAN
 IHOP RESTAURANT
 APOPKA FLORIDA

SHEET 002 of 002



TYPICAL VALVE LOCATION
NEW 1" WATER METER - IRRIGATION USE ONLY

U.S. HIGHWAY 441 (ORANGE BLOSSOM TRAIL)

IHOP
RESTAURANT

- IRRIGATION LEGEND**
- HUNTER NP 1000 SERIES SPRAY HEADS
 - ⊕ HUNTER NP 1000 SERIES SIDE-SPRAY POP-UP HEADS
 - ⊕ HUNTER NP 1000 SERIES POP-UP SPRAY HEADS FOR SOD
 - ⊕ HUNTER PCD SERIES DUBBLER HEADS FOR TREES
 - 1" WATER METER - IRRIGATION USE ONLY
 - ⊗ SOL SENSOR LOCATION
 - ⊕ HUNTER H-CORE (H-100-M-PL) CONTROLLER
 - 1" NELSON VALVES IN WATER-RESISTANT BOXES
 - == SLEEVING - SCH. 40 P.V.C.

IRRIGATION ZONE DATA

ZONE	GPM USAGE	VALVE SIZE	HEAD TYPE	APPLICATION	LANDSCAPE TYPE
TREE ZONE 1	240 GPM	1"	DUBBLER (5 GPM)	LOW-VOLUME	TREES ONLY
TREE ZONE 2	250 GPM	1"	DUBBLER (5 GPM)	LOW VOLUME	TREES ONLY
TREE ZONE 3	200 GPM	1"	DUBBLER (5 GPM)	LOW-VOLUME	TREES ONLY
TREE ZONE 4	310 GPM	1"	DUBBLER (5 GPM)	LOW VOLUME	TREES ONLY
SHRUB ZONE 1	300 GPM	1"	SPRAY (4 GPM)	LOW VOLUME	SHRUBS ONLY
SHRUB ZONE 2	240 GPM	1"	SPRAY (4 GPM)	LOW VOLUME	SHRUBS ONLY
SHRUB ZONE 3	140 GPM	1"	SPRAY (4 GPM)	LOW-VOLUME	SHRUBS ONLY
SOD ZONE 1	240 GPM	1"	SPRAY (4 GPM)	LOW-VOLUME	SOD ONLY

IRRIGATION NOTES

1. MINOR CHANGES MAY BE MADE IN THIS LAYOUT WITH APPROVAL BY THE LANDSCAPE ARCHITECT AND SHALL BE DOCUMENTED ON RECORD DRAWINGS PROVIDED TO CITY PRIOR TO C.D.
2. ALL HEAD LOCATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION
3. HEADS SHALL BE 1/4, 1/2, OR FULL CIRCLE AS EACH LOCATION REQUIRES
4. SPRAYS PATTERNS SHALL BE SET TO MINIMIZE SPRAY ONTO ADJACENT WALKS, DRIVES, AND DRIVEWAYS
5. WATER SOURCE FOR SYSTEM SHALL BE A NEW 1" WATER METER INSTALLED IN THE GENERAL AREA SHOWN. METER SHALL BE FOR IRRIGATION USE ONLY AND PERMITTED AS SUCH
6. PRIOR TO ANY INSTALLATION, THE IRRIGATION CONTRACTOR SHALL REVIEW THE PLANS AND THE SITE AND PROVIDE WRITTEN VERIFICATION TO THE LANDSCAPE ARCHITECT THAT THE EXISTING COMPONENTS ARE SUFFICIENT FOR THE SYSTEM AS DESIGNED. ANY MODIFICATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION
7. COORDINATE WITH THE CIVIL PLANS FOR THE WATER METER AND VALVE INSTALLATION
8. THE CONTROLLER SHALL BE LOCATED IN THE GENERAL AREA SHOWN AND SHALL BE MOUNTED AS APPROVED BY THE LANDSCAPE ARCHITECT IN A LOCKABLE CASE
9. THE OWNER WILL PROVIDE AN ELECTRICAL OUTLET IN THE CONTROLLER AREA
10. ALL VALVES SHALL BE INSTALLED IN WATER-RESISTANT BOXES
11. ALL SLEEVING MUST BE INSTALLED PRIOR TO THE LIMECAPPING OF THE PAVED AREAS
12. ALL SLEEVING SHALL BE SCH. 40 P.V.C. AND INSTALLED A MINIMUM OF 18" DEEP
13. ALL FEEDER LINES SHALL BE INSTALLED A MINIMUM OF 12" DEEP
14. RAINBIRD RAINCHECK DEVICE SHALL BE INSTALLED TO MINIMIZE IRRIGATION DURING SUFFICIENT RAINFALL (RSD SERIES). IN ADDITION, AN AGLUNA TDT SENSOR WITH SOX CONTROL MONITOR MUST BE INSTALLED AS LOCATED BY THE LANDSCAPE ARCHITECT FOR PROPER IRRIGATION AMOUNTS
15. THE ENTIRE SYSTEM MUST BE OPERATIONAL, REVIEWED, AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE
16. THE CONTRACTOR SHALL RETURN WITHIN THE FIRST 30 DAYS TO ADJUST THE SYSTEM AS NECESSARY AND DIRECTED BY THE LANDSCAPE ARCHITECT
17. ALL LABOR AND MATERIALS SHALL BE GUARANTEED FOR 1 YEAR FOR FINAL ACCEPTANCE
18. THE CONTRACTOR MUST PROVIDE AN AS-BUILT DRAWING TO THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE
19. BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED AT THE METER LOCATION PER APPLICABLE CODES
20. SLEEVES MUST BE INSTALLED IN ALL AREAS WHERE IRRIGATION PIPING IS INSTALLED UNDER PAVEMENT
21. ZONES ARE DESIGNED TO FUNCTION AT 95 GPM AND 40 PSI AT THE VALVE LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AT ALL HEADS TO INSURE PROPER PRESSURE AND WATER QUANTITY FOR THE DESIGNED COVERAGE
22. CONTRACTOR SHALL CONSULT WITH BOTH OWNER AND THE LANDSCAPE ARCHITECT FOR THE TUNING OF THE SYSTEM, BASED ON CURRENT WATER RESTRICTIONS
23. SYSTEM DOES NOT PROVIDE 100% COVERAGE OF THE ENTIRE PROJECT SITE. CONTRACTOR MUST ADJUST HEADS TO COVER NEW PLANT INSTALLATION AND SOD AREAS AS DIRECTED BY THE LANDSCAPE ARCHITECT
24. ALL LINE LOCATIONS MUST BE ADJUSTED ON-SITE TO INSURE THAT THEY DO NOT IMPACT THE MAJOR ROOT SYSTEMS OF THE TREES TO BE PRESERVED
25. ALL IRRIGATION HEADS SHALL BE LOW-VOLUME, MIRCO-IRRIGATION TO MINIMIZE WATER CONSUMPTION
26. SET RUN TIMES FOR THE SYSTEM PER RECOMMENDATIONS BY IFAS @ EDIS/FAS/ULEDU/NE210
27. ON HEADS LOCATED BELOW THE VALVE LOCATIONS, INSURE CHECK VALVES ARE INSTALLED AT THE HEAD
28. POP-UP HEIGHTS WITHIN SOD AREAS SHALL BE SET AT 6"
29. ALL VALVES SHALL HAVE A FACTORY-INSTALLED FILTER SENTRY AND VERIFIED BY CONTRACTOR
30. VERIFY CONTROLLER SET-UP WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
31. ALL IRRIGATION INSTALLATION SHALL MEET 2016 GRABES AND STANDARDS
32. NO IRRIGATION HEADS SHALL BE INSTALLED ON RIVERS PER CITY CODE REQUIREMENTS
33. ALL AS-BUILTS, VERIFICATIONS, ETC. MUST BE SUBMITTED PRIOR TO FINAL INSPECTION AND ACCEPTANCE
34. DUBBLERS AT ALL TREES AND PALMS SHALL BE STAKED AT THEIR PROPER LOCATIONS
35. ALL IRRIGATION DISTRIBUTION EQUIPMENT SHALL BE A MINIMUM OF 24" FROM VERTICAL STRUCTURES

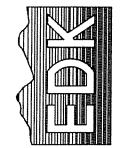


RICHARD A. KESSELRING, JR., P.L.A., A.S.L.A.
LANDSCAPE ARCHITECT, STATE OF FLORIDA #858

NO.	DATE	CITY COMMENTS	DESCRIPTION	RAK	BY
1	5/18				

DATE: 5/18	DRAWING NO.:	PG.
SCALE: 1" = 20'	NEW NAME:	FE.
DRAWN BY: RAK	JOB NO.:	

ENVIRONMENTAL DESIGN
ANDY KESSELRING, LANDSCAPE ARCHITECT
P.O. BOX 5171
260 S.E. 8TH STREET
OCEOLA, FLORIDA 34778
(352) 822-8889
LANDSCAPE ARCHITECTURE, SITE PLANNING,
GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN



IRRIGATION PLAN
IHOP RESTAURANT
APOPKA FLORIDA
SHEET 2022 of _____

IRRIGATION LEGEND

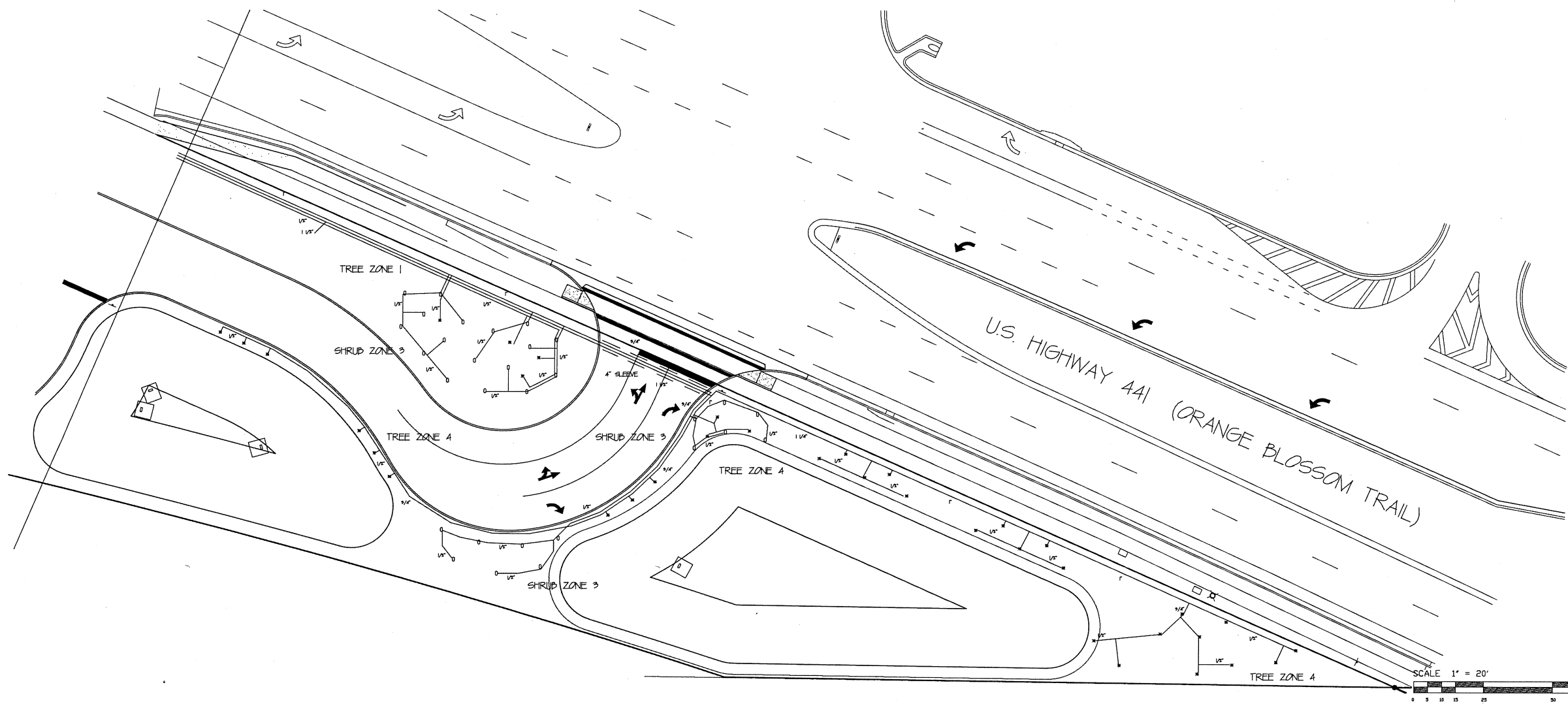
- HUNTER NP 1000 SERIES SPRAY HEADS
- HUNTER NP 1000 SERIES SEE-SPRAY POP-UP HEADS
- + HUNTER NP 1000 SERIES POP-UP SPRAY HEADS FOR SOD
- x HUNTER POP SERIES BUBBLER HEADS FOR TREES
- 1" WATER METER - IRRIGATION USE ONLY
- SOL. SENSOR LOCATION
- HUNTER I-CORE (I-100-N-PL) CONTROLLER
- 2" NELSON VALVES IN WATER-RESISTANT BOXES
- == SLEEVING - SCH. 40 P.V.C.

IRRIGATION ZONE DATA (THIS IS THE SAME CHART AS SHOWN ON L029)

ZONE	GPM USAGE	VALVE SIZE	HEAD TYPE	APPLICATION	LANDSCAPE TYPE
TREE ZONE 1	240 GPM	2"	BUBBLER (5 GPM)	LOW-VOLUME	TREES ONLY
TREE ZONE 2	250 GPM	2"	BUBBLER (5 GPM)	LOW VOLUME	TREES ONLY
TREE ZONE 3	200 GPM	2"	BUBBLER (5 GPM)	LOW-VOLUME	TREES ONLY
TREE ZONE 4	310 GPM	2"	BUBBLER (5 GPM)	LOW VOLUME	TREES ONLY
SHRUB ZONE 1	300 GPM	2"	SPRAY (4 GPM)	LOW VOLUME	SHRUBS ONLY
SHRUB ZONE 2	260 GPM	2"	SPRAY (4 GPM)	LOW VOLUME	SHRUBS ONLY
SHRUB ZONE 3	140 GPM	2"	SPRAY (4 GPM)	LOW-VOLUME	SHRUBS ONLY
SOD ZONE 1	240 GPM	2"	SPRAY (4 GPM)	LOW-VOLUME	SOD ONLY

IRRIGATION NOTES

1. MINOR CHANGES MAY BE MADE IN THIS LAYOUT WITH APPROVAL BY THE LANDSCAPE ARCHITECT AND SHALL BE DOCUMENTED ON RECORD DRAWINGS PROVIDED TO CITY PRIOR TO GO.
2. ALL HEAD LOCATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION.
3. HEADS SHALL BE 1/4, 1/2, OR FULL CIRCLE AS EACH LOCATION REQUIRES.
4. SPRAYS PATTERNS SHALL BE SET TO MINIMIZE SPRAY ONTO ADJACENT WALKS, DRIVES, AND BUILDINGS.
5. WATER SOURCE FOR SYSTEM SHALL BE A NEW 1" WATER METER INSTALLED IN THE GENERAL AREA SHOWN. METER SHALL BE FOR IRRIGATION USE ONLY AND PERMITTED AS SUCH.
6. PRIOR TO ANY INSTALLATION, THE IRRIGATION CONTRACTOR SHALL REVIEW THE PLANS AND THE SITE AND PROVIDE WRITTEN VERIFICATION TO THE LANDSCAPE ARCHITECT THAT THE EXISTING CONDITIONS ARE SUFFICIENT FOR THE SYSTEM AS DESIGNED. ANY MODIFICATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY INSTALLATION.
7. COORDINATE WITH THE CIVIL PLANS FOR THE WATER METER AND VALVE INSTALLATION.
8. THE CONTROLLER SHALL BE LOCATED IN THE GENERAL AREA SHOWN AND SHALL BE MOUNTED AS APPROVED BY THE LANDSCAPE ARCHITECT IN A LOCKABLE CABINET.
9. THE OWNER WILL PROVIDE AN ELECTRICAL OUTLET IN THE CONTROLLER AREA.
10. ALL VALVES SHALL BE INSTALLED IN WATER-RESISTANT BOXES.
11. ALL SLEEVINGS MUST BE INSTALLED PRIOR TO THE LIMERACKING OF THE PAVED AREAS.
12. ALL SLEEVINGS SHALL BE SCH. 40 P.V.C. AND INSTALLED A MINIMUM OF 18" DEEP.
13. ALL FEEDER LINES SHALL BE INSTALLED A MINIMUM OF 12" DEEP.
14. RAINFALL RANGEBACK DEVICE SHALL BE INSTALLED TO MINIMIZE IRRIGATION DURING SUFFICIENT RAINFALL (RSD SERIES). IN ADDITION AN ALGALMA TDT SENSOR WITH SOX CONTROL MONITOR MUST BE INSTALLED AS LOCATED BY THE LANDSCAPE ARCHITECT FOR PROPER IRRIGATION AMOUNTS.
15. THE ENTIRE SYSTEM MUST BE OPERATIONAL, REVIEWED, AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE.
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21. ZONES ARE DESIGNED TO FUNCTION AT 30 GPM AND 40 PSI AT THE VALVE LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AT ALL HEADS TO INSURE PROPER PRESSURE AND WATER QUANTITY FOR THE DESIGNED COVERAGE.
22. CONTRACTOR SHALL CONSULT WITH BOTH OWNER AND THE LANDSCAPE ARCHITECT FOR THE TIMING OF THE SYSTEM, BASED ON CURRENT WATER RESTRICTIONS.
23. SYSTEM DOES NOT PROVIDE 100% COVERAGE OF THE ENTIRE PROJECT SITE. CONTRACTOR MUST ADJUST HEADS TO COVER NEW PLANT INSTALLATION AND SOD AREAS AS DIRECTED BY THE LANDSCAPE ARCHITECT.
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25. ALL IRRIGATION HEADS SHALL BE LOW-VOLUME, WREGO-IRRIGATION TO MINIMIZE WATER CONSUMPTION.
26. SET RUN TIMES FOR THE SYSTEM PER RECOMMENDATIONS BY IFAS @ EDIS/PASU/EDU/MEX10.
27. ON HEADS LOCATED BELOW THE VALVE LOCATIONS, INSURE CHECK VALVES ARE INSTALLED AT THE HEAD.
28. POP-UP HEIGHTS WITHIN SOD AREAS SHALL BE SET AT 6".
29. ALL VALVES SHALL HAVE A FACTORY-INSTALLED FILTER ENTRY AND VERIFIED BY CONTRACTOR.
30. VERIFY CONTROLLER SET-UP WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
31. ALL IRRIGATION INSTALLATION SHALL MEET 205 GRADES AND STANDARDS.
32. NO IRRIGATION HEADS SHALL BE INSTALLED ON RIVERS PER CITY CODE REQUIREMENTS.
33. ALL AS-BUILTS, VERIFICATIONS, ETC. MUST BE SUBMITTED PRIOR TO FINAL INSPECTION AND ACCEPTANCE.
34. BUBBLERS AT ALL TREES AND PALMS SHALL BE STAKED AT THEIR PROPER LOCATIONS.
35. ALL IRRIGATION DISTRIBUTION EQUIPMENT SHALL BE A MINIMUM OF 24" FROM VERTICAL STRUCTURES.



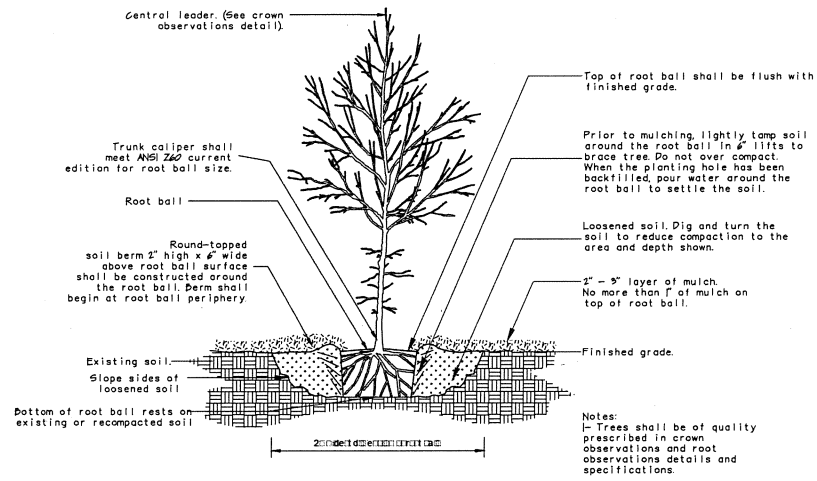
RICHARD A KESSELRING JR., PLA, ASLA
LANDSCAPE ARCHITECT, STATE OF FLORIDA #858

NO.	DATE	DESCRIPTION
1	6/18	CITY COMMENTS

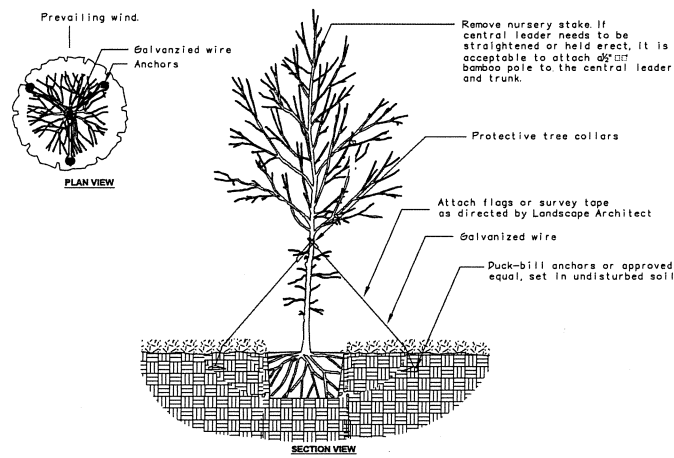
DRAWN BY: RAK	DATE: 5 / 18
SCALE: 1" = 20'	DRAWING NO.: NEW NAME:
JOB NO.:	PG.:

ENVIRONMENTAL DESIGN
ANDY KESSELRING, LANDSCAPE ARCHITECT
1920 SE. 8th STREET
OCALA, FLORIDA 34478
(352) 622-8899
LANDSCAPE ARCHITECTURE, SITE PLANNING,
GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN

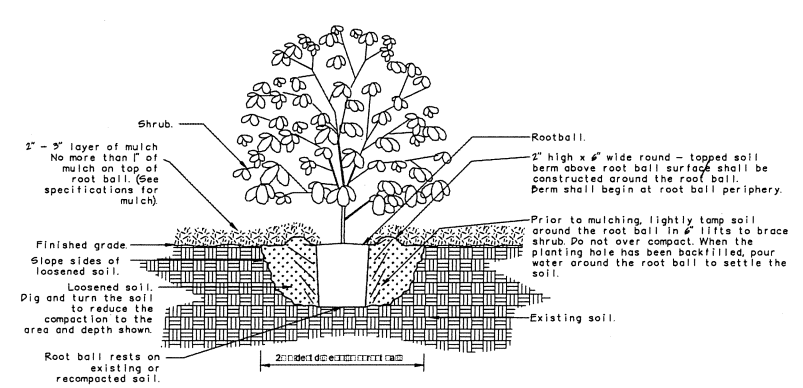
IRRIGATION PLAN
IHOP RESTAURANT
APOPKA FLORIDA



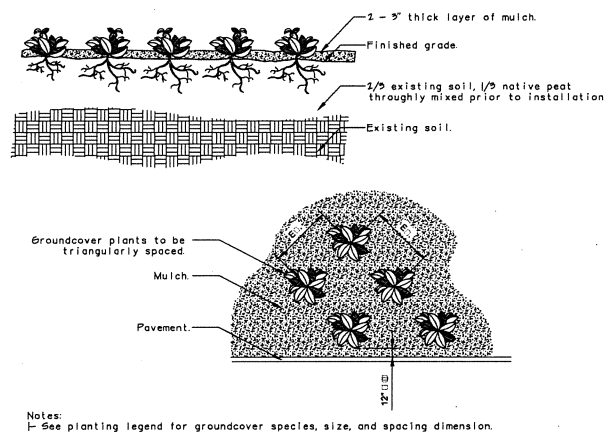
TREE INSTALLATION



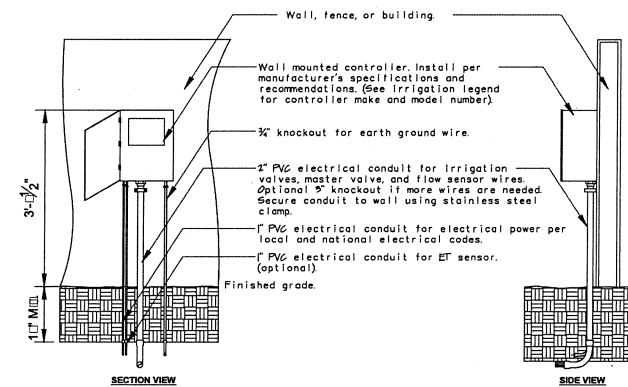
TREE STAKING - TREES < 2" CALIPER



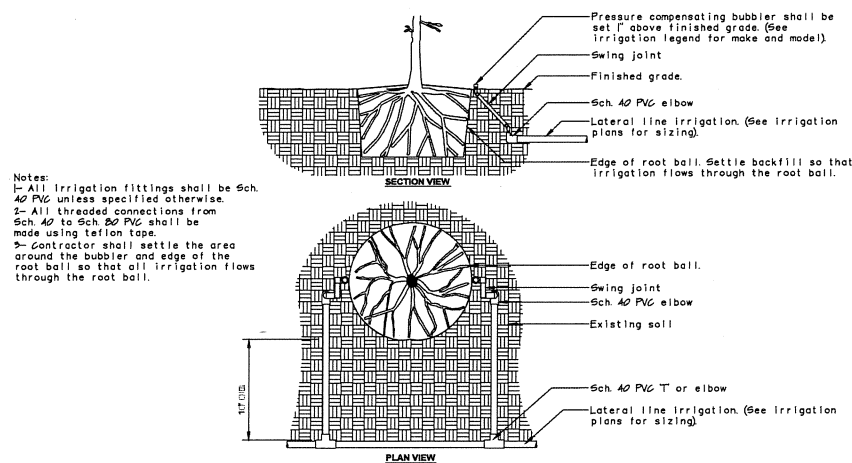
SHRUB INSTALLATION



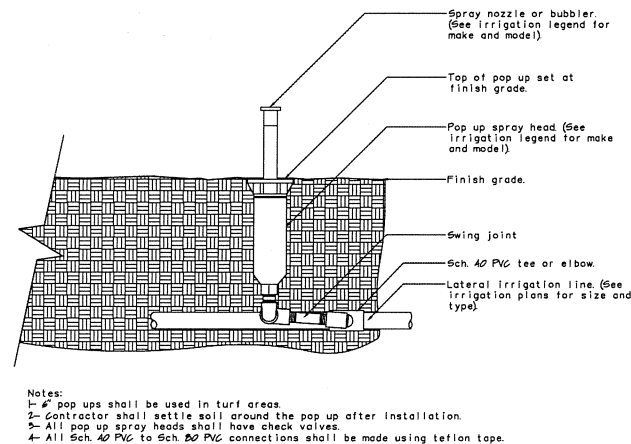
GROUNDCOVER INSTALLATION



WALL MOUNTED CONTROLLER



TREE BUBBLER LAYOUT

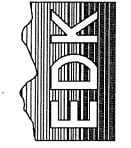


POP UP-SPRAY HEAD

NO.	DATE	BY	DESCRIPTION
1	5/18	RAK	

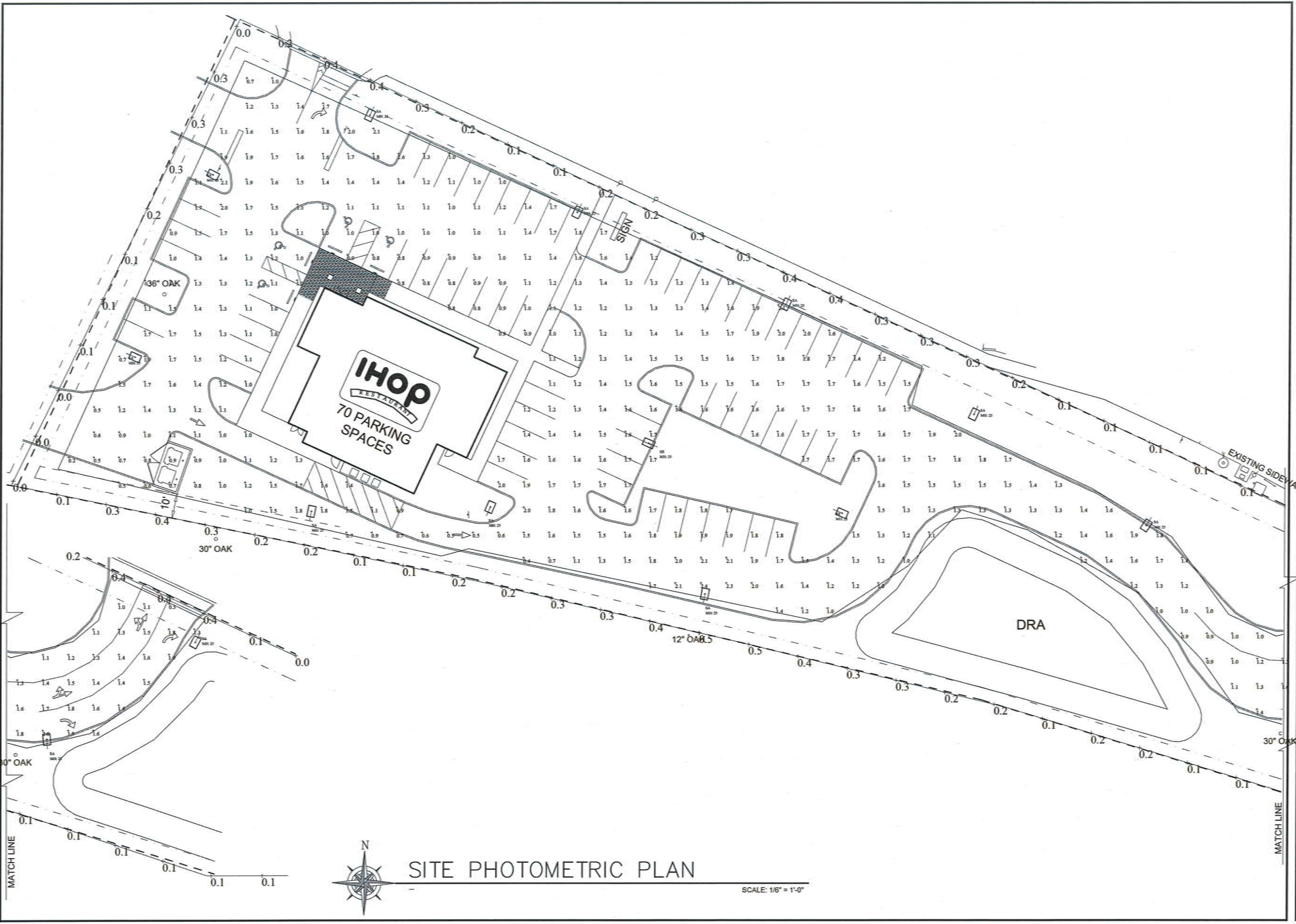
DATE:	5 / 18
DRAWING NO.:	
NEW NAME:	
SCALE:	1" = 20'
JOB NO.:	
PC:	
FE:	

ENVIRONMENTAL DESIGN
 ANDY KESSELING, LANDSCAPE ARCHITECT
 1920 SE 8th STREET
 Ocala, Florida 34478 (352) 622-8899
 LANDSCAPE ARCHITECTURE, SITE PLANNING,
 GOLF COURSE DESIGN, COMMERCIAL-RESIDENTIAL DESIGN



LANDSCAPE & IRRIGATION DETAILS
 HOP RESTAURANT
 APOKA FLORIDA

© COPYRIGHT 2018 SOFARELLI & ASSOCIATES



SITE PHOTOMETRIC PLAN

SCALE: 1/16" = 1'-0"



ISSUED FOR:
PROPOSED
NEW RESTAURANT
LAKE DOE BLVD. at HWY. 441
(W. ORANGE BLOSSOM TRAIL)
APOPKA, FLORIDA 32712



PROJECT:
STORE # T.B.D.

SOFARELLI & ASSOCIATES ARCHITECTURE
SOFARELLI & ASSOCIATES ARCHITECTURE
MICHAEL F. SOFARELLI, JR., AIA
0.365, 142nd AVENUE, NORTH A.I.A.
CLEARWATER, FLORIDA 33760 P. 727.530.3035
F. 727.530.4419
EMAIL: sofarell@verizon.net

Revisions:

Content:
SITE
PHOTOMETRIC
PLAN

Filename:
ICON_PHOTO - R.H.
APOPKA, FLORIDA
Date:
05-07-2018

Proj. no.
18048
Sheet:

E-6

This instrument was prepared by and should be returned to:
William P. Weatherford, Jr.
Marlowe & Weatherford, P.A.
1150 Louisiana Avenue, Suite 4
Winter Park, Florida 32789
(407) 629-5008

DOC# 20140454685 B: 10801 P: 4104
09/08/2014 02:58:37 PM Page 1 of 21
Rec Fee: \$180.00
Deed Doc Tax: \$0.70
DOR Admin Fee: \$0.00
Intangible Tax: \$0.00
Mortgage Stamp: \$0.00
Martha O. Haynie, Comptroller
Orange County, FL
MB - Ret To: WOODS & WOODS PA



ACCESS & UTILITY EASEMENT AGREEMENT

THIS ACCESS & UTILITY EASEMENT AGREEMENT (the "Agreement") is made and entered into this 5th day of September, 2014, by and between **Rock RDP 1, LLC**, a Florida limited liability company ("Rock RDP 1"), whose mailing address is 145 Lincoln Avenue, Suite B, Winter Park, Florida 32789, and Calmil Investment Group LP and Kenneth L. Jureit (collectively, the "Calmil"), whose mailing address is 5905 Moray Court NW, Concord, NC 28027.

WITNESSETH:

WHEREAS, simultaneous with the execution of this Agreement, Rock RDP 1 has acquired from Calmil a fee simple ownership interest in certain real property, located in Orange County, Florida, more particularly described in **Exhibit "A"**, attached hereto and incorporated herein (the "Rock RDP 1 Property").

WHEREAS, Calmil has retained ownership of certain real property, located in Orange County, Florida, more particularly described on **Exhibit "B"** attached hereto and by this reference incorporated herein (the "Calmil Property") which Calmil Property is adjacent to the Rock RDP 1 Property; and

WHEREAS, Calmil is conveying the Rock RDP 1 Property to Rock RDP 1 on the condition that Rock RDP 1 grant to Calmil to the easements granted in this Agreement; and

WHEREAS, Calmil desires an easement over and across a portion of the Rock RDP 1 Property to the benefit of the Calmil Property, for the purpose of a non-exclusive easement for vehicular and pedestrian access, ingress, egress but not parking, subject to the terms and provisions hereinafter set forth; and

WHEREAS, Calmil desires an easement over and across a portion of the Rock RDP 1 Property the benefit of Calmil Property, for the purpose of installing and maintaining utility lines subject to the terms and provisions hereinafter set forth.

NOW THEREFORE, in consideration of the premises hereof and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Rock RDP 1 and Calmil hereby agree as follows:

1. **Grant of Mutual Access, Ingress and Egress Easements.**
 - a. Rock RDP 1 hereby grants and conveys to Calmil, for the use and

benefit of Calmil and its successors, assigns, purchasers, tenants, employees, agents, invitees and licensees and guests, a non-exclusive easement across any driveways, roads, access ways, sidewalks, walkways, exits and entrances which may, from time to time, be located on the Rock RDP 1 Property solely for purposes of vehicular and pedestrian ingress and egress to and from the Calmil Property to Lake Doe Boulevard, but not for parking, as generally depicted on Exhibit E, attached hereto. The depiction of particular driveways on Exhibit "E" shall not be construed as an obligation to establish or maintain those particular driveways.

b. Calmil hereby grants and conveys to Rock RDP 1, for the use and benefit of Rock RDP 1 and its successors, assigns, purchasers, tenants, employees, agents, invitees and licensees and guests, a non-exclusive easement across any driveways, roads, access ways, sidewalks, walkways, exits and entrances which may, from time to time, be located on the Calmil Property solely for purposes of vehicular and pedestrian ingress and egress to and from the Rock RDP 1 Property to United States Highway 441, but not for parking, as generally depicted on Exhibit E, attached hereto. The depiction of particular driveways on Exhibit "E" shall not be construed as an obligation to establish or maintain those particular driveways.

c. Rock RDP 1 shall, at its sole cost and expense, design and construct such driveways, access ways, exits and entrances as may be reasonably necessary to provide a point of access from the Rock RDP 1 Property to Calmil Property (the "Rock RDP 1 Driveway Construction Obligation"). The driveways, access ways, exits and entrances designed and constructed by Rock RDP 1 on the Rock RDP 1 Property shall comply with the requirements of the City of Apopka. Rock RDP 1 shall perform the Rock RDP 1 Driveway Construction Obligation on or before the issuance of a certificate of occupancy for any occupant of any portion of the Rock RDP 1 Property but no later than December 31, 2015.

d. Calmil or its successor shall, at its sole cost and expense, design and construct such driveways, access ways, exits and entrances as may be reasonably necessary to provide a point of access from the Calmil Property to Rock RDP 1 Property. The driveways, access ways, exits and entrances designed and constructed by Calmil on the Calmil Property shall comply with the requirements of the City of Apopka. Calmil shall complete the construction of such driveways, access ways, exits and entrances on or before the issuance of a certificate of occupancy for any occupant of any portion of the Calmil Property.

e. Notwithstanding the easements granted hereunder, Rock RDP 1 shall not permit construction vehicles seeking access to the Rock RDP 1 Property to obtain ingress and egress to the Rock RDP 1 Property across Calmil Property. Likewise, Calmil shall not permit construction vehicles seeking access to Calmil Property to obtain ingress and egress to Calmil Property across the Rock RDP 1 Property.

f. Calmil reserves the right to establish, from time to time, reasonable rules and regulations for the use of the driveways, access ways, sidewalks, walkways, exits and entrances of the Calmil Property. Likewise, Rock RDP 1 reserves the right to establish, from time to time, reasonable rules and regulations for the use of the driveways, access ways, sidewalks, walkways, exits and entrances of the Rock RDP 1 Property.

g. Calmil shall not establish or erect signs directing traffic from Calmil Property to the driveways, access ways, sidewalks, walkways, exits and entrances of the

Rock RDP 11 Property. Likewise, Rock RDP 1 shall not establish or erect signs directing traffic from the Rock RDP 1 Property to the driveways, access ways, sidewalks, walkways, exits and entrances of Calmil Property.

h. Each party reserves the right, subject to the approval of the other party, which approval shall not be unreasonably withheld, to record an instrument containing the legal description and a sketch of such legal description of the driveways, access ways, sidewalks, walkways, exits and entrances of its Property. Upon the recordation of such instrument the rights of ingress and egress described in this instrument shall apply solely to the real property included in such description.

2. **Grant of Utility Easement.** Rock RDP 1 hereby grants and conveys to Calmil, for the use and benefit of Calmil Property, the owners of any portion thereof or interest therein, their successors and assigns, a non-exclusive easement for utility purposes over, under and across the property legally described in **Exhibit "C"** and as depicted in **Exhibit "C-1"**, both attached hereto and incorporated herein a. ("Utility Easement Area"). Utility installations within the Utility Easement Area may, without limitation, include water (potable, fire protection and irrigation water), telephone, cable, gas and electric power. Calmil may from time to time, at its sole cost and expense, install, maintain and repair, within the Utility Easement Area underground utility lines to provide services to Calmil Property.

Prior to beginning any Utility installations in the Utility Easement Area, Calmil will provide written notice to Rock RDP 1 not later than twenty (20) days from the date Calmil anticipates commencing its' work.

Notwithstanding the foregoing, Calmil hereby agrees that during the any installations within the Utility Easement Area and at all times thereafter for the purposes of maintenance or repair, it shall make every reasonable effort not to impede the driveways, access ways, sidewalks, walkways, exits and entrances of the Rock RDP 1 Property or in any way restrict the access to and from the Rock RDP 1 Property of any automobile, pedestrian, employee or agent of Rock RDP 1.

3. **Grant of Sewer Line Easement.** Rock RDP 1 hereby grants and conveys to Calmil, for the use and benefit of Calmil Property, the owners of any portion thereof or interest therein, their successors and assigns, a non-exclusive easement for the for the conduct and passage of waste water through certain sanitary sewer mains, pipes, conduits, valves, meters and related appurtenances located within the property legally described in **Exhibit "D"** and as depicted in **Exhibit "D-1"**, both attached hereto and incorporated herein ("Sewer Line Easement Area") Rock RDP 1 shall, at its sole cost and expense, design and construct the following improvements to be located in the Sewer Line Easement Area:

Construction of a 4" PVC sanitary sewer force main from the common Calmil/Rock RDP 1 property line, westerly across the Rock RDP 1 parcel, with connection to the City's force main in Lake Doe Boulevard

which improvements shall comply with the requirements of the City of Apopka (the "Sewer Line Construction Obligation"). Rock RDP 1 shall perform the Sewer Line Construction Obligation on or before the issuance of a certificate of occupancy for any occupant of any

portion of the Rock RDP 1 Property but no later than December 31, 2015. Calmil may, from time to time and at its sole cost and expense, connect to the lines and facilities located within the Sewer Line Easement Area to provide services to Calmil Property.

Notwithstanding the foregoing, Calmil hereby agrees that during the construction of the Sewer Line Construction Obligation improvements and at all times thereafter for the purposes of maintenance or repair, it shall make every reasonable effort to not impede the driveways, access ways, sidewalks, walkways, exits and entrances of the Rock RDP 1 Property or in any way restrict the access of any automobile, pedestrian, employee or agent of Rock RDP 1 to the Rock RDP 1 Property.

4. **Duration.** The easements hereby created, granted and conveyed shall remain in effect in perpetuity, subject to the right of Rock RDP 1 to relocate the Utility Easement Area and Sewer Line Easement Area as more particularly set forth in Section 5.

5. **Relocation of the Utility Easement Area and Sewer Line Easement.** Rock RDP 1 reserves the right to relocate all or any part of Utility Easement Area or Sewer Line Easement Area, and the utility lines and facilities installed therein, lying within the Rock RDP 1 Property to one or more other easement areas constituting a part of the Rock RDP 1 Property, provided that Rock RDP 1 pays all costs of relocation, at its sole cost and expense, the reasonable needs of Calmil continue to be met in a reasonable manner during relocation, and Rock RDP 1 executes and delivers to Calmil an amendment to this Agreement, or a separate instrument in form and content acceptable to Rock RDP 1 and Calmil, in which Calmil is granted an easement in and to the new easement area(s), and in which the easement granted herein affecting the relocated easement area(s) will be terminated. Rock RDP 1 shall provide not less than sixty (60) days written notice to Calmil that Rock RDP 1 intends to relocate such easement areas and shall provide plans and specification providing reasonable information about its plans for such relocation (hereafter the "Relocation Notice"). Provided that Calmil does not object within twenty (20) days from the date of the Relocation Notice, then Rock RDP 1 may proceed with such relocation in accordance with such plans. Notwithstanding the foregoing, without the express written consent of Calmil, Rock RDP 1 may not commence its' activities to relocate the Utility Easement Area or Sewer Line Easement area until the sixtieth (60th) day from the date of the Relocation Notice.

6. **Maintenance of Utility Easement Area and Sewer Line Easement Area.** Calmil, at its sole cost and expense, shall be responsible for the repair and maintenance of the utility lines and facilities located within the Utility Easement Area and Sewer Line Easement Area which lines and facilities exclusively serve the Calmil Property. Rock RDP 1, at its cost and expense, shall be responsible for the repair and maintenance of the utility lines and facilities located within the Utility Easement Area and Sewer Line Easement Area which lines and facilities serve the Rock RDP 1 Property.

7. **Remedies.** If Rock RDP 1 fails to maintain and repair the utility lines and facilities serving both the Rock RDP 1 Property and the Calmil Property and/or driveways, roads, access ways, sidewalks, walkways, exits and entrances serving the Calmil Property so that they shall at all times be in good and operable condition and in compliance with all applicable governmental codes and regulations or, if Rock RDP 1 shall fail to perform the Rock RDP 1 Driveway Construction Obligation or the Sewer Line Construction Obligation within the time specified herein, Calmil shall have the right after twenty (20) days written

notice to Rock RDP 1 or, in case of an emergency, at any time, to undertake reasonable construction, repairs and maintenance and Rock RDP 1 shall reimburse Calmil for all reasonable costs and expenses related to Calmil's construction, maintenance and repair activities within thirty (30) days of receipt of an invoice for such costs. In the event Rock RDP 1 does not pay when due Calmil's costs and expenses, Calmil shall be entitled to execute and record among the Public Records of Orange County, Florida a claim of lien encumbering Rock RDP 1 Property. The claim of lien shall be in an amount equal to the reimbursement due to Calmil, plus interest at the highest rate allowed by law from the date said reimbursement was due, together with all costs and reasonable attorneys' fees (at all trial and appellate levels) incurred in connection therewith. Calmil shall be entitled to pursue any or all available remedies to enforce the lien and collect the amounts due, including without limitation foreclosure of the lien or an action to collect the indebtedness.

If Calmil fails to maintain and repair any driveways, roads, access ways, sidewalks, walkways, exits and entrances serving the Rock RDP 1 Property so that they shall at all times be in good and operable condition and in compliance with all applicable governmental codes and regulations or, if Calmil shall fail to perform its' obligations related to the Utility Easement Area within the time specified herein, Rock RDP 1 shall have the right after twenty (20) days written notice to Calmil or, in case of an emergency, at any time, to undertake reasonable construction, repairs and maintenance and Calmil shall reimburse Rock RDP 1 for all reasonable costs and expenses related to Rock RDP 1's construction, maintenance and repair activities within thirty (30) days of receipt of an invoice for such costs. In the event Calmil does not pay when due any Rock RDP 1's costs and expenses, Rock RDP 1 shall be entitled to execute and record among the Public Records of Orange County, Florida a claim of lien encumbering the Calmil Property. The claim of lien shall be in an amount equal to the reimbursement due to Rock RDP 1, plus interest at the highest rate allowed by law from the date said reimbursement was due, together with all costs and reasonable attorneys' fees (at all trial and appellate levels) incurred in connection therewith. Rock RDP 1 shall be entitled to pursue any or all available remedies to enforce the lien and collect the amounts due, including without limitation foreclosure of the lien or an action to collect the indebtedness.

8. **Estoppel Certificates.** In the event that Calmil or Rock RDP 1, or their respective successors or assigns, shall desire to inquire as to the status of any party's performance of or compliance of the obligations imposed in this Agreement, the inquiring party shall be entitled to demand and receive from the other party within ten (10) days prior written notice, an estoppel certificate which states whether any party hereto is in default of its obligations hereunder and whether, when, and to what extent any monies may be due to from one party to another hereunder. Any such written demand must be forwarded pursuant to the notice provision hereunder.

9. **Incidental Rights.** Except as otherwise specifically provided or limited herein, the easements, rights and obligations hereby created, granted and conveyed include all incidental rights reasonably necessary for the use and enjoyment of the easements granted herein and for their intended purposes.

10. **No Common Ownership.** Notwithstanding anything herein set forth, the parties hereto expressly negate any construction of this Agreement which implies the joint or common ownership of any part of Calmil Property or the Rock RDP 1 Property, or which implies the creation, establishment or existence of any partnership, joint venture or other such scheme of common ownership or common operation of the respective properties.

11. **Indemnification.** Rock RDP 1, its successors and assigns, shall indemnify and hold Calmil, its successors and assigns, harmless from and against any and all loss, cause, damage, expense, injury, claim and liability (including reasonable attorney's fees and paraprofessional fees at any pre-trial, trial or appellate proceedings) which Calmil, its successors and assigns, may suffer or incur as the result of, arising out of, or attributable to, use of the Calmil Property by Rock RDP 1, its successors and assigns, or the exercise of any rights granted to Rock RDP 1 herein, except to the extent resulting from the negligent, intentional or willful acts or omissions of the party being indemnified, its contractors, employees, agents or others acting by, through, under or on behalf of such party. Calmil, its successors and assigns, shall indemnify and hold Rock RDP 1, its successors and assigns, harmless from and against any and all loss, cause, damage, expense, injury, claim and liability (including reasonable attorney's fees and paraprofessional fees at any pre-trial, trial or appellate proceedings) which Rock RDP 1, its successors and assigns, may suffer or incur as the result of, or arising out of, or attributable to, use of the Rock RDP 1 Property by Calmil, its successors and assigns, or the exercise of any rights granted to Calmil herein, except to the extent resulting from the negligent, intentional or willful acts or omissions of the party being indemnified, its contractors, employees, agents or others acting by, through, under or on behalf of such party.

12. **No Merger.** If any party shall become the fee owner of any part of the subject real property who is also the holder of a beneficial easement interest created hereunder, said fee interest and beneficial interest shall not merge into the fee estate.

13. **Attorney's Fees.** In the event of a dispute arising under this Agreement, the prevailing party shall be entitled to recover its reasonable attorneys' fees and costs, including attorneys' fees and costs incurred in litigating entitlement to attorneys' fees and costs, as well as in determining or quantifying the amount of recoverable attorneys' fees and costs. The reasonable costs to which the prevailing party is entitled shall include costs that are taxable under any applicable statute, rule or guideline, as well as non-taxable costs, including, but not limited to, costs of investigation, copying costs, electronic discovery costs, telephone charges, mailing and delivery charges, information technology support charges, consultant and expert witness fees, travel expenses, court reporter fees, and mediator fees, regardless of whether such costs are otherwise taxable. The party prevailing in said legal proceedings shall be entitled to recover from the party not prevailing in said legal proceedings reasonable attorneys' fees and court costs incurred incidental thereto, including, without limitation, fees and costs incurred in appellate proceedings and in bankruptcy.

14. **Applicable Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Florida, exclusive of any conflict of laws provisions thereof that would apply the laws of another jurisdiction. Calmil and Rock RDP 1 hereby submit to the jurisdiction of, and agree that venue for actions hereunder shall be, in the Circuit Court of the State of Florida sitting in Orange County, Florida, and Calmil and Rock RDP 1 each hereby waive any objection to venue in such courts and any objection to any action or proceeding on the basis of forum non-conveniens.

15. **Entire Agreement.** This Agreement contains the entire agreement between Rock RDP 1 and Calmil with respect to the subject matter contained herein, and no representations, inducements, promises or agreements, oral or otherwise, not embodied herein shall be binding upon the owners hereto.

16. **Notices.** Any notice required or permitted to be given hereunder shall be in writing and shall be (i) personally delivered, (ii) transmitted by postage pre-paid registered mail, or (iii) transmitted by a recognized overnight courier service to Calmil and Rock RDP 1, their successor and/or assigns, to the address used by the Orange County Tax Collector, or any successor thereto, for the delivery of invoices for the payment of ad valorem property taxes. Any notice required or given hereunder shall only be deemed as having been received (i) upon actual receipt if delivered by hand, (ii) the day following deposit thereof if sent via nationally recognized overnight courier service for next day delivery or (iii) upon receipt or refusal if sent by certified mail, return receipt requested or upon refusal to accept delivery from any overnight courier. Either party may, from time to time, give notice to the other party of some other address to which notices or other communications to such party shall be sent, in which event, notices or other communications to such party shall be sent to such address. If any notice or other communication described in this Agreement is sent by either party hereto to the other and such notice or other communication was not sent in accordance with the foregoing terms of this Section but was, in fact, actually received by the other party, then such notice or other communication shall be deemed to have been duly given by the sending party and received by the recipient party effective as of such date of actual receipt. If any notice is tendered and is refused by the intended recipient, such notice shall nonetheless be considered to have been given and shall be effective as of the date provided herein.

17. **Force Majeure.** Except with respect to any failure to pay any sum due hereunder as a result of bankruptcy, insolvency or refusal or inability to pay, if either party shall be delayed or hindered in whole or in part, or prevented from, the performance of any non-monetary covenant or obligation hereunder as a result of acts of God, fire or other casualty, earthquake, hurricane, flood, epidemic, landslide, enemy act, acts of war, acts of terrorism or bioterrorism, riot, intervention by civil or military authorities of government, insurrection or other civil commotion, general unavailability of certain materials, strikes, boycotts, lockouts, labor disputes or work stoppage beyond the control of either party hereto, then the performance of such covenant or obligation, shall be excused for the period of such delay, hindrance or prevention and the period of the performance of such covenant or obligation shall be extended by the number of days equivalent to the number of days of such delay, hindrance or prevention. The delayed or hindered party shall promptly notify the other party of any force majeure event affecting the delayed or hindered party's performance under this Agreement.

18. **Severability.** The invalidity or unenforceability of any provision or portion of this Agreement will not affect the validity of the remainder of this Agreement. If any provision of this Agreement is determined to be invalid or unenforceable, Calmil and Rock RDP 1 will negotiate in good faith to agree upon substitute provisions to carry out the purpose and intent of the invalid or unenforceable provision.

19. **Miscellaneous.** With or without specific reference thereto, the conveyance of an interest in all or any portion of either Calmil Property or the Rock RDP 1 Property shall be subject to the benefits and burdens of the easements hereby created, granted and conveyed to the same extent as if all the terms and conditions of this Agreement were set forth in full in such conveyance. The easements, covenants, agreements, obligations and conditions contained herein shall not be personal, but shall run with the land and shall be binding upon and inure to the benefit of the owners of all portions of Calmil Property and the Rock RDP 1 Property, the successors and assigns of said owners, and the tenants, agents, licensees, guests and invitees of each of them. The caption included herein are for reference only and should not be used in construing any of the terms hereof.

Signed, sealed and delivered
in the presence of:

CALMIL

Calmil Investment Group, LP

Frank J. Chin
Print: Frank J. Chin

By: Kenneth L. Jureit
Kenneth L. Jureit, General Partner

Katelyn Bayer
Print: Katelyn Bayer

Kenneth L. Jureit
Kenneth L. Jureit as Trustee of THE KENNETH
LEE JUREIT LIVING TRUST dated February
12, 2002, as amended

Frank J. Chin
Print: Frank J. Chin

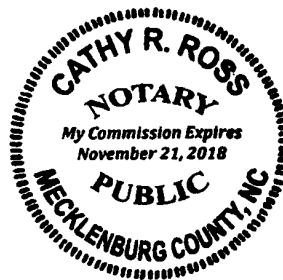
Katelyn Bayer
Print: Katelyn Bayer

STATE OF NORTH CAROLINA)
COUNTY OF Cabarrus

The foregoing instrument was acknowledged before me this 28th day of August,
2014, by Kenneth L. Jureit, as trustee and as general partner of Calmil Investment Group,
L.P., on behalf of the limited partnership, who is personally known to me or who presented
a valid driver's license as identification.

Cathy R. Ross
NOTARY PUBLIC
STATE OF NORTH CAROLINA
Print Name: Cathy R. Ross

My commission expires: 11/21/18



Rock RDP 1

Rock RDP 1, LLC,
A Florida limited liability company

By: ROCK CELLULAR, LLC,
A Florida limited liability company,
As it's sole Manager

By: ROCK PROPERTIES, INC.,
a Florida corporation,
as its sole Manager

[Signature]
Name: David R. Woods
[Signature]
Name: Ann W. Brady

By: *[Signature]*
Name: Greg I. Zuckerman
Title: President

STATE OF FLORIDA)
COUNTY OF ORANGE)

The foregoing instrument was acknowledged before me this 9th day of September, 2014, by Greg I. Zuckerman, as President of Rock RDP 1, LLC, a Florida limited liability company, on behalf of the limited liability company, who is personally known to me or who presented a valid driver's license as identification.



[Signature]
NOTARY PUBLIC STATE OF FLORIDA

Print Name: _____
My commission expires: _____

EXHIBIT "A"
ROCK RDP 1PROPERTY

EXHIBIT "A"

ROCK RDP 1 PROPERTY LEGAL DESCRIPTION

THE WEST 127.94 FEET OF THE S.W. 1/4 OF THE S.E. 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH, RANGE 28 EAST, ORANGE COUNTY, FLORIDA, LYING SOUTH OF U.S. HIGHWAY 441 AND NORTH OF THE SEABOARD COASTLINE RAILROAD RIGHT-OF-WAY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441 (163 FEET WIDE) WITH THE WEST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 5, SAID POINT BEING ON THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD (60 FEET WIDE); THENCE S00°54'42"W ALONG SAID WEST BOUNDARY AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 300.39 FEET TO THE NORTH RIGHT-OF-WAY LINE OF THE SEABOARD COASTLINE RAILROAD (120 FEET WIDE); THENCE DEPARTING SAID WEST BOUNDARY AND EAST RIGHT-OF-WAY LINE, PROCEED S78°27'33"E ALONG SAID NORTH RIGHT-OF-WAY LINE, A DISTANCE OF 130.18 FEET; THENCE DEPARTING SAID NORTH RIGHT-OF-WAY LINE, PROCEED N00°54'42"E, A DISTANCE OF 267.56 FEET TO A POINT ON THE AFOREMENTIONED SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441; THENCE N65°08'03"W ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 140.00 FEET TO THE POINT OF BEGINNING.

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

6-02-14

EXHIBIT "B"
CALMIL PROPERTY

EXHIBIT "B"

CALMIL PROPERTY LEGAL DESCRIPTION

THE S.W. 1/4 OF THE S.E. 1/4 OF SECTION 5, TOWNSHIP 21 SOUTH,
RANGE 28 EAST, ORANGE COUNTY, FLORIDA, LYING SOUTH OF U.S.
HIGHWAY 441 AND NORTH OF THE SEABOARD COASTLINE RAILROAD
RIGHT-OF-WAY EXCEPT THE WEST 127.94 FEET THEREOF.

ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

6-02-14

EXHIBIT "C"
UTILITY EASEMENT AREA

EXHIBIT "C"
UTILITY EASEMENT

LEGAL DESCRIPTION - UTILITY EASEMENT

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441 (163 FEET WIDE) WITH THE WEST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 5, SAID POINT BEING ON THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD (60 FEET WIDE); THENCE S00°54'42"W ALONG SAID WEST BOUNDARY AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 220.39 FEET TO THE POINT OF BEGINNING; THENCE DEPARTING SAID RIGHT-OF-WAY LINE, PROCEED S78°27'33"E, A DISTANCE OF 130.18 FEET TO A POINT ON THE EAST PROPERTY LINE OF THE PARENT PARCEL; THENCE S00°54'42"W ALONG SAID EAST PROPERTY LINE, A DISTANCE OF 24.42 FEET; THENCE DEPARTING SAID EAST PROPERTY LINE, PROCEED N78°27'33"W, A DISTANCE OF 130.18 FEET TO A POINT ON THE AFOREMENTIONED EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD; THENCE N00°54'42"E ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 24.42 FEET TO THE POINT OF BEGINNING.

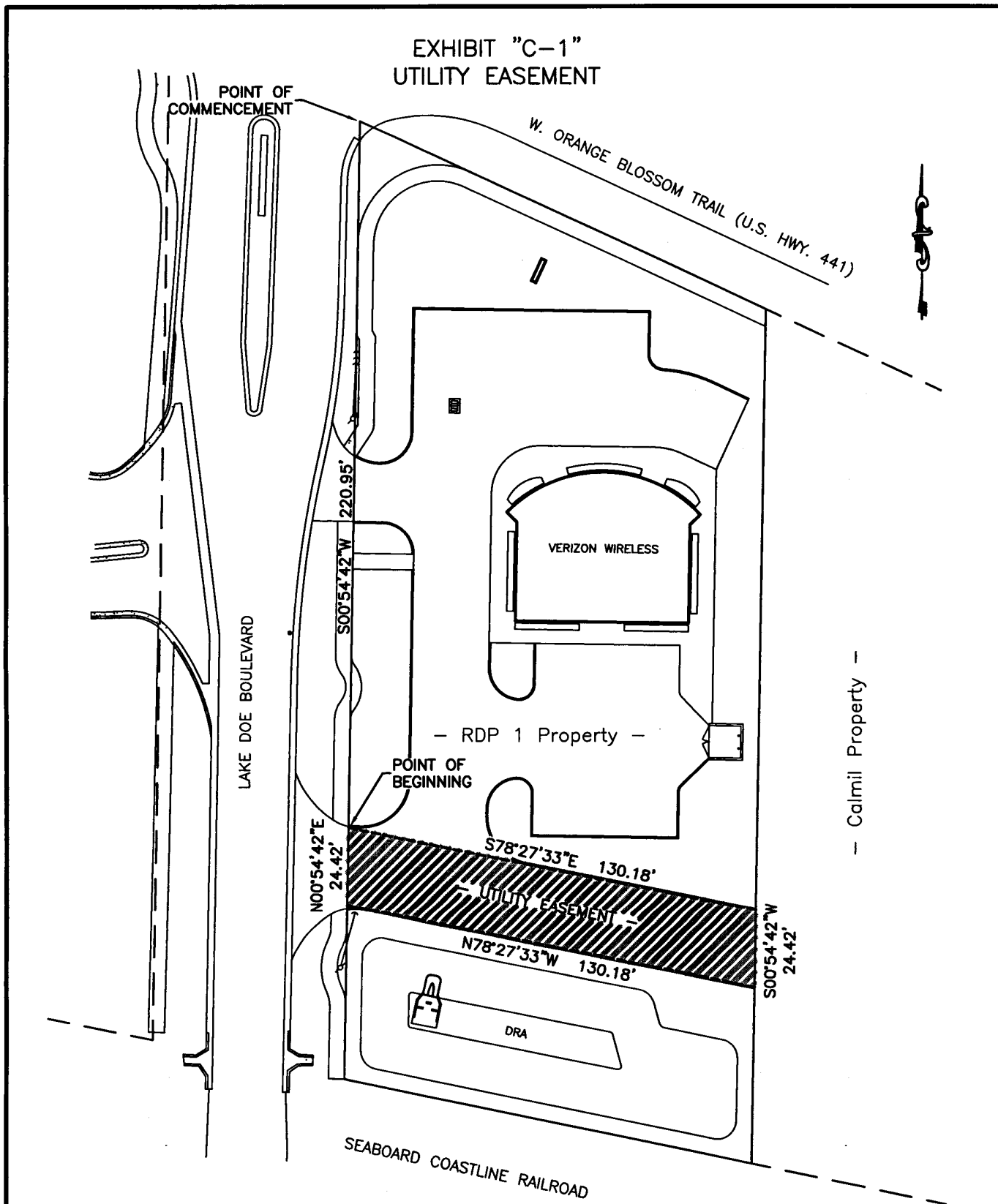
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

7-28-14



ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE
1" = 40'

DATE
7-28-14

EXHIBIT "D"

SEWER LINE EASEMENT AREA

EXHIBIT "D"
SEWER EASEMENT

LEGAL DESCRIPTION – SEWER EASEMENT

A 10 FEET WIDE EASEMENT, LYING 5 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

COMMENCE AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 441 (163 FEET WIDE) WITH THE WEST BOUNDARY OF THE S.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 5, SAID POINT BEING ON THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD (60 FEET WIDE); THENCE S00°54'42"W ALONG SAID WEST BOUNDARY AND SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 219.47 FEET TO THE POINT OF BEGINNING OF SAID CENTERLINE; THENCE DEPARTING SAID RIGHT-OF-WAY LINE, PROCEED S89°59'36"E, A DISTANCE OF 127.96 FEET TO THE POINT OF TERMINUS, SAID POINT BEING ON THE EAST PROPERTY LINE OF THE PARENT PARCEL, LENGTHENING AND SHORTENING THE SIDE LINES TO INTERSECT THE EAST RIGHT-OF-WAY LINE OF LAKE DOE BOULEVARD AND THE EAST PROPERTY LINE OF THE PARENT PARCEL.

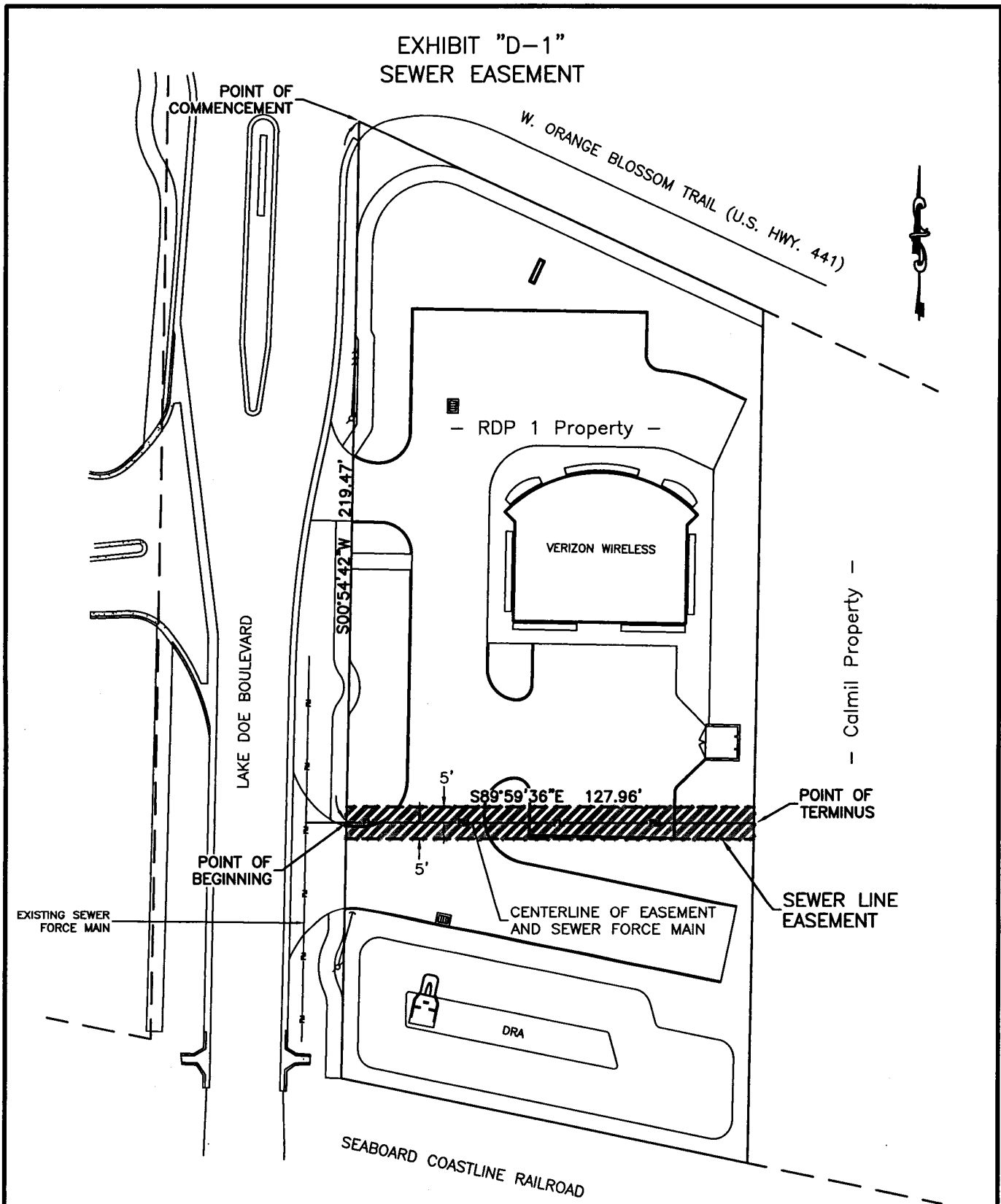
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

7-28-14



ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

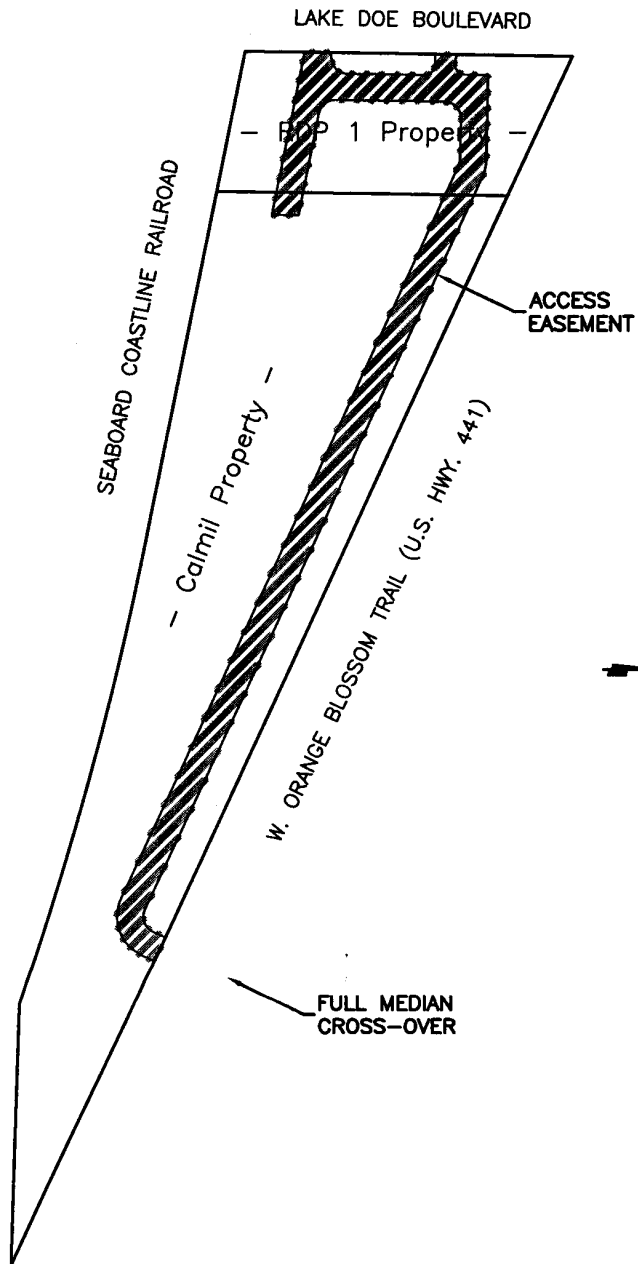
SCALE
1" = 40'

DATE
7-28-14

EXHIBIT "E"

MUTUAL ACCESS, INGRESS AND EGRESS EASEMENT AREA

EXHIBIT "E" ACCESS EASEMENT



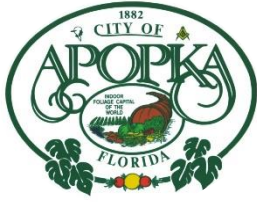
ROGERS ENGINEERING, LLC
Civil Engineering & Land Surveying

• 1105 S.E. 3rd Avenue • Ocala, Florida 34471
• Ph. (352) 622-9214 • Lic. Bus. #4074

SCALE

DATE

7-28-14



CITY OF APOPKA PLANNING COMMISSION

PUBLIC HEARING
 SITE PLAN
 SPECIAL REPORTS
 OTHER: Plat

MEETING OF: August 14, 2018
FROM: Community Development
EXHIBITS: Vicinity Map
Aerial Map
Plat
Final Development Plan

SUBJECT: PLAT - BRIDLEWOOD SUBDIVISION (FKA EQUESTRIAN CENTER SUBDIVISION)

REQUEST: RECOMMEND APPROVAL OF THE PLAT FOR BRIDLEWOOD SUBDIVISION (FKA EQUESTRIAN CENTER SUBDIVISION)

SUMMARY:

OWNER: Laura R. Murphy
APPLICANT: Appian Engineering c/o Luke Classon, P.E.
LOCATION: 359 West Lester Road
PARCEL ID NUMBER: 28-20-28-0000-00-060
EXISTING USE: Errol Equestrian Center
FUTURE LAND USE: Residential Low Suburban
ZONING DISTRICT: R-1 (Single Family Residential) Zoning District
MINIMUM LOT WIDTH: 75 feet typical lot width
MINIMUM LOT SIZE: 8,000 square feet
TRACT SIZE: 19.94 +/- acres
PROPOSED DEVELOPMENT: 52 Single Family Residences
PROPOSED DENSITY: 2.6 DU/AC (3.5 DU/AC Maximum)

DISTRIBUTION

Mayor Nelson
Commissioners
City Administrator
Community Development Director

Finance Director
HR Director
IT Director
Police Chief

Public Services Director
Recreation Director
City Clerk
Fire Chief

RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Mixed Use	M-EC	Hooper’s Landscape Nursery
East (City)	Mixed Use	M-EC	Vacant Land
South (City)	Institutional/Public Use	R-3	Vacant Land
West (City)	Rural	A-2	St. Johns River Water Mgt. District

PROJECT SUMMARY: The Bridlewood Subdivision – Plat involves the development of 52 single family residential lots. The minimum typical lot width is 75 feet with a minimum lot size of 8,000 square feet. The required minimum living area for the subdivision is 1,500 square feet as set forth in Chapter 2 of the Land Development Code for single-family lots located within the R-1 zoning. 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 Lester Road. A future connection occurs through a stub-out street at the northwest corner of the project.

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

RECREATION: The applicant is providing 0.47 acre/approximately 20,473 square feet of recreation space that includes a playground.

SCHOOL CAPACITY REPORT: A school concurrency mitigation agreement has been executed and a copy of the letter from Orange County Public Schools (OCPS) has been supplied to Staff.

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

CONDITION OF APPROVAL: The Plat will be revised to assign maintenance and ownership of the L & F five-foot wide easement (Landscape and Fence) to the HOA; and re-number the notes on the front sheet.

PUBLIC HEARING SCHEDULE:

August 14, 2018 – Planning Commission, 5:30 p.m.

September 5, 2018 – City Council, 1:30 p.m.

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the Bridlewood Subdivision – Plat, subject to the findings of this staff report.

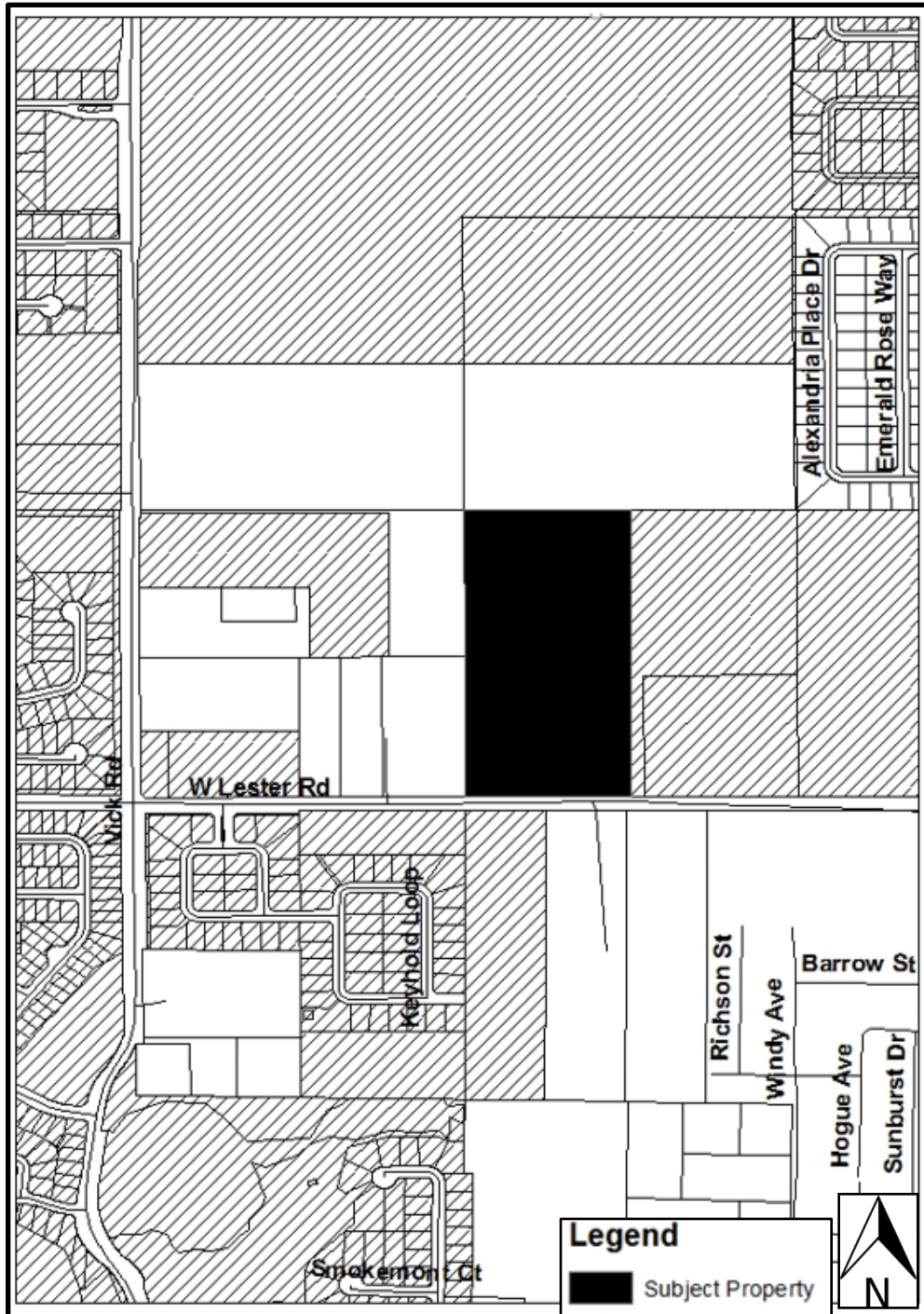
Recommended Motion: Recommend the approval of the Bridlewood Subdivision – Plat subject to the Condition of Approval, findings of the staff report and final review by the City surveyor and city engineer prior to recording the plat.

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

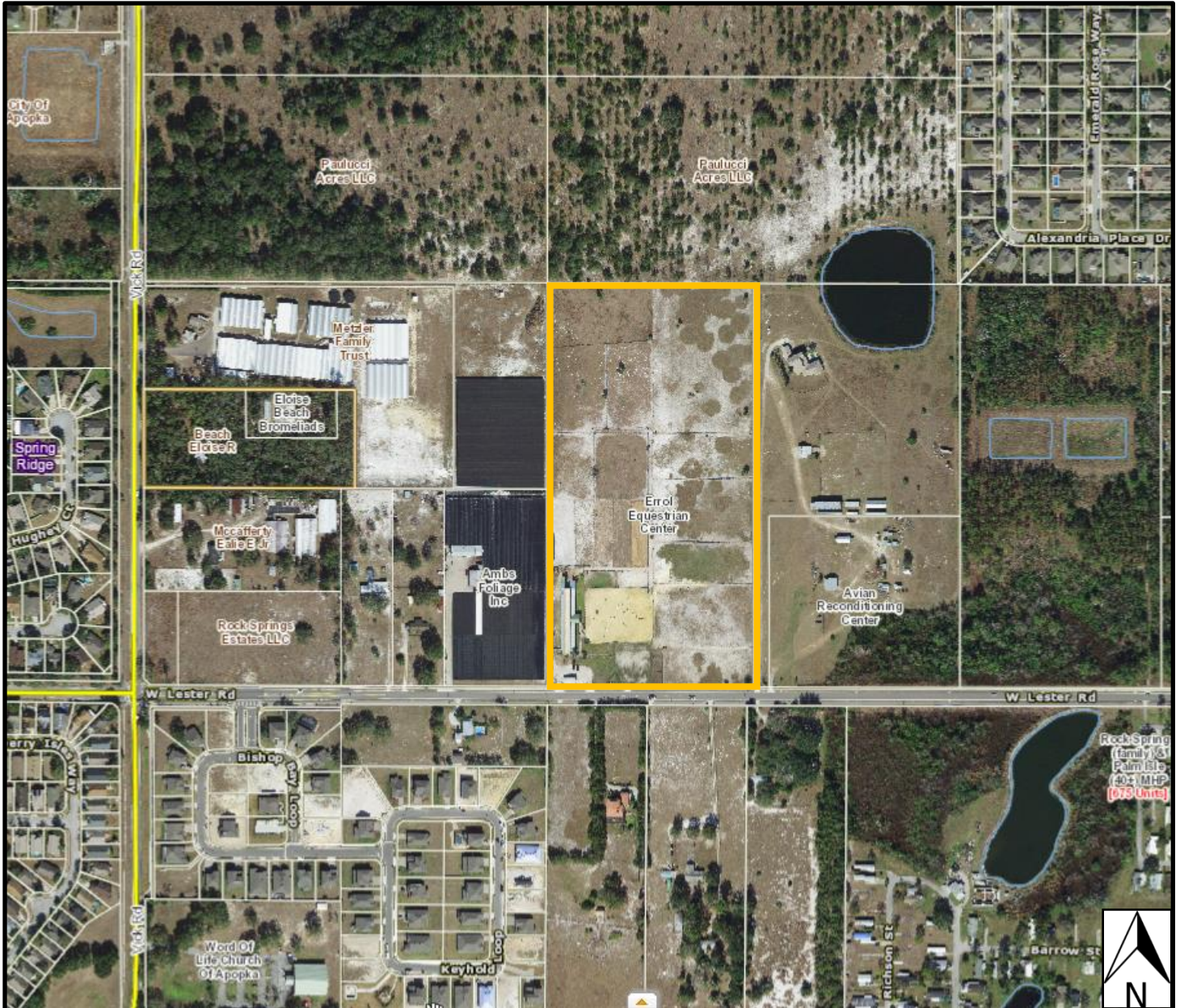
Note: This item is considered quasi-judicial. The staff report and its findings are to be incorporated into and made a part of the minutes of this meeting.

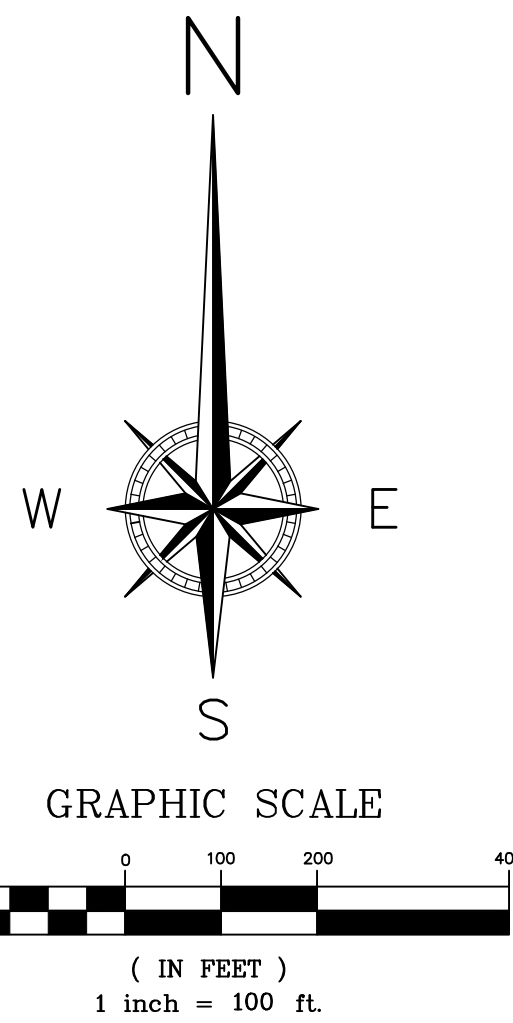
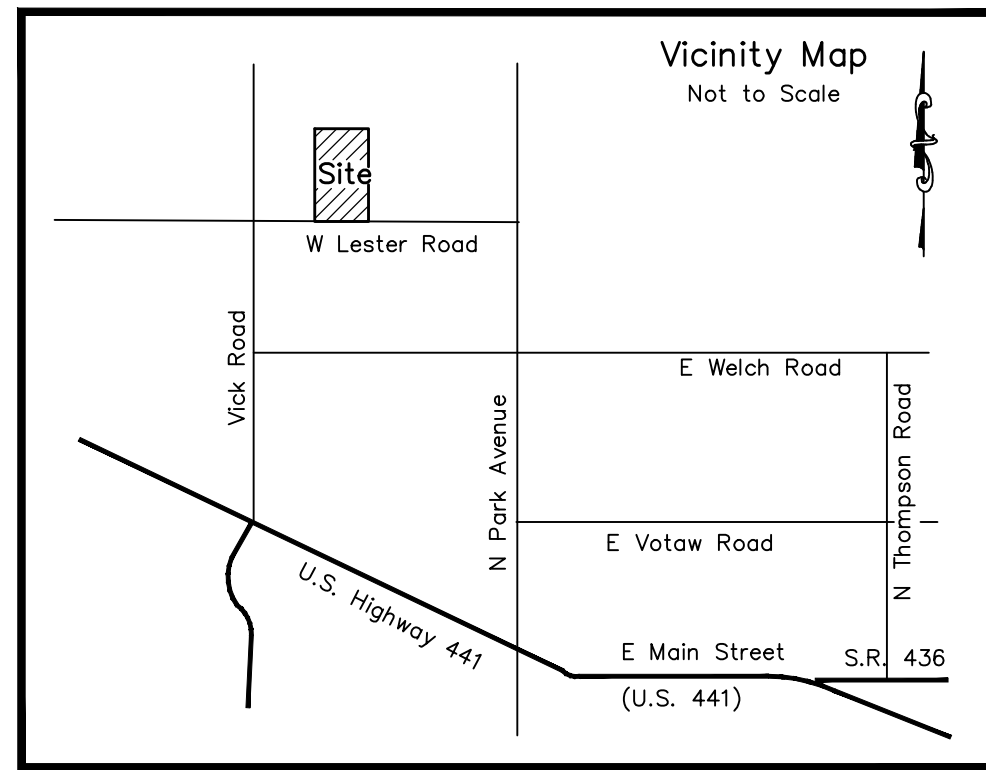
Project Name: Bridlewood Subdivision Plat
Property Owner: Laura R. Murphy
Applicant: Appian Engineering c/o Luke Classon, P.E.
Total Site Area: 19.94 +/-
Parcel ID #: 28-20-28-0000-00-060

VICINITY MAP



AERIAL MAP





Notes

- Bearings shown hereon are based on the South line of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East being assumed as South 89°47'43" East.
- All lines are radial to curves unless otherwise noted as non radial (NR).
- Tracts A and B is a Wall and Landscape area and is owned and maintained by the Bridlewood Homeowners Association, Inc.
- Tract C is a Landscape Entry area and is owned and maintained by the Bridlewood Homeowners Association, Inc.
- Tract D is Stormwater Pond area and is owned and maintained by the Bridlewood Homeowners Association, Inc.
- Tract E is a Park area and is owned and maintained by the Bridlewood Homeowners Association, Inc.
- Tract F is a Lift Station area and shall be owned and maintained by the City of Apopka, Florida.
- The Drainage Easements are hereby dedicated to the Bridlewood Homeowners Association, Inc. and shall be maintained by the individual lot owners; provided, however, if the lot owners fail to maintain, then Bridlewood Homeowners Association, Inc. shall have the right to maintain pursuant to the Declaration of Covenants and Restrictions for Bridlewood Subdivision. No obstructions, modifications or changes to the swales within any drainage easement areas are allowed by the lot owners, their guests or invitees.
- The Utility Easements are hereby dedicated to the City of Apopka, Florida and the perpetual use of the public.
- All platted utility 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 paragraph shall not apply to those private easements granted to or obtained by a particular electric, telephone, gas, or other public utility. Further, such construction, installation, maintenance, and operation shall comply with the National Electrical Safety Code as adopted by the Florida Public Service Commission.
- An emergency access easement to the retention ponds and all drainage easements shown hereon is hereby granted to the City of Apopka, Florida for emergency maintenance purposes. An emergency access easement will not impose any obligation, burden, or responsibility of liability upon the City of Apopka, Florida to enter upon the property if they do not own or take any action to maintain or repair the drainage system on the property

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.

Bridlewood Subdivision

City of Apopka, Orange County, Florida

Section 28, Township 20 South, Range 28 East

Property Description

The West 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East, Orange County, Florida, LESS all that portion lying within the road right-of-way.

Being more particularly described as follows:

COMMENCE at the Southwest corner of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East, Orange County, Florida, thence South 89°47'43" East, along the South line of the Southwest 1/4 of said Section 28, a distance of 1331.85 feet; thence departing said South line, North 00°00'15" East, along the West line of the West 1/2 of the Southeast 1/4 of the Southwest 1/4 of said Section 28, a distance of 30.00 feet to a point on the North right of way line of West Lester Road and POINT OF BEGINNING; thence continue North 00°00'15" East, along the West line of the West 1/2 of the Southeast 1/4 of the Southwest 1/4 of said Section 28, a distance of 1302.49 feet to the Northwest corner of the West 1/2 of the Southeast 1/4 of the Southwest 1/4 of said Section 28; thence South 89°46'32" East, along the North line of the West 1/2 of the Southeast 1/4 of the Southwest 1/4 of said Section 28, a distance of 666.18 feet to the Northeast corner of the West 1/2 of the Southeast 1/4 of the Southwest 1/4 of said Section 28; thence South 00°00'55" West, along the East line of the West 1/2 of the Southeast 1/4 of the Southwest 1/4 of said Section 28, a distance of 1302.26 feet to a point on the North line of West Lester Road; thence North 89°47'43" West, along said North right of way line, a distance of 665.93 feet to the POINT OF BEGINNING.

Contains 19.91 acres, more or less.

Bridlewood Subdivision DEDICATION

KNOW ALL MEN BY THESE PRESENTS, That the undersigned being the owner in fee simple of the lands described in the foregoing caption to this plat, does hereby dedicate said lands and plot for the uses and purposes therein expressed and dedicates the street right of way, Tract F (lift station) and the utility easements to the City of Apopka, Florida and the perpetual use of the public.

IN WITNESS WHEREOF, the undersigned has caused these presents to be signed by the officer named below on _____
 AVEX HOMES, LLC, a Florida limited liability company

By: _____
 Print name: _____ Title: _____

Signed in the presence of:
 Sign Name: _____ Sign Name: _____
 Print Name: _____ Print Name: _____

STATE OF _____
 COUNTY OF _____
 The foregoing instrument was acknowledged before me this ____ day of _____, 2018, by _____ of AVEX HOMES, LLC, a Florida limited liability company on behalf of the company. He [is personally known to me] [has produced _____ as identification]

Notary Signature _____
 Printed Notary Name _____
 Commission # _____
 Expiration Date _____

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a licensed and Professional Land Surveyor, does hereby certify that on October 16, 2017, he completed the survey of said lands shown in the foregoing plat and said survey was made under his responsible direction and that the 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 _____
 Billy Joe Jenkins, Jr.
 Florida Professional Surveyor and Mapper License Number 5205
 Benchmark Surveying and Mapping, LLC
 Certificate of Authorization Number 7874
 3110 Red Fox Run, Kissimmee, Florida 34746
 P.O. Box 771065, Winter Garden, Florida 34777-1065

CERTIFICATE OF APPROVAL BY MUNICIPALITY

THIS IS TO CERTIFY, that on _____ the City Council approved the foregoing plat.
 _____ Mayor _____ Date _____

CERTIFICATE OF APPROVAL BY CITY ENGINEER

Examined and approved: _____ Date _____
 City Engineer

CERTIFICATE OF APPROVAL BY THE DEVELOPMENT REVIEW BOARD

THIS IS TO CERTIFY, That on _____ the foregoing plat was approved by the Apopka Land Development Review Committee
 By: _____ Chairman

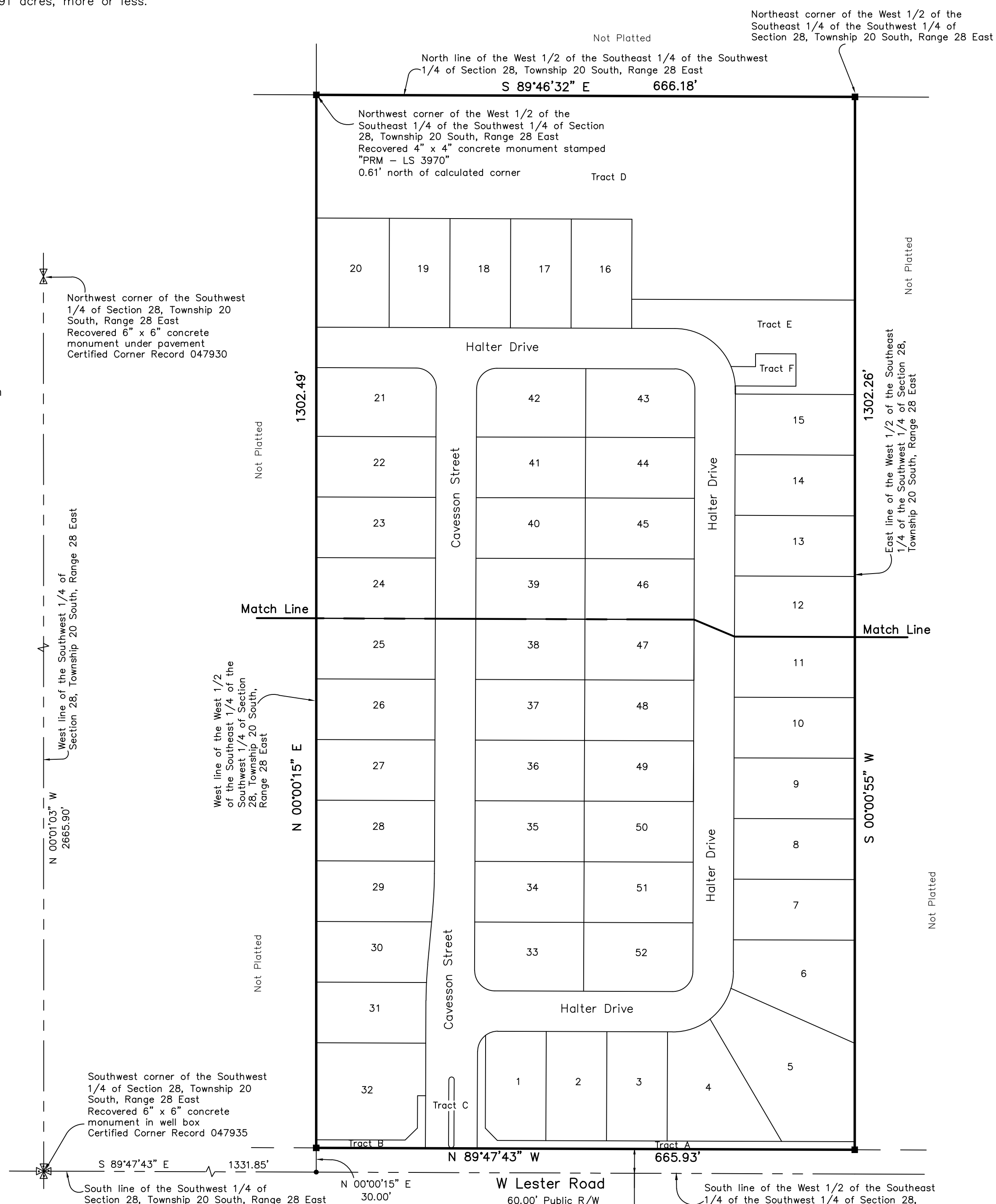
CERTIFICATE OF REVIEW BY CITY SURVEYOR

Pursuant to Section 177.081, Florida Statutes, I have reviewed this plat for conformity to Chapter 177 Part 1 of the Florida Statutes and that said plat complies with the technical requirements of that chapter; provided however, that my review does not include field verification of any of the coordinates, points or measurements shown on this plat.
 Signed: _____ Date: _____
 Printed name: Ralph A. Nieto, P.S.M.
 NIEITO WHITTAKER SURVEYING, LLC
 REGISTRATION Number 6025

CERTIFICATE OF COUNTY COMPTROLLER

I HEREBY CERTIFY that the foregoing plat was recorded in the Orange County Official Records on _____ as File No. _____

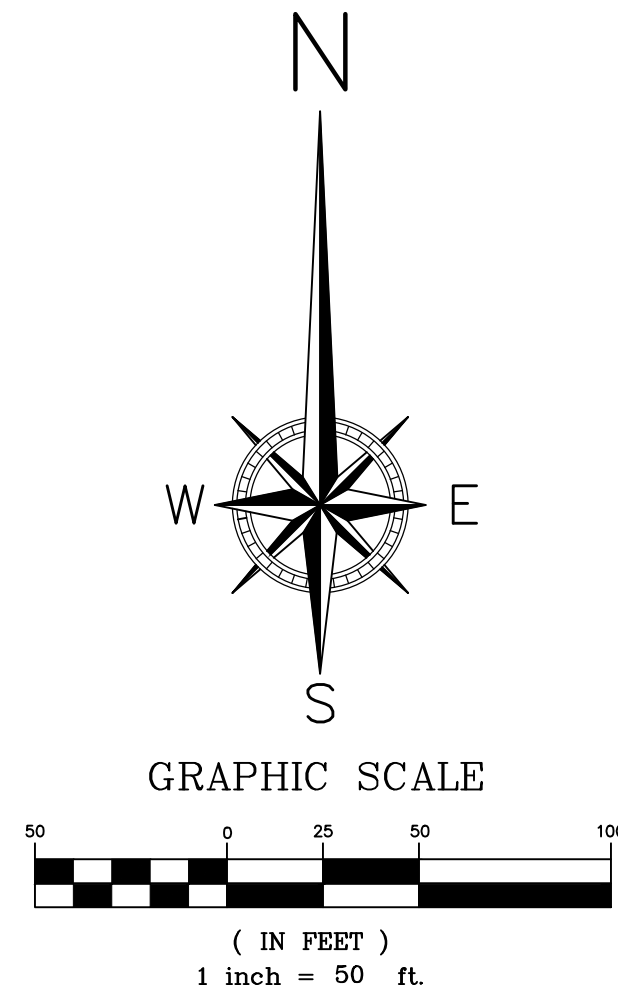
 County Comptroller in and for Orange County, Florida.
 By: _____



Benchmark Surveying & Mapping, LLC
 Certificate of Authorization Number - LB-7874
 Post Office Box 771065, Winter Garden, Florida 34777-1065
 3110 Red Fox Run, Kissimmee, Florida 34746
 (407) 654-6183
 www.benchmarksurveyingandmapping.com

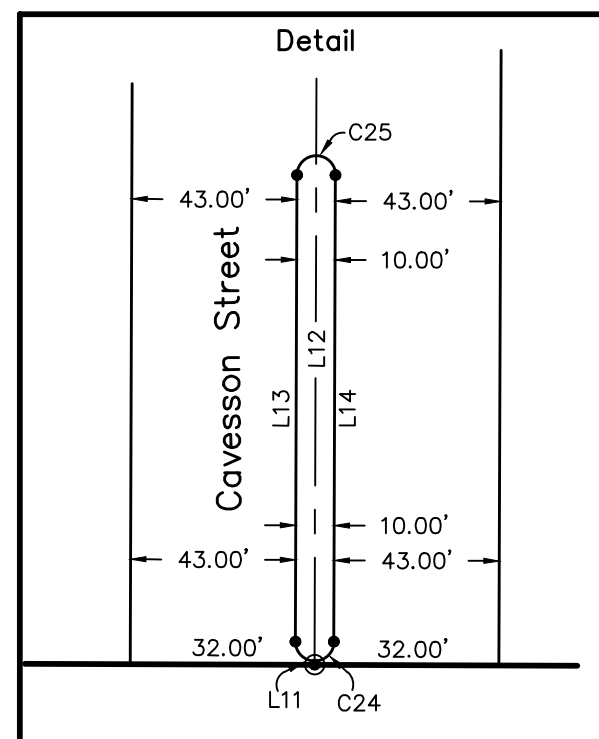
Bridlewood Subdivision

City of Apopka, Orange County, Florida
Section 28, Township 20 South, Range 28 East



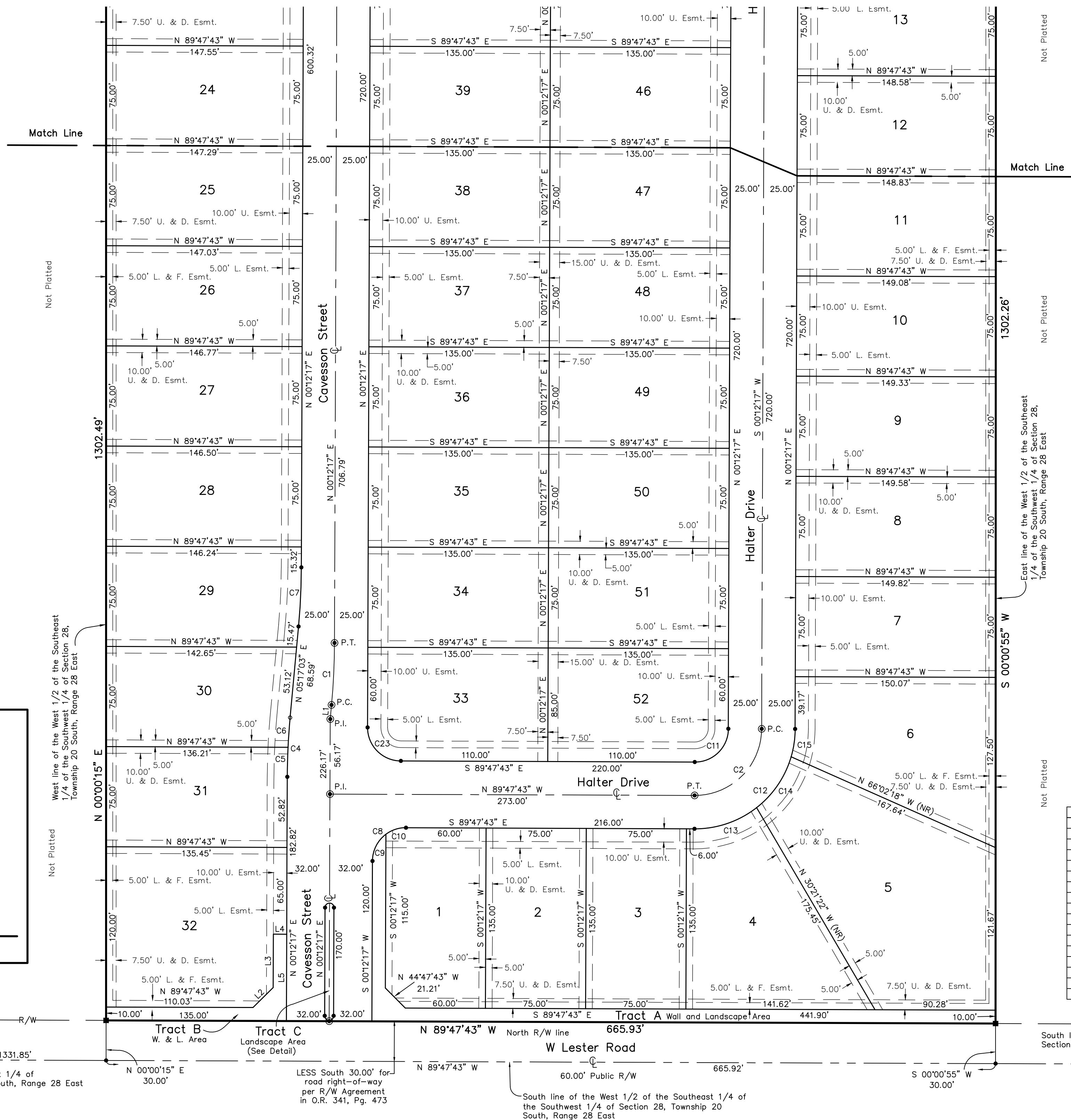
Northwest corner of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East
Recovered 6" x 6" concrete monument under pavement
Certified Corner Record 047930

West line of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East



Southwest corner of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East
Recovered 6" x 6" concrete monument in well box
Certified Corner Record 047935

South line of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East



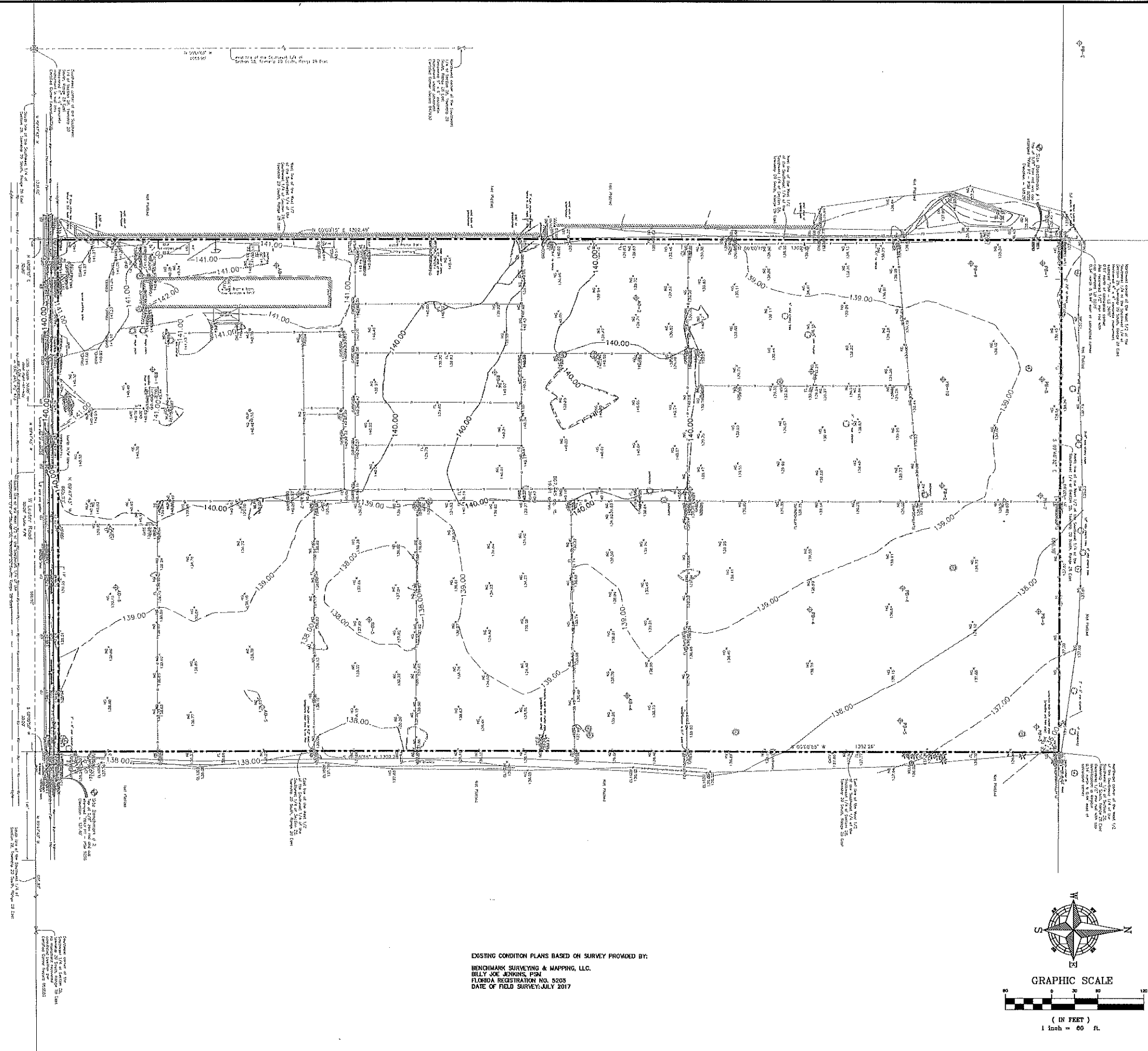
Abbreviations and Legend

- R/W denotes right of way
- O.R. denotes Official Records Book
- Pg. denotes Page(s)
- PRM denotes permanent reference monument
- PCP denotes permanent control point
- PSM denotes Professional Surveyor and Mapper
- LB denotes Licensed Business
- LS denotes Land Surveyor
- (NR) denotes not radial line
- P.I. denotes point of intersection
- P.C. denotes point of curvature
- P.T. denotes point of tangency
- P.C.C. denotes point of compound curvature
- P.R.C. denotes point of reverse curvature
- U. Esmt. denotes Utility Easement
- U. & D. Esmt. denotes Utility Drainage Easement
- L. Esmt. denotes Landscape Easement
- L. & F. Esmt. denotes Landscape and Fence Easement
- (TYP) denotes typical
- denotes Set 4" x 4" concrete monument and disk stamped 'PRM PSM 5205', unless otherwise noted
- denotes set nail and disk stamped 'PCP - PSM 5205'
- denotes change of direction
- ⊕ denotes centerline

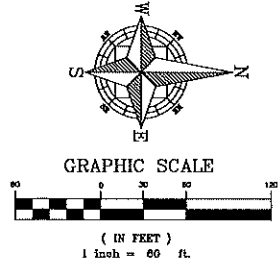
Line	Bearing	Distance
L1	S 05°17'03" W	10.60'
L2	N 45°12'17" E	21.21'
L3	S 00°12'17" W	40.00'
L4	S 89°47'43" E	10.00'
L5	S 00°12'17" E	65.00'
L11	N 00°12'17" E	1.00'
L12	N 00°12'17" E	131.50'
L13	S 00°12'17" W	121.50'
L14	N 00°12'17" E	121.50'

Number	Radius	Delta	Length	Chord	Chord Bearing
C1	525.00'	5°04'47"	46.54'	46.53'	N 02°44'40" E
C2	50.00'	90°00'00"	78.54'	70.71'	N 45°12'17" E
C4	500.00'	5°04'47"	44.33'	44.31'	S 02°44'40" W
C5	500.00'	2°32'32"	22.19'	22.18'	S 01°28'33" W
C6	500.00'	2°32'14"	22.14'	22.14'	S 04°00'56" W
C7	500.00'	5°04'47"	44.33'	44.31'	S 02°44'40" W
C8	25.00'	90°00'00"	39.27'	35.36'	S 45°12'17" E
C9	25.00'	53°07'48"	23.18'	22.36'	S 26°46'11" W
C10	25.00'	36°52'12"	16.09'	15.81'	S 71°46'11" W
C11	25.00'	90°00'00"	39.27'	35.36'	N 45°12'17" E
C12	75.00'	90°00'00"	117.81'	106.07'	N 45°12'17" E
C13	75.00'	38°13'23"	50.03'	49.11'	S 71°05'36" W
C14	75.00'	35°40'56"	46.71'	45.96'	S 34°08'26" W
C15	75.00'	16°05'41"	21.07'	21.00'	S 08°15'07" W
C24	5.00'	180°00'00"	15.71'	10.00'	S 89°47'43" E
C25	5.00'	180°00'00"	15.71'	10.00'	N 89°47'43" W

Benchmark Surveying & Mapping, LLC
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EXISTING CONDITION PLANS BASED ON SURVEY PROVIDED BY:
 BENCHMARK SURVEYING & MAPPING, LLC.
 BILLY JOE JENKINS, PSM
 FLORIDA REGISTRATION NO. 5205
 DATE OF FIELD SURVEY: JULY 2017



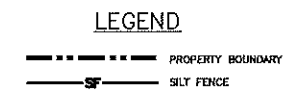
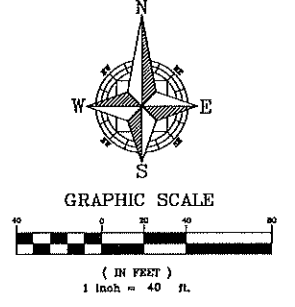
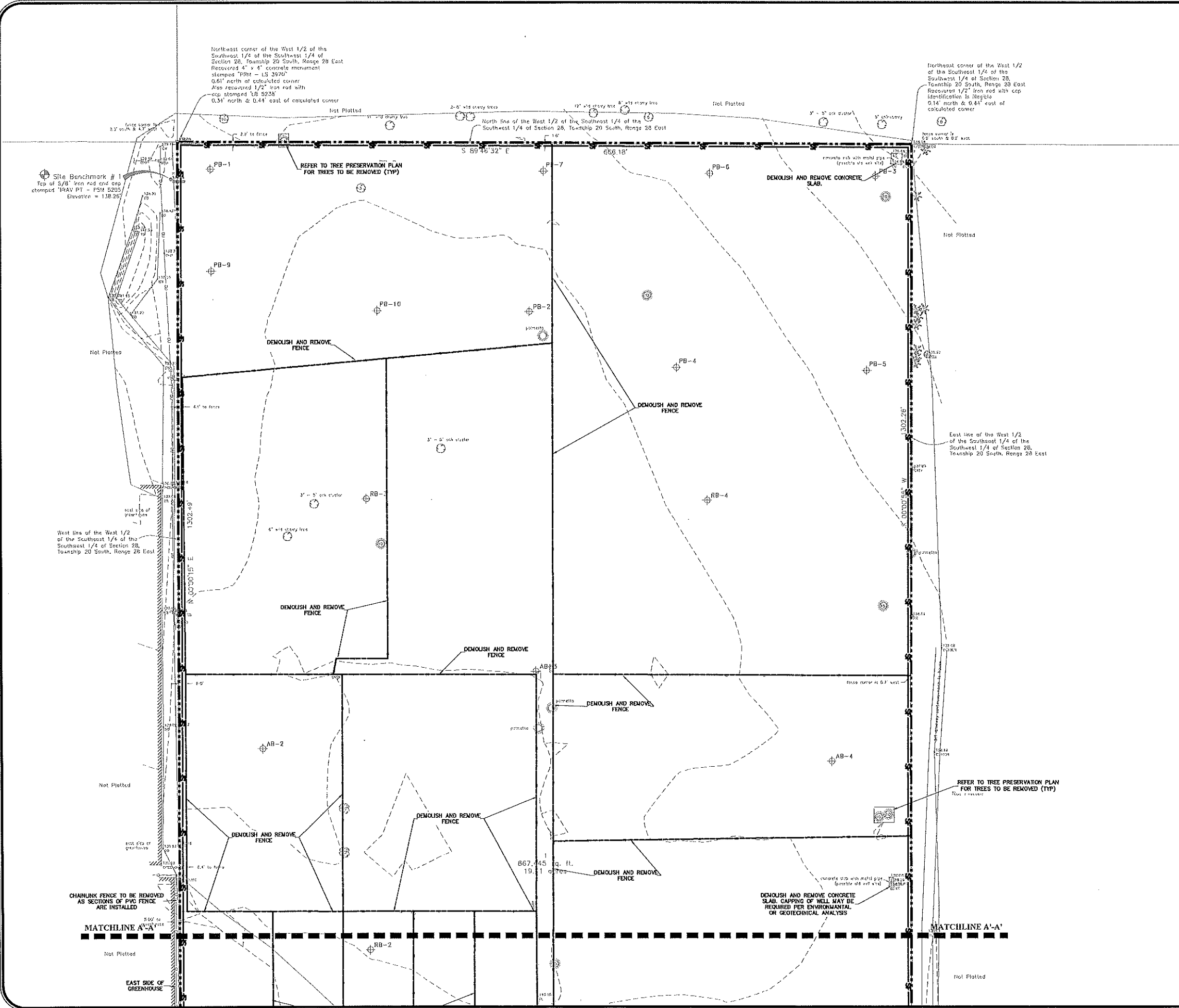
- Property Description**
 The West 1/2 of the Southeast 1/4 of the Southwest 1/4 of Section 28, Township 26 South, Range 28 East, Orange County, Florida, LESS all that portion lying within the road right-of-way.
- Surveyor's Report**
- Bearings shown hereon are based on the South line of the Southwest 1/4 of Section 28, Township 26 South, Range 28 East being assumed as North 89°47'43" West.
 - The elevations shown hereon are based on Orange County Vertical Control Network. Specifically, point identification number 5-137-9002, being a 3" aluminum survey disk set in concrete curb inlet at the west side of Wick Road, 365'+- south of Lester Road. Published elevation is 128.41 feet, relative to the North American Vertical Datum (NAVD) of 1988.
 - This Survey was performed with the benefit of a title commitment prepared by Old Republic National Title Insurance Company, commitment number 472525 dated June 27, 2017. This firm relied on said commitment and did not search the public records for easements or restrictions of record.
 - Subject property contains 19.91 acres, more or less and is currently a equestrian center with horse stables and training facilities. The training facilities and courses are not shown hereon.
 - Subject property lies within Zone X, area determined to be outside the 0.2% annual chance floodplain, according to the National Flood Insurance Program, Flood Insurance Rate Map number 12095C0110F, dated September 25, 2009.
 - This Survey was performed for the sole and exclusive benefit of the entities listed hereon and shall not be relied upon by any other entity or individual whomever.
 - Only the aboveground evidence of underground utilities are shown, underground improvements were not located.
 - The spot elevations along the edge of pavement/curb are edge of pavement elevations.
 - The feature symbols depicted on this survey and in the legend are shown for graphic purposes and may not be drawn to scale.
 - Trees that are 8" in diameter at breast height and larger are shown hereon. There are smaller trees, bushes and hedges that are not shown hereon. The trees within the subject property are shown, there may be trees within 5' of the boundary lines that are not shown. The location of the trees shown hereon are approximate and not intended for design purposes. If trees are to remain due to proposed design, we recommend a more accurate location of the trees trunk and roots.
 - Subject property has direct access from a public right of way named W Lester Road. The property abuts said public right of way with no overlaps or gaps.
 - This survey meets the Standards of Practice set forth in Florida Administrative Code Rule 5J-17, pursuant to Florida Statute Chapter 472.
 - This Survey is not valid without the signature and seal of a Florida licensed surveyor and mapper.

Abbreviations and Legend

- R/W - denotes right-of-way
- O.R. - denotes Official Records Book
- Pg. - denotes Page
- LB - denotes Licensed Business
- FSM - denotes Professional Surveyor and Mapper
- PRM - denotes permanent reference monument
- TRAV PT - denotes traverse point (survey work point)
- ⊕ - denotes fire hydrant
- ⊕ - denotes water valve
- ⊕ - denotes light pole
- ⊕ - denotes air conditioning unit
- ⊕ - denotes reuse water valve/meter
- ⊕ - denotes guy wire anchor
- ⊕ - denotes wood power pole
- — — denotes overhead utility line
- ⊕ - denotes underground cable riser box
- ⊕ - denotes mailbox
- — — denotes sign
- ⊕ - denotes wood post and roll fence
- ⊕ - denotes 5' high chain link fence
- ⊕ - denotes barbed wire fence with wood post
- ⊕ - denotes spot elevation
- — — denotes elevation contour
- ⊕ - denotes maple tree and size of diameter at breast height in inches
- ⊕ - denotes palm tree and size of diameter at breast height in inches
- ⊕ - denotes oak tree and diameter at breast height size in inches (10" oak tree), unless otherwise noted
- ⊕ - denotes pine tree and diameter at breast height size in inches (6" pine tree)
- ⊕ - denotes point of intersection of boundary lines no corner monument recovered or set
- ⊕ - denotes set 5/8" iron rod and cap stamped "PSM 5205", unless otherwise noted

		CIVIL ENGINEERING LAND PLANNING APPIAN ENGINEERING LLC. APPIANE.COM - 407.560.5868 <small>2201 Lee Road, Suite 17, Winter Park, Florida 32789</small>	
EXISTING CONDITIONS - OVERALL FINAL DEVELOPMENT PLAN		BRIDLEWOOD SUBDIVISION CITY OF APOPKA, FLORIDA	
SCALE	1" = 60'	PROJECT	AVX-001
DRAWN	J.BAKER	CHECKED	L. CLASSON
DESIGNED	J.PALM	DATE	02/12/2018
		SHEET	C1.2
		REV.	DATE
		DESCRIPTION	DATE

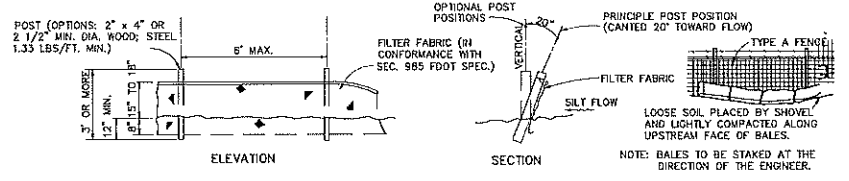
P:\PROJECT DRAWINGS\AVI-001 Erosion Control - Final Development Plan (PDF)\Layouts\04 - Final Development Plan (PDF)\Erosion Control - M.O.I. - Demo Plans.dwg Modified: 5/11/2018 By: jpalin



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 - ⊠ - denotes air conditioning unit
 - ⊡ - denotes reuse water valve/meter
 - ⊥ - denotes guy wire anchor
 - ⊕ - denotes wood power pole
 - - denotes overhead utility line
 - ⊙ - denotes underground cable riser box
 - ⊠ - denotes mailbox
 - - denotes sign
 - - denotes wood post and rail fence
 - - denotes 5' high chain link fence
 - X— - denotes barbed wire fence with wood post
 - × 138.78 - denotes spot elevation
 - 138— - denotes elevation contour
 - ⊙ - denotes maple tree and size of diameter at breast height in inches
 - ⊙ - denotes palm tree and size of diameter at breast height in inches
 - ⊙ - denotes oak tree and diameter at breast height size in inches (10" oak tree), unless otherwise noted
 - ⊙ - denotes pine tree and diameter at breast height size in inches (6" pine tree)
 - - denotes point of intersection of boundary lines no corner monument recovered or set
 - ⊙ - denotes set 5/8" iron rod and cap stamped "PSM 5205", unless otherwise noted

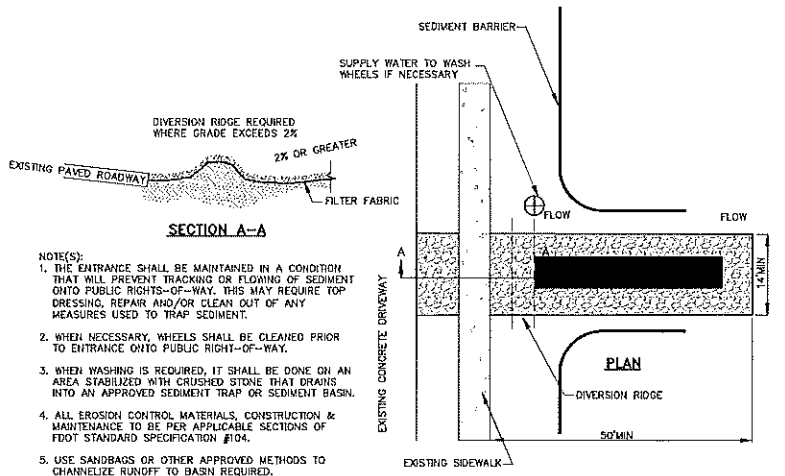
CIVIL ENGINEERING & LAND PLANNING APPIAN ENGINEERING LLC. APPIANENGINEERING.COM APPIANENGINEERING.COM - 407.560.5868 2211 Lee Road, Suite 17, Weston, FL 33391 <small>STATE OF FLORIDA LICENSED PROFESSIONAL ENGINEER</small>		CITY OF APOPKA COMMENTS DATED 05/14/18 REV. DATE JOP BY
EROSION CONTROL & DEMO PLAN - NORTH FINAL DEVELOPMENT PLAN		BRIDLEWOOD SUBDIVISION CITY OF APOPKA, FLORIDA
DRAWN: J.PALIN SCALE: 1" = 40' PROJECT: AVX-001 SHEET: C2.1	DESIGNED: J.PALIN CHECKED: L. CLASSON DATE: 02/12/2018	
		48 HOURS BEFORE DIGGING CALL TOLL FREE 811 or 1-800-432-4770 SUNSHINE STATE ONE CALL CENTER
		52118

P:\PROJECT DRAWINGS\AVX-001_Equation Center (P-17085)\Drawings\CAD Civil3D\LAYOUTS\04 - Final Development Plan (FDP)\Erosion Control - M.O.T. - Demo Plans.dwg Modified: 3/11/2018 By: jadm



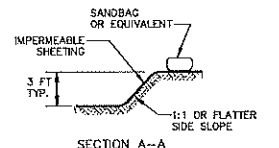
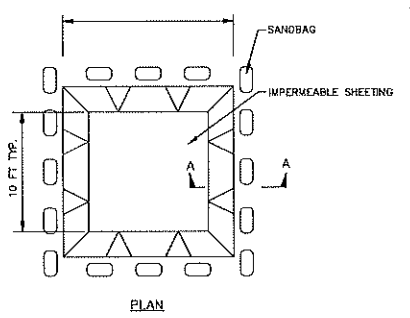
NOTE:
SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

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



- NOTES:**
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 4. ALL EROSION CONTROL MATERIALS, CONSTRUCTION & MAINTENANCE TO BE PER APPLICABLE SECTIONS OF FDOT STANDARD SPECIFICATION #104.
 5. USE SANDBAGS OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN REQUIRED.
 6. COURSE AGGREGATE & FILTER FABRIC TO BE PER SECTIONS OF FDOT STANDARD SPECIFICATION #901 & #905 RESPECTIVELY.

2 TEMPORARY CONSTRUCTION ENTRANCE DETAIL
N.T.S.

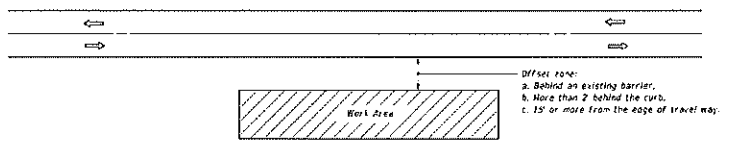


EXCAVATED WASHOUT STRUCTURE

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

3 CONCRETE WASH OUT
N.T.S.

5 FDOT M.O.T. DETAIL
N.T.S.



SYMBOLS

Work Area

Lane Identification + Direction of Traffic

- GENERAL NOTES**
1. If the work operation (excluding establishing and terminating the work area) requires that two or more vehicles cross the offset zone in any one hour, traffic control will be in accordance with Index No. 602.
 2. No special signing is required.
 3. When a side road intersects the highway within the work area, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
 4. When construction activities encroach on a sidewalk refer to Index No. 660.
 5. For general TCZ requirements and additional information, refer to Index No. 600.

CONDITIONS
WHERE ANY VEHICLE, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE BEHIND AN EXISTING BARRIER, MORE THAN 2' BEHIND THE CURB, OR 15' OR MORE FROM THE EDGE OF TRAVEL WAY.

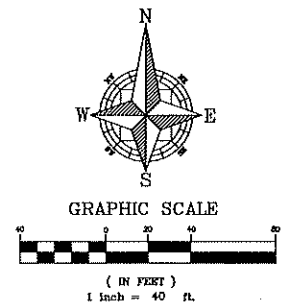
LAST REVISION 07/01/05	DESCRIPTION: REVISED	FDOT FY 2017-18 DESIGN STANDARDS	TWO-LANE, TWO-WAY, WORK OUTSIDE SHOULDER	INDEX NO. 601	SHEET NO. 1 of 1
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CIVIL ENGINEERING LAND PLANNING		EROSION CONTROL & DEMO PLAN - DETAILS	
APPIAN ENGINEERING LLC.		FINAL DEVELOPMENT PLAN	
APPIAN ENGINEERING LLC.		BRIDLEWOOD SUBDIVISION	
APPIAN.COM - 407.560.5868		CITY OF APOPKA, FLORIDA	
SCALE	DESIGNED	CHECKED	DATE
N.T.S.	J.PALM	L. CLASSON	02/12/2018
PROJECT	AVX-001	SHEET	C2.2
52115			

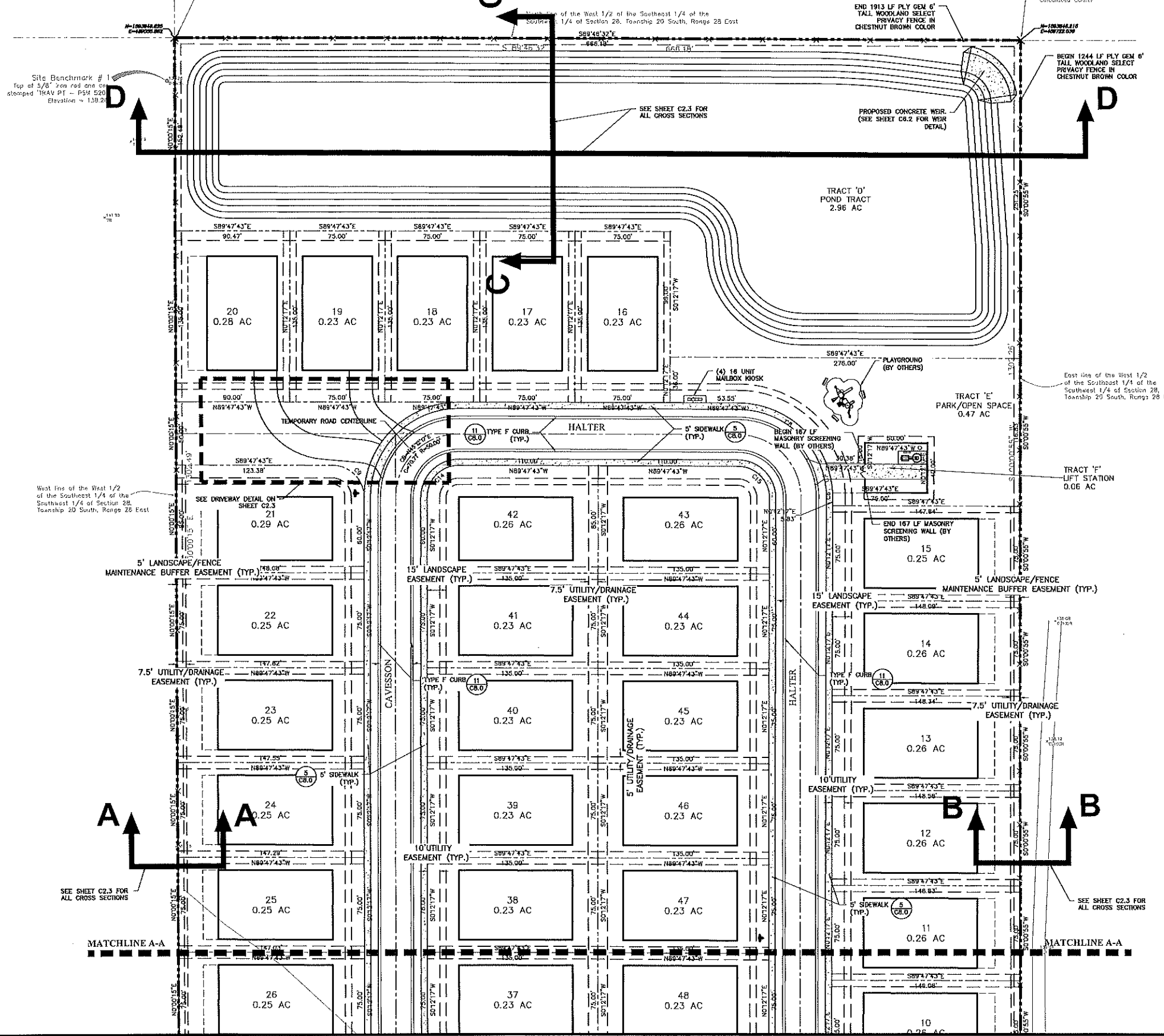
Northwest corner of the West 1/2 of the Southwest 1/4 of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East. Recovered 4" x 4" concrete monument stamped "RRII - LS 3970" 0.61' north of calculated corner. Also recovered 1/2" iron rod with cap stamped "LB 5258" 0.34' north & 0.41' east of calculated corner.

Northeast corner of the West 1/2 of the Southwest 1/4 of the Southwest 1/4 of Section 28, Township 20 South, Range 28 East. Recovered 1/2" iron rod with cap. Identification is illegible. 6.14' north & 0.44' east of calculated corner.

Site Benchmark #1
Top of 5/8" iron rod on a stamped "HAW PT - P54 520" Elevation = 139.21



LEGEND
 - - - - - PROPERTY BOUNDARY
 - - - - - LOT LINES
 - - - - - EASEMENTS
 - - - - - SETBACKS



TRACT DATA				
TRACT / LOT	DESCRIPTION	AREA	*BUILDABLE AREA	OWNER
TRACT 'A'	10' WALL/LANDSCAPE BUFFER	0.14 AC	-	H.O.A.
TRACT 'B'	10' WALL/LANDSCAPE BUFFER	0.03 AC	-	H.O.A.
TRACT 'C'	PUBLIC ROW	2.98 AC	-	CITY
TRACT 'D'	POND TRACT	2.96 AC	-	H.O.A.
TRACT 'E'	POCKET PARK	0.47 AC	-	H.O.A.
TRACT 'F'	LIFT STATION	0.06 AC	-	CITY
TRACT 'G'	ENTRY LANDSCAPE	0.01 AC	-	H.O.A.
LOT 1	-	0.23 AC	9,989 SF	PRIVATE
LOT 2	-	0.23 AC	10,125 SF	PRIVATE
LOT 3	-	0.23 AC	10,125 SF	PRIVATE
LOT 4	-	0.32 AC	14,050 SF	PRIVATE
LOT 5	-	0.49 AC	21,390 SF	PRIVATE
LOT 6	-	0.33 AC	14,199 SF	PRIVATE
LOT 7	-	0.26 AC	11,246 SF	PRIVATE
LOT 8	-	0.26 AC	11,228 SF	PRIVATE
LOT 9	-	0.26 AC	11,209 SF	PRIVATE
LOT 10	-	0.26 AC	11,190 SF	PRIVATE
LOT 11	-	0.26 AC	11,172 SF	PRIVATE
LOT 12	-	0.26 AC	11,153 SF	PRIVATE
LOT 13	-	0.26 AC	11,135 SF	PRIVATE
LOT 14	-	0.26 AC	11,116 SF	PRIVATE
LOT 15	-	0.25 AC	11,097 SF	PRIVATE
LOT 16	-	0.23 AC	10,125 SF	PRIVATE
LOT 17	-	0.23 AC	10,125 SF	PRIVATE
LOT 18	-	0.23 AC	10,125 SF	PRIVATE
LOT 19	-	0.23 AC	10,125 SF	PRIVATE
LOT 20	-	0.28 AC	12,182 SF	PRIVATE
LOT 21	-	0.23 AC	12,465 SF	PRIVATE
LOT 22	-	0.25 AC	11,096 SF	PRIVATE
LOT 23	-	0.25 AC	11,076 SF	PRIVATE
LOT 24	-	0.25 AC	11,057 SF	PRIVATE
LOT 25	-	0.25 AC	11,037 SF	PRIVATE
LOT 26	-	0.25 AC	11,017 SF	PRIVATE
LOT 27	-	0.25 AC	10,998 SF	PRIVATE
LOT 28	-	0.25 AC	10,978 SF	PRIVATE
LOT 29	-	0.25 AC	10,859 SF	PRIVATE
LOT 30	-	0.24 AC	10,442 SF	PRIVATE
LOT 31	-	0.23 AC	10,173 SF	PRIVATE
LOT 32	-	0.37 AC	16,117 SF	PRIVATE
LOT 33	-	0.26 AC	11,341 SF	PRIVATE
LOT 34	-	0.23 AC	10,125 SF	PRIVATE
LOT 35	-	0.23 AC	10,125 SF	PRIVATE
LOT 36	-	0.23 AC	10,125 SF	PRIVATE
LOT 37	-	0.23 AC	10,125 SF	PRIVATE
LOT 38	-	0.23 AC	10,125 SF	PRIVATE
LOT 39	-	0.23 AC	10,125 SF	PRIVATE
LOT 40	-	0.23 AC	10,125 SF	PRIVATE
LOT 41	-	0.23 AC	10,125 SF	PRIVATE
LOT 42	-	0.26 AC	11,341 SF	PRIVATE
LOT 43	-	0.26 AC	11,341 SF	PRIVATE
LOT 44	-	0.23 AC	10,125 SF	PRIVATE
LOT 45	-	0.23 AC	10,125 SF	PRIVATE
LOT 46	-	0.23 AC	10,125 SF	PRIVATE
LOT 47	-	0.23 AC	10,125 SF	PRIVATE
LOT 48	-	0.23 AC	10,125 SF	PRIVATE
LOT 49	-	0.23 AC	10,125 SF	PRIVATE
LOT 50	-	0.23 AC	10,125 SF	PRIVATE
LOT 51	-	0.23 AC	10,125 SF	PRIVATE
LOT 52	-	0.26 AC	11,341 SF	PRIVATE
TOTAL	-	19.91 AC	-	-

CIVIL ENGINEERING & LAND PLANNING
APPIAN ENGINEERING LLC.
 2231 Lee Road, Suite 17, Winter Park, Florida 32789
 PHONE: 407.560.5868
 FAX: 407.560.5868
 WWW.APPIANENGINEERING.COM

GEOMETRY PLAN - NORTH
 FINAL DEVELOPMENT PLAN

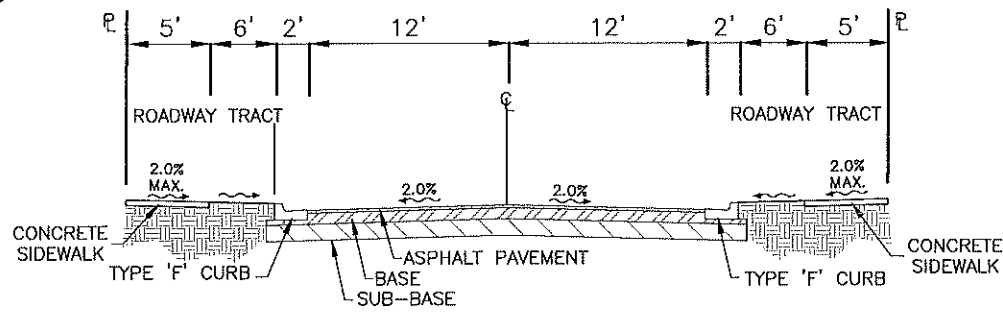
BRIDEWOOD SUBDIVISION
 CITY OF APOPKA, FLORIDA

DATE:	02/12/2018
DESIGNED:	J.PALM
CHECKED:	L. CLASSON
PROJECT:	AVX-001
SCALE:	1" = 40'
SHEET:	C-3.2

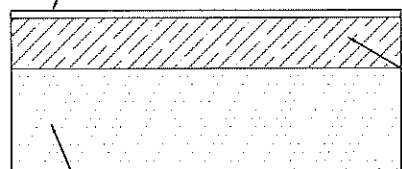
48 HOURS BEFORE DIGGING
 CALL TOLL FREE
 811 or 1-800-432-4770
 RUN-INSIDE STATE ONE CALL CENTER

52118

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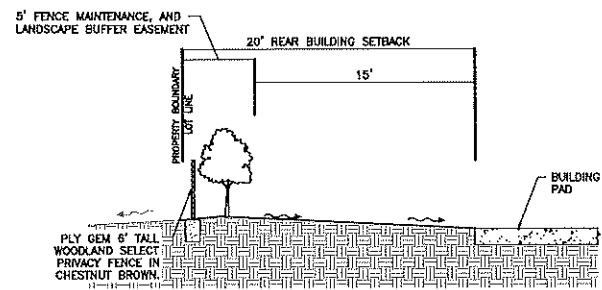


2" TYPE "SP-9.5" ASPHALTIC CONCRETE SURFACE COURSE TO BE APPLIED IN (2) 1" LIFTS

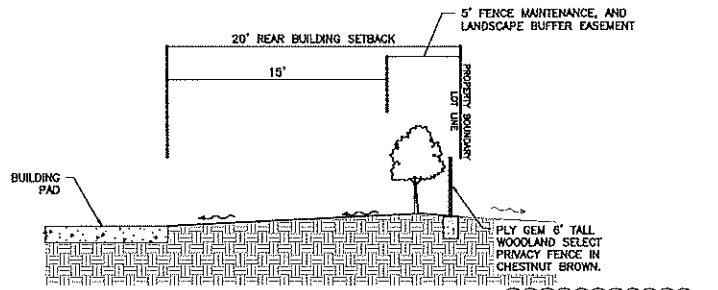


8" THICK LIMEROCK BASE COURSE WITH A MINIMUM LBR OF 100%. PLACE LIMEROCK IN MAXIMUM 6" LIFTS EACH COMPACTED TO 98% OF THE MODIFIED PROCTOR MAX. DRY DENSITY. PERFORM COMPLIANCE TESTING TO A DEPTH OF 1 FOOT AT INTERVALS NOT TO EXCEED 300 FEET OR A MINIMUM OF TWO TEST LOCATIONS, WHICHEVER IS GREATER.

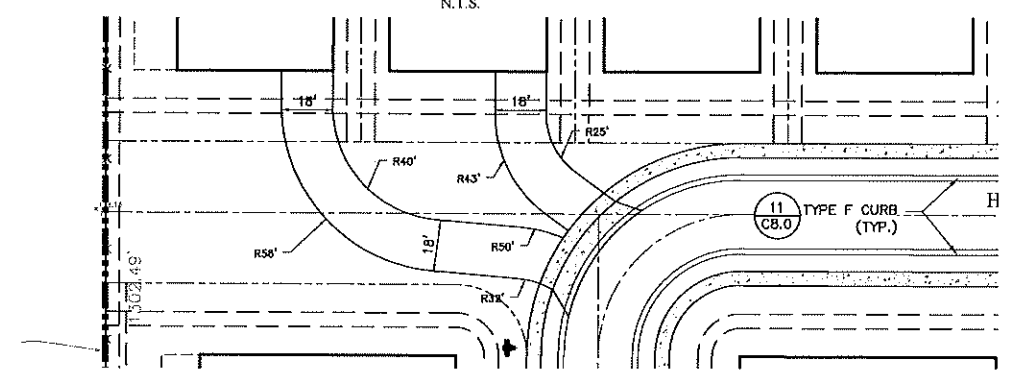
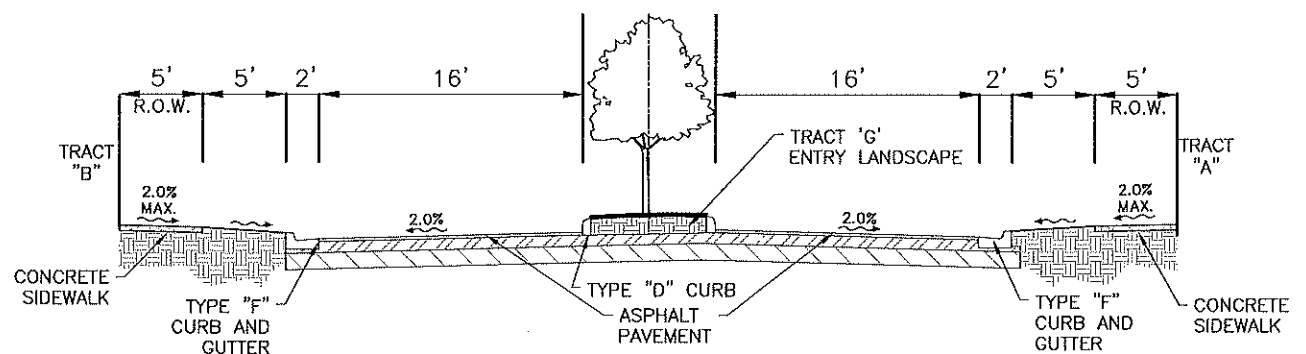
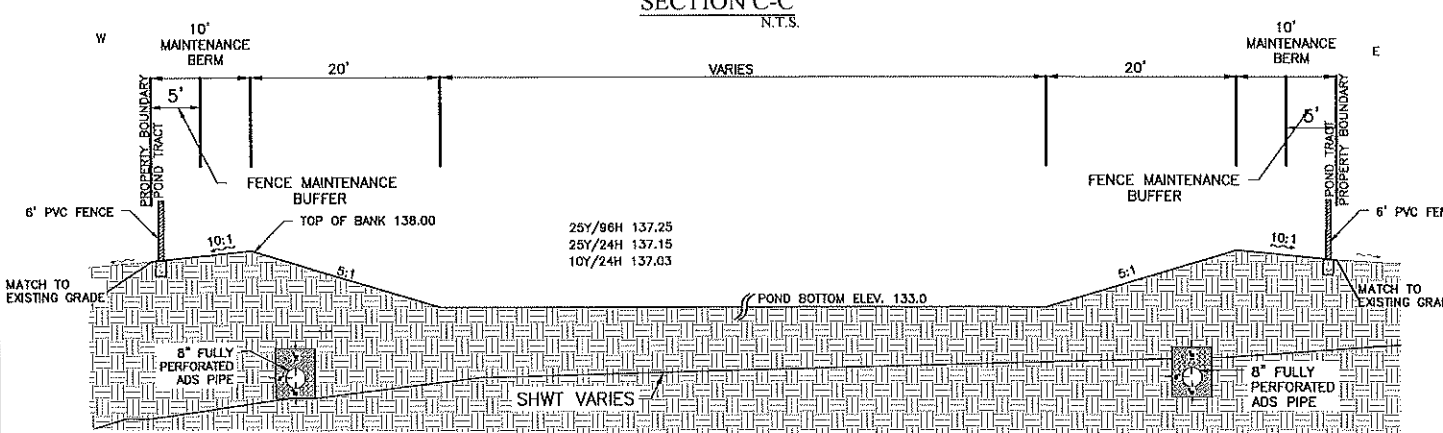
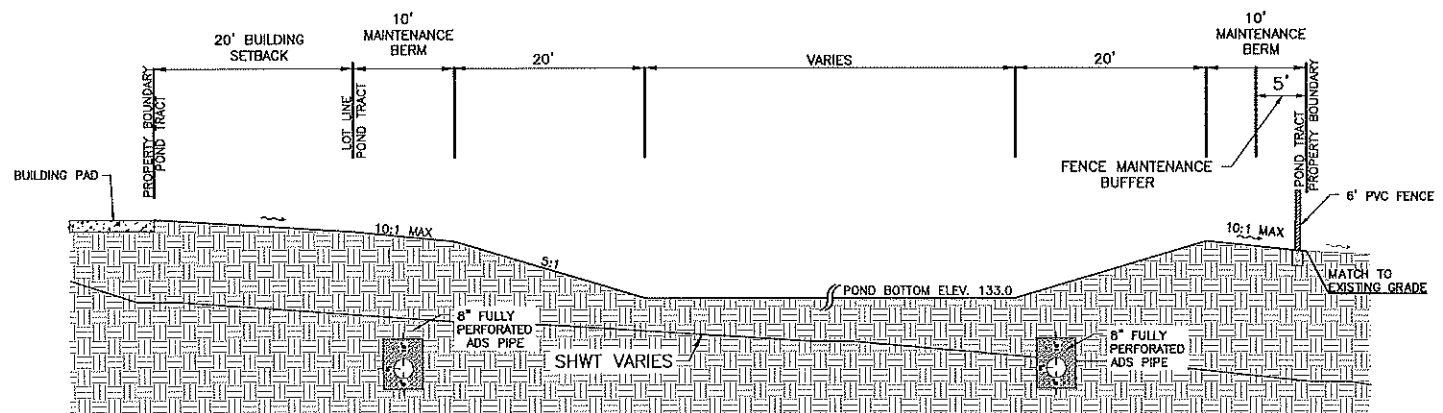
12" THICK STABILIZED SUBGRADE. SUBGRADE MATERIALS TO BE STABILIZED TO A MINIMUM FLORIDA BEARING VALUE (FBV) OF 75 PSI OR A LIMEROCK BEARING VALUE (LBR) OF 40%. STABILIZED SUBGRADE TO BE COMPACTED TO 98% MAX DRY DENSITY (AASHTO T-180) AND MEET REQUIREMENTS FOR FDOT TYPE B OR TYPE C STABILIZED SUBGRADE.



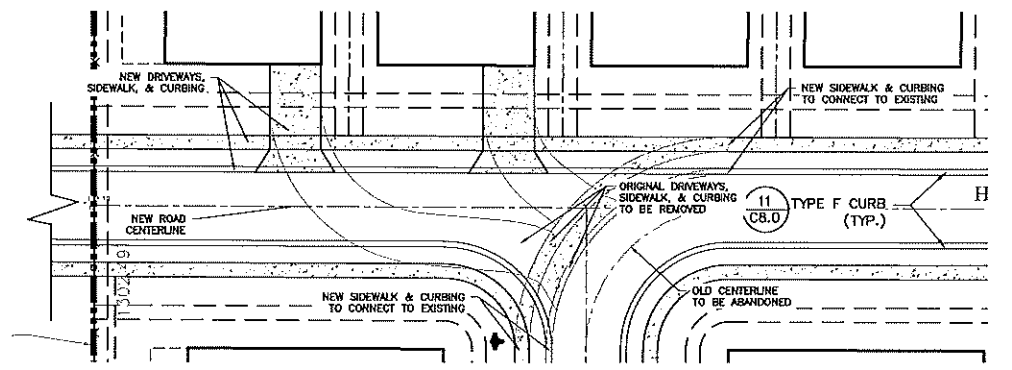
UPDATED SECTION TO SHOW TYPE "B-MOD" GRADING



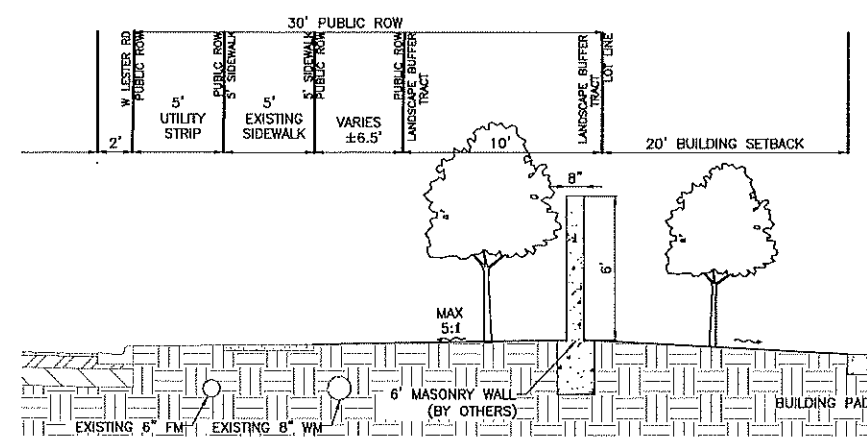
UPDATED SECTION TO SHOW TYPE "B-MOD" GRADING



DRIVEWAYS TO BE CONSTRUCTED WITHIN DEDICATED PUBLIC ROW INTENDED FOR A FUTURE CONNECTION TO THE WEST. WHEN THE FUTURE ROAD CONNECTION IS CONSTRUCTED, THE DRIVEWAYS WITHIN THE ROW WILL BE RECONSTRUCTED TO CONNECT TO THE NEW ROADWAY IN FRONT OF THEIR LOTS.



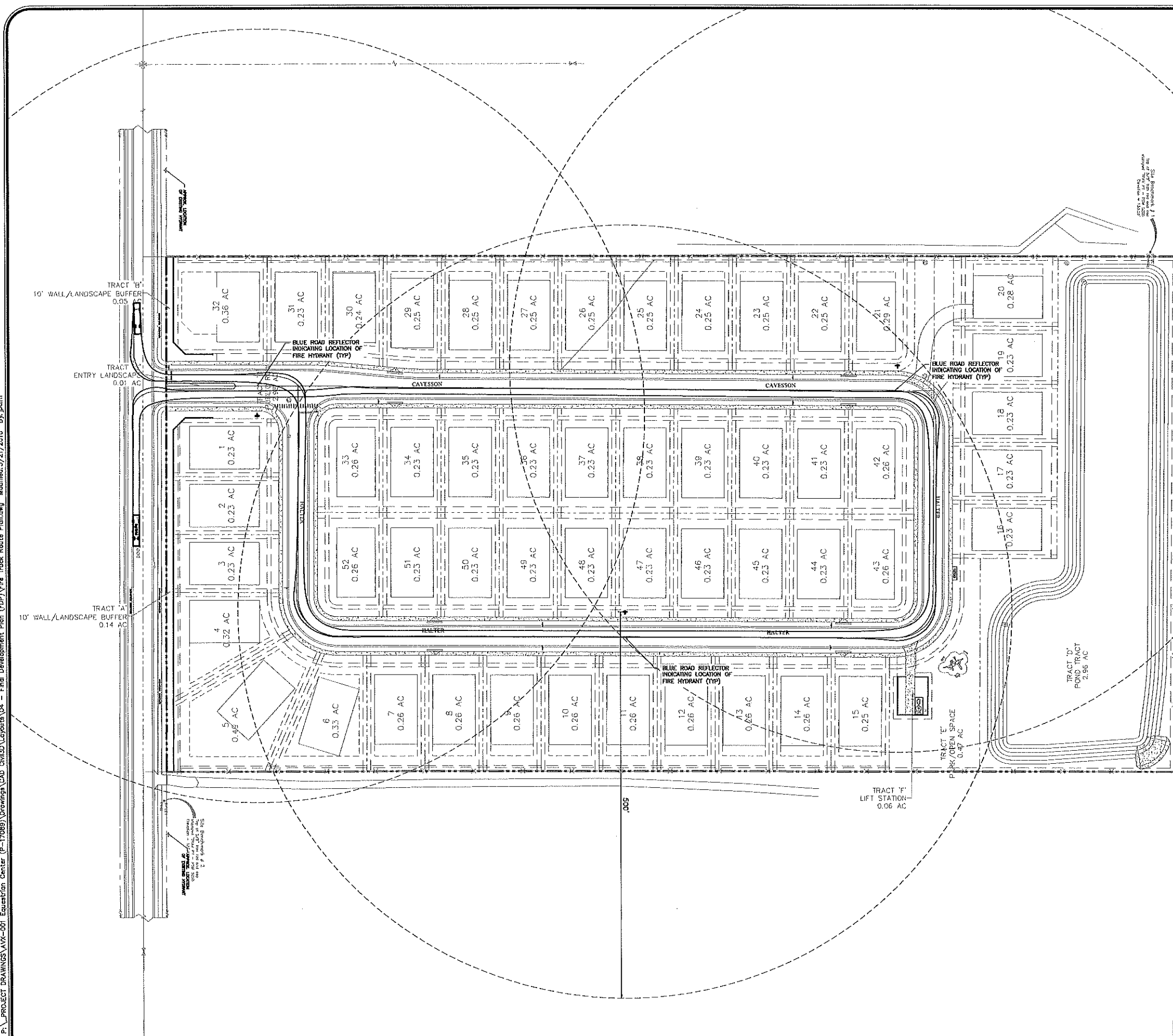
FUTURE DRIVEWAY DETAIL SHOWN FOR REFERENCE PURPOSES ONLY.



48 HOURS BEFORE DIGGING
CALL TOLL FREE
811 or 1-800-432-4770
SUNSHINE STATE ONE CALL CENTER

CIVIL ENGINEERING LAND PLANNING		DATE	BY
APPIAN ENGINEERING LLC.		REV	DESCRIPTION
APPIANENGINEERING.COM - 407.960.5888		15/11/18	APPROVAL COMMENTS DATED 05/14/18
2201 Lee Road, Suite 117, Winter Park, Florida 32789		16/01/18	
GEOMETRY CROSS SECTIONS FINAL DEVELOPMENT PLAN		BRIDLEWOOD SUBDIVISION CITY OF APOPKA, FLORIDA	
DRAWN: J.BAKER	DESIGNED: J.PALM	CHECKED: L. CLASSON	DATE: 02/12/2018
SCALE: 1" = 40'	PROJECT: AVX-001	SHEET: C.3.3	
52118			

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

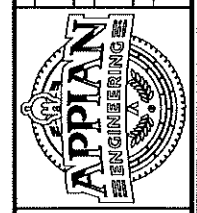
LEGEND
--- FIRE HYDRANT 250' RADIUS

PUMPER FIRE TRUCK
Overall Length 40.000ft
Overall Width 8.167ft
Overall Body Height 7.745ft
Min Body Ground Clearance 0.656ft
Track Width 8.167ft
Lock-to-lock time 5.00s
Max Wheel Angle 45.00°

FIRE HYDRANT CLEARANCE DETAIL
REAR OF HYDRANT 90°
FRONT OF HYDRANT 270°
7.5'

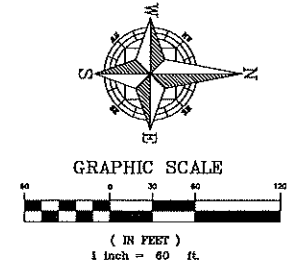
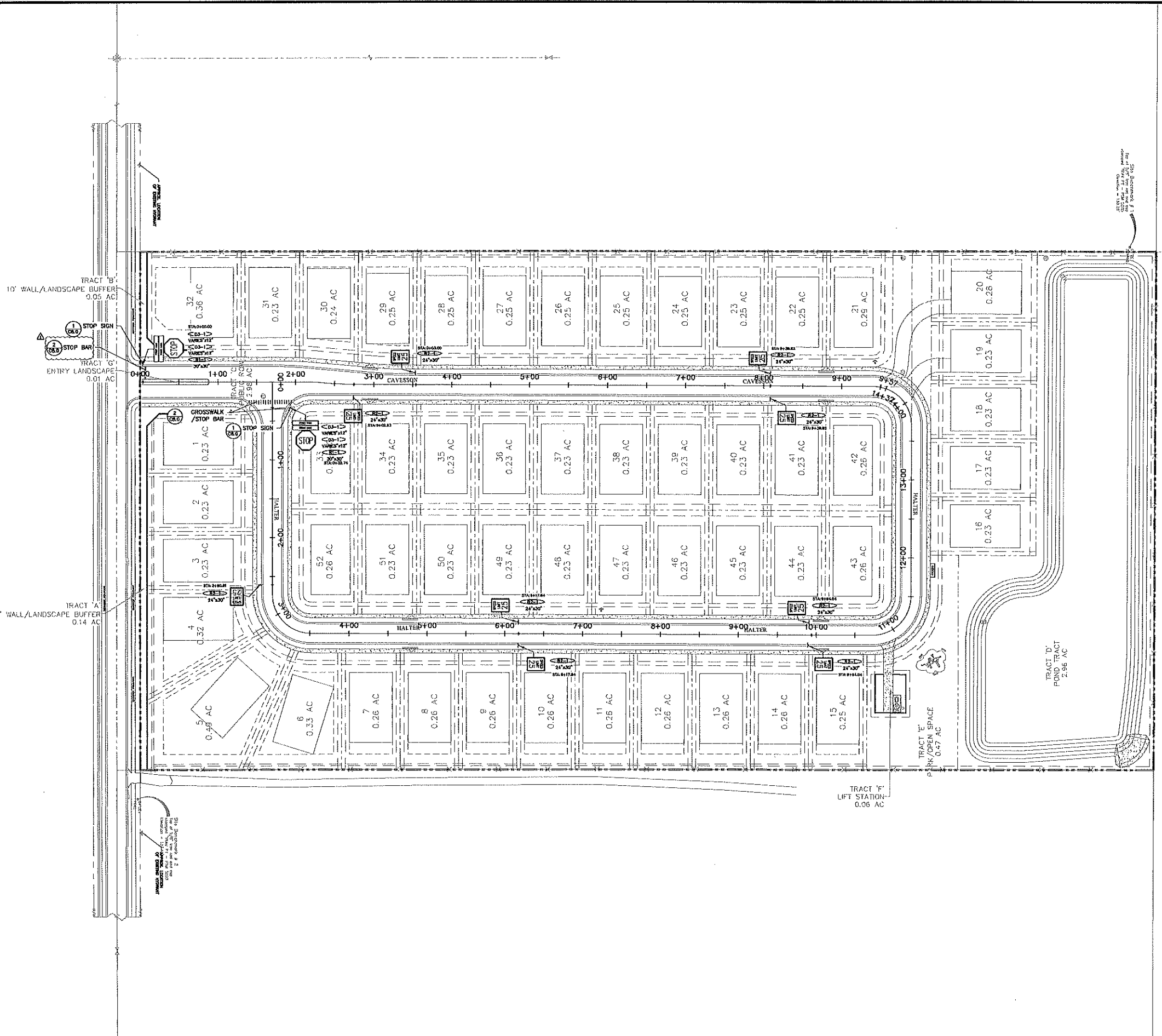
- FIRE ACCESS NOTES:**
1. FIRE DEPARTMENT ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS AND SHALL BE PROVIDED WITH AN ALL WEATHER DRIVING SURFACE (NFPA 1,18.2.3.4.2).
 2. THE LOCATION OF THE FIRE HYDRANTS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1,18.5.10.1)

CIVIL ENGINEERING LAND PLANNING		APPIAN ENGINEERING LLC		CITY OF APOPKA COMMENTS DATED 05/14/18		APP
FIRE TRUCK ROUTE PLAN		FINAL DEVELOPMENT PLAN		BRIDLEWOOD SUBDIVISION		CITY OF APOPKA, FLORIDA
SCALE	1" = 60'	PROJECT	AVX-001	CHECKED	L. CLASSON	DATE
DESIGNER	J. PALM	DRAWN	J. PALM	DATE	02/12/2018	
SHEET	C.3.4					



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811 or 1-800-432-4770
FLORIDA STATE ONE CALL CENTER

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LEGEND
 - - - - - PROPERTY BOUNDARY
 - - - - - LOT LINES
 - - - - - EASEMENTS
 - - - - - SETBACKS

REV	DATE	DESCRIPTION
1	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
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CIVIL ENGINEERING & LAND PLANNING
APPIAN ENGINEERING LLC.
 APPIANENGINEERING.COM • 407.960.5888
 2201 Lee Road, Suite 17, Weston, FL 33391

SIGNAGE & STRIPING PLAN
FINAL DEVELOPMENT PLAN
 BRIDLEWOOD SUBDIVISION
 CITY OF APOPKA, FLORIDA

SCALE	1" = 60'
PROJECT	AYX-001
SHEET	C-3.6
DATE	02/12/2018



48 HOURS BEFORE DIGGING
 CALL
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 SUNSHINE STATE ONE CALL CENTER

SHEET 16 OF 44

GENERAL UTILITY NOTES:

- BACTERIOLOGICAL TESTS WITH CHLORINE RESIDUALS INDICATED (TAKEN ON TWO CONSECUTIVE DAYS) SHALL BE CONDUCTED AT EACH POTABLE WATER METER FOR EVERY BUILDING, AT EVERY WET-TAP CONNECTION AND EVERY LOCATION INDICATED WITHIN THESE PLANS. RESULTS OF THE BACTERIOLOGICAL TESTS SHALL BE PROVIDED TO THE ENGINEER OF RECORD IMMEDIATELY UPON COMPLETION. BACTERIOLOGICAL TEST RESULTS SHALL BE CONSIDERED UNACCEPTABLE IF THE TESTS WERE COMPLETED MORE THAN 30 DAYS BEFORE THE ENGINEER RECEIVED THE RESULTS.
- ALL WATERMANS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINISHED GRADE.
- ALL WATERMANS AND FIRELINES PIPES SHALL BE RESTRAINED VIA MECHANICAL JOINTS.
- WATER MAIN PVC PIPES LESS THAN 4 INCHES MUST CONFORM TO THE SPECIFICATIONS OF ASTM 1785 (SCHEDULE 40, 80, 120) OR ASTM 2241 SDR21 AND MUST BEAR THE NSF LOGO ON EACH INSTALLED LENGTH.
- UNDERGROUND MARKING TAPE FOR ALL SANITARY FORCEMANS SHALL BE INSTALLED 4 TO 8 INCHES BELOW THE FINISHED GRADE SURFACE DIRECTLY OVER THE PIPELINE. MARKER TAPE SHALL BE MADE OF AN INERT POLYETHYLENE MATERIAL HAVING A MINIMUM THICKNESS OF 4 MILS AND BE COLOR CODED "SAFETY GREEN".
- CONTRACTOR SHALL CONDUCT AND PROVIDE RESULTS IMMEDIATELY TO THE ENGINEER OF RECORD FOR PRESSURE AND LEAKAGE TESTS ON THE FORCE MAIN TRUNK LINE ONCE THE PRESSURE SEWER HAS BEEN INSTALLED AND PARTIALLY BACKFILLED. FINAL BACKFILL AND COMPACTION SHALL NOT COMMENCE UNTIL APPROVAL OF THE PRESSURE AND LEAKAGE TESTS HAS BEEN PROVIDED BY THE ENGINEER OF RECORD.
- FOLLOWING SATISFACTORY PRESSURE TEST RESULTS, THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM, AND RECEIVE APPROVAL THEREOF FROM APPROPRIATE AGENCIES PRIOR TO PLACING THE SYSTEM INTO SERVICE.
- FIRE HYDRANTS SHALL BE PLACED A MINIMUM OF 3 FT. AND A MAXIMUM OF 5 FT. FROM THE CURB OR PAVED ROAD SURFACE UNLESS OTHERWISE APPROVED. NO FENCE, TREE, POST, SHRUB, OR OTHER OBJECT WHICH COULD BLOCK THE HYDRANT FROM NORMAL VIEW OR OBSTRUCT THE HYDRANT'S USE SHALL BE LOCATED WITHIN FOUR (4) FEET OF THE HYDRANT. THE FOUR-AND-ONE-HALF INCH (4-1/2") LARGE VOLUME CONNECTION SHALL FACE THE NEAREST ROADWAY. THE CENTER OF THE STEAMER PORT SHALL BE 18 INCHES MINIMUM AND 24 INCHES MAXIMUM ABOVE FINISHED GRADE.
- ALL FIRE HYDRANT LEADS SHALL HAVE AN INSIDE DIAMETER OF AT LEAST SIX INCHES AND INCLUDE AUXILIARY VALVES.
- WHEN NECESSARY, DEWATERING SHALL BE PROVIDED TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW MAIN BEING LAID.
- ALL UTILITIES SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
- TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO ORANGE COUNTY UTILITIES WITH A MINIMUM COMPACTION OF 98% IN PAVED AREAS AND 95% IN UNPAVED AREAS IN ACCORDANCE WITH AASHTO T-180 MODIFIED PROCTOR TEST.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 12 INCHES ABOVE THE PIPE AND AT 12 INCHES VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
- ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH A 2" X 4" LUMBER (PRESSURE TREATED) EXTENDING 4 FEET ABOVE GRADE, WITH WATER SERVICES SECURED 12" MAXIMUM ABOVE THE GROUND.
- ALL WATER VALVES, INCLUDING CONCRETE COLLAR (WITH DEBRIS CAP), SHALL BE ADJUSTED TO FINISHED GRADE AND THE VALVE BOX LID, PAINTED BLUE TO MAKE THEM PLAINLY VISIBLE.
- UPON FINAL ACCEPTANCE OF NEW WATER SYSTEMS, WATER VALVES SHALL BE COMPLETELY OPENED BY PUBLIC UTILITIES PERSONNEL. AT NO TIME SHALL CONTRACTOR OPERATE ANY EXISTING VALVES WITHOUT ORANGE COUNTY UTILITIES INSPECTOR PRESENT.
- ALL WATER MANS SHALL BE NSF-APPROVED FOR POTABLE WATER USE.

SP#

- ALL PVC PIPE OF NOMINAL DIAMETER FOUR (4) INCHES THROUGH TWELVE (12) INCHES SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900, LATEST EDITION. THE PVC PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 150PSI AND SHALL HAVE A DIMENSION RATIO (DR) OF 18.
 - ALL DUCTILE IRON PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA A21.51/C151 AND HAVE A MINIMUM 350 PRESSURE CLASS RATING
- PIPE USED IN GRAVITY SEWER CONSTRUCTION SHALL BE POLYVINYL CHLORIDE (PVC) OR DUCTILE IRON PIPE (DIP). WHERE REFERENCE IS MADE TO AN ASTM, ANSI, OR AASHTO DESIGNATION, IT SHALL BE THE LATEST REVISION.

- PVC GRAVITY SEWER PIPE (4 INCH - 15 INCH), ASTM D3034, SDR 35 - UNIFORM MINIMUM "PIPE STIFFNESS" AT FIVE (5) PERCENT DEFLECTION SHALL BE 46PSI. THE JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI-B-4. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL AND BE GREEN IN OVERALL COLOR. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE THIRTEEN (13) FEET.
- DUCTILE IRON PIPE SHALL CONFORM TO ANSI/AWWA A21.51/C151, CLASS THICKNESS DESIGNED PER ANSI/AWWA A21.50/C150, WITH MECHANICAL OR PUSH ON JOINTS. AN INTERIOR PROTECTIVE LINING OF COAL TAR EPOXY SHALL BE PROVIDED WITH A MINIMUM DRY THICKNESS OF 30 MILS. DUCTILE IRON GRAVITY SEWERS, WHERE REQUIRED BY ORANGE COUNTY UTILITIES BASED ON GEOTECHNICAL INVESTIGATIONS, SHALL BE WRAPPED WITH POLYETHYLENE FILM, AWWA C105. SEE APPENDIX C. THE MINIMUM STANDARD LENGTH OF PIPE SHALL BE EIGHTEEN (18) FEET.

ADDITIONAL NOTES

- ALL EXISTING UTILITIES MUST BE FIELD VERIFIED AT ALL POINTS OF CONNECTION TO, AND AT ALL AREAS OF CONFLICT WITH PROPOSED UTILITIES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD IF A DISCREPANCY IS FOUND.
- ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.

WATER SYSTEM TESTING REQUIREMENTS:

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

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

WHERE:
 L = ALLOWABLE LEAKAGE, IN GALLONS PER HOUR
 S = LENGTH OF PIPE TESTED, IN FEET
 D = NOMINAL DIAMETER OF PIPE, IN INCHES
 P = AVERAGE TEST PRESSURE DURING THE LEAKAGE TEST, IN POUNDS PER SQUARE INCH (GAUGE)

SEWER SYSTEM TESTING REQUIREMENTS:

- THE CONTRACTOR SHALL PERFORM TESTING OF ALL SANITARY SEWAGE GRAVITY COLLECTION SYSTEMS, AS SET FORTH IN THE FOLLOWING AND SHALL CONDUCT SAID TESTS IN THE PRESENCE OF REPRESENTATIVES FROM ORANGE COUNTY UTILITIES AND/OR OTHER AUTHORIZED AGENCIES. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE PRIOR TO TESTING OF THE WASTEWATER DISTRIBUTION SYSTEM.
- ALL TESTING REQUIRED BY ORANGE COUNTY UTILITIES SHALL BE PAID FOR BY THE DEVELOPER / CONTRACTOR.
- GRAVITY MANS SHALL BE INSPECTED WITH CCTV FOR ALIGNMENT, GRADE VARIATIONS, SEPARATED PIPES, LEAKS, DEFLECTION, CRACKED, BROKEN OR OTHERWISE DEFECTIVE PIPE TO ENSURE OVERALL PIPE INTEGRITY. THE APPROVED CCTV INSPECTION CONTRACTOR SHALL SUBMIT THE REPORT TO THE UTILITIES DEPARTMENT AS REQUIRED.
- LEAKAGE TESTING FOR GRAVITY MANS SHALL BE BY LOW-PRESSURE AIR TEST. LEAKAGE TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURE FOR "RECOMMENDED PRACTICE FOR LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" AS ESTABLISHED BY THE UNI-BELL PVC PIPE ASSOCIATION.
- EACH GRAVITY MAIN LEAKAGE TEST SECTION SHALL NOT EXCEED 400 FEET IN LENGTH AND SHALL BE TESTED BETWEEN ADJACENT MANHOLES.

FDEP UTILITY CONSTRUCTION NOTES:

- NOTE TO THE UTILITY: PURSUANT TO 62-555.345; DO NOT PROVIDE WATER SERVICE TO THIS PROJECT (OTHER THAN FLUSHING/TESTING) UNTIL THE DEPARTMENT OF ENVIRONMENTAL PROTECTION HAS ISSUED A LETTER OF CLEARANCE OR THE UTILITY SHALL BE SUBJECT TO ENFORCEMENT ACTION.
- THE PERMITTEE WILL PROMPTLY NOTIFY THE DEPARTMENT UPON SALE OR LEGAL TRANSFER OF THE PERMITTED FACILITY
- ALL WATER MANS AND APPURTENANCES SHALL BE DISINFECTED AND BACTERIOLOGICALLY EVALUATED IN ACCORDANCE WITH RULE 62-555.340, F.A.C.
- ALL WATER MAIN PIPE, INCLUDING FITTINGS SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE. THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE.

FDEP UTILITY SEPARATION REQUIREMENTS

(62-555.314, F.A.C. LOCATION OF PUBLIC WATER SYSTEM MANS)

- FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MANS" SHALL MEAN MANS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.
- HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MANS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MANS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.
 - NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
 - NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
 - NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MANS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
 - NEW OR RELOCATED, UNDERGROUND WATER MANS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.
 - VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MANS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MANS, AND RECLAIMED WATER PIPELINES.
 - NEW OR RELOCATED, UNDERGROUND WATER MANS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
 - NEW OR RELOCATED, UNDERGROUND WATER MANS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
 - AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MANS, 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 MANS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
 - SEPARATION BETWEEN WATER MANS AND SANITARY OR STORM SEWER MANHOLES.
 - NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.
 - EFFECTIVE AUGUST 28, 2003, WATER MANS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.
 - SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MANS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

LOCATION OF PUBLIC WATER SYSTEM MANS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Other Pipe	Horizontal Separation	Crossings (1)	Joint Spacing @ Crossings (Full Joint Centered)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	3 ft. minimum	12 inches is the minimum, except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum
Vacuum Sanitary Sewer	10 ft. preferred 3 ft. minimum	12 inches preferred 6 inches minimum	Alternate 3 ft. minimum
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main, Reclaimed Water (4)	10 ft. preferred 6 ft. minimum (3)	12 inches is the minimum, except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum
On-Site Sewage Treatment & Disposal System	10 ft. minimum	---	---

(1) Water main should cross above other pipe. When water main must be below other pipe, the minimum separation is 12 inches.
 (2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
 (3) 10 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.
 (4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.

UTILITY NOTES
 FINAL DEVELOPMENT PLAN
 BRIDLEWOOD SUBDIVISION
 CITY OF APOPKA, FLORIDA

SCALE: N.T.S.
 PROJECT: AVX-001
 SHEET: C4.0

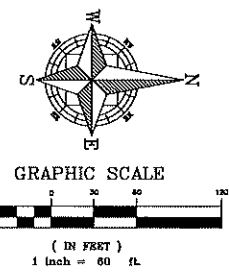
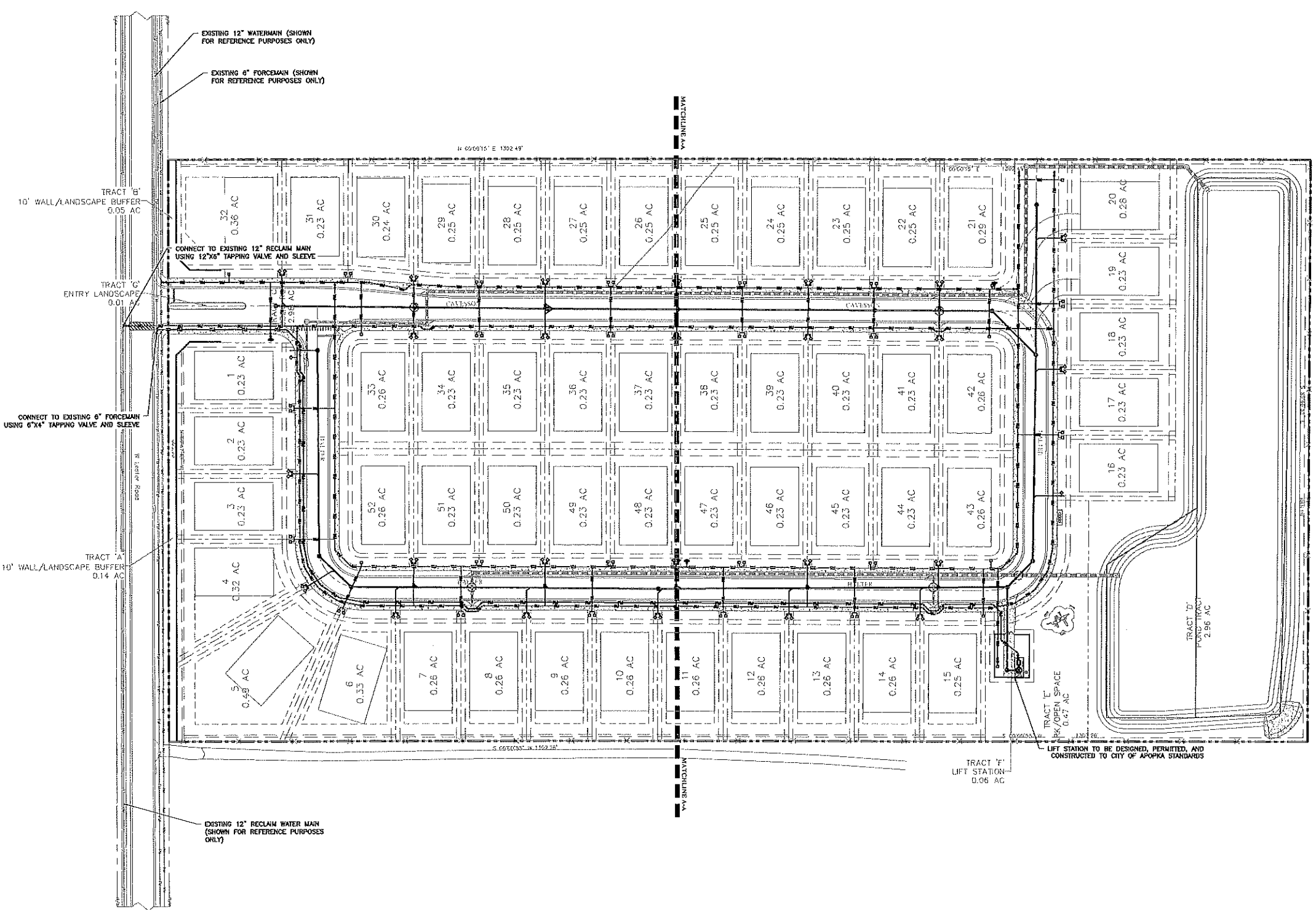
DATE: 02/12/2018

APPAN ENGINEERING LLC
 2201 Lee Road, Suite 17, Winter Park, Florida 32789
 APPAN.ENG.COM - 407.560.5868

REV. DATE DESCRIPTION

05/14/18 CITY OF APOPKA COMMENTS DATED 05/14/18 JOP BY

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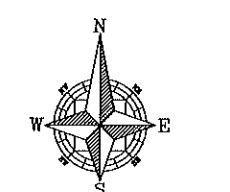
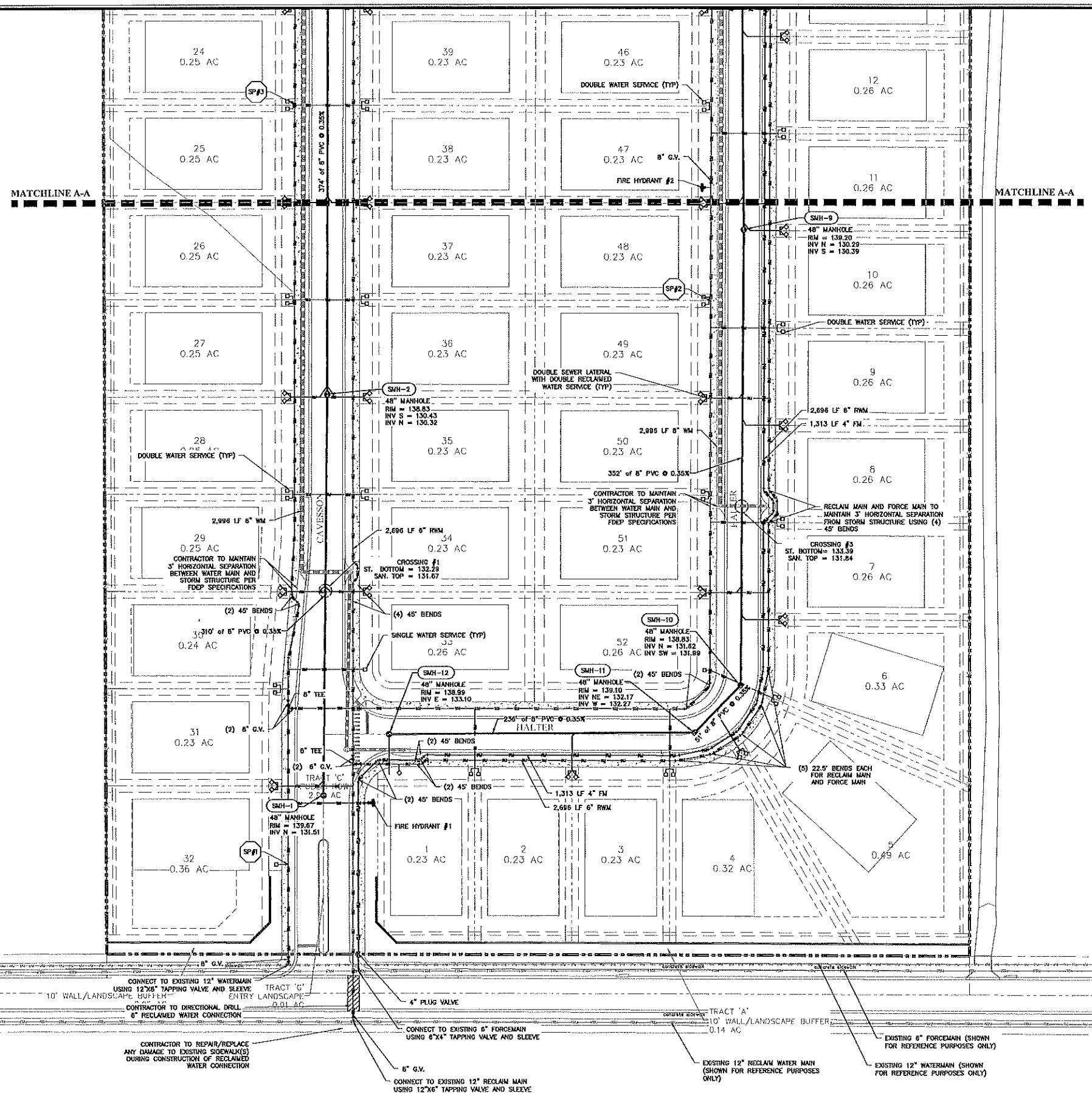
- LEGEND**
- FM PROPOSED FORCE MAIN
 - WM PROPOSED WATER MAIN
 - RU PROPOSED RE-USE MAIN
 - SANITARY PIPE
 - GATE VALVE
 - FIRE HYDRANT
 - TEE
 - 2" BLOWOFF VALVE
 - SINGLE SERVICE
 - DOUBLE SERVICE
 - REDUCER
 - SINGLE SANITARY SEWER LATERAL
 - DOUBLE SANITARY SEWER LATERAL
 - SANITARY MANHOLE

- UTILITY NOTES:**
1. ALL WATER MAINS LEADING TO A PROPOSED FIRE HYDRANT SHALL BE A MINIMUM OF 8".
 2. FIRE FLOW REQUIREMENTS FOR BUILDINGS SHALL BE IN ACCORDANCE WITH NFPA I, SECTION 18.4.
 3. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW REPORT AND A HYDRAULIC GRAPH.
 4. CONTRACTOR SHALL BE RESPONSIBLE FOR DEFLECTING WATER MAIN WHEN 12 INCHES (MIN.) OF SEPARATION IS NOT ACHIEVABLE. THE FDP UTILITY SEPARATION REQUIREMENTS AND STANDARD UTILITY CROSSING REFER TO UTILITY NOTES SHEET FOR SEPARATION REQUIREMENTS.
 5. ALL OFF-SITE PORTIONS OF THE SANITARY SYSTEM SHALL BE INSTALLED WITH A MINIMUM COMPACTION OF 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
 6. ALL GRAVITY MAINS SHALL BE SDR-35 PIPE PER THE CITY OF APOPKA MANUAL OF STANDARDS.
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 15. EXISTING UTILITIES SHOWN FOR REFERENCE PURPOSES BASED ON CITY OF APOPKA GIS INFORMATION. CONTRACTOR TO FIELD VERIFY UTILITY LOCATIONS AND NOTIFY ENGINEER AND CITY INSPECTOR IF LOCATIONS SHOWN ARE NOT CORRECT.

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CIVIL ENGINEERING LAND PLANNING APPIAN ENGINEERING LLC. APPIANENGINEERING.COM - 407.560.5868 <small>2201 Lee Road, Suite 117, Weston, FL, 32793</small>	
UTILITY PLAN - OVERALL FINAL DEVELOPMENT PLAN	BRIDEWOOD SUBDIVISION CITY OF APOPKA, FLORIDA
DRAWN: J.BAKER DESIGNED: J.PALM PROJECT: AVX-001 SHEET: C4.1	CHECKED: L. CLASSON DATE: 02/12/2018
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GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

- LEGEND**
- FM PROPOSED FORCE MAIN
 - WM PROPOSED WATER MAIN
 - RU PROPOSED RE-USE MAIN
 - SP SANITARY PIPE
 - GATE VALVE
 - FIRE HYDRANT
 - TEE
 - 2" BLOWOFF VALVE
 - SINGLE SERVICE
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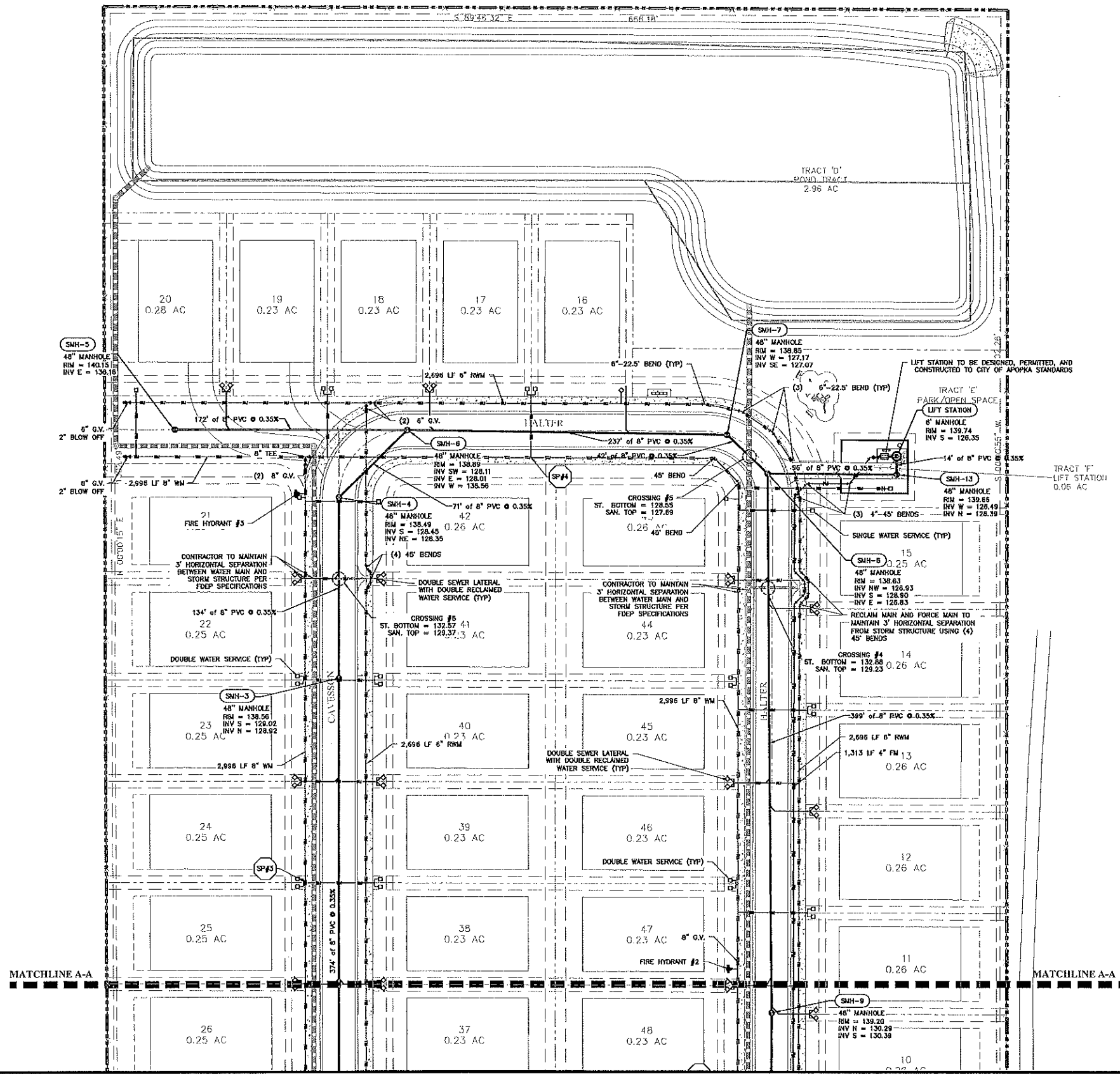
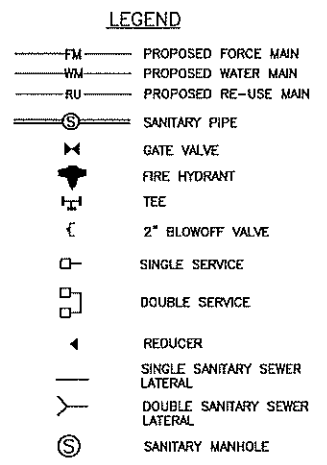
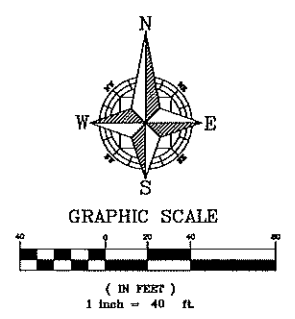
FIRE HYDRANT NOTES:

1. FIRE HYDRANT LOCATION AND DISTRIBUTION SHALL FOLLOW NFPA 1.
2. A 36 INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE REQUIRED OR APPROVED. (NFPA 1, 18.5.7.1)
3. A CLEAR SPACE OF NOT LESS THAN 60 INCH SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING A DIAMETER GREATER THAN 2.5 INCH (NFPA 1, 18.5.7.2)
4. AFTER THE INSTALLATION OF THE NEW HYDRANTS, A FIRE FLOW TESTING SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 291, RECOMMENDED PRACTICE FOR FIRE FLOW TESTING AND MARKING OF HYDRANTS. A FIRE FLOW TEST RESULTS FROM THE NEAREST EXISTING HYDRANT THAT HAS BEEN WITNESSED BY A UTILITIES INSPECTOR WILL NEED TO BE PROVIDED. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW TEST REPORT AND A HYDRAULIC GRAPH. (SCPSTIM, FIRE FLOW TESTING PROCEDURE)
5. THE LOCATION OF THE FIRE HYDRANTS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. (NFPA 1,18.5.10.1)

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2221 Lee Road, Suite 17, Winter Park, Florida 32789	
DATE: 02/12/2018	
BY: JPB	
DESCRIPTION	
UTILITY PLAN - SOUTH	
FINAL DEVELOPMENT PLAN	
BRIDLEWOOD SUBDIVISION	
CITY OF APOPKA, FLORIDA	
SCALE: 1" = 40'	PROJECT: AVX-001
DRAWN: JBAKER	DESIGNED: J-PALM
CHECKED: L. CLASSON	DATE: 02/12/2018
SHEET: C4.2	
52/118	

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UTILITY NOTES:

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14. CONTRACTOR IS REQUIRED TO PROVIDE FIRE DEPARTMENT ACCESS AND WATER PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ON SITE.
15. EXISTING UTILITIES SHOWN FOR REFERENCE PURPOSES BASED ON CITY OF APOPKA GIS INFORMATION. CONTRACTOR TO FIELD VERIFY UTILITY LOCATIONS AND NOTIFY ENGINEER AND CITY INSPECTOR IF LOCATIONS SHOWN ARE NOT CORRECT.

FIRE HYDRANT NOTES:

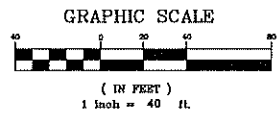
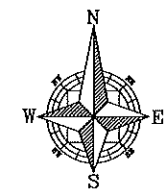
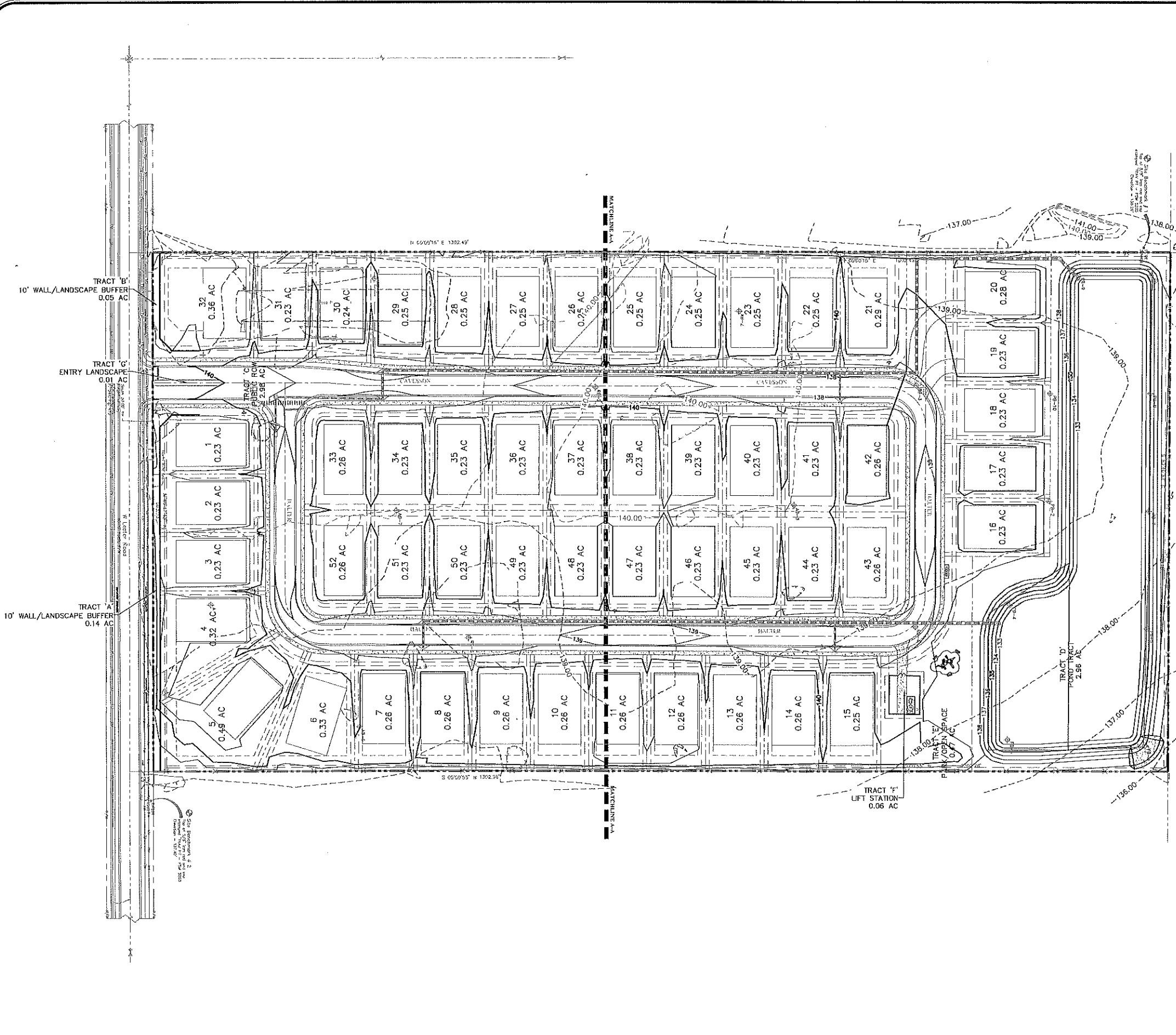
1. FIRE HYDRANT LOCATION AND DISTRIBUTION SHALL FOLLOW NFPA 1.
2. A 36 INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE REQUIRED OR APPROVED. (NFPA 1, 18.5.7.1)
3. A CLEAR SPACE OF NOT LESS THAN 60 INCH SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING A DIAMETER GREATER THAN 2.5 INCH (NFPA 1, 18.5.7.2)
4. AFTER THE INSTALLATION OF THE NEW HYDRANTS, A FIRE FLOW TESTING SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 291, RECOMMENDED PRACTICE FOR FIRE FLOW TESTING AND MARKING OF HYDRANTS. A FIRE FLOW TEST RESULTS FROM THE NEAREST EXISTING HYDRANT THAT HAS BEEN WITNESSED BY A UTILITIES INSPECTOR WILL NEED TO BE PROVIDED. DOCUMENTATION FOR FIRE FLOW TESTING SHALL INCLUDE A FIRE FLOW TEST REPORT AND A HYDRAULIC GRAPH. (SCPSM, FIRE FLOW TESTING PROCEDURE)
5. THE LOCATION OF THE FIRE HYDRANTS SHALL BE IDENTIFIED BY A BLUE REFLECTIVE PAVEMENT MARKER. ((NFPA 1,18.5.10.1)

48 HOURS BEFORE DIGGING
CALL
TOLL FREE
811 or 1-800-432-4770
BURNING STATE ONE CALL CENTER

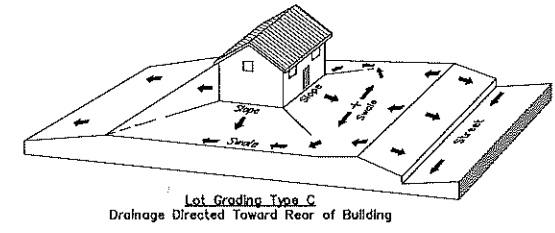
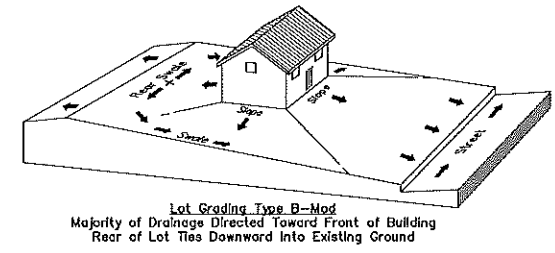
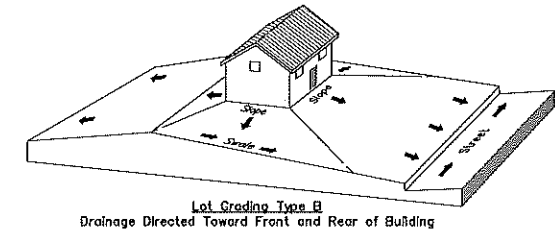
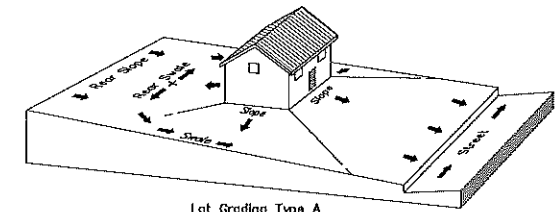
SHEET 20 OF 44

CIVIL ENGINEERING LAND PLANNING		APPIAN ENGINEERING LLC.		REV. DATE	DESCRIPTION
UTILITY PLAN - NORTH		FINAL DEVELOPMENT PLAN		15/7/17	CITY OF APOPKA COMMENTS DATED 05/14/18
BRIDLEWOOD SUBDIVISION		CITY OF APOPKA, FLORIDA		APPANEL.COM - 407.560.5888	2221 Lee Road, Suite 17, Weston, FL, 33391
SCALE	1" = 40'	DESIGNED	J-PALM	CHECKED	L. CLASSON
PROJECT	AVX-001	DATE	02/12/2018	SHEET	C-4.3
		52/118			

P:\PROJECT DRAWINGS\APX-001 Equitation Center (P-17089)\Drawings\CAD\CX\3D\Layouts\04 - Final Development Plan (FDP)\Paving & Grading Plan.dwg Modified: 5/21/2018 By: pam

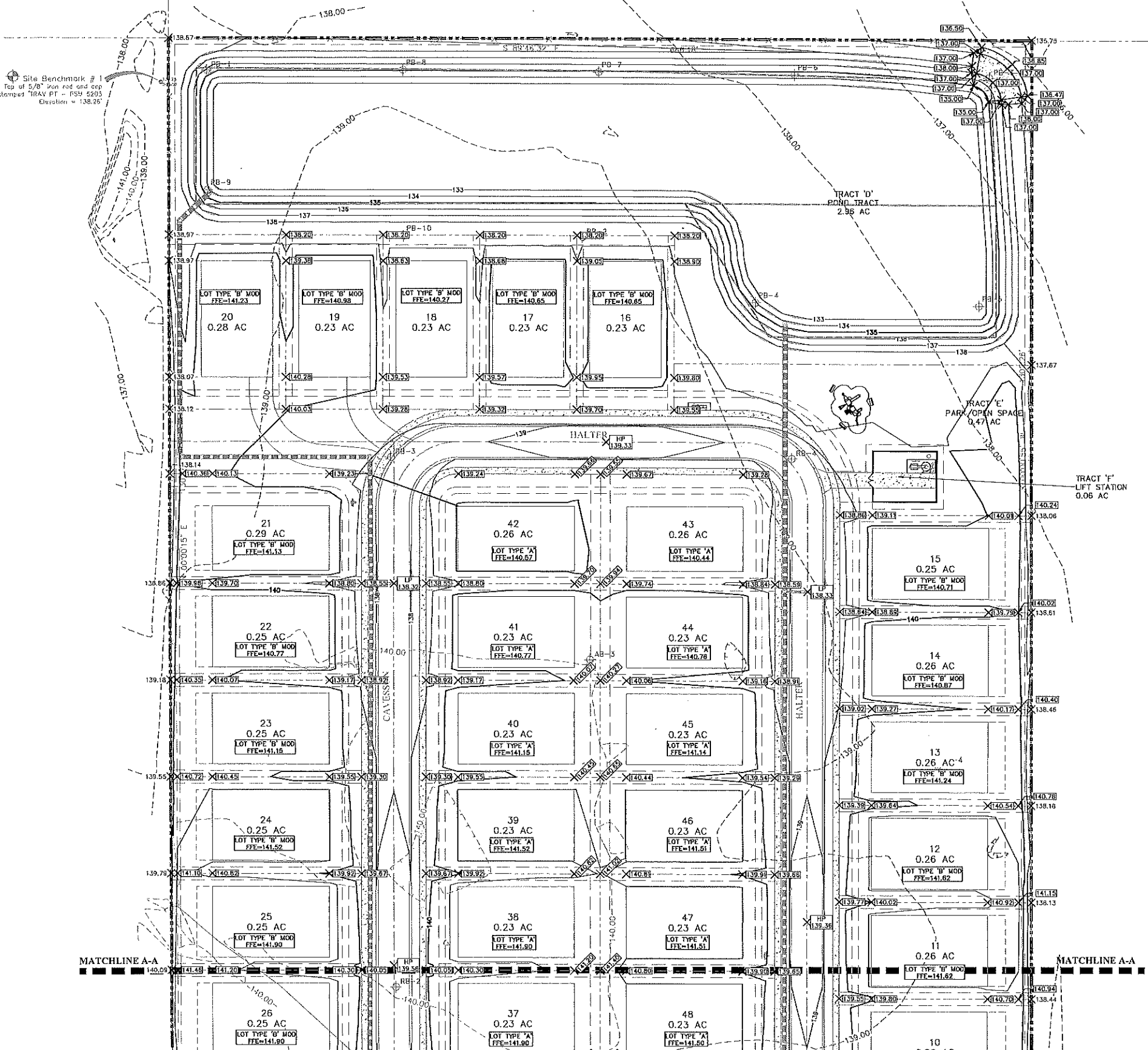


- GRADING PLAN LEGEND:**
- PROPOSED GRADE
 - EXISTING GRADE
 - PROPOSED CONTOUR
 - EXISTING CONTOUR
 - SURFACE DRAINAGE FLOW ARROW
 - PROPOSED SWALE



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811 or 1-800-432-4770
SUNSHINE STATE ONE CALL CENTER

CIVIL ENGINEERING LAND PLANNING		APPIAN ENGINEERING LLC.	
PAVING & GRADING PLAN - SOUTH		BRIDLEWOOD SUBDIVISION	
FINAL DEVELOPMENT PLAN		CITY OF APOPKA, FLORIDA	
SCALE: 1" = 40'	DRAWN: J.BAMER	CHECKED: L. GLASSON	DATE: 02/12/2018
PROJECT: AVX-001	DESIGNED: J.PALM	SHEET: C5.0	
APPIAN ENGINEERING		APPIAN.COM - 407.960.5868	
2231 Lee Road, Suite 17, Winter Park, Florida 32789		REV. DATE DESCRIPTION	
		A 05/14/18 CITY OF APOPKA COMMENTS DATED 05/14/18	
		B 05/14/18	
		C 05/14/18	
		D 05/14/18	
		E 05/14/18	
		F 05/14/18	
		G 05/14/18	
		H 05/14/18	
		I 05/14/18	
		J 05/14/18	
		K 05/14/18	
		L 05/14/18	
		M 05/14/18	
		N 05/14/18	
		O 05/14/18	
		P 05/14/18	
		Q 05/14/18	
		R 05/14/18	
		S 05/14/18	
		T 05/14/18	
		U 05/14/18	
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		W 05/14/18	
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		Y 05/14/18	
		Z 05/14/18	

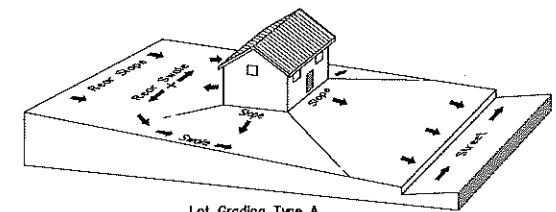


Site Benchmark # 1
Top of 5/8" Iron rod and cap
stamped "TRAV PT - FS4 5203
Elevation = 138.26"

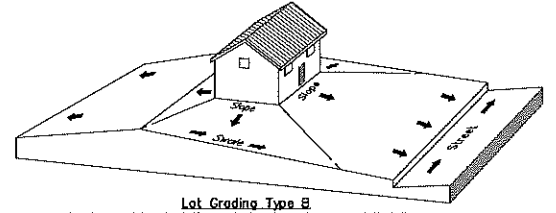


GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

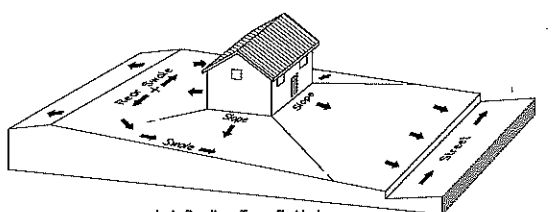
- GRADING PLAN LEGEND:**
- PROPOSED GRADE
 - EXISTING GRADE
 - PROPOSED CONTOUR
 - EXISTING CONTOUR
 - SURFACE DRAINAGE FLOW ARROW
 - PROPOSED SWALE



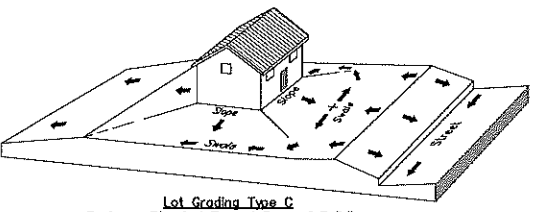
Lot Grading Type A
Drainage Directed Toward Front of Building



Lot Grading Type B
Drainage Directed Toward Front and Rear of Building



Lot Grading Type B-Mod
Majority of Drainage Directed Toward Front of Building
Rear of Lot Ties Downward Into Existing Ground



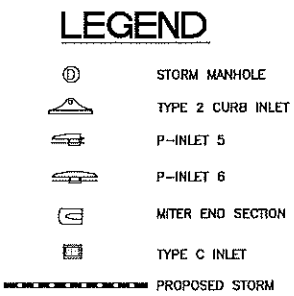
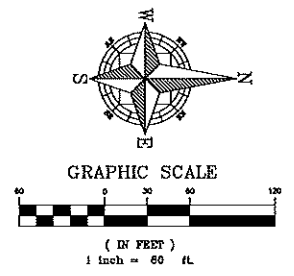
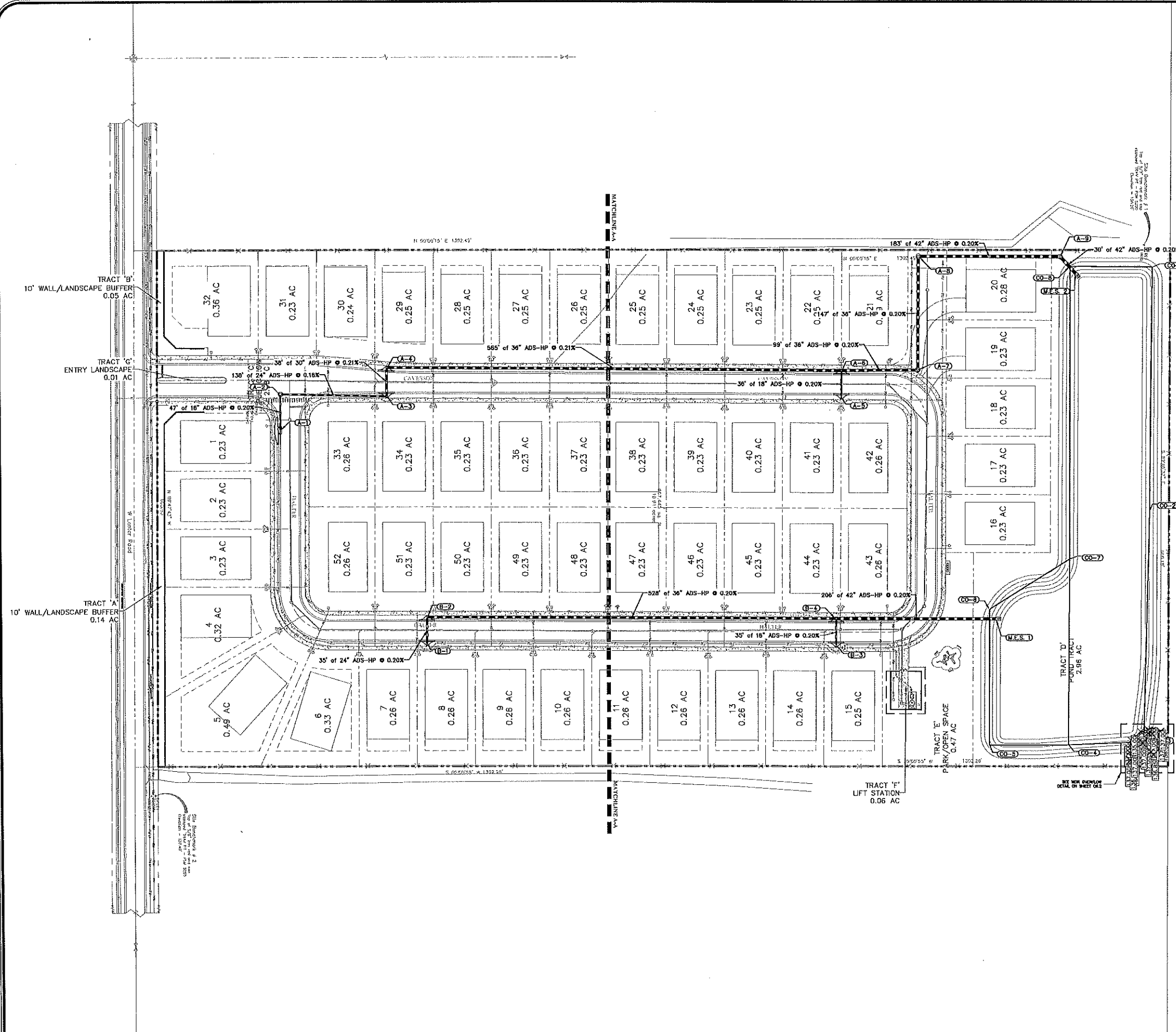
Lot Grading Type C
Drainage Directed Toward Rear of Building

48 HOURS BEFORE DIGGING
CALL
TOLL FREE
811 or 1-800-432-4770
FLORIDA STATE ONE CALL CENTER

P:\PROJECT DRAWINGS\AVX-001_Equation Center (P=7298)\Drawings\CAD\DWG\Layouts\04 - Final Development Plan (DIP)\Paving & Grading Plan.dwg Modified: 5/21/2018 By: jedm

APPIAN ENGINEERING LLC CIVIL ENGINEERING LAND PLANNING APPIANENGINEERING.COM • 407.560.5868 <small>2281 Lee Road, Suite 117, Weston, FL 33391</small>	
PAVING & GRADING PLAN - NORTH FINAL DEVELOPMENT PLAN BRIDLEWOOD SUBDIVISION CITY OF APOPKA, FLORIDA	
DRAWN: JBAKER DESIGNED: J.PALM PROJECT: AVX-001 SHEET: C5.2	CHECKED: L. CLASSON DATE: 02/12/2018 REV. DATE:
52118	

P:\PROJECT DRAWINGS\AYX-001 Equitation Center (P-17088)\Drawings\CAD CIV\3D\Layouts\04 - Final Development Plan (FDP)\Drainage Plans.dwg Modified: 5/21/2018 By: palm



- DRAINAGE NOTES:**
1. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED.
 2. ALL REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL BE WRAPPED PER FDOT 2017-2018 STANDARD INDEX 280
 3. ALL DRAINAGE STRUCTURE INVERTS ARE TO BE POURED PER FDOT 2017-2018 STANDARD INDEX 201.

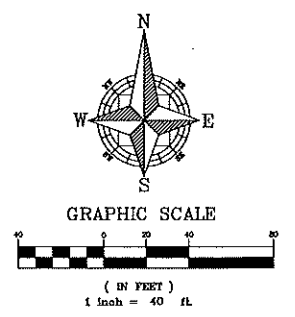
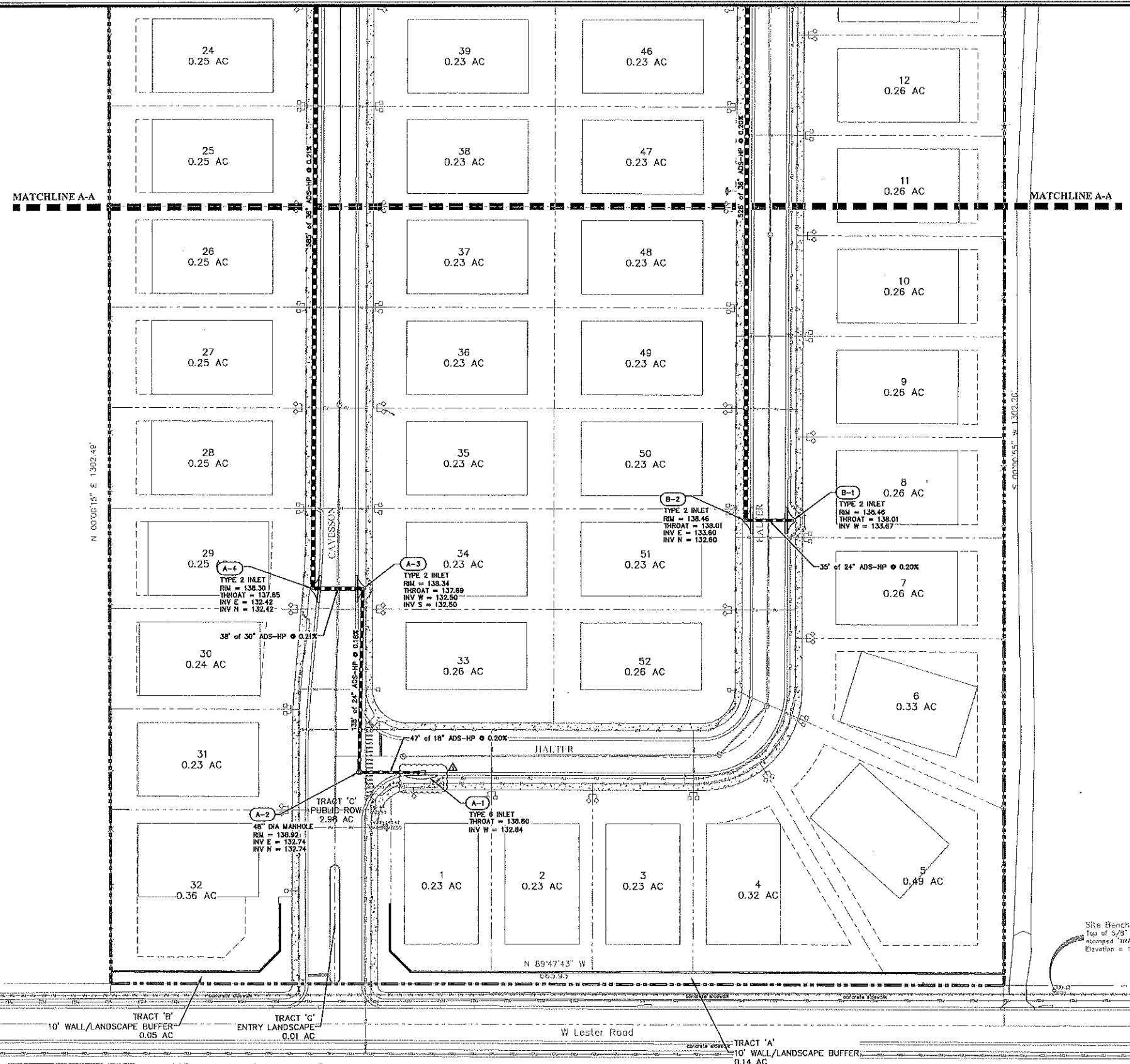
48 HOURS BEFORE DIGGING
 CALL
 TOLL FREE
 811 or 1-800-432-4770
 FLORIDA STATE ONE CALL CENTER

SHEET 24 OF 44

		CIVIL ENGINEERING LAND PLANNING APPIAN ENGINEERING LLC. APPIANENGINEERING.COM APPIANE.COM • 407.960.5868 <small>STATE OF FLORIDA, CERT. NO. 17, WATER RESOURCES ENGINEER</small>		DATE: 02/12/2018 SHEET: C6.0 PROJECT: AYX-001 DESIGNED: J.PALM CHECKED: L. CLASSON DRAWN: J.BARKER	BRIDLEWOOD SUBDIVISION CITY OF APOPKA, FLORIDA DRAINAGE PLAN - OVERALL FINAL DEVELOPMENT PLAN	REV. DATE DESCRIPTION 05/14/18 CITY OF APOPKA COMMENTS DATED 05/14/18 JCP BY
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52118

P:\PROJECT DRAWINGS\AVX-001 Equestrian Center (P-17089)\Drawings\CAD Civil3D\Layouts\04 - Final Development Plan (FDP)\Drainage Plan.dwg Modified: 5/21/2018 By: jdm



- ### LEGEND
- STORM MANHOLE
 - TYPE 2 CURB INLET
 - P-INLET 5
 - P-INLET 6
 - MITER END SECTION
 - TYPE C INLET
 - PROPOSED STORM

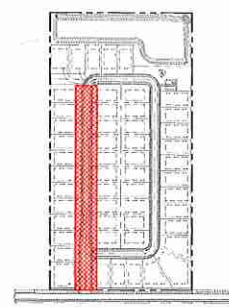
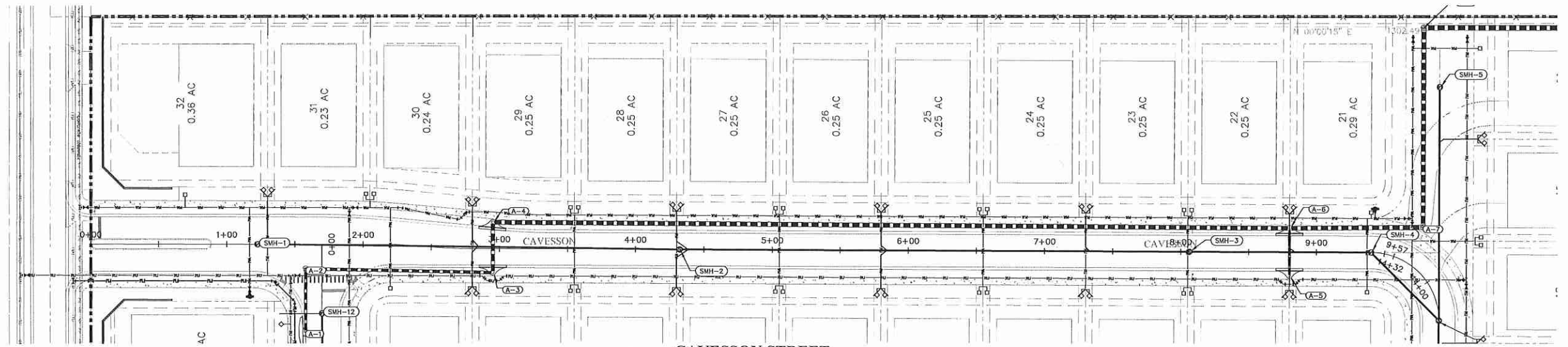
- ### DRAINAGE NOTES:
- ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED.
 - ALL REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL BE WRAPPED PER FDOT 2017-2018 STANDARD INDEX 280
 - ALL DRAINAGE STRUCTURE INVERTS ARE TO BE POURED PER FDOT 2017-2018 STANDARD INDEX 201.

Site Benchmark
Top of 5/8" iron
stamped "IRAV 1"
Elevation = 137.

CIVIL ENGINEERING LAND PLANNING APPLAN ENGINEERING LLC. APPLANFL.COM • 407.960.5868 <small>2221 Lee Road, Suite 17, Weston, FL, 33093</small>	CITY OF APOPKA COMMENTS DATED 05/14/18 DATE DESCRIPTION		
DRAINAGE PLAN - SOUTH FINAL DEVELOPMENT PLAN BRIDLEWOOD SUBDIVISION CITY OF APOPKA, FLORIDA			
SCALE 1" = 40'	PROJECT AVX-001	SHEET C 6.1	DATE 02/12/2018
DESIGNED: J.PALM	CHECKED: L. CLASSEN		

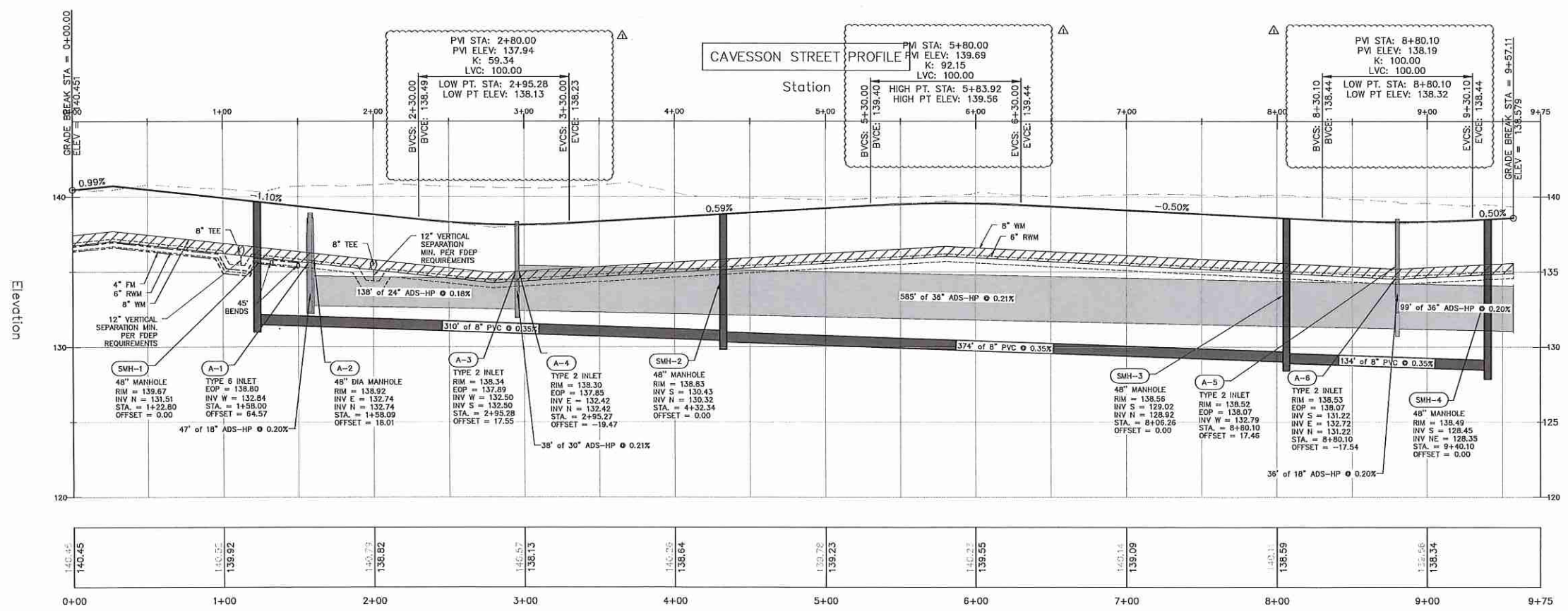
48 HOURS BEFORE DIGGING
CALL
 TOLL FREE
 811 or 1-800-432-4770
 FLORIDA STATE ONE CALL CENTER

P:\PROJECT DRAWINGS\AVX-001 Elevation Center (P-17089)\Drawings\CAD CHAS30\Layouts\04 - Final Development Plan (FDP)\Plan & Profile.dwg Modified: 5/21/2018 By: baum



KEY MAP

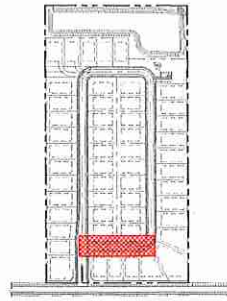
CAVESSON STREET
STATION 0+00 TO 9+57



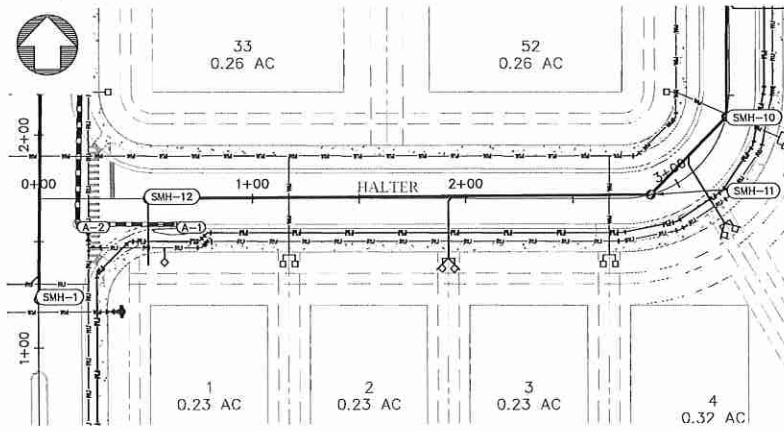
HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=4'

48 HOURS BEFORE DIGGING
CALL TOLL FREE
811 or 1-800-432-4770
FLORIDA STATE ONE CALL CENTER

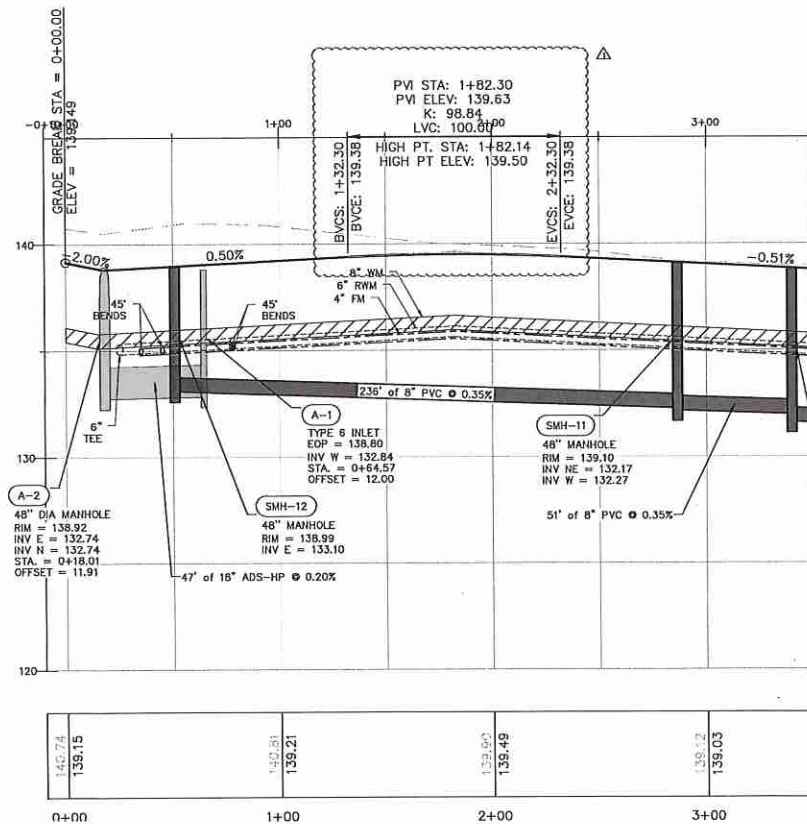
CIVIL ENGINEERING LAND PLANNING		APPIAN ENGINEERING LLC.	
APPIANENGINEERING.COM • 407.960.5868		2231 Lee Road, Suite 17, Weston Park, Florida 32789	
REV. DATE		DESCRIPTION	
PLAN & PROFILE - CAVESSON STREET		FINAL DEVELOPMENT PLAN	
BRIDLEWOOD SUBDIVISION		CITY OF APOPKA, FLORIDA	
DRAWN: J.BAKER	DESIGNED: J.PALM	CHECKED: L. CLASSON	DATE: 02/12/2018
SCALE: 1" = 40'	PROJECT: AVX-001	SHEET: C7.0	
52116			



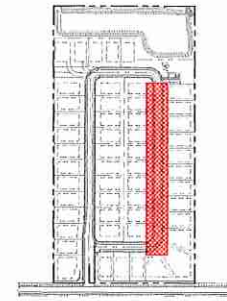
KEY MAP



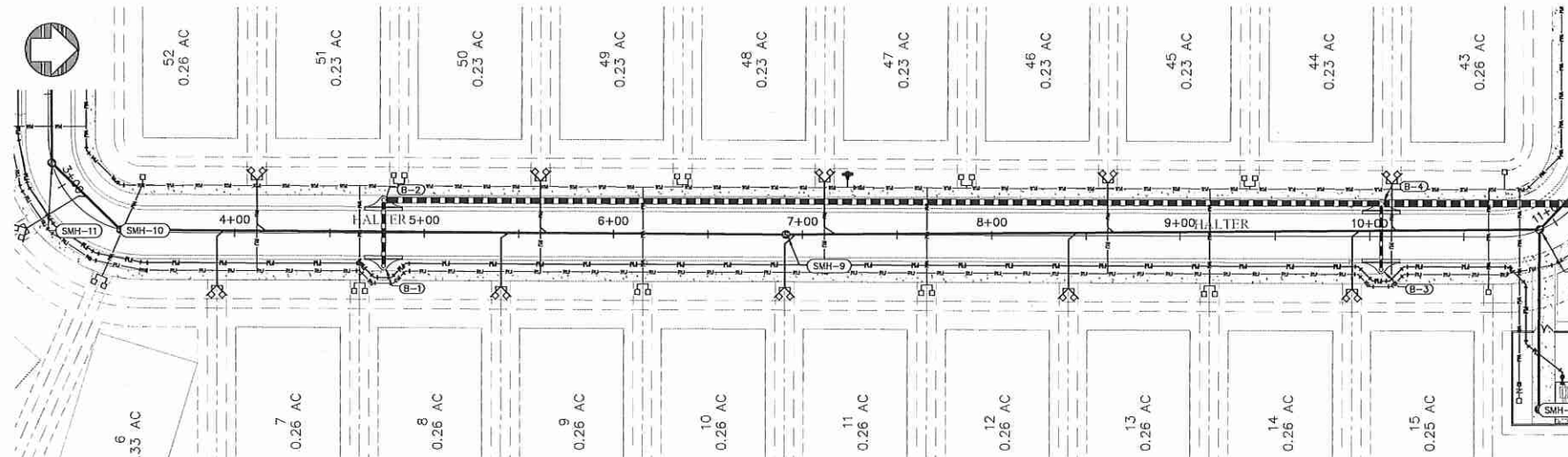
HALTER STREET
STATION 0+00 TO 3+00



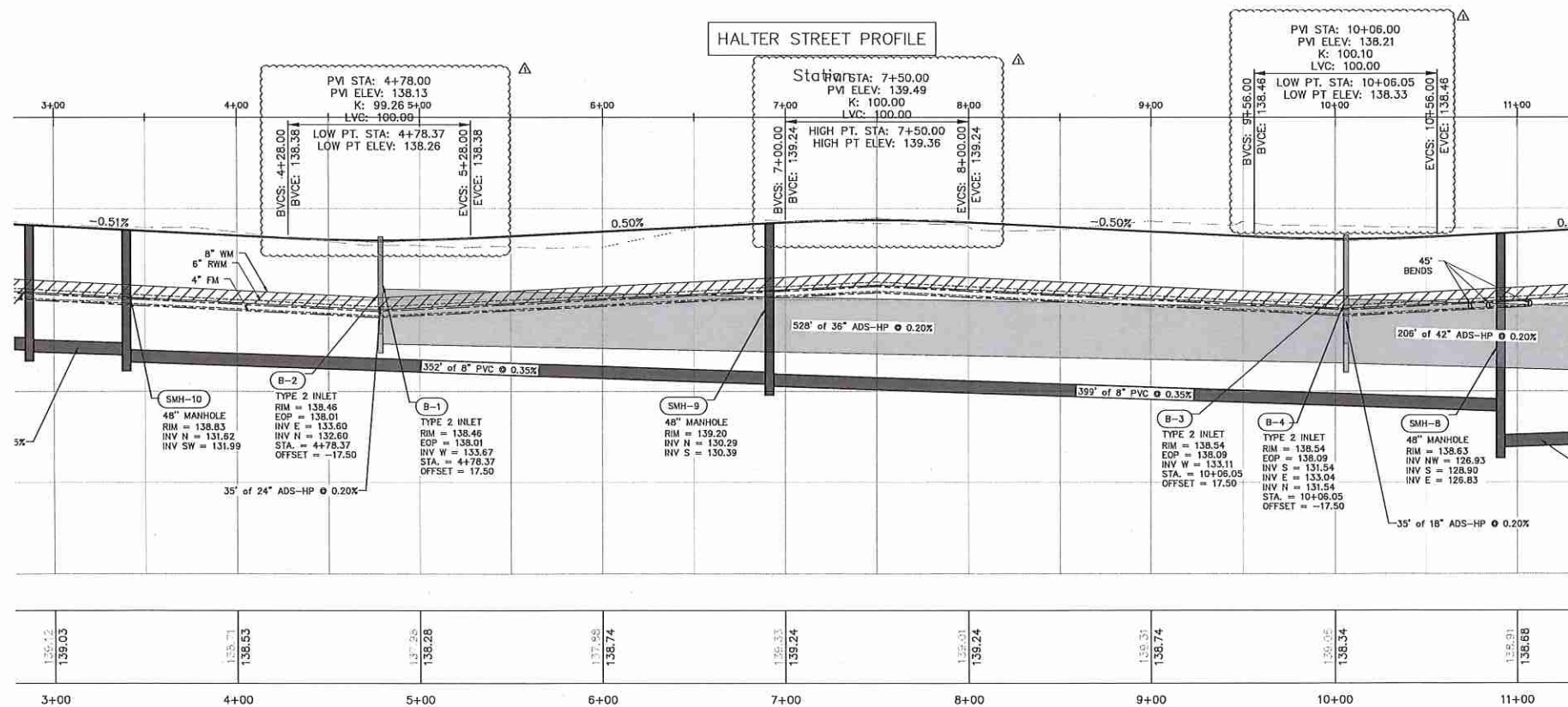
HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=4'



KEY MAP



HALTER STREET
STATION 3+00 TO 11+00



HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=4'

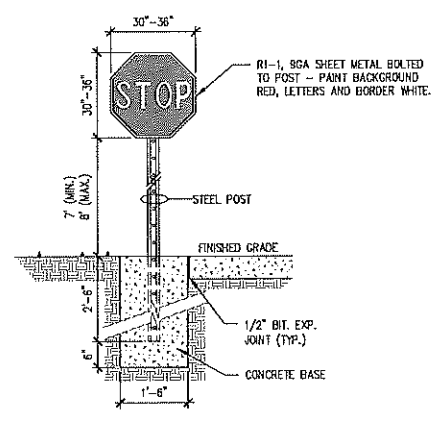
48 HOURS BEFORE DIGGING
CALL TOLL FREE
811 or 1-800-432-4770
SUNSHINE STATE ONE CALL CENTER

SHEET 28 OF 44

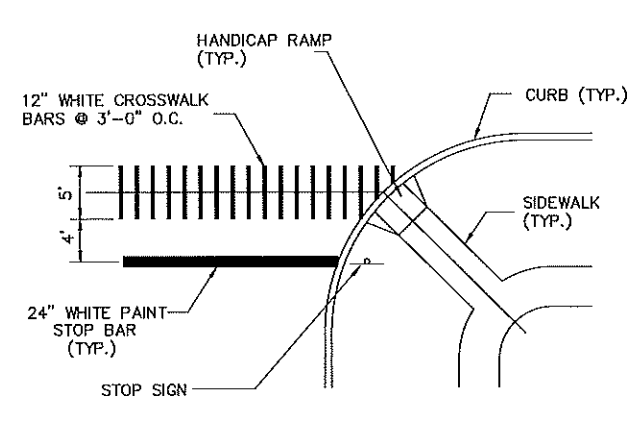
CIVIL ENGINEERING LAND PLANNING		APPIAN ENGINEERING LLC.		APPIANENGINEERING.COM - 407.560.5868		2211 Lee Road, Suite 17, Weston Park, Pomona, FL 32789		REV. DATE		JOB BY	
PLAN & PROFILE - HALTER STREET		FINAL DEVELOPMENT PLAN		BRIDLEWOOD SUBDIVISION		CITY OF APOPKA, FLORIDA		DATE: 02/12/2018		SHEET C7.1	
DRAWN: JBAKER		DESIGNED: JPALM		CHECKED: L. CLASSON		DATE: 02/12/2018		SCALE: 1" = 40'		PROJECT: AVX-001	
APPIAN ENGINEERING		APPIAN ENGINEERING		APPIAN ENGINEERING		APPIAN ENGINEERING		APPIAN ENGINEERING		APPIAN ENGINEERING	

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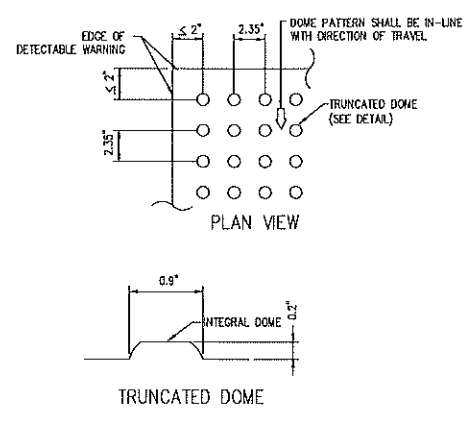
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1 STOP SIGN
N.T.S.

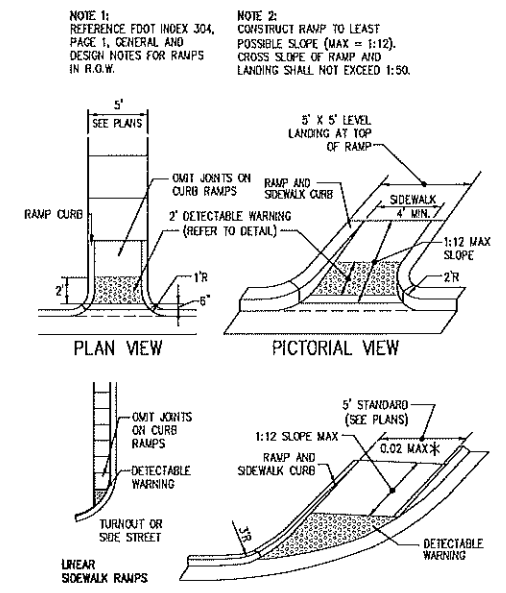


2 INTERSECTION CROSSWALK/
STOP BAR DETAIL
N.T.S.

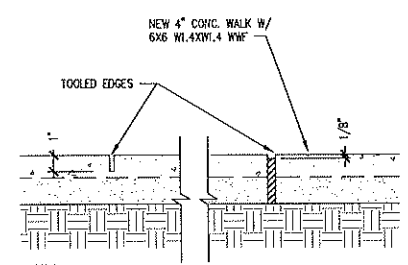


3 DETECTABLE WARNING
N.T.S.

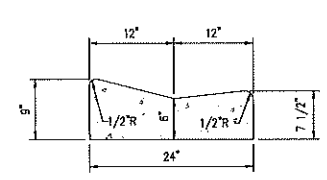
- NOTES:
- CURB RAMP RUNNING SLOPES SHALL NOT BE STEEPER THAN 1:12 AND CROSS SLOPE SHALL BE 0.02 OR FLATTER.
 - DETECTABLE WARNING SURFACES SHALL BE CONSTRUCTED BY TEXTURING OR APPLYING A TRUNCATED DOME MATERIAL IN CONFORMANCE WITH THE U.S. DEPARTMENT OF JUSTICE, A.D.A. STANDARDS FOR ACCESSIBLE DESIGN, A.D.A. ACCESSIBILITY GUIDELINES, SECTION 4.29.2. TRANSITION SLOPES ARE NOT TO HAVE DETECTABLE WARNINGS.
 - WHERE A CURB RAMP IS CONSTRUCTED WITHIN AN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITIONS OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. THE EXISTING SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE WALK AROUND OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5'.
 - WHERE ADJACENT WALKING SURFACES ARE COLORED OR ARE CONSTRUCTED WITH MATERIALS OTHER THAN STANDARD CLASS I PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH SECTION 522 OF THE SPECIFICATIONS, THE PLAN MUST PROVIDE FOR DETECTABLE WARNING SURFACE COLORS OR MATERIALS THAT PROVIDE THE NECESSARY CONTRAST, EITHER DARK-ON-LIGHT OR LIGHT-ON-DARK. (SAFETY YELLOW OR BRICK RED).
 - RECOMMENDED MANUFACTURER: ENGINEERED PLASTICS, INC. (ARMOR TILE) OLYMPIC TOWERS, 300 PEARL STREET, SUITE 200, BUFFALO, NY 14202. PHONE: (800) 882-2525



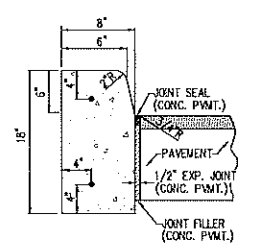
4 HANDICAP END RAMP
3000 PSI (MIN.) CONCRETE
N.T.S.



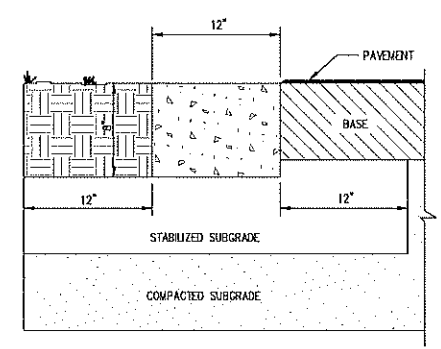
5 CONCRETE WALK
N.T.S.



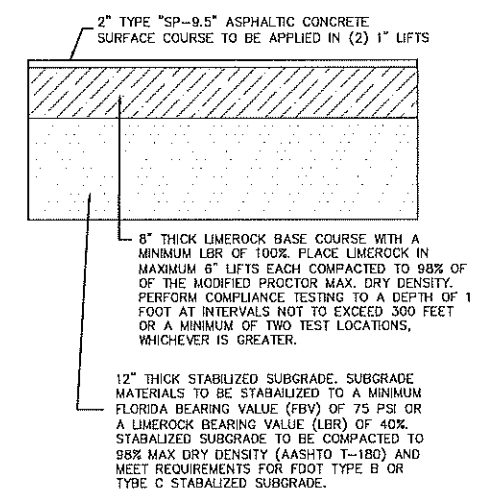
6 MIAMI CURB AND GUTTER
(3,500 PSI (MIN))
N.T.S.



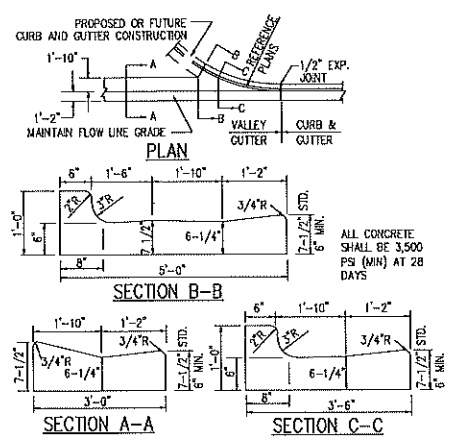
7 TYPE 'D' CURB
(3,500 PSI (MIN))
N.T.S.



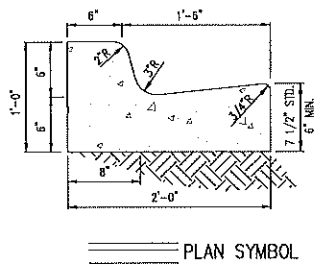
8 RIBBON CURB
3500 PSI (MIN.)
N.T.S.



9 TYPICAL PAVEMENT SECTION
N.T.S.



10 VALLEY GUTTER
N.T.S.
(REFER TO F.D.O.T. INDEX 300)



11 TYPE 'F' CURB AND GUTTER
N.T.S.

NOTE:
WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

NOTE 1:
REFERENCE FOOT INDEX 304, PAGE 1, GENERAL AND DESIGN NOTES FOR RAMPS IN R.O.W.

NOTE 2:
CONSTRUCT RAMP TO LEAST POSSIBLE SLOPE (MAX = 1:12). CROSS SLOPE OF RAMP AND LANDING SHALL NOT EXCEED 1:50.

NO.	REV.	DATE	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

CIVIL ENGINEERING I LAND PLANNING	DATE	DESCRIPTION
APPIAN ENGINEERING LLC.	05/14/18	APPROVA COMMENTS DATED 05/14/18
APPIAN.COM • 407.960.5868		
2281 Lee Road, Suite 17, Warner Oaks, Florida 32789		

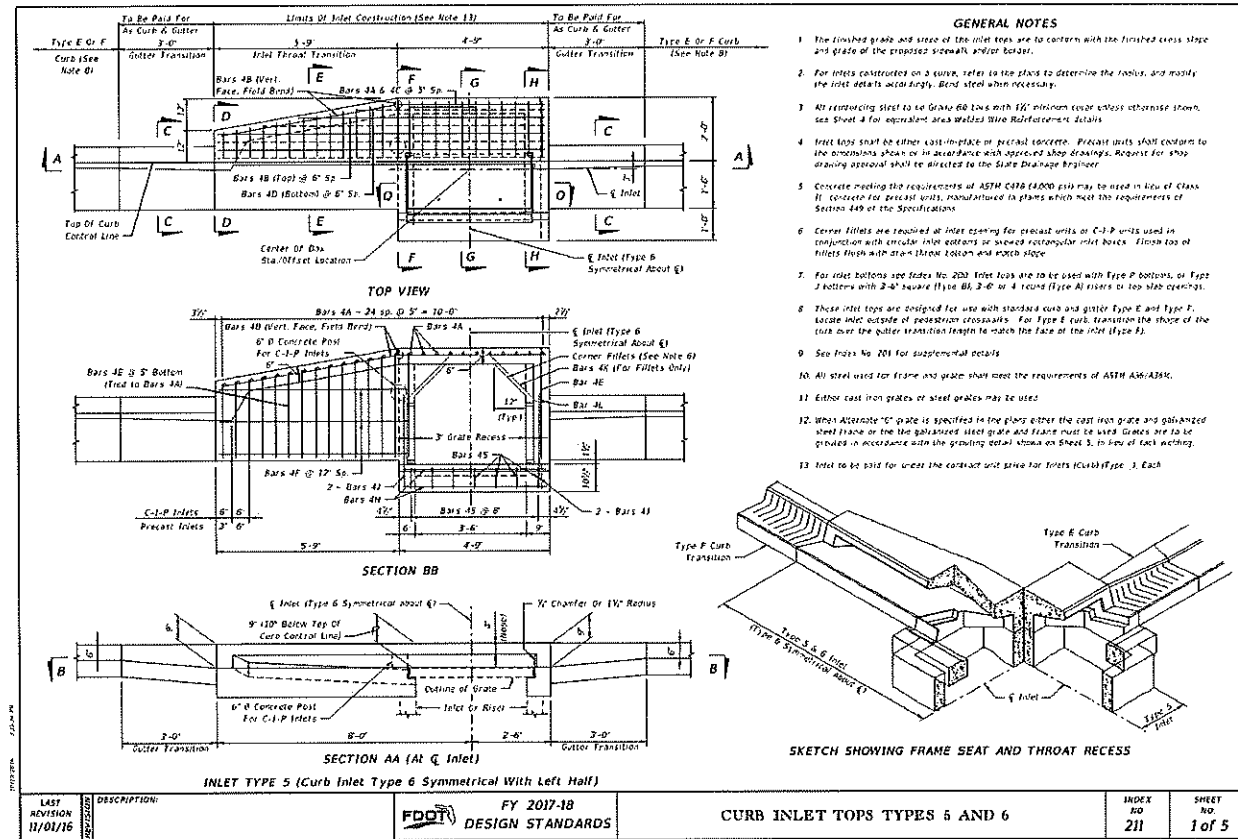
CIVIL DETAILS	FINAL DEVELOPMENT PLAN	BRIDLEWOOD SUBDIVISION	CITY OF APOKA, FLORIDA
SCALE	PROJECT	CHECKED	DATE
N.T.S.	AVX-001	L. CLASSON	02/12/2018
SHEET			
C8.0			

DESIGNED	DATE
J.PALM	02/12/2018

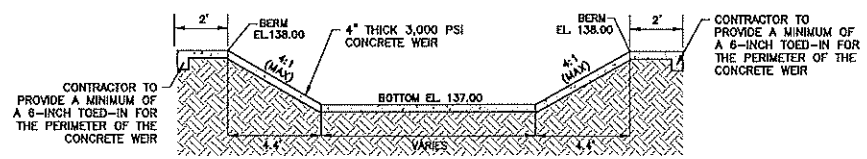
SCALE	PROJECT	CHECKED	DATE
N.T.S.	AVX-001	L. CLASSON	02/12/2018

APPIAN ENGINEERING

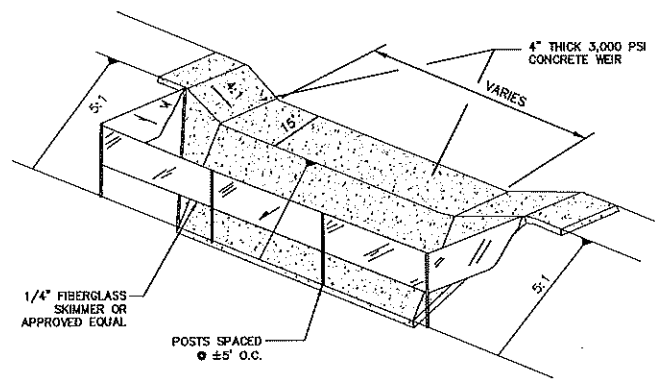
48 HOURS BEFORE DIGGING
CALL TOLL FREE
811 or 1-800-432-4770
SUNSHINE STATE ONE CALL CENTER



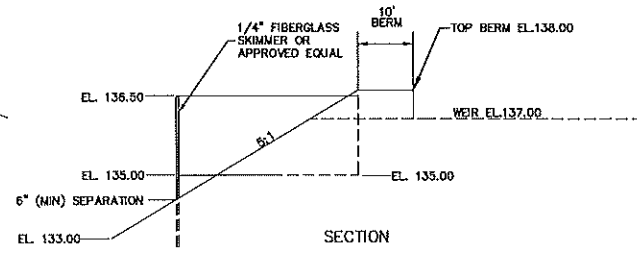
5 TYPE 5 & 6 INLETS
N.T.S.



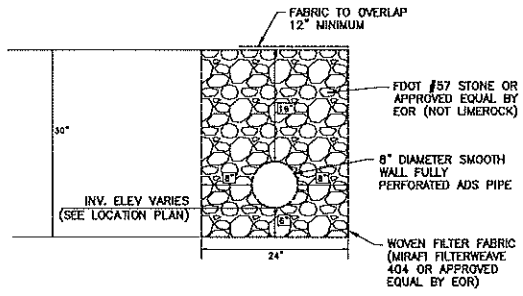
6 OVERFLOW WEIR CROSS SECTION
N.T.S.



7 SKIMMER FOR OVERFLOW WEIR
N.T.S.



8 PROPOSED GROUNDWATER INTERCEPTOR DRAIN
LOCATED AT CENTERLINE OF 10 FOOT WIDE TRENCH
N.T.S.

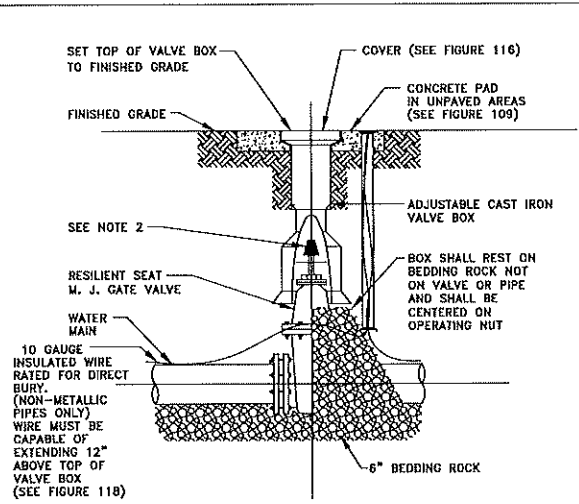


TYPICAL CROSS-SECTION

48 HOURS BEFORE DIGGING
CALL
TOLL FREE
811 or 1-800-432-4770
SUNSHINE STATE ONE CALL CENTER

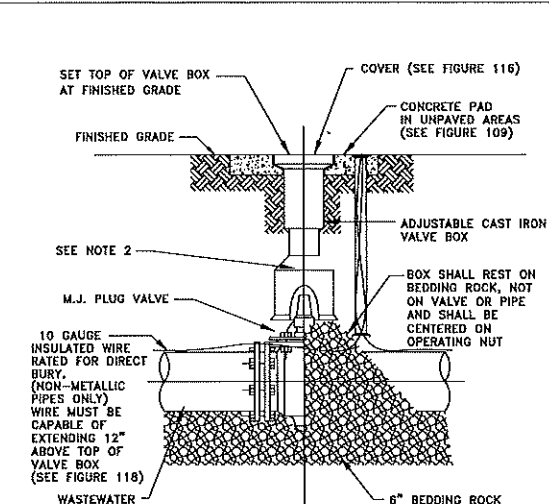
CIVIL ENGINEERING LAND PLANNING		APPIAN ENGINEERING LLC.		APPANEL.COM - 407.960.5888		2221 Lee Road, Suite 17, Weston Park, Pompano Beach, FL 33069	
DRAINAGE DETAILS		FINAL DEVELOPMENT PLAN		BRIDLEWOOD SUBDIVISION		CITY OF APOPKA, FLORIDA	
DRAWN:	J.BAKER	DESIGNED:	J.PALM	CHECKED:	L. CLASSON	DATE:	02/12/2018
SCALE:	N.T.S.	PROJECT:	AVX-001	SHEET:	C9.1		

P:\PROJECT DRAWINGS\AVX-001 Equestrian Center (2-17289)\Drawings\CAD\Civil3D\Layouts\04 - Final Development Plan (EDP)\Drainage Details.dwg Modified: 4/16/2018 By: jpbm



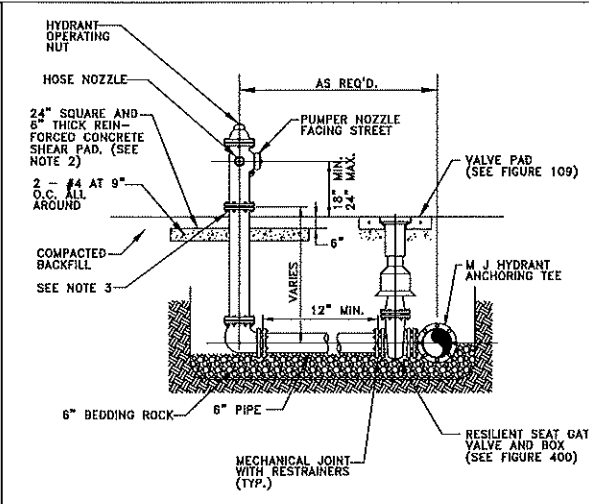
- NOTES:
1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
 2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN A 3 FEET BELOW FINISHED GRADE.

GATE VALVE AND BOX DETAIL



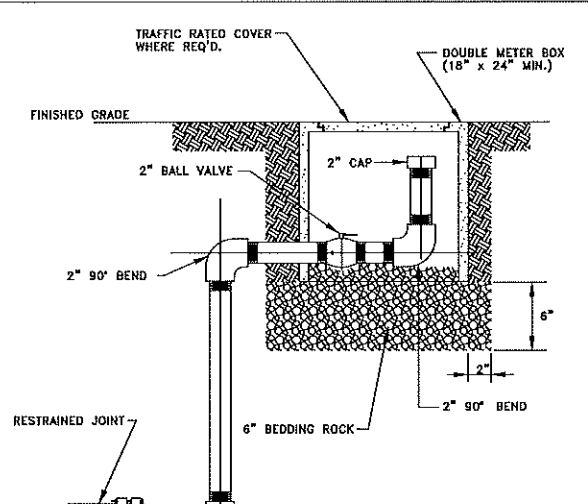
- NOTES:
1. PVC EXTENSIONS MAY BE USED ON VALVE BOX INSTALLATION.
 2. THE ACTUATING NUT FOR DEEPER VALVES SHALL BE EXTENDED TO WITHIN 3 FEET BELOW FINISHED GRADE.

PLUG VALVE AND BOX DETAIL



- NOTES:
1. FIRE HYDRANT SHALL BE SUPPLIED WITHOUT A WEEP HOLE, OR WITH A PERMANENTLY PLUGGED WEEP HOLE.
 2. THE SHEAR PAD SHALL BE RECESSED SIX (6) INCHES BELOW THE FINISHED GRADE AND THE RECESSED SECTION SODDED.
 3. CLEARANCE BETWEEN BOTTOM OF BOLTS AND TOP OF SHEAR PAD SHALL BE A TWELVE (12) INCH MINIMUM.
 4. FIRE HYDRANTS SHALL BE IDENTIFIED IN ACCORDANCE WITH THE CITY OF APOPKA UTILITIES DESIGN CONSTRUCTION STANDARDS MANUAL.

FIRE HYDRANT ASSEMBLY DETAIL



- NOTES:
1. ALL 2 INCH PIPE AND FITTINGS SHALL BE SCHEDULE 40 GALVANIZED STEEL OR BRASS WITH THREADED (NPT) JOINTS. USE TEFLON TAPE ON JOINTS.
 2. COLOR SHALL BE APPROPRIATE FOR USE.

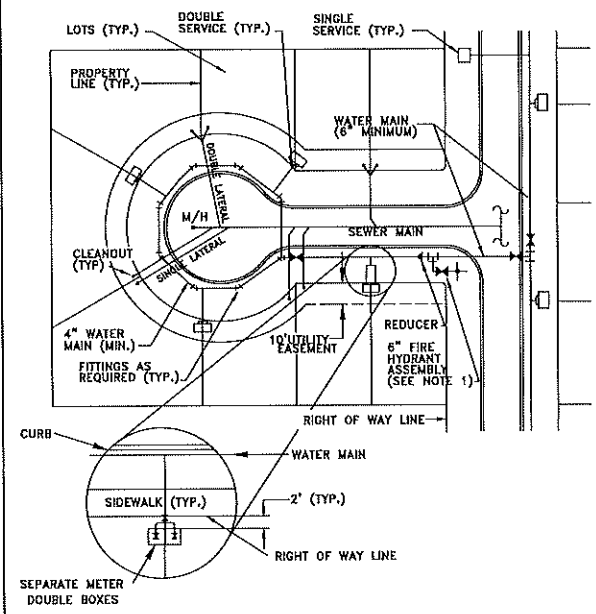
BLOWOFF VALVE DETAIL

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 400

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 400 A

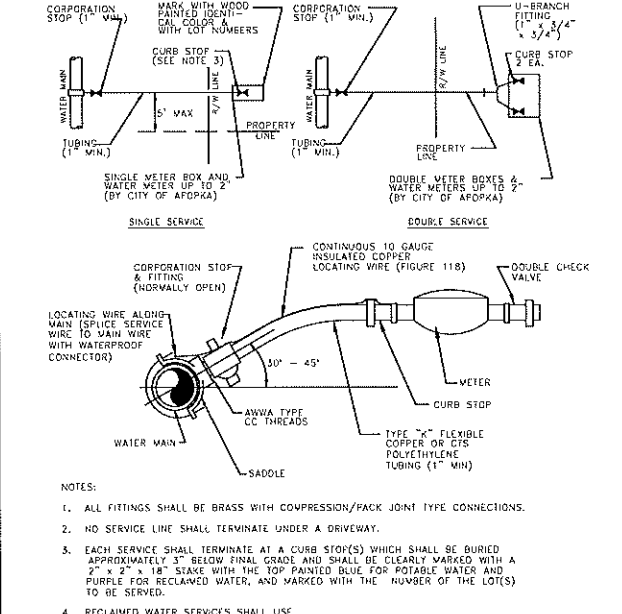
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 402

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 403



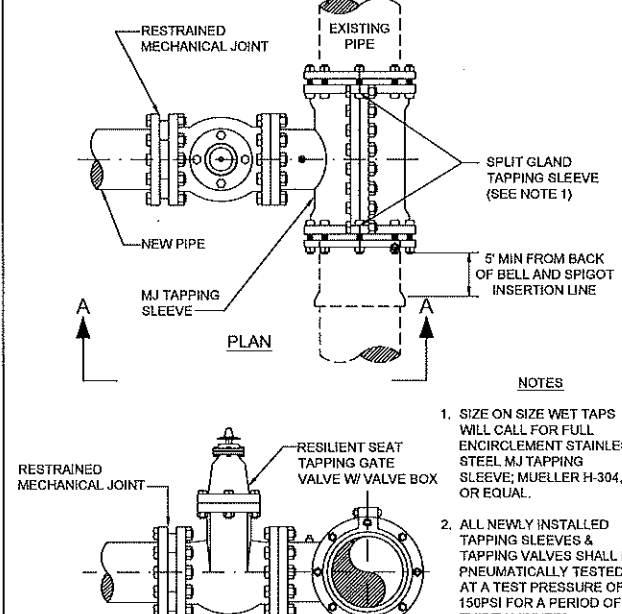
- NOTES:
1. ANCHORING TYPE 90° BEND SHALL ONLY BE USED WHERE RIGHT-OF-WAY CONSTRUCTION WILL NOT ALLOW INSTALLATION OF A STRAIGHT ASSEMBLY.
 2. POTABLE WATER AND RECLAIMED WATER MAINS SHALL BE LOOPED THROUGHOUT CUL-DE SAC.

TYPICAL SERVICE LOCATION DETAIL



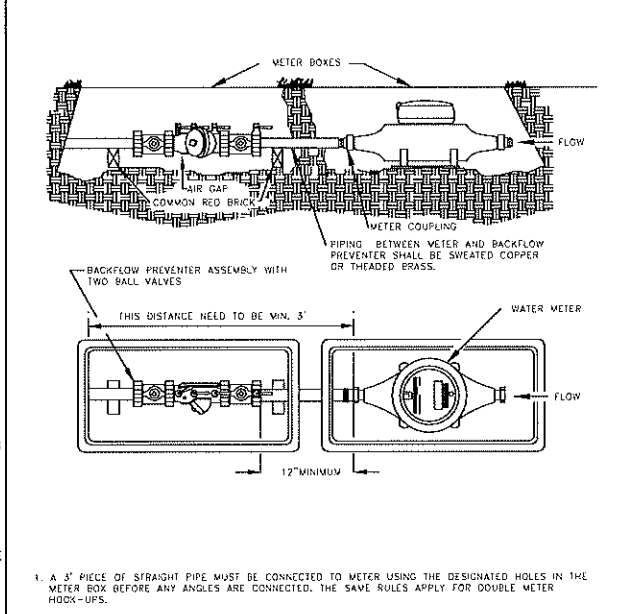
- NOTES:
1. ALL FITTINGS SHALL BE BRASS WITH COMPRESSION/PACK JOINT TYPE CONNECTIONS.
 2. NO SERVICE LINE SHALL TERMINATE UNDER A DRIVEWAY.
 3. EACH SERVICE SHALL TERMINATE AT A CURB STOP(S) WHICH SHALL BE BURIED APPROXIMATELY 3\"/>

WATER SERVICE CONNECTION DETAIL



- 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



1. A 3\"/>

POTABLE WATER SERVICE DETAIL FOR LOTS SERVED WITH RECLAIMED WATER

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 404

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 405

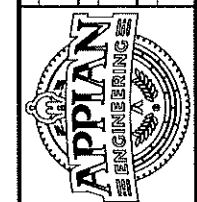
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 406

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 505

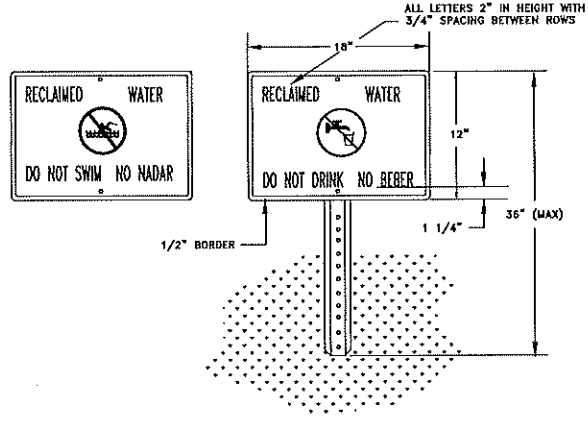
CIVIL ENGINEERING 1 LAND PLANNING	APPIAN ENGINEERING LLC.	APPIANFL.COM - 407.960.5868
2201 Lee Road, Suite 117, Winter Park, Florida 32789	REV. DATE	DESCRIPTION

POTABLE & RECLAIMED WATER DETAILS
FINAL DEVELOPMENT PLAN
BRIDEWOOD SUBDIVISION
CITY OF APOPKA, FLORIDA

DRAWN: J.BAKER	DESIGNED: J.PALM	CHECKED: L. GLASSON	DATE: 02/12/2018
SCALE: N.T.S.	PROJECT: AVX-001	SHEET: C10.0	

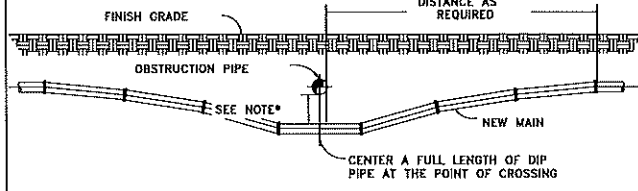


48 HOURS BEFORE DIGGING
CALL TOLL FREE
811 or 1-800-432-4770
FLORIDA STATE ONE CALL CENTER



- 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.

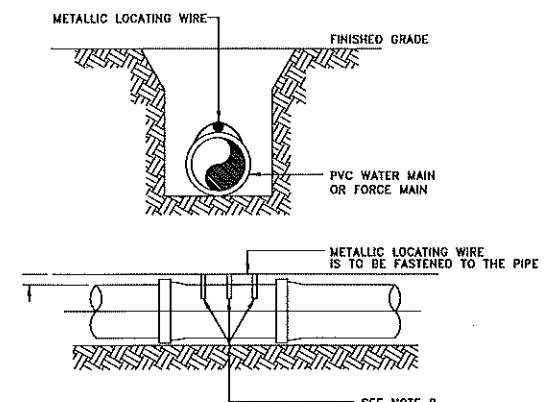
RECLAIMED WATER ADVISORY SIGN



- NOTES:
- 18" MINIMUM CLEARANCE FOR WATER, SEWER AND RECLAIMED WATER MAIN CROSSINGS
 - 12" MINIMUM CLEARANCE REQUIRED FOR OTHER TYPE UTILITY CROSSINGS.
 - SEE ENCASUREMENT DETAIL IF MINIMUM CLEARANCE CANNOT BE OBTAINED.

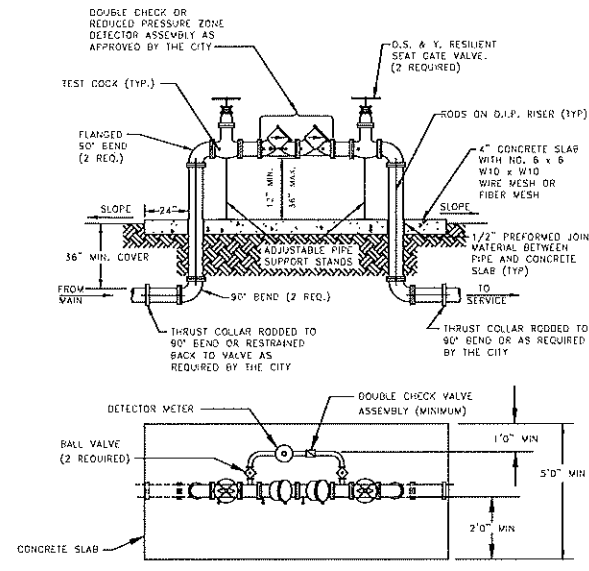
* CONSTRUCT UNIFORM PIPE DEFLECTION NOT TO EXCEED 75% OF MANUFACTURER RECOMMENDED MAXIMUM DEFLECTION PER PIPE JOINT

UTILITY CROSSING PIPE DEFLECTION DETAIL



- NOTES:
- PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (10 AWG-SOLID CCS REINFORCED TRACER WIRE-INSULATED 30 MIL HDPE - 30 VOLT MFG. BY COPPERHEAD INDUSTRIES, LLC OR EQUAL) CAPABLE OF DETECTION BY A CABLE LOCATOR.
 - SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE AND ATTACHED WITH DUCT TAPE OR NYLON STRAPS AT 3 LOCATIONS PER JOINT. LOCATING WIRE SHALL TERMINATE AT THE TEST STATION BOX AS SHOWN IN FIG. 109.
 - BE CAPABLE OF EXTENDING 12" ABOVE TOP OF TEST STATION BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.
 - SPLICES SHOULD BE MADE USING STANDARDS AND PRODUCTS DESIGNED FOR DIRECT BURIAL CONDUCTORS.
 - WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

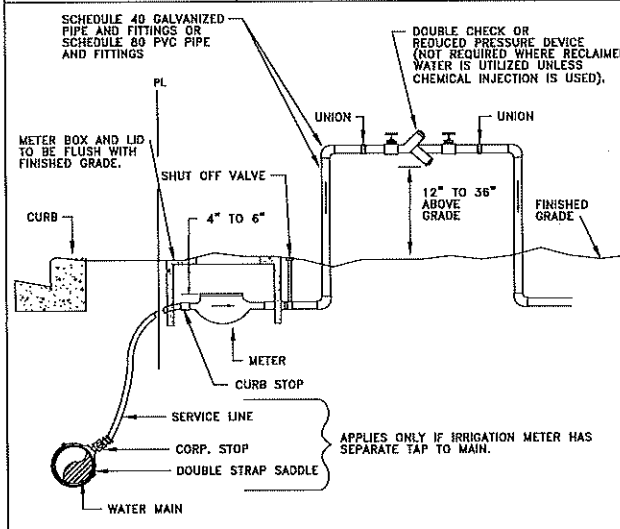
PVC PIPE LOCATING WIRE DETAIL



- NOTES:
- BYPASS METER MUST MEET AWWA STANDARD C700 OR C701.
 - METER MUST MEET AWWA STANDARD C707 AND TRANSMITTER MUST BE COMPATIBLE WITH THE CITY'S AMR SYSTEM.
 - ALL PIPE FITTINGS, MATERIALS, LABOR, AND APPURTENANCES SHALL BE SUPPLIED BY THE CONTRACTOR.
 - ALL PIPE AND FITTINGS TWO (2) INCHES AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL, OR BRASS.

ABOVE GROUND DEVICE WITH DETECTOR BY-PASS
2 INCH AND ABOVE ASSEMBLY

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2014
FIG. 115

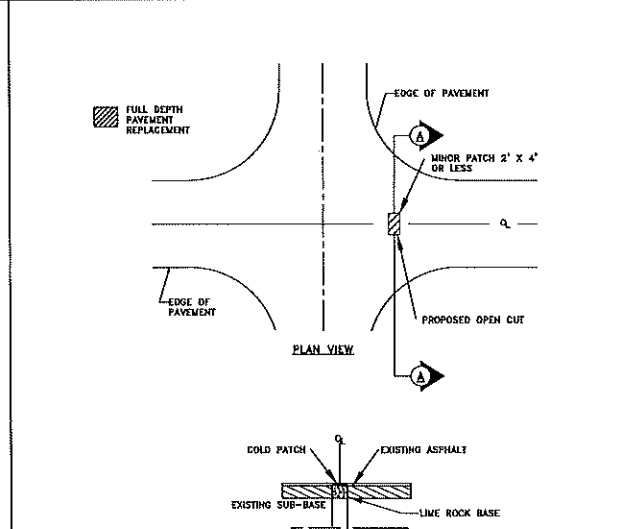


- NOTES:
- A POSITIVE DIELECTRIC CONNECTION SHALL BE MADE BETWEEN ALL GALVANIZED AND BRASS COMPONENTS.
 - METER SHALL BE INSTALLED JUST INSIDE THE ROW LINE OR PROPERTY LINE AND IN NO CASE SHALL IT BE INSTALLED IN THE SIDEWALK OR OTHER PAVED AREAS.
 - DOUBLE CHECK VALVES MAY BE USED AS LONG AS THEIR ARE NO CHEMICALS OR A WELL ON SITE.
 - A PVB DEVICE SHALL BE 12-INCHES MINIMUM ABOVE HIGHEST OUTLET OR SPRAYHEAD OR A WELL ON SITE.
 - ALL BACKFLOW PREVENTION DEVICES ARE TO BE AWWA APPROVED.

IRRIGATION METER AND DOUBLE CHECK VALVE OR REDUCED PRESSURE BACKFLOW PREVENTER

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2014
FIG. 502

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2014
FIG. 117

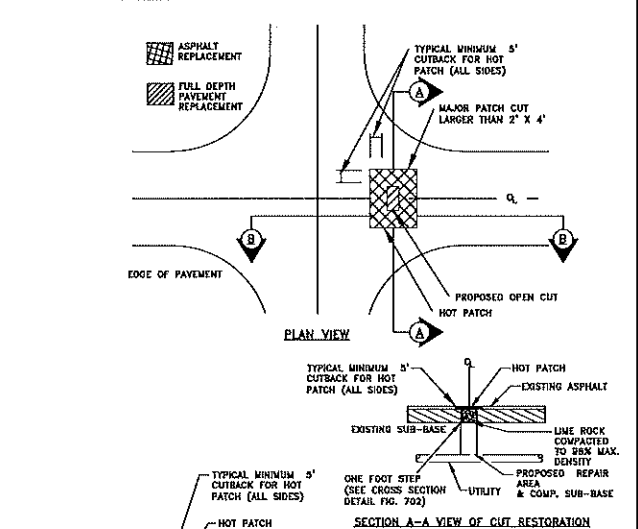


- NOTE:
- PROCTOR OF THE LIME ROCK MUST BE PROVIDED
 - DENSITIES TO BE PROVIDED BY GEOTECHNICAL ENGINEER.

OPEN-CUT DETAIL - MINOR PATCH

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2015
FIG. 700

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2014
FIG. 118

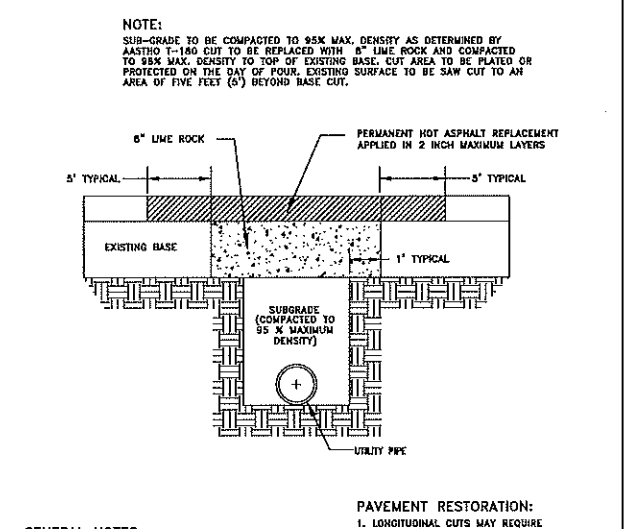


- NOTE:
- ADDITIONAL RESURFACING MAY BE REQUIRED BY THE PUBLIC SERVICES DIRECTOR.
 - HOT PATCH TO BE APPLIED IN 2 INCH MAXIMUM THICKNESS LAYERS.
 - PROCTOR OF THE LIME ROCK MUST BE PROVIDED
 - DENSITIES TO BE PROVIDED BY GEOTECHNICAL ENGINEER.

OPEN-CUT DETAIL - MAJOR PATCH

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2015
FIG. 701

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2014
FIG. 500 B



- GENERAL NOTES:
- BASE REPLACEMENT SHALL BE 8" LIME ROCK COMPACTED TO 95% MAX. DENSITY.
 - ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL AT THE TIME OF REMOVAL.
 - MINIMUM ASPHALTIC CONCRETE SURFACE OVERLAY THICKNESS SHALL BE ONE (1) INCH.
 - ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.

OPEN-CUT CROSS SECTION DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION
JANUARY 2015
FIG. 702

CIVIL ENGINEERING I LAND PLANNING	DATE	REV.	DESCRIPTION
APPIAN ENGINEERING LLC	05/14/18	1	CITY OF APOPKA COMMENTS DATED 05/14/18
APPIAN ENGINEERING LLC	05/14/18	2	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	3	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	4	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	5	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	6	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	7	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	8	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	9	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	10	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	11	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	12	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	13	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	14	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	15	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	16	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	17	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	18	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	19	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	20	REVISED PER CITY COMMENTS
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APPIAN ENGINEERING LLC	05/14/18	82	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	83	REVISED PER CITY COMMENTS
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APPIAN ENGINEERING LLC	05/14/18	92	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	93	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	94	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	95	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	96	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	97	REVISED PER CITY COMMENTS
APPIAN ENGINEERING LLC	05/14/18	98	REVISED PER CITY COMMENTS
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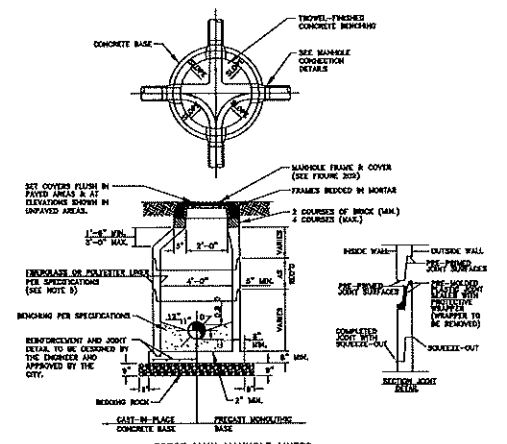
POTABLE & RECLAIMED WATER DETAILS
FINAL DEVELOPMENT PLAN
BRIDLEWOOD SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	N.T.S.
DRAWN	J.BAKER
DESIGNED	J.PALM
CHECKED	L. CLASSON
DATE	02/12/2016
SHEET	C10.2



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CALL TOLL FREE
811 or 1-800-432-4770
FLORIDA STATE ONE CALL CENTER

P:\PROJECT DRAWINGS\AVX-001 Equestrian Center (7-17089)\Drawings\CAD\Civil\Layouts\04 - Final Development Plan (FDP)\Utility Detail.dwg Modified: 5/18/2016 By: balin

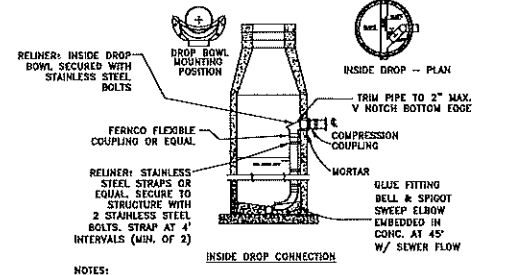


FORCE MAIN MANHOLE LINER*				
DIAMETER (INCHES)	HEIGHT (FEET)	MATERIAL	MANUFACTURER	
48	3-6	7-12	113-12	
60				
72				

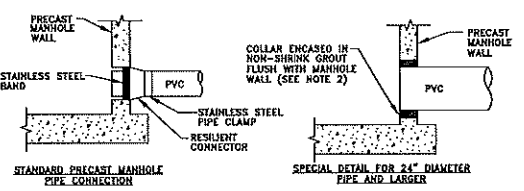
- NOTES:
1. MANHOLE SHOWN IS FOR SEWER SIZE 6" THRU 24". SEE SECTION 20.4 OF THE MANUAL FOR MANHOLE DIAMETER FOR SEWERS LARGER THAN 24".
 2. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
 3. THE THICKNESS 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

CITY OF APOPKA JANUARY 2015 FIG. 200
DESIGN ENGINEERING DIVISION



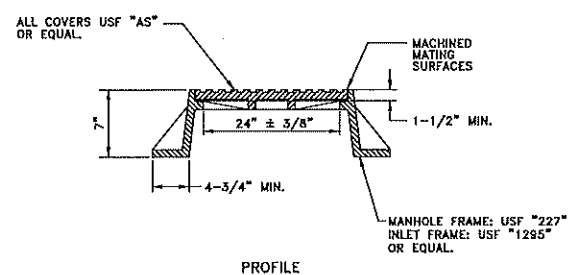
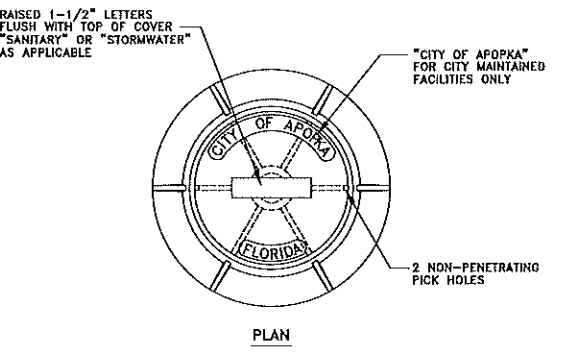
- NOTES:
1. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP BOWL AS PRODUCED BY: RELINER-DURAN, INC. 53 MT. ARCHER RD. LYME, CT 06371 (880)434-0277 FAX: (880)434-3195 OR EQUAL.
 2. SECURE DROP PIPE TO MANHOLE WALL WITH RELINER-DURAN, INC STAINLESS STEEL ADJUSTABLE CLAMPING BRACKETS.
 3. FORCE MAIN RECEIVING MANHOLES MAY BE REQUIRED TO BE LINED IN ACCORDANCE WITH THE CITY OF APOPKA LIST OF APPROVED MATERIALS AND PRODUCTS AS DIRECTED BY THE CITY.



- NOTES:
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
 2. THE CITY MAY APPROVE ALTERNATE WATER-TIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
 3. AN INSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 24" OR MORE ABOVE THE OUTFLOW PIPE INVERT.
 4. CONCRETE TO BE MINIMUM OF 3000 PSI.

MANHOLE CONNECTION DETAILS

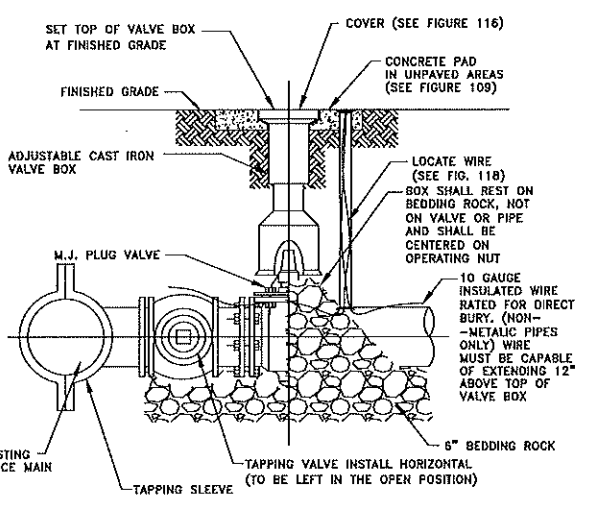
CITY OF APOPKA JANUARY 2015 FIG. 201
DESIGN ENGINEERING DIVISION



- NOTES:
1. MANHOLE FRAME AND COVER ARE TO BE TRAFFIC BEARING RATED H-20, CLASS 30 MEETING ASTM A 48.

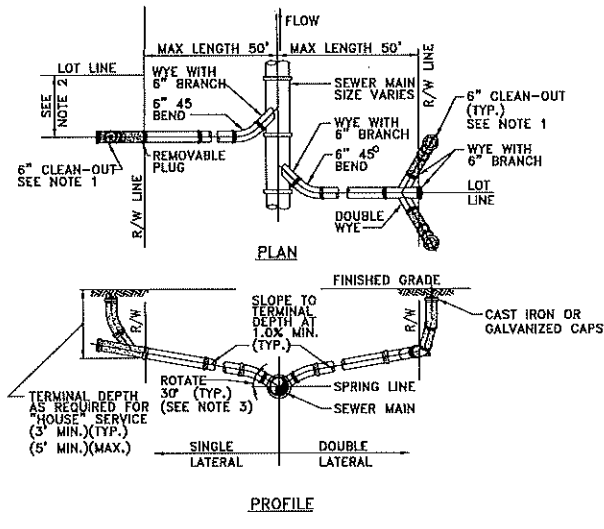
STANDARD MANHOLE FRAME AND COVER

CITY OF APOPKA JANUARY 2014 FIG. 202
DESIGN ENGINEERING DIVISION



FORCE MAIN WET TAP TIE-IN DETAIL

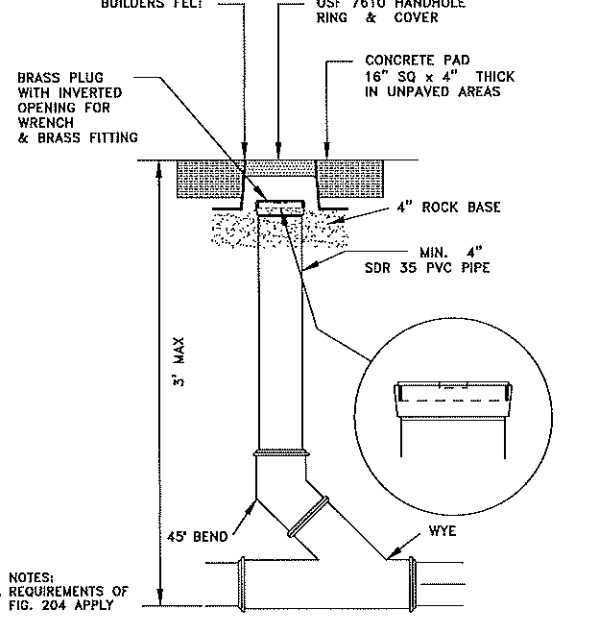
CITY OF APOPKA JANUARY 2014 FIG. 206
DESIGN ENGINEERING DIVISION



- NOTES:
1. CLEAN-OUT (SHOWN SHADED) SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
 2. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
 3. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
 4. RESIDENTIAL SERVICES SHALL BE 4 INCHES & NON-RESIDENTIAL SERVICES SHALL BE 6 INCHES IN DIAMETER AS A MINIMUM.
 5. GALVANIZED, OR CAST IRON CLEAN-OUT CAP SHALL BE USED ON THE STUBOUT FOR EACH SERVICE.
 6. LATERAL SHALL BE MARKED WITH AN "S" STAMPED OR CUT IN THE CURB.

SERVICE LATERAL DETAIL

CITY OF APOPKA JANUARY 2014 FIG. 204
DESIGN ENGINEERING DIVISION



SANITARY SEWER SERVICE TRAFFIC RATED CLEAN-OUT DETAIL

CITY OF APOPKA JANUARY 2014 FIG. 205
DESIGN ENGINEERING DIVISION

NO.	REV.	DATE	DESCRIPTION
1	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
2	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
3	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
4	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
5	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
6	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
7	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
8	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
9	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
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17	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
18	05/14/18	05/14/18	CITY OF APOPKA COMMENTS DATED 05/14/18
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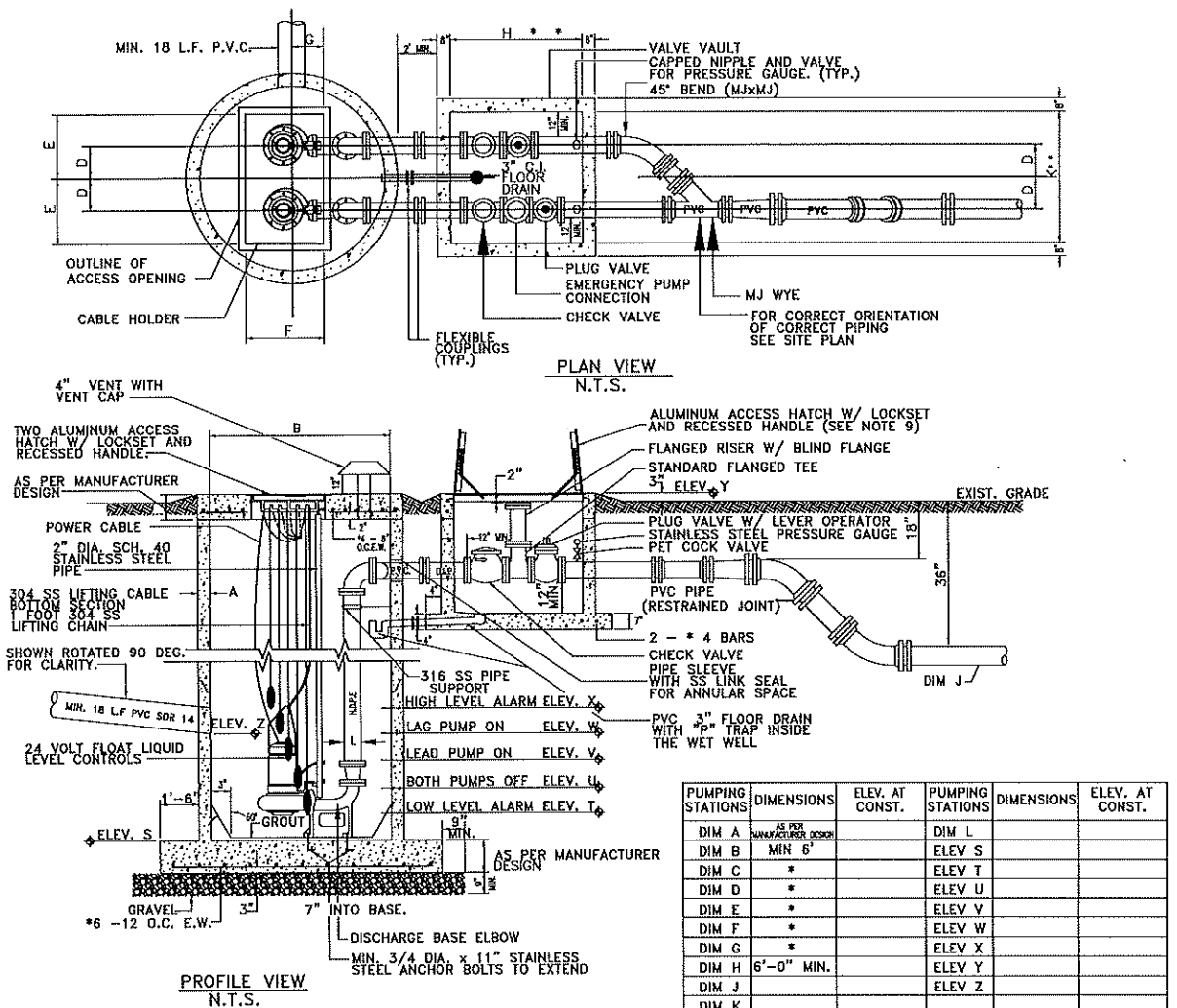
CIVIL ENGINEERING | LAND PLANNING
APPIAN ENGINEERING LLC.
BRIDLEWOOD SUBDIVISION
CITY OF APOPKA, FLORIDA

SCALE	N.T.S.
PROJECT	AVX-001
SHEET	C10.3
DATE	02/12/2018



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811 or 1-800-432-4770
FLORIDA STATE ONE CALL CENTER

P:\PROJECT DRAWINGS\AVX-001\Equation Center (P-17089)\Drawing\CAD\Site\Drawings\Layouts\04 - Final Development Plan (PDF)\Utility Details.dwg Modified: 5/16/2018 By: Balm



PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.	PUMPING STATIONS	DIMENSIONS	ELEV. AT CONST.
DIM A	AS PER MANUFACTURER DESIGN		DIM L		
DIM B	MIN 6'	ELEV S			
DIM C	*	ELEV T			
DIM D	*	ELEV U			
DIM E	*	ELEV V			
DIM F	*	ELEV W			
DIM G	*	ELEV X			
DIM H	6'-0" MIN.	ELEV Y			
DIM J		ELEV Z			
DIM K					

* PER PUMP MANUFACTURERS REQUIREMENT

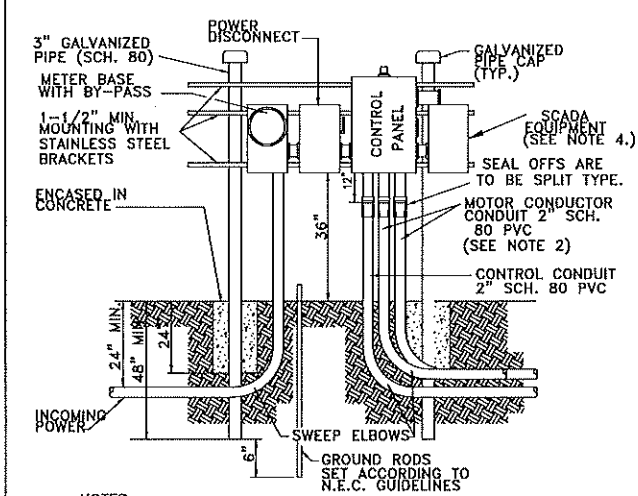
- GENERAL NOTES:**
- VALVE VAULT AND WET WELL LIDS SHALL BE COATED WITH 1 COAT OF TNEPEC SERIES 66, COLOR EN03, (2-3 MILS), FOLLOWED BY TOP COAT OF TNEPEC SERIES 73, COLOR EN05, (2-3 MILS) OR EQUAL.
 - THE WET WELL SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYESTER (RFP) AND MANUFACTURED FROM COMMERCIAL GRADE POLYESTER RESIN OR VINYL ESTER RESIN, WITH FIBERGLASS REINFORCEMENTS. THE WET WELL SHALL BE A ONE PIECE UNIT AND MANUFACTURED BY L.F. MANUFACTURE, INC. OR EQUAL.
 - IN LIEU OF RFP THE WET WELL MAY BE CONSTRUCTED OF PRECAST CONCRETE HAVING A MINIMUM WALL THICKNESS OF 8 INCHES. THE INTERIOR WALLS SHALL BE LINED USING A HIGH DENSITY POLYETHYLENE PRODUCT AS MANUFACTURED BY AGRU SURE GRIP, OR EQUAL.
 - PIPING IN THE WET WELL TO BE HDPE WITH FUSED 45 DEGREE FITTINGS FROM WET WELL TO VALVE VAULT.
 - INTERIOR OF THE VALVE VAULT AND PIPING IN THE VALVE VAULT WITH ConSeal CS-55 (OR EQUAL), TWO COATS, 4 MILS EACH. PIPING SHALL BE COATED AFTER INSTALLATION.
 - VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDLES WITH MINIMUM CLEARANCES AS SHOWN FOR 6" DIAMETER PIPE AND SMALLER. CLEARANCES SHALL INCREASE AS REQUIRED FOR LARGER PIPE SIZES.
 - VALVE VAULT SHALL HAVE SEALED FLOOR AND DRAIN.
 - ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE AND STAINLESS STEEL LINK SEAL.
 - THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
 - WET WELL AND VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 S.S. HARDWARE LOCK BRACKET. SIZE AS REQUIRED BY PUMP MANUFACTURER AND APPROVED BY THE CITY.
 - FLEXIBLE COUPLING SHALL BE SLEEVE TYPE, EPOXY COATED.
 - PUMPS SHALL BE:
 - MANUFACTURER: XYLEM; MODEL: NP 3127 SH 248; DIA: 155 MM; SPEED: 3510 RPM; DISCHARGE SIZE: 3.13 IN.; VOLTAGE: 480V; HZ: 60; PHASE: 3; H.P.: 11; MIN. SOLID SIZE: 3.0 IN.
 - OPERATING CONDITIONS SHALL BE 77 GPM AT 139 FEET TDH.
 - ALL HARDWARE IN WET WELL AND VALVE BOX TO BE 316 STAINLESS STEEL.
 - "P" TRAP TO BE INSTALLED IN WET WELL.
 - ALL PUBLIC LIFT STATIONS SHALL BE EQUIPPED WITH SCADA SYSTEM. THE DEVELOPER SHALL PAY THE CITY COST OF THE UNIT. THE CITY WILL BE RESPONSIBLE FOR INSTALLATION.
 - ALL LIFT STATIONS SHALL BE FENCED WITH DECORATIVE STONE OR BRICK OR AS DIRECTED BY THE CITY.
 - ALL LIFT STATIONS SHALL HAVE A 10 FEET WIDE CONCRETE ACCESS DRIVEWAY, 35' LONG FROM EDGE OF WET WELL TO BACK OF CURB.
 - ENGINEER SHALL PROVIDE A SCALED (1" = 20' MIN.) SITE SPECIFIC DETAIL.

PUMP STATION DETAIL

CITY OF APOPKA
DESIGN ENGINEERING DIVISION

JANUARY 2014

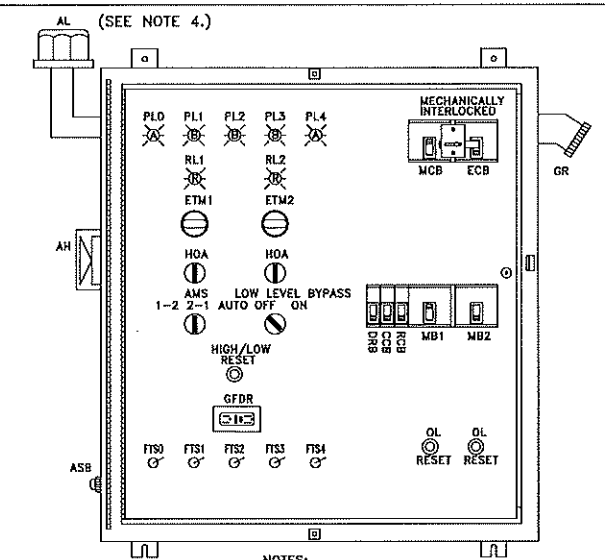
FIG. 301



- NOTES:**
- DRAWING IS SHOWN FOR 230 VOLT POWER SUPPLY. THE LOCATION OF METER AND MAIN POWER DISCONNECT SHALL BE REVERSED FOR 480 VOLT SUPPLY.
 - WHEN TWO (2) SEPARATE CONDUCTOR-TYPE MOTORS ARE USED, CONDUIT SHALL BE INCREASED TO THREE (3) INCH.
 - POWER SUPPLY SHALL BE UNDERGROUND TO THE PUMP STATION AND SHALL BE THREE (3) PHASE FROM A THREE (3) PHASE SOURCE ONLY.
 - STUB OUT UNISTRUT LONG ENOUGH TO ACCOMMODATE A 24"x24" SCADA EQUIPMENT CABINET. CITY TO INSTALL SCADA EQUIPMENT CABINET.

DUPLEX PUMP STATION CONTROL PANEL INSTALLATION DETAIL

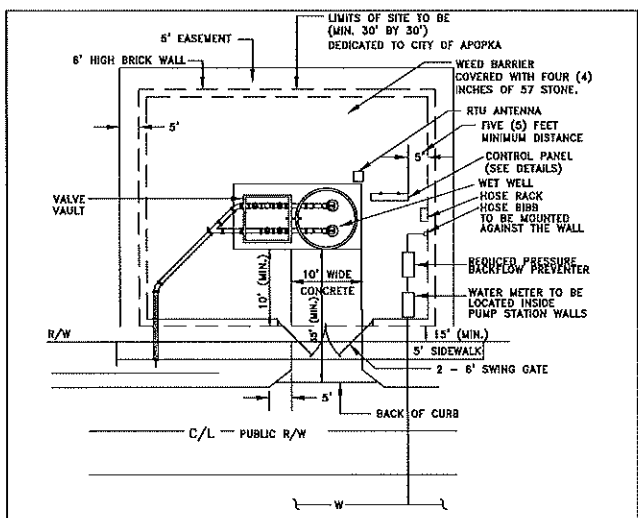
CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 302



- NOTES:**
- 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
 - SERIES 3 (Q-FRAME) CIRCUIT BREAKERS
 - GENERATOR OUTLET FOR 230V - PYLE NATIONAL MODEL JRE4100/480V - CROUSE HINDS MODEL AR 2042.
 - THE HEIGHT OF THE ALARM LIGHT WILL NEED TO BE MADE VISIBLE FROM OUTSIDE THE LIFT STATION.

DUPLEX PUMP STATION CONTROL PANEL FRONT LAYOUT

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 303



- NOTES:**
- DRIVEWAY AND APRON SHALL BE SIX (6) INCH THICK, 3000 P.S.I. CONCRETE. WITH NO. 6X8 WIRE MESH OR FIBER MESH.
 - POWER TO THE PUMP STATION SHALL BE THROUGH UNDERGROUND CONDUIT FROM SUPPLY SOURCE IN RIGHT-OF-WAY.
 - GATE TO BE DECORATIVE BLACK POWDER COATED ALUMINUM W/PICKET SPACING = OR < 4"
 - WALLS ARE TO BE BRICK OR DECORATIVE STONE.
 - WET WELL LID MUST OPEN TOWARD CONTROL PANEL (HINGE SIDE TOWARD PANEL).
 - LIFT STATION WALL TO BE PLACED AT LEAST 15FT. BEHIND THE R/W LINE.

PUMP STATION TYPICAL SITE PLAN

CITY OF APOPKA DESIGN ENGINEERING DIVISION JANUARY 2014 FIG. 300

CONTROL PANEL AND ELECTRICAL INFORMATION IS FOR CONCEPTUAL PURPOSES. LIFT STATION MANUFACTURER IS REQUIRED TO PROVIDE SIGNED AND SEALED DRAWINGS FROM AN ELECTRICAL ENGINEER FOR CONTROL PANEL AND ELECTRICAL SPECIFICATIONS. THE ENGINEER OF RECORD'S SIGNATURE AND SEAL ON THIS SHEET IS ONLY FOR THE CIVIL ENGINEERING PORTION.

- NOTES:**
- CONTRACTOR TO GRADE LIFT STATION SITE SUCH THAT WET WELL AND VALVE VAULT ARE A MIN OF 3" ABOVE SURROUNDING GRADE ELEVATION. ALSO, DRAINAGE IS SLOPED AWAY FROM THESE STRUCTURES.
 - THE ELECTRICAL DETAILS ARE SHOWN FOR CONCEPTUAL PURPOSES ONLY AND THE SUPPLIER SHALL PROVIDE FINAL SIGNED & SEALED DRAWINGS FOR ALL ELECTRICAL WORK.
 - CONTRACTOR TO VERIFY ELECTRICAL SERVICE PHASE, CURRENT AND VOLTAGE AVAILABILITY AND INCLUDE VERIFICATION OF SUCH IN SHOP DRAWING SUBMITTAL PRIOR TO PURCHASE AND/OR INSTALLATION OF PUMP AND CORRELATED ELECTRICAL LIFT STATION COMPONENTS.

CIVIL ENGINEERING | LAND PLANNING

APPIAN ENGINEERING LLC.

APPANEL.COM - 407.960.5668

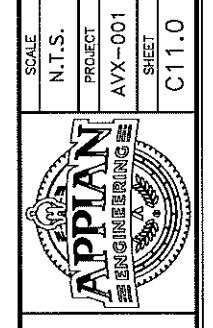
2021 1st Floor, Suite 17, World Trade Center, 27th Floor

REV.	DATE	DESCRIPTION
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2	05/14/18	ISSUE FOR PERMIT
3	05/14/18	ISSUE FOR PERMIT
4	05/14/18	ISSUE FOR PERMIT
5	05/14/18	ISSUE FOR PERMIT
6	05/14/18	ISSUE FOR PERMIT
7	05/14/18	ISSUE FOR PERMIT
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17	05/14/18	ISSUE FOR PERMIT
18	05/14/18	ISSUE FOR PERMIT
19	05/14/18	ISSUE FOR PERMIT
20	05/14/18	ISSUE FOR PERMIT

LIFTSTATION DETAILS
FINAL DEVELOPMENT PLAN

BRIDEWOOD SUBDIVISION
CITY OF APOPKA, FLORIDA

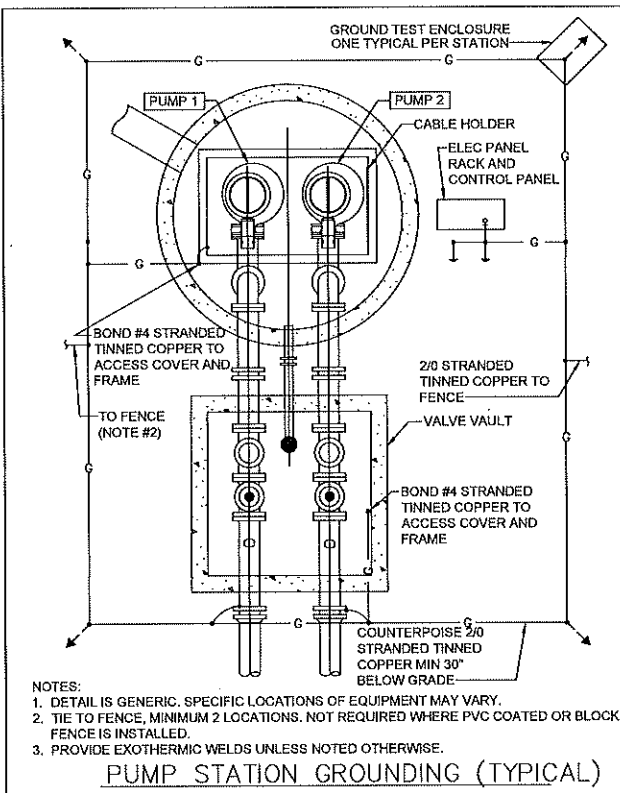
SCALE	DRAWN	DESIGNED	CHECKED	DATE
N.T.S.	J. BAKER	J.P. ALM	L. CLASSEN	02/12/2018
PROJECT	AVX-001			
SHEET	C11.0			



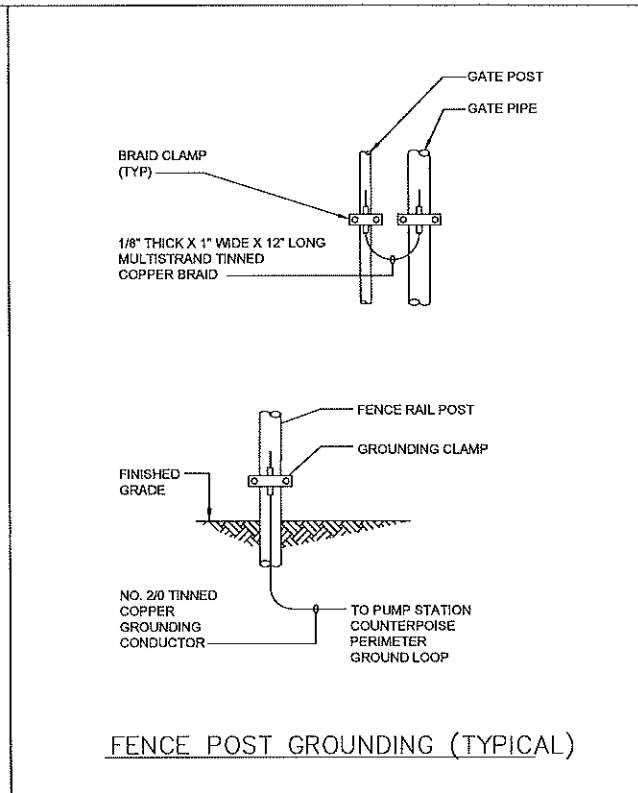
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SUNSHINE STATE ONE CALL CENTER

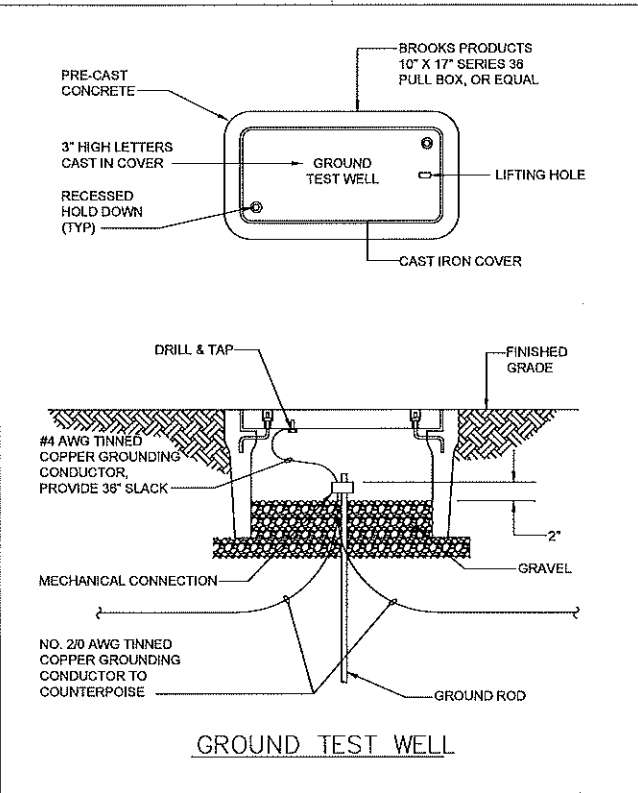
P:\PROJECT DRAWINGS\AVX-001 Education Center (7-17089)\Drawings\CAD\AVX\Station Details.dwg Modified: 4/16/2018 By: jalm



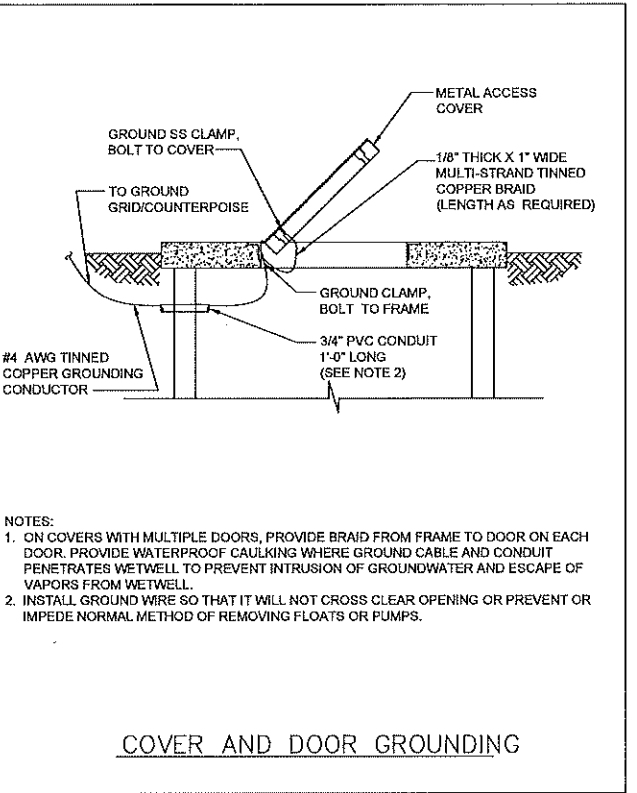
CITY OF APOPKA JANUARY 2014 FIG. 307
 DESIGN ENGINEERING DIVISION



CITY OF APOPKA JANUARY 2014 FIG. 307 A
 DESIGN ENGINEERING DIVISION



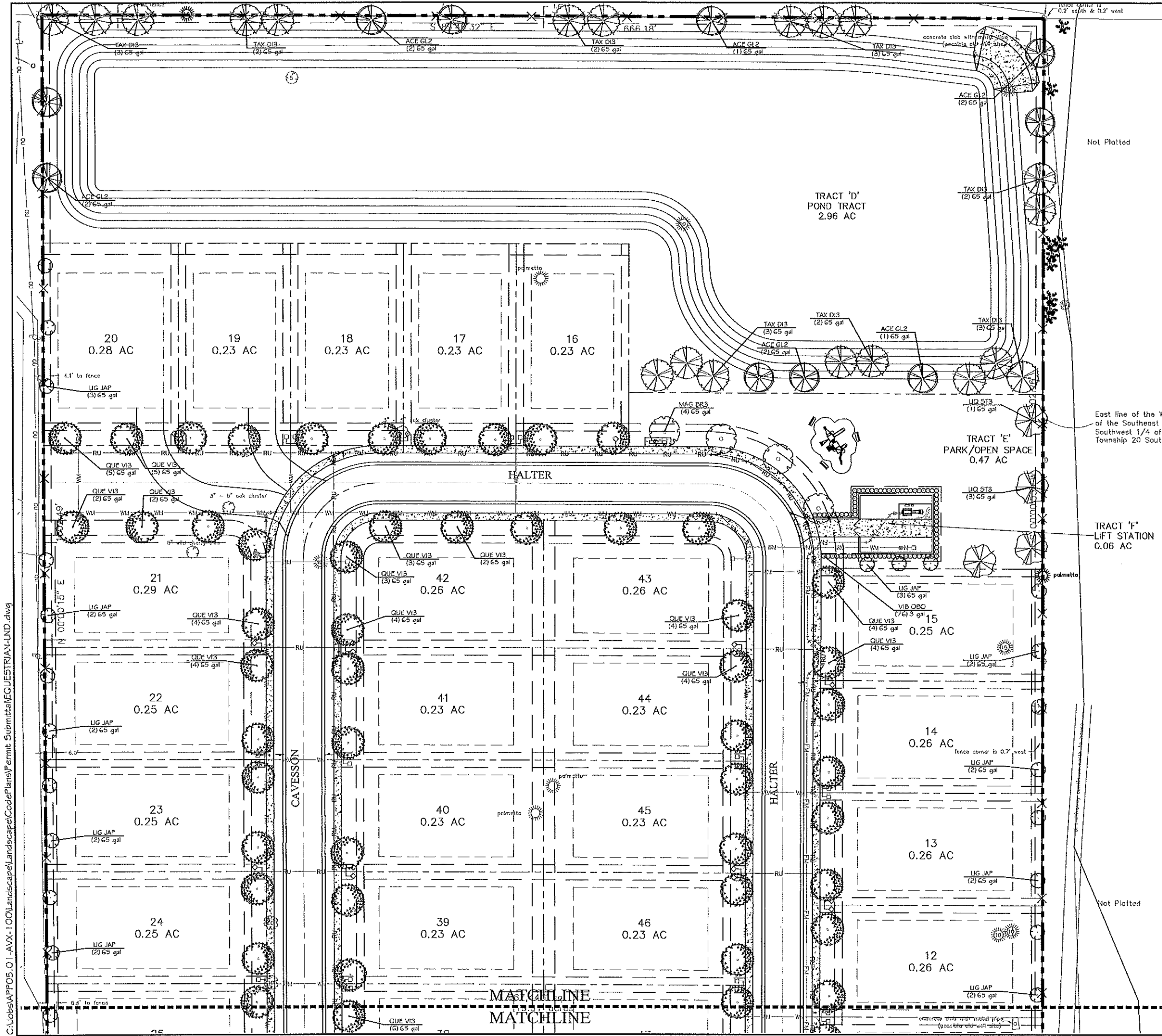
CITY OF APOPKA JANUARY 2014 FIG. 307 B
 DESIGN ENGINEERING DIVISION



CITY OF APOPKA JANUARY 2014 FIG. 307 C
 DESIGN ENGINEERING DIVISION

CIVIL ENGINEERING LAND PLANNING		APPIAN ENGINEERING LLC.		APPIAN.COM • 407.960.5868		2211 Lee Road, Suite 17, Winter Park, Florida 32789	
LIFTSTATION DETAILS		FINAL DEVELOPMENT PLAN		BRIDLEWOOD SUBDIVISION		CITY OF APOPKA, FLORIDA	
SCALE	N.T.S.	PROJECT	AVX-001	SHEET	C11.2	DATE	02/12/2018
DRAWN	J.BAKER	DESIGNED	J.PALM	CHECKED	L. CLASSON		

48 HOURS BEFORE DIGGING
 CALL TOLL FREE
 811 or 1-800-432-4770
 SUNSHINE STATE ONE CALL CENTER



TREE MITIGATION

LOT TREES REQUIRED: 52
 TOTAL NUMBER OF LOTS: 46
 TREE INCHES REQUIRED PER LOT: 1120 DBH
 TOTAL TREE INCHES REQUIRED: 51520 DBH

INDIVIDUAL LOT TREES SHALL CONSIST OF TWO CANOPY TREES AND ONE UNDERSTORY TREE.
 INDIVIDUAL LOT TREES SHALL BE INSTALLED WHEN THE LOT IS DEVELOPED.

REPLACEMENT/REMOVAL TABLE:
 Total inches on current, non-altered site: 222" dbh
 Total number of specimen trees: 0
 Total inches removed: 208" dbh
 Total inches retained: 14" dbh
 Total Specimen inches retained: 0" dbh
 Total inches required: 208" dbh
 Total inches replaced: 208" dbh
 Total inches post development: 1,150" dbh
 Maximum tree stock formula and calculations: 3,036' dbh / 4,337' dbh Specimen Trees
 Site cleaning area in square feet and acres: 867,487 SF / 19.9 AC

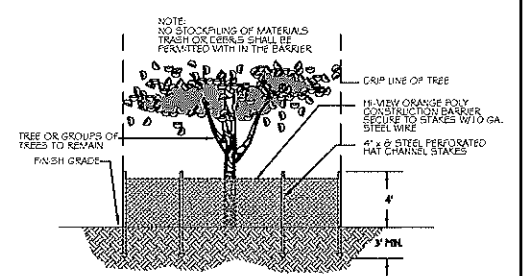
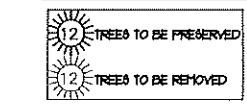
TREE REMOVAL CHART

COUNT	SIZE	SPECIES
3	3"-5"	OAK
1	4"	OAK
1	5"	OAK
1	6"	OAK
3	10"	OAK
1	14"	OAK
1	6"	PALM
7	10"	PALM
1	12"	PALM
1	15"	PALM
1	6"	CHERRY
2	8"	SAGO PALM
TOTAL INCHES: 208"		

TREE PRESERVATION CHART

COUNT	SIZE	SPECIES
1	14"	PALM
TOTAL INCHES: 14"		

LEGEND



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 2009 ADOPTED MAY 21, 2009 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

Signature: *Carl J. Kelly Jr.* LA0001764 10/30/17
 REG. NO. DATE



Landscape Designs, LLC

■ Landscape Architecture
 ■ Site Planning

4465 Gabriella Lane
 Winter Park, FL 32792
 PH: (407) 484-3414
 FX: (407) 671-1604

PROJECT AND OWNER
BRIDLEWOOD SUBDIVISION

City of Apopka
 Florida

Applan Engineering, LLC
 2221 Lee Road, Suite 17
 Winter Park, FL 32789
 PH: (407) 860-5558

CONSULTANTS

LANDSCAPE ARCHITECT
 CARL J. KELLY JR., RLA

REG.#: 0001764

PROJECT NO. APP05.01
 DESIGNED BY CJK
 DRAWN BY CJK
 CHECKED BY CJK
 DATE 10/30/17

ISSUED FOR:
 01/18/18 Site Changes
 02/14/18 City Comments
 03/18/18 Permit Set
 04/18/18 Owner Changes
 04/23/18 Owner Changes
 05/07/18 Owner Changes
 05/20/18 City Comments

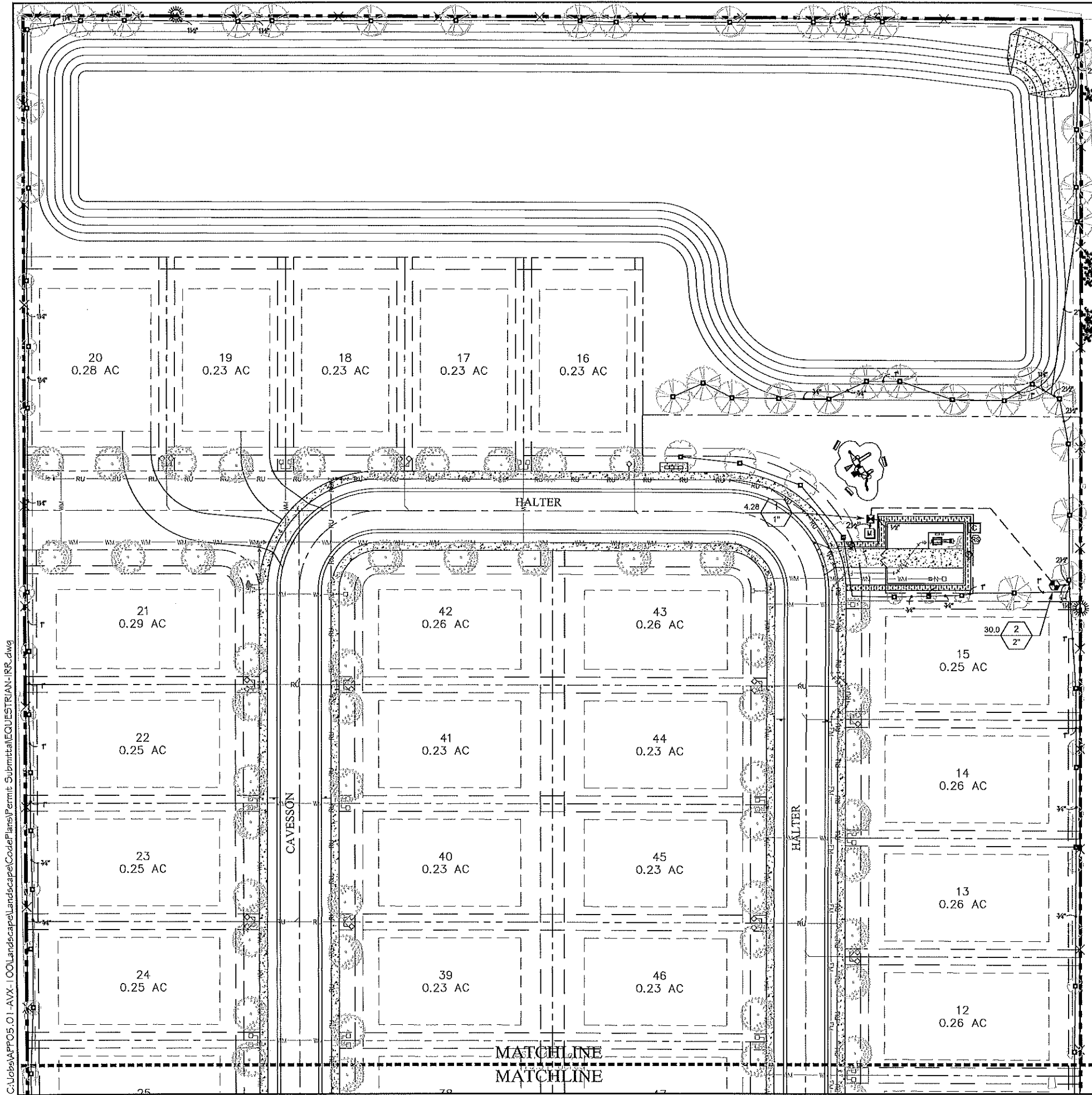
DRAWING SCALE

 SCALE: 1"=30'-0"

DRAWING TITLE
LANDSCAPE SITE PLAN & TREE MITIGATION

DRAWING NUMBER
LS-01
 SHEET 40 OF 44

C:\Jobs\APP05.01 - AVX - 100\Landscapes\Code\Plans\Permit Submittal\EQUESTRIAN-LND.dwg



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	ARC	FSI	GFM	RADIUS
	Rain Bird 180G-FR5-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.	49	CST	30	1.21	4x30'
	Rain Bird 180G-FR5-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.	1	EST	30	0.61	4x15'
	Rain Bird 180G-FR5-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.	17	180	30	0.20	5'
	Rain Bird 180G-FR5-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.	4	180	30	0.52	8'
	Rain Bird 180G-FR5-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.	62	180	30	0.79	10'
	Rain Bird 180G-FR5-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.	1	90	30	0.39	10'
	Rain Bird 1800-1400 Flood Flood Bubble	125	360	30	0.50	1'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY				
	Rain Bird XGZ-100-PRF-BF Dnp Control Kit, 1" DV valve, 1" pressure regulating back flush filter.	2				
	Rain Bird XGZ-1F-100-PRF Dnp Control Kit, 1" Low Flow valve, 3/4" pressure regulating RBY filter and 30psi pressure regulator.	1				
	Rain Bird MDCFFCAP Dnp Flush Valve purple cap in compression fitting coupler.	1				
	Rain Bird AR Valve Kit 1" Air Relief Valve kit with 6" dnp valve box.	1				
	Area to Receive Dnpine Rain Bird LD-06-24 Landscape Dnpine with 0.61 gph emitters at 24" o.c. Dnpine laterals spaced at 24" apart, with emitters offset for triangular pattern.	4,235 s.f.				
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY				
	Rain Bird PESB-PRS-D 1", 1-1/2", 2" Plastic Industrial Valves, Low Flow Operating Capability, Globe Configuration, With Pressure Regulating Module, and Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.	4				
	Rain Bird ESP-IXME (2) Plastic wall mount controller with 8 to 48 stations adjusted modularly in four station increments, with SM4, SM6, and SM12 station modules. Supply number of stations as required for project at one station per valve.	1				
	Rain Bird ESP-IXME (2) Plastic wall mount controller with 8 to 48 stations adjusted modularly in four station increments, with SM4, SM6, and SM12 station modules. Supply number of stations as required for project at one station per valve.	1				
	Rain Bird RSD-BE5 (2) Rain Sensor, with bracket, extension wire	2				
	Water Meter 2" RE-USE METER	1				
	Water Meter 2" RE-USE METER	1				
	Irrigation Lateral Line: Polyethylene and PVC Class 200 Polyethylene SDR-7 up to 1-1/4", then PVC Class 200 SDR 21 for 1-1/2" and larger. Only lateral transition pipe sizes 3/4" and above are indicated on the plan, with all others being 1/2" in size.	7,332 l.f.				
	Irrigation Mainline: PVC Class 200 SDR 21	379.5 l.f.				
	Pipe Sleeve: PVC Schedule 40 Typical pipe sleeve for irrigation pipe. Pipe sleeve size shall allow for irrigation piping and their related couplings to easily slide through sleeving material. Extend sleeves 18 inches beyond edges of paving or construction.	199.1 l.f.				
	Valve Cabinet					
	Valve Number					
	Valve Flow					
	Valve Size					
<p>NOTES:</p> <ol style="list-style-type: none"> ALL PIPE SIZES SHALL NOT EXCEED A VELOCITY OF 5' SEC. ALL HEADS SHALL BE MIN. 4" FROM PAVED SURFACES USE PRESSURE COMPENSATING SCREENS (RAIN BIRD PCS-090) TO ADJUST NOZZLE RADIUS WHERE NECESSARY 						



Landscape Designs, LLC

- Landscape Architecture
- Site Planning

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Winter Park, FL 32792
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BRIDLEWOOD SUBDIVISION

City of Apopka
Florida

Applan Engineering, LLC
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CONSULTANTS

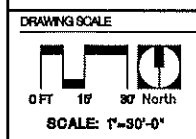
LANDSCAPE ARCHITECT
CARL J. KELLY JR., RLA

REG.#: 0001764

PROJECT NO.	APP05.01
DESIGNED BY	CJK
DRAWN BY	CJK
CHECKED BY	CJK
DATE	10/30/17

ISSUED FOR:

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02/14/18	City Comments
03/18/18	Permit Sat
04/16/18	Owner Changes
04/23/18	Owner Changes
05/07/18	Owner Changes
05/21/18	City Comments



DRAWING TITLE

IRRIGATION SITE PLAN

DRAWING NUMBER

IR-01

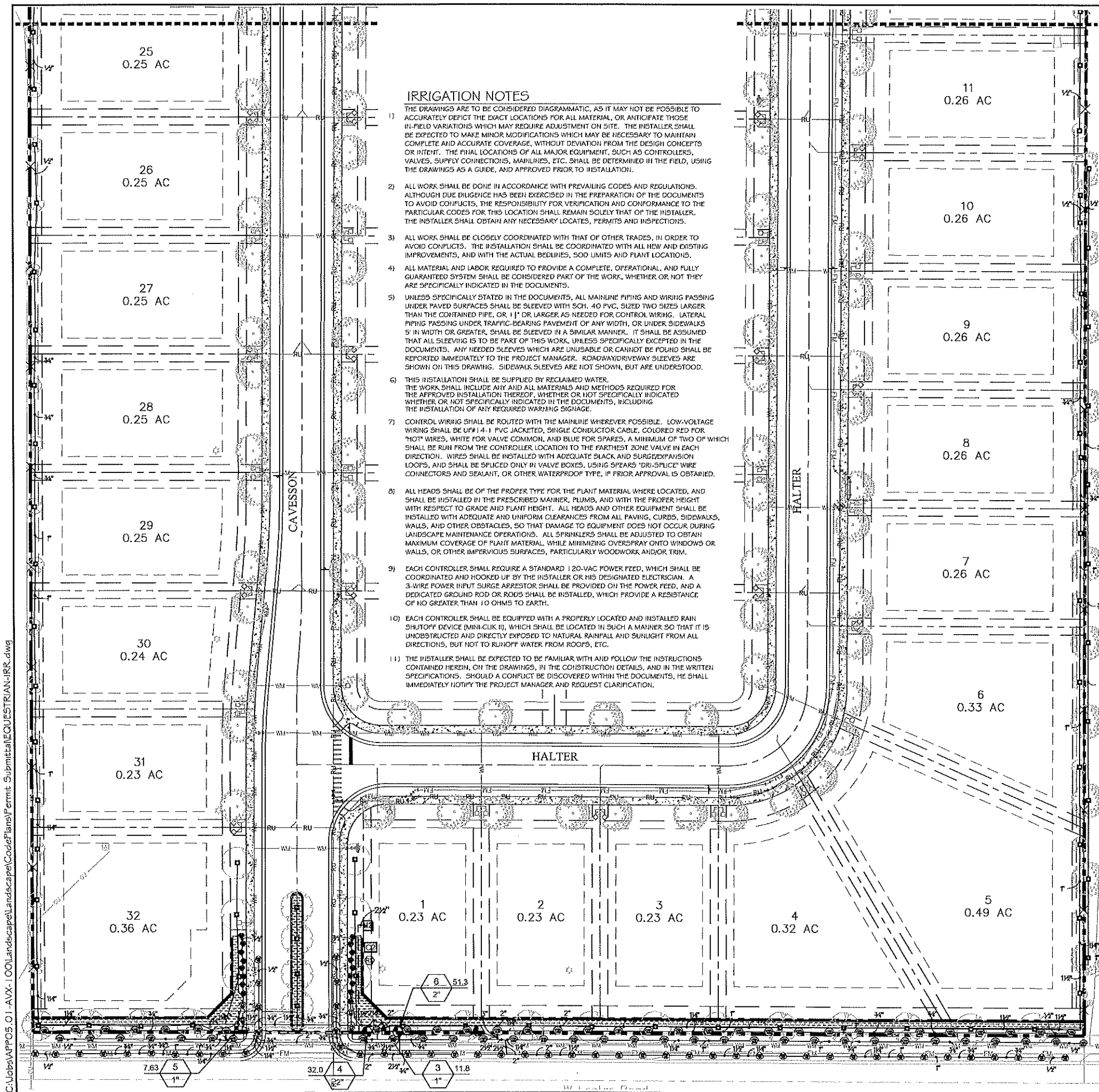
SHEET 42 OF 44

LANDSCAPE AND IRRIGATION DESIGN

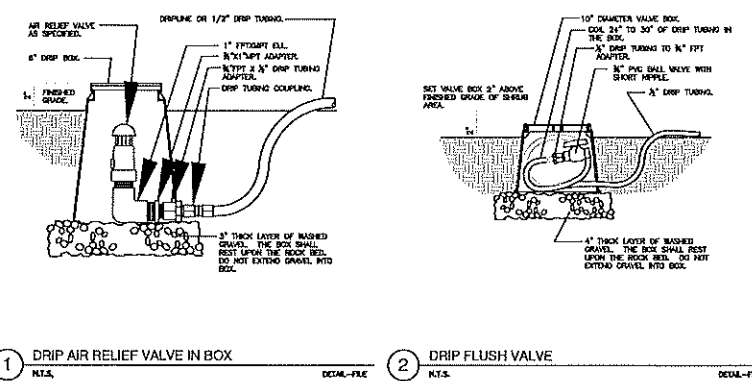
I CERTIFY THAT THE LANDSCAPE AND IRRIGATION DESIGN FOR THIS PROJECT IS IN ACCORDANCE WITH THE CITY OF APOPKA'S ORDINANCE 2009 ADOPTED MAY 21, 2009 WHICH ESTABLISHES WATERWISE LANDSCAPE AND IRRIGATION STANDARDS.

Carl J. Kelly Jr. LA0001764 10/30/17
SIGNATURE REG. NO. DATE

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- ### IRRIGATION NOTES
- THE DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC, AS IT MAY NOT BE POSSIBLE TO ACCURATELY DEPICT THE EXACT LOCATIONS FOR ALL MATERIAL, OR ANTICIPATE THOSE IN-FIELD VARIATIONS WHICH MAY REQUIRE ADJUSTMENT ON SITE. THE INSTALLER SHALL BE EXPECTED TO MAKE MINOR MODIFICATIONS WHICH MAY BE NECESSARY TO MAINTAIN COMPLETE AND ACCURATE COVERAGE, WITHOUT DEVIATION FROM THE DESIGN CONCEPTS OR INTENT. THE FINAL LOCATIONS OF ALL MAJOR EQUIPMENT, SUCH AS CONTROLLERS, VALVES, SUPPLY CONNECTIONS, MAINLINES, ETC. SHALL BE DETERMINED IN THE FIELD, USING THE DRAWINGS AS A GUIDE, AND APPROVED PRIOR TO INSTALLATION.
 - ALL WORK SHALL BE DONE IN ACCORDANCE WITH PREVAILING CODES AND REGULATIONS. ALTHOUGH DUE DILIGENCE HAS BEEN EXERCISED IN THE PREPARATION OF THE DOCUMENTS TO AVOID CONFLICTS, THE RESPONSIBILITY FOR VERIFICATION AND CONFORMANCE TO THE PARTICULAR CODES FOR THIS LOCATION SHALL REMAIN SOLELY THAT OF THE INSTALLER. THE INSTALLER SHALL OBTAIN ANY NECESSARY LOCATES, PERMITS AND INSPECTIONS.
 - ALL WORK SHALL BE CLOSELY COORDINATED WITH THAT OF OTHER TRADES, IN ORDER TO AVOID CONFLICTS. THE INSTALLATION SHALL BE COORDINATED WITH ALL NEW AND EXISTING IMPROVEMENTS, AND WITH THE ACTUAL BEDLINES, SOD LIMITS AND PLANT LOCATIONS.
 - ALL MATERIAL AND LABOR REQUIRED TO PROVIDE A COMPLETE, OPERATIONAL, AND FULLY GUARANTEED SYSTEM SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT THEY ARE SPECIFICALLY INDICATED IN THE DOCUMENTS.
 - UNLESS SPECIFICALLY STATED IN THE DOCUMENTS, ALL MAINLINE PIPING AND WIRING PASSING UNDER PAVED SURFACES SHALL BE SLEEVED WITH SCH. 40 PVC, SIZED TWO SIZES LARGER THAN THE CONTAINED PIPE, OR 1" OR LARGER AS NEEDED FOR CONTROL WIRING. LATERAL PIPING PASSING UNDER TRAFFIC-BEARING PAVEMENT OF ANY WIDTH, OR UNDER SIDEWALKS 5' IN WIDTH OR GREATER, SHALL BE SLEEVED IN A SIMILAR MANNER. IT SHALL BE ASSUMED THAT ALL SLEEVING IS TO BE PART OF THIS WORK, UNLESS SPECIFICALLY EXCEPTED IN THE DOCUMENTS. ANY NEEDED SLEEVES WHICH ARE UNUSABLE OR CANNOT BE FOUND SHALL BE REPORTED IMMEDIATELY TO THE PROJECT MANAGER. ROADWAY/DRIVEWAY SLEEVES ARE SHOWN ON THIS DRAWING. SIDEWALK SLEEVES ARE NOT SHOWN, BUT ARE UNDERSTOOD.
 - THIS INSTALLATION SHALL BE SUPPLIED BY RECLAIMED WATER. THE WORK SHALL INCLUDE ANY AND ALL MATERIALS AND METHODS REQUIRED FOR THE APPROVED INSTALLATION THEREOF, WHETHER OR NOT SPECIFICALLY INDICATED WHETHER OR NOT SPECIFICALLY INDICATED IN THE DOCUMENTS, INCLUDING THE INSTALLATION OF ANY REQUIRED WARNING SIGNAGE.
 - CONTROL WIRING SHALL BE ROUTED WITH THE MAINLINE WHEREVER POSSIBLE. LOW-VOLTAGE WIRING SHALL BE UF914-1 PVC JACKETED, SINGLE CONDUCTOR CABLE, COLORED RED FOR "HOT" WIRES, WHITE FOR VALVE COMMON, AND BLUE FOR SPARES, A MINIMUM OF TWO OF WHICH SHALL BE RUN FROM THE CONTROLLER LOCATION TO THE FARTHEST ZONE VALVE IN EACH DIRECTION. WIRES SHALL BE INSTALLED WITH ADEQUATE SLACK AND SURGE/EXPANSION LOOPS, AND SHALL BE SPICED ONLY IN VALVE BOXES, USING SPEARS "DRI-SPLICE" WIRE CONNECTORS AND SEALANT, OR OTHER WATERPROOF TYPE, IF PRIOR APPROVAL IS OBTAINED.
 - ALL HEADS SHALL BE OF THE PROPER TYPE FOR THE PLANT MATERIAL WHERE LOCATED, AND SHALL BE INSTALLED IN THE PRESCRIBED MANNER, PLUMB, AND WITH THE PROPER HEIGHT WITH RESPECT TO GRADE AND PLANT HEIGHT. ALL HEADS AND OTHER EQUIPMENT SHALL BE INSTALLED WITH ADEQUATE AND UNIFORM CLEARANCES FROM ALL PAVING, CURBS, SIDEWALKS, WALLS, AND OTHER OBSTACLES, SO THAT DAMAGE TO EQUIPMENT DOES NOT OCCUR DURING LANDSCAPE MAINTENANCE OPERATIONS. ALL SPRINKLERS SHALL BE ADJUSTED TO OBTAIN MAXIMUM COVERAGE OF PLANT MATERIAL, WHILE MINIMIZING OVERSPRAY ONTO WINDOWS OR WALLS, OR OTHER IMPERVIOUS SURFACES, PARTICULARLY WOODWORK AND/OR TRIM.
 - EACH CONTROLLER SHALL REQUIRE A STANDARD 120-VAC POWER FEED, WHICH SHALL BE COORDINATED AND HOOKED UP BY THE INSTALLER OR HIS DESIGNATED ELECTRICIAN. A 3-WIRE POWER INPUT SURGE ARRESTOR SHALL BE PROVIDED ON THE POWER FEED, AND A DEDICATED GROUND ROD OR RODS SHALL BE INSTALLED, WHICH PROVIDE A RESISTANCE OF NO GREATER THAN 10 OHMS TO EARTH.
 - EACH CONTROLLER SHALL BE EQUIPPED WITH A PROPERLY LOCATED AND INSTALLED RAIN SHUTOFF DEVICE (MINI-CLIK II), WHICH SHALL BE LOCATED IN SUCH A MANNER SO THAT IT IS UNOBSTRUCTED AND DIRECTLY EXPOSED TO NATURAL RAINFALL AND SUNLIGHT FROM ALL DIRECTIONS, BUT NOT TO RUNOFF WATER FROM ROOFS, ETC.
 - THE INSTALLER SHALL BE EXPECTED TO BE FAMILIAR WITH AND FOLLOW THE INSTRUCTIONS CONTAINED HEREIN, ON THE DRAWINGS, IN THE CONSTRUCTION DETAILS, AND IN THE WRITTEN SPECIFICATIONS. SHOULD A CONFLICT BE DISCOVERED WITHIN THE DOCUMENTS, HE SHALL IMMEDIATELY NOTIFY THE PROJECT MANAGER AND REQUEST CLARIFICATION.

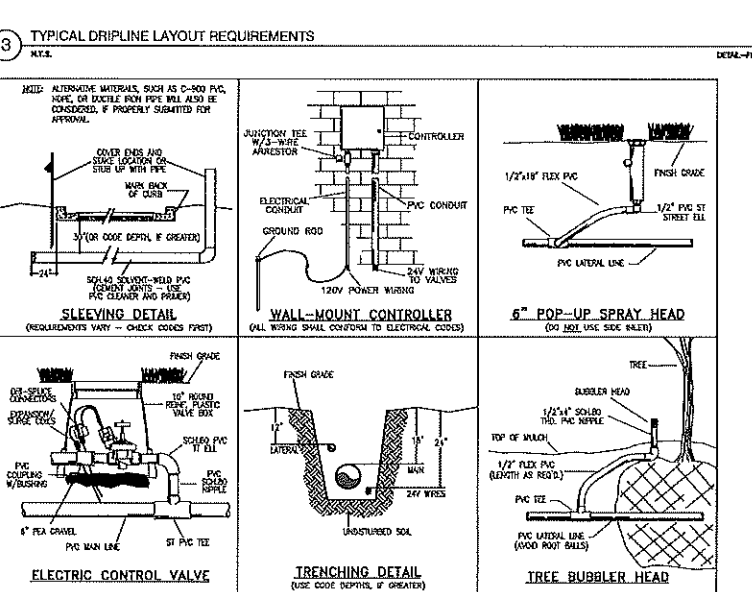


1 DRIP AIR RELIEF VALVE IN BOX

2 DRIP FLUSH VALVE

SPACING	0.8 GPH	1.0 GPH	1.2 GPH	1.5 GPH	2.0 GPH
12"	150	120	100	80	60
18"	100	80	65	50	40
24"	75	60	50	40	30

GRID	1	2	3	4	5	6	7	8	9	10
1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
10	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



VALVE SCHEDULE (75% OF IRRIGATION SYSTEM IS LOW VOLUME IRRIGATION)

NUMBER	MODEL	SIZE	TYPE	GPM	FSI	FSI @ POC	PRECIP
1	Rain Bird XCZ-LF-100-PRF	1"	Area for Dripline	4.28	41.20	41.60	0.54 in/h
2	Rain Bird PESB-PRS-D	2"	Bubbler	30.00	39.77		15.32 in/h
3	Rain Bird XCZ-100-PRF-BF	1"	Area for Dripline	11.80	30.28	30.72	0.54 in/h
4	Rain Bird PESB-PRS-D	2"	Bubbler	27.00	39.56		15.32 in/h
5	Rain Bird XCZ-100-PRF-BF	1"	Area for Dripline	7.63	31.85	32.28	0.54 in/h
6	Rain Bird PESB-PRS-D	2"	Turf Spray	51.30	37.71	40.40	1.05 in/h
Unknown	Rain Bird PESB-PRS-D	2"	Turf Spray	63.45	40.62		1.05 in/h

DISTRIBUTION EQUIPMENT SHALL BE 24" FROM VERTICAL STRUCTURES

- ### NOTES:
- STREET TREES TO BE INSTALLED WITH THE DEVELOPMENT OF EACH INDIVIDUAL LOT.
 - LANDSCAPING AND IRRIGATION SHALL BE CONSISTENT WITH SECTION 5.01 OF THE LAND DEVELOPMENT CODE.
 - LANDSCAPING AND IRRIGATION SHALL BE IN COMPLIANCE WITH WATER WISE ORDINANCE 2069.
 - IRRIGATION DISTRIBUTION EQUIPMENT SHALL BE 24" FROM VERTICAL STRUCTURES.

LANDSCAPE AND IRRIGATION DESIGN
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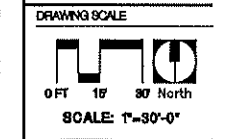
Landscape Designs, LLC
 Landscape Architecture
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PROJECT AND OWNER
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 Florida
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 CARL J. KELLY JR., RLA

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DRAWING TITLE
IRRIGATION SITE PLAN

DRAWING NUMBER
IR-02
 SHEET 43 OF 44

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■ Landscape Architecture
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CARL J. KELLY JR., RLA

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SCALE: 1"=20'-0"

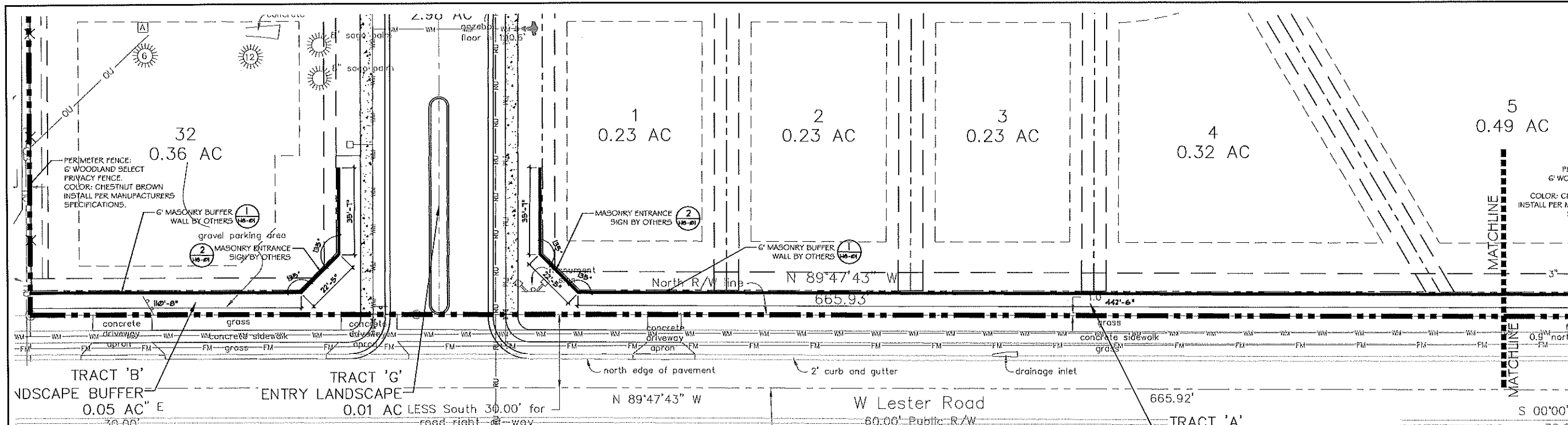
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HARDSCAPE
SITE PLAN &
DETAILS

DRAWING NUMBER

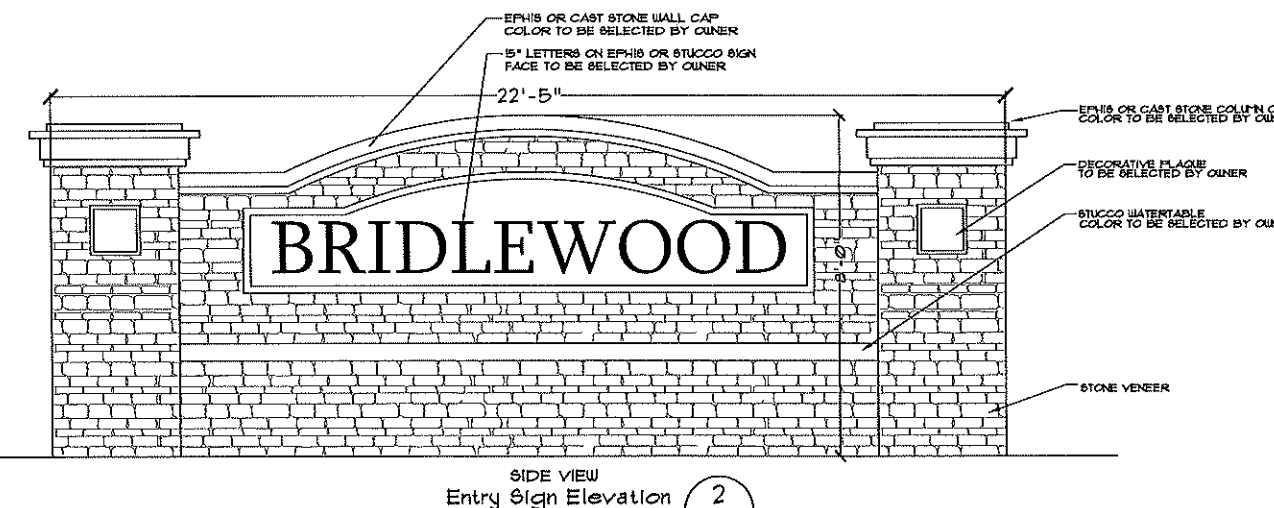
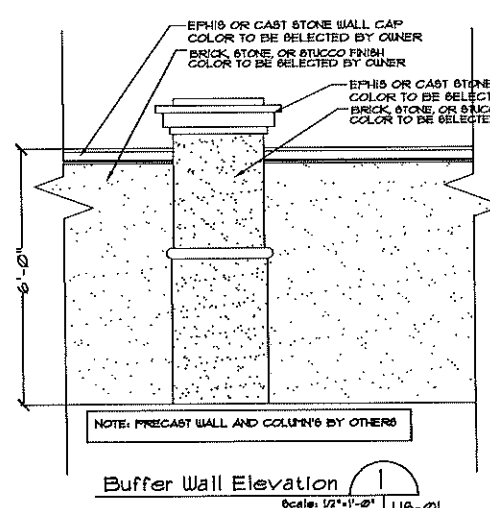
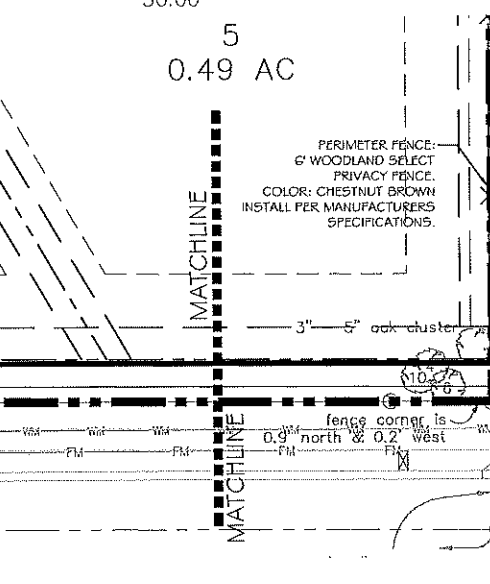
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STRUCTURAL DESIGN CRITERIA:

- A. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE FOLLOWING CODES, STANDARDS AND SPECIFICATIONS:**
- FLORIDA BUILDING CODE - 2011 EDITION
 - ASCE 7-02 MIN. DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
 - ACI 318-02, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
 - ACI 530-09, BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
 - AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, A588, NINTH EDITION
 - AISC D11 STRUCTURAL WELDING CODE - STEEL
 - SPECIFICATIONS FOR ALUMINUM STRUCTURES, FOURTH EDITION
 - AISC D12 STRUCTURAL WELDING CODE - ALUMINUM
- B. SUPERIMPOSED DESIGN LOADS:**
- LIVE LOADS (MIN) DEAD LOADS:
- GENERAL: 20 PSF DEAD WEIGHT
- WIND LOADS: DESIGN WIND SPEED: 140 MPH
MEAN ROOF HEIGHT: 15 FEET
EXPOSURE: B
STRUCTURE: SIGN, CF-12, G-25
DESIGN WIND PRESSURE: 22 PSF
- C. FOUNDATIONS:**
- ASSUMED SAFE BEARING PRESSURE = 3,000 PSF.
 - ALL UNSUITABLE SOIL SHALL BE REMOVED AND REPLACED WITH CLEAN STRUCTURAL FILL PLACED IN LOOSE LAYERS NOT EXCEEDING EIGHT (8) INCHES AND COMPACTED TO 98% (ASTM D698 - STANDARD PROCTOR) OF MAX DRY DENSITY.
 - CONTRACTOR SHALL PREPARE THE SUBSURFACE SOILS PER THE GEOTECHNICAL REQUIREMENTS STIPULATED IN GEOTECHNICAL REPORT.
- GENERAL:**
- ALL DIMENSIONS AND PLACEMENTS SPECIFIED WITHIN THIS DRAWING ARE TO BE VERIFIED BY OWNER PRIOR TO INSTALLATION.
 - ALL ELEVATIONS ARE REFERENCED TO FINISHED GRADE EL. +550.00' ± 0'-0". ALL ELEVATIONS SHOWN ON PLANS ARE REFERENCED TO THIS DATUM UNLESS NOTED.
 - THE GENERAL CONTRACTOR SHALL FIELD MEASURE ALL DIMENSIONS MARKED (V/F) PRIOR TO FABRICATION OR START OF CONSTRUCTION.
 - NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED OR OTHERWISE REDUCED IN STRENGTH WITHOUT THE PRIOR NOTIFICATION OF THE STRUCTURAL ENGINEER.
- E. THE GENERAL CONTRACTOR SHALL COORDINATE ALL OTHER DISCIPLINES FOR ANY ITEMS WHICH AFFECT THE STRUCTURAL DRAWINGS.**
- F. TEMPORARY BRACING, GUY WIRE, ETC., SHALL BE USED WHERE NECESSARY TO ADEQUATELY RESIST ALL CONSTRUCTION LOADS.**
- G. INSURE POSITIVE DRAINAGE IN ALL AREAS.**
- H. CONTRACTOR TO VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS BETWEEN PROPOSED WALLS/COLUMNS AND EXISTING UTILITIES.**
- CAST-IN-PLACE REINFORCED CONCRETE:**
- ALL CONCRETE WORK SHALL CONFORM TO ACI STANDARD BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-02/308-02).
 - ALL CONCRETE WORK SHALL ALSO CONFORM TO ALL APPLICABLE SECTIONS OF THE F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - MINIMUM 28 DAY COMPRESSIVE STRENGTH:
 - CONCRETE WALKS, SIDEWALK BANDING, BENCH FOUNDATIONS AND HANDICAP RAMPS: CLASS I
 - CONCRETE SIDEWALKS SUBSLABS AND INTEGRAL BANDING: CLASS I
 - CONCRETE CURBS, CURBS AND GUTTER, 6" DRIVEWAY BANDING, HEADER CURB AND VALLEY GUTTERS: CLASS II
 - CONCRETE STREET LIGHT POLE AND TRAFFIC POLE BASES, AND TREE GRATE COLLARS: CLASS II
 - SLURRS PER F.D.O.T. STANDARD SPECIFICATIONS.
 - REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 (6"x6", 21 WWP).
 - TERMINATE ALL DISCONTINUED TOP BARS WITH 180 DEGREE STANDARD HOOK UNLESS OTHERWISE NOTED.
 - AT CHANGES IN DIRECTION OF CONCRETE WALLS, STRIP FOOTINGS AND BOND BEAMS, PROVIDE CORNER BARS AT SAME SIZE AND SPACING AS HORIZONTAL STEEL.
 - METAL EXPANSION CAPS, TO BE FURNISHED WITH ONE END OF EACH DOUCL BAR IN EXPANSION JOINTS. CAPS TO BE A MINIMUM OF 3" IN LENGTH WITH ONE END CLOSED, TO ALLOW BAR MOVEMENT OF NOT LESS THAN 1/4 INCH, UNLESS OTHERWISE INDICATED. PLASTIC COATED DOUCL BARS MAY BE USED IF APPROVED BY ENGINEER.
- CONCRETE FINISHES:**
- AFTER STRIKING OFF AND CONSOLIDATING CONCRETE, SMOOTH THE SURFACE BY SCREENING AND FLOATING. USE HAND METHOD ONLY WHERE MECHANICAL FLOATING IS NOT POSSIBLE. ADJUST THE FLOATING TO COMPACT THE SURFACE AND PRODUCE A UNIFORM TEXTURE. THE USE OF ADDITIONAL WATER WILL BE PROHIBITED IN ALL PHASES OF THE FINISHING.
 - AFTER FLOATING, TEST SURFACE FOR TRUENESS WITH A 10 FOOT STRAIGHTEDGE. DISTRIBUTE CONCRETE AS REQUIRED TO REMOVE SURFACE IRREGULARITIES, AND REPAIR REPAIRED AREAS TO PROVIDE A CONTINUOUS SMOOTH FINISH.
 - WORK EDGES OF GUTTERS, BACK TOP EDGE OF CURB, SCORE LINES AND FORMED JOINTS WITH AN EDGING TOOL AND ROUND TO 1/2" RADIUS, UNLESS OTHERWISE INDICATED ON HARDSCAPE DETAILS. ELIMINATE ANY TOOL MARKS ON CONCRETE SURFACE.
 - AFTER COMPLETION OF FLOATING, AND WHEN EXCESS MOISTURE OR SURFACE SHEEN HAS DISAPPEARED, COMPLETE SURFACE FINISHING AS SPECIFIED ON DETAILS.
 - DO NOT REMOVE FORMS FOR 24 HOURS AFTER CONCRETE HAS BEEN PLACED. AFTER FORM REMOVAL, CLEAN ENDS OF JOINTS AND POINT-UP ANY MINOR HONEYCOMBED AREAS. REMOVE AND REPLACE AREAS OR SECTIONS WITH MAJOR DEFECTS.
- N. GENERAL:** CONSTRUCT EXPANSION JOINTS AT THE END OF ALL WALLS AND AT LOCATIONS PERPENDICULAR TO SURFACE OF CONCRETE, UNLESS OTHERWISE INDICATED ON HARDSCAPE DETAILS. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO THE CENTERLINE, UNLESS OTHERWISE INDICATED.
- CONCRETE MASONRY**
- DESIGN CRITERIA: ACI 530-09/ASCE 5-09, ACI 530J-09/ASCE 6-09
 - MOLLOU UNITS: MIN. 4,200 PSI @ 28 DAYS, MIN. 48% SOLID, ASTM C 90, GRADE N, HIGH STRENGTH BLOCK, NORMAL WEIGHT, F_m=2,800 PSI
 - MORTAR: ASTM C 210, TYPE S, MIN. 1800 PSI @ 28 DAYS, 3/8" FULL BEDDING, REMOVE MORTAR PROTRUDING INTO CELL CAVITIES TO BE REINFORCED AND GROUTED.
 - GROUT: ASTM C 416, MIN. 2,800 PSI @ 28 DAYS, 3/8" AGGREGATE MAX, 8"-10" SLUMP.
 - REINFORCEMENT:
 - HORIZONTAL JOINTS: 8TD, DUK-O-WALL # 16 @ 0' O.C. USE PREFABRICATED CORNERS AND TEES @ WALL INTERSECTIONS, OVERLAP DISCONTINUED ENDS AND EXTEND INTO COLUMN 12" MIN.
 - VERTICAL AND HORIZONTAL REINFORCEMENT: ASTM 618, GRADE 60, TYP. @ WALL INTERSECTIONS, EACH SIDE OF OPENINGS, AND @ WALL ENDS, HOOK TOP OF ALL DISCONTINUED BARS, LAP CONT. REINF. 48 BAR DIA. UNO.
 - USE BAR SPACERS IN EVERY 4TH COURSE WHERE CELLS ARE TO BE GROUTED. PROVIDE CLEANOUT OPENINGS FOR EACH GROUTED CELL. G. HIGH LIFT GROUTING SHALL BE USED WITH A MAXIMUM FOUR OF 12" IN 4" MAX LIFTS WITH ONE HOUR BETWEEN LIFTS. VIBRATE EACH LIFT AND RECONSOLIDATE PREVIOUS LIFT AFTER PLACING NEXT LIFT. VERTICAL CORES TO BE FILLED WITH GROUT SHALL HAVE A MINIMUM CLEAR DIMENSION OF 3"x3" H. WHERE EXPANSION ANCHOR BOLTS ARE SET IN MASONRY WALLS, FILL BLOCK CELLS WITH GROUT FOR BOLTED COURSE AND TWO COURSES BELOW ANCHOR ELEVATION.

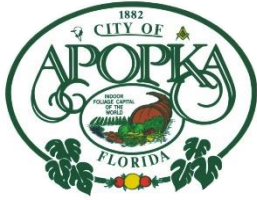


LANDSCAPE AND IRRIGATION DESIGN

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Signature: _____ LA0001764 10/30/17
REG. NO. DATE

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CITY OF APOPKA PLANNING COMMISSION

<input checked="" type="checkbox"/> PUBLIC HEARING	MEETING OF:	August 14, 2018
<input checked="" type="checkbox"/> SITE PLAN – Preliminary Dev. Plan	FROM:	Community Development
<input type="checkbox"/> SPECIAL REPORTS	EXHIBITS:	Vicinity Map
<input type="checkbox"/> OTHER:		Aerial Map
		Preliminary Development Plan

SUBJECT: PRELIMINARY DEVELOPMENT PLAN – CARRIAGE HILL PHASE II SUBDIVISION

REQUEST: RECOMMEND APPROVAL OF THE PRELIMINARY DEVELOPMENT PLAN FOR CARRIAGE HILL PHASE II SUBDIVISION

SUMMARY:

OWNER/APPLICANT: JTD Land at Rogers Rd, LLC

PROJECT ENGINEER: Dewberry Engineers, Inc. c/o Christopher Allen, P.E.

LOCATION: 1455 West Lester Road; West Lester Road

EXISTING USE: Vacant land

FUTURE LAND USE: Residential Low Suburban (Max 3.5 du/ac)

ZONING: R-1 (Single Family Residential) District

PROPOSED DEVELOPMENT: Single-Family Residential Subdivision (15 Lots; min. 9,000 sq. ft. lot area, 75 ft. min. lot width)

PROPOSED DENSITY: 1.69 du/ac

TRACT SIZE: 10.31 +/- acres

DEVELOPABLE AREA: 8.89 +/- acres

DISTRIBUTION

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

RELATIONSHIP TO ADJACENT PROPERTIES:

<i>Direction</i>	<i>Future Land Use</i>	<i>Zoning</i>	<i>Present Use</i>
North (City)	Residential Low Suburban	R-1AA	Vacant Land
East (City)	Residential Low Suburban	R-1AA	Oak Hill Reserve Subdivision
South (City)	Residential Low Suburban	R-1	Oak Hill Reserve Park and Open Space Tract
West (City)	Residential Low Suburban	R-1AA	Carriage Hill Phase I Subdivision

PROJECT SUMMARY: The Carriage Hill Phase II Subdivision – Preliminary Development Plan proposes the development of 15 single family residential lots. The minimum typical lot width is 75 feet with a minimum lot size of 9,000 square feet. Lots abutting the Oak Hill Reserve neighborhood are 11,996 sq. ft. to 21,046 sq. ft. The required minimum living area for a house in this subdivision is 1,500 square feet as set forth in Chapter 2 of the Land Development Code for single-family lots located within the R-1 zoning. 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 Rogers Road as approved in Phase I of the Carriage Hill Subdivision.

TRANSPORTATION: Per Code, a transportation impact analysis (TIA) was not required for this development as it generates under 400 daily trips.

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

RECREATION: For the entire Carriage Hill Subdivision (Phase I), the applicant provided 0.46 acre/approximately 20,038 square feet of recreation space that includes a playground with the Phase I Final Development Plan. Phase II contains a total of 5.58 acres of open space including drainage, existing wetland, buffer and pond.

BUFFER(S)/LANDSCAPING: Trumpet trees and live oaks line the single family lots. The landscape plan meets the requirements of the Land Development Code.

SCHOOL CAPACITY REPORT: A school concurrency mitigation agreement has been executed and a copy of the letter from Orange County Public Schools (OCPS) has been supplied to Staff.

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

PUBLIC HEARING SCHEDULE:

August 14, 2018 – Planning Commission, 5:30 p.m.
 September 5, 2018 – City Council, 1:30 p.m.

RECOMMENDATION ACTION:

The **Development Review Committee** recommends approval of the Carriage Hill Phase II Subdivision – Preliminary Development Plan, subject to the findings of this staff report.

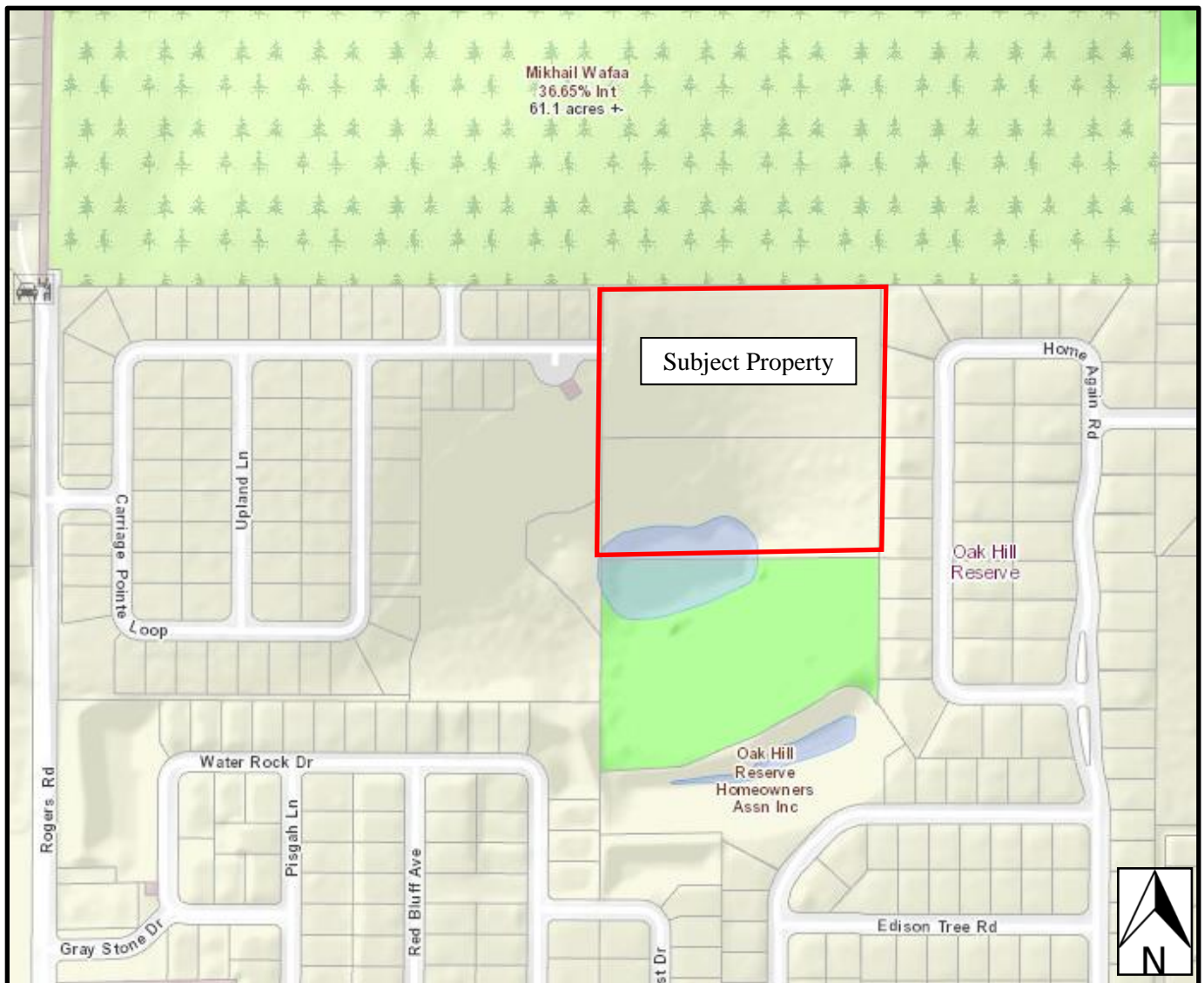
Recommended Motion: Recommend the approval of the Carriage Hill Phase II Subdivision – Preliminary Development Plan subject to the findings of the staff report.

Planning Commission Role: The role of the Planning Commission for this development application is to advise the City Council to approve or deny based on consistency with the 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.

Project Name: Carriage Hill Phase II Subdivision – Preliminary Development Plan
Property Owner: JTD Land at Rogers Rd. LLC
Applicant: Dewberry Engineers, Inc. c/o Christopher Allen, P.E.
Total Site Area: +/- 10.31 +/- acres
Parcel ID #s: 29-20-28-0000-00-005 and 29-20-28-0000-00-049

VICINITY MAP



AERIAL MAP



Drawing Index

Civil

C01	COVER SHEET
C02	EXISTING CONDITIONS
C03	SOILS MAP
C04	OVERALL SITE PLAN
C05	PRELIMINARY SITE PLAN
C06	PRELIMINARY GEOMETRY PLAN
C07	PRELIMINARY UTILITY PLAN
C08	PRELIMINARY SECTIONS

Landscape

L2.01	TREE REMOVAL PLAN
L2.10	LANDSCAPE PLAN
L3.00	NOTES, LEGEND AND DETAILS

LEGAL DESCRIPTION:

(PER SCHEDULE A OF THE TITLE COMMITMENT)
THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 28 EAST, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

TOGETHER WITH AN EXCLUSIVE PERPETUAL EASEMENT AND RIGHT-OF-WAY FOR INGRESS, EGRESS AND UTILITIES, AS CREATED BY AND SET FORTH IN THAT CERTAIN EASEMENT AGREEMENT RECORDED IN OFFICIAL RECORDS BOOK 8391, PAGE 3713, OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.

CARRIAGE HILL (PHASE 2)

Apopka, Florida Preliminary Development Plan

JUNE 2018

Parcel ID. Number
29-20-28-0000-00-005
29-20-28-0000-00-049

APPLICANT / OWNER

JTD LAND AT ROGERS RD., LLC
A FLORIDA LIMITED LIABILITY CORPORATION
210 SOUTH HOAGLAND BOULEVARD
KISSIMMEE, FLORIDA 34741
CONTACT: CRAIG HARRIS
PHONE: 407-870-0095

Civil Engineer / Planner

DEWBERRY
800 NORTH MAGNOLIA AVENUE, SUITE 1000
ORLANDO, FLORIDA 32803
CONTACT: CHRISTOPHER J. ALLEN, P.E.
PHONE: 407-843-5120

Surveyor

DEWBERRY
131 WEST KALEY STREET
ORLANDO, FLORIDA 32806
CONTACT: BILL DONLEY
PHONE: 321-354-9834

Geotechnical

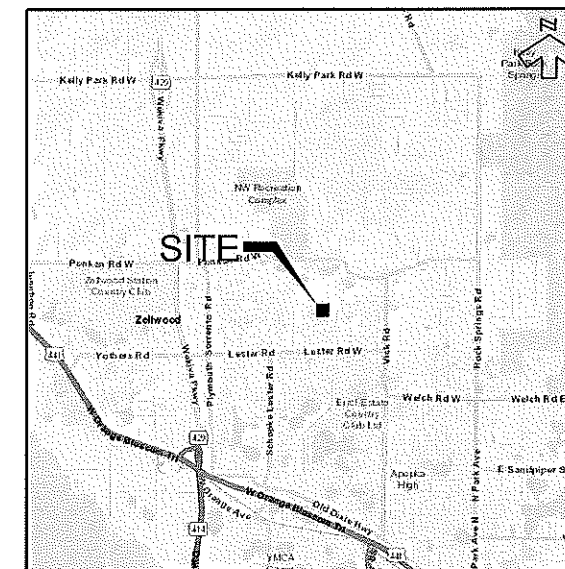
UNIVERSAL ENGINEERING SERVICES, INC.
3532 MAGGIE BOULEVARD
ORLANDO, FLORIDA 32811
PHONE: 407-423-0504
CONTACT: TIMOTHY D. TRIPLETT

Environmental

DEWBERRY
800 NORTH MAGNOLIA AVENUE, SUITE 1000
ORLANDO, FLORIDA 32803
CONTACT: NICOLE GOUGH
PHONE: 407-843-5120



Know what's below.
Call before you dig.



SITE LOCATION

THIS IS TO CERTIFY THAT THE ROADWAY CONSTRUCTION PLANS AND SPECIFICATIONS AS CONTAINED HEREIN WERE DESIGNED TO APPLICABLE STANDARDS AS SET FORTH IN THE "MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS" AS PREPARED BY FLORIDA DEPARTMENT OF TRANSPORTATION.

Prepared for:
JTD LAND AT ROGERS RD., LLC
210 South Hoagland Boulevard
Kissimmee, Florida 34741
Contact: Craig Harris



Dewberry Engineers Inc.
800 NORTH MAGNOLIA AVE
SUITE 1000
ORLANDO, FL 32803
PHONE: 407.843.5120
ENGINEERING BUSINESS #754

CARRIAGE HILL
(PHASE 2)
PRELIMINARY
DEVELOPMENT PLAN
NOT FOR CONSTRUCTION

APOPKA, FLORIDA

SEAL

Christopher J. Allen
P.E.
6/20/18

KEY PLAN

REVISIONS

No.	DATE	BY	DESCRIPTION
1	7-20-18	KJK	REV PER CITY

PROJECT # 50101346
DRAWN BY ER
APPROVED BY CJA
CHECKED BY CJA
DATE JUNE 2018
DATUM NAVD 88

TITLE

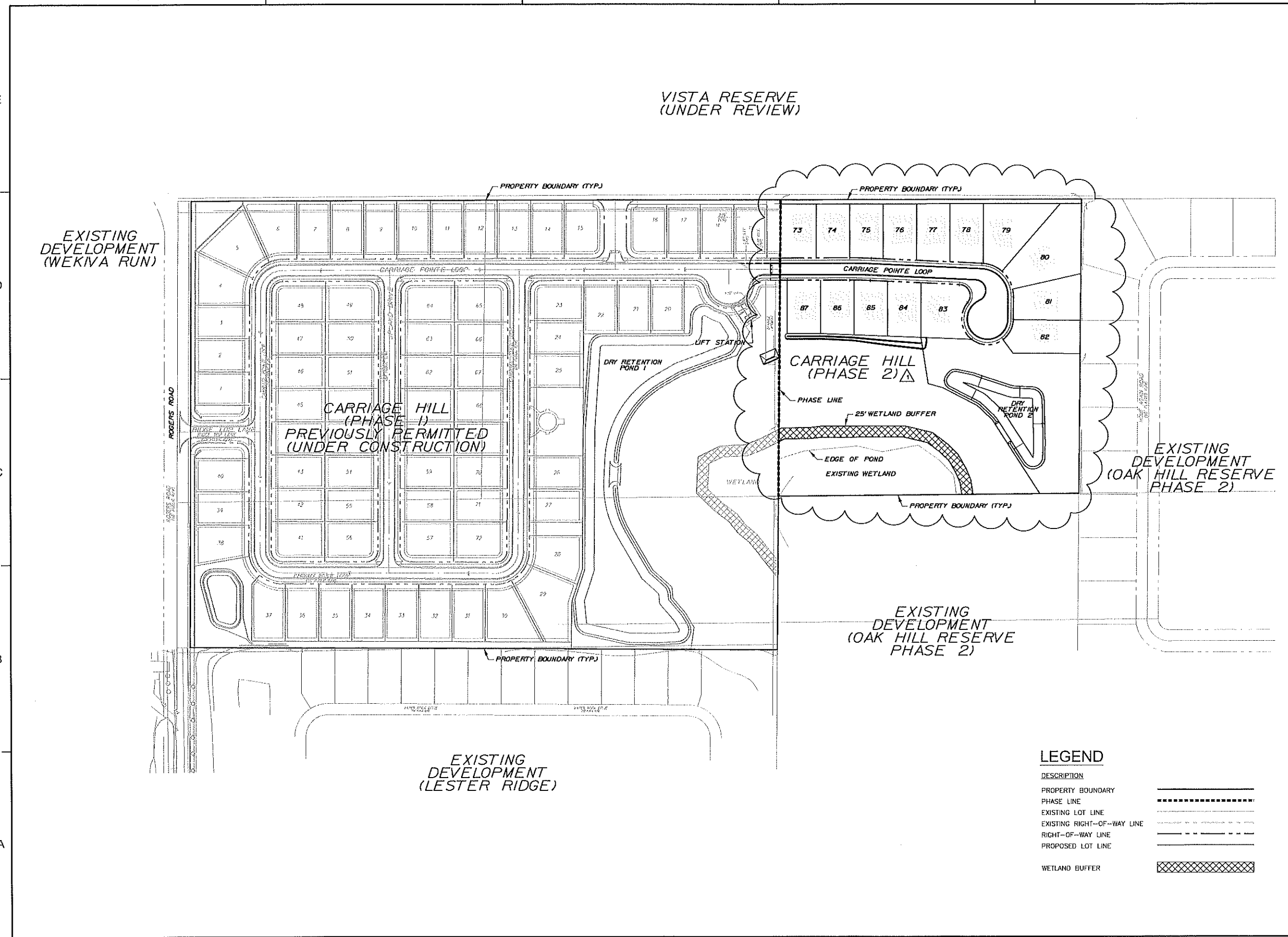
COVER SHEET

PROJECT: CARR_50101346\CAD\Civil\PS\Plans\CARR2-PSP Cover.dgn
SHEET NO.

C01

1 2 3 4 5

E
D
C
B
A



Dewberry[®]
 Dewberry Engineers Inc.
 800 NORTH MAGNOLIA AVE
 SUITE 1000
 ORLANDO, FL 32803
 PHONE: 407.843.5120
 ENGINEERING BUSINESS #794

CARRIAGE HILL
 (PHASE 2)
 PRELIMINARY
 DEVELOPMENT PLAN
 NOT FOR CONSTRUCTION

APOPKA, FLORIDA

SEAL
 Christopher J. Allen
 FL PE # 77719
 03/2018

KEY PLAN

SCALE NORTH
 0' 100' 200'

N

REVISIONS

No.	DATE	BY	DESCRIPTION
1	7-20-18	KJK	REV PER CITY

PROJECT # 55101346
 DRAWN BY ER
 APPROVED BY CJA
 CHECKED BY CJA
 DATE JUNE 2018
 DATUM NAVD 88

LEGEND

DESCRIPTION	
PROPERTY BOUNDARY	—————
PHASE LINE	-----
EXISTING LOT LINE	-----
EXISTING RIGHT-OF-WAY LINE	-----
RIGHT-OF-WAY LINE	-----
PROPOSED LOT LINE	-----
WETLAND BUFFER	XXXXXX

TITLE
**OVERALL
 SITE
 PLAN**

PROJECT: CARR_50101346\CAD\Civil\Plans\CARR2-PSP OverallSitePlan.dgn
 SHEET NO.

C04

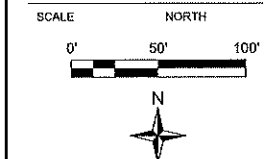
CARRIAGE HILL
(PHASE 2)
PRELIMINARY
DEVELOPMENT PLAN
NOT FOR CONSTRUCTION

APOPKA, FLORIDA

SEAL

Christopher J. Allen
FL PE # 77719
05/20/16

KEY PLAN



REVISIONS

No.	DATE	BY	Description
1	7-20-18	KJK	REV PER CITY

PROJECT # 50101346
 DRAWN BY ER
 APPROVED BY CJA
 CHECKED BY CJA
 DATE JUNE 2018
 DATUM NAVD 88

TITLE

**PRELIMINARY
SITE
PLAN**

PROJECT: CARR_50101346\CAD\Civil\PS\SitePlan.dgn
SHEET NO.

C05

SITE DATA

TOTAL PDP AREA: 10.31 AC
 TOTAL DEVELOPABLE AREA: 8.89 AC
 NUMBER OF LOTS: 15
 DENSITY: 1.69 DU/AC
 EXISTING ZONING: R1AA (4.66 AC)
 R-1 (5.75 AC)
 EXISTING LAND USE: VACANT
 FUTURE LAND USE: RESIDENTIAL LOW SUBURBAN
 LAND USE AREAS:
 RESIDENTIAL (LOTS): 3.85 AC
 PUBLIC RIGHT-OF-WAY: 0.88 AC
 STORMWATER POND (TRACT K): 1.69 AC
 BUFFER/OPEN SPACE (TRACT JH): 2.47 AC
 WETLAND/WETLAND BUFFER: 1.42 AC
TOTAL: 10.31 AC

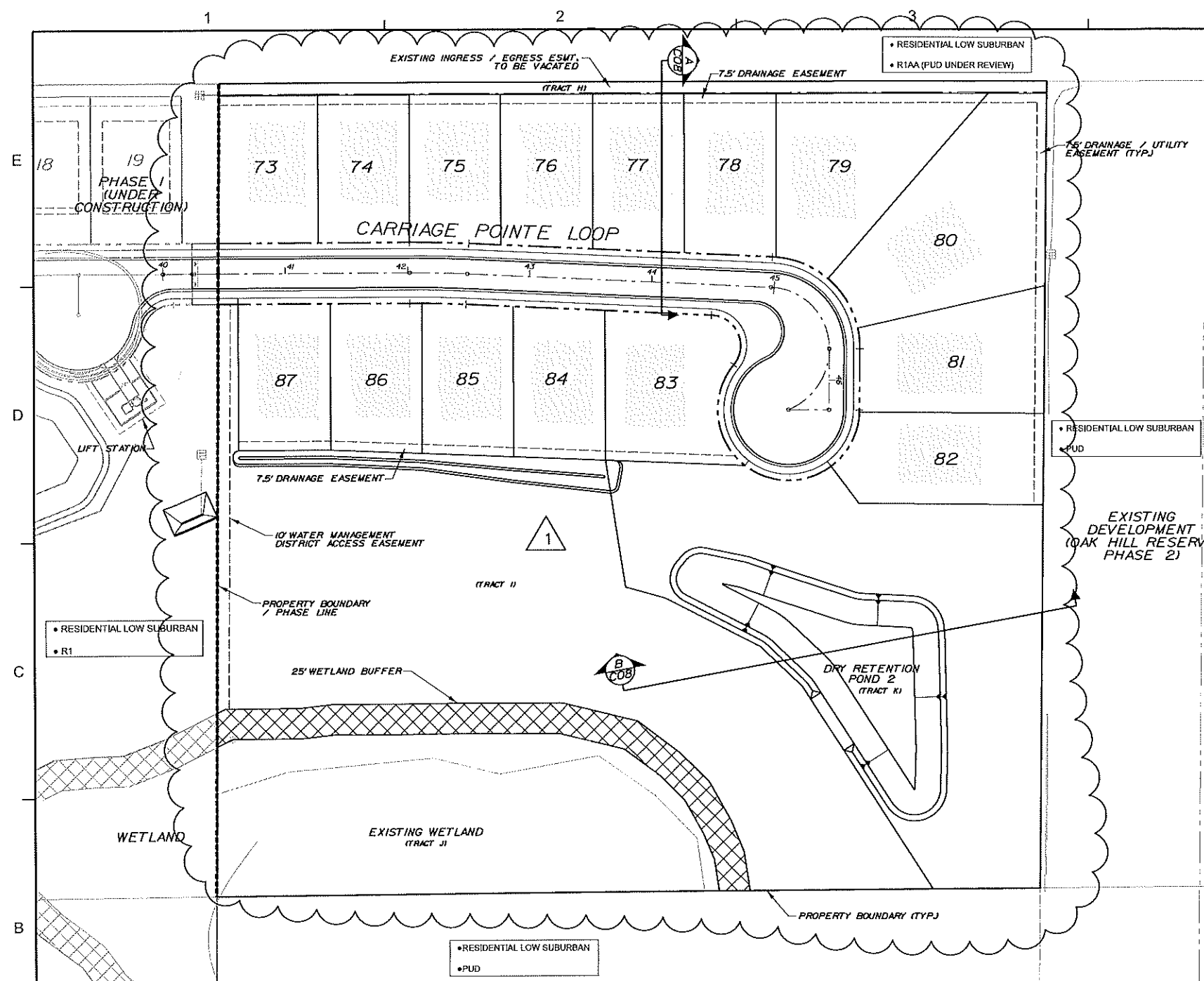
REQUIRED TREES:
 3 TREES PER LOT
 ONE (1) TREE PER FIFTY (49) LF OF ROAD
TOTAL: 59

DEVELOPMENT STANDARDS FOR R-1:

MINIMUM BUILDING SETBACKS:
 FRONT (TO BLDGS. UNDER AC) 25'
 REAR 20'
 SIDE 10'
 SIDE (STREET) 25'
 FRONT (TO GARAGE) 30'
MAX. BUILDING HEIGHT: 3 STORIES, 35'
 MIN. LOT WIDTH: 75'
 MIN. LOT DEPTH: 120'
 MIN. LOT AREA: 9,000 SF
 MIN. LIVING AREA: 1,500 SF
SCHOOL ZONING:
 ELEMENTARY WOLF LAKE
 MIDDLE WOLF LAKE
 HIGH APOPKA
UTILITY PROVIDERS:
 POTABLE WATER: APOPKA UTILITIES
 SANITARY SEWER: APOPKA UTILITIES
 LIFT STATION TRACT: APOPKA UTILITIES
 ELECTRIC SERVICE: DUKE ENERGY

NOTES:

- BASED ON THE INSITUITE OF TRANSPORTATION ENGINEERS (ITE) LANDUSE CODE OF 210 (SINGLE FAMILY DETACHED), THE SUBJECT PROPERTY WILL GENERATE 140 DAILY TRIPS, 14 OF WHICH WILL OCCUR DURING THE PM PEAK HOUR.
- LOT AREAS, EASEMENT LINES AND TRACT AREAS ON THE FINAL PLAT MAY VARY FROM THAT SHOWN DUE TO FINAL ENGINEERING DESIGN CRITERIA AND CONSTRAINTS.
- ALL ROADWAYS, WATER LINE INFRASTRUCTURE & FIRE HYDRANTS SHALL BE IN PLACE BEFORE BUILDING CONSTRUCTION MAY BEGIN.
- THIS COMMUNITY IS NOT PROPOSED TO BE GATED.
- SINGLE FAMILY RESIDENTIAL ARCHITECTURE MUST MEET THE INTENT OF THE CITY'S DEVELOPMENT DESIGN GUIDELINES, SECTION 3.2 RESIDENTIAL ARCHITECTURE STANDARDS. ARCHITECTURAL RENDERINGS OF ALL PROPOSED RESIDENTIAL BUILDINGS MUST BE SUBMITTED WITH THE FINAL DEVELOPMENT PLAN APPLICATION.
- FRONT LOAD GARAGES SHALL BE SETBACK 30FT FROM FRONT PROPERTY LINE.
- SITE IS LOCATED IN 100 YEAR FEMA FLOOD ZONE "X."
- LIGHT POLES & FIXTURES SHALL BE PROVIDED WITH FINAL DEVELOPMENT PLAN.
- LIGHT POLE & FIXTURES SHALL BE A DECORATIVE TYPE APPROVED BY THE CITY OF APOPKA.
- A DRAFT OF THE PLAT SHALL BE SUBMITTED WITH THE FINAL DEVELOPMENT PLAN.



LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY BOUNDARY	---	---
LOT LINE	---	---
EASEMENT LINE	---	---
RIGHT-OF-WAY LINE	---	---
CENTER LINE	---	---
SETBACK LINE	---	---
ADJACENT USES	• FUTURE LAND USE • ZONING	
PHASE LINE	-----	-----

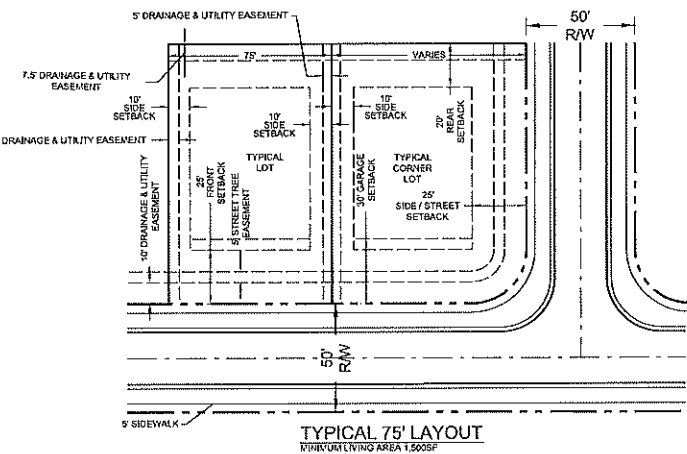
TRACT SUMMARY						
TRACT	AREA (AC)	DESCRIPTION	OWNERSHIP	MAINTENANCE	DEVELOPMENT RIGHTS	NOTES
H	0.16	OPEN SPACE / DRAINAGE	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	
I	1.69	OPEN SPACE	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	
J	1.42	EXISTING WETLAND / BUFFER	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	CONSERVATION
K	2.31	POND / DRAINAGE / OPEN SPACE	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	HOME OWNER'S ASSOCIATION	

LEGEND

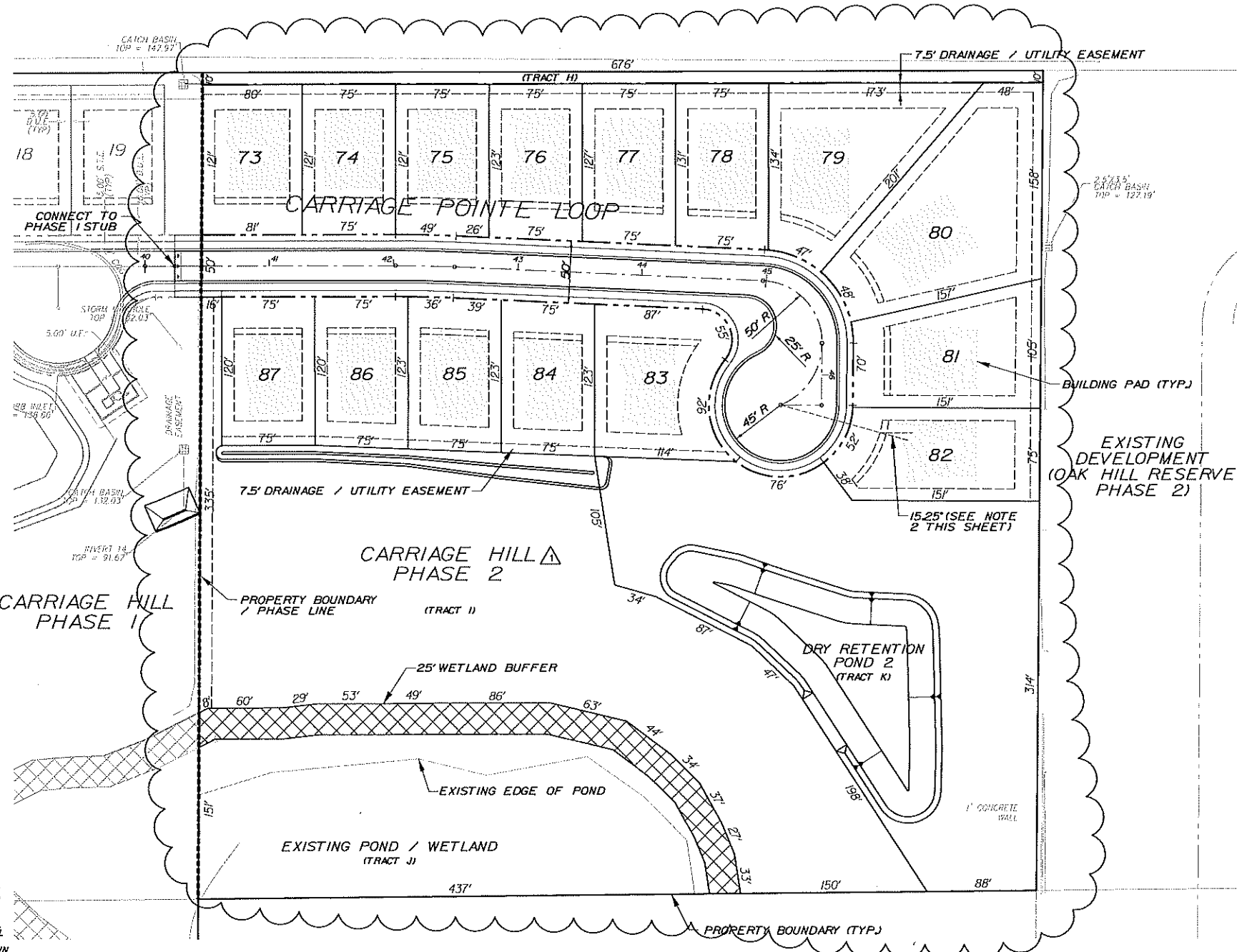
DESCRIPTION	
PROPERTY BOUNDARY	—————
LOT LINE	—————
EASEMENT LINE	-----
RIGHT-OF-WAY LINE	-----
CENTER LINE	-----
PHASE LINE	-----

LOT AREAS		
LOT NUMBER	LOT FRONTAGE (FT)	AREA (SF)
73	81	9730
74	75	9075
75	75	9141
76	75	9390
77	75	9658
78	75	9926
79	*47	15876
80	*48	21046
81	*70	13155
82	*52	11996
83	87	12315
84	75	9224
85	75	9252
86	75	9116
87	75	9000

*SEE NOTE 1 THIS SHEET



- NOTES:**
1. LOTS LOCATED ON CUL-DE-SACS AND CURVES SHALL BE PERMITTED UP TO A 40 PERCENT REDUCTION OF THE MINIMUM WIDTH AT THE PROPERTY LINE, BUT SHALL BE REQUIRED TO MAINTAIN THE MINIMUM LOT WIDTH AT THE BUILDING LINE.
 2. THE FRONT ELEVATION OF ANY HOME CONSTRUCTED ON A CUL-DE-SAC OR 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 THE CURVE THROUGH A 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.
 3. RIGHTS OF WAY TO BE PUBLIC.
 4. EASEMENT ON PRIVATE LOTS TO BE MAINTAINED BY THE HOMEOWNER.
 5. LOT AREAS, EASEMENT LINES AND TRACT AREAS ON THE FINAL PLAT MAY VARY FROM THAT SHOWN DUE TO FINAL ENGINEERING DESIGN CRITERIA AND CONSTRAINTS.
 6. A 10' DRAINAGE & UTILITY EASEMENT SHALL BE DEDICATED ACROSS THE FRONT OF ALL LOTS (SEE TYPICAL 75' LOT LAYOUT FOR EASEMENT DEPICTION).
 7. A 7.5' DRAINAGE & UTILITY EASEMENT SHALL BE DEDICATED ACROSS THE REAR OF ALL LOTS (SEE TYPICAL 75' LOT LAYOUT FOR EASEMENT DEPICTION).
 8. A 5' DRAINAGE & UTILITY EASEMENT SHALL BE DEDICATED ALONG THE SIDES OF ALL LOTS (SEE TYPICAL 75' LOT LAYOUT FOR EASEMENT DEPICTION).

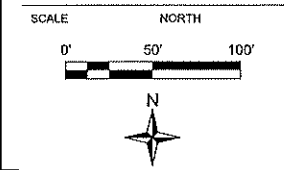


Dewberry Engineers Inc.
 600 NORTH MAGNOLIA AVE
 SUITE 1000
 ORLANDO, FL 32803
 PHONE: 407.843.5120
 ENGINEERING BUSINESS #784

CARRIAGE HILL
 (PHASE 2)
 PRELIMINARY
 DEVELOPMENT PLAN
 NOT FOR CONSTRUCTION

SEAL
 Christopher J. Allen
 FL PE # 77719
 03/2016

KEY PLAN



REVISIONS			
No.	DATE	BY	Description
1	7-20-18	KJK	REV PER CITY

PROJECT # 50101346
 DRAWN BY ER
 APPROVED BY CJA
 CHECKED BY CJA
 DATE JUNE 2018
 DATUM NAVD 88

**PRELIMINARY
 GEOMETRY
 PLAN**

PROJECT: CARR_50101346\CAD\Civil\PSP\Civil_Plans\CARR2-PSP_Geometry.dgn
 SHEET NO.

C06

LEGEND

	UNDER CONSTRUCTION	PROPOSED
PROPERTY BOUNDARY	--- (dashed)	— (solid)
LOT LINE	--- (dashed)	— (solid)
EASEMENT LINE	- - - - - (dashed)	- - - - - (dashed)
RIGHT-OF-WAY LINE	- - - - - (dashed)	- - - - - (dashed)
CENTER LINE	- - - - - (dashed)	- - - - - (dashed)
POTABLE WATER	— (solid)	— (solid)
RECLAIM WATER	— (solid)	— (solid)
SANITARY GRAVITY SEWER	— (solid)	— (solid)
PHASE LINE	— (solid)	— (dashed)

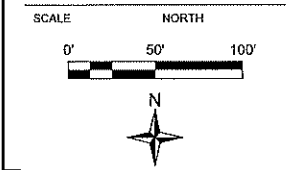


Dewberry Engineers Inc.
 800 NORTH MAGNOLIA AVE
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 ORLANDO, FL 32803
 PHONE: 407.843.5120
 ENGINEERING BUSINESS #794

CARRIAGE HILL
 (PHASE 2)
 PRELIMINARY
 DEVELOPMENT PLAN
 NOT FOR CONSTRUCTION
 APOPKA, FLORIDA

SEAL
 Christopher J. Allen
 FL PE # 77716
 03/2016

KEY PLAN



REVISIONS

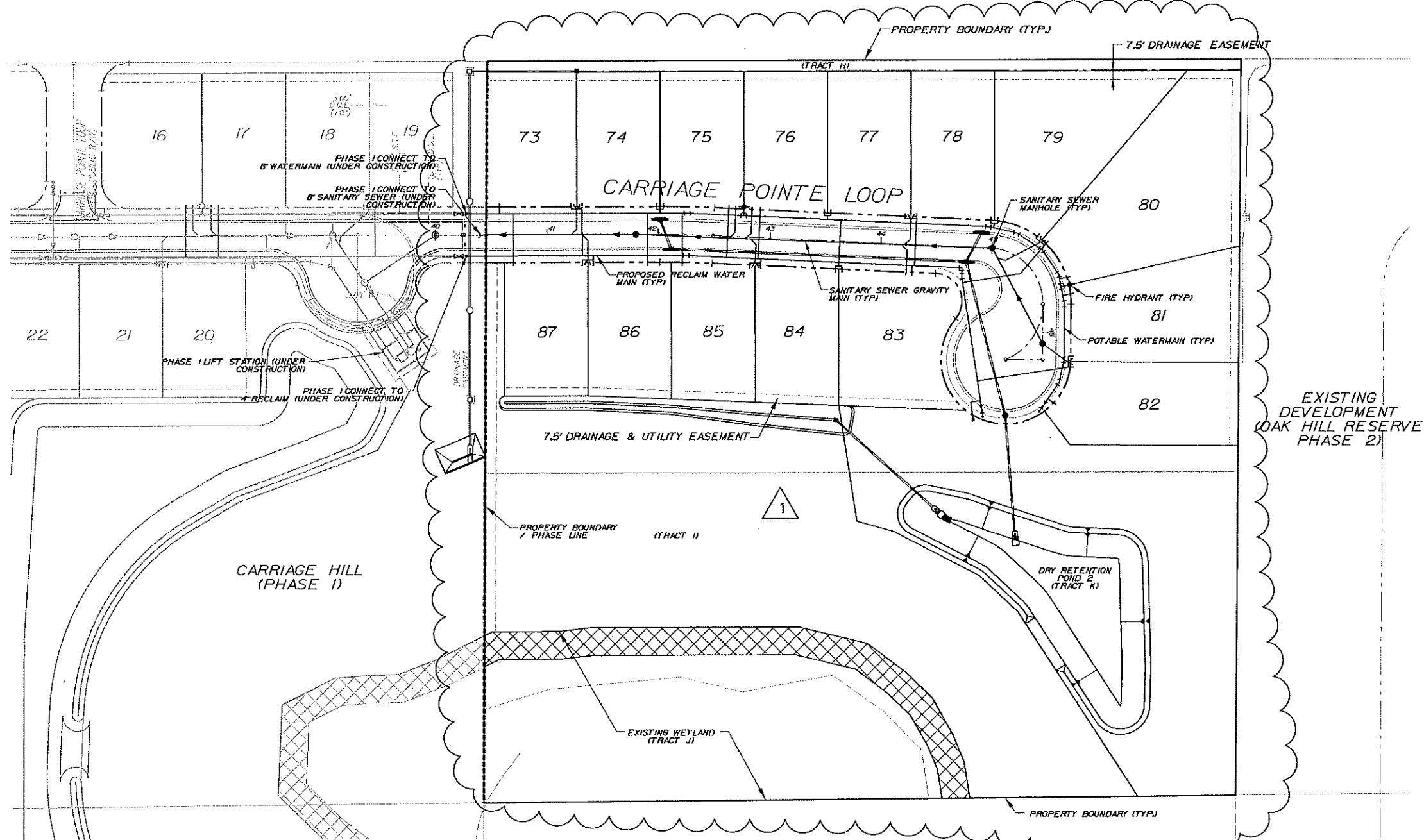
No.	DATE	BY	DESCRIPTION
1	7-20-18	KJK	REV PER CITY

PROJECT # 50101348
 DRAWN BY ER
 APPROVED BY CJA
 CHECKED BY CJA
 DATE JUNE 2018
 DATUM NAVD 88

**PRELIMINARY
 UTILITY
 PLAN**

PROJECT: CARR_50101346\CAD\Civil\PSPP\Civil Plans\CARR2-PSP Utility.dgn
 SHEET NO.

C07

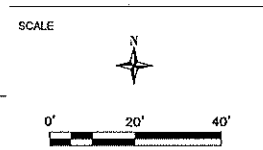


- NOTES:**
1. FIRE HYDRANTS SHALL BE LOCATED WITHIN 500' OF ALL HOMES.
 2. FIRE HYDRANTS SHALL BE MARKED WITH A BLUE ROAD REFLECTOR.
 3. ALL LIGHT FRAME CONSTRUCTION SHALL BE LABELED IN ACCORDANCE WITH FLORIDA STATUTE 633.027.
 4. ALL CONSTRUCTION SHALL FOLLOW CURRENT NFPA AND FLORIDA FIRE PREVENTION CODE CONCERNING FIRE AND LIFE SAFETY.

CARRIAGE HILL
PHASE 2
PRELIMINARY
DEVELOPMENT PLAN
APOPKA, FLORIDA

SEAL
Michael J. Uchuk
FL P.L.A. # 966675
Aug 05, 2018

KEY PLAN



No.	DATE	BY	Description

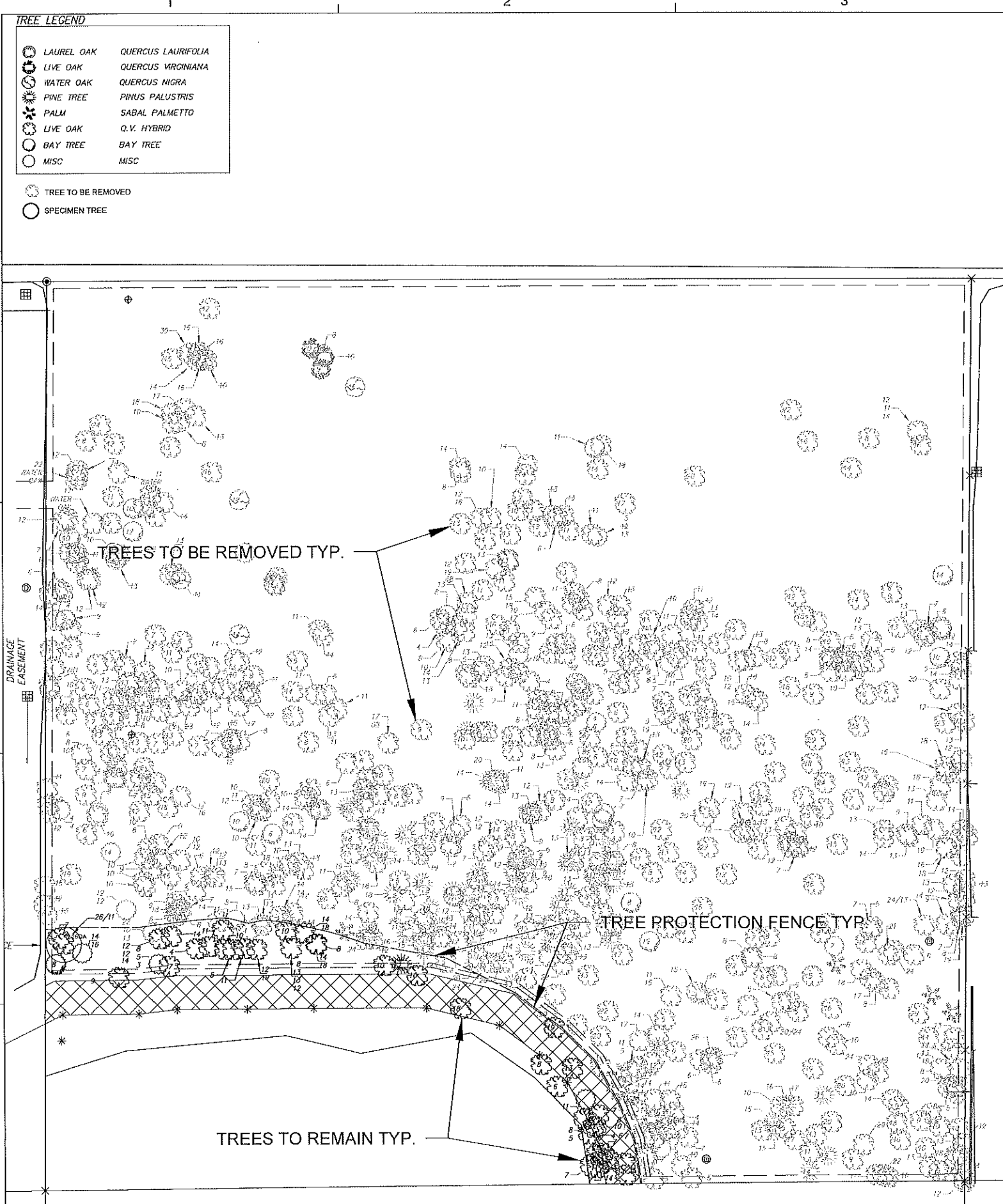
DRAWN BY _____
APPROVED BY _____
CHECKED BY _____
DATE February 15, 2018
TITLE

TREE REMOVAL PLAN

PROJECT NO. 50101346

L2.01

SHEET NO. OF

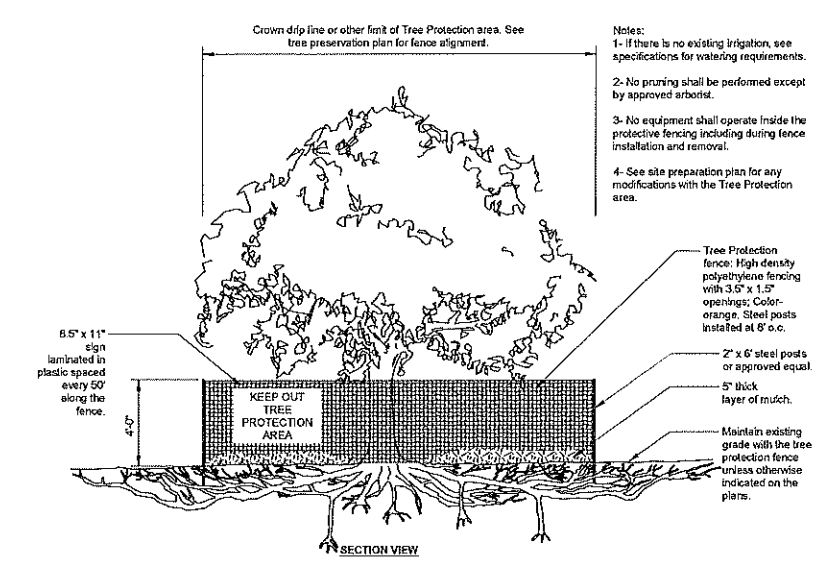


TREE DATA:

• TREE INCHES ON-SITE:	10447.5 INCHES
• SITE CLEARING AREA:	8.65 ± ACRES (376,729 SF)
• TOTAL TREE INCHES REMOVED:	9,908.5 INCHES
• TOTAL INCHES RETAINED:	576 INCHES
• TOTAL SPECIMEN INCHES RETAINED:	26 INCHES
• TOTAL TREE INCHES TO BE REPLACED:	222.5 INCHES
• 2.5" DBH TREES (42):	105 INCHES
• 2.5" DBH LOT TREES: 3 PER LOT, 15 LOTS	112.5 INCHES
• TOTAL INCHES POST DEVELOPMENT:	793.5 INCHES
• QUANTITY OF SPECIMEN TREES REMOVED:	664 INCHES (25 TREES)
• MAXIMUM TREE STOCK (DEVELOPABLE AREA):	8.88 ACRES 387,125 SF
• SPECIMEN/HISTORIC TREES:	30 INCHES
• 30" DBH FOR 6,000 SF	1,905.62 INCHES
• 5" DBH PER 1,000 SF ABOVE 6,000 SF	
• OTHER PROTECTED TREES:	
• 21" DBH FOR 6,000 SF	21 INCHES
• 3.5" DBH PER 1,000 SF ABOVE 6,000 SF	1,333.9 INCHES
• TOTAL MAXIMUM REPLACEMENT:	3,290.5 INCHES
• DBH REPLACEMENT:	222.5 INCHES
• TOTAL BALANCE REQUIRED:	3,068 INCHES
• MITIGATION RATE PER DBH INCH:	10
• TREE MITIGATION FEE:	\$30,680.00

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.



1 TREE PROTECTION
1/4" = 1'-0"

TREE REMOVAL PLAN
SCALE: 1"=40'-0"

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE
FX-PL-FX-TRMT-02

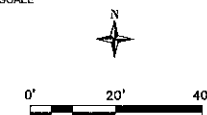
CARRIAGE HILL
 PHASE 2
 PRELIMINARY
 DEVELOPMENT PLAN
 APOPKA, FLORIDA

SEAL

Michael J. Urechuk
 P.E. # 6666675
 Aug 03, 2018

KEY PLAN

SCALE



No.	DATE	BY	Description

REVISIONS

DRAWN BY _____
 APPROVED BY _____
 CHECKED BY _____
 DATE February 15, 2018

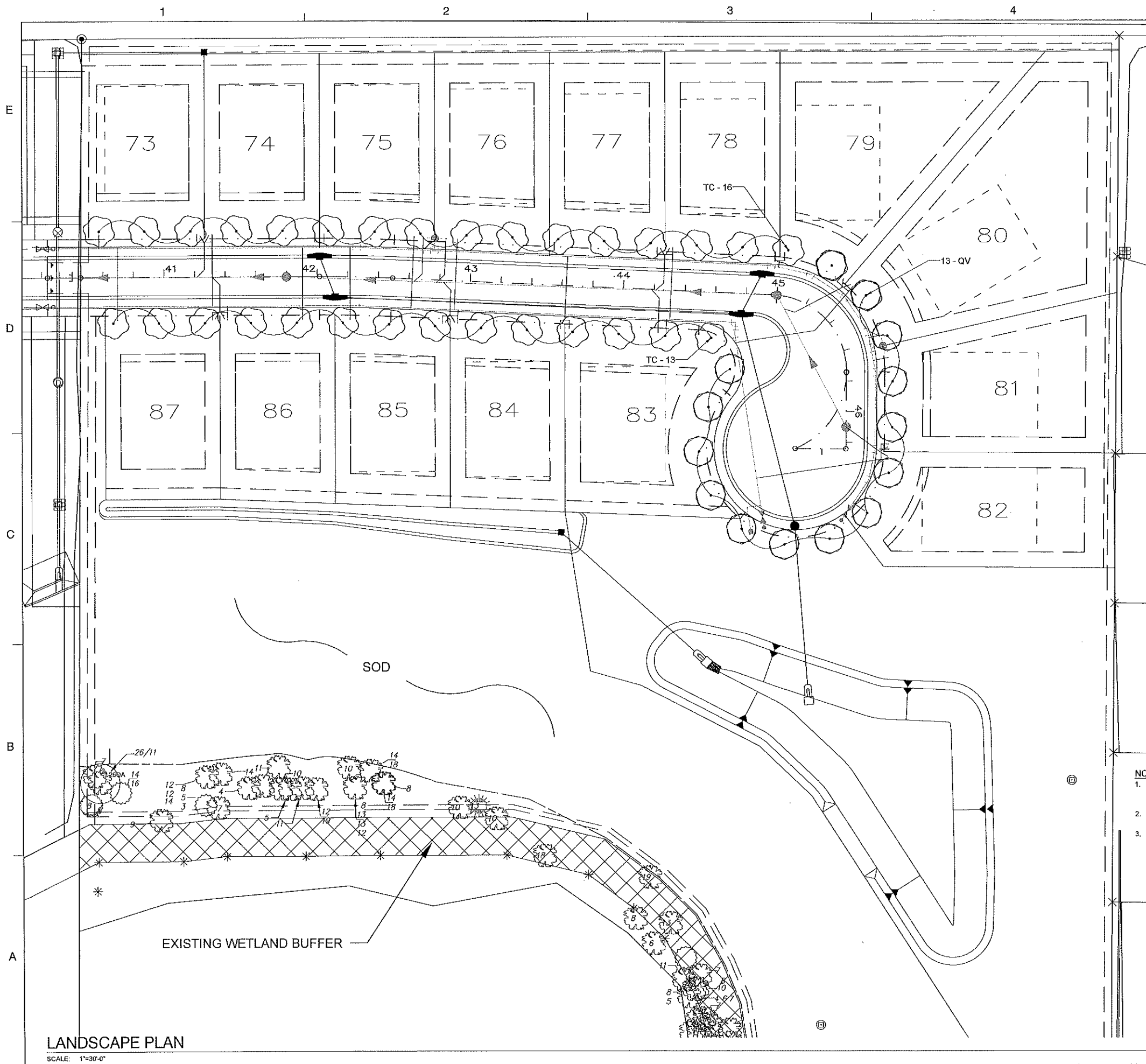
TITLE

LANDSCAPE PLAN

PROJECT NO. 50101346

L2.10



SHEET NO. OF



- NOTES:**
1. DISRUPTED AREAS THAT ARE NOT PAVED OR MULCHED SHALL BE SODDED TO THE LIMITS OF SOD AND PROPERTY LINE WITH BAHIA SOD.
 2. SOD POND SLOPES WITH BAHIA SOD AND SEED BASE OF POND WITH BAHIA GRASS
 3. THE LANDSCAPING AND IRRIGATION PLANS MUST MEET THE REQUIREMENTS OF ORDINANCE 2069.

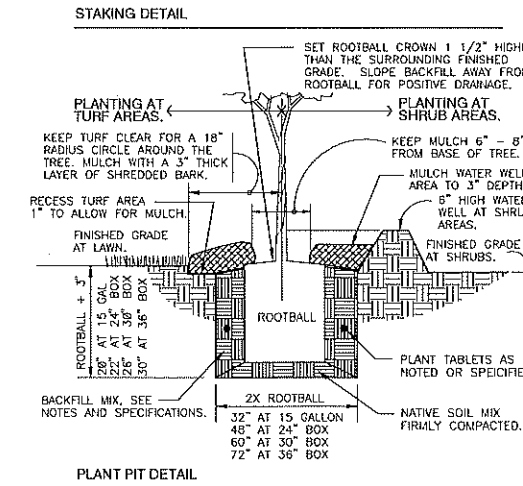
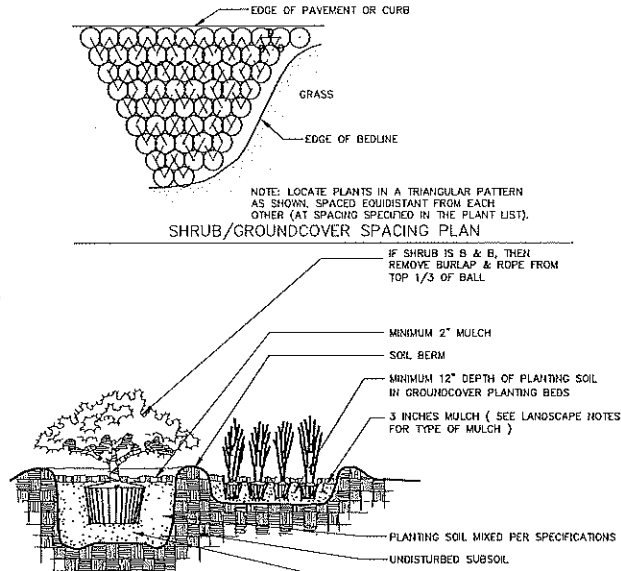
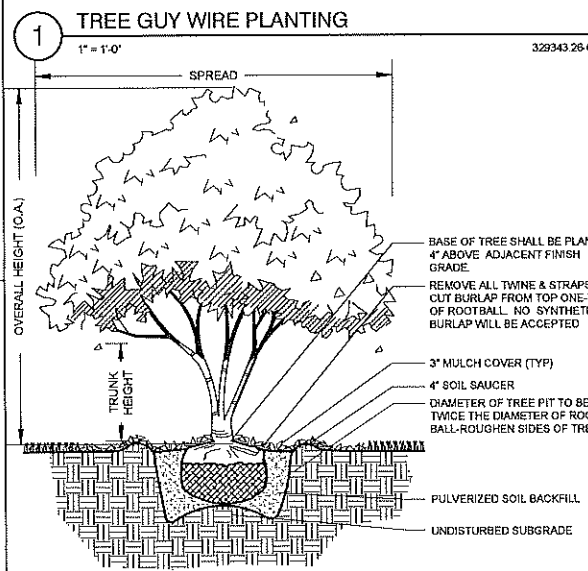
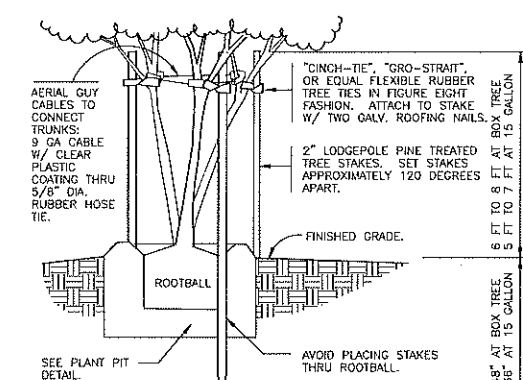
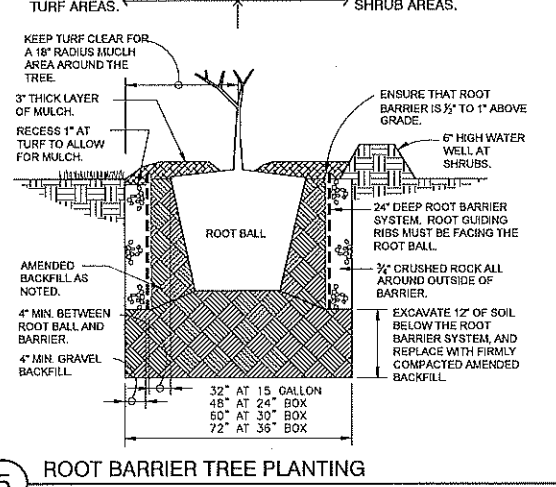
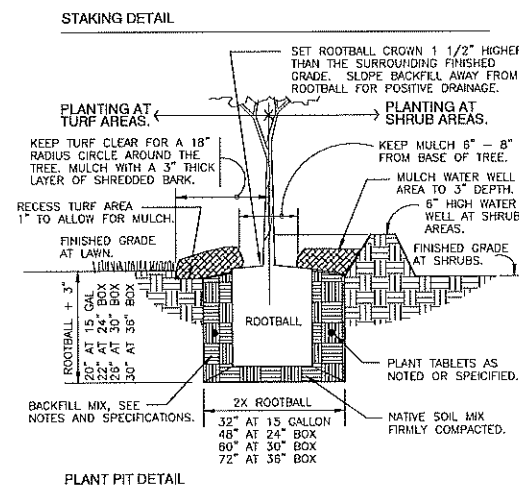
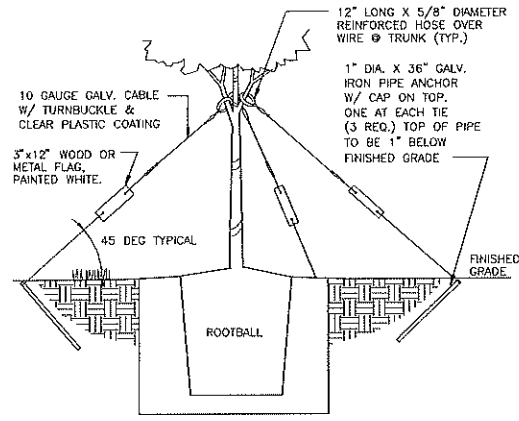
LANDSCAPE PLAN
 SCALE: 1"=30'-0"

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	DBH	HEIGHT	REMARKS
	QV	14	Quercus virginiana / Live Oak	2 1/2"	10'-12 HT.	
	TC	32	Tabebuia chrysotricha / Golden Trumpet Tree	2 1/2"	10' HT.	

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 lines 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 for trees 4" and larger and 6" above ground for trees less than 4".
- 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 test fill at tree pits with water before planting to assure proper drainage penetration 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 repair 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 soil areas. Vertical driling 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 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, mulching, lightening, 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.



1 TREE GUY WIRE PLANTING
 1" = 1'-0"
 329343.26-03

5 ROOT BARRIER TREE PLANTING
 1" = 1'-0"
 FX-PL-FX-TREE-12

4 TREE PLANTING MULTI-STAKE
 1" = 1'-0"
 329343.23-03

2 MULTI-STEM TREE PLANTING
 N.T.S.
 329343.33-01

3 SHRUB AND GROUND COVER PLANTING
 N.T.S.
 329333.13-04

SEAL

KEY PLAN

SCALE

No.	DATE	BY	Description

REVISIONS

DRAWN BY _____
 APPROVED BY _____
 CHECKED BY _____
 DATE February 15, 2018
 TITLE _____

NOTES LEGEND AND DETAILS

PROJECT NO. 50101346

L3.00

SHEET NO. OF