From: Yesenia
To: Development Review
Cc: Alejandro Gutierrez
Subject: Request Extension = Plan Number 30183 Major Site Plan will expire in 30 days
Date: Tuesday, July 7, 2026 12:31:23 PM

CAUTION: THIS MESSAGE IS FROM AN EXTERNAL SENDER
This email originated from outside the organization. Do not click links, open attachments, or share any information unless you recognize the sender and know the content is safe. Report suspicious emails using the "Phish Alert" button in Outlook or contact the Helpdesk.

Good morning,

Thank you for the clarification regarding Plan Number 30183 – Major Site Plan.

At this time, we are still awaiting final financing approval in order to move forward with the remaining project requirements, including the signed/sealed plans, Development Order issuance, and completion of the As-built process.

For this reason, we would like to formally request an extension for the project while we complete the financing process and proceed with the remaining steps.

Thank you for your consideration, and please let us know if any additional information is needed.

Best regards,
Yesenia Petit.

Ordonez Ordonez Construction INC.

From: DoNotReply EPL Permit Notify <DoNotReply-EPLPermitNotify@marionfl.org>
Sent: Sunday, May 17, 2026 12:06 AM
To: Yesenia <yesenia@adanordonezp.com>
Subject: Plan Number 30183 Major Site Plan will expire in 30 days

Hello,
This plan will expire soon. You may view details online by visiting the Marion County Civic Access Portal.
If an extension is needed, please reply to this email providing the reason for the request and the duration of the extension. Upon receipt of the request, we will begin processing for formal approval. Fees may apply.
This message was sent from an official Marion County Board of County Commissioners email account. If you have questions or believe this message was sent in error, please contact us directly at +1 352 671 8686.
Thank you,
Office of the County Engineer
Marion County Board of County Commissioners

Ocala, Florida
Empowering Marion for Success!

CONSTRUCTION PLANS
FOR
MULTI-FAMILY
MIDWAY TERRACE LOT 18
OCALA, FL 34472

Legal Description:
LOT 18, BLOCK 101, SILVER SPRINGS SHORES UNIT NO. 7, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK J, PAGES 94-102, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:13:10 -04'00'

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA
APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the minimum design standards contained in the Marion County Land Development Code, latest revision. Areas of the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

COUNTY STAMP

PARCEL ID: # 9007-0101-18
PRIME KEY: # 1347441

SECTION 5, TOWNSHIP 16S, RANGE 23E

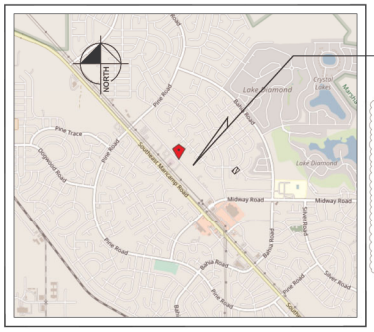
PROJECT AREA:	0.85 ACRES	37,002 SF
TOTAL IMPERVIOUS AREA	0.47 ACRES	20,584 SF (56%)
TOTAL PERVIOUS AREA	0.38 ACRES	20,584 SF (44%)

I HEREBY CERTIFY THAT I, MY SUCCESSORS, AND ASSIGNS SHALL PERPETUALLY MAINTAIN THE IMPROVEMENTS AS SHOWN ON THIS PLAN

Signature: ADAN ORDONEZ
Date: 07/06/23

NOTE
1. CONSTRUCTION MATERIALS (FACILITY AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH MARION COUNTY AND FDOT SPECIFICATIONS AND STANDARDS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. THIS PROJECT IS NOT IN AN ENVIRONMENTALLY SENSITIVE OVERLAY ZONE.
3. THIS PROPERTY IS LOCATED WITHIN FLOOD ZONE X
4. PROJECT IS WITHIN THE PRIMARY SPRING PROTECTION OVERLAY ZONE
5. THE PROPOSED PROJECT IS SUBJECT TO CONCURRENCY REVIEW AND/OR REMOVAL AND/OR GRANTED AND/OR RESERVED ANY PUBLIC FACILITY CAPACITIES. FUTURE RIGHTS TO DEVELOP THE PROPERTY ARE SUBJECT TO A DEFERRED CONCURRENCY DETERMINATION, AND FINAL APPROVAL TO DEVELOP THE PROPERTY HAS NOT BEEN OBTAINED. THE COMPLETION OF CONCURRENCY REVIEW AND/OR APPROVAL HAS BEEN DEFERRED TO LATER DEVELOPMENT REVIEW STAGES, SUCH AS, BUT NOT LIMITED TO, MASTER PLAN, PRELIMINARY PLAT, IMPROVEMENT PLAN, FINAL PLAT, SITE PLAN, OR BUILDING PERMIT REVIEW.
6. NO CHANGE TO THE WORK AS SHOWN ON THE APPROVED PLANS SHALL BE MADE WITHOUT NOTIFICATION TO AND APPROVAL BY THE COUNTY ENGINEER OR DESIGNEE.
7. OWNER, FREEDOM INVESTMENTS L.L.C., WILL BE RESPONSIBLE FOR MAINTENANCE AND MANAGEMENT OF THE COMMON AREAS AND IMPROVEMENTS.
8. PEAK HOUR TRIPS ADDED BY PROJECT: TRIPS PER HOUR

PROJECT LOCATION



LOCATION MAP
SCALE : 1:400

Description/ITE Code		Units	ITE Vehicle Trip Generation Rates (peak hours for peak hour of adjacent street traffic unless highlighted)								Units	Expected Units
			Weekday	AM	PM	Pass-By	AM In	AM Out	PM In	PM Out	Independent Variable	
Apartment	220	DU	6.65	0.51	0.62		20%	80%	65%	35%	DU	12.0

Total Generated Trips			Total Distribution of Generated Trips					
Daily	AM Hour	PM Hour	AM In	AM Out	Pass-By	PM In	PM Out	Pass-By
80	6	7	1	5	0	5	3	0

THE ITE TRIP GENERATION MANUAL, 11TH EDITION WAS USED TO ESTIMATE THE PROJECTED TRIPS BY THIS DEVELOPMENT.

UTILITY PROVIDERS

WATER/SEWER
MARION COUNTY UTILITIES
11800 SE US HIGHWAY 441
BELLEVIEW, FL 34420
(352) 307-6000

ENGINEER:
LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
CONTACT: GREGORY T. CHATELAIN, P.E.
PHONE: 407-775-5194
EMAIL: greg@linnengineering.com

SURVEYOR :
HARTLEY SURVEYING, INC
283 TIGERLILLY COURT
ALTAMONTE SPRINGS, FL 32714
407-383-6978
407-788-9415 (FAX)
LB #7197

OWNER/APPLICANT:
FREEDOM INVESTMENTS LLC
ADANINVESTMENTS@ADANORDONEZ.COM
ADDRESS: 1911 MORNING DRIVE.
ORLANDO, FL 32809
CONTACT INFORMATION: ALEJANDRO GUTIERREZ (407)233 3100

DRAWING INDEX

C01	COVER PAGE
C02	GENERAL NOTES
C03	EXISTING CONDITIONS AND DEMOLITION PLAN
C04	SITE PLAN
C04A	AERIAL MAP
C05	PAVING, GRADING AND DRAINAGE PLAN
C06	UTILITY PLAN
C06A	LIFT STATION DETAILS
C07-C09	UTILITY DETAILS
C10	FIRE TRUCK ROUTE
SWPPP-1,2	EROSION CONTROL & STORMWATER POLLUTION PREVENTION PLAN
SL-1	SITE LIGHTING AND PHOTOMETRICS
ID-01	LANDSCAPE INDEX SHEET
LS-01	LANDSCAPE PLAN
LS-02	LANDSCAPE DETAILS & SPECIFICATIONS
IR01-03	IRRIGATION PLAN AND DETAILS
S1	SURVEY

CALL48 HOURS BEFORE YOUDIG
IT'S THE LAW! DIAL811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

I HEREBY CERTIFY THAT THESE PLANS AND CALCULATIONS WERE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF THE MARION COUNTY LAND DEVELOPMENT CODE (LDC), EXCEPT AS WAIVED

No.	REVISIONS	DATE	BY
1	REVISED PER CITY COMMTS	07/2023	GTC
2	REVISED PER CITY COMMTS	09/2023	GTC
3	REVISED PER CITY COMMTS	05/2024	GTC
4	RESUBMIT CITY COMMTS	06/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
email: info@linnengineering.com
CA LIC. NO. 31170

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 91573
SEAL

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

COVER SHEET

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER C01

Drawing name: \\cnd-server\J\Projects\36300-Adan Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C01 Midway Terrace Multi Family - Cover C01.dwg Layout1 May 02, 2024 9:34am by: Workstation 8

GENERAL NOTES:

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE EXISTING UTILITY INFORMATION SHOWN IS BASED ON THE INFORMATION OBTAINED FROM THE UTILITY OWNERS. THE CONTRACTOR SHALL HAVE SUCH FIELD VERIFIED AT ALL POINTS OF CONNECTION AND AHEAD OF INTEREST.

2. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, CABLE TV, COMMUNICATIONS, SANITARY SEWERS AND STORM DRAINAGE SYSTEMS, ON AND / OR ADJACENT TO THE SITE. REMOVE OR CAP AS NECESSARY.

3. THE CONTRACTOR SHALL EXERCISE CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL "SUNSHINE" AT 1-800-432-4770 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO ARRANGE FOR FIELD LOCATIONS OF BURIED UTILITIES.

4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR OR SUB-CONTRACTORS, AS CALLED FOR IN THESE CONTRACT DOCUMENTS.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION/REQUIREMENTS.

6. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, ON ALL PRECAST AND MANUFACTURED ITEMS, TO THE OWNER'S ENGINEER FOR APPROVAL PRIOR TO ORDERING OR OBTAINING APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

7. ALL UTILITY SERVICE STUB-OUTS (WATER, SANITARY SEWER, ETC.) ARE TO BE INSTALLED WITHIN 5' OF BUILDINGS, UNLESS OTHERWISE NOTED ON PLANS.

8. CONTRACTOR TO COORDINATE WITH THE APPLICABLE ELECTRIC UTILITY SUPPLIER REGARDING ANY NECESSARY RELOCATIONS OF UNDERGROUND AND/OR OVERHEAD ELECTRIC FACILITIES, AND FOR THE LOCATION AND INSTALLATION OF TRANSFORMER PADS(S) AND ASSOCIATED ELECTRIC FACILITIES.

9. SAFETY:

A. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS MUST BE EXPERIENCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HELPERS PERSONNEL.

B. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.

C. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFETY PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION" SHALL BE ADHERED TO IN THE PLACING AND MAINTENANCE OF ALL SIGNS, SIGNALS, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.

D. ALL TRAFFIC CONTROL HARDWARE AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.

E. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT", THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN "ON-SITE PRINT" (IF REQUIRED) FOR CONSTRUCTION OR THE PROPERTY OWNER, THIS PRINT MUST BE ORIGINAL OR A COPY LEGIBLE, PLUMBER'S CERTIFICATE OF CLEARANCE (IF A GREASE INTERCEPTOR IS REQUIRED) AND ALL OTHER PERMITS NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THAT ARE ISSUED BY THE COUNTRY, THE CONTRACTOR WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THAT PERMIT.

11. THE GRAPHIC INFORMATION DEPICTED ON THESE PLANS WAS BEEN COMPILED TO PROPORTION BY SCALE AS ACCURATELY AS POSSIBLE. HOWEVER, DUE TO REPRODUCTIVE DISTORTION, REDUCTION, ETC. THE ACCURACY OF THE INFORMATION CONTAINED HEREIN IS NOT INTENDED TO BE SUFFICIENT FOR CONSTRUCTION PURPOSES.

12. ALL SPECIFICATIONS AND DOCUMENTS REFERENCED HEREIN SHALL BE OF THE LATEST REVISION.

13. ALL UNDERGROUND UTILITIES MUST BE IN-PLACE, TESTED AND INSPECTED PRIOR TO BASE AND SURFACE CONSTRUCTION.

14. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH ANY OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS/SUBCONTRACTORS AND UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE GENERAL CONTRACTOR TO COORDINATE AND SCHEDULE THEIR ACTIVITIES ACCORDINGLY.

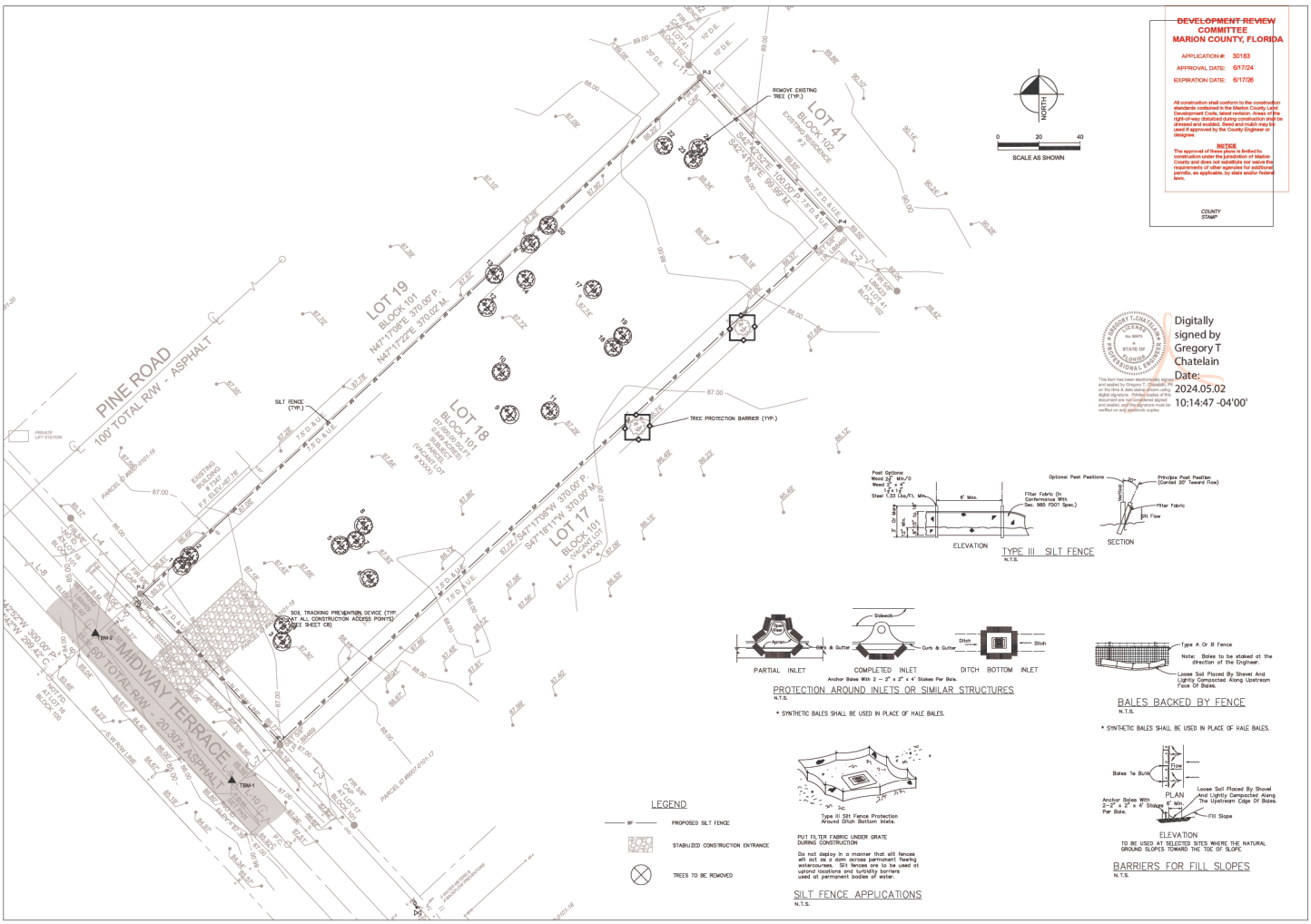
15. ALL DRIVEWAYS AREAS WITHIN THE RIGHT R/W SHALL BE SODDED WITH ARGENTINE BAHIA SOD.

16. WHERE APPLICABLE UTILITY TRENCHES CROSSING PAVEMENT AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIAL IN TWELVE INCH (12") LAYERS AND COMPACTED TO ASSURE SAFETY EQUAL TO SAFETY EQUAL TO PERCENT (98 %) MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 OR T-180.

17. ALL ENGINEERING ARE TO BE INSTALLED VERTICALLY AND OPTIONAL VALVE TO BE INSTALLED HORIZONTALLY AND ADJUSTABLE IN THE OPEN POSITION.

TESTING AND INSPECTION REQUIREMENTS (SANITARY):

1. ALL GRAVITY SEWER PIPING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER AND APPLICABLE MUNICIPALITY/AGENCY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO THE VISUAL INSPECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF THE INSPECTION. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE RESULTS



No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	03/2024	GTC
C	REVISED PER CITY COMMENTS	05/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140004
ORLANDO, FL 32814
PHONE: (407) 896-1818
clinn@linngroup.com
CA Lic. No. 27179

DOCUMENT PREPARED BY: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL

SCALE: NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

EXISTING CONDITIONS AND DEMOLITION PLAN

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
C03

Drawing name: \\cad-server\y\Projects\36300-Aden Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C03 Midway Terrace Multi Family - Demo C03.dwg Demo May 02, 2024 9:35am by: Workstation B

SITE DATA

PRIME KEY #	1347441
PARCEL ID#:	9067-0101-18
PROJECT AREA:	0.83 ACRES 37,002 SF
EXISTING ZONING:	R-3
PROPOSED USE:	APARTMENTS
BUILDING:	5,665 SF
MAX BUILDING HEIGHT:	40'-0"
PROVIDED BUILDING HEIGHT:	26'-0"
MAXIMUM BUILDING LOT COVERAGE:	NONE
PROPOSED BUILDING LOT COVERAGE:	10% (5,665 SQFT)
MAXIMUM IMPERVIOUS AREA:	NONE
PROPOSED IMPERVIOUS AREA:	56% (20,584 SQFT)
NUMBER OF STORIES:	3
BUILDING CONSTRUCTION TYPE:	II-B
DENSITY PER SEC 110-310(a) FOR RM-1: HIGH-URBAN DENSITY	MAX. 16 UNITS/AC. MIN. 8 UNITS/AC.
DENSITY ALLOWED FOR MIDWAY TERRACE, LOT 17:	MAX. 13 UNITS MIN. 6 UNITS

PROPOSED UNITS:

2 BEDROOM: 12 UNITS @ 833 SF EACH

TOTAL PROPOSED UNITS: 12 UNITS

PARKING REQUIRED:

12 – 2 BEDROOM UNITS: 2 SPACES/D.U.= 12 X 2 = 24 SPACES

TOTAL REQUIRED PARKING: 24 SPACES

PARKING PROVIDED

HANDICAP SPACES (12'x19')	2 SPACES
REGULAR SPACES (9'x19')	22 SPACES
TOTAL SPACES	24 SPACES

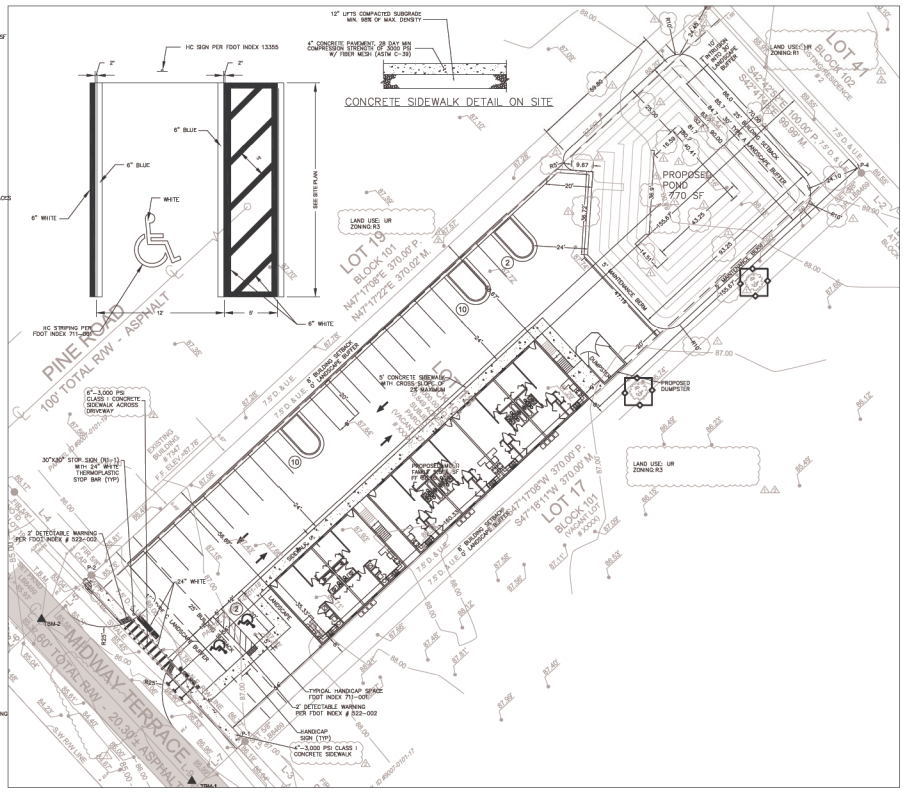
PROPOSED IMPERVIOUS AREA:

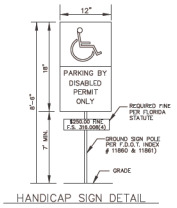
ASPHALT PARKING AREA	13,518 SQFT (37%)
CONCRETE (SIDEWALK, ETC.):	1,401 SQFT (4%)
BUILDING(FIR FLOOR):	5,665 SQFT (15%)
TOTAL IMPERVIOUS AREA	20,584 SQFT (56%)

BUILDING SETBACKS:	REQUIRED	PROPOSED
FRONT (SOUTH)	25 FEET	54.03 FEET
SIDE (WEST)	8 FEET	55.67 FEET
REAR (NORTH)	25 FEET	155.64 FEET
SIDE (EAST)	8 FEET	8 FEET

LANDSCAPE BUFFER:	REQUIRED	PROPOSED
FRONT (SOUTH)	15 FEET	15 FEET
SIDE (WEST)	0 FEET	8 FEET
REAR (NORTH)	30 FEET	20 FEET
SIDE (EAST)	0 FEET	8 FEET

LOT WIDTH:	100'
FLOOR AREA RATIO:	0.30

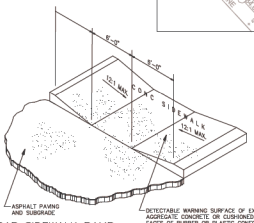




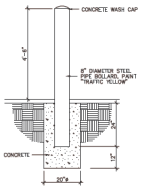
HANDICAP SIGN DETAIL

NOTE:

1. ALL LETTERS ARE 1" SERIES "C" PER MUTCD.
2. TOP PORTION OF SIGN SHALL HAVE (ENGINEERING GRADE) BLUE REFLECTORIZED WITH BLACK OPAQUE LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH WHITE OPAQUE LEGEND AND BORDER.
4. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
5. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
6. INSTALLATION HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

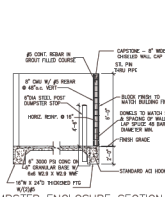


HANDICAP SIDEWALK RAMP



BOLLARD DETAIL

N.T.S.



DUMPSTER ENCLOSURE SECTION

N.T.S.

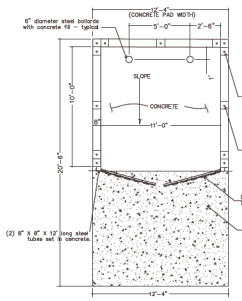
STRUCTURAL NOTES

Foundation & Concrete Notes:

1. Concrete 28 Day Strength shall be as follows:
   a. Footings/Grade Beams 3,000 psi
   b. Slabs on Grade 3,000 psi
2. All footings shall bear on firm undisturbed residual soil and/or engineered fill. Footings shall be poured on firm undisturbed soil and/or per ASTM D 698-70 (Standard Proctor), unless noted otherwise. The soil bearing capacity is to be verified by Geotechnical Engineer prior to construction.
3. All concrete and reinforcing steel shall conform to ACI 318 and ACI 301 specifications. Copies of ACI 318 are available to those copies of the ACI documents at the job site during construction.
4. Provide 2'-6" x 2'-6" corner bars at corners of all continuously reinforced elements such as walls, footings, band beams, etc. Corner bars shall be the same size, spacing, location, and quantity as the horizontal reinforcing.
5. All reinforcing steel lap splices shall be Class "B" with 24" minimum, unless otherwise noted.
6. Minimum reinforced concrete cover shall be provided for reinforcing bars (per ACI 318):
   a. Cast against and permanently exposed earth 3"
   b. Formed and Exposed to Earth or Weather
      1) #6 thru #18 bars 2"
      2) #5 bar, W31 or D31 & smaller 1 1/2"
   c. Formed and Not Exposed to Weather or in Contact with the Ground
      1) Slabs, walls, and joist (#11 bars and smaller) 3/4"
      2) Beams, girders, and columns
         (Principle reinf., ties, stirrups, spirals) 1 1/2"
7. Other submitted and approved method unless noted otherwise.

Masonry Notes:

1. CMU to be of lightweight aggregate design per ASTM C90-75. f'm = 1500 psi or greater.
2. Mortar shall be: Type S for block
   (type N) for veneer and brick ties.
3. Reinforcing bars for masonry walls shall be Dur-o-wall assembly or approved equal and shall have product approval of governing code. Reinforcing shall be manufactured from cold drawn steel wire conforming to ASTM A82. Cross rods and side rods shall not be less than No. 9 gage wire.
4. All exterior masonry units solid as shown on plans. Fine and coarse grade shall conform to ASTM C476 and shall attain a minimum compressive strength of 2000 psi at 28 days. Grout shall attain 80% of design strength prior to application of service loads.
5. specification for masonry structures (ACI530/ASCE5/TMS402).
6. Vertical reinforcing shall extend up into the bond beam.
7. Lap reinforcing in cmu 48 bar diameters.
8. Grout shall be consolidated immediately after pouring and reconsolidated.
9. Place horizontal reinforcing in the 1 1/2" below the top of the masonry.
10. Anchor into grout block cells only.
11. Locate bars at center of cells.
12. Provide rebar positioners at 4'-0" o.c. min. vertically.
13. Tooth block at intersection or butt intersection wall and provide 1/4" x 1" bar "Z" ties at 48" o.c. vertical.



SINGLE DUMPSTER ENCLOSURE PLAN

N.T.S.

NOTES:

1. THE MASONRY WALL SHALL BE DECORATIVELY FINISHED CONCRETE MASONRY UNIT, BRICK, STUCCO, OR OTHER MATERIAL MATCHING THE EXTERIOR OF THE PRINCIPAL BUILDING.
2. ENTRANCE OF DUMPSTER PAD WILL BE RAISED AND THE OUTSIDE PAVING WILL BE SLOPED AWAY FROM THE PAD TO PREVENT STORM WATER INTRUSION.
3. CHAIN LINK, PAINTED OR UNPAINTED BLOCK WALLS, BARBED WIRE AND WOOD ARE PROHIBITED AS PART OF A WALL.
4. EACH ENCLOSURE SHALL INCLUDE A DECORATIVE OPAQUE GATE EQUAL IN HEIGHT TO THE MASONRY WALL (CHAIN LINK WITH PRIVACY SLATS IS NOT CONSIDERED OPAQUE MATERIAL).

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:15:07 -04'00'

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any deviations shall be shown on the right-of-way distributed during construction and be dressed and wedded. Deed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

COUNTY STAMP

No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	09/2023	GTC
C	REVISED PER CITY COMMENTS	02/2024	GTC
D	REVISED PER CITY COMMENTS	04/2024	GTC

LINN ENGINEERING & DESIGN
FCA, BOX 140004
OCALA, FL 34480
PHONE: 407-775-5194
EMAIL: gregory@linndesign.com
CA LIC. NO. 27170

DESIGN ENGINEER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 91573
SEAL:

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

SITE PLAN

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER C04

Drawing name: \\ord-server\J\Projects\36300-Adon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C04 Midway Terrace Multi Family - Site C04.dwg Layout1 May 02, 2024 9:35am by Workstation 8

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183

APPROVAL DATE: 6/17/24

EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and Florida Department of Transportation manuals and any right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE

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COUNTY STAMP

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:15:20 -04'00'

No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
A	REVISED PER CITY COMMENTS	03/2024	GTC
A	REVISED PER CITY COMMENTS	05/2024	GTC

LINN ENGINEERING & DESIGN
P.O.A. BOX 140024
OCALA, FL 34484
PHONE: 407-775-5194
CERTIFICATE OF AUTHORIZATION
CA LIC. NO. 31716

SCALE AS NOTED
DESIGNED BY GTC
DRAWN BY GTC
CHECKED BY GTC

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL

AERIAL MAP

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN

MARION COUNTY FLORIDA

DATE: 2/2023

PROJECT NO. 36300-23-400

SHEET NUMBER C04A

Drawing name: \\pnd-server\V:\Projects\36300-Adon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C04a Midway Terrace Multi Family - Aerial Map C04a.dwg Layout: May 02, 2024 9:40am by: Workstation 8

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183

APPROVAL DATE: 6/17/24

EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and Municipal Codes. Any deviations from the approved right-of-way dedicated during construction shall be dressed and sodded. Dead and mulch may be used if approved by the County Engineer or designee.

NOTICE

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COUNTY STAMP

GREGORY T. CHATELAIN
No. 90573
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Gregory T Chatelain
Date: 2024.03.05 11:11:09 -05'00'

This item has been electronically signed and sealed by Gregory T. Chatelain, PE on the line & date stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

No.	REVISIONS	DATE	BY
2	REVISED PER CITY COMMENTS	07/2023	GTC
1	REVISED PER CITY COMMENTS	03/2024	GTC

LINN ENGINEERING & DESIGN
P.O.A. BOX 140024
OCALA, FL 34480-0024
PHONE: 407-775-5194
email: gregchatelain@gmail.com
CA LIC. NO. 31715

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL

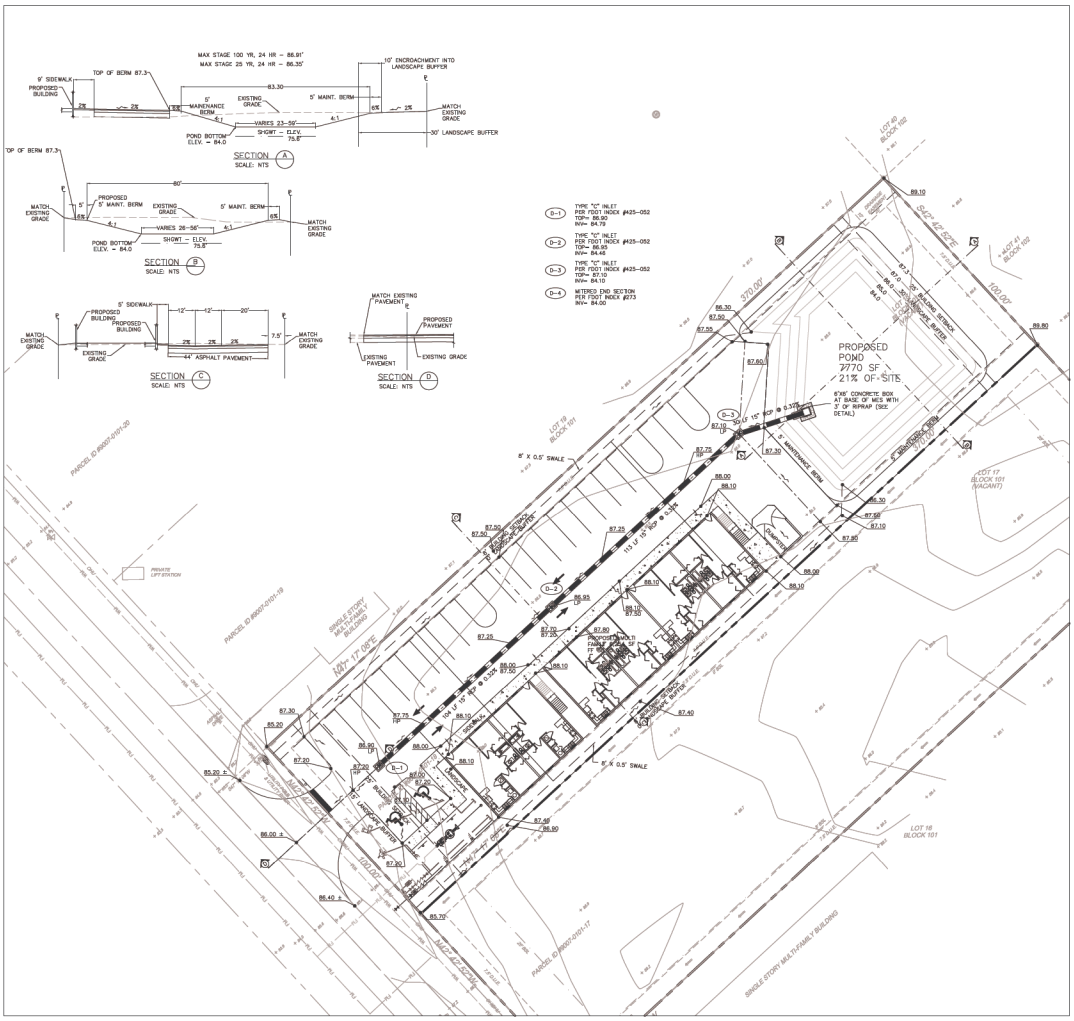
SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

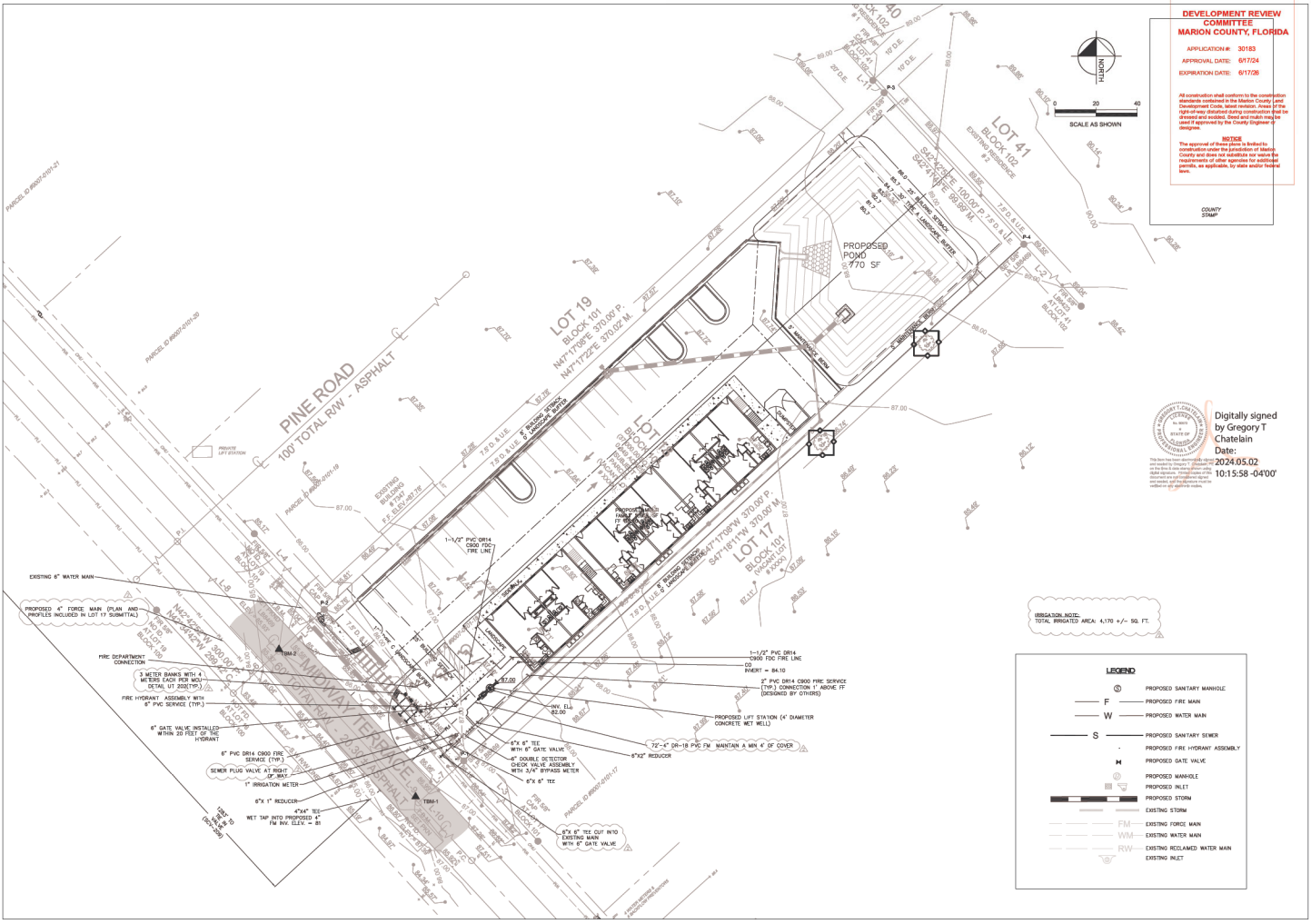
AERIAL MAP

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
C04A

Drawing name: Z:\Projects\36300-Aden Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C04a Midway Terrace Multi Family - Aerial Map C04a.dwg Layout: Mar 05, 2024 - 10:20am by: Workstation 8


MAX STAGE 100 YR, 24 HR – 86.91'
MAX STAGE 25 YR, 24 HR – 86.35'
10' ENCROACHMENT INTO LANDSCAPE BUFFER
5' SIDEWALK
PROPOSED BUILDING
TOP OF BERM 87.3'
83.30'
5' MAINTENANCE BERM
EXISTING GRADE
5' MAINT. BERM
MATCH EXISTING GRADE
POND BOTTOM ELEV. = 84.0
VARIES 23'-59'
SHOWT – ELEV. 75.8'
30' LANDSCAPE BUFFER
SECTION A
SCALE: NTS
80'
PROPOSED 5' MAINT. BERM
VARIES 26'-56'
SECTION B
SCALE: NTS
12'
20'
44' ASPHALT PAVEMENT
SECTION C
SCALE: NTS
MATCH EXISTING PAVEMENT
PROPOSED PAVEMENT
EXISTING PAVEMENT
EXISTING GRADE
SECTION D
SCALE: NTS
D-1 TYPE "C" INLET PER FDOT INDEX #425-052 TOP= 86.90 INV= 84.79
D-2 TYPE "C" INLET PER FDOT INDEX #425-052 TOP= 86.95 INV= 84.46
D-3 TYPE "C" INLET PER FDOT INDEX #425-052 TOP= 87.10 INV= 84.10
D-4 MITERED END SECTION PER FDOT INDEX #273 INV= 84.00
PROPOSED POND 7770 SF 21% OF SITE
370.00'
100.00'
S47°42'42"E
N47°17'00"E
6' X 0.5' SWALE
8' MAINTENANCE BERM
25' BUILDING SETBACK
PARCEL ID #9007-017-20
PARCEL ID #9007-017-19
PARCEL ID #9007-017-17
PRIVATE LIFT STATION
SINGLE STORY MULTI-FAMILY BUILDING
LOT 19 BLOCK 101
LOT 17 BLOCK 101 (VACANT)
LOT 16 BLOCK 101
LOT 40 BLOCK 102
LOT 41 BLOCK 102
LOT 42 BLOCK 102
LOT 43 BLOCK 102
LOT 44 BLOCK 102
LOT 45 BLOCK 102
LOT 46 BLOCK 102
LOT 47 BLOCK 102
LOT 48 BLOCK 102
LOT 49 BLOCK 102
LOT



DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and Ocala Land Development Code. Any damage to the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
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COUNTY STAMP

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:15:58 -04'00'

GREGORY T. CHATELAIN No. 90573 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by Gregory T. Chatelain, PE on the date adjacent to the seal using a digital signature. Printed copies of this document are not considered signed and sealed, and signatures must be verified on any electronic copies.

IRRIGATION NOTE:
TOTAL IRRIGATED AREA: 4,170 +/- SQ. FT.

LEGEND

S	PROPOSED SANITARY MANHOLE
F	PROPOSED FIRE MAIN
W	PROPOSED WATER MAIN
S	PROPOSED SANITARY SEWER
	PROPOSED FIRE HYDRANT ASSEMBLY
	PROPOSED GATE VALVE
	PROPOSED MANHOLE
	PROPOSED INLET
	PROPOSED STORM
	EXISTING STORM
FM	EXISTING FORCE MAIN
WM	EXISTING WATER MAIN
RW	EXISTING RECLAIMED WATER MAIN
	EXISTING INLET

No.	REVISIONS	DATE	BY
3	REVISED PER CITY COMMENTS	07/2023	GTC
2	REVISED PER CITY COMMENTS	01/2023	GTC
1	REVISED PER CITY COMMENTS	05/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140024
OCALA, FL 34480-0024
PHONE: 407-715-5194
email: gregory@linndesign.com
CA LIC. NO. 31770

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL:

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

UTILITY PLAN

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER C06

Drawing name: \\ocld-server\J:\Projects\36300-Adon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C06 Midway Terrace Multi Family - Utility C06.dwg Layout1 May 02, 2024 9:42am by: Workstation 8

RILEY & Company, Inc. (H-20 GP)

w/ BATTERY BACK-UP FOR AUDIO - VISUAL ALARMS ©

NOTE: COMPLETE SYSTEM TO BE SUPPLIED BY:

RILEY & COMPANY, INC.
SANFORD, FL 32773
(407)265-9963

NO SUBSTITUTIONS - NO ALTERNATES

LIFT STATION WILL BE PRIVATELY OWNED AND MAINTAINED.

The H-20 Load Rated Fiberglass Wetwell Must Be Manufactured By L.F. Manufacturing, Giddings, Texas, Which Includes a 20 Yr. Warranty. Certification of the wetwell H-20 load rating must be supplied with submittals. H-20 certification must be signed and sealed by an engineer registered in the State of Florida.

After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible inside wetwell.

PUMPS: (3 YR. WARRANTY)

Submersible grinder pumps shall be HOMA Model RC20056. The pumps shall be installed in the H-20 GP FRP wetwell utilizing a slide rail system.
The grinder unit shall be capable of macerating materials normally found in domestic and commercial sewage into a fine slurry which will pass through the pump and the discharge piping.

Stator winding shall be open type with Class H insulation and shall be heat-shrink fitted into the stator housing. The use of pins, bolts, or other fastening devices is not acceptable.
A heat sensor thermostat shall be attached to the top end of the motor winding and shall be connected in series with the magnetic contactor coil in the control panel to stop motor if winding temperature exceeds 140 C., but shall automatically reset when the winding temperature returns to normal. Two heat sensor thermostats shall be used on three phase motors.

The pump motor grinder shaft shall be AISI 430F SS threaded to take the pump impeller and the grinder impeller.
Upper & lower mechanical seals shall be Silicon Carbide vs Silicon Carbide.

DUPLEX CONTROL PANEL: (3 YR. WARRANTY)

To insure complete unit and warranty responsibility the electrical control panel must be manufactured and built by the pump supplier. The pump supplier must be a TUV (UL508A CERTIFIED) manufacturing facility, with a minuimum of 10 years history in the manufacturing of electrical control panels.

The Enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep fiberglass with 4 point latching system.

The enclosure shall have external mounting feet to allow for wall mounting.
The following components shall be mounted through the enclosure:
1- ea. Red Alarm Beacon (Light) 4" x 4" Minimum Diameter
1- ea. Alarm Horn (minimum 95 DCB)
1- ea. Generator Receptacle w/ weatherproof cover(SCM460 -UL 1686)
1- ea. Alarm Silence Pushbutton

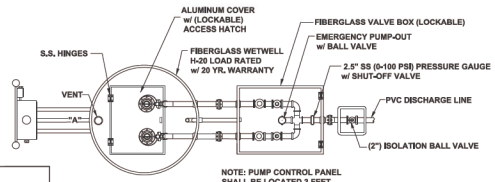
The back panel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to back panel:
2- ea. Motor Contactors
1- ea. Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts
1- ea. Control Transformer (480 Volt Only) (Min. 500VA)
1- ea. Lightning Arrestor
1- ea. Silence Relay Module
1- ea. Duplex Alternator w/ Pump Selector Switch
1- ea. Model RCBB5AH Battery Back-Up w/ Smart Charger For The High Level Alarm System
20- ea. Terminals For Field Connections
6- ea. Terminals For Motor Connections (Single Phase Only)
7- ea. Grounding Lugs
1- ea. Seal Failure Relay

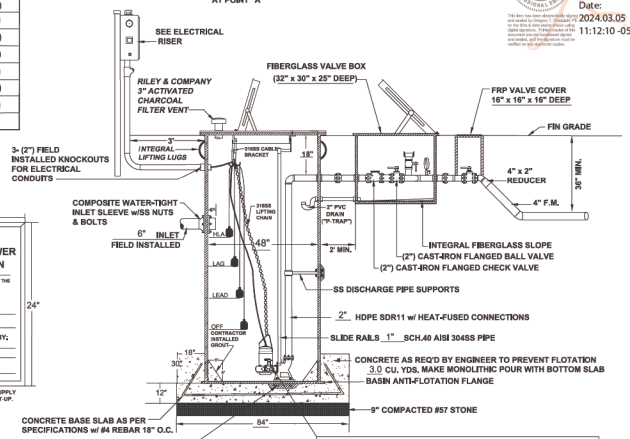
The inner door shall be fabricated from .080, 5052-H32 marine alloy aluminum. The inner door shall have a continuous aluminum piano hinge.

The following components shall be mounted through the inner door:
1- ea. Main Circuit Breaker
1- ea. Emergency Circuit Breaker
1- ea. Mechanical Interlock For Emergency And Main Breakers (UL Listed)
2- ea. Short Circuit Protectors w/ Auxiliary Contacts
1- ea. Control Circuit Breaker
2- ea. Seal Failure Indicator Lights
1- ea. Hand-Off-Auto Selector Switches
2- ea. Pump Run Pilot Lights
1- ea. Power On Pilot Light
2- ea. Elapse Time Meters (Non-Resetable)
1- ea. GFI Duplex Convenience Outlet

PUMP DATA	HIGH HEAD	RUNOUT	ELEVATIONS	
PRIMARY PUMP CAPACITY	80 GPM	82 GPM	TOP OF WETWELL	87.00
PRIMARY TDH	38 'TDH	33 'TDH	INLET INVERT	82.00
PUMP MANUFACTURER	HOMA	HOMA	HIGH LEVEL ALARM (HLA)	81.50
PUMP MODEL #	RC20056	RC20056	2nd PUMP ON (LAG)	81.00
R.P.M.	3450	3450	1st PUMP ON (LEAD)	80.50
HORSEPOWER	2.5	2.5	PUMPS OFF (OFF)	80.00
IMPELLER DIAMETER	5 7/16"	5 7/16"	BOTTOM OF WETWELL	78.00
ELECTRICAL/ VOLTS / PHASE	230V/3	230V/3	WETWELL DIAMETER	48"
FULL LOAD AMPS/ PER PUMP	8.40	8.40		
PUMP DISCHARGE SIZE	2"	2"		



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

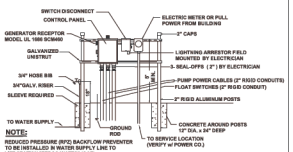


MODEL RC0194 FLUSH VALVE

WHEN THE PUMP STARTS, THE VALVE OPENS FOR APPROXIMATELY 10-30 SECONDS, SHOOTING OUT A POWERFUL JET STREAM THAT FLUSHES ALL SOLIDS INTO SUSPENSION, READY TO BE PUMPED AWAY. BECAUSE THE FLUSHING SEQUENCE IS AN INTEGRAL PART OF THE PUMPING CYCLE, FLUSHING OCCURS EVERY TIME THE PUMP STARTS. THIS REDUCES GREASE AND SOLIDS BUILD-UP AND REDUCES UNPLEASANT ODORS.

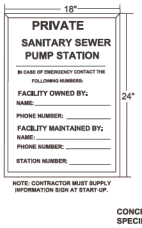
*** ELECTRICIAN NOTES:**

1. DRAWINGS NOT TO SCALE
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
3. ALL 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
6. NEUTRAL TO BE SUPPLIED FOR 230V-3 PHASE OR 230V-SINGLE PHASE POWER.



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

ELECTRICAL RISER FOR ILLUSTRATION PURPOSES ONLY



NOTE: CONTRACTOR MUST SUPPLY INFORMATION SIGN AT START-UP.

NOTES:

1. *Water service with hose bibb and reduced pressure backflow preventer to be installed near lift station. (See Electrical Riser Illustration)*
2. *System shall be operated and maintained to provide uninterrupted service as required by DEP Chapter 62-604.500.*
3. *Approved Operation & Maintenance Manual(O&M) shall be kept available for operation and maintenance personnel*
4. *A weather resistant emergency contact sign shall be installed at the lift station and made visible to the public (Lettering shall be min. 2" in height.*
5. *INSPECTION & TESTING: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance for the complete system.*

05-03-2023

NOTE: ELECTRICAL INFORMATION IS SHOWN FOR REFERENCE ONLY AND IS NOT INCLUDED AS PART OF THE ENGINEERING DESIGN OR CERTIFICATION BY THE PROFESSIONAL ENGINEER. ANY ELECTRICAL DESIGN NEEDED FOR THE LIFT STATION SHALL BE CONFIRMED AND CERTIFIED BY A PROFESSIONAL ELECTRICAL ENGINEER.

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and Ocala/Marion County Land Development Code. Any right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
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COUNTY STAMP

LICENSED PROFESSIONAL ENGINEER No. 69573 STATE OF FLORIDA

This item has been electronically signed and sealed by Gregory T. Chatelain, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Digitally signed by Gregory T Chatelain
Date: 2024.03.05 11:12:10 -05'00'

No.	REVISIONS	DATE	BY
1	REVISED PER CITY COMMENTS	07/2023	GTC
2	REVISED PER CITY COMMENTS	03/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-715-5194
dba: LINN ENGINEERING GROUP
CA LIC. NO. 29170

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 69573
SEAL

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

LIFT STATION DETAILS

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER C06A

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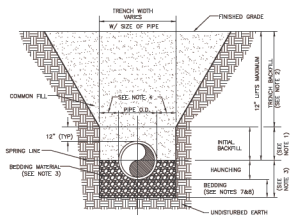
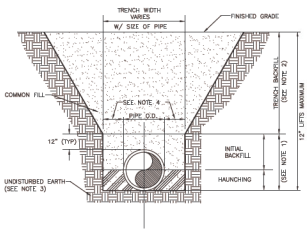
Drawing name: Z:\Projects\36300-Acon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C06c Midway Terrace Multi Family - lift station details.dwg C&A PLAN AND PROFILE Mar 05, 2024 10:22am by: Workstation 8



NOTES:
1. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. IF UNSTABLE OR UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE, UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
10. ONE COMPACTION TEST SHALL BE REQUIRED FOR EACH LIFT NOT TO EXCEED 200'.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | BEDDING AND TRENCHING 1 | 7.3.2 UT 102



NOTES:
1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH BEDDING AND TRENCHING 1 DETAIL MAY BE REQUIRED AS DIRECTED BY MCU.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN MARION COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.
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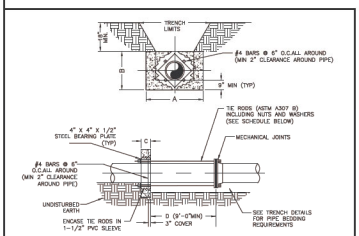
Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | BEDDING AND TRENCHING 2 | 7.3.2 UT 103



SCHEDULE OF DIMENSIONS AND MATERIALS						
PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.5	3.0	1.0		3/4	4
12	5.0	3.0	1.0		3/4	4
16	6.0	4.0	1.5		3/4	4
20	8.0	5.0	1.5		3/4	6
24	9.0	6.0	1.5		3/4	8
NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING.						

NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE MARION COUNTY SPECIFICATIONS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 150 PSI.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA | THRUST COLLAR WATER MAINS | 7.3.2 UT 201

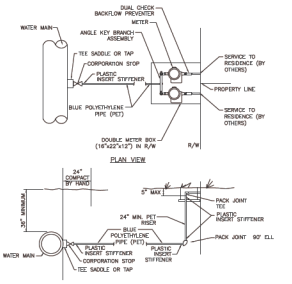
DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA
APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any deviations shall be noted on the right-of-way distributed during construction that are dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

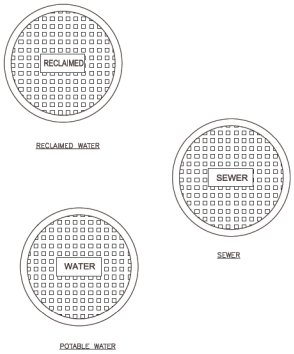
COUNTY STAMP

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:16:15 -04'00'

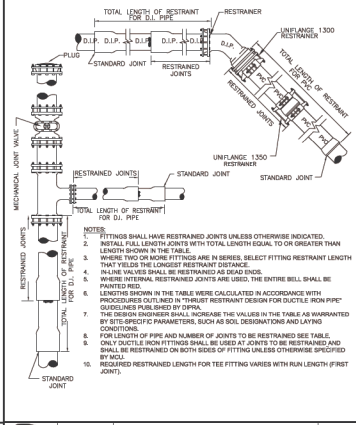


NOTES:
1. ALL RESIDENTIAL SERVICES SHALL HAVE A MINIMUM SIZE OF 1".
2. CURB STOP SHALL BE INSTALLED ON STREET SIDE OF THE SIDEWALK BETWEEN SIDEWALK AND CURB.
3. SCHEDULE 40 PVC CASING TO BE USED UNDER PAVEMENT, EXTENDING A MINIMUM OF 5' ON OTHER SIDE OF THE PAVEMENT WHERE POSSIBLE. THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE A MINIMUM OF ONE INCH LARGER THAN THE OUTSIDE DIAMETER OF THE SERVICE PIPE.
4. CORP STOPS SHALL BE HORIZONTAL TO WATER MAINS.
5. LOCATE WIRE SHALL BE INSTALLED FROM MAIN TO SERVICE LINE.
6. PVC FITTING SIZES MUST BE DETERMINED BY THE SERVICE TYPE.
7. NO ADDITIONAL TEES OR FITTINGS SHALL BE ADDED TO THE CONNECTION TO THE SATISFACTION OF THE ENGINEER.
8. POTABLE WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "W" IN THE CURB DIRECTLY OVER THE SERVICE LINE.
9. RECLAIMED WATER SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "RW" IN THE CURB DIRECTLY OVER THE SERVICE LINE.
10. SERVICE LINES SHALL NOT CONFLICT WITH OTHER UTILITIES. SERVICE LINES SHALL BE SLEEVED WITH SCH40 PVC IF UNDER OTHER UTILITIES.
11. ALL TMPS MUST BE LOCATED A MINIMUM OF 24" AWAY FROM ANY BELL AND/OR FITTING.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | WATER AND RECLAIMED WATER SERVICES (TYPICAL) | 7.3.2 UT 107



Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA | TYPICAL VALVE BOX COVER | 7.3.2 UT 110



NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. IN-LINE VALVES SHALL BE RESTRAINED AS DEAD ENDS.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA.
7. THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.
8. FOR LENGTH OF PIPE AND NUMBER OF JOINTS TO BE RESTRAINED SEE TABLE.
9. ONLY DUCTILE IRON FITTINGS SHALL BE USED AT JOINTS TO BE RESTRAINED AND SHALL BE RESTRAINED ON BOTH SIDES OF FITTING UNLESS OTHERWISE SPECIFIED BY MCU.
10. REQUIRED RESTRAINED LENGTH FOR TEE FITTING VARIES WITH RUN LENGTH (FIRST JOINT).

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 10/12/2015 | REVISION # NA | RESTRAINED PIPE TABLE | 7.3.2 UT 201A

MINIMUM RESTRAINED LENGTH (FT) — EACH SIDE OF FITTING AND VALVE FOR DIP, PE ENCASED DIP OR BARE PVC

H=HORIZONTAL
VU=VERTICAL-UP
VD=VERTICAL-DOWN

WATER MAIN: PRESSURE: 150 PSI. DEPTH OF COVER: 3.0 ft.

REQUIRED RESTRAINED LENGTH ON WATER MAIN											
Bend Type		Pipe Length (ft)									
		4"	6"	8"	10"	12"	14"	16"	20"	24"	
Angle	Orientation										
11-1/4	H	2	3	4	5	5	6	6	8	9	
	VU	2	3	4	5	5	6	6	8	9	
	VD	6	9	11	13	16	20	24	38		
22-1/2	H	4	6	7	9	10	12	13	17		
	VU	4	6	7	9	10	12	13	17		
	VD	13	17	20	27	31	40	46	58		
45°	H	8	11	13	17	20	25	30	35		
	VU	8	11	13	17	20	25	30	35		
	VD	25	35	46	55	65	82	99	115		
90°	H	19	27	35	41	48	61	72	83		
	VU	19	27	35	41	48	61	72	83		
	VD	61	85	111	132	155	198	238	277		
DEAD END, PLUG, VALVE		61	85	111	132	155	198	238	277		

REQUIRED RESTRAINED LENGTH ON TEE BRANCH									
TEE FITTING		Pipe Length (ft)							
		4"	6"	8"	10"	12"	14"	16"	20"	24"
		Diameter of Run							
Diameter of Branch	4"	39	28	19	8	0	0	0	0
	6"		63	50	40	40	23	4	0
	8"			89	80	77	63	48	34
	10"				110	105	95	84	71
	12"					133	124	113	103
	16"						175	168	161
	20"							215	209
	24"								254

REQUIRED RESTRAINED LENGTH ON LARGER PIPE									
REDUCER FITTING		Pipe Length (ft)							
		6"	8"	10"	12"	14"	16"	20"	24"
		Diameter of Large Pipe							
Diameter of Small	4"	44	80	108	135	163	228	288	
	6"		67	91	113	137	214	267	
	8"			45	83	145	196	243	
	10"				48	118	175	228	
	12"					84	149	205	
	16"						84	181	
	20"							83	

WATER MAIN: PRESSURE: 150 PSI. DEPTH OF COVER: 3.0 ft.

Minimum Design Criteria
Bedding Type: 4
Safety Factor: 1.5
Soil: Sand-Silt
Run Length (First Joint): 10 ft.

REQUIRED RESTRAINED LENGTH ON FORCE MAIN											
Bend Type		Pipe Length (ft)									
		4"	6"	8"	10"	12"	14"	16"	20"	24"	
Angle	Orientation										
11-1/4	H	2	2	3	4	4	5	6	7		
	VU	2	2	3	4	4	5	6	7		
	VD	5	7	9	11	12	16	19	32		
22-1/2	H	3	5	6	7	8	10	12	14		
	VU	3	5	6	7	8	10	12	14		
	VD	10	13	17	21	24	31	38	45		
45°	H	6	9	11	14	16	20	24	28		
	VU	6	9	11	14	16	20	24	28		
	VD	20	27	36	43	50	64	76	91		
90°	H	15	21	27	33	38	48	57	66		
	VU	15	21	27	33	38	48	57	66		
	VD	48	66	86	102	121	155	187	219		
DEAD END, PLUG, VALVE		48	66	86	102	121	155	187	219		

REQUIRED RESTRAINED LENGTH ON TEE BRANCH									
TEE FITTING		Pipe Length (ft)							
		4"	6"	8"	10"	12"	14"	16"	20"	24"
		Diameter of Run							
Diameter of Branch	4"	25	14	4	0	0	0	0	0
	6"		43	36	28	21	5	0	0
	8"			63	57	52	39	28	12
	10"				80	75	66	58	44
	12"					95	90	81	72
	16"						132	128	119
	20"						164	159	
	24"							198	

REQUIRED RESTRAINED LENGTH ON LARGER PIPE									
REDUCER FITTING		Pipe Length (ft)							
		6"	8"	10"	12"	14"	16"	20"	24"
		Diameter of Large Pipe							
Diameter of Small	4"	34	81	83	108	143	178	212	
	6"		56	63	85	131	168	204	
	8"			35	64	113	155	192	
	10"				36	92	138	176	
	12"					68	118	162	
	16"						68	131	
	20"							65	

FORCE MAIN:
PRESSURE: 100 PSI.
DEPTH OF COVER: 4.0 ft.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 10/12/2015 | REVISION # NA | RESTRAINED PIPE TABLE | 7.3.2 UT 201 B

No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	09/2023	GTC
C	REVISED PER CITY COMMENTS	05/2024	GTC
D	REVISED PER CITY COMMENTS	06/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140004
OCALA, FL 34484
PHONE: 407-715-5194
dir@linnengineering.com
CA LIC. NO. 31715

DESIGN ENGINEER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL

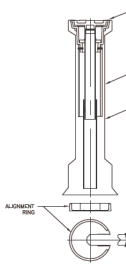
SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

UTILITY DETAILS

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

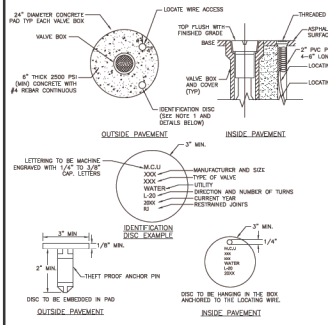
DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER C07

Drawing name: \\civil-server\J:\Projects\36300-Adon investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C07 Midway Terrace Multi Family - Details C07.dwg - layout1 May 02, 2024 9:42am by: Workstation 8



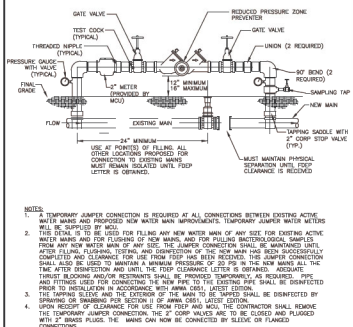
NOTES:
1. FOR ALL MAINS 6.0' DEEP OR GREATER, PVC PIPE EXTENSIONS SHALL BE USED ON VALVE BOX INSTALLATION.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 1 | SEALED VALVE BOX, ADJUSTABLE | 7.3.2 UT 111



NOTES:
1. BRONZE (OR STAINLESS STEEL) IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES, EXCEPT HYDRANT VALVES.
2. LOCATING WIRE SHALL TERMINATE AT EACH VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 1 | VALVE BOX PAD | 7.3.2 UT 112



NOTES:
1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS. TEMPORARY JUMPER WATER METERS WILL BE SUPPLIED BY MCU.
2. THE JUMPER WILL BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FOR EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS, AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING, AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM FDEP HAS BEEN RECEIVED. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED. ADEQUATE
3. THE TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF AWWA C651, LATEST EDITION.
4. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND MCU, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE 2" CORP VALVES ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS. THE MAINS CAN NOW BE CONNECTED BY SLEEVE OR FLANGED CONNECTIONS.
5. THE OPERATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION ASSEMBLY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. WATER FOR TESTING AND DISINFECTION OF THE NEW WATER MAIN AND WATER FOR MAINTENANCE OR OTHER USES SHALL BE AT THE CONTRACTOR'S EXPENSE.
7. ALL PIPING AND APPURTENANCES TO BE 2" FOR 8" AND BELOW WATER MAINS; 4" FOR 12" WATER MAINS; 6" FOR 16" WATER MAINS; 12" FOR 24" WATER MAINS.
8. ALL TAPS MUST BE LOCATED A MINIMUM OF 24" AWAY FROM ANY BELL AND/OR FITTING.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | TEMPORARY JUMPER CONNECTION | 7.3.2 UT 203

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:16:30 -04'00'

This item has been electronically signed and sealed by Gregory T. Chatelain, PE on the date adjacent using an authentic digital signature. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

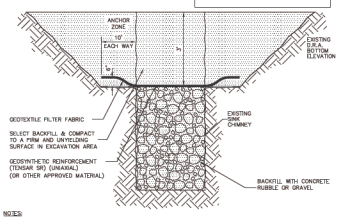
DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and applicable municipal codes. Any deviations from the right-of-way dedicated during construction shall be dressed and sodded. Deed and mulch may be used if approved by the County Engineer or designee.

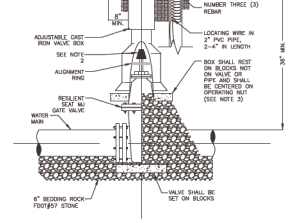
NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

COUNTY STAMP



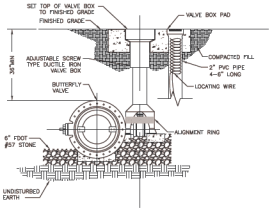
NOTES:
1. IF LIMESTONE IS ENCOUNTERED OR A SINKHOLE OR SOLUTION PIPE FORMS DURING CONSTRUCTION, CONSTRUCTION OF THE BASIN MUST BE HALTED AND THE PROJECT GEOTECHNICAL ENGINEER MUST BE NOTIFIED IMMEDIATELY.
2. THE SINKHOLE OR SOLUTION PIPE MUST BE REPAIRED WITHIN 10 DAYS OF THE DISCOVERY USING A DISTRICT APPROVED METHOD.
3. THE STORMWATER SYSTEM MUST BE INSPECTED MONTHLY FOR THE OCCURANCE OF SINKHOLES OR SOLUTION PIPES.

TYPICAL SINK CHIMNEY REPAIR DETAIL
N.T.S.



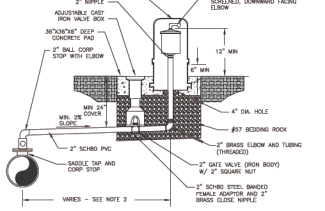
NOTES:
1. PVC EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION (SEE UT111).
2. THE ACTUATING NUT FOR VALVES DEEPER THAN SIX (6) FEET SHALL BE EXTENDED TO COME UP TO 3 FOOT DEPTH BELOW FINISHED GRADE.
3. VALVE BOX SHALL BE SET ON PVC (5) SOLID COMMON BLOCKS.
4. VALVE BOX LID TO BE LETTERED WITH THE WORD "WATER" OR "RECLAIMED".
5. INSTALL BRASS ID TAG IN CONCRETE.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | GATE VALVE WATER AND RECLAIMED MAINS | 7.3.2 UT 204



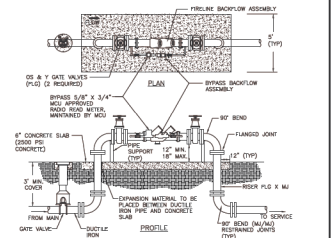
NOTES:
1. PVC PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION (SEE UT 111).
2. THE VALVE ACTUATING NUT SHALL BE EXTENDED TO BE WITHIN 3' OF FINISHED GRADE.
3. PROVIDE A PLASTIC DISBRIS SHIELD / ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE BRASS PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE NUT WEAR.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 12" ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIGRATE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.
6. INSTALL BRASS ID TAG IN CONCRETE.
7. VALVE BOX LID TO BE LETTERED WITH THE WORDS "WATER" OR "RECLAIMED".
8. BUTTERFLY VALVES SHALL ONLY BE USED UNDER MCU DISCRETION.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 1 | BUTTERFLY VALVE AND BOX WATER AND RECLAIMED MAINS | 7.3.2 UT 205



NOTES:
1. FOR WATER OR RECLAIM USE ONLY.
2. OFFSET DISTANCE TO BE FIELD DETERMINED AND AS CLOSE TO THE RIGHT-OF-WAY AS POSSIBLE.
3. ADJUST HORIZONTAL POSITION OF SIDEWALK AS REQUIRED TO AVOID ARV ENCLOSURE.
4. ARV AND CONCRETE PAD SHALL NOT BE INSTALLED DIRECTLY OVER THE WATER MAIN. LOCATE WIRE SHALL TERMINATE AT VALVE BOX AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION (SEE UT 112.)
5. NO MALE ADAPTERS ALLOWED AT VALVE; SHALL BE A BRASS NIPPLE WITH 2" SCH80 FEMALE STEEL BANDED ADAPTER.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | ABOVEGROUND OFFSET WATER OR RECLAIM AIR RELEASE VALVE | 7.3.2 UT 206



NOTES:
1. REQUIRED FOR SITES WITH SEPARATE DOMESTIC AND FIRE SYSTEM SUPPLY PIPING.
2. BACKFLOW ASSEMBLY SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
3. MCU SHALL OWN AND MAINTAIN THE METER.
4. UTILITY EASEMENT REQUIRED FOR BY-PASS METER READING. MINIMUM EASEMENT SIZE IS 10' BY 15'.
5. DETAIL NOT APPLICABLE WHEN AN RPZ IS REQUIRED IN ACCORDANCE WITH THE MARION COUNTY MANUAL OF CROSS-CONNECTION CONTROL AND BACKFLOW PREVENTION. SERVICES SMALLER THAN 3" SHALL REQUIRE AN RPZ AND SHALL BE METERED. METER AND TAP SIZE SHALL BE DETERMINED BY A FLORIDA LICENSED SPRINKLER CONTRACTOR, ARCHITECT, OR ENGINEER. METER SHALL BE INSTALLED BY MCU.
6. FREEZE PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE FIRE MARSHALL.

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2 | FIRE LINE DOUBLE DETECTOR CHECK VALVE ASSEMBLY | 7.3.2 UT 208

No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	09/2023	GTC
C	REVISED PER CITY COMMENTS	02/2024	GTC
D	REVISED PER CITY COMMENTS	05/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140004
ORLANDO, FL 32814
PHONE: 407-715-5194
dba: LINN ENGINEERING, LLC
CA LIC. NO. 31170

DESIGN ENGINEER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER 90573
SEAL

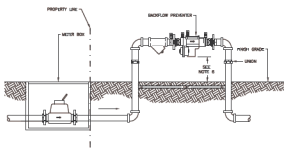
SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

UTILITY DETAILS

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

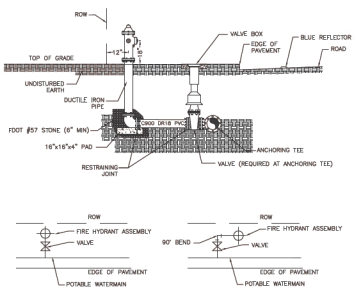
DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER C08

Drawing name: \\cnd-server\J:\Projects\36300-Adon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C08 Midway Terrace Multi Family - Details C08.dwg layout1 May 02, 2024 9:43am by: Workstation 8



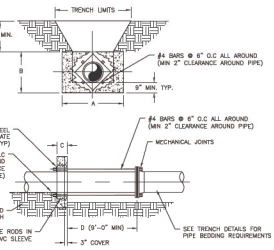
NOTES:
1. BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED AND MAINTAINED AS PER MARION COUNTY CROSS CONNECTION CONTROL ORDINANCE AND/OR PLUMBING CODE.
2. BACKFLOW PREVENTION ASSEMBLY TO BE INSTALLED LEVEL AND PLUMB.
3. MINIMUM CLEARANCE OF 24" TO BE MAINTAINED AROUND ASSEMBLY FOR TESTING.
4. ASSEMBLY MUST BE LISTED WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.
5. AFTER INSTALLATION, ASSEMBLY MUST BE TESTED FOLLOWING INSTALLATION AND INITIATION OF WATER SERVICE. THE BACKFLOW PREVENTION ASSEMBLY TESTER MUST POSSESS A CURRENT AMERICAN WATER WORKS ASSOCIATION (AWWA) AND/OR AMERICAN BACKFLOW PREVENTION ASSOCIATION (ABPA) BACKFLOW TESTER CERTIFICATE. A COPY OF THE BACKFLOW PREVENTION ASSEMBLY TEST REPORT MUST BE SUBMITTED TO THE BACKFLOW & CCC COORDINATOR AT MCU WITHIN 14 DAYS FROM THE DATE OF INSTALLATION.
6. MIN. 12" MAX 18" ABOVE FINISHED GRADE AND FLOODPLAIN.
7. METERS LARGER THAN 2" WILL REQUIRE DISCUSSION WITH MCU.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 REVISION # 1	2" AND SMALLER REDUCED PRESSURE AND/OR DOUBLE CHECK BACKFLOW ASSEMBLY	7.3.2 UT 209



NOTES:
1. BONNET COLORS SHALL BE IN ACCORDANCE WITH SEC. 6.18.2-G.
2. HYDRANT SHALL BE 1' INSIDE OF RIGHT-OF-WAY, WHEN POSSIBLE.
3. BLUE REFLECTOR SHALL BE PLACED IN THE MIDDLE OF THE ADJACENT TRAVEL LANE.
4. RADIUS OF CLEAR SPACE AROUND THE FIRE HYDRANT SHALL BE IN ACCORDANCE WITH NFPA STANDARDS (NFPA 1 SEC. 18.5.7, AS AMENDED).

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 REVISION # 2	FIRE HYDRANT ASSEMBLY	7.3.2 UT 210



SCHEDULE OF DIMENSIONS AND MATERIALS						
PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.0	2.5	1.0		3/4	4
12	4.0	3.0	1.0		3/4	4
16	5.5	3.5	1.5		3/4	4
20	7.5	4.0	1.5		3/4	4
24	8.5	5.0	1.5		3/4	6

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS/SF SOIL RESTRAINT BEARING.

NOTES:
1. ADDITIONAL REINFORCEMENTS SHALL BE AS SPECIFIED BY THE ENGINEER.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
3. BEDDING, BACKFILL, AND COMPACTION SHALL BE AS SPECIFIED ELSEWHERE IN THE STANDARD DRAWINGS.
4. ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILL.
5. NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL AND THE THRUST COLLAR.
6. DESIGN PRESSURE: 100 PSI.
7. REQUIRED FOR LINE STOPS, AS DETERMINED BY MCU.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 REVISION # 1	THRUST COLLAR WASTEWATER FORCE MAINS	7.3.2 UT 301

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and applicable municipal codes. Construction within the right-of-way obtained during construction shall be dressed and sodded. Dead end mulch may be used if approved by the County Engineer or designee.

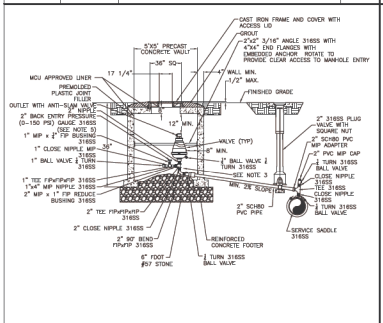
NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

COUNTY STAMP

GREGORY T. CHATELAIN
No. 90573
STATE OF FLORIDA
PROFESSIONAL ENGINEER

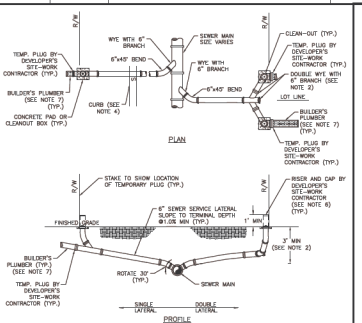
This item has been electronically signed and sealed by Gregory T. Chatelain on the firm & date stamp shown using digital signature. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:16:42 -04'00'



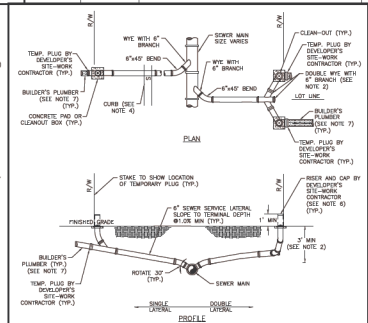
NOTES:
1. ABOVE DETAIL APPLIES TO A 2" ARV. FOR LARGER ARVS, PIPE DIAMETER SHALL BE EQUAL TO THE SIZE OF THE ARV. VALVE SIZES TO BE DETERMINED BY THE ENGINEER AND APPROVED BY MCU PRIOR TO INSTALLATION. ENGINEER TO PROVIDE SIZING CALCULATIONS.
2. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 4.0'.
3. ALL VAULT INTERNAL PIPING, VALVES, AND APPURTENANCES TO BE 316SS EXCEPT WHERE SPECIFIED OTHERWISE.
4. OFFSET DISTANCES TO BE FIELD DETERMINED AND AS CLOSE TO THE BODY OF WAY AS POSSIBLE AND IN ACCORDANCE WITH FDOT/CROSSING WALKS/PIPE AT RIGHT-OF-WAY LINE, NO OFFSET REQUIRED.
5. PRESSURE GAUGE SHALL HAVE A STAINLESS CASE WITH STAINLESS STEEL INTERNAL SYSTEM AND DIAPHRAGM.
6. ALL AIR RELEASE VALVE VAULTS SHALL BE TRAFFIC RATED (H20 LOADING).
7. AIR RELEASE VALVE VAULTS SHALL BE LINED ON THE INSIDE AND LINER SHALL EXTEND UP TO MID FRAME AND COVER.
8. ARV VAULT SIZE TO BE DETERMINED BY ARV SIZE.
9. ARV INLET AND OUTLET SHALL BE SAME SIZE.
11. FOR FORCEMAINS 16" AND LARGER, A 4" TAPPING SADDLE AND PLUG VALVE SHALL BE USED.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 REVISION # 2	AIR OR COMBINATION AIR RELEASE VALVE IN VAULT, SEWER	7.3.2 UT 308



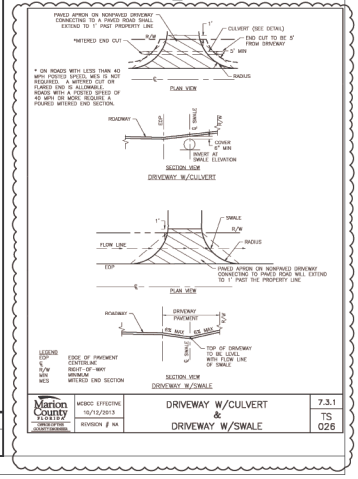
NOTES:
1. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
2. WYE TO BE NO SHALLOWER THAN 3' AND NO DEEPER THAN 5'.
3. ALL FITTINGS SHOWN ARE TO BE INSTALLED.
4. SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING AN "S" IN THE CURB DIRECTLY OVER THE LATERAL. WHERE NO CURB EXISTS, LOCATION SHALL BE MARKED BY PLACEMENT OF ADHESIVE REFLECTIVE MARKERS AS SPECIFIED BY MCU.
5. CLEANOUT CAP SHALL BE SET A MINIMUM OF 3" ABOVE THE FINISHED GRADE. CLEANOUTS IN RV PARKS SHALL BE SET 6" ABOVE FINISHED GRADE WITH A CONCRETE COLLAR.
6. DURING CONSTRUCTION, SERVICE LATERAL AND CLEANOUTS SHALL BE STUBBED OUT A MINIMUM OF 1' ABOVE FINISHED GRADE AND SHALL BE CAPPED BY DEVELOPER'S SITE-WORK CONTRACTOR UNTIL PROPERTY IS DEVELOPED AND CONNECTION TO CENTRAL SEWER IS MADE BY PLUMBER.
7. BUILDER'S PLUMBER SHALL CUT RISER, INSTALL CLEANOUT CAP, REMOVE TEMPORARY PLUG, CONNECT SERVICE LATERAL TO HOUSE PLUMBING AND GROUT VOID BETWEEN CLEANOUT AND PAD.
8. ALL DEVELOPMENT SHALL BE DESIGNED AND BUILT IN A MANNER WHERE THE LOWEST WASTEWATER SERVICE LATERAL DOES NOT DROP BELOW THE GRAVITY SEWER GRADE LINE.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 REVISION # 2	SEWER SERVICE LATERAL	7.3.2 UT 312



NOTES:
1. INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
2. WYE TO BE NO SHALLOWER THAN 3' AND NO DEEPER THAN 5'.
3. ALL FITTINGS SHOWN ARE TO BE INSTALLED.
4. SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING AN "S" IN THE CURB DIRECTLY OVER THE LATERAL. WHERE NO CURB EXISTS, LOCATION SHALL BE MARKED BY PLACEMENT OF ADHESIVE REFLECTIVE MARKERS AS SPECIFIED BY MCU.
5. CLEANOUT CAP SHALL BE SET A MINIMUM OF 3" ABOVE THE FINISHED GRADE. CLEANOUTS IN RV PARKS SHALL BE SET 6" ABOVE FINISHED GRADE WITH A CONCRETE COLLAR.
6. DURING CONSTRUCTION, SERVICE LATERAL AND CLEANOUTS SHALL BE STUBBED OUT A MINIMUM OF 1' ABOVE FINISHED GRADE AND SHALL BE CAPPED BY DEVELOPER'S SITE-WORK CONTRACTOR UNTIL PROPERTY IS DEVELOPED AND CONNECTION TO CENTRAL SEWER IS MADE BY PLUMBER.
7. BUILDER'S PLUMBER SHALL CUT RISER, INSTALL CLEANOUT CAP, REMOVE TEMPORARY PLUG, CONNECT SERVICE LATERAL TO HOUSE PLUMBING AND GROUT VOID BETWEEN CLEANOUT AND PAD.
8. ALL DEVELOPMENT SHALL BE DESIGNED AND BUILT IN A MANNER WHERE THE LOWEST WASTEWATER SERVICE LATERAL DOES NOT DROP BELOW THE GRAVITY SEWER GRADE LINE.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 REVISION # 2	SEWER SERVICE LATERAL	7.3.2 UT 312



Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 10/12/2013 REVISION # NA	DRIVEWAY W/CULVERT & DRIVEWAY W/SWALE	7.3.1 TS 026

No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	01/2024	GTC
C	REVISED PER CITY COMMENTS	05/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140004
ORLANDO, FL 32814
PHONE: 407-715-5194
dir@linnengineering.com
CA LIC. NO. 29170

DESIGN ENGINEER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL:

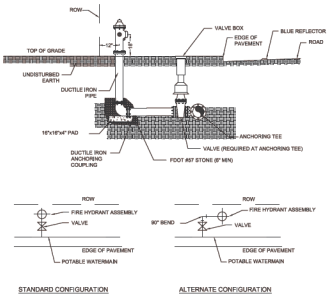
SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

UTILITY DETAILS

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
C09

Drawing name: \\cnd-server\V:\Projects\36300-Addn Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C09 Midway Terrace Multi Family - Details C09.dwg Layout1 May 02, 2024 9:43am by: Workstation 8

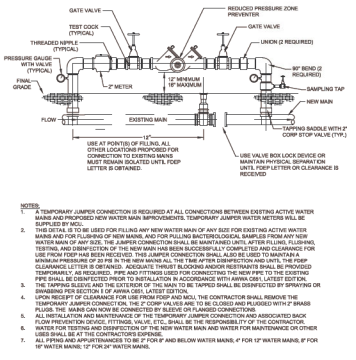


STANDARD CONFIGURATION

ALTERNATE CONFIGURATION

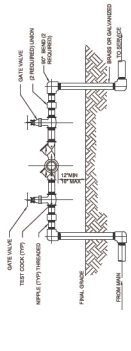
NOTES:
1. BONNET COLORS SHALL BE IN ACCORDANCE WITH SEC. 6.18.2-G.
2. HYDRANT SHALL BE 1' INSIDE OF RIGHT-OF-WAY, WHEN POSSIBLE.
3. BLUE REFLECTOR SHALL BE PLACED IN THE MIDDLE OF THE ADJACENT TRAVEL LANE.
4. RADIUS OF CLEAR SPACE AROUND THE FIRE HYDRANT SHALL BE IN ACCORDANCE WITH NFPA STANDARDS (NFPA 1 SEC. 18.5.7, AS AMENDED).

FIRE HYDRANT ASSEMBLY 210



NOTES:
1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS. TEMPORARY JUMPER WATER METERS WILL BE SUPPLIED BY MCU.
2. THIS DETAIL IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FOR EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS, AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING, AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM FDEP HAS BEEN RECEIVED. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED. ADEQUATE THRUST BLOCKING AND/OR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, LATEST EDITION.
3. ALL PIPE, FITTINGS, VALVES, AND FITTINGS USED TO CONNECT TO THE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION 3 OF AWWA C651, LATEST EDITION.
4. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND MCU, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE 2" CORP VALVES ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS. THE MAINS CAN NOW BE CONNECTED BY SLEEVE OR FLANGED CONNECTIONS.
5. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACK FLOW PREVENTION DEVICE, FITTINGS, VALVE, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. WATER FOR TESTING AND DISINFECTION OF THE NEW WATER MAIN AND WATER FOR MAINTENANCE OR OTHER USES SHALL BE AT THE CONTRACTOR'S EXPENSE.
7. ALL PIPES AND APPURTENANCES TO BE 2" FOR 8" AND BELOW WATER MAINS, 4" FOR 12" WATER MAINS, 8" FOR 16" WATER MAINS, 12" FOR 24" WATER MAINS.

TEMPORARY JUMPER CONNECTION 203



NOTES:
1. PIPE SHALL BE MAINTAINED AT 18" MINIMUM
2. PIPES LARGER THAN 4" SHALL BE DUCTILE IRON.

REDUCED PRESSURE BACKFLOW PREVENTER 209

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any deviations from the approved right-of-way disturbed during construction shall be dressed and sodded. Dressed and mulch may be used if approved by the County Engineer or designee.

NOTICE

The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

Digitally signed by Gregory T Chatelain
Date: 2023.05.17 14:49:47 -04'00'

This item has been electronically signed and sealed by Gregory T. Chatelain, PE on the date adjacent to the seal using an authentic digital signature. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

No.	REVISIONS	DATE	BY

LINN ENGINEERING & DESIGN
P.O. BOX 140024
OCALA, FL 34474
PHONE: 407-715-5194
dbe@linnengineering.com
CA LIC. NO. 31170

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC
DESIGN ENGINEER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 91573
SEAL

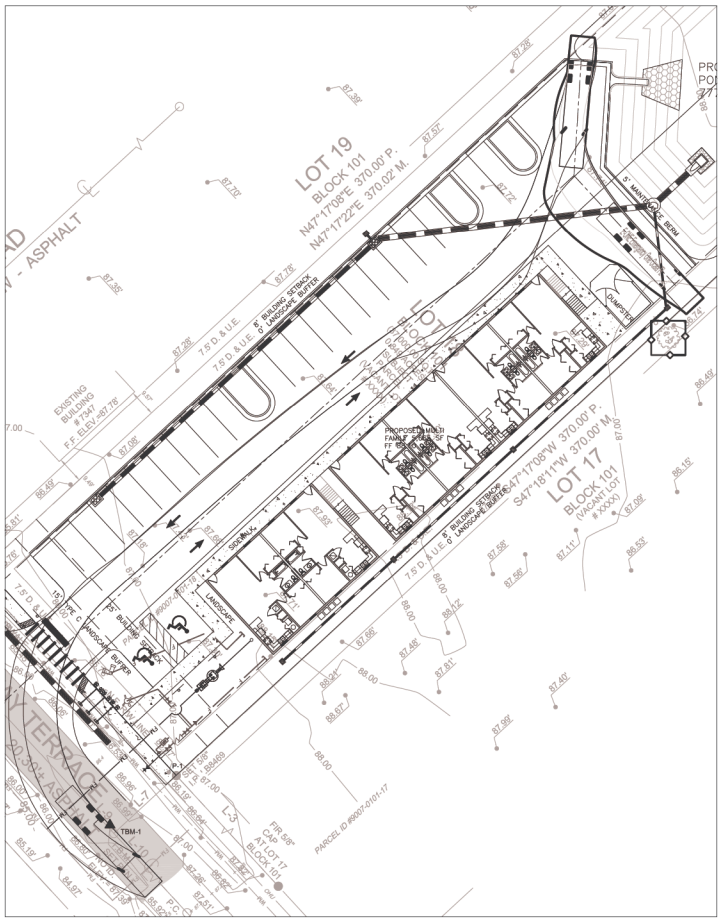
UTILITY DETAILS

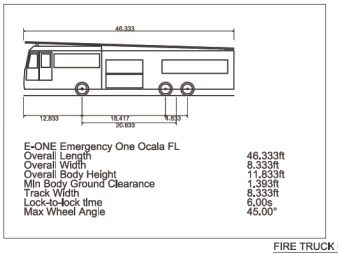
MIDWAY TERRACE LOT 18
OCALA, FL 34472
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
C10

Drawing name: Z:\Projects\36300-Aston Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C10 MidwayTerrace Multi Family - Details C10.dwg Layout1 May 03, 2023 10:46am by Workstation 8

FIRE TRUCK ROUTE BACKING OUT AND EXITING SITE





E-ONE Emergency One Ocala FL

Overall Length	46.333ft
Overall Width	8.333ft
Overall Body Height	11.833ft
Min Body Ground Clearance	1.393ft
Track Width	8.333ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:16:56 -04'00'

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

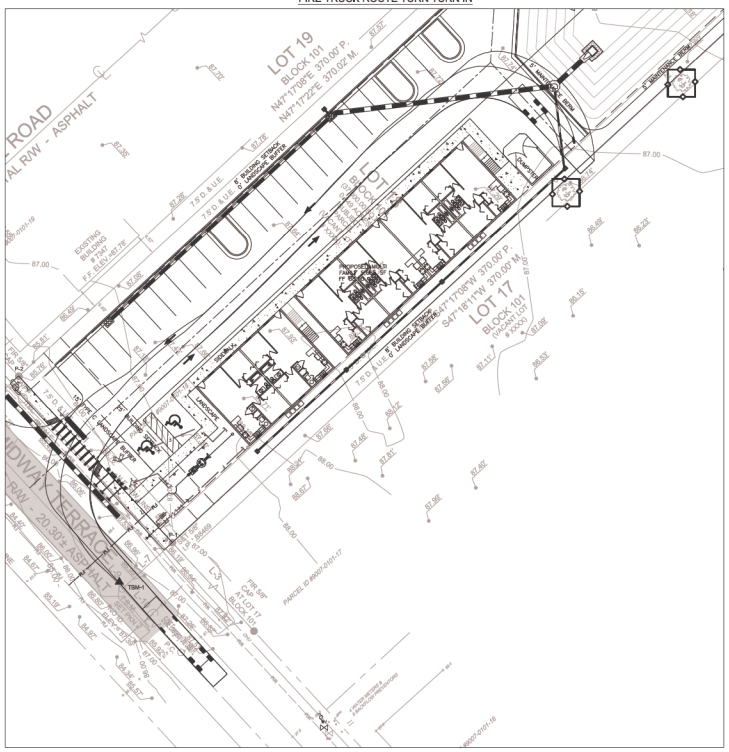
APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and Ocala Land Development Codes. Any damage to the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

COUNTY STAMP

FIRE TRUCK ROUTE TURN TURN IN



No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	01/2024	GTC
C	REVISED PER CITY COMMENTS	05/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 140024
OCALA, FL 34474
PHONE: 407-715-5194
dba: LINN ENGINEERING GROUP
CA LIC. NO. 31176

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL:

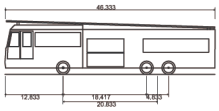
SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

FIRE TRUCK ROUTE

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
C10

Drawing name: \\ocld-server\J:\Projects\36300- Adon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C10 Midway Terrace Multi Family - Fire C10.dwg Fire Truck Route May 02, 2024 9:44am by: Workstation 8



E-ONE Emergency One Ocala FL

Overall Length	46.333ft
Overall Width	8.333ft
Overall Body Height	11.833ft
Min Body Ground Clearance	1.393ft
Track Width	8.333ft
Lock to lock time	6.00s
Max Wheel Angle	45.00°

NORTH

0 20 40

SCALE AS SHOWN

Digitally signed by Gregory T Chatelain
Date: 2023.05.17 14:50:02 -04'00'

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

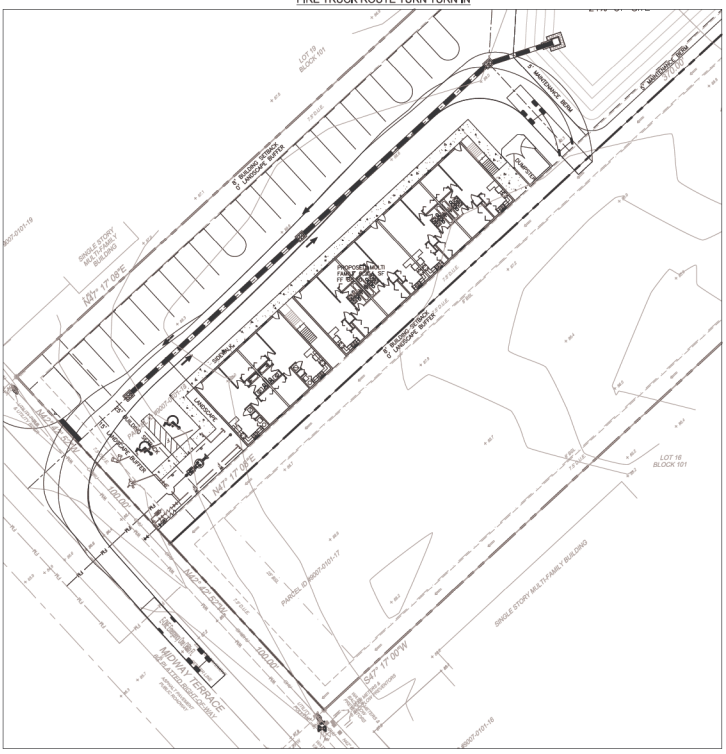
APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Approval of this plan does not imply that all required external utility construction shall be permitted, installed, and much may be required approved by the County Engineer or designee.

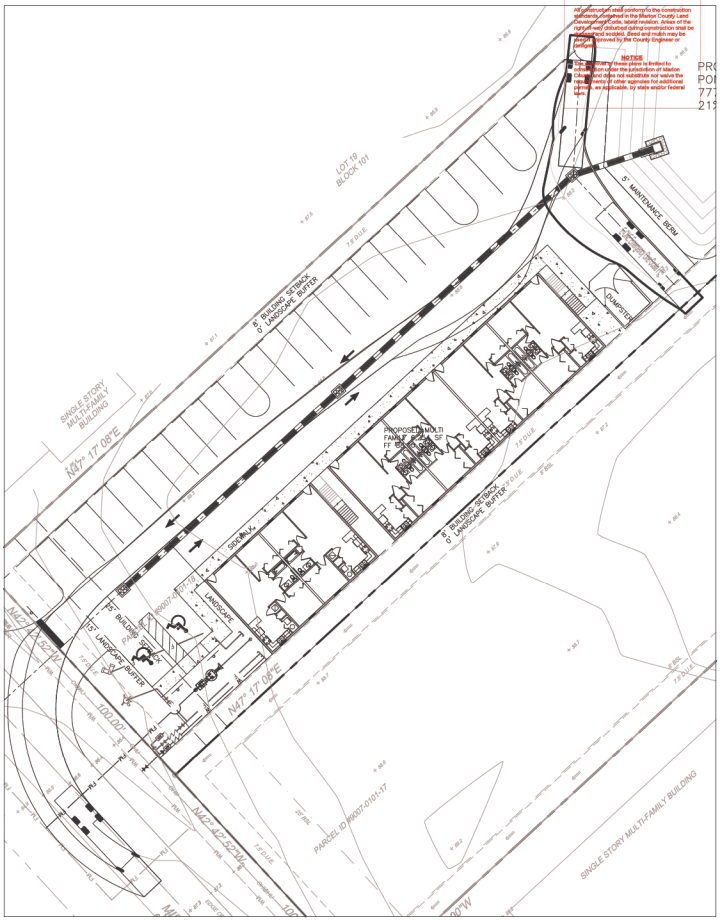
NOTICE

This approval by the County does not and shall not be construed to be a permit for, or an approval of, any violation or error in the application of Marion County land development regulations. It does not substitute nor waive the necessity of other agencies for additional permits, as applicable, by state and/or federal agencies.

FIRE TRUCK ROUTE TURN TURN IN



FIRE TRUCK ROUTE BACKING OUT AND EXITING SITE



No.	REVISIONS	DATE	BY

LINN ENGINEERING & DESIGN
P.O. BOX 140024
OCALA, FL 34480-0014
PHONE: 407-715-5154
dba: LINN ENGINEERING GROUP
CA LIC. NO. 31715

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

DESIGN ENGINEER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL:

FIRE TRUCK ROUTE

MIDWAY TERRACE LOT 18
OCALA, FL 34472

MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
C11

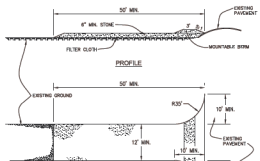
Drawing name: Z:\Projects\36300-Aston Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C11 Midway Terrace Multi Family - Fire C11.dwg Fire Truck Route May 03, 2023 11:48pm by: Worksession 8

Type II Silt Fence Protection
Around Ditch Bottom Inlets.

PUT FILTER FABRIC UNDER GRATE

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

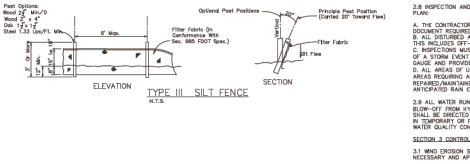
SILT FENCE APPLICATIONS



PLAN VIEW
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVED SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



TYPE III SILT FENCE
N.T.S.

BEST MANAGEMENT PRACTICES:

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), THE MUNICIPALITY LAND DEVELOPMENT REGULATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD). THE PLAN ADDRESSES THE FOLLOWING AREAS:

1. GENERAL EROSION CONTROL
2. PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
3. CONTROL OF WIND EROSION.

THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED BMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FDOT INDEX #100 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION

SECTION 1 GENERAL EROSION CONTROL:

1.1 GENERAL EROSION CONTROL BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND POTENTIAL POND SLOPE CAVE-INS. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY SHOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.

1.2 SLOPES OF BANKS OF RETENTION/DETENTION PONDS SHALL BE CONSTRUCTED NOT STEEPER THAN 3H:1V FROM TOP OF BANK TO POND BOTTOM.

1.3 SOD SHALL BE PLACED FOR A MIN. 2-FOOT WIDE STRIP ADJOINING ALL CURBING AND AROUND ALL INLETS SOD SHALL BE PLACED BEFORE SILT BARRIERS ARE REMOVED.

SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION:

2.1 SURFACE WATER QUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST MANAGEMENT PRACTICES IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.

2.2 WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.

2.3 EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING

A. IN GENERAL, EROSION SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.

B. STORMWATER INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN ON THIS SHEET. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL REMAIN IN PLACE UNTIL SODDING AROUND INLETS IS COMPLETE.

2.4 HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES WHENEVER PRACTICAL. IN AREAS WHERE THIS IS NOT PRACTICAL, CONTRACTORS SHALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OF OIL, GREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE, ABSORBENT FILTER PADS TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE.

2.5 SILT BARRIERS, ANY SILT WHICH ACCUMULATES BEHIND THE BARRIERS, AND ANY FILL USED TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.

2.6 WHERE REQUIRED TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE, A TEMPORARY SEDIMENT SUMP SHALL BE CONSTRUCTED. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

2.7 ALL PAINTING AND OTHER HAZARDOUS MATERIALS SHALL BE CONTAINED WITHIN A SINGLE ON-SITE AREA WITHIN SEALED CONTAINERS.

2.8 INSPECTION AND MAINTENANCE PROCEDURES FOR CONTROL MEASURES IDENTIFIED IN THE PLAN:

A. THE CONTRACTOR IS REQUIRED TO PROVIDE A QUALIFIED INSPECTOR TO PERFORM AND DOCUMENT REQUIRED INSPECTIONS.
B. ALL DISTURBED AREAS, STORAGE AREAS, AND CONSTRUCTION EXITS MUST BE INSPECTED. THIS INCLUDES OFF-SITE CONSTRUCTION AREAS.
C. INSPECTIONS MUST BE COMPLETED ONCE EVERY SEVEN DAYS AND/OR WITHIN 24 HOURS OF A STORM EVENT OF 0.5 INCHES OR GREATER (CONTRACTOR TO PROVIDE AN ON-SITE RAIN GAUGE AND PROVIDE DAILY RECORDING OF RAIN EVENTS).
D. ALL AREAS OF UNSATISFACTORY CONTROLS (INCLUDING EXISTING CONTROL MEASURES OR AREAS REQUIRING ADDITIONAL CONTROL MEASURES) SHALL BE REPAIRED/MAINTAINED/INSTALLED WITHIN 24 HOURS OF THE OBSERVANCE OR PRIOR TO AN ANTICIPATED RAIN EVENT IF FORECAST SOONER THAN 24 HOURS.

2.9 ALL WATER RUNOFF RESULTING FROM SOURCES OTHER THAN RAINFALL EVENTS (I.E. BLOW-OFF FROM DEWATERING-STATIC TESTING, PROCESS WATER FROM VEHICLE WASH-DOWN, ETC.) SHALL BE DIRECTED TOWARDS THE ON-SITE SURFACE WATER MANAGEMENT SYSTEM, WHETHER IN THE VICINITY OF FINAL CONDITION, SO THAT IT HAS NO ADVERSE IMPACTS TO DOWNSTREAM WATER QUALITY CONDITIONS.

SECTION 3 CONTROL OF WIND EROSION.

3.1 WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:

A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

B. AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.

C. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE STANDARDS.

CLEARING AND SITE PREPARATION NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE EROSION CONTROL DEVICES, AS SHOWN ON THE CONSTRUCTION PLANS, PRIOR TO ANY SITE CLEARING AND/OR DEMOLITION. REFER TO THE "EROSION CONTROL NOTES" SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS.

2. PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROTECTED AS SPECIFIED IN THE TREE PROTECTION SPECIFICATIONS. ALL TREES SHOWN IN THESE PLANS TO REMAIN, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE(S) SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.

3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL, IMMEDIATELY FOLLOWING CONSTRUCTION.

4. THE TOP 4" TO 6" OF GROUND REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE, PROVIDED THE MATERIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BE STOCKPILED ON-SITE, AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING ANY EXCESS MATERIAL FROM THE SITE.

5. ALL EXISTING DEBRIS (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.

6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT, COPIES OF WHICH ARE AVAILABLE THROUGH THE OWNER OR SOILS TESTING COMPANY DIRECTLY.

7. CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY CONSTRUCTION FENCE AROUND ENTIRE PERIMETER OF PROPERTY. TYPE OF FENCE TO BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR APPROVAL.

8. CONTRACTOR SHALL MAINTAIN STORMWATER MANAGEMENT SYSTEM TO INSURE NO DAMAGE TO ADJACENT PROPERTIES OCCURS DURING STORM EVENTS.

9. DISTURBED AREA(S) WITHIN THE ROW WILL COMPACTED TO 98% OF MAXIMUM DENSITY AND SODDED.

10. DO NOT DISTRUB EXISTING UNDERDRAIN OR STORM SYSTEMS.

11. NO STOCKPILING OF MATERIAL IN ROADWAY OR ON SIDEWALK; ALL DIRT AND DEBRIS WILL BE REMOVED FROM JOB SITE DAILY. ROADS AND SIDEWALK TO BE SWEPT DAILY AS PART OF DAILY CLEAN-UP.

12. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER. CONTRACTOR SHALL PROVIDE TO ENGINEER PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS REQUESTED BY ENGINEER.

13. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.

14. REMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF SITE IN A LEGAL MANNER.

15. DURING PREPARATION OF THE SUB GRADE AND UNTIL THE PAVING IS IN PLACE, THE CONTRACTOR SHALL PROMPTLY TAKE REASONABLE MEASURES TO OBTAIN AND MAINTAIN A DRY SITE CONDITION. SUCH MEASURES SHALL INCLUDE PUMPING OF FREE SURFACE WATER, MINOR HAND AND/OR MACHINE SHAPING OF FACILITATE WATER REMOVAL, AND OTHER OPERATIONS TO SPEED DRYING.

16. ALL DELETERIOUS SUBSURFACE MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS, ETC.) IS TO BE EXCAVATED AND REPLACED WITH SUITABLE/COMPACTED SOILS, AS DIRECTED BY THE OWNER, THE OWNERS ENGINEERS, OR OWNERS SOILS TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. ALL EXCAVATIONS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING DELETERIOUS MATERIAL FROM THE SITE.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.

18. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED AREAS WITHIN ONE WEEK FOLLOWING CONSTRUCTION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS. CONTRACTOR SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY OWNER. CONTRACTOR TO COORDINATE WITH OWNER REGARDING TYPE OF MATERIAL, LANDSCAPING AND IRRIGATION REQUIREMENTS.

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any improvements located in the right-of-way disturbed during construction shall be dressed and sodded. Deed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

COUNTY STAMP

ERROR! DOCUMENT NOT VERIFIED
No. 36970
STATE OF FLORIDA
PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by Gregory T. Chatelain, PE on the date adjacent to the seal using an digital signature. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:17:10 -04'00'

No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	09/2023	GTC
C	REVISED PER CITY COMMENTS	04/2024	GTC

LINN ENGINEERING & DESIGN
P.O. BOX 1480024
OCALA, FLORIDA 34474
PHONE: 407-715-5194
email: gregory@linndesign.com
CA LIC. NO. 29170

DESIGN ENGINEER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

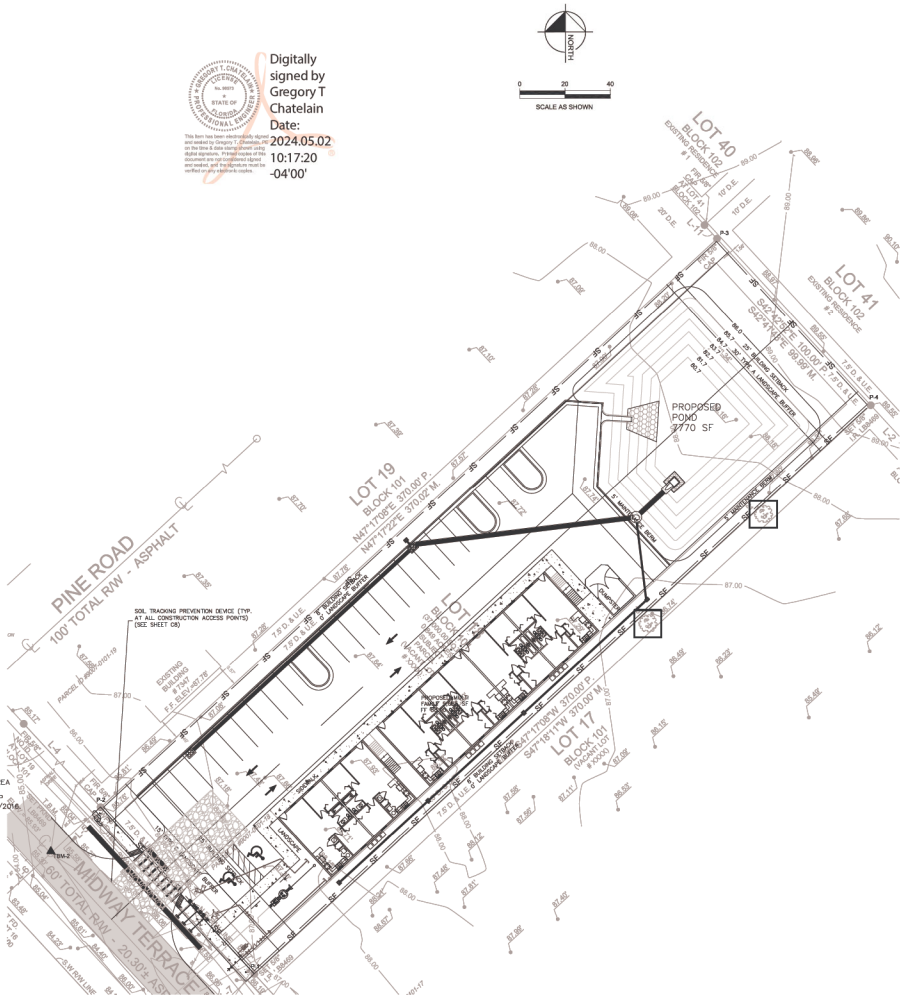
EROSION CONTROL & STORMWATER POLLUTION PREVENTION PLAN

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
SWPPP-1

Drawing name: \\ynd-server\J:\Projects\36300-Adon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C11 Midway Terrace Multi Family - SWPPP- C11.dwg May 02, 2024 8:45am by: Workstation 8

J:\Midway Terrace Multi Family - PSD C05.dwg



Digitally signed by Gregory T Chatelain
Date: 2024.05.02 10:17:20 -04'00'

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DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County and Standard Specifications for Road and Bridge. Any right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

COUNTY STAMP

LEGAL DESCRIPTION
LOT 17, BLOCK 101, SILVER SPRINGS SHORES UNIT NO.7, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK J, PAGES 94-102, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

FLOOD INFORMATION
THE SUBJECT PROPERTY APPEARS TO LIE IN ZONE X, AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, according TO FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 12105C0385H, DATED 12/22/2016.

No.	REVISIONS	DATE	BY
A	REVISED PER CITY COMMENTS	07/2023	GTC
B	REVISED PER CITY COMMENTS	01/2024	GTC
C	REVISED PER CITY COMMENTS	05/2024	GTC
D	RESUBMIT PER CITY COMMENTS		

LINN ENGINEERING & DESIGN
P.O. BOX 140024
OCALA, FL 34480
PHONE: 407-715-5184
email: gregory@linnengdesign.com
CA LIC. NO. 31715

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL:

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

EROSION CONTROL & STORMWATER POLLUTION PREVENTION PLAN

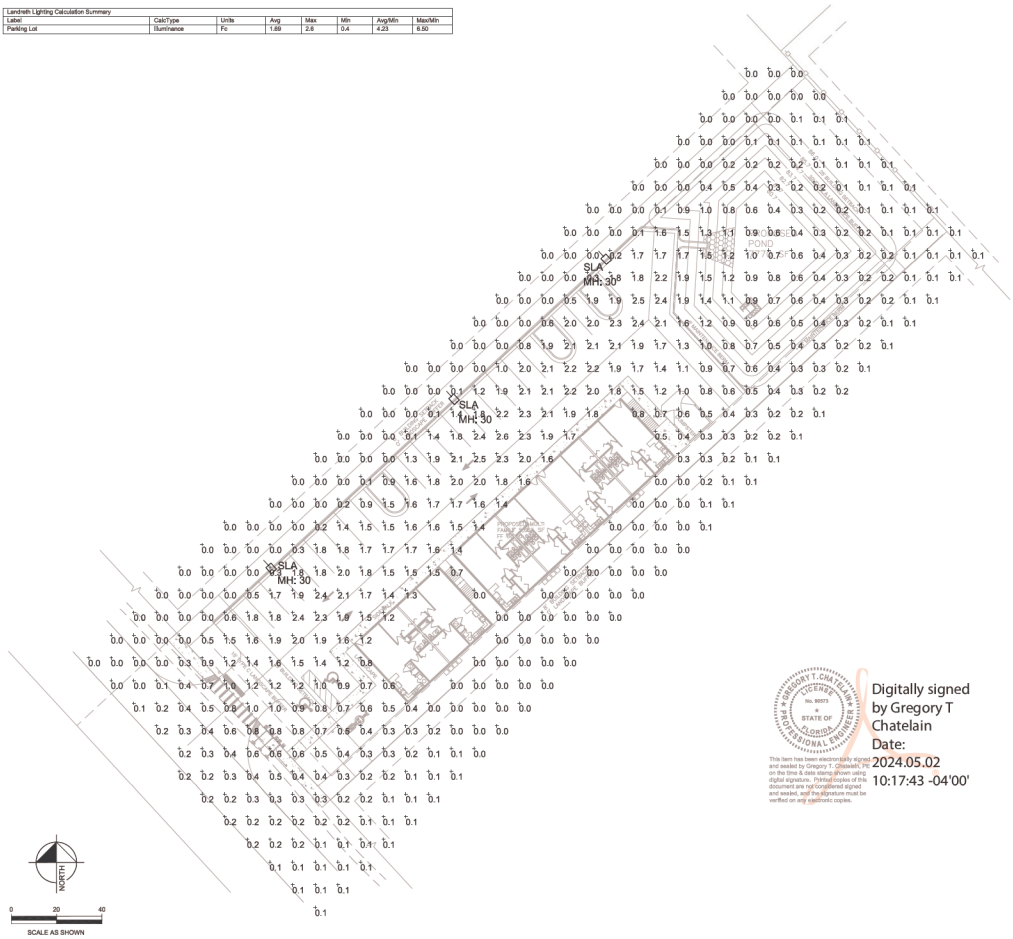
MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

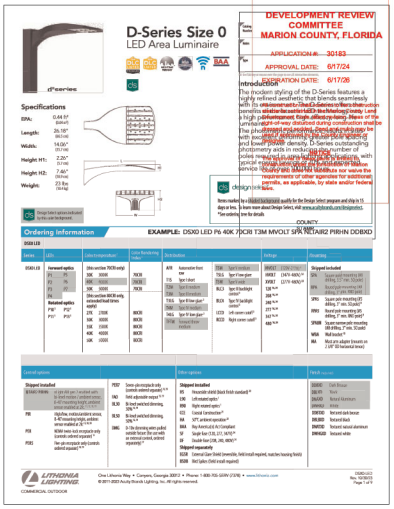
DATE: 2/2023
PROJECT NO. 36300-23-400
SHEET NUMBER
SWPPP-2

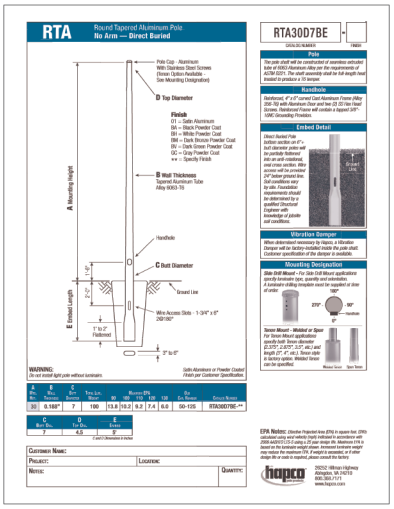
Drawing name: \\cnd-server\J:\Projects\36300- Adpo investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C11 Midway Terrace Multi Family - SWPPP- C11.dwg May 02, 2024 9:45am by: Workstation 8

Landreth Lighting Luminaire Schedule									
Symbol	[MANUFAC]	Qty	Label	Arrangement	Description	LLF	Lum. Watts	Lum. Lumens	BUG Rating
—	Lithonia Lighting	3	SLA	Single	DSX0 LED P7 30K 70CRI BLC4 MVOLT RPA NLTAIR2 PIRH FINISH TBD; MOUNTED @ 30' AFG ON A ROUND TAPERED DIRECT BURY ALUMINUM POLE	1.000	170.81	14644	B0-U0-G4

Landreth Lighting Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking Lot	Illuminance	Fc	1.89	2.6	0.4	4.23	6.50







GREGORY T. CHATELAIN
LICENSE
No. 90573
STATE OF FLORIDA
PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by Gregory T. Chatelain, PE on the time & date stamp shown using digital signature. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

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Date: 2024.05.02 10:17:43 -04'00'

No.	REVISIONS	DATE	BY

LINN ENGINEERING & DESIGN
P.O. BOX 1440024
OCALA, FLORIDA 34474
PHONE: 407-715-5194
dba: LINN ENGINEERING, INC.
CA LIC. NO. 29170

DESIGN OWNER: GREGORY T. CHATELAIN, P.E.
FLORIDA REGISTRATION NUMBER: 90573
SEAL:

SCALE: AS NOTED
DESIGNED BY: GTC
DRAWN BY: GTC
CHECKED BY: GTC

SITE LIGHTING & PHOTOMETRICS

MIDWAY TERRACE LOT 18 MULTIFAMILY
OCALA, FL 34472
MAJOR SITE PLAN
MARION COUNTY FLORIDA

DATE: 03/2024
PROJECT NO. 36300-23-400
SHEET NUMBER
SL-1

Drawing name: \\cnd-server\J:\Projects\36300-Adon Investments\23-400 Midway Terrace Lot 18\Cadd-Civil\C12 SL-1 Midway Terrace Multi Family - PHOTOMETRIC.dwg SL May 02, 2024 9:50am by: Workstation 8

BOUNDARY & TOPOGRAPHIC SURVEY

JOB NUMBER: LS231151

LYNX SURVEYORS CORP
LAND SURVEYORS
AND MAPPER LB 8469

302 LAUREL ROAD EAST UNIT 291
LAUREL, FLORIDA 34272

833-721-2907
contact@lynxsurveyors.com
www.lynxsurveyors.com

0 25' 50'
1" = 50'
GRAPHIC SCALE

PROPERTY AND OWNER INFORMATION

PROPERTY ADDRESS	PARCEL ID :
XXXX MIDWAY TERRACE OCALA, FL 34472	9007-0101-18 COUNTY / STATE : MARION COUNTY

FLOOD ZONE INFORMATION:

COMMUNITY NO : 120160	
PANEL : 0735	FIELD DATE : 09/11/2023
SUFFIX : D	DRAWN DATE : 02/07/2024
EFFECTIVE DATE : 08/28/2008	DRAWN BY : A.V.
FLOOD ZONE : X	CHECKED BY : J.L.
B.F.E. : N/A	

LEGAL DESCRIPTION :

LOT 18, BLOCK "101", SILVER SPRING SHORES UNIT NO. 7, according to the map or plat thereof as recorded in Plat Book J, Pages 94 through 102, inclusive, of the Public Records of MARION COUNTY, Florida.

CERTIFIED TO :

ALEJANDRO GUTIERREZ

ALEJANDRO GUTIERREZ, IT'S SUCCESSOR'S AND/OR ASSIGNS AND THE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT AS THEIR INTERESTS MAY APPEAR.

SURVEYOR'S NOTES

1. LEGAL DESCRIPTION PROVIDED BY OTHERS, NO EXAMINATION OF TITLE MADE BY SURVEYOR, THE LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR EASEMENTS OR OTHER RECORDED ENCUMBRANCES NOT SHOWN ON THE PLAT.
2. THIS CERTIFICATION IS ONLY FOR THE LANDS DESCRIBED, IT IS NOT A CERTIFICATION OF TITLE, ZONING, EASEMENTS OR FREEDOM FROM ENCUMBRANCES OWNERSHIP, OR RIGHTS-OF-WAY.
3. UNDERGROUND PORTIONS OF FOOTINGS, FOUNDATIONS OR OTHER IMPROVEMENTS WERE NOT LOCATED. WALL TIES ARE TO THE FACE OF THE WALL AND ARE NOT TO BE USED TO RECONSTRUCT BOUNDARY LINES.
4. NOT VALID WITHOUT THE SIGNATURE & ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ONLY VISIBLE ENCROACHMENTS LOCATED.
5. THIS SURVEY IS INTENDED FOR CONSTRUCTION PURPOSES ONLY, EXCLUSIVELY FOR THIS USE BY THOSE TO WHOM IT IS CERTIFIED, THIS SURVEY IS TO BE USED FOR CONSTRUCTION, PERMITTING OR DESIGN, ANY OTHER USE IS NOT VALID WITHOUT WRITTEN CONSENT.
6. NO EFFORT WAS MADE TO PROVE PLAT BOUNDARIES.
7. ONLY IMPROVEMENTS SHOWN WHERE LOCATED. WE DO NOT DETERMINE WHO OWNS THE FENCES, TREES OR ANY OTHER IMPROVEMENTS.
8. DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
9. PARCEL SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS, AND RIGHT-OF-WAYS OF RECORD.
10. EASEMENTS SHOWN ON THIS DRAWING ARE FROM THE RECORDED PLAT. ANY OTHER EASEMENT (S) PERTAINING TO THE HEREON DESCRIBED LAND (S) MUST BE FURNISHED TO THE SURVEYOR BY THE CLIENT OR THE CLIENTS AGENT PER FLORIDA STATUTE "CHAPTER 5J-17" OF THE FLORIDA ADMINISTRATIVE CODE.
11. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
12. PARCEL WAS SURVEYED FROM INFORMATION SUPPLIED BY THE CLIENT.
13. THE ACCURACY OF CONTROL SURVEY DATA SHALL BE VERIFIED BY REDUNDANT MEASUREMENTS OR TRAVERSE CLOSURES. ALL CONTROL MEASUREMENTS SHALL ACHIEVE THE FOLLOWING CLOSURES: COMMERCIAL/HIGH RISK LINEAR: 1' FOOT IN 10,000' FEET; SUBURBAN: LINEAR: 1 FOOT IN 7,500' FEET; RURAL: LINEAR: 1 FOOT IN 5,000' FEET.
14. BEARINGS AND DISTANCES SHOWN HEREON AS "M."(See Legend) ARE MEASURED BY GPS OBSERVATIONS (STATE PLANE COORDINATE SYSTEM NAD-83 FL-WEST).THE BASIS OF BEARING IS BASED UPON N 42°42'52" W ALONG THE CENTERLINE OF MIDWAY TERRACE AS PLATTED.
15. ELEVATIONS SHOWN HEREON ARE BASED UPON NAVD1988 DATUM. BENCHMARK USED (ASSUMED BY GPS OBSERVATION) WITH ELEVATION OF 87.39'.

I HEREBY CERTIFY THAT THE SURVEY OF THE HEREON DESCRIBED PROPERTY WAS PREPARED UNDER MY DIRECT SUPERVISION AND MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.051 & .052 F.A.C., FLORIDA ADMINISTRATIVE CODE, PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES.

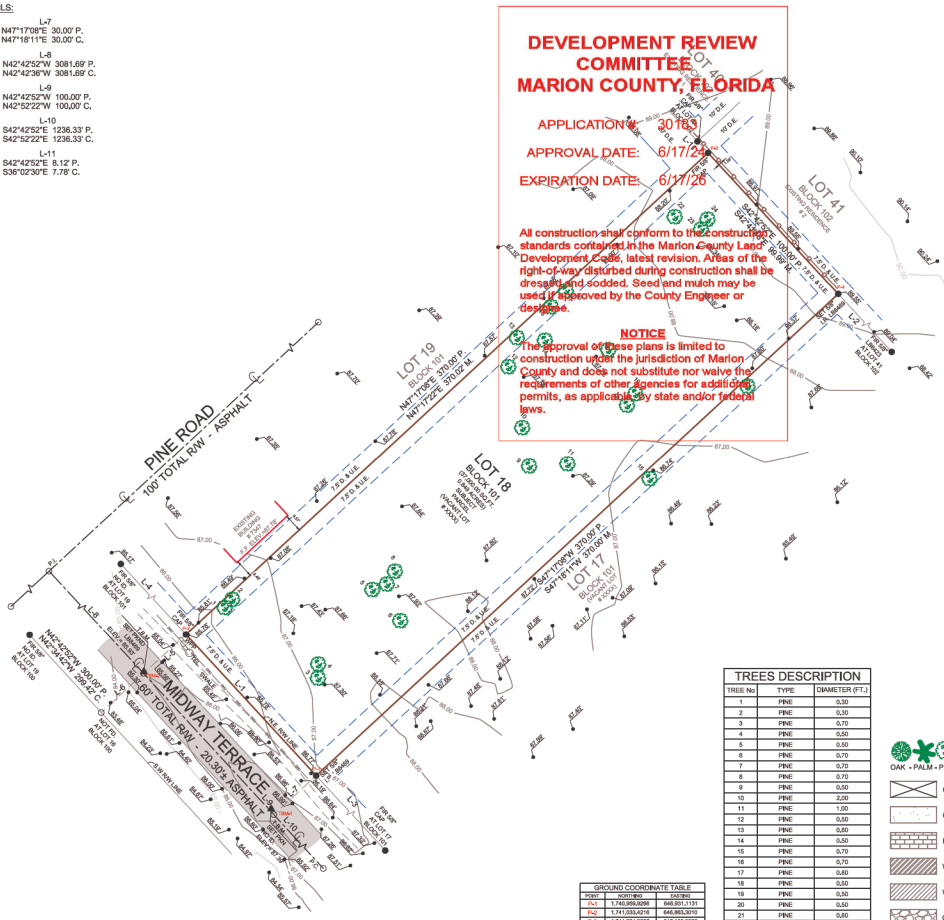
Digitally signed by Gustavo Interian
Date: 2024.02.08 12:40:59 -05'00'

GUSTAVO INTERIAN
PROFESSIONAL SURVEYOR AND MAPPER PSM 6461

A/C	AIR CONDITIONER
A.E.	ACCESS EASEMENT
B.R.	BEARING REFERENCE
B.F.E.	BASE FLOOD ELEVATION
B.M.	BENCHMARK
C.	CALCULATED
C.M.	CONCRETE MONUMENT
CONC.	CONCRETE
CALC.	CALCULATED
CATV	CABLE TELEVISION RISER
CB	CHORD BEARING
CH	CHORD
COR.	CORNER
C.O.R.	CROWN OF THE ROAD
C.V.G.	CONC VALLEY GUTTER
C/O	CLEAN OUT
C.U.E.	COUNTY UTILITY EASEMENT
D.	DESCRIPTION OR DEED
D.E.	DRAINAGE EASEMENT
D.H.	DRILL HOLE
ELEC.	ELECTRIC BOX
EL.	ELEVATION
E.	EAST
ENCL.	ENCLOSURE
E.O.P.	EDGE OF PAVEMENT
E.O.W.	EDGE OF WATER
F.H.	FIRE HYDRANT
F.F.	FINISHED FLOOR
FD.	FOUND
F.	FIELD
I.E.	IRRIGATION EASEMENT
I.D.	IDENTIFICATION
I.P.	IRON PIPE
I.R.	IRON ROD
L.	ARC LENGTH
L.B.	LAND SURVEYING BUSINESS
L.B.E.	LANDSCAPE BUFFER ESMT.
L.C.U.E.	LEE COUNTY UTILITY EASEMENT
M.	MEASURED
M.A.F.L.	MEAN ANNUAL FLOOD LINE
M.E.	MAINTENANCE EASEMENT
M.H.W.L.	MEAN HIGH WATER LEVEL
N/A	NOT APPLICABLE
N.T.S.	NOT TO SCALE
N.	NORTH
N&D	NAIL & DISC
N.R.	NON RADIAL
O.H.L.	OVERHEAD LINES
O.R.B.	OFFICIAL RECORDS BOOK
O.U.E.	ORANGE TREE UTIL. ESMT.
P.	PLAT
P.B.	PLAT BOOK
P.C.	POINT OF CURVATURE
P.C.C.	POINT OF COMPOUND CURVATURE
P.C.P.	PERMANENT CONTROL POINT
PG.	PAGE
P.I.	POINT OF INTERSECTION
P.K.N.	PARKER-KAYLON NAIL
P.K.N.D.	PARKER-KAYLON NAIL & DISC
P.L.S	PROFESIONAL LAND SURVEYOR
P.P.	UTILITY POLE
PVC	POLYVINYL CHLORIDE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
P.R.C.	POINT OF REVERSE CURVE
P.R.M.	PERMANENT REFERENCE MONUMENT
P.S.M.	PROFESIONAL SURVEYOR AND MAPPER
P.T.	POINT OF TANGENCY
P.U.E.	PUBLIC UTILITY EASEMENT
R.	RADIUS
RAD.	RADIAL
RAD. PT.	RADIUS POINT
R/W	RIGHT OF WAY
S.	SOUTH
S.D.	STORM DRAIN
S/W	SIDEWALK
SEC.	SECTION
T.B.M.	TEMPORARY BENCH MARK
T.F.P.	TELEPHONE FACILITIES
T.O.B.	TOP OF BANK
TX.	TRANSFORMER
TYP.	TYPICAL
U.E.	UTILITY EASEMENT
W.	WEST
W.M.	WATER METER
	CONCRETE MONUMENT
	NAIL
	IRON ROD
	NOT FOUND
00.00'	EXISTING ELEVATION
00.00'	PROPOSED ELEVATION
	DISTANCE & BEARING LIMIT ARROW
	WATER VALVE
	LIGHT POLE
	F.H.
	WELL
	SEWER
	DRAIN
	HANDICAP
	UTILITY POLE
	CENTER LINE
	BENCHMARK
	ANCHOR
	BREAK LINE (NOT TO SCALE)
	SECONDARY PROPERTY LINE
	PRIMARY PROPERTY LINE
	SECONDARY STRUCTURE
	PRIMARY STRUCTURE
	EASEMENT LINE
	EDGE OF THE WATER LINE
	OVERHEAD LINE
	CENTERLINE
	FENCE LINE
	CLOSURE
	TOP OF BANK
	MEAN HIGH WATER LEVEL
	MEAN ANNUAL FLOOD LINE
	FLOOD ZONE DIVIDE LINE

LINE DETAILS:

	L-1	L-7
	N42°42'52"W 100.00' P.	N47°17'08"E 30.00' P.
	N42°42'18"W 99.91' M.	N47°18'11"E 30.00' C.
	L-2	L-8
	S42°42'52"E 100.00' P.	N42°42'52"W 3081.69' P.
	S42°39'48"E 99.75' M.	N42°42'36"W 3081.89' C.
	L-3	L-9
	N42°42'52"W 100.00' P.	N42°42'52"W 100.00' P.
	N42°42'12"W 99.90' M.	N42°52'22"W 100.00' C.
	L-4	L-10
	N42°42'52"W 100.00' P.	S42°42'52"E 1236.33' P.
	N42°50'04"W 100.12' P.	S42°52'22"E 1236.33' C.
	L-5	L-11
	N47°17'08"E 30.00' P.	S42°42'52"E 8.12' P.
	N47°28'47"E 29.99' C.	S36°02'30"E 7.78' C.
	L-6	
	N47°17'08"E 30.00' P.	
	N47°18'11"E 30.00' C.	


DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA
APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26
All construction shall conform to the construction standards contained in the Marion County Land Development Code, latest revision. Areas of the right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.
NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable by state and/or federal laws.
PINE ROAD
100' TOTAL R/W - ASPHALT
MIDWAY TERRACE
80' TOTAL R/W - 20.30' ± ASPHALT
LOT 19
BLOCK 101
N47°17'08"E 370.00' P.
N47°17'12"E 370.02' M.
LOT 18
BLOCK 101
S42°42'52"E 100.00' P.
S42°39'48"E 99.75' M.
LOT 17
BLOCK 101
N42°42'52"W 100.00' P.
N42°42'12"W 99.90' M.
LOT 40
LOT 41
BLOCK 101
N42°42'52"W 3081.69' P.
N42°42'36"W 3081.89' C.
S42°42'52"E 1236.33' P.
S42°52'22"E 1236.33' C.
N47°17'08"E 30.00' P.
S47°18'11"W 370.00' P.
N47°17'08"E 30.00' P.
N47°18'11"E 30.00' C.
N42°42'52"W 300.00' P.
N42°34'43"W 299.42' C.
EXISTING BUILDING & FDN. F.F. ELEV. 90.00'
EXISTING BUILDING & FDN. F.F. ELEV. 90.00'
PROPOSED BUILDING
PROPOSED POOL
PROPOSED LOT
PROPOSED BUILDING
PROPOSED POOL
PROPOSED LOT
L-1
L-2
L-3
L-4
L-5
L-6
L-7
L-8
L-9
L-10
L-11
P-1
P-2
P-3
P-4
TBM-1
TBM-2
87.00
86.00
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125.00
126.00
127.00
128.00

GENERAL NOTES

1. SEE CIVIL ENGINEERING DRAWINGS FOR GENERAL GRADING OF THE SITE, INCLUDING FINISH GRADES FOR PARKING LOTS, ROADWAYS, SIDEWALKS, AND PLANTING AREAS.
2. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION.
3. LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO INITIATING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGE TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
4. THE OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
5. ALL DISTANCES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THIS CONTRACTOR ON-SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE PRIOR TO START OF CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.
7. REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.
9. THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
10. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. DURING THE COURSE OF THIS WORK, EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY FROM THE SITE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE.
12. FLORIDA LAW (F.S. 556) UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT MANDATES THAT EXCAVATOR/CONTRACTORS SHALL CONTACT SUNSHINE 811 (fka: SUNSHINE STATE ONE-CALL OF FLORIDA) BY CALLING 800-432-4770 OR 811 AT LEAST 2 FULL BUSINESS DAYS PRIOR TO THE BEGINNING ANY EXCAVATION OR DEMOLITION TO ALLOW MEMBER OPERATORS AN OPPORTUNITY TO IDENTIFY AND MARK THEIR UNDERGROUND FACILITIES AND APPROPRIATE PROTECTIVE MEASURES FOR POSSIBLE RESPONSE SYSTEM.
13. ALL EXISTING SITE ROADS, PARKING LOTS, CURBS, UTILITIES, SEWERS, AND OTHER ELEMENTS TO REMAIN SHALL BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.
14. CONTRACTOR IS RESPONSIBLE TO INCLUDE ALL NECESSARY ITEMS TO FULLY COMPLETE AN ASSEMBLY, SYSTEM, OR ITEM OF WORK AS SHOWN IN THE DRAWINGS. ANY ITEMS NOT IDENTIFIED OR SPECIFIED IN THESE DRAWINGS, BUT REQUIRED TO COMPLETE THE WORK SHALL BE PROVIDED BY THE CONTRACTOR.
15. CONTRACTOR IS RESPONSIBLE FOR PLACING ALL ITEMS OF WORK IN THE CORRECT LOCATIONS PER THE DRAWINGS. THIS MAY INCLUDE DOCUMENTING THE PROJECT SITE, DIGITAL DRAWING INFORMATION AND/ OR NORTHING AND EASTING COORDINATES FOR USE BY THE CONTRACTOR CAN BE PROVIDED BY THE LANDSCAPE ARCHITECT UPON REQUEST.
THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR INACCURACIES IN THE BASE INFORMATION AND PROJECT COORDINATES PROVIDED BY THE CIVIL ENGINEER OR PROPERTY SURVEYOR THAT IS INCORPORATED BY REFERENCE IN THESE DRAWINGS.

LANDSCAPE NOTES

1. THE CONTRACTOR SHALL REVIEW ARCHITECTURE/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
2. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES IN WRITING TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION WITHIN TWO WEEKS OF CONTRACT AWARD AND PRIOR TO THE COMMENCEMENT OF WORK. ALL REQUESTS FOR SUBSTITUTION DUE TO LACK OF AVAILABILITY MUST BE MADE TO THE OWNER'S REPRESENTATIVE IN WRITING WITHIN THIS PERIOD. NO SUBSTITUTION SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL PRIOR TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR EXHAUSTING ALL MEANS POSSIBLE TO OBTAIN THE MATERIALS AS SPECIFIED. IF SUBSTITUTIONS ARE ALLOWED, THE CONTRACTOR SHALL PROVIDE TO THE OWNER'S REPRESENTATIVE AS VIABLE ALTERNATES PLANTS MUST SHARE THE SAME GENERAL APPEARANCE FORM, INSTALLATION SIZE, MATURE SIZE, COLOR, QUALITY AND GROWTH HABIT. MATERIALS MUST BE OF FIRSTCLASS NO ADDITIONAL COSTS TO THE OWNER.
3. ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK. CONTRACTOR SHALL ENSURE A MAINTAINED CLEARANCE OF ALL UTILITIES & FIRE HYDRANTS IN ACCORDANCE WITH THE FLORIDA FIRE PREVENTION CODE 16.5.7.1. CONTRACTOR SHALL ENSURE SIGHT DISTANCE VISIBILITY IN ALL APPLICABLE ROADWAYS PER DOT STANDARDS.
4. PRIOR TO PLANTING/INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF TREE MATERIAL AND SPECIMEN PLANT MATERIAL TO THE OWNER'S REPRESENTATIVE FOR REVIEW.
5. ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. CONTAINER SIZE SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
6. IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AT NO ADDED COST TO THE OWNER AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED AND FOUND TO BE ACCEPTABLE.
7. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL. SEE SPECIFICATIONS FOR REQUIREMENTS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS, AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
9. THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE. IN WET OR POORLY DRAINING SOILS THE CONTRACTOR SHALL INSTALL ALL PLANTS TO MAXIMIZE DRAINAGE AND MINIMIZE POOLING OF WATER AROUND PLANTINGS. THIS MAY INCLUDE LOOSENING OF EXISTING SOILS AND PROVIDING SOIL AMENDMENTS TO ENSURE ADEQUATE DRAINAGE.
10. PEG SOD ON SLOPES GREATER THAN 1:3 (33% SLOPE).
11. THE CONTRACTOR SHALL ENGAGE A QUALIFIED ARBORIST WHO HAS SUCCESSFULLY COMPLETED TREE PROTECTION AND TREE TRIMMING WITH FIVE YEARS OR MORE EXPERIENCE, TO PERFORM THE FOLLOWING WORK:
   A. REMOVE BRANCHES FROM TREES THAT ARE TO REMAIN, IF REQUIRED, AS DIRECTED BY OWNER'S REPRESENTATIVE.
   B. PERFORM INITIAL PRUNING OF BRANCHES TO ACCOMMODATE NEW CONSTRUCTION.
   C. PERFORM TREE REPAIR WORK FOR DAMAGE INCURRED BY NEW CONSTRUCTION.
12. CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION SYSTEM FOR RELOCATED TREES.
13. CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AS SHOWN ON DRAWINGS OR BY MEANS APPROVED BY THE OWNER'S REPRESENTATIVE. ALL EXISTING PLANT BEDS TO REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHALL BE LEFT UNDISTURBED. EXISTING TREES TO REMAIN, AS NOTED ON THE DRAWINGS, SHALL BE LEFT UNDISTURBED AND PROTECTED BY WOODEN BARRICADES ERECTED AT THE PERIMETER OF THE TREE DRIP-LINE (S). NO VEHICLE SHALL TRAVERSE THIS AREA NOR SHALL ANY STORAGE OF MATERIALS OR EQUIPMENT BE PERMITTED WITHIN THE AREA OF THE TREE DRIP-LINE(S). ANY EXISTING PLANT BEDS OR TREES DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED BY THE RESPONSIBLE PARTY AT THEIR OWN EXPENSE.
14. CONTRACTOR TO CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EXISTING VEGETATION AS REQUIRED AND PREPARING PLANTING AREAS PRIOR TO INSTALLATION OF PLANT MATERIALS.
16. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ERADICATING WEEDS AND UNWANTED PERENNIAL VEGETATION WITHIN THE LIMITS OF ALL PLANTING AREAS PRIOR TO BEGINNING LANDSCAPE INSTALLATION. PERENNIAL WEEDS AND GRASSES TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO, NUT GRASS, PUNCTURE VINE, MORNING GLORY, DOG FENNEL, TORPEDO GRASS, BERMUDA GRASS, BAHIA GRASS, KIKUYU GRASS, CRAB GRASS, CARPET GRASS, SEDGE AND OTHER NOXIOUS AND/OR INVASIVE WEEDS. THE SITE IS TO BE MAINTAINED WEED FREE THROUGHOUT PLANTING OPERATIONS.
17. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PRE-TILLAGE TO SCARIFY SOILS IN ALL PLANTING AREAS TO A MINIMUM DEPTH OF 4". DENSELY COMPACTED AREAS BETWEEN 85% AND 90% ARE TO BE CROSS RIPPED TO A MINIMUM 9" DEPTH. IN THE PROCESS OF TILLING ARE UNACCEPTABLE MATERIALS INCLUDING, BUT NOT LIMITED TO, FOUNDATION DEBRIS, CONSTRUCTION WASTE, ROOTS, CONCRETE, ASPHALT AND ROCKS GREATER THAN 1.5" DIAMETER ON AVERAGE. IN AREAS TO RECEIVE SOD TILL IN FERTILIZER TO A DEPTH OF 2" AT A RATE OF 12 POUNDS PER CUBIC FT.
18. ALL PROVIDED TREES SHALL BE INSTALLED 50 FEET (IN TIERS) IN OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED OUTLINES SHALL NOT BE OBSTRUCTED AND SHALL BE SMOOTH AND FLOWING. IF TREES ARE LOCATED OUTSIDE PLANTING BEDS IN GRASS AREAS, MAINTAIN A MINIMUM THREE FEET 3' WIDE OFFSET TO ALLOW FOR MOWERS TO MANEUVER.
19. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE EXTENT OF SOD & TURF WORK IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SOD & TURF IN THE AREAS SHOWN ON THE PLAN IN SUFFICIENT QUANTITY TO PROVIDE FULL COVERAGE. ADDITIONAL GRASS REQUIRED WILL BE ADJUSTED BASED ON A SQUARE FOOTAGE UNIT PRICE. AREAS TO BE SODDED SHALL BE AMENDED PER SOILS REPORT TO PROVIDE REQUIRED NUTRIENTS AND SOIL PH OF BETWEEN 6.0 AND 7.0.
20. ALL SOD SHALL BE STAGGERED AND INSTALLED TIGHT WITH MACHINE CUT SOD RECTANGLES OF THE TYPE INDICATED ON THE DRAWINGS. SOD SHALL BE WELL ROOTED WITH ROOTS, FREE OF EXCESSIVE WEEDS & DEBRIS, AND SHALL BE GREEN, FRESH AND UNINJURED AT THE TIME OF PLANTING.
21. CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INITIATING INSTALLATION.
22. ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE WITH FLORIDA NO. 1 GRADE, ACCORDING TO THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
23. ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" LAYER OF MULCH AS SPECIFIED. ALL TREES SHALL HAVE A 3' DEEP, 24' RADIUS (FROM THE TRUNK) MULCH RING PLACED AROUND THE BASE OF THE TRUNK, ON WELL DRAINED SOIL, THE MULCH RING SHALL BE MOUNDED AT ITS EDGES TO RETAIN WATER WITHIN THE TREE RING. ON POORLY DRAINED SOIL, THE MULCH RING SHALL BE MOUNDED AT THE TRUNK TO SHED WATER AWAY FROM THE TREE.
24. SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED ON THE PLANT LIST. PLANT ACCIENT SHRUBS AND TREES A SHOWN ON THE LANDSCAPE PLANTING PLANS WHEN INDIVIDUAL PLANTS ARE DELINEATED.
25. PALM HEIGHTS, AS INDICATED ON THE PLANS, REFER TO CLEAR TRUNK (C.T.), GRAY WOOD (G.W.), OR OVERALL HEIGHT (O.A.) AS SPECIFIED ON THE PLANT LIST.
27. CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
29. CONTRACTOR SHALL REGRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
30. CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
31. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, MULCHING, REPLACEMENTS OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL.
32. UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
33. CONTRACTOR SHALL SUBMIT WRITTEN GUARANTEE OF SURVIVABILITY OF ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
34. CONTRACTOR MUST APPROVE ALL GRADED AREAS PRIOR TO THE COMMENCEMENT OF PLANTING.
35. THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK. SEE SPECIFICATION FOR ADDITIONAL TESTING REQUIREMENTS.
36. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNERS REPRESENTATIVE WITH RECORD COPIES OF ALL RECEIPTS, INVOICES, AND OR SHIPPING MANIFESTS FOR ALL MATERIALS, INCLUDING PLANTS AND SOIL, DELIVERED TO THE PROJECT SITE BY THE CONTRACTOR OR A SUPPLIER TO THE CONTRACTOR. DELIVERY OF ALL PEAT/LEDER AND SOIL AMENDMENT MATERIALS MUST BE IN ORIGINAL, UNOPENED CONTAINERS BEARING MANUF ACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE MARK, AND CONFORMANCE WITH STATE LAW.

HARDSCAPE NOTES

1. SEE CIVIL ENGINEERING DRAWINGS FOR GENERAL GRADING OF THE SITE, INCLUDING SIDEWALK AND FINISH GRADES FOR PARKING LOTS, ROADWAYS, SIDEWALKS, AND PLANTING AREAS.
2. ALL PAVEMENT SHALL BE STAKED IN THE FIELD FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION. ALIGNEMENT MAY BE ADJUSTED UPON APPROVAL TO ACCOMMODATE EXISTING SITE ELEMENTS.
3. SLOPES OF WALKS TO BE NO GREATER THAN FIVE PERCENT, UNLESS EXPRESSLY NOTED OTHERWISE. CROSS-SLOPE OF WALKS NOT TO EXCEED TWO PERCENT. SEE CIVIL DRAWINGS FOR ADDITIONAL LAYOUT AND INSTALLATION DETAILS. SEE HARDSCAPE DRAWINGS FOR FINISH PATTERNS.
4. ALL COLORS AND MATERIALS SHALL BE APPROVED BY THE OWNERS REPRESENTATIVE. FOR THIS PURPOSE, THE CONTRACTOR SHALL CONSTRUCT OR SUBMIT AS DIRECTED BY THE OWNER'S REPRESENTATIVE PANELS DEPICTING PROPOSED FINISHES AND COLORS FOR REVIEW AND APPROVAL.
5. ALL NAILS, LAG SCREWS, BOLTS AND MISCELLANEOUS FASTENERS SHALL BE HOT DIPPED GALVANIZED OR A CORROSION RESISTANT ALLOY.

FOUNDATIONS

6. FOOTINGS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING VALUE OF 2000 PSF. IN-PLACE SOILS TO BE UNIFORMLY COMPACTED AND TESTED TO ENSURE MINIMUM SOIL BEARING PRESSURE CAPACITY OF 2,000 PSF.
7. PREPARATION FOR AND CONSTRUCTION OF WALLS (COLUMN FOOTINGS) TO BE IN COMPLIANCE WITH THE APPLICABLE CHAPTERS AND SECTIONS OF ACI 318 AND ACI 530.
8. ANY ADDITIONAL FILL MATERIAL REQUIRED SHALL CONSIST OF SOILS THAT CONTAIN NOT MORE THAN 12% OF FINES (SILT OR CLAY PARTICLES) PASSING A NO. 200 SIEVE AND SHALL BE PLACED IN UNIFORM LAYERS NOT EXCEEDING 12.0 INCHES LOOSE. EACH LAYER SHALL BE SYSTEMATICALLY AND UNIFORMLY COMPACTED IN THE MANNER AND TO THE DEGREE SPECIFIED FOR THE IN-PLACE SOILS.

CONCRETE

9. STRUCTURAL CONCRETE, INCLUDING FOOTINGS, SHALL CONFORM TO THE REQUIREMENTS OF ACI 301 AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS OF 3000 PSI UNLESS OTHERWISE NOTED. CONCRETE FOR SLABS ON GRADE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS OF 2500 PSI.
10. CONCRETE, WHEN PLACED, SHALL HAVE A MAXIMUM SLUMP OF 5 INCHES AND A MINIMUM OF 3 INCHES.
11. ALL REINFORCING SHALL CONFORM TO ASTM 615 FOR GRADE 60 STEEL, WELDED WIRE MESH TO ASTM A-185.
12. CHECK ALL DRAWINGS AND APPLICABLE MANUFACTURER'S SHOP DRAWINGS FOR LOCATION OF ALL EMBEDDED ITEMS SUCH AS PIPE SLEEVES, ANCHOR BOLTS, ETC., PRIOR TO PLACING CONCRETE.
13. #5 REINFORCEMENT FOR CONTINUOUS FOOTINGS SHALL BE CONTINUOUS AND SPLICED WITH A FULL 30-INCH LAP.
14. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. START INITIAL CURING AS SOON AS FREE WATER HAS DISAPPEARED FROM THE CONCRETE SURFACE AFTER PLACING AND FINISHING. KEEP CONTINUOUSLY MOIST FOR NOT LESS THAN 7 DAYS IN ACCORDANCE WITH ACI 301 PROCEDURES. PERFORM CURING OF THE CONCRETE BY CURING AND SEALING COMPOUND, BY MOIST CURING, BY MOISTURE RETAINING COVER CURING OR BY COMBINATION THEREOF.
15. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR THE REINFORCEMENT:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES.
   B. FORMED CONCRETE EXPOSED TO EARTH OR WEATHER: #5 BARS AND SMALLER, 1 1/2 INCHES; #6 BARS AND LARGER, 2 INCHES.

MASONRY

16. CONCRETE MASONRY UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C90 FOR LOAD BEARING MASONRY WITH A MINIMUM PM OF 1500 PSI. BRICK MASONRY UNITS SHALL CONFORM TO ASTM C-62 FOR STRUCTURAL AND NON-STRUCTURAL MASONRY. REFER TO DRAWINGS FOR SPECIFIC TYPE OF BRICK MASONRY LAYOUT PATTERNS.
17. MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM WITH ALL THE REQUIREMENTS OF THE "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1-99/ASCE 6-99/TMS 602-03), AS PUBLISHED BY THE MASONRY STANDARDS JOINT COMMITTEE.
18. MASONRY CONSTRUCTION SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A "CERTIFIED STRUCTURAL MASONRY CONTRACTOR" OR "CERTIFIED STRUCTURAL MASON" AS RECOGNIZED BY THE FLORIDA CONCRETE AND PRODUCTS ASSOCIATION (FCAPA). THE SENIOR MASONRY SUPERVISOR WILL BE RESPONSIBLE TO ASSURE THAT THE WORK IS ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
19. ALL MORTAR SHALL BE TYPE M OR S IN ACCORDANCE WITH ASTM C 270.
20. GROUT SHALL HAVE A MINIMUM SLUMP OF 8 INCHES AND A MAXIMUM SLUMP OF 11 INCHES, BE IN CONFORMANCE WITH ASTM C 476, AND ATTAIN A COMPRESSIVE STRENGTH OF 1800 PSI.
21. CONCRETE MASONRY UNITS SHALL BE PLUMB, TRUE TO LINE, WITH EVEN COURSES ACCURATELY SPACED AND BUILT TO THE THICKNESS AND IN A RUNNING BOND AS INDICATED AND CONFORMING TO THE TOLERANCES SPECIFIED IN ACI 531.1 AND 530.1. CONCRETE MASONRY UNITS SHALL BE STORED OFF OF THE GROUND SURFACE AND COVERED TO PROTECT THEM FROM ABSORBING RAIN OR BEING CONTAMINATED WITH OTHER FOREIGN MATTER. CONCRETE UNITS SHALL BE DRY WHEN LAID. MASONRY UNITS SHALL BE LAID IN THEIR ORIGINAL POSITION IN THE WALL WHILE THE MORTAR IS STILL SOFT AND PLASTIC. ANY UNIT DISTURBED AFTER THE MORTAR HAS STIFFENED SHALL BE REMOVED AND RE-LAID WITH FRESH MORTAR. VERTICAL CELLS SHALL BE ALIGNED TO PROVIDE A CONTINUOUS, UNOBSTRUCTED OPENING. ALL ANCHORS, ACCESSORIES, FLASHINGS AND OTHER ITEMS TO BE BUILT-IN SHALL BE INSTALLED AS THE MASONRY WORK PROGRESSES. ALL CUTTING AND FITTING OF MASONRY, INCLUDING THAT REQUIRED TO ACCOMMODATE THE WORK OF OTHERS SHALL BE DONE BY MASONRY CRAFTSMEN WITH MASONRY SAWS. LOCATE CONTROL JOINTS AT 20 FEET ON CENTER MAXIMUM, AT ALL COLUMNS, AND AT CHANGES IN DIRECTION. CAULK THE EXPOSED SIDES OF ALL JOINTS WITH BACKER ROD AND SEALANT. COLOR OF SEALANT TO MATCH WALL COLOR.
22. HOLLOW UNITS SHALL BE LAID WITH MORTAR AND BED JOINTS TO THE THICKNESS OF THE FACE SHELL AS A MINIMUM. THE WEBS SHALL ALSO BE BEDDED IN ALL COURSES, STARTING AT THE FOUNDATION, ADJACENT TO CELLS TO BE REINFORCED AND/OR FILLED WITH GROUT OR CONCRETE. MORTAR JOINTS SHALL BE TOOLED WHEN THE MORTAR IS "THUMBPRINT" HARD, BOTH ON THE INSIDE AND OUTSIDE SURFACES OF THE BUILDING WALL, WITH A TOOL PRODUCING A CONCAVE SURFACE. BED JOINTS SHALL BE 3/8" + 1/8" IN THICKNESS; HEAD JOINTS SHALL BE 3/8" (+3/4", -1/4").
23. ALL REINFORCING STEEL TO BE GRADE 60 PER ASTM A-615. REINFORCING BARS SHALL BE PLACED IN THE MIDDLE OF THE CELLS AND TIED OR OTHERWISE SECURELY SUPPORTED AT THE TOP AND BOTTOM TO ENSURE THAT THE BAR DOES NOT MOVE DURING GROUTING. MINIMUM LAP AT ALL SPLICES OR DOWELS SHALL BE 30 INCHES UNLESS OTHERWISE NOTED ON THE DRAWINGS.
24. GROUTING SHALL BE ACCOMPLISHED IN 4 FOOT LIFTS FOR CONCRETE MASONRY AND 2 FOOT LIFTS FOR BRICK MASONRY. EACH LIFT SHALL BE MECHANICALLY CONSOLIDATED INTO THE PREVIOUS LIFT, WHEN PLACED, SO AS TO PREVENT COLD JOINTS. RECONSOLIDATE AS REQUIRED. FOR CONCRETE MASONRY, A 12 SQUARE INCH CLEANOUT OPENING SHALL BE PLACED AT THE BOTTOM OF EACH CELL TO BE FILLED AND IT SHALL BE THOROUGHLY CLEANED OUT PRIOR TO FILLING OF THE CELL. FOR BRICK MASONRY, PUDDLE GROUT DURING AND AFTER PLACEMENT TO ENSURE COMPLETE FILLING OF GROUT SPACE. GROUT PLACEMENT STOPPED FOR MORE THAN ONE HOUR SHALL BE STOPPED BELOW THE TOP OF THE MASONRY UNIT 1-1/2" TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.
25. THE MINIMUM CONTINUOUS UNOBSTRUCTED CELL AREA IN CELL TO RECEIVE GROUT MUST NOT BE LESS THAN 2" X 3". MORTAR FINS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS. MORTAR DROPPINGS MUST BE KEPT OUT OF CELLS WHICH ARE TO BE GROUTED.
26. UNLESS SPECIFICALLY SHOWN OTHERWISE, PROVIDE #9 GA. "DUR-O-WALL" TRUSS TYPE REINFORCING IN EVERY OTHER COURSE OF CONTINUOUS WALLS FOR CONCRETE MASONRY, AND EVERY FOURTH COURSE FOR BRICK MASONRY. DO NOT LAY JOINT REINFORCEMENT ACROSS EXPANSION JOINTS.
27. TEMPORARY BRACING AND SHORING OF ALL CONCRETE MASONRY CONSTRUCTION, TO PROVIDE STABILITY DURING CONSTRUCTION, UNTIL CONSTRUCTION ACHIEVES ITS PROPER STRENGTH, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

STRUCTURAL STEEL

28. ALL STRUCTURAL STEEL SHAPES AND PLATE SHALL CONFORM TO ASTM A-36 AND THE "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. ALL TUBE STEEL SHALL CONFORM TO ASTM A-500, GRADE B(FY = 46 KSI).
29. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX LOW HYDROGEN ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED UNLESS OTHERWISE SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF "THE STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.
30. ALL STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCHUP COAT OF APPROVED PAINT.
31. ALL BOLTED CONNECTIONS SHALL CONSIST OF ASTM A325 HIGH STRENGTH BOLTS AND HARDENED WASHERS AS SHOWN ON THE STRUCTURAL DRAWINGS. ALL BOLTED CONNECTIONS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
32. ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A36 OR A307 (THREADED ROD).
33. ERECT ALL STEEL TO CONFORM TO "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND "QUALITY CRITERIA AND INSPECTION STANDARDS". FRAME TO BE PLUMB, SQUARE AND TRUE TO LINE AND LEVEL, CHECKED BY SURVEYING INSTRUMENTS.
34. LOCATE FINISH HOLES PRECISELY TO INSURE PASSAGE THROUGH ASSEMBLED MATERIALS WITHOUT DRIFTING. ENLARGE HOLES BY REAMING IF NECESSARY. POOR MATCHING OF HOLES IS SUFFICIENT CAUSE FOR REJECTION.
35. GROUT FOR COLUMN BASE PLATES SHALL BE NON-SHRINK GROUT BY "EMBECO" OR APPROVED EQUAL, 5000 PSI MINIMUM.

LUMBER

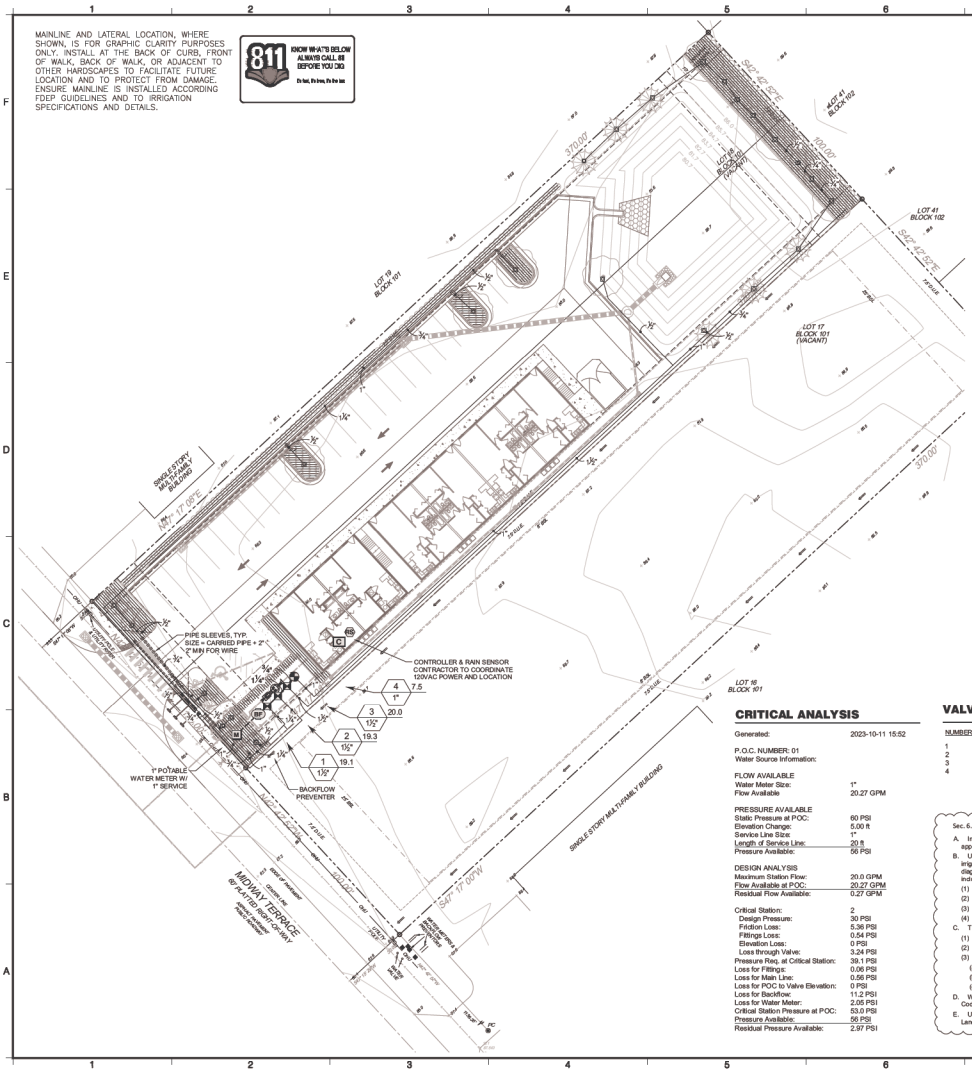
36. ALL LUMBER SHALL BE SOUTHERN YELLOW PINE, GRADE NO.2 OR BETTER OR AS SPECIFIED ON THE DRAWINGS. #2/#3 GRADE LUMBER SIZES NOTED TO BE IN CONFORMANCE WITH VALUES LISTED IN THE NATIONAL FOREST PRODUCTS ASSOCIATION NATIONAL DESIGN STANDARD SUPPLEMENT), AND SHALL CONFORM TO THE NATIONAL GRADING RULE FOR DIMENSION LUMBER, THE SOUTHERN PINE INSPECTION BUREAU AND THE SOUTHERN FOREST PRODUCTS ASSOCIATION.
37. DO NOT LOCATE ANY HOLES CLOSER THAN FIVE (5) BOLT DIAMETERS FROM THE END OF ANY WOOD FRAMING MEMBER.
38. EXPOSED WOOD MEMBERS SHALL BE PRESSURE-TREATED WITH TYPE WATERBORNE PRESERVATIVE IN ACCORDANCE WITH THE AMERICAN WOOD-PRESERVERS STANDARD (U-03) FOR THE FOLLOWING APPLICATIONS:

	APPLICATION	AWPA USE CATEGORY	TREATMENT (UBSCULF 7)
A.	ABOVE-GROUND USE	UC3B	ACQ 0.25

MAINLINE AND LATERAL LOCATION, WHERE SHOWN, IS FOR GRAPHIC CLARITY PURPOSES ONLY. INSTALL AT THE BACK OF CURB, FRONT OF WALK, BACK OF WALK, OR ADJACENT TO OTHER HARDSCAPES TO FACILITATE FUTURE LOCATION AND TO PROTECT FROM DAMAGE. ENSURE MAINLINE IS INSTALLED ACCORDING FDEP GUIDELINES AND TO IRRIGATION SPECIFICATIONS AND DETAILS.

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG

It's fast, it's free, it's the law



IRRIGATED AREAS:

TOTAL IRRIGATED AREA: 4,170 +/- SQ. FT.
HIGH FLOW/ SPRAY AREA: 0 +/- SQ. FT.
LOW FLOW/ DRIP AREA: 4,170 +/- SQ. FT.

NOTE: IRRIGATION SHALL BE IN ACCORDANCE WITH MARION COUNTY CODE. THE SYSTEM IS PROPOSED AS PERMANENT.

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any damage to existing or new right-of-way incurred during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
This approval of the site plan/plat is limited to compliance with the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Rain Bird 1800-1400 Flood 1402	24	360	30		
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**				
	Rain Bird XCZ-150-LCDR High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2" PESB-R Scrubber Globe Valve with single 1-1/2" Pressure Regulating (40psi) Quick-Check Basket Filters. Flow range: 15-62gpm.	3				
	Area to Receive Dripline Netafim TLCV-09-12 Techline Pressure Compensating Landscape Dripline with Check Valve. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. 17mm.	3,625 l.f.				
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**				
	Rain Bird PESBR 1", 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	1				
RP	Febco 825Y 1" Reduced Pressure Backflow Preventer	1				
C	Rain Bird ESPBLXMEF 8 Station Capable Commercial Controller. Mounted on a Plastic Wall Mount. Flow Sensing and Water Management Capabilities	1				
RS	Hunter MINI-CLIK Rain Sensor, mount as noted	1				
M	Water Meter 1"	1				
	Irrigation Lateral Line: PVC Class 200 SDR 21-NP	1,442 l.f.				
	Irrigation Mainline: PVC Schedule 40-NP	36.3 l.f.				
	Pipe Sleeve: PVC Schedule 40	78.2 l.f.				

Valve Callout
Valve Number
Valve Flow
Valve Size

CRITICAL ANALYSIS

Generated:	2023-10-11 15:52
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	1"
Flow Available	20.27 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	60 PSI
Elevation Change:	5.00 ft
Service Line Size:	1"
Length of Service Line:	20 ft
Pressure Available:	56 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	20.0 GPM
Flow Available at POC:	20.27 GPM
Residual Flow Available:	0.27 GPM
Critical Station:	2
Design Pressure:	30 PSI
Friction Loss:	5.36 PSI
Fittings Loss:	0.54 PSI
Elevation Loss:	0 PSI
Loss through Valve:	3.24 PSI
Pressure Req. at Critical Station:	39.1 PSI
Loss for Fittings:	0.06 PSI
Loss for Main Line:	0.56 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	11.2 PSI
Loss for Water Meter:	2.06 PSI
Critical Station Pressure at POC:	53.0 PSI
Pressure Available:	56 PSI
Residual Pressure Available:	2.97 PSI

VALVE SCHEDULE (ALL ZONES SHALL RUN INDIVIDUALLY)

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	19.1	44.8	36.0	49.7	1.45 in/h
2	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	19.26	38.2	39.1	53.0	1.44 in/h
3	Rain Bird XCZ-150-LCDR	1-1/2"	Area for Dripline	20.0	32.3	36.5	50.7	1.44 in/h
4	Rain Bird PESBR	1"	Bubbler	7.5	32.3	38.7		1.7 in/h
	Common Wire				36.3			

Sec. 6.9.6. - Completion inspection requirements.

A. Irrigation installation professionals shall be accountable for the proper installation and compliance with the conditions of the irrigation permit and approved plans.

B. Upon completion of the installation, the contractor or owner shall request an inspection by the irrigation design professional. Prior to the inspection, the irrigation installation professional shall produce a clear and legible as-built diagram which accurately represents the irrigation system was installed. The diagram shall be presented and reviewed during the final inspection. The diagram may be a marked-up copy of the approved irrigation plan and shall include at a minimum:
(1) Locations of all mainlines and mainline valves;
(2) Locations of all remote control valves;
(3) Water demand per zone in GPM, and
(4) Total water demand per operating cycle.

C. The irrigation installation professional shall also provide to the owner:
(1) Irrigation system scheduling information;
(2) A copy of the irrigation controller owner's manual;
(3) Irrigation system maintenance schedule, which includes:
(a) Instructions for seasonal adjustments of controller and sensors.
(b) Instructions covering how and when to check for leaks.
(c) A schedule for checking for proper irrigation distribution coverage.

D. Within 60 days after installation the irrigation controller shall be adjusted to be set in accordance with the applicable irrigation schedule set forth in this Code.

E. Upon completion of the irrigation system installation and the acceptance of the as-built diagram and operational information, a Final Inspection and Landscape/Irrigation Release shall be signed and sealed by the irrigation design professional and submitted to the County's Landscape Architect.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-0670

THE DRAWINGS AND SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO THE PLANS OF PROPERTY AND OTHER DRAWINGS OR ELECTRONIC FORMS, AS WELL AS ANY OTHER PROPERTY RIGHTS IN THESE PLANS, DRAWINGS, AND DESIGNS, THESE PLANS, DRAWINGS, AND DESIGNS WERE NOT INTENDED OR REPRODUCED, CHANGED OR COPIED IN ANY FUTURE OR MATTER, WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PERSONS OR ENTITIES WITHOUT OBTAINING THE EXPRESS WRITTEN PERMISSION, CONSENT, AND PROVIDING APPROPRIATE COMPENSATION TO TDC DESIGN STUDIO. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY OTHERS. ANY DISCREPANCIES FOUND IN THE DRAWINGS SHALL BE REPORTED IN WRITING OF ANY VARIATION FROM THE DIMENSIONS, CONDITIONS AND SPECIFICATIONS APPEARING ON THESE PLANS. (c) 2023

PROJECT: MIDWAY TERRACE APTS LOT 18 MARION COUNTY, FL
Prepared For: LINN ENGINEERING

SEAL: Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CONSULTANTS:

ISSUED FOR: DEVELOPMENT REVIEW 2023/09/08 (REVISED LAYER 2)

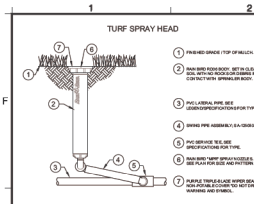
PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	1"=20'

0 FT 10 20 North

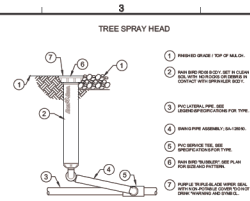
DRAWING TITLE: IRRIGATION PLAN

DRAWING NUMBER: IR-01

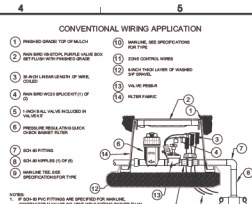
SHEET 1 OF 3



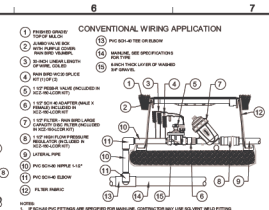
A Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-12SS3 and MPR NOZZLES



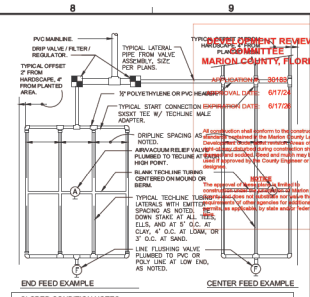
B Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-12SS3 and Bubbler



D RAIN BIRD XCZ-100-PRBR-COM
NTS



G RAIN BIRD XCZ-150-LCDR
NTS



ACCEPTED FOR CONCURRENT REVIEW WITH SUBMITTEE
MARION COUNTY, FLORIDA
APPLICATION # 30185
REVIEW DATE 6/17/23
EXPIRATION DATE 6/17/24
All construction shall conform to the construction plans as approved by the Marion County Board of Commissioners. Deviations during construction shall be allowed only after approval has been obtained and noted. Deed and much may be required if approved by the County Engineer or designee.
NOTICE
The approval of this plan does not constitute a permit. Construction cannot commence until all other permits are issued. This approval does not constitute nor cause the requirements of other agencies for additional permits as applicable by state and/or federal

SLOPED CONDITION NOTES:

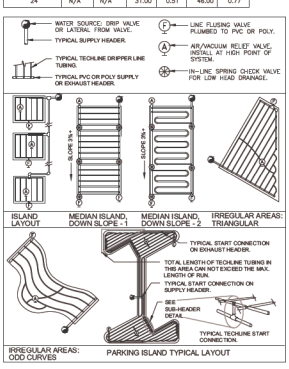
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE.
2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT.
3. TECH-LINE NORMAL SPACING WITHIN THE TOP ⅓ OF SLOPE.
4. INSTALL TECHLINE AT NORMAL SPACING PLUS 25% AT THE BOTTOM ⅓ OF THE SLOPE.
5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM ⅓ ON A SEPARATE VALVE.

TECHLINE MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

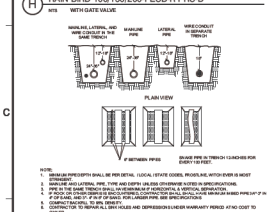
DRIPPER SPACING		12"			18"			24"	
DRIPPER FLOW RATE (GPH)		0.4	0.6	0.9	0.4	0.6	0.9	0.6	0.9
INLET PRESSURE (PSI)	15	292	233	175	410	322	247	405	308
	25	397	321	236	558	438	335	553	423
	35	486	365	279	656	514	394	649	497
	45	520	407	311	732	574	439	725	555

TECHLINE FLOW PER 100 FEET

DRIPPER SPACING	0.4 GPH	DRIPPER	0.6 GPH	DRIPPER	0.9 GPH	DRIPPER
DRIPPER SPACING	GPH	GPM	GPH	GPM	GPH	GPM
12"	40.00	0.67	61.00	1.02	92.00	1.53
18"	26.67	0.44	41.00	0.68	61.00	1.02
24"	N/A	N/A	31.00	0.51	46.00	0.77

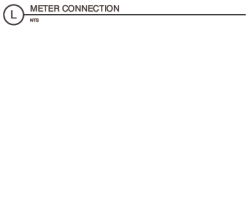


1 TYPICAL NETAFIM TECHLINE REQUIREMENTS
3" = 1'-0" FX-IR-NET-A-DRIP-05

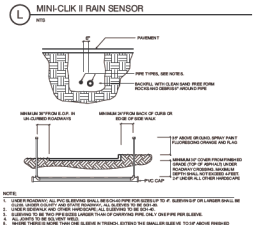


H RAIN BIRD 100/150/200-PESB-R PRS-D
NTS WITH GATE VALVE

I RAIN BIRD ESP-LXMEF WALL MOUNT CONTROLLER
NTS IN HEAVY DUTY SB-1600W STAINLESS STRONG BOX



L METER CONNECTION
NTS



M PIPE TRENCH DETAIL
NTS

N ROADWAY / HARDSCAPE SLEEVING
NTS

GENERAL NOTES

1. THE DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC, AS IT MAY NOT HAVE BEEN POSSIBLE TO ACCURATELY DEPICT THE EXACT LOCATIONS FOR ALL MATERIAL, OR ALL JOBSITE ELEMENTS. THE INSTALLER SHALL BE EXPECTED TO MAKE MINOR ADJUSTMENTS ON THE SITE AS NEEDED, IN ORDER TO MAINTAIN COMPLETE AND ACCURATE COVERAGE, AND MAINTAIN THE INTENT OF THE DESIGN. MODIFICATIONS WHICH INCREASE THE SPACING OF HEADS, OR DECREASE THE SIZING OF PIPE, SHALL NOT BE MADE WITHOUT PRIOR CONSENT OF THE PROJECT MANAGER. THE FINAL LOCATIONS FOR ALL MAJOR EQUIPMENT, INCLUDING CONTROLLERS, VALVES, SUPPLY CONNECTIONS, MAINLINES, ETC. SHALL BE DETERMINED IN THE FIELD, STAKED OUT BY THE CONTRACTOR, USING THE DRAWINGS AS A GUIDE, AND APPROVED PRIOR TO INSTALLATION.

2. 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, IT SHALL REMAIN THE RESPONSIBILITY OF THE INSTALLER FOR VERIFICATION AND CONFORMANCE TO THE PARTICULAR CODES FOR THIS LOCATION. THE INSTALLER SHALL OBTAIN ANY NECESSARY PERMITS, LOCATES, AND INSPECTIONS.

3. 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 INSTALLED BEDLINES, SOD LIMITS, AND PLANT LOCATIONS.

4. THE INSTALLER SHALL BE FAMILIAR WITH ALL APPLICABLE DOCUMENTS, INCLUDING ANY WRITTEN SPECIFICATIONS THAT MAY HAVE BEEN ISSUED. ANY CONFLICT FOUND BETWEEN THE VARIOUS DOCUMENTS SHALL BE SUBMITTED IN WRITING TO THE PROJECT MANAGER FOR DETERMINATION.

5. ALL MATERIAL AND LABOR NECESSARY TO PROVIDE A COMPLETE, FULLY OPERATIONAL, AND GUARANTEED SYSTEM SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT THEY ARE SPECIFICALLY INDICATED IN THE DOCUMENTS. THIS SHALL INCLUDE CONFORMANCE TO THE REQUIREMENTS AND RECOMMENDATIONS OF THE VARIOUS MANUFACTURERS OF THE EQUIPMENT, AND TO APPLICABLE TRAINING AND CERTIFICATION OF INSTALLATION PERSONNEL.

6. UNLESS SPECIFICALLY STATED TO THE CONTRARY, PIPING AND WIRING PASSING UNDER PAVED OR OTHER IMPERVIOUS SURFACES SHALL BE INSTALLED IN SLEEVING OF ADEQUATE SIZE AND STRENGTH. SIDEWALKS AND DECKS AND TURF PAVERS SHALL REQUIRE SLEEVING, EVEN IF NOT SHOWN ON THE DRAWINGS. CONTROL WIRING MAY BE RUN WITHIN A LARGER SLEEVE WITH MAINLINE PIPING, BUT ONLY IF PROTECTED BY A SKINNLER CONDUIT. WIRE MAY NOT BE TAPED TO THE MAINLINE IN LIEU OF THIS CONDUIT, AS ABRASION OF THE WIRE JACKET IS LIKELY TO OCCUR.

7. SLEEVES UNDER PARKING AND DRIVEWAYS MAY BE THE RESPONSIBILITY OF OTHER THAN THE IRRIGATION CONTRACTOR (SUCH AS THE PAVING OR SITE CIVIL CONTRACTOR). CONSULT OTHER DOCUMENTS FOR ADDITIONAL INFORMATION. ANY NEEDED SLEEVE WHICH EITHER CANNOT BE FOUND OR IS DAMAGED BEYOND PRACTICAL USE SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY, ALONG WITH RECOMMENDATIONS FOR CORRECTIVE ACTION. SLEEVES UNDER SIDEWALKS, DECKS, ETC. ARE NORMALLY INSTALLED BY THE IRRIGATION CONTRACTOR.

8. CONTROL WIRING SHALL BE ROUTED WITH THE MAINLINE WHENEVER POSSIBLE. WIRE SHALL DIRECT BURIAL PE 14-GAUGE.

9. ALL SPRINKLER HEADS SHALL BE OF THE PROPER SIZE AND TYPE FOR THE LOCATION AND PLANT MATERIAL. HEADS SHALL BE INSTALLED IN THE PRESCRIBED MANNER, PLUMB, AND WITH THE PROPER HEIGHT WITH RESPECT TO GRADE AND/OR PLANT MATERIAL. 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 NORMAL LANDSCAPE MAINTENANCE OPERATIONS. ALL SPRINKLERS SHALL BE ADJUSTED TO OBTAIN OPTIMAL COVERAGE OF PLANT MATERIAL, WHILE MINIMIZING OVERSPRAY ONTO WINDOWS, WALLS PAVING OR OTHER IMPERVIOUS SURFACES, PARTICULARLY WOODWORK AND/OR TRIM. THE INSTALLER SHALL UTILIZE THE PROPER SPRAY NOZZLE PATTERN FOR THE LOCATION, AS WELL AS PRESSURE-COMPENSATING HEADS OR SCREENS, AND ADJUSTABLE-PATTERN NOZZLES WHERE A FIXED PATTERN IS NOT SUITABLE TO CONTROL COVERAGE OR OVERSPRAY.

10. RISER-MOUNTED HEADS SHALL BE INSTALLED WITHIN THE FIRST ROW OF PLANT MATERIAL SO THAT THE HEAD IS PROTECTED AND CONCEALED BY THE MATERIAL. IT MAY BE REQUIRED TO RELOCATE HEADS NOT CONFORMING TO THIS STIPULATION AFTER PLANTS ARE INSTALLED. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER. RISERS SHALL BE STAKED AS SHOWN IN THE DETAILS, AND PAINTED A DURABLE FLAT COLOR, TO BE AGREED UPON BY THE PARTIES.

11. TREE BUBBLER HEADS SHALL BE CONSIDERED TEMPORARY, AND WILL BE CAPPED OFF ONCE MATERIAL IS ESTABLISHED.

12. THE CONTROLLER SHALL REQUIRE A STANDARD 120-VAC POWER FEED, WHICH SHALL BE COORDINATED BY THE INSTALLER, AND HOOKED UP BY A LICENSED ELECTRICIAN. IT IS PREFERRED THAT A DEDICATED CIRCUIT BE PROVIDED FOR THIS CONNECTION. A 3-WIRE POWER INPUT SURGE ARRESTOR SHALL BE PROVIDED ON THE POWER FEED, AND A DEDICATED GROUND ROD/PLATE NETWORK (SEE DETAIL) SHALL BE INSTALLED, HAVING A MEASURED EARTH GROUND RESISTANCE OF NOT GREATER THAN TEN (10) OHMS.

13. THE CONTROL SYSTEM IS A RAIN BIRD SYSTEM. THE INSTALLER SHALL UTILIZE PERSONNEL WHO ARE SPECIFICALLY TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF THIS SYSTEM. THE INSTALLER SHALL ENLIST THE SERVICES OF THE FIELD SERVICE REPRESENTATIVE FOR ANY REQUIRED COORDINATION. ALL RELEVANT MATERIAL AND LABOR TO INSTALL THIS SYSTEM IN ACCORDANCE WITH RAIN BIRD GUIDELINES SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT SPECIFICALLY CALLED OUT IN THESE DOCUMENTS.

14. THE CONTROLLER SHALL BE EQUIPPED WITH A PROPERLY LOCATED AND INSTALLED RAIN SENSOR. THE SENSOR SHALL BE LOCATED IN SUCH A MANNER SO THAT IT IS UNOBSTRUCTED AND DIRECTLY EXPOSED TO NATURAL RAINFALL FROM ALL DIRECTIONS, BUT NOT TO RUNOFF WATER FROM ROOFS, ETC.

15. THE MINIMUM SUPPLY REQUIREMENT FOR THE SYSTEM AS DESIGNED IS:
SEE POC CRITICAL ANALYSIS

16. THE INSTALLER SHALL BE EXPECTED TO BE FAMILIAR WITH ALL REQUIREMENTS FOR THE WORK, AND TO CONDUCT HIS WORK IN A CLEAN, SAFE, AND WORKMANLIKE MANNER. THE OWNER RESERVES THE RIGHT TO ACT TO PROTECT HIS PROPERTY AND THE OTHER PERSONNEL AT WORK THERE, AND TO MAKE EMERGENCY REPAIRS OR TAKE CORRECTIVE ACTION IF THE INSTALLER DOES NOT FULFILL HIS OBLIGATIONS IN A TIMELY MANNER. THE OWNER FURTHER RESERVES THE RIGHT TO BACK-CHARGE THE INSTALLER TO COVER SUCH EXPENSES, TO THE EXTENT ALLOWED UNDER APPLICABLE LAW.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-2635

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PROJECT
MIDWAY TERRACE APTS
LOT 18
MARION COUNTY, FL

Prepared For:
LINN ENGINEERING

SEAL

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CONSULTANTS

ISSUED FOR:
PERMIT REVIEW
2023/2024 (REVISED LAYER 2)

PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	AS SHOWN

DRAWING TITLE
IRRIGATION DETAILS

DRAWING NUMBER
IR-02
SHEET 2 OF 3

IRRIGATION NOTES & SPECIFICATIONS

Irrigation design based on the TDC Design Studio Landscape Plan dated 7/19/2021. Contractor shall refer to these plans to coordinate sprinkler and pipe locations.

The system has been designed to conform with the requirements of all applicable codes, laws, ordinances, rules, regulations and conventions. Should any conflict exist, the requirements of the codes shall prevail. It is the responsibility of the owner/installation contractor to ensure the entire system is installed as designed. Irrigation contractor responsible for obtaining all required permits according to federal, state and local laws.

The scope of work is shown on the plans, notes and details. The Irrigation Contractor shall be certified as a CERTIFIED IRRIGATION CONTRACTOR by the Irrigation Association. The certification shall be current and in good standing.

THE WORK

The work specified in this section consists of furnishing all components necessary for the installation, testing, and delivery of a complete, fully functional automatic landscape irrigation system that complies with the irrigation plans, specifications, notes, and details. This work shall include, but not be limited to, the providing of all required material if applicable (pumps), backflows, pipes, valves, fittings, controllers, wire, primer, glue, etc.), layout, protection to the public, excavation, assembly, installation, back filling, compacting, repair of road surfaces, controller and low voltage feeds to valves, cleanup, maintenance, guarantee and as-built plans.

All irrigated areas shall provide 100% head-to-head coverage from a fully automatic irrigation system with a rain (and freeze as appropriate) shut off device. If the rain shut off device is a rain sensor, it shall be installed to prevent activation by adjacent heads. Zones are prioritized first by public safety and then by hydraulic concerns. This sequencing will be a mandatory punch list item.

These plans have been designed to satisfy/exceed the Florida Irrigation Society Standards and Specifications for Turf and Landscape Irrigation Systems, fourth edition. All products should be installed per manufacturer's recommendation. Contractor shall verify all underground utilities 72 hours prior to commencement of work.

It is the responsibility of the irrigation contractor to familiarize themselves with all grade differences, location of walls, retaining walls, structures and utilities. Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that unknown obstruction, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions, or differences, should be brought to the attention of the owner's authorized representative. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.

Irrigation contractor shall repair or replace all items damaged by their work. Irrigation contractor shall coordinate their work with other contractors for the location and installation of pipe sleeves and laterals through walls, under roadways and paving, etc.

The contractor shall take immediate steps to repair, replace, or restore all services to any utilities which are disrupted due to their operations. All costs involved in disruption of service and repairs due to negligence on the part of the contractor shall be their responsibility.

POINT OF CONNECTION (P.O.C.)

There is ONE P.O.C.('s)

#1-P.O.C. is a new a new 1" potable meter (by others) with a 1" service line by others. The P.O.C. must be capable of delivering a minimum of 20.3 GPM at 60 PSI downstream of the water meter.

Contractor to verify these minimum conditions can be met prior to ordering of materials and the beginning of installation. If the conditions can not be met, the contractor must notify the designer prior to proceeding with the work. If the contractor does not do so, the contractor proceeds at their own risk and becomes responsible for any future work required to make the system perform as required.

THE PIPE

Pipe locations shown on the plan are schematic and shall be adjusted in the field. When laying out mainlines place a maximum of 18" away from either the back of curb, front of walk, back of walk, or other hardscape to allow for ease in locating and protection from physical damage. Install all lateral pipe near edges of pavement or against buildings whenever possible to allow space for plant root balls. Always install piping inside project property's boundary.

All pipes are to be placed in planting beds. If it is necessary to have piping under hardscapes, such as roads, walks, and patios, the pipes must be sleeved using Class 200 PVC with the sleeve diameter being twice the size of the pipe it is carrying with a minimum sleeve size of 2".

Pipe sizes shall conform to those shown on the drawings. No substitutions of smaller pipe sizes shall be permitted, but substitutions of larger sizes may be approved. All damaged and rejected pipe shall be removed from the site at the time of said rejection.

Mainline shall be Pantone Purple Sch 40 solvent-weld (sized per plan) PVC with Sch 40 PVC solvent-weld fittings.

Contractor to ensure all mainline piping is properly restrained using mechanical joint fittings, restraining collars, threaded rods, thrust blocks, etc.,, as and where required. Contractor shall refer to pipe manufacturers recommended installation practices for further direction.

PVC pipe joint compound and primer: The PVC cement shall be Weld-On 711 (grey, slow-drying, heavy-duty) and the primer shall be Weld-On P70 (purple tinted, compatible with cement), or approved equals.

ELECTRICAL POWER SUPPLY

Electrical supply for irrigation pumps, controllers, sensors, relay sto be provided by irrigation contractor. Contractor to coordinate with local utilities for the installation of, and connection to, site available power supplies for required electrical components as set forth in the irrigation plans.

All electrical work is to comply with the National Electrical Code and any, and all, other applicable electrical codes, laws and regulations. A licensed electrician shall perform all electrical hook-ups. Power for each controller/CCU shall be a dedicated 120 volt, 20 amp circuit unless otherwise specified in the plans. Power for each pump to be according to pump specifications indicated in these plans.

WIRING

Irrigation control wire shall be thermoplastic solid copper, single conductor, low voltage irrigation controller wire; suitable for direct burial and continuous operation at rated voltages.

Tape and bundle control wires every 10' and run alongside the mainline. At all turns in direction make a 2' coil of wire. At all valve boxes coil wire around a 3/4" piece of PVC pipe to make a coil using 30 linear inches of wire. Make electrical connections with 3MDBY/R connectors.

Number all wires, using an electrical book of numbers, according to the plans. Number wires in all valve boxes, junction boxes and at the controller.

Wire sized, numbered and colored as follows:
- #14 white for common
- #14 spare black common
- #14 individual color coded hot wire
  - #14 spare yellow hot wire

Spare wires
- Leaving each controller, run six spare wires in both directions (twelve spare wires total). Install as 2 common spares (4 total) and 4 hot wires (8 total). Loop these wires into each RCV along their path and terminate in the last valve box controlled by the wires respective controller. The loop into each valve box shall extend up into the valve box a minimum of 8" and be readily accessible by opening the valve box lid. These wires must be all numbered and color coded as required in these plans.

Controller and Pump station Control Panel grounding - Contractor to utilize 4"X8'X5/8" copper grounding plates, 5/8"X10' copper clad grounding rods, 'One Strike' CAD wells at all connection points, #6 bare copper wire, and earth contact material. Install these and other required components as outlined in the detail. Contractor to verify that the earth to ground resistance does not exceed 10 ohms. Contractor shall provide a written certification, on a licensed electrical contractors letter head, showing the date of the test, controller/pump location, and test results. Each controller/pump shall be so grounded and tested. Each component must have its own separate grounding grid, unless they are sitting side by side, in which case up to two controllers can share a common grounding grid.

LAYOUT

Lay out irrigation system mainlines and lateral lines. Make the necessary adjustments as required to take into account all site obstructions and limitations prior to excavating trenches.

Stake all sprinkler head locations. Adjust location and make the necessary modifications to nozzle types, etc. required to ensure 100% head to head coverage. Refer to the Edge of Pavement Detail on the Irrigation Detail Sheet.

Spray heads shall be installed 4" from sidewalks or curbed roadways and 12" from uncurbed roadways and building foundations. Rotors shall be installed 4" from sidewalks or curbed roadways, 12" from building foundations, and 36" from uncurbed roadways.

Shrub heads shall be installed on 3/4" Sch 40 PVC risers. The risers shall be set at a minimum of 18" off sidewalks, roadway curbing, building foundations, and/or any other hardscaped areas. Shrub heads shall be installed to a standard height of 4" below maintained height of plants and shall be installed a minimum of 6" within planted masses to be less visible and offer protection. Paint all shrub risers with flat black or forest green paint, unless irrigation system will utilize reuse water; in this case the risers shall be purple PVC and shall not be painted.

Locate valves prior to excavation. Ensure that their location provides for easy access and that there is no interference with physical structures, plants, trees, poles, etc. Valve boxes must be placed a minimum of 12" and a maximum of 15" from the edge of pavement, curbs, etc. and the top of the box must be 2" above finish grade. No valve boxes shall be installed in turf areas without approval by the irrigation designer - only in shrub beds. Never install in sport field areas.

VALVES

Sequence all valves so that the farthest valve from the P.O.C. operates first and the closest to the P.O.C. operates last. The closest valve to the P.O.C. should be the last valve in the programmed sequence.

Adjust the flow control on each RCV to ensure shut off in 10 seconds after deactivation by the irrigation controller.

Using an electric branding iron, brand the valve I.D. letter/number on the lid of each valve box. This brand must be 2"-3" tall and easily legible.

EQUIPMENT

All pop-up heads and shrub risers shall be pressure compensating. All pop-up heads shall be mounted on flex-type swing joints. All rotors shall be installed with PVC triple swing joints unless otherwise detailed.

All sprinkler equipment, not otherwise detailed or specified on these plans, shall be installed as per manufacturer's recommendations and specifications, and according to local and state laws.

TRENCHING

Excavate straight and vertical trenches with smooth, flat or sloping bottoms. Trench width and depth should be sufficient to allow for the proper vertical and horizontal separation between piping as shown in the pipe installation detail on the detail sheet.

Protect existing landscaped areas. Remove and replant any damaged plant material upon job completion. The replacement material shall be of the same genus and species, and of the same size as the material it is replacing. The final determination as to what needs to be replaced and the acceptability of the replacement material shall be solely up to the owner or owner's representative.

INSTALLATION

Solvent Weld Pipe: Cut all pipe square and deburr. Clean pipe and fittings of foreign material; then apply a small amount of primer while ensuring that any excess is wiped off immediately. Primer should not puddle or drip from pipe or fittings. Next apply a thin coat of PVC cement; first apply a thin layer to the pipe, next a thin layer inside the fitting, and finally another very thin layer on the pipe. Insert the pipe into the fitting. Insure that the pipe is inserted to the bottom of the fitting, then turn the pipe a 1/4 turn and hold for 10 seconds. Make sure that the pipe doesn't recede from the fitting. If the pipe isn't at the bottom of the fitting upon completion, the glue joint is unacceptable and must be discarded.

Pipes must cure a minimum of 30 minutes prior to handling and placing into trenches. A longer curing time may be required; refer to the manufacture's specifications. The pipe must cure a minimum of 24 hours prior to filling with water.

Gasketed Pipe: With pipe in the trench, cut pipe square, deburr, and place beveled edge on male portion of pipe, if not using a piece with a factory bevel. Clean pipe and fittings of foreign material; then apply a small amount of pipe grease to the rubber gasket on the female end. Fully insert the male end of the pipe into the bell end of adjacent pipe until the bevel is fully seated into the bell. Restrain pipe as required.

BACK FILL

The Back fill 6" below, 6" above, and around all piping shall be of clean sand and anything beyond that in the trench can be of native material but nothing larger than 2" in diameter.

Main line pipe depth measured to the top of pipe shall be:
- 24" minimum for 3/4"-2 1/2" PVC with a 30" minimum at vehicular crossings;
- 30" minimum for 3" & 4" PVC with a 36" minimum at vehicular crossings.
- 36" minimum for 6" PVC with a 36" minimum at vehicular crossings;

Lateral line depths measured to top of pipe shall be:
- 18" minimum for 3/4"-3" PVC with a 30" minimum at vehicular crossings;
- 24" minimum for 4" PVC and above with a 30" minimum at vehicular crossings.

Contractor shall backfill all piping, both mainline and laterals, prior to performing any pressure tests. The pipe shall be backfilled with the exception of 2' on each side of every joint (ball fittings, 90's, tees, 45's, etc.). These joints shall not be backfilled until all piping has satisfactorily passed its appropriate pressure test as outlined below.

FLUSHING

Prior to the placement of valves, flush all mainlines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Prior to the placement of heads, flush all lateral lines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Use screens in heads and adjust heads for proper coverage avoiding excess water on walls, walks and paving.

TESTING

Soil: At a minimum of 2 locations on the site, soil tests for infiltration and texture shall be performed according to the USDA Soil Quality Test Kit Guide. The tests shall be documented in a USDA Soil Worksheet. (All of the above is available at http://soils.usda.gov/sqi/assessment/test_kit.html) The completed worksheet shall be submitted to the owners representative for review/approval. Do not proceed without written direction from the owner/owner's representative.

Mainline: Remove all remote control valves and cap using a threaded cap on SCH 80 nipple. Fill mainline with water and pressurize the system to 125 PSI. Monitor the system pressure at two gauge locations; the gauge locations must be at opposite ends of the mainline. With the same respective pressures, monitor the gauges for two hours. There can be no loss in pressure at either gauge for solvent-welded pipe. For HDPE pipe, see HDPE notes. For gasketed pipe, testing requires measurement of the water pumped into the mainline system, using a hydrostatic pump, to maintain 125 PSI - this water volume shall be no more than the result of the following formula:

$$L=(ND*P)/7400$$

where L=Allowable leakage in gallons per hour
N=Number of joints in pipe tested
D=Nominal diameter of pipe (in inches)
P=Average Test Pressure (in PSI)

If these parameters are exceeded, locate the problem; repair it; wait 24 hours and retry the test. This procedure must be followed until the mainline passes the test.

Lateral Lines: The lateral lines must be fully filled to operational pressure and visually checked for leaks. Any leaks detected must be repaired.

Operational Testing -Once the mainline and lateral lines have passed their respective tests, and the system is completely operational, a coverage test and demonstration of the system is required. The irrigation contractor must demonstrate to the owner, or his/her representative, that proper coverage is obtained and the system works automatically from the controller. This demonstration requires each zone to be turned on, in the proper sequence as shown on the plans, from the controller. Each zone will be inspected for proper coverage and function. The determination of proper coverage and function is at the sole discretion of the owner or owner's representative.

Upon completion of the operational test, run each zone until water begins to puddle or run off. This will allow you to determine the number of irrigation start times necessary to meet the weekly evapotranspiration requirements of the planting material in each zone. In fine sandy soils, it is possible no puddling will occur. If this is experienced, then theoretical calculations for run times will be required for controller programming.

SUBMITTALS

Pre-Construction: The contractor must submit for written approval, prior to installation, five (5) copies of the manufacturer's cut sheets/specifications for all components to be used in the irrigation system.

After project completion:
As a condition of final acceptance, the irrigation contractor shall provide the owner with:
1. Irrigations As-builts - shall be provided utilizing a sub-foot Global Positioning System (GPS) to accurately locate all mainlines, sleeves, remote control valves, gate valves, independent wire runs, wire splice boxes, controllers, high voltage supply sources/conduit path, control mechanisms, sensors, wells and water source connections in Florida East State Plane, NAD 83, and CORS 96 format. The data collected shall be in POINT format and include an ID for each data point with Manufacturer, Type, Size, and Depth. All mainline and independent runs of wire shall be located every 30' for straight runs and at every change of direction. Sleeves will be located at end points and every 20' of length. The GPS data collected shall include depth in inch format. These POINTS once collected shall be imported into AutoCAD DWG geo-referenced base file to be labeled accordingly. The completed As-built shall be a Geo-Referenced DWF file and delivered to the owner on a compact disk (CD);

2. Controller charts - Upon completion of "as-built" prepare controller charts; one per controller. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart shall be reduced to a size that will fit inside of the controller door. The reduction shall be hermetically sealed inside two 2mil pieces of clear plastic.

3. Grounding Certification - Provide ground certification results for each controller and pump panel grounding grid installed. This must be on a licensed electrical contractor letter head, showing the location tested (using IR plan symbols), date, time, test method, and testing results.

INSPECTIONS AND COORDINATION MEETINGS REQUIRED - Contractor is required to schedule, perform, and attend the following, and demonstrate to the owner and/or owner's representative to their satisfaction, as follows:

1. Pre-construction meeting - Designer and contractor to review and finalize the construction schedule with owner/general contractor.
2. Mainline installation inspection(s) - all mainline must be inspected for proper pipe, fittings, depth of coverage, backfill, and installation method
3. Mainline pressure test - All mainline shall be pressure tested according to this designs requirements
4. Flow Meter calibration - All flow meters must be calibrated, provide certified calibration report for all flow meters.
5. USDA Soil Quality Tests for infiltration/texture
6. Coverage and operational test
7. Final inspection
8. Punch list inspection

FINAL ACCEPTANCE

Final acceptance of the irrigation system will be given after the following documents and conditions have been completed and approved. Final payment will not be released until these conditions are satisfied.

1. All above inspections are completed, documented, and approved by owner.
2. Completion and acceptance of 'as-built' drawings.
3. Acceptance of required controller charts and placement inside of controllers.
4. All other submittals have be made to the satisfaction of the owner.

GUARANTEE: The irrigation system shall be guaranteed for a minimum of one calendar year from the time of final acceptance.

MINIMUM RECOMMENDED
IRRIGATION MAINTENANCE PROCEDURES

1. Every irrigation zone should be checked monthly and written reports generated describing the date(s) each zone was inspected, problems identified, date problems repaired, and a list of materials used in the repair. At minimum, these inspections should include the following tasks:

A. Turn on each zone from the controller to verify automatic operation.
B. Check schedules to ensure they are appropriate for the season, plant and soil type, and irrigation method. Consult an I.A. certified auditor for methods used in determining proper irrigation scheduling requirements.
C. Check remote control valve to ensure proper operation.
D. Check setting on pressure regulator to verify proper setting, if present.
E. Check flow control and adjust as needed; ensure valve closure within 10-15 seconds after deactivation by controller.
F. Check for leaks - mainline, lateral lines, valves, heads, etc.
G. Check all heads as follows:

1. Proper set height (top of sprinkler is 1" below mow height)
2. Verify head pop-up height - 6" in turf, 12" in ground cover, and pop-up on riser in shrub beds.
3. Check wiper seal for leaks - if leaking, clean head and re-inspect. If still leaking, replace head with the appropriate head with pressure regulator and built-in check valve.
4. All nozzles checked for proper pattern, clogging, leaks, correct make & model, etc. - replace as needed
5. Check for proper alignment - perfectly vertical; coverage area is correct; minimize over spray onto hardscapes.
6. Riser height raised/lowered to accommodate plant growth patterns and ensure proper coverage.
7. verify the pop-up riser retracts after operation. If not, repair/replace as needed.

2. Check controller/C.C.U. grounds for resistance (10 ohms or less) once per year. Submit written reports.

3. Check rain shut-off device monthly to ensure it functions properly.

4. Inspect all filters monthly and clean/repair/replace as needed.

5. Inspect backflow devices by utilizing a properly licensed backflow inspector. This should be done annually, at minimum.

6. Inspect all valve boxes to ensure they are in good condition, lids are in place and locked.

7. Check pump stations for proper operation, pressures, filtration, settings, etc. - refer to pump station operations manual.

8. Check and clean intake screens on all suction lines quarterly, at minimum. Clean and/or repair, as needed.

9. Winterize, if applicable, as weather in your area dictates. Follow manufacturer recommendations and blow out all lines and equipment using compressed air. Perform seasonal startup of system as per manufacturer recommendations.

10. Conduct additional inspections, maintenance tasks, etc. that are particular for your site.

PRELIMINARY NOT FOR REVIEW
MARION COUNTY, FLORIDA
APPLICATION # 37183
Review of these plans is limited to compliance with Marion County ordinances. Marion County is not responsible for the accuracy or adequacy of the plans. Permitted construction shall be deemed and welded. Deed and mulch may be used if approved by the County Engineer or Contractor.
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the permits required by other governmental entities (partial, as applicable, or state and/or federal) laws.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-2633

THE DESIGN STUDIO (TDC) OWNS EVERYTHING ON THIS DOCUMENT INCLUDING BUT NOT LIMITED TO, ALL COPYRIGHTS AND OTHER INTERESTS IN THESE PLANS, IDEAS, AND DESIGNS. THESE PLANS, IDEAS, AND DESIGNS MAY NOT BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MATTER; WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION, CONSENT, AND PROVIDING APPROPRIATE COMPENSATION TO TDC. ALL REPRODUCTIONS SHALL HAVE PRECISIONS OVER SCALE DIMENSIONS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE SITE. TDC IS NOT RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY OTHERS ON, OR ADJACENT TO, THE SITE AND SHALL BE NOTIFIED IN WRITING OF ANY VARIATION FROM THE DIMENSIONS, CONDITIONS AND SPECIFICATIONS APPEARING ON THESE PLANS. (C) 2021

PROJECT: MIDWAY TERRACE APTS LOT 18
MARION COUNTY, FL
Prepared For: LINN ENGINEERING

SEAL: STATE OF FLORIDA LICENSED LANDSCAPE ARCHITECT ROBERT J. TUCCI JR. LICENSE NO. LA0001811
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

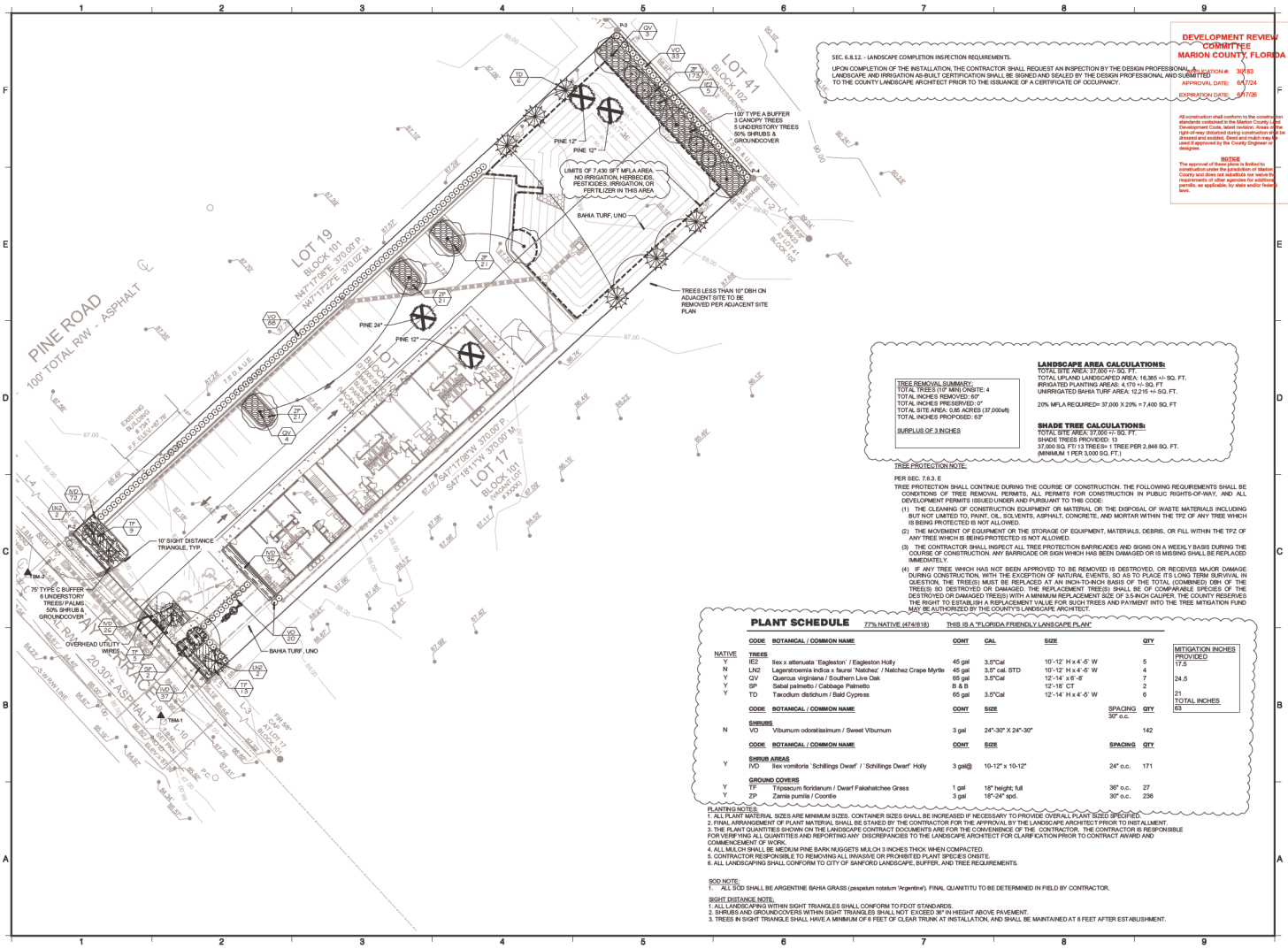
CONSULTANTS:

ISSUED FOR:	
PRELIMINARY NOT FOR REVIEW	
2022/02/24 REVISED LAYER 23	
PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	AS SHOWN

DRAWING TITLE: IRRIGATION DETAILS

DRAWING NUMBER: IR-03

SHEET 3 OF 3



SEC. 6.8.12. - LANDSCAPE COMPLETION INSPECTION REQUIREMENTS.

UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL REQUEST AN INSPECTION BY THE DESIGN PROFESSIONAL. A LANDSCAPE AND IRRIGATION AS-BUILT CERTIFICATION SHALL BE SIGNED AND SEALED BY THE DESIGN PROFESSIONAL AND SUBMITTED TO THE COUNTY LANDSCAPE ARCHITECT PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any deviations from the approved right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

TREE REMOVAL SUMMARY:
TOTAL TREES (10" MIN) ONSITE: 4
TOTAL INCHES REMOVED: 60"
TOTAL INCHES PRESERVED: 0"
TOTAL SITE AREA: 0.85 ACRES (37,000sqft)
TOTAL INCHES PROPOSED: 63"

SURPLUS OF 3 INCHES

LANDSCAPE AREA CALCULATIONS:
TOTAL SITE AREA: 37,000 +/- SQ. FT.
TOTAL UPLAND LANDSCAPED AREA: 16,385 +/- SQ. FT.
IRRIGATED PLANTING AREAS: 4,170 +/- SQ. FT
UNIRRIGATED BAHA TURF AREA: 12,215 +/- SQ. FT.

20% MFLA REQUIRED= 37,000 X 20% = 7,400 SQ. FT

SHADE TREE CALCULATIONS:
TOTAL SITE AREA: 37,000 +/- SQ. FT.
SHADE TREES PROVIDED: 13
37,000 SQ. FT/ 13 TREES= 1 TREE PER 2,846 SQ. FT.
(MINIMUM 1 PER 3,000 SQ. FT.)

TREE PROTECTION NOTE:

PER SEC. 7.6.3. E

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:

(1) 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.

(2) 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.

(3) 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.

(4) 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 3.5-INCH CALIPER. THE COUNTY RESERVES THE RIGHT TO ESTABLISH A REPLACEMENT VALUE FOR SUCH TREES AND PAYMENT INTO THE TREE MITIGATION FUND MAY BE AUTHORIZED BY THE COUNTY'S LANDSCAPE ARCHITECT.

PLANT SCHEDULE

77% NATIVE (474/618) THIS IS A "FLORIDA FRIENDLY LANSCAPE PLAN"

	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE		QTY
NATIVE		**TREES**					
Y	IE2	Ilex x attenuata `Eagleston` / Eagleston Holly	45 gal	3.5"Cal	10'-12' H x 4'-5' W		5
N	LN2	Lagerstroemia indica x fauriei `Natchez` / Natchez Crape Myrtle	45 gal	3.5" cal. STD	10'-12' H x 4'-5' W		4
Y	QV	Quercus virginiana / Southern Live Oak	65 gal	3.5"Cal	12'-14' x 6'-8'		7
Y	SP	Sabal palmetto / Cabbage Palmetto	B & B		12'-18' CT		2
Y	TD	Taxodium distichum / Bald Cypress	65 gal	3.5"Cal	12'-14' H x 4'-5' W		6
	CODE	BOTANICAL / COMMON NAME	CONT	SIZE		SPACING	QTY
		SHRUBS				30" o.c.	
N	VO	Viburnum odoratissimum / Sweet Viburnum	3 gal	24"-30" X 24"-30"			142
	CODE	BOTANICAL / COMMON NAME	CONT	SIZE		SPACING	QTY
		SHRUB AREAS					
Y	IVD	Ilex vomitoria `Schillings Dwarf` / `Schillings Dwarf` Holly	3 gal@	10-12" x 10-12"		24" o.c.	171
		GROUND COVERS					
Y	TF	Tripsacum floridanum / Dwarf Fakahatchee Grass	1 gal	18" height; full		36" o.c.	27
Y	ZP	Zamia pumila / Coontie	3 gal	18"-24" spd.		30" o.c.	236

MITIGATION INCHES PROVIDED
17.5
24.5
21
TOTAL INCHES
63

PLANTING NOTES:
1. ALL PLANT MATERIAL SIZES ARE MINIMUM SIZES. CONTAINER SIZES SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZED SPECIFIED.
2. FINAL ARRANGEMENT OF PLANT MATERIAL SHALL BE STAKED BY THE CONTRACTOR FOR THE APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLMENT.
3. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
4. ALL MULCH SHALL BE MEDIUM PINE BARK NUGGETS MULCH 3 INCHES THICK WHEN COMPACTED.
5. CONTRACTOR RESPONSIBLE TO REMOVING ALL INVASIVE OR PROHIBITED PLANT SPECIES ONSITE.
6. ALL LANDSCAPING SHALL CONFORM TO CITY OF SANFORD LANDSCAPE, BUFFER, AND TREE REQUIREMENTS.

SOD NOTE:
1. ALL SOD SHALL BE ARGENTINE BAHIA GRASS (paspalum notatum 'Argentine'). FINAL QUANTITIU TO BE DETERMINED IN FIELD BY CONTRACTOR.

SIGHT DISTANCE NOTE:
1. ALL LANDSCAPING WITHIN SIGHT TRIANGLES SHALL CONFORM TO FDOT STANDARDS.
2. SHRUBS AND GROUNDCOVERS WITHIN SIGHT TRIANGLES SHALL NOT EXCEED 36" IN HEIGHT ABOVE PAVEMENT.
3. TREES IN SIGHT TRIANGLE SHALL HAVE A MINIMUM OF 6 FEET OF CLEAR TRUNK AT INSTALLATION, AND SHALL BE MAINTAINED AT 8 FEET AFTER ESTABLISHMENT.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-0435

THE DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS PREPARED BY THE LANDSCAPE ARCHITECT AND OTHER CONSULTANTS AND UNDER HIS DIRECTION OR EXPERTISE IN THESE PLANS, DRAWS, AND DESIGNS, THESE DOCUMENTS ARE THE PROPERTY OF THE LANDSCAPE ARCHITECT. REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MATTER, WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION, CONSENT, AND PROVIDING APPROPRIATE COMPENSATION TO THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. THE LA IS NOT RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY OTHERS. ANY DISCREPANCIES SHALL BE REPORTED TO THE LA BEFORE WORK IS MADE. NO ALTERATIONS OR VARIATION FROM THE DIMENSIONS, CONDITIONS AND SPECIFICATIONS APPEARING ON THESE PLANS, DO, SHOULD

PROJECT:
MIDWAY TERRACE APTS
LOT 18
MARION COUNTY, FL

Prepared For:
LINN ENGINEERING

SEAL:

Printed copies of this document are not considered signed and sealed and the seal may not be verified on any electronic copies.

CONSULTANTS:

ISSUED FOR:
DEVELOPMENT REVIEW
2/23/2024 REVISED (LAYER 2)
3/14/2024 REVISED (LAYER 3)

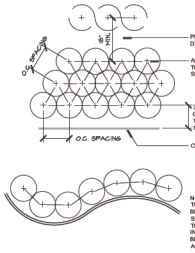
PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	1"=20'

0 FT 10 20 North

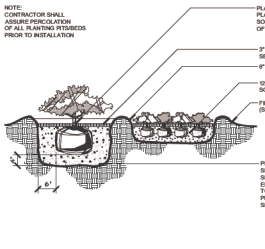
DRAWING TITLE:
LANDSCAPE PLAN

DRAWING NUMBER
LS-01

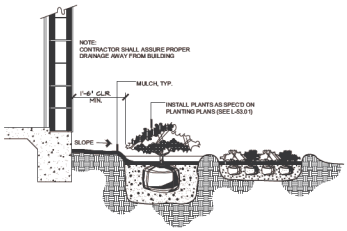
SHEET 1 OF 2



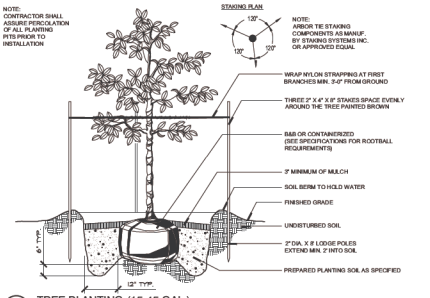
1 SHRUB & GROUNDCOVER SPACING
1/2" = 1'-0" P-LA-01



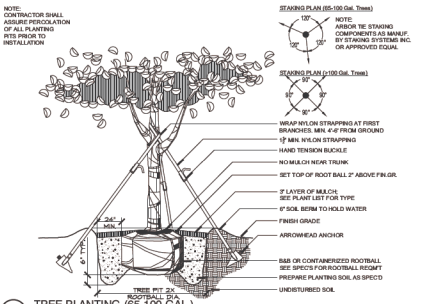
2 SHRUB & GROUNDCOVER PLANTING
1/2" = 1'-0" P-LA-02



3 FOUNDATION PLANTING
1/2" = 1'-0" P-LA-03



4 TREE PLANTING (15-45 GAL.)
1/2" = 1'-0" P-LA-05



5 TREE PLANTING (65-100 GAL.)
1/2" = 1'-0" P-LA-06

LANDSCAPE SPECIFICATIONS:

PART 1 - GENERAL
1.01 WORK INCLUDED:
A. INSTALLATION OF TREES, PALMS, SHRUBS, GROUNDCOVERS, AND GRASS SOD.
B. APPLICATION AND PAYMENT FOR REQUIRED REVISIONS.

1.02 REFERENCES
A. *GRADES AND STANDARDS FOR NURSERY PLANTS,"FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
B. "AMERICAN STANDARD FOR NURSERY STOCK," ANSI Z60.1-2004, AMERICAN NURSERY & LANDSCAPE ASSOCIATION.

1.03 SUBMITTALS
A. RECORD DRAWINGS: FURNISH ONE SET OF REPRODUCIBLE RECORD DRAWINGS, CLEARLY SHOWING ALL CHANGES MADE TO THE ORIGINAL CONTRACT DRAWINGS DURING THE COURSE OF WORK.
B. SOIL ANALYSIS: SUBMIT SOIL TEST RESULTS FROM AN INDEPENDENT SOIL TESTING LABORATORY PRIOR TO PLANTING.

1.04 DELIVERY, STORAGE, AND HANDLING
A. INSPECTION: UPON DELIVERY TO THE SITE, INSPECT ALL PLANT MATERIALS FOR CONFORMITY TO THE SPECIFICATIONS AND FOR HANDLING DAMAGE. REMOVE FROM THE SITE ALL NON-CONFORMING AND DAMAGED PLANT MATERIALS.
B. ON-SITE STORAGE: PROTECT ALL STORED PLANT MATERIALS FROM SUN AND WIND. WATER ALL STORED PLANT MATERIAL DAILY. OWNER TO INDICATE APPROPRIATE LOCATION FOR MATERIAL(S) AND EQUIPMENT STORAGE

1.05 GUARANTEE
A. GUARANTEE ALL PLANTING WORK FOR A PERIOD OF ONE YEAR AFTER THE DATE OF FINAL APPROVAL AND ACCEPTANCE.
B. REPLACE AT NO COST TO THE OWNER ALL PLANT MATERIALS WHICH DIE OF ARE DETERMINED BY THE LANDSCAPE ARCHITECT , OR OWNER'S REPRESENTATIVE TO BE UNACCEPTABLE, UNLESS THE DEATH OR UNACCEPTABLE CONDITION IS CLEARLY BEYOND THE CONTROL OF THE CONTRACTOR, AS DETERMINED BY THE OWNER. SUCH CIRCUMSTANCES MAY INCLUDE ACTS OF MOTHER NATURE, THEFT AFTER FINAL INSPECTION, OR VANDALISM. UNACCEPTABLE PLANTS SHALL INCLUDE THOSE THAT SHOW SIGNIFICANT DIEBACK OR FAILURE TO EXHIBIT THE HEALTHY CHARACTERISTICS INDICATIVE OF THE SPECIES.

1.06 MAINTENANCE
A. MAINTAIN ALL LANDSCAPING UNTIL ONE YEAR AFTER FINAL APPROVAL AND ACCEPTANCE.
B. MAINTENANCE TO INCLUDE:
1. CULTIVATING AND WEEDING PLANT BEDS AND TREE PITS.
2. APPLICATION OF HERBICIDES AND PESTICIDES
3. IRRIGATION SUFFICIENT TO SATURATE ROOT SYSTEMS APPLIED DAILY.
4. TRIMMING AND PRUNING, INCLUDING REMOVAL OF CLIPPINGS AND DEAD OR BROKEN BRANCHES, AND TREATMENT OF PRUNED AREAS OR OTHER WOUNDS.
5. DISEASE CONTROL.
6. MAINTAINING GUYS AND STAKES IN A TIGHT CONDITION.
7. MAINTAINING TREES IN A PLUMB CONDITION.
8. WEEKLY MOWING AFTER SOD IS SUFFICIENTLY ROOTED.

PART 2 - PRODUCTS
2.01 PLANT MATERIALS
A. TREES AND SHRUBS. ALL PLANT MATERIALS SHALL BE FLORIDA #1 AS OUTLINED IN "GRADES AND STANDARDS FOR NURSERY PLANTS."
B. SOD: PROVIDE ONLY NURSERY GROWN, MACHINE CUT SOD OF THE TYPE INDICATED ON THE DRAWINGS. SOD SHALL BE WELL-MATTED WITH ROOTS, FREE OF EXCESSIVE WEEDS, AND SHALL BE GREEN, FRESH AND UNILURED AT THE TIME OF PLANTING.

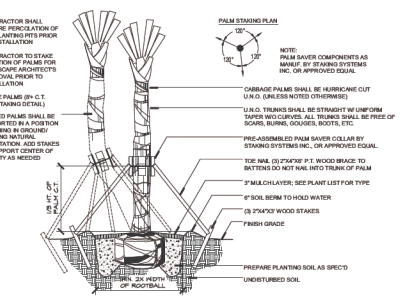
2.02 SOIL MATERIALS
A. TOPSOIL: FERTILE, AGRICULTURAL TOPSOIL, TYPICAL FOR PROJECT LOCALITY, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, TAKEN FROM DRAINED SITE, FREE OF SUBSOIL, CLAY, PLANTS, WEEDS AND ROOTS; pH RANGE OF 5.5 TO 7.0, MINIMUM 4 PERCENT, MAXIMUM 20 PERCENT ORGANIC MATTER.
B. PEAT MOSS: SHREDDED, LOOSE, SPHAGNUM MOSS, FREE OF LUMPS, ROOTS, INORGANIC MATERIAL, MINIMUM 85 PERCENT ORGANIC MATERIAL MEASURED BY OVEN DRY WEIGHT, A TO 5 pH RANGE, MOISTURE CONTENT OF 30 PERCENT.
C. SAND: COARSE, WASHED, BUILDERS SAND
D. PLANTING SOIL MIXTURE: PROVIDE MIXTURE OF IMPORTED TOPSOIL OR APPROVED TOPSOIL FROM SITE, PEAT, SAND, AND OTHER AMENDMENTS AS RECOMMENDED BY THE INDEPENDENT SOIL TESTING LABORATORY FOR THE SPECIFIED PLANTS.

2.03 OTHER MATERIALS
A. MULCH: PINE BARK MINI NUGGETS OR PINE STRAW 3" THICK COMPACTED UNDER ALL TREES, PALMS, SHRUBS, & GROUNDCOVER.
B. FERTILIZER:
1. FLOWERING ANNUALS AND BEDDING PLANTS: SIERRABLEN 16-7-10 (+IRON), RATE OF APPLICATION 3LBS PER 100 SQ.FT.
2. CONTAINER GROWN TREES, SHRUBS, AND GROUNDCOVER: AGRIFORM 21 GRAM TABLES, RATE OF APPLICATION AS FOLLOWS:
(1-2 GALLON PLANTS:1 TABLET) (20 GALLON PLANTS:8 TABLETS)
(3-5 GALLON PLANTS: 2 TABLETS) (65 GALLON PLANTS:6 TABLETS)
(7-10 GALLON PLANTS: 3 TABLETS) (100 GALLON PLANTS:10 TABLETS)
(15 GALLON PLANTS: 4 TABLETS) (200 GALLON PLANTS:15 TABLETS)
3. FIELD GROWN AND COLLECTED TREES: AGRIFORM 21 GRAM TABLETS, ONE TABLET PER 2" OF CALIPER FOR STANDARD TREES; ONE TABLET PER FOOT SPREAD FOR MULTI-TRUNK TREES.
4. NEWLY PLANTED SOD: 5-6-5 APPLIED PER MANUFACTURER'S INSTRUCTIONS.

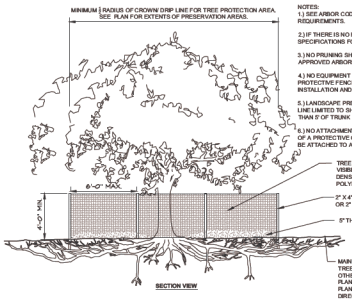
2.04 TESTS
A. PROVIDE ANALYSIS OF IMPORTED TOPSOIL INDICATING pH VALUE AND PERCENTAGE OF NITROGEN, PHOSPORUS, POTASH, SOLUBLE SALT, AND ORGANIC MATTER.
PROVIDE ANALYSIS OF EXISTING SOIL IN REPRESENTATIVE PLANTING AREAS, INDICATING REPRESENTATIVE PLANTING AREAS, INCLUDING LABORATORY RECOMMENDATIONS FOR SOIL AMENDMENTS NECESSARY FOR OPTIMAL PLANT GROWTH.

PART 3 - EXECUTION
3.01 PREPARATION
A. FINE GRADING: FINE GRADE PLANTING AREA, AS INDICATED ON THE DRAWINGS, ELIMINATING LOW OR ROUGH AREAS, AND BUILDING DEBRIS, STONES AND RUBBLE. FINISH GRADES SHALL BE SLOPED IN THE SAME DIRECTION AS EXISTING DRAINAGE; NEW GRADES SHALL NOT REVIEW PONDING OR STANDING WATER.
B. ALERT THE OWNER OF POTENTIAL GRADING AND DRAINAGE PROBLEMS, INCLUDING DEPRESSED PLANTING AREAS WITH NO OUTFALL, SATURATED PLANTING AREAS, PLANTING PITS THAT HOLD WATER FOR PROLONGED PERIODS, AND ANY OTHER CONDITION DETRIMENTAL TO OPTIMUM PLANT GROWTH.

3.02 PLANTING
A. TAKE LOCATIONS OF ALL TREES AND SHRUBS. ALIGN WITH ARCHITECTURAL OR ENGINEERING REFERENCES FEATHERS AS INDICATED ON THE DRAWINGS. INFORM LANDSCAPE ARCHITECT OF UNFORESEEN OBSTACLES WHICH MAY AFFECT THE LOCATIONS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR APPROVAL OF ALL STAKED PLATINGS PRIOR TO INSTALLATION.
B. PLANT TREES AND SHRUBS, ROTATING AS NECESSARY FOR BEST APPEARANCE FROM THE PREDOMINANT VIEWPOINT.
C. LAY OUT SHRUB BEDS, SCALING THE LOCATIONS AND DIMENSIONS OF EACH BED, FOLLOWING THE CONFIGURATIONS INDICATED ON THE DRAWINGS. ADJUST THE BED DIMENSIONS TO THE QUANTITY AND SPACING OF PLANTS SHOWN ON THE PLANT LIST OR SCALED FROM THE DRAWINGS. INFORM THE LANDSCAPE ARCHITECT OF SIGNIFICANT DISCREPANCIES BETWEEN PLAN BED DIMENSIONS AND PLANT QUANTITIES.
D. PLANT SHRUBS AND ANNUALS, MAINTAINING UNIFORM SPACING AS INDICATED ON THE PLANT LIST OR SCALED FROM THE DRAWINGS.
E. DISTRIBUTE OR DISPOSE OF EXCAVATED SOIL FROM PLANTING HOLES, MAINTAINING THE DESIRED FINISH GRADES.
F. LAY SOD ON FINE-GRADED, MOISTENED SOIL, WITHOUT GAPS OR OVERLAPS. TAMP OR ROLL TO PROVIDE FIRM CONTACT WITH SOIL. SOD LINE AT PLANT BEDS SHALL BE CUT TO THE CONFIGURATION AND DIMENSIONS SHOWN ON THE DRAWINGS. A MINIMUM DIMENSION SHALL BE MAINTAINED BETWEEN PLANTS AND SOD EQUAL TO ONE-HALF THE PLANT SPACING, MEASURED FROM THE CENTER OF THE PLANT TO THE EDGE OF THE SOD. A CIRCULAR RING OF 12 INCH RADIUS SHALL BE MAINTAINED FREE OF GRASS AROUND TREES WITHIN SODDED AREAS.
G. APPLY FERTILIZER TABLETS, EQUALLY DISTRIBUTED AROUND ROOTBALL AT A DEPTH EQUAL TO ONE-HALF THE ROOTBALL DEPTH. APPLY GRANULAR FERTILIZERS TO SOD AND BEDDING PLANTS. SWEEP FERTILIZERS FROM WALKWAYS TO AVOID STAINING.
H. SATURATE SOIL THOROUGHLY DURING AND AFTER BACKFILLING OF PLANTS, AND AFTER LAYING OF SOD.
I. APPLY A LAYER OF MULCH, MINIMUM 3 INCHES AFTER SETTLEMENT, TO ALL PLANT BEDS AND TREE RINGS.
J. STAKE AND GUY ALL TREES SECURELY. ATTACH WHITE SURVEYORS RIBBON TO ALL GUY WIRES ADJACENT TO PEDESTRIAN AREAS.



6 PALM PLANTING DETAIL
1/2" = 1'-0" P-LA-07



7 TREE PROTECTION
N.T.S. P-CO1-WAT-WOC-30

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained within the Marion County Land Development Code. Inspection of improvements in the right-of-way disturbed during construction shall be dressed and sodded. Deed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-2633

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PROJECT:
MIDWAY TERRACE APTS
LOT 18
MARION COUNTY, FL
Prepared For:
LINN ENGINEERING

SEAL:
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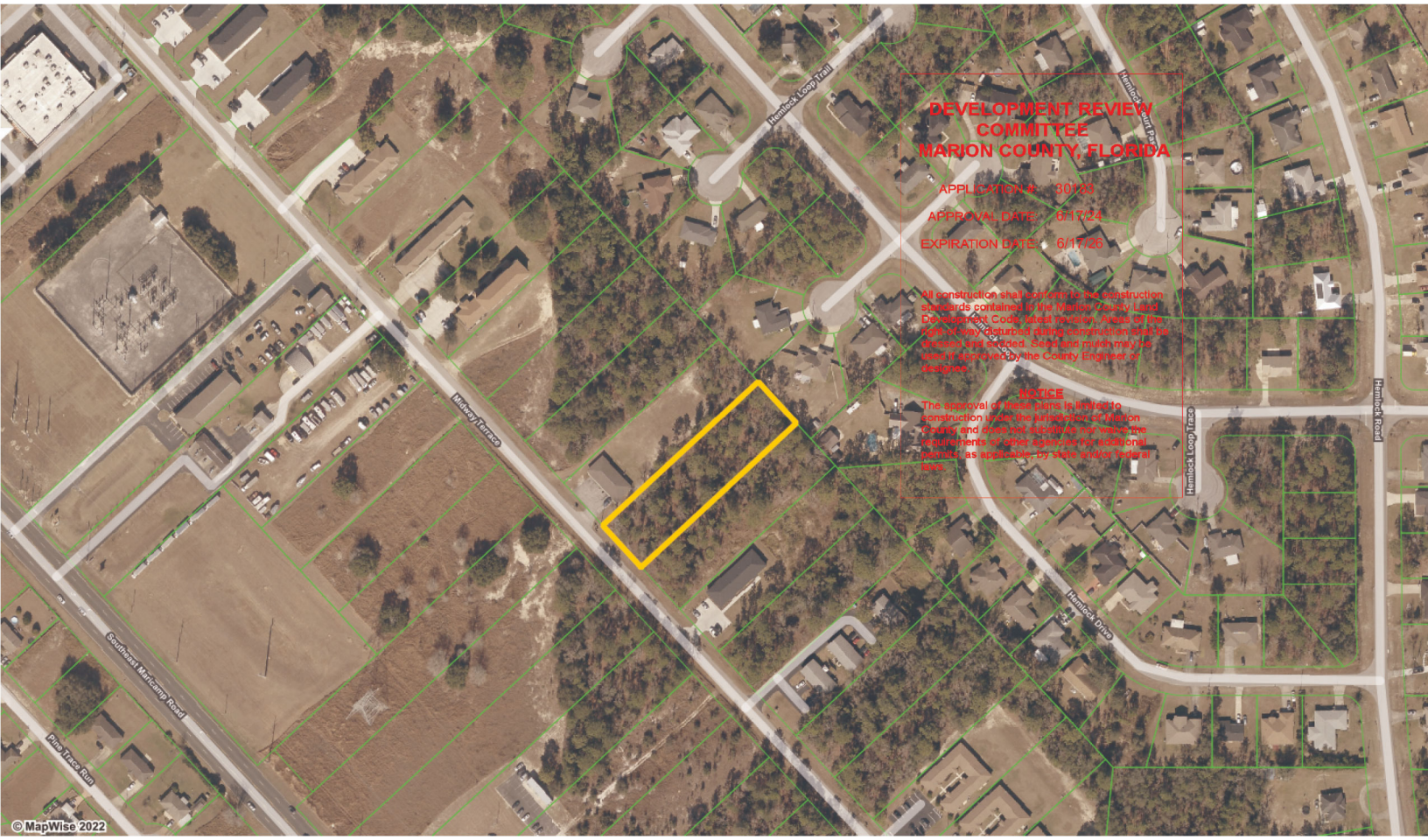
CONSULTANTS:

ISSUED FOR:
1/17/2024 DRC REVIEW
2/27/2024 REVISED (LAYER 2)
3/14/2024 REVISED (LAYER 3)

PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	AS SHOWN

DRAWING TITLE
LANDSCAPE DETAILS & SPECIFICATIONS

DRAWING NUMBER
LS-02
SHEET 2 OF 2


DEVELOPMENT REVIEW
COMMITTEE
MARION COUNTY, FLORIDA
APPLICATION #: 30120
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26
All construction shall conform to the construction standards contained in the Marion County Land Development Code. Most recently, State of the right-of-way disturbed during construction shall be stabilized and sodded. Sand and mulch may be used if approved by the County Engineer or designee.
NOTICE
The approval of these plans is NOT to construction under the jurisdiction of Marion County and does not authorize nor waive the requirements of other agencies or additional permits, as applicable, by state and/or federal laws.
Hemlock Loop Trail
Hemlock Court Pass
Hemlock Loop Trace
Hemlock Drive
Hemlock Road
Midway Terrace
Southeast Maricamp Road
Pine Trace Run
© MapWise 2022

GENERAL NOTES

1. SEE CIVIL ENGINEERING DRAWINGS FOR GENERAL GRADING OF THE SITE, INCLUDING FINISH GRADES FOR PARKING LOTS, ROADWAYS, SIDEWALKS, AND PLANTING AREAS.
2. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PROJECT SITE PRIOR TO BIDDING THE WORK. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND LOCATION OF PROPOSED IMPROVEMENTS PRIOR TO INITIATING ANY CONSTRUCTION.
3. LOCATION OF ALL UTILITIES AND BASE INFORMATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO INITIATING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGE TO EXISTING ELEMENTS ABOVE OR BELOW GROUND TO ITS ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
4. THE OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH IN HIS OPINION, DO NOT MEET WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS.
5. ALL DISTANCES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THIS CONTRACTOR ON-SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNERS REPRESENTATIVE.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE PRIOR TO START OF CONSTRUCTION AND/OR FABRICATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS.
7. REPORT ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DRAWINGS AND FIELD CONDITIONS TO THE OWNER'S REPRESENTATIVE.
8. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY MEASURES DURING CONSTRUCTION OPERATIONS TO PROTECT THE PUBLIC ACCORDING TO ALL APPLICABLE CODES AND RECOGNIZED LOCAL PRACTICES.
9. THE CONTRACTOR SHALL COORDINATE ACCESS AND STAGING AREAS WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION. PROVIDE ADDITIONAL MEASURES AS NECESSARY TO MINIMIZE ADVERSE IMPACTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
10. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. DURING THE COURSE OF THIS WORK, EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY FROM THE SITE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF WORK WITH OTHER TRADES AND THE OWNER'S REPRESENTATIVE.
12. FLORIDA LAW (F.S. 556) UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT MANDATES THAT EXCAVATOR/CONTRACTORS SHALL CONTACT SUNSHINE 811 (fka: SUNSHINE STATE ONE-CALL OF FLORIDA) BY CALLING 800-432-4770 OR 811 AT LEAST 2 FULL BUSINESS DAYS PRIOR TO THE BEGINNING ANY EXCAVATION OR DEMOLITION TO ALLOW MEMBER OPERATORS AN OPPORTUNITY TO IDENTIFY AND MARK THEIR UNDERGROUND FACILITIES AND APPROPRIATE PROTECTIVE MEASURES FOR POSSIBLE RESPONSE SYSTEM.
13. ALL EXISTING SITE ROADS, PARKING LOTS, CURBS, UTILITIES, SEWERS, AND OTHER ELEMENTS TO REMAIN SHALL BE FULLY PROTECTED FROM ANY DAMAGE UNLESS OTHERWISE NOTED.
14. CONTRACTOR IS RESPONSIBLE TO INCLUDE ALL NECESSARY ITEMS TO FULLY COMPLETE AN ASSEMBLY, SYSTEM, OR ITEM OF WORK AS SHOWN IN THE DRAWINGS. ANY ITEMS NOT IDENTIFIED OR SPECIFIED IN THESE DRAWINGS, BUT REQUIRED TO COMPLETE THE WORK SHALL BE PROVIDED BY THE CONTRACTOR.
15. CONTRACTOR IS RESPONSIBLE FOR PLACING ALL ITEMS OF WORK IN THE CORRECT LOCATIONS PER THE DRAWINGS. THIS MAY INCLUDE DOCUMENTING THE PROJECT SITE, DIGITAL DRAWING INFORMATION AND/ OR NORTHING AND EASTING COORDINATES FOR USE BY THE CONTRACTOR CAN BE PROVIDED BY THE LANDSCAPE ARCHITECT UPON REQUEST.
THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR INACCURACIES IN THE BASE INFORMATION AND PROJECT COORDINATES PROVIDED BY THE CIVIL ENGINEER OR PROPERTY SURVEYOR THAT IS INCORPORATED BY REFERENCE IN THESE DRAWINGS.

LANDSCAPE NOTES

1. THE CONTRACTOR SHALL REVIEW ARCHITECTURE/ENGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH SURFACE AND SUBSURFACE UTILITIES.
2. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES IN WRITING TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION WITHIN TWO WEEKS OF CONTRACT AWARD AND PRIOR TO THE COMMENCEMENT OF WORK. ALL REQUESTS FOR SUBSTITUTION DUE TO LACK OF AVAILABILITY MUST BE MADE TO THE OWNER'S REPRESENTATIVE IN WRITING WITHIN THIS PERIOD. NO SUBSTITUTION SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL PRIOR TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR EXHAUSTING ALL MEANS POSSIBLE TO OBTAIN THE MATERIALS AS SPECIFIED. IF SUBSTITUTIONS ARE ALLOWED, THE CONTRACTOR SHALL PROVIDE TO THE OWNER'S REPRESENTATIVE AS VIABLE ALTERNATES PLANTS MUST SHARE THE SAME GENERAL APPEARANCE FORM, INSTALLATION SIZE, MATURE SIZE, COLOR, QUALITY AND GROWTH HABIT. MATERIALS MUST BE OF FIRSTCLASS NO ADDITIONAL COSTS TO THE OWNER.
3. ALL INSTALLATION OF PLANT MATERIAL SHALL COMPLY WITH APPLICABLE JURISDICTIONAL CODES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS ASSOCIATED WITH THIS WORK. CONTRACTOR SHALL ENSURE A MAINTAINED CLEARANCE OF ALL UTILITIES & FIRE HYDRANTS IN ACCORDANCE WITH THE FLORIDA FIRE PREVENTION CODE 16.5.7.1. CONTRACTOR SHALL ENSURE SIGHT DISTANCE VISIBILITY IN ALL APPLICABLE ROADWAYS PER DOT STANDARDS.
4. PRIOR TO PLANTING/INSTALLATION, THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY OF ALL THE SPECIFIED PLANT MATERIALS. SUBMIT DATED PHOTOGRAPHS OF TREE MATERIAL AND SPECIMEN PLANT MATERIAL TO THE OWNER'S REPRESENTATIVE FOR REVIEW.
5. ALL PLANT MATERIAL SIZES SPECIFIED ARE MINIMUM SIZES. CONTAINER SIZE SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZE SPECIFIED.
6. IF PLANT MATERIAL DOES NOT COMPLY WITH THE REQUIREMENTS AS SPECIFIED HEREIN, THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT SUCH PLANTS AND REQUIRE THE CONTRACTOR TO REPLACE REJECTED WORK AT NO ADDED COST TO THE OWNER AND CONTINUE SPECIFIED MAINTENANCE UNTIL REINSPECTED AND FOUND TO BE ACCEPTABLE.
7. THE CONTRACTOR SHALL PROVIDE AN APPROVED PLANTING SOIL MIXTURE FOR ALL PLANT MATERIAL. SEE SPECIFICATIONS FOR REQUIREMENTS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILITY AND PLUMB CONDITION OF ALL TREES AND SHRUBS, AND SHALL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS. STAKING OF TREES OR SHRUBS SHALL BE DONE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
9. THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS. IF INADEQUATE VERTICAL DRAINAGE IS ENCOUNTERED, THE CONTRACTOR SHALL SUBMIT RECOMMENDATIONS FOR PROVIDING ADEQUATE DRAINAGE TO THE OWNER'S REPRESENTATIVE. IN WET OR POORLY DRAINING SOILS THE CONTRACTOR SHALL INSTALL ALL PLANTS TO MAXIMIZE DRAINAGE AND MINIMIZE POOLING OF WATER AROUND PLANTINGS. THIS MAY INCLUDE LOOSENING OF EXISTING SOILS AND PROVIDING SOIL AMENDMENTS TO ENSURE ADEQUATE DRAINAGE.
10. PEG SOD ON SLOPES GREATER THAN 1:3 (33% SLOPE).
11. THE CONTRACTOR SHALL ENGAGE A QUALIFIED ARBORIST WHO HAS SUCCESSFULLY COMPLETED TREE PROTECTION AND TREE TRIMMING WITH FIVE YEARS OR MORE EXPERIENCE, TO PERFORM THE FOLLOWING WORK:
   A. REMOVE BRANCHES FROM TREES THAT ARE TO REMAIN, IF REQUIRED, AS DIRECTED BY OWNER'S REPRESENTATIVE.
   B. PERFORM INITIAL PRUNING OF BRANCHES TO ACCOMMODATE NEW CONSTRUCTION.
   C. PERFORM TREE REPAIR WORK FOR DAMAGE INCURRED BY NEW CONSTRUCTION.
12. CONTRACTOR SHALL PROVIDE TEMPORARY IRRIGATION SYSTEM FOR RELOCATED TREES.
13. CONTRACTOR SHALL PROTECT EXISTING VEGETATION TO REMAIN AS SHOWN ON DRAWINGS OR BY MEANS APPROVED BY THE OWNER'S REPRESENTATIVE. ALL EXISTING PLANT BEDS TO REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHALL BE LEFT UNDISTURBED. EXISTING TREES TO REMAIN, AS NOTED ON THE DRAWINGS, SHALL BE LEFT UNDISTURBED AND PROTECTED BY WOODEN BARRICADES ERECTED AT THE PERIMETER OF THE TREE DRIP-LINE (S). NO VEHICLE SHALL TRAVERSE THIS AREA NOR SHALL ANY STORAGE OF MATERIALS OR EQUIPMENT BE PERMITTED WITHIN THE AREA OF THE TREE DRIP-LINE(S). ANY EXISTING PLANT BEDS OR TREES DAMAGED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED BY THE RESPONSIBLE PARTY AT THEIR OWN EXPENSE.
14. CONTRACTOR TO CLEAN, PRUNE, AND SHAPE EDGES OF EXISTING VEGETATION AS DIRECTED BY OWNER'S REPRESENTATIVE. CREATE SMOOTH BED LINES AROUND EXISTING VEGETATION.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EXISTING VEGETATION AS REQUIRED AND PREPARING PLANTING AREAS PRIOR TO INSTALLATION OF PLANT MATERIALS.
16. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ERADICATING WEEDS AND UNWANTED PERENNIAL VEGETATION WITHIN THE LIMITS OF ALL PLANTING AREAS PRIOR TO BEGINNING LANDSCAPE INSTALLATION. PERENNIAL WEEDS AND GRASSES TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO, NUT GRASS, PUNCTURE VINE, MORNING GLORY, DOG FENNEL, TORPEDO GRASS, BERMUDA GRASS, BAHIA GRASS, KIKUYU GRASS, CRAB GRASS, CARPET GRASS, SEDGE AND OTHER NOXIOUS AND/OR INVASIVE WEEDS. THE SITE IS TO BE MAINTAINED WEED FREE THROUGHOUT PLANTING OPERATIONS.
17. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PRE-TILLAGE TO SCARIFY SOILS IN ALL PLANTING AREAS TO A MINIMUM DEPTH OF 4". DENSELY COMPACTED AREAS BETWEEN 85% AND 90% ARE TO BE CROSS RIPPED TO A MINIMUM 9" DEPTH. IN THE PROCESS OF TILLING ARE UNACCEPTABLE MATERIALS INCLUDING, BUT NOT LIMITED TO, FOUNDATION DEBRIS, CONSTRUCTION WASTE, ROOTS, CONCRETE, ASPHALT AND ROCKS GREATER THAN 1.5" DIAMETER ON AVERAGE. IN AREAS TO RECEIVE SOD TILL IN FERTILIZER TO A DEPTH OF 2" AT A RATE OF 12 POUNDS PER CUBIC FT.
18. ALL PROVIDED TREES SHALL BE INSTALLED 50 FEET (IN TIERS) IN OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED OUTLINES SHALL NOT BE OBSTRUCTED AND SHALL BE SMOOTH AND FLOWING. IF TREES ARE LOCATED OUTSIDE PLANTING BEDS IN GRASS AREAS, MAINTAIN A MINIMUM THREE FEET 3' WIDE OFFSET TO ALLOW FOR MOWERS TO MANEUVER.
19. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE EXTENT OF SOD & TURF WORK IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SOD & TURF IN THE AREAS SHOWN ON THE PLAN IN SUFFICIENT QUANTITY TO PROVIDE FULL COVERAGE. ADDITIONAL GRASS REQUIRED WILL BE ADJUSTED BASED ON A SQUARE FOOTAGE UNIT PRICE. AREAS TO BE SODDED SHALL BE AMENDED PER SOILS REPORT TO PROVIDE REQUIRED NUTRIENTS AND SOIL PH OF BETWEEN 6.0 AND 7.0.
20. ALL SOD SHALL BE STAGGERED AND INSTALLED TIGHT WITH MACHINE CUT SOD RECTANGLES OF THE TYPE INDICATED ON THE DRAWINGS. SOD SHALL BE WELL ROOTED WITH ROOTS, FREE OF EXCESSIVE WEEDS & DEBRIS, AND SHALL BE GREEN, FRESH AND UNINJURED AT THE TIME OF PLANTING.
21. CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INITIATING INSTALLATION.
22. ALL PLANT MATERIAL SHALL BE IN FULL AND STRICT ACCORDANCE WITH FLORIDA NO. 1 GRADE, ACCORDING TO THE "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
23. ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" LAYER OF MULCH AS SPECIFIED. ALL TREES SHALL HAVE A 3' DEEP, 24' RADIUS (FROM THE TRUNK) MULCH RING PLACED AROUND THE BASE OF THE TRUNK, ON WELL DRAINED SOIL, THE MULCH RING SHALL BE MOUNDED AT ITS EDGES TO RETAIN WATER WITHIN THE TREE RING. ON POORLY DRAINED SOIL, THE MULCH RING SHALL BE MOUNDED AT THE TRUNK TO SHED WATER AWAY FROM THE TREE.
24. SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED ON THE PLANT LIST. PLANT ACCIENT SHRUBS AND TREES A SHOWN ON THE LANDSCAPE PLANTING PLANS WHEN INDIVIDUAL PLANTS ARE DELINEATED.
25. PALM HEIGHTS, AS INDICATED ON THE PLANS, REFER TO CLEAR TRUNK (C.T.), GRAY WOOD (G.W.), OR OVERALL HEIGHT (O.A.) AS SPECIFIED ON THE PLANT LIST.
27. CONTRACTOR SHALL COORDINATE ALL PLANTING WORK WITH IRRIGATION WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAND WATERING AS REQUIRED TO SUPPLEMENT IRRIGATION WATERING AND RAINFALL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR HAND WATERING IN ALL PLANTING AREAS, REGARDLESS OF THE STATUS OF EXISTING OR PROPOSED IRRIGATION.
29. CONTRACTOR SHALL REGRADE ALL AREAS DISTURBED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
30. CONTRACTOR SHALL REPLACE (BY EQUAL SIZE AND QUALITY) ANY AND ALL EXISTING PLANT MATERIAL DISTURBED OR DAMAGED BY PLANT REMOVAL, RELOCATION, AND/OR INSTALLATION WORK.
31. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF SUBSTANTIAL COMPLETION. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, MULCHING, REPLACEMENTS OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL.
32. UPON COMPLETION OF ALL LANDSCAPING, AN INSPECTION FOR SUBSTANTIAL COMPLETION OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE.
33. CONTRACTOR SHALL SUBMIT WRITTEN GUARANTEE OF SURVIVABILITY OF ALL PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
34. CONTRACTOR MUST APPROVE ALL GRADED AREAS PRIOR TO THE COMMENCEMENT OF PLANTING.
35. THE CONTRACTOR SHALL BEAR ALL COSTS OF TESTING OF SOILS, AMENDMENTS, ETC. ASSOCIATED WITH THE WORK. SEE SPECIFICATION FOR ADDITIONAL TESTING REQUIREMENTS.
36. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNERS REPRESENTATIVE WITH RECORD COPIES OF ALL RECEIPTS, INVOICES, AND OR SHIPPING MANIFESTS FOR ALL MATERIALS, INCLUDING PLANTS AND SOIL, DELIVERED TO THE PROJECT SITE BY THE CONTRACTOR OR A SUPPLIER TO THE CONTRACTOR. DELIVERY OF ALL PEAT/LEDER AND SOIL AMENDMENT MATERIALS MUST BE IN ORIGINAL, UNOPENED CONTAINERS BEARING MANUF ACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE MARK, AND CONFORMANCE WITH STATE LAW.

HARDSCAPE NOTES

1. SEE CIVIL ENGINEERING DRAWINGS FOR GENERAL GRADING OF THE SITE, INCLUDING SIDEWALK AND FINISH GRADES FOR PARKING LOTS, ROADWAYS, SIDEWALKS, AND PLANTING AREAS.
2. ALL PAVEMENT SHALL BE STAKED IN THE FIELD FOR APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION. ALIGNEMENT MAY BE ADJUSTED UPON APPROVAL TO ACCOMMODATE EXISTING SITE ELEMENTS.
3. SLOPES OF WALKS TO BE NO GREATER THAN FIVE PERCENT, UNLESS EXPRESSLY NOTED OTHERWISE. CROSS-SLOPE OF WALKS NOT TO EXCEED TWO PERCENT. SEE CIVIL DRAWINGS FOR ADDITIONAL LAYOUT AND INSTALLATION DETAILS. SEE HARDSCAPE DRAWINGS FOR FINISH PATTERNS.
4. ALL COLORS AND MATERIALS SHALL BE APPROVED BY THE OWNERS REPRESENTATIVE. FOR THIS PURPOSE, THE CONTRACTOR SHALL CONSTRUCT OR SUBMIT AS DIRECTED BY THE OWNER'S REPRESENTATIVE PANELS DEPICTING PROPOSED FINISHES AND COLORS FOR REVIEW AND APPROVAL.
5. ALL NAILS, LAG SCREWS, BOLTS AND MISCELLANEOUS FASTENERS SHALL BE HOT DIPPED GALVANIZED OR A CORROSION RESISTANT ALLOY.

FOUNDATIONS

6. FOOTINGS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING VALUE OF 2000 PSF. IN-PLACE SOILS TO BE UNIFORMLY COMPACTED AND TESTED TO ENSURE MINIMUM SOIL BEARING PRESSURE CAPACITY OF 2,000 PSF.
7. PREPARATION FOR AND CONSTRUCTION OF WALLS (COLUMN FOOTINGS) TO BE IN COMPLIANCE WITH THE APPLICABLE CHAPTERS AND SECTIONS OF ACI 318 AND ACI 530.
8. ANY ADDITIONAL FILL MATERIAL REQUIRED SHALL CONSIST OF SOILS THAT CONTAIN NOT MORE THAN 12% OF FINES (SILT OR CLAY PARTICLES) PASSING A NO. 200 SIEVE AND SHALL BE PLACED IN UNIFORM LAYERS NOT EXCEEDING 12.0 INCHES LOOSE. EACH LAYER SHALL BE SYSTEMATICALLY AND UNIFORMLY COMPACTED IN THE MANNER AND TO THE DEGREE SPECIFIED FOR THE IN-PLACE SOILS.

CONCRETE

9. STRUCTURAL CONCRETE, INCLUDING FOOTINGS, SHALL CONFORM TO THE REQUIREMENTS OF ACI 301 AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS OF 3000 PSI UNLESS OTHERWISE NOTED. CONCRETE FOR SLABS ON GRADE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS OF 2500 PSI.
10. CONCRETE, WHEN PLACED, SHALL HAVE A MAXIMUM SLUMP OF 5 INCHES AND A MINIMUM OF 3 INCHES.
11. ALL REINFORCING SHALL CONFORM TO ASTM 615 FOR GRADE 60 STEEL, WELDED WIRE MESH TO ASTM A-185.
12. CHECK ALL DRAWINGS AND APPLICABLE MANUFACTURER'S SHOP DRAWINGS FOR LOCATION OF ALL EMBEDDED ITEMS SUCH AS PIPE SLEEVES, ANCHOR BOLTS, ETC., PRIOR TO PLACING CONCRETE.
13. #5 REINFORCEMENT FOR CONTINUOUS FOOTINGS SHALL BE CONTINUOUS AND SPLICED WITH A FULL 30-INCH LAP.
14. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. START INITIAL CURING AS SOON AS FREE WATER HAS DISAPPEARED FROM THE CONCRETE SURFACE AFTER PLACING AND FINISHING. KEEP CONTINUOUSLY MOIST FOR NOT LESS THAN 7 DAYS IN ACCORDANCE WITH ACI 301 PROCEDURES. PERFORM CURING OF THE CONCRETE BY CURING AND SEALING COMPOUND, BY MOIST CURING, BY MOISTURE RETAINING COVER CURING OR BY COMBINATION THEREOF.
15. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR THE REINFORCEMENT:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES.
   B. FORMED CONCRETE EXPOSED TO EARTH OR WEATHER: #5 BARS AND SMALLER, 1 1/2 INCHES; #6 BARS AND LARGER, 2 INCHES.

MASONRY

16. CONCRETE MASONRY UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C90 FOR LOAD BEARING MASONRY WITH A MINIMUM PM OF 1500 PSI. BRICK MASONRY UNITS SHALL CONFORM TO ASTM C-62 FOR STRUCTURAL AND NON-STRUCTURAL MASONRY. REFER TO DRAWINGS FOR SPECIFIC TYPE OF BRICK MASONRY LAYOUT PATTERNS.
17. MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM WITH ALL THE REQUIREMENTS OF THE "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1-99/ASCE 6-99/TMS 602-03), AS PUBLISHED BY THE MASONRY STANDARDS JOINT COMMITTEE.
18. MASONRY CONSTRUCTION SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A "CERTIFIED STRUCTURAL MASONRY CONTRACTOR" OR "CERTIFIED STRUCTURAL MASON" AS RECOGNIZED BY THE FLORIDA CONCRETE AND PRODUCTS ASSOCIATION (FCAPA). THE SENIOR MASONRY SUPERVISOR WILL BE RESPONSIBLE TO ASSURE THAT THE WORK IS ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
19. ALL MORTAR SHALL BE TYPE M OR S IN ACCORDANCE WITH ASTM C 270.
20. GROUT SHALL HAVE A MINIMUM SLUMP OF 8 INCHES AND A MAXIMUM SLUMP OF 11 INCHES, BE IN CONFORMANCE WITH ASTM C 476, AND ATTAIN A COMPRESSIVE STRENGTH OF 1800 PSI.
21. CONCRETE MASONRY UNITS SHALL BE PLUMB, TRUE TO LINE, WITH EVEN COURSES ACCURATELY SPACED AND BUILT TO THE THICKNESS AND IN A RUNNING BOND AS INDICATED AND CONFORMING TO THE TOLERANCES SPECIFIED IN ACI 531.1 AND 530.1. CONCRETE MASONRY UNITS SHALL BE STORED OFF OF THE GROUND SURFACE AND COVERED TO PROTECT THEM FROM ABSORBING RAIN OR BEING CONTAMINATED WITH OTHER FOREIGN MATTER. CONCRETE UNITS SHALL BE DRY WHEN LAID. MASONRY UNITS SHALL BE LAID IN THEIR ORIGINAL POSITION IN THE WALL WHILE THE MORTAR IS STILL SOFT AND PLASTIC. ANY UNIT DISTURBED AFTER THE MORTAR HAS STIFFENED SHALL BE REMOVED AND RE-LAID WITH FRESH MORTAR. VERTICAL CELLS SHALL BE ALIGNED TO PROVIDE A CONTINUOUS, UNOBSTRUCTED OPENING. ALL ANCHORS, ACCESSORIES, FLASHINGS AND OTHER ITEMS TO BE BUILT-IN SHALL BE INSTALLED AS THE MASONRY WORK PROGRESSES. ALL CUTTING AND FITTING OF MASONRY, INCLUDING THAT REQUIRED TO ACCOMMODATE THE WORK OF OTHERS SHALL BE DONE BY MASONRY CRAFTSMEN WITH MASONRY SAWS. LOCATE CONTROL JOINTS AT 20 FEET ON CENTER MAXIMUM, AT ALL COLUMNS, AND AT CHANGES IN DIRECTION. CAULK THE EXPOSED SIDES OF ALL JOINTS WITH BACKER ROD AND SEALANT. COLOR OF SEALANT TO MATCH WALL COLOR.
22. HOLLOW UNITS SHALL BE LAID WITH MORTAR AND BED JOINTS TO THE THICKNESS OF THE FACE SHELL AS A MINIMUM. THE WEBS SHALL ALSO BE BEDDED IN ALL COURSES, STARTING AT THE FOUNDATION, ADJACENT TO CELLS TO BE REINFORCED AND/OR FILLED WITH GROUT OR CONCRETE. MORTAR JOINTS SHALL BE TOOLED WHEN THE MORTAR IS "THUMBPRINT" HARD, BOTH ON THE INSIDE AND OUTSIDE SURFACES OF THE BUILDING WALL, WITH A TOOL PRODUCING A CONCAVE SURFACE. BED JOINTS SHALL BE 3/8" + 1/8" IN THICKNESS; HEAD JOINTS SHALL BE 3/8" (+3/4", -1/4").
23. ALL REINFORCING STEEL TO BE GRADE 60 PER ASTM A-615. REINFORCING BARS SHALL BE PLACED IN THE MIDDLE OF THE CELLS AND TIED OR OTHERWISE SECURELY SUPPORTED AT THE TOP AND BOTTOM TO ENSURE THAT THE BAR DOES NOT MOVE DURING GROUTING. MINIMUM LAP AT ALL SPLICES OR DOWELS SHALL BE 30 INCHES UNLESS OTHERWISE NOTED ON THE DRAWINGS.
24. GROUTING SHALL BE ACCOMPLISHED IN 4 FOOT LIFTS FOR CONCRETE MASONRY AND 2 FOOT LIFTS FOR BRICK MASONRY. EACH LIFT SHALL BE MECHANICALLY CONSOLIDATED INTO THE PREVIOUS LIFT, WHEN PLACED, SO AS TO PREVENT COLD JOINTS. RECONSOLIDATE AS REQUIRED. FOR CONCRETE MASONRY, A 12 SQUARE INCH CLEANOUT OPENING SHALL BE PLACED AT THE BOTTOM OF EACH CELL TO BE FILLED AND IT SHALL BE THOROUGHLY CLEANED OUT PRIOR TO FILLING OF THE CELL. FOR BRICK MASONRY, PUDDLE GROUT DURING AND AFTER PLACEMENT TO ENSURE COMPLETE FILLING OF GROUT SPACE. GROUT PLACEMENT STOPPED FOR MORE THAN ONE HOUR SHALL BE STOPPED BELOW THE TOP OF THE MASONRY UNIT 1-1/2" TO PROVIDE A KEY FOR SUBSEQUENT GROUTING.
25. THE MINIMUM CONTINUOUS UNOBSTRUCTED CELL AREA IN CELL TO RECEIVE GROUT MUST NOT BE LESS THAN 2" X 3". MORTAR FINS MUST BE REMOVED AS BLOCK PLACEMENT PROCEEDS. MORTAR DROPPINGS MUST BE KEPT OUT OF CELLS WHICH ARE TO BE GROUTED.
26. UNLESS SPECIFICALLY SHOWN OTHERWISE, PROVIDE #9 GA. "DUR-O-WALL" TRUSS TYPE REINFORCING IN EVERY OTHER COURSE OF CONTINUOUS WALLS FOR CONCRETE MASONRY, AND EVERY FOURTH COURSE FOR BRICK MASONRY. DO NOT LAY JOINT REINFORCEMENT ACROSS EXPANSION JOINTS.
27. TEMPORARY BRACING AND SHORING OF ALL CONCRETE MASONRY CONSTRUCTION, TO PROVIDE STABILITY DURING CONSTRUCTION, UNTIL CONSTRUCTION ACHIEVES ITS PROPER STRENGTH, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

STRUCTURAL STEEL

28. ALL STRUCTURAL STEEL SHAPES AND PLATE SHALL CONFORM TO ASTM A-36 AND THE "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. ALL TUBE STEEL SHALL CONFORM TO ASTM A-500, GRADE B(FY = 46 KSI).
29. ALL SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX LOW HYDROGEN ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED UNLESS OTHERWISE SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF "THE STANDARD CODE FOR WELDING IN BUILDING CONSTRUCTION" OF THE AMERICAN WELDING SOCIETY.
30. ALL STEEL TO RECEIVE ONE SHOP COAT AND ONE FIELD TOUCHUP COAT OF APPROVED PAINT.
31. ALL BOLTED CONNECTIONS SHALL CONSIST OF ASTM A325 HIGH STRENGTH BOLTS AND HARDENED WASHERS AS SHOWN ON THE STRUCTURAL DRAWINGS. ALL BOLTED CONNECTIONS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
32. ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A36 OR A307 (THREADED ROD).
33. ERECT ALL STEEL TO CONFORM TO "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND "QUALITY CRITERIA AND INSPECTION STANDARDS". FRAME TO BE PLUMB, SQUARE AND TRUE TO LINE AND LEVEL, CHECKED BY SURVEYING INSTRUMENTS.
34. LOCATE FINISH HOLES PRECISELY TO INSURE PASSAGE THROUGH ASSEMBLED MATERIALS WITHOUT DRIFTING. ENLARGE HOLES BY REAMING IF NECESSARY. POOR MATCHING OF HOLES IS SUFFICIENT CAUSE FOR REJECTION.
35. GROUT FOR COLUMN BASE PLATES SHALL BE NON-SHRINK GROUT BY "EMBECO" OR APPROVED EQUAL, 5000 PSI MINIMUM.

LUMBER

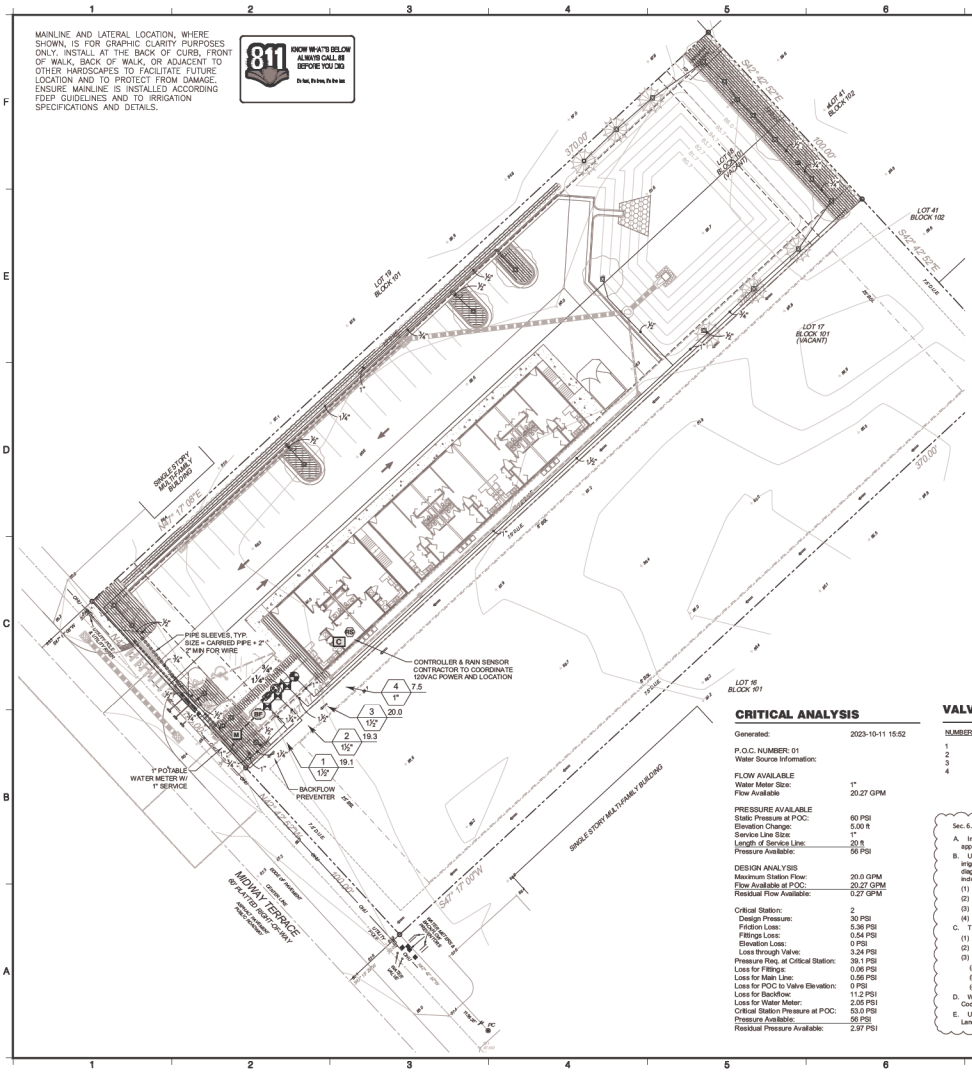
36. ALL LUMBER SHALL BE SOUTHERN YELLOW PINE, GRADE NO.2 OR BETTER OR AS SPECIFIED ON THE DRAWINGS. #2/#3 GRADE LUMBER SIZES NOTED TO BE IN CONFORMANCE WITH VALUES LISTED IN THE NATIONAL FOREST PRODUCTS ASSOCIATION NATIONAL DESIGN STANDARD SUPPLEMENT), AND SHALL CONFORM TO THE NATIONAL GRADING RULE FOR DIMENSION LUMBER, THE SOUTHERN PINE INSPECTION BUREAU AND THE SOUTHERN FOREST PRODUCTS ASSOCIATION.
37. DO NOT LOCATE ANY HOLES CLOSER THAN FIVE (5) BOLT DIAMETERS FROM THE END OF ANY WOOD FRAMING MEMBER.
38. EXPOSED WOOD MEMBERS SHALL BE PRESSURE-TREATED WITH TYPE WATERBORNE PRESERVATIVE IN ACCORDANCE WITH THE AMERICAN WOOD-PRESERVERS STANDARD (U-03) FOR THE FOLLOWING APPLICATIONS:

	APPLICATION	AWPA USE CATEGORY	TREATMENT (UBSCULF 7)
A.	ABOVE-GROUND USE	UC3B	ACQ 0.25

MAINLINE AND LATERAL LOCATION, WHERE SHOWN, IS FOR GRAPHIC CLARITY PURPOSES ONLY. INSTALL AT THE BACK OF CURB, FRONT OF WALK, BACK OF WALK, OR ADJACENT TO OTHER HARDSCAPES TO FACILITATE FUTURE LOCATION AND TO PROTECT FROM DAMAGE. ENSURE MAINLINE IS INSTALLED ACCORDING FDEP GUIDELINES AND TO IRRIGATION SPECIFICATIONS AND DETAILS.

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG

It's fast, it's free, it's the law



IRRIGATED AREAS:

TOTAL IRRIGATED AREA: 4,170 +/- SQ. FT.
HIGH FLOW/ SPRAY AREA: 0 +/- SQ. FT.
LOW FLOW/ DRIP AREA: 4,170 +/- SQ. FT.

NOTE: IRRIGATION SHALL BE IN ACCORDANCE WITH MARION COUNTY CODE. THE SYSTEM IS PROPOSED AS PERMANENT.

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any damage to existing or new right-of-way incurred during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
This approval of the site plan/plat is limited to compliance with the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	Rain Bird 1800-1400 Flood 1402	24	360	30		
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**				
	Rain Bird XCZ-150-LCDR High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2" PESB-R Scrubber Globe Valve with single 1-1/2" Pressure Regulating (40psi) Quick-Check Basket Filters. Flow range: 15-62gpm.	3				
	Area to Receive Dripline Netafim TLCV-09-12 Techline Pressure Compensating Landscape Dripline with Check Valve. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. 17mm.	3,625 l.f.				
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**				
	Rain Bird PESBR 1", 1-1/2", and 2" Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	1				
RP	Febco 825Y 1" Reduced Pressure Backflow Preventer	1				
C	Rain Bird ESPBLXMEF 8 Station Capable Commercial Controller. Mounted on a Plastic Wall Mount. Flow Sensing and Water Management Capabilities	1				
RS	Hunter MINI-CLIK Rain Sensor, mount as noted	1				
M	Water Meter 1"	1				
	Irrigation Lateral Line: PVC Class 200 SDR 21-NP	1,442 l.f.				
	Irrigation Mainline: PVC Schedule 40-NP	36.3 l.f.				
	Pipe Sleeve: PVC Schedule 40	78.2 l.f.				

Valve Callout
Valve Number
Valve Flow
Valve Size

CRITICAL ANALYSIS

Generated:	2023-10-11 15:52
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	1"
Flow Available	20.27 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	60 PSI
Elevation Change:	5.00 ft
Service Line Size:	1"
Length of Service Line:	20 ft
Pressure Available:	56 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	20.0 GPM
Flow Available at POC:	20.27 GPM
Residual Flow Available:	0.27 GPM
Critical Station:	2
Design Pressure:	30 PSI
Friction Loss:	5.36 PSI
Fittings Loss:	0.54 PSI
Elevation Loss:	0 PSI
Loss through Valve:	3.24 PSI
Pressure Req. at Critical Station:	39.1 PSI
Loss for Fittings:	0.06 PSI
Loss for Main Line:	0.56 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	11.2 PSI
Loss for Water Meter:	2.06 PSI
Critical Station Pressure at POC:	53.0 PSI
Pressure Available:	56 PSI
Residual Pressure Available:	2.97 PSI

VALVE SCHEDULE (ALL ZONES SHALL RUN INDIVIDUALLY)

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	19.1	44.8	36.0	49.7	1.45 in/h
2	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	19.26	38.2	39.1	53.0	1.44 in/h
3	Rain Bird XCZ-150-LCDR	1-1/2"	Area for Dripline	20.0	32.3	36.5	50.7	1.44 in/h
4	Rain Bird PESBR	1"	Bubbler	7.5	32.3	38.7		1.7 in/h
	Common Wire				36.3			

Sec. 6.9.6. - Completion inspection requirements.

A. Irrigation installation professionals shall be accountable for the proper installation and compliance with the conditions of the irrigation permit and approved plans.

B. Upon completion of the installation, the contractor or owner shall request an inspection by the irrigation design professional. Prior to the inspection, the irrigation installation professional shall produce a clear and legible as-built diagram which accurately represents the irrigation system was installed. The diagram shall be presented and reviewed during the final inspection. The diagram may be a marked-up copy of the approved irrigation plan and shall include at a minimum:
(1) Locations of all mainlines and mainline valves;
(2) Locations of all remote control valves;
(3) Water demand per zone in GPM, and
(4) Total water demand per operating cycle.

C. The irrigation installation professional shall also provide to the owner:
(1) Irrigation system scheduling information;
(2) A copy of the irrigation controller owner's manual;
(3) Irrigation system maintenance schedule, which includes:
(a) Instructions for seasonal adjustments of controller and sensors.
(b) Instructions covering how and when to check for leaks.
(c) A schedule for checking for proper irrigation distribution coverage.

D. Within 60 days after installation the irrigation controller shall be adjusted to be set in accordance with the applicable irrigation schedule set forth in this Code.

E. Upon completion of the irrigation system installation and the acceptance of the as-built diagram and operational information, a Final Inspection and Landscape/Irrigation Release shall be signed and sealed by the irrigation design professional and submitted to the County's Landscape Architect.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-0670

THE DRAWINGS AND SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO THE PLANS OF PROPERTY AND OTHER DRAWINGS OR ELECTRONIC FORMS, AS WELL AS ANY OTHER PROPERTY RIGHTS IN THESE PLANS, DRAWINGS, AND DESIGNS, THESE PLANS, DRAWINGS, AND DESIGNS WERE NOT INTENDED OR REPRODUCED, CHANGED OR COPIED IN ANY FUTURE OR MATTER, WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PERSONS OR ENTITIES WITHOUT OBTAINING THE EXPRESS WRITTEN PERMISSION, CONSENT, AND PROVIDING APPROPRIATE COMPENSATION TO TDC DESIGN STUDIO. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY OTHERS. ANY DISCREPANCIES FOUND IN THE DRAWINGS SHALL BE REPORTED IN WRITING OF ANY VARIATION FROM THE DIMENSIONS, CONDITIONS AND SPECIFICATIONS APPEARING ON THESE PLANS. (c) 2023

PROJECT: MIDWAY TERRACE APTS LOT 18 MARION COUNTY, FL
Prepared For: LINN ENGINEERING

SEAL: Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CONSULTANTS:

ISSUED FOR: DEVELOPMENT REVIEW 2023/09/08 (REVISED LAYER 2)

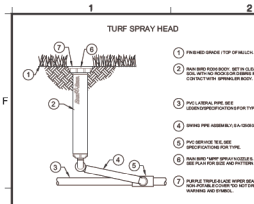
PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	1"=20'

0 FT 10 20 North

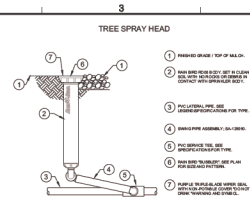
DRAWING TITLE: IRRIGATION PLAN

DRAWING NUMBER: IR-01

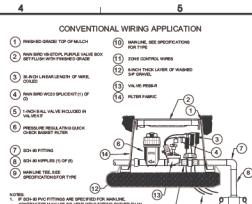
SHEET 1 OF 3



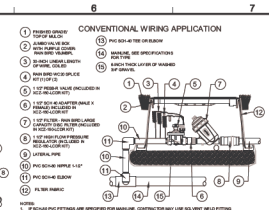
A Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-12SS3 and MPR NOZZLES



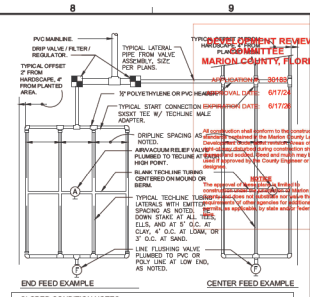
B Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-12SS3 and Bubbler



D RAIN BIRD XCZ-100-PRBR-COM
NTS



G RAIN BIRD XCZ-150-LCDR
NTS



ACCEPTED FOR CONCURRENT REVIEW WITH SUBMITTEE
MARION COUNTY, FLORIDA
APPLICATION # 30185
REVIEW DATE 6/17/23
EXPIRATION DATE 6/17/24
All construction shall conform to the construction plans as approved by the Marion County Board of Commissioners. Deviations during construction shall be allowed only after approval has been obtained and noted. Deed and much may be required if approved by the County Engineer or designee.
NOTICE
The approval of this plan does not constitute a permit. Construction cannot commence until all other permits are issued. This approval does not constitute nor cause the requirements of other agencies for additional permits as applicable by state and/or federal

SLOPED CONDITION NOTES:

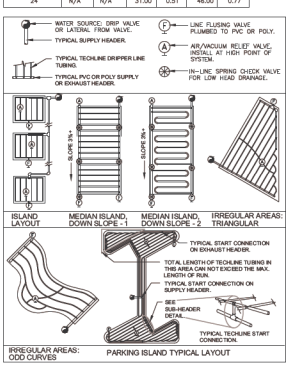
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE.
2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT.
3. TECH-LINE NORMAL SPACING WITHIN THE TOP ⅓ OF SLOPE.
4. INSTALL TECHLINE AT NORMAL SPACING PLUS 25% AT THE BOTTOM ⅓ OF THE SLOPE.
5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM ⅓ ON A SEPARATE VALVE.

TECHLINE MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

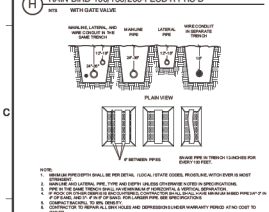
DRIPPER SPACING		12"			18"			24"	
DRIPPER FLOW RATE (GPH)		0.4	0.6	0.9	0.4	0.6	0.9	0.6	0.9
INLET PRESSURE (PSI)	15	292	233	175	410	322	247	405	308
	25	397	321	236	558	438	335	553	423
	35	486	365	279	656	514	394	649	497
	45	520	407	311	732	574	439	725	555

TECHLINE FLOW PER 100 FEET

DRIPPER SPACING	0.4 GPH	DRIPPER	0.6 GPH	DRIPPER	0.9 GPH	DRIPPER
DRIPPER SPACING	GPH	GPM	GPH	GPM	GPH	GPM
12"	40.00	0.67	61.00	1.02	92.00	1.53
18"	26.67	0.44	41.00	0.68	61.00	1.02
24"	N/A	N/A	31.00	0.51	46.00	0.77

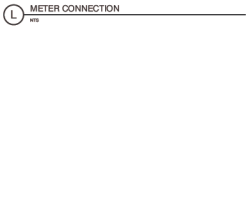


1 TYPICAL NETAFIM TECHLINE REQUIREMENTS
3" = 1'-0" FX-IR-NET-A-DRIP-05

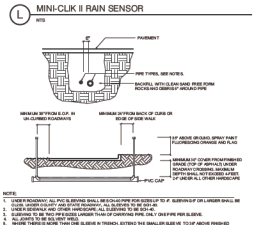


H RAIN BIRD 100/150/200-PESB-R PRS-D
NTS WITH GATE VALVE

I RAIN BIRD ESP-LXMEF WALL MOUNT CONTROLLER
NTS IN HEAVY DUTY SB-1600W STAINLESS STRONG BOX



L METER CONNECTION
NTS



M PIPE TRENCH DETAIL
NTS

N ROADWAY / HARDSCAPE SLEEVING
NTS

GENERAL NOTES

1. THE DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC, AS IT MAY NOT HAVE BEEN POSSIBLE TO ACCURATELY DEPICT THE EXACT LOCATIONS FOR ALL MATERIAL, OR ALL JOBSITE ELEMENTS. THE INSTALLER SHALL BE EXPECTED TO MAKE MINOR ADJUSTMENTS ON THE SITE AS NEEDED, IN ORDER TO MAINTAIN COMPLETE AND ACCURATE COVERAGE, AND MAINTAIN THE INTENT OF THE DESIGN. MODIFICATIONS WHICH INCREASE THE SPACING OF HEADS, OR DECREASE THE SIZING OF PIPE, SHALL NOT BE MADE WITHOUT PRIOR CONSENT OF THE PROJECT MANAGER. THE FINAL LOCATIONS FOR ALL MAJOR EQUIPMENT, INCLUDING CONTROLLERS, VALVES, SUPPLY CONNECTIONS, MAINLINES, ETC. SHALL BE DETERMINED IN THE FIELD, STAKED OUT BY THE CONTRACTOR, USING THE DRAWINGS AS A GUIDE, AND APPROVED PRIOR TO INSTALLATION.

2. 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, IT SHALL REMAIN THE RESPONSIBILITY OF THE INSTALLER FOR VERIFICATION AND CONFORMANCE TO THE PARTICULAR CODES FOR THIS LOCATION. THE INSTALLER SHALL OBTAIN ANY NECESSARY PERMITS, LOCATES, AND INSPECTIONS.

3. 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 INSTALLED BEDLINES, SOD LIMITS, AND PLANT LOCATIONS.

4. THE INSTALLER SHALL BE FAMILIAR WITH ALL APPLICABLE DOCUMENTS, INCLUDING ANY WRITTEN SPECIFICATIONS THAT MAY HAVE BEEN ISSUED. ANY CONFLICT FOUND BETWEEN THE VARIOUS DOCUMENTS SHALL BE SUBMITTED IN WRITING TO THE PROJECT MANAGER FOR DETERMINATION.

5. ALL MATERIAL AND LABOR NECESSARY TO PROVIDE A COMPLETE, FULLY OPERATIONAL, AND GUARANTEED SYSTEM SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT THEY ARE SPECIFICALLY INDICATED IN THE DOCUMENTS. THIS SHALL INCLUDE CONFORMANCE TO THE REQUIREMENTS AND RECOMMENDATIONS OF THE VARIOUS MANUFACTURERS OF THE EQUIPMENT, AND TO APPLICABLE TRAINING AND CERTIFICATION OF INSTALLATION PERSONNEL.

6. UNLESS SPECIFICALLY STATED TO THE CONTRARY, PIPING AND WIRING PASSING UNDER PAVED OR OTHER IMPERVIOUS SURFACES SHALL BE INSTALLED IN SLEEVING OF ADEQUATE SIZE AND STRENGTH. SIDEWALKS AND DECKS AND TURF PAVERS SHALL REQUIRE SLEEVING, EVEN IF NOT SHOWN ON THE DRAWINGS. CONTROL WIRING MAY BE RUN WITHIN A LARGER SLEEVE WITH MAINLINE PIPING, BUT ONLY IF PROTECTED BY A SKINNLER CONDUIT. WIRE MAY NOT BE TAPED TO THE MAINLINE IN LIEU OF THIS CONDUIT, AS ABRASION OF THE WIRE JACKET IS LIKELY TO OCCUR.

7. SLEEVES UNDER PARKING AND DRIVEWAYS MAY BE THE RESPONSIBILITY OF OTHER THAN THE IRRIGATION CONTRACTOR (SUCH AS THE PAVING OR SITE CIVIL CONTRACTOR). CONSULT OTHER DOCUMENTS FOR ADDITIONAL INFORMATION. ANY NEEDED SLEEVE WHICH EITHER CANNOT BE FOUND OR IS DAMAGED BEYOND PRACTICAL USE SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY, ALONG WITH RECOMMENDATIONS FOR CORRECTIVE ACTION. SLEEVES UNDER SIDEWALKS, DECKS, ETC. ARE NORMALLY INSTALLED BY THE IRRIGATION CONTRACTOR.

8. CONTROL WIRING SHALL BE ROUTED WITH THE MAINLINE WHENEVER POSSIBLE. WIRE SHALL DIRECT BURIAL PE 14-GAUGE.

9. ALL SPRINKLER HEADS SHALL BE OF THE PROPER SIZE AND TYPE FOR THE LOCATION AND PLANT MATERIAL. HEADS SHALL BE INSTALLED IN THE PRESCRIBED MANNER, PLUMB, AND WITH THE PROPER HEIGHT WITH RESPECT TO GRADE AND/OR PLANT MATERIAL. 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 NORMAL LANDSCAPE MAINTENANCE OPERATIONS. ALL SPRINKLERS SHALL BE ADJUSTED TO OBTAIN OPTIMAL COVERAGE OF PLANT MATERIAL, WHILE MINIMIZING OVERSPRAY ONTO WINDOWS, WALLS PAVING OR OTHER IMPERVIOUS SURFACES, PARTICULARLY WOODWORK AND/OR TRIM. THE INSTALLER SHALL UTILIZE THE PROPER SPRAY NOZZLE PATTERN FOR THE LOCATION, AS WELL AS PRESSURE-COMPENSATING HEADS OR SCREENS, AND ADJUSTABLE-PATTERN NOZZLES WHERE A FIXED PATTERN IS NOT SUITABLE TO CONTROL COVERAGE OR OVERSPRAY.

10. RISER-MOUNTED HEADS SHALL BE INSTALLED WITHIN THE FIRST ROW OF PLANT MATERIAL SO THAT THE HEAD IS PROTECTED AND CONCEALED BY THE MATERIAL. IT MAY BE REQUIRED TO RELOCATE HEADS NOT CONFORMING TO THIS STIPULATION AFTER PLANTS ARE INSTALLED. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER. RISERS SHALL BE STAKED AS SHOWN IN THE DETAILS, AND PAINTED A DURABLE FLAT COLOR, TO BE AGREED UPON BY THE PARTIES.

11. TREE BUBBLER HEADS SHALL BE CONSIDERED TEMPORARY, AND WILL BE CAPPED OFF ONCE MATERIAL IS ESTABLISHED.

12. THE CONTROLLER SHALL REQUIRE A STANDARD 120-VAC POWER FEED, WHICH SHALL BE COORDINATED BY THE INSTALLER, AND HOOKED UP BY A LICENSED ELECTRICIAN. IT IS PREFERRED THAT A DEDICATED CIRCUIT BE PROVIDED FOR THIS CONNECTION. A 3-WIRE POWER INPUT SURGE ARRESTOR SHALL BE PROVIDED ON THE POWER FEED, AND A DEDICATED GROUND ROD/PLATE NETWORK (SEE DETAIL) SHALL BE INSTALLED, HAVING A MEASURED EARTH GROUND RESISTANCE OF NOT GREATER THAN TEN (10) OHMS.

13. THE CONTROL SYSTEM IS A RAIN BIRD SYSTEM. THE INSTALLER SHALL UTILIZE PERSONNEL WHO ARE SPECIFICALLY TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF THIS SYSTEM. THE INSTALLER SHALL ENLIST THE SERVICES OF THE FIELD SERVICE REPRESENTATIVE FOR ANY REQUIRED COORDINATION. ALL RELEVANT MATERIAL AND LABOR TO INSTALL THIS SYSTEM IN ACCORDANCE WITH RAIN BIRD GUIDELINES SHALL BE CONSIDERED PART OF THE WORK, WHETHER OR NOT SPECIFICALLY CALLED OUT IN THESE DOCUMENTS.

14. THE CONTROLLER SHALL BE EQUIPPED WITH A PROPERLY LOCATED AND INSTALLED RAIN SENSOR. THE SENSOR SHALL BE LOCATED IN SUCH A MANNER SO THAT IT IS UNOBSTRUCTED AND DIRECTLY EXPOSED TO NATURAL RAINFALL FROM ALL DIRECTIONS, BUT NOT TO RUNOFF WATER FROM ROOFS, ETC.

15. THE MINIMUM SUPPLY REQUIREMENT FOR THE SYSTEM AS DESIGNED IS:
SEE POC CRITICAL ANALYSIS

16. THE INSTALLER SHALL BE EXPECTED TO BE FAMILIAR WITH ALL REQUIREMENTS FOR THE WORK, AND TO CONDUCT HIS WORK IN A CLEAN, SAFE, AND WORKMANLIKE MANNER. THE OWNER RESERVES THE RIGHT TO ACT TO PROTECT HIS PROPERTY AND THE OTHER PERSONNEL AT WORK THERE, AND TO MAKE EMERGENCY REPAIRS OR TAKE CORRECTIVE ACTION IF THE INSTALLER DOES NOT FULFILL HIS OBLIGATIONS IN A TIMELY MANNER. THE OWNER FURTHER RESERVES THE RIGHT TO BACK-CHARGE THE INSTALLER TO COVER SUCH EXPENSES, TO THE EXTENT ALLOWED UNDER APPLICABLE LAW.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-2635

THE DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS PREPARED BY TDC DESIGN STUDIO, INCLUDING BUT NOT LIMITED TO PLANS, DRAWINGS, REPORTS, OR SUPPORTING DATA, CONTAIN UNPUBLISHED WORK OF TDC DESIGN STUDIO WHICH MAY BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MATTER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION, CONSENT, AND PROVIDING APPROPRIATE COMPENSATION THEREFOR. THE DRAWINGS AND DATA SHALL HAVE PRECEDENCE OVER SCALE DIMENSIONS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB SITE. TDC IS NOT RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY OTHERS. DO NOT SCALE DRAWINGS. CONTRACTOR SHALL REPORT ALL ERRORS, OMISSIONS, OR INSTANCES OF ANY VARIATION FROM THE DIMENSIONS, CONDITIONS AND SPECIFICATIONS APPEARING ON THESE PLANS. (C) 2024

PROJECT
MIDWAY TERRACE APTS
LOT 18
MARION COUNTY, FL

Prepared For:
LINN ENGINEERING

SEAL

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CONSULTANTS

ISSUED FOR:
PERMIT REVIEW
2023/2024 (REVISED LAYER 2)

PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	AS SHOWN

DRAWING TITLE
IRRIGATION DETAILS

DRAWING NUMBER
IR-02
SHEET 2 OF 3

IRRIGATION NOTES & SPECIFICATIONS

Irrigation design based on the TDC Design Studio Landscape Plan dated 7/19/2021. Contractor shall refer to these plans to coordinate sprinkler and pipe locations.

The system has been designed to conform with the requirements of all applicable codes, laws, ordinances, rules, regulations and conventions. Should any conflict exist, the requirements of the codes shall prevail. It is the responsibility of the owner/installation contractor to ensure the entire system is installed as designed. Irrigation contractor responsible for obtaining all required permits according to federal, state and local laws.

The scope of work is shown on the plans, notes and details. The Irrigation Contractor shall be certified as a CERTIFIED IRRIGATION CONTRACTOR by the Irrigation Association. The certification shall be current and in good standing.

THE WORK

The work specified in this section consists of furnishing all components necessary for the installation, testing, and delivery of a complete, fully functional automatic landscape irrigation system that complies with the irrigation plans, specifications, notes, and details. This work shall include, but not be limited to, the providing of all required material if applicable (pumps), backflows, pipes, valves, fittings, controllers, wire, primer, glue, etc.), layout, protection to the public, excavation, assembly, installation, back filling, compacting, repair of road surfaces, controller and low voltage feeds to valves, cleanup, maintenance, guarantee and as-built plans.

All irrigated areas shall provide 100% head-to-head coverage from a fully automatic irrigation system with a rain (and freeze as appropriate) shut off device. If the rain shut off device is a rain sensor, it shall be installed to prevent activation by adjacent heads. Zones are prioritized first by public safety and then by hydraulic concerns. This sequencing will be a mandatory punch list item.

These plans have been designed to satisfy/exceed the Florida Irrigation Society Standards and Specifications for Turf and Landscape Irrigation Systems, fourth edition. All products should be installed per manufacturer's recommendation. Contractor shall verify all underground utilities 72 hours prior to commencement of work.

It is the responsibility of the irrigation contractor to familiarize themselves with all grade differences, location of walls, retaining walls, structures and utilities. Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that unknown obstruction, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions, or differences, should be brought to the attention of the owner's authorized representative. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.

Irrigation contractor shall repair or replace all items damaged by their work. Irrigation contractor shall coordinate their work with other contractors for the location and installation of pipe sleeves and laterals through walls, under roadways and paving, etc.

The contractor shall take immediate steps to repair, replace, or restore all services to any utilities which are disrupted due to their operations. All costs involved in disruption of service and repairs due to negligence on the part of the contractor shall be their responsibility.

POINT OF CONNECTION (P.O.C.)

There is ONE P.O.C.('s)

#1-P.O.C. is a new a new 1" potable meter (by others) with a 1" service line by others. The P.O.C. must be capable of delivering a minimum of 20.3 GPM at 60 PSI downstream of the water meter.

Contractor to verify these minimum conditions can be met prior to ordering of materials and the beginning of installation. If the conditions can not be met, the contractor must notify the designer prior to proceeding with the work. If the contractor does not do so, the contractor proceeds at their own risk and becomes responsible for any future work required to make the system perform as required.

THE PIPE

Pipe locations shown on the plan are schematic and shall be adjusted in the field. When laying out mainlines place a maximum of 18" away from either the back of curb, front of walk, back of walk, or other hardscape to allow for ease in locating and protection from physical damage. Install all lateral pipe near edges of pavement or against buildings whenever possible to allow space for plant root balls. Always install piping inside project property's boundary.

All pipes are to be placed in planting beds. If it is necessary to have piping under hardscapes, such as roads, walks, and patios, the pipes must be sleeved using Class 200 PVC with the sleeve diameter being twice the size of the pipe it is carrying with a minimum sleeve size of 2".

Pipe sizes shall conform to those shown on the drawings. No substitutions of smaller pipe sizes shall be permitted, but substitutions of larger sizes may be approved. All damaged and rejected pipe shall be removed from the site at the time of said rejection.

Mainline shall be Pantone Purple Sch 40 solvent-weld (sized per plan) PVC with Sch 40 PVC solvent-weld fittings.

Contractor to ensure all mainline piping is properly restrained using mechanical joint fittings, restraining collars, threaded rods, thrust blocks, etc.,, as and where required. Contractor shall refer to pipe manufacturers recommended installation practices for further direction.

PVC pipe joint compound and primer: The PVC cement shall be Weld-On 711 (grey, slow-drying, heavy-duty) and the primer shall be Weld-On P70 (purple tinted, compatible with cement), or approved equals.

ELECTRICAL POWER SUPPLY

Electrical supply for irrigation pumps, controllers, sensors, relay sto be provided by irrigation contractor. Contractor to coordinate with local utilities for the installation of, and connection to, site available power supplies for required electrical components as set forth in the irrigation plans.

All electrical work is to comply with the National Electrical Code and any, and all, other applicable electrical codes, laws and regulations. A licensed electrician shall perform all electrical hook-ups. Power for each controller/CCU shall be a dedicated 120 volt, 20 amp circuit unless otherwise specified in the plans. Power for each pump to be according to pump specifications indicated in these plans.

WIRING

Irrigation control wire shall be thermoplastic solid copper, single conductor, low voltage irrigation controller wire; suitable for direct burial and continuous operation at rated voltages.

Tape and bundle control wires every 10' and run alongside the mainline. At all turns in direction make a 2' coil of wire. At all valve boxes coil wire around a 3/4" piece of PVC pipe to make a coil using 30 linear inches of wire. Make electrical connections with 3MDBY/R connectors.

Number all wires, using an electrical book of numbers, according to the plans. Number wires in all valve boxes, junction boxes and at the controller.

Wire sized, numbered and colored as follows:
- #14 white for common
- #14 spare black common
- #14 individual color coded hot wire
  - #14 spare yellow hot wire

Spare wires
- Leaving each controller, run six spare wires in both directions (twelve spare wires total). Install as 2 common spares (4 total) and 4 hot wires (8 total). Loop these wires into each RCV along their path and terminate in the last valve box controlled by the wires respective controller. The loop into each valve box shall extend up into the valve box a minimum of 8" and be readily accessible by opening the valve box lid. These wires must be all numbered and color coded as required in these plans.

Controller and Pump station Control Panel grounding - Contractor to utilize 4"X8'X5/8" copper grounding plates, 5/8"X10' copper clad grounding rods, 'One Strike' CAD wells at all connection points, #6 bare copper wire, and earth contact material. Install these and other required components as outlined in the detail. Contractor to verify that the earth to ground resistance does not exceed 10 ohms. Contractor shall provide a written certification, on a licensed electrical contractors letter head, showing the date of the test, controller/pump location, and test results. Each controller/pump shall be so grounded and tested. Each component must have its own separate grounding grid, unless they are sitting side by side, in which case up to two controllers can share a common grounding grid.

LAYOUT

Lay out irrigation system mainlines and lateral lines. Make the necessary adjustments as required to take into account all site obstructions and limitations prior to excavating trenches.

Stake all sprinkler head locations. Adjust location and make the necessary modifications to nozzle types, etc. required to ensure 100% head to head coverage. Refer to the Edge of Pavement Detail on the Irrigation Detail Sheet.

Spray heads shall be installed 4" from sidewalks or curbed roadways and 12" from uncurbed roadways and building foundations. Rotors shall be installed 4" from sidewalks or curbed roadways, 12" from building foundations, and 36" from uncurbed roadways.

Shrub heads shall be installed on 3/4" Sch 40 PVC risers. The risers shall be set at a minimum of 18" off sidewalks, roadway curbing, building foundations, and/or any other hardscaped areas. Shrub heads shall be installed to a standard height of 4" below maintained height of plants and shall be installed a minimum of 6" within planted masses to be less visible and offer protection. Paint all shrub risers with flat black or forest green paint, unless irrigation system will utilize reuse water; in this case the risers shall be purple PVC and shall not be painted.

Locate valves prior to excavation. Ensure that their location provides for easy access and that there is no interference with physical structures, plants, trees, poles, etc. Valve boxes must be placed a minimum of 12" and a maximum of 15" from the edge of pavement, curbs, etc. and the top of the box must be 2" above finish grade. No valve boxes shall be installed in turf areas without approval by the irrigation designer - only in shrub beds. Never install in sport field areas.

VALVES

Sequence all valves so that the farthest valve from the P.O.C. operates first and the closest to the P.O.C. operates last. The closest valve to the P.O.C. should be the last valve in the programmed sequence.

Adjust the flow control on each RCV to ensure shut off in 10 seconds after deactivation by the irrigation controller.

Using an electric branding iron, brand the valve I.D. letter/number on the lid of each valve box. This brand must be 2"-3" tall and easily legible.

EQUIPMENT

All pop-up heads and shrub risers shall be pressure compensating. All pop-up heads shall be mounted on flex-type swing joints. All rotors shall be installed with PVC triple swing joints unless otherwise detailed.

All sprinkler equipment, not otherwise detailed or specified on these plans, shall be installed as per manufacturer's recommendations and specifications, and according to local and state laws.

TRENCHING

Excavate straight and vertical trenches with smooth, flat or sloping bottoms. Trench width and depth should be sufficient to allow for the proper vertical and horizontal separation between piping as shown in the pipe installation detail on the detail sheet.

Protect existing landscaped areas. Remove and replant any damaged plant material upon job completion. The replacement material shall be of the same genus and species, and of the same size as the material it is replacing. The final determination as to what needs to be replaced and the acceptability of the replacement material shall be solely up to the owner or owner's representative.

INSTALLATION

Solvent Weld Pipe: Cut all pipe square and deburr. Clean pipe and fittings of foreign material; then apply a small amount of primer while ensuring that any excess is wiped off immediately. Primer should not puddle or drip from pipe or fittings. Next apply a thin coat of PVC cement; first apply a thin layer to the pipe, next a thin layer inside the fitting, and finally another very thin layer on the pipe. Insert the pipe into the fitting. Insure that the pipe is inserted to the bottom of the fitting, then turn the pipe a 1/4 turn and hold for 10 seconds. Make sure that the pipe doesn't recede from the fitting. If the pipe isn't at the bottom of the fitting upon completion, the glue joint is unacceptable and must be discarded.

Pipes must cure a minimum of 30 minutes prior to handling and placing into trenches. A longer curing time may be required; refer to the manufacture's specifications. The pipe must cure a minimum of 24 hours prior to filling with water.

Gasketed Pipe: With pipe in the trench, cut pipe square, deburr, and place beveled edge on male portion of pipe, if not using a piece with a factory bevel. Clean pipe and fittings of foreign material; then apply a small amount of pipe grease to the rubber gasket on the female end. Fully insert the male end of the pipe into the bell end of adjacent pipe until the bevel is fully seated into the bell. Restrain pipe as required.

BACK FILL

The Back fill 6" below, 6" above, and around all piping shall be of clean sand and anything beyond that in the trench can be of native material but nothing larger than 2" in diameter.

Main line pipe depth measured to the top of pipe shall be:
- 24" minimum for 3/4"-2 1/2" PVC with a 30" minimum at vehicular crossings;
- 30" minimum for 3" & 4" PVC with a 36" minimum at vehicular crossings.
- 36" minimum for 6" PVC with a 36" minimum at vehicular crossings;

Lateral line depths measured to top of pipe shall be:
- 18" minimum for 3/4"-3" PVC with a 30" minimum at vehicular crossings;
- 24" minimum for 4" PVC and above with a 30" minimum at vehicular crossings.

Contractor shall backfill all piping, both mainline and laterals, prior to performing any pressure tests. The pipe shall be backfilled with the exception of 2' on each side of every joint (ball fittings, 90's, tees, 45's, etc.). These joints shall not be backfilled until all piping has satisfactorily passed its appropriate pressure test as outlined below.

FLUSHING

Prior to the placement of valves, flush all mainlines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Prior to the placement of heads, flush all lateral lines for a minimum of 10 minutes or until lines are completely clean of debris, whichever is longer.

Use screens in heads and adjust heads for proper coverage avoiding excess water on walls, walks and paving.

TESTING

Soil: At a minimum of 2 locations on the site, soil tests for infiltration and texture shall be performed according to the USDA Soil Quality Test Kit Guide. The tests shall be documented in a USDA Soil Worksheet. (All of the above is available at http://soils.usda.gov/sqi/assessment/test_kit.html) The completed worksheet shall be submitted to the owners representative for review/approval. Do not proceed without written direction from the owner/owner's representative.

Mainline: Remove all remote control valves and cap using a threaded cap on SCH 80 nipple. Fill mainline with water and pressurize the system to 125 PSI. Monitor the system pressure at two gauge locations; the gauge locations must be at opposite ends of the mainline. With the same respective pressures, monitor the gauges for two hours. There can be no loss in pressure at either gauge for solvent-welded pipe. For HDPE pipe, see HDPE notes. For gasketed pipe, testing requires measurement of the water pumped into the mainline system, using a hydrostatic pump, to maintain 125 PSI - this water volume shall be no more than the result of the following formula:

$$L=(ND*P)/7400$$

where L=Allowable leakage in gallons per hour
N=Number of joints in pipe tested
D=Nominal diameter of pipe (in inches)
P=Average Test Pressure (in PSI)

If these parameters are exceeded, locate the problem; repair it; wait 24 hours and retry the test. This procedure must be followed until the mainline passes the test.

Lateral Lines: The lateral lines must be fully filled to operational pressure and visually checked for leaks. Any leaks detected must be repaired.

Operational Testing -Once the mainline and lateral lines have passed their respective tests, and the system is completely operational, a coverage test and demonstration of the system is required. The irrigation contractor must demonstrate to the owner, or his/her representative, that proper coverage is obtained and the system works automatically from the controller. This demonstration requires each zone to be turned on, in the proper sequence as shown on the plans, from the controller. Each zone will be inspected for proper coverage and function. The determination of proper coverage and function is at the sole discretion of the owner or owner's representative.

Upon completion of the operational test, run each zone until water begins to puddle or run off. This will allow you to determine the number of irrigation start times necessary to meet the weekly evapotranspiration requirements of the planting material in each zone. In fine sandy soils, it is possible no puddling will occur. If this is experienced, then theoretical calculations for run times will be required for controller programming.

SUBMITTALS

Pre-Construction: The contractor must submit for written approval, prior to installation, five (5) copies of the manufacturer's cut sheets/specifications for all components to be used in the irrigation system.

After project completion:
As a condition of final acceptance, the irrigation contractor shall provide the owner with:
1. Irrigations As-builts - shall be provided utilizing a sub-foot Global Positioning System (GPS) to accurately locate all mainlines, sleeves, remote control valves, gate valves, independent wire runs, wire splice boxes, controllers, high voltage supply sources/conduit path, control mechanisms, sensors, wells and water source connections in Florida East State Plane, NAD 83, and CORS 96 format. The data collected shall be in POINT format and include an ID for each data point with Manufacturer, Type, Size, and Depth. All mainline and independent runs of wire shall be located every 30' for straight runs and at every change of direction. Sleeves will be located at end points and every 20' of length. The GPS data collected shall include depth in inch format. These POINTS once collected shall be imported into AutoCAD DWG geo-referenced base file to be labeled accordingly. The completed As-built shall be a Geo-Referenced DWF file and delivered to the owner on a compact disk (CD);

2. Controller charts - Upon completion of "as-built" prepare controller charts; one per controller. Indicate on each chart the area controlled by a remote control valve (using a different color for each zone). This chart shall be reduced to a size that will fit inside of the controller door. The reduction shall be hermetically sealed inside two 2mil pieces of clear plastic.

3. Grounding Certification - Provide ground certification results for each controller and pump panel grounding grid installed. This must be on a licensed electrical contractor letter head, showing the location tested (using IR plan symbols), date, time, test method, and testing results.

INSPECTIONS AND COORDINATION MEETINGS REQUIRED - Contractor is required to schedule, perform, and attend the following, and demonstrate to the owner and/or owner's representative to their satisfaction, as follows:

1. Pre-construction meeting - Designer and contractor to review and finalize the construction schedule with owner/general contractor.
2. Mainline installation inspection(s) - all mainline must be inspected for proper pipe, fittings, depth of coverage, backfill, and installation method
3. Mainline pressure test - All mainline shall be pressure tested according to this designs requirements
4. Flow Meter calibration - All flow meters must be calibrated, provide certified calibration report for all flow meters.
5. USDA Soil Quality Tests for infiltration/texture
6. Coverage and operational test
7. Final inspection
8. Punch list inspection

FINAL ACCEPTANCE

Final acceptance of the irrigation system will be given after the following documents and conditions have been completed and approved. Final payment will not be released until these conditions are satisfied.

1. All above inspections are completed, documented, and approved by owner.
2. Completion and acceptance of 'as-built' drawings.
3. Acceptance of required controller charts and placement inside of controllers.
4. All other submittals have be made to the satisfaction of the owner.

GUARANTEE: The irrigation system shall be guaranteed for a minimum of one calendar year from the time of final acceptance.

MINIMUM RECOMMENDED
IRRIGATION MAINTENANCE PROCEDURES

1. Every irrigation zone should be checked monthly and written reports generated describing the date(s) each zone was inspected, problems identified, date problems repaired, and a list of materials used in the repair. At minimum, these inspections should include the following tasks:

A. Turn on each zone from the controller to verify automatic operation.
B. Check schedules to ensure they are appropriate for the season, plant and soil type, and irrigation method. Consult an I.A. certified auditor for methods used in determining proper irrigation scheduling requirements.
C. Check remote control valve to ensure proper operation.
D. Check setting on pressure regulator to verify proper setting, if present.
E. Check flow control and adjust as needed; ensure valve closure within 10-15 seconds after deactivation by controller.
F. Check for leaks - mainline, lateral lines, valves, heads, etc.
G. Check all heads as follows:

1. Proper set height (top of sprinkler is 1" below mow height)
2. Verify head pop-up height - 6" in turf, 12" in ground cover, and pop-up on riser in shrub beds.
3. Check wiper seal for leaks - if leaking, clean head and re-inspect. If still leaking, replace head with the appropriate head with pressure regulator and built-in check valve.
4. All nozzles checked for proper pattern, clogging, leaks, correct make & model, etc. - replace as needed
5. Check for proper alignment - perfectly vertical; coverage area is correct; minimize over spray onto hardscapes.
6. Riser height raised/lowered to accommodate plant growth patterns and ensure proper coverage.
7. verify the pop-up riser retracts after operation. If not, repair/replace as needed.

2. Check controller/C.C.U. grounds for resistance (10 ohms or less) once per year. Submit written reports.

3. Check rain shut-off device monthly to ensure it functions properly.

4. Inspect all filters monthly and clean/repair/replace as needed.

5. Inspect backflow devices by utilizing a properly licensed backflow inspector. This should be done annually, at minimum.

6. Inspect all valve boxes to ensure they are in good condition, lids are in place and locked.

7. Check pump stations for proper operation, pressures, filtration, settings, etc. - refer to pump station operations manual.

8. Check and clean intake screens on all suction lines quarterly, at minimum. Clean and/or repair, as needed.

9. Winterize, if applicable, as weather in your area dictates. Follow manufacturer recommendations and blow out all lines and equipment using compressed air. Perform seasonal startup of system as per manufacturer recommendations.

10. Conduct additional inspections, maintenance tasks, etc. that are particular for your site.

PRELIMINARY NOT FOR REVIEW
MARION COUNTY, FLORIDA
APPLICATION # 37183
Review of these plans is limited to compliance with Marion County ordinances. Marion County is not responsible for the accuracy or adequacy of the plans. Permitted construction shall be deemed and welded. Deed and mulch may be used if approved by the County Engineer or Contractor.
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the permits required by other governmental entities (partial, as applicable, or state and/or federal) laws.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-2633

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PROJECT: MIDWAY TERRACE APTS LOT 18
MARION COUNTY, FL
Prepared For: LINN ENGINEERING

SEAL: STATE OF FLORIDA LICENSED LANDSCAPE ARCHITECT ROBERT J. TUCCI JR. LICENSE NO. LA0001811
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

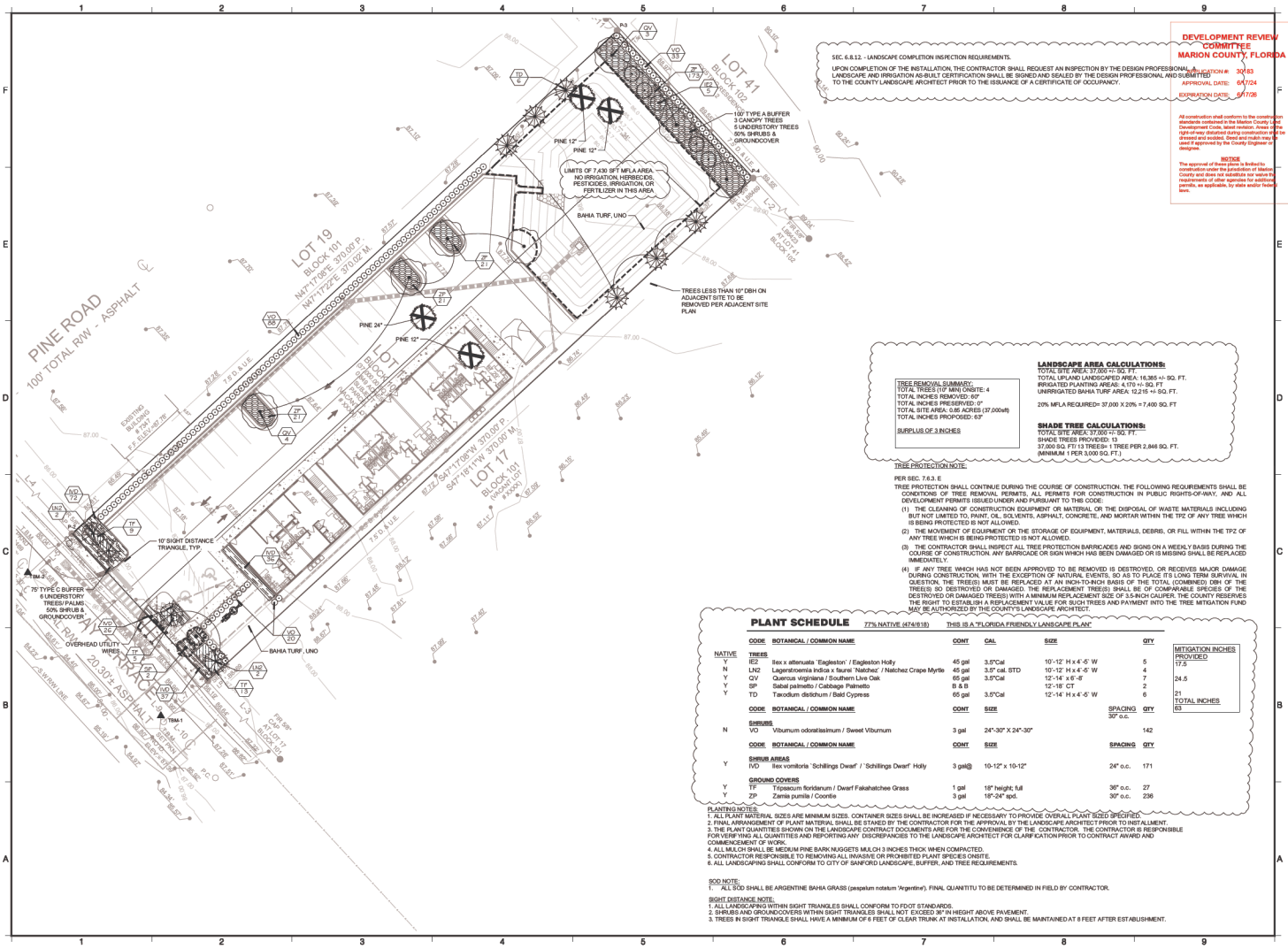
CONSULTANTS:

ISSUED FOR:	
PRELIMINARY NOT FOR REVIEW	
2022/02/24 REVISED LAYER 23	
PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	AS SHOWN

DRAWING TITLE: IRRIGATION DETAILS

DRAWING NUMBER: IR-03

SHEET 3 OF 3



SEC. 6.8.12. - LANDSCAPE COMPLETION INSPECTION REQUIREMENTS.

UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL REQUEST AN INSPECTION BY THE DESIGN PROFESSIONAL. A LANDSCAPE AND IRRIGATION AS-BUILT CERTIFICATION SHALL BE SIGNED AND SEALED BY THE DESIGN PROFESSIONAL AND SUBMITTED TO THE COUNTY LANDSCAPE ARCHITECT PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained in the Marion County Land Development Code. Any deviations from the approved right-of-way disturbed during construction shall be dressed and sodded. Seed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

TREE REMOVAL SUMMARY:
TOTAL TREES (10" MIN) ONSITE: 4
TOTAL INCHES REMOVED: 60"
TOTAL INCHES PRESERVED: 0"
TOTAL SITE AREA: 0.85 ACRES (37,000sqft)
TOTAL INCHES PROPOSED: 63"

SURPLUS OF 3 INCHES

LANDSCAPE AREA CALCULATIONS:
TOTAL SITE AREA: 37,000 +/- SQ. FT.
TOTAL UPLAND LANDSCAPED AREA: 16,385 +/- SQ. FT.
IRRIGATED PLANTING AREAS: 4,170 +/- SQ. FT
UNIRRIGATED BAHA TURF AREA: 12,215 +/- SQ. FT.

20% MFLA REQUIRED= 37,000 X 20% = 7,400 SQ. FT

SHADE TREE CALCULATIONS:
TOTAL SITE AREA: 37,000 +/- SQ. FT.
SHADE TREES PROVIDED: 13
37,000 SQ. FT/ 13 TREES= 1 TREE PER 2,846 SQ. FT.
(MINIMUM 1 PER 3,000 SQ. FT.)

TREE PROTECTION NOTE:

PER SEC. 7.6.3. E

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:

(1) 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.

(2) 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.

(3) 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.

(4) 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 3.5-INCH CALIPER. THE COUNTY RESERVES THE RIGHT TO ESTABLISH A REPLACEMENT VALUE FOR SUCH TREES AND PAYMENT INTO THE TREE MITIGATION FUND MAY BE AUTHORIZED BY THE COUNTY'S LANDSCAPE ARCHITECT.

PLANT SCHEDULE

77% NATIVE (474/618) THIS IS A "FLORIDA FRIENDLY LANSCAPE PLAN"

	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE		QTY
NATIVE		**TREES**					
Y	IE2	Ilex x attenuata `Eagleston` / Eagleston Holly	45 gal	3.5"Cal	10'-12' H x 4'-5' W		5
N	LN2	Lagerstroemia indica x fauriei `Natchez` / Natchez Crape Myrtle	45 gal	3.5" cal. STD	10'-12' H x 4'-5' W		4
Y	QV	Quercus virginiana / Southern Live Oak	65 gal	3.5"Cal	12'-14' x 6'-8'		7
Y	SP	Sabal palmetto / Cabbage Palmetto	B & B		12'-18' CT		2
Y	TD	Taxodium distichum / Bald Cypress	65 gal	3.5"Cal	12'-14' H x 4'-5' W		6
	CODE	BOTANICAL / COMMON NAME	CONT	SIZE		SPACING	QTY
		SHRUBS				30" o.c.	
N	VO	Viburnum odoratissimum / Sweet Viburnum	3 gal	24"-30" X 24"-30"			142
	CODE	BOTANICAL / COMMON NAME	CONT	SIZE		SPACING	QTY
		SHRUB AREAS					
Y	IVD	Ilex vomitoria `Schillings Dwarf` / `Schillings Dwarf` Holly	3 gal@	10-12" x 10-12"		24" o.c.	171
		GROUND COVERS					
Y	TF	Tripsacum floridanum / Dwarf Fakahatchee Grass	1 gal	18" height; full		36" o.c.	27
Y	ZP	Zamia pumila / Coontie	3 gal	18"-24" spd.		30" o.c.	236

MITIGATION INCHES PROVIDED
17.5
24.5
21
TOTAL INCHES
63

PLANTING NOTES:
1. ALL PLANT MATERIAL SIZES ARE MINIMUM SIZES. CONTAINER SIZES SHALL BE INCREASED IF NECESSARY TO PROVIDE OVERALL PLANT SIZED SPECIFIED.
2. FINAL ARRANGEMENT OF PLANT MATERIAL SHALL BE STAKED BY THE CONTRACTOR FOR THE APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLMENT.
3. THE PLANT QUANTITIES SHOWN ON THE LANDSCAPE CONTRACT DOCUMENTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES AND REPORTING ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO CONTRACT AWARD AND COMMENCEMENT OF WORK.
4. ALL MULCH SHALL BE MEDIUM PINE BARK NUGGETS MULCH 3 INCHES THICK WHEN COMPACTED.
5. CONTRACTOR RESPONSIBLE TO REMOVING ALL INVASIVE OR PROHIBITED PLANT SPECIES ONSITE.
6. ALL LANDSCAPING SHALL CONFORM TO CITY OF SANFORD LANDSCAPE, BUFFER, AND TREE REQUIREMENTS.

SOD NOTE:
1. ALL SOD SHALL BE ARGENTINE BAHIA GRASS (paspalum notatum 'Argentine'). FINAL QUANTITIU TO BE DETERMINED IN FIELD BY CONTRACTOR.

SIGHT DISTANCE NOTE:
1. ALL LANDSCAPING WITHIN SIGHT TRIANGLES SHALL CONFORM TO FDOT STANDARDS.
2. SHRUBS AND GROUNDCOVERS WITHIN SIGHT TRIANGLES SHALL NOT EXCEED 36" IN HEIGHT ABOVE PAVEMENT.
3. TREES IN SIGHT TRIANGLE SHALL HAVE A MINIMUM OF 6 FEET OF CLEAR TRUNK AT INSTALLATION, AND SHALL BE MAINTAINED AT 8 FEET AFTER ESTABLISHMENT.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-0435

THE DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS PREPARED BY THE LANDSCAPE ARCHITECT AND OTHER CONSULTANTS AND UNDER HIS DIRECTION OR EXPERTISE IN THESE PLANS, DRAWS, AND DESIGNS, THESE DOCUMENTS ARE THE PROPERTY OF THE LANDSCAPE ARCHITECT. REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MATTER, WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION, CONSENT, AND PROVIDING APPROPRIATE COMPENSATION TO THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB. THE LA IS NOT RESPONSIBLE FOR THE ACCURACY OF INFORMATION PROVIDED BY OTHERS. ANY DISCREPANCIES SHALL BE REPORTED TO THE LA BEFORE WORK IS MADE. NO ALTERATIONS OR VARIATION FROM THE DIMENSIONS, CONDITIONS AND SPECIFICATIONS APPEARING ON THESE PLANS, DO, SHOULD

PROJECT:
MIDWAY TERRACE APTS
LOT 18
MARION COUNTY, FL

Prepared For:
LINN ENGINEERING

SEAL:

Printed copies of this document are not considered signed and sealed and the seal may not be verified on any electronic copies.

CONSULTANTS:

ISSUED FOR:
DEVELOPMENT REVIEW
2/23/2024 REVISED (LAYER 2)
3/14/2024 REVISED (LAYER 3)

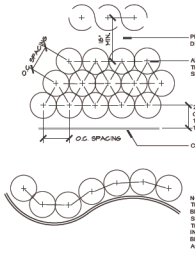
PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	1"=20'

0 FT 10 20 North

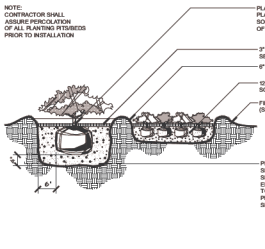
DRAWING TITLE:
LANDSCAPE PLAN

DRAWING NUMBER
LS-01

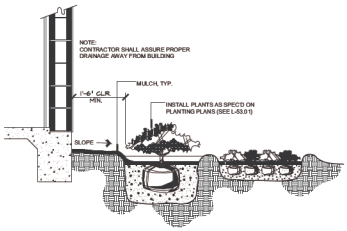
SHEET 1 OF 2



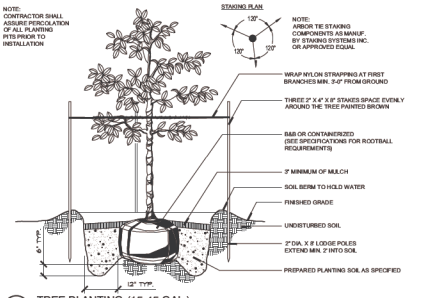
1 SHRUB & GROUNDCOVER SPACING
1/2" = 1'-0" P-LA-01



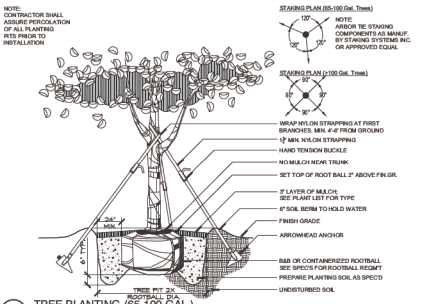
2 SHRUB & GROUNDCOVER PLANTING
1/2" = 1'-0" P-LA-02



3 FOUNDATION PLANTING
1/2" = 1'-0" P-LA-03



4 TREE PLANTING (15-45 GAL.)
1/2" = 1'-0" P-LA-05



5 TREE PLANTING (65-100 GAL.)
1/2" = 1'-0" P-LA-06

LANDSCAPE SPECIFICATIONS:

PART 1 - GENERAL
1.01 WORK INCLUDED:
A. INSTALLATION OF TREES, PALMS, SHRUBS, GROUNDCOVERS, AND GRASS SOD.
B. APPLICATION AND PAYMENT FOR REQUIRED REVISIONS.

1.02 REFERENCES
A. *GRADES AND STANDARDS FOR NURSERY PLANTS,"FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
B. "AMERICAN STANDARD FOR NURSERY STOCK," ANSI Z60.1-2004, AMERICAN NURSERY & LANDSCAPE ASSOCIATION.

1.03 SUBMITTALS
A. RECORD DRAWINGS: FURNISH ONE SET OF REPRODUCIBLE RECORD DRAWINGS, CLEARLY SHOWING ALL CHANGES MADE TO THE ORIGINAL CONTRACT DRAWINGS DURING THE COURSE OF WORK.
B. SOIL ANALYSIS: SUBMIT SOIL TEST RESULTS FROM AN INDEPENDENT SOIL TESTING LABORATORY PRIOR TO PLANTING.

1.04 DELIVERY, STORAGE, AND HANDLING
A. INSPECTION: UPON DELIVERY TO THE SITE, INSPECT ALL PLANT MATERIALS FOR CONFORMITY TO THE SPECIFICATIONS AND FOR HANDLING DAMAGE. REMOVE FROM THE SITE ALL NON-CONFORMING AND DAMAGED PLANT MATERIALS.
B. ON-SITE STORAGE: PROTECT ALL STORED PLANT MATERIALS FROM SUN AND WIND. WATER ALL STORED PLANT MATERIAL DAILY. OWNER TO INDICATE APPROPRIATE LOCATION FOR MATERIAL(S) AND EQUIPMENT STORAGE

1.05 GUARANTEE
A. GUARANTEE ALL PLANTING WORK FOR A PERIOD OF ONE YEAR AFTER THE DATE OF FINAL APPROVAL AND ACCEPTANCE.
B. REPLACE AT NO COST TO THE OWNER ALL PLANT MATERIALS WHICH DIE OF ARE DETERMINED BY THE LANDSCAPE ARCHITECT , OR OWNER'S REPRESENTATIVE TO BE UNACCEPTABLE, UNLESS THE DEATH OR UNACCEPTABLE CONDITION IS CLEARLY BEYOND THE CONTROL OF THE CONTRACTOR, AS DETERMINED BY THE OWNER. SUCH CIRCUMSTANCES MAY INCLUDE ACTS OF MOTHER NATURE, THEFT AFTER FINAL INSPECTION, OR VANDALISM. UNACCEPTABLE PLANTS SHALL INCLUDE THOSE THAT SHOW SIGNIFICANT DIEBACK OR FAILURE TO EXHIBIT THE HEALTHY CHARACTERISTICS INDICATIVE OF THE SPECIES.

1.06 MAINTENANCE
A. MAINTAIN ALL LANDSCAPING UNTIL ONE YEAR AFTER FINAL APPROVAL AND ACCEPTANCE.
B. MAINTENANCE TO INCLUDE:
1. CULTIVATING AND WEEDING PLANT BEDS AND TREE PITS.
2. APPLICATION OF HERBICIDES AND PESTICIDES
3. IRRIGATION SUFFICIENT TO SATURATE ROOT SYSTEMS APPLIED DAILY.
4. TRIMMING AND PRUNING, INCLUDING REMOVAL OF CLIPPINGS AND DEAD OR BROKEN BRANCHES, AND TREATMENT OF PRUNED AREAS OR OTHER WOUNDS.
5. DISEASE CONTROL.
6. MAINTAINING GUYS AND STAKES IN A TIGHT CONDITION.
7. MAINTAINING TREES IN A PLUMB CONDITION.
8. WEEKLY MOWING AFTER SOD IS SUFFICIENTLY ROOTED.

PART 2 - PRODUCTS
2.01 PLANT MATERIALS
A. TREES AND SHRUBS. ALL PLANT MATERIALS SHALL BE FLORIDA #1 AS OUTLINED IN "GRADES AND STANDARDS FOR NURSERY PLANTS."
B. SOD: PROVIDE ONLY NURSERY GROWN, MACHINE CUT SOD OF THE TYPE INDICATED ON THE DRAWINGS. SOD SHALL BE WELL-MATTED WITH ROOTS, FREE OF EXCESSIVE WEEDS, AND SHALL BE GREEN, FRESH AND UNILURED AT THE TIME OF PLANTING.

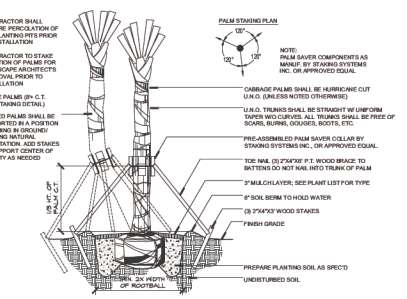
2.02 SOIL MATERIALS
A. TOPSOIL: FERTILE, AGRICULTURAL TOPSOIL, TYPICAL FOR PROJECT LOCALITY, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, TAKEN FROM DRAINED SITE, FREE OF SUBSOIL, CLAY, PLANTS, WEEDS AND ROOTS; pH RANGE OF 5.5 TO 7.0, MINIMUM 4 PERCENT, MAXIMUM 20 PERCENT ORGANIC MATTER.
B. PEAT MOSS: SHREDDED, LOOSE, SPHAGNUM MOSS, FREE OF LUMPS, ROOTS, INORGANIC MATERIAL, MINIMUM 85 PERCENT ORGANIC MATERIAL MEASURED BY OVEN DRY WEIGHT, A TO 5 pH RANGE, MOISTURE CONTENT OF 30 PERCENT.
C. SAND: COARSE, WASHED, BUILDERS SAND
D. PLANTING SOIL MIXTURE: PROVIDE MIXTURE OF IMPORTED TOPSOIL OR APPROVED TOPSOIL FROM SITE, PEAT, SAND, AND OTHER AMENDMENTS AS RECOMMENDED BY THE INDEPENDENT SOIL TESTING LABORATORY FOR THE SPECIFIED PLANTS.

2.03 OTHER MATERIALS
A. MULCH: PINE BARK MINI NUGGETS OR PINE STRAW 3" THICK COMPACTED UNDER ALL TREES, PALMS, SHRUBS, & GROUNDCOVER.
B. FERTILIZER:
1. FLOWERING ANNUALS AND BEDDING PLANTS: SIERRABLEN 16-7-10 (+IRON), RATE OF APPLICATION 3LBS PER 100 SQ.FT.
2. CONTAINER GROWN TREES, SHRUBS, AND GROUNDCOVER: AGRIFORM 21 GRAM TABLES, RATE OF APPLICATION AS FOLLOWS:
(1-2 GALLON PLANTS:1 TABLET) (20 GALLON PLANTS:8 TABLETS)
(3-5 GALLON PLANTS: 2 TABLETS) (65 GALLON PLANTS:6 TABLETS)
(7-10 GALLON PLANTS: 3 TABLETS) (100 GALLON PLANTS:10 TABLETS)
(15 GALLON PLANTS: 4 TABLETS) (200 GALLON PLANTS:15 TABLETS)
3. FIELD GROWN AND COLLECTED TREES: AGRIFORM 21 GRAM TABLETS, ONE TABLET PER 2" OF CALIPER FOR STANDARD TREES; ONE TABLET PER FOOT SPREAD FOR MULTI-TRUNK TREES.
4. NEWLY PLANTED SOD: 5-6-5 APPLIED PER MANUFACTURER'S INSTRUCTIONS.

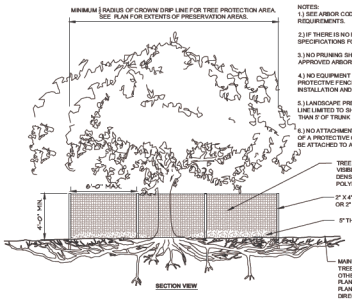
2.04 TESTS
A. PROVIDE ANALYSIS OF IMPORTED TOPSOIL INDICATING pH VALUE AND PERCENTAGE OF NITROGEN, PHOSPORUS, POTASH, SOLUBLE SALT, AND ORGANIC MATTER.
PROVIDE ANALYSIS OF EXISTING SOIL IN REPRESENTATIVE PLANTING AREAS, INDICATING REPRESENTATIVE PLANTING AREAS, INCLUDING LABORATORY RECOMMENDATIONS FOR SOIL AMENDMENTS NECESSARY FOR OPTIMAL PLANT GROWTH.

PART 3 - EXECUTION
3.01 PREPARATION
A. FINE GRADING: FINE GRADE PLANTING AREA, AS INDICATED ON THE DRAWINGS, ELIMINATING LOW OR ROUGH AREAS, AND BUILDING DEBRIS, STONES AND RUBBLE. FINISH GRADES SHALL BE SLOPED IN THE SAME DIRECTION AS EXISTING DRAINAGE; NEW GRADES SHALL NOT REVIEW PONDING OR STANDING WATER.
B. ALERT THE OWNER OF POTENTIAL GRADING AND DRAINAGE PROBLEMS, INCLUDING DEPRESSED PLANTING AREAS WITH NO OUTFALL, SATURATED PLANTING AREAS, PLANTING PITS THAT HOLD WATER FOR PROLONGED PERIODS, AND ANY OTHER CONDITION DETRIMENTAL TO OPTIMUM PLANT GROWTH.

3.02 PLANTING
A. TAKE LOCATIONS OF ALL TREES AND SHRUBS. ALIGN WITH ARCHITECTURAL OR ENGINEERING REFERENCES FEATHERS AS INDICATED ON THE DRAWINGS. INFORM LANDSCAPE ARCHITECT OF UNFORESEEN OBSTACLES WHICH MAY AFFECT THE LOCATIONS AS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR APPROVAL OF ALL STAKED PLATINGS PRIOR TO INSTALLATION.
B. PLANT TREES AND SHRUBS, ROTATING AS NECESSARY FOR BEST APPEARANCE FROM THE PREDOMINANT VIEWPOINT.
C. LAY OUT SHRUB BEDS, SCALING THE LOCATIONS AND DIMENSIONS OF EACH BED, FOLLOWING THE CONFIGURATIONS INDICATED ON THE DRAWINGS. ADJUST THE BED DIMENSIONS TO THE QUANTITY AND SPACING OF PLANTS SHOWN ON THE PLANT LIST OR SCALED FROM THE DRAWINGS. INFORM THE LANDSCAPE ARCHITECT OF SIGNIFICANT DISCREPANCIES BETWEEN PLAN BED DIMENSIONS AND PLANT QUANTITIES.
D. PLANT SHRUBS AND ANNUALS, MAINTAINING UNIFORM SPACING AS INDICATED ON THE PLANT LIST OR SCALED FROM THE DRAWINGS.
E. DISTRIBUTE OR DISPOSE OF EXCAVATED SOIL FROM PLANTING HOLES, MAINTAINING THE DESIRED FINISH GRADES.
F. LAY SOD ON FINE-GRADED, MOISTENED SOIL, WITHOUT GAPS OR OVERLAPS. TAMP OR ROLL TO PROVIDE FIRM CONTACT WITH SOIL. SOD LINE AT PLANT BEDS SHALL BE CUT TO THE CONFIGURATION AND DIMENSIONS SHOWN ON THE DRAWINGS. A MINIMUM DIMENSION SHALL BE MAINTAINED BETWEEN PLANTS AND SOD EQUAL TO ONE-HALF THE PLANT SPACING, MEASURED FROM THE CENTER OF THE PLANT TO THE EDGE OF THE SOD. A CIRCULAR RING OF 12 INCH RADIUS SHALL BE MAINTAINED FREE OF GRASS AROUND TREES WITHIN SODDED AREAS.
G. APPLY FERTILIZER TABLETS, EQUALLY DISTRIBUTED AROUND ROOTBALL AT A DEPTH EQUAL TO ONE-HALF THE ROOTBALL DEPTH. APPLY GRANULAR FERTILIZERS TO SOD AND BEDDING PLANTS. SWEEP FERTILIZERS FROM WALKWAYS TO AVOID STAINING.
H. SATURATE SOIL THOROUGHLY DURING AND AFTER BACKFILLING OF PLANTS, AND AFTER LAYING OF SOD.
I. APPLY A LAYER OF MULCH, MINIMUM 3 INCHES AFTER SETTLEMENT, TO ALL PLANT BEDS AND TREE RINGS.
J. STAKE AND GUY ALL TREES SECURELY. ATTACH WHITE SURVEYORS RIBBON TO ALL GUY WIRES ADJACENT TO PEDESTRIAN AREAS.



6 PALM PLANTING DETAIL
1/2" = 1'-0" P-LA-07



7 TREE PROTECTION
N.T.S. P-CO1-WAT-WOC-30

DEVELOPMENT REVIEW COMMITTEE
MARION COUNTY, FLORIDA

APPLICATION #: 30183
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26

All construction shall conform to the construction standards contained within the Marion County Land Development Code. Inspection of improvements in the right-of-way disturbed during construction shall be dressed and sodded. Deed and mulch may be used if approved by the County Engineer or designee.

NOTICE
The approval of these plans is limited to construction under the jurisdiction of Marion County and does not substitute nor waive the requirements of other agencies for additional permits, as applicable, by state and/or federal laws.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1514 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-554-2633

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PROJECT:
MIDWAY TERRACE APTS
LOT 18
MARION COUNTY, FL
Prepared For:
LINN ENGINEERING

SEAL:
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

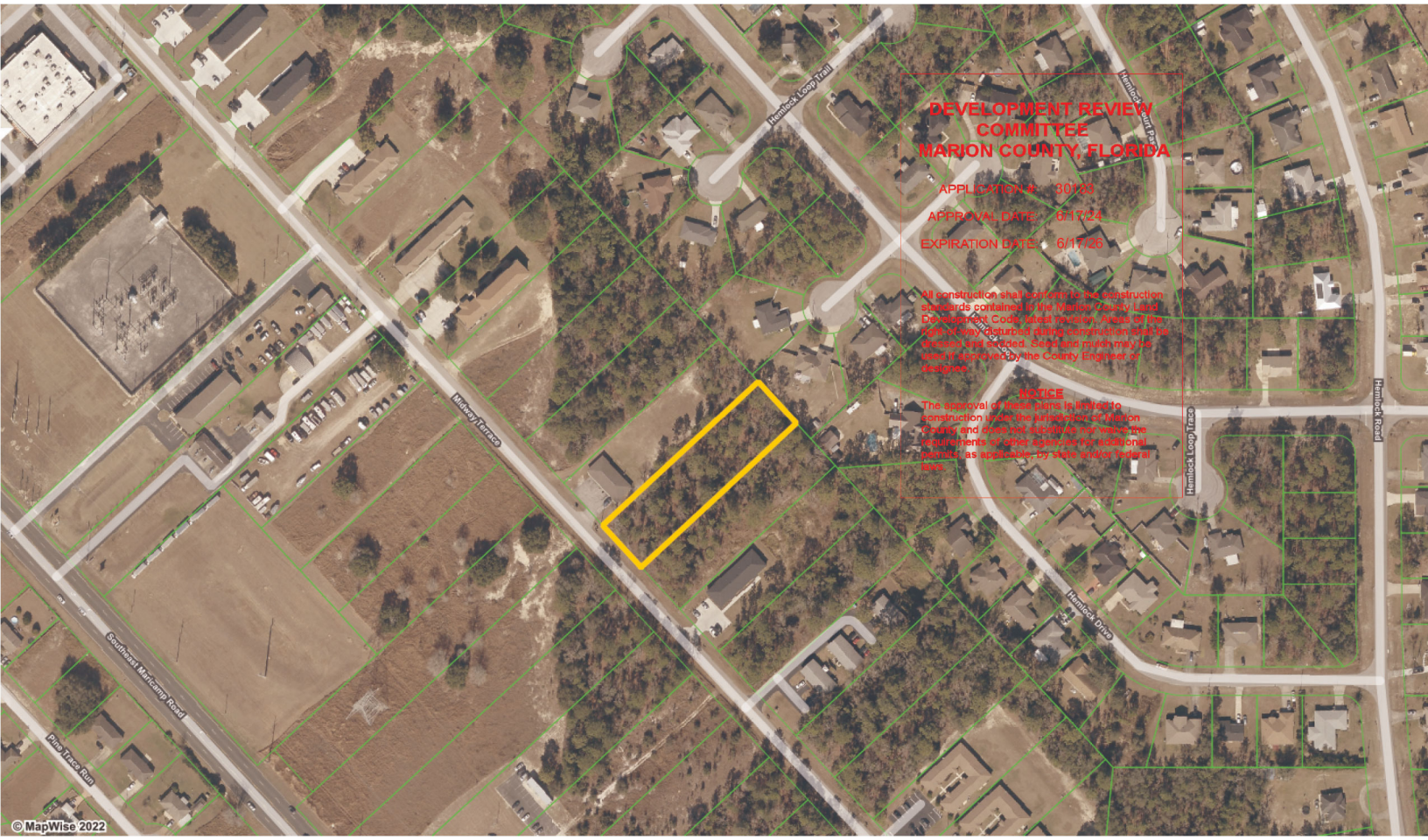
CONSULTANTS:

ISSUED FOR:
1/17/2024 DRC REVIEW
2/27/2024 REVISED (LAYER 2)
3/14/2024 REVISED (LAYER 3)

PROJECT NO.	2023-17
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	8/2/2023
DRAWING SCALE	AS SHOWN

DRAWING TITLE
LANDSCAPE DETAILS & SPECIFICATIONS

DRAWING NUMBER
LS-02
SHEET 2 OF 2


DEVELOPMENT REVIEW
COMMITTEE
MARION COUNTY, FLORIDA
APPLICATION #: 30120
APPROVAL DATE: 6/17/24
EXPIRATION DATE: 6/17/26
All construction shall conform to the construction standards contained in the Marion County Land Development Code. Most recently, State of the right-of-way disturbed during construction shall be stabilized and sodded. Sand and mulch may be used if approved by the County Engineer or designee.
NOTICE
The approval of these plans is NOT to construction under the jurisdiction of Marion County and does not authorize nor waive the requirements of other agencies or additional permits, as applicable, by state and/or federal laws.
Hemlock Loop Trail
Hemlock Court Pass
Hemlock Loop Trace
Hemlock Drive
Hemlock Road
Midway Terrace
Southeast Maricamp Road
Pine Trace Run
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