May 29, 2025
PROJECT NAME: MULTI-FAMILY NW 57TH CT - 1 QUADRUPLEX - LOT 11&12
PROJECT NUMBER: 2025020020
APPLICATION: MINOR SITE PLAN #32468

1 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.20.2.B - $150.00 Minor Site Plan fee payable to Marion County BCC effective July 8, 2019
STATUS OF REVIEW: INFO
REMARKS: Has plan fee been paid? ($150)

2 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.6 - Location of water and sewer. Does this need a special use permit? Verify if in primary springs protection zone. Will it need an enhanced septic system?
STATUS OF REVIEW: INFO
REMARKS: Does this require a special use permit?

3 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 4.4.4 - Sign (provisions for advertising signage), if it is a multi occupancy complex like shopping centers they must submit a master sign plan.
STATUS OF REVIEW: INFO
REMARKS: Will there be a sign?

4 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.27 - Show location of outside storage areas
STATUS OF REVIEW: INFO
REMARKS: Will there be outside storage?

5 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: Additional Zoning Comments
STATUS OF REVIEW: INFO
REMARKS:

6 DEPARTMENT: DOH - ENVIRONMENTAL HEALTH
REVIEW ITEM: Additional Health comments
STATUS OF REVIEW: INFO
REMARKS: Will need availability letter from utilities
If on septic please apply for septic permits through the Department of Health in Marion County

7 DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.2 A.1 - Public water service area/provider
STATUS OF REVIEW: INFO
REMARKS: 2.10.25 FGUA/Aqua Utilities

8 DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.2 A.1 - Public sewer service area/provider
STATUS OF REVIEW: INFO
REMARKS: 2.10.25 FGUA/Aqua Utilities

9 DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.2.A - Water Connection Requirements

STATUS OF REVIEW: INFO
REMARKS: 2.10.25 - FGUA/Aqua Utilities

10 DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.2 A - Sewer Connection Requirements
STATUS OF REVIEW: INFO
REMARKS: 2.10.25 - FGUA/Aqua Utilities

11 DEPARTMENT: LUCURR - LAND USE CURRENT REVIEW
REVIEW ITEM: 2.12.4.L(3) - All applicable Developer's Agreements listed?
STATUS OF REVIEW: INFO
REMARKS: Please list any development agreements in General Notes or on the Cover Page.

12 DEPARTMENT: LUCURR - LAND USE CURRENT REVIEW
REVIEW ITEM: 2.12.4.L(5)/5.4 - [Applicable Springs Protection Zone Listed?]
STATUS OF REVIEW: INFO
REMARKS: Please include in General Notes or on Cover Page. Subject parcel is located within the Secondary Springs Protection Zone.

13 DEPARTMENT: LUCURR - LAND USE CURRENT REVIEW
REVIEW ITEM: 2.12.5/1.8.2.A - Concurrency/Traffic - Study/Capacity Available?
STATUS OF REVIEW: INFO
REMARKS: To be determined by traffic analysis.

14 DEPARTMENT: ENRAA - ACQ AGENT ENG ROW
REVIEW ITEM: Minor Site Plan
STATUS OF REVIEW: INFO
REMARKS: IF APPLICABLE:
Sec. 2.18.1.I - Show connections to other phases.
Sec.2.19.2.H – Legal Documents
Legal documents such as Declaration of Covenants and Restrictions, By-Laws, Articles of Incorporation, ordinances, resolutions, etc.
Sec. 6.3.1.B.1 – Required Right of Way Dedication (select as appropriate)
For Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated for the use and benefit of the public."
Sec. 6.3.1.B.2 – Required Right of Way Dedication
For Non-Public Streets. "[All streets and rights-of-way shown on this plat or name specifically if less than all] are hereby dedicated privately to the [entity name]. All public authorities and their personnel providing services to the subdivision are granted an easement for access. The Board of County Commissioners of Marion County, Florida, shall have no responsibility, duty, or liability whatsoever regarding such streets. Marion County is granted an easement for emergency maintenance in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec. 6.3.1.D.3 - Cross Access Easements
For Cross Access Easements. "All parallel access easements shown on this plat are hereby dedicated for the use and benefit of the public, and maintenance of said easements is the responsibility of [entity name]."
Sec. 6.3.1.C.1 - Utility Easements (select as appropriate)
"[All utility easements shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction, installation, maintenance, and operation of utilities by any utility provider."
Sec. 6.3.1.C.2 – Utility Easements
"[All utility tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."

Sec.6.3.1.D(c)(1)(2)(3) - Stormwater easements and facilities, select as appropriate:
1 "[All stormwater and drainage easements as shown or noted or name specifically if less than all] are dedicated [private or to the public] for the construction and maintenance of such facilities."

2. "[All stormwater management tracts or identify each tract as appropriate] as shown are dedicated [private or to the public] for the construction and maintenance of such facilities."
3. When any stormwater easement and/or management tract is not dedicated to the public or Marion County directly, the following statement shall be added to the dedication language: "Marion County is granted the right to perform emergency maintenance on the [stormwater easement and/or management tract, complete accordingly] in the event of a local, state, or federal state of emergency wherein the declaration includes this subdivision or an emergency wherein the health, safety, or welfare of the public is deemed to be at risk."
Sec.6.3.1.D(f) –
If a Conservation Easement is required the following shall be provided: "A conservation easement [as shown or on tract and identify the tract, complete accordingly] is dedicated to [the Board of County Commissioners of Marion County, Florida or entity name, if not Marion County] for the purpose of preservation of [listed species, habitat, Karst feature and/or native vegetation, complete accordingly]."

15 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.20.1.A - When any of the Minor Site Plan thresholds are exceeded, a Major Site Plan is required
STATUS OF REVIEW: NO
REMARKS: Information not included to determine.

16 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.4.C - Owner and applicants name
STATUS OF REVIEW: NO
REMARKS: Include on cover page.

17 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.4.L(1) - Parcel number
STATUS OF REVIEW: NO
REMARKS: Include on cover page.

18 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.21/6.3.1.C(10) - Land use and zoning on project and on adjacent properties shown
STATUS OF REVIEW: NO
REMARKS: Please add to cover page.

19 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.4.L(4)- Zoning requirements: lot width, area, setbacks, coverage (floor area ratios), and parking
STATUS OF REVIEW: NO
REMARKS: Include on cover page.

20 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.24 - Landscape requirements, (buffering) 6.8.6
STATUS OF REVIEW: NO
REMARKS: Contingent on waiver request approval

21 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.4.L(7) - List and describe land use including floor area of particular use (example: office, warehouse, storage or assembly) these descriptions are often found in the summary of parking

requirements but should be clearly shown on plan
STATUS OF REVIEW: NO
REMARKS: Include on cover page.

22 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.4.L(10) - Parking requirements, service entrances, space size paved parking isle and access to parking area (6.11.8) offstreet parking requirements, (6.11.7) Loading Areas
STATUS OF REVIEW: NO
REMARKS: Include on cover page.

23 DEPARTMENT: ZONE - ZONING DEPARTMENT
REVIEW ITEM: 2.12.4.L(6) - Acreage of tract
STATUS OF REVIEW: NO
REMARKS: Include on cover sheet

24 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.12.3 - Title block shall be shown on all sheets denoting type of application; project name, location, county, and state; and date of original and all revisions
STATUS OF REVIEW: NO
REMARKS: 2/10/25-No cover sheet found

25 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.12.4.A - Type of application
STATUS OF REVIEW: NO
REMARKS: 2/10/25-No cover sheet found

26 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.12.4.K - List of approved waivers, conditions, date of approval
STATUS OF REVIEW: NO
REMARKS: 2/10/25-No cover sheet found

27 DEPARTMENT: ENGIN - DEVELOPMENT REVIEW
REVIEW ITEM: 2.12.4.L(1) - Parcel number
STATUS OF REVIEW: NO
REMARKS: 2/10/25-No cover sheet found

28 DEPARTMENT: ENGTRF - TRAFFIC REVIEW
REVIEW ITEM: 6.11.3 - Traffic Impact Analysis
STATUS OF REVIEW: NO
REMARKS: 2/19/25 - Traffic statement needed. ITE Trip Generation Manual, 11th Edition, land use code 220 should be referenced.

29 DEPARTMENT: ENGTRF - TRAFFIC REVIEW
REVIEW ITEM: 6.11.6 - Construction route
STATUS OF REVIEW: NO
REMARKS: 2/19/25 - Indicate on plans that construction traffic must utilize the most direct route to and from NW 60th Ave.

30 DEPARTMENT: ENGTRF - TRAFFIC REVIEW
REVIEW ITEM: 6.12.12 - Sidewalks
STATUS OF REVIEW: NO
REMARKS: 2/19/25 - Sidewalks are required along NW 57th Court. Traffic staff supports a waiver to this

requirement at this location which must be approved by the Development Review Committee.

31 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 2.12.18 - All trees 10" DBH and larger
STATUS OF REVIEW: NO
REMARKS: Identify all trees, listing type as tree is not acceptable

32 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.7.3 - Tree protection
STATUS OF REVIEW: NO
REMARKS: show tree protection on plan and in detail

33 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.7.6 - Tree removal submittal requirements
STATUS OF REVIEW: NO
REMARKS: 11 trees shown on plan as being removed, only 2 shown in list
Please clarify Please provide diameter in inches

34 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.7.8 - Protected tree replacement requirements
STATUS OF REVIEW: NO
REMARKS: Provide tree mitigation calculations

35 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.7.9 - Replacement trees; general requirements.
STATUS OF REVIEW: NO
REMARKS: Provide number of replacement trees if applicable

36 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.6 - Buffers
STATUS OF REVIEW: NO
REMARKS: 1. Show and label groundcovers in Type C buffer 2.Show Type A buffers at 30' wide. 3. some plant labels are missing, please provide 4. Pines are not recommended for buffers due to proximity to building, considered alternatives

37 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.8 - Building landscaping
STATUS OF REVIEW: NO
REMARKS: Provide min. 5' wide foundation planting area along 60% of public view side of building

38 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.8.10 - General planting requirements (specifications)
STATUS OF REVIEW: NO
REMARKS: 1. Planting note #6 references City of Marion County..., please correct to Marion County 2. All plant material shall be Florida Grade #1

39 DEPARTMENT: LSCAPE - LANDSCAPE DESIGN AND IRRIGATION
REVIEW ITEM: 6.19.3 - Outdoor lighting plan requirements
STATUS OF REVIEW: NO
REMARKS: Will there be outdoor lighting? if so, please submit a signed and sealed photometric plan

40 DEPARTMENT: UTIL - MARION COUNTY UTILITIES
REVIEW ITEM: 6.14.2 A.1 - Letter of Availability and Capacity (w/Location Map of water and/or sewer as app) from provider
STATUS OF REVIEW: NO
REMARKS: 2.10.25 Parcel is within FGUA/Aqua Utilities Service Area. A letter from FGUA/Aqua Utilities will stating service availability and connection requirements shall be submitted prior to building permit issuance. Insure FGUA has seen and approved utility connection, as they are not part of MCU's review process.

41 DEPARTMENT: LUCURR - LAND USE CURRENT REVIEW
REVIEW ITEM: 2.12.4.L(6) - Gross/wetland/floodplain acreage listed?
STATUS OF REVIEW: NO
REMARKS: List floodplain type and total acreage if applicable.

Marion County
Board of County Commissioners

Office of the County Engineer

412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Date: 05/20/2025 Parcel Number(s): 2164-003-011 Permit Number: 32468

A. PROJECT INFORMATION: Fill in below as applicable:

Project Name: Minor Site Plan NW 57th Court Lot 11 and 12 Commercial ☐ Residential ☑
Subdivision Name (if applicable):
Unit Block Lot 11 and 12 Tract

B. PROPERTY OWNER'S AUTHORIZATION: The property owner's signature authorizes the applicant to act on the owner's behalf for this waiver request. The signature may be obtained by email, fax, scan, a letter from the property owner, or original signature below.

Name (print): Adan Ordanez
Signature:
Mailing Address: 1911 Morning Drive City: Orlando
State: FL Zip Code: 32809 Phone # 407.223.2109
Email address: adaninvestments@adanordonez.com

C. APPLICANT INFORMATION: The applicant will be the point of contact during this waiver process and will receive all correspondence.

Firm Name (if applicable): Linn Engineering & Design, Inc Contact Name: Shenika Thomas
Mailing Address: P.O. Box 140024 City: Orlando
State: FL Zip Code: 32814 Phone # 407-775-5194
Email address: sthomas@linnengineering.com

D. WAIVER INFORMATION:
Section & Title of Code (be specific): Dision 8- Landscaping; Sec.6.8.6 -Buffers; Table 6.8-2
Reason/Justification for Request (be specific): Reduce buffer size from 30' to 15'.

DEVELOPMENT REVIEW USE:
Received By: Date Processed: Project # AR #

ZONING USE: Parcel of record: Yes ☐ No ☐ **Eligible to apply for Family Division: Yes ☐ No ☐**
Zoned: ESOZ: P.O.M. Land Use: **Plat Vacation Required: Yes ☐ No ☐**
Date Reviewed: Verified by (print & initial):

Marion County
Board of County Commissioners

Office of the County Engineer

412 SE 25th Ave.
Ocala, FL 34471
Phone: 352-671-8686
Fax: 352-671-8687

DEVELOPMENT REVIEW COMMITTEE WAIVER REQUEST FORM

Section & Title of Code (be specific) Section. 6.12.12- Sidewalks
Reason/Justification for Request (be specific): Fee in lieu of construction.

Section & Title of Code (be specific)
Reason/Justification for Request (be specific):

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Section & Title of Code (be specific)
Reason/Justification for Request (be specific):

JOB NUMBER: LS230974 (LOT 11 & 12)

BOUNDARY & TOPOGRAPHIC SURVEY

TREES DESCRIPTION

TREE No	TYPE	DIAMETER (FT.)
1	OAK	2.00
2	OAK	2.00
3	OAK	1.50
4	OAK	2.60
5	OAK	1.00
6	OAK	0.80
7	OAK	2.00
8	OAK	1.10
9	OAK	0.60
10	OAK	2.00
11	OAK	2.00
12	TREE	0.50
13	OAK	0.60
14	OAK	0.80
15	OAK	0.50
16	OAK	0.70
17	OAK	0.50
18	OAK	0.60
19	OAK	0.50
20	OAK	1.00
21	OAK	0.50
22	OAK	0.50
23	OAK	0.50
24	OAK	1.00
25	OAK	0.50
26	TREE	0.60
27	TREE	0.60
28	OAK	2.00

CURVE DETAILS:

C-1 (D.)
R = 100'
AL = 86.66'
CL = 35.23'
CB = N 28°25'32" E
Δ = 49°39'07"

C-1 (M.)
R = 100'
AL = 86.61'
CL = 83.93'
CB = N 28°25'25" E
Δ = 49°37'29"

C-2 (P.)
R = 100'
AL = 64.71'
CL = 63.58'
CB = N 71°47'19" E
Δ = 37°04'27"

C-2 (C.)
R = 100'
AL = 64.71'
CL = 137.28'
CB = N 71°47'18" E
Δ = 37°04'26"

C-3 (P.)
R = 100'
AL = 5.01'
CL = 5.01'
CB = N 02°09'55" E
Δ = 02°52'08"

C-3 (C.)
R = 100'
AL = 5.04'
CL = 5.04'
CB = N 02°24'31" E
Δ = 02°53'26"

C-4 (P.&C.)
R = 70'
AL = 109.46'
CL = 98.64'
CB = N 45°31'41" E
Δ = 89°35'41"

LINE DETAILS:

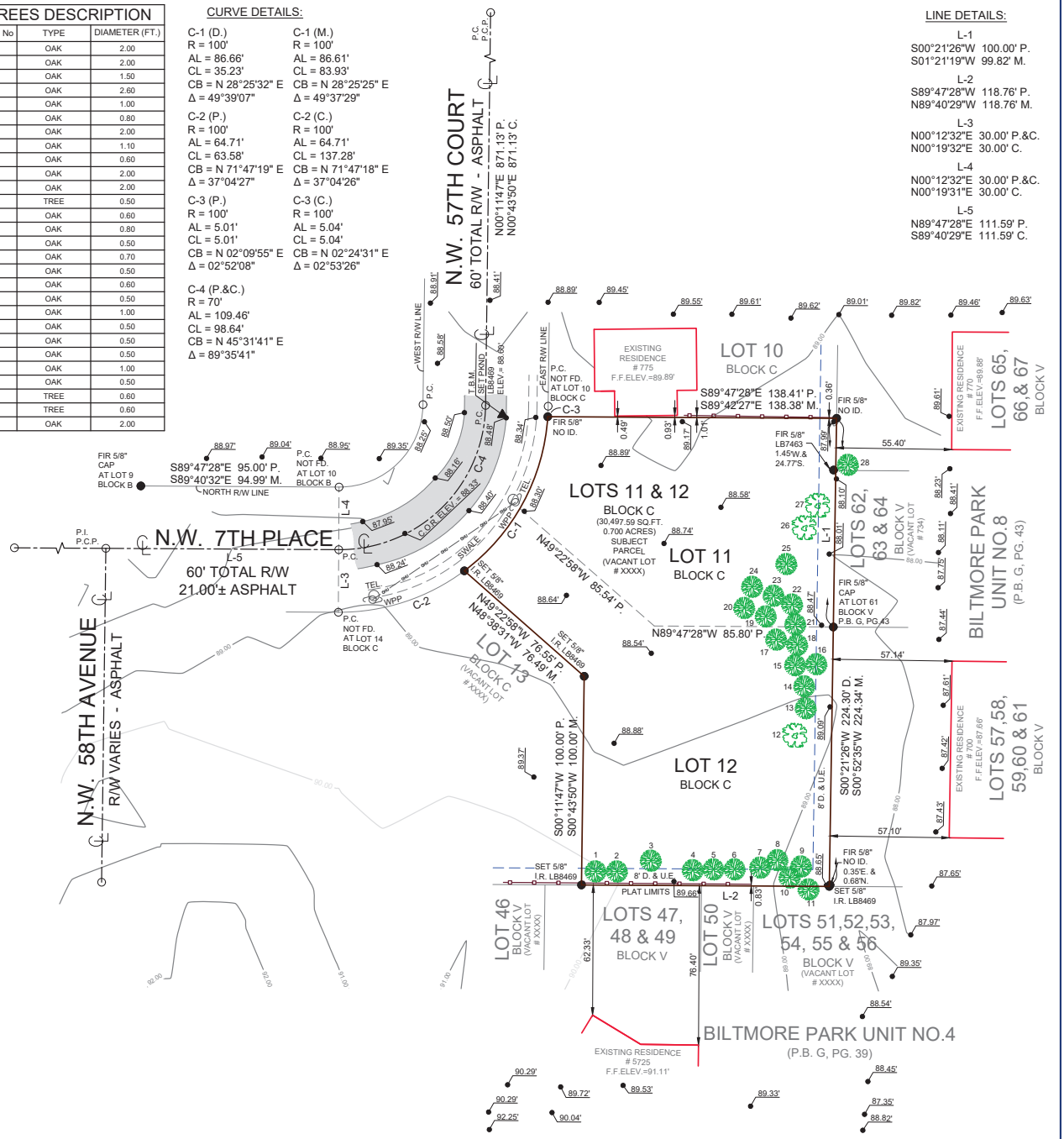
L-1
S00°21'26"W 100.00' P.
S01°21'19"W 99.82' M.

L-2
S89°47'28"W 118.76' P.
N89°40'29"W 118.76' M.

L-3
N00°12'32"E 30.00' P.&C.
N00°19'32"E 30.00' C.

L-4
N00°12'32"E 30.00' P.&C.
N00°19'31"E 30.00' C.

L-5
N89°47'28"E 111.59' P.
S89°40'29"E 111.59' C.



LINE DETAILS:

L-1
S00°21'26"W 100.00' P.
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L-3
N00°12'32"E 30.00' P.&C.
N00°19'32"E 30.00' C.

L-4
N00°12'32"E 30.00' P.&C.
N00°19'31"E 30.00' C.

L-5
N89°47'28"E 111.59' P.
S89°40'29"E 111.59' C.

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

OAK - PALM - PINE - TREE

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

COVERED AREA, CONCRETE, BRICK / PAVER, WALL, WOOD, GRAVEL/STONE, ASPHALT

SURVEYOR'S NOTES

1. LEGAL DESCRIPTION HAS BEEN OBTAINED FROM THE COUNTY'S CLERK OF COURTS RECORDS DATABASE, USING THE ADDRESS AND/OR FOLIO GIVEN BY THE CLIENT/REQUESTOR.
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. NO EXAMINATION OF TITLE HAS BEEN MADE BY THE SURVEYOR.
4. THE LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR EASEMENTS OR OTHER RECORDED ENCUMBRANCES NOT SHOWN ON THE PLAT. THIS PARCEL IS SUBJECT TO EASEMENTS, RESTRICTIONS, AND RESERVATIONS OF RECORD.
5. EASEMENTS SHOWN ON THIS MAP ARE FROM THE RECORDED PLAT. ANY OTHER EASEMENT(S) PERTAINING TO THE HEREON DESCRIBED LANDS MUST BE FURNISHED TO THE SURVEYOR BY THE CLIENT OR THE CLIENT'S AGENT IN ORDER TO BE PLOTTED ON THE MAP, PER FLORIDA STATUTE "CHAPTER SJ-17" OF THE FLORIDA ADMINISTRATIVE CODE.
6. VALUES NOTED AS "(D)", "(R)", AND/OR "(P)" REFER TO VALUES OBTAINED FROM DOCUMENTS AND INSTRUMENTS OF RECORD (PLATS, RECORD MAPS, DEEDS, ETC.) USED IN THE PREPARATION OF THIS SURVEY. MEASURED DISTANCES, DIRECTIONS AND ANGLES NOTED AS "(M)" ALONG THE LINES AND COURSES SURVEYED REPRESENT THE DISTANCES AND ANGLES BETWEEN THE SURVEY MONUMENTS AND CONTROL POINTS RECOVERED AND TRAVERSED DURING THE FIELD WORK. FIELD FINDINGS HAVE BEEN CAREFULLY ANALYZED FOR RE-ESTABLISHING THE BOUNDARIES OF THE LANDS SURVEYED HEREIN. MEASURED VALUES HAVE BEEN COMPARED WITH CORRESPONDING RECORD VALUES, AND HAVE BEEN FOUND IN AGREEMENT, UNLESS OTHERWISE SHOWN.
7. UNDERGROUND UTILITIES, 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. ONLY IMPROVEMENTS LOCATED AT THE TIME OF THE FIELD SURVEY ARE DEPICTED HEREIN. FENCES AND IMPROVEMENTS' OWNERSHIP HAVE NOT BEEN DETERMINED.
8. THIS SURVEY IS INTENDED FOR DESIGN, PERMITTING, AND MORTGAGE PURPOSES ONLY, AND EXCLUSIVELY TO BE USED BY THE PARTIES TO WHOM IT IS CERTIFIED. ANY OTHER USE OF THIS SURVEY IS NOT VALID WITHOUT A WRITTEN CONSENT OF THE UNDERSIGNED.
9. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE UNDERSIGNED SURVEYOR ARE PROHIBITED.
10. DIMENSIONS ARE IN FEET AND DECIMALS THEREOF.
11. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
12. ACCURACY OBTAINED FOR HORIZONTAL MEASUREMENTS AND OFFICE CALCULATION OF CLOSED GEOMETRIC FIGURES MEETS OR EXCEEDS THE STANDARD OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS AND MAPPERS IN CHAPTER SJ-17.051, FLORIDA ADMINISTRATIVE CODE.
13. MEASURED (M) DISTANCES AND BEARINGS HAVE BEEN DETERMINED BY GNSS (RTK/GPS) MEASUREMENTS, RELATIVE TO FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE IN NAD'83/2011 ADJUSTMENT. THE BASIS OF BEARING IS BASED UPON N 89°47'28" E ALONG THE CENTERLINE OF N.W. 7th STREET AS PLATTED.
14. ELEVATIONS SHOWN HEREON ARE RELATIVE TO NAVD'88 AND HAVE BEEN DETERMINED BY GNSS (RTK/GPS) MEASUREMENTS, USING FDOT FLORIDA PERMANENT REFERENCE NETWORK (FDOT/FPRN), ASSUMING THE STANDARD GPS RTK PROTOCOLS AND BEST PRACTICE METHODS ARE EMPLOYED FOR MAXIMUM PRECISION I.E. GOOD SATELLITE COVERAGE, GOOD GEOMETRY OF PRECISIONS, LOW MULTI PATH ENVIRONMENTS ETC., FPRN TYPICALLY ACHIEVES AN RTK VERTICAL ACCURACY OF 2-3 CM HEIGHT. BENCHMARK USED (ASSUMED BY GPS OBSERVATION) WITH ELEVATION OF 88.60'.

0 25' 50' 100'
1" = 50'
GRAPHIC SCALE

FIELD DATE	: 10/30/2024
DRAWN DATE	: 01/31/2025
DRAWN BY	: AV
CHECKED BY	: C.S.

PROPERTY AND OWNER INFORMATION

PROPERTY ADDRESS :
XXXX N.W. 7th STREET
OCALA, FL 34482

PARCEL ID : 2164-003-011

COUNTY / STATE : MARION COUNTY

CERTIFIED TO :

CFL REHABBERS LLC

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

FLOOD ZONE INFORMATION:

COMMUNITY NO	: 120160
PANEL	: 0504
SUFFIX	: E
EFFECTIVE DATE	: 04/09/2017
FLOOD ZONE	: X
B.F.E.	: N/A

LEGAL DESCRIPTION :

LOTS 11 AND 12, RIDGE MEADOWS, according to the map or plat thereof, as recorded in Plat Book U, Page(s) 70, of the Public Records of MARION COUNTY, Florida.

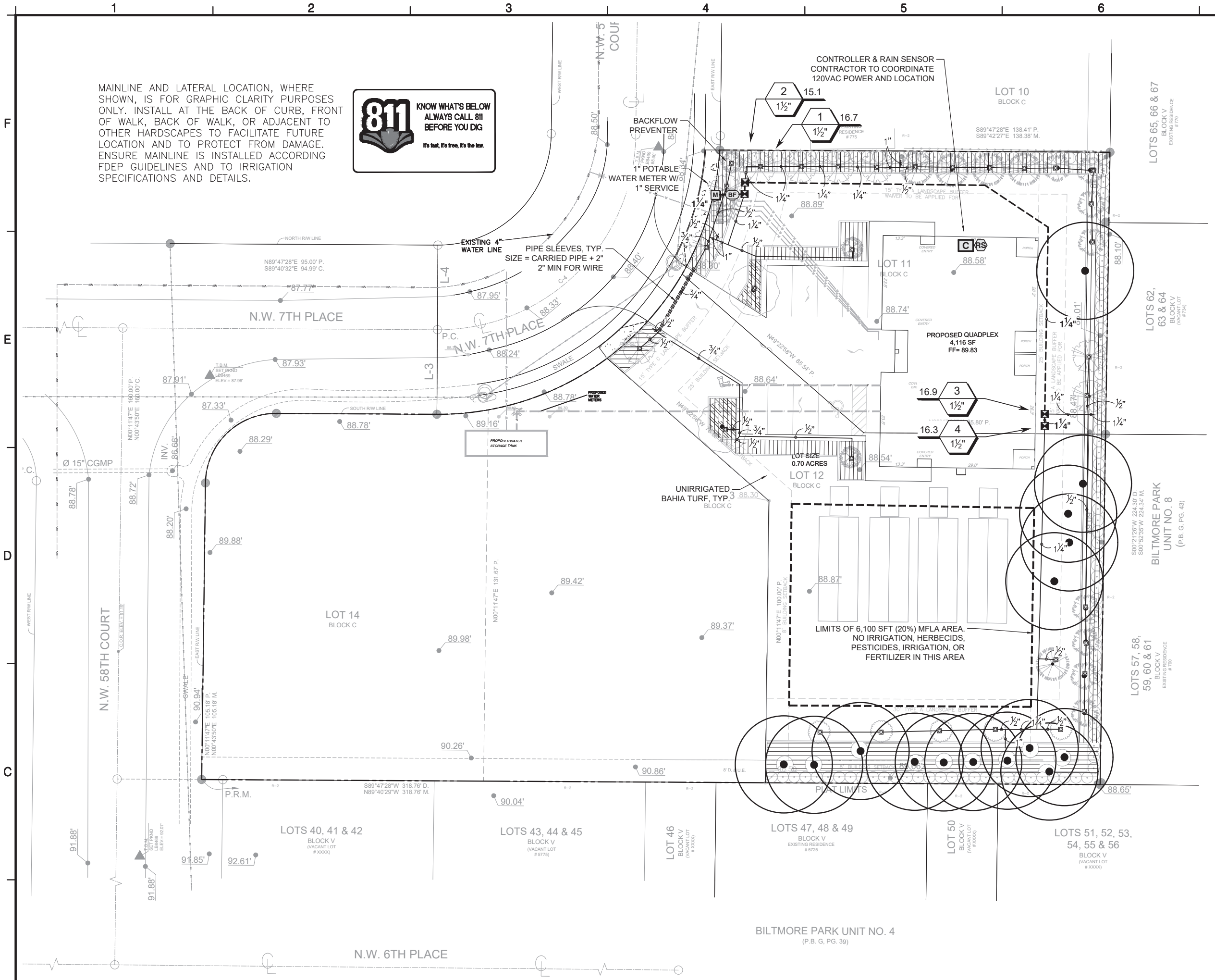
lynx Surveyors & Engineering

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

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 SJ-17.051 & 052 F.A.C., FLORIDA ADMINISTRATIVE CODE, PURSUANT TO CHAPTER 472.027 FLORIDA STATUTES.

Digitally signed by Gustavo Interian
Date: 2025.01.31 13:54:30 -05'00'

GUSTAVO INTERIAN
PROFESSIONAL SURVEYOR AND MAPPER PSM 6461



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.
CONTROLLER & RAIN SENSOR CONTRACTOR TO COORDINATE 120VAC POWER AND LOCATION
BACKFLOW PREVENTER
1" POTABLE WATER METER W/ 1" SERVICE
EXISTING 4" WATER LINE
PIPE SLEEVES, TYP. SIZE = CARRIED PIPE + 2" 2" MIN FOR WIRE
N.W. 7TH PLACE
N.W. 7TH PLACE
N.W. 58TH COURT
N.W. 6TH PLACE
LOT 10
BLOCK C
LOT 11
BLOCK C
LOT 12
BLOCK C
LOT 14
BLOCK C
PROPOSED QUADPLEX 4,116 SF FF= 89.83
LOT SIZE 0.70 ACRES
UNIRRIGATED BAHIA TURF, TYP.
LIMITS OF 6,100 SFT (20%) MFLA AREA. NO IRRIGATION, HERBECIDS, PESTICIDES, IRRIGATION, OR FERTILIZER IN THIS AREA
LOTS 65, 66 & 67
LOTS 62, 63 & 64
BILTMORE PARK UNIT NO. 8
LOTS 57, 58, 59, 60 & 61
LOTS 40, 41 & 42
LOTS 43, 44 & 45
LOT 46
LOTS 47, 48 & 49
LOT 50
LOTS 51, 52, 53, 54, 55 & 56
BILTMORE PARK UNIT NO. 4
(P.B. G, PG. 39)

LANDSCAPE AREA CALCULATIONS:
TOTAL SITE AREA: 30,498 +/- SQ. FT.
TOTAL UPLAND LANDSCAPED AREA: 22,077 +/- SQ. FT.
IRRIGATED PLANTING AREAS: 6,147 +/- SQ. FT
UNIRRIGATED BAHIA TURF AREA: 15,930 +/- SQ. FT.

20% MFLA REQUIRED= 30,500 X 20% = 6,100 SQ. FT

IRRIGATED AREAS:
TOTAL IRRIGATED AREA: 6,147 +/- SQ. FT.
HIGH FLOW/ SPRAY AREA: 0 +/- SQ. FT.
LOW FLOW/ DRIP AREA: 6,147 +/- SQ. FT. (100%)

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

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
⊡	Rain Bird 1800-1400 Flood 1402	32	360	30	0.5	3'
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.	4				
▤	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 18" apart, with emitters offset for triangular pattern. 17mm.	3,261 l.f.				
SYMBOL	**MANUFACTURER/MODEL/DESCRIPTION**	**QTY**				
BF	Febco 825Y 1-1/4" Reduced Pressure Backflow Preventer	1				
C	Rain Bird ESP8LXMEF 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	780.9 l.f.				
— — —	Irrigation Mainline: PVC Class 200 SDR 21	196.3 l.f.				
=====	Pipe Sleeve: PVC Class 200 SDR 21	25.7 l.f.				

Valve Callout
Valve Number
Valve Flow
Valve Size

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	16.66	111.0	38.6	49.1	0.96 in/h
2	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	15.12	107.6	38.0	48.2	0.96 in/h
3	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	16.89	200.8	37.0	49.9	0.96 in/h
4	Rain Bird XCZ-150-LCDR	1-1/2"	Bubbler	16.26	205.0	37.6	50.3	0.96 in/h
	Common Wire				196.3			

CRITICAL ANALYSIS

Generated:	2025-01-17 15:15
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:	52 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	16.89 GPM
Flow Available at POC:	20.27 GPM
Residual Flow Available:	3.38 GPM
Critical Station:	4
Design Pressure:	30 PSI
Friction Loss:	1.48 PSI
Fittings Loss:	0.15 PSI
Elevation Loss:	0 PSI
Loss through Valve:	6 PSI
Pressure Req. at Critical Station:	37.6 PSI
Loss for Fittings:	0.22 PSI
Loss for Main Line:	2.16 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	8.86 PSI
Loss for Water Meter:	1.45 PSI
Critical Station Pressure at POC:	50.3 PSI
Pressure Available:	52 PSI
Residual Pressure Available:	1.69 PSI

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: 407-256-2625

PROJECT
57th Ct. LOT 11 & 12
MARION COUNTY, FL
Prepared For:
ACRISTO INVESTEMENTS

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:
1/17/2025 PERMIT

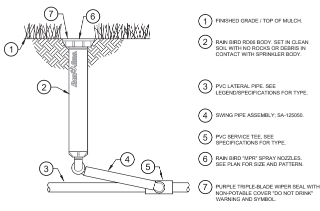
PROJECT NO.	2024-25
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	1/6/2025
DRAWING SCALE	1"=20'

0 FT 10 20 North

DRAWING TITLE
IRRIGATION PLAN

DRAWING NUMBER
IR-01
SHEET 1 OF 2

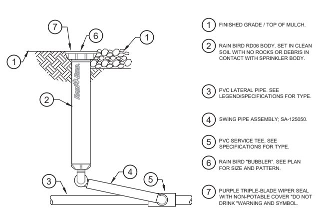
TURF SPRAY HEAD



NOTES:
1. COMPACT SOIL AROUND POP-UP HEAD TO 95% OF SURROUNDING SOIL DENSITY.
2. INSTALL POP-UP HEAD PERPENDICULAR AND FLUSH TO FINISHED GRADE.
3. PLACE POP-UP HEAD MINIMUM 12-INCHES OFF BUILDING STRUCTURES, 4" OFF SIDE WALKS AND 6-INCHES OFF FENCES.

A Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-125050 and MPR NOZZLES

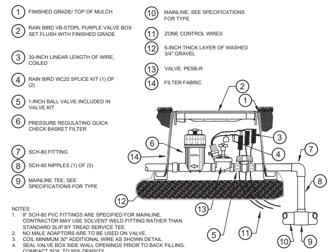
TREE SPRAY HEAD



NOTES:
1. COMPACT SOIL AROUND POP-UP HEAD TO 95% OF SURROUNDING SOIL DENSITY.
2. INSTALL POP-UP HEAD PERPENDICULAR AND FLUSH TO FINISHED GRADE.
3. PLACE POP-UP HEAD MINIMUM 6-INCHES OFF TREE ROOT BALL.

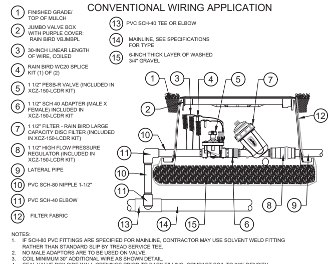
B Rain Bird RD1800 Series-RD06-S-P-45-NP-NSI
NTS Pop-Up Sprinkler W/ SA-125050 and Bubbler

CONVENTIONAL WIRING APPLICATION

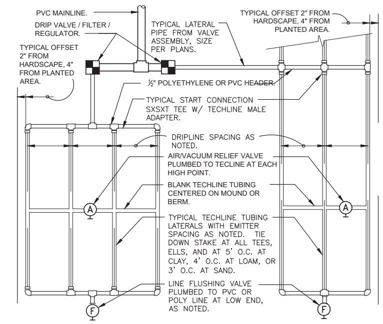


D RAIN BIRD XCZ-100-PRBR-COM
NTS

CONVENTIONAL WIRING APPLICATION



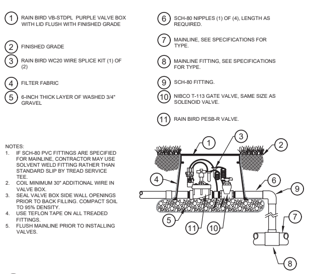
G RAIN BIRD XCZ-150-LCDR
NTS



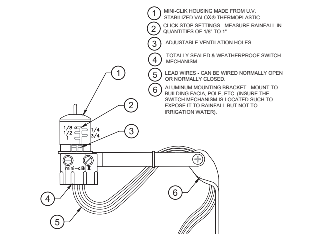
END FEED EXAMPLE

CENTER FEED EXAMPLE

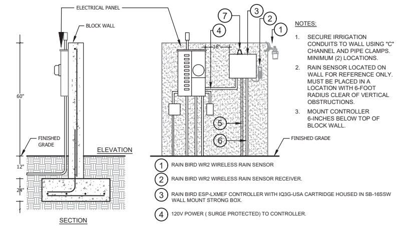
CONVENTIONAL WIRING APPLICATIONS



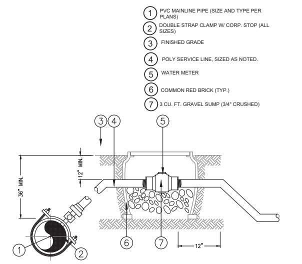
H RAIN BIRD 100/150/200-PESB PRS-D
NTS WITH GATE VALVE



L MINI-CLIK II RAIN SENSOR
NTS



I RAIN BIRD ESP-LXMEF WALL MOUNT CONTROLLER
NTS IN HEAVY DUTY SB-16SSW STRONG BOX



L METER CONNECTION
NTS

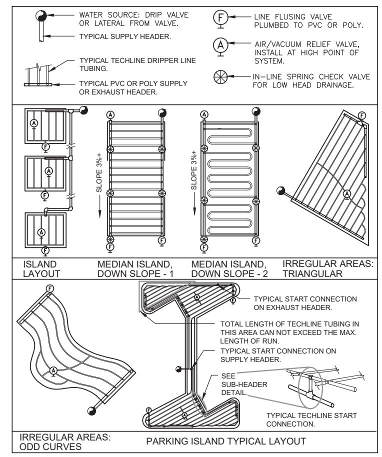
SLOPED CONDITION NOTES:
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE. 2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT. 3. TECHLINE NORMAL SPACING WITHIN THE TOP ⅔ OF SLOPE, 4. INSTALL TECHLINE AT NORMAL SPACING PLUS 25% AT THE BOTTOM ⅓ OF THE SLOPE. 5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM ⅓ ON A SEPARATE VALVE.

TECHLINE MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

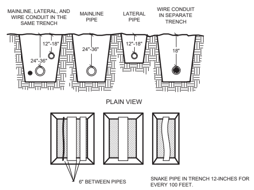
DRIPPER SPACING		12"			18"			24"	
DRIPPER FLOW RATE (GPH)		0.4	0.6	0.9	0.4	0.6	0.9	0.6	0.9
INLET PRESSURE (PSI)	15	292	233	175	410	322	247	405	308
	25	397	321	238	558	438	335	553	423
	35	486	365	279	656	514	394	649	497
	45	520	407	311	732	574	439	725	555

TECHLINE FLOW PER 100 FEET

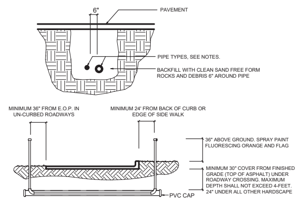
DRIPPER SPACING	0.4 GPH DRIPPER		0.6 GPH DRIPPER		0.9 GPH DRIPPER	
DRIPPER SPACING	GPH	GPM	GPH	GPM	GPH	GPM
12"	40.00	0.67	61.00	1.02	92.00	1.53
18"	26.67	0.44	41.00	0.68	61.00	1.02
24"	N/A	N/A	31.00	0.51	46.00	0.77



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



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 SMALLER 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
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-256-2625

PROJECT
57th Ct. LOT 11 & 12
MARION COUNTY, FL
Prepared For:
ACRISTO INVESTEMENTS

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:
1/17/2025 PERMIT

PROJECT NO.	2024-25
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	1/6/2025
DRAWING SCALE	AS SHOWN

DRAWING TITLE
IRRIGATION DETAILS & NOTES

DRAWING NUMBER
IR-02

SHEET 2 OF 2

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 (pump(s), 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, relaysto 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 welds 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, 12" from 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 manufacturer'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 (bell 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:

$L=(ND\sqrt{P})/7400$

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. All underground items shall include depth in inch format. These POINTS once collected shall be imported into an 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 2ml 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 electrician letter head indicating 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 owners representative to their satisfaction, as follows:

1. Pre-construction meeting - Designer and contractor to review entire install process and 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.

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-256-2625

PROJECT
57th Ct. LOT 11 & 12
MARION COUNTY, FL
Prepared For:
ACRISTO INVESTEMENTS

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:
1/17/2025 PERMIT

PROJECT NO.	2024-25
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	1/6/2025
DRAWING SCALE	AS SHOWN

DRAWING TITLE
IRRIGATION SPECIFICATIONS

DRAWING NUMBER
IR-03
SHEET 3 OF 3

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 GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON-SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
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 APPROPRIATELY RESPOND TO THE POSITIVE 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 SURVEYING 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 FROM THE OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR EXHAUSTING ALL MEANS POSSIBLE TO OBTAIN THE MATERIALS AS SPECIFIED PRIOR TO REQUESTING SUBSTITUTION. IN ORDER TO BE CONSIDERED BY 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 OFFERED AT 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 18.5.7.1. CONTRACTOR SHALL ENSURE SIGHT TRIANGLE VISIBILITY IN ALL APPLICABLE ROADWAYS PER FDOT 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 8" DEPTH. IN THE PROCESS OF TILLING ARE UNACCEPTABLE MATERIALS INCLUDING, BUT NOT LIMITED TO, FOREIGN DEBRIS, CONSTRUCTION WASTE, ROOTS, CONCRETE, ASPHALT AND ROCKS GREATER THAN 1/2" 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 PLANTING BEDS SHALL BE STAKED IN ACCORDANCE WITH THE PLANS AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL PROVIDE STAKES OR IRRIGATION FLAGS TO LOCATE THE EDGES OF ALL SHRUB AND GROUNDCOVER PLANT BEDS AND INDIVIDUAL TREES AND PALMS. ALL SHRUB AND GROUNDCOVER MATERIALS MUST BE LAID OUT IN THEIR CONTAINERS WITH THE APPROPRIATE SPACING FOR OWNER'S REPRESENTATIVE REVIEW AND APPROVAL. THE OWNER RESERVES THE RIGHT TO MAKE FIELD ADJUSTMENTS TO PLANT LAYOUT AS PART OF THIS REVIEW. FAILURE BY THE LANDSCAPE CONTRACTOR TO OBTAIN LAYOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION MAY RESULT IN THE REMOVAL AND REINSTALLATION OF MATERIALS BY THE CONTRACTOR AT NO ADDITIONAL COSTS TO THE OWNER. IF EXISTING CONDITIONS DO NOT ALLOW THE DESIGN TO BE LAID OUT AS SHOWN, NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY
19. UNLESS EXPLICITLY SHOWN ON DRAWINGS, NO TREES SHALL BE PLANTED WITHIN DESIGNATED UTILITY CORRIDORS, PUBLIC RIGHTS OF WAY NOR LOCATED WITHIN FOUR FEET (4') OF ANY SWALE CENTERLINE, BUILDING, OR STRUCTURE IDENTIFIED ON THE DRAWINGS OR EXISTING IN THE FIELD. NO CANOPY TREES SHALL BE PLANTED WITHIN 5 FEET OF UNDERGROUND UTILITIES, 20 FEET OF EXISTING OVERHEAD POWER LINES, WITHIN 4 FEET OF ANY PAVED SURFACE, OR UNDER CANOPY TREES THAT LIMIT ACCESS TO LIGHT AND ROOM TO GROW. FIELD ADJUST AS NECESSARY AND REVIEW ADJUSTMENTS WITH THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. TREES SHALL BE MAINTAINED AT A MINIMUM OF 13'-6" VERTICAL CLEARANCE OVER ROADWAYS OR OTHER FIRE DEPARTMENT ACCESS ROADS.
20. ALL PROPOSED TREES SHALL BE INSTALLED EITHER ENTIRELY 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.
21. 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.
ALL SOD SHALL BE ONLY NURSERY GROWN, NON PASTURE RAISED, MACHINE CUT SOD RECTANGLES OF THE TYPE INDICATED ON THE DRAWINGS. SOD SHALL BE WELL-MATTED WITH ROOTS, FREE OF EXCESSIVE WEEDS & DEBRIS, AND SHALL BE GREEN, FRESH AND UNINJURED AT THE TIME OF PLANTING.
22. CONTRACTOR SHALL FIELD-ADJUST LOCATION OF PLANT MATERIAL FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INITIATING INSTALLATION.
23. 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.
24. ALL PLANTING BEDS SHALL BE TOP-DRESSED 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.
25. SHRUB AND GROUND COVER BED QUANTITIES ARE INDICATED ON THE PLANT LIST. PLANT ACCENT SHRUBS AND TREES AS SHOWN ON THE LANDSCAPE PLANTING PLANS WHEN INDIVIDUAL PLANTS ARE DELINEATED.
26. 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 SPECIFICATIONS FOR ADDITIONAL TESTING REQUIREMENTS.
36. THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER'S REPRESENTATIVE WITH RECORD COPIES OF ALL RECEIPTS, INVOICES, AND/ OR SHIPPING MANIFESTS FOR ALL MATERIALS, INCLUDING PLANTS AND SOD, DELIVERED TO THE PROJECT SITE BY THE CONTRACTOR OR A SUPPLIER TO THE CONTRACTOR. DELIVERY OF ALL FERTILIZER AND SOIL AMENDMENT MATERIALS MUST BE IN ORIGINAL, UNOPENED CONTAINER'S BEARING MANUFACTURER'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. ALIGNMENT 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 OWNER'S 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 WALL/COLUMN FOOTING(S) TO BE IN COMPLIANCE WITH THE APPLICABLE CHAPTERS AND SECTIONS OF ACI 332R
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 F'M 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 530.1-95/ASCE 6-96/TMS 602-02), 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 (FC&PA). 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 LEVEL 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 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. EACH UNIT SHALL BE ADJUSTED TO FINAL 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, FLASHING 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 SIDE OF ALL JOINTS WITH BACKER ROD AND SEALANT. COLOR OF SEALANT TO MATCH WALL COLOR.
22. HOLLOW UNITS SHALL BE LAID WITH FULL HEAD 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" (-1/4", +3/8").
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 IT'S 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, KD19 (FB FOR 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 U1-03 FOR THE FOLLOWING APPLICATIONS:

	APPLICATION	AWPA USE CATEGORY	TREATMENT (LBS/CU.F.T)
A.	ABOVE-GROUND USE	UC3B	ACQ 0.25
B.	CONCRETE- OR GROUND-CONTACT, OR IN-GROUND USE	UC4A	ACQ 0.40
C.	FRESHWATER USE	UC4A	ACQ 0.40
D.	IN-GROUND OR FRESHWATER PILES	UC4C	CCA 0.80 (NOTE 1)
E.	SALTWATER USE, MARINE PILES	UC5C	CCA 2.50 (NOTE 2)

NOTE 1: CREOSOTE (12 LBS/CU.FT.) MAY BE USED IF APPROVED BY OWNER'S REPRESENTATIVE
NOTE 2: CREOSOTE (25 LBS/CU.FT.) MAY BE USED IF APPROVED BY OWNER'S REPRESENTATIVE

39. FASTENERS:
    A. ABOVE-GROUND METAL CONNECTORS IN CONTACT WITH ACQ:
        1) G185 HOT DIPPED GALVANIZED MEETING ASTM A653
        2) ASTM A123
        3) STAINLESS STEEL TYPE 304 OR 316
    B. ABOVE-GROUND SCREWS, NUTS, BOLTS & WASHERS IN CONTACT WITH ACQ:
        1) CLASS 55 MECHANICALLY DEPOSITED ZINC MEETING ASTM B695
        2) POST HOT DIPPED GALVANIZED MEETING ASTM A153
        3) STAINLESS STEEL TYPE 304 OR 316
    C. ABOVE-GROUND COMMON NAILS & GUN NAILS IN CONTACT WITH ACQ:
        1) G185 HOT DIPPED GALVANIZED MEETING ASTM A153
        2) STAINLESS STEEL TYPE 304 OR 316
    D. ALL FASTENERS FOR IN-GROUND, UNDERWATER OR MARINE APPLICATIONS
        1) STAINLESS STEEL TYPE 304 OR 316

ALUMINUM

40. ALUMINUM TUBING, PLATES, BARS, AND ANGLES SHALL BE 6061-T6 UNLESS NOTED OTHERWISE.
41. ALL WELDING TO BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY'S STANDARD AWS D1.2, STRUCTURAL WELDING CODE - ALUMINUM.
42. ISOLATE ALL ALUMINUM FROM STEEL AND CONCRETE BY THE USE OF NEOPRENE WASHERS, BUSHINGS, AND SHEET AS REQUIRED IN ORDER TO PREVENT GALVANIC ACTION OR CORROSION.
43. ALL FASTENERS, BOLTS, NUTS, ETC. IN CONTACT WITH ALUMINUM SHALL BE STAINLESS STEEL.

POOL/SPA/FOUNTAIN

44. THE POOL/SPA/FOUNTAIN CONTRACTOR WILL STAKE OUT THE POOL/SPA/FOUNTAIN AND SET THE FINISHED GRADE. THE OWNER'S REPRESENTATIVE WILL BE NOTIFIED FOR APPROVAL OF THIS WORK PRIOR TO INSTALLATION.
45. POOL/SPA/FOUNTAIN CONTRACTOR IS RESPONSIBLE FOR ALL POOL/SPA/FOUNTAIN EQUIPMENT, PIPING, POOL/SPA SHELL, FOUNTAIN WALLS, TILE, COPING, ELECTRICAL TO JUNCTION BOXES, PERMITS, AND CODE COMPLIANCE. SUBMIT SHOP DRAWINGS AND FINISH SAMPLES FOR REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
46. REQUIRED UTILITIES AT THE FILTER/PUMP LOCATION TO BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
47. FINISH PATTERN ON THE POOL DECK TO BE LAID OUT EXACTLY AS SHOWN. EXPANSION JOINTS, DECK DRAINS, ETC. TO COINCIDE WITH THE GRID. EXPANSION JOINT FILLER AND ANY DECK DRAIN MATERIALS ARE TO MATCH THE COLOR OF THE DECK.

PRECAST/EIFS

48. PRECAST/EIFS MANUFACTURER IS RESPONSIBLE FOR DESIGN OF INDIVIDUAL COMPONENTS, INCLUDING VERIFICATION OF FIELD CONDITIONS AND DESIGN OF CONNECTIONS.
49. DESIGN, FABRICATION, AND INSTALLATION OF PRECAST/EIFS COMPONENTS SHALL COMPLY WITH APPLICABLE ACI, PCI, & ASTM STANDARDS.
50. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND FINISH SAMPLES FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION AND INSTALLATION
51. ALL CAST STONE PRODUCTS SHALL CONFORM WITH ALL REQUIREMENTS OF ASTM C1364.

FURNISHINGS

52. THE CONTRACTOR TO PROVIDE THE FOLLOWING SUBMITTALS,
    - ALL MANUFACTURER'S DATA INCLUDING DIRECTIONS OR RECOMMENDATIONS FOR INSTALLATION, METHODS, PROCEDURES AND MAINTENANCE.
    - COMPLETE SHOP DRAWINGS FOR ALL SITE FURNISHINGS INDICATING ALL DETAILS OF FABRICATION AND INSTALLATION INCLUDING SIZES, SHAPES, FINISHES, COLORS, THICKNESS, MATERIAL QUALITY AND ALL OTHER RELATED WORK APPLICABLE TO THE SITE FURNISHINGS.
    - SUBMIT COLOR SAMPLES FOR APPROVAL BY THE OWNER.
53. DELIVER ALL MATERIALS WITH MANUFACTURER'S TAGS AND LABELS INTACT IN CLEAN, DRY AND PROTECTED LOCATIONS.
54. STORE AND HANDLE ALL SITE FURNISHINGS SO AS TO AVOID DAMAGE. ALL SITE FURNISHINGS SHALL BE GUARANTEED BY THE CONTRACTOR FREE OF DEFECTS, CRACKS, CHIPS, STAINS AND SHALL BE COMPLETELY CLEAN AND FREE OF DAMAGES UPON FINAL PLACEMENT AND APPROVAL
55. ALL SITE FURNISHINGS SHALL BE PROVIDED BY THE CONTRACTOR INCLUDING ORDERING, SHIPPING, DELIVERY, UNPACKING, AND INSTALLING ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND AS DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY INSTALLATION PROCEDURE WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLING.
56. ALL SITE FURNISHINGS LOCATIONS ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO BEING PLACED ON SITE. FAILURE TO SECURE OWNER'S APPROVAL MAY REQUIRE THE CONTRACTOR TO MOVE AND/ OR REINSTALL THE FURNISHINGS AT THE CONTRACTORS EXPENSE.

STANDARD DRAWING SYMBOLS

ELEVATION DETAIL REFERENCE
DETAIL NUMBER
SHEET NUMBER

SECTION DETAIL REFERENCE
DETAIL NUMBER
SHEET NUMBER

PLAN ENLARGEMENT — PLAN ENLARGEMENT REFERENCE

DETAIL NAME — GENERAL DETAIL REFERENCE
DETAIL NUMBER
SHEET NUMBER

DETAIL ENLARGEMENT — DETAIL ENLARGEMENT REFERENCE

SHEET NUMBER / SHEET NUMBER — MATCHLINE

X FINISH ITEM — FINISH REFERENCE
SEE FINISH SCHEDULE

PLANT TAG
SYMBOL
QUANTITY

100 — EXISTING CONTOUR

100 — PROPOSED CONTOUR

STORMWATER FLOW DIRECTION

X% — SLOPE DIRECTION
PERCENTAGE OR RATIO

100.0 — SPOT ELEVATION

N 1493681.5115
E 447607.7445 — COORDINATE REFERENCE

CONTRACTOR NOTES

NOT ALL ITEMS SHOWN ON THIS SHEET APPEAR IN THE CONSTRUCTION DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS RELATED TO CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, BUILDING, LANDSCAPE, IRRIGATION & RIGHT OF WAY UTILIZATION PERMITS.

CODE COMPLIANCE NOTES

1. IT IS THE INTENT OF THIS DESIGN TO COMPLY WITH ALL APPLICABLE LOCAL AND STATE BUILDING CODES.
ALL EDITIONS OF THE FLORIDA BUILDING CODE 2023 (8TH ED)
NATIONAL ELECTRIC CODE 2023

WINDLOAD NOTES

1. WIND DESIGN LOAD INFORMATION (TO BE CONFIRMED BY ENGINEER OF RECORD):
(PER FBC 2020 7th EDITION CHAPTER 16, REF. ASCE 7-16)

BASIC WIND SPEED (Vult) = 140 MPH (3 SECOND GUST)
(Vasd) = 108 MPH (3 SECOND GUST)
STRUCTURE CATEGORY = II (ASCE 7-16)
WIND EXPOSURE(ALL SIDES) =C (ASCE 7-16)
Cf = 1.4

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING
URBAN DESIGN
1516 E. HILLCREST STREET STE. 105
ORLANDO, FL 32803 PH: 407-256-2625

PROJECT: **57th Ct. LOT 11 & 12**
MARION COUNTY, FL
Prepared For:
ACRISTO INVESTEMENTS

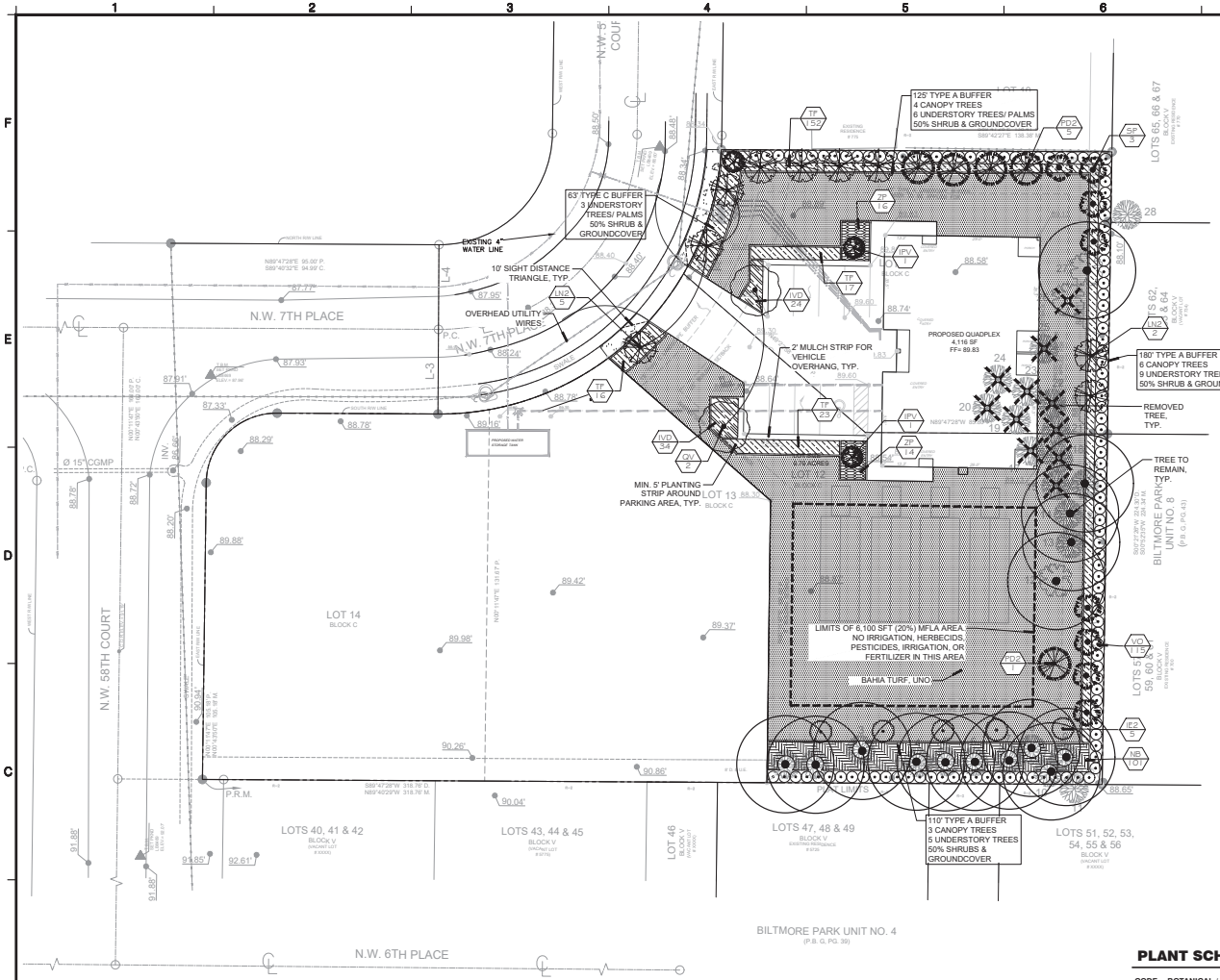
SEAL
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

CONSULTANTS

ISSUED FOR: 1/17/2025 PERMIT

PROJECT NO.	202425
DESIGNED BY	TDC/TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	1/6/2025
DRAWING SCALE	
DRAWING TITLE	INDEX SHEET
DRAWING NUMBER	ID-01

SHEET 1 OF 1



TREES DESCRIPTION

TREE No	TYPE	DIAMETER (FT.)
1	OAK	2.00
2	OAK	2.00
3	OAK	1.50
4	OAK	2.60
5	OAK	1.00
6	OAK	0.80
7	OAK	2.00
8	OAK	1.10
9	OAK	0.60
10	OAK	2.00
11	OAK	2.00
12	TREE	0.50
13	OAK	0.60
14	OAK	0.80
15	OAK	0.50
16	OAK	0.70
17	OAK	0.50
18	OAK	0.60
19	OAK	0.50
20	OAK	1.00
21	OAK	0.50
22	OAK	0.50
23	OAK	0.50
24	OAK	1.00
25	OAK	0.50
26	TREE	0.60
27	TREE	0.60
28	OAK	2.00

TREE REMOVAL SUMMARY:
TOTAL TREES (10" MIN) ONSITE: 12
TOTAL INCHES REMOVED: 24"
TOTAL INCHES PRESERVED: 226"
TOTAL SITE AREA: 0.70 ACRES (30,498sft)
TOTAL INCHES PROPOSED: 79"

SURPLUS OF 281 INCHES

LANDSCAPE AREA CALCULATIONS:
TOTAL SITE AREA: 30,498 +/- SQ. FT.
TOTAL UPLAND LANDSCAPED AREA: 22,077 +/- SQ. FT.
IRRIGATED PLANTING AREAS: 6,147 +/- SQ. FT.
UNIRRIGATED BAHIA TURF AREA: 15,930 +/- SQ. FT.

20% MFLA REQUIRED= 30,500 X 20% = 6,100 SQ. FT

SHADE TREE CALCULATIONS:
TOTAL SITE AREA: 30,498 +/- SQ. FT.
SHADE TREES PRESERVED: 15
SHADE TREES PROVIDED: 5
30,498 SQ. FT/ 20 TREES= 1 TREE PER 1,525 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.

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.

PLANT SCHEDULE

77% NATIVE

THIS IS A "FLORIDA FRIENDLY LANSCAPE PLAN"

NATIVE	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
	TREES					
Y	IPV	Ilex vomitoria `Pendula` / Weeping Yaupon Holly	30 gal	2"Cal	8`-10` H x 4`-5` W	3
Y	IE2	Ilex x attenuata `Eagleston` / Eagleston Holly	30 gal	2" STANDARD	8`-10` 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	9
Y	PD2	Pinus elliotti var. Densa / Densa Slash Pine	45 gal	3.5"Cal	10`-12`H X 5`-6`W	5
Y	QV	Quercus virginiana / Southern Live Oak	65 gal	3.5"Cal	12`-14` x 6`-8`	2
Y	SP	Sabal palmetto / Cabbage Palmetto	B & B		12`-18` CT	8

NATIVE	CODE	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	QTY
	SHRUBS					
N	VO	Viburnum odoratissimum / Sweet Viburnum	3 gal	24"-30" X 24"-30"	48" o.c.	115

NATIVE	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.	58
	GROUND COVERS					
Y	NB	Nephrolepis biserrata 'Macho" / Macho Fern	1 gal@	8-10 ppp	36" o.c.	101
	PA	Paspalum notatum `Argentine` / Bahia Grass	sod			15,932 sf
Y	TF	Tripsacum floridanum / Dwarf Fakahatchee Grass	1 gal	18" height; full	36" o.c.	208
Y	ZP	Zamia pumila / Coontie	3 gal	18"-24" spd.	36" o.c.	30

MITIGATION INCHES PROVIDED
6
10
31.5
17.5
14
8
TOTAL INCHES 79

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 MARION COUNTY LANDSCAPE, BUFFER, AND TREE REQUIREMENTS.

SOD NOTE:
1. ALL SOD SHALL BE ARGENTINE BAHIA GRASS (paspalum notatum 'Argentine'). FINAL QUANITITU 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
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PROJECT
57th Ct. LOT 11 & 12
MARION COUNTY, FL
Prepared For:
ACRISTO INVESTEMENTS

SEAL
REGISTERED LANDSCAPE ARCHITECT TODD S. SUMMEY STATE OF FLORIDA
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CONSULTANTS

ISSUED FOR:
1/17/2025 PERMIT

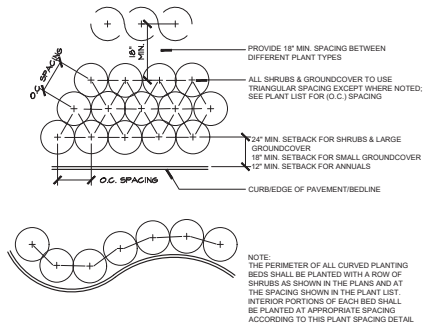
PROJECT NO.	2024-25
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	1/6/2025
DRAWING SCALE	1"=20'

0 FT 10 20 North

DRAWING TITLE
LANDSCAPE PLAN

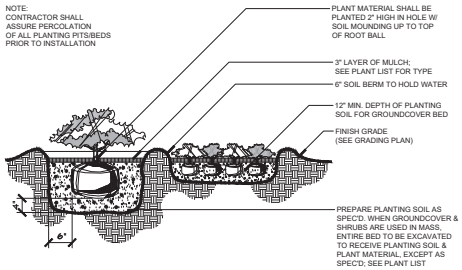
DRAWING NUMBER
LS-01

SHEET 1 OF 2



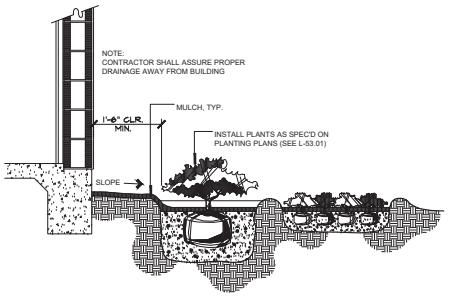
1 SHRUB & GROUNDCOVER SPACING

1/2" = 1'-0" P-LA-01



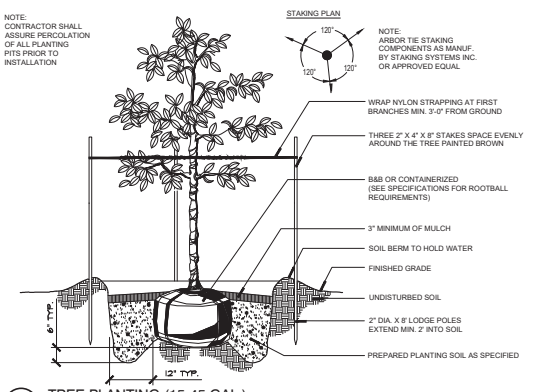
2 SHRUB & GROUNDCOVER PLANTING

1/2" = 1'-0" P-LA-02



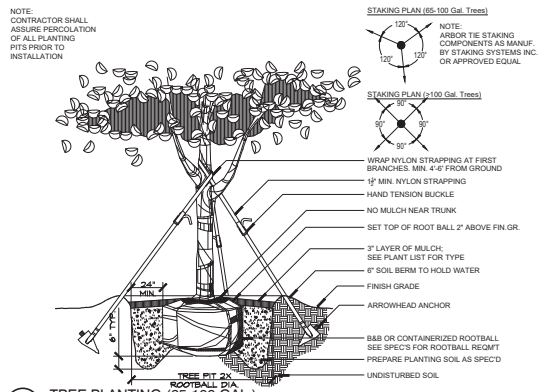
3 FOUNDATION PLANTING

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 REVIEWS.

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 CHANGED 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 PANT 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 OWNERS 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 DIE-BACK 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 UNINJURED 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, 4 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 18-7-10 (+IRON), RATE OF APPLICATION 2LBS 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) (30 GALLON PLANTS:6 TABLETS)
     - (3-5 GALLON PLANTS: 2 TABLETS) (65 GALLON PLANTS:8 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 $\frac{1}{2}$" OF CALIPER FOR STANDARD TREES; ONE TABLET PER FOOT SPREAD FOR MULTI-TRUNK TREES.
  4. NEWLY PLANTED SOD: 6-6-6 APPLIED PER MANUFACTURER'S INSTRUCTIONS.

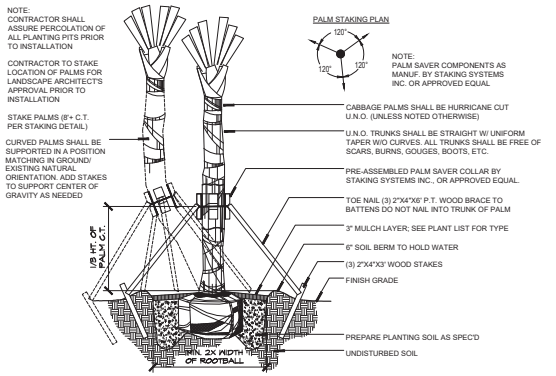
2.04 TESTS
- A. PROVIDE ANALYSIS OF IMPORTED TOPSOIL INDICATING pH VALUE AND PERCENTAGE OF NITROGEN, PHOSPORUS, POTASH, SOLUBLE SALT, AND ORGANIC MATTER.

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

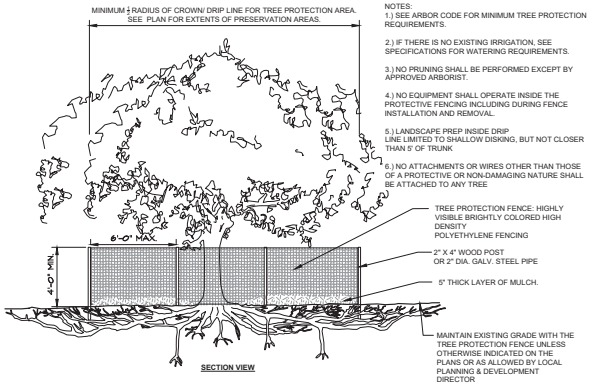
3.01 PREPARATION
- A. FINE GRADING: FINE GRADE PLANTING AREA, AS INDICATED ON THE DRAWINGS, ELIMINATING LOW OR ROUGH AREAS, AND BUILDING DEBRIS, STONES AND RUBBLE. FINISH GRADES SHALL BE SLOPED IN THE SAME DIRECTION AS EXISTING DRAINAGE; NEW GRADES SHALL NOT REVIEW PONDING OR STANDING WATER.
- B. ALERT 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 SURVEYOR'S 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-W2C-30

tdc DESIGN STUDIO
LANDSCAPE ARCHITECTURE
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1/17/2025 PERMIT

PROJECT NO.	2024-25
DESIGNED BY	TFW
DRAWN BY	TFW
CHECKED BY	TDC/TFW
DATE	1/6/2025
DRAWING SCALE	AS SHOWN

DRAWING TITLE
LANDSCAPE DETAILS & SPECIFICATIONS

DRAWING NUMBER
LS-02

SHEET 2 OF 2

SITE DATA– LOT 11/12

PARCEL ID#	2164–003–011
TOTAL AREA:	1.30 ACRES 56,468 SF
PROJECT AREA:	0.70 ACRES 30,498 SF
EXISTING ZONING:	R–3
PROPOSED USE:	APARTMENTS
BUILDING:	2,378 SF/FLOOR=4,756/BLDG.
MAX BUILDING HEIGHT:	40'–0"
PROVIDED BUILDING HEIGHT:	26'–0"

NUMBER OF STORIES: 1

DENSITY PER SEC 4.2.11(D.) FOR R–3: MAX. 8 UNITS/AC.
HIGH–URBAN DENSITY MIN. 8 UNITS/AC.

DENSITY ALLOWED FOR 2164–003–011 MAX. 5.6 UNITS

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

AREA LOT 11 & LOT 12:
LOT AREA: 30,498 SF
IMPERVIOUS AREA: 8,420 SF
ISR: 28%

PROPOSED UNITS:
1 QUADPLEX

PARKING REQUIRED:
4 UNITS: 2 SPACES/D.U.= 4 X 2 = 8 SPACES
TOTAL REQUIRED PARKING: 8 SPACES

PARKING PROVIDED

HANDICAP SPACES (12'x18')	1 SPACES
REGULAR SPACES (9'x18')	7 SPACES
TOTAL SPACES	8 SPACES

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

LEGEND
— W — W — W — PROPOSED WATER MAIN
— FM — FM — FM — EXISTING FORCE MAIN
— WM — WM — WM — EXISTING WATER MAIN

NORTH

0 20 40
SCALE AS SHOWN

NOTE:

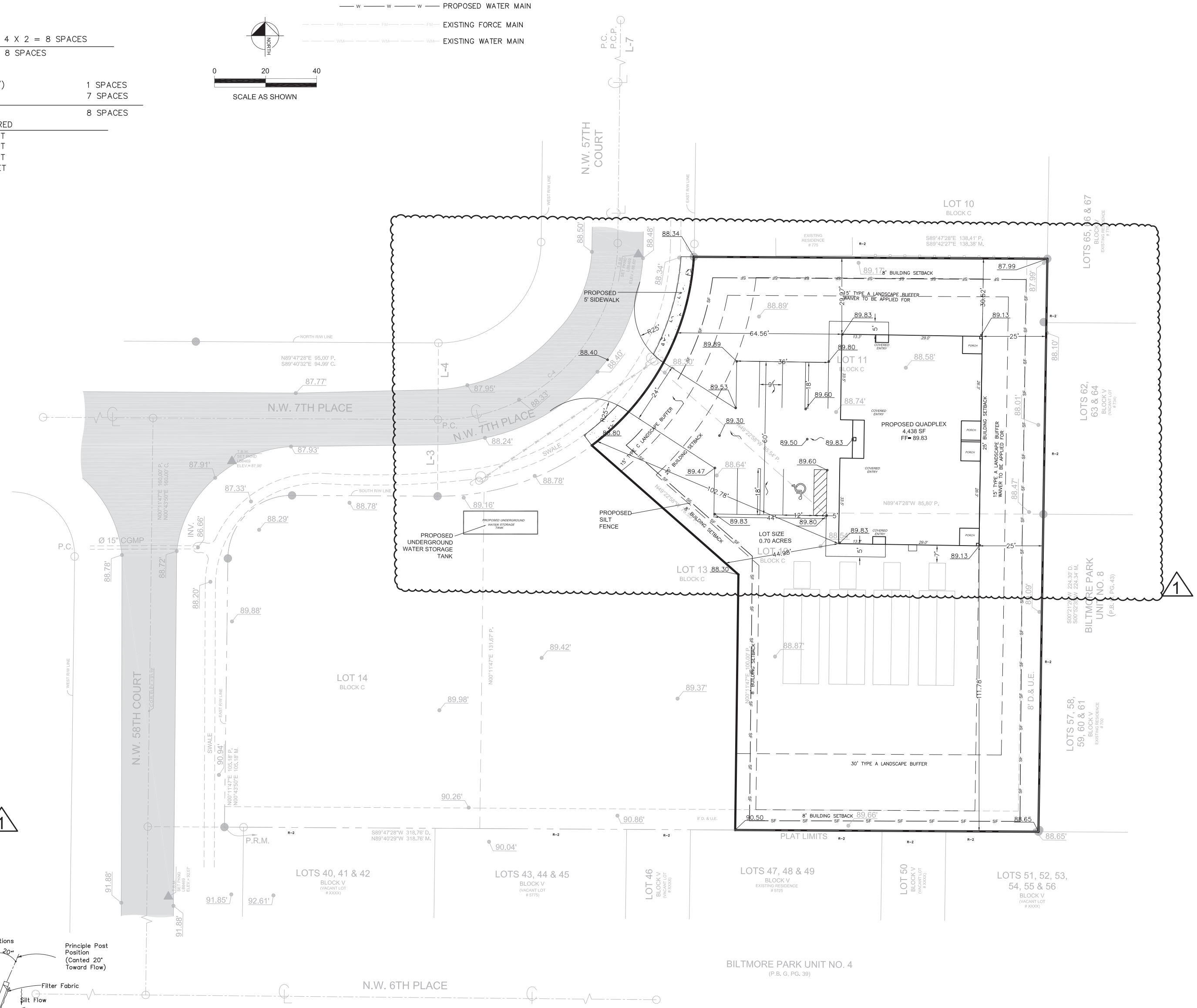
1. PROPERTY IS LOCATED IN THE SECONDARY SPRING PROTECTION ZONES.
2. NEW HYDRANT TO BE INSTALLED, TESTED AND PAINTED PER NFPA 291, BY A THIRD PARTY CONTRACTOR AND WITNESSED BY A MARION COUNTY FIRE INSPECTOR .
3. THIS PROPOSED PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL AND/OR GRANTED AND/OR RESERVED 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, BUILDING PERMIT REVIEW."

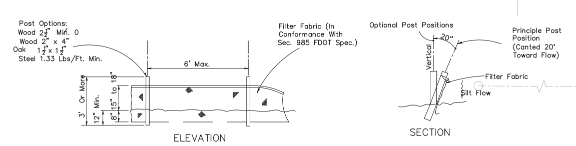
1

LEGAL DESCRIPTION:
LOT 11 AND 12, RIDGE MEADOWS, ACCORDING TO THE MAP OR PLAT THEREOF AS RECORDED IN PLAT BOOK U, PAGE 70, OF THE PUBLIC RECORDS OF MARION COUNTY, FLORIDA.

FLOOD INFORMATION:
BY PERFORMING A SEARCH WITH THE LOCAL GOVERNING MUNICIPALITY OR WWW.FEMA.GOV, THE PROPERTY APPEARS TO BE LOCATED IN ZONE X. THIS PROPERTY WAS FOUND IN MARION COUNTY, FLORIDA COMMUNITY NUMBER 120160, DATED 4/19/2017.

1





TYPE III SILT FENCE
N.T.S.

No.	REVISIONS	DATE	BY
1	REVISED PER MARION COUNTY COMMENTS	06/2024	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN
FLORIDA REGISTRATION NUMBER: 57524
SEAL

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

MINOR SITE PLAN

NW 57TH CT.
OCALA, FL 34485
MARION COUNTY FLORIDA

DATE 03/24
PROJECT NO. 36300–23–2200
SHEET NUMBER C1

Drawing name: Z:\Projects\36300–Adan Investments\23–2200 NW 57th Ct, Ocala FL 34485 – Parcel ID 2164–003–011 (Two 4 Plex)\Cadd–Civil\NW 57th Ct.Ocala Lot 11.12.dwg LOT 11–12 Site Plan Jan 17, 2025 7:59am by: Shenika Thomas

NOTE:

1. PROPERTY IS LOCATED IN THE SECONDARY SPRING PROTECTION ZONES.

2. NEW HYDRANT TO BE INSTALLED, TESTED AND PAINTED PER NFPA 291, BY A THIRD PARTY CONTRACTOR AND WITNESSED BY A MARION COUNTY FIRE INSPECTOR .

3. THIS PROPOSED PROJECT HAS NOT BEEN GRANTED CONCURRENCY APPROVAL 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, BUILDING PERMIT REVIEW."

LEGEND

— w — w — w — PROPOSED WATER MAIN

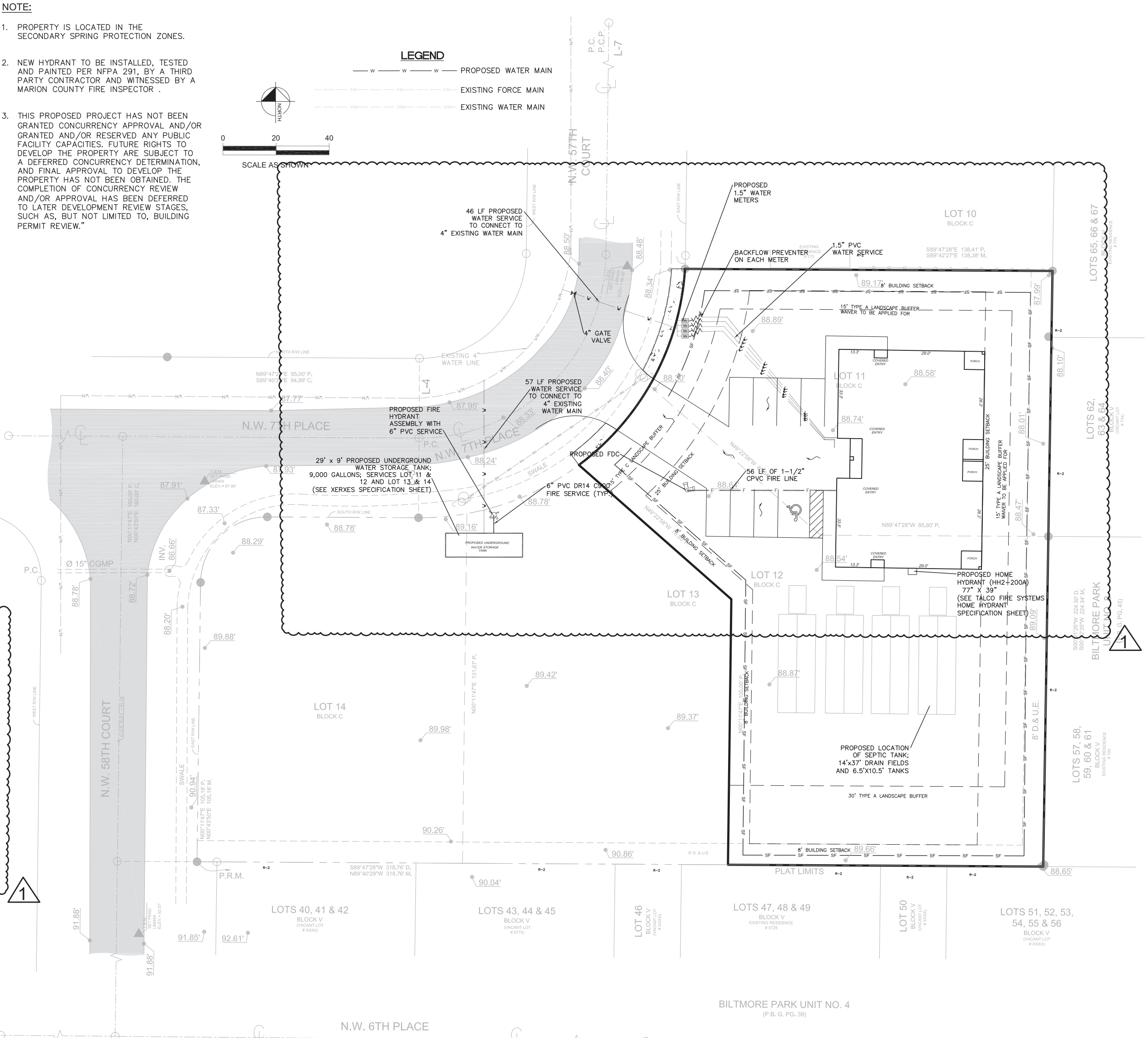
— FM — FM — EXISTING FORCE MAIN

— WM — WM — EXISTING WATER MAIN

NORTH

0 20 40

SCALE AS SHOWN



NOTES

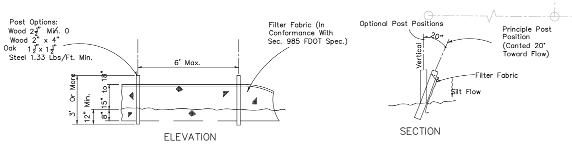
1. POTABLE WATER TO BE PROVIDED BY EXISTING WATER MAIN.

2. THE FIRE PROTECTION WATER STORAGE TANK SHALL BE DESIGNED TO STORE A MINIMUM VOLUME OF 8,054 GALLONS OF WATER. SEE CALCULATION THIS SHEET.

3. THE FIRE PROTECTION WATER STORAGE TANK SHALL BE DESIGNED TO REFILL WITHIN 8 HOURS.

Structures without Exposure Hazards						
$WS_{[min]}$ = VS $_{[total]}$ /OHC [CC]						
Occupancy Hazard Classification Number **[OHC]**	OHC =	7				
Construction Classification Number **[CC]**	CC =	1				
Building Volume = [Length x Width x Wall Height]	L =	82	W =	55	WH =	8
Attic Volume = [Length x Width x Height] x 0.5	L =	82	W =	55	H =	9
Total Volume of Structure in ft^3 = **[VS]**	VS=	56375				
Minimum Water Supply in gallons = **[WS]**	WS =	8,054				

1



TYPE III SILT FENCE

N.T.S.

No.	REVISIONS	DATE	BY
1	REVISED PER MARION COUNTY COMMENTS	06/2024	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
cllnn@llnnenglneerlng.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN
FLORIDA REGISTRATION NUMBER: 57524
SEAL

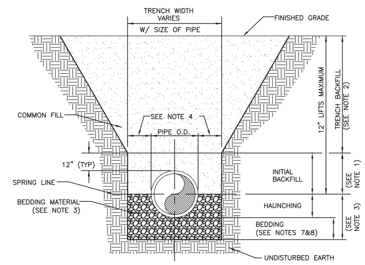
SCALE AS NOTED
DESIGNED BY GTC
DRAWN BY SAT
CHECKED BY CSL

MINOR SITE PLAN

NW 57TH CT.
OCALA, FL 34485
MARION COUNTY FLORIDA

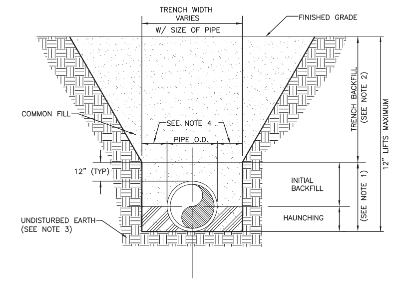
DATE 03/24
PROJECT NO. 36300-23-2200
SHEET NUMBER C2

Drawing name: Z:\Projects\36300-Adan Investments\23-2200 NW 57th Ct, Ocala FL 34485 - Parcel ID 2164-003-011 (Two 4 Plex)\Cadd-Civil\NW 57th Ct.Ocala Lot 11.12.dwg Lot 11-12 UTILITIES Jan 17, 2025 7:59am by: Shenika Thomas



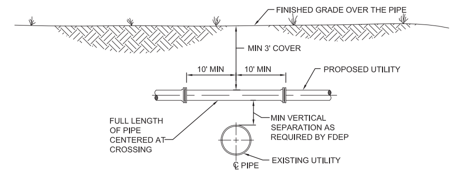
NOTES:
1. INITIAL BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
3. BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
4. 15" 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. DEPTH FOR REMOVAL OF 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

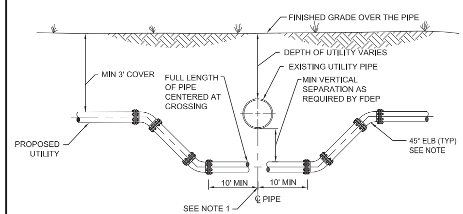


NOTES:
1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T–180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL 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.
8. 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 2	7.3.2 UT 103



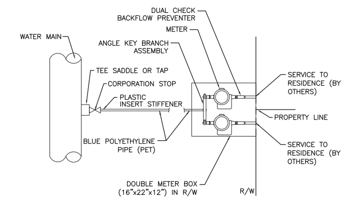
CONDITION 1 (SUFFICIENT COVER AND SEPARATION AVAILABLE)



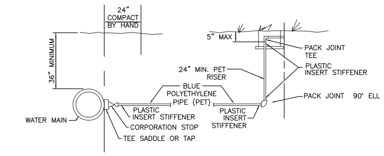
CONDITION 2 (SUFFICIENT SEPARATION AVAILABLE, SUFFICIENT COVER NOT AVAILABLE)

NOTES:
1. PIPING SHALL BE DUCTILE IRON WHEN CROSSING UNDER SANITARY SEWER OR STORMWATER UTILITIES.
2. IF NOT DIP, CONCRETE AND CASING PER FDEP.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 / REVISION # NA	UTILITY CONFLICT	7.3.2 UT 113



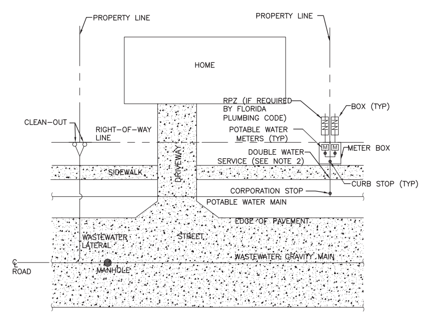
PLAN VIEW



PROFILE VIEW

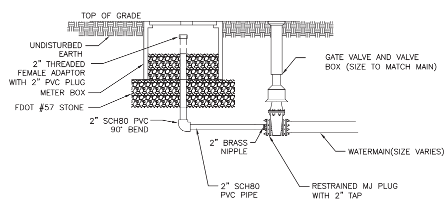
NOTES:
1. ALL RESIDENTIAL SERVICES SHALL HAVE A MINIMUM SIZE OF 1".
2. CURB STOP SHALL BE INSTALLED ON STREET SIDE OF THE SIDEWALK BETWEEN SIDEWALK AND CURB.
3. SCHEDULE 40 PVC CASING TO BE USED UNDER PAVEMENT, EXTENDING A MINIMUM OF 5' ON EITHER SIDE OF THE PAVEMENT WHERE POSSIBLE. THE INSIDE DIAMETER 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. PIPE AND FITTING SIZES TO BE DETERMINED BY SERVICE TYPE.
7. COMPACTION SHALL BE MADE UNDER AND AROUND 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 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	WATER AND RECLAIMED WATER SERVICES (TYPICAL)	7.3.2 UT 107

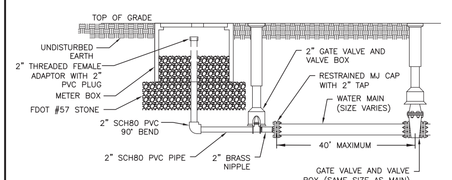


NOTES:
1. EACH POTABLE WATER SERVICE SHALL SERVE TWO LOTS.
2. EACH SERVICE SHALL BE EQUIPPED WITH A DUAL CHECK BACKFLOW PREVENTER.
3. EACH RESIDENTIAL UNIT SHALL BE INDIVIDUALLY METERED.
4. SITEWORK – CONTRACTOR SHALL INSTALL WATER, WASTEWATER AND RECLAIMED WATER SERVICES.
5. METER AND DUAL CHECK BACKFLOW DEVICE SHALL BE INSTALLED BY MCU. METER BOX SHALL BE INSTALLED BY A LICENSED CONTRACTOR.
6. AN APPROPRIATE BACKFLOW PREVENTION ASSEMBLY, PER THE COUNTY CROSS–CONNECTION ORDINANCE, SHALL BE REQUIRED WHERE OTHER PRESSURIZED WATER SOURCES, INCLUDING SWIMMING POOLS, ARE PRESENT.
7. SERVICE CONNECTIONS SHALL BE PERMANENTLY MARKED BY ETCHING OR STAMPING A "W", "S", OR "RW" IN THE CURB DIRECTLY OVER THE SERVICE LATERAL.

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 / REVISION # 2	RESIDENTIAL SERVICE LOCATIONS	7.3.2 UT 105



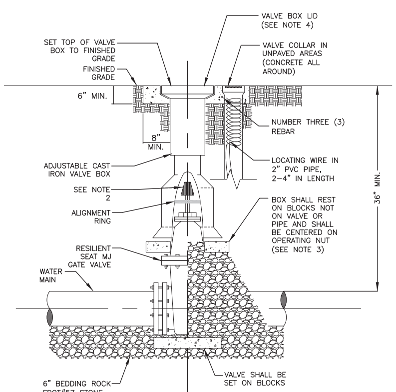
CONFIGURATION 1:



CONFIGURATION 2:

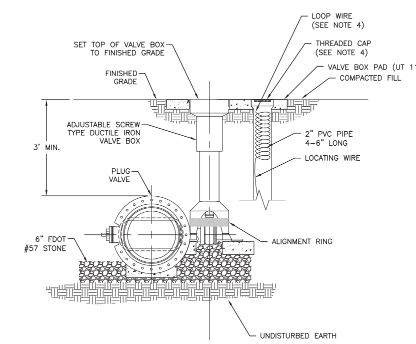
NOTE:
1. BLOW–OFF VALVES TO BE PROVIDED ON ALL DEAD END MAINS OR AS DETERMINED BY MCU.
2. BLOW–OFF VALVES ARE NOT TO BE LOCATED IN DITCHES.
3. CONNECTIONS SHALL BE ASSEMBLED USING COMPOUNDS APPROVED FOR POTABLE WATER SYSTEMS.
4. SHALL BE SIZED TO ACHIEVE ADEQUATE FLUSHING VELOCITY.
5. NO MALE ADAPTERS 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 # NA	MANUAL BLOW OFF VALVE WATER MAIN	7.3.2 UT 212



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 FIVE (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. VALVE BOX INSTALLATION SHALL COMPLY WITH UT 111.
2. THE VALVE ACTUATING NUT SHALL BE EXTENDED UP TO BE WITHIN 3' OF FINISHED GRADE.
3. PROVIDE A PLASTIC DEBRIS SHIELD / ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE INFILTRATION.
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 MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.
6. VALVE BOX SHALL BE SET ON SOLID COMMON BLOCKS

Marion County FLORIDA UTILITIES	MCBCC EFFECTIVE 04/13/2023 / REVISION # 2	PLUG VALVE AND BOX	7.3.2 UT 304

No.	REVISIONS	DATE	BY
1	REVISED PER MARION COUNTY COMMENTS	06/2024	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

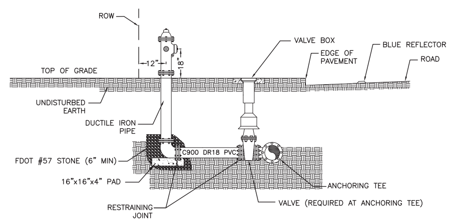
DESIGN ENGINEER: CHAD S. LINN
FLORIDA REGISTRATION NUMBER: 57524
SEAL

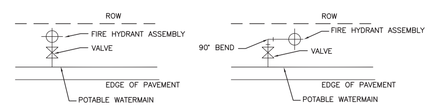
SCALE AS NOTED
DESIGNED BY GTC
DRAWN BY SAT
CHECKED BY CSL

MINOR SITE PLAN

NW 57TH CT.
OCALA, FL 34485
MARION COUNTY FLORIDA

DATE 03/24
PROJECT NO. 36300–23–2200
SHEET NUMBER C3





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).

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # 2

FIRE HYDRANT ASSEMBLY

7.3.2 UT 210

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"	16"	20"	24"
Angle	Orientation								
11–1/4°	H	2	3	4	5	5	6	8	9
	VU	2	3	4	5	5	6	8	9
	VD	6	9	11	13	16	20	24	28
22–1/2°	H	4	6	7	9	10	12	15	17
	VU	4	6	7	9	10	12	15	17
	VD	12	17	22	27	31	40	48	56
45°	H	8	11	15	17	20	25	30	35
	VU	8	11	15	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 AND VALVE		61	85	111	132	155	198	238	277

REQUIRED RESTRAINED LENGTH ON TEE BRANCH

TEE FITTING		Pipe Length (ft) – Diameter of Run							
		4"	6"	8"	10"	12"	16"	20"	24"
Diameter of Branch	4"	39	28	18	6	0	0	0	0
	6"		63	55	48	40	22	4	0
	8"			89	82	77	63	49	34
	10"				110	105	95	84	71
	12"					133	124	115	105
	16"						175	168	161
	20"							215	209
	24"								254

REQUIRED RESTRAINED LENGTH ON LARGER PIPE

REDUCER FITTING		Pipe Length (ft) – Diameter of Large Pipe						
		6"	8"	10"	12"	16"	20"	24"
Diameter of Small Pipe	4"	44	80	108	135	183	226	268
	6"		47	81	113	167	214	257
	8"			45	83	145	196	243
	10"				46	118	175	226
	12"					84	149	205
	16"						84	151
	20"							83

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"	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	22
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	44
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	78	91
90°	H	15	21	27	32	38	48	57	66
	VU	15	21	27	32	38	48	57	66
	VD	46	65	85	102	121	155	187	219
DEAD END PLUG AND VALVE		46	65	85	102	121	155	187	219

REQUIRED RESTRAINED LENGTH ON TEE BRANCH

TEE FITTING		Pipe Length (ft) – Diameter of Run							
		4"	6"	8"	10"	12"	16"	20"	24"
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	26	12
	10"				80	75	66	55	44
	12"					98	90	81	72
	16"						132	126	119
	20"							164	159
	24"								196

REQUIRED RESTRAINED LENGTH ON LARGER PIPE

REDUCER FITTING		Pipe Length (ft) – Diameter of Large Pipe						
		6"	8"	10"	12"	16"	20"	24"
Diameter of Small Pipe	4"	34	61	83	105	143	178	212
	6"		36	63	88	131	168	204
	8"			35	64	113	155	192
	10"				36	92	138	179
	12"					66	118	162
	16"						66	120
	20"							66

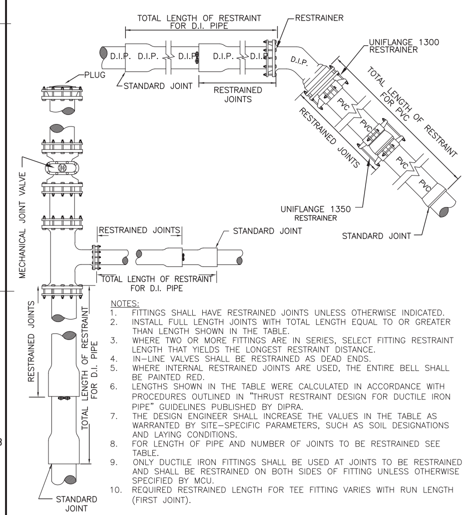
FORCE MAIN:
PRESSURE: 100 PSI.
DEPTH OF COVER: 4.0 ft.

B

Marion County FLORIDA UTILITIES | MCBCC EFFECTIVE 04/13/2023 | REVISION # NA

RESTRAINED PIPE TABLE

7.3.2 UT 116



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 04/13/2023 | REVISION # NA

RESTRAINED PIPE TABLE

7.3.2 UT 116 A

No.	REVISIONS	DATE	BY
1	REVISED PER MARION COUNTY COMMENTS	06/2024	SAT

LINN ENGINEERING & DESIGN, INC.
P.O. BOX 140024
ORLANDO, FL 32814
PHONE: 407-775-5194
clinn@linnengineering.com
CA LIC. NO. 31710

DESIGN ENGINEER: CHAD S. LINN
FLORIDA REGISTRATION NUMBER: 57524
SEAL

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

MINOR SITE PLAN

NW 57TH CT.
OCALA, FL 34485
MARION COUNTY FLORIDA

DATE 03/24
PROJECT NO. 36300–23–2200
SHEET NUMBER C4