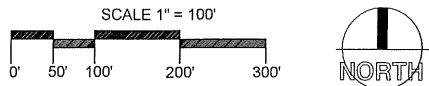


KEY SHEET



Site Data

Land Use: Residential
Project Area: 1,368,344 SF
Excluding Wetlands/Conservation Area/Future Development Areas
1 Tree point per 2,000 sf of development
1,368,344/2,000 = 684 tree points required.

Refer to plant list on L-4 for tree points provided.

No more than 25% of the required tree points may be obtained from planted native or non-native palm trees.

No more than 50% of the required tree points may be obtained from approved non-native trees.

NOTE: SITE HAS BEEN CLEARED UNDER SEPARATE PERMIT.

NO EXISTING TREES

Tree Species Mix	
Required # of Trees	Minimum # of Species
11-20	2
21-30	3
31-40	4
41+	5

Note: All proposed trees have a minimum separation of 10 feet between critical root zones and underground utility lines.

EXHIBIT 5- TREE POINTS

TREE CALIPER (INCHES)	RETAINED NATIVE (EXCEPT PALMS)	INSTALLED NATIVE (EXCEPT PALMS)	NON-NATIVE (INSTALLED OR RETAINED)	NATIVE PALMS (MIN. 6" CLEAR TRUNKS)
2.0	1.0	1.0	0.5	0.5
3.0	1.5	1.5	1.0	0.5
4.0	3.5	2.5	1.5	0.5
5.0	4.0	3.0	2.0	0.5
6.0	4.5	3.5	2.5	0.5
7.0	5.0	4.0	3.0	0.5
8.0	5.5	4.5	3.5	0.5
9.0**	6.0	5.0	4.0	0.5

* FROM EXHIBIT 8: LIST OF APPROVED TREE SPECIES.
** ADD 0.5 POINTS FOR EVERY INCH THEREAFTER (EXCEPT IN THE CASE OF PALMS, WAX MYRTLES, AND PALMETTO).

* REFER TO SHEET L-4 FOR TOTAL CREDIT TREE POINTS TO BE PROVIDED

LANDSCAPE REQUIREMENT CALCULATIONS

OPEN SPACE

5% of property to be provided in open space.
Refer to Engineering Plans for provided open space

BUFFER REQUIREMENTS

PERIMETER BUFFERS

US 41 BUFFER

Type 'B' Buffer, 10' wide, 434 lf.
3 Canopy Trees, 1 Accent Tree, 15 shrubs per 100 lf.
4.34 x 3 = 13 Canopy Trees Required
4.34 x 1 = 5 Accent Trees Required
4.34 x 15 = 65 Shrubs Required

EAST BUFFER

(Perimeter Buffer)
525 lf / 35 = 15 trees required and provided.

Perimeter landscaping.

- In general.
 - Areas abutting public rights-of-way shall be screened from public rights-of-way by a perimeter landscape strip at least eight (8) feet in width.
 - For parcels smaller than twenty thousand (20,000) square feet, the perimeter landscape strip width may be reduced to five (5) feet provided there is a minimum of three (3) feet of pervious surface adjacent to the perimeter landscape strip.
 - For the purposes of this section, ingress and egress lanes act to separate perimeter landscape strips, and the width of ingress and egress lanes is excluded when determining the length of perimeter landscape strips.
 - One (1) tree is required for every thirty-five (35) feet, or fraction thereof, of perimeter landscape strip. Trees within a section of perimeter landscape strip may be grouped, but the distance between trees in a section shall not exceed fifty (50) feet.

STREET 100

Type 'A' Buffer, 10' wide, 500 lf.
2 Canopy Trees, 1 Accent Tree, 10 shrubs per 100 lf.
5 x 2 = 10 Trees Required and Provided
5 x 1 = 5 Accent Trees Required
5 x 10 = 50 Shrubs Required

Perimeter and Interior Parking Lot Landscaping

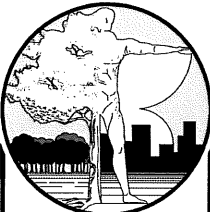
perimeter landscaping and interior parking lot landscaping subject to section 3-9-100.2, of Charlotte County land development code.
12,958 S.F. OF PROPOSED OFF-STREET PARKING, ONE TREE AND NO SOD ARE REQUIRED AND PROVIDED AT THE END OF PARKING ROWS.
36,550 x 10% 3,655 s.f. of interior landscaping required and xxx s.f. provided by hatching shown.

Charlotte County General Buffer & Landscape Notes

- All plants, except transplanted plants, shall meet or exceed the quality standards for Florida No. 1, as provided by Grades and Standards for Nursery Plants, Parts I and II, most recent edition, State of Florida, Department of Agriculture, Tallahassee, [3-9-100 (f)(1)].
- All planted trees and palms will have a 3" deep saucer (Tree Ring) constructed from the trunk of the tree or palm. (Minimum 4" diameter).
- Take steps to retain moisture in the soil. Use of organic mulches, such as pine straw, instead of inorganic materials, such as crushed rock, will promote the absorption of water by the soil as well as enhance water retention. Shade provided by established canopy trees reduces evaporation and allows a moist local environment. Avoid watering in the heat of the day to minimize evaporation. Amend fast draining sand soils with organics such as peat to enhance water retention. Careful application of irrigation with properly sized, adjusted, and timed irrigation heads will minimize water loss through evaporation, run-off, and excessive saturation. [3-9-100 (h)] Contractor shall remove any vegetative growth and apply a pre-emergent weed killer per specifications prior to mulching. Buffer areas may not be located on any portion of an existing or dedicated right-of-way or roadway easement. [3-9-100 (v)(2)].
- All prohibited plant species identified as category I invasive species in the most recent edition of the Florida Exotic Pest Plant Council's List of Invasive Plant Species must be removed from the developed site during development or phase thereof. [3-9-100 (v)(1)].
- In order to count toward the minimum tree point requirement, a preserved or planted tree must have a minimum height of eight (8) feet measured from the existing grade to the highest point of the foliage and a minimum caliper of two (2) inches measured twelve (12) inches above the existing grade. Sec. [3-9-100.3(c)(3)]. All trees preserved or planted per requirements must remain preserved in perpetuity. [3-9-100.3(c)(3)].
- While all preserved native palms may be counted toward a development's tree point requirement, no more than twenty-five (25) percent of the required tree points may be obtained from planted native or non-native palms. [3-9-100.3(c)(1)(i)]. No more than fifty (50) percent of the required tree points may be obtained from approved non-native trees except that non-native palms shall not count for more than twenty-five (25) percent of total required points per section 3-9-100.3(c)(4). [3-9-100.3(c)(5)].
- Shrubs and hedges for decorative perimeter and interior landscaping must be a minimum twelve (12) inches in height upon planting, be spaced eighteen (18) to thirty-six (36) inches on center determined by the type of plant used, and be of the type that reach at least forty-eight (48) inches on maturity. [3-9-100 (f)(7)].
- Hedges for parking lot screening and buffers must be a minimum eighteen (18) inches in height upon planting, be spaced and maintained in order to form a continuous, solid visual screen within one (1) year of planting, and be of the type that reach at least forty-eight (48) inches on maturity. [3-9-100 (f)(7)].
- Refer to Landscape Construction Documents for additional specifications.
- Refer to Civil Engineering Plans for additional data.
- The Landscape Contractor will be responsible for familiarizing themselves with the location of all utilities (underground and overhead) and all site conditions prior to the start of construction.
- Fertilizer will be a balanced complete fertilizer containing nitrogen, phosphoric acid and potash in percentages outlined in specifications.
- It shall be the responsibility of the Landscape Contractor to fine grade all landscape areas: eliminating all bumps, depressions, slicks, stones and other debris to the satisfaction of the Landscape Architect. All inorganic debris that may damage or inhibit the growth of plant material will be removed from all planting beds. Sod shall not be installed until final grades have been approved.
- Contractor shall be responsible for complete takeoffs including sod and mulch quantities. Plant list is for reference only. Plan(s) shall take precedence over plant list.
- The Landscape Contractor shall maintain all lawns (seeded or sodded), ground covers, shrubs, palms and trees until final acceptance.
- Maintenance by the Landscape Contractor shall include but not be limited to:
 - Inspections & Monitoring
 - Fertilizing
 - Insect & Disease Control
 - Weeding & Cultivating
 - Mowing to maintain 3" heights & Edging
 - Maintain tree rings, Guy's & braces & keep trees/palms erect
- The Landscape Contractor will be responsible to insure that all plant material will be watered thoroughly at time of planting, and insure all plant material will receive an adequate supply of water throughout the construction period. The Landscape Contractor shall be responsible for watering as needed to establish the plant material and ensure healthy plantings through final acceptance.
- Contractor shall remove all tape and supports (except specified guy's & braces) from all plantings prior to final acceptance.
- All areas of the site disturbed by construction and not planted shall be sodded.
- Planting widths for buffers must be 1/2 of the buffer width with none being less than 5'.
- Landscaping shall not interfere with or obstruct existing or proposed overhead or underground utilities. [3-9-100 (p)(5)] PROPOSED TREES SHALL BE FIELD LOCATED WHERE NECESSARY IN ORDER TO MAINTAIN SUFFICIENT DISTANCE OF APPROXIMATELY 10 FEET FROM UNDERGROUND UTILITY LINES.
- All landscaping shall be installed in conformance with the landscape plan approved by the department or site plan review final approval. [3-9-100 (e)(1)]. Alterations to landscaping and buffers require the prior written permission of the department. [3-9-100 (f)(15)].
- All required landscaping and buffers may be served by an automatic irrigation system designed to eliminate the application of water to impervious areas and reduce impacts to existing native vegetation. All required landscaping and buffers shall be irrigated during the establishment period. The applicant may use a temporary irrigation system or hand watering if the applicant can demonstrate that such an approach will provide adequate water for plant survival. All alternative plans of irrigation must be approved by the zoning official or higher designee.

Maintenance.

- Plantings, fences, walls, berms and irrigation systems required by section [3-9-100 (g)] of Charlotte County Code of Ordinances must be maintained in good repair. Landscaped and buffer areas must be kept free of weeds, litter and debris.
- Damage to any of the landscaping or structures required by this section [3-9-100 (g)] shall be repaired or replaced, as applicable, within ninety (90) days or one (1) growing season, whichever is sooner. Damage to a required fence or wall by a natural disaster shall be repaired within one hundred eighty (180) days.
- It is unlawful to violate any of the provisions of this section [3-9-100 (g)].
- The department may enforce compliance with this section [3-9-100 (g)] as provided by law and may perform reasonable inspections to insure continued compliance.



DMJA

DAVID M. JONES, JR.
AND ASSOCIATES, INC.

LANDSCAPE ARCHITECTS
AND PLANNERS

2221 McGregor Blvd.
Fort Myers, Florida 33901
PHONE: (239) 337-5525
FAX: (239) 337-1494

L.A. LICENSE: LC 000063

PROJECT INFORMATION:

WILLOWS
TOWNHOMES
CHARLOTTE CO., FL

PREPARED FOR:

Respec
1605 Hendry Street
Fort Myers, FL 33901
Ph: (239) 418-0691
Fax: (239) 418-0692
Email:
andrew.fitzgerald@respec.com

CONSULTANT:

DESIGN PROFESSIONAL:

Digitally signed by
Gregory J Diserio
DN: cn=US, o=Florida,
dnQualifier=A01410
D0000018C647886
20090812,
cn=Gregory J Diserio
Date: 2024.07.31
14:11:55 -0400

GREGORY J. DISERIO, RLA
RLA NO. 840 DATE:
STATE OF FLORIDA

PROJECT NO.	223170
PROJECT MGR.	GREG DISERIO
FILE NAME:	WILLOWS TH LS
DESIGNER:	GJD
CAD TECH:	GJD
CHECKED BY:	GJD
ISSUED FOR:	SITE PERMIT

ISSUED DATE: MARCH, 13, 2024

REVISIONS:
JULY 15, 2024 COMMENT RESPONSE
JULY 31, 2024 COMMENT RESPONSE

SHEET TITLE:
LANDSCAPE
CALCULATIONS

SHEET NUMBER:

L-1

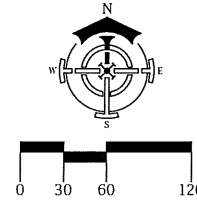
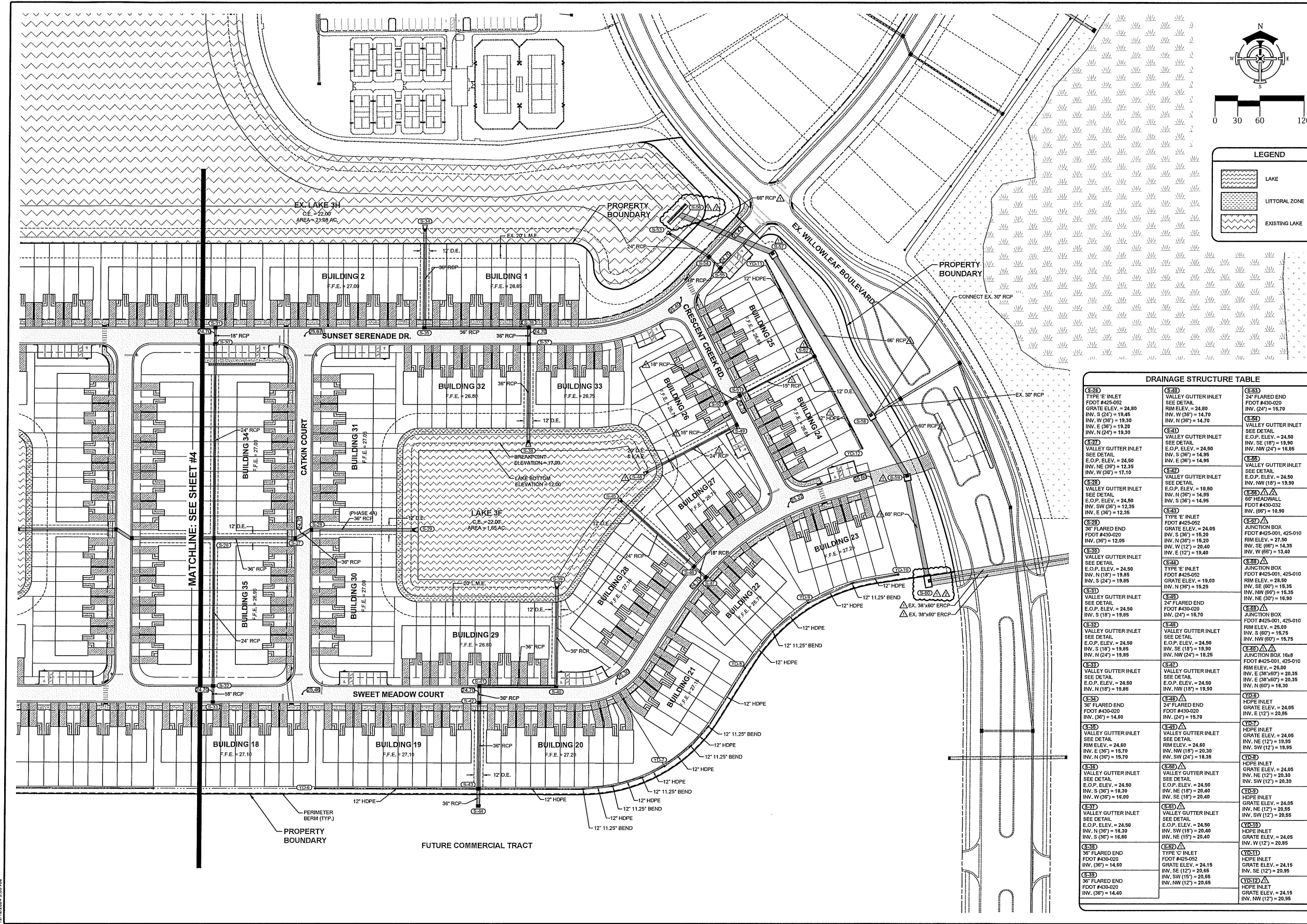
CALL 48 HOURS
BEFORE YOU DIG

IT'S THE LAW!
CALL 811



KNOW WHAT'S BELOW
CALL BEFORE YOU DIG
FLORIDA'S MANDATORY CALL BEFORE YOU DIG LAW

N:\PROJECTS\W0079.23038\WILLOW TOWNHOMES\CONSET PLANS\PLAN SET\W0079.23038-05-DRAINAGE-E.DWG
12/12/2024 9:58 AM



LEGEND	
	LAKE
	LITTORAL ZONE
	EXISTING LAKE

DRAINAGE STRUCTURE TABLE		
(S-26) TYPE 'E' INLET FOOT #425-052 GRATE ELEV. = 24.80 INV. S (24') = 19.45 INV. W (36') = 19.30 INV. E (36') = 19.20 INV. N (24') = 19.30	(S-29) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.80 RIM ELEV. = 24.80 INV. W (36') = 14.70 INV. N (36') = 14.70	(S-33) 24" FLARED END FOOT #430-020 RIM ELEV. = 24.80 INV. S (24') = 15.70
(S-27) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (36') = 12.35 INV. W (36') = 12.35 INV. N (36') = 17.10	(S-41) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (36') = 14.95 INV. W (36') = 14.95	(S-35) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. SE (18') = 18.30 INV. NW (24') = 16.85
(S-28) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (36') = 12.35 INV. W (36') = 12.35 INV. E (36') = 12.35	(S-42) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 18.50 RIM ELEV. = 18.50 INV. S (36') = 14.95 INV. W (36') = 14.95	(S-36) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. NW (18') = 19.50
(S-29) 36" FLARED END FOOT #430-020 RIM ELEV. = 24.80 INV. S (36') = 12.05	(S-43) TYPE 'E' INLET FOOT #425-052 GRATE ELEV. = 24.05 INV. S (36') = 16.20 INV. W (36') = 15.20 INV. W (12') = 20.40 INV. E (12') = 19.40	(S-37) JUNCTION BOX FOOT #425-001, 425-010 RIM ELEV. = 27.50 INV. SE (36') = 14.35 INV. W (36') = 13.40
(S-30) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (24') = 19.85	(S-44) TYPE 'E' INLET FOOT #425-052 GRATE ELEV. = 19.00 INV. S (36') = 15.25	(S-38) JUNCTION BOX FOOT #425-001, 425-010 RIM ELEV. = 28.50 INV. SE (36') = 16.35 INV. NW (36') = 15.35 INV. NE (30') = 16.90
(S-31) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (18') = 19.85	(S-45) 24" FLARED END FOOT #430-020 RIM ELEV. = 24.50 INV. S (24') = 16.70	(S-39) JUNCTION BOX FOOT #425-001, 425-010 RIM ELEV. = 25.00 INV. E (36') = 15.75 INV. NW (36') = 15.75
(S-32) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (18') = 19.85 INV. N (24') = 19.85	(S-46) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (18') = 19.90 INV. NW (24') = 18.25	(S-40) JUNCTION BOX 16x8 FOOT #425-001, 425-010 RIM ELEV. = 25.00 INV. E (36') = 20.35 INV. E (36') = 20.35 INV. N (36') = 16.30
(S-33) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. N (18') = 19.85	(S-47) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. NW (18') = 19.90	(V0-03) HOPE INLET GRATE ELEV. = 24.05 INV. E (12') = 20.85
(S-34) 36" FLARED END FOOT #430-020 RIM ELEV. = 24.80 INV. S (36') = 14.60	(S-48) 24" FLARED END FOOT #430-020 RIM ELEV. = 24.50 INV. S (24') = 16.70	(V0-04) HOPE INLET GRATE ELEV. = 24.05 INV. NE (12') = 19.95 INV. SW (12') = 19.95
(S-35) VALLEY GUTTER INLET SEE DETAIL RIM ELEV. = 24.50 INV. NE (12') = 20.30 INV. SW (12') = 19.95 INV. N (36') = 15.70	(S-49) VALLEY GUTTER INLET SEE DETAIL RIM ELEV. = 24.50 INV. NE (18') = 20.30 INV. SW (12') = 19.95 INV. N (36') = 15.70	(V0-05) HOPE INLET GRATE ELEV. = 24.05 INV. NE (12') = 20.30 INV. SW (12') = 20.30
(S-36) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. S (36') = 18.30 INV. W (36') = 16.00	(S-50) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. NE (18') = 20.40 INV. SE (18') = 20.40	(V0-06) HOPE INLET GRATE ELEV. = 24.05 INV. NE (12') = 20.30 INV. SW (12') = 20.30
(S-37) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. N (36') = 18.30 INV. S (36') = 16.80	(S-51) VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 RIM ELEV. = 24.50 INV. NE (18') = 20.40 INV. SE (18') = 20.40	(V0-07) HOPE INLET GRATE ELEV. = 24.05 INV. NE (12') = 20.30 INV. SW (12') = 20.30
(S-38) 36" FLARED END FOOT #430-020 RIM ELEV. = 24.80 INV. S (36') = 14.60	(S-52) TYPE 'C' INLET FOOT #425-052 GRATE ELEV. = 24.15 INV. SE (12') = 20.45 INV. SW (15') = 20.65 INV. N (12') = 20.65	(V0-08) HOPE INLET GRATE ELEV. = 24.15 INV. SE (12') = 20.45 INV. NW (12') = 20.35
(S-39) 36" FLARED END FOOT #430-020 RIM ELEV. = 24.80 INV. S (36') = 14.40		

RESPEC
1412 Jackson Street, Suite #1
Fort Myers, FL 33901
(239) 418-0691
Florida Registry License No. 33253

ENGINEER OF RECORD:
ANDREW D. FITZGERALD
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 56776

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND
DATE INDICATED BELOW.
ANDREW D. FITZGERALD ON THE
DATE OF 12/12/2024
ANDREW D. FITZGERALD
NOT COMPLETED SIGNED AND SEALED ON ANY
DATE
DECEMBER 12, 2024

AREA RESERVED FOR AGENCY USE

OWNER / DEVELOPER:
LENNAR
10487 SW 11th Circle, Cypress Parkway
Fort Myers, FL 33966
(239) 278-1177

PROJECT:
WILLOW TOWNHOMES
CCU#24-1019

PLAN REVISIONS	DATE	DESCRIPTION
1	8/19/24	ISSUED FOR CONSTRUCTION FROM COORDINATE PROJECT
2	10/31/24	REVISED 5-56, 5-60

DRAINAGE PLAN
(EAST)

Project Manager: ADF
Drawn By: EPB
Project Number: W0079.23038
County, State: CHARLOTTE COUNTY, FL

Status:
REVISION 2
DATED: 10/31/2024

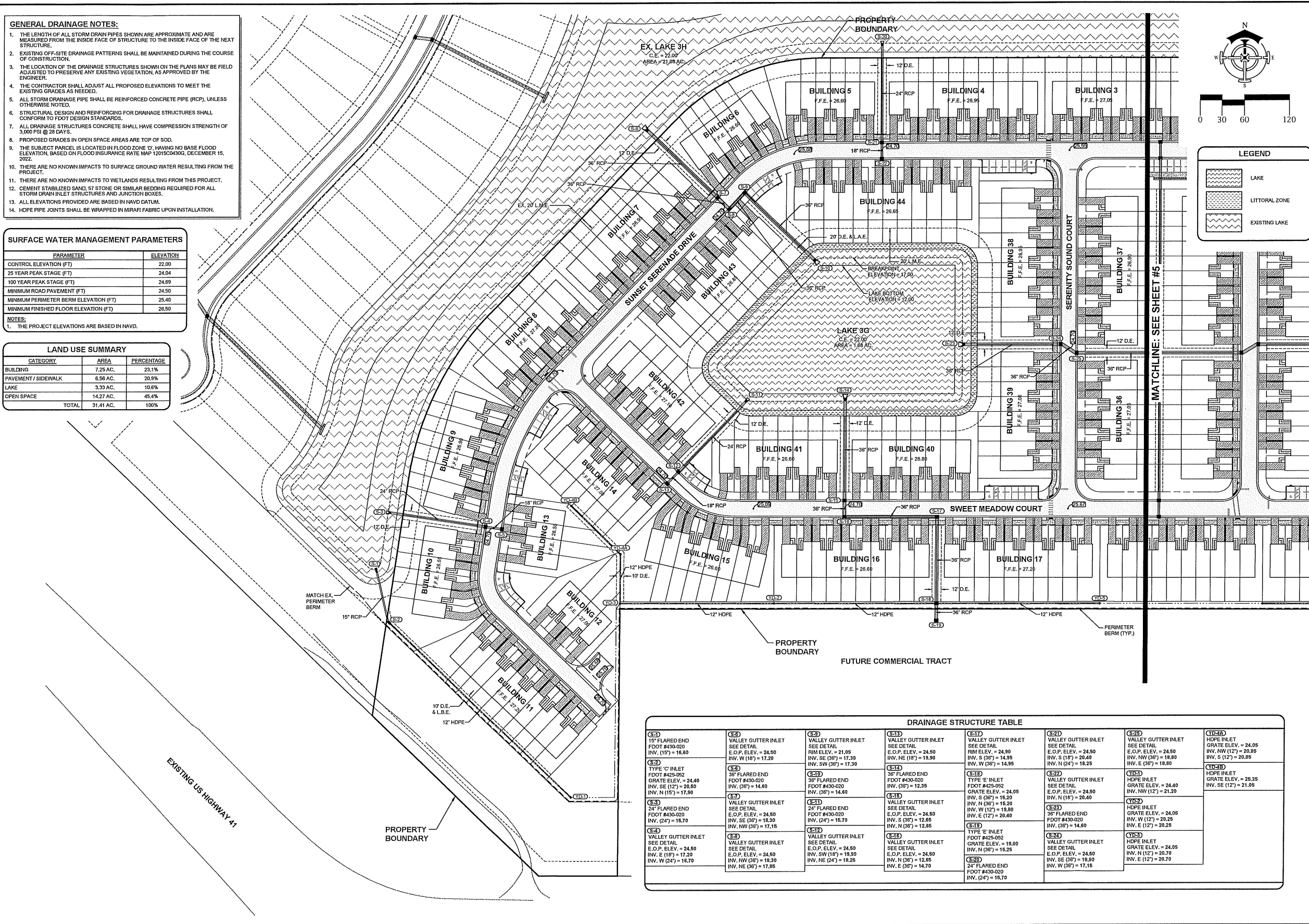
Sheet Number: 5

1. THE LENGTH OF ALL STORM DRAIN PIPES SHOWN ARE APPROXIMATE AND ARE MEASURED FROM THE INSIDE FACE OF STRUCTURE TO THE INSIDE FACE OF THE NEXT STRUCTURE.
2. EXISTING OFF-SITE DRAINAGE PATTERNS SHALL BE MAINTAINED DURING THE COURSE OF CONSTRUCTION.
3. THE LOCATION OF THE DRAINAGE STRUCTURES SHOWN ON THE PLANS MAY BE FIELD ADJUSTED TO ACCOMMODATE ANY EXISTING VEGETATION, AS PROVIDED BY THE ENGINEER.
4. THE CONTRACTOR SHALL ADJUST ALL PROPOSED ELEVATIONS TO MEET THE EXISTING FINISH GRADES AS NOTED.
5. ALL STORM DRAINAGE PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP), UNLESS OTHERWISE NOTED.
6. STRUCTURAL DESIGN AND REINFORCING FOR DRAINAGE STRUCTURES SHALL CONFORM TO FOOT DESIGN STANDARDS.
7. ALL DRAINAGE STRUCTURES CONCRETE SHALL HAVE COMPRESSION STRENGTH OF 3,000 PSI @ 28 DAYS.
8. PROPOSED GRADES IN OPEN SPACE AREAS ARE TOP OF SOUL.
9. THE SUBJECT PARCEL IS LOCATED IN FLOOD ZONE 7, HAVING NO BASE FLOOD ELEVATION, BASED ON FLOOD INSURANCE RATE MAP 12015C0042, DECEMBER 15, 2002.
10. THERE ARE NO KNOWN IMPACTS TO SURFACE GROUND WATER RESULTING FROM THE PROJECT.
11. THERE ARE NO KNOWN IMPACTS TO WETLANDS RESULTING FROM THIS PROJECT.
12. CEMENT STABILIZED SAND, 57 STONE OR SIMILAR BEDDING REQUIRED FOR ALL STORM DRAIN INLET STRUCTURES AND JUNCTION BOXES.
13. ALL ELEVATIONS PROVIDED ARE BASED IN NAVD 84.
14. HOPE PIPE JOINTS SHALL BE WRAPPED IN NIIRD FABRIC UPON INSTALLATION.

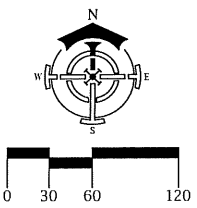
<u>PARAMETER</u>	<u>ELEVATION</u>
CONTROL ELEVATION (FT)	22.00
25 YEAR PEAK STAGE (FT)	24.04
100 YEAR PEAK STAGE (FT)	24.69
MINIMUM ROAD PAVEMENT (FT)	24.50
MINIMUM PERIMETER BERM ELEVATION (FT)	25.40
MINIMUM FINISHED FLOOR ELEVATION (FT)	26.50

NOTES:
1. THE PROJECT ELEVATIONS ARE BASED IN NAVD




LAND USE SUMMARY		
CATEGORY	AREA	PERCENTAGE
BUILDING	7.25 AC.	23.1%
PAVEMENT / SIDEWALK	6.56 AC.	20.9%
LAKE	3.33 AC.	10.6%
OPEN SPACE	14.27 AC.	45.4%
TOTAL	31.41 AC.	100%



DRAINAGE STRUCTURE TABLE									
G-5 24' FLARED END FOOT #430-020 INV. (15') = 16.60 G-6 TYPE 'C' INLET FOOT #425-092 GRATE ELEV. = 24.40 INV. SE (12') = 20.50 INV. N (15') = 17.50 G-7 36" FLARED END FOOT #430-020 INV. (24') = 16.70 G-8 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.90 INV. SW (35') = 16.20 INV. W (24') = 16.70	G-9 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.90 INV. SW (35') = 17.20 INV. W (18') = 17.50 G-10 36" FLARED END FOOT #430-020 INV. (35') = 14.60 G-11 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.90 INV. SW (35') = 18.30 INV. N (35') = 17.15	G-12 VALLEY GUTTER INLET SEE DETAIL RIM ELEV. = 21.05 INV. S (35') = 17.20 INV. SW (35') = 17.30 G-13 36" FLARED END FOOT #430-020 INV. (35') = 14.80 G-14 24" FLARED END FOOT #430-020 INV. (24') = 16.70 G-15 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.60 INV. SW (15') = 19.80 INV. NE (24') = 18.26	G-16 VALLEY GUTTER INLET SEE DETAIL RIM ELEV. = 24.90 INV. S (35') = 14.55 INV. W (24') = 14.95 G-17 36" FLARED END FOOT #425-092 INV. (35') = 24.05 INV. S (35') = 20.50 INV. N (35') = 15.20 INV. W (12') = 19.80 INV. E (12') = 20.40 G-18 TYPE 'E' INLET FOOT #425-092 INV. (35') = 24.05 INV. N (35') = 15.20 INV. W (12') = 19.80 INV. E (12') = 20.40 G-19 TYPE 'E' INLET FOOT #425-092 GRATE ELEV. = 19.00 INV. N (35') = 15.25 G-20 24" FLARED END FOOT #430-020 INV. (24') = 16.70	G-21 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 INV. S (15') = 20.40 INV. N (24') = 18.26 G-22 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 INV. N (15') = 20.40 G-23 36" FLARED END FOOT #430-020 INV. (35') = 14.60 G-24 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 INV. SE (35') = 18.80 INV. W (35') = 17.15	G-25 VALLEY GUTTER INLET SEE DETAIL E.O.P. ELEV. = 24.50 INV. NW (12') = 20.85 INV. E (35') = 18.80 G-26 HOPE INLET GRATE ELEV. = 24.40 INV. NW (12') = 21.20 G-27 HOPE INLET GRATE ELEV. = 24.05 INV. W (12') = 20.25 INV. E (12') = 20.25 G-28 HOPE INLET GRATE ELEV. = 24.05 INV. N (12') = 20.70	C10-4A HOPE INLET GRATE ELEV. = 24.05 INV. NW (12') = 20.85 INV. S (12') = 20.85 C10-1B HOPE INLET GRATE ELEV. = 25.25 INV. SE (12') = 21.05			



LEGEND

	LAKE
	LITTORAL ZONE
	EXISTING LAKE



RESPEC
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Fort Myers, FL 33901
(239) 418-0691
Florida Registry License No. 33253

ANDREW D. FITZGERALD
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 56776

THIS ITEM HAS BEEN DIGITALLY SIGNED AND
SEALED BY ANDREW D. FITZGERALD ON THE
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DECEMBER 17, 2024

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1.1.1 33586
77

WILLOW TOWNHOMES

CCU#24-1019

LENNAR
10481 SIX MILE CYPRESS PARKWAY
FORT MYERS, FL 33966
(239) 278-1177

[illegible]DRAINAGE PLAN
(WEST)

Project Manager:	ADF
Drawn By:	EPB
Project Number:	W0079.23038
County, State:	CHARLOTTE COUNTY, FL

Status:
REVISION 2
DATED: 10/31/2024

Sheet Number:	4
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12/12/2024 9:05 AM

GENERAL UTILITY NOTES:

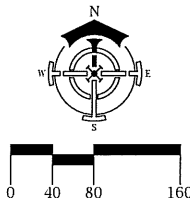
1. CONTRACTOR TO VERIFY THE SIZE AND LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. EXISTING UTILITY INFRASTRUCTURE ON THE PROPERTY TO BE PHYSICALLY LOCATED TO AVOID POTENTIAL CONFLICTS OR DAMAGE TO THIS INFRASTRUCTURE.
2. LOCATIONS OF PROPOSED UTILITY LINES ARE SUBJECT TO MODIFICATIONS TO PRESERVE ANY EXISTING VEGETATION AS DETERMINED BY THE ENGINEER.
3. WHEN REFERENCING IMPROVEMENTS ADJACENT TO THE SUBJECT PROPERTY THE WORD "EXISTING" (OR ABBREVIATED "EX.") SHALL MEAN IMPROVEMENTS PROPOSED BY THE DEVELOPER WHICH ARE INTENDED TO BE CONSTRUCTED PRIOR TO OR CONCURRENT WITH THIS PROJECT.
4. NO TREES OR SHRUBS SHALL BE PLACED SO AS TO BLOCK ACCESS OR LINE OF SIGHT TO FIRE HYDRANTS PLACED WITHIN LANDSCAPE ISLANDS THROUGHOUT THE PROJECT SITE.
5. CONTRACTOR TO PROVIDE UTILITY RECORD DRAWINGS TO OWNER AND ENGINEER PRIOR TO FINAL PAYMENT REQUEST.
6. ALL UNDERGROUND UTILITIES LOCATED BENEATH THE STABILIZED PORTION OF THE ROAD BED SHALL BE INSTALLED PRIOR TO COMPACTION OF THE SUBGRADE.
7. CONTRACTOR SHALL NOTIFY ALL UTILITY PROVIDERS AT LEAST 48 HOURS PRIOR TO THE START OF UNDERGROUND CONSTRUCTION THE CONTRACTOR SHALL DETERMINE IF UTILITIES OTHER THAN THOSE SHOWN THE PLANS EXIST.
8. CONTRACTOR TO EXERCISE CARE TO PROTECT THE ROOTS OF TREES TO REMAIN, WITH THE BRANCH SPREAD OF SUCH TREES, PERFORM ALL TRENCHING BY HAND, OPEN THE TRENCH ONLY WHEN UTILITIES CAN BE INSTALLED IMMEDIATELY, PRUNE INJURED ROOTS CLEANLY AND BACKFILL AS SOON AS POSSIBLE.
9. THE CONTRACTOR IS REQUIRED TO ADJUST ALL EXISTING AND PROPOSED VALVE BOXES, MANHOLE RIMS, GRATES, ETC. AS REQUIRED TO MATCH THE PROPOSED GRADES.
10. CASINGS AND/OR CONDUIT SHALL EXTEND FIVE(5) FEET BEYOND THE EDGE OF PAVEMENT, BACK OF CURB AND/OR SIDEWALK AT EACH END AND SHALL BE INCLUDED IN RECORD DRAWINGS TO THE ENGINEER.

GENERAL POTABLE WATER NOTES:

1. ALL UTILITY CONSTRUCTION TO BE IN ACCORDANCE WITH CHARLOTTE COUNTY UTILITIES STANDARD SPECIFICATIONS, LATEST EDITION.
2. ALL COMPONENTS OF THE POTABLE WATER SYSTEM, EXCLUDING FIRE HYDRANTS, SHALL BE IN CONFORMANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE'S INTERNATIONAL STANDARD 81. THE LOCATION OF PUBLIC WATER SYSTEM MAINS SHALL BE IN ACCORDANCE WITH F.A.C. RULES 62-40, 62-950 AND 62-560. ALL COMPONENTS, INSTALLATION AND TESTING OF THE POTABLE WATER SYSTEM SHALL BE IN ACCORDANCE WITH A.W.W.A. APPLICABLE STANDARDS.
3. PROPOSED WATERLINE FITTINGS ARE SHOWN AT MAJOR BENDS IN WATER MAIN ALIGNMENT. CONTRACTOR SHALL UTILIZE ADDITIONAL FITTINGS AS NECESSARY TO DEFLECT WATERLINE IN ACCORDANCE WITH THE UTILITY PROVIDER SPECIFICATIONS.
4. THE ENDS OF ALL CAPPED POTABLE WATERLINES SHALL BE MARKED WITH ELECTRONIC MARKER AND 2"x4" STAKES 5' IN LENGTH WITH Z ABOVE GROUND.
5. THE CONTRACTOR SHALL PROVIDE AND INSTALL BLUE-BLUE REFLECTIVE PAVEMENT MARKERS AS REQUIRED IN CENTER OF ADJACENT TRAVEL LANE AT EACH FIRE HYDRANT.
6. ALL WATER VALVES SHALL CONFORM TO A.W.W.A. C-509 RESILIENT SEATED TYPE.
7. CONTRACTOR SHALL USE 45° BENDS AT CONFLICTS. RESTRAINTS TO BE MEGA-LUG, TYLER MJR GLANDS OR APPROVED EQUAL. CONTRACTOR SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED MAXIMUM PIPE DEFLECTION.
8. ALL POTABLE WATERLINES SHALL BE AWWA C-900, DR 18 CLASS 150 PVC RUBBER GASKETED PIPE WITH BELL AND SPIGOT ENDS UNLESS OTHERWISE NOTED.

GENERAL SANITARY SEWER NOTES:

1. ALL UTILITY CONSTRUCTION TO BE IN ACCORDANCE WITH CHARLOTTE COUNTY UTILITIES STANDARD SPECIFICATIONS, LATEST EDITION.
2. CONTRACTOR TO VERIFY INVERT ELEVATION AND LOCATION OF EXISTING SANITARY SEWER MANHOLES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. ALL GRAVITY SEWER LINES SHALL BE PVC (SDR 26), GREEN IN COLOR, UNLESS OTHERWISE NOTED. MINIMUM DEPTH OF GRAVITY SEWER PIPE SHALL BE 5' UNLESS OTHERWISE APPROVED BY CCU.
4. ALL SEWER LENGTHS ARE APPROXIMATE AND ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
5. MANHOLE TOPS ARE APPROXIMATE AND SHOULD BE ADJUSTED TO FINAL GRADE OR PAVEMENT ELEVATION.
6. ALL SANITARY SEWER SERVICES TO BE 6" IN DIAMETER, UNLESS OTHERWISE NOTED.
7. ALL SANITARY SEWER MAIN TESTING SHALL BE IN ACCORDANCE WITH THE CHARLOTTE COUNTY UTILITIES SPECIFICATIONS FOR GRAVITY SEWER.



RESPEC
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Florida Registry License No. 33253

ENGINEER OF RECORD:
ANDREW D. FITZGERALD
STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE NO. 56776
THIS ITEM HAS BEEN DIGITALLY SIGNED AND
SEALED BY ANDREW D. FITZGERALD ON THE
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THE SIGNATURE IS ELECTRONICALLY COPIED
DECEMBER 12, 2024

AREA RESERVED FOR AGENCY USE

OWNER/DEVELOPER:
LENNAR
10475 SANDHILL CYPRESS PARKWAY
FORT MYERS, FL 33966
(239) 278-1177
PROJECT:
WILLOW TOWNHOMES
CCU#24-1019

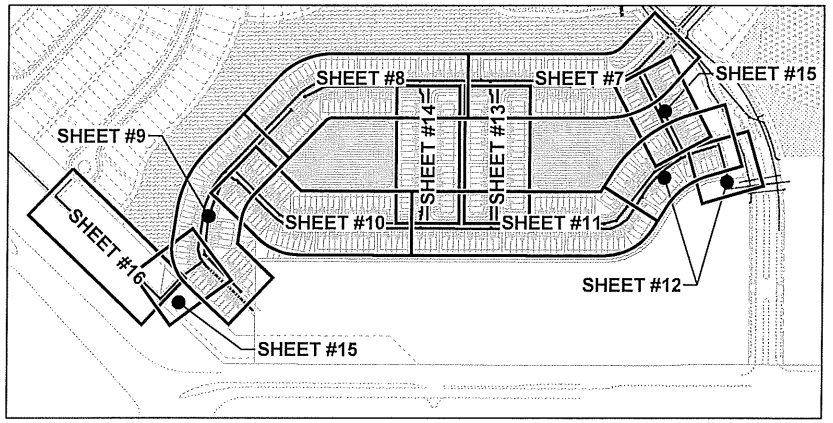
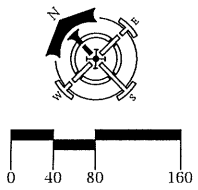
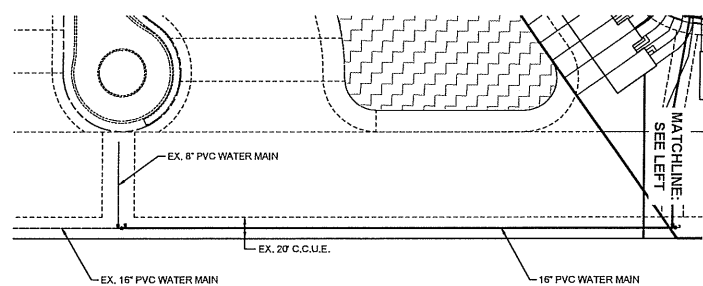
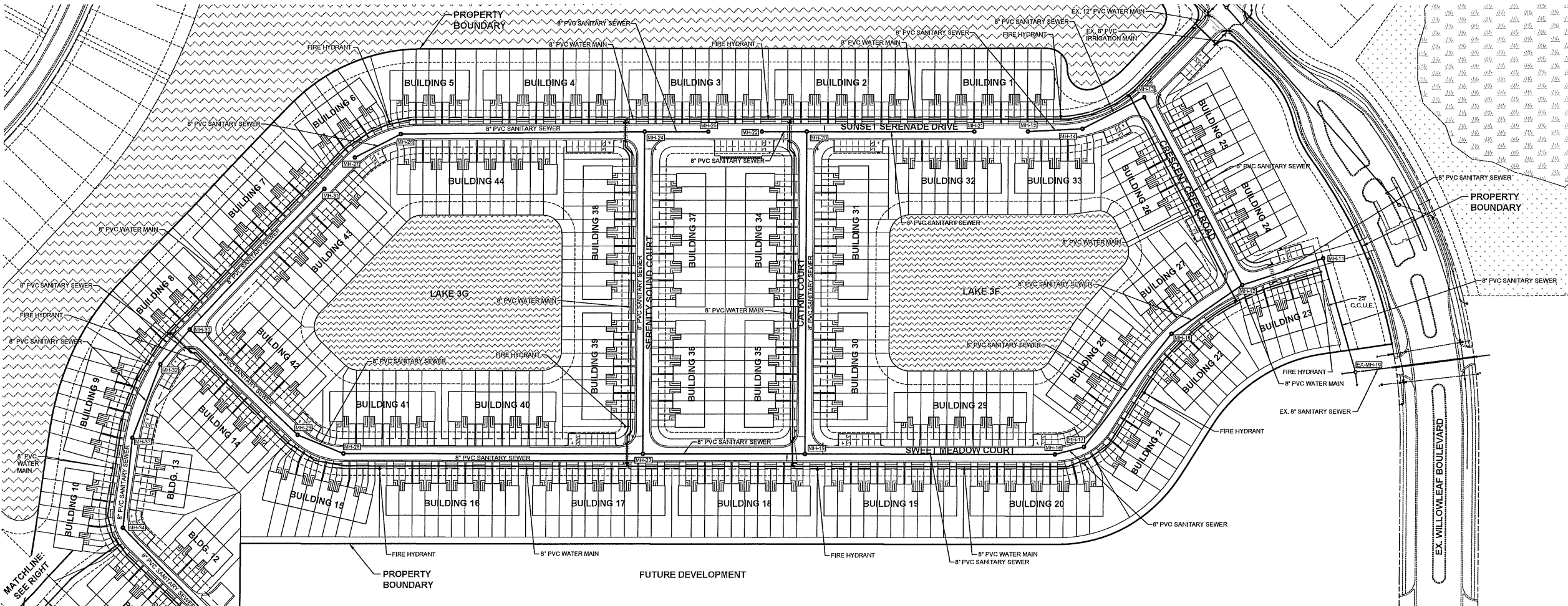
PLAN REVISIONS	
#	DESCRIPTION

MASTER UTILITY PLAN

Project Manager: ADF
Drawn By: EPB
Project Number: W0079.23038
County, State: CHARLOTTE COUNTY, FL

Status:
REVISION 2
DATED: 10/31/2024

Sheet Number: 6



PLAN & PROFILE KEY MAP
NTS

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