SECTION: 86039000
COUNTY: BROWARD
STATE RD: 814
PERMIT: 2024-L-491-00013

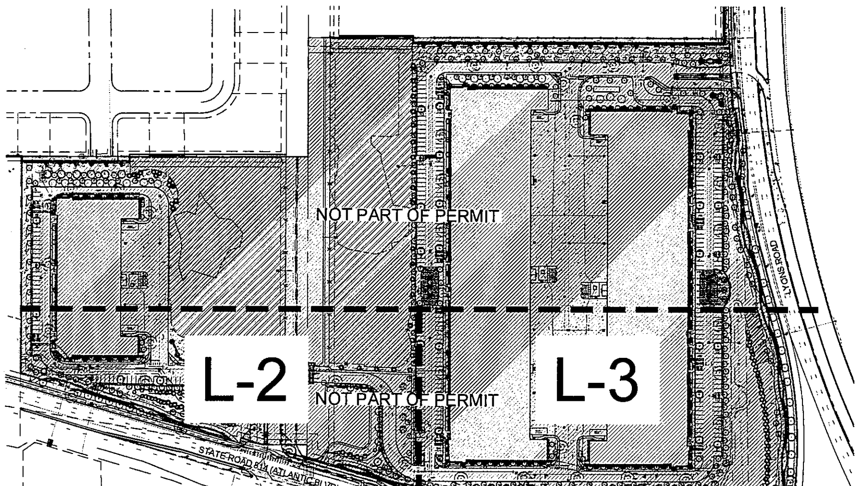
EXHIBIT B

LANDSCAPE IMPROVEMENT PLANS

The AGENCY agrees to install the landscape improvements in accordance with the plans and specifications attached hereto and incorporated herein.

Please see attached plans prepared by: Andrew Witkin, PLA
Witkin Hults & Partners

Date: September 8, 2025



KEY PLAN

Scale: 1" = 100'-0"

NORTH

0' 100' 300' 600'

SHEET INDEX:

Tree Mitigation Chart

Mitigation Type	Credit Obtained	Quantity	Total
Category 1	300	363	109,900.00
Category 2	150	321	48,150.00
Category 3	100	[illegible]	8,500.00
Category 4	50	270	13,500.00
	Total Credit Obtained		180,550.00
	Square Footage Removed		140,651.55
	Square Footage Removed (with Additional 50% Canopy):		210,977.32 S.F.

LANDSCAPE LIST

TREES AND PALMS

SYMBOL	QUAN	PROPOSED MATERIAL	DESCRIPTION	%
QV	6	*Quercus virginiana LIVE OAK	12' HT X 5' SPR 2" CAL F.G.	1%
CES	17	*Conocarpus erectus 'sericeus' SILVER BUTTONWOOD	12' HT., 8.5' C.T. X 4' SPR 2" CAL F.G.	2%
SM	21	*Swietenia mahagoni MAHOGANY	12' HT X 2" CAL F.G.	3%
CD	86	*Coccoloba diversifolia PIGEON PLUM	12' HT X 2" CAL F.G.	11%
BS	37	*Bursera simaruba GUMBO LIMBO	12' HT., 8.5' C.T. X 5' SPR 2" CAL F.G.	5%
CE	65	*Conocarpus erectus GREEN BUTTONWOOD	12' HT., 8.5' C.T. X 5' SPR 2" CAL F.G.	8%
IC	54	*Ilex cassine DAHOON HOLLY	12' HT X 2" CAL F.G.	7%
CO	43	*Chrysophyllum oliviforme SATINLEAF	12' HT X 5' SPR 2" CAL F.G.	5%
ED	76	Elaeocarpus decipiens JAPANESE BLUEBERRY	12' HT X 5' SPR 2" CAL F.G.	10%
LI	75	Lagerstroemia indica 'Natchez' WHITE CREPE MYRTLE	12' HT X 2" CAL F.G.	10%
TH	23	Tabebuia heterophylla PINK TRUMPET TREE	12' HT X 5' SPR 2" CAL F.G.	3%
CR	10	*Clusia rosea PITCH APPLE	12' HT X 5' SPR 2" CAL F.G.	1%
LJ	8	Ligustrum japonicum JAPANESE PRIVET	8' HT X 8' SPR 2" DBH F.G.	1%
TD	88	*Taxodium distichum BALD CYPRESS	12' HT X 2" CAL F.G.	11%
AR	146	*Acer rubrum RED MAPLE	12' HT X 2" CAL F.G.	19%
AG	29	*Annona glabra POND APPLE	12' HT X 5' SPR 2" CAL F.G.	4%

PALMS

SYMBOL	QUAN	PROPOSED MATERIAL	DESCRIPTION	%
RE	19	*Roystonea elata ROYAL PALM	10' C.T. F.G., MATCHED HTS	7%
VM	7	Veitchia montgomeryana 'single' SINGLE MONTGOMERY PALM	18' O.A. HT F.G.	3%
VM2	28	Veitchia montgomeryana 'double' DOUBLE MONTGOMERY PALM	14'-18' O.A. HT F.G., STAGGERED	10%
SP	105	*Sabal palmetto SABAL PALM	20'-24' O.A. HT STAGGERED F.G.	38%
TR	45	*Thrinax radiata FLORIDA THATCH PALM	18'-20' O.A. HT STAGGERED F.G.	17%
AM	1	Adonidia merrilii CHRISTMAS PALM	10' O.A. HT F.G.	1%
CM	65	Caryota mitis FISHTAIL PALM	10'-12' O.A. HT 25 GAL.	24%

SHRUBS AND GROUNDCOVERS

SYMBOL	QUAN.	PROPOSED MATERIAL	DESCRIPTION	%
AB	30	Aechmea blanchetiana BRIGHT YELLOW BROMELIAD	36" HT X 24" SPR 10" POT	1%
BS1	12	Bougainvillea BOUGAINVILLEA STANDARD	36" HT X 36" SPR. 7 GAL.	1%
CA	5	Crinum augustum 'Queen Emma' PURPLE CRINUM LILY	3' O.A. HT 7 GAL.	1%
CE	1759	*Conocarpus erectus GREEN BUTTONWOOD	24" HT. X 24" SPR / 24" O.C. 3 GAL.	9%
CFR	24	Cordyline fruticosa 'Red Sister' TI PLANT	4' O.A. HT 4PPP 3 GAL.	1%
CG	736	Clusia guttifera SMALL LEAF CLUSIA	24" HT X 24" SPR / 24" O.C. 3 GAL.	4%
CI	3112	*Chrysobalanus icaco 'Red Tip' RED TIP COCOPLUM	18" HT X 18" SPR / 18" O.C. 3 GAL.	16%
DE	424	Duranta erecta 'Gold Mound' GOLD MOUND DURANTA	18" HT X 18" SPR / 18" O.C. 3 GAL.	2%
FM	3833	Ficus microcarpa 'Green Island' GREEN ISLAND FICUS	15" HT X 15" SPR / 15" O.C. 3 GAL.	20%
HP	1,444	*Hamelia patens 'Calusa' FIREBUSH	24" HT X 24" SPR / 24" O.C. 3 GAL.	7%
IT	102	Ixora taiwanensis 'Dwarf' DWARF IXORA	18" HT X 18" SPR / 18" O.C. 3 GAL.	1%
JI	22	Jatropha integerrima JATROPHA TREE	6' HT X 4' SPR 30 GAL., FULL	1%
MC	341	*Muhlenbergia capillaris PINK MUHLY GRASS	24" HT X 24" SPR / 24" O.C. 3 GAL.	2%
SA	57	Schefflera arboricola GREEN SCHEFFLERA	18" HT X 18" SPR / 18" O.C. 3 GAL.	1%
SV	2580	Schefflera arboricola 'Trinette' VARIEGATED SCHEFFLERA	18" HT X 18" SPR / 18" O.C. 3 GAL.	13%
TF	3444	*Tripsacum floridana DWARF FAKAHATCHEE GRASS	24" HT X 24" SPR / 24" O.C. 3 GAL.	17%
CR2	5	*Clusia rosea PITCH APPLE	36" HT X 36" SPR / 36" O.C. 7 GAL.	1%
VO	1198	*Viburnum obovatum WALTER'S VIBURNUM	24" HT X 24" SPR / 24" O.C. 3 GAL.	6%
PN	483	*Psychotria nervosa WILD COFFEE	24" HT X 24" SPR / 24" O.C. 3 GAL.	2%
CV	10	Codiaeum variegatum 'Mrs. Iceton' RED - YELLOW CROTON	18" HT X 18" SPR / 18" O.C. 3 GAL.	1%
BAHIA	As Required	Paspalum notatum ARGENTINE BAHIA GRASS	SOLID EVEN SOD	
LAWN	As Required	Stenotaphrum secundatum 'Floratam' ST. AUGUSTINE GRASS	SOLID EVEN SOD	

* DENOTES NATIVE SPECIES

GOVERNING STANDARD PLANS:
FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2024-25 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION AND APPLICABLE INTERIM REVISIONS (IRs) ARE AVAILABLE AT THE FOLLOWING WEBSITE: https://www.fdot.gov/design/standardplans

GOVERNING STANDARD SPECIFICATIONS :
FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2024-25 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWINGWEBSITE: https://www.fdot.gov/programmanagement/implemented/specbooks

ANY PLANT MATERIAL SUBSTITUTION WITHIN OR IMPACTING THE FDOT RIGHT OF WAY WHETHER REQUESTED BY THE CONTRACTOR, OWNER, LANDSCAPE ARCHITECT OR OTHER WILL NEED TO GET APPROVAL FROM THE FDOT DISTRICT LANDSCAPE ARCHITECT.

OWNERSHIP OF ALL SUITABLE EXCAVATED MATERIALS, AS DETERMINED BY THE DEPARTMENT, SHALL REMAIN IN THE DEPARTMENT UNTIL A FINAL ACCEPTANCE OF THE PERMITTED PROJECT IS FULFILLED. EXCAVATED MATERIALS SHALL BE HAULED BY THE PERMITTEE, AT THEIR COST & EXPENSE FROM THE SITE TO THE BROWARD OPERATIONS CENTER OR STOCKPILED IN THOSE AREAS AS DIRECTED BY THE DEPARTMENT, INCLUDING ASPHALT MILLINGS.

CYPRESS MULCH IS NOT PERMITTED ON THE FDOT RIGHT OF WAY. MULCH PERMITTED TO BE USED ARE HARDWOOD MULCH (CONTAINING NO CYPRESS PRODUCTS), RECYCLED MULCH OR APPROVED EQUAL, CERTIFIED BY THE MULCH AND SOIL COUNCIL (MSC). SUBMIT PROOF OF CERTIFICATION TO THE FDOT DISTRICT OPERATIONS PERMIT LANDSCAPE INSPECTOR UPON INSPECTION.

THE DESIGN SPEED FOR THIS PROJECT IS 45 MPH.

CONTRACTOR SHALL REPAIR ALL DAMAGE DONE TO THE FDOT PROPERTY DURING DEMOLITION, RELOCATION &/OR INSTALLATION ACTIVITIES AT HIS SOLE EXPENSE.

FOR THE PORTION OF LANDSCAPE PLANT MATERIAL THAT WILL BE INSTALLED WITHIN THE FDOT RIGHT OF WAY LANDSCAPE INSTALLATION SHALL COMPLY WITH CURRENT APPLICABLE FDOT MAINTENANCE SPECIFICATION 580. Online Reference: ssm5800000wd-722-l17992.pdf (windows.net)

FOR THE PORTION OF LANDSCAPE PLANT MATERIAL THAT WILL BE INSTALLED WITHIN THE FDOT RIGHT OF WAY REFER TO FDOT STANDARD PLANS INDEX 580-001 LANDSCAPE INSTALLATION. Online Reference: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/design/standardplans/2025/idx/580-001.pdf?sfvrsn=2d6fde85_1

SODDED AREAS WILL BE IN ACCORDANCE WITH STANDARD PLANS INDEX 570-010 AND STANDARD SPECIFICATIONS SECTIONS 162, 570, 981, 982, 983, 987 OF THE DEPARTMENT'S LATEST EDITION OF GOVERNING DESIGN STANDARDS AND STANDARD SPECIFICATIONS. ALL DISTURBED AREAS WILL BE SODDED WITHIN ONE (1) WEEK OF INSTALLATION OF SAID PERMITTED WORK.

Permit No. 2024-L-491-00013

WITKIN HULTS + PARTNERS
307 south 21st avenue hollywood, florida
phone 954 923 9681 facsimile 954 923 9689
www.witkindesign.com

Project:

GREYSTAR COCOMAR

COCONUT CREEK, FL

STATE ROAD 814 ROW LANDSCAPE PLAN: INDEX

Revisions:	Date:	By:
1) FDOT Comments	01.29.2025	AR

Seal:

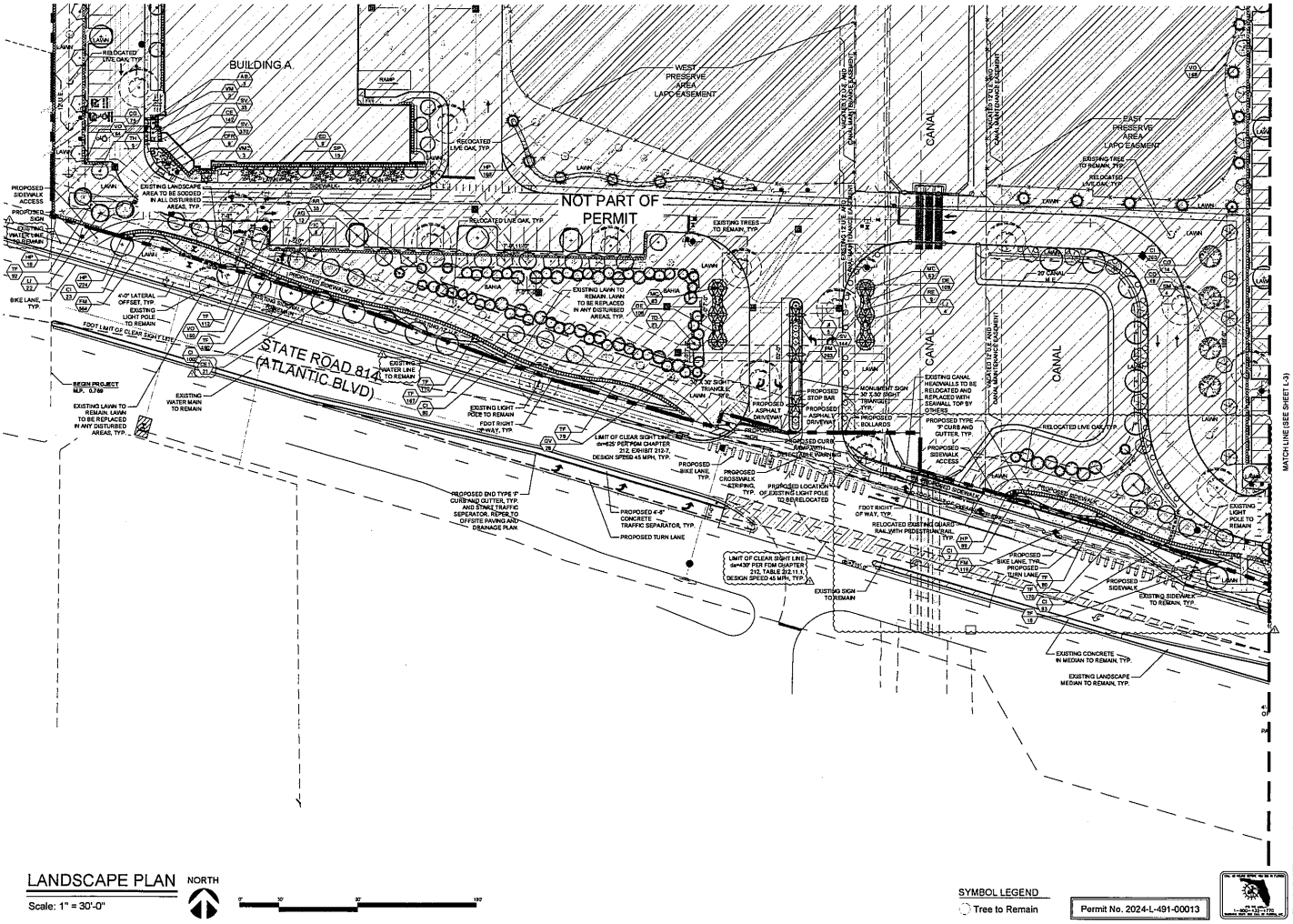
Lic. # LA0000869
Member A.S.L.A.

Drawing: ROW Landscape Plan: Index
Date: 06/07/2022
Scale: See Left
Drawn by: AM
Sheet No.:

L-1

Cad Id.: 2022-059

1-800-432-4770



LANDSCAPE PLAN

Scale: 1" = 30'-0"

NORTH

0' 15' 30' 60'

SYMBOL LEGEND

Tree to Remain

Permit No. 2024-L-491-00013

WITKIN HULTS + PARTNERS

GREYSTAR COCOMAR

COCONUT CREEK, FL

STATE ROAD 814 ROW LANDSCAPE PLAN

Project:

Revisions:

Revisions:	Date:	By:
1/3/23 Comments	6.28.2023	JK

Seal:

Lic. # LA0000589

Member: ASLA

Drawing: ROW Landscape Plan

Date: 06/13/2022

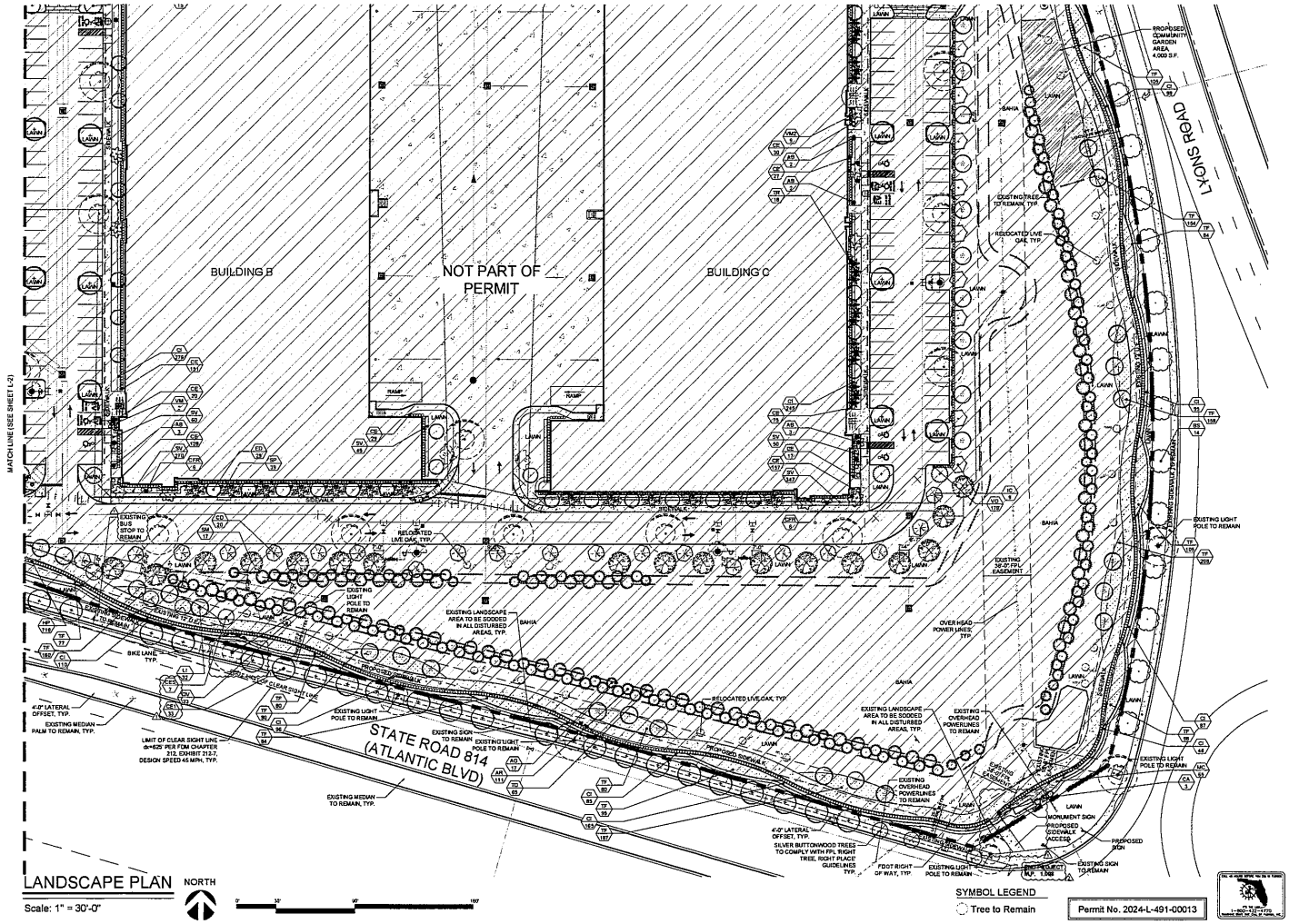
Scale: See L-#0

Drawn by: AM

Sheet No.:

L-2

Cad Id.: 2022-059



LANDSCAPE PLAN

Scale: 1" = 30'-0"

NORTH

0' 30' 90' 197'

SYMBOL LEGEND

Tree to Remain

Permit No. 2024-L-491-00013

WITKIN HULTS + PARTNERS

GREYSTAR COCOMAR

COCONUT CREEK, FL

STATE ROAD 814 ROW LANDSCAPE PLAN

Revisions:

Revisions:	Date:	By:
1 FDOT Comments	11.29.23	HK
2 FDOT Comments	06.13.24	HK

Seal:

Lic. # LA0000691

Drawing: ROW Landscape Plan

Date: 06/13/2022

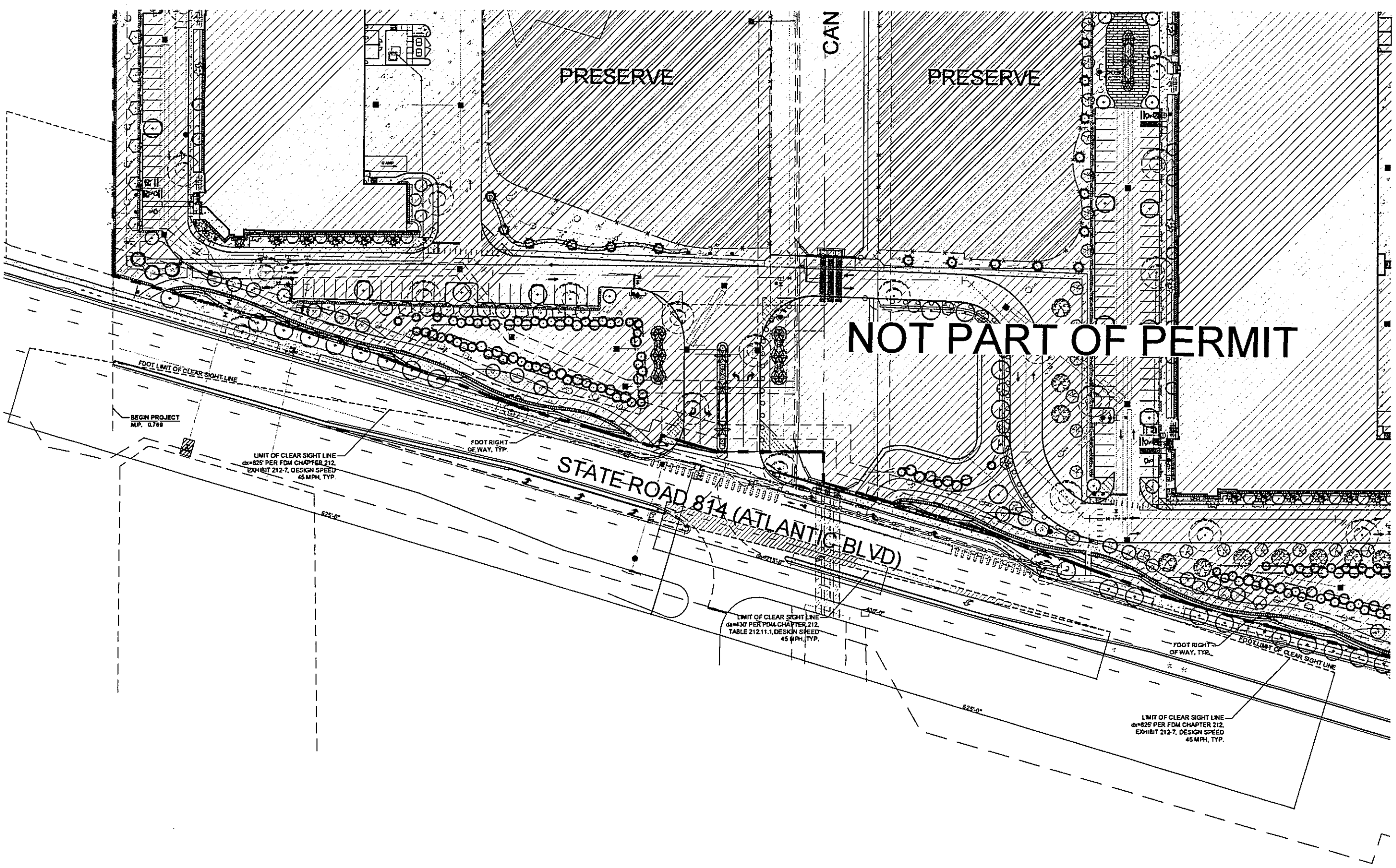
Scale: See Left

Drawn by: AM

Sheet No.:

L-3

Cad Id.: 2022-055



ROW LANDSCAPE EXHIBIT

Scale: 1" = 40'-0"

NORTH

SYMBOL LEGEND

Tree to Remain

Permit No. 2024-L-491-00013

WITKIN HULTS + PARTNERS
307 south 21st avenue hollywood, florida
phone 954 923 9681 facsimile 954 923 9689
www.witkindesign.com

Project:

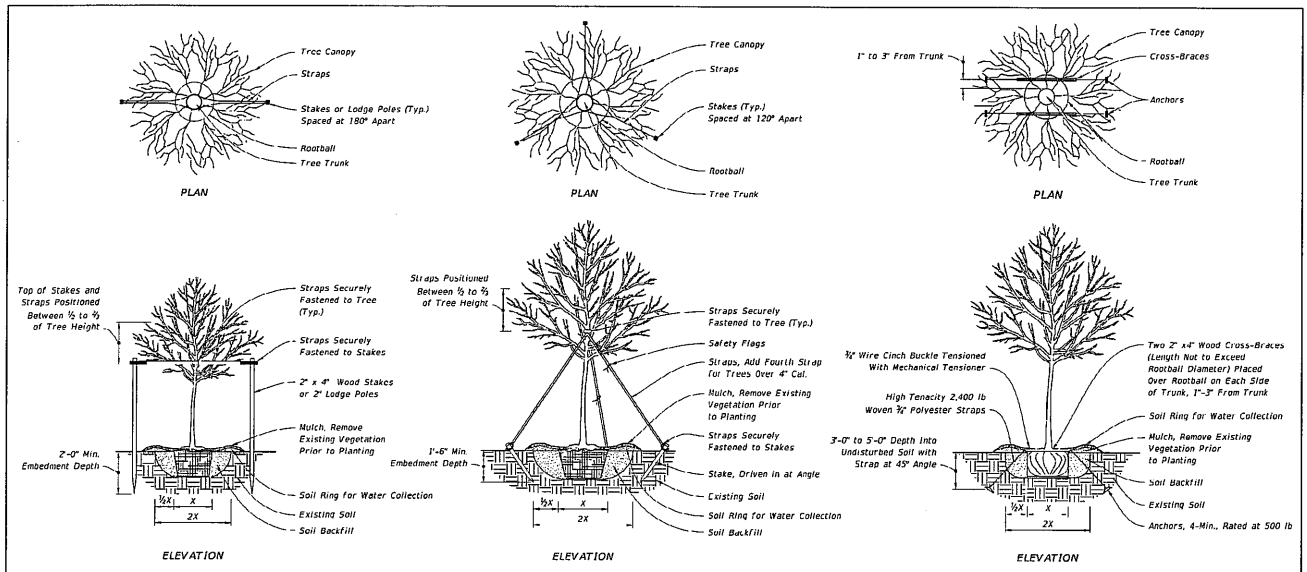
GREYSTAR COCOMAR
COCONUT CREEK, FL
STATE ROAD 814 ROW LANDSCAPE EXHIBIT

Revisions:	Date:	By:
1) FDOT Comments	01.29.2024	AR

Seal:

Lic. #LA0000689
Member A S L A

Drawing: ROW Landscape Exhibit
Date: 06/13/2022
Scale: See Left
Drawn by: AM
Sheet No.:
L-4
Cad Id.: 2022-059



UNDER 2½" CALIPER TREE PLANTING

2½" TO 6" CALIPER TREE PLANTING

UNDER 4" CALIPER TREE PLANTING WITH UNDERGROUND BRACING

GENERAL NOTES:

1. Staking guidelines are based on standard horticultural requirements and are provided for plant establishment purposes only. Details not intended to apply when bracing is intended to address safety considerations. When bracing for safety, refer to Designer generated signed and sealed details. These guidelines are not intended to apply when the tree or palm is within falling distance of a roadway, pedestrian or bicycle route, under extreme wind loads, non-standard soil properties, non-standard plant dimensions, or when rootball is anticipated to be greater than 4 feet diameter and planted on 1:3 slope or steeper.
2. All dimensions 6" and less are exaggerated for illustrative purposes only. Dimensions shown for wood materials are nominal. Slopes shown are Vertical:Horizontal.
3. Remove plant containers prior to planting. Remove a minimum of the top 1/3 of burlap, fabric, or wire mesh for plants not grown in containers.
4. Allow no more than 1" of soil to cover the uppermost root on all trees. Set the top of rootball 1"-2" above finish grade after settling and set plumb to the horizon.
5. Backfill with loosened existing soil or as shown in the plans. Remove rocks, sticks, or other deleterious material greater than 1" in any direction prior to backfilling. Water and tamp to remove air pockets. Contact the engineer prior to planting if existing soils contain excessive sand, clay, or other material not conducive to proper plant growth.
6. Construct soil rings at the outer edge of the planting pit with a height of 3" and gently sloping sides unless a permanent, subsurface or drip irrigation system is provided. Do not pile soil on top of rootball.
7. Construct a 3" deep layer of mulch placed 2" off the edge of the trunk flare, around the base of shrub, or solidly around ground cover. Never pile mulch against the tree trunk.
8. Install guying with minimum 1" wide nylon or polypropylene straps with a minimum 600 lb. break strength. Check straps monthly and adjust as required to eliminate girdling of tree. Locate all wood stakes beyond the edge of soil ring in existing soil and embed a minimum of 18" below finished grade unless otherwise specified. Alternate tree bracing and guying systems specified or approved by the Engineer may be used in lieu of the tree bracing and guying methods detailed on the Index.
9. Relocated Trees and Palms: Brace relocated trees and palms in accordance with the Contract Documents. Remove bracing at the conclusion of the contract or as directed by the Engineer. Bracing or straps must not damage or become embedded in the tree bark.
10. Use 2" x 2" minimum wood stakes unless otherwise shown in the Plans or directed by the Engineer. Use wood meeting #2 Common or better in accordance with the Standard Grading Rules for Southern Pine.
11. Drive stakes into existing, undisturbed soil. Localized compaction may be provided to prevent displacement of the stakes for previously disturbed existing soils that do not provide sufficient stability.

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2024-25 STANDARD PLANS	LANDSCAPE INSTALLATION	INDEX	SHEET
11/01/19						580-001	1 of 2

Permit No. 2024-L-491-00013

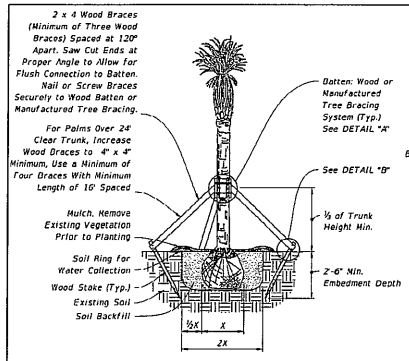
WITKIN HULTS + PARTNERS

GREYSTAR COCOMAR
COCONUT CREEK, FL
LANDSCAPE DETAILS

Revisions: Date: By:
3/30/22 (Comments) 6.9.2022 HH

Seal:
Lic. #LA0000882
Member ASLA

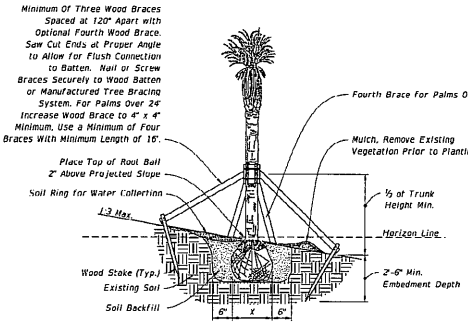
Drawing: Landscape Details
Date: 06/13/2022
Scale: NTS
Drawn by: AM
Sheet No.:
L-5
Cad Id.: 2022-059



ELEVATION

NOTE: May be used on large caliper canopy trees, adjust banding every 6 months or as needed (for fast growing species) to prevent girdling.

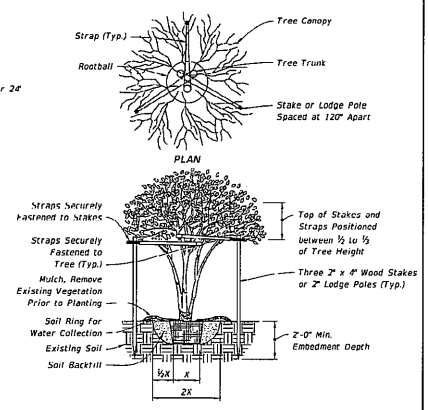
PALM PLANTING



ELEVATION

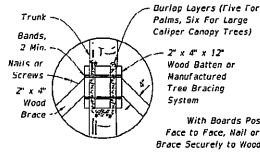
NOTE: May be used on large caliper canopy trees pending slope and rootball width, adjust banding every 6 months or as needed (for fast growing species) to prevent girdling.

PALM PLANTING ON SLOPE



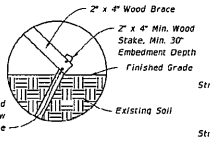
ELEVATION

MAX 10' HT. MULTI-TRUNK TREE PLANTING



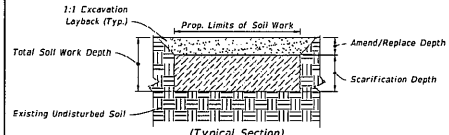
NOTE: Install bands and couplings that are rated a min. 900 lb. tensile strength, and are corrosion and UV resistant.

DETAIL "A"



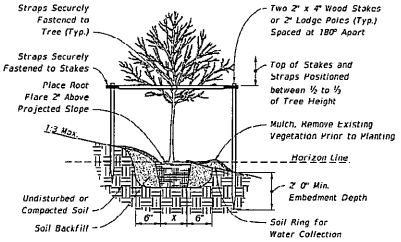
NOTE: Stake Into Firm, Existing Soil.

DETAIL "B"



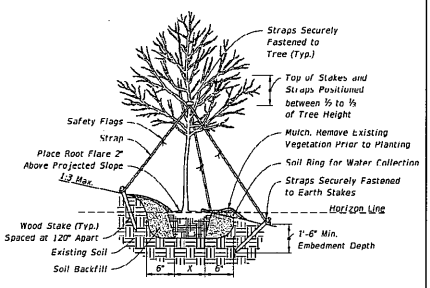
(Typical Section)

LANDSCAPE SOIL WORK



ELEVATION

UNDER 2½" CALIPER TREE PLANTING ON SLOPE



ELEVATION

2½" TO 6" CALIPER TREE PLANTING ON SLOPE

LAST REVISION 11/01/19	REVISION	DESCRIPTION:	FDOT FY 2024-25 STANDARD PLANS	LANDSCAPE INSTALLATION	INDEX 580-001	SHEET 2 of 2

Permit No. 2024-L-491-00013

WITKIN HULTS + PARTNERS

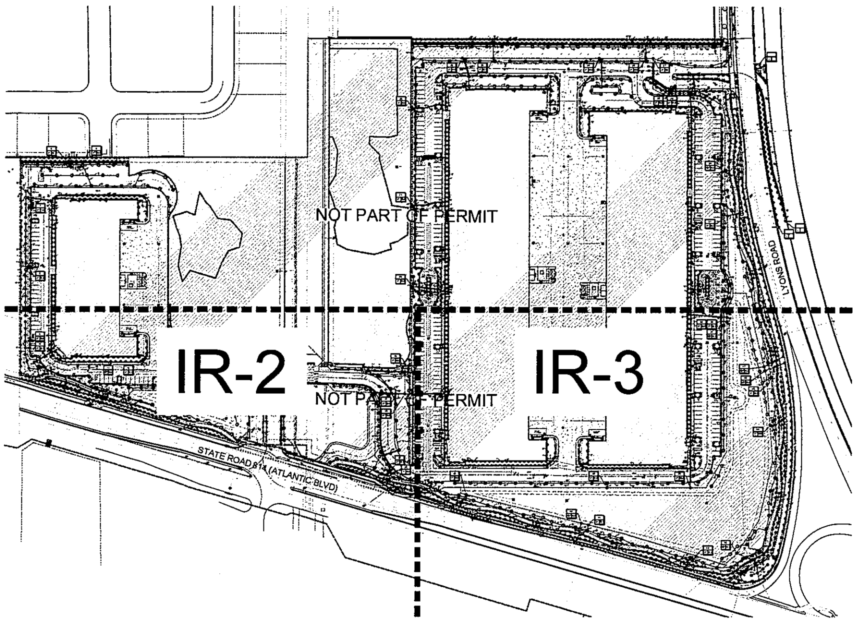
GREYSTAR COCOMAR
COCONUT CREEK, FL
LANDSCAPE DETAILS

Lic. #1249000687
Member ASLA

Drawing: Landscape Details
Date: 06/13/2022
Scale: NTS
Drawn by: AM
Sheet No.:

L-6

Cad No.: 2022-059



THE IRRIGATION SYSTEM SHALL USE THE LOWEST QUALITY WATER AVAILABLE WHICH ADEQUATELY AND SAFELY MEETS THE WATER NEEDS OF THE SYSTEM. STORM WATER, RECLAIM WATER, OR GREY WATER IRRIGATION SHALL BE USED WHENEVER POSSIBLE.

FDOT REQUIRES 24-HOUR EMERGENCY ACCESS TO THE WATER SOURCE.

THE CONTRACTOR SHALL PROVIDE FDOT DISTRICT OPERATIONS MANAGER WITH A SET OF "AS-BUILT" IRRIGATION PLANS.

KEY PLAN

Scale: 1" = 100'-0"

NORTH

0' 100' 300' 600'

SHEET INDEX:

Permit No. 2024-L-491-00013

CALL 48 HOURS BEFORE YOU DIG IN FLORIDA
IT'S THE LAW
1-800-432-4770

WITKIN HULTS + PARTNERS
307 south 21st avenue hollywood, florida
phone 954 923 9681 facsimile 954 923 9689
www.witkindesign.com

Project:

GREYSTAR COCOMAR

COCONUT CREEK, FL

STATE ROAD 814 ROW IRRIGATION PLAN: INDEX

Revisions:	Date:	By:

Seal:

Lic. # LA0000889
Member A S L A

Drawing: ROW Irrigation Plan: Index

Date: 09/27/2024

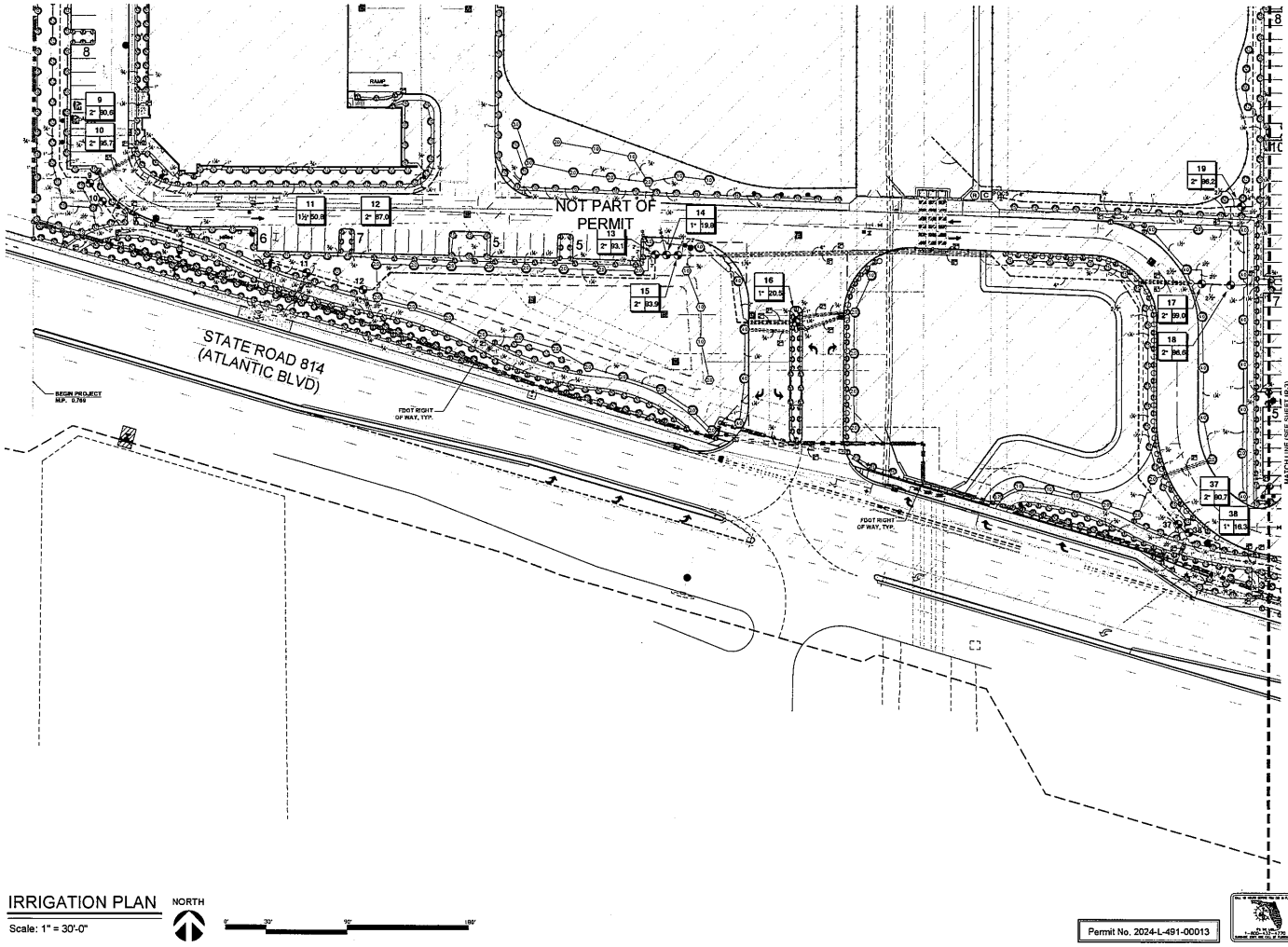
Scale: See Left

Drawn by: AM,JC

Sheet No.:

IR-1

Cad Id.: 2022-059



IRRIGATION PLAN

Scale: 1" = 30'-0"

NORTH

0' 30' 90' 180'

Permit No. 2024-L-491-00013

WITKIN HULTS + PARTNERS

GREYSTAR COCOMAR

COCONUT CREEK, FL

STATE ROAD 814 ROW IRRIGATION PLAN

Project:

Revisions: Date: By:

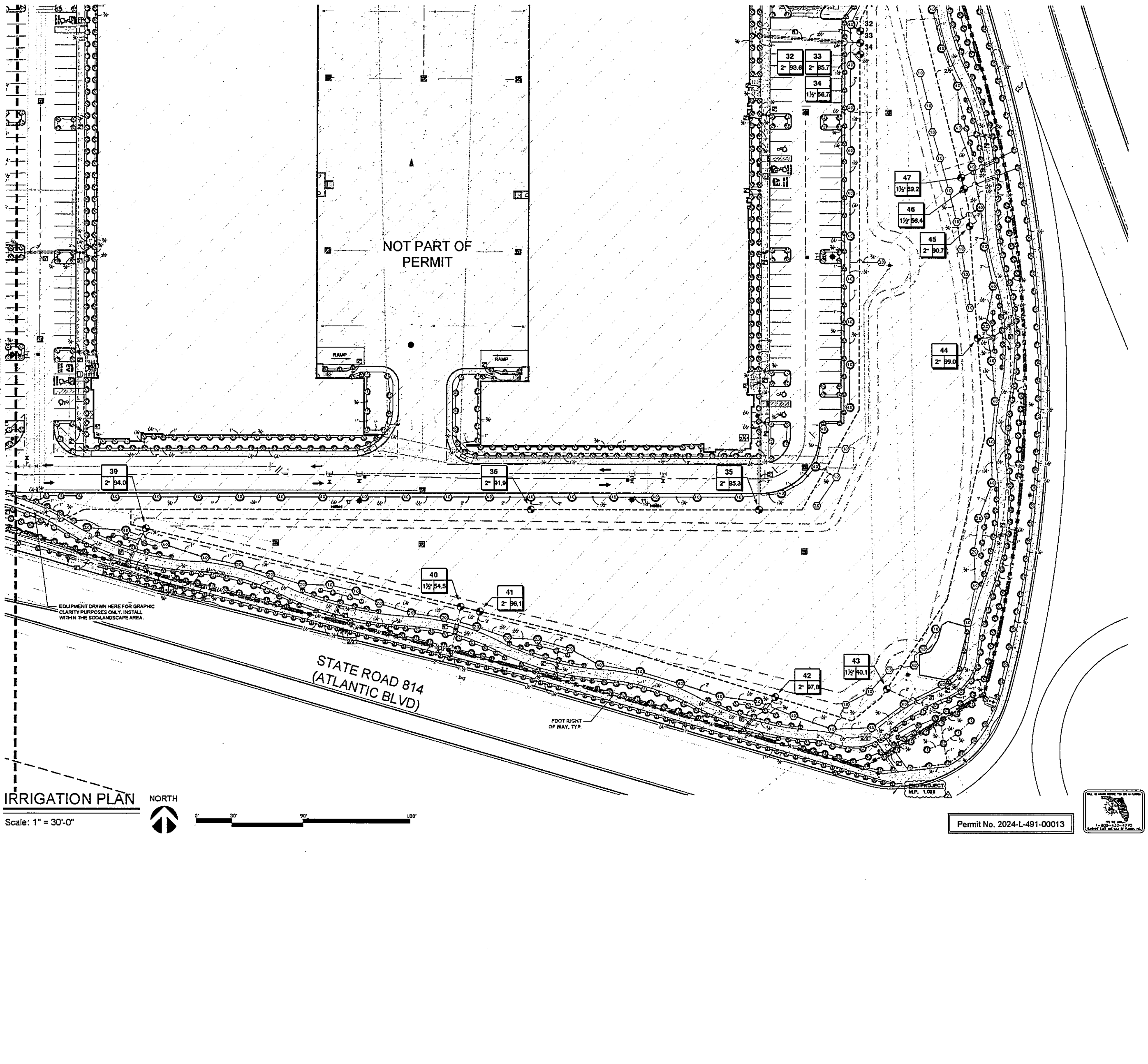
Seal:

Lic. # LA0000885
Member A.S.L.A.

Drawing: ROW Irrigation Plan
Date: 05/27/2024
Scale: See Left
Drawn by: AM,JC
Sheet No.:

IR-2

Cert Id.: 2022-059



IRRIGATION PLAN

Scale: 1" = 30'-0"

NORTH

Permit No. 2024-L-491-00013

WITKIN HULTS + PARTNERS

Project:

GREYSTAR COCOMAR

COCONUT CREEK, FL

STATE ROAD 814 ROW IRRIGATION PLAN

Revisions:	Date:	By:
FDOT Comments	08.28.2024	AR

Seal:

Lic. # LA0000889
Member A S L A

Drawing: ROW Irrigation Plan

Date: 09/27/2024

Scale: See Left

Drawn by: AM,JC

Sheet No.: IR-3

Cad Id.: 2022-059

Irrigation Notes

LAYOUT

LAYOUT IRRIGATION SYSTEM MAINLINES AND LATERAL LINES. MAKE ALL NECESSARY ADJUSTMENTS AS REQUIRED TO TAKE INTO ACCOUNT ALL SITE OBSTRUCTIONS AND LIMITATIONS PRIOR TO EXCAVATING TRENCHES.

FLAG ALL SPRINKLER HEAD LOCATIONS. ADJUST LOCATION AND MAKE THE NECESSARY MODIFICATIONS TO NOZZLE TYPES ETC. AS REQUIRED TO INSURE 100% COVERAGE AND 50% OVERLAP.

LOW ANGLE TRAJECTORY NOZZLES SHALL BE USED WHEN ALL SPRINKLERS AND ROTORS ARE LOCATED WITHIN 100' OF POOLS OR PUBLIC GATHERING AREAS.

PIPE

PIPE LOCATIONS SHOWN ON PLAN ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED IN THE FIELD. WHEN LAYING-OUT MAINS AND LATERALS, LOCATE PIPE NEAR EDGES OF PAVEMENT OR AGAINST BUILDINGS WHEREVER POSSIBLE TO ALLOW SPACE FOR PLANT ROOT BALLS.

PIPING UNDER HARDSCAPES SUCH AS ROADS, WALKS, AND PATIOS ARE TO BE SLEEVED USING SCH. 40 PIPE.

PIPES 4" AND UNDER TO BE SOLVENT WELD. LARGER PIPES TO BE GASKETED 'O' RING PIPES AND USE THRUST BLOCKS OR MEGA LUGS AND DUCTILE IRON FITTINGS AT TURNING LOCATIONS.

*SIZE ALL PIPE SO NOT TO EXCEED 5' PER SECOND
*INSTALL RAIN SENSOR AS PER LOCAL CODE

PIPES CONVEYING RECLAIM WATER SHALL HAVE A 3' HORIZONTAL DISTANCE SEPARATION FROM OTHER PIPING OR UTILITY SERVICES. AN 18" VERTICAL SEPARATION SHALL BE MAINTAINED WHEN APPLICABLE.

AIR RELEASE VALVES TO BE USED AT THE END OF ALL MAINLINE RUNS.

WIRES

WIRES (OVER ALL MAIN)
MAXI-WIRE (14 GAUGE) TO BE INSTALLED ALONG MAINLINE INSTALLATION. USE 2" SCH. 40 PVC WITH SWEEP ELBOWS AT TURNING LOCATIONS WHEN SLEEVING IS REQUIRED. ALL SPLICES AND DECODERS SHALL BE ENCLOSED WITHIN A VALVE/SPLICE BOX. 3M DIRECT BURY DBY-6 WATERPROOF CONNECTIONS SHALL BE USED AT ALL DECODER CONNECTIONS (ENCAPSULATION).

WIRE RUNS SHALL NOT EXCEED 2.4 MILES (STAR) OR 9.6 MILES (LOOP).

A SINGLE FIELD DECODER SHOULD BE USED TO OPERATE A SINGLE SOLENOID/VALVE.

ALL IRRIGATION CONTROLLERS/DECODERS TO BE PROPERLY INSTALLED AND GROUNDED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS. INSTALL SURGE PROTECTION ALONG 2 WIRE-SYSTEM PER MANUFACTURER'S RECOMMENDATION. (APPROXIMATELY EVERY 500 FEET)

TRACER WIRE (12 GUAGE) TO BE INSTALLED ALONG MAINLINE INSTALLATION. ADDITIONAL TRACER WIRE WILL BE REQUIRED WHEN DECODER DISTANCE FROM MAINLINE EXCEEEDS 5'. TRACER WIRE IS FOR LACATION PURPOSES ONLY.

FLUSHING

PRIOR TO PLACEMENT OF HEADS FLUSH ALL LINES UNTIL LINES ARE COMPLETELY CLEAN OF DEBRIS.

TRENCHING

TRENCH BOTTOM TO BE UNIFORM AND FREE OF DEBRIS. NATIVE EXCAVATED MATERIAL USED TO BACKFILL TRENCH SHALL BE FREE FROM ROCKS OR STONES LARGER THAN 1" IN DIAMETER.

MISC.

PRESSURE TEST MAINLINE AS PER FLORIDA BUILDING CODE. INSTALL IRRIGATION SYSTEM AS PER LATEST EDITION OF THE FLORIDA BUILDING CODE, APPENDIX F., AND ALL PERTINENT LOCAL CODES.

SPRAY HEADS INSTALLED IN SHRUB AREAS TO BE 12 INCH POP-UPS OR INSTALLED ON RISERS.

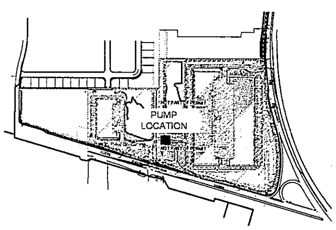
DESIGN

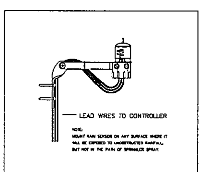
THIS DESIGN IS DIAGRAMMATIC. ALL IRRIGATION EQUIPMENT SUCH AS PIPES, VALVES, , ETC., SHOWN WITHIN PERVIOUS AREAS ARE FOR DESIGN CLARIFICATION ONLY. THE IRRIGATION CONTRACTOR SHALL INSTALL IRRIGATION EQUIPMENT IN PLANTING AREAS WHEREVER POSSIBLE.

THE IRRIGATION CONTRACTOR IS RESPONSIBLE TO FAMILIARIZE741 THEMSELVES WITH THE SCOPE OF WORK, INCLUDING BUT NOT LIMITED TO GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, UTILITIES AND EXISTING IRRIGATION EQUIPMENT. THE IRRIGATION CONTRACTOR IS RESPONSIBLE SHALL REPAIR AND/OR REPLACE ANY DAMAGE CREATED BY THEIR WORK. THEY SHALL COORDINATE HIS WORK WITH OTHER CONTRACTOR OR MUNICIPAL AUTHORITIES FOR THE LOCATION AND INSTALLATION OF IRRIGATION EQUIPMENT UNDER ROADWAYS AND PAVING, SLEEVES THROUGH WALLS AND FLOORS, ETC.

INSTALL ALL IRRIGATION EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. SUBSTITUTIONS FOR IRRIGATION EQUIPMENT TO BE APPROVED BY THE IRRIGATION DESIGNER. EQUIPMENT CHANGES TO INCLUDE BUT NOT LIMITED TO PUMP, CONTROLLER, SPRAY HEADS, ROTORS, AND VALVES.

DO NOT INSTALL IRRIGATION EQUIPMENT AS SHOWN ON THE DRAWINGS WHEN FIELD CONDITIONS DIFFER. OBSTRUCTIONS OR DIFFERENCES TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR TO ASSUME FULL RESPONSIBILITY.





RAIN BIRD RAIN SENSOR

Permit No. 2024-L-491-00013

IRRIGATION BREAKDOWN

IRRIGATION SCHEDULE(ATLANTIC BLVD ROW SWALE)

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806 15 Strip Series Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	9	30
	Rain Bird 1806 8 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	115	30
	Rain Bird 1806 10 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	27	30
	Rain Bird 1806 12 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	4	30
	Rain Bird 1806 15 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	18	30
	Rain Bird 1806 8 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	3	30
	Rain Bird 1806 10 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	4	30
	Rain Bird 1806 12 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	5	30
	Rain Bird 1806 15 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	4	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Irrigation Lateral Line: PVC Class 160 SDR 26 3/4"	72.4 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4"	3,230 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1"	362.2 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/4"	245.9 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/2"	183.4 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 2"	16.0 lf
	Pipe Sleeve: PVC Class 200 SDR 21 2"	152.0 lf
	Pipe Sleeve: PVC Class 200 SDR 21 2 1/2"	3.1 lf
	Pipe Sleeve: PVC Class 200 SDR 21 4"	5.7 lf

IRRIGATION SCHEDULE(LYONS ROAD MEDIAN)

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806 8 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	8	30
	Rain Bird 1806 10 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	1	30
	Rain Bird 1806 12 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	34	30
	Rain Bird 1806 15 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	18	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
POC2	Point of Connection 3" Point of Connection to existing Irrigation along Atlantic Blvd. Contractor to Field Verify Connection.	1
POC3	Point of Connection 3" Point of Connection to existing Irrigation along Atlantic Blvd. Contractor to Field Verify Connection.	1
POC4	Point of Connection 3" Point of Connection to existing Irrigation along Atlantic Blvd. Contractor to Field Verify Connection.	1
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4"	269.8 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1"	121.5 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/4"	178.3 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/2"	124.8 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 2"	37.7 lf

Valve Callout: Valve Number, Valve Flow, Valve Size

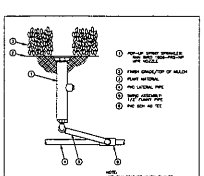
IRRIGATION SCHEDULE OVERALL

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	Rain Bird 1806 15 Strip Series Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	9	30
	Rain Bird 1806 8 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	128	30
	Rain Bird 1806 10 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	52	30
	Rain Bird 1806 12 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	39	30
	Rain Bird 1806 15 Series MPR Turf Spray 6.0in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet.	36	30
	Rain Bird 1806 SQ Series Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	3	30
	Rain Bird 1806 15 Strip Series Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	233	30
	Rain Bird 1806 8 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	290	30
	Rain Bird 1806 10 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	1,026	30
	Rain Bird 1806 12 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	319	30
	Rain Bird 1806 15 Series MPR Shrub Spray 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet.	387	30

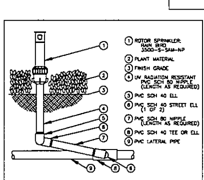
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
	Rain Bird 3504-PC 0.75 Turf Rotor, 4" Pop-Up. Adjustable and Full Circle	3	55	0.65	19'
	Rain Bird 3504-PC 1.0 Turf Rotor, 4" Pop-Up. Adjustable and Full Circle	53	55	1.18	22'
	Rain Bird 3504-PC 2.0 Turf Rotor, 4" Pop-Up. Adjustable and Full Circle	75	55	2.15	28'
	Rain Bird 3504-PC 3.0 Turf Rotor, 4" Pop-Up. Adjustable and Full Circle	10	55	3.25	32'
	Rain Bird 3504-PC 4.0 Turf Rotor, 4" Pop-Up. Adjustable and Full Circle	144	55	4.6	35'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PEB 1" 1in., 1-1/2in., 2in., 3in. Plastic Industrial Remote Control Valve. Low Flow Operating Capability, Globe Configuration.	3
	Rain Bird PEB 1-1/2" 1in., 1-1/2in., 2in., 3in. Plastic Industrial Remote Control Valve. Low Flow Operating Capability, Globe Configuration.	7
	Rain Bird PEB 2" 1in., 1-1/2in., 2in., 3in. Plastic Industrial Remote Control Valve. Low Flow Operating Capability, Globe Configuration.	33
C	Rain Bird ESP-LXD 50 Station, 2-Wire Decoder based Controller. (1) ESP-LXD 50-Station, Indoor/Outdoor, Plastic Wall-Mount Enclosure. System Requirements: Rain Bird FD-XXX-TURF Field Decoders, Paige Electric Cable P7072D & Rain Bird WC20 Dry Splices ONLY. Ground System w/ (X) LSP-1TURF Line Surge Protectors in Rain Bird Round Valve Boxes. Install Per Manufacturers Recommendations.	1
R	Rain Bird RSD-BEx Rain Sensor, with metal latching bracket, extension wire.	1
POC2	Point of Connection 3" Point of Connection to existing Irrigation along Atlantic Blvd. Contractor to Field Verify Connection.	1
POC3	Point of Connection 3" Point of Connection to existing Irrigation along Atlantic Blvd. Contractor to Field Verify Connection.	1
POC4	Point of Connection 3" Point of Connection to existing Irrigation along Atlantic Blvd. Contractor to Field Verify Connection.	1
POC5	Point of Connection 4" 10 HP IRRIGATION CRAFT PUMP with SUCTION LINE	1
	Irrigation Lateral Line: PVC Class 160 SDR 26 3/4"	19,510 lf
	Irrigation Lateral Line: PVC Class 160 SDR 26 1"	4,644 lf
	Irrigation Lateral Line: PVC Class 160 SDR 26 1 1/4"	4,346 lf
	Irrigation Lateral Line: PVC Class 160 SDR 26 1 1/2"	2,394 lf
	Irrigation Lateral Line: PVC Class 160 SDR 26 2"	2,380 lf
	Irrigation Lateral Line: PVC Class 160 SDR 26 2 1/2"	1,267 lf
	Irrigation Lateral Line: PVC Class 160 SDR 26 3"	577.7 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 3/4"	3,500 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1"	504.0 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/4"	424.2 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 1 1/2"	308.2 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 2"	130.9 lf
	Irrigation Lateral Line: PVC Class 200 SDR 21 2 1/2"	42.3 lf
	Irrigation Mainline: PVC Schedule 40 1 1/4"	96.0 lf
	Irrigation Mainline: PVC Schedule 40 2 1/2"	4,835 lf
	Irrigation Mainline: PVC Schedule 40 3"	19.8 lf
	Irrigation Mainline: PVC Schedule 40 4"	1,534 lf
	Pipe Sleeve: PVC Class 200 SDR 21 2"	161.6 lf
	Pipe Sleeve: PVC Class 200 SDR 21 2 1/2"	9.1 lf
	Pipe Sleeve: PVC Class 200 SDR 21 3"	22.2 lf
	Pipe Sleeve: PVC Class 200 SDR 21 4"	15.7 lf
	Pipe Sleeve: PVC Schedule 40	19.7 lf
	Pipe Sleeve: PVC Schedule 40 2"	1,026 lf
	Pipe Sleeve: PVC Schedule 40 2 1/2"	63.4 lf
	Pipe Sleeve: PVC Schedule 40 3"	150.4 lf
	Pipe Sleeve: PVC Schedule 40 4"	300.3 lf
	Pipe Sleeve: PVC Schedule 40 5"	171.7 lf
	Pipe Sleeve: PVC Schedule 40 6"	206.6 lf

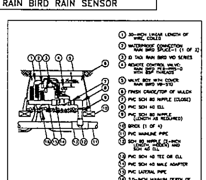
Valve Callout: Valve Number, Valve Flow, Valve Size



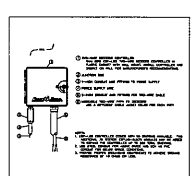
RAIN BIRD 1800 SERIES SPRINKLER



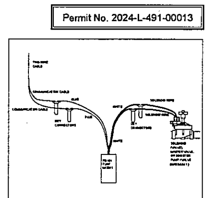
RAIN BIRD 3500 SERIES ROTOR



RAIN BIRD PEB VALVE



RAIN BIRD ESP-LXD TWO-WIRE CONTROLLER



FD-101 TURF DECODER WIRING DIAGRAM

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Project:
GREYSTAR COCOMAR
COCONUT CREEK, FL
IRRIGATION DETAILS AND SCHEDULE

Revisions:	Date:	By:

Seal:
Lic. # LA0000889
Member A S L A

Drawing: Irrigation Details
Date: 01/08/2024
Scale: NOT TO SCALE
Drawn by: AM,JC
Sheet No.: IR-4
Cad Id.: 2022-059