

1 TREE PROTECTION DETAIL
ELEVATION
SCALE: N.T.S.

TREE PROTECTION NOTES

- TREE SURVEY BASED ON ALL AVAILABLE INFORMATION. CONTRACTOR TO REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTION.
- TREES SHALL BE PROTECTED DURING CONSTRUCTION ACTIVITY THROUGH THE USE OF PROTECTIVE BARRIERS (SEE PROVIDED DETAIL). TREES THAT ARE TO REMAIN SHALL BE CLEARLY IDENTIFIED WITH TAGS. TREE PROTECTION BARRIERS SHALL BE MAINTAINED AROUND THE TREES IN ACCORDANCE WITH THE TREE PROTECTION PLAN APPROVED BY THE DEPARTMENT.
- PRIOR TO AND DURING DEMOLITION, DEVELOPMENT, OR CONSTRUCTION, PROTECTIVE BARRIERS SHALL BE PLACED AROUND THE PERIMETER OF EACH TREE'S TPZ AND SHALL REMAIN IN PLACE IN ORDER TO PREVENT THE DESTRUCTION OR DAMAGING OF ROOTS, STEMS OR CROWNS OF SUCH TREES. THE BARRIERS SHALL REMAIN IN PLACE AND INTACT UNTIL APPROVED LANDSCAPE OPERATIONS BEGIN.
- BARRIERS MAY BE REMOVED TEMPORARILY TO ACCOMMODATE CONSTRUCTION NEEDS, PROVIDED THAT THE MANNER AND PURPOSE FOR SUCH TEMPORARY REMOVAL WILL NOT HARM THE TREES.
- THE TREES SHALL BE PROPERLY IRRIGATED THROUGHOUT THE BUILDING PROCESS.
- NO PRUNING OF TREES SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
- CONTRACTOR SHALL VERIFY ALL EXISTING ABOVE AND UNDERGROUND UTILITIES 48 HOURS PRIOR TO ANY ON-SITE EXCAVATION.
- CONTRACTOR TO COORDINATE DEMOLITION PLAN WITH ARCHITECTS
- ANY PLANT MATERIAL SCARRED OR DESTROYED THAT IS DESIGNATED TO REMAIN MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH SIMILAR SPECIES AND QUALITY.

TREE DISPOSITION

Tree Number	Botanical Name	Common Name	DBH (Inches)	Height (FT)	Canopy (FT)	Condition ≥ 50%	Disposition	Mitigation Required
3	Quercus virginiana	Live Oak	16"	20'	20'	60.0%	Remove	16
4	Clusia rosea	Autograph Tree	4"	15'	10'	60.0%	Remove	4
5	Clusia rosea	Autograph Tree	8"	20'	12'	60.0%	Remain	-
6	Quercus virginiana	Live Oak	18"	25'	25'	65%	Remove	18
7	Clusia rosea	Autograph Tree	8"	20'	20'	70.0%	Relocate	-
8	Quercus virginiana	Live Oak	15"	20'	20'	55%	Remove	15
12	Quercus virginiana	Live Oak	19"	35'	30'	70.0%	Remove	19
13	Quercus virginiana	Live Oak	15"	20'	20'	65%	Remove	15
16	Quercus virginiana	Live Oak	18"	30'	25'	55%	Remove	18
32	Quercus virginiana	Live Oak	16"	25'	20'	70.0%	Remove	16
35	Quercus virginiana	Live Oak	12"	20'	20'	55%	Remove	12
37	Quercus virginiana	Live Oak	22"	35'	40'	55%	Remove	22
39	Quercus virginiana	Live Oak	15"	20'	20'	80.0%	Remove	15
43	Quercus virginiana	Live Oak	16"	20'	20'	65%	Remove	16
44	Quercus virginiana	Live Oak	18"	30'	25'	55%	Remove	18

Total Mitigation DBH - 204"

Palm Number	Botanical Name	Common Name	DBH (Inches)	Clear Trunk (FT)	Canopy (FT)	Condition ≥ 50%	Disposition	Mitigation Required
1	Cocos nucifera	Coconut Palm	10"	22'	15'	85%	Remove	22
2	Cocos nucifera	Coconut Palm	10"	24'	15'	85%	Remove	24
10	Cocos nucifera	Coconut Palm	7"	25'	15'	80.0%	Remove	25
11	Cocos nucifera	Coconut Palm	7"	16'	15'	80.0%	Remove	16
14	Cocos nucifera	Coconut Palm	10"	28'	15'	80.0%	Remove	28
15	Cocos nucifera	Coconut Palm	10"	20'	15'	75%	Remove	20
17	Sabal palmetto	Cabbage Palm	10"	18'	12'	90.0%	Remain	-
18	Sabal palmetto	Cabbage Palm	10"	15'	12'	90.0%	Remain	-
19	Sabal palmetto	Cabbage Palm	10"	20'	12'	90.0%	Remain	-
20	Sabal palmetto	Cabbage Palm	10"	10'	12'	90.0%	Remain	-
21	Sabal palmetto	Cabbage Palm	10"	16'	12'	90.0%	Remain	-
22	Sabal palmetto	Cabbage Palm	10"	12'	12'	90.0%	Remain	-
23	Sabal palmetto	Cabbage Palm	10"	18'	12'	90.0%	Remain	-
24	Sabal palmetto	Cabbage Palm	10"	13'	12'	90.0%	Remain	-
25	Sabal palmetto	Cabbage Palm	10"	22'	12'	90.0%	Remain	-
26	Sabal palmetto	Cabbage Palm	10"	12'	12'	90.0%	Remain	-
27	Sabal palmetto	Cabbage Palm	10"	16'	12'	90.0%	Remain	-
28	Sabal palmetto	Cabbage Palm	10"	12'	12'	90.0%	Remain	-
29	Sabal palmetto	Cabbage Palm	10"	14'	12'	90.0%	Remain	-
30	Sabal palmetto	Cabbage Palm	10"	23'	12'	90.0%	Remain	-
33	Veitchia merrillii	Christmas Palm	9"	8'	10'	90.0%	Relocate	-
34	Veitchia merrillii	Christmas Palm	9"	8'	10'	90.0%	Relocate	-
36	Sabal palmetto	Cabbage Palm	10"	10'	12'	90.0%	Remove	10
38	Sabal palmetto	Cabbage Palm	10"	16'	12'	80.0%	Remove	16
40	Cocos nucifera	Coconut Palm	10"	22'	15'	70.0%	Remove	22
41	Cocos nucifera	Coconut Palm	10"	22'	15'	80.0%	Remove	22
42	Cocos nucifera	Coconut Palm	10"	30'	15'	80.0%	Remove	30
46	Archontophoenix alexandrae	King Palm	6"	15'	10'	80.0%	Remove	15
48	Archontophoenix alexandrae	King Palm	6"	16'	10'	75%	Remove	16
49	Archontophoenix alexandrae	King Palm	6"	15'	10'	75%	Remove	15
50	Archontophoenix alexandrae	King Palm	6"	20'	10'	60.0%	Remove	20
53	Archontophoenix alexandrae	King Palm	6"	16'	10'	60.0%	Remove	16
55	Ptychosperma elegans	Alexander Palm	4"	12'	10'	80.0%	Remove	12
56	Roystonea regia	Royal Palm	12"	33'	15'	90.0%	Remain	-
57	Roystonea regia	Royal Palm	12"	34'	15'	90.0%	Remain	-

Total Palm Mitigation: 320' HT

Tree Number	Botanical Name	Common Name	DBH (Inches)	Height (FT)	Canopy (FT)	Condition < 50%	Disposition	Mitigation Required
9	Quercus virginiana	Live Oak	12"	20'	20'	40.0%	Remove	50% In Lieu Fees
31	Quercus virginiana	Live Oak	12"	25'	20'	45%	Remove	50% In Lieu Fees
45	Quercus virginiana	Live Oak	14"	30'	30'	45%	Remove	50% In Lieu Fees

Total Mitigation DBH - 38"

Palm Number	Botanical Name	Common Name	DBH (Inches)	Height (FT)	Canopy (FT)	Condition < 50%	Disposition	Mitigation Required
47	Archontophoenix alexandrae	King Palm	0"	0'	0'	0%	Remove	
51	Ptychosperma elegans	Alexander Palm	0"	0'	0'	0%	Remove	
52	Archontophoenix alexandrae	King Palm	0"	0'	0'	0%	Remove	
54	Archontophoenix alexandrae	King Palm	6"	21'	10'	30.0%	Remove	3

Total Mitigation DBH - 3"

MITIGATION

Tree Replacement Calculations (Condition Rating ≥ 50% to be Removed)

New Trees	Caliper (CAL) Inches	Caliper Inches Provided On Site
5 Bulnesia arborea	Verswood	3
5 Bursera simaruba	Gumbo Limbo	6
8 Conocarpus erectus 'Sericeus'	Silver Buttonwood	3
1 Caesalpinia granadillo	Bridalveil Tree	1
3 Conocarpus erectus	Green Buttonwood	3
10 Eugenia foetida	Spanish Stopper	3
Total DBH of New Trees		111

Palm Replacement Calculations (Condition Rating > 50% to be Removed)

New Palms Provided	HT	HT Provided On Site
3	36	36
6 Ptychosperma elegans	Alexander Palm	16
8 Ptychosperma macarthurii	Macarthur Palm	16
5 Thrinax radiata	Florida Thatch	12
9 Thrinax radiata	Florida Thatch	7
3 Veitchia arecina Sng	Montgomery Palm	16
5 Veitchia arecina Dtl	Montgomery Palm	16
2 Roystonea regia	Royal Palm	20
Total HT New Palms		551

Tree Replacement Calculations (Condition Rating < 50% to be Removed)

Replacement by 50% In-Lieu Fees (See Below)

Palm Replacement Calculations (Condition Rating < 50% to be Removed)

Total New Palms Satisfies Mitigation Requirements

IN-LIEU FEES

Total DBH of Trees with Condition Rating ≥ 50% to be Removed

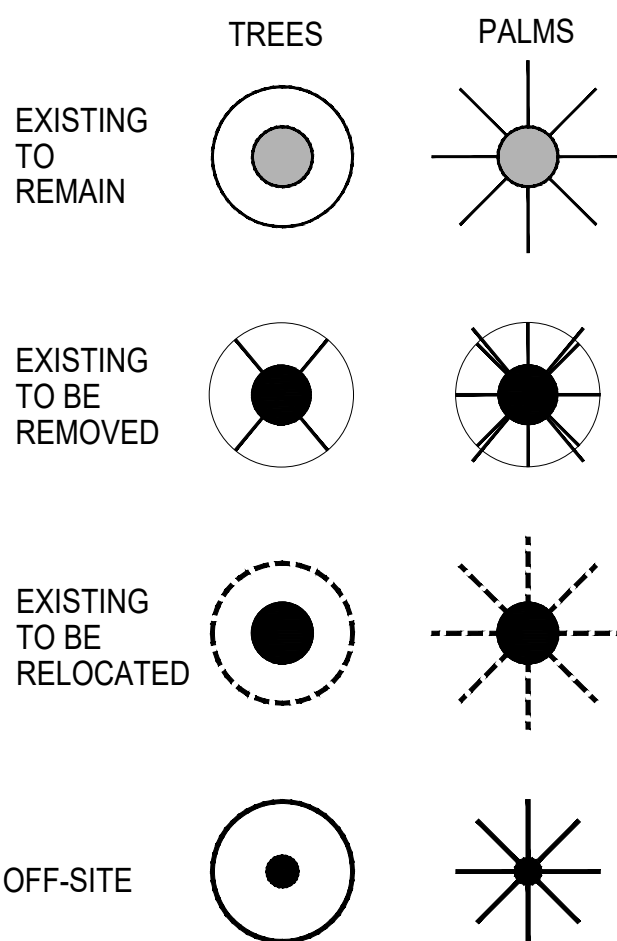
Total Inches	\$ / Inch	Mitigation Fees
93 inches	[(8" x \$450) + (4" x \$650) + (6" x \$850) + (75" x \$1000)]	\$ 86,300.00

Total DBH of Trees with Condition Rating < 50% to be Removed

Total Inches	\$ / Inch	Mitigation Fees
24 inches	[(8" x \$225) + (4" x \$375) + (6" x \$425) + (6" x \$500)]	\$ 15,850.00

Total In-Lieu Fee \$ 102,150.00

PLANT SYMBOLS



REVISIONS:

06/13/24	CITY COMMENTS
07/03/25	CITY COMMENTS
08/19/25	CITY COMMENTS
10/27/25	CITY COMMENTS

No. Date Description

SEAL:

LANDSCAPE ARCHITECT: Christopher Cabezas

REGISTRATION NO. RLA 0667347

SHEET TITLE:

TREE DISPOSITION

Scale: 1" = 20'-0"

Drawn By: CC

Checked By: CC

Date: 06/12/2024

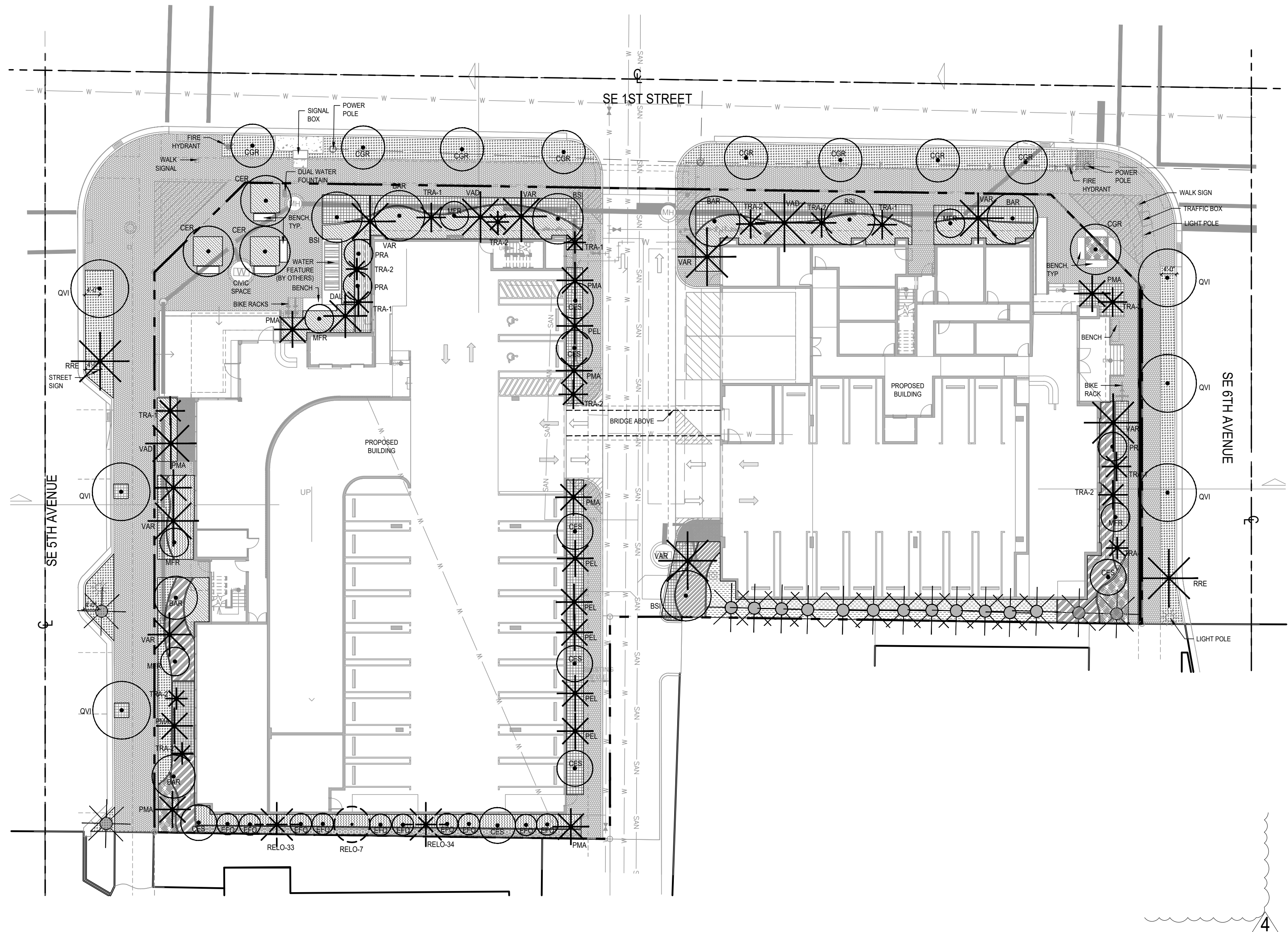
SHEET NUMBER:

L-1

PROJECT:
109 SE 5th AVENUE DELRAY BEACH, FL 33483

LANDSCAPE PERMIT DRAWINGS

CLIENT:
MULTI-FAMILY RESIDENTIAL BUILDING



GENERAL NOTES:

EXISTING NATIVE SOIL WITHIN ALL LANDSCAPE ISLANDS, INTERIOR LANDSCAPE STRIPS AND PERIMETER LANDSCAPE STRIPS, ADJACENT TO VEHICULAR USE AREAS, SHALL BE EXCAVATED DOWN TO A DEPTH OF 30 INCHES BELOW EXISTING GRADE, EXCEPT FOR A 12-INCH BUFFER FROM THE INSIDE OF CURB OR PAVEMENT. A PLANTING SOIL MIXTURE OF 50/50 OR 60/40, SHALL EITHER BE BACKFILLED IN PLACE OF THE NATIVE SOIL OR EFFICIENTLY MIXED WITH THE NATIVE SOIL TO CREATE AN ENVIRONMENT FOR SUCCESSFUL ROOT DEVELOPMENT. IF NATIVE SOIL IS TO BE MIXED, IT SHALL FIRST BE SCREENED TO REMOVE ROCKS AND DEBRIS LARGER THAN ONE-HALF INCH IN DIAMETER PRIOR TO MIXING. AN OPEN LANDSCAPE BED INSPECTION IS REQUIRED PRIOR TO BACKFILLING TO INSURE THE 30-INCH DEPTH HAS BEEN MET. (SEE DETAIL 6 ON L-3).

LANDSCAPE NODES. ALL TREES OR PALMS INSTALLED IN NODES WITHIN A RIGHT-OF-WAY SHALL MAINTAIN A FOUR FOOT OFFSET FROM THE FACE OF THE CURB. ALL SHRUBS AND GROUND COVERS SHALL BE MAINTAINED BELOW 36 INCHES IN HEIGHT. ALL TREE CANOPIES MUST BE MAINTAINED ABOVE EIGHT FEET IN HEIGHT. THE MATURE TRUNK DIAMETER OF ANY TREE OR PALMS SHALL NOT EXCEED 15 INCHES.

NOTE: ANY TREES OR SHRUBS PLACED WITHIN WATER, SEWER OR DRAINAGE EASEMENTS SHALL CONFORM TO THE CITY OF DELRAY BEACH STANDARD DETAILS; LD 1.0 & LD 2.0.

LANDSCAPE REQUIREMENTS		
AREA CALCULATIONS		
Lot Area	38,860 S.F. (.89 acres)	
Parking / Accessways Area	+/- 3,170 S.F.	
DESCRIPTION	Required/Allowed	Provided
Street Trees (30' o.c.) Total Frontage = 538 LF Sec. 4.6.16.H.(6)	18	18
Interior Landscape Area = 10% of Parking / Accessways Areas Sec. 4.6.16.H.(3)(g)	320 S.F.	945 S.F.
1 Trees Per 125 SF of Int. Landsp. (3 Palms = 1 Tree) Sec. 4.6.16.H.(3)(h)	3 Trees	38 Trees (31 Trees + 22 Palms)
Foundation Landscaping Sec. 4.4.13(E)(2)(a)(3)	Landscape Area	Landscape Provided
Landscape Barrier 1 Tree / 30 LF Sec. 4.6.16.H.(3)(d)	N/A	N/A
Native Trees	50.0%	75%
Native Shrubs	25%	71%

ROOT BARRIER
(SEE NOTES BELOW)

36" DEEP

4' MIN.

CITY FACILITIES
(MAINS, SERVICES,
ETC.)

NOTES:

1. ALL ROOT BARRIERS SHALL BE 4" MINIMUM FROM ALL CITY FACILITIES.
2. THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH CITY AND INSPECTED BY CITY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.
3. ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP ROOT" AND "ROOT SOLUTIONS". FLEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BISHAMBER.
4. ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

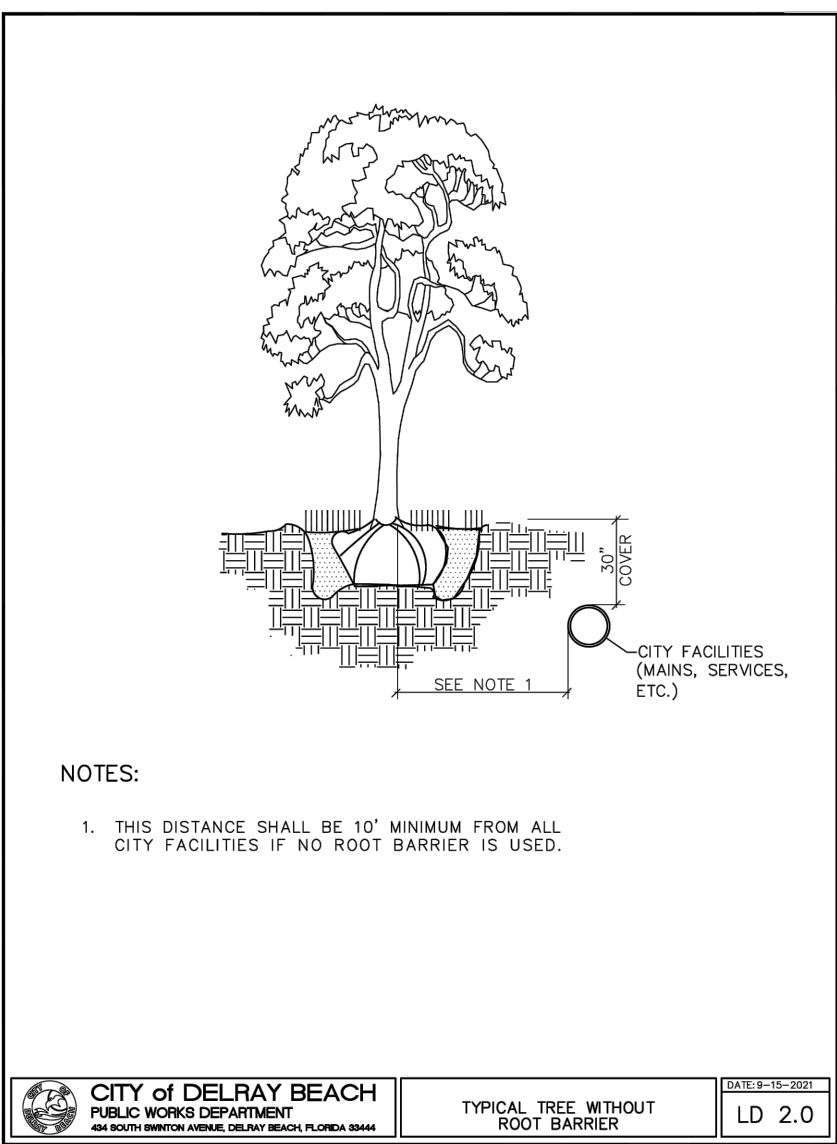
CITY OF DELRAY BEACH
PUBLIC WORKS DEPARTMENT
100 SOUTH DELRAY AVENUE, SUITE 200, DELRAY BEACH, FLORIDA 33483

**TYPICAL TREE WITH
ROOT BARRIER**

LD 1.0

ROOT BARRIER DETAIL

SCALE: N/A



TOP VIEW
scale 1":12

47.875" sq.

12.00" sq. Opening

1/4" -20 (4x) Pan Head STD-Bolt

CASTING-ID
scale 1":2

MDX48-48HP

ISO-VIEW
scale 1":18

SIDE VIEW
scale 1":12

0.250"

1.000" EDGE

NOTES:

1. Heelproof: No thru openings greater than 12".
2. Pieces per Set: 2
3. Due to casting inconsistencies, all dimensions are nominal.
4. Center Opening Options:
Cast at 12", Breakouts at 16", 20" & 24".
5. Pedestrian Load Only.

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IRON AGE DESIGNS
Telephone: 206-276-0935
www.ironagegrates.com

Material: Ductile Iron 65-45-12 or better
Finish: Raw
Weight: 221.13 lbs.
Edge: 1.000"

Product ID: MDX48-48891GHF

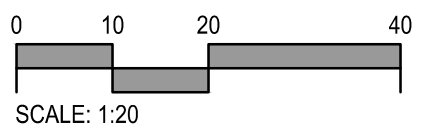
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Flow Rate: 363.14 GPM
Flow Rating: MS
Checked: MS Date: 5-17-21
D Registration: VA-2-246-545
Scale: NTS

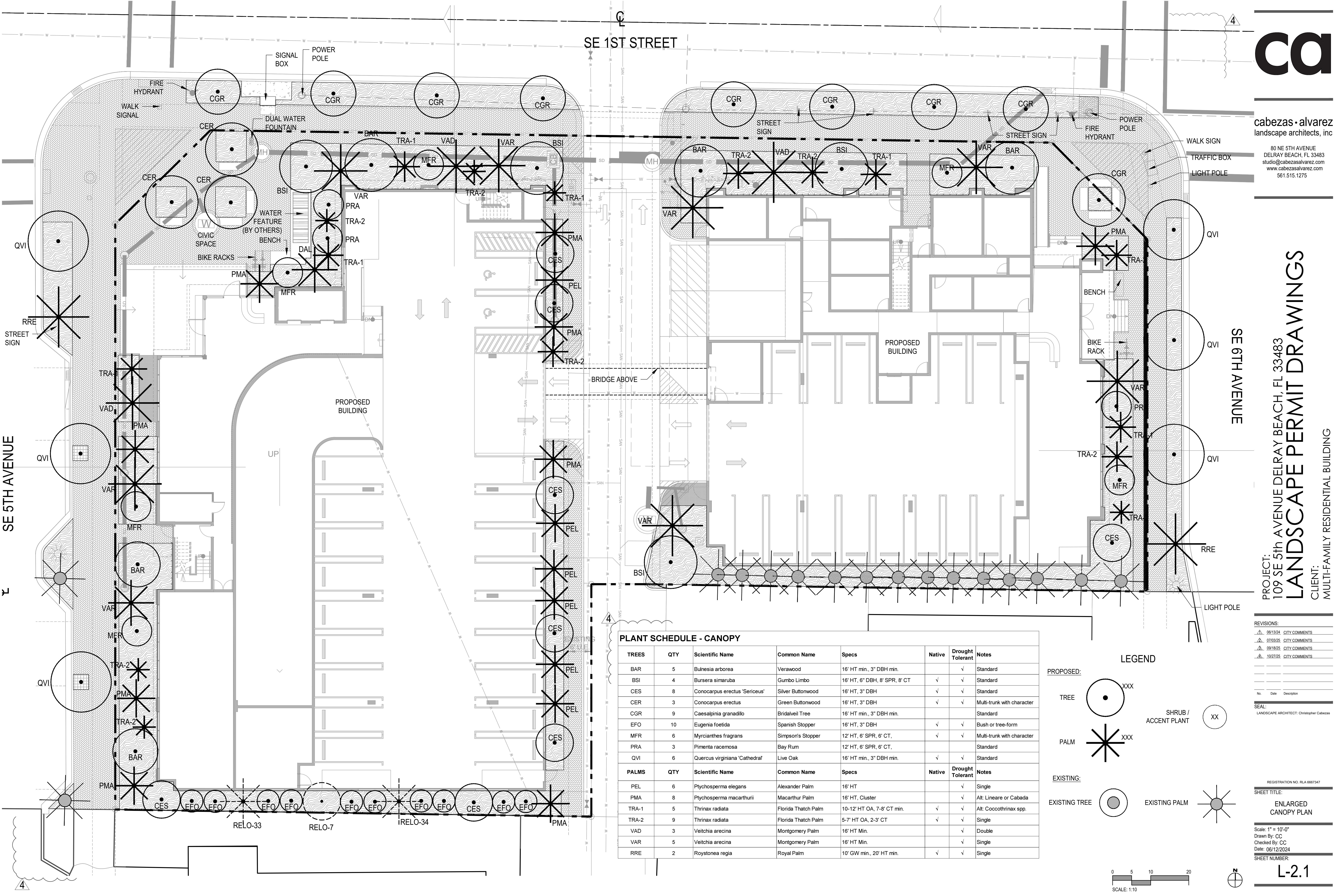
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Page 1

TREE GRATE DETAIL

SCALE: N/A





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PROJECT: 109 SE 5th AVENUE DELRAY BEACH, FL 33483
LANDSCAPE PERMIT DRAWINGS
CLIENT: MULTI-FAMILY RESIDENTIAL BUILDING

REVISIONS:		
06/13/24	CITY COMMENTS	
07/03/25	CITY COMMENTS	
08/18/25	CITY COMMENTS	
10/27/25	CITY COMMENTS	

No.	Date	Description

SEAL:
LANDSCAPE ARCHITECT: Christopher Cabezas

REGISTRATION NO. RLA 0067347

SHEET TITLE:
ENLARGED
CANOPY PLAN

Scale: 1" = 10'-0"
Drawn By: CC
Checked By: CC
Date: 06/12/2024
SHEET NUMBER:

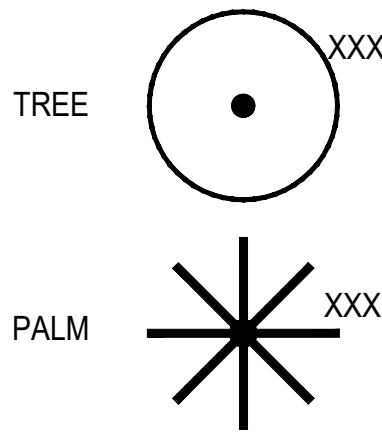
L-2.1

PLANT SCHEDULE - CANOPY

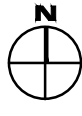
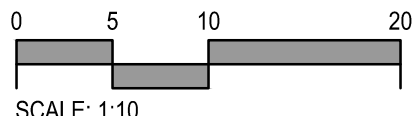
TREES	QTY	Scientific Name	Common Name	Specs	Native	Drought Tolerant	Notes
BAR	5	Bulnesia arborea	Verawood	16' HT min., 3" DBH min.		✓	Standard
BSI	4	Bursera simaruba	Gumbo Limbo	16' HT, 6" DBH, 8' SPR, 8' CT	✓	✓	Standard
CES	8	Conocarpus erectus 'Sericeus'	Silver Buttonwood	16' HT, 3" DBH	✓	✓	Standard
CER	3	Conocarpus erectus	Green Buttonwood	16' HT, 3" DBH	✓	✓	Multi-trunk with character
CGR	9	Caesalpinia granadillo	Bridalveil Tree	16' HT min., 3" DBH min.			Standard
EFO	10	Eugenia foetida	Spanish Stopper	16' HT, 3" DBH	✓	✓	Bush or tree-form
MFR	6	Myrcianthes fragrans	Simpson's Stopper	12' HT, 6' SPR, 6' CT,	✓	✓	Multi-trunk with character
PRA	3	Pimenta racemosa	Bay Rum	12' HT, 6' SPR, 6' CT,			Standard
QVI	6	Quercus virginiana 'Cathedral'	Live Oak	16' HT min., 3" DBH min.	✓	✓	Standard
PALMS	QTY	Scientific Name	Common Name	Specs	Native	Drought Tolerant	Notes
PEL	6	Ptychosperma elegans	Alexander Palm	16' HT		✓	Single
PMA	8	Ptychosperma macarthurii	Macarthur Palm	16' HT, Cluster		✓	Alt: Lineare or Cabada
TRA-1	5	Thrinax radiata	Florida Thatch Palm	10-12' HT OA, 7-8' CT min.	✓	✓	Alt: Coccothrinax spp.
TRA-2	9	Thrinax radiata	Florida Thatch Palm	5-7' HT OA, 2-3' CT	✓	✓	Single
VAD	3	Veitchia arecina	Montgomery Palm	16' HT Min.		✓	Double
VAR	5	Veitchia arecina	Montgomery Palm	16' HT Min.		✓	Single
RRE	2	Roystonea regia	Royal Palm	10' GW min., 20' HT min.	✓	✓	Single

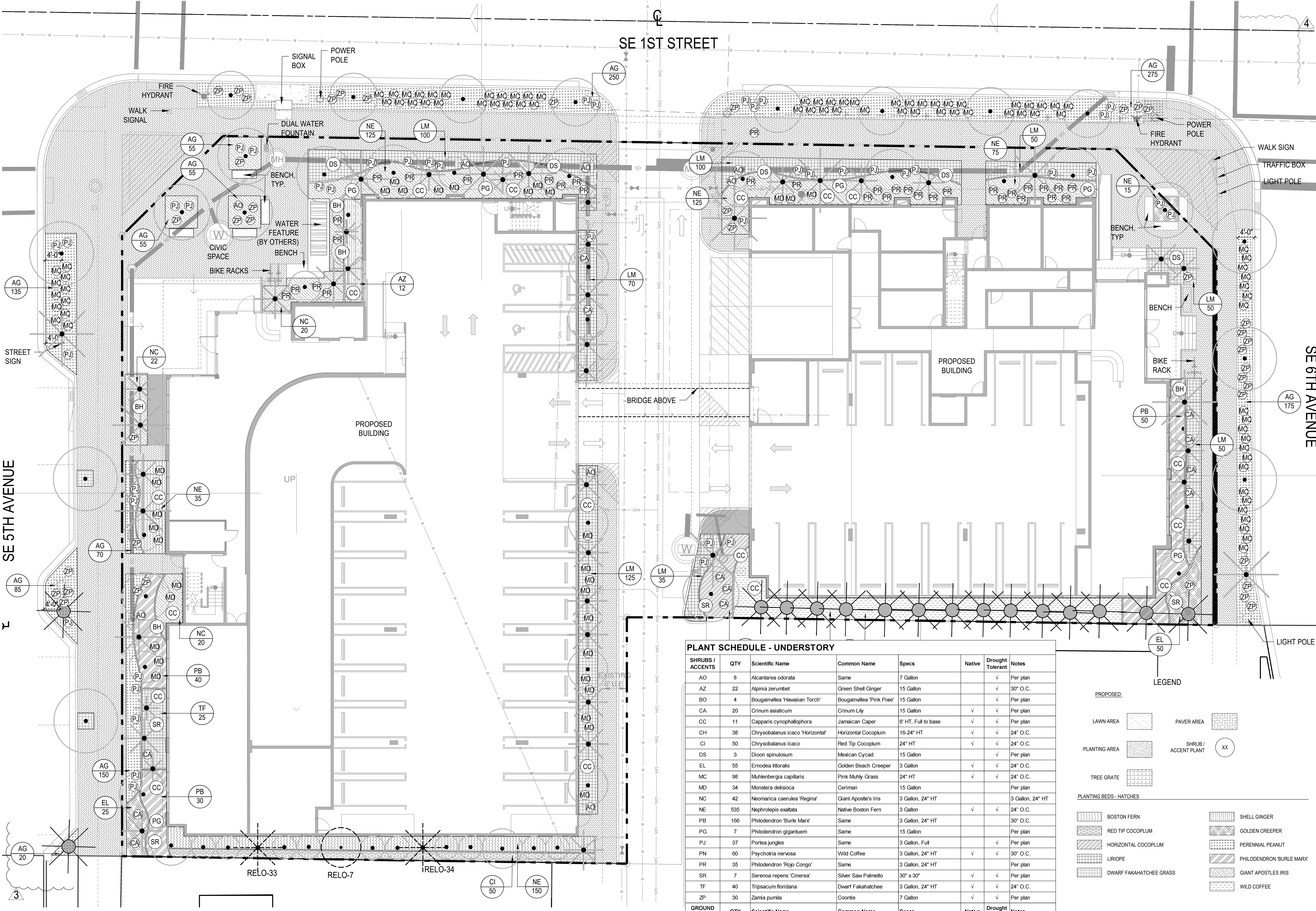
LEGEND

PROPOSED:



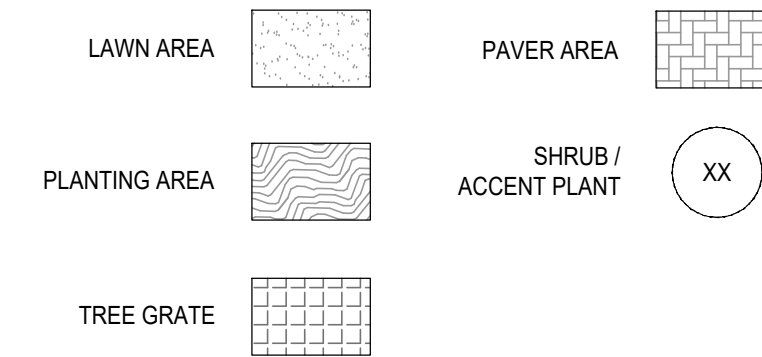
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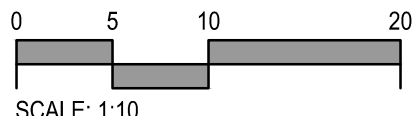
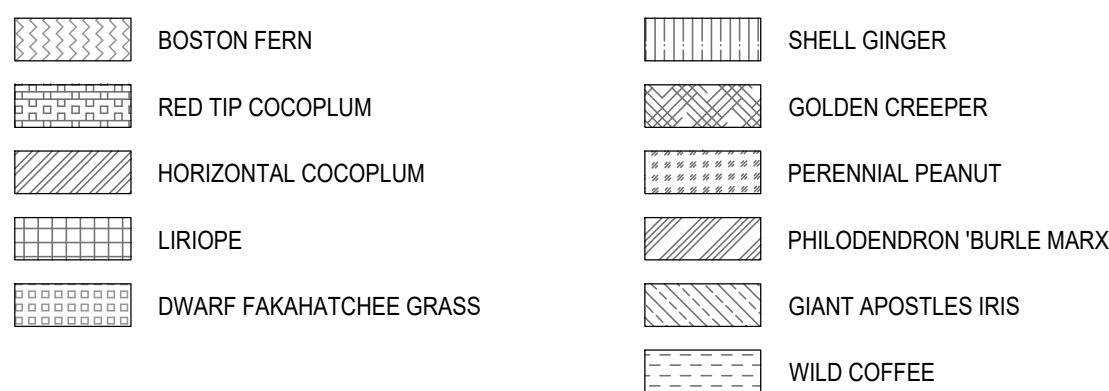


PLANT SCHEDULE - UNDERSTORY							
SHRUBS / ACCENTS	QTY	Scientific Name	Common Name	Specs	Native	Drought Tolerant	Notes
AO	8	Alcantarea odorata	Same	7 Gallon		✓	Per plan
AZ	22	Alpinia zerumbet	Green Shell Ginger	15 Gallon		✓	30" O.C.
BO	4	Bougainvillea 'Hawaiian Torch'	Bougainvillea 'Pink Pixie'	15 Gallon		✓	Per plan
CA	20	Crinum asiaticum	Crinum Lily	15 Gallon	✓	✓	Per plan
CC	11	Capparis cynophallophora	Jamaican Caper	6' HT, Full to base	✓	✓	Per plan
CH	38	Chrysobalanus icaco 'Horizontal'	Horizontal Cocoplum	16-24" HT	✓	✓	24" O.C.
CI	50	Chrysobalanus icaco	Red Tip Cocoplum	24" HT	✓	✓	24" O.C.
DS	3	Dioon spinulosum	Mexican Cycad	15 Gallon		✓	Per plan
EL	55	Errodea littoralis	Golden Beach Creeper	3 Gallon	✓	✓	24" O.C.
MC	98	Muhlenbergia capillaris	Pink Muhly Grass	24" HT	✓	✓	24" O.C.
MD	34	Monstera delisioa	Ceriman	15 Gallon			Per plan
NC	42	Neomaria caerulea 'Regina'	Giant Apostle's Iris	3 Gallon, 24" HT			3 Gallon, 24" HT
NE	535	Nephrolepis exaltata	Native Boston Fern	3 Gallon	✓	✓	24" O.C.
PB	166	Philodendron 'Burlie Marx'	Same	3 Gallon, 24" HT			30" O.C.
PG	7	Philodendron giganteum	Same	15 Gallon			Per plan
PJ	37	Portea jungles	Same	3 Gallon, Full		✓	Per plan
PN	60	Psychotria nervosa	Wild Coffee	3 Gallon, 24" HT	✓	✓	30" O.C.
PR	35	Philodendron 'Rojo Congo'	Same	3 Gallon, 24" HT			Per plan
SR	7	Serenoa repens 'Cinerea'	Silver Saw Palmetto	30" x 30"	✓	✓	Per plan
TF	40	Tripsacum floridana	Dwarf Fakahatchee	3 Gallon, 24" HT	✓	✓	24" O.C.
ZP	30	Zamia pumila	Coontie	7 Gallon	✓	✓	Per plan
GROUND COVERS	QTY	Scientific Name	Common Name	Specs	Native	Drought Tolerant	Notes
AG	1322	Arachis glabrata	Perennial Peanut	1 Gallon		✓	12" O.C.
LM	565	Liriope mascari 'Super Blue'	Lilyturf	1 Gallon		✓	18" O.C.

PROPOSED:



PLANTING BEDS - HATCHES



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landscape architects, inc

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DELRAY BEACH, FL 33483
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PROJECT:
109 SE 5th AVENUE DELRAY BEACH, FL 33483
LANDSCAPE PERMIT DRAWINGS
CLIENT:
MULTI-FAMILY RESIDENTIAL BUILDING

REVISIONS:	
06/13/24	CITY COMMENTS
07/03/25	CITY COMMENTS
08/18/25	CITY COMMENTS
10/27/25	CITY COMMENTS

SCALE:
LANDSCAPE ARCHITECT: Christopher Cabezas

REGISTRATION NO. RLA 6667347

SHEET TITLE:

ENLARGED
UNDERSTORY PLAN

Scale: 1" = 10'-0"
Drawn By: CC
Checked By: CC
Date: 06/12/2024
SHEET NUMBER:

L-2.2



1. LANDSCAPE CONTRACTOR SHALL BECOME FAMILIAR WITH THE SCOPE OF WORK AS WELL AS THE SITE, DIGGING CONDITIONS, AND ANY OBSTACLES PRIOR TO SUBMITTING A BID.
2. LANDSCAPE CONTRACTOR SHOULD VERIFY ALL ESTIMATED QUANTITIES OF MATERIAL SHOWN ON THE LANDSCAPE ARCHITECT'S DRAWINGS PRIOR TO SUBMITTING A BID.
3. PLANTING PLAN SHALL TAKE PRECEDENCE OVER PLANT LIST IN CASE OF DISCREPANCIES.
4. ALL PLANT MATERIAL SYMBOLS SHOWN ON LANDSCAPE PLANS SHALL BE CONSIDERED DIAGRAMMATIC AND SHOULD BE ADJUSTED IN THE FIELD BY LANDSCAPE CONTRACTOR TO AVOID ALL UTILITIES AND ALL OTHER OBSTRUCTIONS.
5. ALL SIZES SPECIFIED FOR PLANT MATERIAL ON THE PLAN AND PLANT LIST SHALL BE CONSIDERED MINIMUM.
6. ALL PLANT MATERIAL MUST MEET OR EXCEED THE SPECIFIED MINIMUM REQUIREMENTS FOR BOTH HEIGHT AND SPREAD.
7. ALL MATERIAL SHALL BE SUBJECT TO AVAILABILITY AT TIME OF INSTALLATION. .
8. ALL TREES, PALMS, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR A PERIOD OF 6 MONTHS FROM DATE OF FINAL ACCEPTANCE.
9. LANDSCAPE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO DIGGING.
10. LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR, THE REMOVAL OF ALL BUILDING CONSTRUCTION DEBRIS AND FOREIGN MATERIAL PRIOR TO INSTALLATION OF ANY PLANT MATERIAL.
11. SITE PREPARATION SHOULD INCLUDE THE ERADICATION AND REMOVAL OF ANY WEEDS OR GRASS, REMOVAL AND CLEAN UP OF ANY DEAD MATERIAL AND ROUGH AND FINISH GRADING PER SPECS AND OR LANDSCAPE PLANS.
12. FOR PLANT MATERIAL DESIGNATED TO BE REMOVED, THE ENTIRE ROOT SYSTEM SHALL BE DUG AND REMOVED FROM THE SITE.
13. ALL PLANTING AREAS SHOULD RECEIVE AN 80/20 MIX FILL SOIL. SAND USED IN PLANTING SOIL MIX SHALL BE SILICA SAND.
14. ALL PLANT MATERIAL SHALL BE FLORIDA NO. 1 OR BETTER AS SET FORTH IN THE FLORIDA DEPARTMENT OF AGRICULTURE 'GRADES AND STANDARDS FOR NURSERY PLANTS" SECOND EDITION FEB. 1998 INCLUDING REVISIONS AND WHICH MEET OR EXCEED THE SIZES INDICATED IN THE PLANTING SCHEDULE AND DETAILS.
15. ALL TREES SHALL BE STAKED IN A GOOD WORKMANLIKE MANNER. NO NAIL STAKING PERMITTED. (REFER TO BRACING NOTES AND PLANTING DETAILS)
16. AFTER REMOVAL OR RELOCATION OF EXISTING TREES AND PALMS, ALL REMAINING HOLES SHALL BE BACK FILLED AROUND AND UNDER ROOT BALL.
17. ALL EXISTING PLANT MATERIAL TO REMAIN, SHALL BE PROTECTED DURING ALL CONSTRUCTION PHASES. ANY PLANT MATERIAL SCARRED OR DESTROYED DESIGNATED TO REMAIN MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE WITH SIMILAR SPECIES SIZE AND QUALITY.
18. ALL TREES AND ALL PLANTING BEDS TO BE TOPPED WITH 3" MIN. "GRADE A" ORGANIC MULCH (MELALEUCA IS PREFERRED), UNLESS OTHERWISE NOTED. (CYPRESS MULCH AND RED MULCH SHALL NOT BE USED).
19. ALL TREES SHALL HAVE 2" CALIPER AT D.B.H. MINIMUM FOR A 12' HEIGHT TREE, UNLESS NOTED OTHERWISE.
20. ALL 1 GALLON MATERIAL SHALL HAVE 12" SPREAD MINIMUM, ALL 3 GALLON MATERIAL TO HAVE 18-24" SPREAD MINIMUM.
21. ALL PLANTING AREAS WITHIN THE LIMITS OF WORK SHALL RECEIVE 100% COVERAGE BY AUTOMATIC IRRIGATION SYSTEM (DRIP PREFERRED) UNLESS OTHERWISE DIRECTED BY OWNER. SEE IRRIGATION PLANS FOR ADDITIONAL SPECIFICATIONS.
22. LANDSCAPE CONTRACTOR TO COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH IRRIGATION CONTRACTOR. IRRIGATION TIME CLOCK TO BE HARD WIRED ON COMPLETION - RESPONSIBILITY OF IRRIGATION CONTRACTOR. LANDSCAPE CONTRACTOR SHALL HAND WATER OR ARRANGE FOR WATERING DURING PLANTING UNTIL IRRIGATION SYSTEM IS 100% OPERABLE. THIS IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
23. LANDSCAPE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER APPROPRIATE CONTRACTORS.
24. THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE JOB SITE CLEAN AND FREE FROM ACCUMULATION OF WASTE MATERIAL, DEBRIS, AND RUBBISH.
25. LANDSCAPE PLAN SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES.
26. THESE DRAWINGS, DOCUMENTS, AND ALL CONTENTS ARE THE PROPERTY OF CABEZAS ALVAREZ LANDSCAPE ARCHITECTS, INC. ALL RIGHTS ARE RESERVED. UNAUTHORIZED USE OR PRODUCTION, IN PART OR WHOLE, FOR ANY PURPOSE IS UNLAWFUL AND PROHIBITED EXCEPT BY EXPRESS WRITTEN CONSENT.
27. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS OR APPROVALS FROM THE FEDERAL, STATE OR LOCAL GOVERNMENT REQUIRED FOR THE WORK INCLUDED IN THIS CONTRACT AND ON THESE DRAWINGS.
28. NOTIFY THE OWNER AND LANDSCAPE ARCHITECT OF ANY UNFORESEEN CONDITIONS, I.E., COMPACTED SOIL / SUBGRADE, POOR DRAINAGE, UNCONSOLIDATED SOIL, EROSION, UTILITY CONFLICTS, EXCESSIVE SUN OR SHADE, ETC., PRIOR TO PROCEEDING WITH LANDSCAPE INSTALLATION.
29. ALL PLANTS, MATERIALS AND WORKMANSHIP ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AND OWNER.
30. NURSERY SUPPORT POLES SHALL BE REMOVED AT THE NURSERY OR AT TIME OF PLANTING.

REVISIONS:		
▲	06/13/24	CITY COMMENTS
▲	07/03/25	CITY COMMENTS
▲	08/18/25	CITY COMMENTS
▲	10/27/25	CITY COMMENTS

No.	Date	Description

SEAL:
LANDSCAPE ARCHITECT: Christopher Cabezas

REGISTRATION NO. RLA 6667347

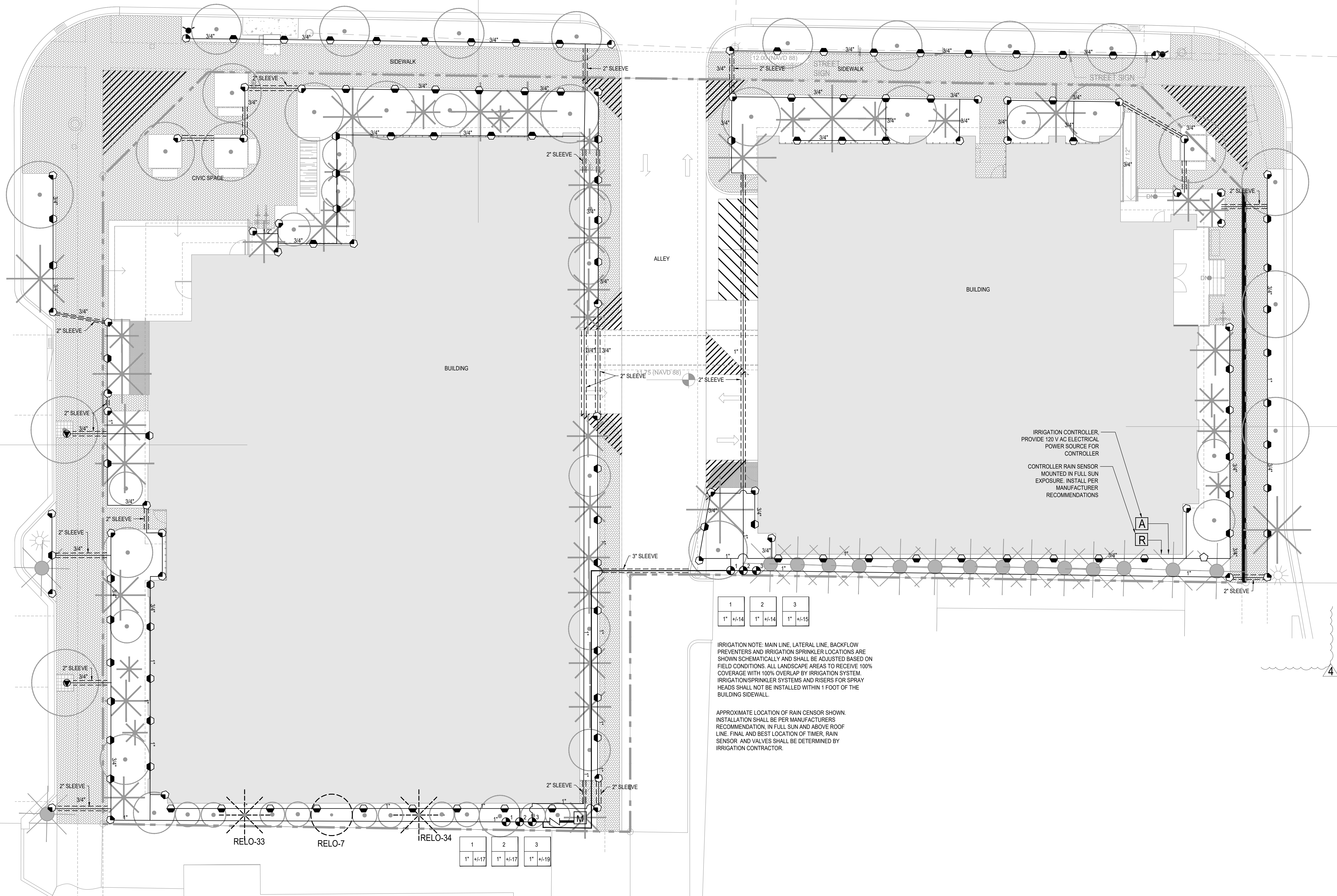
SHEET TITLE:

IRRIGATION PLAN

Scale: 1" = 10'-0"
Drawn By: CC
Checked By: CC
Date: 06/12/2024

SHEET NUMBER:

IR-1



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

LOW VOLTAGE WIRE TO BE INSTALLED ALONG MAINLINE INSTALLATION. USE 2" SCH. 40 PVC WITH SWEEP ELBOWS AT TURNING LOCATIONS WHEN SLEEVING IS REQUIRED. ALL SPLICES SHALL BE ENCLOSED WITHIN A VALVE/SPLICE BOX.

WIRE SIZED AND COLORED AS FOLLOWS:
#12 WHITE FOR COMMON
#12 SPARE BLACK COMMON (1 SPARE NEEDED PER 10 HOT WIRES)
#14 RED HOT WIRES
#14 SPARE YELLOW HOT WIRE (1 SPARES NEEDED PER 10 HOT WIRES, 3 SPARE MINIMUM)

WHEN WIRE RUNS EXCEEDS 3,500 LINEAR FEET, USE #10 FOR COMMON WIRES AND #12 FOR HOT/SPARE WIRES.

ALL IRRIGATION CONTROLLERS TO BE PROPERLY GROUNDED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.

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

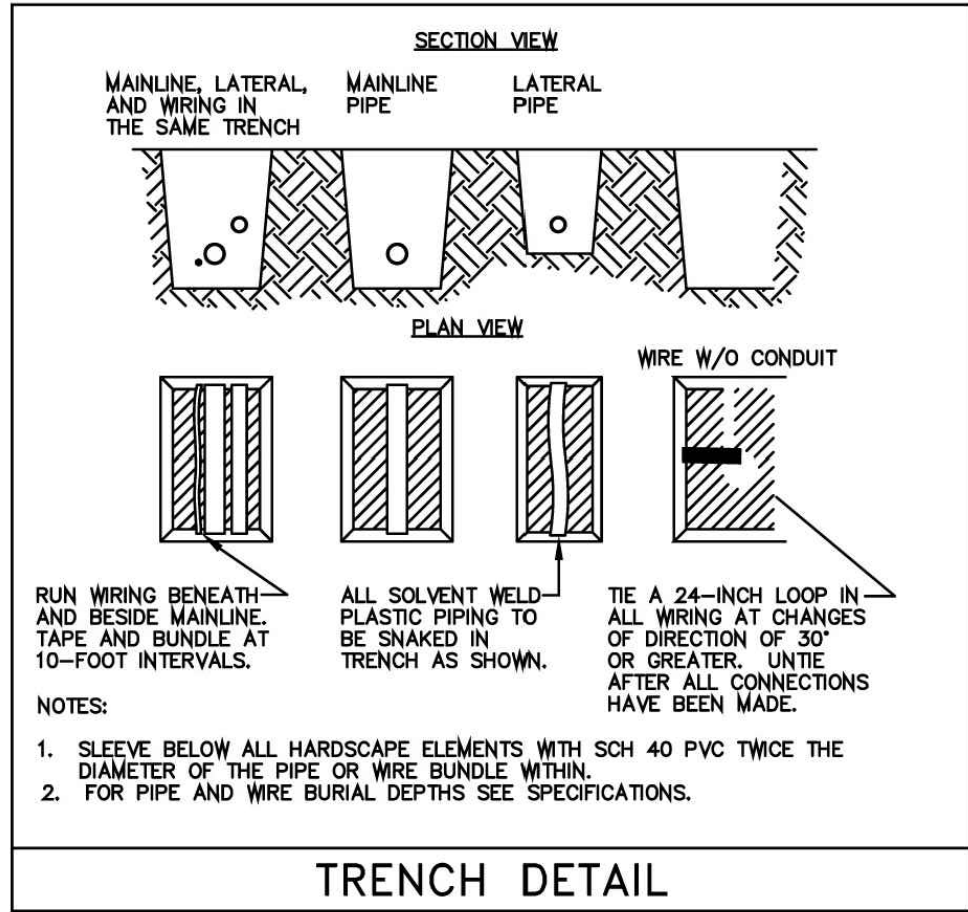
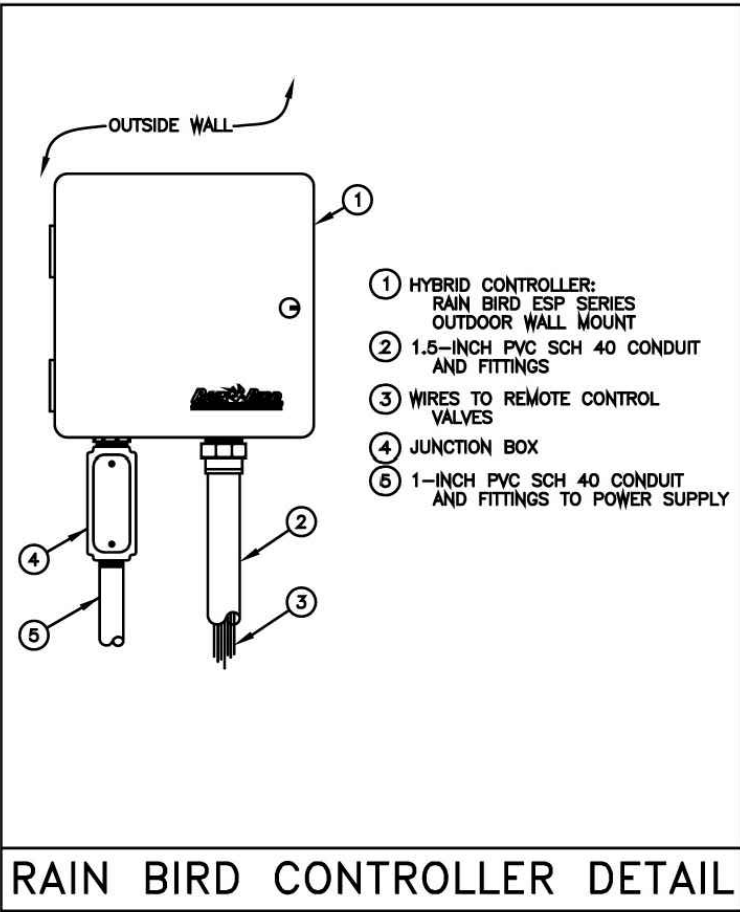
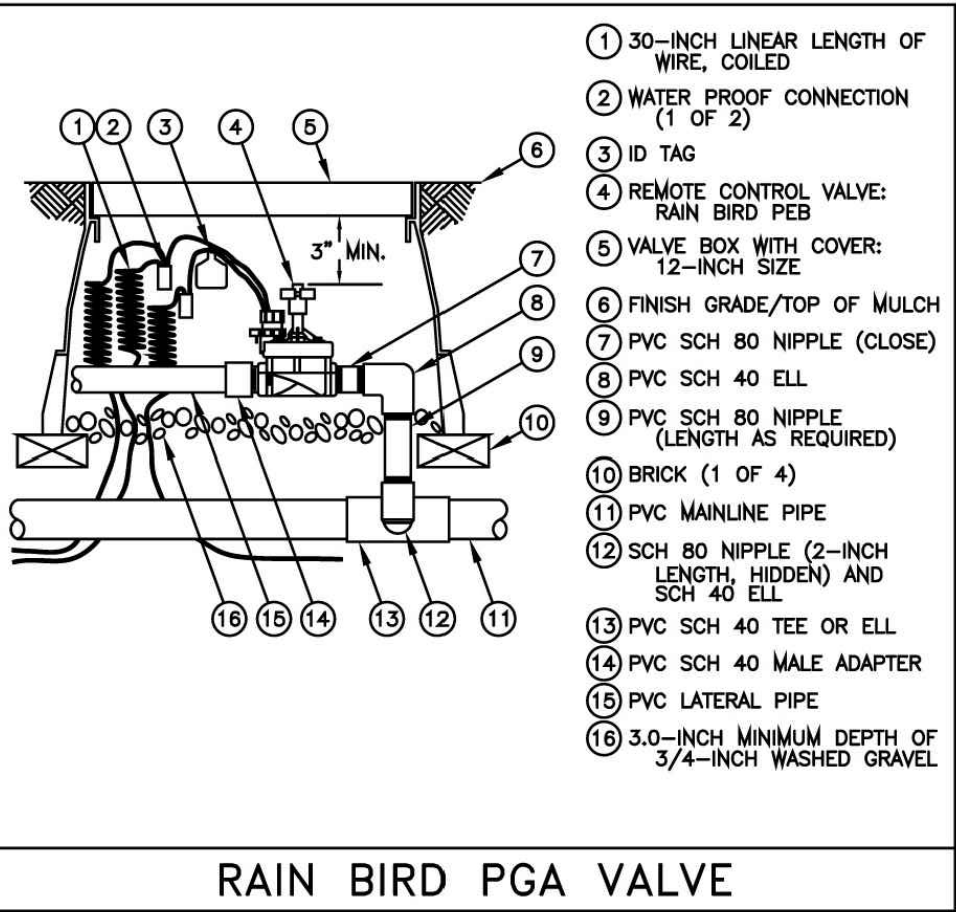
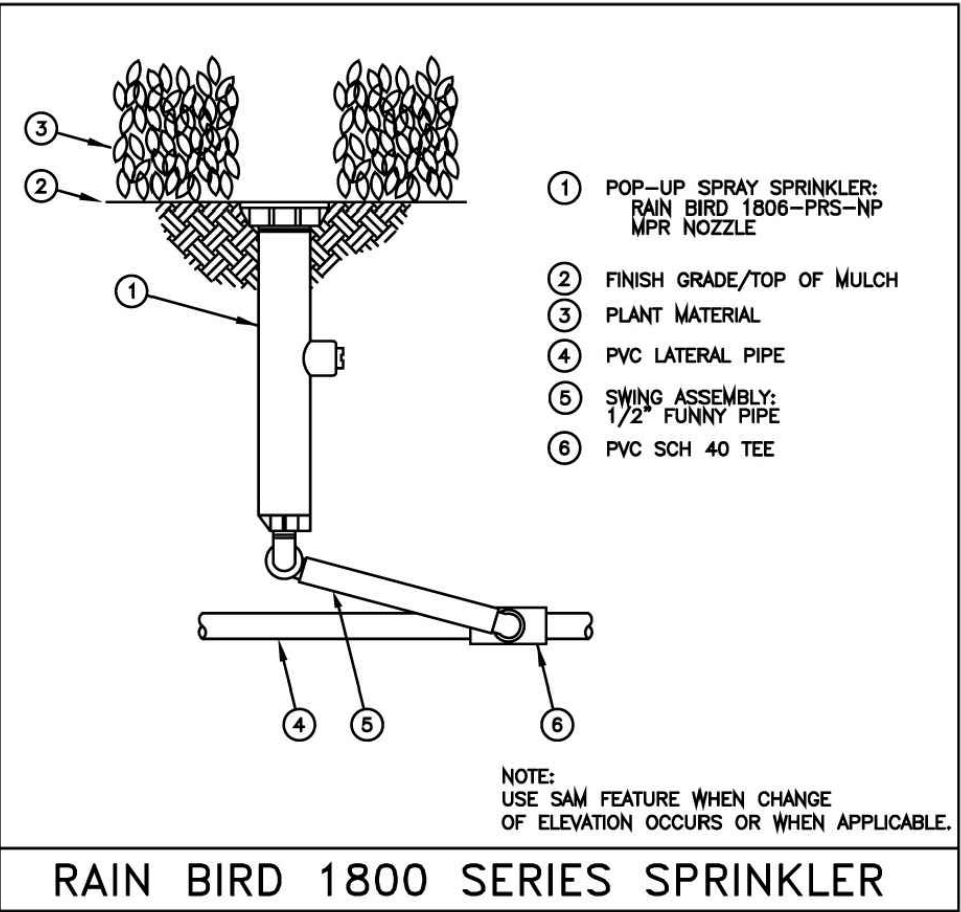
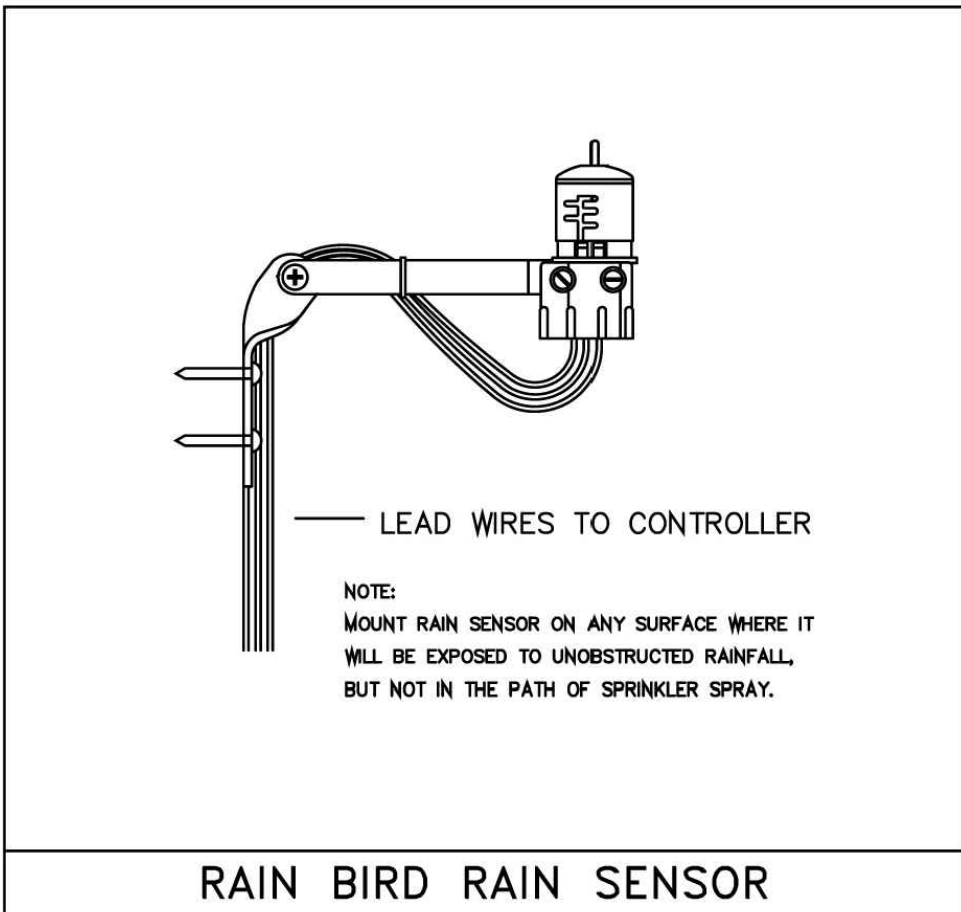
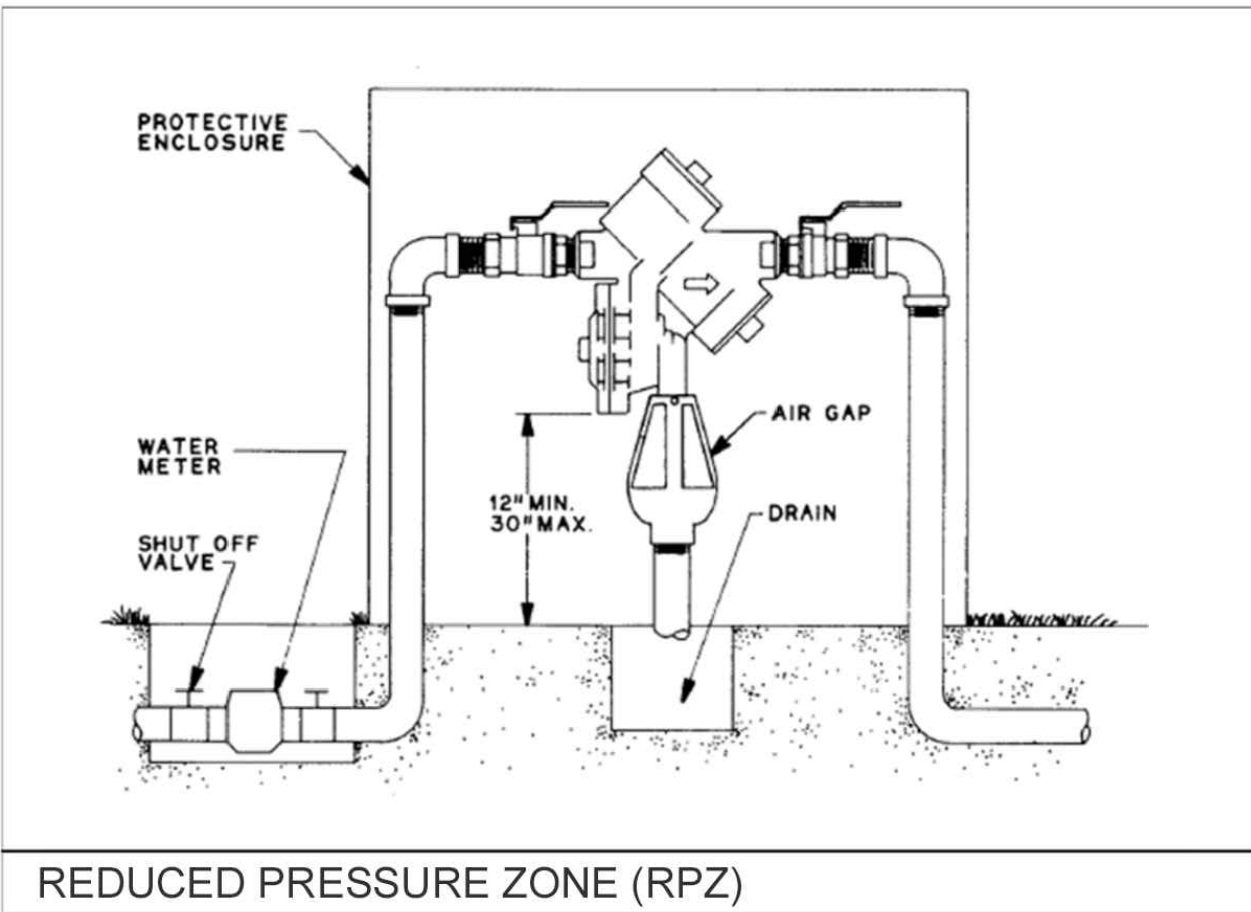
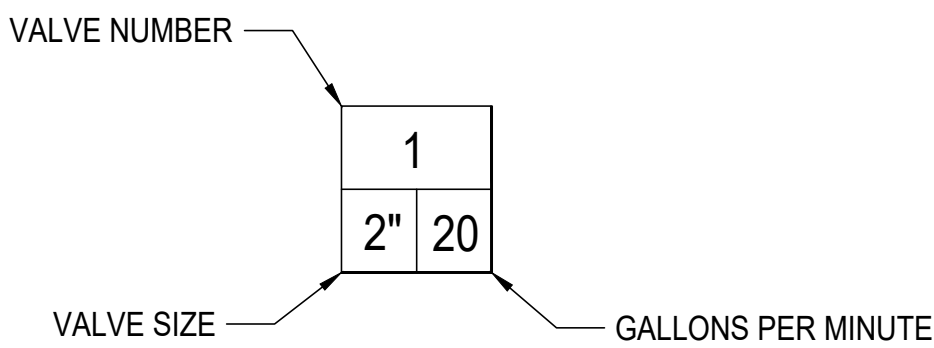
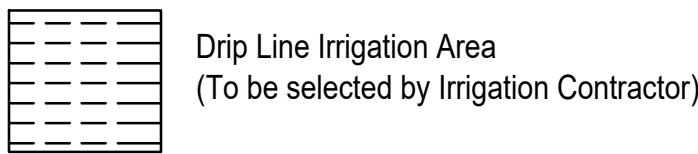
THIS DESIGN IS DIAGRAMMATIC. ALL IRRIGATION EQUIPMENT SUCH AS PIPES, VALVES, , ETC., SHOWN WITHIN PERVIOUS AREAS ARE FOR DESIGN CLARIFICATION ONLY. THE IRRIGATION CONTRACTOR SHALL INSTALL IRRIGATION EQUIPMENT IN PLANTING AREAS WHEREVER POSSIBLE.

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.

EQUIPMENT TABLE	
Backflow Preventers	
Symbol	Description
	Pressure Vacuum Breaker
Controllers	
Symbol	Description
	Rainbird ESP-Me
	Rain Sensor
Irrigation Heads	
Symbol	Description
	RAINBIRD 1400 SERIES Pressure Compensating Trickle Bubbler 0.25 GPM
	RAINBIRD 1800 SERIES 15 Strip Series trajectory 30 deg SST*
	RAINBIRD 1800 SERIES HE-VAN 08 Series 90°
	RAINBIRD 1800 SERIES HE-VAN 08 Series 180°
	RAINBIRD 1800 SERIES HE-VAN 10 Series 90°
	RAINBIRD 1800 SERIES HE-VAN 10 Series 180°
	RAINBIRD 1800 SERIES HE-VAN 12 Series 90°
	RAINBIRD 1800 SERIES HE-VAN 12 Series 180°
	RAINBIRD 1800 SERIES HE-VAN 12 Series 360°
	RAINBIRD 1800 SERIES HE-VAN 15 Series 90°
	RAINBIRD 5000 SERIES ROTARY FULL CIRCLE
	RAINBIRD 5000 SERIES ROTARY PART CIRCLE
Pipe (Lateral)	
Symbol	Description
	Class 160 PVC (Lateral)
Pipe (Mainline)	
Symbol	Description
	Schedule 40 PVC Pipe
Pipe (Sleeve)	
Symbol	Description
	Schedule 40 PVC Pipe
Valves	
Symbol	Description
	Rainbird PGA Valve
Water Meters	
Symbol	Description
	1" Water Meter



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PROJECT:
109 SE 5th AVENUE DELRAY BEACH, FL 33483
LANDSCAPE PERMIT DRAWINGS
CLIENT:
MULTI-FAMILY RESIDENTIAL BUILDING

REVISIONS:		
Δ	06/13/24	CITY COMMENTS
Δ	07/03/25	CITY COMMENTS
No.	Date	Description

SEAL:
LANDSCAPE ARCHITECT: Christopher Cabezas

REGISTRATION NO. RLA 6967347
SHEET TITLE:

IRRIGATION NOTES

Scale: N/A
Drawn By: CC
Checked By: CC
Date: 06/12/2024
SHEET NUMBER:

IR-2