

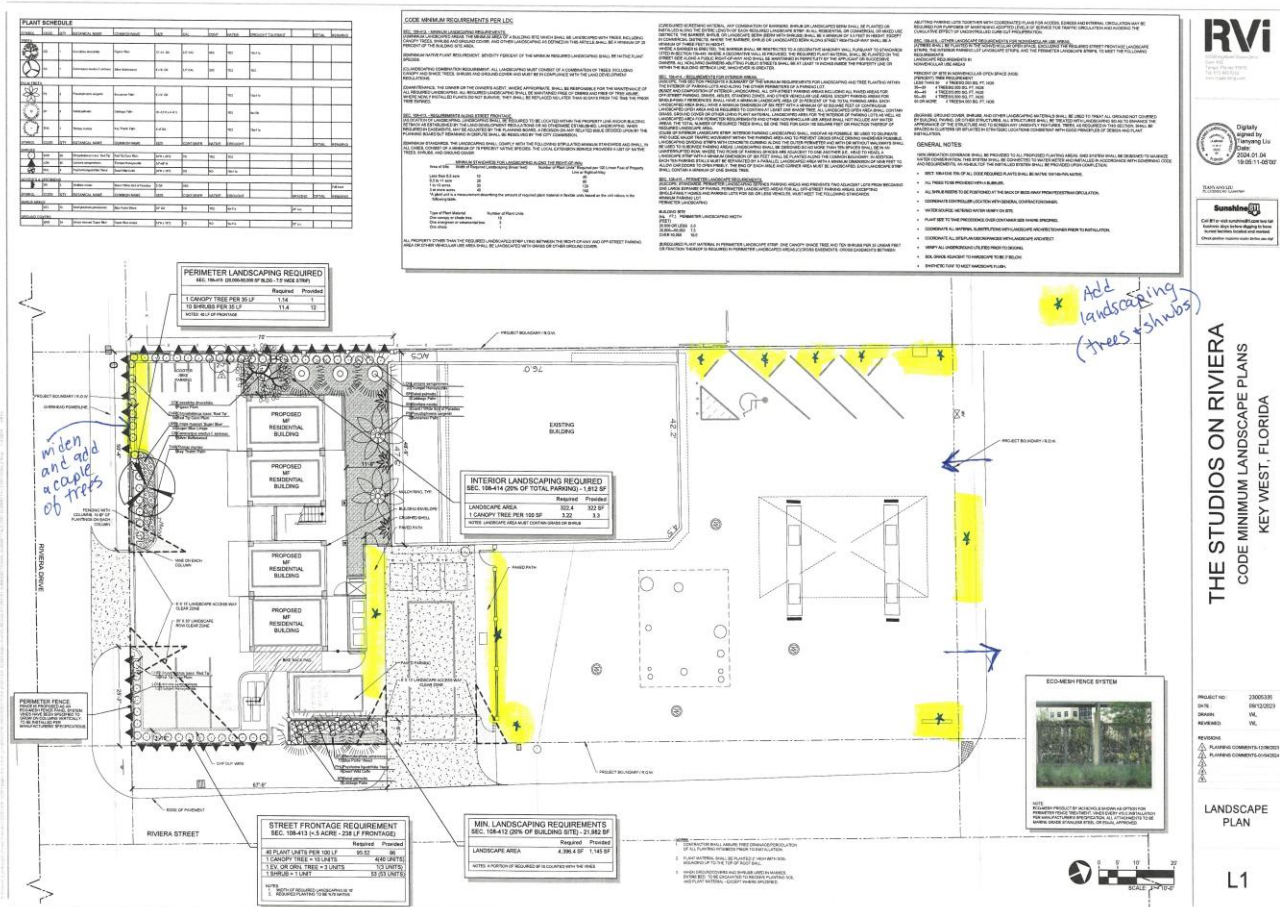
UPDATED STAFF REPORT

DATE: March 1, 2024 and March 7, 2024 (sec 108-413 correction)

**RE: 3228 Flagler Avenue (3221 Riviera Drive)
UPDATED Sec 108 Landscape Review**

FROM: Karen DeMaria, City of Key West Urban Forestry Manager

On February 7, 2024, a meeting was held with representatives of the property owner, regarding potential improvements to the landscape plan to increase the proposed open space/landscaping percentage on the property. A 2018 City Commission Resolution approved a 16% open space allotment. The submitted proposal requested a reduction to 8%. A request was made by Planning Staff, to add planters in areas on the gas Station/Convenience Store portion of the property, add vegetation along the existing concrete wall that divides the areas on the eastern property line where the garbage and recycle areas are proposed, and increase the width of the landscape area in the southwest corner of the property (see highlighted site map below).



RVI
Riviera Valley Inc.
10000 SW 15th St.
Miami, FL 33185
Tel: 305.444.1111

Digitally signed by
Riviera Valley Inc.
DN: cn=Riviera Valley Inc., o=Riviera Valley Inc., ou=Riviera Valley Inc., email=Riviera Valley Inc., c=US

DATE: 2024.03.07 10:00:00 -0500

Sunshine
FLORIDA SOLAR ENERGY RATING BOARD

THE STUDIOS ON RIVIERA
CODE MINIMUM LANDSCAPE PLANS
KEY WEST, FLORIDA

PROJECT NO: 230003R
DATE: 08/12/2023
ISSUED: N/A
REVISED: N/A

REVISIONS:
A - LANDSCAPE COMMENTS CORRECTED
B - PLANNING COMMENTS CORRECTED

LANDSCAPE PLAN

L1

1ST SUBMITTAL

On Saturday, February 10, 2024, an updated plan was sent to City staff. A request to review updated landscape plans, dated February 9, 2024, was received by the urban forestry manager on February 28, 2024.

The Sec 108 Landscape review dated January 19, 2024, only reviewed the actual proposed development area, with compliance to the various sections of code. It has been pointed out that the review should also look at the entire parcel. This updated Sec 108 landscape review is looking at the entire parcel using the February 9, 2024, submitted plan.

Review of Section 108:

1. Sec 108-243 (plans): A landscape plan with an updated existing site map, a tree protection plan, and an irrigation plan has been submitted. The landscape plan is signed and sealed by Tianyang Liu.
2. Sec 108-279 (screening of equipment): Garbage and recycle waste container area has been allotted space next to the property line at the gas station parking area. Plans show screening to be accomplished by a fence and a gate with (4) Sabal Palms and wild coffee shrubs being planted outside the fence area and a silver buttonwood tree with some wild coffee shrubs on the residential side of the area.
3. Sec 108-289 (land clearing): The project will require the removal of (1) Gumbo Limbo tree which was approved by the Tree Commission on July 9, 2018 and requires the planting of a total of 3.3 caliper inches of approved trees to be planted on site and incorporated into the landscape plan and the removal of (1) Washingtonian Palm, to be replaced with (1) native palm, a minimum of 4 ft tall. The Washingtonian Palm was not regulated during the 2018 review as it was less than 10 ft tall at the time but was part of the removal request and original landscape plan approval. The proposed updated plan proposes to plant (1) Pigeon Plum and (1) Silver Buttonwood tree for a total of 5 caliper inches of approved trees and several native palms, all 4 ft tall or more. Therefore, the updated plan does incorporate the required tree removal mitigations.
4. Sec 108-346 (open space): The proposed open space percentage is 8%. City code requires 20%. The 2018 City Commission Resolution approved a 16% open space.

No improvements are being proposed for the existing gas station/convenience store portion of the property with street frontage on Flagler Avenue.

WAIVER NEEDED

As required, the property maintenance plan must include maintenance of the property to remove any invasive exotic plant species from the property (Brazilian Pepper, Australian Pine, and Lead Tree).

5. Sec 108-347 (bufferyards): The property is an existing gas station/convenience store with the proposed addition of a multi-family complex in the rear area. According to the property appraiser site, the property to the west is a retail area/cross fit studio (D Buffer-medium impact).

The western property line now appears to have a planned minimum 3.7 ft wide by approximately 30 ft long landscape area next to the scooter parking area that opens to a larger 10.4 ft wide by 40 ft long planter area. The remaining 150 ft of property line includes zero vegetation and asphalt in half the area. A minimum of 37 plant units per 100 linear ft with the installation of an opaque fence is required. This bufferyard, measuring 3.7 ft by 220 ft long, requires a total of 81 plant units. 24 plant units (shrubs) are planned to be planted along the fence line with an Eco-Mesh fence panel system with trumpet "coral" honeysuckle plants. It is not known if this type of fencing is considered opaque.

WAIVER NEEDED

6. Sec 108-348 allows for credit of existing plant material. No existing vegetation will remain as part of this development.
7. Sec 108-350, bufferyard exceptions: This section of code states that no bufferyards shall be less than 2.5 ft wide in order to provide for optimum growing conditions for the required vegetative buffer. Bufferyards between 2.5 feet and ten feet in width may substitute an opaque wooden fence or masonry wall at least six feet in height for the shrub requirement. However, canopy and/or shade trees required as part of the buffer must be installed regardless of whether a fence or wall is being used or not.

The western property line buffer area for the new proposed development meets this condition but the remaining bufferyard involving the existing portion of the property technically has no bufferyard. Representatives for the property owner were asked to plant some trees along this property line area in front of the parking spots. The updated plan does not include any additional plants along this bufferyard.

WAIVER NEEDED

8. Sec 108-411, landscape plan approval: On November 13, 2018, this property received a Final Landscape Plan approval with tree removal for the removal of a gumbo limbo tree. At the time, the removal of the Washingtonian Palm was included in the plan but did not require specific removal approval. Construction of the project was held up due to its linkage to another property and recently a new site and landscape plan was submitted that was significantly different than the plan approved in November 2018, therefore, the new landscape plan review is being treated as a new review specifically related to the landscape plan.

The 2018 plan included a vegetative buffer along the northern property line area along the open gas station parking area with the main access onto the property coming from the east off Rivera Street. The new plan has the main access onto

the property from the south off of Rivera Drive and no vegetative buffer next to the gas station parking lot area. The 2018 plan included the planting of (6) palms, (2) canopy trees, and approximately (193) shrubs and groundcover plants. The new plan proposes the planting of (9) palms, (2) canopy trees, and over (119) shrubs and ground cover plants (not including the fence honeysuckle plants).

The Tree Commission reviewed the updated Conceptual Landscape plan dated December 8, 2023, on January 2, 2024. The Tree Commission approved the Conceptual landscape plan pending corrections to the plan, as identified by the urban forestry manager.

9. Sec 108-412: The plan does incorporate over 70% native vegetation. In 2018, the resolution approved 16% landscaping. The 2023 modification proposes 8% percentage of the property is to be landscaped. The rest of the property not covered in hardscape or groundcover will be mulched, crushed shell, or have gravel placed.

WAIVER NEEDED

10. 108-413, landscape requirement along street frontages. The whole property is 0.5 acres therefore, this section of the code requires 80 plant units per 100 linear ft in a 20 ft wide landscape area.

The northern property line, 100 ft long, runs along Flagler Avenue. No vegetation exists in this area and no vegetation is proposed.

The landscape plan along Riviera Drive, the southern property line area, 100 ft long, proposes to plant a line of cocoplum shrubs (22-plant units) with an eco-mesh fence planted with trumpet honeysuckle (9-plant units) in a 3.1 ft to 4.8 ft wide consistent area. One silver buttonwood tree and blue liriopce groundcover has been added to the landscape plan for this area. An additional 4.4 ft wide by approximately 25 ft long planter area is also being created that includes the planting of (1) Silver Buttonwood, (1) Thatch Palm, and blue liriopce groundcover for a total of 44 plant units.

Rivera Street, the eastern property line area, is a total of 220 ft long and requires 176 plant units in a 20 ft wide area. The landscape plan for the proposed development area includes the planting of (14) Cocoplum shrubs, (9) Trumpet Honeysuckle, (3) Sabal Palms, (9) Wild Coffee, and (15) Blue Porterweed for a minimum total of 61 plant units in a planting area between 3.1 ft to 6.1 ft wide in a 67.9 linear ft area with no vegetation in the remaining 152.1 linier feet. This 152 ft area is primarily asphalt for parking and ingress and egress to the gas station/convenience store.

WAIVER NEEDED

11. Sec 108-414 Interior parking areas: Parking is being created under the structure or adjacent to the property line buffer areas.

12. Sec 108-415 perimeter parking areas: There are no perimeter parking areas on the property.
13. Sec 108-416, interior area landscaping. This section of code specifically looks at the planting of trees and requires that all areas not covered by buildings or hardscape will have grass, groundcover, shrubs or other landscaping materials. The proposed plan does include the use of crushed shell. Approximately 4 trees are supposed to be planted per 2000 sq ft of area if less than 30% of the of the site is non vehicular open space. Three trees and numerous palms are proposed to be planted in landscape areas not reviewed in the buffer reviews.

WAIVER NEEDED

14. Sec 108-447: There does appear to be curbing around the planting areas. A tree protection plan is not needed but has been supplied.
15. Sec108-448: It does appear that all landscape strips are covered with living material and/or mulch/crushed shell.
16. Sec 108-450, Landscape screening: The updated landscape plan includes vegetation around the garbage storage area along with fencing.
17. Sec 108-481, specifications for plant material: Trees are supposed to be at least 12 ft tall minimum and palms shall constitute no more than 25 percent of the total tree requirement. Two canopy trees are proposed to be planted. The specs show a 12-14 ft OA tall Pigeon Plum and (3) 8-10 ft OA tall silver buttonwood tree. The proposed plan also includes over 76% palm species with (13) palms and (4) canopy trees being planted. The Tree Commission was made aware of the originally proposed 80% palm request during their review.

WAIVER NEEDED

18. Sec 108-517 Waivers: The 2023 City Commission resolution, 2018-52, grants landscape waiver approvals but does not state the specific landscape waiver code sections that were requested. Sec 108-517.(a).2 says that the waiver shall be clearly stated and in detail.

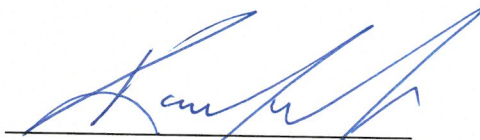
LIST OF WAIVERS NEEDED:

1. Sec 108-346 (open space): The proposed open space percentage is 8%. City code requires 20%. The 2018 City Commission Resolution approved a 16% open space.
2. Sec 108-347 (bufferyards): western property line buffer area due to lack of plant units counts.
3. Sec 108-350, bufferyard exceptions: No bufferyard proposed for existing gas station portion of the property along the western property line.

4. Sec 108-412, minimum landscape requirements shall be a minimum of 20%. In 2018, the resolution approved 16% landscaping. The 2023 modification proposes 8% percentage of the property is to be landscaped.
5. Sec 108-413, street buffer frontage width is required to be 10 ft. The proposed width of the landscape areas along Rivera Drive and Riviera Street is 3.1 6.1 ft and no buffer is proposed for the Flagler Avenue portion of the property.
6. Sec 108-416, interior area landscaping. Three trees of the required 4 trees are proposed to be planted.
7. Sec 108-481, specifications for plant material require all trees to be a minimum of 12 ft in height and the plan shall constitute no more than 25% palms. One of the proposed canopy trees is proposed to be 8-10 ft tall and the proposed plan includes over 76% palm species.

Conditions:

1. The property maintenance plan must include continued maintenance of the property to remove any invasive exotic plant species (Brazilian Pepper, Australian Pine, Lead Tree).
2. The existing site map must be updated prior to the Planning Board meeting with corrected information regarding the Gumbo Limbo tree and its removal criteria.
3. Final landscape plan approval required from Tree Commission prior to placement on City Commission agenda. If no significant changes occur to the approved landscape plan, then the Urban Forestry Manager can review for approval.



Karen DeMaria
Urban Forestry Manager
City of Key West

3-1-24

EXISTING TREE IMPACT SCHEDULE													
TREE #	COMMON NAME	BOTANICAL NAME	NOTES	APPRX. DSH	HEIGHT	SPREAD	REMOVE	LOCATION	CONDITION	VALUE %	MIT. REQ.	TOTAL VALUE	INCHES REQUIRED
3	Gumbo Limbo	Bursea simaruba	Native - poor condition	4"	8'	6'	X	60	100	50	Y	70	2.8"

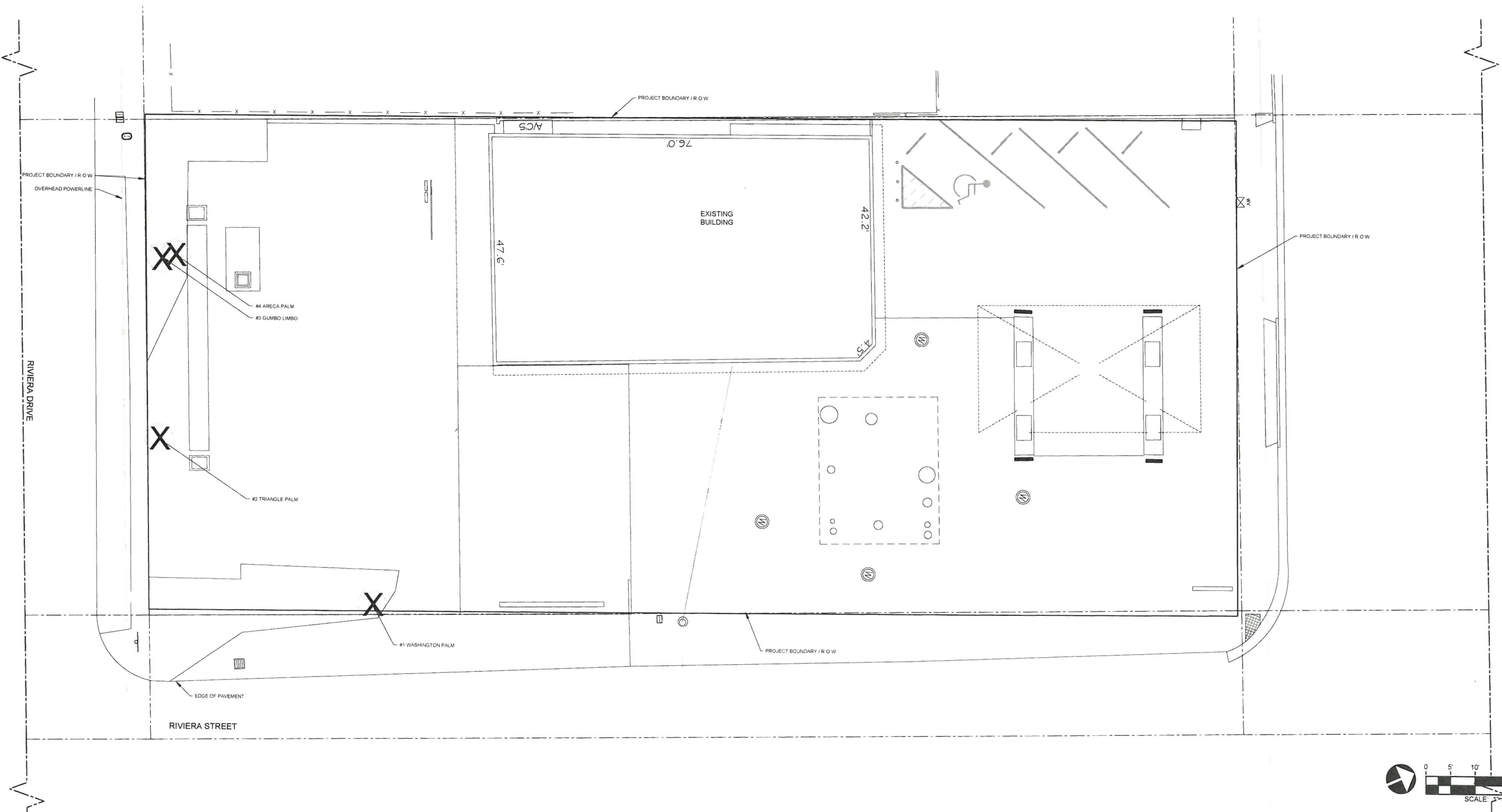
TOTAL TREE MITIGATION INCHES REQUIRED 2.8"

incorrect

PALM #	COMMON NAME	BOTANICAL NAME	NOTES	APPRX. DSH	HEIGHT	SPREAD	REMOVE	REPLACEMENT QTY	MIT. REQ.	TOTAL
1	Washington Palm	Washingtonia robusta	NN- replace w/4+ native palm	12"	10' oa	10'	X	1	Y	1
2	Triangle Palm	Dypsis decaryi	NN- replace w/4+ native palm	12"	9' oa	8'	X	1	N	0
4	Areca Palm	Dypsis lutescens	NN- not protected	na	6'	4'	X	0	N	0

TOTAL PALMS REQUIRED 2

①



Digitally signed by Tianyang Liu
Date: 2024.02.09 13:20:39-05'00'

TIANYANG LIU
FL LICENSE NO. LA666749

Sunshine
Call 811 or visit sunshine11.com two full business days before digging to have buried facilities located and marked. Check positive response codes before you dig!

THE STUDIOS ON RIVIERA
CODE MINIMUM LANDSCAPE PLANS
KEY WEST, FLORIDA

PROJECT NO: 23005335
DATE: 09/12/2023
DRAWN: WL
REVIEWED: WL

- REVISIONS
- ▲ PLANNING COMMENTS-12/08/2023
 - ▲ PLANNING COMMENTS-01/04/2024
 - ▲ PLANNING/ROGO-02/09/2024
 - ▲
 - ▲

EXISTING TREE PLAN



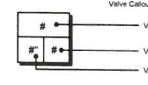
L1.1

- ### IRRIGATION NOTES
- THIS IRRIGATION PLAN IS SCHEMATIC AND IS FOR PERMITTING PURPOSES ONLY
 - MAX WATER USE TO COMPLY WITH WATER USE PERMIT
 - CALCULATIONS ARE FOR ALL THE PERVIOUS AREA WITHIN THE SITE. INDIVIDUAL LOT IRRIGATION WILL BE PROVIDED AT THE TIME OF LOT CONSTRUCTION
 - THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS SHOWING ALL HEADS, VALVES, AND PIPE LINES TO SCALE AFTER COMPLETION OF PIPING INSTALLATION. THE OWNER SHALL PROVIDE INSTRUCTION SHEETS AND PARTS LIST COVERING EQUIPMENT
 - THE CONTRACTOR SHALL MAKE EVERY POSSIBLE EFFORT TO PRESERVE EXISTING PLANT MATERIAL THAT HAS BEEN TAGGED WHERE SUCH MATERIALS FALLS IN THE PATH OF TRENCHING. THE CONTRACTOR SHALL REMOVE THE PIPE OR HAND TRENCH AS NECESSARY TO PROTECT THE DESIGNATED PLANT MATERIAL. THE CONTRACTOR MUST RESTORE ANY NEW PLANT MATERIAL OR SOIL TO ITS ORIGINAL CONDITION IF IT IS DAMAGED BEFORE THE OWNER WILL GIVE FINAL ACCEPTANCE
 - THE OWNER MUST APPROVE ANY SUBSTITUTION MADE
 - ALL PIPE AND CONTROL LINES SHALL BE SLEEVED WITH SLEEVED SCHEDULE 40 PVC AND PLACED A MINIMUM OF 24" BELOW GRADE AND BACKFILLED WITH CLEAN SAND. NO ROCK IS TO BE IN CONTACT WITH THE PVC PIPE. THE CONTRACTOR SHALL PROVIDE MAGNETIC MARKERS AT EACH END OF THE SLEEVE. SLEEVE SHALL BE 4" MINIMUM
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE SYSTEM IN COMPLETE ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES AND LAWS. ANY MODIFICATIONS MADE TO CONFORM WITH SAID CODES, LAWS AND ORDINANCES SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO THE CLIENT
 - ALL ORCUT PIPE IS TO BE CLASS 160 PVC OR A HIGHER GRADE
 - ALL MAIN FITTINGS SHALL BE REINFORCED WITH 2000-PSI POURED CONCRETE THRUST BLOCKS
 - THE IRRIGATION CONTRACTOR IS FULLY RESPONSIBLE FOR THE WORK UNTIL THE OWNER GIVES FINAL ACCEPTANCE
 - CONTRACTOR WILL GUARANTEE THE QUALITY OF HIS MATERIALS AND WORK FOR ONE (1) YEAR. THIS PERIOD BEGINS WITH THE FINAL ACCEPTANCE OF THE OWNER
 - CONTRACTORS ARE EXPECTED TO PERSONALLY EXAMINE THE SITE AND FULLY ACQUAINT THEMSELVES WITH ALL OF THE EXISTING CONDITIONS SO THAT NO MISUNDERSTANDING MAY ARISE TO THE CHARGE OF EITHER PARTY. TO THE EXTENT OF THE WORK TO BE DONE THIS WILL ALSO REQUIRE THE CONTRACTOR WILL BE AWARE OF WHAT PRECAUTIONS NEED TO BE TAKEN TO AVOID INJURY TO PEOPLE OR DAMAGE TO PROPERTY
 - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE AND OPERABLE SYSTEM FOR THE IRRIGATION OF ALL LANDSCAPE PLANTING ON SITE. PLANS AND SPECIFICATIONS MAY NOT INDICATE ALL ITEMS NECESSARY FOR THE PROPER IRRIGATION OF THE PROJECT AND THE CONTRACTOR HAS THE RESPONSIBILITY FOR FURNISHING LABOR, MATERIALS AND EQUIPMENT REQUIRED FOR A COMPLETE AND PROPER PROJECT EVEN IF NOT IN THE INITIAL SPECIFICATIONS
 - ALL IRRIGATION WATER MAINS SHALL BE SEPARATED FROM WATER MAINS BY A MINIMUM HORIZONTAL DISTANCE OF 36" FEET MEASURED EDGE TO EDGE AND A VERTICAL DISTANCE OF EIGHTEEN INCHES (18") FROM THE BOTTOM OF THE UPPER PIPE TO THE TOP OF THE LOWER PIPE

- ### COVERAGE AND BACKFLOW REQUIREMENTS
- IRRIGATION HEADS SHALL BE PLACED IN TRIANGULAR SPACING TO PROVIDE 100% HEAD TO HEAD COVERAGE
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST THE HEAD LOCATION, TYPE AND SIZE AND ANY OTHER SYSTEM COMPONENTS TO COMPLY WITH THE REQUIREMENTS OF LANDSCAPE PLANTING AS INSTALLED. THESE ADJUSTMENTS MUST BE COMPLETED AT THE CONTRACTOR'S EXPENSE TO THE OWNER EXCEPT WHEN AUTHORIZED IN WRITING
 - NON-POTABLE IRRIGATION SUPPLY DOES NOT REQUIRE BACKFLOW PREVENTOR HOWEVER WHERE EXISTING MAINLINE PRESSURES EXCEED TO PSI, PRESSURE CONTROL VALVES SHALL BE INSTALLED
 - AN APPROVED RAIN SENSOR IS REQUIRED
 - CONTRACTOR SHALL MINIMIZE OVERSPRAY ONTO ROADS, SIDEWALK OR OTHER HARDSCAPE AREAS AND ADJACENT PROPERTY OR CONSERVATION AREAS

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS	DETAIL
▲	Rain Bird 1804-1400 Flood 1401	19	360	20	0.25	3'	DETAIL
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL				
■	Rain Bird XCZ-100-IVMQ 1" Wide Flow IVM Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PES/IVM Smart Valve w/ factory installed IVM-SOL 0.3-20 gpm and 1in. Pressure Regulating 40psi Quick-Check Basket Filter 0.3-20 gpm	1	DETAIL				
▨	Area to Receive Dripline Rain Bird XFS-09-12 XFS Sub-Surface Pressure Compensating Dripline w/Copper Shield Technology. 0.9 GPH emitters at 24" O.C. Laterals spaced at 24" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	458.3 l.f.	DETAIL				
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL				
⊕	Rain Bird PGA Globe 1" 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe.	1	DETAIL				
⊖	Febco 825Y 1" Reduced Pressure Backflow Preventer	1	DETAIL				
⊕	Rain Bird ESP4ME3 4 Station, Hybrid Modular Outdoor Controller. For Residential or Light Commercial Use. LNK WiFi Module and Flow Sensor Ready.	1	DETAIL				
⊖	Rain Bird RSD-BEx Rain Sensor, with metal latching bracket, extension wire.	1	DETAIL				
⊖	Water Meter 1"	1	DETAIL				
—	Irrigation Lateral Line: PVC Class 200 SDR 21	170.7 l.f.	DETAIL				
—	Irrigation Lateral Line: PVC Class 200 SDR 21 1/2"	399.1 l.f.	DETAIL				
—	Irrigation Mainline: PVC Schedule 40 1/2"	3.9 l.f.	DETAIL				
—	Irrigation Mainline: PVC Schedule 40 1"	18.0 l.f.	DETAIL				
—	Pipe Sleeve: PVC Schedule 40	71.8 l.f.	DETAIL				

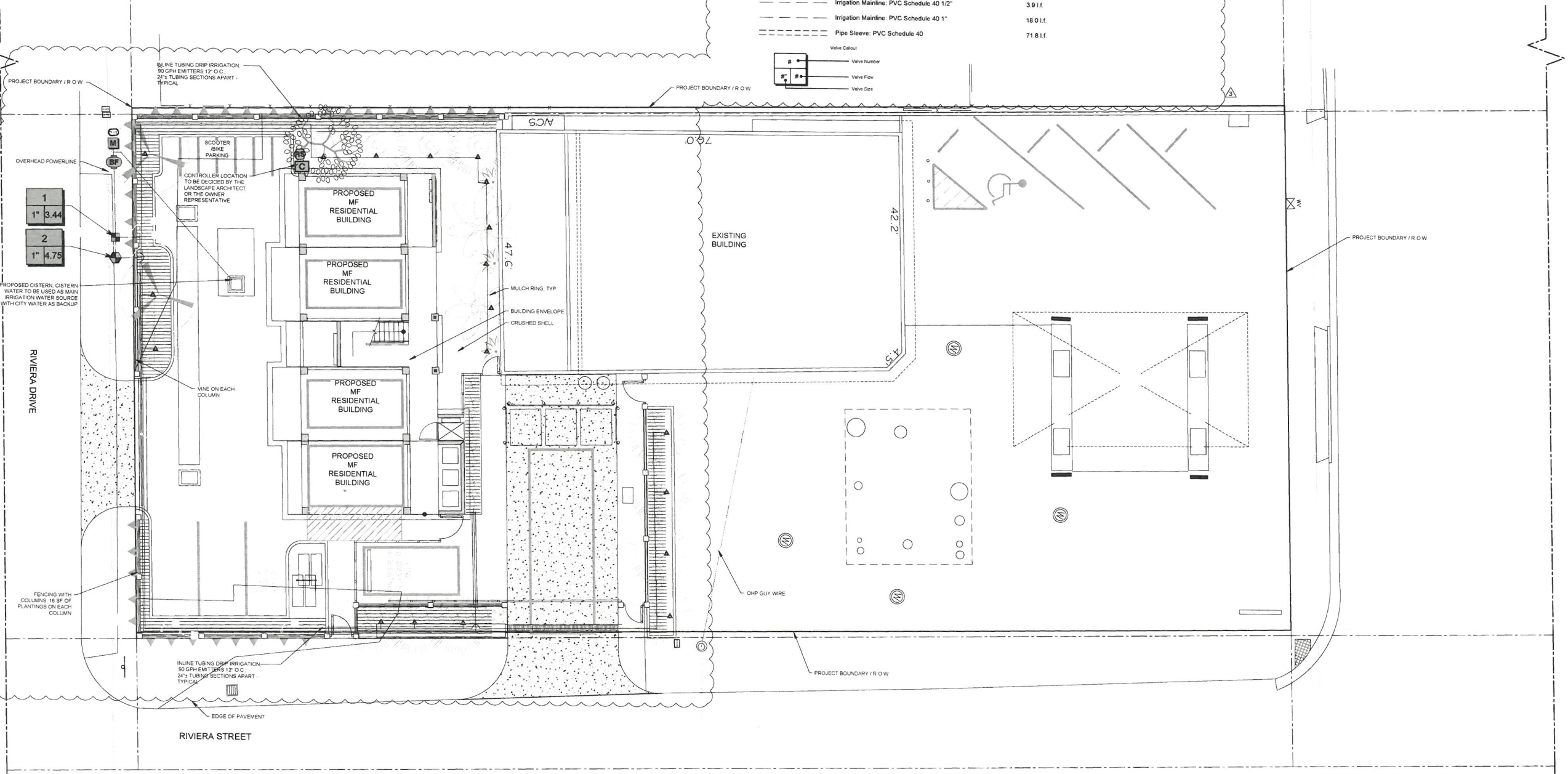


WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
1	Rain Bird XCZ-100-IVMQ	Area for Dripline	0.36 in/h	1	167	381	190
2	Rain Bird PGA Globe	Bubbler	0.86 in/h	1	71	249	124
TOTALS:					238	629.3	314.6

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Rain Bird XCZ-100-IVMQ	1"	Area for Dripline	2.28	54.4	22.2		0.36 in/h
2	Rain Bird PGA Globe	1"	Bubbler	3.5	58.3	26.6		0.86 in/h
					21.9			



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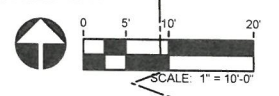
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FL LICENSE NO. L16657459



THE STUDIOS ON RIVIERA
 CODE MINIMUM LANDSCAPE PLANS
 KEY WEST, FLORIDA

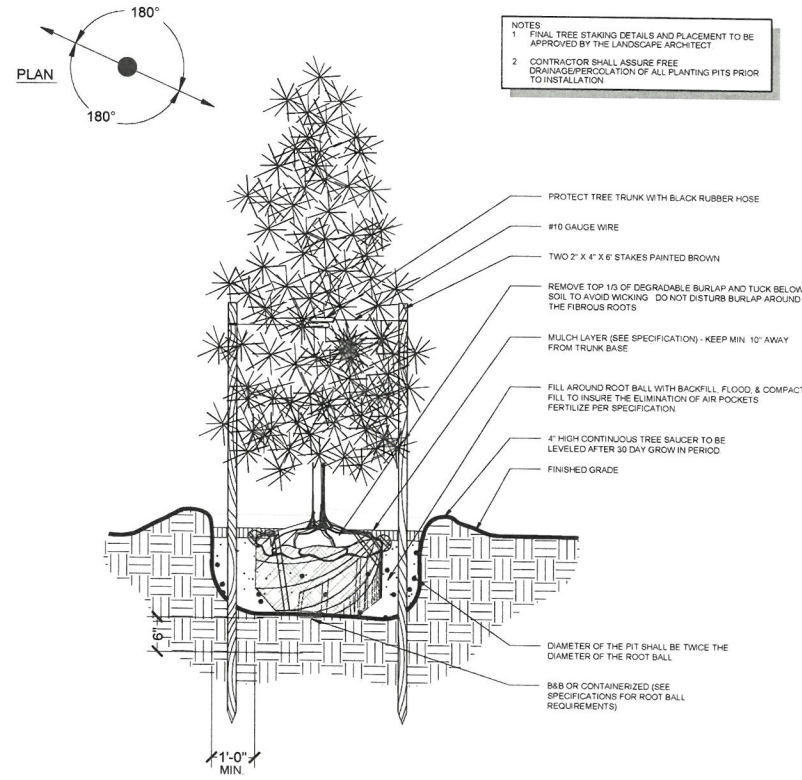
PROJECT NO:	23005335
DATE:	09/12/2023
DRAWN:	WL
REVIEWED:	WL
REVISIONS	
▲ PLANNING COMMENTS-12/08/2023	
▲ PLANNING COMMENTS-01/04/2024	
▲ PLANNING/ROGC-02/09/2024	

IRRIGATION PLAN

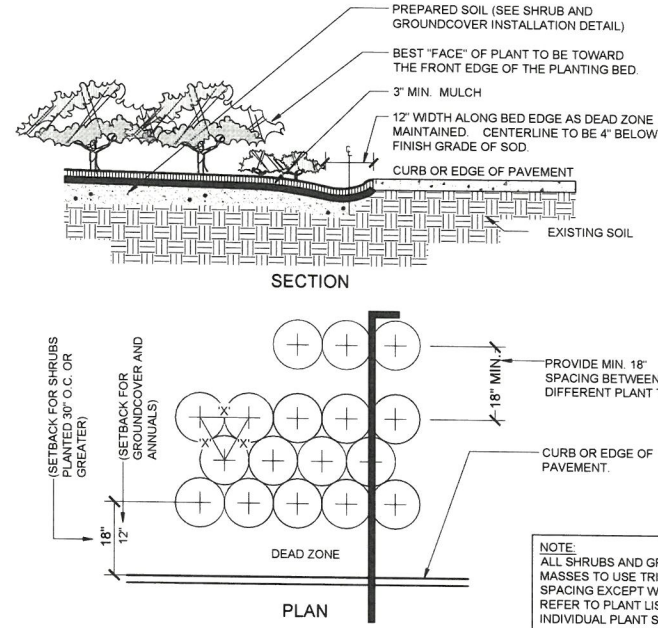


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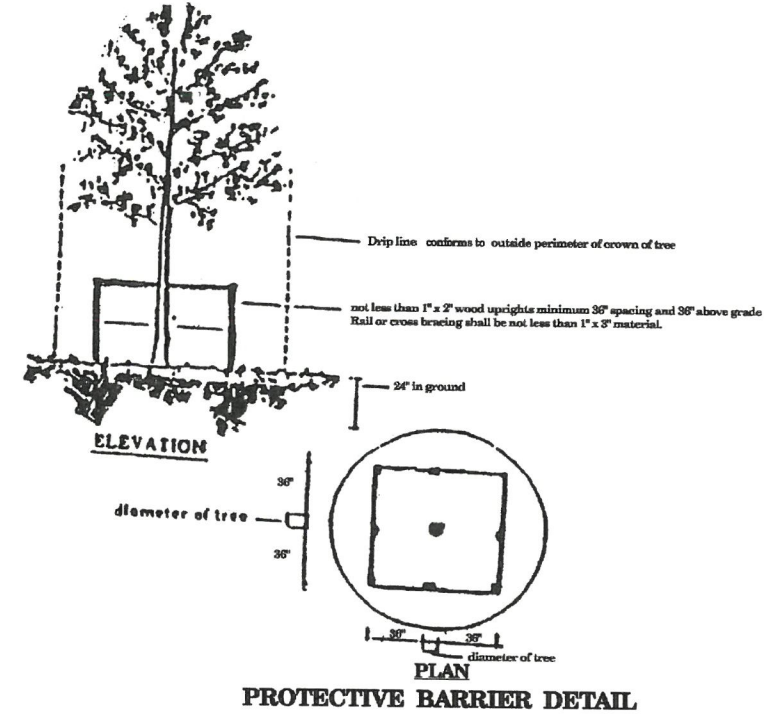
3RD SUBMITTAL



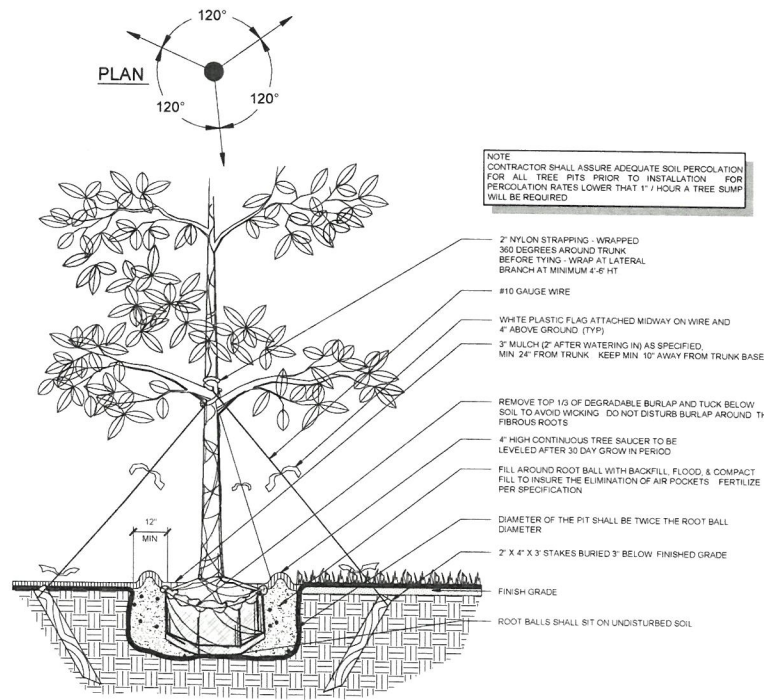
D SMALL TREE INSTALLATION
SCALE: N.T.S.



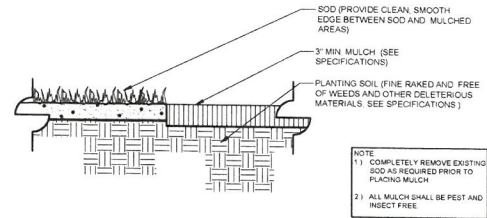
E TYPICAL PLANT SPACING DIAGRAM
SCALE: N.T.S.



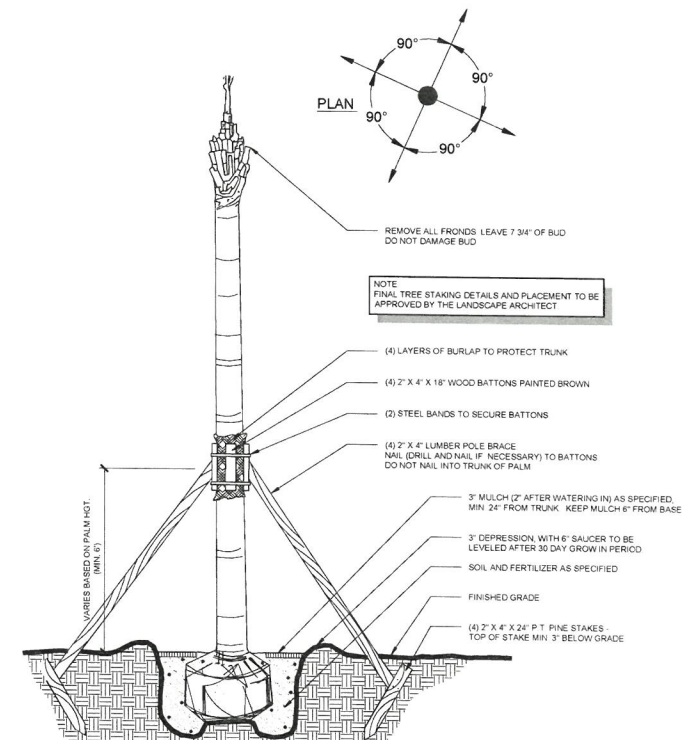
F PROTECTIVE BARRIER PER LDC
SCALE: N.T.S.



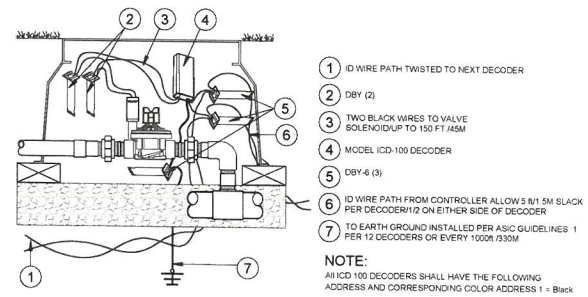
A LARGE TREE INSTALLATION & STAKING
SCALE: N.T.S.



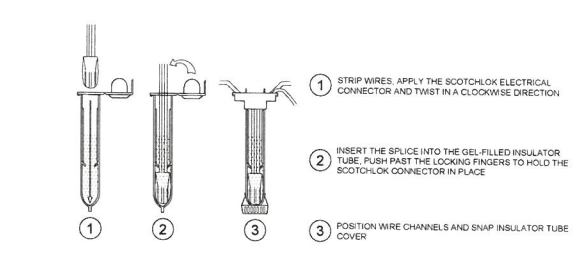
B MULCH APPLICATION
SCALE: N.T.S.



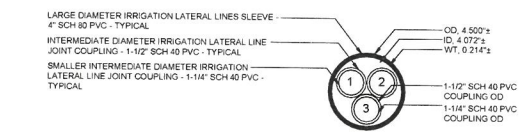
C CABBAGE PALM INSTALLATION
SCALE: N.T.S.



F ICD 100 DECODER
 SCALE: N.T.S.

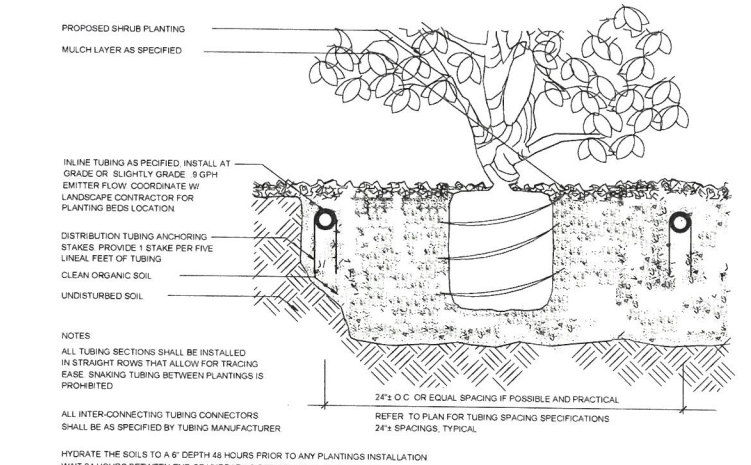


G DBY/DBR DIRECT BURY SPLICE KIT
 SCALE: N.T.S.

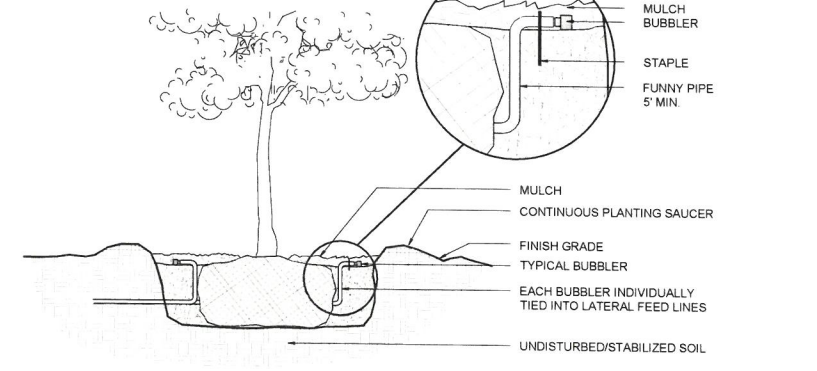
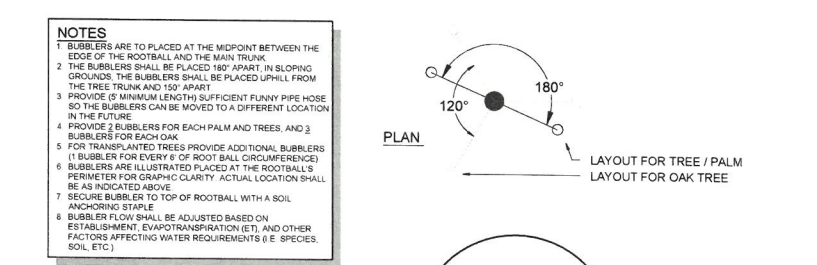


- NOTES**
- WHERE POSSIBLE AND PRACTICAL A SINGLE LARGER DIAMETER SLEEVE SHALL BE USED FOR PASSING MULTIPLE (TWO OR MORE) IRRIGATION LATERAL LINES THROUGH CROSSINGS THAT REQUIRE SLEEVING. 4" SCH 80 PVC IS THE RECOMMENDED SLEEVE SIZE.
 - THE MAXIMUM NUMBER OF LATERAL LINES THROUGH A SLEEVE SHALL BE LIMITED TO THREE LATERAL LINES OF INTERMEDIATE SIZE (1-1/4" & 1-1/2"). THE LATERAL LINES PIPING DIMENSIONS PRESENTED IS BASED ON STANDARD SCH 40 PVC COUPLINGS - SUBSTITUTED LARGER DIAMETER THAN CLASS 200 PVC.
 - THREE 1-1/2" SLEEVES CLASS 200 PVC LATERALS W/ SCH 40 PVC COUPLINGS MIGHT GO THROUGH THE INTERIOR OF ONE 4" SCH 80 PVC SLEEVE DEPENDING ON THE SLEEVE'S TRUE ROUNDNESS. IF THE SLEEVE DOES NOT HAVE A TRUE ROUNDNESS ONE OF THE THREE LATERAL LINES MAY NEED TO BE REDUCED DOWN TO 1-1/4" WHILE GOING THROUGH THE SLEEVE.
 - THE DEPTH OF THE IRRIGATION LATERAL LINES SLEEVE SHALL BE EQUAL TO THE DEPTH OF THE IRRIGATION MAINS/SUBMAIN & CONTROL WIRES SLEEVES UNLESS THAT THE LATERAL LINES DEPTHS OF 12" OR GREATER AND IT IS NOT PRACTICAL NOR COST EFFECTIVE FOR THE LATERAL LINES SLEEVES DEPTH TO BE 80 DEEP. FOR SHALLOWER TRENCH APPLICATIONS SUCH AS SIDEWALK OR OTHER SIMILAR CROSSINGS THE SLEEVE DEPTH SHALL BE 6" THAN THE LATERAL LINES DEPTH.
 - SLEEVES SHALL EXTEND 2x BEYOND THE EDGE OF SIDEWALK CROSSINGS, 4x BEYOND THE EDGE OF THE PAVED SURFACE FOR CURBED DRIVEWAYS/STREET CROSSINGS, 7x BEYOND THE EDGE OF THE PAVED SURFACE FOR NON-CURBED DRIVEWAYS/STREET CROSSINGS.
 - ENTIRE SLEEVE AND PIPE SECTIONS SHALL BE USED FOR CROSSINGS OF < 20".
 - JOINED SLEEVE SECTIONS SHALL BE WATER-PROOF SOLVENT-WELD JOINED.
 - IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MEASURE, RECORD AND DOCUMENT THE LOCATIONS AND DEPTHS OF THE SLEEVE.

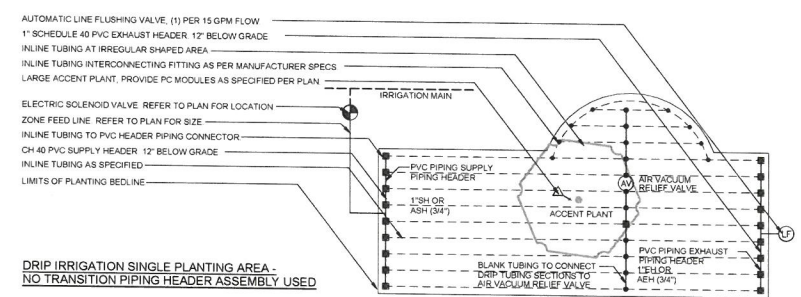
H IRRIGATION MULTIPLE LATERAL LINES SLEEVE DETAIL
 SCALE: N.T.S.



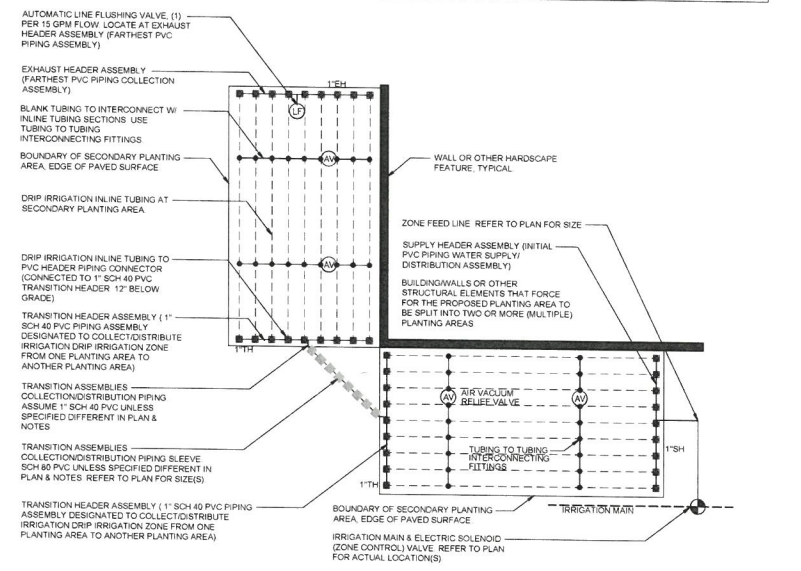
E DRIP IRRIGATION TUBING INSTALLATION DETAIL
 SCALE: N.T.S.



C BUBBLER INSTALLATION DETAIL
 SCALE: N.T.S.



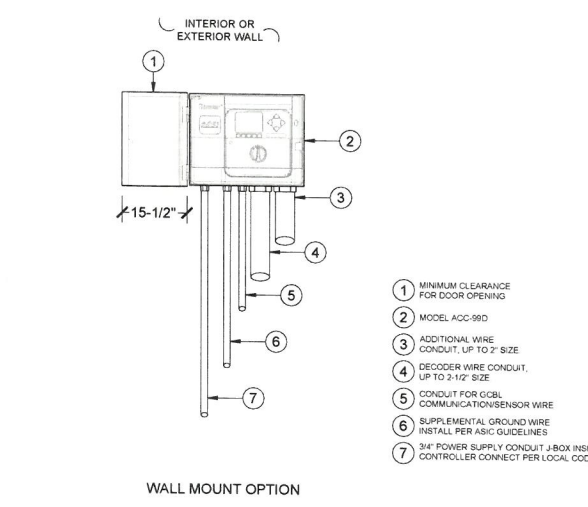
F DRIP IRRIGATION SINGLE PLANTING AREA - NO TRANSITION PIPING HEADER ASSEMBLY USED



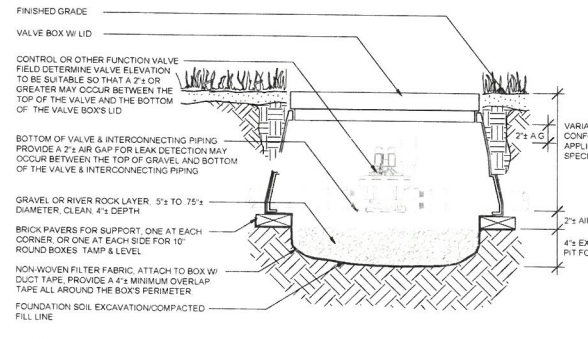
F DRIP IRRIGATION MULTIPLE PLANTING AREAS - TRANSITION PIPING HEADER ASSEMBLY USED

- NOTES**
- THE OBJECTIVE OF THIS PLAN VIEW SCHEMATIC DETAIL IS TO ILLUSTRATE HOW DRIP IRRIGATION ZONES CAN BE SUITABLE FOR DIFFERENT SHAPE AREAS AND CAN ALSO DISTRIBUTE WATER FROM ONE PLANTING AREA SECTION TO ANOTHER PLANTING AREA SECTION THROUGH THE USE OF TRANSITION (COLLECTION/DISTRIBUTION) HEADER PIPING ASSEMBLIES
 - THE ZONE FEED LINE SHALL BE CONNECTED TO SUPPLY HEADER AT MID POINT OF HEADER. ALL HEADER PIPING MUST BE INSTALLED 12" BELOW GRADE. REFER TO PLAN FOR FEED LINE SIZE
 - WHEN POSSIBLE AND PRACTICAL THE TUBING SHALL BE LAID IN STRAIGHT ROWS THAT ALLOW FOR TRACING EASE. THE ROWS SHALL BE LAID PARALLEL TO THE BEDLINE'S STRAIGHTEST BOUNDARY LINE, OR A STRAIGHT FIXED LINE SUCH AS A SIDEWALK, CURB, OR BUILDING. THE TUBING SHALL BE STRETCHED TO THE POINT THAT THERE IS NO SLACK FOR MOVEMENT TO THE SIDE. TUBING SPACING SHALL BE AS SPECIFIED PER PLAN. DO NOT WRAP THE TUBING AROUND PLANTS, NOR WAVE IT IN BETWEEN PLANTS
 - THE SUPPLY HEADER (1" SCH 40 PVC PIPING ASSEMBLY) IS THE PRIMARY IRRIGATION WATER SUPPLY POINT OF CONNECTION FOR THE INLINE TUBING SECTIONS. IT IS LOCATED CLOSEST TO THE ZONE CONTROL VALVE. EACH TUBING P.O.C. AT THE SUPPLY HEADER SHALL BE LIMITED TO 225' L.F. OF TUBING FOR THE ENTIRE SECTION. DO NOT EXCEED 225' OF TUBING PER SUPPLY HEADER PIPING ASSEMBLY TUBING P.O.C.
 - THE TRANSITION HEADER (1" SCH 40 PVC PIPING ASSEMBLY) PROVIDE A RIGID PIPING POINT OF CONNECTION TO THE INLINE TUBING SECTIONS IN ONE PLANTING AREA AND THROUGH A COLLECTION/DISTRIBUTION PIPING SECTION THE IRRIGATION WATER IS DISTRIBUTED INTO ANOTHER TRANSITION TUBING SECTIONS IN ONE PLANTING AREA AND THROUGH A COLLECTION/DISTRIBUTION PIPING SECTION THE IRRIGATION WATER IS DISTRIBUTED INTO ANOTHER TRANSITION TUBING SECTIONS IN ONE PLANTING AREA
 - THE USE OF TRANSITION (COLLECTION/DISTRIBUTION) PIPING ASSEMBLIES IS RECOMMENDED FOR SMALL LANDSCAPE AREAS THAT ARE LOCATED NEAR EACH OTHER AND THE IRRIGATION WATER IS REASONABLY CLEAN. ENABLING FOR FLUSHING EASE W/ A SINGLE AUTOMATIC LINE FLUSHING VALVE. FOR LARGER LANDSCAPE AREAS THE USE OF MULTIPLE LINE FLUSHING VALVES AND INDIVIDUAL DEDICATED SUPPLY/EXHAUST PIPING ASSEMBLIES IS BETTER SUITED
 - THE EXHAUST HEADER (1" SCH 40 PVC PIPING ASSEMBLY) IS THE FINAL COLLECTION/CIRCULATION IRRIGATION WATER THAT INLINE TUBING SECTIONS CONNECT TO SO THAT SOILS, SILTS AND SMALL DEBRIS THAT MAY BE TRAVELING THROUGH THE WATER CAN BE COLLECTED AND EXPELLED THROUGH AN AUTOMATIC LINE FLUSHING VALVE. PROVIDE ONE LINE FLUSHING VALVE AT THE EXHAUST HEADER (EXHAUST HEADERS) HEADERS ARE TO BE LOCATED AT DESIGNATED ENDS OF A DRIP IRRIGATION ZONE. PROVIDE ONE LINE FLUSHING VALVE PER 15 GPM FLOW DEMAND, AND AT EACH DEAD END EXHAUST PIPING HEADERS
 - PROVIDE AIR VACUUM RELIEF VALVES AT A RATE OF ONE VALVE PER 6' GPM. THE VALVES SHALL BE CONNECTED TO THE DRIP TUBING SECTIONS W/ BLANK TUBING. THE AVRV SHALL BE INSTALLED AT LOCATIONS IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS
 - FOR PLANT MATERIAL THAT REQUIRES ADDITIONAL HYDRATION DUE TO HIGHER WATER NEEDS PROVIDE HIGHER FLOW SUPPLEMENTAL WATER EMITTERS FOR PLANT MATERIAL LINE DESIGNATED PLANT QUANTITIES AND LOCATIONS
 - WHEN POSSIBLE AND PRACTICAL INSTALL THE TUBING BEFORE THE PLANTINGS ARE SHOWN SO THAT THE TUBING'S WEAVING PATTERNS CAN BE EVALUATED. THE SOIL SHALL BE HYDRATED TO A DEPTH OF 12" PRIOR TO THE INSTALLATION OF PLANT MATERIAL. THE HYDRATION PERIOD SHALL BE CONCLUDED 24 HOURS PRIOR TO THE INSTALLATION OF PLANTS

A DRIP TUBING ZONES LAYOUT SCHEMATIC DETAILS
 SCALE: N.T.S.



D ACC CONTROLLER
 SCALE: N.T.S.



- NOTES**
- EXCAVATE THE VALVE BOX PIT DEEP ENOUGH TO ACCOMMODATE THE VALVE BOX, VALVE BOX EXTENSIONS AND THE ADDITIONAL DEPTH FOR THE GRAVEL LAYER AT THE BOX'S BOTTOM
 - PROVIDE AIR GAPS AS SPECIFIED BETWEEN THE BOTTOM OF THE VALVE & INTERCONNECTING PIPING AND BETWEEN THE TOP OF THE VALVE AND BOTTOM OF THE BOX'S LID

B TYPICAL VALVE BOX INSTALLATION DETAIL
 SCALE: N.T.S.



THE STUDIOS ON RIVIERA
 CODE MINIMUM LANDSCAPE PLANS
 KEY WEST, FLORIDA

PROJECT NO: 23005335
 DATE: 09/12/2023
 DRAWN: WL
 REVIEWED: WL

REVISIONS

- PLANNING COMMENTS-12/08/2023
- PLANNING COMMENTS-01/04/2024
- PLANNING/REGO-02/09/2024

IRRIGATION DETAILS

L4

3RD SUBMITTAL