

City of Delray Beach, Florida - Tree Removal and Tree Replacement Guidelines:
 (The Following Shall Apply Pursuant To "City of Delray Beach Land Development Code - Landscape Regulations (Section 4.6.16(D)(2)(a) - "Preservation and Promotion of Existing Plant Communities"; and Section 3.4.6(G) "Tree Removal Permits"; and Are Reflected Upon These Tree Disposition/Mitigation Plans and the "Landscape Planting Plans" Accordingly. The Owner and/or Contractor Shall Follow The Tree Replacement and Protection Guidelines, Within These Notes, As Well As The Aforementioned Codes.)

General Conditions/Pre-Clearing Inspections: A Pre-Clearing Inspection Is Required Prior To The Initial Removal or Alteration of Any Vegetation In Order To Assure Proper Compliance With The Permit Conditions. A Post-Clearing Inspection Is Required Prior To Issuance of The Final Certificate of Occupancy. All Native Vegetation Outside of The Development Area Shall Be Maintained In Place As Outlined On The Tree Disposition Site Plans.

Tree Protection Note: Contractors Shall Use Caution During Construction To Avoid Damaging Any Existing Trees Listed As To Remain. (1) Barriers Shall Enclose Area Inside The Outer Edge of Drip Line. (2) Tree Protection Barrier Shall Be Conspicuous and High Enough To Be Easily Seen By Any Equipment Operators. (3) All Tree Protection Barrier Shall Be Constructed of Sturdy Scrap Wood (Four by Four Stock), or Other Sturdy Material (No Flaming or Ribbon Type Fencing Shall Be Allowed). (4) All Tree Protection Barriers To Be Completely Removed From Site At End of Construction Period (Immediately Prior To Issuance of Certificate of Occupancy By The City of Delray Beach Building Department) Unless Otherwise Stipulated.

Methodology of Tree Removals: No Heavy Equipment or Machinery Shall Be Used. Nor Shall Any Construction Activities or Grade Changes Occur Within The Radius of The Drip Line of Native Trees Which Shall Be Preserved In Place, Unless Specifically Approved In Writing By The City of Delray Beach and/or the Landscape Architect. Use of Any Chemical Treatments Shall Have Prior Approval By The City of Delray Beach and the Landscape Architect Before Application. All Prohibited Species and/or Invasive Species Shall Be Removed as Indicated Within The Limits of Contract Area or Property To Be Developed Accordingly, as per The City of Delray Beach's Land Development Code.

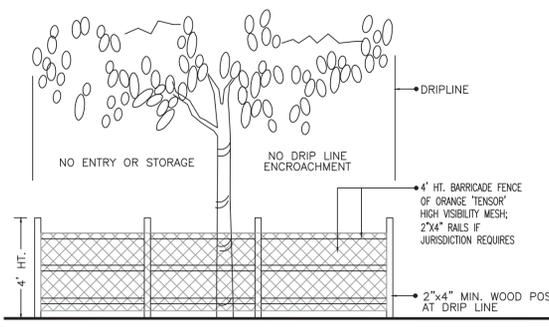
Tree Locations/ Tree Removals and Tree Replacement Calculations: Trees That Are To Be Removed Must Be Mitigated For According To The Tree Canopy Credits Guidelines Section 4.6.19(E)(5)(b) of The City of Delray Beach Land Development Code.

Maintenance and Monitoring Requirements: The Permit Holder Shall Be Responsible For Maintaining The Health of Any Replacement and/or Replanted Trees For A Min. of One Year From Planting. Throughout The Monitoring Period, The Permit Holder Shall Maintain a (100% Survivorship Rate For All Installed Replacement Trees. If During The Monitoring Periods, The Survival Rate of Any of The Plants Drops Below The Required Level, The Permit Holder Shall Have (15) Days To Plant A Sufficient Number of Additional Trees So As To Maintain The Required Survival Rate.

Tree Replacement Bond Requirement: Bonds May Be Required By The City of Delray Beach For Tree Removal and/or Tree Replacement Permits. Calculations For The Amount of Bonds For Non-Mature Trees Shall Be Computed Based Upon The Equivalent Canopy Replacement Criteria Applied To Each Tree To Be Relocated or Replaced and Upon The Cost of Installation and Maintenance. Determination of the Bond Amount For Mature Trees Shall Be Computed Based Upon The Most Current Version of the Guide For Plant Appraisal, Published By The International Society of Arboriculture. The Fair Market Value of the Cost of Trees That Would Be Required To Compensate For The Canopy To Be Relocated or Replaced Shall Be Posted.

GENERAL EXISTING TREE NOTES:

- TREE PROTECTION BARRICADES SHALL BE PROVIDED BY LANDSCAPE CONTRACTOR AROUND EXISTING TREES THAT MAY BE IMPACTED BY THE PROPOSED CONSTRUCTION. PRIOR TO ANY CONSTRUCTION A TREE PROTECTION BARRICADE INSPECTION SHALL BE CONDUCTED BY THE LANDSCAPE ARCHITECT, OWNER OR GOVERNING MUNICIPALITY. REFER TO LANDSCAPE DETAIL FOR TREE PRESERVATION BARRICADE FENCING. DURING PERIODS OF DEVELOPMENT & CONSTRUCTION, THE AREAS WITHIN THE DRIP-LINE OF PRESERVED TREES SHALL BE MAINTAINED AT THEIR ORIGINAL GRADE WITH PERVIOUS LANDSCAPE MATERIAL. WITHIN THESE AREAS, THERE SHALL BE NO TRENCHING OR CUTTING OF ROOTS, EXCEPT WHERE NECESSARY DUE TO PROPOSED CONSTRUCTION; NO FILL, COMPACTION, OR REMOVAL OF SOIL, & NO USE OF CONCRETE, PAINT, CHEMICALS, OR OTHER FOREIGN SUBSTANCES.
- ALL ROOT-PRUNING & CANOPY TRIMMING ACTIVITIES SHALL BE CONDUCTED UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST UTILIZING BEST MANAGEMENT PRACTICES TO ENSURE VIABILITY OF EXISTING TREES; NO TREE CANOPY SHALL BE TRIMMED BY MORE THAN 25%. ALL TREES TO REMAIN SHALL BE STRUCTURALLY PRUNED ANY NECESSARY TREE TRIMMING SHALL BE IN ACCORDANCE WITH THE JURISDICTIONAL PRUNING STANDARDS PRIOR TO ANY CONSTRUCTION WORK TAKING PLACE.
- ROOT-PRUNE ALL TREES IN CONSTRUCTION AREA FOR THIS SITE A MINIMUM OF (6) WEEKS PRIOR TO ANY CONSTRUCTION OR INSTALLATION OF UTILITIES. TRENCHES FOR PROPOSED UTILITIES SHALL BE HAND DUG AS FAR FROM THE TRUNK OF EXISTING TREES TO REMAIN AS POSSIBLE.
- LIQUIDATED DAMAGES SHALL BE ASSESSED TO THE CONTRACTOR FOR TREES SPECIFIED TO BE PRESERVED THAT DIE OR ARE DAMAGED AS A RESULT OF IMPROPER TREE PROTECTION PROCEDURES &/OR CONSTRUCTION OPERATIONS. TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY PERCENT (20%) PER INCH OVER FOUR INCHES (4") CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES, OR AS MAY BE REQUIRED BY THE REGULATING GOVERNMENT AGENCY, WHICHEVER IS GREATER. CALIPER SHALL BE MEASURED AT GREATEST HEIGHT OR FOUR FEET (4') ABOVE SURROUNDING GROUND.
- IN ALL VEHICULAR USE AREAS, ALL TREES SHALL BE PRUNED & MAINTAINED TO ALLOW FOR CLEAR PASSAGE AT AN 8.5 FT HEIGHT. EXISTING TREES ADJACENT TO VEHICULAR USE AREAS MAY BE TRIMMED UP TO 13.5 FT ABOVE VEHICULAR USE AREAS.
- ROOT BARRIERS SHALL BE PROVIDED FOR ADJACENT TO ALL PROPOSED UTILITIES. SEE ROOT BARRIER DETAIL ON THIS SHEET.
- ALL INVASIVE EXOTIC PLANT MATERIALS SHALL BE REMOVED & ERADICATED FROM THE ENTIRE SITE & ADJACENT RIGHT-OF-WAYS IN PERPETUITY PRIOR TO FINAL LANDSCAPE CERTIFICATION. PERPETUAL MAINTENANCE IS REQUIRED TO PROHIBIT THE REESTABLISHMENT OF INVASIVE EXOTIC SPECIES THROUGHOUT THE SITE & WITHIN ALL PRESERVATION & RESTORATION AREAS.
- ALL TREES SCHEDULED TO BE REMOVED OR THAT HAVE BEEN PREVIOUSLY REMOVED & HAVE REMAINING STUMPS SHALL BE CUT DOWN, STUMP GROUND, & SHALL HAVE ALL ROOTS REMOVED
- DURING LAND ALTERATION & CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIALS, MACHINERY, OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIPLINE OF A TREE TO REMAIN UNLESS OTHERWISE APPROVED BY THE JURISDICTION
- UNLESS OTHERWISE NOTED, ALL SHRUBS, ACCENT PLANTS & GROUNDCOVERS SHALL BE REMOVED FROM CONSTRUCTION AREA, EXCEPT NATIVE PLANTS IN PRESERVATION AREAS
- VIABLE & ARABLE WELL DRAINED NATIVE SOILS SHALL BE LAB TESTED, STOCKPILED, AMENDED IF NECESSARY, & REUSED BENEATH IMPORTED TOPSOILS IN LANDSCAPE AREAS

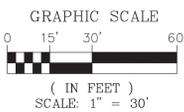


TREE PRESERVATION BARRICADE FENCING DETAIL

EXISTING TREE DISPOSITION CHART

TREE NO.	BOTANICAL NAME	COMMON NAME	DBH (in.)	HT (ft)	SPR (ft)	CONDITION/DISPOSITION	COMMENTS
39	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
40	Psychosperma elegans	Alexander Palm	5	10'	5	70%	REMAIN
41	Psychosperma elegans	Alexander Palm	5	10'	4	70%	REMAIN
43	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
44	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
232	Quercus virginiana	Live Oak	16	25'	10	70%	REMAIN
234	Roystonea regia	Royal Palm	16	25'	15	70%	Remove
238	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
239	Roystonea regia	Royal Palm	16	25'	15	70%	Remove
245	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
424	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
425	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
427	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
430	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
432	Sabal palmetto	Cabbage Palm	8	22'	9	70%	REMAIN
433	Sabal palmetto	Cabbage Palm	6	18'	7	70%	REMAIN
438	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
439	Roystonea regia	Royal Palm	16	30'	15	70%	REMAIN
466	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
467	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
468	Roystonea regia	Royal Palm	16	18'	15	70%	REMAIN
469	Roystonea regia	Royal Palm	16	28'	15	70%	REMAIN
470	Lagerstroemia indica	Crepe Myrtle	5	18	7	70%	REMAIN
471	Lagerstroemia indica	Crepe Myrtle	5	18	7	70%	REMAIN
472	Lagerstroemia indica	Crepe Myrtle	5	18	7	70%	REMAIN
473	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
474	Sabal palmetto	Cabbage Palm	8	18	7	70%	REMAIN
475	Sabal palmetto	Cabbage Palm	8	18	7	70%	REMAIN
476	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
477	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
515	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
516	Sabal palmetto	Cabbage Palm	6	18	7	70%	REMAIN
517	Conocarpus erectus var. sericeus	Silver Buttonwood	5	12	7	70%	REMAIN
518	Royal Palm	Royal Palm	16	25'	15	70%	REMAIN
519	Conocarpus erectus var. sericeus	Silver Buttonwood	5	12	7	70%	REMAIN
520	Roystonea regia	Royal Palm	16	25'	15	70%	REMAIN
569	Sabal palmetto	Cabbage Palm	12	18	7	70%	REMAIN
570	Sabal palmetto	Cabbage Palm	12	18	7	70%	REMAIN
571	Sabal palmetto	Cabbage Palm	12	16	7	70%	REMAIN
572	Sabal palmetto	Cabbage Palm	12	16	7	70%	REMAIN
573	Sabal palmetto	Cabbage Palm	12	18	7	70%	REMAIN
574	Sabal palmetto	Cabbage Palm	12	18	7	70%	REMAIN
575	Sabal palmetto	Cabbage Palm	12	16	7	70%	REMAIN
576	Sabal palmetto	Cabbage Palm	12	16	7	70%	REMAIN
577	Conocarpus erectus var. sericeus	Silver Buttonwood	4	12	6	70%	REMAIN
628	Conocarpus erectus var. sericeus	Silver Buttonwood	4	12	5	70%	REMAIN
649	Sabal palmetto	Cabbage Palm	5	18	7	70%	REMAIN
660	Sabal palmetto	Cabbage Palm	5	18	7	70%	REMAIN
666	Unknown	Unknown	12	18	7	70%	REMAIN
667	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
668	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
669	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
670	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
671	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
672	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
673	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
674	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
675	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
676	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
677	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
678	Casuarina equisetifolia	Australian Pine	12	18	7	70%	remove
679	Conocarpus erectus var. sericeus	Silver Buttonwood	4	12	6	70%	remove
680	Conocarpus erectus var. sericeus	Silver Buttonwood	4	12	6	70%	Relocate

The total DBH of all trees with a condition rating of 50 percent or greater removed shall be replaced with the equivalent number of caliper inches of replacement trees, installed at a minimum size as required by Section 4.6.16. (Ord. No. 19-17, § 1, 8-2-17).
 *Trees and palms with a condition rating less than 50 percent are exempt from DBH/caliper inch-for-inch replacement, but are required to be mitigated on a tree-for-tree or palm-for-palm basis per Section 4.6.19.E.6.a. (Ord. No. 19-17, § 1, 8-2-17).



NO.	REVISION	DESCRIPTION	DATE
1		JURISDICTION COMMENTS	07/26/23
2		JURISDICTION COMMENTS	08/09/23
3		JURISDICTION COMMENTS	09/15/23
4		JURISDICTION COMMENTS	02/23/24

DISPOSITION PLAN
GRIECO DELRAY MAZDA LEVEL II RENOVATION
 2001 SOUTH FEDERAL HIGHWAY
 PALM BEACH COUNTY, FLORIDA

Digitally signed by
 Kenneth D Bates
 Reason:
 LA6666710, State
 of Florida
 Date: 2024.02.22
 10:39:19 -07'00'



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DESIGN	DRAWN	CHKD

SCALE: 1" = 30'
 JOB No: 011081-01-001
 DATE: 8/7/2023
 SHEET **L-1**



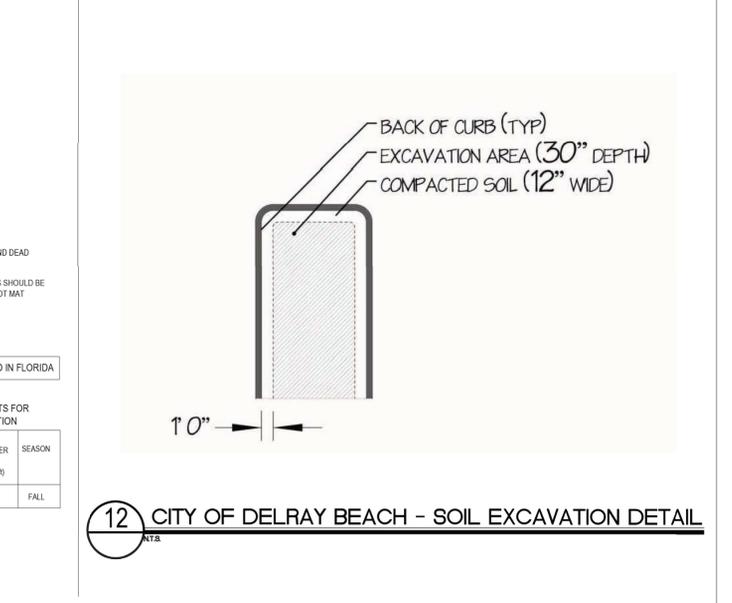
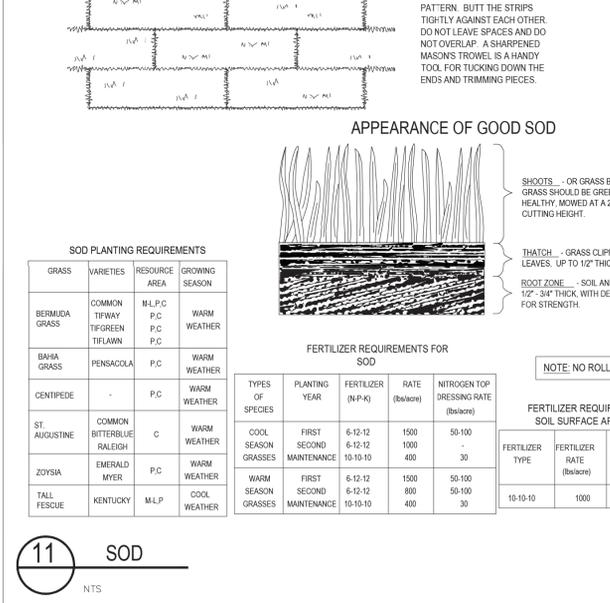
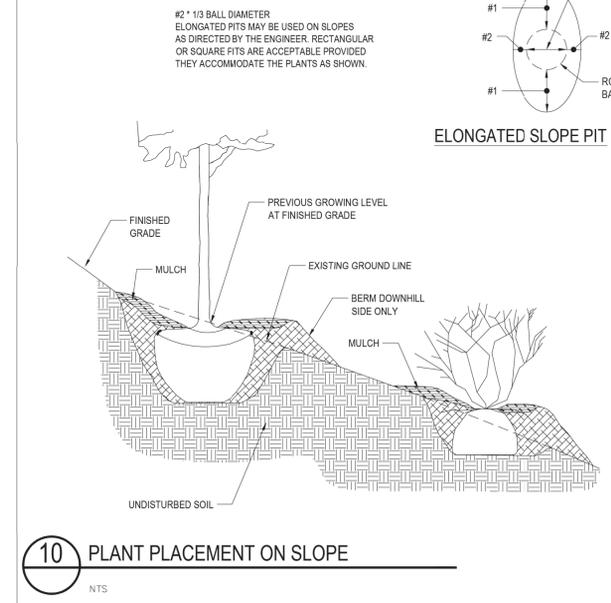
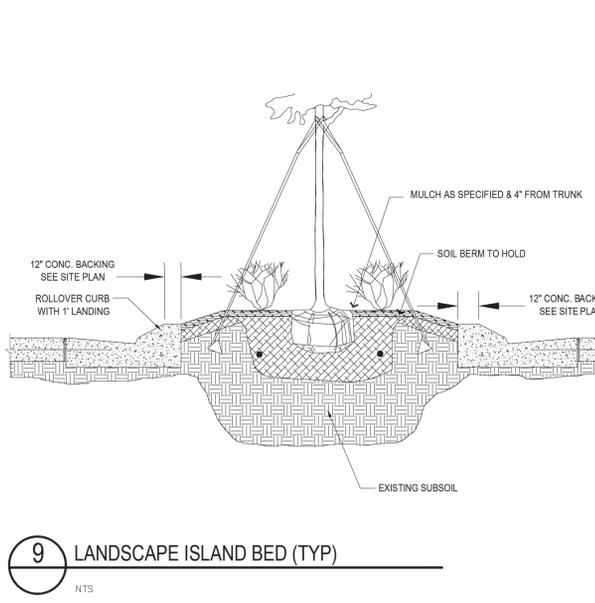
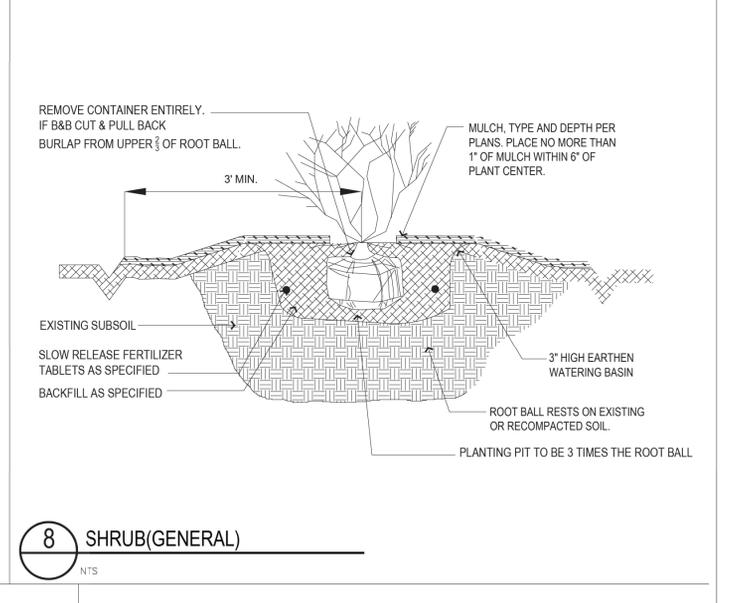
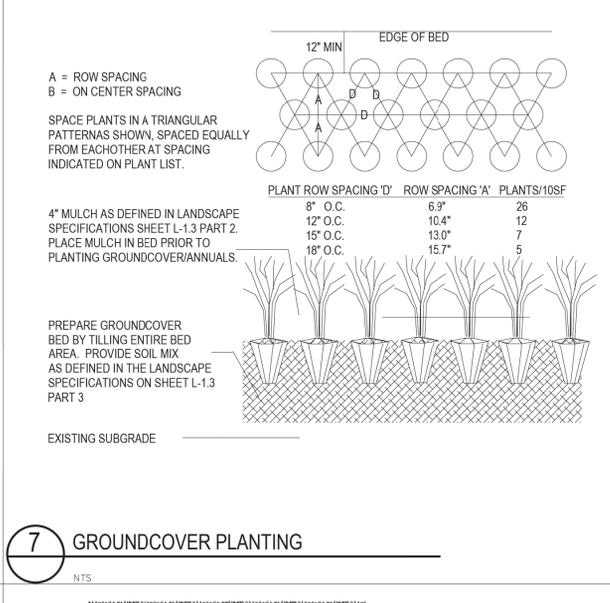
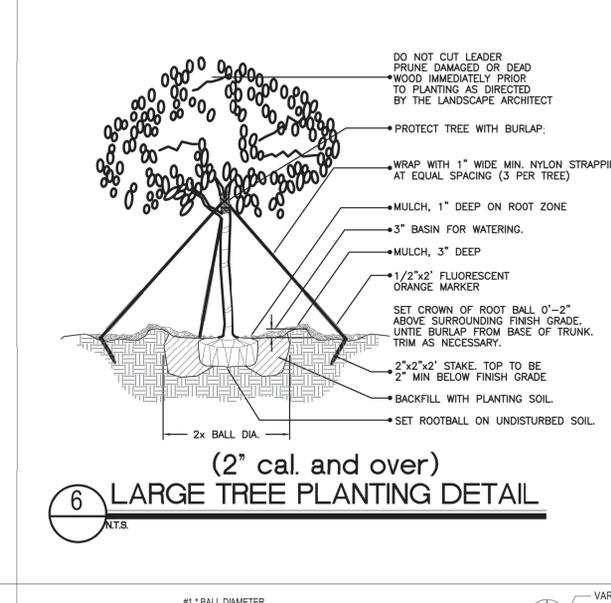
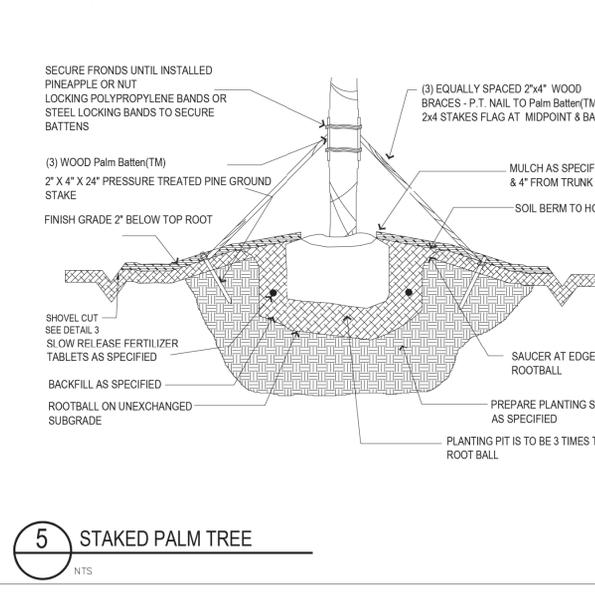
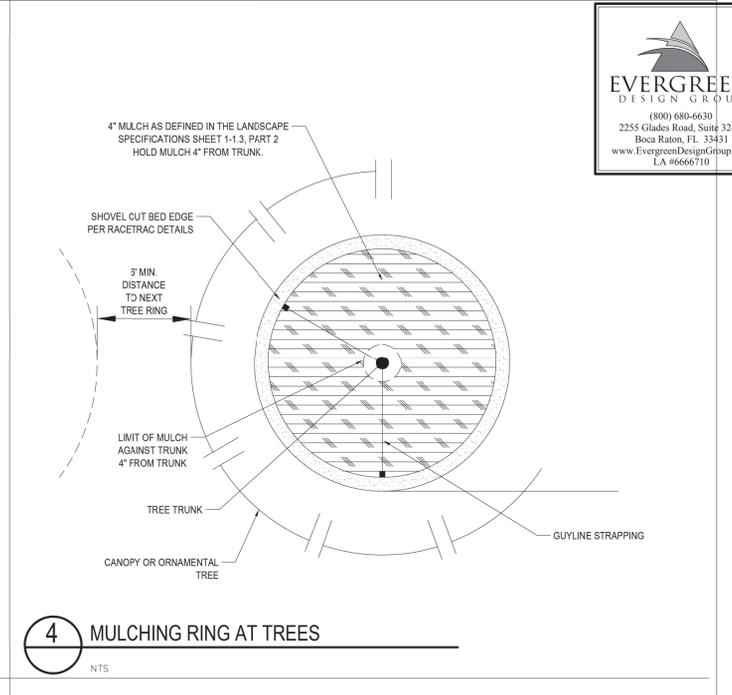
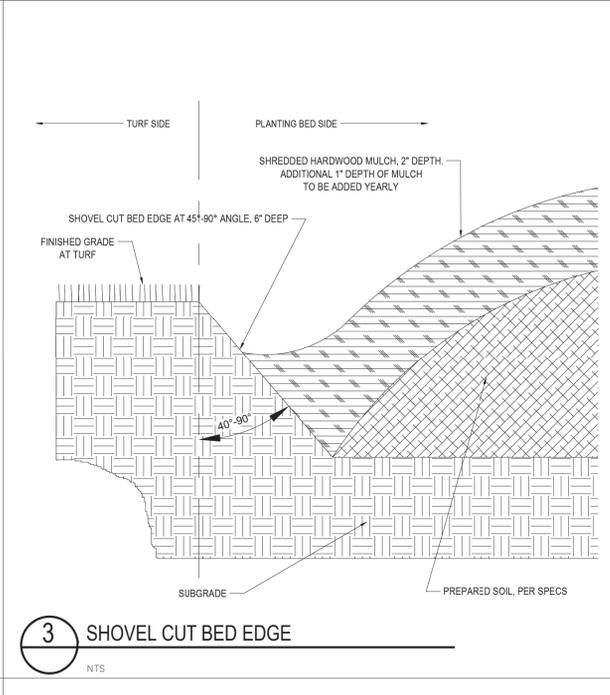
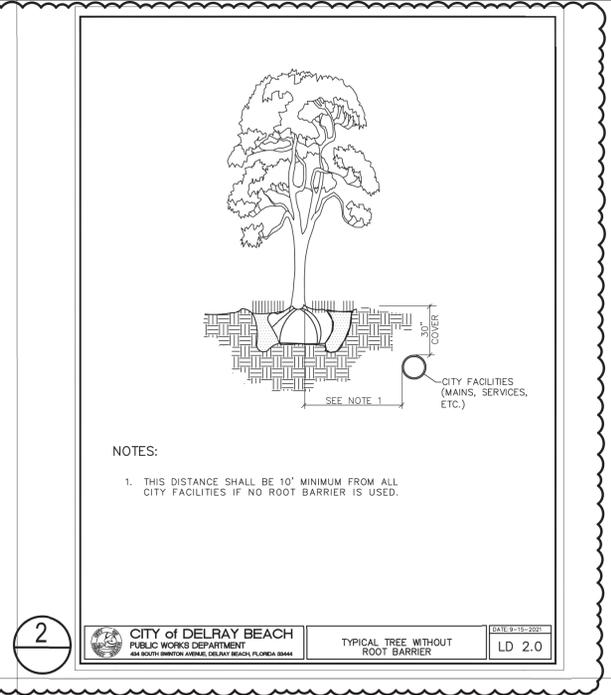
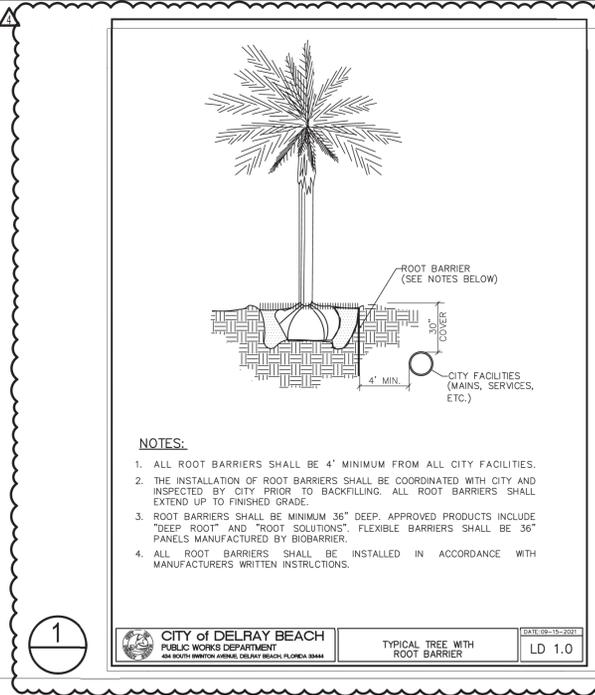
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LANDSCAPE NOTES AND DETAILS
**GRIECO DELRAY MAZDA
 LEVEL II RENOVATION**
 2001 SOUTH FEDERAL HIGHWAY
 PALM BEACH COUNTY, FLORIDA

Digitally signed by
 Kenneth D Bates
 Reason:
 LA6666710, State of
 Florida
 Date: 2024.02.22
 10:38:45 -07'00'



AR	AR	KB
DESIGN	DRAWN	CHKD
SCALE: 1" = 30'		
JOB No.: 011081-01-001		
DATE: 8/7/2023		
SHEET L-3		



THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY BOWMAN CONSULTING SHALL BE WITHOUT LIABILITY TO BOWMAN CONSULTING.



CONTROLLER NOTE
LOCATE CONTROLLER AT LOCATION SHOWN ON PLAN. VERIFY LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE.

120 VAC POWER TO CONTROLLER LOCATION IS NOT WITHIN THE IRRIGATION CONTRACTOR'S SCOPE OF WORK, AND SHALL BE PROVIDED BY OTHERS. HOOK-UP OF CONTROLLER TO 120 VAC SHALL BE PERFORMED BY THE IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF WIRE SLEEVE PENETRATIONS THROUGH BUILDING WITH OWNER AND GENERAL CONTRACTOR. STATION RUN ORDER SHALL MATCH PLANS.

IRRIGATION_SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
[Symbol]	Rain Bird R-VAN-STRIP 1812-SAM-P45 Shrub Rotary, 5'x15' (LCS and RCS), 5'x30' (SST) Hand Adjustable Multi-Stream Rotary w/ 1800 shrub spray body on 12" pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2" NPT Female Threaded Inlet.	18	35
[Symbol]	Rain Bird 1800-1400 Flood 1401 Fixed flow rate (0.25-2.0GPM), full circle bubbler, 1/2" FIPT.	17	30
[Symbol]	Rain Bird XCZ-100-PRB-COM Wide Flow Drip Control Kit for Commercial Applications. 1" Ball Valve with 1" PESB Valve and 1" Pressure Regulating 40psi Quick-Check Basket Filter. 0.3gpm to 20gpm.	1	
[Symbol]	Area to Receive Dripline Rain Bird XFD-06-18 XFD On-Surface Pressure Compensating Landscape Dripline. 0.6 GPH emitters at 18" O.C. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	537.3 l.f.	
[Symbol]	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	2	
[Symbol]	Febco 765 1 1/2" Pressure Vacuum Breaker, brass with ball valve SOV. Install 12" above highest downstream outlet and the highest point in the downstream piping.	1	
[Symbol]	Rain Bird ESP4ME3 with (2) ESP-SM3 10 Station, Hybrid Modular Outdoor Controller. For Residential or Light Commercial Use. LNK WIFI Module and Flow Sensor Ready.	1	
[Symbol]	Rain Bird RSD-BEX Rain Sensor, with metal latching bracket, extension wire.	1	
[Symbol]	Water Meter 1-1/2" New 1-1/2" Water Meter	1	
[Symbol]	Irrigation Lateral Line: PVC Schedule 40	1,535 l.f.	
[Symbol]	Irrigation Mainline: PVC Class 200 SDR 21	305.8 l.f.	
[Symbol]	Pipe Sleeve: PVC Schedule 40	488.9 l.f.	

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Rain Bird PEB	1"	Shrub Rotary	5.94	169.3	43.3	52.7	0.46 in/h
2	Rain Bird XCZ-100-PRB-COM	1"	Area for Dripline	2.61	282.5	44.4	56.4	0.43 in/h
3	Rain Bird PEB	1"	Bubbler	4.25	297.0	37.4	50.0	0.85 in/h
	Common Wire				305.8			

WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN/WEEK	MIN/WEEK	GAL/WEEK	GAL/DAY
1	Rain Bird PEB	Shrub Rotary	0.46 in/h	1	132	784.1	368.0
2	Rain Bird XCZ-100-PRB-COM	Area for Dripline	0.43 in/h	1	71	301.8	134.1
3	Rain Bird PEB	Bubbler	0.85 in/h	1	344	1,454	647.9
TOTALS:							

CRITICAL ANALYSIS

Generated: 2023-07-26 13:52
P.O.C. NUMBER: 01
Water Source Information: New 1-1/2" Water Meter

FLOW AVAILABLE
Water Meter Size: 1-1/2"
Flow Available: 69.4 GPM

PRESSURE AVAILABLE
Static Pressure at POC: 60 PSI
Elevation Change: 5.00 ft
Service Line Size: 2"
Length of Service Line: 20 ft
Pressure Available: 57 PSI

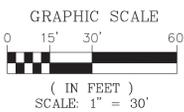
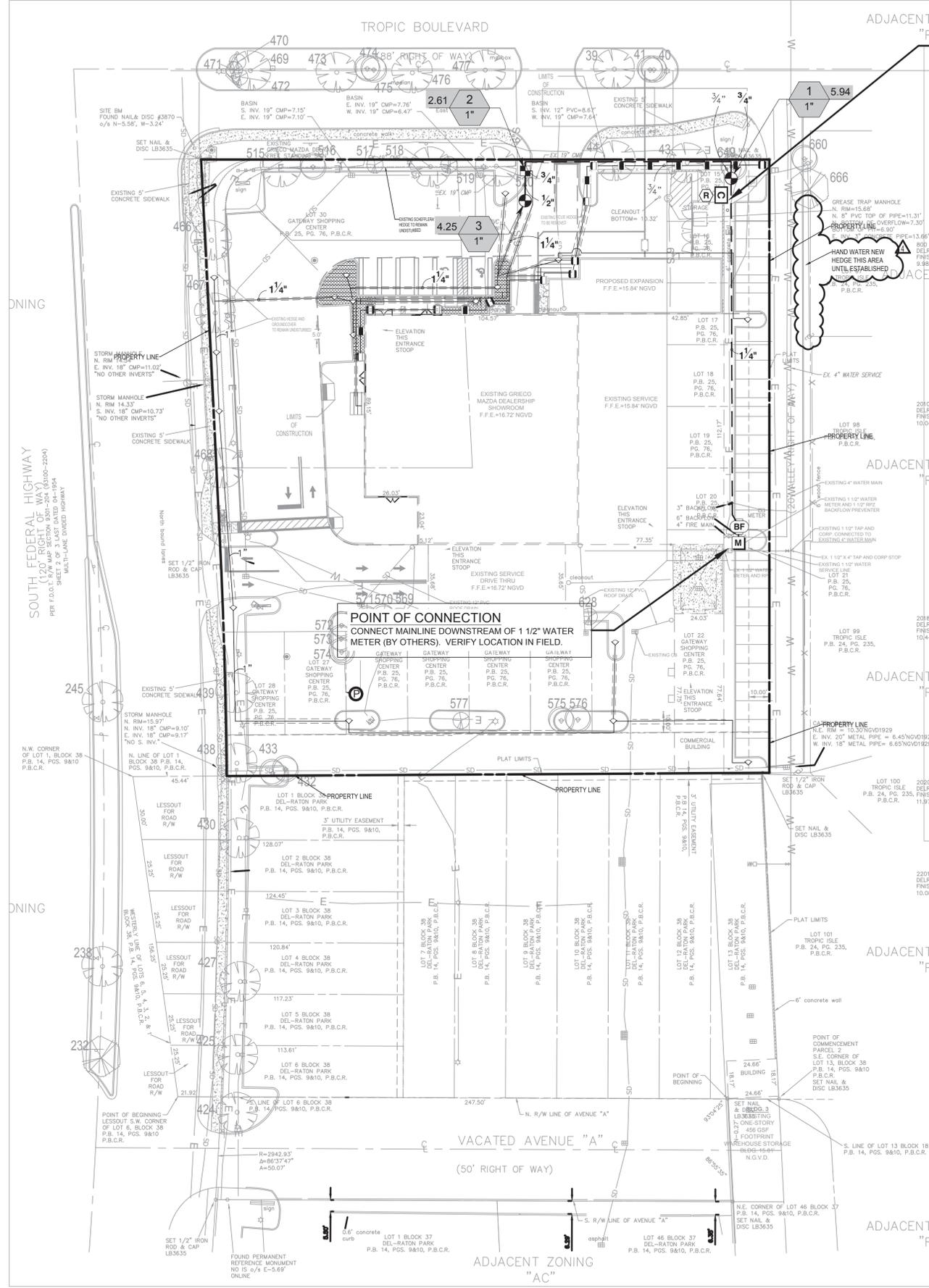
DESIGN ANALYSIS
Maximum Multi-valve Flow: 50 GPM
Flow Available at POC: 69.4 GPM
Residual Flow Available: 19.4 GPM

Critical Station: 2
Design Pressure: 40 PSI
Friction Loss: 2.25 PSI
Fittings Loss: 0.22 PSI
Elevation Loss: 0 PSI
Loss through Valve: 1.9 PSI
Pressure Req. at Critical Station: 44.4 PSI
Loss for Fittings: 0 PSI
Loss for Main Line: 3.95 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 3.2 PSI
Loss for Water Meter: 4.9 PSI
Critical Station Pressure at POC: 56.4 PSI
Pressure Available: 57 PSI
Residual Pressure Available: 0.57 PSI

NOTE: MAINLINE, LATERAL LINES, CONTROL VALVES, AND RELATED EQUIPMENT SHOWN WITHIN PAVING FOR CLARITY ONLY; INSTALL WITHIN PERVIOUS AREA AND A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES TYP. CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.

GENERAL IRRIGATION NOTES:

- POINTS OF CONNECTION SHALL BE A NEW 1.5" METER & 2" SERVICE LINE WITH COUNTY WATER. VERIFY THE ACTUAL LOCATION, SIZE AND WATER PRESSURE IN THE FIELD PRIOR TO STARTING WORK. IF ANY OF THE POC INFORMATION SHOWN ON THESE DRAWING IS FOUND TO BE DIFFERENT THAN THE ACTUAL POC INFORMATION GATHERED IN THE FIELD, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT. SHOULD THE CONTRACTOR FAIL TO VERIFY THE POC INFORMATION ANY CHANGES REQUIRED BY LOW PRESSURE OR VOLUME SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
MINIMUM PRESSURE REQUIRED: 36.5 PSI
DESIGN STATIC WATER PRESSURE: 60 PSI
MAXIMUM SYSTEM DEMAND: 50 GPM
- ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH THE CODES & STANDARDS OF THE LOCAL CITY, COUNTY, STATE, FBC APPENDIX F, NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), NATIONAL SANITATION FOUNDATION (NSF), THE IRRIGATION ASSOCIATION (IA) STANDARDS & CODES WITH REGARDS TO MATERIALS, EQUIPMENT, AND INSTALLATION METHODS
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING, ARCHITECTURAL, OR OTHER RELEVANT CONSULTANT PLANS BEFORE BEGINNING WORK. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
- THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
- INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS.
- PLASTIC PIPE, FITTINGS, AND CONNECTIONS SHALL BE AS FOLLOWS:
1. POLYVINYL CHLORIDE PIPE: ASTM D2241, RIGID, UNPLASTICIZED PVC, EXTRUDED FROM VIRGIN PARENT MATERIAL. PROVIDE PIPE HOMOGENEOUS THROUGHOUT AND FREE FROM VISIBLE CRACKS, HOLES, FOREIGN MATERIALS, BUSTERS, WRINKLES AND BENTS. SDR 21, CLASS 200 FOR MAINLINE, SDR 16, CLASS 160 FOR 1-1/2" AND LARGER, OR OTHERWISE SDR 7 POLYETHYLENE PIPE FOR LATERALS.
2. POLYETHYLENE PIPE: ASTM D2239 FLEXIBLE POLYETHYLENE PIPE RATED AT 100 PSI MINIMUM WORKING PRESSURE.
3. PVC PIPE FITTINGS: ASTM D2241 SCHEDULE 40 PVC MOLDED FITTINGS SUITABLE FOR SOLVENT WELD, SLIP JOINT RING TIGHT SEAL, OR SCREWED CONNECTIONS. FITTINGS MADE OF OTHER MATERIALS ARE NOT PERMITTED.
A. SIZE SLIP FITTING SOCKET TAPER TO PERMIT A DRY UNSOFTENED PIPE END TO BE INSERTED NO MORE THAN HALFWAY INTO THE SOCKET. NO SADDLE AND CROSS FITTINGS.
B. SCHEDULE 80 PVC PIPE MAY BE THREADED.
4. INSERT FITTINGS: ASTM D2466 INSERT TYPE FITTINGS.
5. SPRINKLER RISERS SHALL BE CUT-OFF POLYETHYLENE. HEIGHT AS REQUIRED FOR 100% COVERAGE.
6. LOW VOLTAGE WIRE CONNECTORS SHALL BE SOCKET SEAL TYPE WIRE CONNECTORS AND 3M DBY DIRECT BURY SPLICE KIT.
- ACTUAL LOCATION FOR THE INSTALLATION OF THE BACKFLOW PREVENTER AND THE AUTOMATIC CONTROLLER IS TO BE DETERMINED IN THE FIELD BY THE OWNER'S AUTHORIZED REPRESENTATIVE.
- CONTRACTOR IS TO PROVIDE AN ADDITIONAL PILOT WIRE FROM CONTROLLER ALONG ENTIRETY OF MAIN LINE TO THE LAST RCV ON EACH AND EVERY LEG OF MAIN LINE. LABEL SPARE WIRES AT BOTH ENDS.
- MAINLINE, LATERAL LINES, CONTROL VALVES, AND RELATED EQUIPMENT SHOWN WITHIN PAVING FOR CLARITY ONLY; INSTALL WITHIN PERVIOUS AREA AND A MINIMUM OF 18" OFF ADJACENT HARDSCAPE AND OTHER OBSTACLES TYP. CONFIRM ALL LAYOUT IN FIELD WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.
- ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SCHEDULE 80 PVC SLEEVING AT LEAST TWICE THE DIAMETER OF THE PIPE CARRIED. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
- ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED IN SHRUB OR GROUND COVER AREAS WHERE POSSIBLE. ALL QUICK COUPLER AND REMOTE CONTROL VALVES TO BE INSTALLED AS SHOWN ON THE INSTALLATION DETAILS. INSTALL ALL QUICK COUPLER AND REMOTE CONTROL VALVES WITHIN 18" OF HARDSCAPE.
- ALL HEADS ARE TO BE INSTALLED WITH THE NOZZLE, SCREEN AND ARCS SHOWN ON THE PLANS. ALL HEADS ARE TO BE ADJUSTED TO PREVENT OVERSPRAY ONTO BUILDINGS, WALLS, FENCES AND HARDSCAPE. THIS INCLUDES, BUT NOT LIMITED TO, ADJUSTMENT OF DIFFUSER PIN OR ADJUSTMENT SCREW, REPLACEMENT OF PRESSURE COMPENSATING SCREENS, REPLACEMENT OF NOZZLES WITH MORE APPROPRIATE RADIUS UNITS AND THE REPLACEMENT OF NOZZLES WITH ADJUSTABLE ARC UNITS.
- CONTRACTOR SHALL ADJUST ALL HEADS AS REQUIRED TO PROVIDE 100% COVERAGE WITH MIN. 50% OVERLAP TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, ETC. VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.
- CONTROLLER IS AS SPECIFIED. PRIOR TO STARTING WORK, CONTRACTOR TO VERIFY CONDITION AND FINAL LOCATION OF CONTROLLER AND ELECTRICAL POC SHALL BE CONFIRMED WITH OWNER'S AUTHORIZED REPRESENTATIVE.
- MANUFACTURERS SPECIFICATIONS & PROPER GROUNDING TECHNIQUES SHALL BE ADHERED TO FOR GROUNDING THE CONTROLLER AND RELATED EQUIPMENT. A PROPERLY INSTALLED GROUNDING SYSTEM SHOULD MAINTAIN A CLAMPED GROUND RESISTANCE OF 10 OHMS, OR LESS. MEASURE FOR PROPER GROUND AT LEAST ONCE ANNUALLY, AND NECESSARY ADJUSTMENTS MADE TO COMPLY WITH MANUFACTURER SPECIFICATIONS. INSPECT THE GROUNDING SYSTEM'S CLAMPED CONNECTIONS TO THE CONTROLLER ONCE A YEAR TO MAKE SURE THEY ARE SECURE AND CORROSION-FREE.
- INSTALLER IS REQUIRED TO CONDUCT FINAL TESTING & ADJUSTMENT TO ACHIEVE DESIGN SPECIFICATIONS, FREE OF LEAKS, PRIOR TO COMPLETION OF THE SYSTEM & ACCEPTANCE BY THE OWNER OR OWNER'S REPRESENTATIVE.
- FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE OF WORK PERFORMED UNDER THE IRRIGATION CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY FURNISH AND INSTALL ANY AND ALL PARTS AND EQUIPMENT WHICH PROVE DEFECTIVE IN MATERIAL, WORKMANSHIP OR INSTALLATION AT NO ADDITIONAL COST TO THE OWNER.





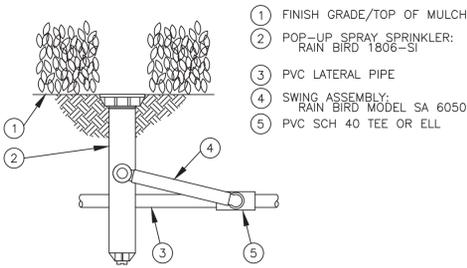
NO.	REVISION	DATE	DESCRIPTION
1		07/26/23	JURISDICTION COMMENTS
2		08/09/23	JURISDICTION COMMENTS
3		09/15/23	JURISDICTION COMMENTS
4		02/23/24	JURISDICTION COMMENTS

IRRIGATION NOTES AND DETAILS
GRIECO DELRAY MAZDA
LEVEL II RENOVATION
 2001 SOUTH FEDERAL HIGHWAY
 PALM BEACH COUNTY, FLORIDA

Digitally signed by
 Kenneth D Bates
 Reason: LA6666710, State of Florida
 Date: 2024.02.22 10:38:07 -07'00'

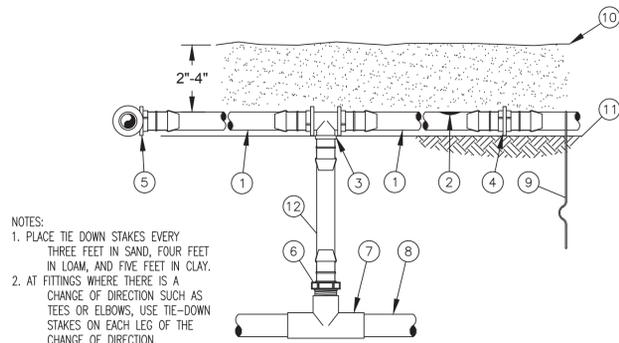


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SCALE: 1" = 30'		
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DATE: 8/7/2023		
SHEET L-5		



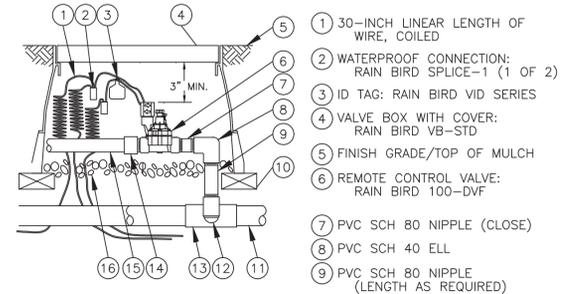
NOTE:
 SIDE INLET CONNECTION SHOULD NOT BE USED IN FREEZING CLIMATES.

A POP-UP SPRAY SPRINKLER
 N.T.S. 1806-SI WITH SWING PIPE

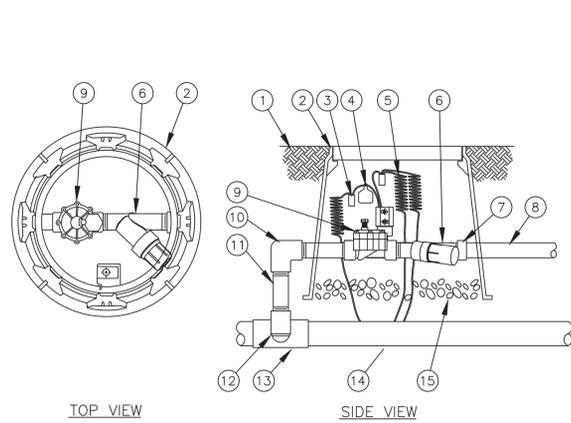


NOTES:
 1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
 2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
 3. SAVE YOUR HANDS. USE THE RAIN BIRD FITTINGS-TOOL XF INSERTION TOOL FOR FITTING ASSEMBLY.

B XFD ON-SURFACE DRIPLINE RISER ASSEMBLY
 N.T.S. 12-18-2012

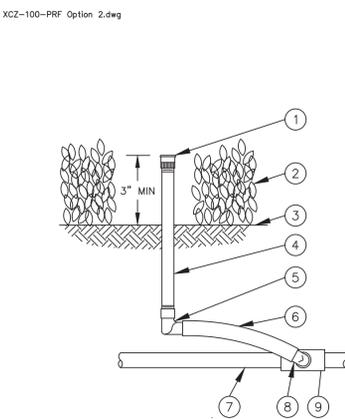


C ELECTRIC REMOTE-CONTROL VALVE
 N.T.S. 1-09-04

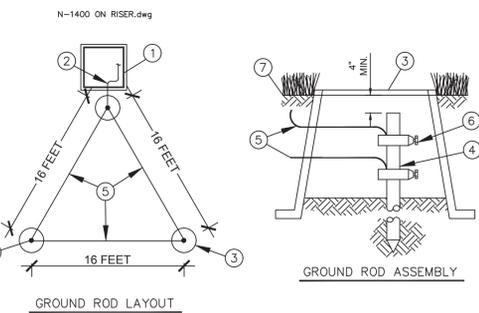


D XCZ-100-PRB 1" CONTROL ZONE KIT IN ROUND VALVE BOX
 N.T.S. OPTION 2 1-25-10

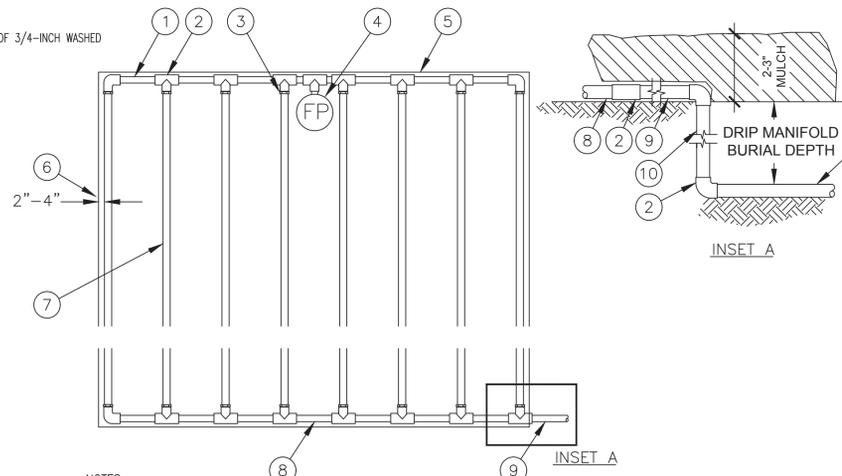
- FINISH GRADE
- ROUND VALVE BOX WITH COVER: RAIN BIRD VB-10RND
- WATERPROOF CONNECTION: RAIN BIRD DB SERIES
- VALVE ID TAG
- 30-INCH LINEAR LENGTH OF WIRE, COILED
- PRESSURE REGULATING FILTER: RAIN BIRD PRF-100-RBY (INCLUDED IN XCZ-100-PRF KIT)
- PVC SCH 40 FEMALE ADAPTOR
- LATERAL PIPE
- REMOTE CONTROL VALVE: RAIN BIRD 100-DV (INCLUDED IN XCZ-100-PRF KIT)
- PVC SCH 40 ELL
- PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- PVC SCH 40 TEE OR ELL
- PVC MAINLINE
- 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL



E XFD ON-SURFACE DRIPLINE AT GRADE
 N.T.S. 12-18-2012

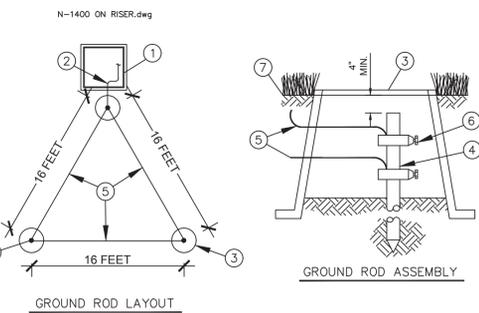


F XFD ON-SURFACE DRIPLINE FLUSH POINT WITH EASY FIT COMPRESSION FITTINGS
 N.T.S. 12-18-2012



NOTES:
 1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
 2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.
 3. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

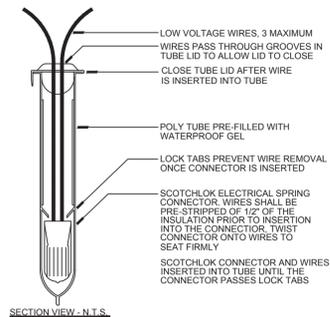
G PRESSURE COMPENSATING FULL-CIRCLE BUBBLER 1400 SERIES ON RISER
 N.T.S. 1/14/04



H XFD ON-SURFACE DRIPLINE END FEED LAYOUT
 N.T.S. 12-18-2012

- EASY FIT COMPRESSION TEE: RAIN BIRD MDCFTTE
- ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (POTABLE: XFD DRIPLINE, NON-POTABLE: XFD DRIPLINE)
- INLINE DRIP EMITTER OUTLET
- TIE DOWN STAKE: RAIN BIRD TDS-050 WITH BEND (TYPICAL)
- MULCH
- FINISH GRADE

I WIRE CONNECTION
 N.T.S.



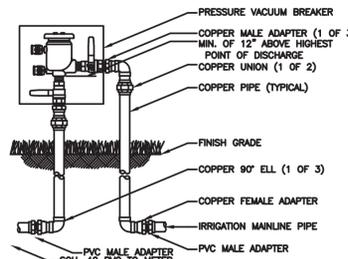
NOTE:
 WIRE CONNECTOR SHALL BE A 3M DBY-6 DIRECT BURRY SPLICE KITS. KIT SHALL INCLUDE A SCOTCHLOK Y SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PRE-FILLED WITH GEL.
 DIRECT BURRY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2 #14 OR 2 #12 PRE-STRIPPED COPPER WIRES. LARGER WIRES OR GREATER QUANTITIES OF WIRES SHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.

I WIRE CONNECTION
 N.T.S.

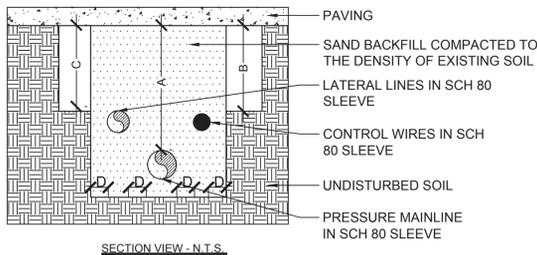
J CONTROLLER GROUNDING GRID Y DESIGN LAYOUT
 N.T.S.

- RAIN BIRD CONTROLLER
- SOLID BARE COPPER WIRE (#10 AWG) FROM GROUNDING ROD TO CONTROLLER. MAKE WIRE AS SHORT AND STRAIGHT AS POSSIBLE
- COVER GROUNDING ROD WITH 10-INCH ROUND VALVE BOX AS SHOWN
- 5/8-INCH X 8 FT COPPER CLAD GROUNDING ROD OR GROUNDING PLATE. INSTALL RODS IN SOIL IN A TRIANGULAR PATTERN SPACED A MINIMUM OF 16 FT APART FROM EACH OTHER. GROUNDING GRID TO HAVE A RESISTANCE OF TEN (10) OHMS OR LESS
- BARE COPPER WIRE (#10 AWG MIN.) BETWEEN GROUNDING RODS
- GROUND ROD CLAMP OR WELDS
- FINISH GRADE

J CONTROLLER GROUNDING GRID Y DESIGN LAYOUT
 N.T.S.

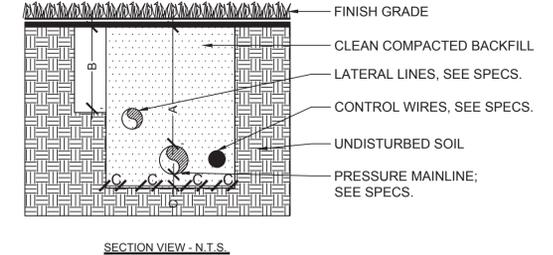


K SLEEVE INSTALLATION
 N.T.S.



DIMENSION	A	B	C	D
1 1/2" TO 6" IN SIZE	36"	24"	24"	4"

K SLEEVE INSTALLATION
 N.T.S.



DIMENSION	A	B	C
1/2" TO 2-1/2" IN SIZE	18"	12"	4"
3" TO 6" IN SIZE	24"		4"

L PIPE INSTALLATION
 N.T.S.