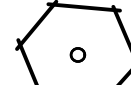















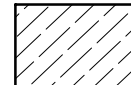



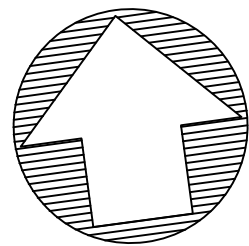
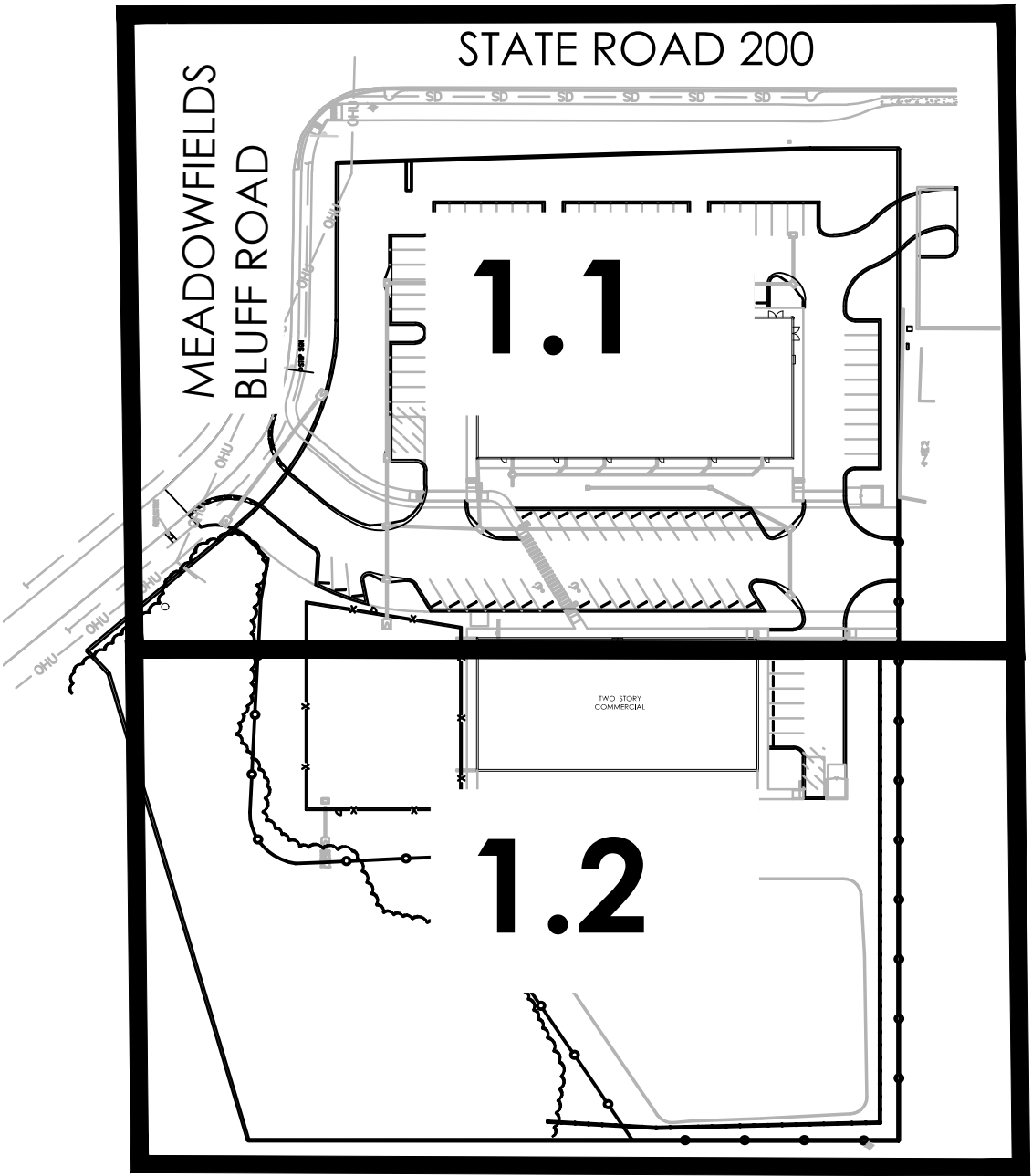


PLANTING NOTES

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
	AR	8	ACER RUBRUM 'FLORIDA FLAME'	FLORIDA FLAME RED MAPLE	3" CAL., 10' HT & 4' SPRD.
	BN	11	BETULA NIGRA 'BNMTF' TM	DURA HEAT RIVER BIRCH	8' HT & 4' SPRD., 3" CAL., (3) -1" TRKS
	IC	14	ILEX CASSINE	DAHOON HOLLY	3" CAL., 12' HT & 4' SPRD.
	IY	28	ILEX VOMITORIA 'PRIDE OF HOUSTON'	PRIDE OF HOUSTON YAUPON HOLLY	3" CAL., 8' HT, 4' SPRD, (3) TRNKS
	IA	24	ILEX X ATTENUATA 'EAST PALATKA'	EAST PALATKA HOLLY	3" CAL, 10' HT, 6' SPRD
	LT	14	LAGERSTROEMIA X 'TUSCARORA'	TUSCARORA CREPE MYRTLE	3" CAL, 10' HT, 4' SPRD. (3) TRNKS
	MG	8	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	3" CAL, 12' HT, 5' SPRD.
	MS	13	MAGNOLIA VIRGINIANA 'SILVER MIST'	SILVER MIST SWEETBAY MAGNOLIA	3" CAL., 12' HT & 4' SPRD.,
	PS	6	PHOENIX DACTYLIFERA 'MEDJOOL'	MEDJOOL DATE PALM	MIN. 15' CT, DIAMOND CUT, FL FANCY
	QV	16	QUERCUS VIRGINIANA	SOUTHERN LIVE OAK	3" CAL, 10' HT, 5' SPRD, 5' CT MIN.
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
	AIF	201	AZALEA INDICA 'FORMOSA'	FORMOSA AZALEA	24"HT, 18" SPRD., FULL
	IVO	178	ILEX VOMITORIA	YAUPON HOLLY	18" HT, 18" SPRD, FULL
	IPA	16	ILICIAM PARVIFLORUM	YELLOW ANISE	30" HT, SPRD, FULL
	VOS	276	VIBURNUM OBOV. 'MRS. SCHILLERS DELIGHT'	'MRS. SCHILLERS DELIGHT' VIBURNUM	24" HT., FULL
	VOB	38	VIBURNUM OBOVATUM 'SELECT'	SELECT WALTER'S VIBURNUM	48" HT, SPRD, FULL
	ZFL	209	ZAMIA FLORIDANA	COONTIE PALM	5 GAL. MIN., FULL
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
	MCA	715	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	1 GAL., FULL, 3' O.C.
	RDR	181	ROSA X 'RED'	RED DRIFT ROSE	18" HT, 18" SPRD, 24" O.C.
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	REMARKS
	LMU	635	LIRIOPE MUSCARI 'EMERALD GODDESS'	LIRIOPE	14" HT, SPRD, 12" O.C.
	SOD-A	14,430 SF	STENOTAPHRUM SEC. 'PALMETTO'	PALMETTO ST. AUGUSTINE	2" -3" THICK, FRESH, WEED FREE
MULCH: SHREDDED HARDWOOD, SUBMIT SAMPLES					



KEY MAP: N.T.S.

General Legend

L1.0	LANDSCAPE INDEX	L1.1	IRRIGATION PLAN
L1.1	LANDSCAPE PLAN	L1.2	IRRIGATION PLAN
L1.2	LANDSCAPE PLAN	L2.1	IRRIGATION DETAILS
L2.1	LANDSCAPE DETAILS	L2.2	IRRIGATION DETAILS
L2.2	LANDSC. SPECIFICATIONS	L2.3	IRRIGATION DETAILS
		L2.4	IRRIGATION DETAILS

COUNTY REQUIREMENTS

GENERAL CODE DATA

PROPERTY	QTY	UNIT	GREEN AREA	CANOPY	UNDER S	SHRUBS
				TREES	TREES	
Overall	228450	SF	22845	46		
Dumpster/Equip	70	LF			7	35
Interior VUA	45045	SF	4505	5		
Buffers						
Interior -Local Street	605	LF	6050	12	18	242
W. ROW -Minor Rd*	175	LF	2625	5	5	70
N. ROW -Major Rd	320	LF	8000	10	10	128
East Buffer-High Den	320	LF	3200	16		Fence
East Buffer -Low Den	160	LF	1600	5		
South Buffer -High Den	200	LF	2000	10		
South Buffer -Comp	170	LF	4250			Fence
Subtotal			41230	69	33	475
TOTAL/Highest Value			41230	69	33	

\* Existing trees present on undeveloped property

TREES

QTY	QTY	COMMON NAME	TYPE	NATIVE
SHADE	UNDER S			
8		Acer rubrum	Canopy	Y
11		Betula Nigra	Canopy	Y
	28	Ilex v. "Pride of Houston"	Under	Y
20	4	Ilex x attenuata	Canopy	Y
14		Dahoon Holly	Canopy	Y
8		Magnolia grandiflora	Canopy	Y
	14	Lagerstroemia x	Under	N
	6	Phoenix sylvestris	Under	Y
13		Magnolia virginiana	Canopy	Y
16		Quercus virginiana	Canopy	Y
82	52			

CANOPY TREE CALCULATIONS

TYPE	QUANTITY	PERCENT
Canopy	82	61%
Non Canopy	52	39%

NATIVE TREE CALCULATIONS

TYPE	QUANTITY	PERCENT
Native	122	90%
Non Native	14	10%

LDC Section 37.05 (B) – All trees planted shall be staked or guyed for a period of at least six (6) months in accordance with the adopted planting detail.

LDC Section 37.05 (B)(2) – Shrubs shall have a minimum height of eighteen (18) inches when planted. When planted as a hedge, the maximum spacing is 30 inches on center. All shrubs used for visual screening shall be of a plant species that is capable of reaching a height of four (4) feet within twenty-four (24) months under normal growing conditions. Shrubs used as accent groundcover and vines may vary in size depending on the type of plant material and the desired effect.

LDC Section 37.05(B)(3) - Groundcovers shall be planted in such manner as to present a finished appearance and complete coverage within one (1) year after planting.

LDC Section 37.05 (K) - The property owner is responsible for the maintenance of all landscape areas required by this section. Maintenance includes irrigating, mowing, trimming, fertilizing and carrying out those activities necessary to keep the plant material in a healthy and growing condition, maintain visual clearance and allow passage of vehicles and pedestrians on public roads and non-exclusive easements.

LDC Section 37.05 (K)(1) - Upon determination by the county that a required tree or plant is dead or severely damaged or diseased, the tree or plant shall be replaced by the owner with plant material meeting the requirements of this section.

LDC Section 37.05 (K)(2) - All buffer areas required as part of a development plan, whether in common or private ownership, shall be the responsibility of that development's property owners' association. Where there is no property owners' association, such landscaped areas shall be the responsibility of the property owner.

LDC Section 37.05 (E)(2) - When a driveway intersects a right-of-way, clear unobstructed cross visibility shall be provided within the site triangle formed by such intersection. The sight triangle shall be measured from the point of intersection, fifteen (15) feet along the access way and then fifteen (15) feet along the right-of-way, with the third side being a line connecting the two (2) points. Cross visibility within the sight triangle shall be unobstructed between the height of three (3) feet and eight (8) feet measured from the ground line. Trees and palms shall have their limbs and foliage trimmed in a manner that no limbs or foliage will extend in to the cross visibility area. To ensure proper visibility at the intersection of access ways with public rights-of-way, excluding properly trimmed trees as previously stated; only ground cover type plants shall be allowed within the sight triangle.

LDC Section 37.05 (D) - The use of a wall or fence is permitted provided the wall or fence is located on the inner most boundary (behind the vegetation as viewed from outside the development) of the perimeter landscaping adjacent to rights-of-way/streets, required uncomplimentary land use buffer or other landscaped area.

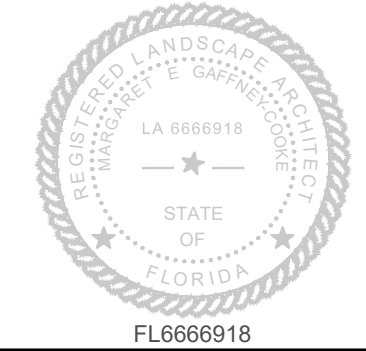
Date						
Revision/Issue						
No.						

TYLER WEST  
NASSAU COUNTY  
for CROSS REGIONS REAL ESTATE



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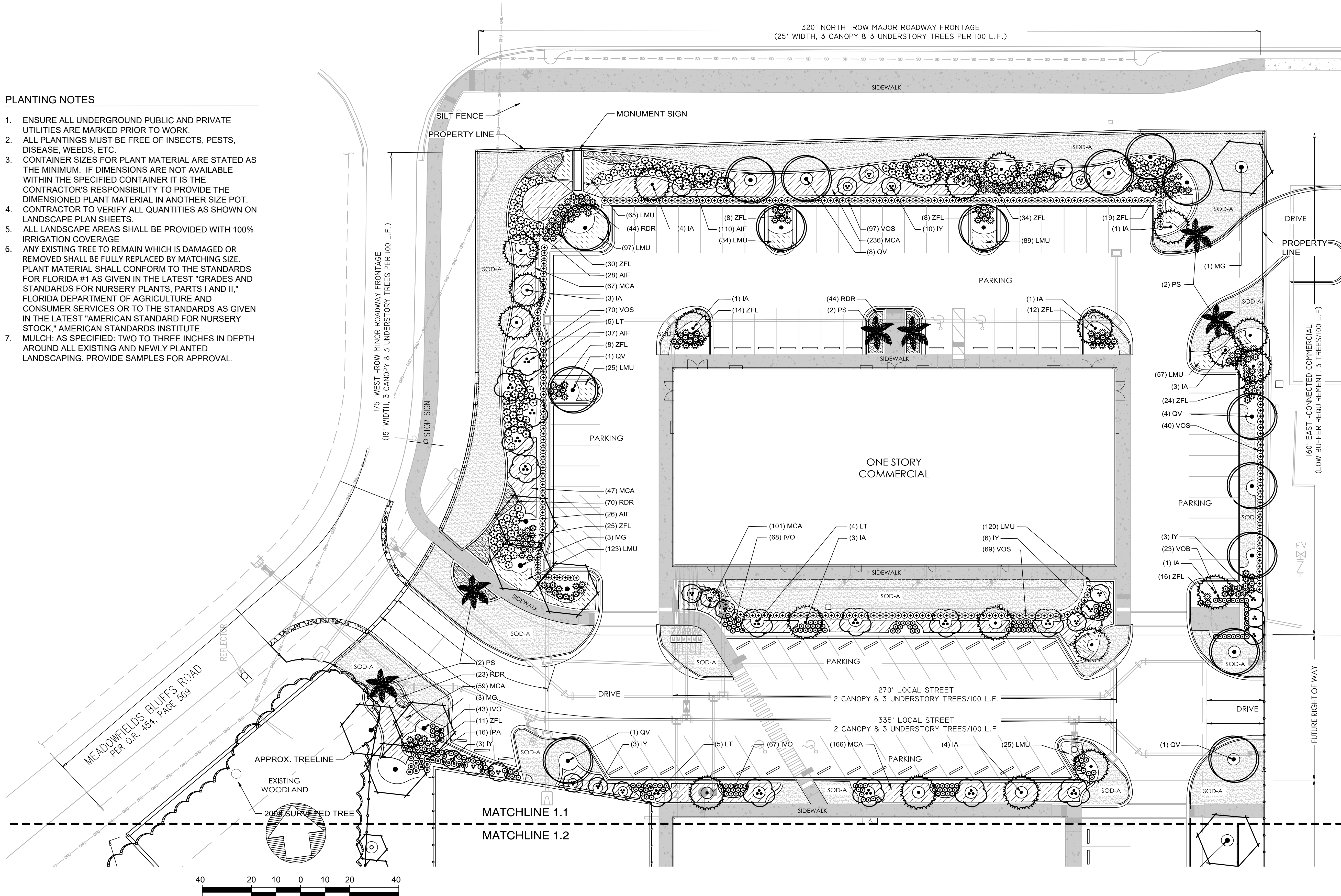
MARGARET E. GAFFNEY-COOKE, RLA



Date 6/14/2023	Scale
LANDSCAPE INDEX L1.0	

STATE ROAD NO. 200/A-1-A (VARIABLE WIDTH R/W)  
SECTION 74060  
DRAWER NO. 176-069

1. ENSURE ALL UNDERGROUND PUBLIC AND PRIVATE UTILITIES ARE MARKED PRIOR TO WORK.
2. ALL PLANTINGS MUST BE FREE OF INSECTS, PESTS, DISEASE, WEEDS, ETC.
3. CONTAINER SIZES FOR PLANT MATERIAL ARE STATED AS THE MINIMUM. IF DIMENSIONS ARE NOT AVAILABLE WITHIN THE SPECIFIED CONTAINER IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE DIMENSIONED PLANT MATERIAL IN ANOTHER SIZE POT.
4. CONTRACTOR TO VERIFY ALL QUANTITIES AS SHOWN ON LANDSCAPE PLAN SHEETS.
5. ALL LANDSCAPE AREAS SHALL BE PROVIDED WITH 100% IRRIGATION COVERAGE
6. ANY EXISTING TREE TO REMAIN WHICH IS DAMAGED OR REMOVED SHALL BE FULLY REPLACED BY MATCHING SIZE. PLANT MATERIAL SHALL CONFORM TO THE STANDARDS FOR FLORIDA #1 AS GIVEN IN THE LATEST "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II," FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES OR TO THE STANDARDS AS GIVEN IN THE LATEST "AMERICAN STANDARD FOR NURSERY STOCK," AMERICAN STANDARDS INSTITUTE.
7. MULCH: AS SPECIFIED: TWO TO THREE INCHES IN DEPTH AROUND ALL EXISTING AND NEWLY PLANTED LANDSCAPING. PROVIDE SAMPLES FOR APPROVAL.



No.	Revision/Issue	Date

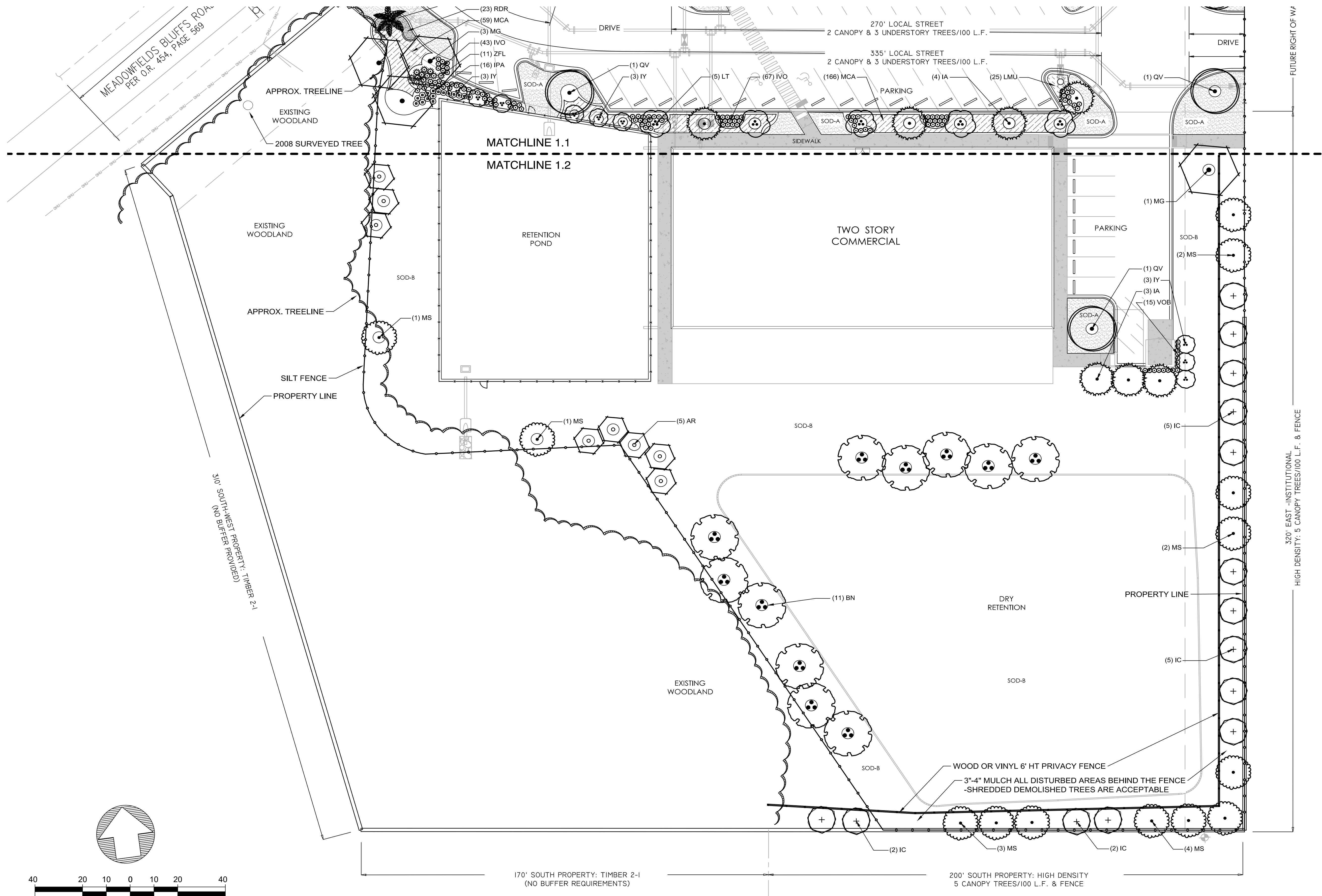
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LANDSCAPE PLAN	
L1.1	





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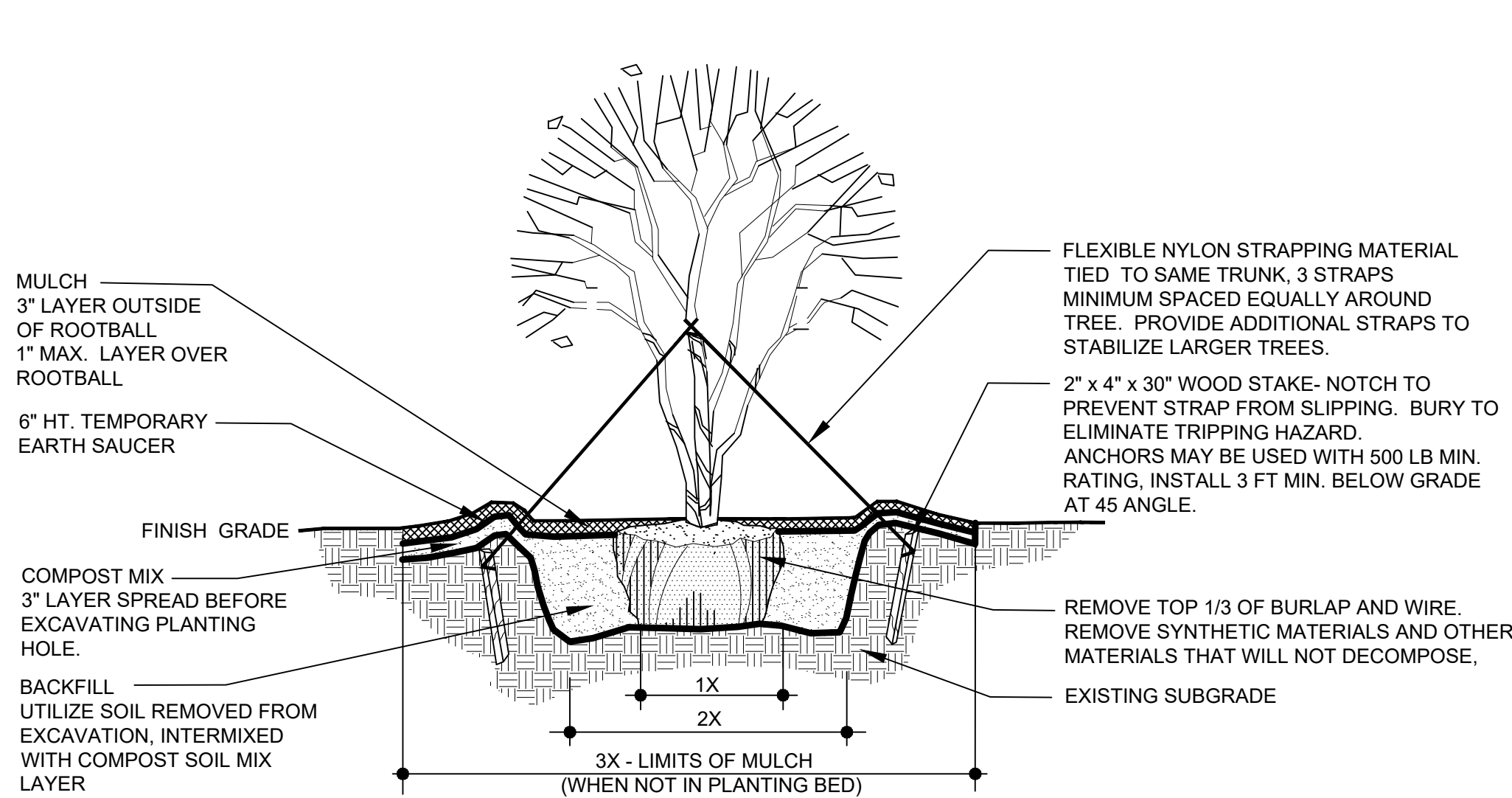
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**blueleaf**  
LANDSCAPE

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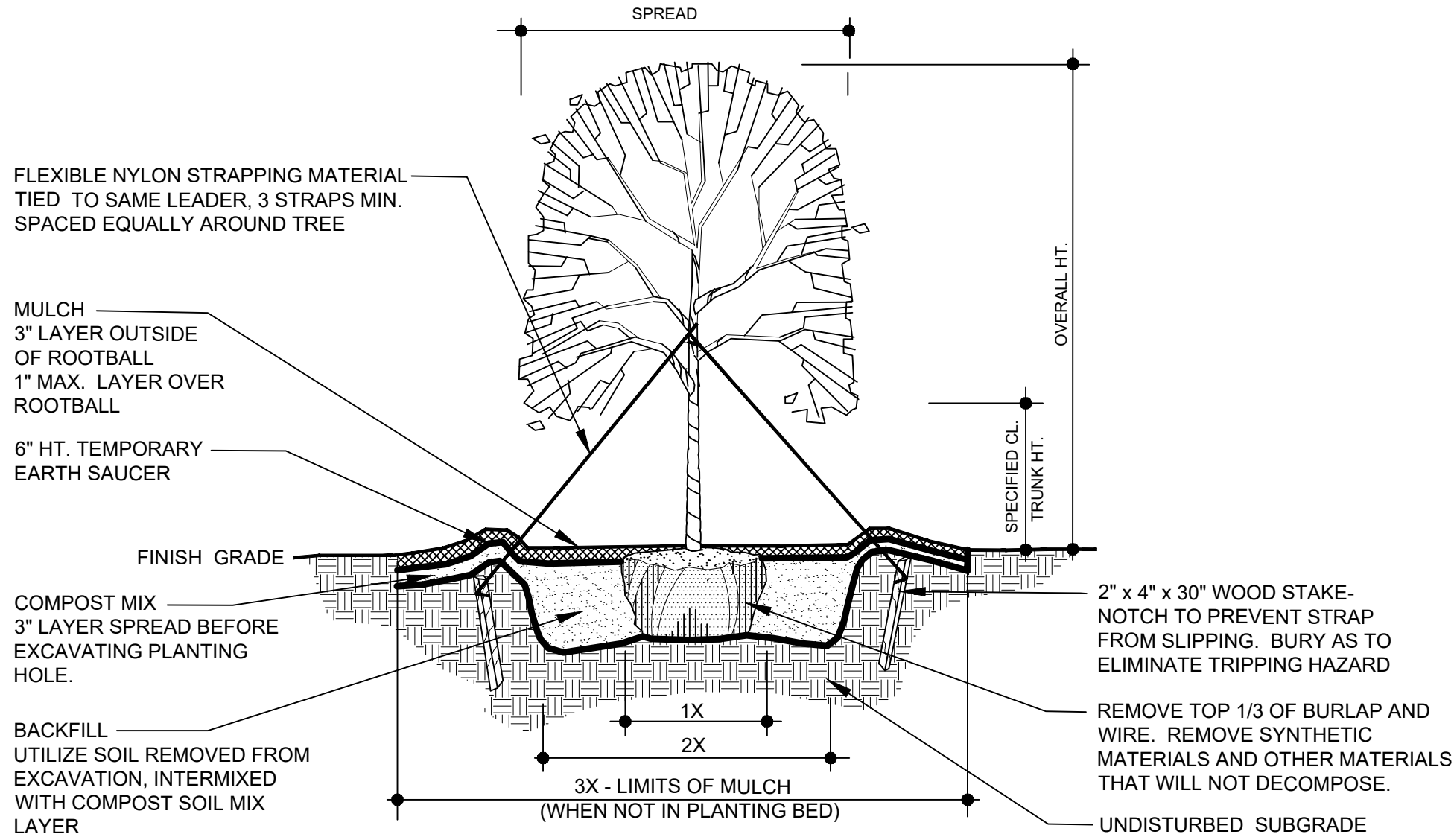


Date	Scale
6/14/2023	1"=20'
LANDSCAPE PLAN	
L1.2	



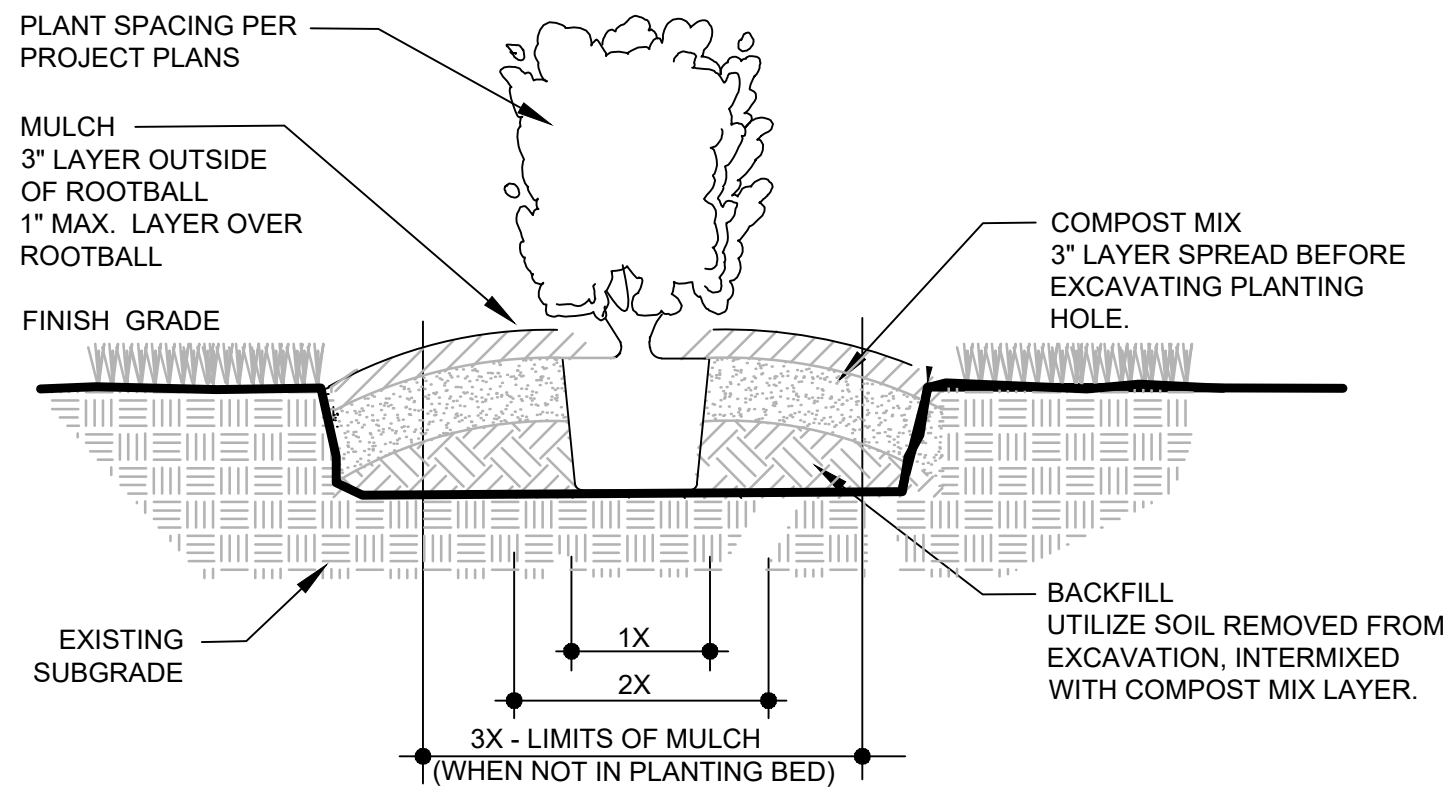
- NOTES:
- PLANT TOP OF ROOT BALL 2" ABOVE FINISH GRADE.
  - BOTTOM OF ROOT BALL SHALL BE SEATED DIRECTLY ON UNDISTURBED SUBGRADE.
  - TOPMOST ROOT-ROOT FLARE SHALL BE MADE VISIBLE PRIOR TO PLANTING.
  - ROOT DEFECTS - INSPECT ROOT BALL FOR ROOT DEFECTS, CUT ROOTS WHERE THEY BEGIN TO KINK OR CIRCLE. ROOT BALL SHALL COMPLY WITH FLORIDA GRADES AND STANDARDS.
  - STAKE ABOVE FIRST STRONG BRANCHES TO PROVIDE FIRM SUPPORT.

MULTIPLE STEM TREE PLANTING



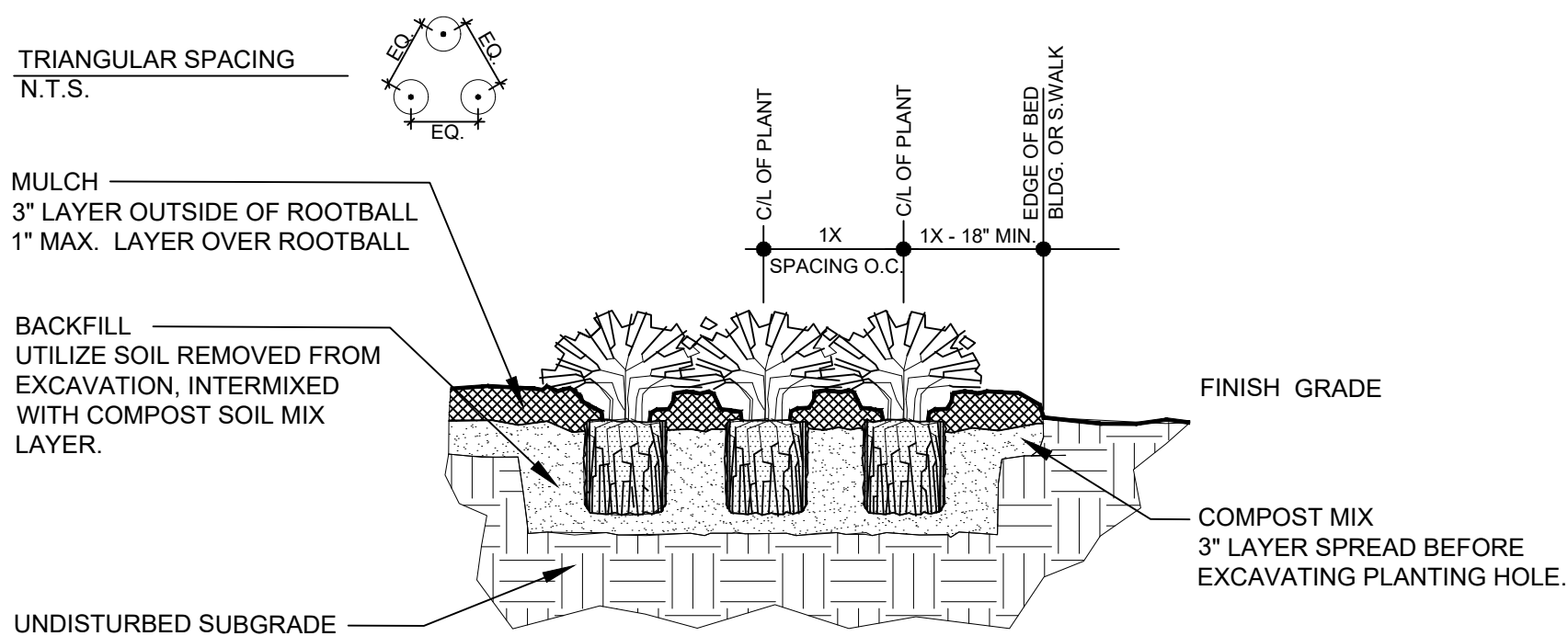
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  - ROOT DEFECTS - INSPECT ROOT BALL FOR ROOT DEFECTS, CUT ROOTS WHERE THEY BEGIN TO KINK OR CIRCLE. ROOT BALL SHALL COMPLY WITH FLORIDA GRADES AND STANDARDS.
  - STAKE ABOVE FIRST STRONG BRANCHES TO PROVIDE FIRM SUPPORT.

TREE PLANTING - SINGLE TRUNK  
N.T.S.



- NOTES:
- PLANT TOP OF ROOT BALL 1" HIGHER THAN TOP OF COMPOST LAYER.
  - 6" MIN. BACKFILL AROUND SIDES OF ROOT BALL, 3" ON BOTTOM. WATER AND TAMP TO REMOVE AIR POCKETS.
  - TOPMOST ROOT-ROOT FLARE SHALL BE MADE VISIBLE PRIOR TO PLANTING.
  - ROOT DEFECTS - INSPECT ROOT BALL FOR ROOT DEFECTS, CUT ROOTS WHERE THEY BEGIN TO KINK OR CIRCLE. ROOT BALL SHALL COMPLY WITH FLORIDA GRADES AND STANDARDS.

SHRUB PLANTING - NOT IN PLANTING BED  
N.T.S.



- NOTES:
- GROUND COVER PLANTS SHALL BE SPACED AS INDICATED ON PROJECT PLANS.
  - 6" MIN. BACKFILL AROUND SIDES OF ROOT BALL, 3" ON BOTTOM. WATER AND TAMP TO REMOVE AIR POCKETS.
  - PLANT TOP OF ROOT BALL 1" HIGHER THAN TOP OF COMPOST LAYER.
  - TOPMOST ROOT SHALL BE MADE VISIBLE PRIOR TO PLANTING.
  - ROOT DEFECTS - INSPECT ROOT BALL FOR ROOT DEFECTS, CUT ROOTS WHERE THEY BEGIN TO KINK OR CIRCLE. ROOT BALL SHALL COMPLY WITH FLORIDA GRADES AND STANDARDS.

SHRUB AND GROUNDCOVER PLANTING BED  
N.T.S.

MAINTENANCE GUIDELINES

1. MULCH:
  - 1.a. FIRST YEAR: MAINTAIN MULCH DEPTH AS NEEDED;
  - 1.b. SECOND YEAR: MAINTAIN MULCH DEPTHS WHERE UNSIGHTLY ONLY, MINUS GROUND COVER AREAS;
  - 1.c. THIRD YEAR: REVIEW AREAS VISUALLY IN NEED OF MULCH TO CONSIDER ALTERNATIVES. ONLY MULCH AREAS AS DIRECTED AFTER OWNER REVIEW.
2. SOD-A:
  - 2.a. MOW TO 3"- 4" HEIGHT;
  - 2.b. EDGE CUTTING TO OCCUR WITHIN 2" OF ANY HARD ELEMENTS
  - 2.c. DO NOT COLLECT TRIMMINGS -MULCH IN PLACE;
  - 2.d. FERTILIZE AS NEEDED WITH SLOW-RELEASE PRODUCTS CONTAINING MICRO-NUTRIENTS.
3. CREPE MYRTLES:
  - 3.a. REMOVE SUCKERS FROM BASE AS NEEDED;
  - 3.b. ALL PRUNING TO BE CLEAN FLUSH INTERIOR CUTS FOR THE PURPOSE OF MANAGING FORM/OVER-CROWDING;
  - 3.c. NEVER "TOP" OR "HAT RACK".
4. ORNAMENTAL GRASS: SHEAR OR MOW ONCE/YEAR IN JAN OR FEB TO 2" HT.
5. SHRUBS:
  - 5.a. ALLOW NATURAL GROWTH PATTERN/AVOID SHEARING;
  - 5.b. WHEN HEIGHT MANAGEMENT IS NECESSARY HAND-PRUNING IS PREFERRED.
  - 5.c. IF SHEARING, CUT EVENLY TO 2" -4" BELOW DESIRED HEIGHT. FOLLOW-UP WITH HAND CUTTING 6"-24" INTO SHEARED PLANTS ("PUNCH HOLES") RANDOMLY OVER NO MORE THEN 10% OF THE SURFACE TO ALLOW LIGHT AND ENCOURAGE INNER GROWTH. THIS ALLOWS FOR A HEALTHIER PLANT AND MORE TIME BETWEEN PRUNING EVENTS.
6. IRRIGATION -ALWAYS PERFORM ROUTINE CHECKS AND MAINTANANCE:
  - 6.a. FIRST YEAR: MAINTAIN ALL WATERING LEVELS TO INSTALLERS SPECIFICATIONS;
  - 6.b. SECOND YEAR: REVIEW ALL AREAS AND TURN OFF, REDUCE TO 50%, ETC. ANY AREA DIRECTED BY OWNER AND/OR LANDSCAPE CONSULTANT;
  - 6.c. MAINTAIN EVERY 3 MONTHS MIN. RUN AND MAKE ADJUSTMENTS.

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LANDSCAPE DETAILS	
L2.1	



LANDSCAPE SPECIFICATIONS

PART 1- GENERAL

1.1 GENERAL NOTES

- A. Contractor shall comply with applicable laws, ordinances and codes; obtain required permits, inspections; pay required fees.
- B. Prior to preparing and submitting cost proposal, Bidder shall visit and inspect the project site to become familiar with existing conditions.
- C. This contract includes providing and installing plant and landscape materials as described within the contract documents.
- D. Contractor shall perform fine grading to establish finish grades in landscape areas. Fine grading shall include only minor grading to correct random or infrequent grade irregularities to 1" or less.
- E. Grading-Berming labeled on the project plans shall be the responsibility of the landscape contractor to construct. Landscape contractor shall provide fill and grading for these areas and coordinate fill requirements with general contractor prior to bidding.
- F. Bidder-Contractor shall verify all plant quantities shown on plans. Notify Landscape Architect-Owner's Representative of discrepancies.
- G. Plant size noted in plant schedule shall be the minimum acceptable size. Container gallon size are minimum. Contractor shall provide the plant material in container size needed to meet plant size specified.

1.2 DEFINITIONS

- A. Finish Grade: Top of surface soil and top of planting bed after plant installation.
- B. Topsoil: Native or imported surface soil modified with soil amendments per recommendations from commercial soil-testing laboratory.
- C. Compost Mix: Homogeneously blended organic material, see Part 2 - Products.
- D. Subgrade: Soil below finish grade and soil below finish grade remaining after completing excavation.
- E. Final Acceptance: Shall mean that point in time when requirements of contract documents are completed, including punch-list items, to the satisfaction of the Landscape Architect-Owner's Representative. Contractor will be notified in writing of final acceptance by Landscape Architect-Owner's Representative.
- F. Warranty Period: Shall begin after notification of final acceptance, continuing for the duration of the specified period.
- G. Final Warranty Inspection: Shall occur near the end of the warranty period.
- H. Contract Documents: Project plan set, technical specifications and documentation issued during project bidding, award and installation.

1.3 SUBMITTALS

- A. Product Data: Each type of product utilized
- B. Samples: Mulch
- C. Product certificates, confirmation letter that the Contractor has procured all plant materials and products to complete the project plans.
- D. Planting Schedule: Indicating anticipated installation dates.
- E. Maintenance Instructions: Provide prior to final acceptance.
- F. Agronomic Soil Tests for Topsoil and Compost Mix: Soil testing and recommendations shall be performed by a commercial soil-testing laboratory. Areas to be installed with plants and lawn areas shall be tested. Tests shall include a fertility test, pH factor, percentage of organic matter and a suitability analysis. The suitability analysis shall include percolation tests and evaluation of soil composition to determine the soil's suitability to sustain the project's plant materials and to bring the soil to a pH rating between 5.5 to 6.5. Submit copy to Landscape Architect-Owner's Representative of soil tests, written recommendations for soil suitability, soil amendments, fertilizer, chemical conditioner application rates for soil preparation, and a maintenance fertilization program.
- G. Manufacturer's Data: Include physical characteristics, application, installation instructions and recommendations to be utilized.
- a. Fertilizer
- b. Each soil amendment to be used
- c. Herbicide
- d. Super absorbent, if to be utilized
- e. Pre-emergent herbicide
- f. Materials identified in contract documents
- H. Written plant guarantee
- I. Prior to purchase and delivery of plants, Contractor shall provide the Landscape Architect-Owner's Representative with photos of proposed plant materials and coordinate nursery visit.

1.4 QUALITY ASSURANCE

- A. Landscape Contractor Qualifications: The Landscape Contractor (Contractor) shall have previous experience installing projects of equal or greater size to the project plans. The Contractor shall have a full-time supervisor with a minimum of 5 years of experience that is on-site during installation process.
- B. Soil Analysis: Contractor shall provide soil analysis of the existing surface soil and compost mix. Agronomic soil testing shall be performed by a commercial soil-testing laboratory.
- C. Provide quality, size, genus, species, and variety of plants indicated, complying with "Florida Number 1" or better classification in "Grades and Standards for Nursery Plants," latest edition, published by Florida Department of Agriculture, Division of Plant Industry, Gainesville, Florida. To evaluate plants not specifically listed in the "Grades and Standards for Nursery Plants," use the appropriate matrix type.
- D. Pre-Installation Conference: Prior to beginning plant installations, conduct conference at project site.
- E. Substitutions:
1. If a plant material or product is not available, the Contractor shall submit to the Landscape Architect-Owner's Representative for approval, proof of non-availability with a recommendation for an equivalent material. When authorized, adjustment of contract amount may be made. No substitutions will otherwise be allowed.
- F. Inspection: Landscape Architect-Owner's Representative may inspect plants at nursery and project site prior to planting, for compliance with plans. The Landscape Architect-Owner's Representative may inspect plants at any time for size and condition of balls, root systems, insects, injuries, latent defects, and reject plant materials at any time during progress of work. Contractor shall remove rejected plants from project site. The Landscape Architect-Owner's Representative's preliminary inspection is not to be construed as acceptance until such time as a written final acceptance inspection is received.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Prior to materials being shipped from supplier, Landscape Architect-Owner's Representative may inspect materials on-site or through the submission of photographs. Refer to the plant schedule within the project plan set for specific plants requiring on-site tagging-inspection.
- B. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in a manner as to destroy their natural shape. Provide protective covering of plants during delivery. Do not drop plant materials.
- C. Deliver plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set plants trees in shade, protect from weather and mechanical damage, and keep roots moist.

1.6 WARRANTY

- A. Warranty: Contractor shall warrant plants for the warranty period indicated against defects including death and unsatisfactory growth. Contractor will not be responsible for defects resulting from lack of adequate maintenance, abuse by Owner, winds of tropical storm speed per Saffir-Simpson Hurricane Scale or higher winds, or acts of God.
1. Warranty Period for Plant Materials: 1 year from date of final acceptance
2. Warranty Period for SOD-A: 6 months from date of final acceptance

LANDSCAPE SPECIFICATIONS

1.7 MAINTENANCE

- A. Plant Materials: Maintain until final acceptance by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, tightening and repairing supports, resetting plants to proper grades, vertical position, as required to establish healthy, viable plantings. Spray insecticides to keep plants free of insects and disease.
- B. Protect plant materials from damage due to landscape operations, operations by other contractors and others. Maintain protection during installation and final acceptance. Treat, repair, and replace damaged plantings at no additional cost to the Owner.
- C. Maintenance of SOD-A areas: The Contractor shall maintain until final acceptance by protecting SOD-A areas against traffic or other use by warning signs and barricades, as approved by the Landscape Architect-Owner's Representative. Damaged SOD-A shall be repaired by re-grading, then re-SOD-A. Contractor shall mow, water and otherwise maintain SOD-A areas in a satisfactory condition until final acceptance of the work.
1. Maintain SOD-A areas until final acceptance by watering, weeding, mowing, applications of herbicides, fungicides, insecticides, fertilization and re-seeding until a full, uniform stand of grass free of weeds, undesirable grass species, disease, and insects is achieved and accepted by the Landscape Architect-Owner's Representative.
- a. Repair, re-work, and re-SOD-A all areas that have washed out, eroded, or are not a healthy stand of grass.
- b. Mow SOD-A areas when top growth reaches a height where no more than a third of the leaf blade will be removed at any single mowing. Repeat mowing to maintain specified height per recommendations of local agricultural extension agency.

1.8 REPLACEMENTS AND CONDITIONS

- A. Promptly remove and replace plant materials that are dead, unhealthy condition, fallen below acceptable quality. Prior to the end of the warranty period, a final warranty inspection of the work may be made by the Landscape Architect-Owner's Representative. The Contractor shall remove and replace plant materials and SOD-A areas found to not be in compliance with contract requirements. Replacement plant material size and species shall be as noted in the project plans. A new warranty period shall commence on each plant replaced during the warranty period, contractor shall maintain plant warranty log.

1.9 FINAL INSPECTION AND ACCEPTANCE

- A. Final Inspection: Upon completion of landscape installation, the Contractor shall notify the Landscape Architect-Owner's Representative in writing 10 days prior to requested inspection date. Landscape Architect-Owner's Representative will make an inspection to determine compliance with contract documents. When inspected landscape work does not comply with contract documents, the Contractor shall remove and replace rejected work and continue maintenance. Contractor shall provide 48 hour notice to Landscape Architect-Owner's Representative requesting re-inspection. Plant Materials:
- a. Replace plant materials not in healthy condition, fails below quality requirements
- B. Lawns:
- a. At the time of final warranty inspection, SOD-A areas shall be healthy, well-rooted even colored, lawn is established, weed free without open joints and bare areas.

PART 2 - PRODUCTS

2.1 PLANTS

- A. Tree and Shrub Material: Provide nursery-grown tree and shrub materials complying with plant quality requirements, Part 1-General. Provide well-shaped, fully branched, healthy, vigorous plants free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
- B. Ground Cover: Provide ground cover species indicated, established and well rooted in pots or similar containers, and complying with plant quality requirements, Part 1-General.
- C. Annuals: Provide healthy, disease-free plants of species and variety shown or approved, complying with plant quality requirements, Part 1-General. Provide plants acclimated to the conditions they are to be installed on the project and are in bud with few, if any blooms.
- D. Perennials: Provide healthy plants from a commercial nursery, of species and variety shown or approved, complying with plant quality requirements, Part 1-General.
- E. SOD-A: SOD-A shall be species and locations in the project plans. SOD-A shall be freshly cut in pads (or rolls with prior approval). SOD-A shall be derived from an area having a soil type similar to the soil on which it is to be laid. SOD-A shall be healthy, free of weeds and insects including ground pearls and spittle bugs, in naturally green condition, and shall have an abundance of roots contained within a mat of topsoil derived in the harvesting process from the area where grown. Brown, dry, irregularly smooth, and/or un-fresh SOD-A will be rejected.

2.2 PLANTING MATERIALS

- A. Topsoil: pH range of 5.5 to 6.5, a minimum of 6 percent organic material content; free of stones 1 inch or larger in any dimension and extraneous materials harmful to plant growth.
1. Topoil Source: Amend existing surface soils according to recommendations from soil tests analyzed by commercial soil testing laboratory, see Part-1 General.
- B. Soil Amendments: Following are soil amendments that may be utilized to modify existing surface soil according to recommendations from agronomic soil testing analysis.
- a. Lime: Natural dolomitic limestone containing not less than 85 percent of total carbonates with a minimum of 30 percent magnesium carbonates, ground so that not less than 90 percent passes a 10-mesh sieve and not less than 50 percent passes a 100-mesh sieve.
- b. Aluminum Sulfate: Commercial grade.
- c. Peat Humus: Finely divided peat, completely decomposed and free of fibers to eliminate its biological identity. Provide in granular form, free of hard lumps and with pH range suitable for intended use or Florida Muck with a texture and pH range suited for the intended use. Florida Muck shall be delivered in a non-muddy state, reasonably free of clay, roots and litter and other extraneous or toxic matter harmful to plant growth. Florida Muck shall be subject to approval by the Owner.
- d. Bonemeal: Commercial, raw, finely ground; 4 percent nitrogen and 20 percent phosphoric acid.
- e. Superphosphate: Soluble mixture of treated minerals; 20 percent available phosphoric acid.
- f. Sand: Clean, washed builder's sand, free of toxic materials, free of salt, weeds, sticks and other debris. Sand shall conform to ASTM C3 for five aggregates.
- g. Perlite: Conforming to National Bureau of Standards PS 23.
- h. Vermiculite: Horticultural grade, free of toxic substances.
- i. Sawdust: Rotted sawdust, free of chips, stones, sticks, soil, or toxic substances and with 7.5 pounds of nitrogen uniformly mixed into each cubic yard of sawdust.
- j. Manure: Well rotted, unleached stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials and containing no chemicals or ingredients harmful to plants.
- k. Mulch: Organic mulch shall be uniform in size, shape, texture and free from deleterious materials and suitable for top dressing of trees, shrubs, or plants and consisting of one of the following (see plan for mulch type):
1. Medium-sized (Mini-sized) pine bark chips, clean, bright and free from weeds, moss, sticks and other debris.
2. Areas indicated as "pine straw mulch" shall include mulch that is clean, bright and free from weeds, moss, sticks and other debris.
3. "Shredded hardwood mulch" shall be non-cypress and of a color and texture approved by the owner or Landscape Architect: submit samples,
- l. Fertilizer:
1. Fertilizer: Pelletized fertilizer with nitrogen, phosphorous and potassium in 100 percent slow release form, with the following composition:
- a. Composition: 8 percent nitrogen, 2 percent phosphorous, 12 percent potassium + 4 percent magnesium and all micro-nutrients

LANDSCAPE SPECIFICATIONS

2.3 COMPOST MIX

- A. Compost Mix: Manufactured mix that is weed and disease free, pasteurized composed of:
- a. 34% Aged Pine Bark
- b. 33% Finished Organic Compost
- c. 33% Composted Cow Manure
- B. Compost mix shall be sent to an approved agronomic soil-testing laboratory to provide the requirements noted Part 1-General.
- C. Seed:
1. Seed: All seed shall be furnished from a certified seed dealer or certified seed grower; meet the requirements of the Florida Department of Agriculture regulations; be labeled in accordance therewith. Seed shall be free of noxious weeds.
- D. Sprigging: Sprigs shall be certified to genetic purity, free of pests and disease, delivered in a timely fashion and consist of stems, leaves and stolons. The sprigs shall come from a certified supplier, approved by the Owner's Representative. After being harvested, the sprigs shall be delivered to the planting site within 24 hours. The stock shall contain no weeds, soil, or other debris and shall not be dried out at the time of planting.
- Sprigs shall be harvested to facilitate separation and distribution. Sprigs shall average four to six inches in length and carry at least four nodes. Sprigs shall be planted within twenty-four hours after removal from the certified supplier. It shall be the Contractor's responsibility to protect the stolons, keeping them moist and out of the sunlight before and during the planting operation.

PART 3 - EXECUTION

3.1 PLANTING

1. Prior to installing plant materials, Contractor shall perform drainage test excavations one per acre of site planting areas or submit plan of locations for Landscape Architect approval, a minimum of 250 ft on center throughout the planting and SOD-A areas. Test excavations shall be a minimum of 12"dia. and 12" deeper than the largest proposed plant rootball. Test excavations shall be filled with water to finish grade, then monitored to verify excavations have completely drained within a 3 hour period. Landscape Contractor shall notify the Landscape Architect-Owner's Representative of any excavations which fail this test, prior to proceeding with plant installations. Corrective actions may be required, such as but not limited to over-excavation to break sub-surface soil conditions which shall be the Contractor's responsibility and may be considered additional work. Contractor shall seek and obtain approval from Owner's Representative prior to proceeding.
2. Unsuitable Soil Conditions: Absolutely no plastic or clayey soil is to be used in landscape areas. If such a condition is found, the area is to be back-filled with material of suitable sandy gradation which is porous and percolates well with reasonable compaction. If any planting or SOD-A area has a plastic or clayey soil condition which prevents proper drainage, then a system of underdraining, turf drain or other means of releasing underground standing water must be incorporated under the direction of the Landscape Architect-Owner's representative.
3. Upon completion of landscape installation the finish grade of planting beds and lawn areas shall be minimum 6 inches below adjacent structures and slope away from existing structures per the Florida Building Code. Verify compliance with Florida Building Code with General Contractor prior to beginning work. Parking lot islands shall slope at 3% from center of island to curb. Finish grade shall be below sidewalks, curbs and walking surfaces to allow for mulch thickness and SOD-A.
4. Upon completion of landscape installation, the Contractor shall notify the Landscape Architect-Owner's Representative in writing 10 days prior to requested inspection date. Landscape Architect-Owner's Representative will make an inspection to determine compliance with Contract Documents.
5. The Contractor shall be responsible for stability and plumb conditions of all plant materials, be legally liable for damage caused by instability of plant materials. Proper staking and guying is the Contractor's responsibility. Contractor shall under their own discretion provide additional staking and guying above and beyond the requirements of the project plans at no additional expense to the Owner.
- A. Plant Material Installation and Planting Bed Preparation:
1. Topsoil shall be modified according to recommendations from agronomic soil-testing laboratory, prior to installation of plants.
2. Spread on top of topsoil a 3 inch layer of compost mix prior to planting. Mix shall be incorporated in planting holes during installation.
3. Do not spread compost mix if topsoil is frozen, muddy, or excessively wet.
4. Planting Pits and Trenches: Excavate circular planting pits with sides sloped inward. Trim base leaving center area raised slightly to support root ball and assist in drainage. Do not further disturb base. Scarify sides of plant pit smeared or smoothed during excavation.
5. Topmost Root: Topmost root-root flare shall be visible prior to planting - Find the topmost root and remove excess soil to expose topmost root-root flare.
6. Root Defects: Inspect root ball for root defects, cut roots at the point where they begin to kink or circle. Root ball shall comply with Florida Grades & Standards.
7. Remove rocks, sticks or other deleterious material greater than 1 inch in any 1 direction prior to backfill process.
8. Set tree, palm and shrubs plumb and in center of tree planting pit or trench with top of root ball 2 inches above finish grade.
- a. Container Grown: Carefully remove root ball from container without damaging root ball or plant.
- b. Ball and Burlaped Root ball: Do not use plant materials if root ball is cracked or broken before or during planting operation. Do not lift plants by the trunk. Remove rope, synthetic burlap, plastic and materials that will not decompose. Remove top 1/3 of wire basket.
- c. Backfill planting excavation incorporating compost mix. Work soil around roots eliminate voids and air pockets. When planting pit is approximately one-half backfilled, water thoroughly before placing remainder of backfill.
- d. Repeat watering until no more water is absorbed. After planting, remove excess soil and rake plant beds to a smooth even surface conforming to required finish grades.
- e. Upon completion of plant installations, fertilize according to specifications.
- f. Tree pits in non-irrigated areas shall be installed with super absorbent, according to manufacturer's recommendations.
9. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.
10. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.
11. Finish Grading: Level planting area to a smooth, uniform surface with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.
12. Upon completion of plant installations, fertilize according to specifications.
13. Tree and Shrub Pruning: Prune, trees and shrubs according to International Society of Arboriculture standards. Contractor shall prune trees and shrubs to comply with Florida Grades and Standards. Prune plants to retain natural character.
- B. SOD-A:
1. Topsoil shall be modified according to recommendations from agronomic soil-testing laboratory, prior to installation of SOD-A, see Part 1-General.
2. Remove rocks, sticks or other deleterious material greater than 1 inch in any 1 direction prior to SOD-A installation.
3. Finish grade to receive SOD-A shall be uniformly graded and irrigated prior to SOD-A installation. SOD-A shall be laid end-to-end and side-to-side to form a uniform layer of un-broken, un-gapped turf. All uneven edges shall be squarely trimmed to allow close and firm fitting of each piece. All gaps or spaces shall be filled to a smooth level with topsoil as specified herein. Edges shall be "heeled-in" and finished smoothly without uneven exposure. Place SOD-A with staggered joints closely butted, tamped or rolled to an even surface to the required finished grade. Avoid continuous seam along line of water flow in swales. Place SOD-A in rows at right angles to slope. Peg SOD-A on slopes greater than 3:1.

LANDSCAPE SPECIFICATIONS


- B. SOD-A (continued):
4. Upon completion of SOD-A installation, SOD-A areas shall be watered to provide a healthy growing condition. Watering shall be monitored and adjusted by the Contractor to prevent over or under watering.
- C. Seed:
1. Seed: All seed shall be furnished from an established seed dealer or certified seed grower; shall meet the requirements of the Florida Department of Agriculture regulations; and shall be labeled in accordance therewith. Seed shall be free of noxious weeds.
2. Seed Planting: At a minimum the contractor shall test the soil to verify conditions are acceptable for turf growth.
- 2.1. Submit agronomic soil tests for existing soil. Tests shall be performed by an approved agronomic soils testing laboratory and shall include a fertility test with the pH factor and the percentage of organic matter and a suitability analysis. The suitability analysis will include percolation tests and evaluation of soil composition to determine the soil's suitability to sustain healthy turf. Submit written recommendations for soil suitability and all necessary soil amendments, fertilizer and chemical conditioner application rates for soil preparation, and a post maintenance fertilization program. Submit recommendations to bring the soil to a pH rating between 5.5 to 6.5 and to supply necessary nutrients to satisfactory level for planting and sustaining vigorous turf growth. Submit a copy of soil tests with suitability analysis and recommendations to Owner's Representative prior to any planting.
- 2.2 At a minimum apply 100 lbs/acre of scarified, chemically treated Bahia Seed. Apply by hand, cyclone seeder, drill or hydro-seeding. The final result shall place the seeds 1/4" - 1/2" below the soil.
- 2.3. At a minimum apply an additional 30 lbs/acre of quick growing rye grass over the entire area.
- 2.4. Contractor is responsible for utilizing the best application method to prevent erosion of soil during seed growth.
- 2.5. At a minimum apply mulch (straw, hay, wood, etc.) at a rate of 2.5 tons per acre during seeding.
- 2.6. At a minimum apply fertilizer during seeding at a rate of 250lbs/acre using a 12-6-8 fertilizer or other ratio recommending by the soil testing. An additive of 4% magnesium is also required and should be verified with soil testing.
- 2.7. Contractor is responsible for dust control and measure should be taken to minimize movement of dust in addition to seeding and mulching.
3. Watering: At a minimum apply 3/4" to 1" of water each week to the newly seeded areas to help germination until the grass is fully established. The contractor is responsible to monitor rainfall quantities and supplement with watering as necessary. The contractor shall record all watering information and furnish to the Owner's Representative when requested.
- 3.1. During the maintenance period the contractor shall supplement the rain water amount with hand watering as necessary to maintain an average of 1/2" of water weekly. At any time the owner's representative may require an immediate watering of areas they find suffering from a lack of water. The contractor will have 2 days to water these areas.
4. Maintenance: At a minimum the contractor shall be responsible for mowing the new established Bahia grass at four (4) different times throughout the 12 month warranty period. The timing of mowing shall be coordinated and approved by the owner's representative.
- 4.1. At a minimum the contractor shall implement a fertilization program that will adequately assist the continued health of the turfgrass. This should include a spring, summer, and fall fertilization treatment unless proper soil sample analysis is supplied to the owner's representative that warrants no treatment required. The owner's representative shall make the final decision.
- 4.2. At the request of the owner's representative, at any given time, any area of the project that has not properly been covered by turfgrass, that is undernourished, underwatered, eroded, or in any other way not acceptable to the owner's representative, the contractor will have seven (7) days to fully correct the problem at the contractor's expense.
- D. Fertilization, Pre-Emergent and Mulching:
1. Prior to mulching, apply fertilizer specified in Part 2-Products to tree, palm, shrub, groundcover and SOD-A areas at the rate of 1.5 pounds of actual fertilizer per 100 square feet. Fertilizer application shall be witnessed by Landscape Architect-Owner's Representative.
- E. Mulching and Pre-Emergent Herbicide:
1. Apply pre-emergent herbicide to tree, palm, shrub, and groundcover areas according to manufacturer's recommendations. Pre-emergent application shall be witnessed by Landscape Architect-Owner's Representative.
2. Mulch surfaces of tree, palm, shrub and groundcover areas. Apply 3 inch depth of settled mulch, level with adjacent finish grades, sidewalks, curbs and SOD-A. Mulch over root ball of plants shall be 1 inch maximum.
- F. Plant Protection:
1. Protect plants from damage due to landscape operations, operations by other contractors and trades, and others. Maintain protection during installation and maintenance periods, as approved by Landscape Architect-Owner's Representative. Treat, repair, or replace damaged plant materials.
- G. Clean Up:
1. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose off Owner's property.
- H. Sprigging:
1. The Contractor shall carefully coordinate the sprigging operation being careful not to sprig an area too large or move so swiftly that a reasonable watering operation could not follow. Carelessness on the part of the Contractor, as mentioned above, shall result in the Contractor being liable for the cost of additional sprigs and the replanting of same.
2. A successful planting shall be defined as the insertion of 12 live sprigs per square foot.
3. An automatic planting machine shall be used, the machine shall insert live sprigs at 1-1/2 to 2 inch centers and roll the surface smooth on one pass. A minimum rate for sports field shall be 400 bushels per acre and sprigs shall be "cut in" mechanically.
4. After planting, sprigs must be watered to avoid drying out. Watering must be maintained until the sprigs tack down, about 14 days, then reduced to keep the sprigs well irrigated until complete coverage is obtained. Insects such as army worms are the biggest insect threat and can completely destroy a stand of immature sprigs overnight, it is the Contractors responsibility to monitor and treat all infestations as may be required.
5. The sprigs must be properly fertilized until completely grown in (about 12 weeks in optimum season - do not attempt to sprig past August 1). Apply 1 lb of nitrogen/1,000 square feet per week, applied in 2, 1/2 lb applications for 12 weeks. The nitrogen source shall be 75% water soluble and 25% water insoluble. Test soil and apply lime as needed to meet , then apply a pre-plant "complete" fertilizer, 10-10-10 at least 2lb/M which needs to be lightly incorporated into the soil prior to sprigging.
6. Contractor shall be responsible for the planting and grow-in of all sprigged areas. The grow-in responsibilities shall include all mowing, fertilization monitoring, watering and any additional activities required to produce a weed-free dense turf. The grow-in and maintenance period shall be considered complete when a healthy, well-rooted, even-colored, viable lawn has been established, free of weeds, surface irregularities and no bare areas greater than 2-1/2 square inch/10 square feet, with no bare area greater than 1 sq in each. Contractor shall notify the Landscape Architect-Owner's Representative in writing requesting an inspection with 48 hours notice to determine final acceptance of all the sprigged areas.

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L2.2



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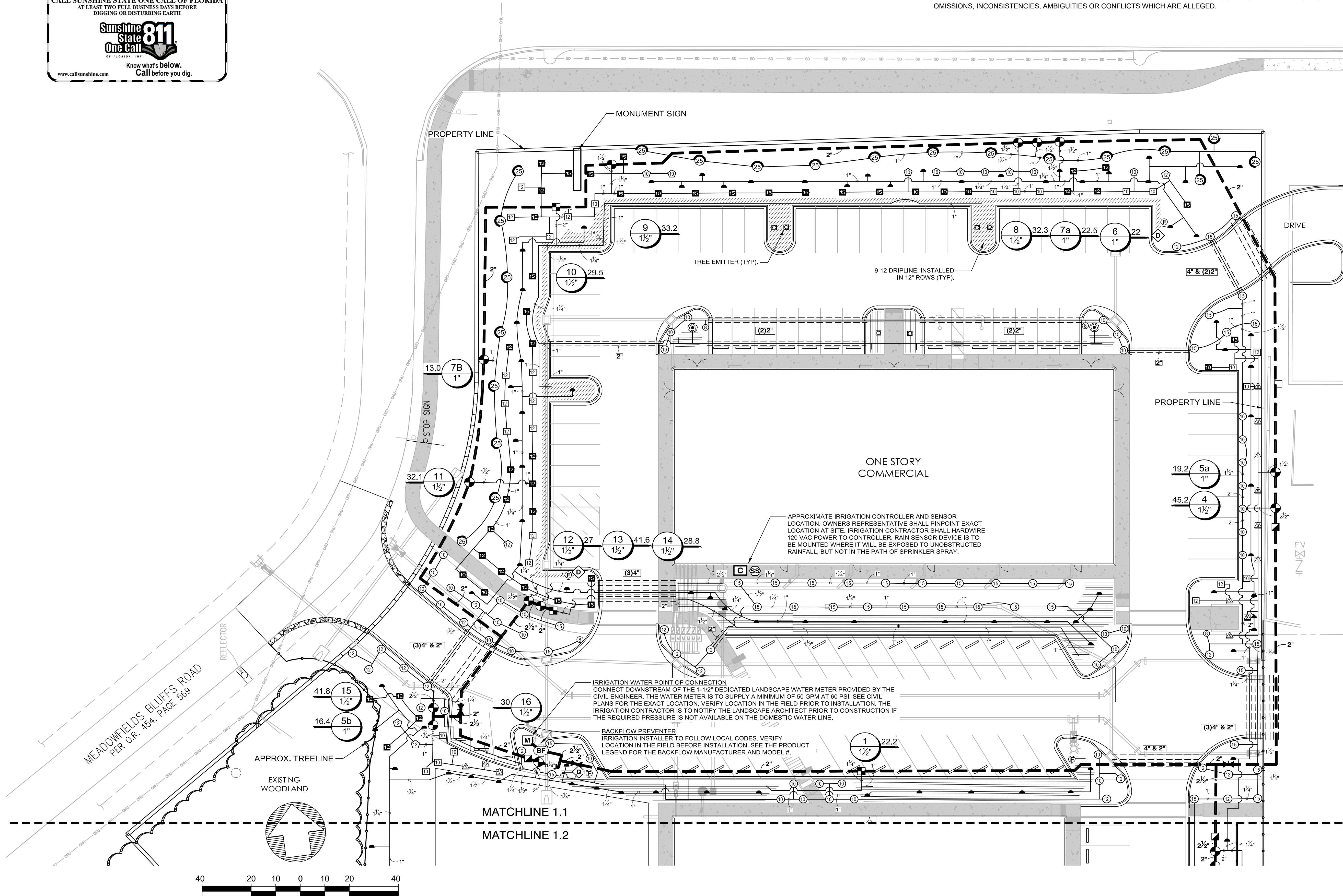
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THESE PLANS ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. ALL LANDSCAPED AREAS ARE TO RECEIVED 100% COVERAGE. INSTALL THIS IRRIGATION SYSTEM PER THE SITE CONDITIONS, AVAILABLE FLOW/PRESSURE AND MANUFACTURERS RECOMMENDATIONS. ADJUST ZONE FLOWS TO ACCOMMODATE THE AVAILABLE MAINLINE FLOWS AND PRESSURES.

THE DESIGN PROFESSIONAL DOES NOT ACCEPT ANY/ALL RESPONSIBILITY AND/OR LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND DESIGN INTENT THEY CONVEY OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE DESIGN PROFESSIONALS GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.



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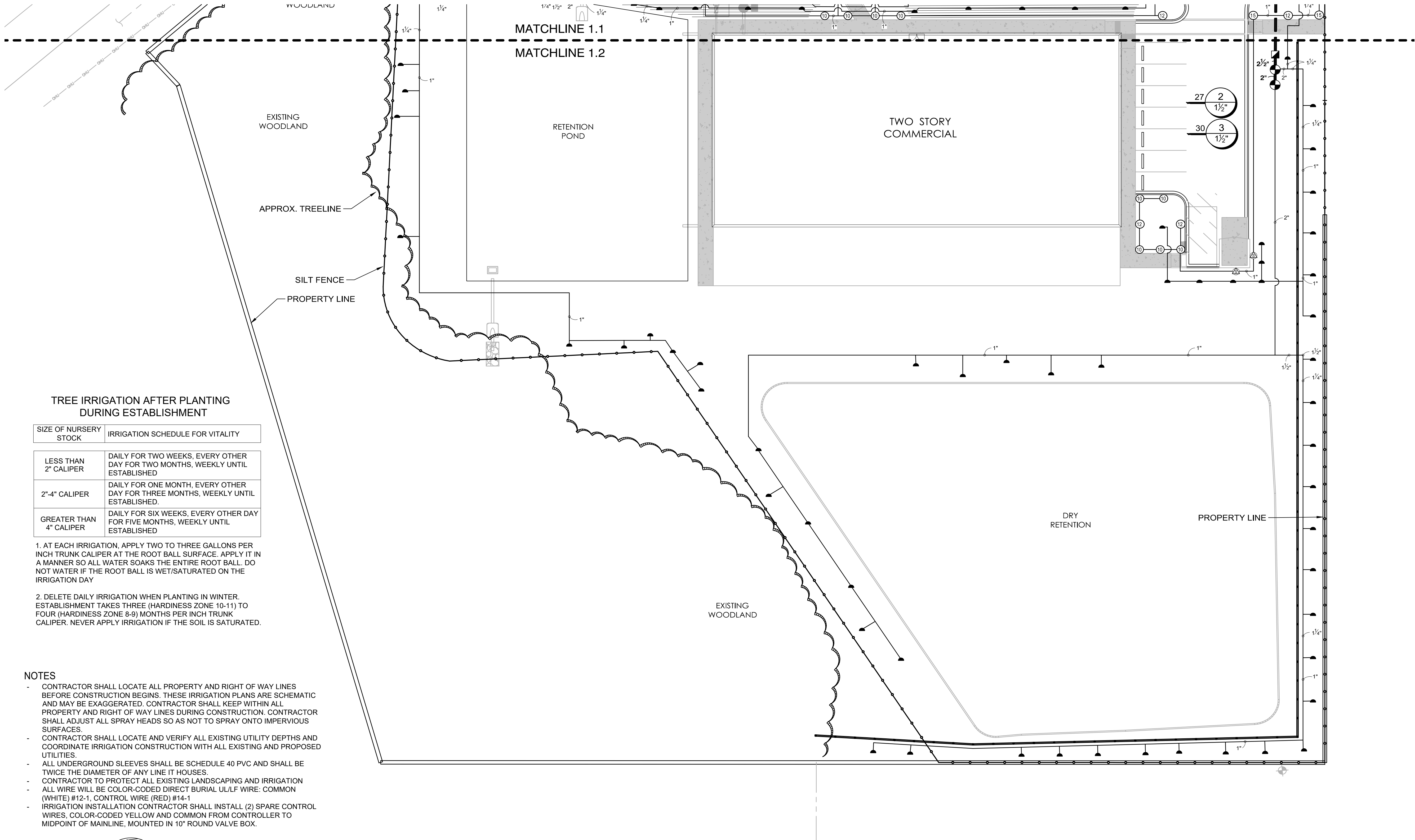
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Date  
6/14/2023

Scale  
1"=20'

IRRIGATION PLAN  
IR1.1





TREE IRRIGATION AFTER PLANTING  
DURING ESTABLISHMENT

SIZE OF NURSERY STOCK	IRRIGATION SCHEDULE FOR VITALITY
LESS THAN 2" CALIPER	DAILY FOR TWO WEEKS, EVERY OTHER DAY FOR TWO MONTHS, WEEKLY UNTIL ESTABLISHED
2"-4" CALIPER	DAILY FOR ONE MONTH, EVERY OTHER DAY FOR THREE MONTHS, WEEKLY UNTIL ESTABLISHED.
GREATER THAN 4" CALIPER	DAILY FOR SIX WEEKS, EVERY OTHER DAY FOR FIVE MONTHS, WEEKLY UNTIL ESTABLISHED

1. AT EACH IRRIGATION, APPLY TWO TO THREE GALLONS PER INCH TRUNK CALIPER AT THE ROOT BALL SURFACE. APPLY IT IN A MANNER SO ALL WATER SOAKS THE ENTIRE ROOT BALL. DO NOT WATER IF THE ROOT BALL IS WET/SATURATED ON THE IRRIGATION DAY

2. DELETE DAILY IRRIGATION WHEN PLANTING IN WINTER. ESTABLISHMENT TAKES THREE (HARDINESS ZONE 10-11) TO FOUR (HARDINESS ZONE 8-9) MONTHS PER INCH TRUNK CALIPER. NEVER APPLY IRRIGATION IF THE SOIL IS SATURATED.

NOTES

- CONTRACTOR SHALL LOCATE ALL PROPERTY AND RIGHT OF WAY LINES BEFORE CONSTRUCTION BEGINS. THESE IRRIGATION PLANS ARE SCHEMATIC AND MAY BE EXAGGERATED. CONTRACTOR SHALL KEEP WITHIN ALL PROPERTY AND RIGHT OF WAY LINES DURING CONSTRUCTION. CONTRACTOR SHALL ADJUST ALL SPRAY HEADS SO AS NOT TO SPRAY ONTO IMPERVIOUS SURFACES.
- CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITY DEPTHS AND COORDINATE IRRIGATION CONSTRUCTION WITH ALL EXISTING AND PROPOSED UTILITIES.
- ALL UNDERGROUND SLEEVES SHALL BE SCHEDULE 40 PVC AND SHALL BE TWICE THE DIAMETER OF ANY LINE IT HOUSES.
- CONTRACTOR TO PROTECT ALL EXISTING LANDSCAPING AND IRRIGATION
- ALL WIRE WILL BE COLOR-CODED DIRECT BURIAL UL/LF WIRE: COMMON (WHITE) #12-1, CONTROL WIRE (RED) #14-1
- IRRIGATION INSTALLATION CONTRACTOR SHALL INSTALL (2) SPARE CONTROL WIRES, COLOR-CODED YELLOW AND COMMON FROM CONTROLLER TO MIDPOINT OF MAINLINE, MOUNTED IN 10" ROUND VALVE BOX.

THESE PLANS ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. ALL LANDSCAPED AREAS ARE TO RECEIVED 100% COVERAGE. INSTALL THIS IRRIGATION SYSTEM PER THE SITE CONDITIONS, AVAILABLE FLOW/PRESSURE AND MANUFACTURERS RECOMMENDATIONS. ADJUST ZONE FLOWS TO ACCOMMODATE THE AVAILABLE MAINLINE FLOWS AND PRESSURES.

THE DESIGN PROFESSIONAL DOES NOT ACCEPT ANY/ALL RESPONSIBILITY AND/OR LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND DESIGN INTENT THEY CONVEY OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE DESIGN PROFESSIONALS GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

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AN IRRIGATION DESIGN COMPANY

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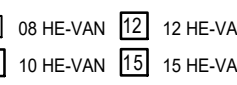



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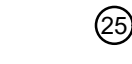
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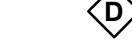


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IRRIGATION PLAN			
IR1.2			




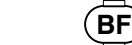


IRRIGATION SCHEDULE


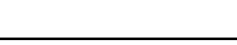
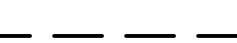
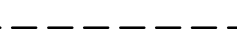
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	
	Rain Bird 1806-U-PRS 15 Strip Series Turf Spray 6in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	2	30	
	Rain Bird 1806-U-PRS HE-VAN Series Turf Spray 6in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	106	30	
	Rain Bird 1806-PRS-U 15 Strip Series Shrub Spray, 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. With Pressure Regulating Device.	12	30	
	Rain Bird 1806-PRS-U HE-VAN Series Shrub Spray, 6.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. With Pressure Regulating Device.	29	30	
	Rain Bird 1812-PRS-U HE-VAN Series Shrub Spray, 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2" NPT Female Threaded Inlet. With Pressure Regulating Device.	46	30	
	Rain Bird PA-BS-30PRS-U HE-VAN Series Shrub Spray on fixed riser with the PA-BS-PRS 30 psi Pressure Regulating Shrub Adapter. Use with 1/2in. MPT threaded risers. U series nozzles.	13	30	
	Rain Bird 1800-1400 Flood 1401 Two fixed flow rate (0.50GPM), full circle bubblers, 1/2" FIPT to be installed per each proposed tree. Increase schedule QTY x2	136	20	

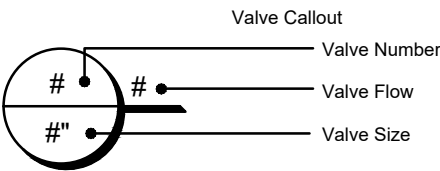
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	RADIUS
	Rain Bird 5006-PC-FC-MPR 25 Turf Rotor, 6" Pop-Up, Plastic Riser, Matched Precipitation Rotor (MPR nozzle). Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige.	21	35	24'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY		
	Rain Bird KCZ-150-LCS High Flow Control Zone Kit, for Large Commercial Drip Zones. 1-1/2" PEB Globe Valve with single 1-1/2" Pressure Regulating (40psi) Quick-Check Basket Filters. Flow range: 15-62gpm.	3		
	Rain Bird MDCFCAP Dripline Flush Valve cap in compression fitting coupler.	4		
	Rain Bird OPERIND Drip System Operation Indicator, stem rises 6" for clear visibility when drip system is charged to a minimum of 20psi. Includes 16" of 1/4" distribution tubing with connection fitting pre-installed.	3		
	Rain Bird XFD-09-12 Drip Ring Refer to Tree Drip Ring Detail	2		
	Rain Bird XP-0600X Square Series Low-Volume, Low-Pressure, Drip 6.0" Pop-Up Spray, 1/4" Barbed Inlet. Nozzle Options: SQ Series, 5 MPR Series, 8 MPR Series, and 5 Series Plastic Bubbler. *Note* Always install a Pressure Compensating Screen w/Plastic Bubbler 5 Series.	6		

	Area to Receive Dripline Rain Bird XFD-09-12 XFD On-Surface Pressure Compensating Landscape Dripline. 0.9 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	5,199 s.f.		
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SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY		
	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	15		
	Rain Bird 33-DLRC 3/4" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring. Locking Thermoplastic Rubber Cover, Double Track Key Lug, and 2-Piece Body.	3		
	Nibco T-113-K Class 125 bronze gate shut off valve with cross handle, same size as mainline pipe diameter at valve location. Size Range - 1/4" - 3"	4		
	Watts 919QT 2" Backflow reduced pressure zone - Installation by a licensed Florida Plumbing Contractor in accordance with Manufacturer's recommendations and all federal, state and local codes.	1		
	Hunter I2C-2400-PL 24 Station Outdoor Modular Controller. With two ICM-800 Module. Commercial Use. Plastic Cabinet.	1		
	Hunter Solar-Sync-Sen Solar, rain freeze sensor with outdoor interface, connects to Hunter Controllers, install as noted. Includes gutter mount bracket. Wired. Module not included.	1		

	Water Meter 1-1/2" Water meter requires 50 GPM @ 60 PSI. Irrigation contractor shall be responsible to verify the sources ability to service the systems requirements at site before starting construction.	1		
	Irrigation Lateral Line: PVC Class 200 SDR 21 Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size. Fittings shall be SCH 40 and molded. Install 12" below final grade.	7,600 l.f.		
	Irrigation Mainline: PVC Class 200 SDR 21 Pipe sizes 3" inch or smaller shall have bell and socket joints. Fittings shall be SCH 40 and molded. Install 18" below grade.	1,294 l.f.		
	Pipe Sleeve: PVC Schedule 40 The depth of the sleeves shall be a minimum 30" cover from finished grade under roadway crossings and 24" under all sidewalks and hardscapes. Extend sleeves 18" beyond edges of paving or construction, mark both ends with a 3" "V" in pavement.	785.2 l.f.		



DRIP TUBING NOTES

- INSTALL DRIP TUBING AT GRADE AND COVER WITH MULCH. TYPICAL SPACING FOR DRIP TUBING IS 12" TO 18" ON CENTER. SPACING TO BE DETERMINED BY PLANT LAYOUT. REFER TO LANDSCAPE PLAN. ANCHOR TUBING EVERY 10' WITH 12" LONG PLASTIC TUBING STAKES. INSTALL FLUSH VALVE ASSEMBLIES AT ALL TUBING "DEAD ENDS". INSTALL AIR/VACUUM RELIEF VALVES AT "HIGH POINTS" OF EVERY SECTION.
- GRID LAYOUT SHALL BE USED ON THIS PROJECT. USE CENTER GRID LAYOUT WHERE POSSIBLE.
- WHEN SLEEVING DRIPLINE, USE BLANK DRIPLINE IN SLEEVE. SLEEVE SHALL BE 2X DRIPLINE DIAMETER. NO EMITTER DRIPLINE SHALL BE PLACED IN SLEEVE.
- THE LENGTH OF ANY DRIPLINE LATERAL SHALL NOT BE LONGER THAN:  
12" EMITTERS @ 0.9 GPH  
a) @ 15 PSI = 155 FEET  
b) @ 20 PSI = 169 FEET  
c) @ 30 PSI = 230 FEET  
d) @ 40 PSI = 255 FEET  
LATERAL DISTANCE DOUBLED WHEN CENTER FEED LAYOUT USED (SEE CENTER FEED LAYOUT DETAIL.
- MANUAL FLUSH VALVE SHALL BE USED & PLACED WITH A 6" X 6" SUMP. VALVES SHALL BE OPENED EVERY WATERING DAY FOR 2 WEEKS AND THEN A MINIMUM OF 2 TIMES A YEAR TO CLEAR DRIPLINE OF DEBRIS.
- AIR/VACUUM RELIEF SHALL BE INSTALLED WHEN THE CHANGE IN SLOPE OCCURS 3% OR GREATER.
- STAPLES SHALL BE USED AT 5' O.C. AND 2 STAPLES X'IED OVER EACH OTHER WITH ANY CHANGE IN DIRECTION, ELBOWS, OR CROSSES.
- SUPPLY, EXHAUST HEADERS AND DRIPLINE SHALL BE PLACED 2"- 4" FROM PLANTS AND PAVEMENT EDGES.
- BLANK DRIPLINE SHALL BE USED FOR ALL SUPPLY AND EXHAUST HEADERS, UNLESS OTHERWISE NOTED ON PLANS.
- PRIOR TO COVERING DRIPLINE, DRIPLINE CIRCUIT WILL BE PRESSURIZED AND TESTED FOR PROPER OPERATION.
- D RIP LINE LATERALS SHALL BE LAID IN THE LONGEST RUN, WHETHER IT BE THE WIDTH OR LENGTH OF THE ZONE.

WATERING SCHEDULE - DAYLIGHT SAVING TIME

NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	Rain Bird XCZ-150-LCS	Area for Dripline	1.44 in/h	14 min		14 min			14 min		1	42	934	311
2	Rain Bird PEB	Bubbler	3.41 in/h	6 min		6 min			6 min		1	18	486	162
3	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	540	180
4	Rain Bird PEB	Turf Spray	1.0 in/h			31 min			31 min		1	61	2,758	1,379
5a	Rain Bird PEB	Shrub Spray	1.27 in/h			24 min			24 min		1	48	921	461
5b	Rain Bird PEB	Shrub Spray	1.26 in/h			24 min			24 min		1	48	789	395
6	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	396	132
7B	Rain Bird PEB	Turf Rotor	0.68 in/h			45 min			45 min		1	89	1,156	578
7a	Rain Bird PEB	Turf Rotor	0.7 in/h			43 min			43 min		1	86	1,934	967
8	Rain Bird PEB	Shrub Spray	1.08 in/h			28 min			28 min		1	56	1,810	905
9	Rain Bird PEB	Shrub Spray	1.03 in/h			30 min			30 min		1	59	1,961	981
10	Rain Bird XCZ-150-LCS	Area for Dripline	1.45 in/h	14 min		14 min			14 min		1	42	1,239	413
11	Rain Bird PEB	Shrub Spray	1.15 in/h			27 min			27 min		1	53	1,703	851
12	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	486	162
13	Rain Bird PEB	Turf Spray	1.32 in/h			23 min			23 min		1	46	1,913	956
14	Rain Bird XCZ-150-LCS	Area for Dripline	1.44 in/h	14 min		14 min			14 min		1	42	1,210	403
15	Rain Bird PEB	Turf Spray	1.12 in/h			27 min			27 min		1	54	2,256	1,128
16	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	540	180
	TOTALS:			72		374			374			816	23,032	10,544

WATERING SCHEDULE - EASTERN STANDARD TIME

NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	Rain Bird XCZ-150-LCS	Area for Dripline	1.44 in/h	14 min		14 min			14 min		1	42	934	311
2	Rain Bird PEB	Bubbler	3.41 in/h	6 min		6 min			6 min		1	18	486	162
3	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	540	180
4	Rain Bird PEB	Turf Spray	1.0 in/h			46 min					0.75	46	2,080	2,080
5a	Rain Bird PEB	Shrub Spray	1.27 in/h			36 min					0.75	36	691	691
5b	Rain Bird PEB	Shrub Spray	1.26 in/h			36 min					0.75	36	592	592
6	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	396	132
7B	Rain Bird PEB	Turf Rotor	0.68 in/h			67 min					0.75	67	870	870
7a	Rain Bird PEB	Turf Rotor	0.7 in/h			65 min					0.75	65	1,462	1,462
8	Rain Bird PEB	Shrub Spray	1.08 in/h			42 min					0.75	42	1,357	1,357
9	Rain Bird PEB	Shrub Spray	1.03 in/h			44 min					0.75	44	1,463	1,463
10	Rain Bird XCZ-150-LCS	Area for Dripline	1.45 in/h	14 min		14 min			14 min		1	42	1,239	413
11	Rain Bird PEB	Shrub Spray	1.15 in/h			40 min					0.75	40	1,285	1,285
12	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	486	162
13	Rain Bird PEB	Turf Spray	1.32 in/h			34 min					0.75	34	1,414	1,414
14	Rain Bird XCZ-150-LCS	Area for Dripline	1.44 in/h	14 min		14 min			14 min		1	42	1,210	403
15	Rain Bird PEB	Turf Spray	1.12 in/h			41 min					0.75	41	1,713	1,713
16	Rain Bird PEB	Bubbler	3.4 in/h	6 min		6 min			6 min		1	18	540	180
	TOTALS:			72		523			72			667	18,757	14,870

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	PIPE 3/4"	PIPE 1"	PIPE 1 1/4"	PIPE 1 1/2"	PIPE 2"	PIPE 2 1/2"	WIRE	FRICTION LOSS	VALVE LOSS	PSI @ POC	PRECIP
1	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	22.23	1,482 l.f.	41.5	4.6	6.5				326.2	2.28		48.3	1.44 in/h
2	Rain Bird PEB	1-1/2"	Bubbler	27	294.1	82.9	134.6			4.9		509.4	2.95	3.69	43.7	3.41 in/h
3	Rain Bird PEB	1-1/2"	Bubbler	30	30	482.0	187.6	124.5		112.8		515.8	6.07	3.6	46.8	3.4 in/h
4	Rain Bird PEB	1-1/2"	Turf Spray	45.22	43	501.0	149.6	27.7	136.3	68.4	15.0	607.3	2.95	3.55	53.8	1.0 in/h
5a	Rain Bird PEB	1"	Shrub Spray	19.19	17	228.4		7.1				622.8	2.04	2.81	52.1	1.27 in/h
5b	Rain Bird PEB	1"	Shrub Spray	16.44	13	123.3	7.1	8.4				164.3	0.55	2.51	48.4	1.26 in/h
6	Rain Bird PEB	1"	Bubbler	22	22	212.9	66.7	40.0	17.1			570.9	1.88	3.44	42.4	3.4 in/h
7B	Rain Bird PEB	1"	Turf Rotor	12.99	8	178.2	5.3					251.0	1.12	2.13	55.1	0.68 in/h
7a	Rain Bird PEB	1"	Turf Rotor	22.49	13	187.9	82.4	19.2	6.2			561.7	2.22	3.57	57.9	0.7 in/h
8	Rain Bird PEB	1-1/2"	Shrub Spray	32.32	23	211.8	23.6	9.9	12.5			553.9	2.16	3.58	52.9	1.08 in/h
9	Rain Bird PEB	1-1/2"	Shrub Spray	33.24	21	227.8	39.7	8.7	3.9			386.3	2.02	3.57	52.8	1.03 in/h
10	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	29.49	1,796 l.f.	193.9	253.5	72.5		16.6		345.6	2.35		49.5	1.45 in/h
11	Rain Bird PEB	1-1/2"	Shrub Spray	32.13	26	297.5	34.6		16.4			197.6	2.07	3.58	52.1	1.15 in/h
12	Rain Bird PEB	1-1/2"	Bubbler	27	27	218.1	131.4	151.8		8.0		90.5	2.08	3.69	41.5	3.4 in/h
13	Rain Bird PEB	1-1/2"	Turf Spray	41.58	27	218.3	75.0	90.0	15.6		87.1	85.2	2.59	3.52	51.9	1.32 in/h
14	Rain Bird XCZ-150-LCS	1-1/2"	Area for Dripline	28.82	1,923 l.f.	2.8	81.8			60.2		85.2	2.4		48.2	1.44 in/h
15	Rain Bird PEB	1-1/2"	Turf Spray	41.78	38	452.6	115.3	71.1	29.4	7.0	3.9	164.1	3.39	3.52	52.2	1.12 in/h
16	Rain Bird PEB	1-1/2"	Bubbler	30	30	282.7	275.1	98.0	27.3	7.0		191.4	2.47	3.6	40.8	3.4 in/h
	Common Wire											1,294				

IRRIGATION SYSTEM PERFORMANCE NOTES

- IRRIGATION SYSTEM IS DESIGNED TO OPERATE OFF A POTABLE WATER METER PROVIDING A MINIMUM FLOW OF 50 GPM AND A MINIMUM PRESSURE OF 60 PSI.  
  
CONTRACTOR MUST CONTACT THE LANDSCAPE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION IF THE AVAILABLE FLOW AND PRESSURE DEVIATES MORE THEN 5% OR WILL AFFECT THE PERFORMANCE OF THE SYSTEM.  
  
MINIMUM PRESSURE REQUIREMENTS - 60 PSI AT THE POINT OF CONNECTION  
A. 35 PSI AT THE BASE OF THE POP-UP ROTOR/ROTATOR HEADS  
B. 30 PSI AT THE BASE OF THE POP-UP SPRAY HEADS
- HEAD LAYOUT IS BASED ON BASE INFORMATION PROVIDED. HEADS SHALL BE ADJUSTED TO ACCOMMODATE FIELD VARIATIONS WHILE MAINTAINING 100% COVERAGE AND MINIMIZING OVER-SPRAY ONTO PAVED AREAS AND BUILDINGS.
- 1/2" PIPE SHALL NOT BE USED FOR LATERAL PIPING



AN IRRIGATION DESIGN COMPANY

3215 ELLEN DR.  
ORLANDO, FLORIDA 32806  
PHONE (407) 859-5790  
www.irrdesign.com  
Jason McElroy  
irrdesign@gmail.com

NON RESIDENTIAL IRRIGATION: DURING DAYLIGHT SAVING TIME, WATERING IS ALLOWED ONLY ON TUESDAY AND FRIDAY. DURING EASTERN STANDARD TIME, WATERING IS ALLOWED ONLY ON TUESDAY. ALL LAWN AND LANDSCAPE IRRIGATION IS LIMITED TO THREE QUARTERS OF AN INCH OF WATER PER APPLICATION, AND IRRIGATION CAN OCCUR FOR NO MORE THAN ONE HOUR PER DAY PER ZONE.

IRRIGATION USING A MICRO-SPRAY, MICRO-JET, DRIP OR BUBBLER SYSTEM IS ALLOWED ANYTIME. IRRIGATION OF NEW LANDSCAPE IS ALLOWED AT ANY TIME OF DAY ON ANY DAY FOR THE INITIAL 30 DAYS AND EVERY OTHER DAY FOR THE NEXT 30 DAYS FOR A TOTAL OF ONE 60-DAY PERIOD, PROVIDED THAT THE IRRIGATION IS LIMITED TO THE MINIMUM AMOUNT NECESSARY FOR ESTABLISHMENT.

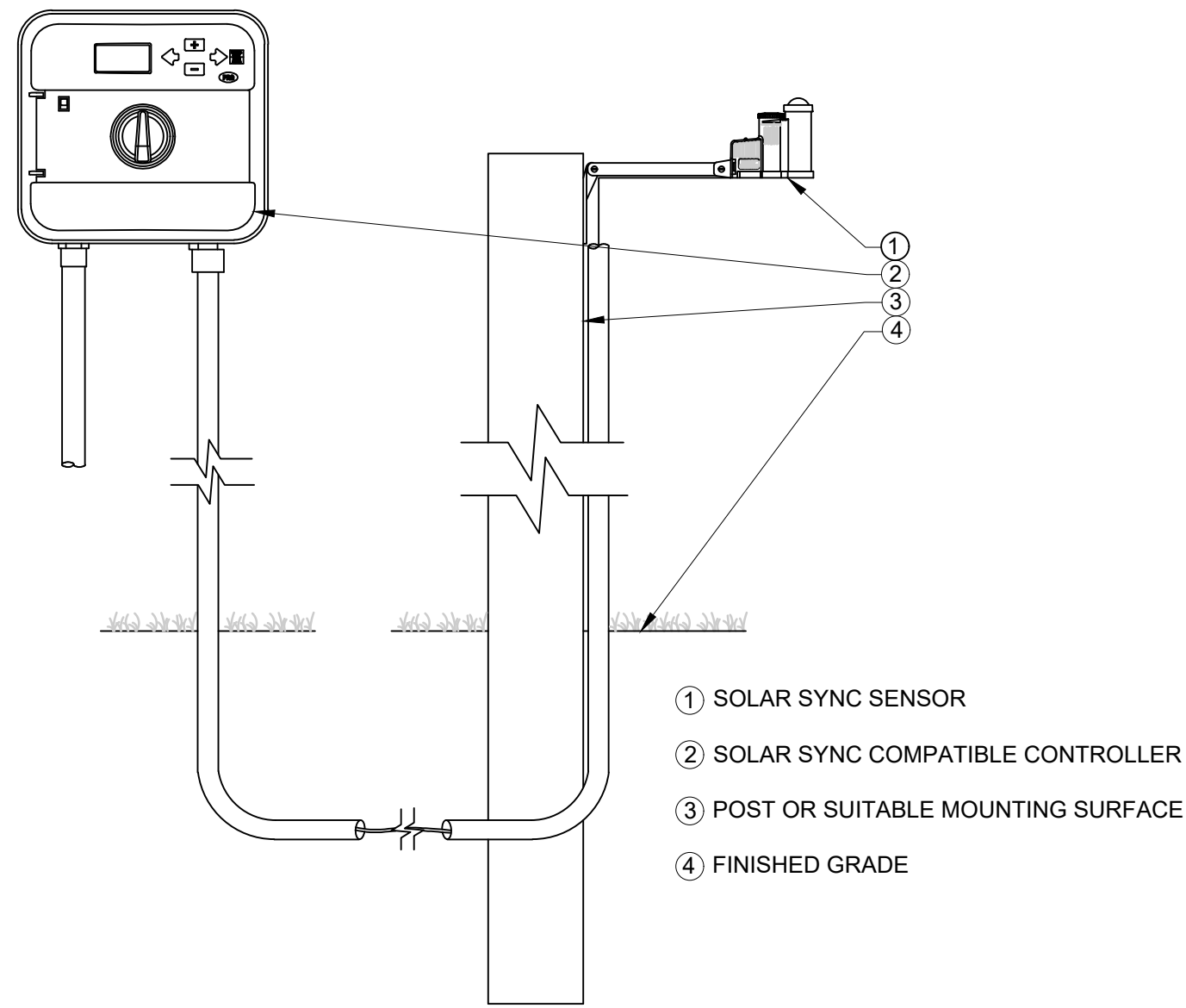
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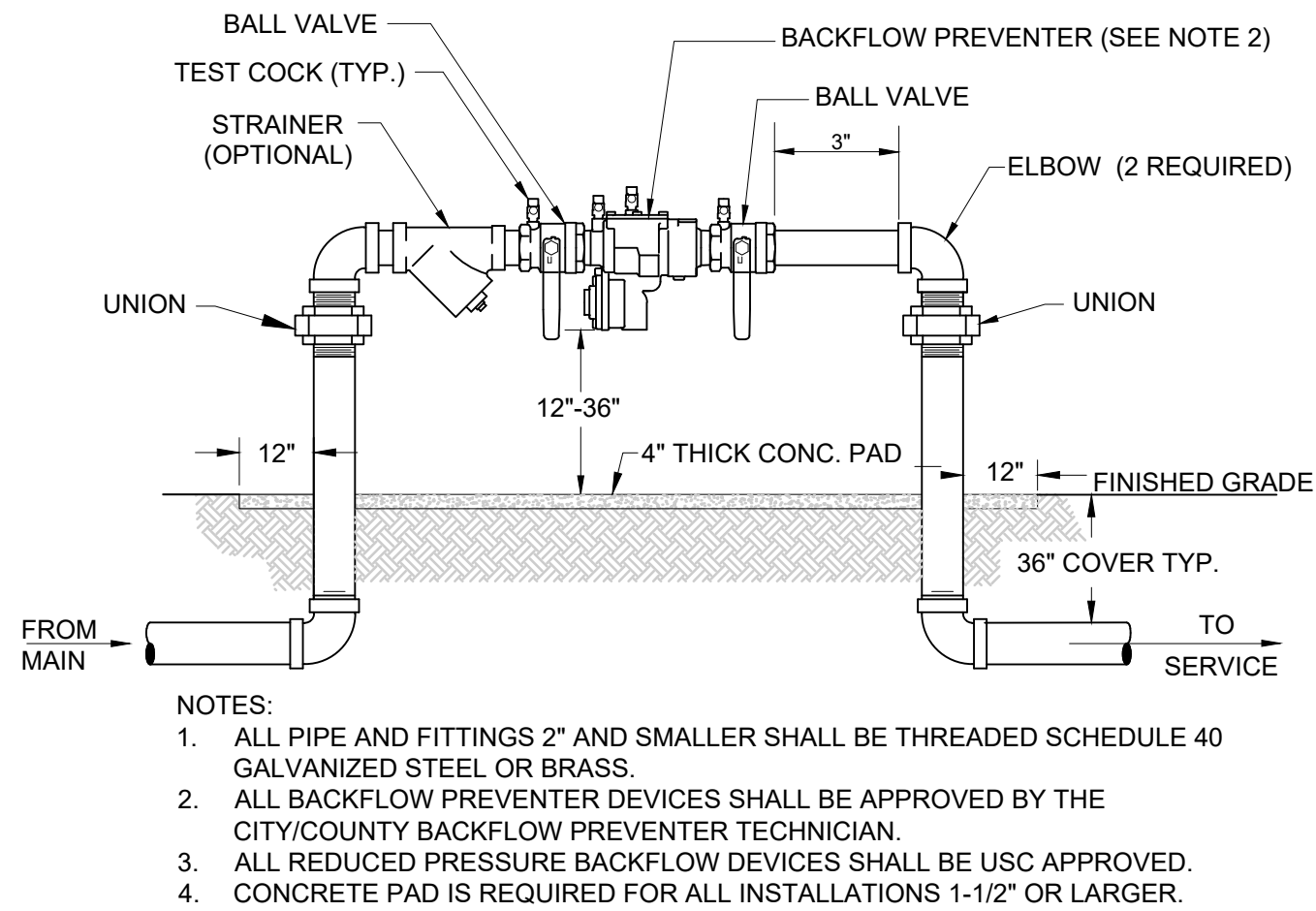
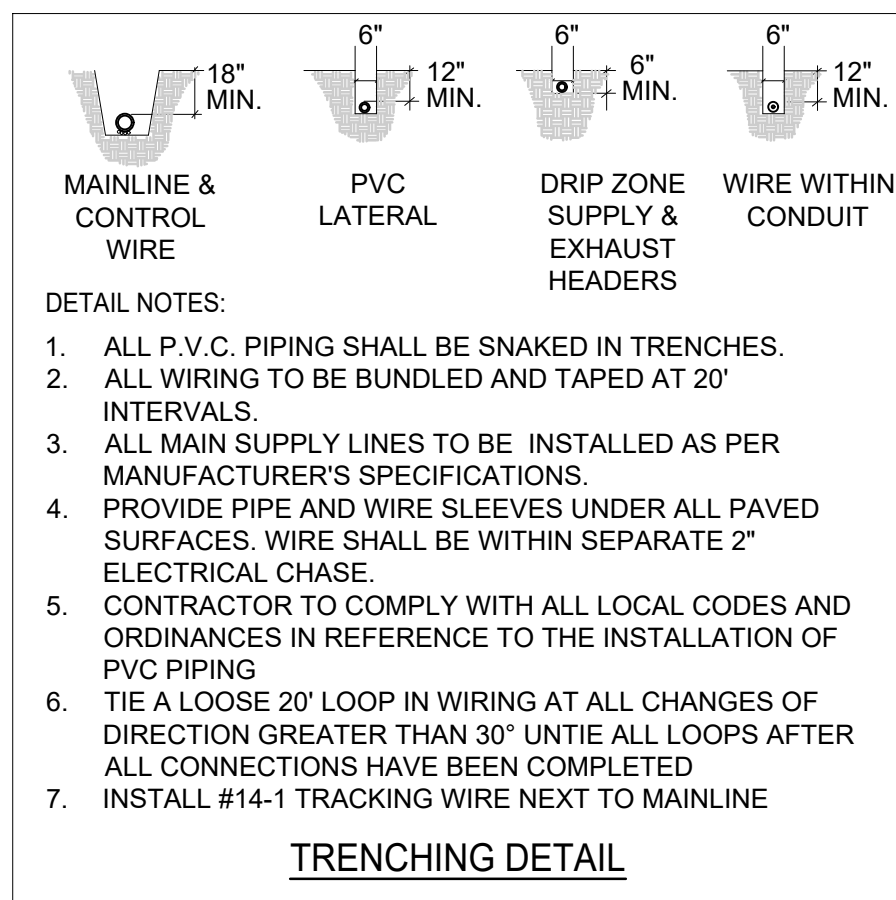
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info@blueleaflandscape.com  
www.blueleaflandscape.com

Date 6/14/2023	Scale
IRRIGATION DETAILS	
IR2.1	

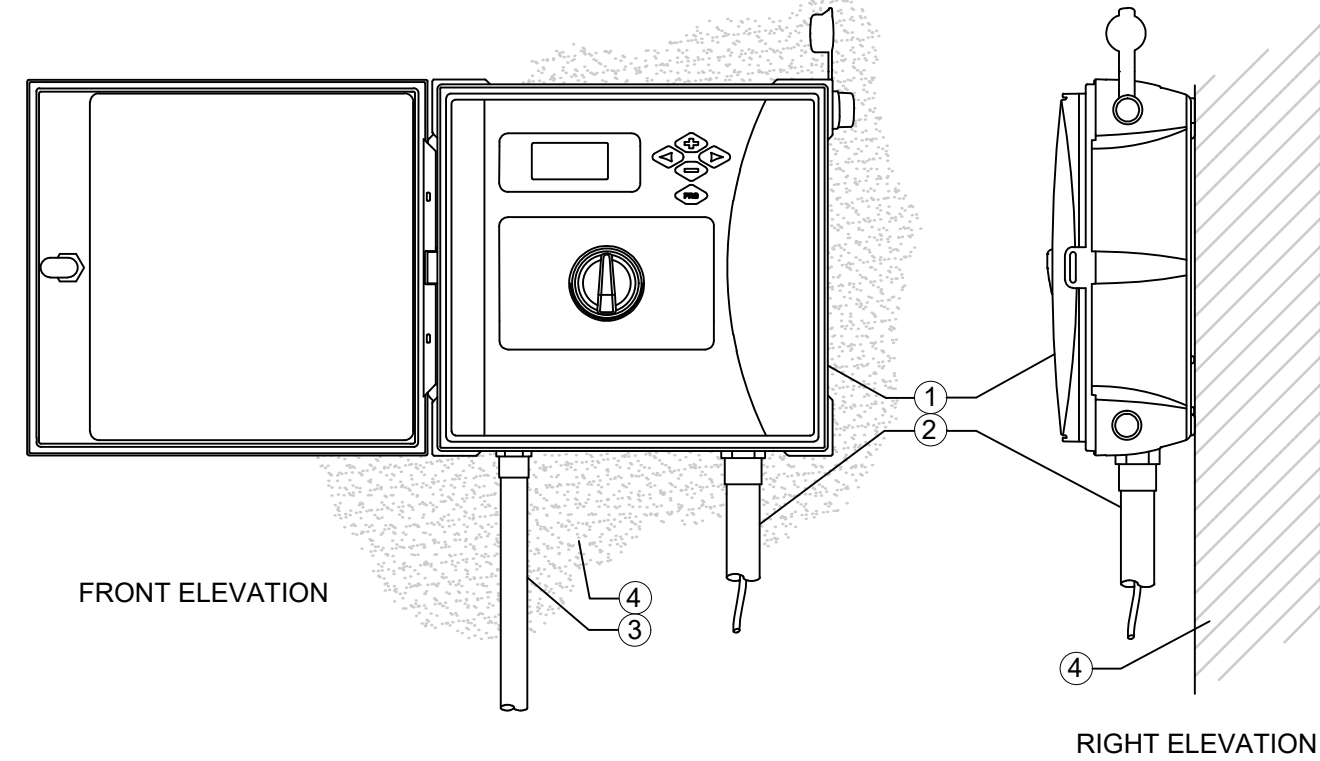




SOLAR SYNC WITH WALL MOUNT CONTROLLER



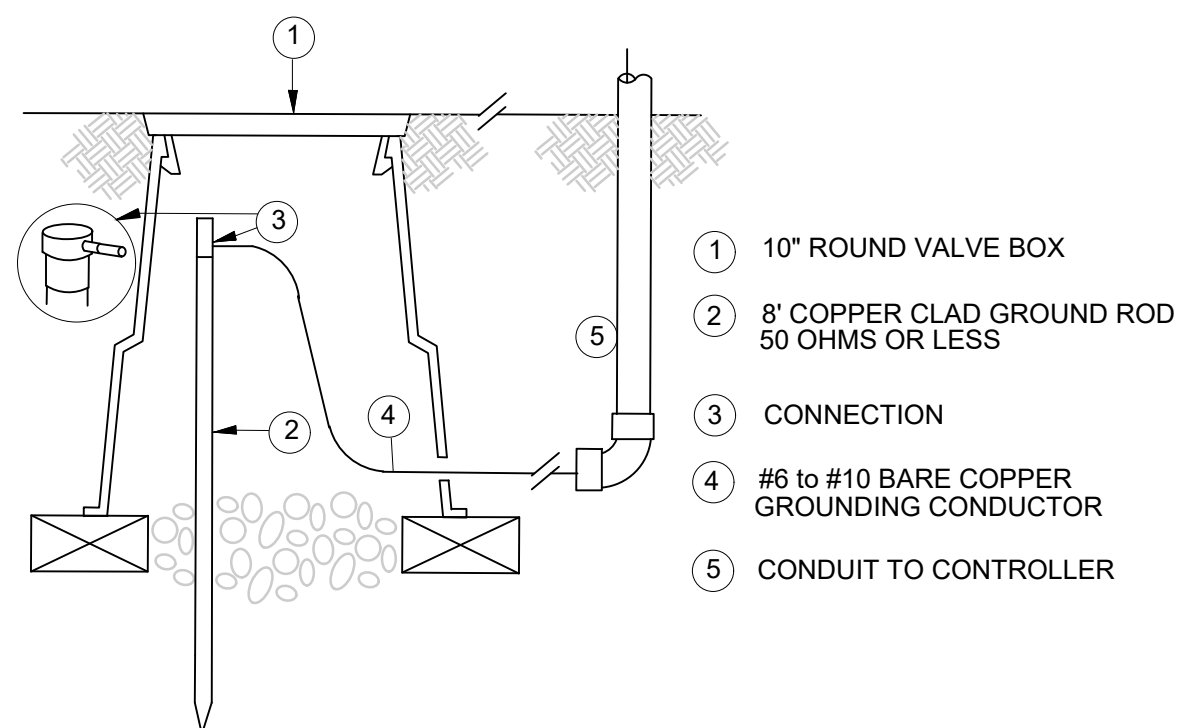
REDUCED PRESSURE BACKFLOW PREVENTER



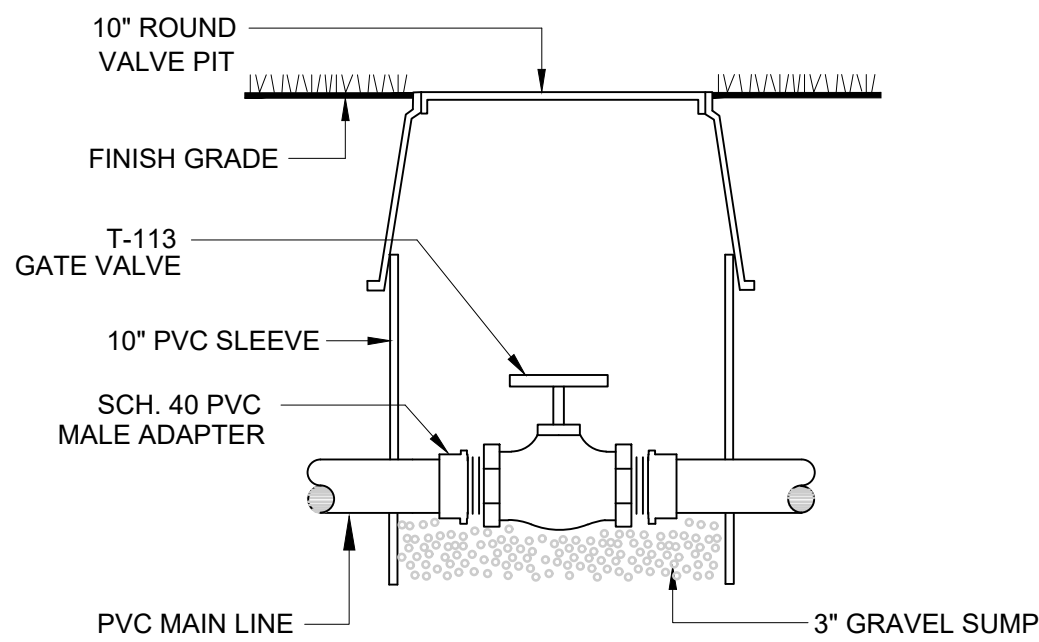
IRRIGATION CONTROLLER (I2C-800-PL)

- 1 IRRIGATION CONTROLLER (I2C-800-PL) PER PLAN
- 2 IRRIGATION CONTROL WIRE IN CONDUIT SIZE AND TYPE PER LOCAL CODES
- 3 ELECTRICAL SUPPLY CONDUIT CONNECT TO POWER SOURCE, J-BOX INSIDE CONTROLLER
- 4 ADJACENT SURFACE TO MOUNT CONTROLLER PER PLAN

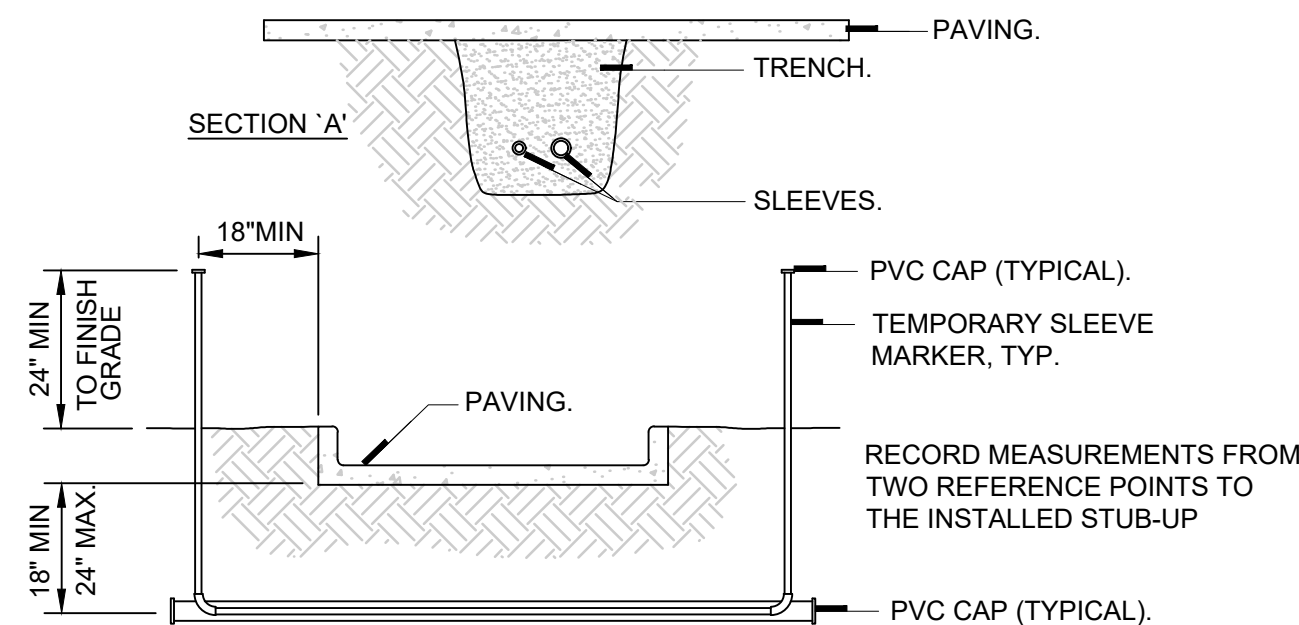
NOTE  
MOUNT CONTROLLER LCD SCREEN AT EYE LEVEL, CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110 VAC POWER SOURCE



GROUND PER N.E.C.  
CONTROLLER GROUNDING

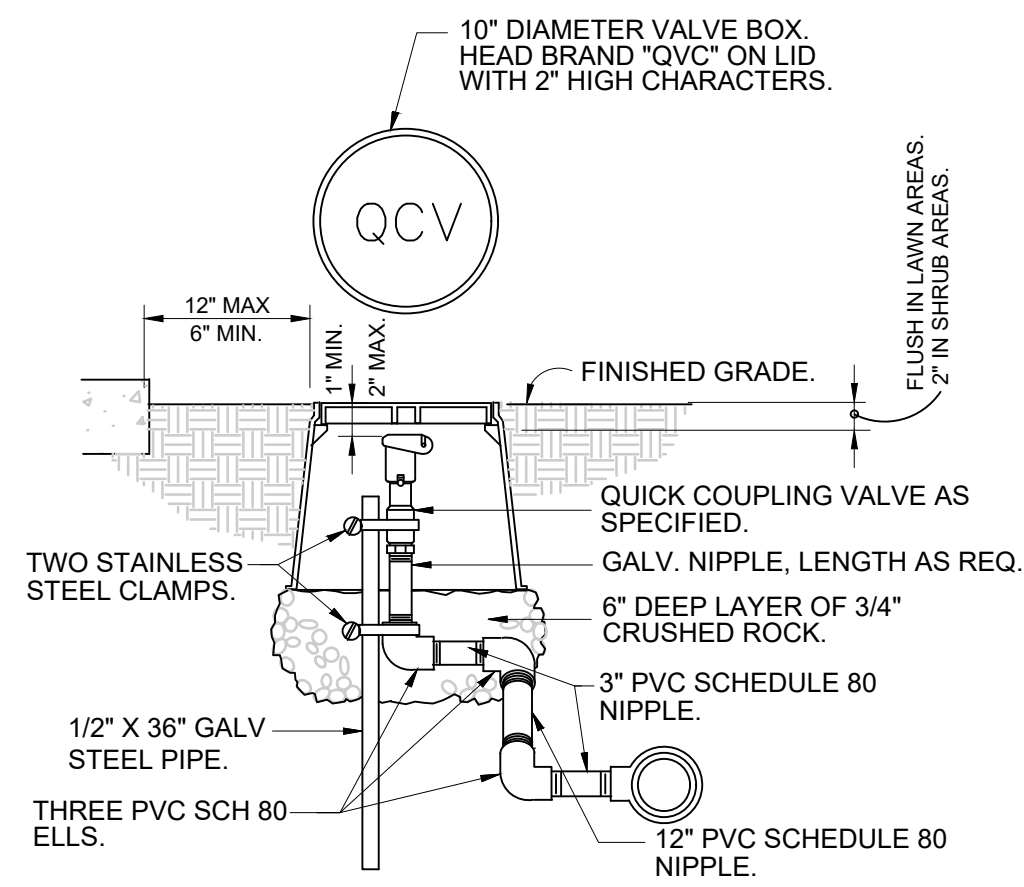


ISOLATION GATE VALVE

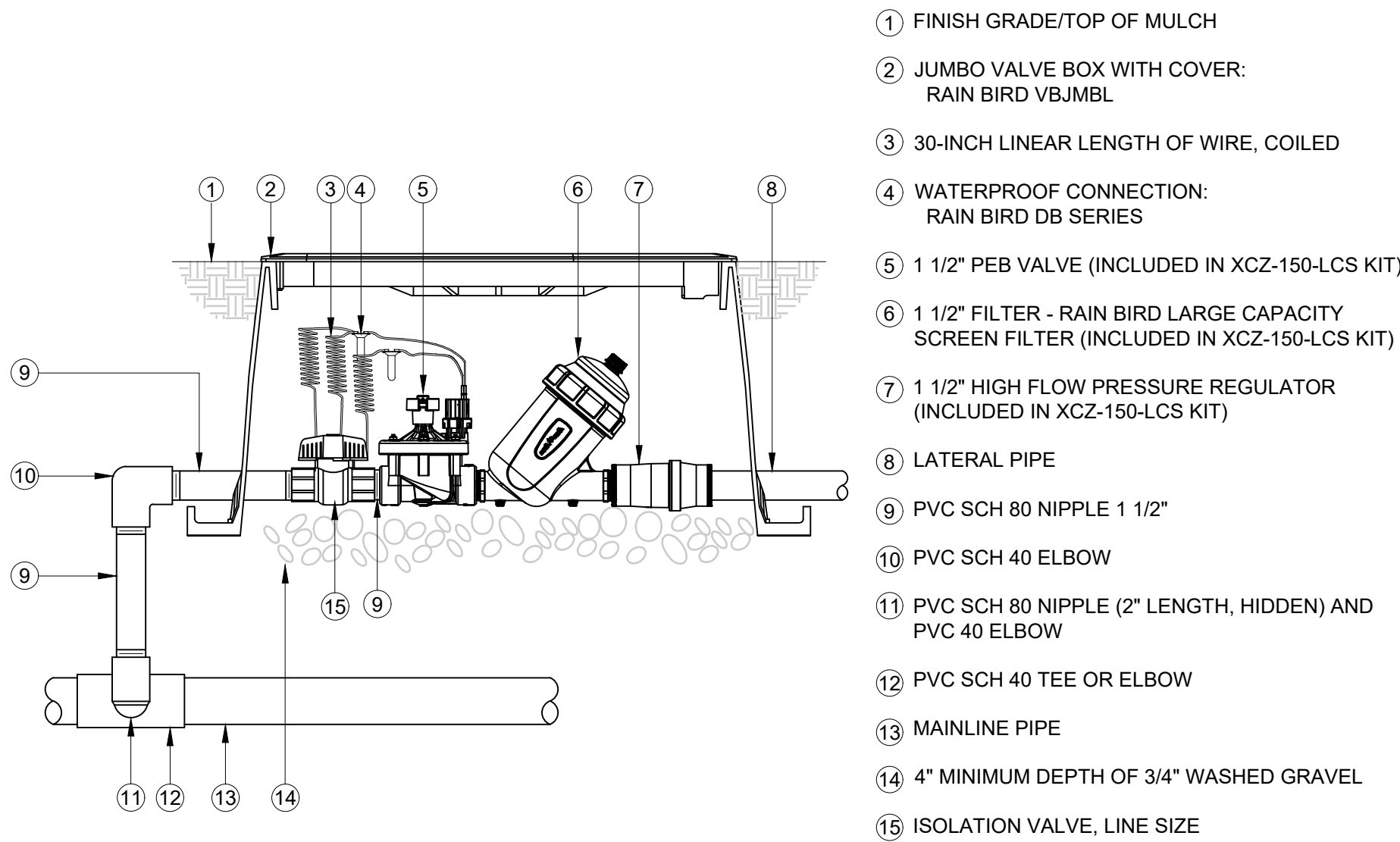


- NOTES
1. IRRIGATION SLEEVES SHALL BE CLASS 200 PIPE FOR 4" AND LARGER AND SCHEDULE 40 PVC FOR 3" AND SMALLER.
  2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
  3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE AND MARK ALL SLEEVE LOCATIONS. REMOVE EXTENSION WHEN SLEEVE IS UTILIZED.
  4. MECHANICALLY TAMP TO 95% PROCTOR.
  5. SLEEVE SHALL BE TWO (2) TIMES DIAMETER OF NOMINAL SIZE OF PIPE WITHIN SLEEVE.

IRRIGATION SLEEVE DETAIL

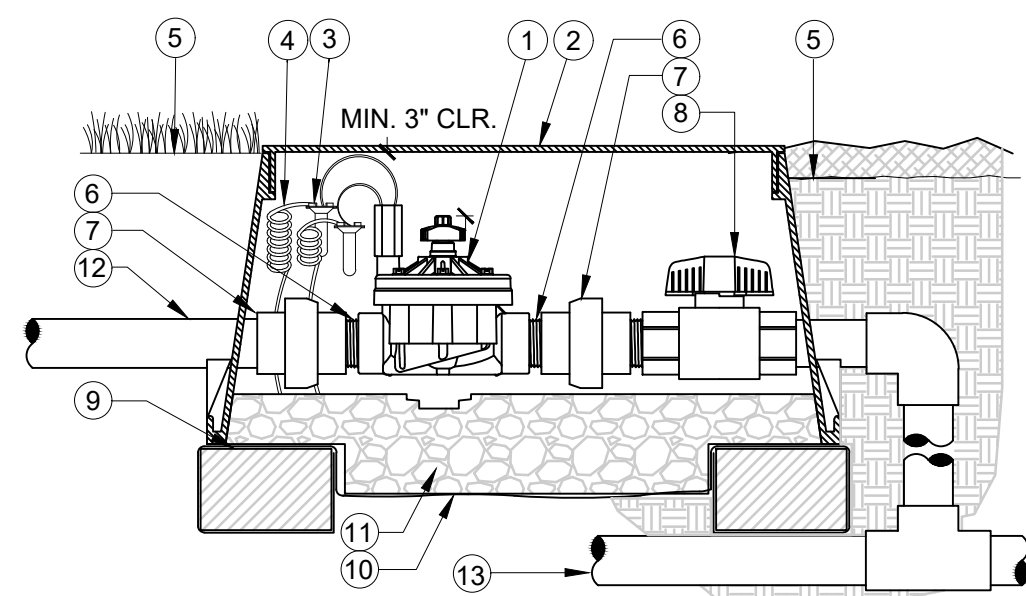


QUICK COUPLER TYPICAL DETAIL



RAIN BIRD XCZ-150-LCS 1.5" COMMERCIAL CONTROL ZONE KIT IN JUMBO VALVE BOX

- 1 FINISH GRADE/TOP OF MULCH
- 2 JUMBO VALVE BOX WITH COVER: RAIN BIRD VBJMBL
- 3 30-INCH LINEAR LENGTH OF WIRE, COILED
- 4 WATERPROOF CONNECTION: RAIN BIRD DB SERIES
- 5 1 1/2" PEB VALVE (INCLUDED IN XCZ-150-LCS KIT)
- 6 1 1/2" FILTER - RAIN BIRD LARGE CAPACITY SCREEN FILTER (INCLUDED IN XCZ-150-LCS KIT)
- 7 1 1/2" HIGH FLOW PRESSURE REGULATOR (INCLUDED IN XCZ-150-LCS KIT)
- 8 LATERAL PIPE
- 9 PVC SCH 80 NIPPLE 1 1/2"
- 10 PVC SCH 40 ELBOW
- 11 PVC SCH 80 NIPPLE (2" LENGTH, HIDDEN) AND PVC 40 ELBOW
- 12 PVC SCH 40 TEE OR ELBOW
- 13 MAINLINE PIPE
- 14 4" MINIMUM DEPTH OF 3/4" WASHED GRAVEL
- 15 ISOLATION VALVE, LINE SIZE



ELECTRIC REMOTE CONTROL VALVE

- 1 REMOTE CONTROL VALVE WITH FLOW CONTROL - PER PLAN
- 2 IRRIGATION VALVE BOX: HEAT STAMP LID WITH 'RCV' IN 2" LETTERS
- 3 WATERPROOF CONNECTORS (2)
- 4 18"-24" COILED WIRE TO CONTROLLER
- 5 FINISH GRADE AT ADJACENT SURFACE (TURF OR MULCH)
- 6 SCH. 80 CLOSE NIPPLE, SIZE PER RCV
- 7 PVC SLIP (OR FPT) X FPT UNION
- 8 ISOLATION VALVE, LINE SIZE
- 9 BRICK SUPPORTS (4)
- 10 FILTER FABRIC - WRAP TWICE AROUND BRICK SUPPORTS
- 11 3/4" WASHED GRAVEL - 4" MIN. DEPTH
- 12 IRRIGATION LATERAL
- 13 MAINLINE AND FITTINGS

Date									
Revision/Issue									
No.									

TYLER WEST  
NASSAU COUNTY  
for CROSS REGIONS REAL ESTATE

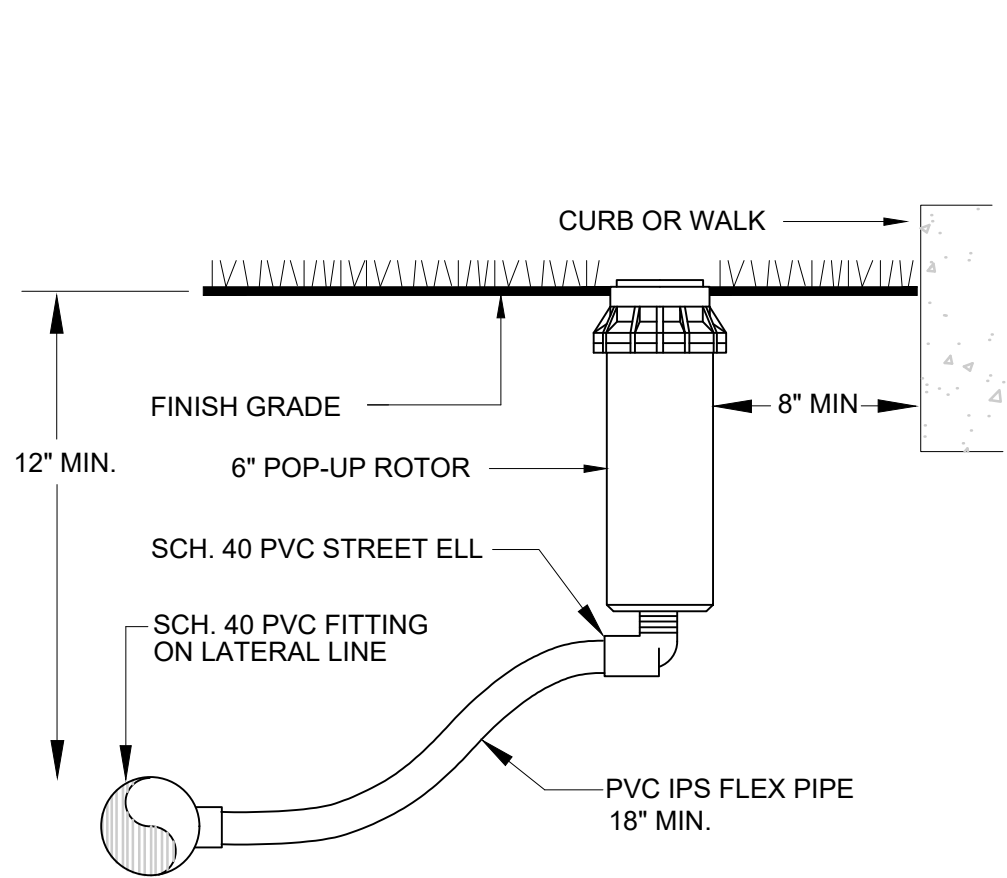
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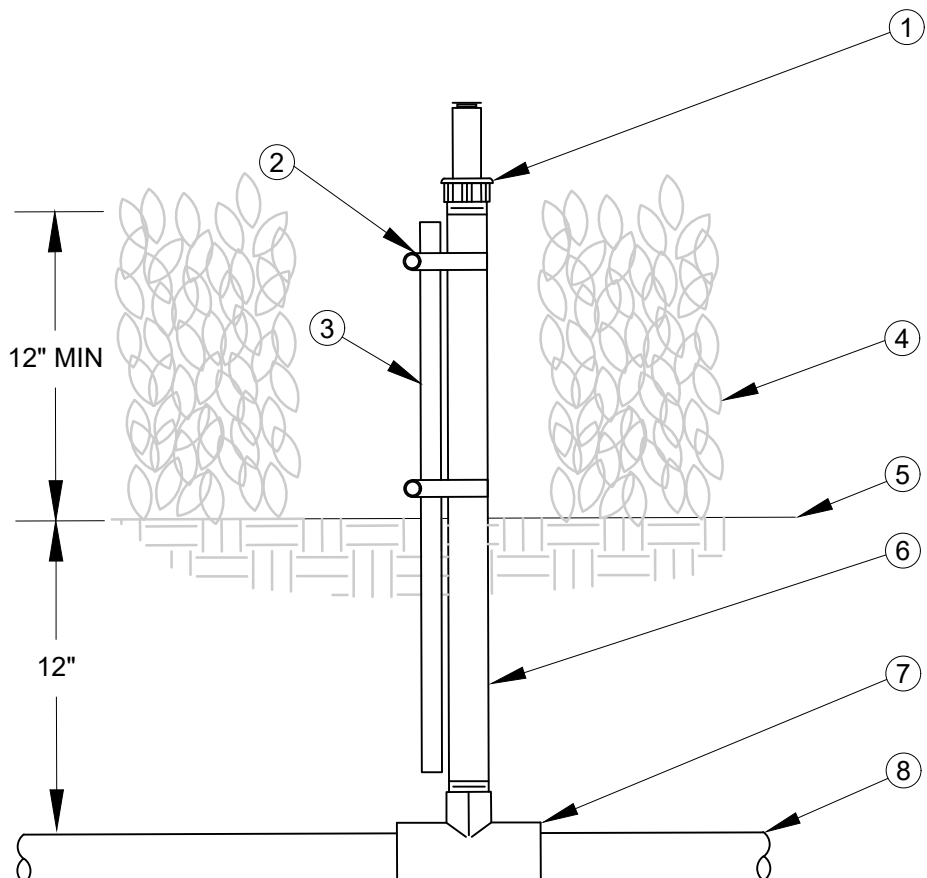
Date	6/14/2023	Scale	
IRRIGATION SPECIFICATIONS			
IR2.2			

GENERAL IRRIGATION NOTES

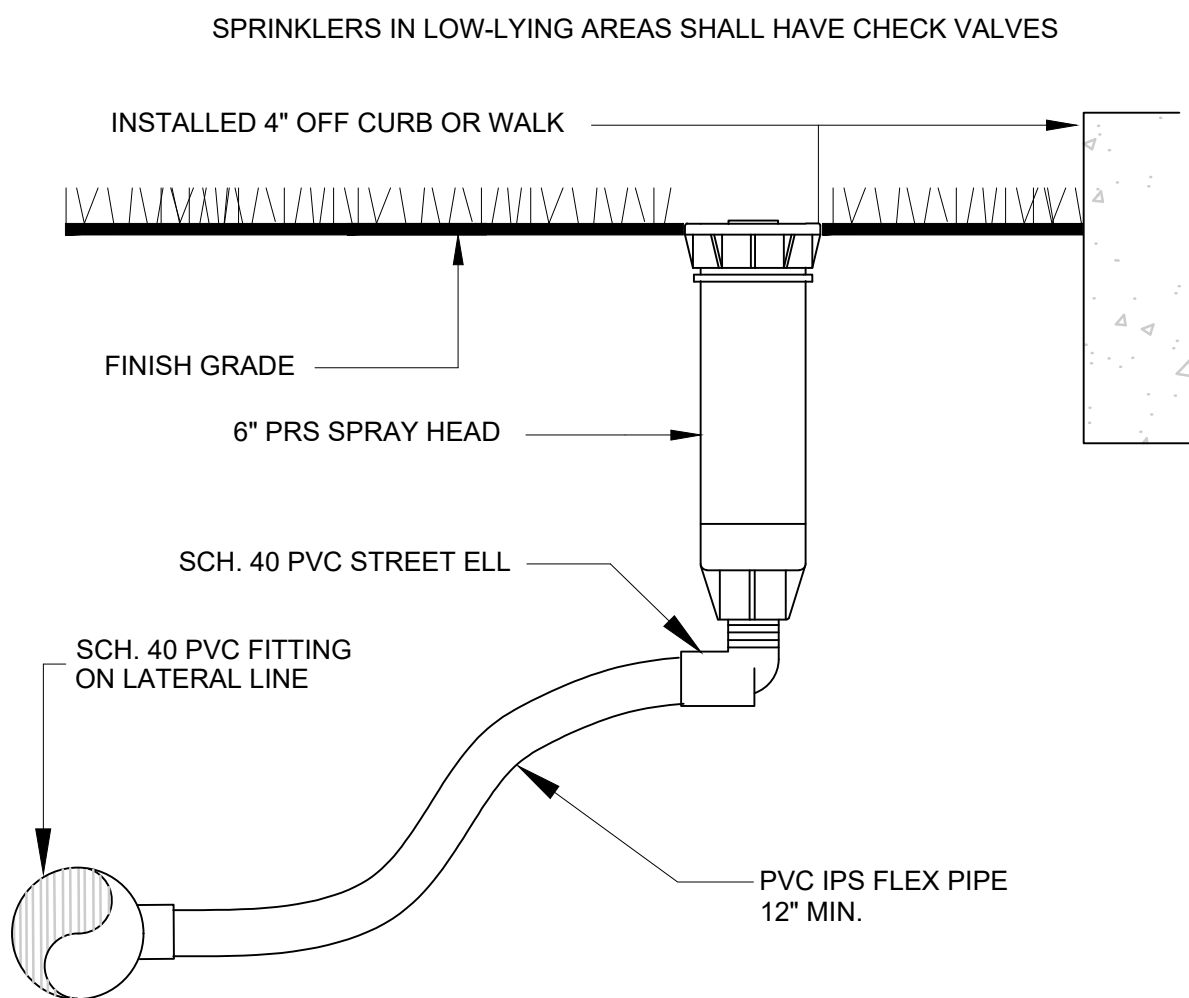
- ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE).
- ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER (CLASS 200 PVC PIPE).
- NO ROCKS, BOULDER, OR OTHER EXTRANEIOUS MATERIALS TO BE USED IN BACKFILLING OF TRENCH.
- ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.
- ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID TEFLON.
- ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF SPRINKLER HEADS.
- SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS.
- ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS SHOWN ON DETAILS.
- ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND FURNISHED BY THE CONTRACTOR.
- NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR CONNECTIONS.
- ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE IRRIGATION CONSULTANT BY THE CONTRACTOR FOR CLARIFICATION BEFORE PRECEDING WITH THE WORK.
- ALL 24 VOLT WIRE SHALL BE #12 UF/UL FOR COMMON WIRE, AND #14 UF/UL FOR CONTROL WIRES, DIRECT BURIAL, SOLID COPPER.
- CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED. i.e ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES.
- CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER PLANTING. i.e VERIFY ROOT BALL SIZE FOR PLANTING
- CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN A VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES.
- SPRINKLERS IN LOW-LYING AREAS SHALL HAVE CHECK VALVES
- ALL SPRINKLERS TO BE MOUNTED ON FLEX PIPE - REFER TO DETAILS.
- INSTALL DRIP LINE TUBING AND NON-PRESSURE LATERAL LEAD LINE PIPING IN LANDSCAPE AREAS AND ADJACENT TO SELECTED PLANT MATERIAL AS SHOWN IN DETAILS.
- CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL VALVES.
- 24 VOLT WIRE SHALL BE COLOR CODE; COMMON-WHITE, CONTROL-RED.
- CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH (2) 5/8" COPPER CLAD GROUND RODS.
- CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON FAULT GROUND AND LIGHTNING PROTECTION.
- CONTROLLER GROUNDING MUST BE PER ASIC REQUIREMENTS.
- ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER:
  - TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEAD AND VALVE SUPPLIED.
  - TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.
  - TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS.
- SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING, ELECTRIC VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPED AREAS AND REFERENCE THE LANDSCAPE PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT MATERIALS EXISTING OR NEW.
- CONTRACTOR TO ADD EXTENSION RISERS TO POP-UP HEADS WHEN NEEDED TO PROVIDE PROPER COVERAGE.
- CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 18" FROM FOUNDATIONS, ALSO INSTALL SPRINKLERS 4" FROM CURBS OR WALKS.
- PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND BACKFLOW REQUIREMENTS NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS. CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM PLANS OR SPECIFICATIONS.
- IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE ARCHITECT WITH A REPRODUCIBLE AS-BUILT DRAWING OF THE INSTALLED IRRIGATION SYSTEM IN A PDF FILE FORMAT BEFORE FINAL ACCEPTANCE. PROVIDE CROSS-MEASURED LOCATIONS OF ALL VALVE LOCATIONS, CONTROLLER, WATER SOURCE, WIRE SPLICES, SLEEVE LOCATIONS, ETC.
- A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER SUBSTANTIAL COMPLETION IS ACCEPTED. START UP AND ADJUSTING OF SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY.
- PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIAL, INSTALLATION PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS. CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES. IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND REDESIGN COSTS FOR NON-COMPLIANCE.
- UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE TWO PRESSURE TESTS OF THE IRRIGATION SYSTEM MAINLINE(BOTH TO SHOW NO DROP IN PRESSURE DURING DURATION OF THE TEST).
  - 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE
  - 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE
- IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE THE OWNER WITH A COLOR-CODED ZONE DIAGRAM PLAN, 8-1/2"x11" LAMINATED SHEET(S) WITH AN ELECTRONIC FILE COPY TO IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH CONTROLLER. THE LAMINATED CHART IS TO BE LOCATED IN AN ADHESIVE POUCH ATTACHED TO THE INSIDE OF CONTROLLER(S).
- THE CONTROLLER(S) SHALL SCHEDULE PROGRAM "A" TO A REGULAR RUN-TIME SETTINGS FOR AFTER THE ESTABLISHMENT PERIOD OF THE PLANT MATERIAL. PROGRAM "B" SHALL BE USED DURING THE ESTABLISHMENT PERIOD AND TURNED OFF AFTER THE 30-60 DAYS OF PLANT INSTALLATION.
- THE IRRIGATION CONTRACTOR WILL READ ALL SPECIFICATIONS AND REVIEW ALL DETAILS AND EXAMINE THESE PLANS CAREFULLY PRIOR TO BIDDING THIS PROJECT. FAILURE TO READ THIS INFORMATION IS NOT AN ACCEPTABLE REASON IF THE JOB IS UNDERBID.
- THE PLAN MAY NOT INCLUDE ALL MATERIALS. THIS DOESN'T RELIEVE THE CONTRACTOR FROM BEING RESPONSIBLE TO PROVIDE A COMPLETE SYSTEM IN PERFECT WORKING ORDER.



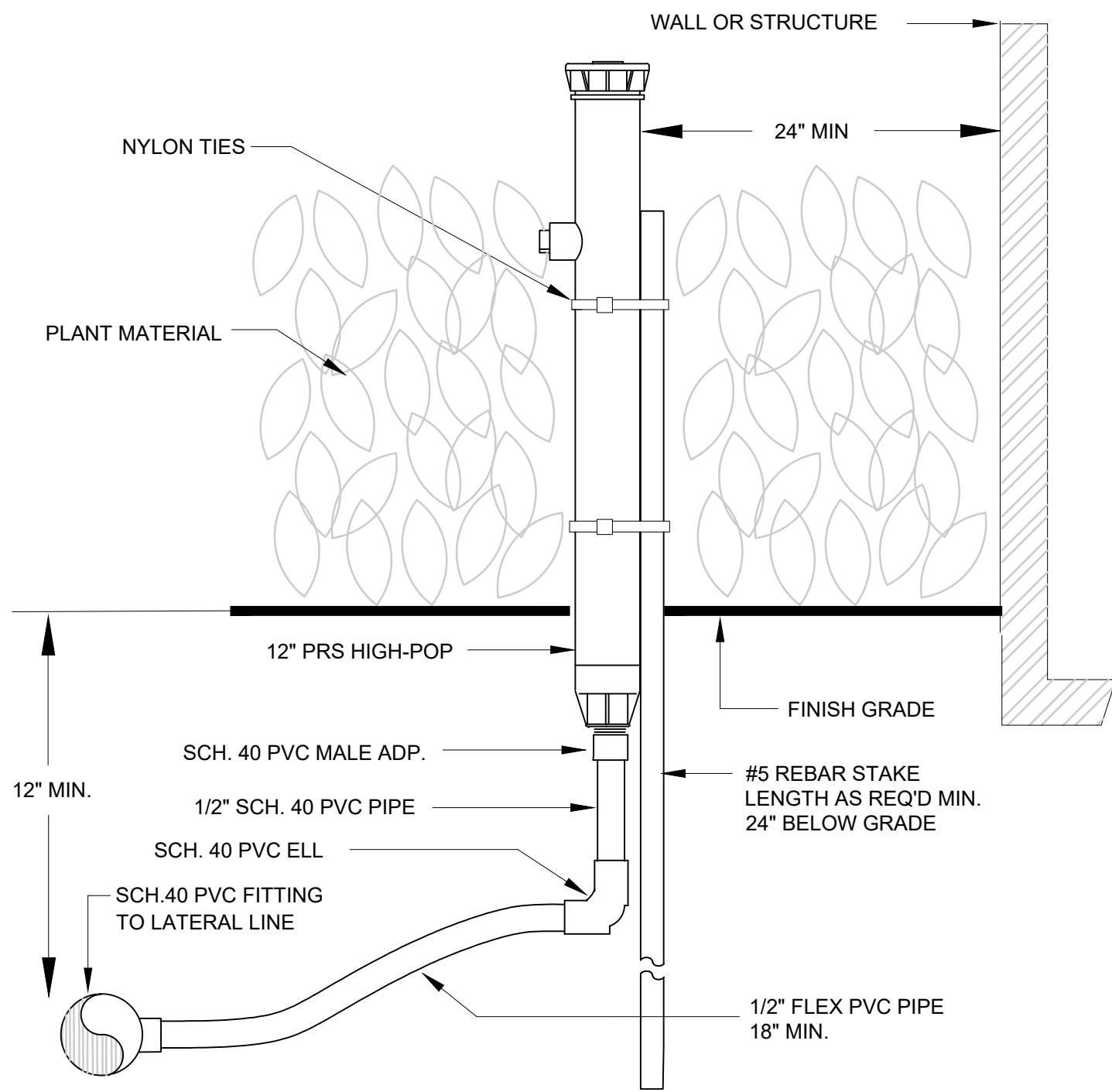
TURF ROTOR HEAD



SHRUB RISER

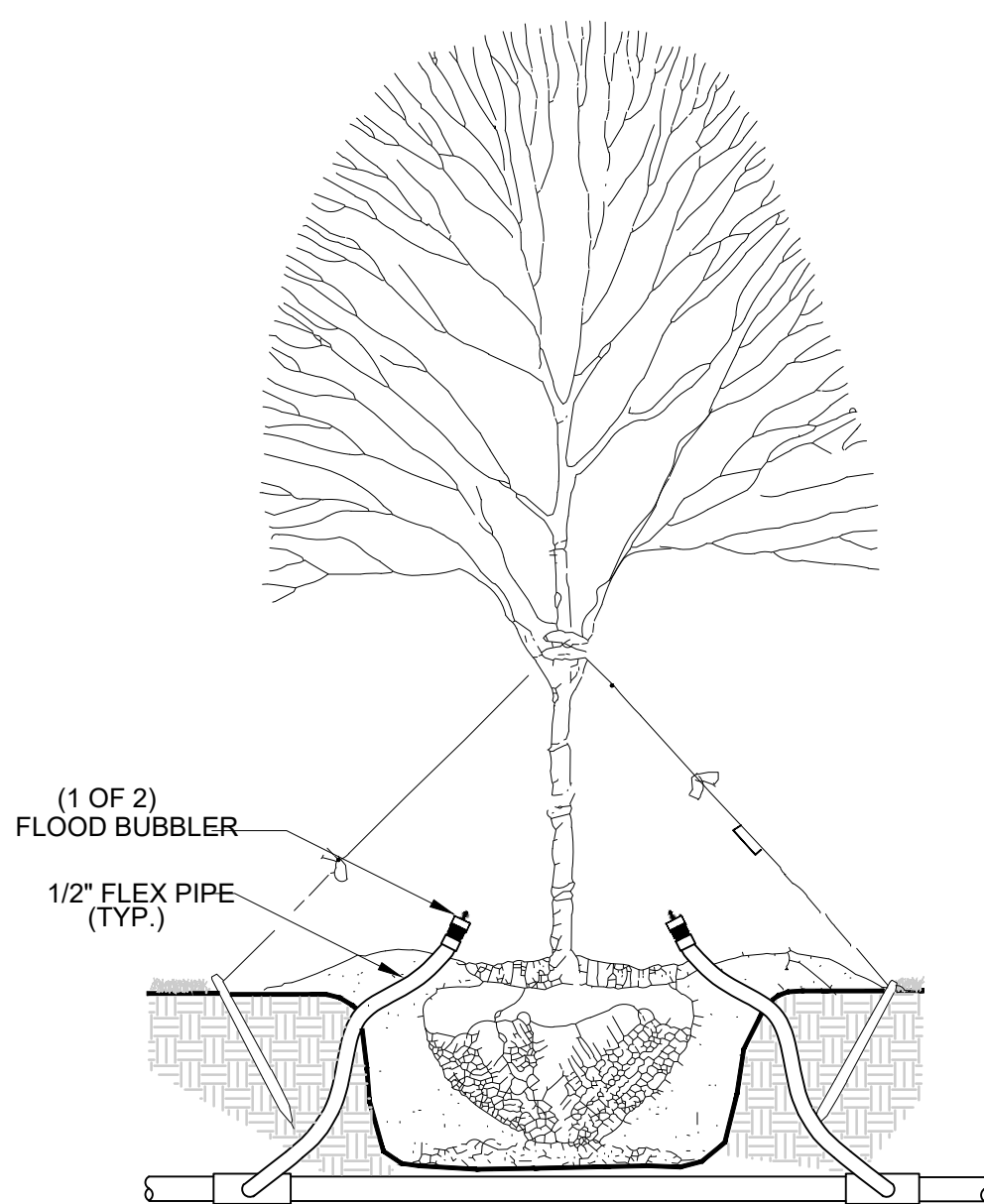


6" POP-UP SPRAY HEAD DETAIL



12" POP-UP SHRUB SPRAY HEAD DETAIL

- RAIN BIRD PA-8S-PRS/P45 SHRUB ADAPTER W MPR/ROTARY SPRAY NOZZLE
- STAINLESS STEEL HOSE CLAMP TOP AND BOTTOM. CARE MUST BE TAKEN NOT TO DAMAGE THE PIPE
- REBAR #4 x 18" OR SCH 80 PVC PLAIN END PIPE 1/2 x 18", CLAMP TO RISER
- PLANT MATERIAL
- FINISH GRADE/TOP OF MULCH
- UV RADIATION 1/2" PVC SCH 80 NIPPLE (LENGTH AS REQUIRED).
- SCH 40 PVC TEE S x S x T
- PVC LATERAL PIPE



TREE BUBBLER DETAIL

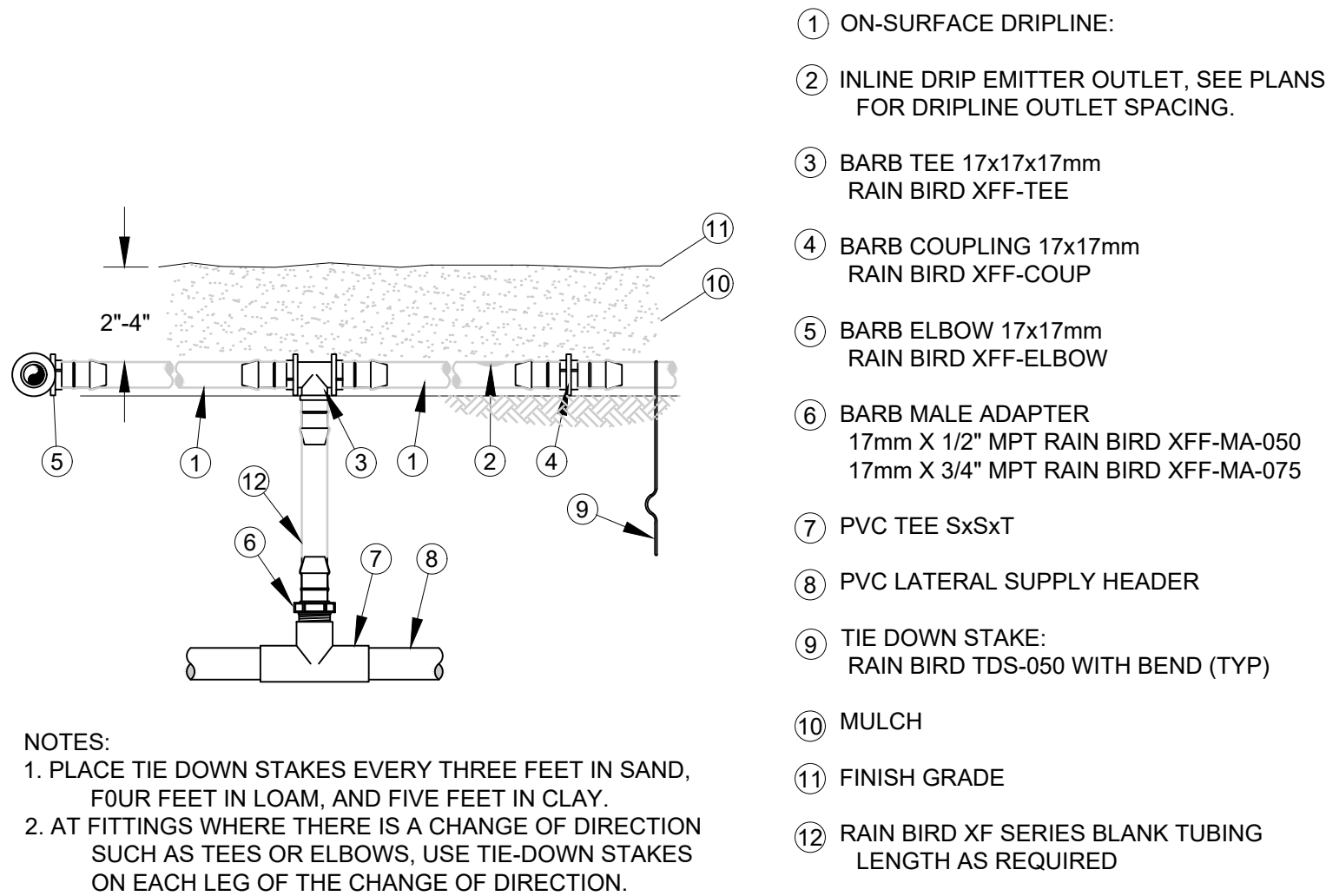
TYLER WEST  
NASSAU COUNTY  
for CROSS REGIONS REAL ESTATE

blueleaf  
LANDSCAPE

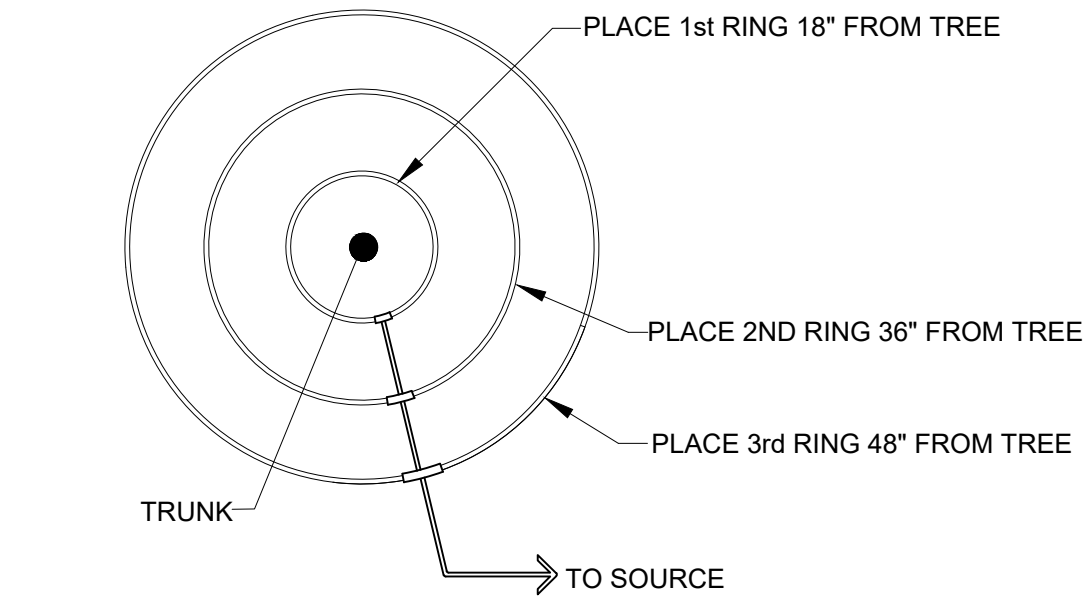
BLUE LEAF LANDSCAPE  
1540 PERSHING ROAD  
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Date  
6/14/2023  
Scale  
IRRIGATION SPECIFICATIONS  
IR2.3

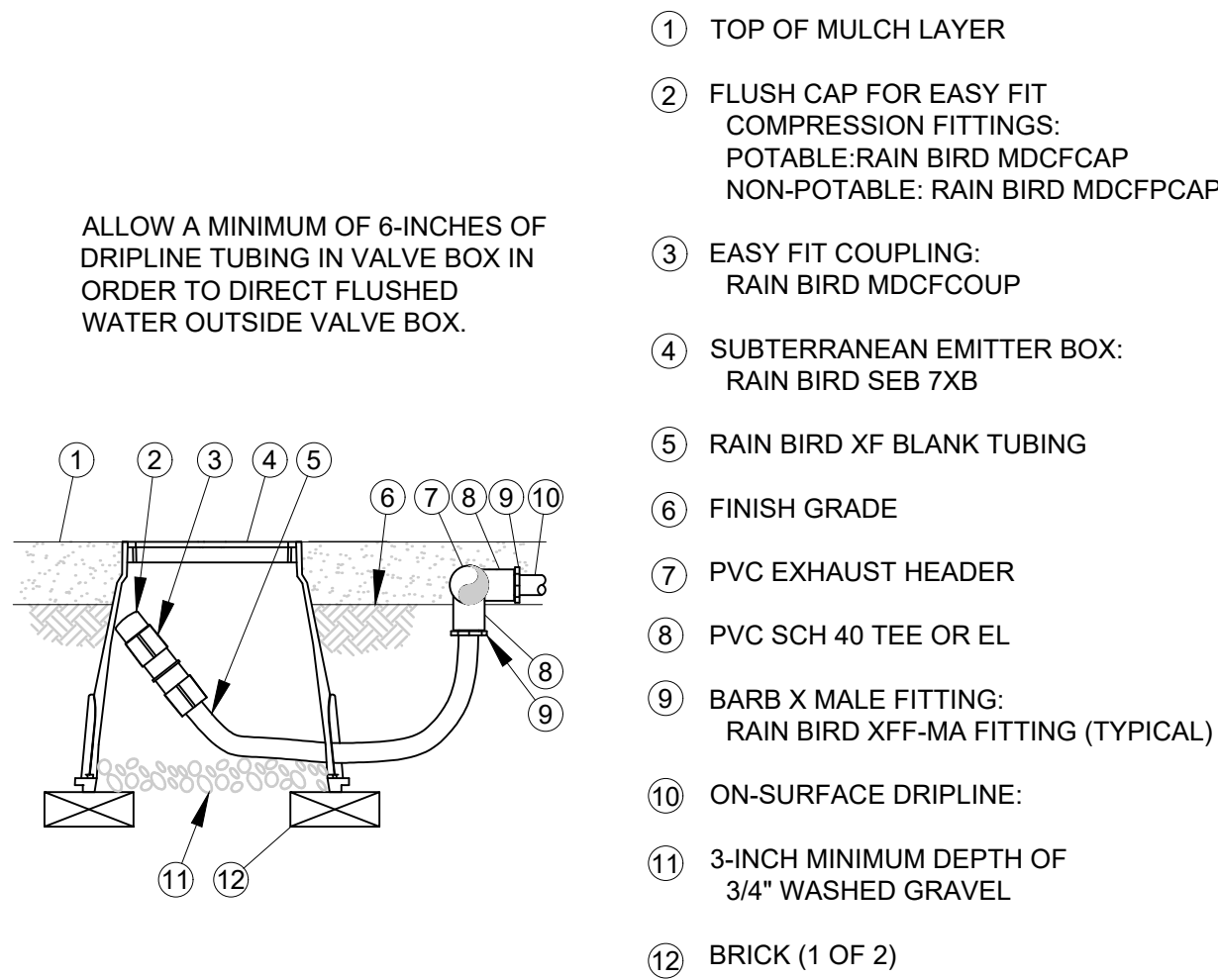




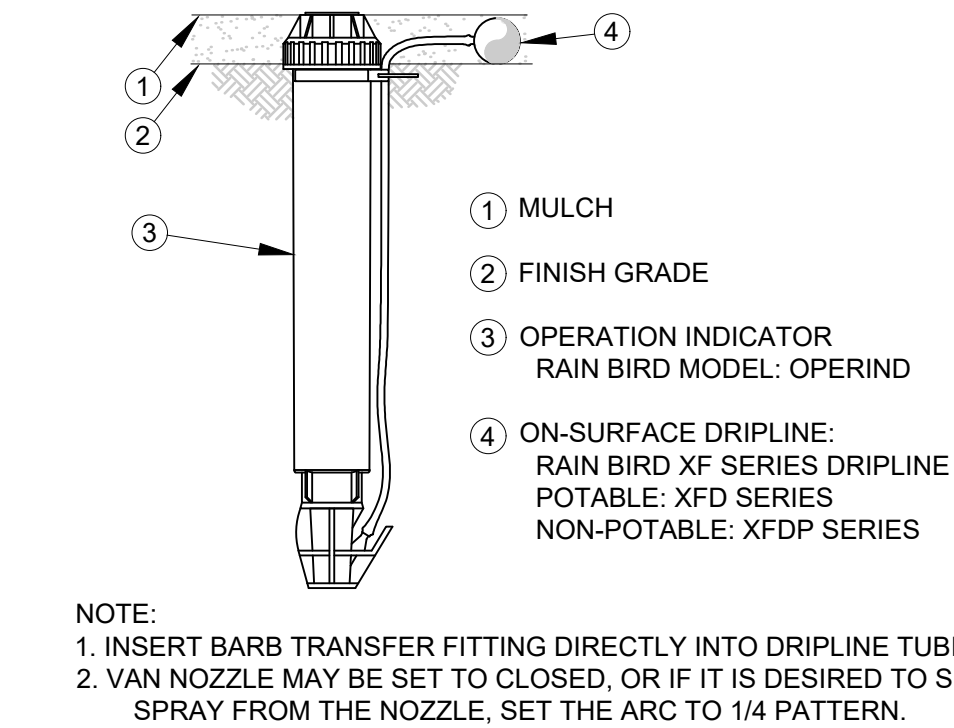
XFD ON-SURFACE DRIPLINE RISER ASSEMBLY



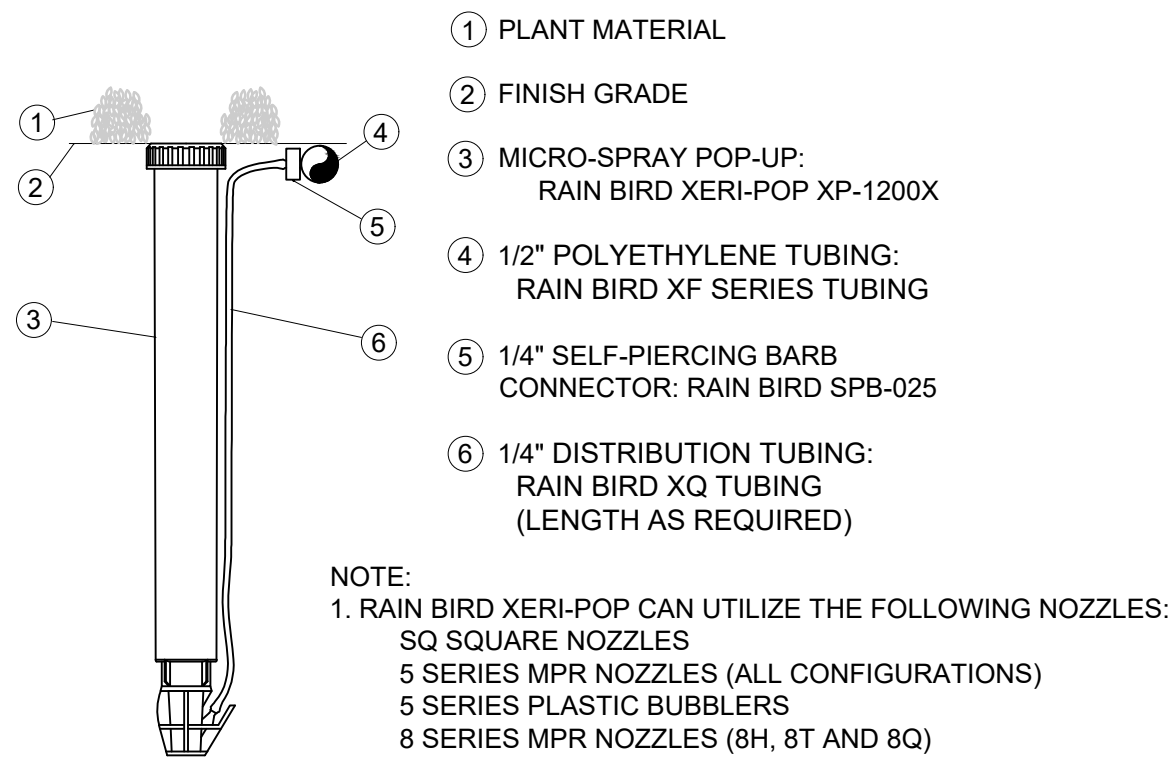
TREE RING DETAIL



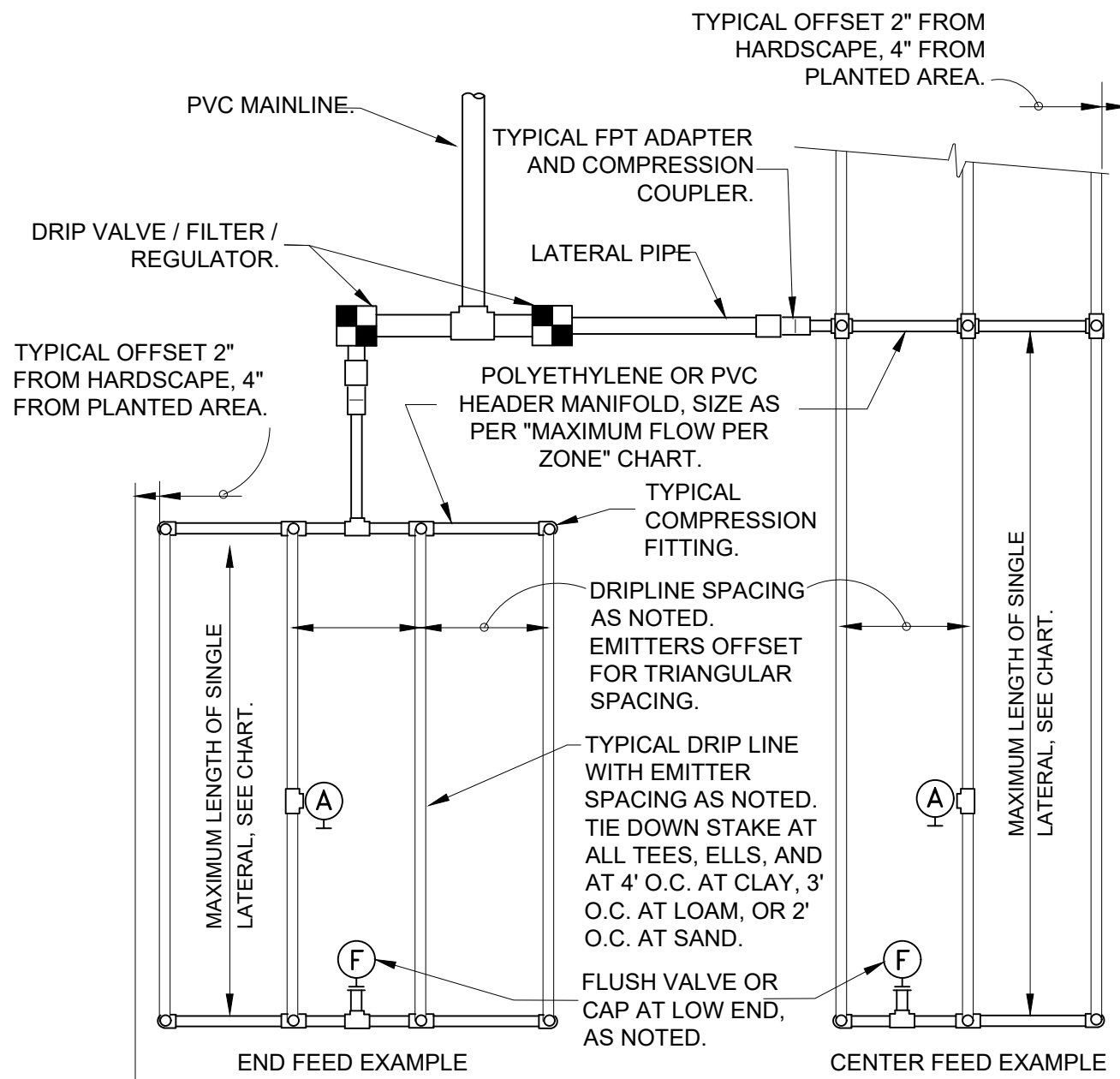
XFD ON-SURFACE DRIPLINE FLUSH POINT



ON-SURFACE DRIPLINE OPERATIONAL INDICATOR



XERI-POP MICRO SPRAY

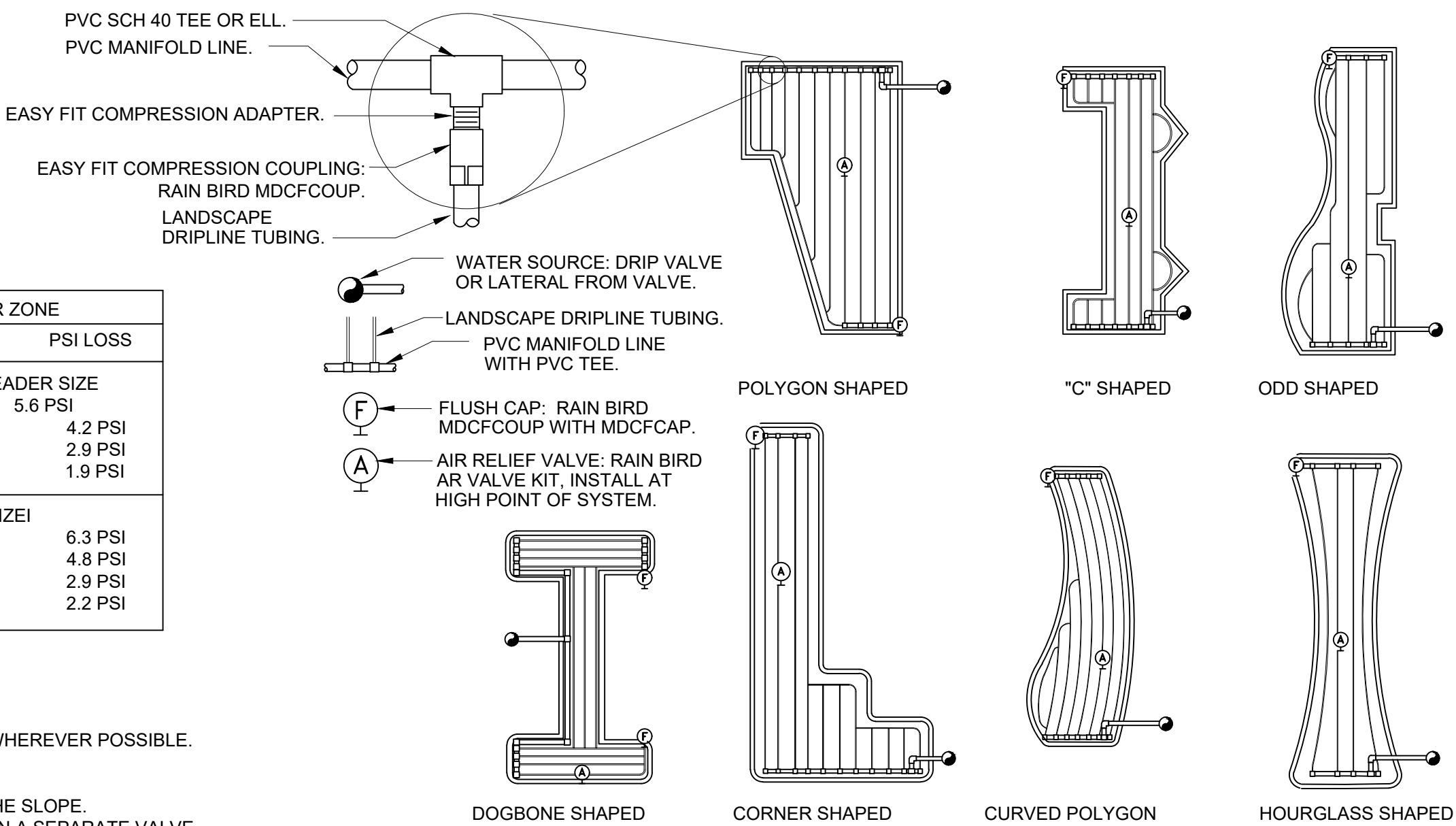


MAXIMUM LATERAL LENGTH (FEET)				
PSI	EMITTER FLOW RATE GPH			
	12" SPACING	18" SPACING	24" SPACING	
	0.6 0.9	0.6 0.9	0.6 0.9	
10	125 96	175 135	218 171	
20	249 191	350 171	442 340	
30	307 236	434 333	550 422	
40	350 268	495 380	627 171	
50	125 96	175 135	218 171	
60	125 96	175 135	218 171	

GRID PRECIPITATION RATES (IN/HR)			
EMITTER SPACING	LATERAL SPACING	EMITTER FLOW RATE	
		0.6	0.9
12	12	0.96	1.44
18	18	0.69	1.03
24	24	0.28	0.41

LATERAL FLOW PER 100 FT (GPM)			
EMITTER FLOW	12" SPACING	18" SPACING	24" SPACING
0.6 GPH	1.0 GPM	0.67 GPM	0.50 GPM
0.9 GPH	1.5 GPM	1.0 GPM	0.75 GPM

SLOPED CONDITION NOTE:  
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHEREVER POSSIBLE.  
2. INSTALL AIR RELIEF VALVE AT THE HIGHEST POINT.  
3. NORMAL SPACING WITHIN 2/3 OF SLOPE.  
4. INSTALL DRIPLINE AT 25% GREATER SPACING AT THE BOTTOM 1/3 OF THE SLOPE.  
5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM 1/3 ON A SEPARATE VALVE



TYPICAL DRIPLINE REQUIREMENTS

Date					
Revision/Issue					
No.					

TYLER WEST  
NASSAU COUNTY  
for CROSS REGIONS REAL ESTATE

blueleaf  
LANDSCAPE

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Date	Scale
6/14/2023	
IRRIGATION SPECIFICATIONS	
IR2.4	