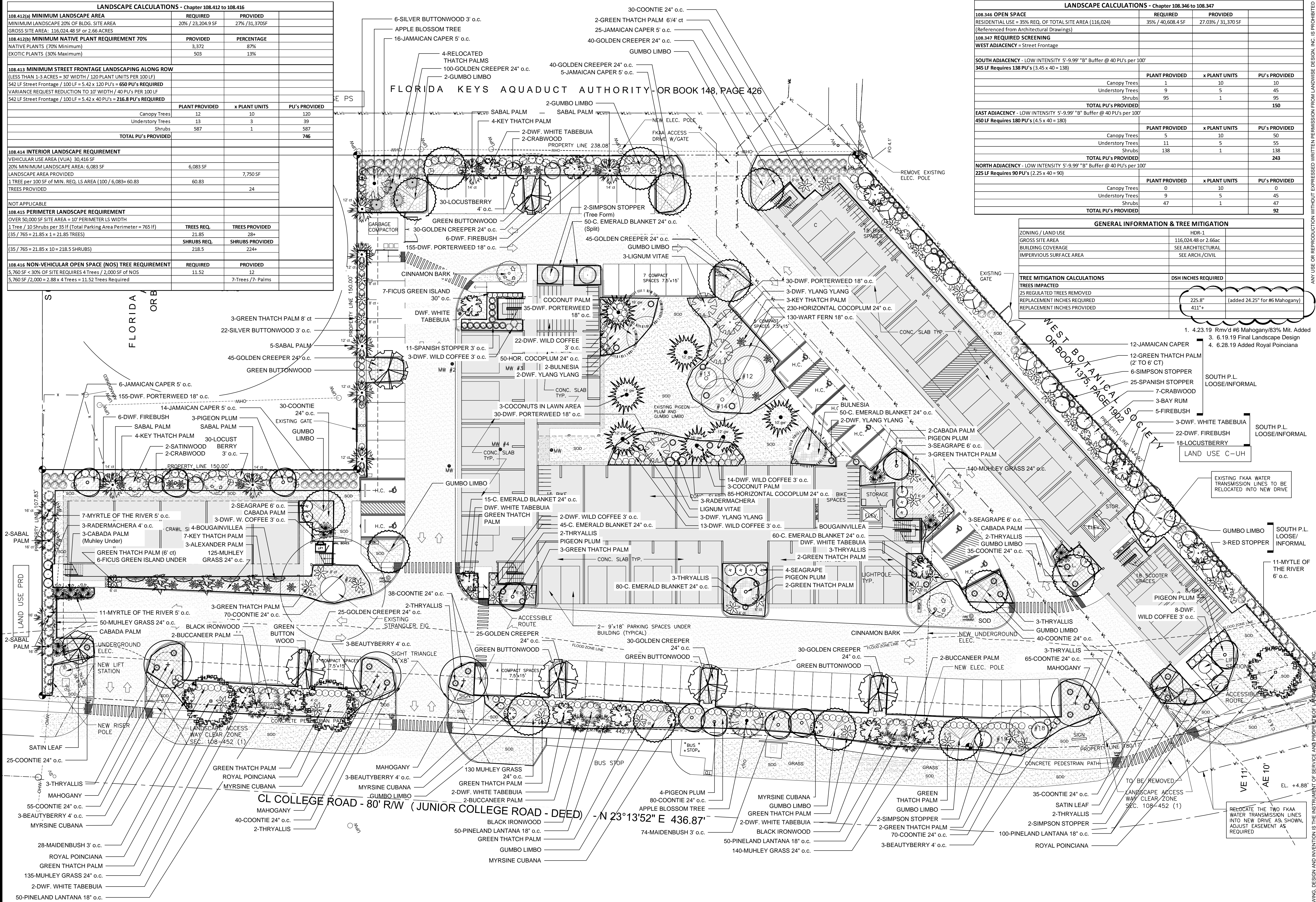
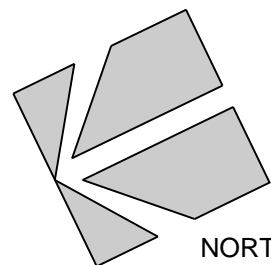


LANDSCAPE CALCULATIONS - Chapter 108.412 to 108.416			
108.412(a) MINIMUM LANDSCAPE AREA	REQUIRED	PROVIDED	
MINIMUM LANDSCAPE 20% OF BLDG. SITE AREA	20% / 23,204.9 SF	27% / 31,370 SF	
GROSS SITE AREA: 116,024.48 SF or 2.66 ACRES			
108.412(b) MINIMUM NATIVE PLANT REQUIREMENT 70%	PROVIDED	PERCENTAGE	
NATIVE PLANTS (70% Minimum)	3,372	87%	
EXOTIC PLANTS (30% Maximum)	503	13%	
108.413 MINIMUM STREET FRONTAGE LANDSCAPING ALONG ROW			
(LESS THAN 1-3 ACRES = 30' WIDTH / 120 PLANT UNITS PER 100 LF)			
542 LF Street Frontage / 100 LF = 5.42 x 120 PU's = 650 PU's REQUIRED			
VARIANCE REQUEST REDUCTION TO 10' WIDTH / 40 PU's PER 100 LF			
542 LF Street Frontage / 100 LF = 5.42 x 40 PU's = 216.8 PU's REQUIRED			
	PLANT PROVIDED	x PLANT UNITS	PU's PROVIDED
Canopy Trees	12	10	120
Understory Trees	13	3	39
Shrubs	587	1	587
TOTAL PU's PROVIDED			746
108.414 INTERIOR LANDSCAPE REQUIREMENT			
VEHICULAR USE AREA (VUA) 30,416 SF			
20% MINIMUM LANDSCAPE AREA: 6,083 SF	6,083 SF	7,750 SF	
LANDSCAPE AREA PROVIDED			
1 Tree per 100 SF of MIN. REQ. LS AREA (100 / 6,083 = 60.83)	60.83	24	
TREES PROVIDED			
NOT APPLICABLE			
108.415 PERIMETER LANDSCAPE REQUIREMENT			
OVER 50,000 SF SITE AREA = 10' PERIMETER LS WIDTH			
1 Tree / 10 Shrubs per 35 LF (Total Parking Area Perimeter = 765 LF)	TREES REQ.	TREES PROVIDED	
(35 / 765 = 21.85 x 1 = 21.85 TREES)	21.85	28+	
	SHRUBS REQ.	SHRUBS PROVIDED	
(35 / 765 = 21.85 x 10 = 218.5 SHRUBS)	218.5	224+	
108.416 NON-VEHICULAR OPEN SPACE (NOS) TREE REQUIREMENT	REQUIRED	PROVIDED	
5,760 SF < 30% OF SITE REQUIRES 4 Trees / 2,000 SF of NOS	11.52	12	
5,760 SF / 2,000 = 2.88 x 4 Trees = 11.52 Trees Required		7-Trees / 7- Palms	

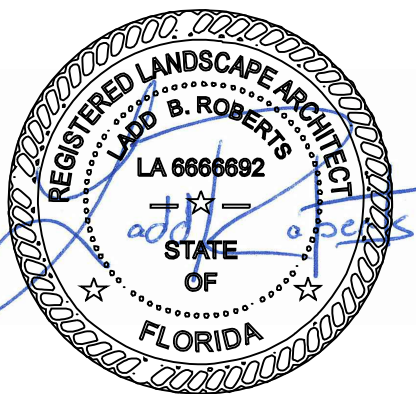


COLLEGE ROAD AFFORDABLE HOUSING

STOCK ISLAND, FL 33040



SCALE: 1" = 20'



FOR APPROVAL PURPOSES

PLANT SCHEDULE & DETAILS

DATE: 4.23.19

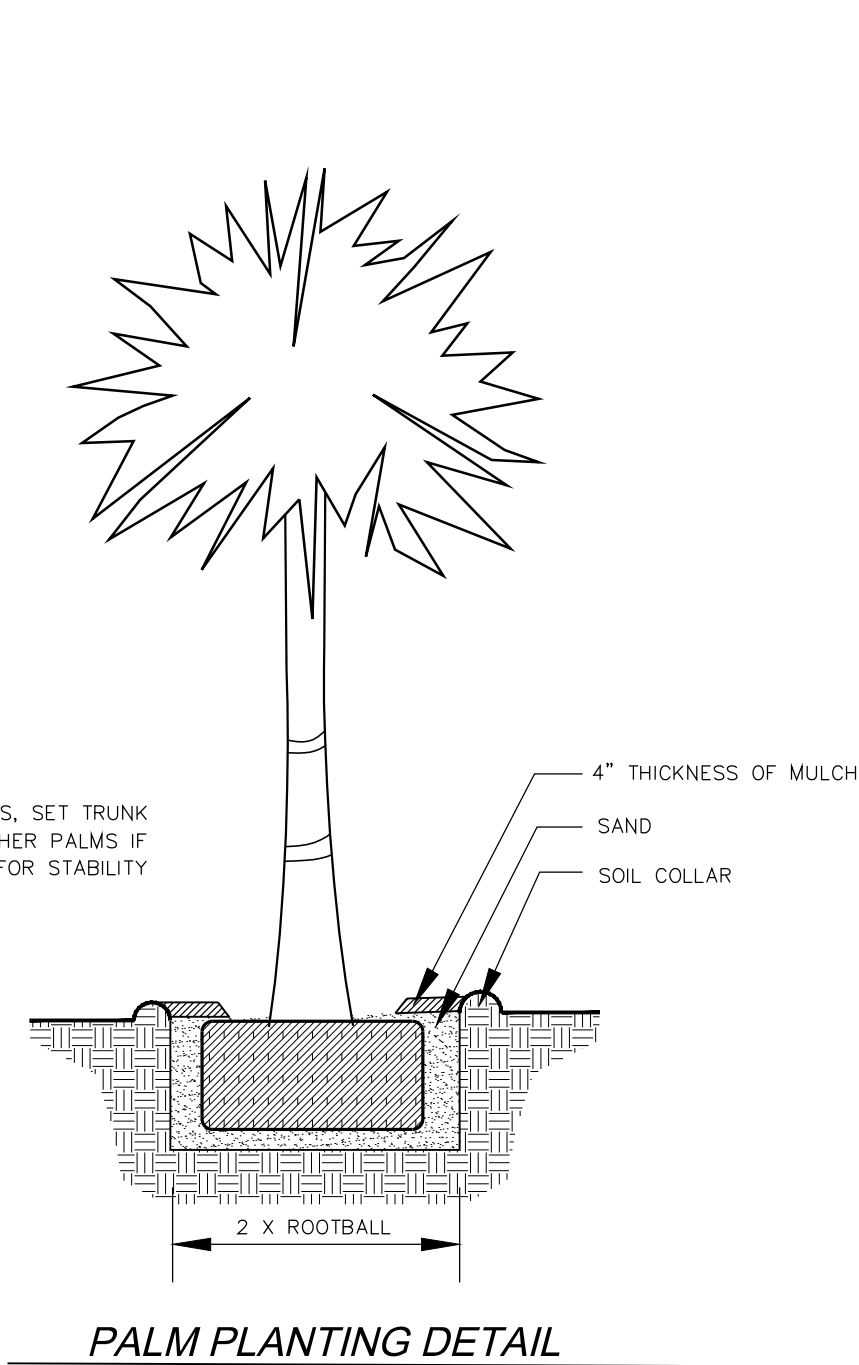
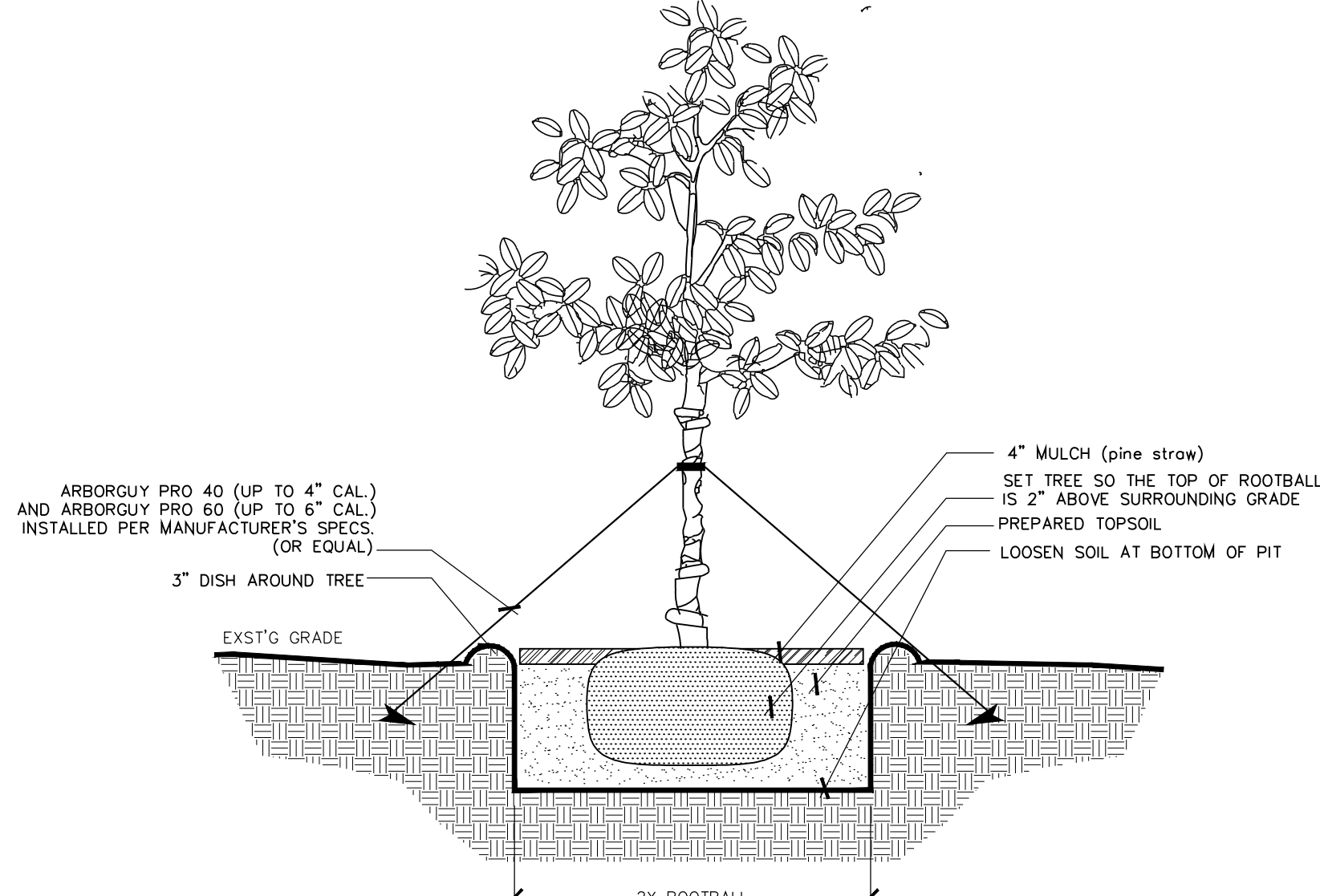
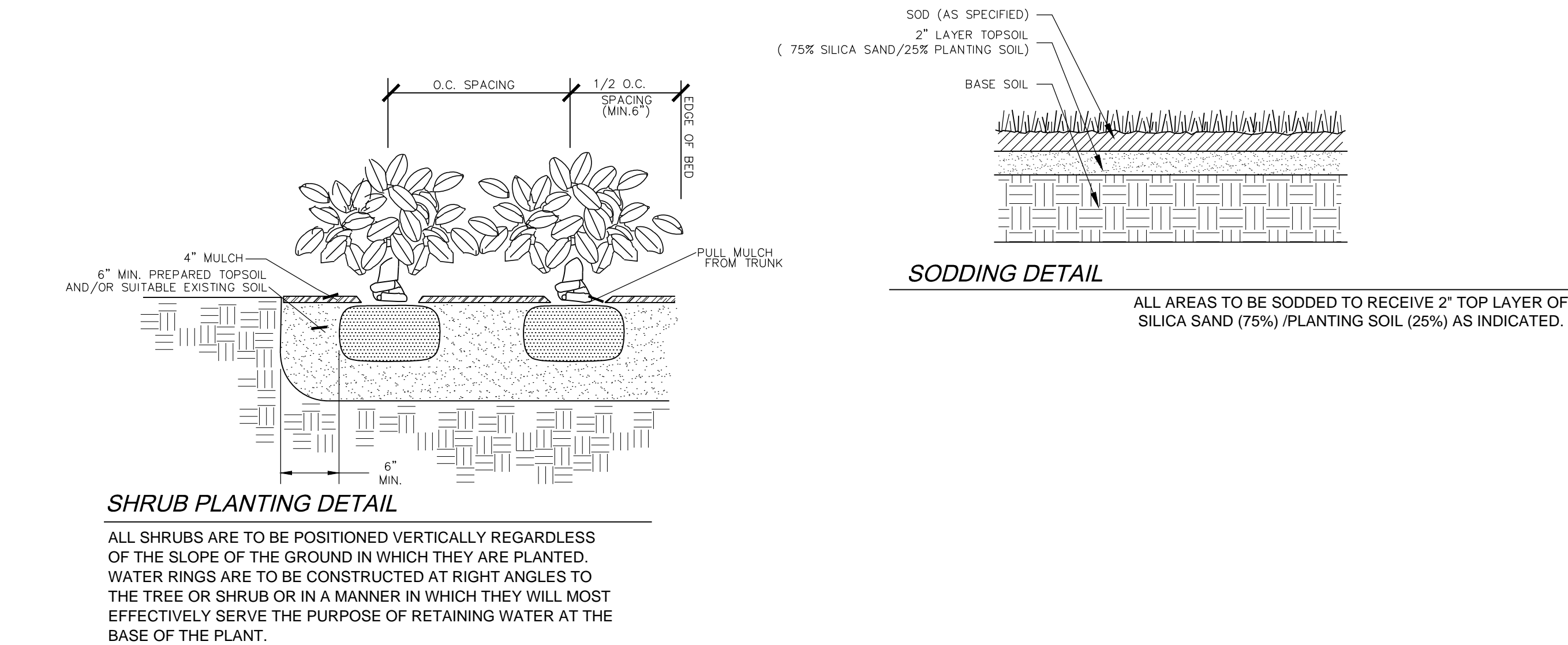
REVISIONS:		
No.	Date	Notes
1.	5.6.19	Rmvd Redundant Tables / Adj Qty's
2.	6.2.19	Updated Base Plan
3.	6.19.19	Final Landscape Design
4.	6.28.19	Added Royal Poinciana

SHEET NUMBER:

L-2

JOB #: 19003 DRAWN BY: LBR
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PLANT SCHEDULE - COLLEGE ROAD AFFORDABLE HOUSING							
QTY.	COMMON NAME	BOTANICAL NAME	SIZE	NOTE	NATIVE	MIT. RATIO	MIT. CREDIT
TREES				or Better			
Canopy							
11	PIGEON PLUM	Coccoloba diversifolia	3" cal., 12'-14' ph	FL #1	NATIVE	1:1	33
2	APPLE BLOSSOM TREE	Cassia javanica 'Apple Blossom'	2.5" cal., 12' ph, 6'-8' sprd.	FL #1	NATIVE	1:1	5
15	JUMBO LIMBO	Bursera simaruba	4" cal., 14'-16' ph, 6'-8' sprd., balanced canopy	FL #1	NATIVE	4:1	240
4	MAHOGANY	Swietenia mahogany	3" cal., 14'-16' ph, 10'-12' sprd.	FL #1	NATIVE	4:1	48
2	SATIN LEAF	Chrysophyllum oliviforme	3" cal., 14'-16' ph, 6-8 sprd.	FL #1	NATIVE	2:1	8
2	CINNAMON BARK	Canella winterana	2" cal., 8' ph, 3'-4' sprd.	FL #1	NATIVE	2:1	8
3	ROYAL POINCIANA	Delonix regia	4" cal., 14'-16' ph, 6'-8' sprd., balanced canopy	FL #1	NATIVE	4.25:1	51
6	GREEN BUTTONWOOD	Conocarpus erectus	3" CAL., 10'-12' ph	FL #1	NATIVE	1:1	18
				Total Canopy Inches			411
Understory							
12	SEAGRAPE	Coccoloba uvifera	3" cal., multi, min. 6'-8' ph, 4'-5' sprd., full to grnd.	FL #1	NATIVE	1:1	36
73	JAMAICAN CAPER	Capparis cynophallophora	3" cal., multi, min.6'-8' ph, full to grmd. (extra)	FL #1	NATIVE	1:1	219
3	RED STOPPER	Eugenia rhombea	2" cal., multi, 6'-8' ph, full to grmd.	FL #1	NATIVE	2:1	12
36	SPANISH STOPPER	Eugenia foetida	2.5" cal., multi, 6'-8" ph, full to grmd.	FL #1	NATIVE	1:1	90
3	BULNESIA	Bulnesia arborea	3" cal., 12'-14' ph, specimen character	FL #1		1:1	9
4	LIGNUM VITAE	Guaicum sanctum	2" cal., 8'-10' ph, 6'-8' sprd.	FL #1	NATIVE	2:1	16
2	SATINWOOD	Zanthoxylum flavum	2" cal., 8' ph, 3'-4' sprd.	FL #1	NATIVE	1:1	4
14	DWF. WHITE TABEBUIA	Tabebuia bahamensis	2" cal.,10'-12' ph, 4'-6' sprd.,	FL #1	NATIVE	1:1	28
3	BLACK IRONWOOD	Krugiodendron ferrum	2" cal., 8'-10' ph, 3'-4' sprd.	FL #1	NATIVE	1:1	6
3	BAY RUM	Pimenta racemose	2" cal., 6'-8' ph, 3' sprd.	FL #1	NATIVE	1:1	6
12	SIMPSON STOPPER	Myrcianthes fragrans	2" cal., 6'-8' ph, 3' sprd.	FL #1	NATIVE	1:1	24
11	CRABWOOD	Gymnanthes lucida	2" cal., 6'-8' ph	FL #1	NATIVE	1:1	22
29	MYRTLE OF THE RIVER	Calyptanthes zuzygium	2" cal., 6'-8' ph, 3' sprd.	FL #1	NATIVE	2:1	116
				Total Understory Inches			588
PALMS							
7	COCONUT PALM	Cocos nucifera 'Green Malayan' (Heights indicated on plan) NO MAYPANS!	0 at 8' gw 1at 10' gw 1at 12' gw 1at 14' gw 2 at 16' gw 2 character / leaning 12' gw / HIGH BEND 1'-2'	FL #1 FL #1 FL #1 FL #1 FL #1 FL #1			
13	SABAL PALM	Sabal palmetto	(4) 14' ct, (4) 16' ct, (5) 12' ct, regens, slick-skinny	FL #1	NATIVE		
41	GREEN THATCH PALM	Thrinax radiata	(4) 2', (19) 4', (12) 6' ct, (6) 8' ct	FL #1	NATIVE		
18	KEYS THATCH PALM	Luecathrinax morisii	(8) 30g., (10) 45g, Multi-Trnk Specimen	FL #1	NATIVE		
8	CABADA PALM	Dypsis cabadae	25g., Multi-Stem, Full	FL #1			
6	BUCCAANEER PALM	Pseudophoenix sargentii	25g., 8'-10 ph	FL #1	NATIVE		
SHRUBS and GROUNDCOVERS							
78	LOCUSTBERRY	Brysonima lucida	7 gal., full	FL #1	NATIVE		
102	MAIDENBUSH	Savia bahamensis	7 gal., full	FL #1	NATIVE		
28	SILVER BUTTONWOOD	Conocarpus erectus var. sericeus	3 gal., 24"x30" sprd./hgt.	FL #1	NATIVE		
65	DWF. WILD COFFEE	Psychotria ligustrifolia	3 gal., 24"x30" sprd./hgt.	FL #1	NATIVE		
5	FIREBUSH	Hamelia patens	7 gal., 36"x42" sprd./hgt.	FL #1	NATIVE		
34	DWF. FIREBUSH	Hamelia patens 'comtacta'	3 gal., 24"x30" sprd./hgt.	FL #1	NATIVE		
13	FICUS GREEN ISLAND	Ficus 'Green Island'	3 gal., 18"x24" sprd./hgt.	FL #1			
12	BEAUTYBERRY	Callicarpa americana	3 gal., 24"x30" sprd./hgt.	FL #1	NATIVE		
25	THYRALLIS	Galphnia glauca	15g. - large, full	FL #1	NATIVE		
10	DWF. YLANG YLANG	Cananga odorata'fruticosa'	7gal., full	FL #1			
6	RADERMACHERA	radermachera kunning	7gal., full	FL #1			
5	MYRSINE CUBANA	Rapania punctata	7gal., 24" x 36" sprd./hgt.	FL #1	NATIVE		
720	MUHLEY GRASS	Muhlenbergia cappilaris	3 gal., full	FL #1	NATIVE		
543	COONTIE	Zamia pumila	7gal., full	FL #1	NATIVE		
405	DWF. BLUE PORTERWEED	Stachytarpheta jamaicensis	3 gal., full	FL #1	NATIVE		
5	BOUGAINVILLEA	Bougainvillea buttiana 'Barbra Karst'	25 gal., 8'-10' Trellis Hgt.	FL #1			
130	WART FERN	Microsorum scolopendrium	1gal., full	FL #1			
365	HORIZONTAL COCOPLUM	Chrysobalanus icaco 'Horizontal'	3gal., full	FL #1	NATIVE		
410	GOLDEN CREEPER	Ernodea littoralis	3gal., full	FL #1	NATIVE		
300	C. EMERALD BLANKET	Corissa marcocarpa 'Emerald Blanket'	3gal., full	FL #1			
250	PINELAND LANTANA	Lantana depressa	3gal., full	FL #1	NATIVE		
SOD & SUNDRY ITEMS							
13,800 SF	BAHIA	CONTRACTOR TO VERIFY QUANTITY		FL #1			

GENERAL LANDSCAPE NOTES:

- CHANGES MAY OCCUR DURING THE NORMAL COURSE OF IMPLEMENTATION. VERBAL CHANGE ORDERS WILL NOT BE HONORED. ANY CHANGES MUST BE SUBMITTED TO LANDSCAPE ARCHITECT IN WRITING AS A CHANGE ORDER TO BE REVIEWED AND APPROVED IN WRITING BY OWNER/CLIENT.
- ALL NEWLY PLANTED AREAS TO RECEIVE 100% COVERAGE BY AUTOMATIC IRRIGATION SYSTEM (DRIP PREFERRED) UNLESS OTHERWISE DIRECT BY OWNER. LANDSCAPE CONTRACTOR TO COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH IRRIGATION CONTRACTOR. IRRIGATION TIME CLOCK TO BE HARD WIRED ON COMPLETION - RESPONSIBILITY OF IRRIGATION CONTRACTOR. LANDSCAPE CONTRACTOR TO HAND WATER OR ARRANGE FOR WATERING DURING PLANTING UNTIL IRRIGATION SYSTEM IS 100% OPERABLE. THIS IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- LANDSCAPE CONTRACTOR TO BECOME FAMILIAR WITH THE SCOPE OF WORK AS WELL AS THE SITE, DIGGING CONDITIONS, AND ANY OBSTACLES PRIOR TO BIDDING.
- LANDSCAPE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO DIGGING.
- ALL PLANT MATERIAL IS TO BE FLORIDA NO. 1 OR BETTER. FLORIDA DEPARTMENT OF AGRICULTURE GRADES AND STANDARDS, PARTS I & II, 1975, RESPECTIVELY.
- ALL TREES TO BE STAKED IN A GOOD WORKMAN LIKE MANNER. NO NAIL STAKING PERMITTED.
- LANDSCAPE PLAN SHALL BE INSTALLED IN COMPLIANCE WITH ALL LOCAL CODES.
- ALL TREE HOLES TO BE BACK FILLED AROUND AND UNDER ROOT BALL WITH WASHED BEACH SAND AND PLANTING MIX. ALL SHRUB BEDS TO BE INSTALLED WITH WASHED BEACH SAND AND PLANTING MIX.
- ALL TREES, SHRUBS AND GROUND COVERS SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE. ALL PALMS ARE TO BE GUARANTEED FOR ONE YEAR.
- ALL PLANTING BEDS SHALL BE WEED AND GRASS FREE.
- ALL TREES, PALMS, SHRUBS AND GROUND COVER PLANTS SHALL BE FERTILIZED AT INSTALLATION ACCORDING TO MANUFACTURERS' RECOMMENDATIONS. TYPE AND AMOUNT OF FERTILIZER IS UP TO DISCRETION OF LANDSCAPE CONTRACTOR IN ORDER TO AVOID "BURN" ON PLANTS THAT MAY ALREADY CONTAIN FERTILIZER FROM NURSERY AND ENSURE PROPER ESTABLISHMENT TO MAINTAIN CONTRACTORS WARRANTY.
- PLANTING PLAN SHALL TAKE PRECEDENCE OVER PLANT LIST IN CASE OF DISCREPANCIES.
- NO CHANGE SHALL BE MADE WITHOUT PRIOR CONSENT OF LANDSCAPE ARCHITECT.
- ALL MATERIAL SHALL BE SUBJECT TO AVAILABILITY AT TIME OF INSTALLATION. SUBSTITUTIONS MAY BE MADE AFTER CONSULTATION WITH LANDSCAPE ARCHITECT.
- LANDSCAPE CONTRACTOR TO COORDINATE HIS WORK WITH GENERAL CONTRACTOR, IRRIGATION CONTRACTOR, AND THE ELECTRICAL CONTRACTOR.
- ALL EXISTING PLANT MATERIAL TO REMAIN SHALL BE PROTECTED.
- ALL TREES TO BE RELOCATED WILL BE ROOT PRUNED 30 DAYS MINIMUM (OR MORE IF REQUIRED BY SPECIES). UPON RELOCATION, THIN OUT 30% OF THE RELOCATED TREES' CANOPY.
- AFTER REMOVAL OR RELOCATION OF EXISTING TREES AND PALMS, BACKFILL TREE PIT WITH WASHED BEACH SAND, AND SOD DISTURBED AREA, IF REQUIRED.
- ALL TREES ON SOD AREA SHALL RECEIVE A MULCH RING 2' IN DIAMETER TYPICAL.
- ALL TREES SHALL HAVE 2" CALIPER AT D.B.H. MINIMUM FOR A 10' HEIGHT TREE.
- ALL 1 GALLON MATERIAL TO HAVE 12" SPREAD MINIMUM. ALL 3 GALLON MATERIAL TO HAVE 20-24" SPREAD MINIMUM.
- LANDSCAPE CONTRACTOR TO BE COUNTY OR CITY LICENSED WHERE WORK IS TO BE PERFORMED. LIABILITY AND WORKMANS COMP INSURANCE IS REQUIRED FOR EACH AND EVERY EMPLOYEE TO BE ON-SITE AT ANY TIME DURING IMPLEMENTATION. PAPERWORK TO THIS EFFECT TO BE PROVIDED ON REQUEST WITHIN 2 BUSINESS DAYS.

END

IRRIGATION NOTES:

- ALL MAJOR PALMS TO HAVE TWO BUBBLERS ON OPPOSING SIDES OF ROOT BALL. BUBBLERS TO BE HIDDEN FROM VIEW.
- IRRIGATION CONTRACTOR TO COORDINATE LOCATION OF MAIN LINES WITH LANDSCAPE CONTRACTOR PRIOR TO IMPLEMENTATION. AVOID ROOT BALLS OF TREES AND LARGE PLANT MATERIALS. REFER TO LANDSCAPE DRAWINGS.
- ALL PIPE TO BE PVC SCHEDULE 40, 8" MINIMUM COVER.
- ALL HEADS INSTALLED ON FLEXIBLE PVC PIPE AND FITTINGS.
- PRESSURIZED BACKFLOW, RAIN SWITCH, AND MULTI-PROGRAMMABLE CONTROLLER WITH BATTERY BACKUP REQUIRED.
- ALL CROSSINGS UNDER PERMANENT CONCRETE TO BE SLEEVED TWO TIMES THE SPRINKLER PIPE SIZE WITH SCHEDULE 40 PVC.
- ALL VALVES TO HAVE FLOW CONTROL AND BE INSTALLED IN GREEN VALVE BOXES WITH ROOM TO WORK IN FUTURE.
- ALL VALVE BOXES TO BE LOCATED AWAY FROM WALKWAYS, GARDEN PATHS, AND GROUNDCOVERS - KEEP TO BACK OF BEDS.
- ALL SPRINKLERS TO BE COMMERCIAL GRADE TORO 570 SERIES 4" AND 12" AND INSTALLED OUT OF SIGHT.

TREE PLANTING DETAIL

ALL TREES ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. WATER RINGS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.

THE ROOTBALL OF THE TREE SHOULD BE POSITIONED IN THE HOLE SO THAT THE FINISH GRADE OF THE BACKFILL SOIL AND LANDSCAPE SOIL IS 2" LOWER THAN THE TOP OF THE ROOTBALL. MULCH SHOULD COVER THE EDGE OF THE ROOTBALL. DO NOT MULCH ON TOP OF ROOTBALL.

TREE BRACING NOTES:

2" AND LARGER CALIPER TREES BRACED BY GUYING:

- CHOOSE THE CORRECT SIZE AND NUMBER OF STAKES AND SIZE OF HOSE AND WIRE. GUYING SHALL BE COMPLETED WITHIN 48 HOURS OF PLANTING THE TREE
- CUT LENGTHS OF STAKING HOSE TO EXTEND 2 INCHES PAST TREE TRUNK WHEN WRAPPING AROUND.
- SPACE STAKES EVENLY ON OUTSIDE OF WATER RING AND DRIVE EACH FIRMLY INTO GROUND. STAKES SHOULD BE DRIVEN AT A 30 DEGREE ANGLE WITH THE POINT OF THE STAKE TOWARD THE TREE UNTIL 4 TO 5 INCHES ARE LEFT SHOWING.
- PLACE THE HOSE AROUND THE TRUNK JUST ABOVE THE LOWEST BRANCH.
- THREAD THE WIRE THROUGH THE HOSE AND PAST THE STAKE. ALLOWING APPROXIMATELY 2 FEET OF EACH OF THE TWO ENDS BEYOND THE STAKE BEFORE CUTTING THE WIRE.
- TWIST WIRE AT RUBBER HOSE TO KEEP IT IN PLACE
- PULL WIRE DOWN AND WIND BOTH ENDS AROUND STAKE TWICE. TWIST WIRE BACK ONTO ITSELF TO SECURE IT BEFORE CUTTING OFF THE EXCESS.
- THE ABOVE PROCEDURES ARE TO BE FOLLOWED FOR EACH STAKE. KEEPING THE TREE STRAIGHT AT ALL TIMES. THERE SHOULD BE A 1 TO 3 INCH SWAY IN THE TREE (THE WIRES SHOULD NOT BE PULLED TIGHT) FOR BEST ESTABLISHMENT.
- FLAG THE GUY WIRES WITH SURVEYORS FLAGGING OR APPROVED EQUAL FOR SAFETY.
- GUY'S ARE NOT TO BE REMOVED UNTIL APPROVED BY LANDSCAPE CONTRACTOR.

SPECIMEN TREES AND TALL PALMS BRACED WITH PROPS:

- CHOOSE THE CORRECT SIZE, LENGTH, AND NUMBER OF PROPS TO BE USED (PRESSURE TREATED (PT) 2"x4", 4"x4").
- WRAP AT LEAST 5 LAYERS OF BURLAP AROUND TRUNK OF THE PALM AT LEAST 4 INCHES WIDER THAN THE BATTENS BEING USED. BATTENS SHOULD BE MOUNTED AT A POINT 1/2 OF THE DISTANCE FROM GROUND TO THE CLEAR TRUNK OF THE TREE OR PALM, BUT NOT LESS THAN 4 FEET, WHICHEVER IS GREATER.
- SELECT THE PROPER LENGTH AND SIZE OF BATTENS (PT 2"x4"x12'-16')
- USE THE SAME NUMBER OF BATTENS AS PROPS BEING USED.
- PLACE THE BATTENS VERTICALLY AND EVENLY SPACED AGAINST THE BURLAP.
- PLACE THE BATTENS IN PLACE WITH METAL OR PLASTIC BANDING STRAPS. DO NOT NAIL INTO TREE.
- WEDGE LOWER END OF PROP INTO SOIL AND SECURE WITH A 2"x4"x30" STAKES. PROPS SHOULD BE INSTALLED AT A 30 TO 40 DEGREE ANGLE FROM THE BATTENS AND OF SUFFICIENT LENGTH TO REACH THE GROUND. NOTE: ON STRAIGHT TREES OR PALMS, SPACE PROPS EQUAL DISTANCE AROUND TREE OR PALM. ON CURVED PALMS OR TREES, SPACE PROPS AGAINST THE FRONT OF THE CURVE OF THE PALM OR TREE.
- CUT A SMOOTH ANGLE AT THE END OF THE PROPS. ALIGN WITH AND NAIL INTO BATTENS. DO NOT PENETRATE TREE OR PALM WITH NAILS.
- IF IT APPEARS THAT ADDITIONAL CONSTRUCTION WORK WILL TAKE PLACE NEAR TO OR IN VICINITY OF THE NEWLY BRACED TREES OR PALMS, THEN PROPS ARE TO BE CLEARED LABELED WITH THE STATEMENT "DO NOT REMOVE".
- PROPS ARE NOT TO BE REMOVED UNTIL APPROVED BY THE LANDSCAPE CONTRACTOR.

END

- IRRIGATION CONTRACTOR TO MEASURE WATER AVAILABLE ON-SITE AND USE NO MORE THAN 75% OF AVAILABLE GPM.
- WATER CONNECTION TO THE HOUSE, INCLUDING SHUT-OFF VALVES, SHALL NOT BE ALTERED BY PRESSURIZED BACKFLOW.
- ALL WIRE SPLICES TO BE IN VALVE BOXES AND CLEARLY LABELED AT BACK OF TIME CLOCK. ALL WIRE SPLICES TO BE INSTALLED WITH WATER PROOF CONNECTIONS.
- 2 SPARE WIRES TO BE RUN TO THE LAST VALVE IN EACH DIRECTION.
- CONTROLLER TO BE HARD-WIRED AT TIME OF COMPLETION AND INCLUDED IN IRRIGATION CONTRACTORS BID.
- SYSTEM TO PROVIDE 100% CONTROLLED COVERAGE ON COMPLETION. ADDITIONS/MODIFICATIONS FROM IRRIGATION PLAN MAY BE NECESSARY.
- IRRIGATION CONTRACTOR TO BE COUNTY AND CITY LICENSED WHERE WORK IS TO BE PERFORMED. LIABILITY AND WORKMANS COMP INSURANCE IS REQUIRED FOR EACH AND EVERY EMPLOYEE TO BE ON-SITE AND AT ANY TIME DURING IMPLEMENTATION. PAPERWORK TO THIS EFFECT TO BE PROVIDED ON REQUEST WITHIN 2 BUSINESS DAYS.
- AS-BUILT IRRIGATION DRAWING TO BE PROVIDED PRIOR TO FINAL PAYMENT.

END

UNDERGROUND IRRIGATION SPECIFICATIONS

1.0 GENERAL

- 1.1 SUMMARY: Includes but not limited to:
- A. Furnishing and installing sprinkler system as described in Contract Documents complete with accessories necessary for proper functioning.
- 1.2 SYSTEM DESCRIPTION:
- A. Design Requirements:
 - 1. Layout of Irrigation Heads:
 - a. Location of heads shown on Drawings is approximate. Actual placement may vary slightly as is required to achieve full, even coverage without spraying onto buildings, sidewalks, fences, etc.
 - b. During layout, consult with Landscape Architect to verify proper placement and make recommendations, where revisions are advisable.
- 1.3 QUALITY ASSURANCE:
- A. Regulatory Requirements:
 - 1. Work and materials shall be in accordance with latest rules and regulations, and other applicable state or local laws. Nothing in Contract Documents is to be construed to permit work not conforming to these codes.
 - B. Pre-Installation Conference:
 - 1. Meet with Owner and Landscape Architect to discuss and clarify all aspects of job requirements prior to commencing work of this Section.
 - C. System Adjustments:
 - 1. Minor adjustments in system will be permitted to avoid existing fixed obstructions.
 - 2. Mainline, laterals, and valves are shown for clarity purposes only. All irrigation equipment to be with landscape area. Mainline, laterals and valves to be installed as far away from existing and new specimen trees as possible.
 - D.
 - 1. Documentation and submittal of actual water supply performance prior to commencing installation.
- 1.4 SUBMITTALS:
- A. Record Drawings:
 - 1. Prepare an accurate as-built drawing as installation proceeds to be submitted prior to final inspection. Drawing shall include:
 - a. Detail and dimension changes made during construction.
 - b. Significant details and dimensions not shown in original Bidding Documents.
 - 2. Maintain, at job site, one copy of Contract Documents (as defined in General Conditions) and relevant shop drawings.
 - 3. Clearly mark each document "PROJECT RECORD COPY" and maintain in good condition for use of the Landscape Architect and Owner.
 - 4. As-built drawing shall be provided in pdf format.
 - 5. Submit product literature for all sprinklers, valves, pipe, wire, wire connectors and controller.
 - 6. Final payment for system will not be authorized until accurate and complete submittals are delivered to the Landscape Architect.
 - B. Instruction Manual:
 - 1. Provide instruction manual which lists complete instructions for system operation and maintenance.
- 1.5 PRODUCT STORAGE:
- A. During construction and storage, protect materials from damage and prolonged exposure to sunlight.
- 1.6 WARRANTY:
- A. Standard one (1) year warranty stipulated in General Conditions shall include:
 - 1. Completed system including parts and labor.
 - 2. Filling and repairing depressions and replacing plantings due to settlement of irrigation trenches for one (1) year following final acceptance.
 - 3. System adjustment to supply proper coverage to areas to receive water.
- 1.7 MAINTENANCE:
- A. Extra Materials:
 - 1. In addition to installed system, furnish Owner with the following items at close-out:
 - a. Two sprinkler head bodies of each size and type.
 - b. Two nozzles for each size and type.
 - c. Two adjusting keys for each sprinkler head cover type.

2.0 PRODUCTS:

- 2.1 PIPE, PIPE FITTINGS, AND CONNECTIONS:
- A. Pipe shall be continuously and permanently marked with Manufacturer's name, size, schedule, type, and working pressure.
 - B. Pipe:
 - 1. Pressure Lines: as indicated on plans.
 - 2. Lateral Lines: as indicated on plans.
 - 3. Risers: sch. 80 PVC, gray
 - C. Fittings:
 - 1. Schedule 40 PVC.
 - D. Sleeving:
 - 1. Schedule 40 PVC.
- 2.2 SPRINKLER HEADS:
- A. Conform to requirements shown on Drawings as to type, radius of throw, pressure, and discharge.
- 2.3 AUTOMATIC SPRINKLER SYSTEM:
- A. Control valves shall be of size and type indicated on Drawings.
 - B. Control wire shall be UL listed, color coded copper conductor direct burial size 14. Use 3M-DBY waterproof wire connectors at splices and locate all splices within valve boxes. Use white or gray color for common wire and other colors for all other wire. Each common wire may serve only one controller.
 - C. Add two extra control wires from panel to valves for use if a wire fails and mark it in the control box as extra wires. These wires shall be of a different color than the others.
- 2.4 VALVES:
- A. Electric Valves:
 - 1. Make and model shown on Drawings.
 - B. Gate valves:
 - 1. Bronze construction, angle type, 150 pound class, threaded connections, with cross-type operating handle designed to receive operating key.
 - C. Automatic Controller:
 - 1. Make and model shown on Drawings.
 - D. Backflow Preventor:
 - 1. Make and model shown on Drawings.
- 2.5 VALVE ACCESSORIES:
- A. Valve Boxes:
 - 1. Ametek or Brooks rectangular heavy duty valve box with locking lid or Landscape Architect approved equal.
 - 2. Do not install more than one (1) valve in a single box.
 - 3. Valve boxes shall be large enough for easy removal or maintenance of valves.

3.0 EXECUTION:

- 3.1 PREPARATION:
- A. Protection:
 - 1. Work of others damaged by this Section during course of its work shall be replaced or repaired by original installer at this Section's expense.
- 3.2 INSTALLATION:
- A. Trenching and Backfilling:
 - 1. Over-excavate trenches by two (2") inches and bring back to indicated depth by filling with fine, rock-free soil or sand.
 - 2. Cover pipe both top and sides with two (2") inches of material specified in paragraph above. In no case shall there be less than two (2") inches of rock-free soil or sand surrounding pipe.

- 3. Do not cover pressure main, sprinkler pipe, or fittings until the Landscape Architect has inspected and approved system.
- B. Installation of Plastic Pipe:
- 1. Install plastic pipe in a manner to provide for expansion and contraction as recommended by Manufacturer.
 - 2. Unless otherwise indicated on Drawings, install main lines with a minimum cover of eighteen (18") inches based on finish grade. Install lateral lines with a minimum cover of twelve (12") inches based on finish grade.
 - 3. Install pipe and wires under driveways or parking areas in specified sleeves a minimum of eighteen (18") inches below finish grade or as shown on Drawings.
 - 4. Locate no sprinkler head closer than twelve (12") inches from building foundation. Heads immediately adjacent to mowing strips, walks or curbs shall be one (1") inch below top of mowing strip, walk or curb and have a minimum of one (1") inch clearance between head and mowing strip, walk or curb.
 - 5. Drawings show arrangement of piping. Should local conditions necessitate rearrangement, obtain approval of Landscape Architect prior to proceeding with work.
 - 6. Cut plastic pipe square. Remove burrs at cut ends prior to installation so unobstructed flow will result.
 - 7. Make solvent weld joints in the following manner:
 - a. Clean mating pipe and fitting with clean, dry cloth and apply one (1) coat of P-70 primer to each.
 - b. Apply uniform coat of 711 solvent to outside of pipe.
 - c. Apply solvent to fitting in similar manner.
 - d. Reapply a light coat of solvent to pipe and quickly insert into fitting.
 - e. Give pipe or fitting a quarter turn to insure even distribution of solvent and make sure pipe is inserted to full depth of fitting socket.
 - f. Hold in position for fifteen (15) seconds minimum or long enough to secure joint.
 - g. Wipe off solvent appearing on outer shoulder of fitting.
 - h. Do not use an excessive amount of solvent thereby causing an obstruction to form on the inside of pipe.
 - i. Allow joints to set at least 24 hours before applying pressure to PVC pipe.
 - 8. Tape threaded connection with teflon tape.
 - 9. Install concrete thrust blocks wherever change of direction occurs a PVC main pressure lines unless otherwise detailed on Drawings.
- C. Control Valves and Controller:
- 1. Install controller, control wires, and valves in accordance with Manufacturer's recommendations and according to applicable electrical code.
 - 2. Install valves in plastic boxes with reinforced heavy duty plastic covers. Locate valve box tops at finish grade.
 - 3. Install remote control valves in valve boxes positioned over valve so all parts of valve can be reached for service. Set cover of valve box even with finish grade.
 - 4. Install all valve boxes over nine (9") inches of gravel for drainage.
- D. Sprinkler Heads:
- 1. Prior to the installation of sprinkler heads, open control valves and use full head of water to flush out system.
 - 2. Set sprinkler heads perpendicular to finish grade.
 - 3. Set lawn sprinkler heads adjacent to existing walks, curbs, and other paved areas to grade

3.3 FIELD QUALITY CONTROL:

- A. Flushing and Testing:
- 1. Test pressure lines at a minimum sustained pressure of 100 psi for two (2) hours. Pressure shall not drop below 95 psi during the two hour test. Notify Landscape Architect 24 hours prior to test. Do not backfill lines until approved by Landscape Architect.

3.4 ADJUSTMENT AND CLEANING:

- A. Adjust heads to proper grade when turf is sufficiently established to allow walking on it without appreciable harm. Such lowering or raising of heads shall be part of the original contract with no additional charge to the Owner.
- B. Adjust sprinkler heads for proper distribution and trim to ensure spray does not fall on building.
- C. Adjust watering time of valves to provide proper amounts of water to all plants.

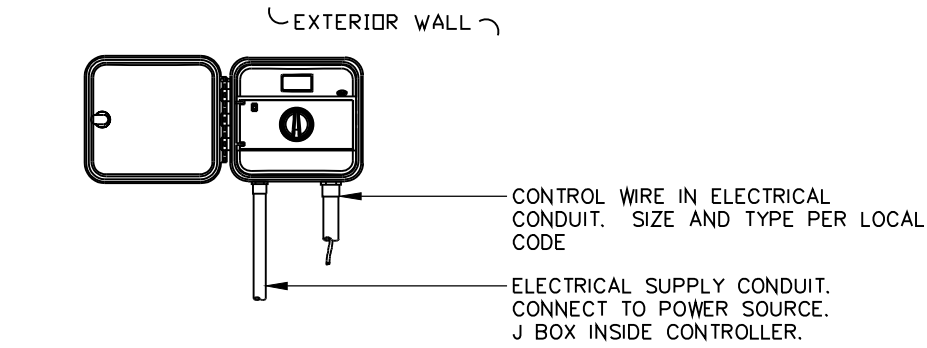
3.5 DEMONSTRATION:

- A. After system is installed and approved, instruct Owners Representative in complete operation and maintenance.

END OF SECTION

100% IRRIGATION COVERAGE SHALL BE PROVIDED TO ALL LANDSCAPE AND TURF AREAS.

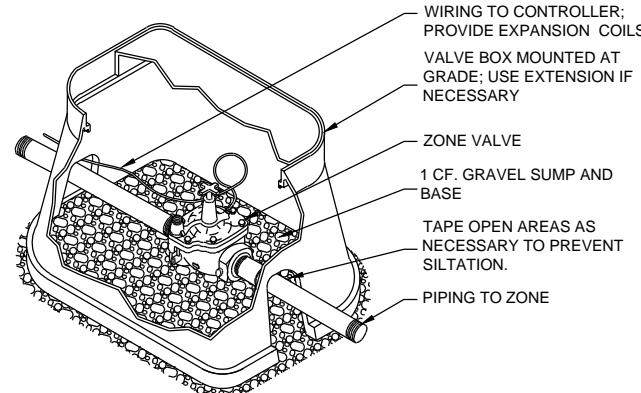
AS-BUILT IRRIGATION PLAN SHALL BE PROVIDED TO OWNER AT COMPLETION OF PROJECT.



NOTE
MOUNT CONTROLLER WITH LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARD WIRED BY A LICENSED ELECTRICIAN.

CONTROLLER INSTALLATION DETAIL

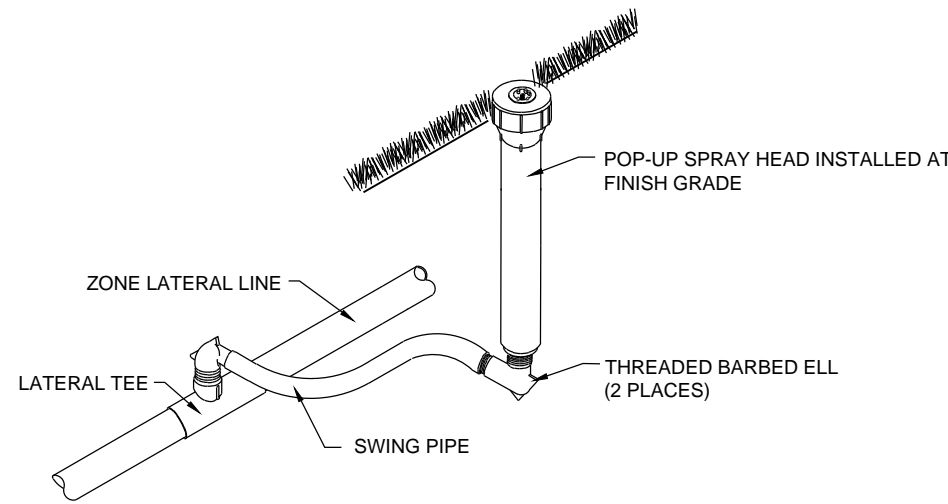
SCALE: NTS



INSTALL TOP OF VALVE A MAXIMUM OF 15" FROM FINISHED GRADE.

ZONE VALVE INSTALLATION DETAIL

SCALE: NTS

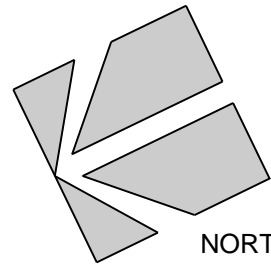


SPRAY HEAD INSTALLATION DETAIL

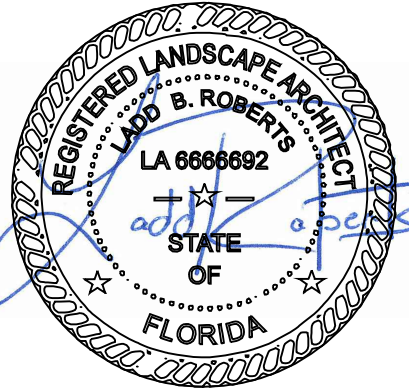
SCALE: NTS

COLLEGE ROAD AFFORDABLE HOUSING

STOCK ISLAND, FL 33040



SCALE: 1" = 20'



FOR APPROVAL PURPOSES

IRRIGATION DETAILS

DATE: 4.23.19

REVISIONS:

No.	Date	Notes
1.	5.6.19	Rmv'd Redundant Tables / Adj Qty's
2.	6.2.19	Added this sheet
3.	6.19.19	Final Landscape Design
4.	6.28.19	Added Royal Poinciana

SHEET NUMBER:

L-3

JOB #: 19003 DRAWN BY: LBR

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Application



T2019-0297

Final
Landscape
Plan w/ Tree Removal

Tree Permit Application

Date: 6/18/19

Please Clearly Print All Information unless indicated otherwise.

Tree Address 5220, 5224, 5228, & 5230 College Rd
Cross/Corner Street NA
List Tree Name(s) and Quantity Please see attached plans
Species Type(s) check all that apply ☐ Palm ☐ Flowering ☐ Fruit ☐ Shade ☐ Unsure
Reason(s) for Application:
☐ REMOVE ☐ Tree Health ☐ Safety ☐ Other/Explain below
☐ TRANSPLANT ☐ New Location ☐ Same Property ☐ Other/Explain below
☐ HEAVY MAINTENANCE ☐ Branch Removal ☐ Crown Cleaning/Thinning ☐ Crown Reduction
Additional Information and Explanation Seeking landscape approval as depicted on the plans.
Property Owner Name City of Key West
Property Owner eMail Address aballiu@cityofkeywest-fl.gov
Property Owner Mailing Address PO Box 1490
Property Owner Mailing City Key West **State** FL **Zip** 33040
Property Owner Phone Number (305) 809 - 3879
Property Owner Signature _____

Representative Name William Horn Architect, P.A.
Representative eMail Address william@wphornarchitect.com
Representative Mailing Address 915 Eaton St.
Representative Mailing City Key West **State** FL **Zip** 33040
Representative Phone Number (305) 296 - 8302

NOTE: A Tree Representation Authorization form must accompany this application if someone other than the owner will be representing the owner at a Tree Commission meeting or picking up an issued Tree Permit.

Tree Representation Authorization form attached ☐

<<<<< Sketch location of tree in this area including cross/corner Street >>>>>

Please identify tree(s) with colored tape

Please see associated plans

If this process requires blocking of a City right-of-way, a separate ROW Permit is required. Please contact 305-809-3740.



Tree Representation Authorization

Date: 4/17/2019

Attendance at the Tree Commission meeting on the date when your request will be discussed is necessary in order to expedite the resolution of your application. This Tree Representation Authorization form must accompany the application if the property owner is unable to attend or will have someone else pick up the Tree Permit once issued.

Please Clearly Print All Information unless indicated otherwise.

Tree Address 5220, 5224, 5228, 5230 College Rd.
Property Owner Name City of Key West James K. Scholl
Property Owner eMail Address jscholl@cityofkeywest-fl.gov
Property Owner Mailing Address 1300 White St.
Property Owner Mailing City Key West State FL Zip 33040
Property Owner Phone Number (305) 899-3888
Property Owner Signature JK Scholl 17 APR 2019
Representative Name William P. Horn Architect, P.A.
Representative eMail Address william@wp Hornarchitect.com
Representative Mailing Address 915 Eaton St.
Representative Mailing City Key West State FL Zip 33040
Representative Phone Number (305) 296-8302

I James K. Scholl, hereby authorize the above listed agent(s) to represent me in the matter of obtaining a Tree Permit from the City of Key West for my property at the tree address above listed. You may contact me at the telephone listed above is there is any questions or need access to my property.

Property Owner Signature JK Scholl

The forgoing instrument was acknowledged before me on this 10TH day APRIL.

By (Print name of Affiant) JIM K. Scholl who is personally known to me or has produced _____ as identification and who did take an oath.

NOTARY PUBLIC

Sign Name: Maria G. Ratcliff

Print Name: Maria G. Ratcliff

My Commission Expires: March 22, 2023

Notary Public - State of Florida (seal)

