

	SPC	SITION LIST						
KHATREE NO.		SCIENTIFIC NAME	COMMON NAME	DBH (In.)	HEIGHT (FT.)	CANOPY (FT.)	DISPOSITION	MITIGATION(SQFT.)
1		Quercus virginiana	Southern Live Oak	16"	20'	25'	Remain	NA
2		Quercus virginiana	Southern Live Oak	14"	20'	25'	Remain	NA
3		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
4		D	Southern Live Oak	12"	20'	25'	Remain	NA
5		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
6		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
7		Sabal Palmetto	Sabal Palm	14"	20'	10'	Remain	NA
8		Sabal Palmetto	Sabal Palm	14"	20'	10'	Remain	NA
9		Sabal Palmetto	Sabal Palm	14"	20'	10'	Remain	NA
10		Sabal Palmetto	Sabal Palm	14"	20'	10'	Remain	NA
11		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
12		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
13		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
14		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
15		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
16		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
17		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
18		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
19		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
20		Washingtonia robusta	Mexican Fan Palm	14"	30'	10'	Remain	NA
21		Washingtonia robusta	Mexican Fan Palm	14"	30'	10'	Remain	NA
22		Washingtonia robusta	Mexican Fan Palm	14"	30'	10'	Remain	NA
23		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Relocate	NA
24		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Relocate	NA
25		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Relocate	NA
26		Washingtonia robusta	Mexican Fan Palm	14"	30'	10'	Remain	NA
27		Washingtonia robusta	Mexican Fan Palm	14"	30'	10'	Remain	NA
28		Washingtonia robusta	Mexican Fan Palm	14"	30'	10'	Remain	NA
29		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
30		Quercus virginiana	Southern Live Oak	12"	20'	25'	Remain	NA
31		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
32		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
33		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
34		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
35		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
36		Washingtonia robusta	Mexican Fan Palm	16"	30'	10'	Remain	NA
37		Wodyetia bifurcata	Foxtail Palm	12"	10'	8'	Remain	NA
38		Wodyetia bifurcata	Foxtail Palm	12"	10'	8'	Remain	NA

Species, height, DBH and canopy to be confirmed by ISA Certified Arborist N.I.S. = Not in Scope

TREE DISPOSITION INFORMATION IS BASED UPON SURVEY INFO DATED 4/10/23 ALONG WITH SITE OBSERVATIONS CONDUCTED 8/23/23





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TREE REMOVAL AND TREE TO REMAIN PRUNING SPECIFICATIONS

PART 1 - DEFINITIONS

- A. Natural Resource Existing trees or palms.
- B. Critical Root Zone The minimum volume of roots necessary to have for tree health and stability. C. DBH - Diameter Breast High - Indicates the location on the trunk, approximately 4.5' above ground, to
- measure the diameter of a tree.
- D. Preserved Trees Trees that are to be saved/remain in place. . Owner's Representative - A representative, hired and paid for by the owner, that supervises
- the construction of the procedures shown on the tree disposition plans.
- F. Tree Protection Zone (TPZ) The area surrounding a tree defined by a specified distance, which excavation and other construction related activities should be avoided. The TPZ is variable depending on species, factors, age and health of the plant, soil conditions, and proposed construction.
- G. Contractor's Certified Arborist an independent ISA Certified Arborist, hired and paid for by the contractor, that supervises the construction of the procedures shown on the tree disposition plans.

PART 2 - TREE BARRIER

- A. Tree Protector Barrier Material.
- 1. Six (6) foot tall wire mesh construction fence supported by eight (8) foot tall metal T-Bar Posts and Post Caps. 2. The tree protector barrier shall have a two (2) foot by two (2) foot "tree protection zone" sign affixed to the fence every
- twenty (20) feet placed in such a manner to be clearly visible to the construction workers. The sign must be made up of weather resistant material.
- 3. The eight (8) foot tall metal T-Bar Post and Post Cap shall be placed a maximum of six (6) foot intervals.
- PART 3 EXECUTION
 - A. If hazards are determined by qualified certified arborist in an individual tree then those hazards can be mitigated according to the specifications given by the Qualified Certified Arborist.
 - 1. The tree disposition list. This item is to be coordinated by the Qualified Certified Arborist
 - with the Owner's Representative. All pruning shall be done in accordance with ANSI A300 (Part 1) Pruning and best management practices.
 The Contractor's Certified Arborist shall be present during all pruning operations.
 - B. Root Pruning Refer to Arborist Report 1. Trenching locations shall be approved in the field by the Owner's Representative and the Contractor's Certified Arborist.
 - 2. All roots shall be cut by hand.
 - 3. The trench shall be backfilled minus debris and large rocks, as directed by the Contractor's Certified Arborist. 4. Phased root pruning timeframes vary by species. Contractor's certified arborist shall direct
 - pruning schedule.
 - C. Tree Protector Barrier
 - See detail in this sheet.
 Tree Protector Barrier shall be placed by the Contractor around each tree to remain as directed by the Contractor's Certified Arborist. D. Tree Removals
 - 1. Contractor shall remove and discard all trees shown as "Remove" on the Tree Disposition Plan and the Tree Disposition List. Tree stump shall be ground below grade. Care shall be taken to not damage
 - the existing trees marked to remain and their critical root zones shall not be compacted by equipment.
 - 2. If Tree Protector Barrier is damaged, repair shall be performed immediately. 3. Contractor shall remove and haul away from the job site all wood generated from tree removals, including stumps, the same day the removal happens. 4. Burn pits are not allowed.

PART 4 - PENALTIES

- A. Repair of Damaged Trees To Remain
 - 1. If any damage to trees to remain or other natural resources should occur by accident or negligence during the construction period, shall be immediately inspected by Qualified Certified Arborist who shall determine the prescription of care at the Contractor's expense.

PART 5 - TREE PROTECTION

- A. Contractor's Certified Arborist to determine the location of the Tree Protector Barrier around each tree to remain based on his/her analysis of each
- existing tree to remain that is adjacent to construction improvements such as utility installation, pavement addition and/or restoration, etc. B. Contractor shall maintain and repair the Tree Protector Barrier during site construction operations.
- C. Contractor's access to the fenced tree protection areas will be permitted only with approval of Owner's Representative and Contractor's Certified Arborist's written directive. D. There shall no be change in grade within the critical root zone as per ANSI Standards.
- E. Contractor shall clear by hand all vegetation to grade within the critical root zones of trees to remain.
- F. Contractor shall not install conduit, sprinklers, or any utility line in any critical root zone areas without the approval of the Contractor's Certified Arborist and Owner's Representative.
- PART 6 IRRIGATION
- A. Contractor shall irrigate trees as specified by Landscape Architect and Qualified Certified Arborist.

B. On a monthly basis an irrigation audit shall be conducted by an irrigation specialist for review by Landscape Architect or Qualified Certified Arborist.



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SNED AND SEALED BY KYLER DURHAM, PLA ON THE DATE ADJACENT TO THE NT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE PIES.	Kimley Morn © 2024 KIMLEY-HORN AND ASSOCIATES, INC. 445 24TH STREET, SUITE 200, VERO BEACH, FL 32960 PHONE: 772-794-4100 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106
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	TREE DISPOSITION NOTES
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	EE2	2	EXISTING TO REMAIN	EXISTING FOXTAIL PALM	F.G.			NO	LOW				REVISIONS
	EX	15	EXISTING TO REMAIN	EXISTING MEXICAN FAN PALM	F.G.			NO	MODERATE				
S.S	EE3	4	EXISTING TO REMAIN	EXISTING SABAL PALM	F.G.			YES	LOW				· ·
	EE	14	EXISTING TO REMAIN	EXISTING SOUTHERN LIVE OAK	F.G.			YES	LOW	Гш			Ž
	MG	12	SOUTHERN MAGNOLIA	MAGNOLIA GRANDIFLORA	F.G.	2.5" CAL MIN.	12` HT MIN	YES	MODERATE	NT TO THE JRE MUST B	L'U	INC. FL 32960	00100
	PE	8	ALEXANDER PALM	PTYCHOSPERMA ELEGANS	F.G.		12` HT MIN	NO	LOW	TE ADJACEI HE SIGNATL	R	BEACH, 00	
•	QV	2	SOUTHERN LIVE OAK	QUERCUS VIRGINIANA	F.G.	3" CAL.	12` HT MIN	YES	LOW	ON THE DA		AND ASS 00, VERC -794-41	ארפי
WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	SM	3	MEXICAN FAN PALM	SABAL MEXICANA (RELOCATED)	F.G.			NO	MODERATE	JRHAM, PLA JED AND SE,	ey	SUITE 2 SUITE 2 SNE: 772	
SYMBOL	<u>CODE</u>	<u>QTY</u>	COMMON NAME	BOTANICAL NAME	<u>CONT</u>	<u>SPACING</u>	<u>SIZE</u>	NATIVE	WATER USE	KYLER DU	l	24 KIMLE STREET, PH(
<u>SHRUBS</u>	CI	112	COCO PLUM	CHRYSOBALANUS ICACO	CONT.	36" O.C.	6` HT MIN	YES	MODERATE	T CONSIDE	(IT	© 202 5 24TH	
(•••••	HF	33	FIREBUSH	HAMELIA PATENS	CONT.	36" O.C.	24" HT. MIN	YES	MODERATE	AND (4	
1.	SC	48	SILVER SAW PALMETTO	SERENOA REPENS 'CINEREA'	CONT.	36" O.C.	24" HT. MIN	YES	LOW	IGNED ENT A OPIES.			
\bigcirc	SG	52	GREEN SAW PALMETTO	SERENOA REPENS 'GREEN'	CONT.	36" O.C.	24" HT. MIN	YES	LOW	IGITALLY S HIS DOCUM	A NINA 899	1024 CHITECT	
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+ + + + + + + + + + + + + + + + + + +	JC	147	SHORE JUNIPER	JUNIPERUS CONFERTA	CONT.	30" O.C.	12" HT.	NO	LOW	I HAS E COPIE: ON AN	No LA	SATE: 1 STP STP	MT TH
_ _ _ _ _ _ _ _ _ _ _ _ _ 	МС	140	PINK MUHLY GRASS	MUHLENBERGIA CAPILLARIS	CONT.	36" OC	24" HT.	YES	LOW	S ITEM AL. NTED (RIFIED	1114	PROFESSIO	
	ZI	300	COONTIE	ZAMIA INTEGRIFOLIA	CONT.	36" OC	24" HT.	YES	LOW	THI SE PRI VEF			7
		<u>QTY</u>	COMMON NAME	BOTANICAL NAME	CONT	<u>O.C.</u>	<u>SIZE</u>	<u>NATIVE</u>	WATER USE		*ROJECT 27053 ATE 5/2024	BY JU	BY BV
	AG	1,827 SF	PERENNIAL PEANUT	ARACHIS GLABRATA	SOD	SOD	SOD	NO	LOW		KHA F 0474 D, 08/05	CALE / ESIGNED RAWN BY	HECKED
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	EX	15	EXISTING TO REMAIN	EXISTING MEXICAN FAN PALM	F.G.			NO	MODERATE				
S.S.	EE3	4	EXISTING TO REMAIN	EXISTING SABAL PALM	F.G.			YES	LOW				
$\left(\cdot \right)$	EE	14	EXISTING TO REMAIN	EXISTING SOUTHERN LIVE OAK	F.G.			YES	LOW				NO
	MG	12	SOUTHERN MAGNOLIA	MAGNOLIA GRANDIFLORA	F.G.	2.5" CAL MIN.	12` HT MIN	YES	MODERATE	T TO THE RE MUST BE	rn	INC. -L 32960	5106
AND AND	PE	8	ALEXANDER PALM	PTYCHOSPERMA ELEGANS	F.G.		12` HT MIN	NO	LOW	E ADJACEN	9	DCIATES, BEACH, F 0	R≺ NO.
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<u>SYMBOL</u>	CODE	<u>QTY</u>	COMMON NAME	BOTANICAL NAME	CONT	<u>SPACING</u>	<u>SIZE</u>	<u>NATIVE</u>	WATER USE	KYLER DU	n	4 KIMLE STREET, PHC	ИLЕҮ-Н
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LANDSCAPE CODE REQUIRES MINIMUM OF 25% OF SHRUBS TO BE NATIVE SPECIES.

LANDSCAPE CODE REQUIRES SOD TO BE LIMITED TO BE LESS THAN 50% OF OF SITE. TOTAL LANDSCAPE AREA: 9,396 SF (53% OF SITE)

LANDSCAPE CODE REQUIRES BUILDING FACADE REQUIREMENTS (206 LF - 20 LF OF ENTRY WAYS AND DRIVE THRU)= 186 LF.

1 TREE OR PALM PER 30 LF OF BUILDING PERIMETER:



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GENERAL LANDSCAPE SPECIFICATIONS AND NOTES A. SCOPE OF WORK 1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED. 2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER. B. PROTECTION OF EXISTING STRUCTURES ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER. C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED WHERE HEAT WILL DAMAGE ANY PLANT. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/ OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER. D. MATERIALS MATERIALS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL. UPON SUBMITTALS' APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE. MATERIAL SUBMITTAL MULCH PRODUCT DATA TOPSOIL MIX AMENDMENT MIX/ PRODUCT DATA/ TEST RESULTS PLANTS PHOTOGRAPHS OF ONE (1) OF EACH SPECIES (OR TAGGED IN NURSERY) INDICATE SIZES (HEIGHT/WIDTH) AND QUALITY PER SPEC. CLIENT-REQUESTED TAGGING MAY SUBSTITUTE PHOTOS. FERTILIZER PRODUCT DATA INNOCULANT PRODUCT DATA HERBICIDE PRODUCT DATA 2. PLANT MATERIALS A. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNER'S REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE B. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT. C. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY; SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS. LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE. E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, MIX) 1. SOIL MIXTURE SHALL CONSIST OF 70% COARSE SAND, 30% FLORIDA PEAT AS DESCRIBED BELOW. 2. SOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING SHALL BE FERTILE, FRIABLE, AND REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEED AND OTHER LITTER, FREE OF ROOTS, STUMPS, STONE LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL HAVE A PH BETWEEN 5.5 AND 7.0 - SUBMIT SAMPLE AND PH TESTING RESULTS FOR APPROVAL. 3. SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE ORTONA MINED SAND. CONTRACTOR SHALL SUBMIT RESULTS OF SOIL TEST FOR PEAT AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL. 4. CONTRACTOR SHALL SUBMIT SAMPLES OF SOIL MIXTURE FOR LANDSCAPE ARCHITECT REVIEW UNDER FORMAL SUBMITTAL AND SUBSEQUENTLY TO OWNER'S REPRESENTATIVE THEREAFTER FOR APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE. 5. FLORIDA MUCK / FLORIDA MUCKY PEAT MAY BE PROVIDED AS A SUBSTITUTE FOR THE 30% FLORIDA PEAT. CONTINGENT UPON PRELIMINARY TEST RESULTS AND AS DETERMINED BY THE LANDSCAPE ARCHITECT DURING THE SUBMITTAL PROCESS. ANY CHANGES IN THE PERCENTAGES OR PARENT MATERIALS REQUIRED TO PROVIDE THE SPECIFIED MIXTURE AS DETERMINED BY THE LANDSCAPE ARCHITECT SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER. 6. CONTRACTOR SHALL PROVIDE PH TEST RESULTS FOR ALL MIX COMPONENTS AND FINAL MIX. 7. CONTRACTOR SHALL PROVIDE PENETROMETER ON-SITE AT ALL TIMES FOR COMPACTION INSPECTION AT THE DISCRETION OF THE LANDSCAPE ARCHITECT. 8. PENETROMETER CRITERIA / SPECIFICATIONS SHALL RANGE FROM APPROX. 75 PSI TO LESS THAN 300 PSI OR AS DETERMINED BY THE LANDSCAPE ARCHITECT. 9. FINAL MIX SHALL BE TESTED TO HAVE A SATURATED WEIGHT OF NO MORE THAN 85 POUNDS PER CUBIC FOOT WHEN COMPACTED TO 85% STANDARD PROCTOR. FERTILIZER PRODUCT DATA AND RATE SCHEDULE SHALL BE SUBMITTED CONCURRENTLY WITH THE SOIL SUBMITTAL FOR EVALUATION BY THE LANDSCAPE ARCHITECT.

> 10. SOIL SHALL BE SUPPLIED BY ATLAS PEAT & SOIL INC. 9621 STATE ROAD, BOYNTON BEACH, FLORIDA 33472 PHONE: 561-734-7300

*WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY. WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC.. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY DERIVED.

*FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

H. ROCK MULCH

ROCK MULCH MATERIAL SHALL BE TW0 (2) TO THREE (3) INCHES DIAMETER CHATTAHOOCHEE ROCK (OR APPROVED EQUAL) AT A MINIMUM DEPTH OF THREE (3) INCHES IN ALL LANDSCAPE SHRUB AND GROUNDCOVER AREAS. THE ROCK MULCH SHALL CONFINE TO THE LANDSCAPE BED LINES ESTABLISHED BY ADJACENT SOD AREAS, HARDSCAPE AREAS, AND CURBS. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE).

I. DIGGING AND HANDLING

1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILTPRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS

2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.

3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS, COMPLYING WITH FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS, CURRENT EDITION. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT DURING TRANSPORTATION AND PRIOR TO PLANTING.

4. PROTECTION OF PALMS (IF APPLICABLE): ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL.

5. EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB-BASES.

J. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION, FLORIDA #1 OR BETTER.

2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.

3. PLANT ROOTS BOUND IN CONTAINERS ARE NOT ACCEPTABLE.

4. SUBSTITUTION OF NON-CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL IS OBTAINED FROM THE OWNER OR OWNER'S REPRESENTATIVE.

K. COLLECTED STOCK

WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

L. NATIVE STOCK

PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.

M. MATERIALS LIST

QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE

N. FINE GRADING

- 1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.
- 3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES.

O. PLANTING PROCEDURES

- 1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.
- 2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL NATIONAL ONE CALL - 811 - TO LOCATE UTILITIES.

- 3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36". CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND ADEQUATE PERCOLATION CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES POOR DRAINAGE.
- 4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.
- 5. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE , PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES, METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.
- 6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
- 7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER PERCOLATION. IF POOR PERCOLATION EXISTS, UTILIZE "POOR DRAINAGE CONDITION" PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER "JETTING IN" SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. "JET STICK" OR EQUAL IS RECOMMENDED.
- 8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.
- 9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS.
- 10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACKFILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).
- 11. AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.
- 12. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES. STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE, ONLY WITH MULCH. ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.
- 13. PRUNING: TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY LICENSED ARBORIST, IN ACCORDANCE WITH ANSI A-30
- 14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6", REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" TO ACHEIVE SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
- 15. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.
- 16. MULCHING: PROVIDE A THREE INCH (MINIMUM) LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT PLANTED UNDER THIS CONTRACT.
- 17. HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY)

P. LAWN SODDING

- 1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
- 2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.

3. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.

4. SODDING

- A. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
- B. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.
- C. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS. ADJACENT TO BUILDINGS, A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED - REFER TO DETAILS. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH
- 5. DURURG OBELS/ BAND, PREDRIFTO, ROUDD DURING ROLED ANFING THE TOPEN WOM OF REASONNEES, DOPANDESS HAD LISAVIEDESSARY TARES BRORDINGCTO DIERONE WORDSBELTWREING HANSODNRAWESSARD EXPENSION OF MICHANSOTISTIC PENSION OF MICHANSOD AND A SOLESANASANDE ASAATHEDSOLEAS VIDHET OVENERIGIRGEDESSEVICATION, SORLEXEEDVITORIEUX ARBENOISTURRETHE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.

6. LAWN MAINTENANCE:

- A. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS (LARGER THAN 12"X12") UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADING IF NECESSARY).
- B. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.
- Q. CLEANUP

UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM-CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

R. PLANT MATERIAL MAINTENANCE

ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING. SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. MAINTENANCE AFTER THE CERTIFICATION OF ACCEPTABILITY SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE TO COVER LANDSCAPE AND IRRIGATION MAINTENANCE FOR A PERIOD OF 90 CALENDAR DAYS COMMENCING AFTER ACCEPTANCE.

S. MAINTENANCE (ALTERNATE BID ITEM)

CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR MAINTENANCE FOLLOWING THE INITIAL 90-DAY MAINTENANCE PERIOD ON A COST-PER-MONTH BASIS.

T. FINAL INSPECTION AND ACCEPTANCE OF WORK

FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

- U. WARRANTY
- 1. THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.
- 2. REPLACEMENT: ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED UNDER "PLANTING", AT NO ADDITIONAL COST TO THE OWNER.
- 3. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER, AND SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH. IT IS SUGGESTED SUCH SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.

CALL 48 HOURS BEFORE YOU DIG	P.	STARBUCKS CASHMERE	PREPARED FOR REGENCY	Y OF PORT ST. LUCIE FLORIDA
ACCEPTANCE HEREIN ACCEPTANCE HEREIN CAPE CONTRACTOR COMMENCING AT THE THE WARRANTY PERIOD RMIT. ALL F LIST. THEY SHALL BE COST TO THE OWNER. AND IRRIGATION) LLY DURING THE ONE Y THE OWNER, AND HICH THREATEN DNDUCTED A MINIMUM INCE.	THIS ITEM HAS BEEN DIGITALLY SIG SEAL PRINTED COPIES OF THIS DOCUMEN VERIFIED ON ANY ELECTRONIC COP	KHA PROJECT 047427053 DATE 08/05/2024	DESIGNED BY JC DATE: 12/11/2024	CHECKED BY BVJ 7////////////////////////////////////
TS) NECESSARY TO TABILITY BY THE HALL BE IN ACCORDANCE ID ESTIMATE TO DMMENCING AFTER THE INITIAL 90-DAY	ED AND SEALED BY KYLER DURHAM, PLA ON THE DA - ARE NOT CONSIDERED SIGNED AND SEALED AND TI ES.	Kimley»	© 2024 KIMLEY-HORN AND ASS 445 24TH STREET, SUITE 200, VERO PHONE: 772-794-410 WWW.KIMLEY-HORN.COM REGIS	
OR SHALL REMOVE ALL BE BROOM-CLEANED AUTHORIZED	IE ADJACENT TO THE HE SIGNATURE MUST BE	Horn	OCIATES, INC. BEACH, FL 32960 00 IRY NO. 35106	
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LISHED LAWN. THE				SIONS
				DATE



*NOTE: 1. CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR REVIEW AND ACCEPTANCE BY THE CLIENT, CIVIL ENGINEER, AND LÁNDSCAPE ARCHITECT PRIOR TO part nur PROCUREMENT, FABRICATION, AND INSTALLATION. MANUFACTURER: POTSPLANTERSANDMORE.com 69345. (888) 381 - 9501 MODEL: SEE BELOW SIZES: POTSDAM 72"x16"x32" TO BE SELECTED BY OWNER COLOR: FROM MANUFACTURER'S FULL RANGE NOTES: INSTALL 12" DEEP DRAINAGE STONE IN BOTTOM OF POT WITH LANDSCAPE FILTER FABRIC FOR MEDIAN SEPARATION. ALL POTS TO BE FURNISHED WITH DRAINAGE HOLES.





TOLG	A+POTSD/	AM+PERT	Ή		
6936	67 TOLGA	69345 POTSDAN	1 69	9050 PERT	Ή
part number	outside dimensions	opening	base size	weight	gallons
69367.36	36"L x 16"W x 24"H	33.25"L x 13.25"W	36"L x 16"W	33.1 lbs	51.4
69367.48	48"L x 16"W x 24"H	45.25"L x 13.25"W	48"L x 16"W	39.7 lbs	68.6
69367.60	60"L x 16"W x 24"H	57.25"L x 13.25"W	60"L x 16"W	47.4 lbs	85.7
69345.36	36"L x 16"W x 32"H	33.25"L x 13.25"W	36"L x 16"W	40.8 lbs	68.6
69345.48	48"L x 16"W x 32"H	45.25"L x 13.25"W	48"L x 16"W	52.9 lbs	91.4
69345.72	72 ^{°°} L x 16°°W x 32°°H	69"L x 13.25"W	72"L x 16"W	73.2 lbs	137
69050.36	36"L x 16"W x 42"H	33.25"L x 13.25"W	36"L x 16"W	50.7 lbs	90
69050.48	48"L x 16"W x 42"H	45.25"L x 13.25"W	48"L x 16"W	65 lbs	120

Please note that sizes my vary by up to 2% and that weights are approximations.





MODERN DESIGN





RESISTANT

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NOT TO SCALE



CONSTRUCTION

pots planters and more







<u>.</u>	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>	<u>PSI</u>
0	RAIN BIRD RD-06-P30-F 10 SERIES MPR TURF SPRAY, 6IN. POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, AND FLOW-SHIELD TECHNOLOGY. 1/2IN. NPT FEMALE THREADED INLET.	30	30
	RAIN BIRD RD-06-P30-F 12 SERIES MPR TURF SPRAY, 6IN. POP-UP, WITH 30 PSI IN-STEM PRESSURE REGULATION, AND FLOW-SHIELD TECHNOLOGY. 1/2IN. NPT FEMALE THREADED INLET.	54	30
□ 1408	RAIN BIRD 1806-1400 FLOOD FLOOD BUBBLER 6.0IN. POPUP	41	60
:	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>	
	PIPE TRANSITION POINT IN DRIP BOX PIPE TRANSITION POINT FROM PVC LATERAL TO DRIP TUBING WITH RISER IN 6IN. DRIP BOX.	18	
	RAIN BIRD ARV050 1/2IN. AIR RELIEF VALVE, MADE OF QUALITY RUST-PROOF MATERIALS, WITH A 6IN. DRIP VALVE BOX (SEB 7XB EMITTER BOX). USE WITH INSTALLATION BELOW SOIL. THE VALVE WILL ALLOW AIR TO ESCAPE THE PIPELINE, THUS PREVENTING WATER HAMMER OR BLOCKAGE.	13	
	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6IN. FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI. INCLUDES 16IN. OF 1/4IN. DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED.	13	
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-06-24 XFS SUB-SURFACE PRESSURE COMPENSATING DRIPLINE W/COPPER SHIELD TECHNOLOGY. 0.6 GPH EMITTERS AT 24" O.C. LATERALS SPACED AT 24" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV RESISTANT. SPECIFY XF INSERT FITTINGS.	4,722 L.F.	
:	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>	
	RAIN BIRD ESPLXME2 12 STATION TRADITIONALLY-WIRED, COMMERCIAL CONTROLLER. INDOOR/OUTDOOR, PLASTIC WALL-MOUNT ENCLOSURE.	1	
	RAIN BIRD LNK2WIFI UPGRADES CONTROLLERS (ESP-M, ESP-RZXE, ST8) TO HAVE WEATHER DATA FOR ET-BASED ADJUSTMENTS (WATERSENSE APPROVED) & WIFI CAPABILITIES -	1	
	RAIN BIRD WS-PRO2-PHS MAXICOM2, SITECONTROL, IQ, OR WEATHER REACH SERVER. COLLECTS AND STORES WEATHER DATA FROM FIELD LOCATIONS. PHONE CONNECT, SOLAR POWER MODEL. DIAL UP PHONE MODEM FOR PHONE COMMUNICATION WITH CENTRAL CONTROLLER, SOLAR POWERED.	1	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	2,154 L.F.	
:==	PIPE SLEEVE: PVC CLASS 200 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	41.0 L.F.	

1. THE IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE

2. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER FOR OPERATING PARAMETERS OF THE EXISTING 3. CONTRACTOR SHALL VERIFY CONTROLLER AND MAINLINE POINT OF CONNECTION AT PROJECT SITE WITH

4. COORDINATE WITH PLANTING PLAN FOR PLANTER BED LOCATIONS AND TREE LOCATIONS.

6. SPRAY HEADS, BUBBLERS, AND LATERALS SHOWN TO EXPRESS THE DESIGN INTENT TO PROVIDE 100% HEAD-TO-HEAD COVERAGE FOR ALL PROPOSED PLANTING AREAS. NEW IRRIGATION SPRAY HEADS AND BUBBLERS ARE TO BE INSTALLED TO SERVE PROPOSED PLANTINGS, AMENDING AN EXISTING NO-SITE IRRIGATION SYSTEM. CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE DESIGN INTENT LAYOUT TO CONNECT TO THE EXISTING SYSTEM. IT IS ASSUMED THAT THE CONTRACTOR MAY NEED TO INSTALL ADDITIONAL LATERALS, SLEEVES, EXTEND MAINLINE, OR ADD CONTROL VALVES AND WIRING TO ACCOMMODATE THE 7. VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. ALL

UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS-CONTRACTOR SHALL VERIFY THEIR 8. ALL PRESSURE MAINLINES UNDER ASPHALT PAVEMENT SHALL BE PLACED WITHIN SLEEVES AS NOTED. WHERE

ELECTRIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT. ALL SLEEVES SHALL BE SIZED TWO PIPE SIZES

9. CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT. ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR, WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF EACH SLEEVE SHALL BE NOTED AT EACH SLEEVE

1. INSTALLATION WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANOR AS TO ALLOW FOR SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON THE SITE. 2. ALL PROPOSED TREES AND SHRUBS SHALL BE IRRIGATED BY A 100% AUTOMATIC UNDERGROUND IRRIGATION

3. IRRIGATION SYSTEM SHALL BE CAPABLE OF SUPPLYING AN AVERAGE OF 1" OF WATER PER WEEK WITHIN

4. IRRIGATION SYSTEM SHALL NOT BE INSTALLED THROUGH EXISTING, OR PRESERVED PLANT COMMUNITIES. IRRIGATION SPRINKLER ZONES SHALL BE SEPARATED FOR HIGH AND LOW WATER REQUIREMENTS AND

7. A RAIN SENSOR SHALL BE INSTALLED WITH THE IRRIGATION CONTROL SYSTEM, INSTALLED AT A LOCATION TO BE 8. IRRIGATED AREAS SHALL BE FULLY IRRIGATED WITH SPRAY HEADS & ROTORS SPACED TO PROVIDE 100% HEAD

9. THIS PLAN DEPICTS DESIGN INTENT ONLY FOR AMENDING AN EXISTING IRRIGATION SYSTEM AND ITS SOLE PURPOSE IS TO PROVIDE GUIDANCE FOR IRRIGATION IMPROVEMENTS REQUIRED TO SERVE PROPOSED PLANTINGS. THE SELECTED CONTRACTOR IS REQUIRED TO PROVIDE AN IRRIGATION DESIGN, AS REQUIRED BY THE PERMIT AGENCY. CONTRACTOR'S IRRIGATION DESIGN TO BE REVIEWED AMD APPROVED BY THE OWNER PRIOR TO SUBMITTING FOR AN IRRIGATION SYSTEM CONSTRUCTION PERMIT. 10. POINT OF CONNECTION TO BE DETERMINED BY IRRIGATION CONTRACTOR AND VERIFIED WITH THE LANDSCAPE

11. IRRIGATION SYSTEM CONNECTION TO POTABLE WATER SUPPLY WILL REQUIRE A DEDICATED IRRIGATION METER



SHEET NUMBER

L-300

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- 2.10 AUTOMATIC CONTROL VALVE
- The automatic remote control valves shall be as specified on the plans, or approv 2.10 GATE VALVES
- A. Gate valves for 3/4" through 2-1/2" shall be of brass or bronze construction, non-rising stem with wheel operating handle, for a continuous working p

Gate valves for 3" and larger: Iron body, brass or bronze mounted AWWA gate va equal to the full nominal 3.09 CONTROL WIRE

- A. Control wiring between the controller and electric valves shall be buried in m separate trenches. Electrical connection at valve will allow for pigtail so from valve with sufficient slack to allow ends to be pulled 12" above gro cleaning.
- B. An expansion loop shall be provided at every valve at 100' o.c. Expansion loo wrapping wire at least eight times around a 3/4" pipe and withdrawing p
- C. The wire shall be bundled and taped every ten feet. The wire shall be laid in the pipe being careful to install wire beneath and 6" to the side of the m
- D. Electrical connections to electric control valves shall be made with Rainbird F - Tite connectors or equal.
- Power Connections: Electrical connections to power and signal wires sh power cable splice kits.
- E. diameter of the valve, rubber gasket for a continuous working pressure of 1 equipped with a square operating nut.
- 2.11 VALVE BOXES
- A. For gate valves, use AMETEK #10-181-014 box with #10-181-015 locking lid, of B. For control valves 3/4" through 2", the drip valve assemblies, use AMETEK #1
- #10-181-015 locking lid, or sized as necessary to effectively house the en C. For control wiring splices, use AMETEK #10-181-014 box with #10-181-015 lo

2.12 IRRIGATION WIRING

drawings.

- A. Wiring used for connecting the electric control valves to the controllers shall strand, solid copper with PVC insulation 4/64" thick. Size shall be 14 gau wires, and common wire to be 14 gauge, white in color.
- B. Contractor shall perform an ohm test on ground to assure adequate protecti indirect lightning strikes.

2.13 MISCELLANEOUS MATERIALS

- A. Drainage Backfill: Cleaned gravel or crushed stone, graded from 1" maximum
- B. Metalized Underground Tape: The detectable, underground utility marking t minimum: 5 mil (0.005") overall thickness; five-ply composition; ultra-hi virgin polyethylene; acid, alkaline and corrosion resistant; with no less the break strength per 6" width; color-code impregnated with color stable, suitable for direct burial. Tapes utilizing reprocessed plastics or resins s detectable, underground utility marking tape shall have a 35 gauge (0.00 core encapsulated within a 2.55 mil (0.00255") polyethylene backing an over coating. The laminate on each side shall consist of a 0.75 mil (0.00 poly-fusing the "sandwich" without use of adhesives.
- 2.14 AUTOMATIC CONTROL SYSTEM

An Independent Station Controller: Furnish a solid state controller, as sp Each station shall be capable of timing from zero (0) minute to 99 minute minute increments.

Each station shall be capable of operating two (2) 7VA electric valve-in-h

The stand-alone controller shall have two (2) possible programs.

The stand-alone controller shall provide global percentage increase/dec stations simultaneously, from ten (10) to two hundred (200) percent, in

All stations shall be able to be turned on/off manually buy operating tim manual switch at station output.

The stand-alone controller shall incorporate an integral MOV surge prote block for each of its 24 VAC field wire outputs. Controller power input v surge protection.

The control panel shall provide continuous display time. It shall have alg descriptive English menus and legend identifiers with cursor selection of value adjustment by rotary dial input.

The stand-alone controller shall be UL listed and FCC approved.

The stand-alone controller shall have 117 VAC, 60 Hz input, 26.5 VAC, 60 VAC solenoids.

The stand-alone controller cabinet shall be a lockable and weather-resis Mount as noted on plans.

The controller shall be equipped with lightening protection, by the Cont (120v) and each secondary (24v) circuit. The controller circuits shall be grounding rod located at each controller.

The controller shall be equipped for a water conservation device. as spe

PART III: EXECUTION

3.01 INSPECTION

The Contractor shall examine the areas and conditions under which landsc installed and notify the Landscape Architect in writing of conditions of and timely completion of the work. The Contractor shall proceed with the work conditions have been corrected in a manner acceptable to the Landscape Archi

3.02 PREPARATION

The Contractor shall provide sleeves to accommodate piping under walks of shall coordinate with other trades and install to accurate levels prior to paving w of paving and concrete will not be permitted. The Contractor shall maintain a barricades, flares and red lanterns, as required by any local codes, or

3.03 TRENCHING AND BACKFILLING

A. Excavation: The Contractor shall stake out the location of each run of pipe, s valves and isolation valves prior to trenching. Excavation shall be open sufficiently wide to provide free working space around the work installe space or backfilling and tamping. Trenches for pipe shall be cut to requi compacted to provide accurate grade and uniform bearing for the full le

red equal	bottom of the trenches shall be free of rock or other sharp edged objects. Minimum cover shall be as follows:	 Pop-up- Rotary Sprinkler Heads: Shall be installed on flex finish grade. Heads installed at curb shall have 6" to 10" k linede placed at edge of payament begins as such about the shall be at edge of payament begins as such as a such
colid wordso JDC throads	Pressure Mainline Lateral Piping (rotor) Lateral Piping (non-up) 12" at top of pipe from Finish Grade 12" at top of pipe from Finish Grade	 Spray Pop-up Sprinkler Heads: Shall be installed on flexib with finished grade. Sprinkler heads placed adjacent to current to curr
pressure of 150 PSI.	Control Wiring Side of main Line B Minimum Clearances: All pipelines shall have a minimum clearance of six inches from each other and	Sprinkler heads placed adjacent to pavement having no cupavement.
alves, with a clear waterway	from lines of other crafts. Parallel lines shall not be installed directly over one another. No lateral line shall be installed in the main-line trench.	3.11 COMPLETIONA. Flushing: Before sprinkler heads are set, the Contractor shall
nain line trenches or in solenoid can be removed	3.04 INSTALLATION OF PIPING	there is no foreign matter in the lines.
	A. PVC Pipe and Joints: The Contractor shall not install solvent wild pipe when air temperature is below 40ø F. Installation shall be in accordance with the manufacturer's instructions.	a full head of pressure.
op shall be formed by pipe.	1. Only the solvent recommended by the pipe manufacturer shall be used. All PVC pipe and fittings shall be installed as outlined and instructed by the pipe manufacturer, and it shall be the Contractor's full solve and its instructed by the pipe manufacturer.	 B. Testing: The Contractor shall notify Landscape Architect and testing.
n the trench prior to installing nain pipe line.	necessary. The Contractor shall assume full responsibility for the correct installation.	Prior to backfilling of main line fittings, Contractor shall f presence of the Owner/Landscape Architect, taking care
Pen-Tite or Techdel GT-3-GEL	3.05 BACKFILLING PROCEDURES Initial backfill on PVC lines shall be pulverized native soil, free of foreign matter. Within radius of 4" of the	high pressure pump or other means of maintaining a cor the main line and set so as to maintain 100 PSI in the ma
nall be made using 3M 82-A2	pipe shall be clean soil or sand. Plant locations shall take precedence over sprinkler and pipe locations. The Contractor shall coordinate the location of trees and shrubs with the routing of lines and final head locations.	leakage testing shall be performed in accordance with A shall be noted and make up water usage shall be recorded
50p PSI. Valve shall be	A. Backfill and Compaction: The Contractor shall leave trenches slightly mounded to allow for settlement after the backfilling is completed. The Contractor shall clean the site of the work continuously of excess waste materials as the backfilling progresses, and leave in a neat condition. No trenches shall be left open for a period of more than 48 hours. Protect open trenches as required.	indicate significant leakage, the source of such leakage s then retested until the Owner/Landscape Architect is sa Lateral line testing shall be conducted during the operat visually the ground surface until no leaks in this portion repaired or paid for by the Contractor at any time they a
or as per the drawings. 10-181-014 box with equipment	The Contractor shall carefully backfill excavated materials approved for backfilling, consisting of earth, loam, sand, and other approved materials, free of rock and debris over 1" in size. Backfill shall be compacted to original density of surrounding soil without dips, sunken areas, or irregularities.	C. Adjustment and Coverage of System: Coordinate pressure te system so both may occur at the same time. The Contra components of the system so that the overall operation
ocking lid, or as per the	The Contractor shall conform to DOT requirements for methods and required compaction percentages, for roads and paving.	valves, part circle sprinkler heads, and individual station
	The Contractor shall hand place the first 6" of backfill (or to top of pipe) and have it walked on so as to secure the position of the pipe and wire.	A. The Contractor shall fully warrant the landscape irrigation sy
l be Type UF, 600 volt, single uge, red for "hot" or lead	No wheel rolling will be allowed. The Contractor shall remove rock or debris extracted from backfill materials and dispose of offsite. The Contractor shall fill any voids left in backfill with approved	written final acceptance and will receive a written confir the warranty period is in effect.
ion against surges and	backfill materials.	B. During the warranty period, the Contractor will enforce all m made by the Contractor himself. Any malfunctions, defi- other disorder due to materials, workmanship, or install
	than trench. The Contractor shall resod any areas not in healthy condition equal to adjoining laws of suitable size for handling and keep moistened until replanted. The Contractor shall replant sod within 48 hours after removal, roll and water generously. The Contractor shall resod any areas not in healthy condition equal to adjoining laws 10 days after replanting.	shall be immediately and properly corrected to the prop Landscape Architect.C. Any damages caused by system malfunction shall be the resp
n to 3/4" minimum.	C. Seeded Area: Trenching will be required across existing seeded areas, primarily roadway edging. The Contractor shall conform to the requirements of seeding. Section 02930 for the reserving of the	3.13 WELL SPECIFICATION
igh molecular weight, 100% than 150 pounds of tensile	disturbed trench area.	WS-A. REFERENCE: General Provisions of the Contract, including (and Division One General Requirements, apply to work specified ir
lead-free, organic pigments shall not be acceptable. The 1035") solid aluminum foil,	No cutting and patching of pavement will be permitted.	WS-B. DESCRIPTION OF WORK:
nd a 0.6 mil (0.006") PET 10075") layer of hot LPDE,	 A. Isolation Valves: Shall be sized corresponding to adjacent pipe size. Specified valve boxes shall be installed flush with finish grade in such a manner that surface forces applied to their exposed area will not be transmitted to the piping in which the valve is installed nor any other piping, wiring or 	 A. Furnish all materials, equipment, labor, supervision and all related work as indicated on the drawings and/or specified herein. B. Capacity. Provide wells with minimum continuing producing capa C. Extent: Water well work is shown on drawings. D. Work: Includes furnishing all materials, equipment, labor, supervision and all related work as indicated on the drawings and/or specified herein.
pecified on the plans.	other lines in the vicinity of said valves. B. Gate Valves: Install where shown, in valve boxes.	 this phase of work, as indicated on drawings and specified he E. Water well: Work is based on following criteria: 1. Type and size of well will be such as to assure a constant flow c
tes per station in one (1)	 C. Electric Control Valves: Shall be installed in specified valve boxes. The valve shall have 6" of 3/4" pea gravel installed below the bottom of the valve. If the valve box does not extend to the base of the 	 Water shall be sand free with the minimum amount of iron or 1 Driven steel case wells shall be driven to a depth into best rock Rotary drilled well, PVC cased shall be drilled a minimum of 5 ir
head solenoids. crease (water budget) for all	valve, a valve box extension shall be installed. Electric control valves shall be installed where shown and grouped together where practical. The Contractor shall place no closer than 24" to walk edges, bikeway edges, buildings and walls. The Contractor shall adjust the valve to provide flow rate or rated operating pressure required for each sprinkler circuit.	 required to obtain the best water quality available in a given ge 5. A minimum of 20 feet of slotted stainless steel mesh shall exter packed. (TREMI-PIPED). 6. Casing shall be grouted to meet all state well drilling codes. 7. Applications and permits for drilling and developing wells.
ten (10) percent increments.	3.07 CONDUIT AND SLEEVES	 a. Drilling for final water well depth b. Development of wells c. Testing and disinfection
tection into the terminal	A. Conduit and Sleeves for Control Wiring and Main/Lateral Pipe: The Contractor shall provide and install where necessary. Contractor shall coordinate locations of previously installed sleeving with the General Site Contractor.	 For the distribution of pumps and coordination to provide power F. Site Inspection: Contractor shall acquaint himself with all site con considered evidence that the examination has been conducted found during excavations. Contractor shall promptly notify the second seco
wires will also incorporate	The Contractor shall coordinate installation of sleeves with work of other disciplines.	further action. Failure to do so will make Contractor liable fo operations subsequent to discovery of such utilities not show
Iphanumeric displays of f function and precision	 A. The Contractor shall connect electric control valves to controllers in a clockwise sequence to correspond with station settings beginning with Stations 1, 2, 3, etc. Automatic controllers shall be provided and installed by the Contractor as noted on the drawings. All zones will be labeled on the controller. 	 WS-C QUALITY ASSURANCE: A. Protecting Water Quality: Take precautions to prevent contamina or chemical characteristics from entering stratum from which water, gasoline, etc., from entering well either through openi B. Contamination: If well becomes contaminated or water having up
0 Hz output for operating 24	B. Controllers shall be equipped with lightning protection and grounded to a standard 5/8" copper clad steel ground rod driven a minimum of 8' into the ground and clamped.	enters well due to neglect, provide casings, seals sterilizing ac contamination or shut off undesirable water. Provide remed C. Exercise Care: In performance of work to prevent breakdown or c
stant outdoor cabinet.	C. The electrical service to the controllers shall be performed by an electrical subcontractor in compliance with NEC requirements.	water is to be drawn. Develop, pump or bail well until water sand. D. Protect Work: To prevent either tampering with well or entrance
tractor, on both the primary	3.09 CONTROL WIRE	temporary well cap. E. Driller's Requirements: Experienced foreman or driller to be cons authority to take orders from Owner's Representative and, up
ecified.	A. Control wiring between the controller and electric valves shall be buried in main line trenches or in separate trenches. Electrical connection at valve will allow for pigtail so solenoid can be removed from valve with sufficient slack to allow ends to be pulled 12" above ground for examination and cleaning.	desired by Owner's Representative. F. Abandonment of Drilling: If it becomes necessary to abandon dril producing well, follow regulations for abandonment of well a jurisdiction. Should abandonment of drilling be necessary du the Contractor, no compensations will be allowed. Should ab
	B. An expansion loop shall be provided at every value at 100' o.c. Expansion loop shall be formed by wrapping wire at least eight times around a 3/4" pipe and withdrawing pipe.	inadequate supply of good quality water, or for such other re no fault of the Contractor, compensation for work will be bas
ape irrigation system is to be	C. The wire shall be bundled and taped every ten feet. The wire shall be laid in the trench prior to installing the pipe being careful to install wire beneath and 6" to the side of the main pipe line.	WS-D SUBMITTALS: A. Shop Drawings: Submit in accordance with General Conditions of shall include manufacturer's product specifications and instal
detrimental to the proper k until unsatisfactory	 D. Electrical connections to electric control valves shall be made with Rainbird Pen-Tite or Techdel GT-3-GEL - Tite connectors or equal. 	be required to show compliance with these specifications. Di instruction to the Installer. B. Samples, Records and Reports: Take samples of sub-strata forma
	Power Connections: Electrical connections to power and signal wires shall be made using 3M 82-A2 power cable splice kits.	formation throughout entire depth of well. Furnish samples laboratory and well screen manufacturer for mechanical slee C. Provide Owner's Representative the following information for rec
or paving. The Contractor work. Cutting and patching	3.10 SPRINKLER HEADS	 Casings - diameter, thickness, weight per foot of length, depth Screen - diameter, opening size Pumping test - static water level, maximum safe vield, drawn depth
an warning signs, shoring, rdinances or permits.	A. General Provisions:	11. Log - formation log indication strata encountered 12. Alignment - certification that well is aligned and plumb within s
sprinkler heads, sprinkler vertical construction	 Sprinkler heads shall be installed as designated on the shop drawings. Heads shall be installed on flexible PVC. Top to be flush with finish grade or top of curb. Spacing of heads shall not exceed the maximum indicated on the shop drawings (unless directed by the Londonna Architect). In the same shall the curvelence of the same shall be installed on the shop drawings (unless directed by the Londonna Architect). 	 E. Submit Manufacturer's specifications: installation and start-up inscharacteristics performance curves with selection points clearly indrawings, wiring diagrams, and maintenance data including spare
ea and to provide ample lired grade lines, and ength of the line. The	me candscape Architect). In no case shall the spacing exceed the maximum recommended by the manufacturer.	for each types in each of the following. WS-E WARRANTY: Provide warranty covering all material, workmanshi
	D. Hour Byes.	performance of well for a period of one (1) year after Final Acceptance.

all be installed on flex joint and be set with top of head flush with b shall have 6" to 10" between perimeter of head and concrete. having no curb shall be installed 24" from edge of pavement. If be installed on flexible PVC and be set with top of head flush s placed adjacent to curbs will be installed 9" from concrete. pavement having no curb shall be installed 24" from the edge of et, the Contractor shall flush the lines thoroughly to make sure n lines from dead end fittings for a minimum of five minutes under ndscape Architect and Owner forty-eight (48) hours in advance of Ш ings, Contractor shall fill the main line piping with water, in the e Architect, taking care to purge the air from it by operating all the re times and/or such other means as may be necessary. A small, ns of maintaining a continuous water supply shall be connected to ntain 100 PSI in the main line system for two (2) hours without accomplished and while the pressure in the system is still 100 PSI, d in accordance with AWWA Standard C-600. Pressure readings usage shall be recorded. Should the rate of make up water usage burce of such leakage shall be found and corrected and the system $\widehat{}$ ndscape Architect is satisfied that the system is reasonably sound. cted during the operating testing of the system by checking o leaks in this portion of the system are evident. Leaks shall be ctor at any time they appear during the warranty period. Coordinate pressure testing with adjustments and coverage test of ame time. The Contractor shall balance and adjust the various t the overall operation of the system is most efficient. This controllers, adjustments to pressure regulators, pressure relief and individual station adjustments on the controllers. andscape irrigation system for a period of one (1) year after the eceive a written confirmation from the Landscape Architect that actor will enforce all manufacturer's and supplier's warranties as if Any malfunctions, deficiencies, breaks, damages, disrepair, or orkmanship, or installation by the Contractor and his suppliers corrected to the proper order as directed by the Owner and/or nction shall be the responsibility of the Contractor who shall make ⁻ said damages. the Contract, including General, Special and Supplementary Conditions apply to work specified in this section. pervision and all related items necessary to complete this phase of the nd/or specified herein. ntinuing producing capacity as follows: <u>70 GPM & 95 GPM</u> quipment, labor, supervisors and all related items necessary to complete rawings and specified herein. assure a constant flow of water as indicated on irrigation plans. mum amount of iron or tanning possible in a given geographic location. to a depth into best rock formation - water bearing stratus. drilled a minimum of 5 inches larger than the casing diameter. Depth as ity available in a given geographic location. S ess steel mesh shall extend from bottom of easing and shall be gravel te well drilling codes. d developing wells. O dination to provide power for pumps Ζ thimself with all site conditions. Submission of his proposal shall be ation has been conducted. Should utilities not shown on the plans be Ζ shall promptly notify the Owner's Represenative for instructions as to nake Contractor liable for any and all damage thereto arising from his 0 of such utilities not shown in plans. F ons to prevent contaminated water or water having undesirable physical ring stratum from which well is to draw is supply. Prevent contaminated vell either through opening or by seepage through ground surface. nated or water having undesirable physical or chemical characteristics C asings, seals sterilizing agents or other materials to eliminate e water. Provide remedial work at no cost to the Owner. prevent breakdown or caving in of strata overlying that from which o or bail well until water pumped from well is substantially free from ng with well or entrance of foreign matter. Upon completion, provide Ľ man or driller to be constantly in control of well site and who has 's Representative and, upon request, furnish well drilling information ecessary to abandon drillings operations before completion of water r abandonment of well as required by local authorities having f drilling be necessary due to poor workmanship or negligence on part of ill be allowed. Should abandonment of drilling necessary due to ater, or for such other reason that Owner's Representative deems to be tion for work will be based o unit prices in contract. S th General Conditions of the Contract for construction. Shop drawings Ш specifications and installation instructions. Include other data as may 0 X these specifications. Distribute an additional copy of each installation SHMER ples of sub-strata formation at ten-foot intervals and at changes in f well. Furnish samples of water-bearing formation to qualified testing \supset urer for mechanical sleeve analysis. wing information for record purposes: Ш er foot of length, depth below grade $\boldsymbol{\alpha}$ mum safe yield, drawn down at maximum yield gned and plumb within specified tolerances 4 e that salt content may be present at 2" pilot well will be drilled not to \vdash stallation and start-up instructions, S selection points clearly indicated, shop ance data including spare parts lists, 81 CALL 48 HOURS all material, workmanship and **BEFORE YOU DIG** SL PROJ #: P24-148 IT'S THE LAW! Know what's **below.** DIAL 811 Call before you dig SHEET NUMBER

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