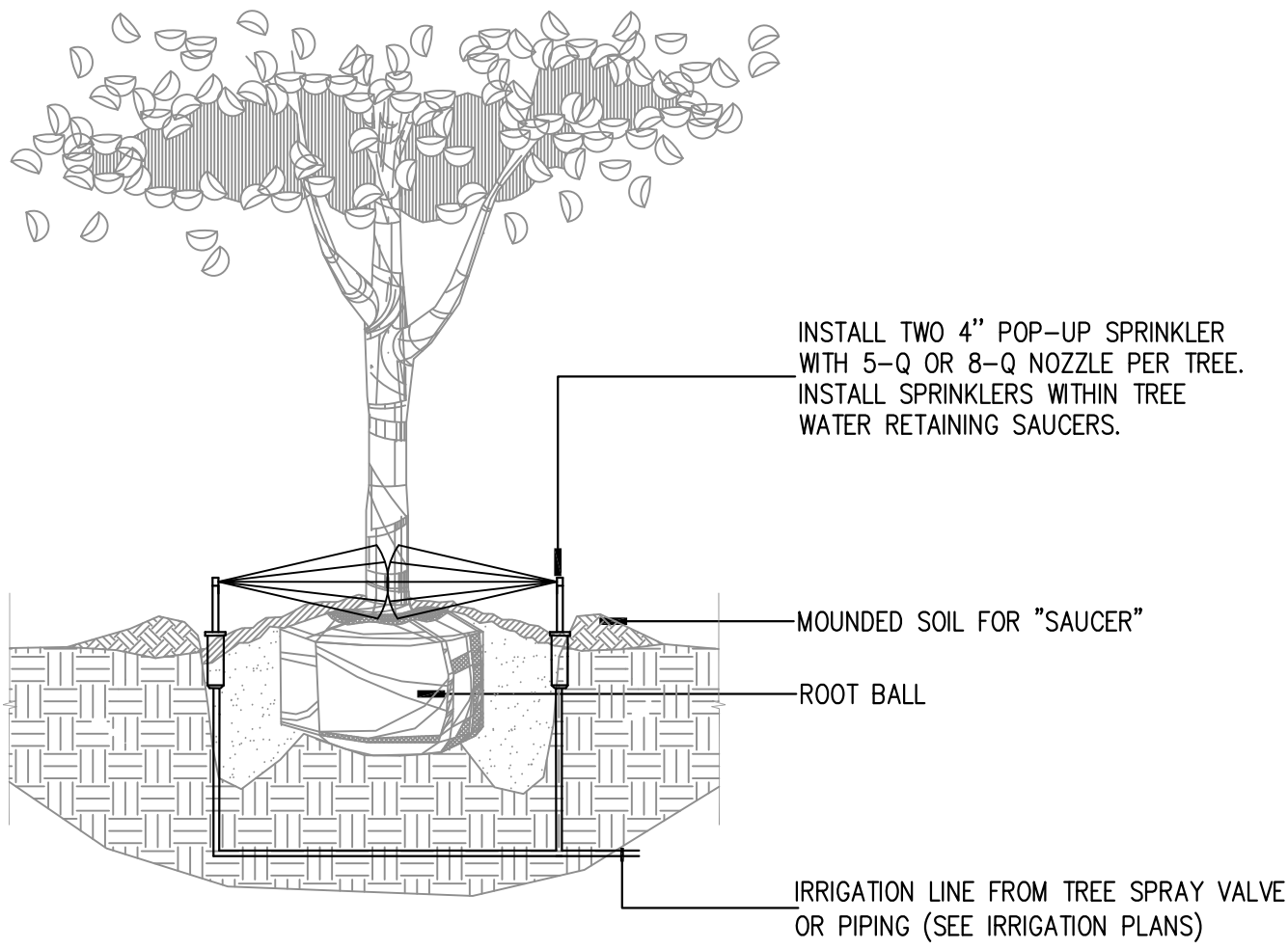
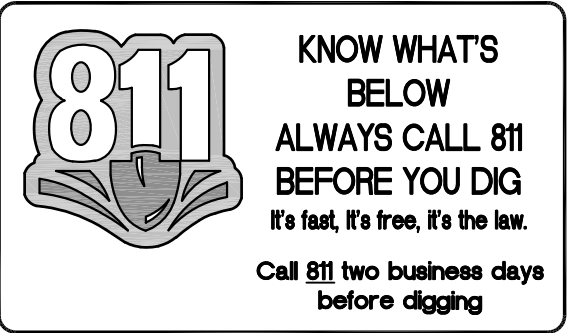


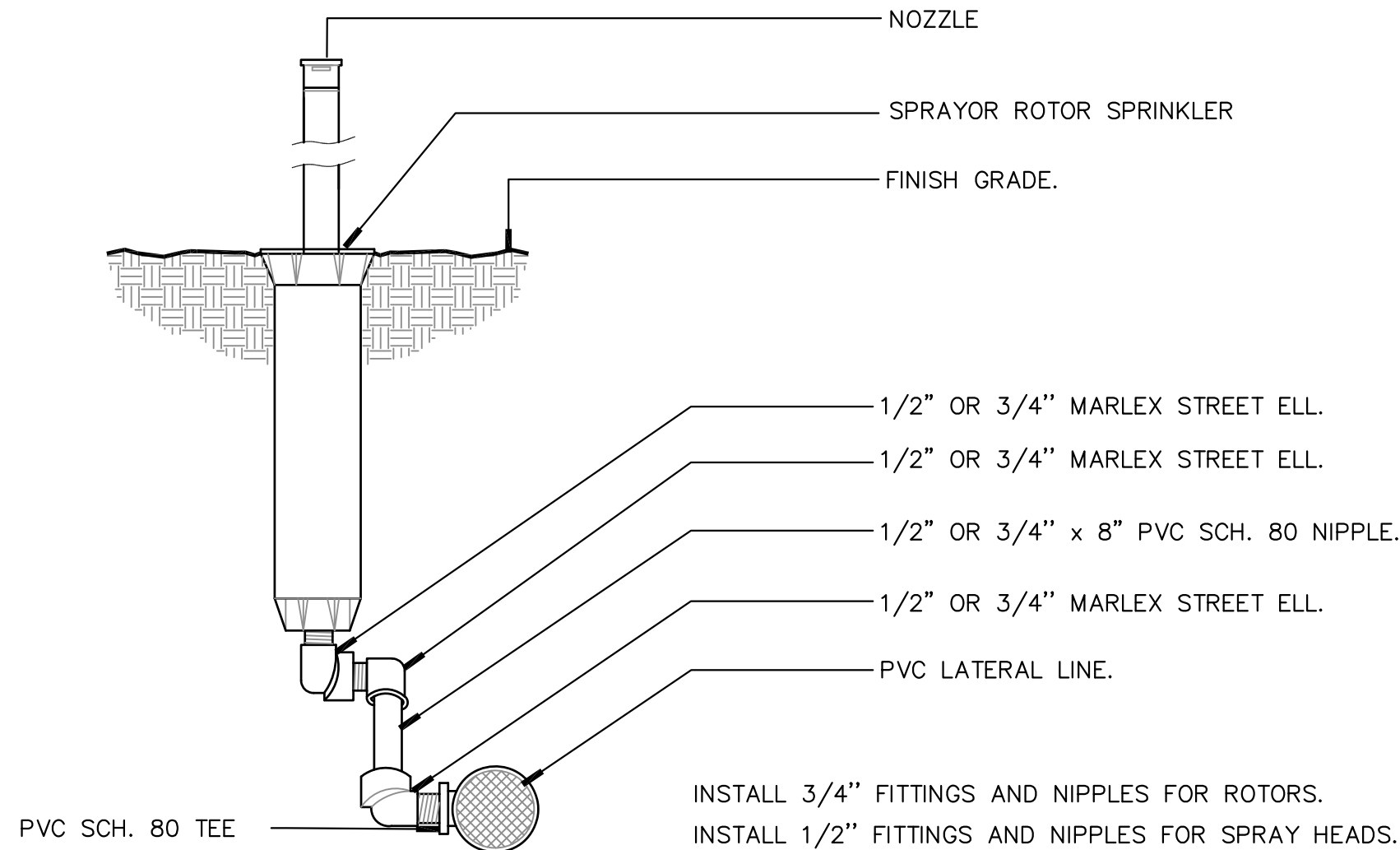
PLOTDATE: 03/26/2019 2:40 PM USER: ELISABETH MANLEY
 FILENAME: C:\USERS\ELISABETH MANLEY\BOX\PROJECT\2018\18-090 TECH CITY 2 - EDA\GA_PRODUCTION\02_SPP & CD\2019-03-26 SPR 5\01_SHEETS\18090_IRR DET.DWG

GENERAL IRRIGATION NOTES

1. LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF WORK. CALL SUNSHINE STATE ONE CALL - SEE LOGO BELOW.
2. ANY IRRIGATION ITEMS NORMALLY INSTALLED IN LANDSCAPE AREAS THAT ARE SHOWN OUTSIDE OF LANDSCAPE AREAS OR OUTSIDE OF THE PROPERTY LINES ARE SHOWN AS SUCH FOR GRAPHIC CLARITY ONLY. INSTALL THESE ITEMS INSIDE OF PROPERTY LINES AND IN LANDSCAPE AREAS.
3. PROVIDE PROOF TO THE OWNER'S REPRESENTATIVE THAT ALL AVAILABLE MAINTENANCE MANUALS FOR EACH OF THE PRODUCTS INCLUDED IN THIS INSTALLATION HAVE BEEN PROVIDED TO THE OWNER OR OWNER'S REPRESENTATIVE.
4. ANY EXISTING TREE ROOTS, WHEN ENCOUNTERED DURING INSTALLATION OF UTILITIES, SHALL BE CUT OFF EVENLY WITH CLEAN SHARP PRUNING TOOLS AND COVERED WITH SOIL AS SOON AS POSSIBLE TO REDUCE DEHYDRATION. THE CONTRACTOR/DEVELOPER SHALL MINIMIZE THE DAMAGE TO EXISTING TREE ROOT SYSTEMS.
5. CONNECT TO THE PHASE 1 STUBOUT AT THE PHASE LIMIT LINE.
6. IRRIGATION SHALL BE LOCATED MINIMUM ONE (1) FOOT FROM ANY WALL, COLUMN, OR BUILDING EDGE/FACE.
7. IRRIGATION SHALL BE DIRECTED AWAY FROM BUILDING AT ALL TIMES, SO THAT SPRAY DOES NOT HIT BUILDING FACE, COLUMN, WALL, ETC.
8. ADJUST THE IRRIGATION SYSTEM COMPONENTS AND EXISTING SYSTEM TO PROVIDE UNIFORM COVERAGE. ASSURE THAT THE SYSTEM PROVIDES 100% COVERAGE OF ALL LANDSCAPE MATERIALS INCLUDING SHRUBS, GROUND COVER, AND TREES.

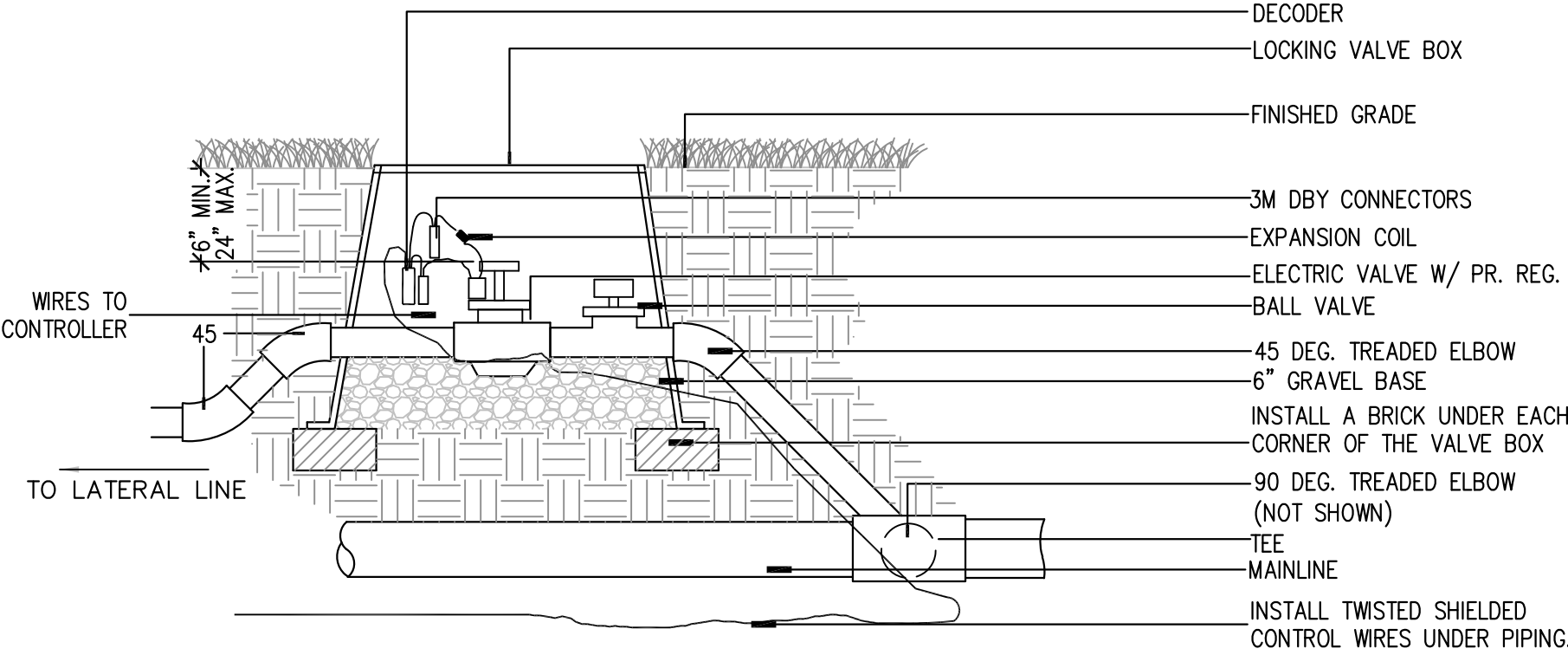


1 TREE SPRAY LOCATIONS
 SCALE: N.T.S.

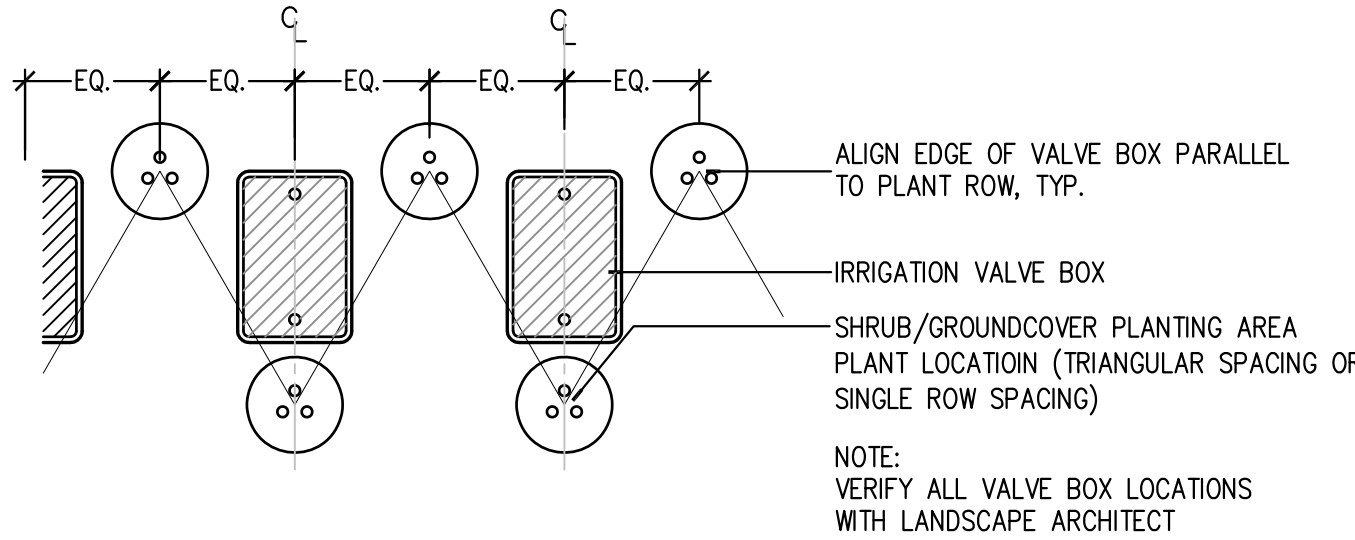


2 4" POP-UP AT GRADE
 SCALE: N.T.S.

NOTE:
 ALL VALVE BOXES SHALL
 BE MARKED WITH THE CHRISTY I.D.
 TAGS OR SUBSTITUTION ACCEPTABLE
 TO OWNER



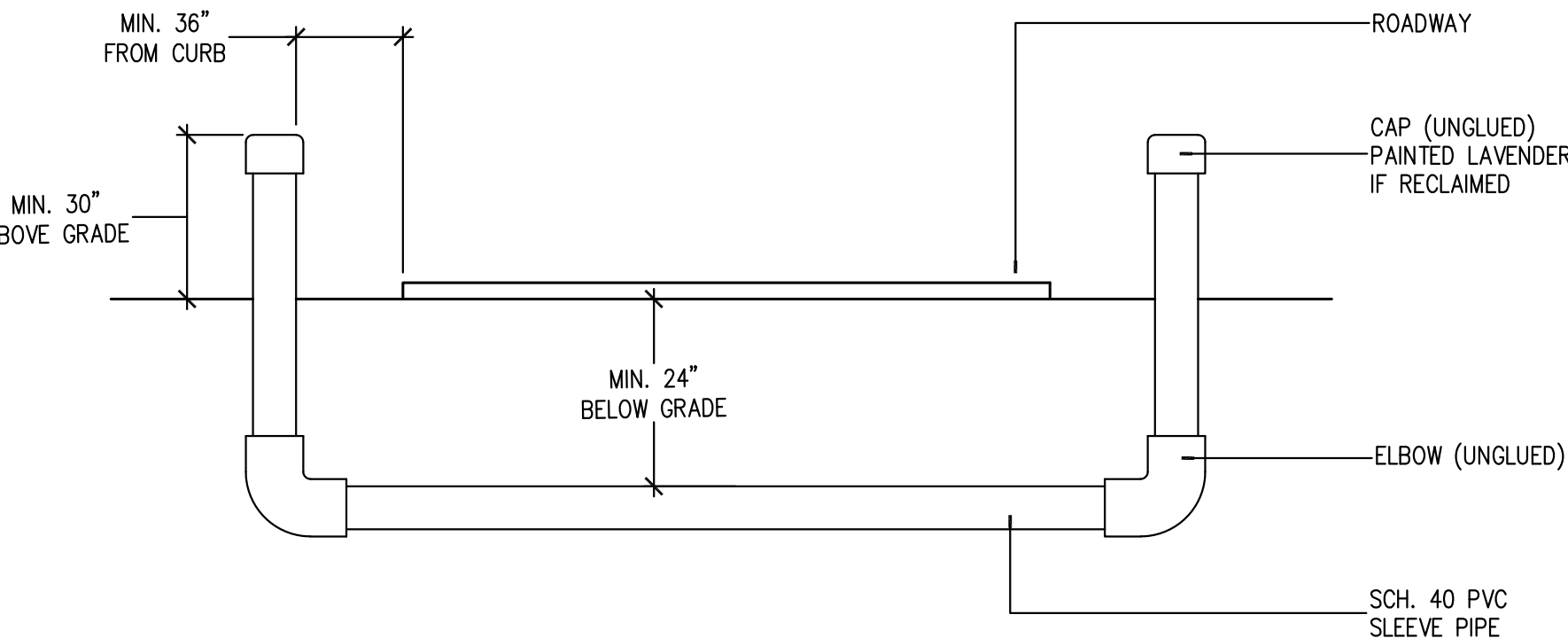
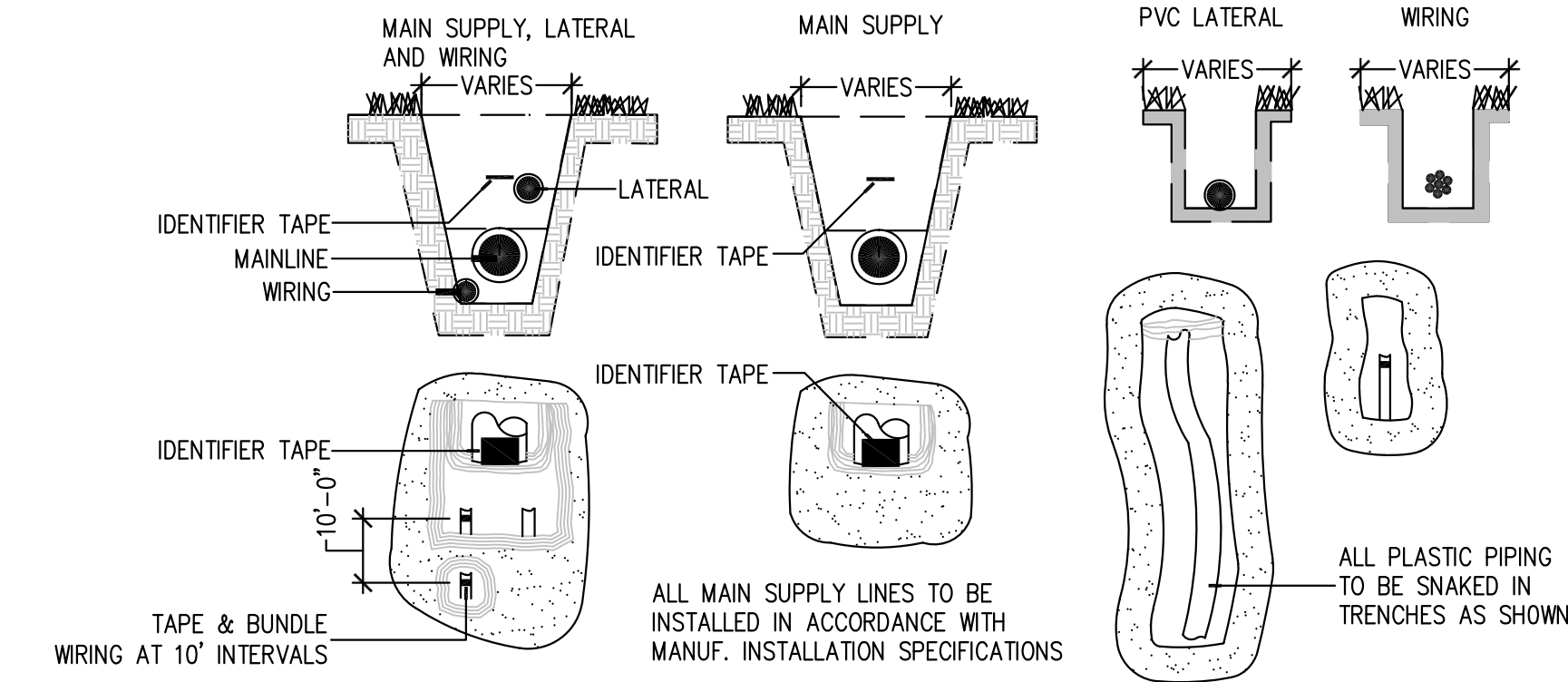
4 VALVE ASSEMBLY INSTALLATION
 SCALE: N.T.S.



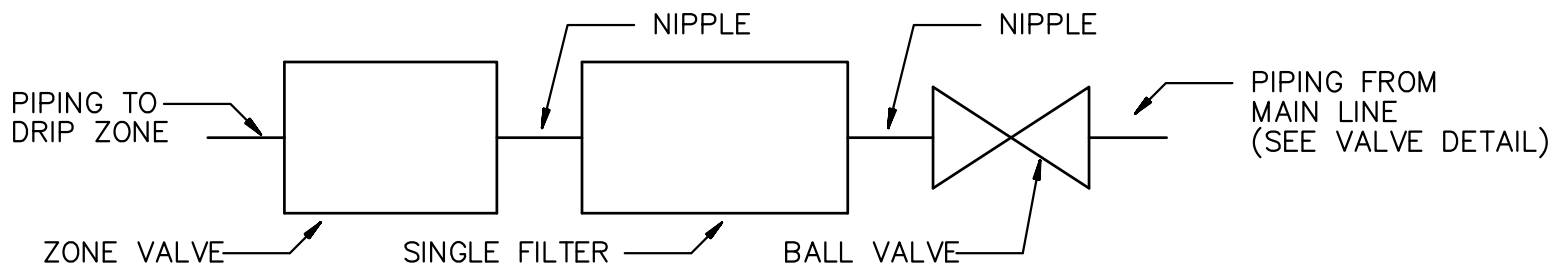
NOTE: VALVE GROUPINGS TO BE LOCATED IN TURF AREAS ONLY.

5 VALVE BOX ORIENTATION
 SCALE: N.T.S.

3 TRENCH CONSTRUCTION
 SCALE: N.T.S.



6 SLEEVE LOCATIONS
 SCALE: N.T.S.



- NOTES:
- INSTALL A SEPARATE VALVE BOX FOR EACH VALVE AND FILTER. (3) JUMBO VALVE BOXES
 - INSTALL FILTER IN ORIENTATION THAT ALLOWS REMOVAL OF CAP FOR FLUSHING (UPWARD)
 - INSTALL A FILTER UPSTREAM OF EACH VALVE.

7 VALVE WITH FILTER SCHEMATIC
 SCALE: N.T.S.

PROJECT NAME:

SAN
 FELASCO
 TECH CITY
 PHASE 2

Alachua, FL

for
 Laser Investment
 Group

SEAL:

PROJECT NO: 18-035
 CLIENT'S NO.: 18-162
 ISSUED FOR: SITE PLAN REVIEW

ISSUED DATE: 17 JAN 2019
 REVISIONS:

20 FEB 2019
 14 MAR 2019
 26 MAR 2019

SCALE:

AS SHOWN

SHEET TITLE:
 IRRIGATION
 NOTES AND
 DETAILS

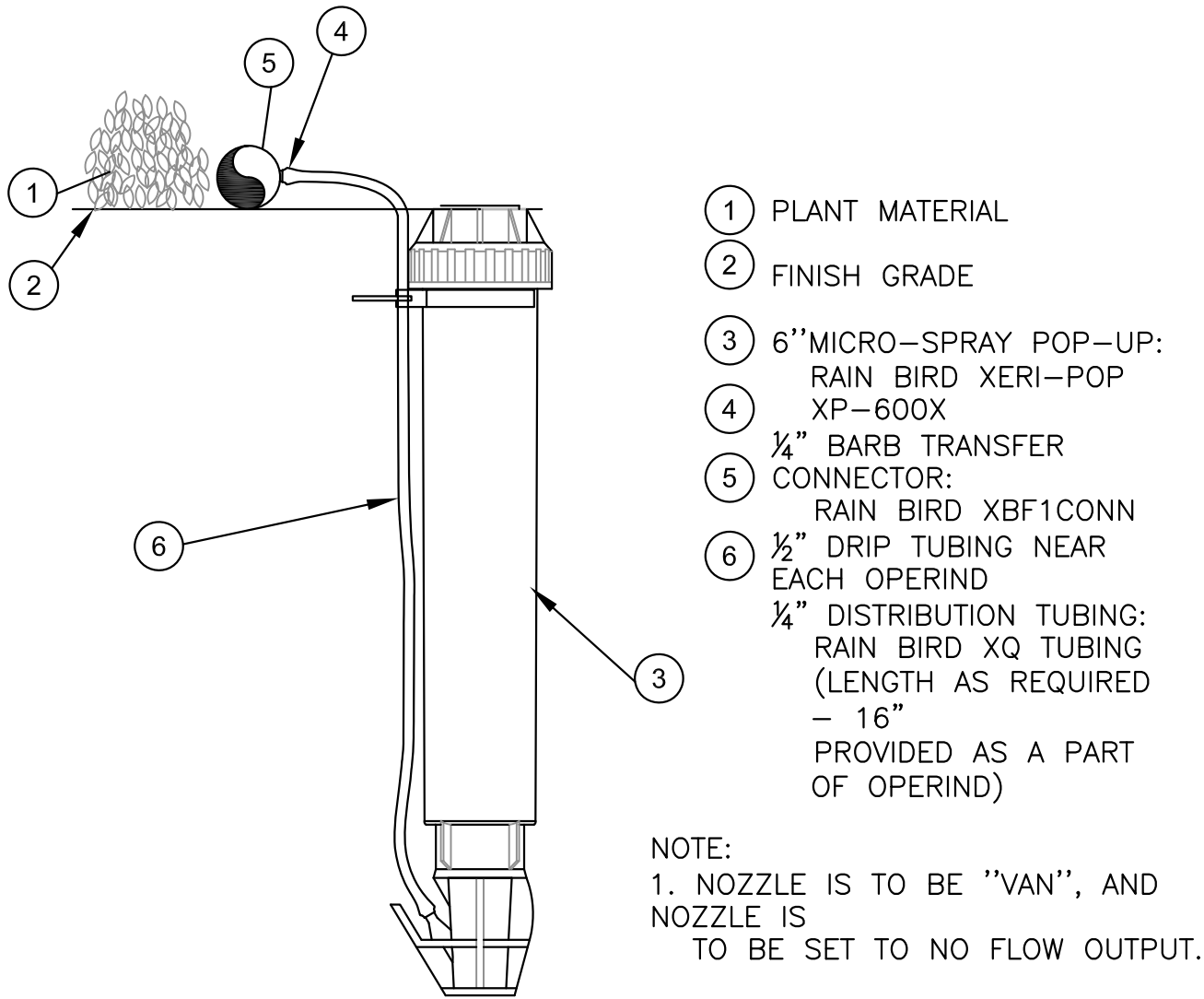
SHEET NUMBER:

L-301

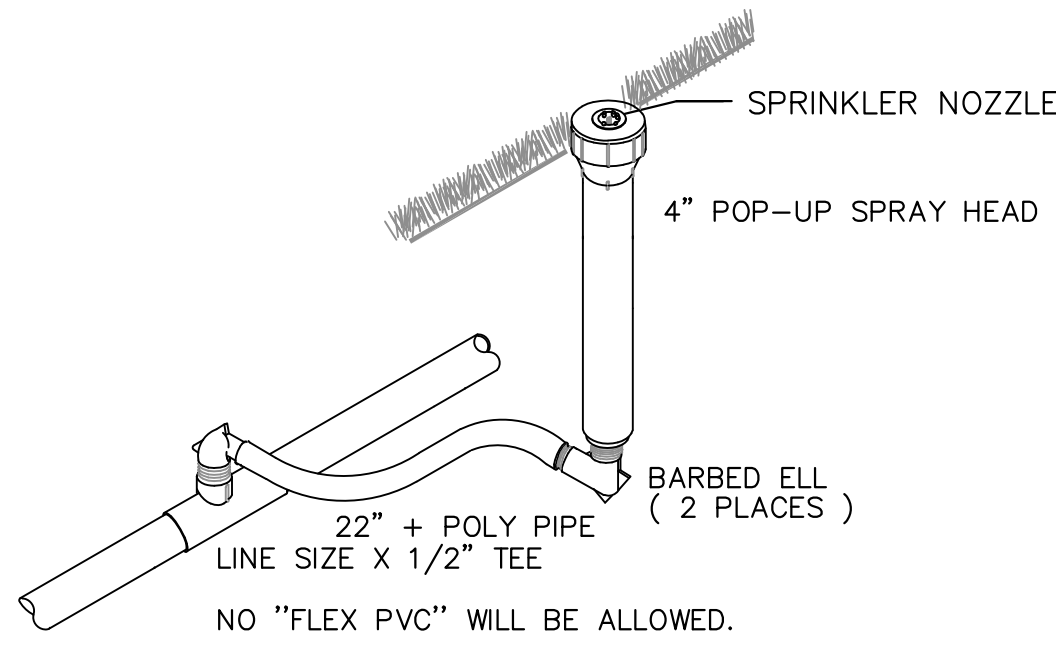
PLOTDATE: 03/26/2019 2:40 PM USER: ELISABETH MANLEY
FILENAME: C:\USERS\ELISABETH MANLEY\BOX\PROJECT\2018\18-090 TECH CITY 2 - EDA\GA_PRODUCTION\02_SPP & CD\2019-03-26 SPR 5\01_SHEETS\18090_IRR DET.DWG

DRIP IRRIGATION NOTES

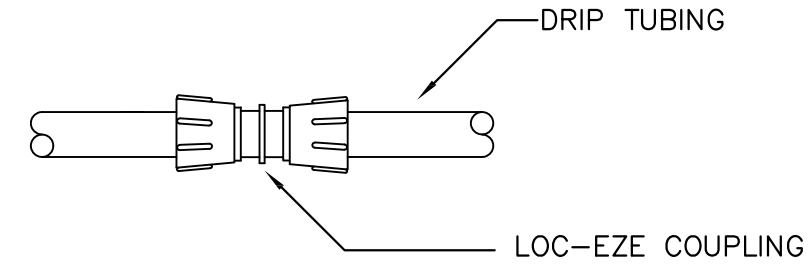
1. INSTALL TORO DL2000 TUBING WITH ALL FITTINGS AS NECESSARY FOR ALL DRIP TUBING (GROUND COVER AND SHRUB) APPLICATIONS.
2. INSTALL A LINE OF TUBING 2" TO 4" FROM HARDSCAPE AND BEDLINES.
3. INSTALL A MINIMUM OF 2 ROWS OF TUBING IN ANY AREA.
4. INSTALL TUBING AT FINISHED GRADE UNDER THE MULCH.
5. LOOP ALL RUNS OF TUBING WITH A MAXIMUM LOOP DISTANCE FROM THE SUPPLY MANIFOLD OF 300'.
6. INSTALL ONE TORO T-ALFD15150-L 1.5" FILTER WITH A STAINLESS STEEL 150 MESH (104 MICRONS) SCREEN FOR EACH VALVE.
7. INSTALL A TORO #T-FCH-H-FIPT FLUSHING VALVE AT EACH OF THE AIR/VACUUM RELIEF VALVE LOCATIONS WITH ALL FITTINGS AS NECESSARY TO FLUSH THE SYSTEM INTO THE LANDSCAPE, WHEN NECESSARY.
8. INSTALL A TORO #T-YD-500-34 VACUUM/AIR RELIEF VALVE AT THE OPPOSITE ENDS OF THE LOOPED NETWORK AND AT THE TERMINATION OF THE SUPPLY MANIFOLD FROM THE AUTOMATIC VALVE. INSTALL A MANUAL LINE FLUSHING VALVE AT EACH LOCATION.
9. INSTALL A RAIN BIRD "OPERIND" AT EACH VACUUM/AIR RELIEF VALVE LOCATION.
10. DRIP TUBING QUANTITIES ON PLANS ARE APPROXIMATE. CONTRACTOR TO VERIFY EXACT QUANTITIES. CONTRACTOR TO BE PAID FOR ACTUAL QUANTITY OF DRIP TUBING AND BLANK TUBING INSTALLED UP TO A MAXIMUM AS SHOWN ON THE PLANS.
11. QUANTITIES ON PLANS DO NOT INCLUDE BLANK TUBING, LINE FLUSHING VALVES, AIR RELIEF VALVES OR PVC HEADERS. INCLUDE THESE ITEMS AND ANY OTHER ITEMS NECESSARY FOR A FULLY FUNCTIONING AUTOMATIC SYSTEM IN BID AND INSTALLATION.
12. INSTALL LANDSCAPE STAPLES 6' O.C. AND ANYWHERE ELSE NECESSARY TO SECURE TUBING TO THE GROUND.
13. FOLLOW THE MANUFACTURER'S INSTALLATION GUIDELINES INCLUDED WITH THE PRODUCTS.
14. DO NOT CURVE TUBING TO LOOP AT THE ENDS OF RUNS. INSTEAD USE (2) 90 DEG. FITTINGS AND A SHORT PIECE OF TUBING.



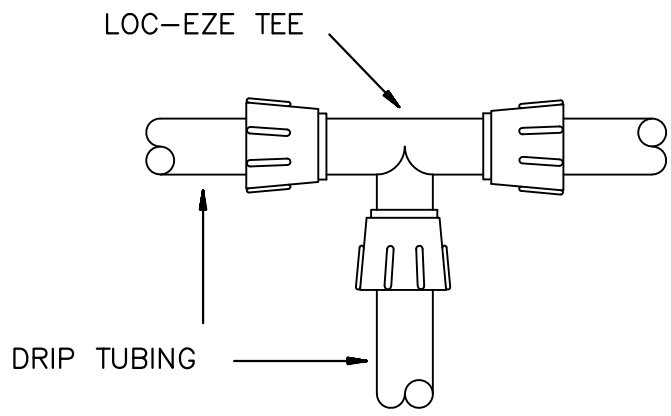
1 RAIN BIRD OPERIND CONNECTION
SCALE: N.T.S.



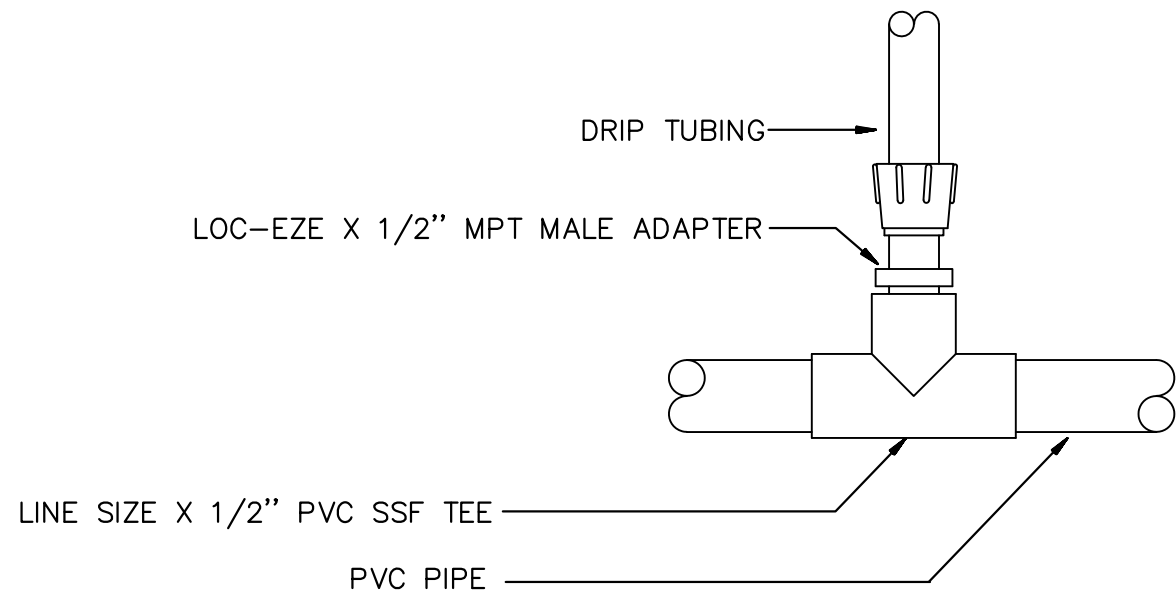
2 SPRAY HEAD AT GRADE
SCALE: N.T.S.



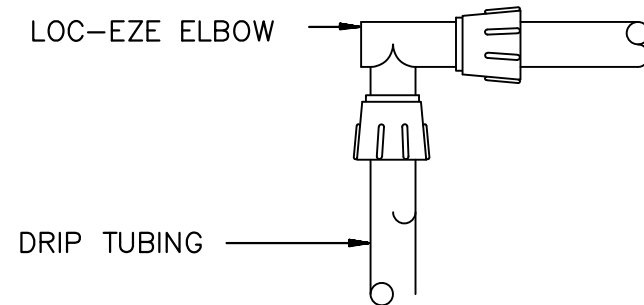
3 LOC-EZE COUPLING (T-FCC16)
SCALE: N.T.S.



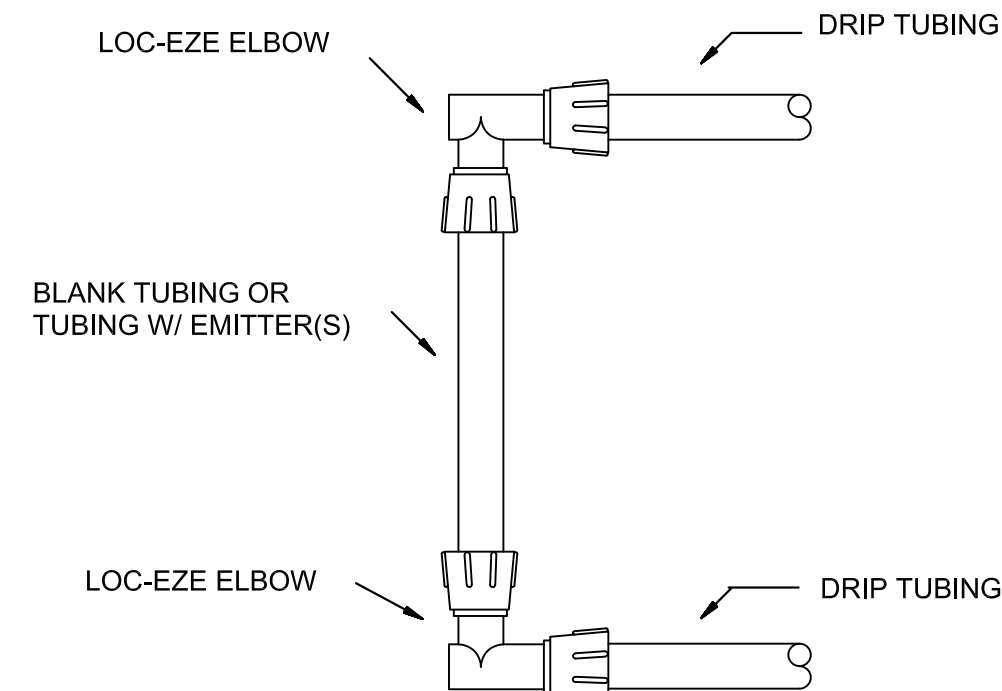
4 LOC-EZE TEE (T-FTT16)
SCALE: N.T.S.



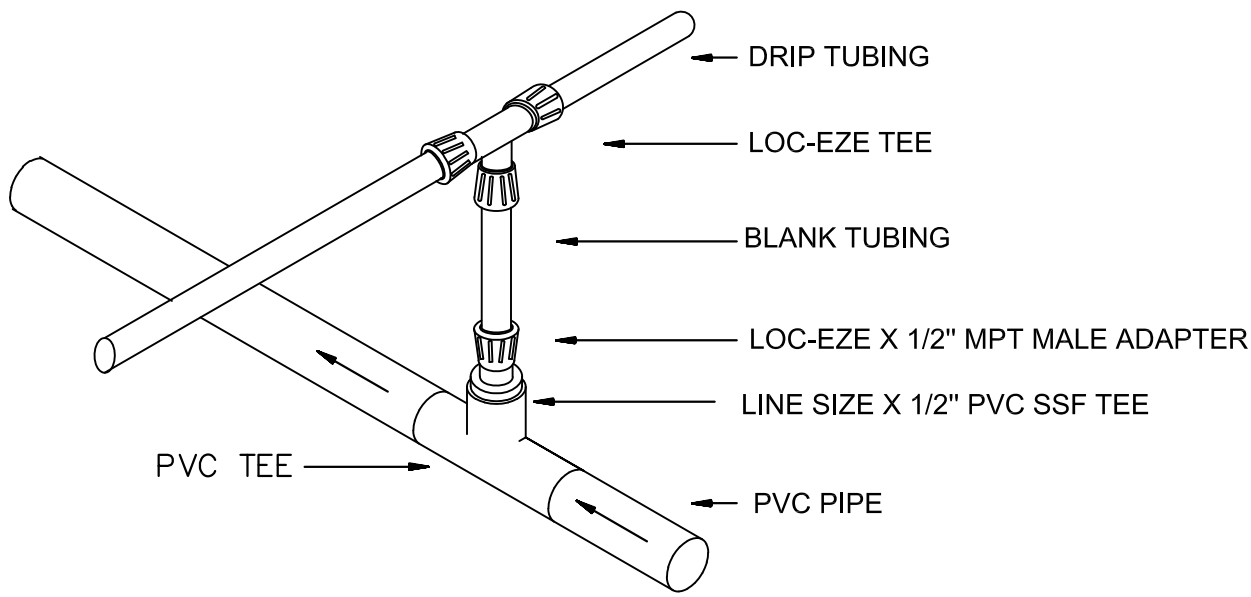
5 MANIFOLD CONNECTION (PVC TO ADAPTER)
SCALE: N.T.S.



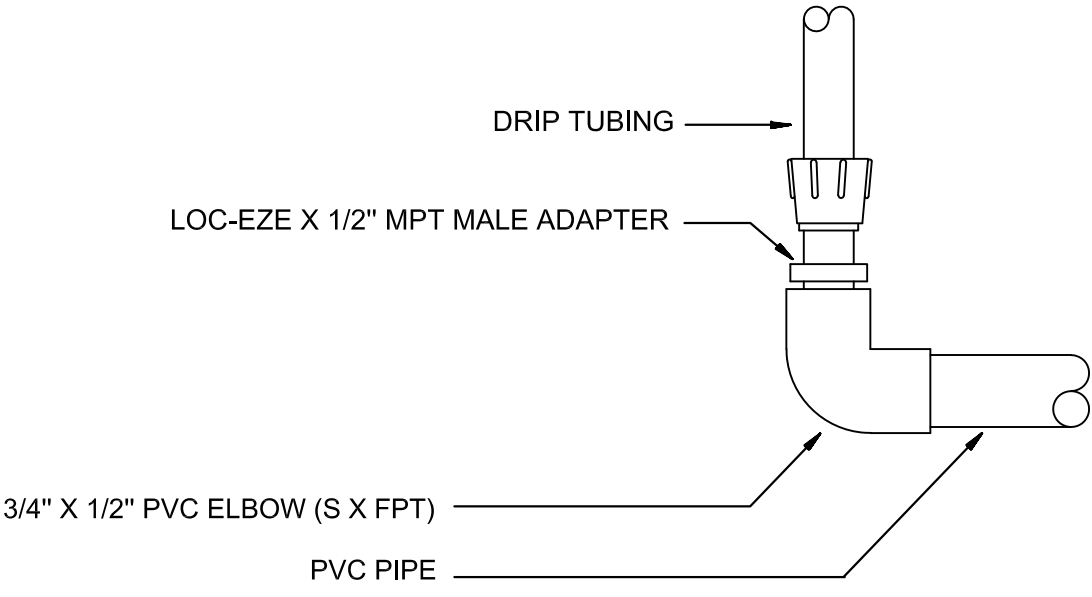
6 LOC-EZE ELBOW (T-FEEE16)
SCALE: N.T.S.



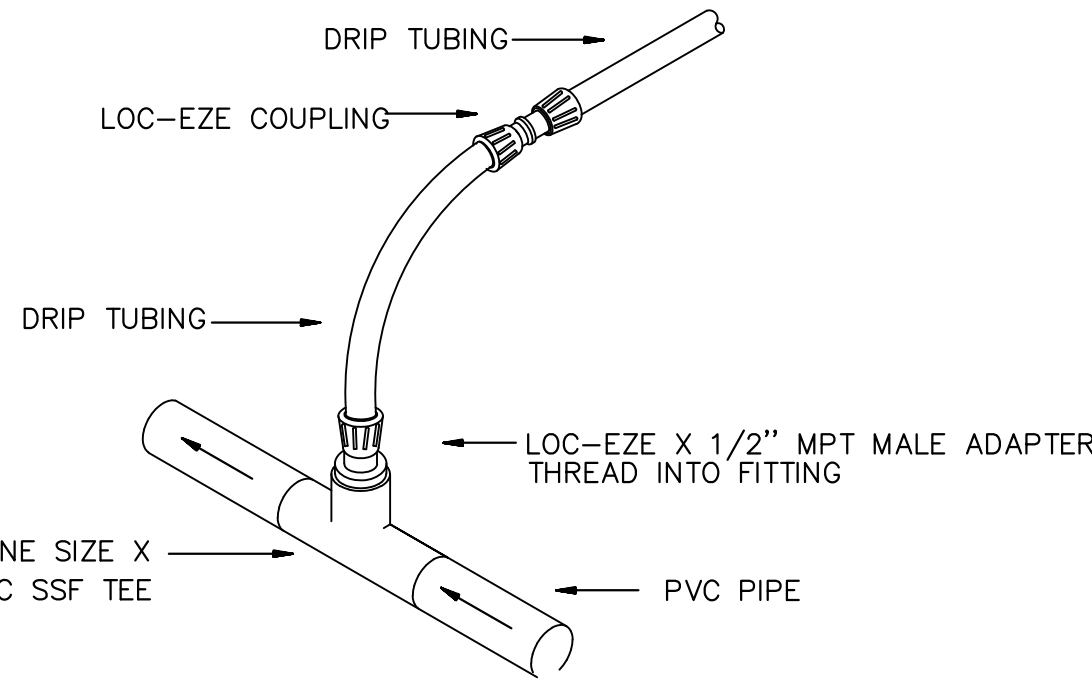
7 LOC-EZE ELBOW LOOP
SCALE: N.T.S.



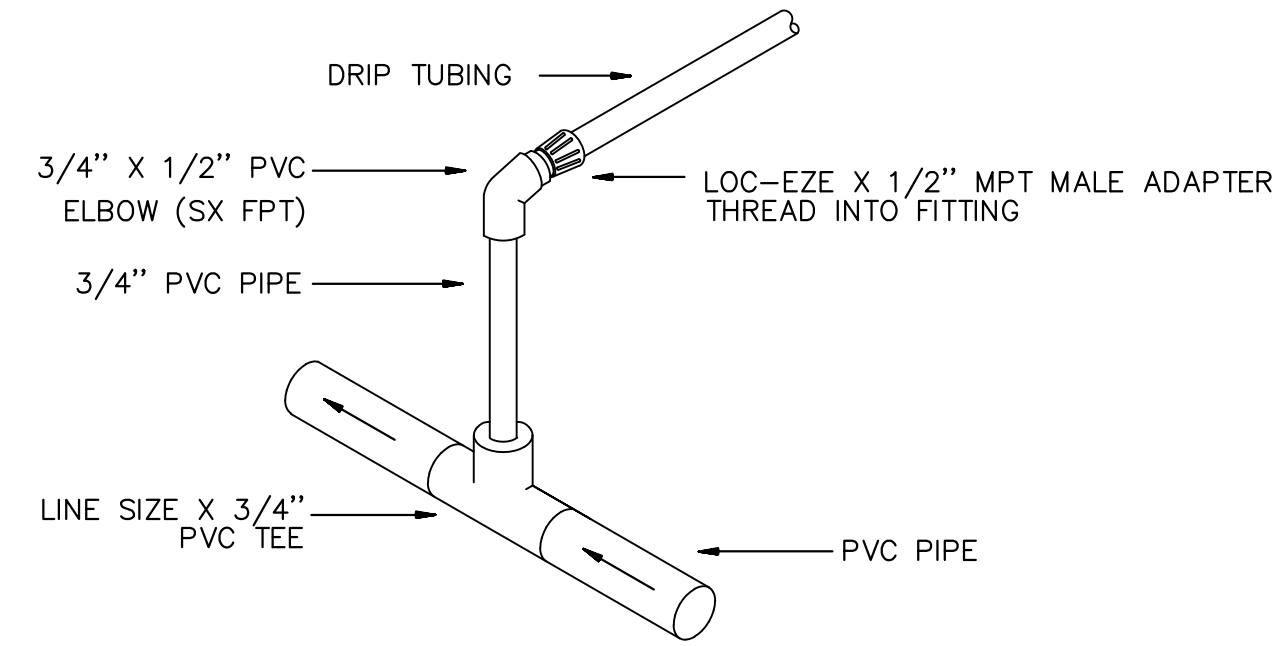
8 MANIFOLD CONNECTION (CENTER FEED)
SCALE: N.T.S.



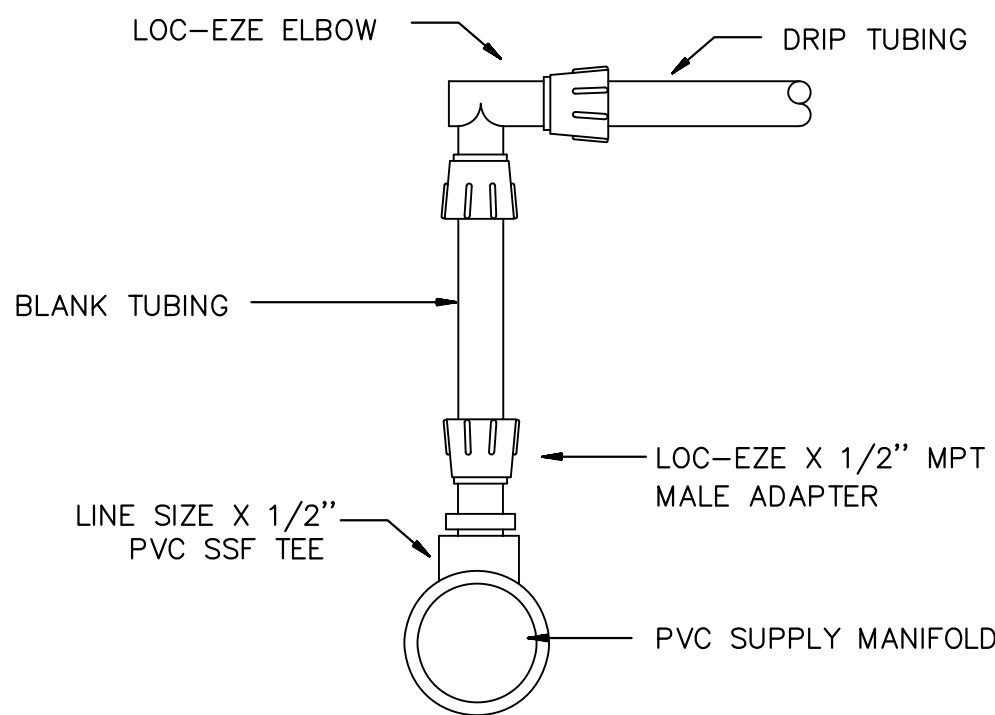
9 MANIFOLD CONNECTION (PVC TO ADAPTER)
SCALE: N.T.S.



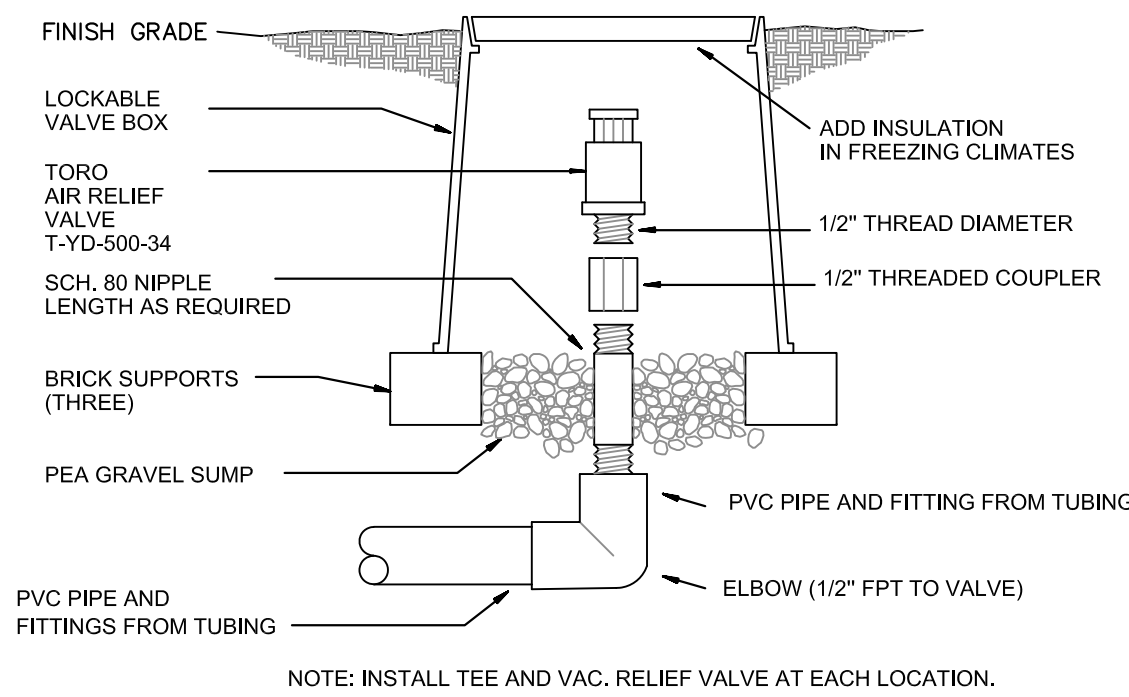
10 BLANK DL2000 DRIPLINE RISER
SCALE: N.T.S.



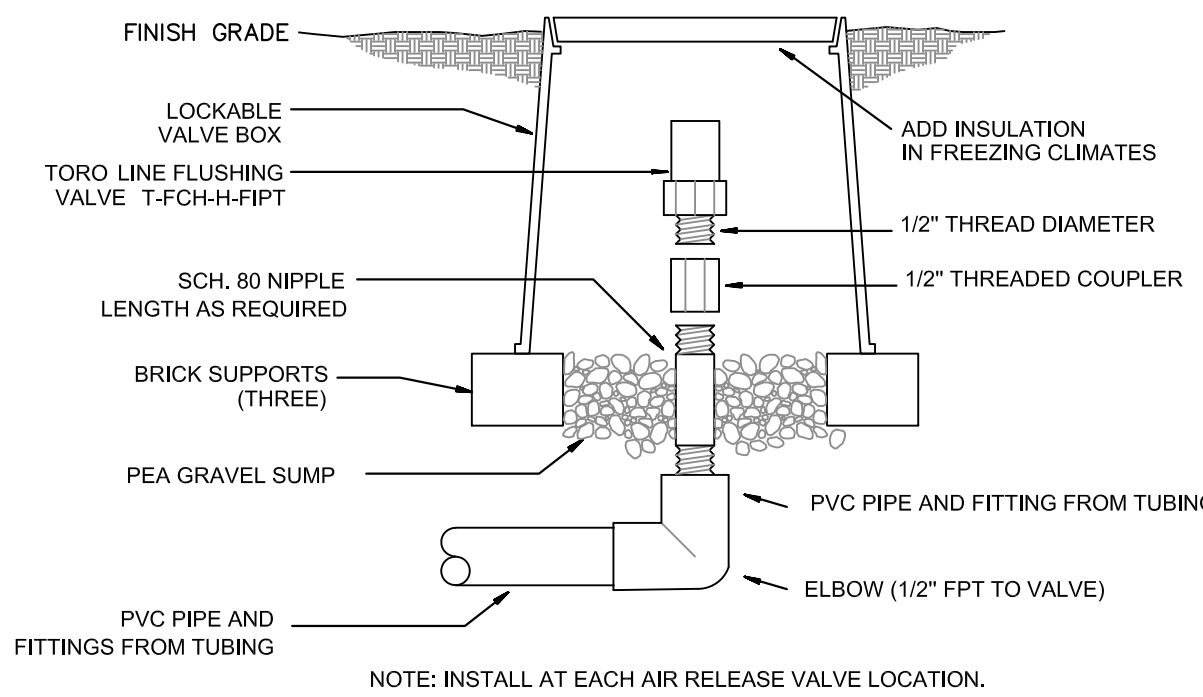
11 MANIFOLD (PVC) CONN. (END FEED)
SCALE: N.T.S.



12 LOC-EZE ELBOW TO LOC-EZE ADAPTER CONNECTION
SCALE: N.T.S.



13 AIR RELIEF VALVE
SCALE: N.T.S.



14 FLUSHING VALVE
SCALE: N.T.S.

SAN
FELASCO
TECH CITY
PHASE 2

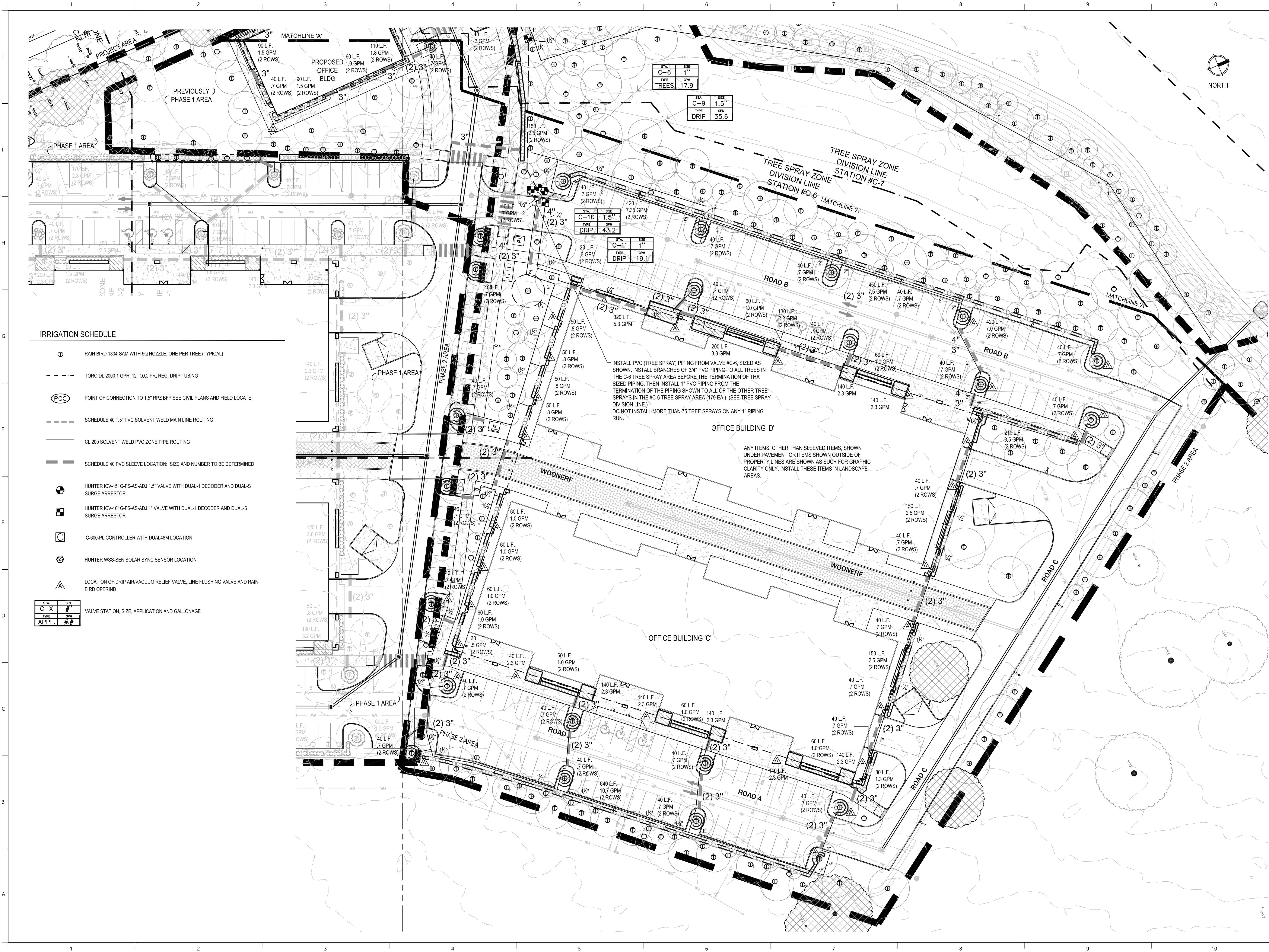
Alachua, FL

for
Laser Investment
Group

AS SHOWN

IRRIGATION
NOTES AND
DETAILS

PLOTDATE: 03/26/2019 3:02 PM USER: ELISABETH MANLEY
FILENAME: C:\USERS\ELISABETH MANLEY\BOX\PROJECT\2018\18-030 TECH CITY 2 - EDA\04_PRODUCTION\02_SPP & CD\2019-03-26 SPR 5\01_SHEETS\18090_IRR PLAN_CDS REVIEWG



IRRIGATION SCHEDULE

- RAIN BIRD 1804-SAM WITH 50 NOZZLE, ONE PER TREE (TYPICAL)
- TORO DL 2000 1 GPH, 12" O.C. PR. REG. DRIP TUBING
- POINT OF CONNECTION TO 1.5" RPZ BFP SEE CIVIL PLANS AND FIELD LOCATE.
- SCHEDULE 40 1.5" PVC SOLVENT WELD MAIN LINE ROUTING
- CL 200 SOLVENT WELD PVC ZONE PIPE ROUTING
- SCHEDULE 40 PVC SLEEVE LOCATION: SIZE AND NUMBER TO BE DETERMINED
- HUNTER ICV-151G-FS-AS-ADJ 1.5" VALVE WITH DUAL-1 DECODER AND DUAL-S SURGE ARRESTOR
- HUNTER ICV-101G-FS-AS-ADJ 1" VALVE WITH DUAL-1 DECODER AND DUAL-S SURGE ARRESTOR
- IC-600-PL CONTROLLER WITH DUAL48M LOCATION
- HUNTER WSS-SEN SOLAR SYNC SENSOR LOCATION
- LOCATION OF DRIP AIR/VACUUM RELIEF VALVE, LINE FLUSHING VALVE AND RAIN BIRD OPERIND

STA.	SIZE	#
C-X	1"	
TYPE	GPM	
APPL.	#	

PROJECT NAME:

SAN
FELASCO
TECH CITY
PHASE 2

Alachua, FL

for
Laser Investment
Group

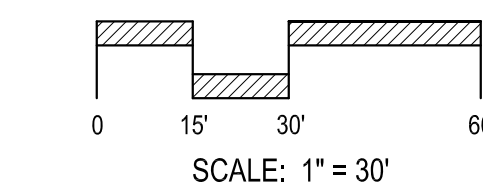
SEAL:

PROJECT NO: 18-035
CLIENT'S NO: 18-162
ISSUED FOR: SITE PLAN REVIEW

ISSUED DATE: 17 JAN 2019
REVISIONS:

20 FEB 2019
14 MAR 2019
26 MAR 2019

SCALE:



SHEET TITLE:

IRRIGATION
SCHEDULE AND
PLAN

SHEET NUMBER:

L-303

PROJECT NAME:

Alachua, FL

for
**Laser Investment
Group**

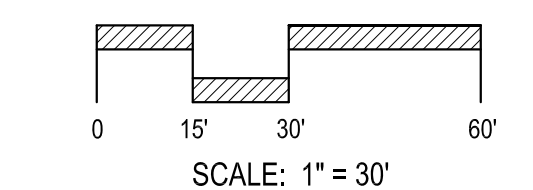
SEAL:

PROJECT NO: 18-035
CLIENT'S NO.: 18-162
ISSUED FOR: **SITE PLAN REVIEW**

ISSUED DATE: 17 JAN 2019
REVISIONS:

20 FEB 2019
14 MAR 2019
26 MAR 2019

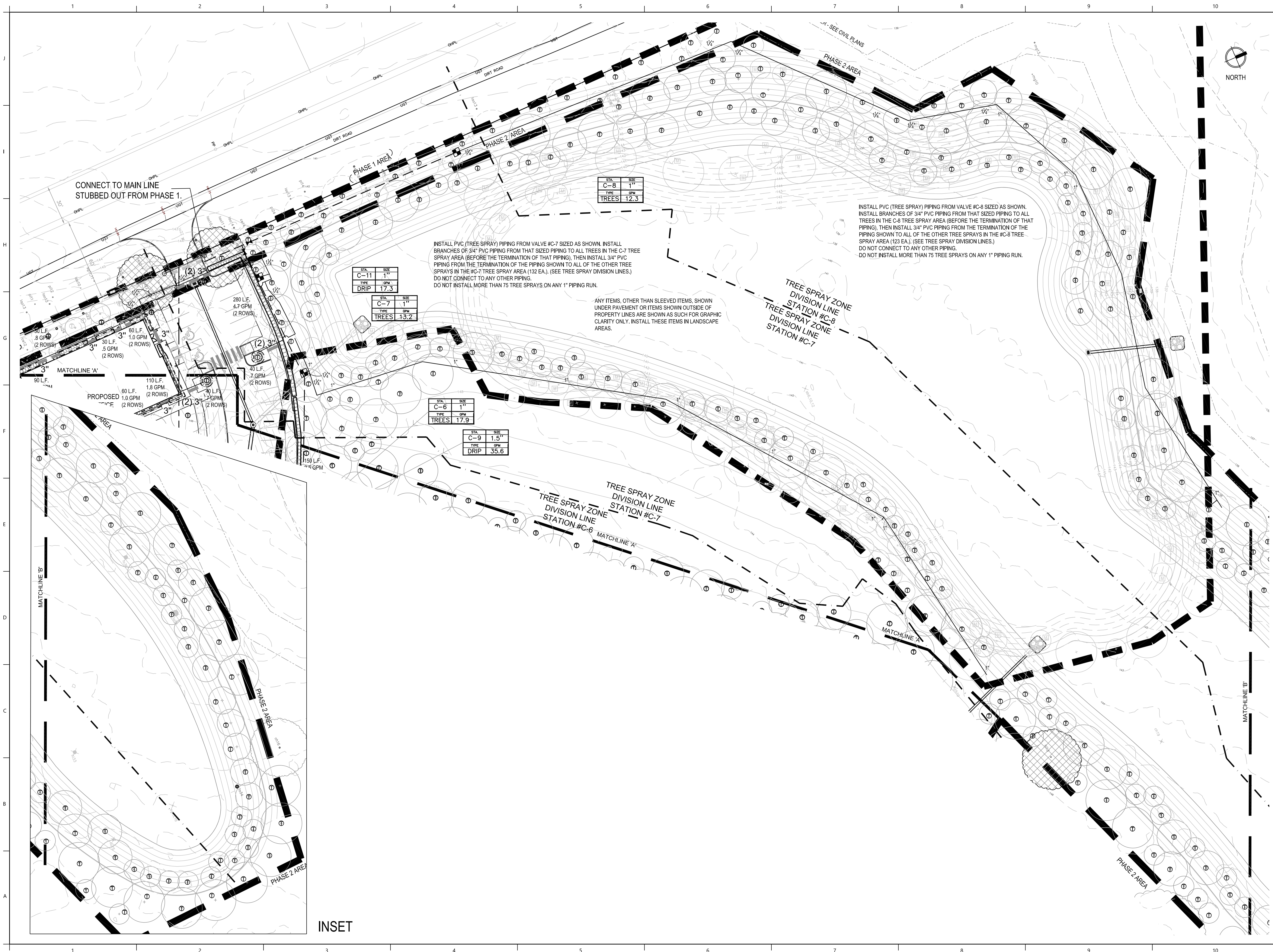
SCALE:



SHEET TITLE:

SHEET NUMBER:

L-304



PLOTDATE: 03/26/2019 3:04 PM USER: ELISABETH MANLEY
FILENAME: C:\USERS\ELISABETH MANLEY\BOX\PROJECT\2018\18-090 TECH CITY 2 - EDA\04_PRODUCTION\02_SFR & CD\2019-03-26 SPR 5'01_SHEETS\18090_IRR PLAN CDS REV.DWG

PLOTDATE: 03/26/2019 2:41 PM USER: ELISABETH MANLEY
FILENAME: C:\USERS\ELISABETH MANLEY\BOX\PROJECT\2018\18-090 TECH CITY 2 - EDA\04_PRODUCTION\02_L_SPR & CD\2019-03-26 SPR 5\01_SHEETS\18090_IRR DET.DWG

PART 1 – GENERAL

DESCRIPTION

FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND TRANSPORTATION, UNLESS OTHERWISE SPECIFIED, NECESSARY TO PROVIDE AN AUTOMATIC IRRIGATION SYSTEM FOR LANDSCAPE PLANT MATERIALS AND TURF AND MULCH AREAS.

APPLICABLE STANDARDS

AMERICAN SOCIETY OF AGRICULTURAL ENGINEERS S376.1, "DESIGN, INSTALLATION AND PERFORMANCE OF UNDERGROUND, THERMOPLASTIC IRRIGATION PIPELINES."

ASTM D2774, "UNDERGROUND INSTALLATION OF THERMOPLASTIC PRESSURE PIPING."

ASTM D1785, POLY (VINYL CHLORIDE) (PVC) PLASTIC PIPE, SCHEDULES 40, 80, AND 120.

ASTM D2241 POLY (VINYL CHLORIDE) (PVC) PLASTIC PIPE (SDR–PR).

SUBSTITUTIONS

WHEREVER BRAND NAMES ARE USED IN THESE SPECIFICATIONS, USE ONLY THE BRAND SPECIFIED. MAKE NO SUBSTITUTIONS AS A PART OF THIS BID PACKAGE.

PART 2 – MATERIALS

PIPE

FURNISH ALL UNDERGROUND PIPING AS PVC EXCEPT FOR ANY FLEXIBLE POLYETHYLENE (POLY PIPE) PIPING THAT IS TO BE USED BETWEEN THE LATERALS AND SPRINKLER HEADS. ALL PVC PIPE SHALL BE CL 200 PIPE OR BETTER.

SIZE EACH SLEEVE AT LEAST TWICE (2X) THE SIZE OF THE PIPE BEING ROUTED THROUGH IT. INSTALL EACH CONTROL WIRE SLEEVE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES BEING ROUTED THROUGH IT UNDER THE AREA SPECIFIED. CONSULT WITH THE OWNER OR OWNER'S REPRESENTATIVE FOR THE LOCATION, DEPTH, NUMBER AND SIZE OF ANY AVAILABLE EXISTING SLEEVES.

INSTALL ANY ABOVE GROUND PIPE AS GALVANIZED PIPE.

PIPE FITTINGS

FOR MAIN LINE PVC PIPE FITTINGS, USE PVC SCH. 40 FITTINGS AND USE THREADED FITTINGS FOR CONNECTION TO VALVES.

FOR PVC ZONE PIPE, USE SCHEDULE 40, SOLVENT WELD FITTINGS, MANUFACTURED FROM PVC 12454–B COMPOUND AND TESTED IN ACCORDANCE WITH ASTM D2466, EXCEPT FOR THREADED FITTINGS. FOR THREADED APPLICATIONS, USE SCHEDULE 80 FITTINGS MANUFACTURED FROM PVC 12454– B COMPOUND AND TESTED IN ACCORDANCE WITH ASTM D2467.

CONNECT ALL "POLY PIPE" AND RISER ASSEMBLIES TO THE IRRIGATION PIPELINE WITH A SCHEDULE 80 TEE, AS DESCRIBED ABOVE.

DO NOT USE MALE ADAPTERS FOR ANY APPLICATIONS. INSTEAD, USE A "TOE" NIPPLE GLUED INTO A SCHEDULE 40 COUPLER.

SEE DETAILS FOR SPRINKLER TO PIPE CONNECTIONS. NO "FLEX PVC" IS ALLOWED.

SOLVENT CEMENT AND PRIMER

USE A MEDIUM OR HEAVY BODY GRAY SOLVENT CEMENT MANUFACTURED IN ACCORDANCE WITH ASTM D2564 AND PRIMER MANUFACTURED IN ACCORDANCE WITH ASTM F656.

TREE SPRAYS

INSTALL RAIN BIRD 1804–SAM SPRINKLERS WITH 5Q NOZZLES FOR ALL TREE SPRAY APPLICATIONS.

DRIP TUBING

INSTALL TORO DL2000 PRESSURE COMPENSATING .9 GPH, 12" O.C. TUBING FOR ALL DRIP LINE APPLICATIONS.

DRIP TUBING FITTINGS

INSTALL TORO TUBING FITTINGS FOR ALL DRIP LINE APPLICATIONS.

VALVE BOXES

USE 12 X 18 VALVE BOXES FOR ALL APPLICATIONS.

ELECTRIC VALVES

USE HUNTER ELECTRIC VALVES WITH PRESSURE REGULATORS AND DECODERS FOR ALL APPLICATIONS.

CONTROLLER

USE A HUNTER 6–STATION CONTROLLER PER LEGEND WITH DUAL48M AND A SOLAR SYNC SENSOR FOR THIS SYSTEM.

1 IRRIGATION SPECIFICATIONS

SCALE: N/A

WIRE

USE U.L. U.F. WIRE APPROVED FOR DIRECT BURIAL UNDERGROUND FOR ALL 24 VAC APPLICATIONS.

USE #14 TWSTED SHIELDED PAIR WIRE FOR ALL COMMUNICATION WIRES.

USE #14 AWG U.L. U.F. WIRE FOR ALL VALVE DECODER TO VALVE WIRES.

PART 3 – EXECUTION

GENERAL

INSTALL PVC PIPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. REVIEW CONSTRUCTION PLANS WITH THE OWNER OR OWNER'S REPRESENTATIVE BEFORE ANY WORK BEGINS. THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT/OWNER PRIOR TO INSTALLATION IF THERE IS ANY DOUBT AS TO HEAD LINE OR ZONE PLACEMENT.

INSPECT THE CONSTRUCTION SITE BEFORE ANY WORK BEGINS AND FLAG LOCATIONS OF MAINLINE PIPE, SLEEVES, HEADS AND VALVES FOR REVIEW BY THE OWNER'S REPRESENTATIVE. FLAGS SHALL BE CLEARLY MARKED OR COLORED TO DESIGNATE THE TYPE OF EQUIPMENT TO BE INSTALLED AT THAT POINT. INSTALLATION SHALL NOT COMMENCE UNTIL THE STAKING/ FLAGGING HAS BEEN APPROVED.

COORDINATE THE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE CONTRACTOR TO PROVIDE FOR CORRECT APPLICATION OF WATER TO THE PLANT MATERIAL.

PIPE TRENCH CONSTRUCTION

PROVIDE FOR A MINIMUM DEPTH OF COVER OF 18" FOR ALL MAIN LINE PIPE AND 12" OF COVER FOR ALL ZONE PIPE AS MEASURED FROM FINISHED GRADE.

PROVIDE THE MINIMUM DEPTH OF COVER, AS SPECIFIED ABOVE, OVER THE TOP OF THE PIPE BEFORE THE TRENCH IS WHEEL–LOADED.

BACK FILL

PROVIDE INITIAL BACK FILL MATERIAL THAT IS FINE–GRAINED MATERIAL FREE FROM COMPACTED EARTH GREATER THAN TWO INCHES IN DIAMETER, ROCKS, OR STONES.

TAMP THE BACK FILL IN LAYERS NOT TO EXCEED SIX INCHES. LIFT AND COMPACT FIRMLY AROUND THE PIPE AND UP TO AT LEAST SIX INCHES ABOVE THE TOP OF THE PIPE. SUFFICIENTLY MOISTEN THE BACK FILL TO PERMIT THOROUGH COMPACTION UNDER AND ON EACH SIDE OF THE PIPE TO PROVIDE SUPPORT FREE FROM VOIDS. AVOID DEFORMING, DISPLACING, OR DAMAGING PIPE DURING THIS PHASE OF THE OPERATION. ASSURE THAT WHEN FINISHED, THE SOIL COMPACTION EQUALS THE ORIGINAL CONDITION.

FITTING AND PIPE CONNECTIONS

SQUARE CUT, CLEAN AND PRIME ALL JOINTS BEFORE CEMENTING.

FULLY ENGAGE ALL JOINTS WHILE CEMENTING.

PVC FITTINGS – MAKE ALL SOLVENT WELD JOINTS IN ACCORDANCE WITH ASTM D2855. PRIME ALL FITTINGS WITH PURPLE PRIMER BEFORE MAKING SOLVENT WELD CONNECTIONS. ALLOW SOLVENT WELDED JOINTS AT LEAST ONE (1) HOUR TO SET UP BEFORE MOVING OR HANDLING. DO NOT PERMIT WATER IN THE PIPE FOR AT LEAST TWENTY–FOUR HOURS AFTER MAKING A SOLVENT WELD ON THAT PIPE UNLESS RECOMMENDED OTHERWISE BY THE SOLVENT CEMENT MANUFACTURER. SEAL ALL THREADED PVC FITTINGS WITH LIQUID TEFLON EXCEPT SPRINKLER HEADS, ELECTRIC VALVE CONNECTIONS AND SWING JOINTS. INSTALL ALL OF THESE EXCEPTIONS USING ONE INCH TEFLON TAPE.

FLUSHING PIPELINES

FLUSH ALL PIPELINES BEFORE SPRINKLERS ARE INSTALLED. MAINTAIN A MINIMUM PIPE VELOCITY OF THREE FEET PER SECOND AND FLUSH FOR A MINIMUM TIME OF:

T = 2L/3 WHERE T = TIME IN SECONDS
& L = PIPE LENGTH IN FEET FROM INLET POINT TO MOST DISTANT POINT IN PIPELINE.

INSTALLING ELECTRIC VALVE CONTROL WIRING

INSTALL WIRING IN THE SAME TRENCH AND ALONG THE SAME ROUTE AS, AND UNDERNEATH THE MAIN LINE EXCEPT IN LOCATIONS WHERE THE WIRE WILL PASS UNDER PAVING. AT THOSE LOCATIONS INSTALL THE WIRE INSIDE OF A PVC SLEEVE. INSTALL CONTROL WIRING THROUGH WALLS, FLOORS, AND SLABS IN PVC SLEEVES. INSTALL (2) EXTRA WIRES POWER FROM EACH CONTROLLER TO THE FARTHEST VALVE IN EACH DIRECTION OPERATED BY THAT CONTROLLER.

TAPE WIRING TOGETHER AT INTERVALS OF TEN FEET, USING 1/4 INCH FIBER REINFORCED TAPE.

USE A CONTINUOUS WIRE BETWEEN THE CONTROLLER AND VALVE. MAKE AN EXPANSION LOOP OF A MINIMUM 12 INCHES DIAMETER AT EACH WIRE CONNECTION. PROVIDE EXPANSION COILS OF WIRE AT NO MORE THAN 100 FOOT INTERVALS AND AT EACH DIRECTION CHANGE IN THE WIRE ROUTING.

ATTACH PERMANENT MARKINGS AT EACH END OF EACH WIRE TO IDENTIFY IT BY VALVE NUMBER. (CHRISTIE I.D. TAGS OR EQUAL)

PROVIDE A SEPARATE POWER WIRE FOR EACH CONTROL VALVE.

AUTOMATIC CONTROLLER INSTALLATION

LOCATION – VERIFY LOCATION WITH OWNER OR OWNER'S REPRESENTATIVE BEFORE INSTALLATION.

VERIFY THAT SUFFICIENT SLEEVING EXISTS TO ALLOW ROUTING OF THE VALVE WIRING FROM THE CONTROLLER TO EACH VALVE.

VALVE INSTALLATION

INSTALL ALL AUTOMATIC ZONE VALVES AND GATE VALVES IN VALVE BOXES. NUMBER EACH ZONE VALVE BOX ON THE UNDERSIDE AND TOPSIDE OF EACH VALVE BOX COVER WITH BLACK WATERPROOF MARKER FOR REFERENCE.

INSTALL ANY MAIN LINE ISOLATION VALVES AND QUICK COUPLING VALVES IN VALVE BOXES.

INSTALLATION OF SPRAY HEADS.

INSTALLATION SCHEDULE – INSTALL SPRAY HEADS AFTER THE SPRINKLER BODY ASSEMBLIES HAVE BEEN CLEANLY FLUSHED.

ORIENTATION – INSTALL POP–UP UNITS IN A PLUMB POSITION AND FIELD ADJUST SPRINKLER HEADS TO OBTAIN COMPLETE COVERAGE OF IRRIGATED AREA WITH MINIMUM OVER SPRAY ONTO PAVED SURFACES. HEADS ARE TO BE LOCATED ON A MAXIMUM SPACING OF 55% OF THE SPRINKLER COVERAGE DISTANCE AND CLOSER WHERE INDICATED. ADJUST NOZZLE DISTANCE AS NEEDED TO COVER PLANT MATERIALS AND MINIMIZE OVER SPRAY ON STRUCTURES AND PAVEMENT. ALIGN POP–UP SPRAY HEADS IN A VERTICAL ORIENTATION AS SHOWN IN THE DETAILS. –ADJUST AS NECESSARY TO PROVIDE THE BEST COVERAGE IN SLOPED AREAS.

TESTING

PRESSURE TEST THE SYSTEM MAIN LINE BEFORE APPRECIABLY BACKFILLING.

PRESSURE TEST THE SYSTEM MAIN LINE, IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE, FOR A PERIOD OF NO LESS THAN FOUR HOURS, CONTINUOUSLY, AT A PRESSURE OF NO LESS THAN 100 PSI WITH NO LEAKS AND ASSURE THAT ANY TESTS OF THE SYSTEM MAIN LINE MEET THE APPLICABLE COUNTY PLUMBING CODES. IF LEAKAGE OCCURS, REMEDY THE LEAKAGE PROBLEM AND RETEST. REPEAT THIS PROCESS AS MANY TIMES AS NECESSARY UNTIL A SUCCESSFUL TEST IS PERFORMED.

INSPECTIONS

THE FOLLOWING INSPECTIONS ARE REQUIRED. NOTIFY OWNER OR OWNER'S REPRESENTATIVE IN ADVANCE THAT EACH ITEM IS READY FOR INSPECTION AS INDICATED BELOW:

INSPECTION OF FLAGGED UNDERGROUND MAINLINE PIPING, SLEEVES, SPRINKLER AND VALVE LOCATIONS PRIOR TO BEGINNING CONSTRUCTION – NOTIFY 48 HOURS IN ADVANCE.

SPRINKLER COVERAGE TEST – NOTIFY 48 HOURS IN ADVANCE.

FINAL INSPECTION – NOTIFY 48 HOURS IN ADVANCE.

TESTING

COVERAGE TESTS – CONDUCT SPRINKLER COVERAGE TESTS UNDER NORMAL OPERATING PRESSURE CONDITIONS BEFORE ANY GROUND COVER OR TURF IS PLANTED. CORRECT AND FIELD ADJUST SPRINKLER ORIENTATION TO PROVIDE UNIFORM PRECIPITATION OVER THE IRRIGATED AREA AND MINIMIZE OVER SPRAY ONTO PAVED SURFACES AND BUILDINGS.

WARRANTY

THE CONTRACTOR SHALL ISSUE TO THE OWNER OR OWNER'S REPRESENTATIVE A CERTIFICATE OF WARRANTY OF THE IRRIGATION SYSTEM FOR A PERIOD OF NOT LESS THAN ONE YEAR ON ALL SPRINKLERS, VALVES, THE CONTROLLER, AND HIS LABOR.

DRAWING OF RECORD

THE CONTRACTOR SHALL SUPPLY TO THE OWNER A DRAFTED, SCALED, REPRODUCIBLE PLAN SHOWING ALL CHANGES MADE TO THE EXISTING IRRIGATION SYSTEM AND ALL NEWLY INSTALLED COMPONENTS INCLUDING ALL SPRINKLERS, INCLUDING BODY TYPES AND NOZZLES, PIPE, INCLUDING SIZES AND THE ENDS OF SLEEVING LOCATIONS AS MEASURED FROM AT LEAST TWO FIXED OBJECTS, CONTROLLER, AND WIRE ROUTING. THIS PLAN MAY BE AN ADAPTATION OF THE IRRIGATION DESIGN WITH ANY CHANGES DRAFTED ON THIS PLAN. THE DRAWING SHALL ALSO PROVIDE A MINIMUM OF TWO (2) DIMENSIONS TAKEN FROM FIXED OBJECTS TO EACH AUTOMATIC VALVE AND MANUAL CONTROL VALVE.

ADDITIONAL SUBMITTALS

SUPPLY TO THE OWNER ALL INSTRUCTION SHEETS AND PARTS LISTS COVERING ALL OPERATING AND ELECTRICAL–RELATED EQUIPMENT, BOUND IN ONE FOLDER. FURNISH THE OWNER WITH ANY KEYS FOR LOCKABLE ITEMS ON THIS SYSTEM.

RAIN GAUGE

ASSURE THAT EACH CONTROLLER IS INTERFACED WITH A RAIN SWITCH WHICH WILL SHUT THE SYSTEM OFF IN CASE OF RAIN OR FREEZING WEATHER. CONFIRM LOCATION OF RAIN GAUGE WITH OWNER PRIOR TO INSTALLATION.

MISCELLANEOUS

ANY IRRIGATION ITEMS NORMALLY INSTALLED IN LANDSCAPE AREAS THAT ARE SHOWN OUTSIDE OF LANDSCAPE AREAS OR OUTSIDE OF THE PROPERTY LINES ARE SHOWN AS SUCH FOR GRAPHIC CLARITY ONLY. INSTALL THESE ITEMS INSIDE OF PROPERTY LINES AND IN LANDSCAPE AREAS. CONTACT THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION IF IN ANY DOUBT OF HEAD, LINE OR ZONE PLACEMENT.

ASSURE THAT THE SYSTEM PROVIDES 100% COVERAGE OF ALL LANDSCAPED AREAS. REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE BEFORE COMMENCING WITH THE INSTALLATION.

ALL APPLICABLE CODES SHALL TAKE PRECEDENCE OVER THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL APPLICABLE CODES.

THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO MAKE MINOR FIELD CHANGES.

FIELD ADJUST NOZZLE SELECTION LOCATIONS AND PLUMB OF SPRINKLERS AND SPACING OF DRIP TUBING TO PROVIDE PROPER COVERAGE.

PROJECT NAME:

SAN FELASCO TECH CITY PHASE 2

Alachua, FL

for
Laser Investment
Group

SEAL:

PROJECT NO: 18-035
CLIENT'S NO: 18-162
ISSUED FOR: SITE PLAN REVIEW

ISSUED DATE: 19 DEC 2018
REVISIONS:

20 FEB 2019
14 MAR 2019
26 MAR 2019

SCALE:

SHEET TITLE:

IRRIGATION TECHNICAL SPECIFICATIONS

SHEET NUMBER:

L-305

GENERAL NOTES

- HIGHLIGHTED POINTS REPRESENT MAXIMUM/MINIMUM VALUE FOR EACH AREA.
- FIXTURES WILL BE CONTROLLED WITH PHOTOCELL AND OPERATE DUSK-TO-DAWN.
- POLES SHALL BE LOCATED MINIMUM 24" BEHIND CURB AND SHALL BE PROVIDED WITH CONCRETE POLE BASE.

LUMINAIRE SCHEDULE FOR PHOTOMETRICS

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts	MH
	PL4	12	ARXX-18M2-MV-NW-4-XX-700 S	Leotek Electronics - Pole arm mount roadway luminaire.		ARXX-18M2-MV-NW-4-XX-700 S.ies	15000	0.81	160	25
	PL2	2	ARXX-18M2-MV-NW-2-XX-700 S	Leotek Electronics - Pole arm mount roadway luminaire.		ARXX-18M2-MV-NW-2-XX-700 S.ies	15000	0.81	160	25
	PL4S	2	ARXX-15M2-MV-NW-4-XX-700 S	Leotek Electronics - Pole arm mount roadway luminaire.		ARXX-15M2-MV-NW-4-XX-700 S.ies	17500	0.81	124	25
	W	12	122L-3-55LA-NW	122 SlenderForm LED Sconce	(1) LIGHT ARRAY OF 32 LEDs DRIVEN AT 530mA	122-3-55LA-NW.IES	5685	0.81	50	10
	WC	24	26 7123-40	ONE4TWO MEDIUM_MONO_9LED_4 0°_4000K	GLD0332 9 LED_4000K	26 7123-40.ies	1122	0.81	16	10
	WF	12	122L-4-55LA-NW	122 SlenderForm LED Sconce	(1) LIGHT ARRAY OF 32 LEDs DRIVEN AT 530mA	122-4-55LA-NW.IES	5365	0.81	50	10
	WL	2	101L-16L-530-NW-G1-2	101L LED Wall Sconce	(1) LIGHT ARRAY OF 16 LEDs DRIVEN AT 530mA	101L-16L-530-NW-G1-2.IES	2944	0.81	28	8
	C	48	UR4E-XXXX3090L WITH XXUR-120EB2		LED	UR4E-XXXX3090L.IES	1100	0.81	15	CEILING
	LINEAR LED COVE	408	523-000004-72	MOLDED PLASTIC HOUSING, ONE WHITE CIRCUIT BOARD WITH 6 LEDs, TRANSLUCENT WHITE PLASTIC DROP LENS	SIX WHITE LIGHT EMITTING DIODES (LEDs)	eW_Cove_EC Powercore_400 OK_12in_ITL64 058_011510.ies	41 lum/ft	0.81	12.08	CEILING

PHOTOMETRIC STATISTICS

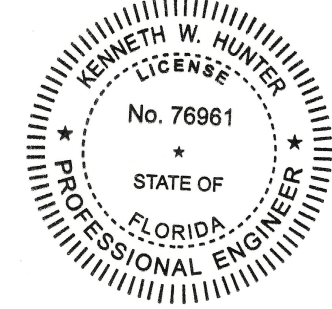
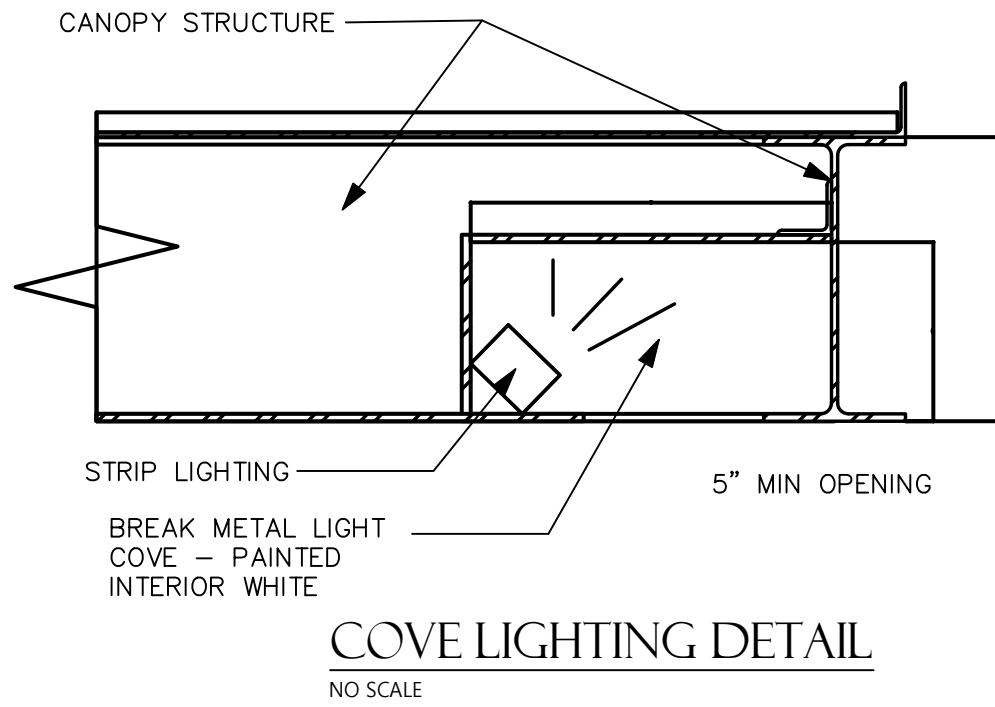
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PEDESTRIAN BREEZEWAY	+	3.8 fc	9.5 fc	1.1 fc	8.6:1	3.5:1
NORTH DUMPSTER	+	1.5 fc	2.2 fc	1.1 fc	2.0:1	1.4:1
SOUTH DUMPSTER	+	4.1 fc	4.9 fc	2.9 fc	1.7:1	1.4:1
NORTH SIDEWALK	+	2.6 fc	5.4 fc	0.7 fc	7.7:1	3.7:1
NORTH BLDG ENTRY	+	6.1 fc	9.0 fc	2.7 fc	3.3:1	2.3:1
SOUTH SIDEWALK	+	3.2 fc	6.7 fc	1.7 fc	3.9:1	1.9:1
SOUTH BLDG ENTRY	+	7.0 fc	9.9 fc	2.7 fc	3.7:1	2.6:1
PARKING	+	2.0 fc	4.9 fc	0.6 fc	8.2:1	3.3:1
OFFICE BLDG PARKING	+	2.1 fc	4.7 fc	0.7 fc	6.7:1	3.0:1
OFFICE BLDG SIDEWALK	+	3.3 fc	6.8 fc	0.7 fc	9.7:1	4.7:1
OFFICE PARKING SIDEWALK	+	1.8 fc	4.3 fc	0.5 fc	8.6:1	3.3:1



SITE PHOTOMETRIC PLAN

SCALE: 1" = 40'-0"

GRAPHIC SCALE



This item has been electronically signed and sealed by Kenneth W. Hunter, P.E. on 3/23/19 using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

HUNTER DESIGN AND CONSULTING, INC.
735 ARLINGTON AVE N, STE 308
ST. PETERSBURG, FL 33701
352-238-6366
FLORIDA CA #31946, PE #76961

SAN FELASCO TECH CITY- PHASE 2
SITE LIGHTING PLAN
ALACHUA, FLORIDA

PROJECT INFORMATION
PROJECT NUMBER: 18140
DRAFTED: K. NORTHCUTT
DESIGNED: K. NORTHCUTT
REVIEWED: K. HUNTER
ISSUE DATE: 3/13/19
REVISIONS

SHEET NUMBER

E-1