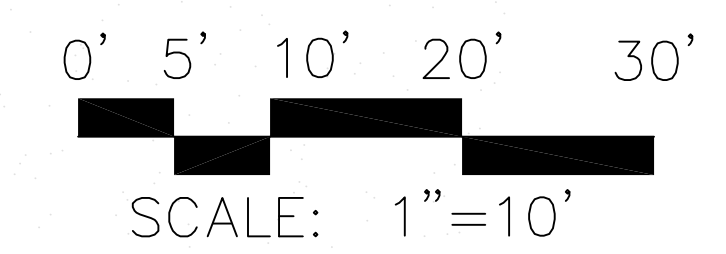
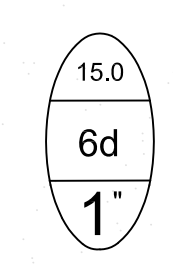
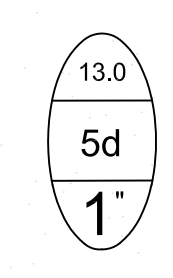
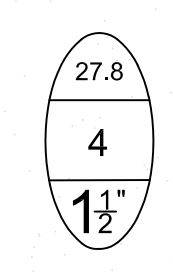
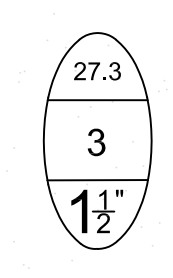
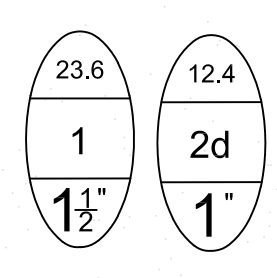
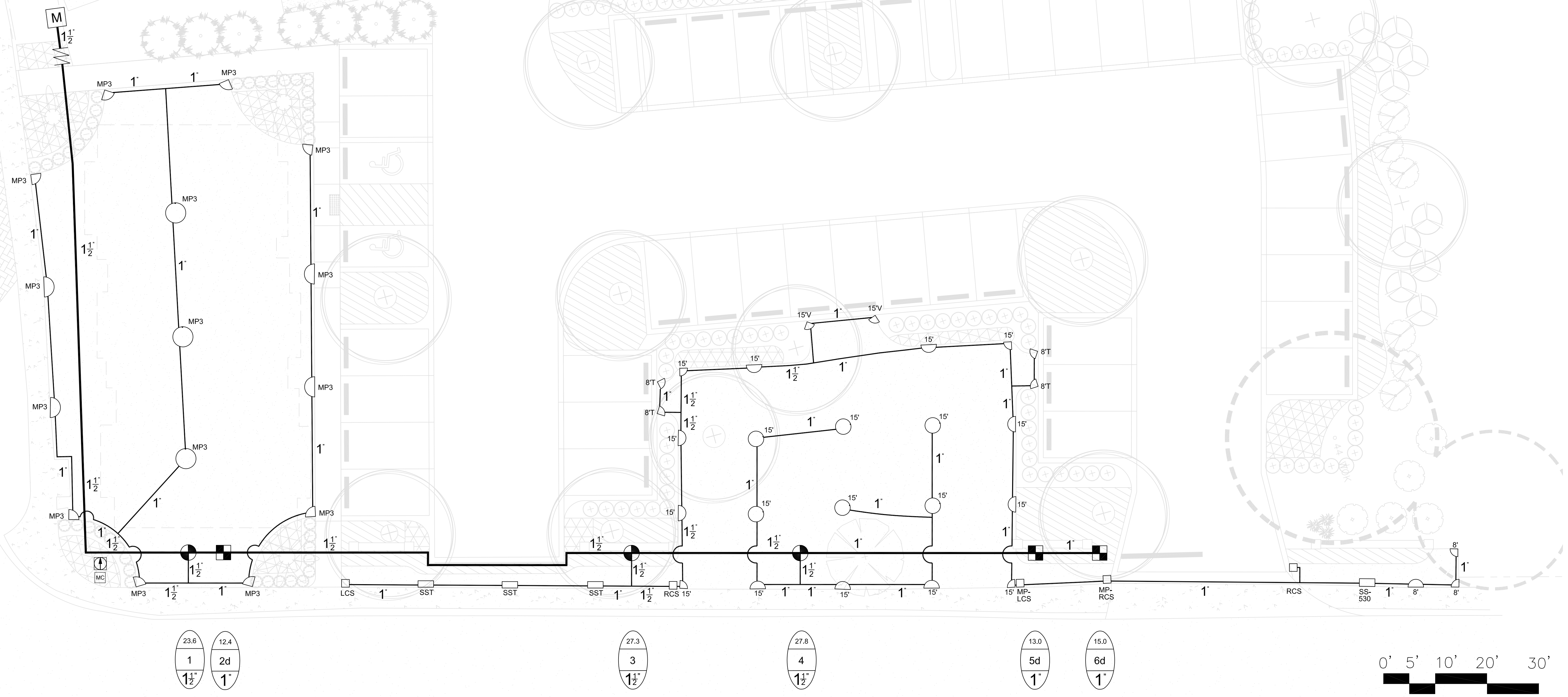


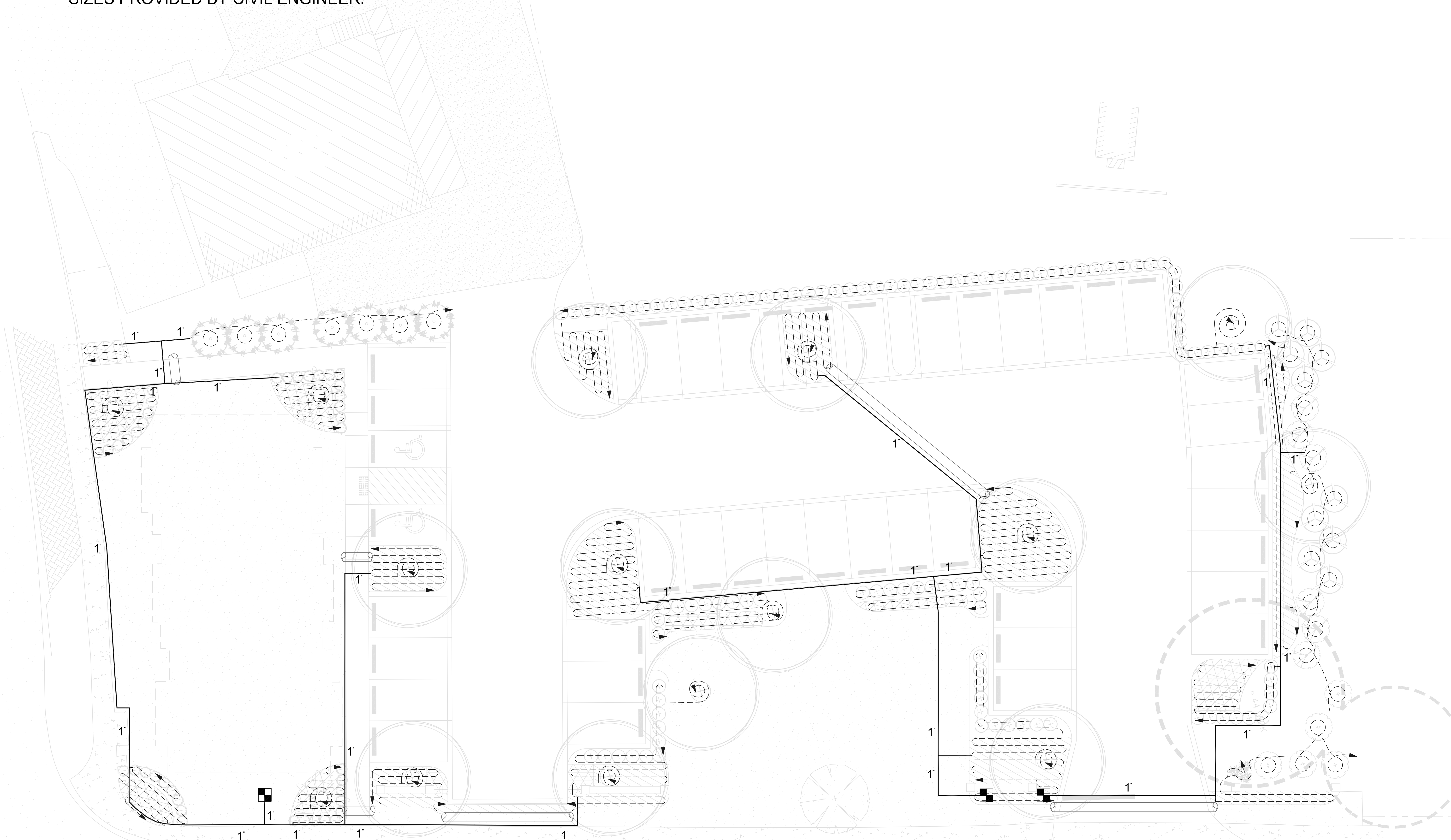
- 1" METER TO PROVIDE A MINIMUM DISCHARGE OF 28 GPM AT 57 PSI FOR PROPER SYSTEM OPERATION.
- IF METER DISCHARGE DOES NOT MEET MINIMUM REQUIREMENTS, A REDESIGN WILL BE REQUIRED.
- DESIGN UTILIZES A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER DEVICE. BACKFLOW PREVENTER TO BE INSTALLED IN AN INSULATED FIBERGLASS ENCLOSURE. INSTALLER MUST CONFIRM WITH LOCAL WATER AUTHORITY, THEIR APPROVED TYPE DEVICE AND INSTALLATION METHODS IN ORDER TO CONFORM WITH LOCAL CODES. IF A DIFFERENT TYPE DEVICE IS USED, CONSULT WITH DESIGNER FOR HYDRAULIC CHANGES.



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**SLEEVE NOTE:**

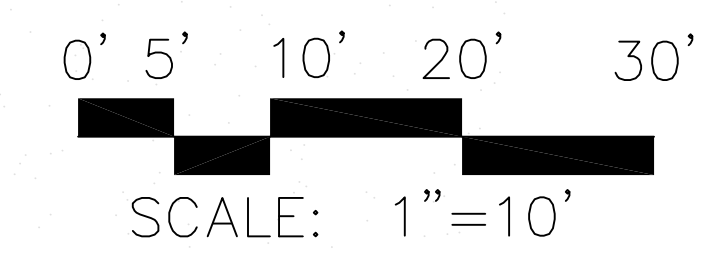
EXISTING SLEEVE LOCATIONS AND SIZES PROVIDED BY CIVIL ENGINEER.



12.4  
2d  
1"

13.0  
5d  
1"

15.0  
6d  
1"



**Simmons Irrigation Supply**  
 P.O. BOX 10  
 526 SIDNEYS ROAD  
 WALTERBORO, SC 29488  
 PH: (843)538-5566  
 FAX: (843)538-2088  
[sstznc@loucountry.com](mailto:ssstznc@loucountry.com)

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**184 BLUFFTON ROAD  
 BLUFFTON, SOUTH CAROLINA**

**DRIP IRRIGATION AND SLEEVE LAYOUT**



REVISED 00-00-00  
 Acad #: 3980-1  
 Date: 02-26-2019  
 Scale: 1" = 10' - 0"  
 Drawn: TMM/CMN/NMD  
 Sheet: 2 OF 3

PRODUCTS

HUNTER PRO-C SERIES CONTROLLER

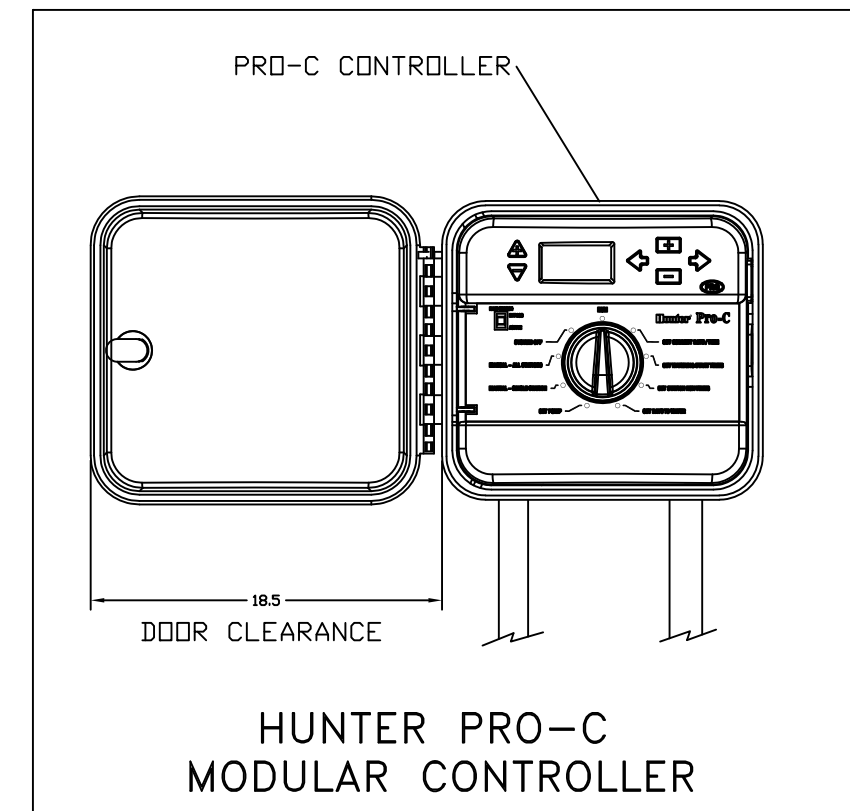
- 3, 6, 9, & 12 STATIONS.
- VERSATILE MECHANICAL DESIGN SIMPLIFIES INVENTORY MANAGEMENT; EASILY CUSTOMIZE UNIT TO DESIRED NUMBER OF STATIONS.
- THREE PROGRAMS (A, B, C) WITH MULTIPLE START TIMES. INDEPENDENT PROGRAMMING HANDLES MANY DIFFERENT WATERING REQUIREMENTS.
- CHOICE OF INDEPENDENT DAY SCHEDULING OPTIONS - DAYS OF THE WEEK, ODD/EVEN OR 31-DAY INTERVAL FOR MAXIMUM FLEXIBILITY.
- GLOBAL WATER BUDGET/SEASONAL ADJUSTMENT EASILY SPACE TO WORK.
- NON-VOLATILE MEMORY HOLDS PROGRAMS INDEFINITELY; EXCELLENT INSURANCE AGAINST UNRELIABLE POWER.
- SUPERIOR SURGE PROTECTION AND SELF-DIAGNOSTIC SHORT CIRCUIT PROTECTION. MICROCIRCUITS ARE PROTECTED FROM ELECTRICAL SPIKES, NO FUSES TO WORRY ABOUT.
- REMOTE CONTROL READY - SUPPLIED WITH CONNECTION FOR SRR AND ICR REMOTE CONTROL AND SRP PC PROGRAMMER.
- PROGRAMMABLE PUMP/MASTER VALVE CIRCUIT BY STATION.
- PROGRAMMABLE DELAY BETWEEN STATIONS OF ZERO SECONDS TO 4 HOURS FOR WELL RECOVERY OR SLOW-CLOSING VALVES.
- RUN TIME: UP TO SIX HOURS ON EACH STATION.
- START TIMES: 4 PER PROGRAM, FOR REPEAT WATERING NEEDS.
- CAPABLE OF OPERATING EQUIVALENT OF 3 SOLENOIDS SIMULTANEOUSLY.
- TRANSFORMER OUTPUT: 24VAC, 1.0 AMPS.
- STATION OUTPUT: 24VAC, 0.56A PER STATION.

HUNTER MINI-CLIK SERIES RAIN SENSOR

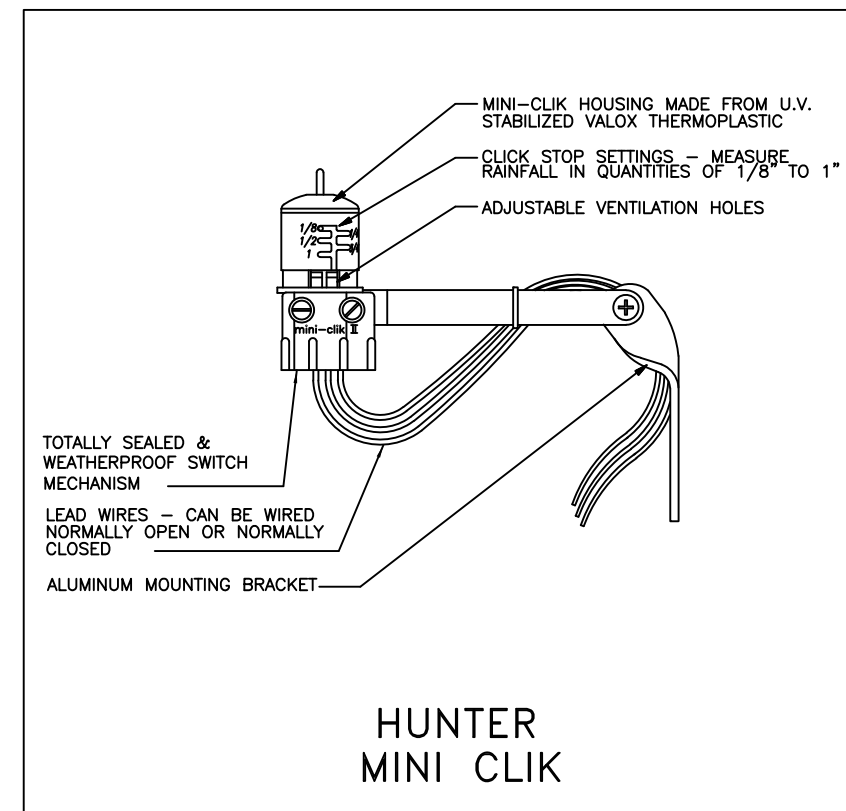
- EASILY INSTALLS ON ANY AUTOMATIC IRRIGATION SYSTEM; VERSATILE ENOUGH TO WORK WITH ALL POPULAR CONTROLLERS.
- PATENTED MECHANISM CANNOT BE FOULED BY DIRT OR DEBRIS; RELIABLE OPERATION; NO FALSE SHUTDOWNS.
- ADJUST TO ACTUATE AT VARIOUS RAINFALL QUANTITIES; SET FROM 1/8" TO 1" BASED UPON YOUR LOCAL CONDITIONS.
- INCLUDES 25 FEET OF 20 GAUGE WIRE TWO CONDUCTOR WIRE FOR FAST AND EASY MOUNTING OUT OF SIGHT.
- HEIGHT: 5 INCHES.
- SWITCH RATING: 10.1 AMPS, AT 125/250VAC.

HUNTER PGV SERIES ELECTRIC VALVE

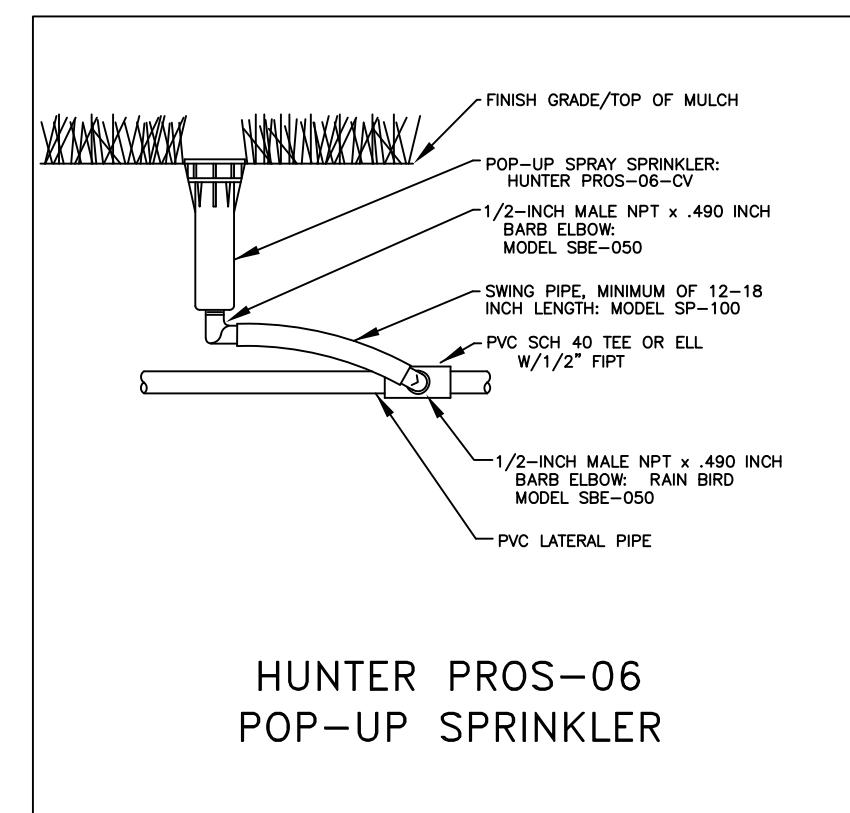
- 1", 1 1/2" & 2"
- HEAVY-DUTY SOLENOID PROVIDES DEPENDABLE OPERATION AND LONG LIFE.
- HIGH GRADE CONSTRUCTION, 150 PSI RATING; MADE OF DURABLE MATERIALS TO RESIST WATER.
- INTERNAL MANUAL BLEED - EASY TO USE AND KEEPS VALVE BOX DRY.
- FLOW CONTROL WITH NON-RISING HANDLE - ADJUST THE FLOW OF EACH ZONE ON A SYSTEM.
- RIGID DIAPHRAGM SUPPORT THAT WORKS TO PREVENT STRESS FAILURE IN TOUGH CONDITIONS.
- GLOBE AND ANGLE CONFIGURATIONS THAT ARE EASY TO USE IN ANY APPLICATION.
- CAPTIVE BONNET BOLTS AND SOLENOID PLUNGER - NO LOST PARTS DURING SERVICING.
- ACCU-SET PRESSURE REGULATOR COMPATIBLE - DIAL SETTING PRESSURE REGULATION FOR PRECISE SYSTEM CONTROL.
- PRESSURE: 20 TO 150 PSI.
- FLOW: .2 TO 120 GPM.
- POWER: 24VAC.



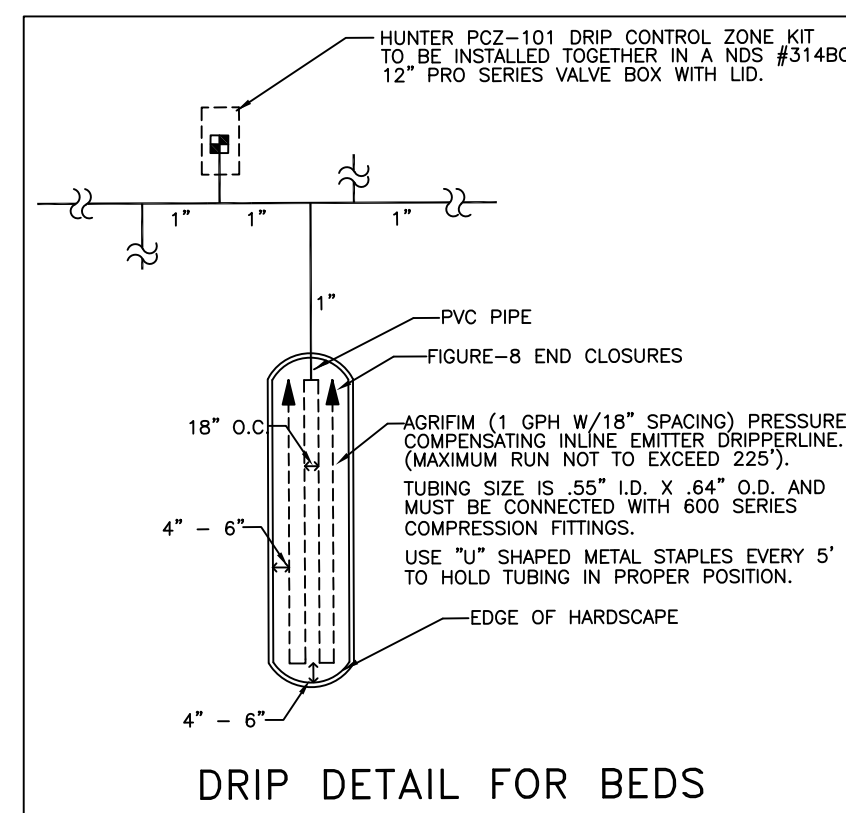
HUNTER PRO-C MODULAR CONTROLLER



HUNTER MINI CLIK



HUNTER PROS-06 POP-UP SPRINKLER



DRIP DETAIL FOR BEDS

HUNTER PRO-SPRAY SERIES POPUP SPRAYHEAD

- 4", 6", 12", & SHRUB.
- HEAVY-DUTY BODY AND CAP CONSTRUCTION - MULTI-THREAD BUTTRESS DESIGN WITHSTANDS THE HARSHTEST ENVIRONMENTS.
- PRESSURE ACTIVATED, MULTI-FUNCTION, NO FLOW-BY WIPER SEAL IS EASY TO REMOVE AND CLEAN; TREATED WITH UV INHIBITORS TO ENSURE LONG LIFE.
- COMPATIBLE WITH ALL FEMALE THREADED NOZZLES. ACCEPTS ADJUSTABLE, FIXED AND SPECIALTY NOZZLES FROM HUNTER AND ALL MAJOR BRANDS.
- OPTIONAL FACTORY-INSTALLED DRAIN CHECK VALVE FOR UP TO 7 FEET ELEVATION CHANGE; ELIMINATES LANDSCAPE DAMAGE FROM FLOODING AND EROSION.
- RATCHETING RISER FOR QUICK ARC ALIGNMENT MAKES ADJUSTMENTS WHILE SPRINKLER IS OPERATING.
- HEAVY-DUTY SPRING FOR POSITIVE RETRACTION UNDER ANY CONDITION.
- INNOVATIVE "PULL-UP" FLUSH PLUG DESIGN ALLOWS LIMITED FLOW PERMITTING CONTROLLED DIRECTIONAL FLUSHING.
- PRESSURE: 15 TO 70 PSI.
- 1/2" FEMALE INLET NPT.

MP ROTATOR NOZZLE

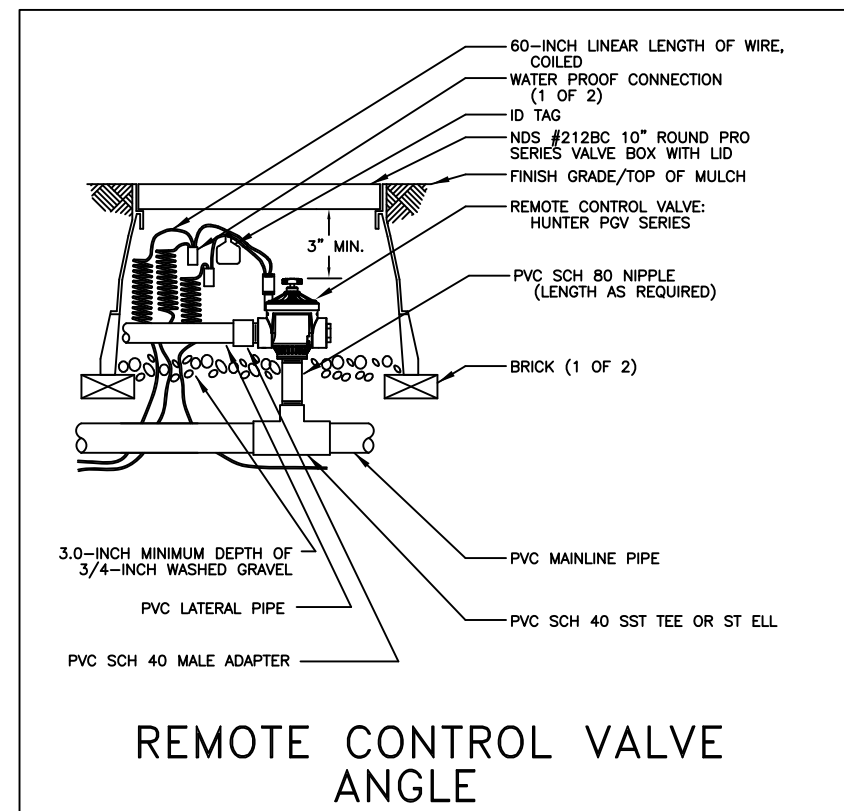
- MULTIPLE STREAMS WORK TOGETHER TO PROMOTE UNIFORMLY GREEN TURF AND HEALTHIER PLANTS.
- MATCHED APPLICATION RATES: WORK WITH ANY ARC, ANY RADIUS.
- WIND-RESISTANT MULTI-TRAJECTORY STREAMS: APPLY WATER MORE SLOWLY AND UNIFORMLY THAN CONVENTIONAL SPRAYS; USE 30 PERCENT LESS WATER AND GREATLY REDUCE RUNOFF.
- PATENTED "DOUBLE-POP" DESIGN: FLUSHES ON START-UP AND SHUT-DOWN TO KEEP SPRINKLER FREE FROM DEBRIS.
- RADIUS/ARC ADJUSTMENTS: QUICK, EASY ARC AND RADIUS ADJUSTMENTS. NO NOZZLES TO CHANGE.
- NO DIFFUSER SCREW: WON'T CAUSE STREAM DISTORTION.
- COLOR-CODED SYSTEM: EASY ID FOR ALL MODELS.
- TWO PARALLEL LINES WITH 12 MODELS EACH: FEMALE THREADED LINE FOR CONVENTIONAL MALE THREADED RISERS. MALE THREADED LINE FIT EXISTING FEMALE THREADED BODIES.
- REMOVABLE INLET FILTER: PROTECTS SPRINKLER FROM INTERNAL DEBRIS.
- OPTIONS FROM A 4" STRIP TO A 30" RADIUS. OFFER BALANCED SYSTEM WITH ULTIMOST DESIGN FLEXIBILITY.
- FITS PERFECTLY ON ALL THE AVAILABLE HUNTER SPRAY BODIES.
- SIZES: MP 1000, MP 2000, MP 3000, STRIPS AND CORNERS.

AGRIFIM DURA-FLO PC DRIPPERLINE

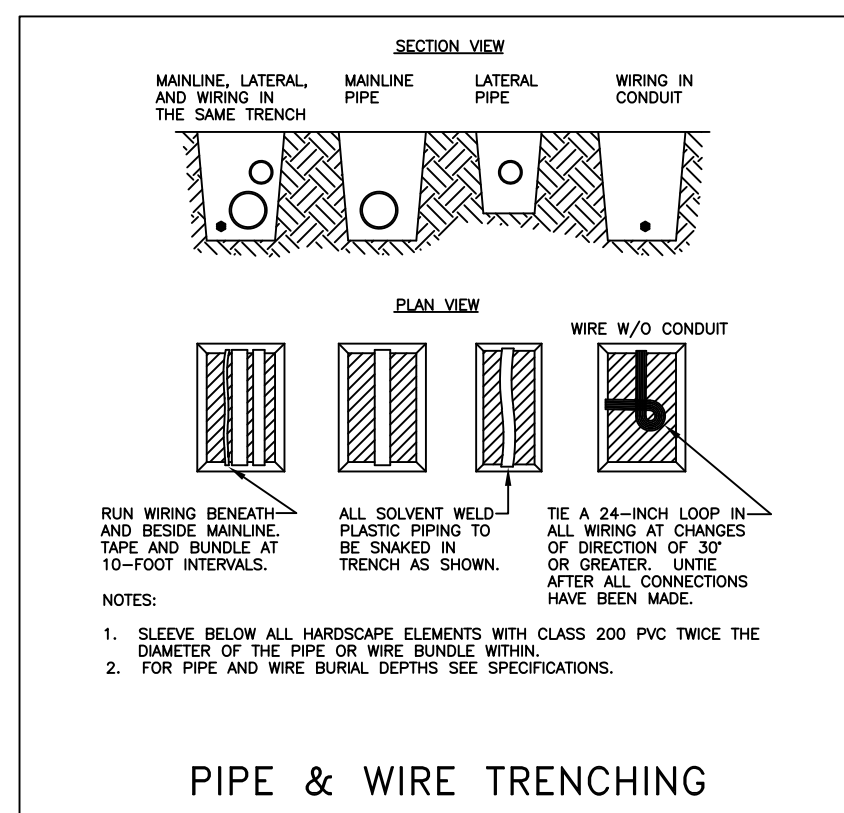
- SELF-CLEANING.
- BUILT-IN FILTER SLITS AND RAISED INLET TO MINIMIZE CLOGGING.
- SILICONE DIAPHRAGM.
- OUTSTANDING EMISSION UNIFORMITY.
- DUAL, 180° APART, WATER OUTLET HOLES.
- EMITTERS COLOR CODED FOR EASY FLOW RATE IDENTIFICATION.
- WIDE VARIETY OF SPACINGS AVAILABLE.
- UV STABILIZED.
- AVAILABLE IN BLACK, BROWN OR PURPLE.
- AVAILABLE IN BLACK, BROWN OR PURPLE.
- PRESSURE COMPENSATING FROM 10 TO 60 PSI.
- 1/2, 1 OR 2 GPH FLOW RATES AVAILABLE.
- TUBING SIZE OF .600" I.D. X .700" O.D. WALL = .045" AND .550" I.D. X .640" O.D. WALL = .045".
- RECOMMENDED FILTRATION (140 MESH FOR 1/2 GPH, 120 MESH FOR 1 GPH, AND 80 MESH FOR 2 GPH EMITTER).

HUNTER PCZ-101 SERIES CONTROL ZONE KIT

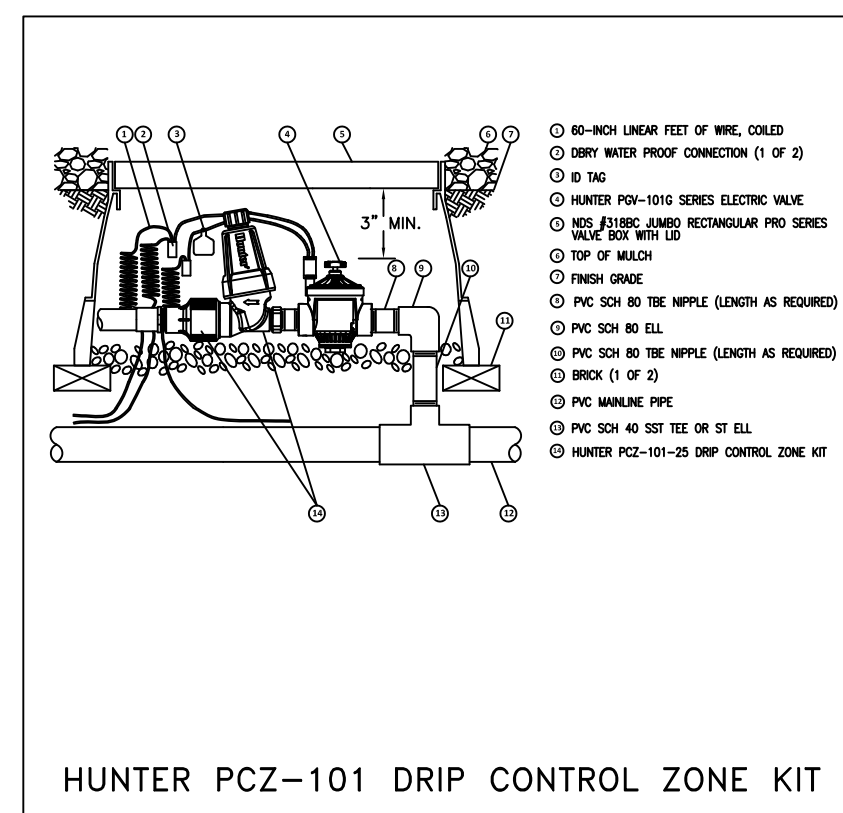
- FACTORY-ASSEMBLED AND WATER TESTED.
- HIGHEST QUALITY COMPONENTS (SS FILTER SCREEN, STANDARD FLUSH CAP, TOP OF THE LINE REGULATOR).
- FILTER SENTRY DIAPHRAGM SCREEN CLEANING SYSTEM ON ICZ KITS.
- WIDE FLOW RANGE TO COVER MOST MICRO IRRIGATION APPLICATIONS.
- PRESSURE REGULATION: 25 OR 40 PSI.
- FLOW: 0.5 TO 15 GPM.
- OPERATING PRESSURE: 20 TO 120 PSI.
- OPERATING TEMPERATURE: UP TO 150 F.



REMOTE CONTROL VALVE ANGLE



PIPE & WIRE TRENCHING



HUNTER PCZ-101 DRIP CONTROL ZONE KIT

GENERAL NOTES

PROJECT CONDITIONS

- PERFORM SITE SURVEY, RESEARCH PUBLIC UTILITY RECORDS, AND VERIFY EXISTING UTILITY LOCATIONS. VERIFY THAT IRRIGATION SYSTEM PIPING MAY BE INSTALLED IN COMPLIANCE WITH ORIGINAL DESIGN AND REFERENCED STANDARDS.

WATER SOURCE

- INSTALLER SHOULD CONFIRM THE MINIMUM DISCHARGE REQUIREMENTS OF THE WATER SOURCE AS INDICATED ON THE DRAWING LEGEND PRIOR TO INSTALLATION.
- IF SOURCE IS LESS THAN MINIMUM REQUIREMENT, CONSULT WITH A DESIGNER FOR POSSIBLE HYDRAULIC CHANGES.

BACKFLOW PREVENTER

- DESIGN UTILIZES A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER DEVICE. BACKFLOW PREVENTER TO BE INSTALLED IN AN INSULATED, FIBERGLASS ENCLOSURE. INSTALLER MUST CONFIRM WITH THE LOCAL WATER AUTHORITY, THEIR APPROVED TYPE DEVICE AND INSTALLATION METHODS IN ORDER TO CONFORM WITH LOCAL CODES. IF A DIFFERENT TYPE DEVICE IS USED, CONSULT WITH A DESIGNER FOR POSSIBLE HYDRAULIC CHANGES.

SLEEVEING

- A MINIMUM OF PR-200 PVC SLEEVES SHOULD BE USED UNDER ANY HARDSCAPING. (EXAMPLE: SIDEWALKS AND DRIVES).
- SLEEVES TO BE A MINIMUM OF (2) PIPE SIZES LARGER THAN THE PIPE RUNNING THROUGH IT.
- A SEPARATE SLEEVE IS RECOMMENDED FOR WIRE.

PIPE AND FITTINGS

- ALL PIPE 1" OR SMALLER TO BE PR-200 SDR-21 SOLVENT WELD PVC PIPE.
- ALL PIPE 1 1/2" OR LARGER TO BE PR-160 SDR-26 SOLVENT WELD PVC PIPE.
- ALL PVC PIPE FITTINGS TO BE SCHEDULE 40, SOCKET-TYPE.
- PVC PIPING AND FITTINGS SOLVENT-CEMENTED JOINTS TO BE CONSTRUCTED UTILIZING CLEANER, PURPLE PRIMER, AND SOLVENT CEMENTS.
- GENERAL LOCATIONS AND ARRANGEMENTS: DRAWINGS INDICATED GENERAL LOCATION AND ARRANGEMENTS OF PIPING SYSTEMS. INDICATED LOCATIONS AND ARRANGEMENTS WERE USED FOR DESIGN LEGIBILITY, TO SIZE PIPE AND CALCULATE FRICTION LOSS, AND OTHER DESIGN CONSIDERATIONS.
- MINIMUM COVER: PROVIDE THE FOLLOWING MINIMUM COVER OVER TOP OF BURIED PIPING OR 12" BELOW THE AVERAGE LOCAL FROST DEPTH, WHICHEVER IS THE GREATER DEPTH. PRESSURE PIPING: 18" OF COVER FOR PIPE 2 1/2" AND SMALLER; 24" FOR PIPE 3" AND 4"; AND 30" FOR PIPE 6" AND LARGER. DRAIN PIPING: 18" OF COVER FOR PIPE 4" AND SMALLER; 24" FOR PIPE 6" AND LARGER. SLEEVES: 24" OF COVER FOR PIPE 6" AND SMALLER; 30" FOR PIPE 8" AND LARGER.
- PRIOR APPROVAL BY LANDSCAPE ARCHITECT MUST BE OBTAINED FOR ALL TRENCHING AROUND EXISTING SPECIMEN/LARGE TREES.
- ONLY HAND TRENCHING WILL BE ALLOWED WITHIN THE "TREE SAVE" AREAS.

SCHEDULING

- ADJUST SETTINGS OF CONTROLLERS AND AUTOMATIC CONTROL VALVES, AND PROVIDE WRITTEN SCHEDULE TO OWNER.

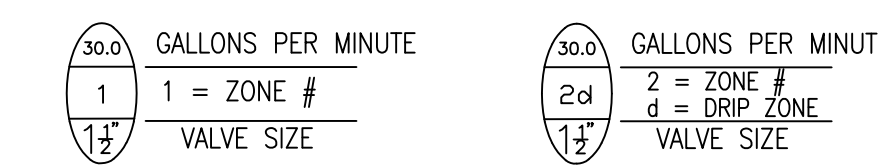
ELEVATION

- THE PRESSURE REQUIREMENT OF THE WATER SOURCE IS BASED ON NO MORE THAN 3 FEET OF RISE IN ELEVATION FROM WATER SOURCE THROUGHOUT THE IRRIGATION COVERED AREA. IF SITE HAS GREATER ELEVATION CHANGE, CONSULT WITH DESIGNER FOR POSSIBLE HYDRAULIC CHANGE.

WIRING

- SOLID COPPER CONDUCTOR, INSULATED CABLE, SUITABLE FOR DIRECT BURIAL.
- LOW-VOLTAGE, BRANCH CIRCUIT CABLES: TYPE PE, NO. 14 AWG MINIMUM. BETWEEN CONTROLLERS AND AUTOMATIC CONTROL VALVES. JACKET COLOR IS OTHER THAN FEEDER-CIRCUIT CABLE JACKET COLOR.
- SPLICING MATERIALS: 3M DBR/Y OR APPROVED EQUAL.

VALVE/ZONE IDENTIFICATION



SPRINKLER INSTALLATION

- LOCATION OF SPRINKLERS AND DEVICES: DESIGN LOCATION IS APPROXIMATE. MINOR FIELD ADJUSTMENTS MAY BE NECESSARY TO AVOID PLANTINGS AND OBSTRUCTIONS SUCH AS SIGNS AND LIGHT STANDARDS.
- SPRINKLERS TO BE SPACED NO GREATER THAN 50% - 55% OF DIAMETER OF THROW AT OPTIMUM PERFORMANCE PRESSURE. THIS WILL ACHIEVE "HEAD TO HEAD" COVERAGE PERFORMANCE.
- FLUSH CIRCUIT PIPING WITH FULL HEAD OF WATER AND INSTALL SPRINKLERS AFTER HYDROSTATIC TEST IS COMPLETE.
- INSTALL LAWN SPRINKLERS AT MANUFACTURER'S RECOMMENDED HEIGHTS.
- INSTALL SHRUBBERY SPRINKLERS AT HEIGHTS INDICATED.
- LOCATE PART-CIRCLE SPRINKLERS TO MAINTAIN A MINIMUM DISTANCE OF 6" FROM WALLS AND 3" FROM OTHER BOUNDARIES (SIDEWALKS, CURBS) UNLESS OTHERWISE INDICATED.
- CAREFULLY ADJUST LAWN SPRINKLERS SO THEY WILL BE FLUSH WITH, OR NOT MORE THAN 1/2" ABOVE, FINISH GRADE AFTER COMPLETION OF LANDSCAPE WORK.
- CAREFULLY ADJUST ALL SPRINKLERS IN MULCH AREAS SO THEY WILL BE PLUMB AND FLUSH WITH TOP OF MULCH GRADE.
- ALL SPRAYHEAD NOZZLES INDICATED ON PLAN.
- USE VANS (VARIABLE ARC NOZZLE) WHERE INDICATED ON PLAN.

VALVE INSTALLATION

- ALL VALVES (MANUAL AND ELECTRIC) TO BE INSTALLED IN A NDS #212BC 10" ROUND PRO SERIES VALVE BOX WITH LID (UNLESS OTHERWISE NOTED).
- CONTRACTOR TO ADJUST THE FLOW CONTROL HANDLE IN ORDER TO ACHIEVE PROPER VALVE OPERATION AND OPTIMUM SPRINKLER PERFORMANCE.
- VALVES SHALL NOT BE PLACED WITHIN 5 FEET OF ANY DRIVEWAY, OR WHERE THEY CAN BE DAMAGED BY VEHICLES.

DRIP INSTALLATION

- THIS DESIGN UTILIZES AN INLINE PRESSURE COMPENSATING DRIPPERLINE IN A GRID LAYOUT. THE EMITTERS ARE INCORPORATED AT 18" INTERVALS ALONG THE TUBING AND THE LINES ARE SPACED 18" BETWEEN ROWS (SEE DETAIL). EACH EMITTER OUTPUT IS 1.0 GPH. THIS GRID LAYOUT TO BE USED WITH LOAM AND CLAY SOIL TYPES. SPACING MAY NEED TO BE REDUCED OR SOIL NEEDS TO BE AMENDED FOR SANDY SOIL IN ORDER TO INCREASE THE MOVEMENT OF THE WATER IN THE SOIL PROFILE AND WATER HOLDING CAPACITY.
- NO DRIPPERLINE RUN TO EXCEED 225' FROM CONNECTION TO PVC LATERAL HEADER PIPE.
- ZONES BASED ON A MINIMUM OF 25 PSI.

	SYMBOL	DESCRIPTION
1		HUNTER PC-700 SERIES MODULAR CONTROLLER
2		HUNTER MINI-CLIK SERIES RAIN SENSOR
3		HUNTER PGV SERIES ELECTRIC VALVE (ANGLE CONFIGURATION)
4		HUNTER PROS-04 SERIES 4" POPUP SPRAYHEAD
5		HUNTER PROS-04-MP3000-90 SERIES 4" POPUP W/ MP ROTATOR
6		HUNTER PROS-04-MP3000-180 SERIES 4" POPUP W/ MP ROTATOR
7		HUNTER PROS-04-MP3000-360 SERIES 4" POPUP W/ MP ROTATOR
8		HUNTER PCZ-101-25 SERIES 1" NPT PGV SERIES VALVE AND HUNTER 1" HFR SYSTEM
9		FIGURE 8 END CLOSURE
10		APOLLO MODEL 4A-205-A2F SERIES 1" BACKFLOW PREVENTER
11		1" METER
12		AGRIFIM (1 GPH X 18" SPACING) PRESSURE COMPENSATING INLINE EMITTER DRIPPERLINE
13		LATERAL PIPE
14		MAINLINE PIPE

WATER SOURCE: 1" METER TO PROVIDE A MINIMUM DISCHARGE OF 28 GPM AT 57 PSI FOR SYSTEM TO OPERATE PROPERLY.

184 BLUFFTON ROAD  
BLUFFTON, SOUTH CAROLINA

IRRIGATION DETAILS

Summons Irrigation Supply  
P.O. BOX 10  
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