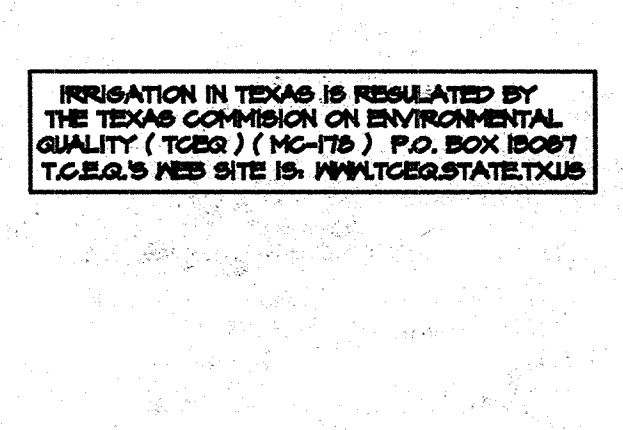
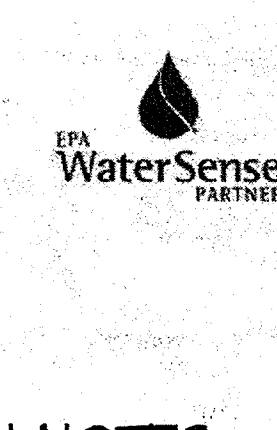
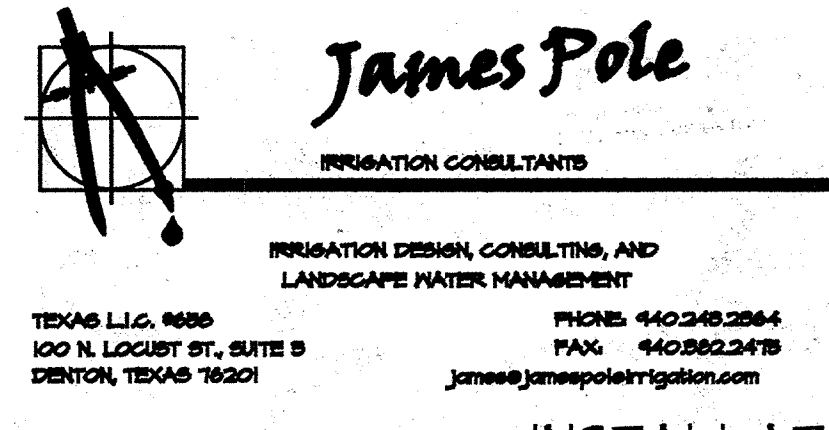
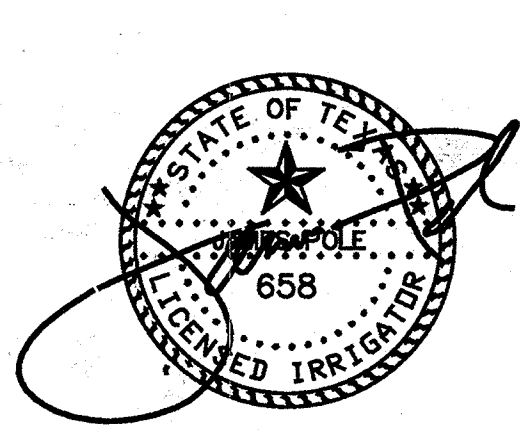
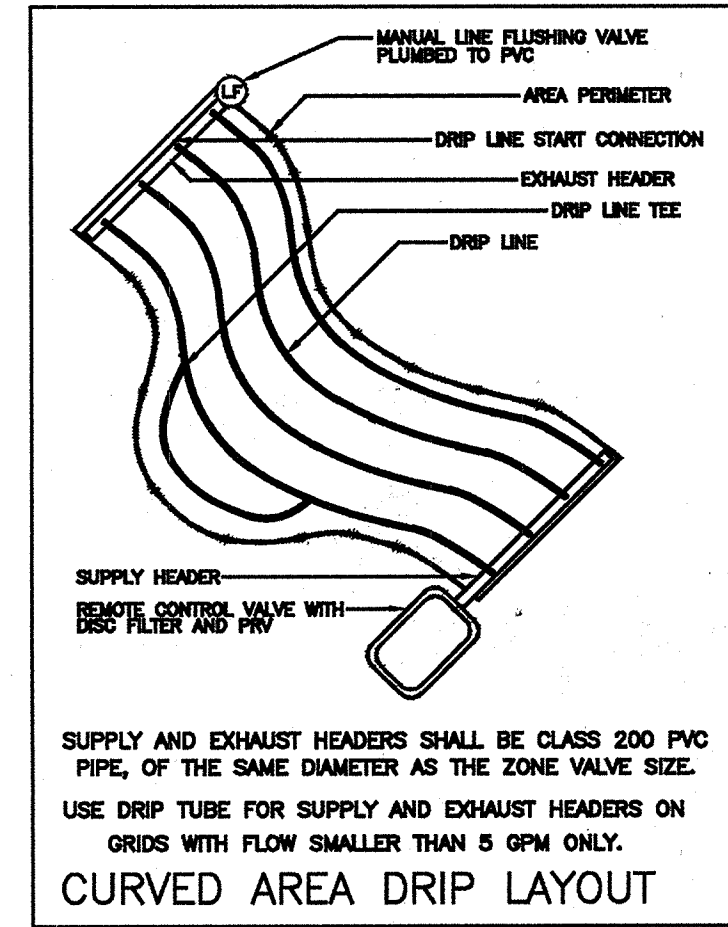
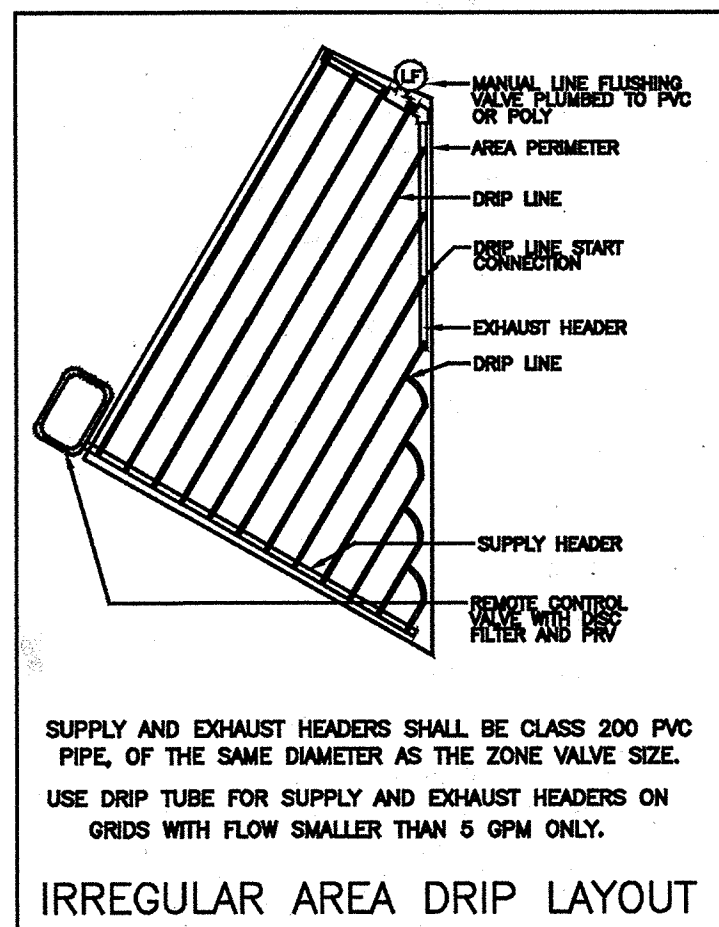
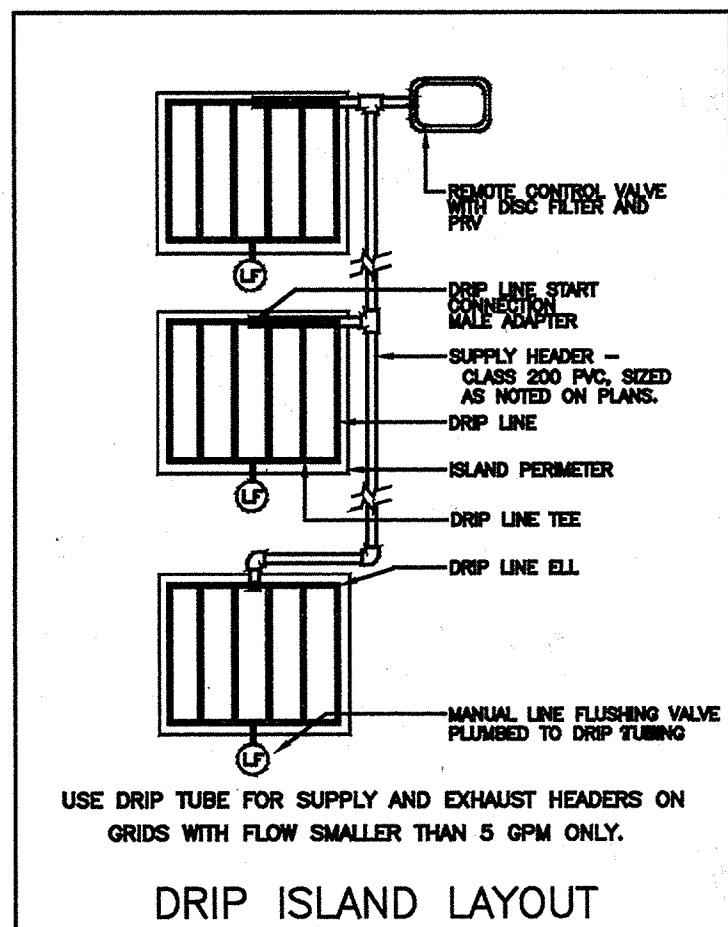
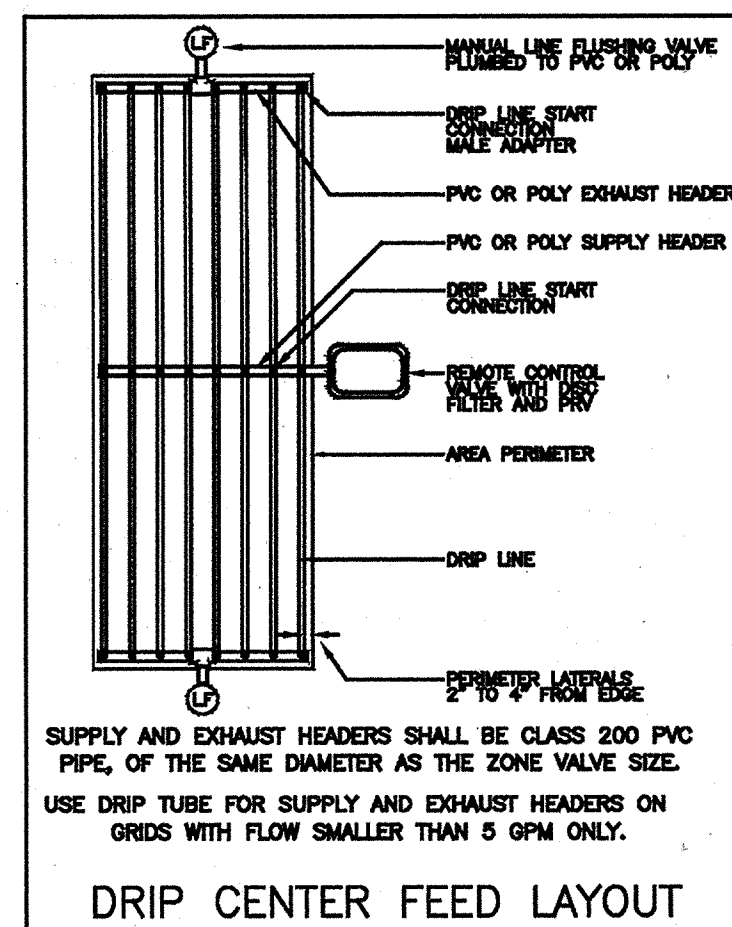
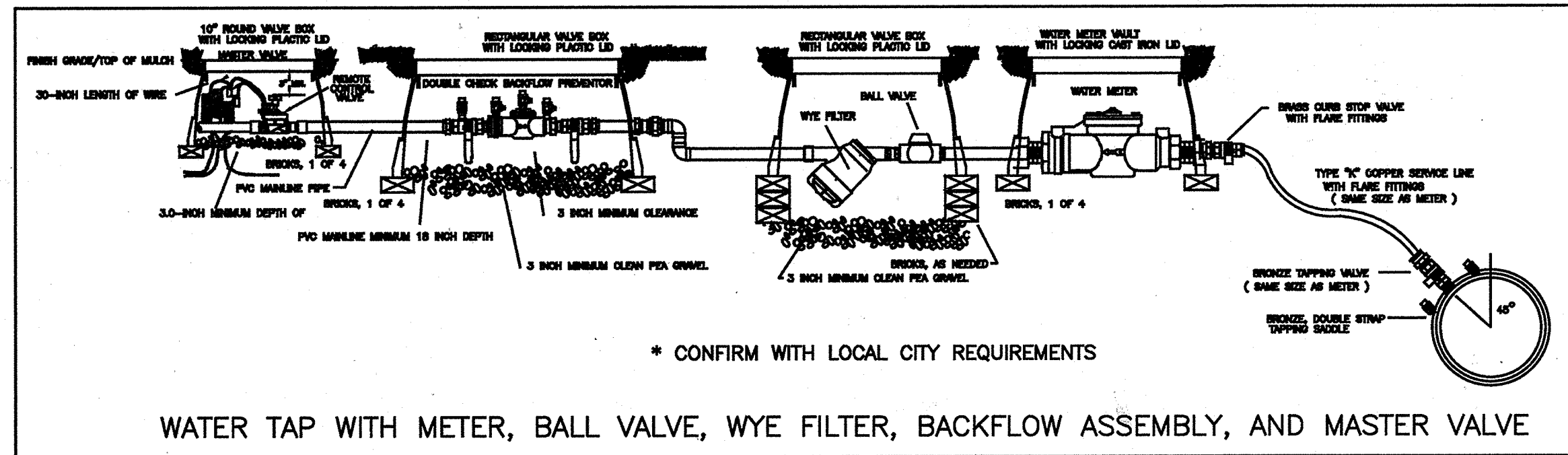
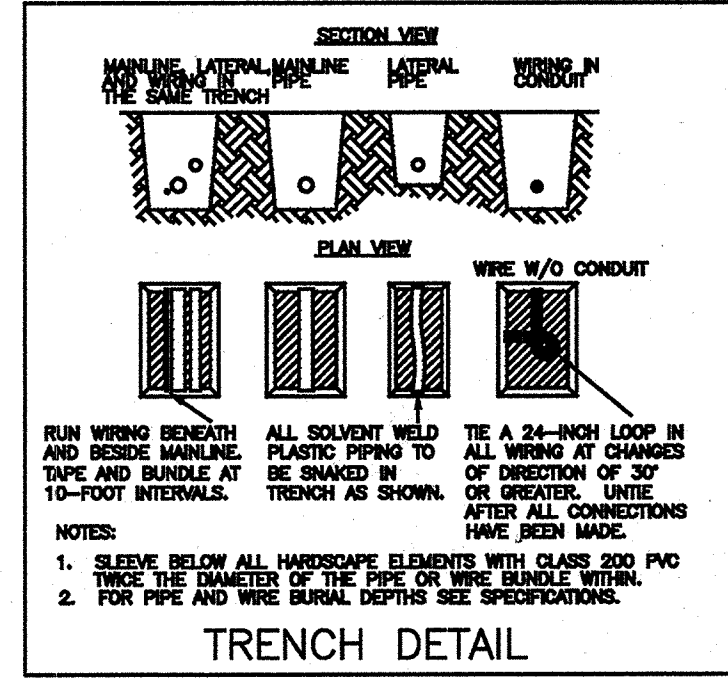
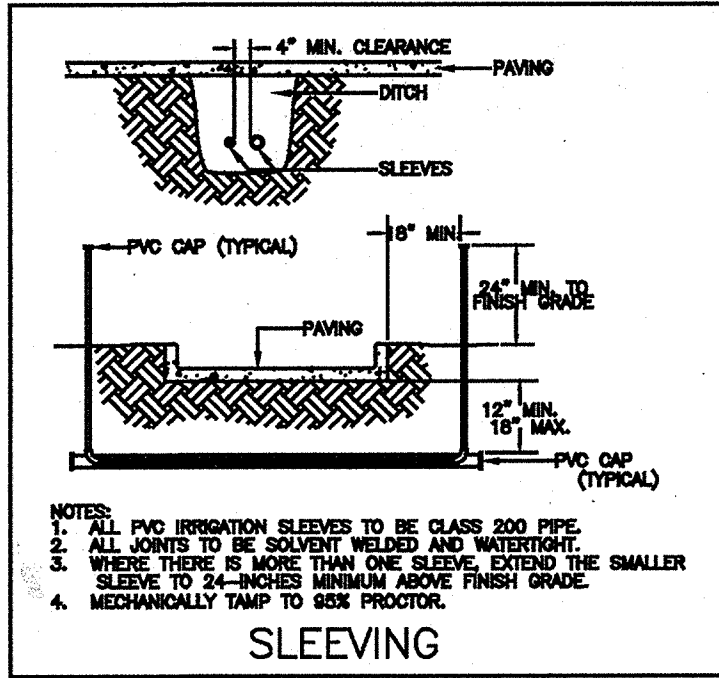
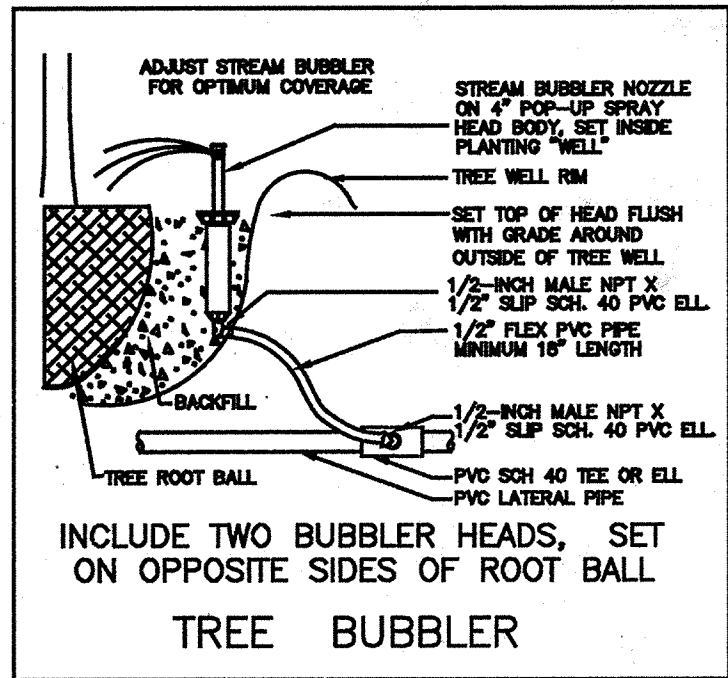
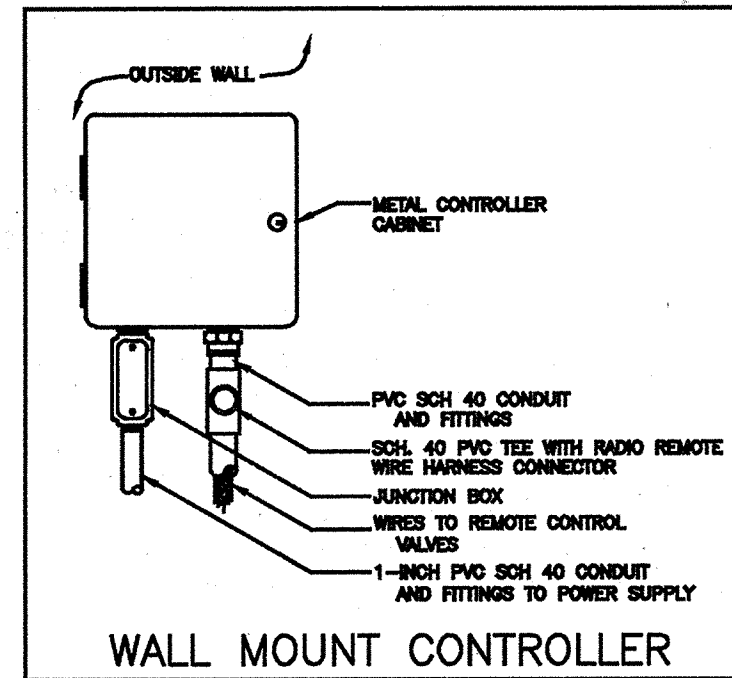


CITY OF AUSTIN IRRIGATION GUIDELINES

- ADJUSTABLE FLOW CONTROLS SHALL BE REQUIRED ON CIRCUIT REMOTE CONTROL VALVES. PRESSURE REGULATION COMPONENTS SHALL BE REQUIRED WHERE STATIC PRESSURE EXCEEDS MANUFACTURERS RECOMMENDED OPERATING RANGE
- VALVES AND CIRCUITS SHALL BE SEPARATED BASED ON WATER USE SO THAT TURF AREAS ARE WATERED SEPARATELY FROM SHRUB AND GROUND COVER AREAS. IRRIGATION HEADS IN THE TURF AREAS WILL BE VALVED SEPARATELY FROM SHRUB AND/OR GROUND COVER AREAS. IT IS RECOMMENDED THAT SEASONAL COLOR AREAS BE WATERED SEPARATELY FROM TURF AREAS.
- SPRINKLER HEADS SHALL HAVE MATCHED PRECIPITATION RATES WITHIN EACH CONTROL VALVE CIRCUIT.
- SERVICEABLE CHECK VALVES SHALL BE REQUIRED ADJACENT TO PAVED AREAS WHERE ELEVATION DIFFERENCES MAY CAUSE LOW HEAD DRAINAGE.
- SPRINKLER HEAD SPACING SHALL BE DESIGNER FOR HEAD-TO-HEAD COVERAGE OR HEADS SHALL BE SPACED PER MANUFACTURERS RECOMMENDATIONS AND ADJUSTED FOR PREVAILING WINDS. THE SYSTEM SHALL BE DESIGNED SO THAT IRRIGATION IS NOT APPLIED TO VEHICULAR TRAFFIC LANES, OTHER PAVEMENT, OR STRUCTURES.
- ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH CONTROLLER CAPABLE OF DUAL OR MULTIPLE PROGRAMS. CONTROLLERS SHALL HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM, INCLUDING THE CAPACITY OF BEING SET TO WATER EVERY FIVE DAYS. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A RAIN WATER SENSOR SHUT-OFF DEVICE.
- IRRIGATION CONSTRUCTION PLANS SHALL INCLUDE A WATER BUDGET. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE CONTROLLER DOOR. WATER BUDGET SHALL INCLUDE:
 - CHART CONTAINING ZONE NUMBER, PRECIPITATION RATE, AND GPM
 - LOCATION OF EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE
 - TO SCHEDULE A FREE CITY OF AUSTIN IRRIGATION AUDIT CALL 444-3542
- CONTRACTOR TO SUBMIT DETAILED SHOP DRAWINGS THAT IDENTIFY SCHEMATIC LOCATION OF ALL PIPING, HEADS, AND VALVES, ETC. THE DESIGN OF THE SYSTEM SHALL MEET ALL WATER CONSERVATION IRRIGATION SYSTEM REQUIREMENTS AS PER THE ENVIRONMENTAL CRITERIA MANUAL.
- ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM COVER OF 18". ALL LATERAL PIPING DOWNSTREAM OF THE MAIN LINE SHALL BE BURIED TO HAVE A MINIMUM COVER OF 12"
- ALL MAINS ARE TO DRAIN TO LOW POINTS AT A MINIMUM OF ONE HALF (1/2%) PERCENT SLOPE. AT LOW POINTS, INSTALL GATE VALVE TO FACILITATE DRAINAGE OF SYSTEMS DURING FREEZING TEMPERATURES.
- CONTRACTOR SHALL INSTALL AUTOMATIC DRAIN VALVES AT LOW POINTS IN THE IRRIGATION LINES AS REQUIRED TO PREVENT FREEZE DAMAGE.
- CONTRACTOR SHALL INSURE POSITIVE DRAINAGE OF LATERAL LINES AND MAIN LINES
- ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14/1 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY USING RAINBIRD SNAP-TITE CONNECTORS AND SEALANT. PROVIDE SLEEVES FOR WIRE UNDER PAVED AREAS AS REQUIRED.
- ALL IRRIGATION INSTALLATION SHALL CONFORM TO THE LOCAL CODES AND REGULATIONS.
- IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE LANDSCAPING INSTALLATION.
- ALL IRRIGATION PIPE, HEADS, AND OTHER ASSOCIATED APPURTENANCES SHALL BE SET MIN. 24" FROM BACK OF CURB.

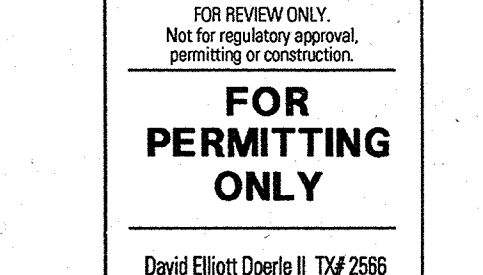


INSTALLATION NOTES

- COORDINATE IRRIGATION INSTALLATION WITH PLANTING PLAN AND SITE CONDITIONS TO PROVIDE COMPLETE COVERAGE WITH MINIMUM OVERSPRAY. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND CODES, AND WILL SECURE ALL REQUIRED PERMITS. I.L.C. SHALL PAY ANY ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES HEREIN AND SHALL BE ADDRESSED BEFORE ANY CONSTRUCTION BEGINS.
- NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN THE ROOT ZONE OF EXISTING TREES. HAND-DIG ONLY, WITHIN THE ROOT ZONES OF EXISTING TREES. NO ROOTS OVER 1" DIAMETER SHALL BE CUT. STAKE ALL PROPOSED TRENCH ROUTES NEAR EXISTING TREES FOR APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE DIGGING BEGINS.
- CONFIRM MINIMUM STATIC WATER PRESSURE OF 60 PSI AT THE HIGHEST ELEVATION OF THE SYSTEM LIMITS, AND MAXIMUM STATIC WATER PRESSURE OF 90 P.S.I. AT THE LOWEST ELEVATION OF THE SYSTEM LIMITS AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS OUTSIDE THE RANGE STATED ABOVE, DO NOT PROCEED UNTIL DIRECTED BY THE LANDSCAPE ARCHITECT.
- LATERAL PIPE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12 INCHES. MAINLINE PIPE AND WIRES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 18 INCHES. NO MACHINE TRENCHING SHALL BE PERMITTED WITHIN EXISTING TREE ROOT ZONES. WHEN HAND - TRENCHING WITHIN EXISTING TREE ROOT ZONES, NO ROOTS LARGER THAN 1" DIAMETER SHALL BE CUT.
- UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY ONLY. INSTALL THESE PIPES IN ADJACENT LANDSCAPED AREAS.
- ELECTRIC POWER SHALL BE PROVIDED WITHIN FIVE FEET OF CONTROLLER LOCATION BY GENERAL CONTRACTOR. I.L.C. TO PROVIDE FINAL HARD-WIRE TO CONTROLLER.
- 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL, SINGLE CONDUCTOR "IRRIGATION WIRE". WIRE SPLICES SHALL INCLUDE DBY CONNECTORS AS MANUFACTURED BY 3M COMPANY. ALL FIELD SPLICES SHALL BE LOCATED IN A ROUND VALVE BOX OF SUFFICIENT SIZE TO ALLOW INSPECTION.
- VALVE BOXES SHALL BE INSTALLED FLUSH WITH GRADE, SUPPORTED BY BRICKS IF NEEDED, WITH 3 INCHES OF CLEAN PEA GRAVEL LOCATED BELOW THE VALVE. USE 12" x 12" RECTANGULAR VALVE BOXES WITH PURPLE LID FOR QUICK COUPLERS VALVES, AND 10" ROUND BOXES FOR ELECTRIC VALVES UNLESS NOTED OTHERWISE. D.C.A. WITH UPSTREAM BALL VALVE AND WYE FILTER SHALL BE BOXED AND LOCATED ACCORDING TO LOCAL CODE.
- USE RIGID SCH. 80 PVC SWING JOINT ASSEMBLIES TO CONNECT ALL ROTARY HEADS AND QUICK COUPLERS.
- ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12" MINIMUM LENGTH OF 1/2" FLEX PVC. THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #15 SOLVENT AND #8-TO PRIMER.
- PROVIDE ONE QUICK COUPLER KEY WITH SWIVEL HOSE END FOR EVERY SIX Q.C. VALVES. (MINIMUM ONE SET).
- CONTRACTOR IS TO CONTACT APPROPRIATE AUTHORITIES AND LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION.
- LATERAL PIPE TO TREE STREAM BUBBLER HEADS IS OMITTED FOR GRAPHIC CLARITY. CONNECT TREE BUBBLER HEADS TO VALVES AS SHOWN WITH CLASS 200 PVC PIPE SIZED TO ALLOW A MAXIMUM FLOW VELOCITY OF 5 FEET PER SECOND
- THE PROPOSED LOCATIONS OF ALL ABOVE-GROUND EQUIPMENT INCLUDING BACKFLOW PREVENTORS, CONTROLLERS AND WEATHER SENSORS SHALL BE STAKED BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE BEFORE THESE ITEMS ARE INSTALLED.
- ALL HEADS SHALL BE INSTALLED A MINIMUM OF 4" FROM PAVEMENT EDGES. (6" OR GREATER WHERE REQUIRED BY LOCAL CODE) FINAL HEAD ADJUSTMENTS BY THE CONTRACTOR SHALL INCLUDE THE ADDITION OF CHECK VALVES WHERE NEEDED TO PREVENT EXCESSIVE LOW HEAD DRAINAGE. THE CONTRACTOR SHALL BUDGET FOR, AND INSTALL CHECK VALVES FOR UP TO 10% OF THE TOTAL NUMBER OF HEADS WHEN NEEDED, WITH NO ADDITIONAL COST TO THE OWNER.
- WHERE SHOWN ON THE PLANS, MASS SHRUB / GROUND COVER BEDS SHALL INCLUDE NETAFIM TECHLINE CV SERIES DRIP TUBE WITH PRE-INSTALLED 6 GPH DRIP EMITTERS AT 12" INTERVALS (TLCV6-12), INSTALLED IN CENTER-FED GRIDS WITH ROWS SPACED 18" APART. INDIVIDUAL DRIP TUBE RUNS SHALL NOT EXCEED 150 L.F. PVC LATERAL "TRUNK" LINES SHALL BE INSTALLED 10" DEEP. DRIP TUBE SHALL BE SET 2" BELOW FINISHED SOIL GRADE (NOT INCLUDING MULCH LAYER), SECURELY STAKED EVERY 16". NETAFIM #TLO50MF-1 FLUSH VALVES SHALL BE INSTALLED AT THE FARTHEST POINTS FROM THE ZONE VALVE. USE 17 MM BARBED FITTINGS FOR DRIP LINE CONNECTIONS, SET THE MAXIMUM OPERATING PRESSURE AT 50 PSI. TECHLINE CV SHALL BE INSTALLED PERPENDICULAR TO SLOPE FACE. INSTALL TLCV IN-LINE CHECK VALVES FOR EVERY 4.5 FEET OF DRIP LINE ELEVATION CHANGE WITHIN THE ZONE. USE NETAFIM STAPLES (#TSS6) TO SECURE TUBING EVERY 18". EACH DRIP ZONE SHALL INCLUDE ONE MAINTENANCE "FLAG" WHICH SHALL CONSIST OF A 12" POP-UP SPRAY HEAD AND COMPLETELY CLOSED SPRAY NOZZLE. THE POP-UP HEAD SHALL BE CONNECTED TO THE DRIP ZONE PIPE, SET FLUSH WITH GRADE, AND LOCATED AT THE FARTHEST DISTANCE FROM THE DRIP VALVE ASSEMBLY. INSTALL THE "FLAG" HEAD ADJACENT TO EDGING OR IN LOW PLANTINGS FOR EASE OF VIEWING.

DESIGN PRESSURE = 50 PSI
MIN. STATIC PRESSURE = 50 PSI

SITE PLAN APPROVAL Sub 32 of 38
FILE NUMBER: 22-0018-01800 APPLICATION DATE: April 22, 2016
APPROVED BY COMMISSION ON 07/27/17 UNDER SECTION 112 OF CHAPTER 15-5 OF THE CITY OF AUSTIN CODE. Donna Galati
EXPIRATION DATE (25-5-31.00) CASE MANAGER
PROJECT EXPIRATION DATE (000-000000-0) 07/27/2017 DDE
Unsub
Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: ZONING: CS
Rev. 1 Correction 1
Rev. 2 Correction 2
Rev. 3 Correction 3
FINAL PLAN MUST BE RECORDED BY THE PROJECT EXPIRATION DATE. IF APPLICABLE. SUBSEQUENT SITE PLANS WHICH DO NOT COMPLY WITH THE CODES CURRENT AT THE TIME OF FILING AND ALL SUBMITTED DRAINAGE PERMITS AND/OR A NOTICE OF CONSTRUCTION (OR A BUILDING PERMIT IS NOT REQUIRED), MUST ALSO BE APPROVED PRIOR TO THE PROJECT EXPIRATION DATE.



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Project:
2010 SOUTH LAMAR OFFICE

SITE
DEVELOPMENT
PERMIT

AUSTIN, TEXAS

Project Number:
A15412

Designed: JP

Drawn: JP

Reviewed: JP

Date Issued:
May 24, 2017

Revisions:

Sheet Title:
IRRIGATION DETAILS

Sheet Number:
L-12

SP-2016-0196C