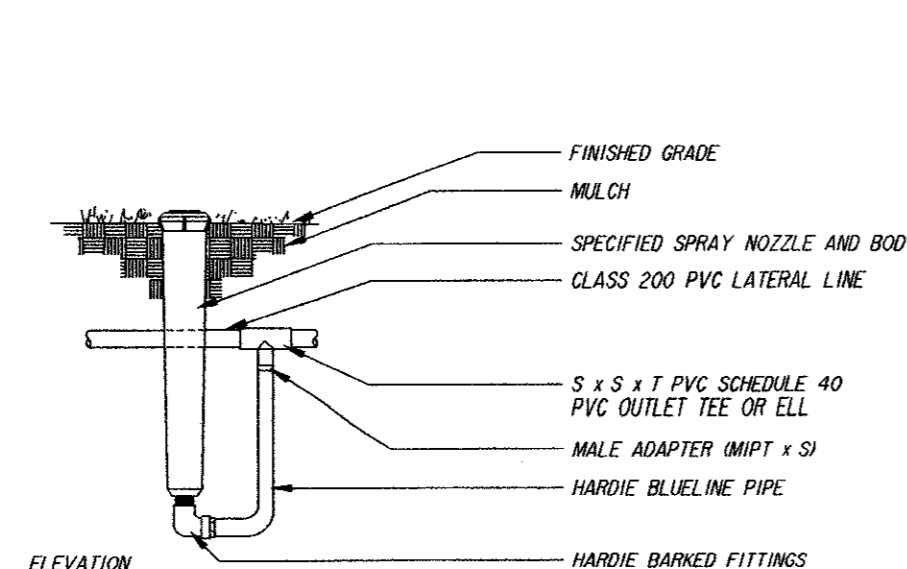
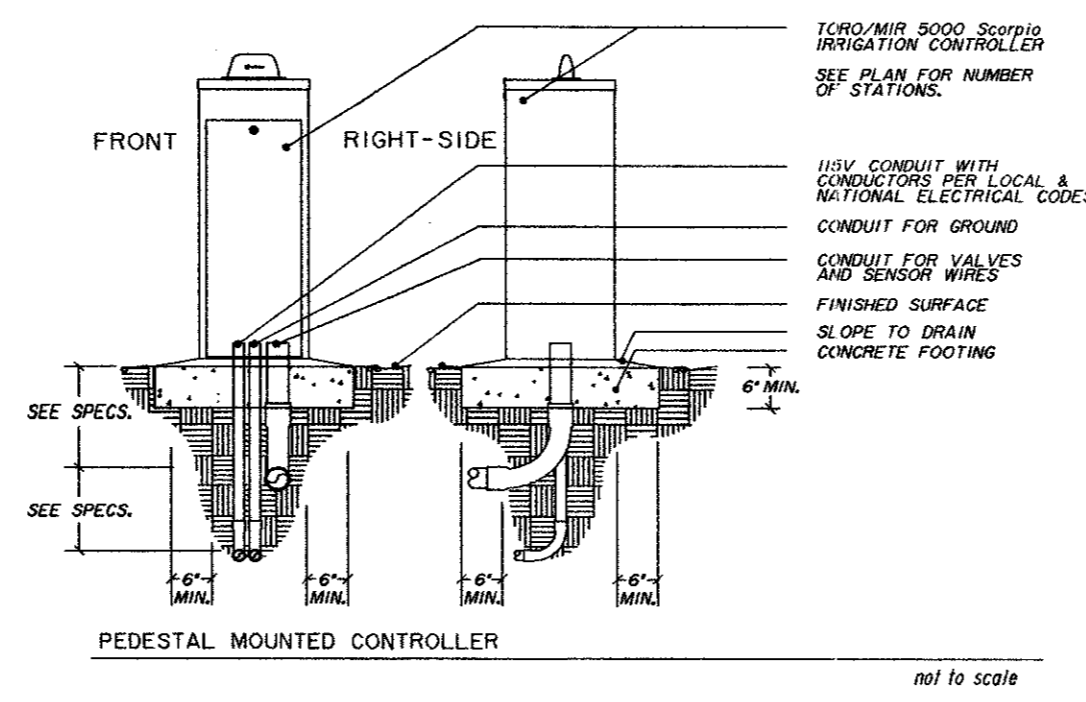


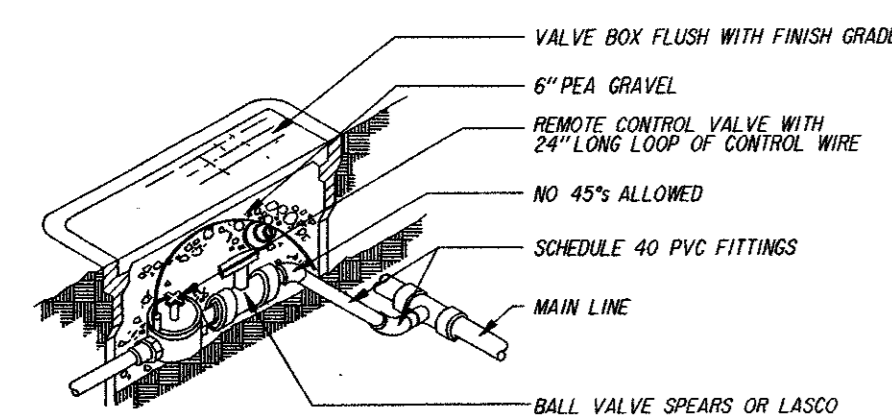
TREE WELL HEAD LAYOUT
not to scale



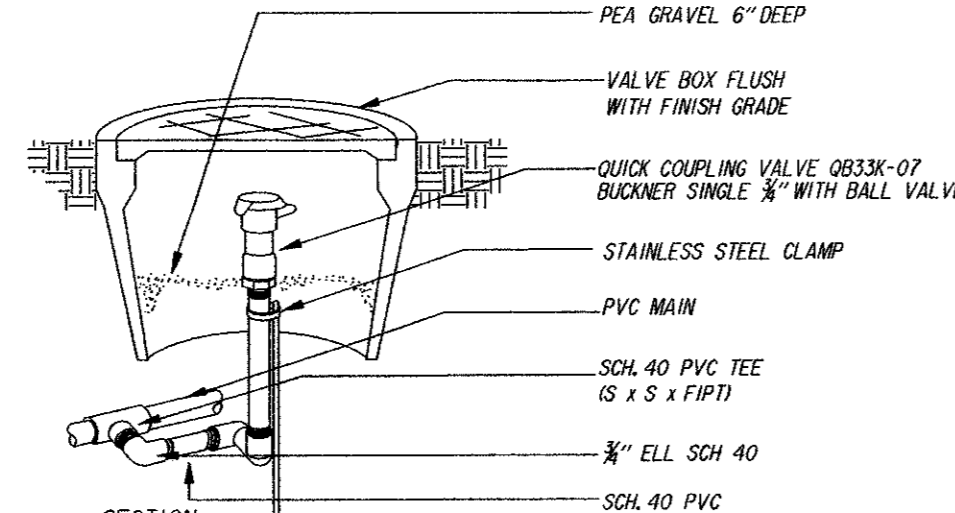
HIGH RISER ASSEMBLY
not to scale



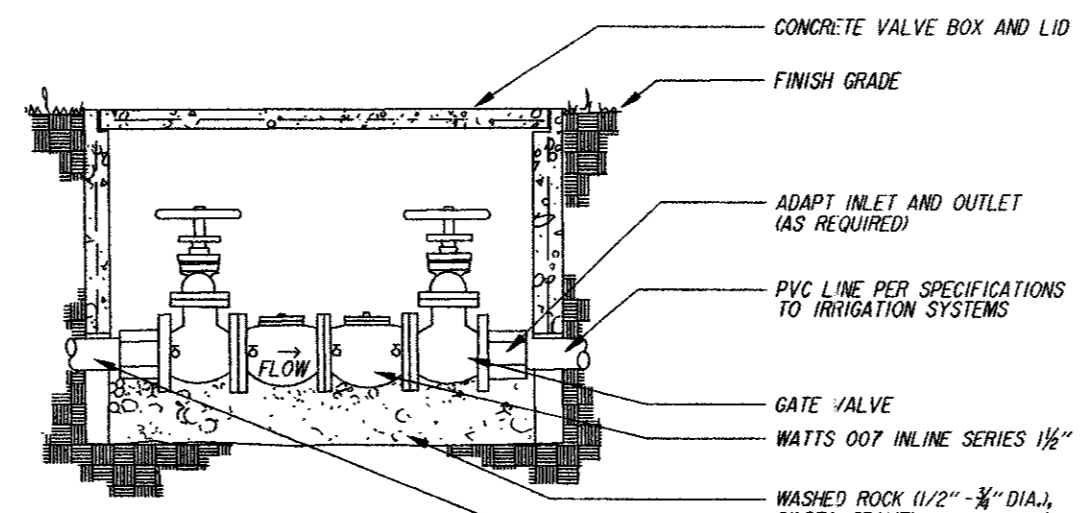
PEDESTAL MOUNTED CONTROLLER
not to scale



REMOTE CONTROL AND BALL VALVE
not to scale

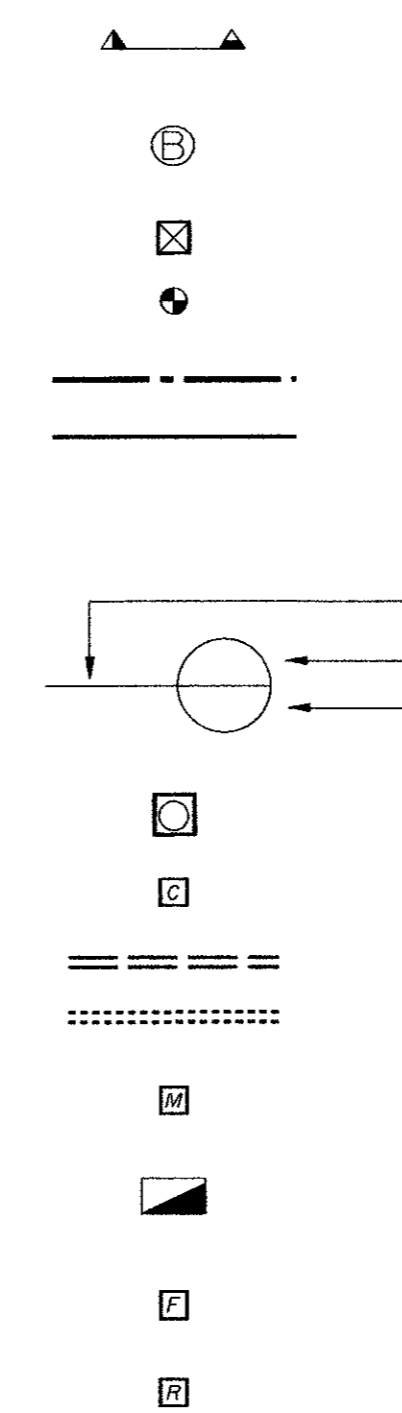


QUICK-COUPLING VALVE
not to scale



BACKFLOW PREVENTER
not to scale

IRRIGATION LEGEND



- TORO POP-UP LOW ANGLE SHRUB SPRAY 570 MPR SERIES ON A NO. 570Z 1/2\"/>
- TORO FLOOD BUBBLER FB-100-PC NOZZLE ON 4\"/>
- QUICK COUPLER VALVE-BUCKNER MODEL QB3K-07 & BALL VALVE.
- WEATHERMATIC 11000 SERIES WITH FLOW CONTROL, WITH PLASTIC LASCO OR SPEARS BALL VALVE UP STREAM OF VALVE.
- SCHEDULE 40 PVC MAINLINE
- CLASS 200 PVC LATERAL LINE, EXCEPT 1/2\"/>
- GPM THROUGH VALVE
- VALVE SEQUENCING NUMBER
- SIZE OF VALVE
- FLOW METER AND MASTER VALVE AND WIRING
- PEDESTAL MOUNTED RAINMASTER WITH PHONE CONNECTION
- 4\"/>
- 6\"/>
- IRRIGATION WATER METER (MASTER METER BRAND) & TAPING SLEEVE (PROVIDE 1-1/2\"/>
- WATTS DOUBLE CHECK VALVE: 1-1/2\"/>
- FREEZE SENSOR-GLINN-HILTON-#401
- MOISTURE SENSOR-GLINN-HILTON-#502

IRRIGATION NOTES

- LINE LAYOUT IS DIAGRAMMATIC-ADJUST HEAD AND LINE LOCATIONS ON SITE TO ACCOMMODATE EXISTING JOB CONDITIONS, SLEEVE LOCATIONS AND TO ACHIEVE COMPLETE COVERAGE.
- ALL MAIN LINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 18\"/>
- ALL VALVE BOXES SHALL BE GREEN LID AND BLACK BODY (AMETEK) TEN(10) INCHES BY FOUTEEN(14) INCHES (RECTANGULAR) FOR REMOTE CONTROL VALVES AND TEN(10) INCHES (ROUND) FOR QUICK COUPLER VALVES.
- CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, IF THE STATIC PRESSURE IS LESS THAN THE DESIGN STATIC PRESSURE OF 65 PSI. PRESSURE REGULATION AT THE SOURCE SHALL BE REQUIRED IF PRESSURE IS GREATER THAN 75 PSI.
- ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14(1) DIRECT BURIAL CABLE. (WHITE FOR COMMON, RED FOR STATIONS AND BLUE FOR MASTER VALVE) ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY USING KING CONNECTORS AND SEALANT. PROVIDE SCHEDULE 40 SLEEVES FOR WIRE UNDER PAVED AREAS AS REQUIRED.
- CONTRACTOR SHALL NOT TRENCH IN CRITICAL ROOT ZONE AREA FOR EXISTING TREES.
- CONTRACTOR SHALL PROVIDE FOR RAINMASTER REMOTE CONTROL SYSTEM.
- CONTRACTOR SHALL PROVIDE PHONE SERVICE AND ELECTRICAL SERVICE TO THE CONTROLLER.
- NO FITTINGS WILL BE ALLOWED UNDER PAVED SURFACES WITHOUT SLEEVES.
- ALL IRRIGATION INSTALLATION SHALL CONFORM TO THE LOCAL CODES AND REGULATIONS.
- IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE LANDSCAPING INSTALLATION.
- IRRIGATION HEADS SHALL BE PLACED AND ADJUSTED SO AS NOT TO SPRAY ON THE BUILDING.
- IRRIGATION HEADS SHALL BE PLACED AND SIZED SO AS NOT TO BE SUSCEPTIBLE TO DAMAGE BY AUTOMOBILE OVERHANGES.
- IRRIGATION CONTRACTOR SHALL PLACE ADJUSTABLE ARC NOZZLES IN PLACE OF FIXED ARC NOZZLE AS NEEDED TO ELIMINATE OVERSPRAY ON TO PAVEMENT.
- ADDISON'S SPECIFICATIONS SUPERSEDE ALL OTHER SPECIFICATIONS.

TOWN OF ADDISON IRRIGATION SPECIFICATIONS

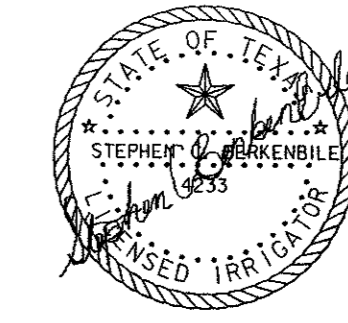
Revised 4/3/01

These revised Town of Addison Irrigation Specifications dated 4/3/01 supersede any and all others. However, any discrepancies between those of the approved construction plans and those of the Town must be brought to the attention of the Town's designated representative for a final determination.

- Design head to head with no single head coverage. Use appropriate size nozzles for a given landscape area so as not to spray onto or over paved surfaces or structures. Do not exceed manufacturer's recommendations.
- All main line pipe 2\"/>
- Fittings: No crosses are permitted. Separate tees and/or elbows by at least 12\"/>
- Wiring: 14 ga. UF. Red - Control wires. White - Ground. Anytime wiring changes direction, such as at an elbow or tee, allow a loop of at least one hand width (10 inches) alongside the fitting at that location. Only continuous wires are permissible unless otherwise approved. Wire should follow mainline where possible and lay along a single side not crossing over lateral lines.
- Use King connectors for all station wire splices. Allow at least 36\"/>
- Only Weathermatic 11000 Series plastic valves are permitted. They are to be located within standard (large) Ametek rectangular plastic valve boxes with 4\"/>
- Only West Ag Model V075 single lug 3/4\"/>
- All heads are to be attached to threaded fittings using 6\"/>
- Pop-ups: Only Toro 570Z Series are permitted, unless otherwise approved. Install 3/4\"/>
- Bubblers: Red areas only. Use Hardie adjustable flood bubblers.
- Rotaries: Only Hunter PGP Series are permitted, unless otherwise noted. Install 3/4\"/>
- Risers: Use Type-M copper with soldered male ends for Toro 570-S shrub adapters and female ends to attach to short polyethylene nipples screwed into threaded fittings. Owner reserves the right to determine placement of risers versus pop-ups.

- Only Hersey MVR meters and three (3) brass flanges are acceptable. Meter lay lengths must be in accordance with Town of Addison's Public Works Department specifications. Stainless steel bolts and nuts must be used in the installation along with neoprene gaskets. House in appropriate size, (to be determined by Owner), concrete box with lid. To bring box to ground level use bricks or pavers, and backfill inside below meter base with at least 6\"/>
- Only Watts 007 M Series inline check valve assemblies are to be used. Connect to meter flange using Teflon paste and gray Schedule 80 nipple of sufficient length to center the DCA within its housing. House in appropriate size, (to be determined by Owner), rectangular Ametek plastic valve box. See above meter installation instructions and follow same with the exception of using plastic valve box extensions for increased height. Connect irrigation mainline to DCA using Teflon paste and PVC male adapter.
- Female threaded plastic Spears ball valves with positive T-handle cut off must be installed every 200' of mainline for isolation purposes. House in standard (large) rectangular Ametek plastic valve box and follow meter box installation instructions for DCA assembly.

- Only an approved size RainMaster Evolution DX-2 stainless steel controller with heavy duty transient protection along with a stainless steel free-standing pedestal is permitted. Controller must include all necessary hardware to ensure reliable communication and operation with the Town's central control located at 16801 Westgrove. Installation must include the following RainMaster hardware, purchased only from a RainMaster supplier: DX-03 sensor board, DX-PH phone communication option, flow meter (size to be approved by owner), and shielded EV-Cab-Sen flowmeter cable. An approved size Weathermatic 11000 series master valve must also be installed with wiring being of a solid color distinctively different than that of the station wiring. Both flow meter and master valve must be housed in Ametek large rectangular plastic valve boxes. Flow meter cable must be sized appropriately and be of a continuous run; no splices will be allowed except at the point of connection to the flow meter. Connections will be soldered and water proofed using a 3-M DBY connector. Cab-Sen cable will be installed within continuous 3/4\"/>
- Use clean and approved topsoil to backfill all pipe to a depth. All heads and boxes are to be backfilled to grade with clean top soil. No rocks greater than 1\"/>
- All steves 2\"/>
- Use appropriate and approved PVC solvent. Avoid excessive use and wipe all joints and fittings clean.
- The installer is responsible for resetting head and/or box height due to settling. Contractor must supply a workmanship warranty for (1) year from date of completion.
- All work is to be accomplished by or directly supervised at all times by an on-site irrigator licensed by the State of Texas.
- Prior to any backfilling of trenches, an inspection by the Town's representative must take place and any necessary changes implemented; otherwise, manual excavation to enable proper inspection will be necessary.
- Valve sequencing must be performed by the contractor and in an order approved by the Town's representative. At least 6\"/>
- Plans are diagrammatic and field adjustments are often necessary. For this reason, prior to trenching, head layout with flags needs to be done and locations approved by Town's representative. Not doing so may result in the relocation of heads at the contractor's expense.
- Any deficiencies in coverage noted by the Town's inspector will be rectified at the cost of the contractor.
- Water taps will be 2\"/>
- All paving must have Town-approved sleeve sizes and quantities present. It is the responsibility of the contractor to notify the Town of any area where sleeving should be present but is not and provide such materials at his cost. Any paving installed without sleeving will necessitate a bore and subsequent sleeving at the contractor's expense.
- RainMaster controllers and associated hardware will be utilized on the job. Reference Town's Irrigation Specifications for this aspect of the job. Notes: separate stations may be necessary for operation of lights, fountains, etc.; additional hardware is also needed and is to be purchased and installed by the contractor. For part numbers and pricing of any RainMaster equipment, contact Matt Swor of Longhorn, Inc. at (972) 406-0222. For technical questions, contact John Terosian of RainMaster at (800) 777-1477.
- Communication is the key. If you are unsure - CALL Ron Lee, Addison Parks Department, (972) 450-2851.



STEPHEN C BERKENBILE & ASSOCIATES
IRRIGATION DESIGN CONSULTANTS
411 HYDE PARK PLACE
DUNCANVILLE, TX 75137
(972) 296-2724
FAX (972) 780-0048

DATE	DESCRIPTION	REF NO.
4/20/01	ISSUED FOR BID	N/A

IRRIGATION DETAILS
MORRIS AVENUE EXTENSION
PUBLIC INFRASTRUCTURE
TOWN OF ADDISON, TEXAS

Hull - 211ars, Inc.
3131 McKinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

DESIGN	DRAWN	APPR.	SCALE	DATE	PROJECT NO.	NO.
HZ1	HZ1	SCB	N.T.S.	APR. 2001	01-3000-01	17

11-2001-01300001.dgn MORRIS AVENUE EXTENSION
DATE PLOTTED: 4/20/01 10:00 AM
PLOT: 17
SCALE: 1/8"=1'-0"
SHEET: 17 OF 17
PROJECT: 01-3000-01