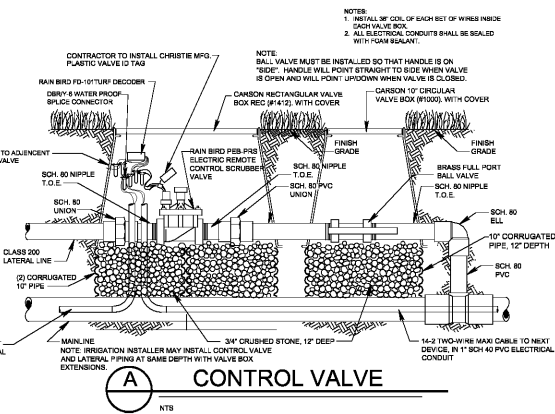
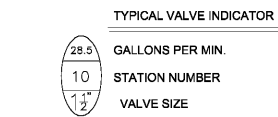


DRAWING ISSUE RECORD		
DATE	REVISIONS	NO.
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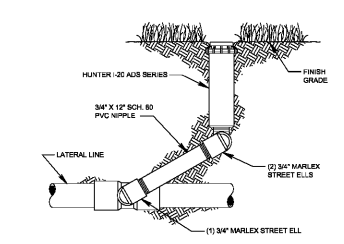
IRRIGATION DETAILS
 HARMONY ELEMENTARY SCHOOL
 REPLACEMENT ELEMENTARY SCHOOL
 6326 FACTORY SQUARE
 WHEATON, CA 90781
 FOR COUNCIL DISTRICT
 COBB COUNTY, GA
 CCSD PROJECT No. A004 / DOE FACILITY
 DATE: 2018-10-12
 SHEET: SH-002-18
 CUNNINGHAM, forehand, matthews & moore, architects, inc. - 2011 manchester street, n.e. - atlanta, georgia 30324 - phone (404) 873-2152
cunningham forehand matthews moore
 12.1

IRRIGATION LEGEND

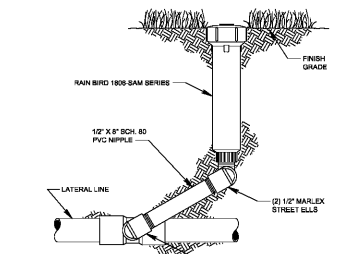
- 2" IRRIGATION WATER METER. SYSTEM REQUIRES 100 GPM @ 75 PSI. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE SYSTEM REQUIREMENTS AT SITE BEFORE STARTING CONSTRUCTION.
- WATTS #908-M1-QT-2, 2" REDUCED PRESSURE ASSEMBLY BACKFLOW PREVENTER. DETAIL-S.
- MANUAL DRAIN VALVE. SCH 80 PVC TRUE UNION BALL VALVE. DETAIL-E.
- WINTERIZATION ASSEMBLY. DETAIL-O.
- RAIN BIRD ESP-LXD CONTROLLER. 50 STATION, 2-WIRE/DECODER BASED MODULAR CONTROLLER, FOUR PROGRAMS, PLASTIC, WALL MOUNTED. DETAIL-J.K.R. IRRIGATION CONTRACTOR SHALL ALSO INSTALL A WIRELESS RAIN/FREEZE SENSOR FOR EACH CONTROLLER.
- RAIN BIRD LSP-1 TWO-WIRE SURGE ARRESTOR. INSTALLED A MINIMUM OF EVERY 300' OR EVERY 6 DECODERS, WHICHEVER IS SHORTER. DETAIL-R.
- RAIN BIRD 150-PEB-PRS OR 200-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 1 1/2" OR 2" SIZE, MOUNTED WITH BRASS FULL PORT BALL VALVE WITH PRESSURE REGULATION DEVICES, MOUNTED WITH RAIN BIRD SINGLE STATION DECODER (FD-101TURF). DETAIL-A.
- RAIN BIRD 100-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, MOUNTED WITH BRASS FULL PORT BALL VALVE WITH PRESSURE REGULATION DEVICES, MOUNTED WITH RAIN BIRD SINGLE STATION DECODER (FD-101TURF). DETAIL-A.
- RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRINKLER, 12" RADIUS, FULL-2.0 GPM, QUARTER-0.5 GPM, 30 PSI. DETAIL-C.
- RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRINKLER, 15" RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 30 PSI. DETAIL-C.
- RAIN BIRD 1806-SAM, 6" LAWN POP-UP SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM. DETAIL-C.
- RAIN BIRD 1806-SAM, LAWN SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.
- RAIN BIRD 1806-SAM, LAWN END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 15" RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 12" RADIUS, FULL-2.0 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1812-SAM, 12" HI-POP SHRUB END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.5 GPM, 30 PSI. DETAIL-D.
- RAIN BIRD 1806-SAM WITH 1404 BUBBLER NOZZLE AND PA-80 ADAPTER. 6" POP-UP TREE BUBBLER, 1.0 GPM, DETAIL-C.
- HUNTER I-20-06-SS LAWN ROTOR, 40" RADIUS, FULL-8.0 GPM, HALF-4.0 GPM, QUARTER-2.0 GPM, 45 PSI, WITH STAINLESS STEEL RISER. DETAIL-B.
- HUNTER I-20-06-SS LAWN ROTOR, 30" RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 45 PSI, WITH STAINLESS STEEL RISER. DETAIL-B.
- HUNTER I-20-12-SS HI-POP SHRUB ROTOR, 40" RADIUS, FULL-8.0 GPM, HALF-4.0 GPM, QUARTER-2.0 GPM, 45 PSI, WITH STAINLESS STEEL RISER. DETAIL-M.
- HUNTER I-20-12-SS HI-POP SHRUB ROTOR, 30" RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 45 PSI, WITH STAINLESS STEEL RISER. DETAIL-M.
- HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1806-SAM SPRINKLER IN LAWN, 30" RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-D.
- HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1806-SAM SPRINKLER IN LAWN, 20" RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 40 PSI, DETAIL-C.
- HUNTER INDUSTRIES MP ROTATOR SERIES 3000, MOUNTED ON RAIN BIRD 1812-SAM SPRINKLER IN BED AREAS, 30" RADIUS, FULL-4.0 GPM, HALF-2.0 GPM, QUARTER-1.0 GPM, 40 PSI, DETAIL-D.
- HUNTER INDUSTRIES MP ROTATOR SERIES 2000, MOUNTED ON RAIN BIRD 1812-SAM SPRINKLER IN BED AREA, 20" RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 40 PSI, DETAIL-D.
- RAIN BIRD #5 QUICK COUPLING VALVE 1" SIZE. CONTRACTOR TO SUPPLY TWO QCV KEYS AND MATCHING HOSE SWIVELS. DETAIL-L.
- MAINLINE ISOLATION GATE VALVE, DOMESTIC DUCTILE IRON GASKETED. DETAIL-N.
- AIR VENT VALVE, BERMAID #4420, 2" SIZE. INSTALLED AT HIGH POINTS OF THE IRRIGATION SYSTEM. DETAIL-F.
- MAINLINE PIPE, 3" SIZE IF NOT NOTED. SCH 40 PVC. THRUST BLOCK AS PER MANUFACTURER'S RECOMMENDATIONS FOR PIPE TYPE, PIPE SIZE, AND LOCAL ENVIRONMENTAL CONDITIONS.
- IRRIGATION SLEEVE: SCH 40 PVC, SIZE NOTED ON PLAN. DETAIL-H.
- LATERAL LINE PIPE: SCH 40 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC SOLVENT WELD FITTINGS, SIZE NOTED.
- ELECTRICAL CONDUIT SLEEVE, REFER TO NOTES ON PLANS.



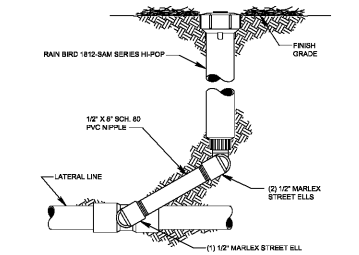
A CONTROL VALVE



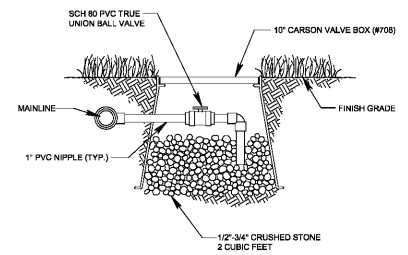
B LAWN ROTOR



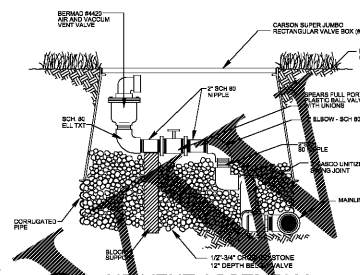
C LAWN SPRAY



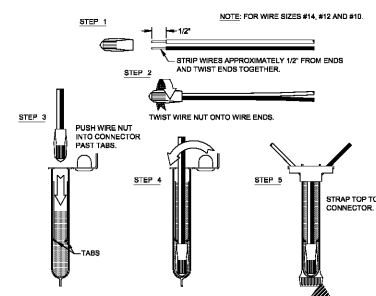
D SHRUB SPRAY



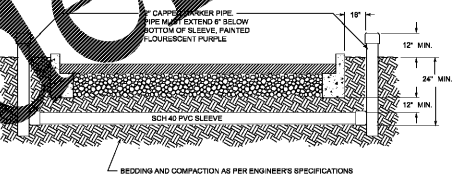
E MANUAL DRAIN VALVE



F AIR VENT ASSEMBLY



G WIRE CONNECTION



H SLEEVING

GENERAL NOTES

- ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER (SCH 40 PVC PIPE).
- ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER (SCH 40 PVC PIPE).
- NO ROCKS, BOULDER, OR OTHER EXTRANECEOUS MATERIALS TO BE USED IN BACKFILLING OF TRENCH.
- ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.
- ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID TEFLON.
- ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF SPRINKLER HEADS.
- SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS.
- ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS SHOWN ON DETAILS.
- ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND FURNISHED BY THE CONTRACTOR.
- NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR CONNECTIONS.
- ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE IRRIGATION CONSULTANT BY THE CONTRACTOR FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- ALL TWO-WIRE CONTROL WIRES SHALL BE #14-2 MAXI CABLE, INSTALLED IN 1" SCH 40 PVC ELECTRICAL CONDUIT.
- CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED. I.E. ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES.
- CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER PLANTING. I.E. VERIFY ROOT BALL SIZE FOR PLANTING.
- CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).
- CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.
- ALL SPRINKLERS TO BE INSTALLED AS DETAILED ON PLANS.
- CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL VALVES.
- 24 VOLT WIRE SHALL BE COLOR CODED PER SEPARATE WIRE RUNS.
- CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH PAIGE WIRE GROUND PLATE ASSEMBLY.
- CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON FAULT GROUND AND LIGHTNING PROTECTION.
- CONTROLLER GROUNDING MUST BE AS PER RAIN BIRD WIRE GROUNDING REQUIREMENTS.
- ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER.
- TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEADS AND VALVE SUPPLIED.
- TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.
- TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS.
- SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING ELECTRICAL VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPE AREAS AND WITHIN PROPERTY BOUNDARIES. CONTRACTOR SHALL REFERENCE THE LANDSCAPE PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT MATERIALS EXISTING OR NEW.
- CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR PROPER COVERAGE.
- CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS.
- CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY AND BACKFLOW REQUIREMENTS. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM PLANS AND SPECIFICATIONS.
- IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE ARCHITECT WITH A REPRODUCIBLE CROSS MEASURED AS-BUILT DRAWING OF THE INSTALLED IRRIGATION SYSTEM IN AUTOCAD 2010 FORMAT BEFORE FINAL ACCEPTANCE.
- A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER SUBSTANTIAL COMPLETION IS ACCEPTED. START UP AND ADJUSTING OF SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY.
- PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, INSTALLATION PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY IRRIGATION CONSULTANT/DESIGNER OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES. IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND REDESIGN COSTS FOR NON-COMPLIANCE.
- UNLESS OTHERWISE NOTED, THE CONTRACTOR MUST COMPLETE 2 PRESSURE TESTS OF THE IRRIGATION SYSTEM MAINLINE (BOTH TO SHOW NO DROP IN PRESSURE DURING DURATION OF TEST):
 - 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE
 - 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE
- IRRIGATION INSTALLATION CONTRACTOR SHALL PROVIDE OWNER WITH A COLOR-CODED ZONES DIAGRAM PLAN, 8-1/2"x11" LAMINATED SHEET(S), TO IDENTIFY CONTROLLER STATION TO THE CONTROL VALVE NUMBER FOR EACH CONTROLLER. TO BE LOCATED IN ADHESIVE POUCH ATTACHED INSIDE OF CONTROLLER(S).

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