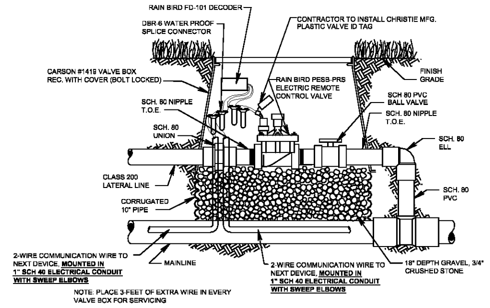
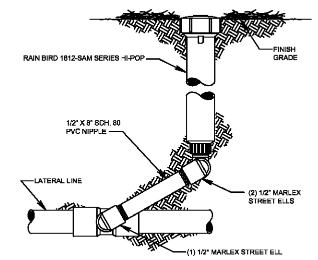
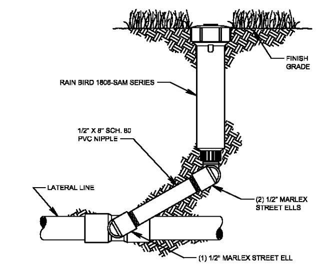
NOTE:
ALL VALVE BOXES SHALL BE BLACK IN COLOR



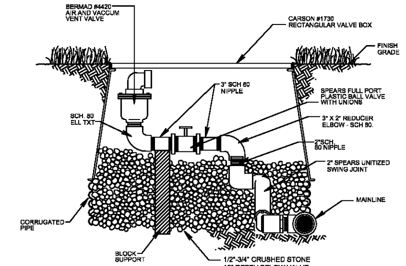
A CONTROL VALVE
NTS



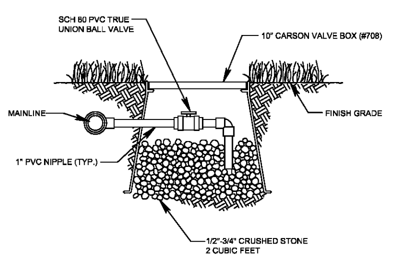
B SHRUB SPRAY
NTS



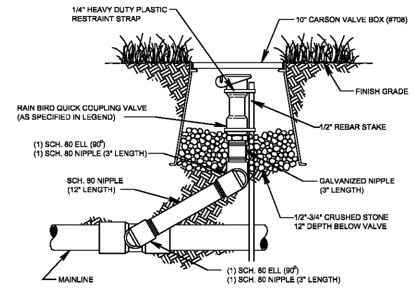
C LAWN SPRAY
NTS



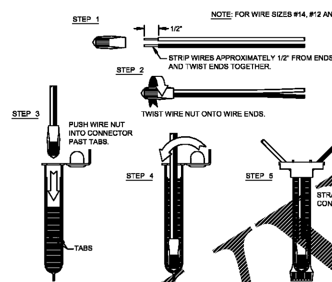
D AIR VENT ASSEMBLY
NTS



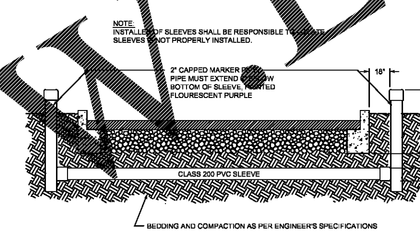
E MANUAL DRAIN VALVE
NTS



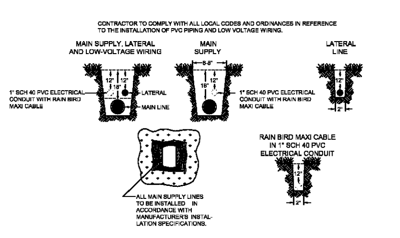
F QUICK COUPLING VALVE
NTS



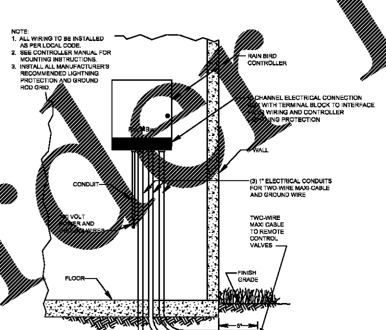
G WIRE CONNECTION
3M-DBR/Y-6



H SLEEVING
NTS



I TRENCHING
NTS



J CONTROLLER
NTS

GENERAL NOTES

1. ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE CLASS 200 PVC FOR 4" AND LARGER)
2. ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER. (CLASS 200 PVC PIPE)
3. NO ROCKS, BOULDER, OR OTHER EXTRANEOUS MATERIALS TO BE USED IN BACKFILL OF TRENCH.
4. ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.
5. ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID TEFLON.
6. ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF SPRINKLER HEADS.
7. SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS.
8. ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS SHOWN ON DETAILS.
9. ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND FURNISHED BY THE CONTRACTOR.
10. NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A VALVE CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR CONNECTIONS.
11. ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE IRRIGATION CONSULTANT BY THE CONTRACTOR FOR CLARIFICATION BEFORE PRECEEDING WITH THE WORK.
12. ALL TWO-WIRE CONTROL WIRES SHALL BE #14-2 MAXI CABLE, INSTALLED IN 1" SCH 40 PVC ELECTRICAL CONDUIT.
13. 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.
14. 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.
15. CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).
16. CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.
17. ALL SPRINKLERS TO BE INSTALLED AS DETAILED ON PLANS.
18. CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL VALVES.
19. 24 VOLT WIRE SHALL BE COLOR CODED PER SEPARATE WIRE RUNS.
20. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH PAIGE WIRE GROUND PLATE ASSEMBLY.
21. CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON FAULT GROUND AND LIGHTNING PROTECTION.
22. CONTROLLER GROUNDING MUST BE AS PER RAIN BIRD WIRE GROUNDING REQUIREMENTS
23. ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER:
    A. TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEADS AND VALVE SUPPLIED.
    B. TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.
    C. TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS.
24. SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING ELECTRIC 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.
25. CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR PROPER COVERAGE.
26. CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS. ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS.
27. PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND BACKFLOW REQUIREMENTS. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM PLANS AND SPECIFICATIONS.
28. IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER AND LANDSCAPE ARCHITECT WITH A REPRODUCIBLE CROSS MEASURED AS-BUILT DRAWING OF THE INSTALLED IRRIGATION SYSTEM IN AUTOCAD 2017 FORMAT BEFORE FINAL ACCEPTANCE.
29. 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.
30. 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.
31. 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.
    A. 2-HOUR PRESSURE TEST AT 1.5 TIMES THE SYSTEM STATIC PRESSURE
    B. 24-HOUR PRESSURE TEST AT THE SYSTEM STATIC PRESSURE
32. 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).

NOTES:
1. ALL SPRINKLER TO BE MOUNTED ON MARLEX ELLS OR UNITIZED SWING JOINTS (AS SPECIFIED ON DETAILS).
2. CONTRACTOR TO UTILIZE A AUTOMATIC DRAIN CHECK VALVE DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.
3. ALL TWO-WIRE CABLE TO BE MINIMUM SIZE OF 14-2 MAXI-CABLE
4. ALL TWO-WIRE CABLE TO BE INSTALLED IN 1" SCH 40 PVC ELECTRICAL CONDUIT.
5. ALL ELECTRICAL CONDUITS OPENINGS TO BE FOAM SEALED.
6. ALL WIRE SPLICES TO BE MADE WITH 3M DBR/Y-6 CONNECTORS MOUNTED IN A MINIMUM OF 10" CARSON VALVE BOX
7. ALL PIPING AND WIRING UNDER HARDTOPS WILL BE IN CLASS 200 PVC PIPE SLEEVE.
8. LSP-1 SURGE ARRESTORS SHALL BE INSTALLED EVERY 300' OR EVERY 6 DECODERS (WHICHEVER IS SHORTER) ALONG TWO-WIRE PATH. LSP-1 SURGE ARRESTORS SHALL ALSO BE INSTALLED AT ALL TERMINAL ENDS OF TWO-WIRE CABLE PATHS (STAR CONFIGURATION). REFER TO DETAIL-T.
9. INSTALLATION CONTRACTOR SHALL ADHERE TO ALL MANUFACTURER SPECIFICATIONS FOR TWO-WIRE CONTROL SYSTEM INSTALLATION (WIRE SIZING, WIRE LENGTH OF RUNS, GROUNDING, ETC).

Irrigation Consultant Services
2231 Weatherstone Circle
Conyers, GA 30094
(770) 929-0884, fax (770) 760-8025

IRRIGATION LEGEND

2" WATER METER, SYSTEM REQUIRES 80 GPM @ 75 PSI. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE SYSTEM REQUIREMENTS AT SITE BEFORE STARTING CONSTRUCTION.

(2) WATTS #909-M1-QT-2", 2" REDUCED PRESSURE ASSEMBLY BACKFLOW PREVENTER. DETAIL-F.

WINTERIZATION ASSEMBLY. DETAIL-V.

MANUAL DRAIN VALVE. SCH 80 PVC TRUE UNION BALL VALVE. DETAIL-E.

C — RAIN BIRD ESP-LXD CONTROLLER . 50 TOTAL STATIONS, 2-WIRE/DECODER BASED MODULAR CONTROLLER, FOUR PROGRAMS, PLASTIC, WALL MOUNTED. DETAIL-J,K,U. IRRIGATION CONTRACTOR SHALL ALSO INSTALL A WIRELESS RAIN/FREEZE SENSOR FOR EACH CONTROLLER. IRRIGATION CONTRACTOR SHALL HAVE RAIN BIRD VERIFY LIGHTNING PROTECTION AND OPERATION - CONTACT DONN MANN AT 520..904.1146.

RAIN BIRD 150-PEB-PRS OR 200-PEB-PRS PLASTIC ELECTRIC REMOTE CONTROL VALVE, 1-1/2" OR 2" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION 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, 1" SIZE, MOUNTED WITH SCH 80 PVC TRUE UNION 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 SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 GPM, HALF-1.0 GPM, QUARTER-0.5 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" POP-UP LAWN SPRAY 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, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" LAWN SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-C.

RAIN BIRD 1806-SAM, 6" LAWN END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 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, THREE QUARTER-3.0 GPM, 30 PSI. DETAIL-B.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SPRAY SPRINKLER, 12' RADIUS, FULL-2.0 GPM, 30 PSI. DETAIL-B.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 9' X 18' RADIUS, 1.5 GPM, 30 PSI. DETAIL-B.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB SIDE STRIP SPRAY SPRINKLER, 4' X 30' RADIUS, 1.5 GPM, 30 PSI. DETAIL-B.

RAIN BIRD 1812-SAM, 12" HI-POP SHRUB END STRIP SPRAY SPRINKLER, 4' X 15' RADIUS, 1.0 GPM, 30 PSI. DETAIL-B.

RAIN BIRD 1806-SAM WITH 1404 BUBBLER NOZZLE AND PA-80 ADAPTER. 6" POP-UP TREE BUBBLER, 1.0 GPM, DETAIL-C.

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-C.

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-B.

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-B.

RAIN BIRD DRIP ZONE ASSEMBLY KIT, MODEL #XCZ-100-PRB-COM OR XCZ-150-PRB-COM. 1" OR 1-1/2" SIZE, AS NOTED ON PLANS. TO BE INSTALLED WITH RAIN BIRD SINGLE STATION DECODER (FD-101). DETAIL-O.

NOTE: FOR ANY DRIP ZONE WITH FLOW UNDER 3 GPM, MUST UTILIZE RAIN BIRD XCZ-LF-100-PRF, LOW FLOW DRIP VALVE ASSEMBLY.

POINT OF CONNECTION - DRIP LINE TUBING TO PVC PIPE, DETAIL-P,Q.

DRIP TUBING: RAIN BIRD XFS DRIPLINE DRIP TUBING, .6 GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4', INSTALL NETAFIM AIR RELIEF VALVE KIT IN 10" CIRCULAR VALVE BOX AT HIGH POINT OF EACH ZONE AND INSTALL NETAFIM DRIP DRAIN VALVE(S) IN 10" CIRCULAR VALVE BOX AT LOW POINT(S) OF EACH ZONE. DETAIL-P,Q,R,S,W.

TREE RING DRIP TUBING: RAIN BIRD XFS DRIPLINE DRIP TUBING, .6 GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4', INSTALL NETAFIM AIR RELIEF VALVE KIT IN 10" CIRCULAR VALVE BOX AT HIGH POINT OF EACH ZONE AND INSTALL NETAFIM DRIP DRAIN VALVE(S) IN 10" CIRCULAR VALVE BOX AT LOW POINT(S) OF EACH ZONE. DETAIL-P,Q,R,S,W.

NOTE:
CONTRACTOR SHALL INSTALL RAIN BIRD DRIP OPERATION INDICATOR KIT AT ENDS OF EACH DRIP ZONE AREA.

RAIN BIRD #5 QUICK COUPLING VALVE 1" SIZE. CONTRACTOR TO SUPPLY TWO QCV KEYS AND MATCHING HOSE SWIVELS. DETAIL-F.

MAINLINE ISOLATION VALVE, SCH 80 PVC TRUE UNION BALL VALVE. DETAIL-

(A) AIR VENT VALVE, BERMAD #4420, 2" SIZE. INSTALLED AT HIGH POINTS OF THE IRRIGATION SYSTEM. DETAIL-D.

MAINLINE PIPE: 3" SIZE IF NOT NOTED. CLASS 200 PVC. ALL PIPE 2-1/2" AND LARGER SHALL BE UNIBELL GASKETED PVC PIPE AND HARCO PVC GASKETED FITTINGS. THRUST BLOCKS AND RESTRAINTS TO BE UTILIZED AS PER MANUFACTURER'S RECOMMENDATIONS FOR PIPE TYPE, PIPE SIZE, AND LOCAL ENVIRONMENTAL CONDITIONS.

IRRIGATION SLEEVE: CLASS 200 PVC, SIZE NOTED ON PLAN. DETAIL-H.

LATERAL LINE PIPE: CLASS 200 PVC SOLVENT WELD PIPE UTILIZING SCH 40 PVC SOLVENT WELD FITTINGS, SIZE NOTED.

ELECTRICAL CONDUIT SLEEVE, REFER TO NOTES ON PLANS.

TYPICAL VALVE INDICATOR

28.5	GALLONS PER MIN.
10	STATION NUMBER
1 1/2"	VALVE SIZE

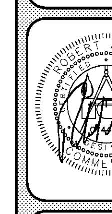
REVISIONS		
NO.	DESCRIPTION	DATE

TITLE
IRRIGATION DETAILS
PUBLIX & SHOPS SHOPPING CENTER
TATTERSALL PARK
HOOVER, AL
GREYSTONE WAY, LLC
CLEARWATER, FL

DWN. BY	CKD. BY	SCALE	DATE
ICS	R. GREGORY, PLA	NTS	07/12/18

GONZALEZ - STRENGTH & ASSOCIATES, INC.
CIVIL ENGINEERING, LAND SURVEYING, PLANNING, TRAFFIC & TRANSPORTATION
2176 PARKWAY LAKE DRIVE
HOOVER, ALABAMA 35244
PHONE: (205) 942-2486
FAX: (205) 942-3033
www.Gonzalez-Strength.com

© Copyright 2016
THIS DRAWING IS THE PROPERTY OF GONZALEZ - STRENGTH AND ASSOCIATES, INC. AND IS NOT TO BE REPRODUCED OR ALTERED IN WHOLE OR PART OR USED FOR ANY PURPOSE WITHOUT THE APPROVAL OF GONZALEZ - STRENGTH AND ASSOCIATES, INC. AND TO BE RETURNED UPON REQUEST.



NOT VALID UNLESS SIGNATURE IS SHOWN

DWG.NO.
I3.0 - R0
PROJECT
17WHD02

Order Plans @ WWW.LDIline.com