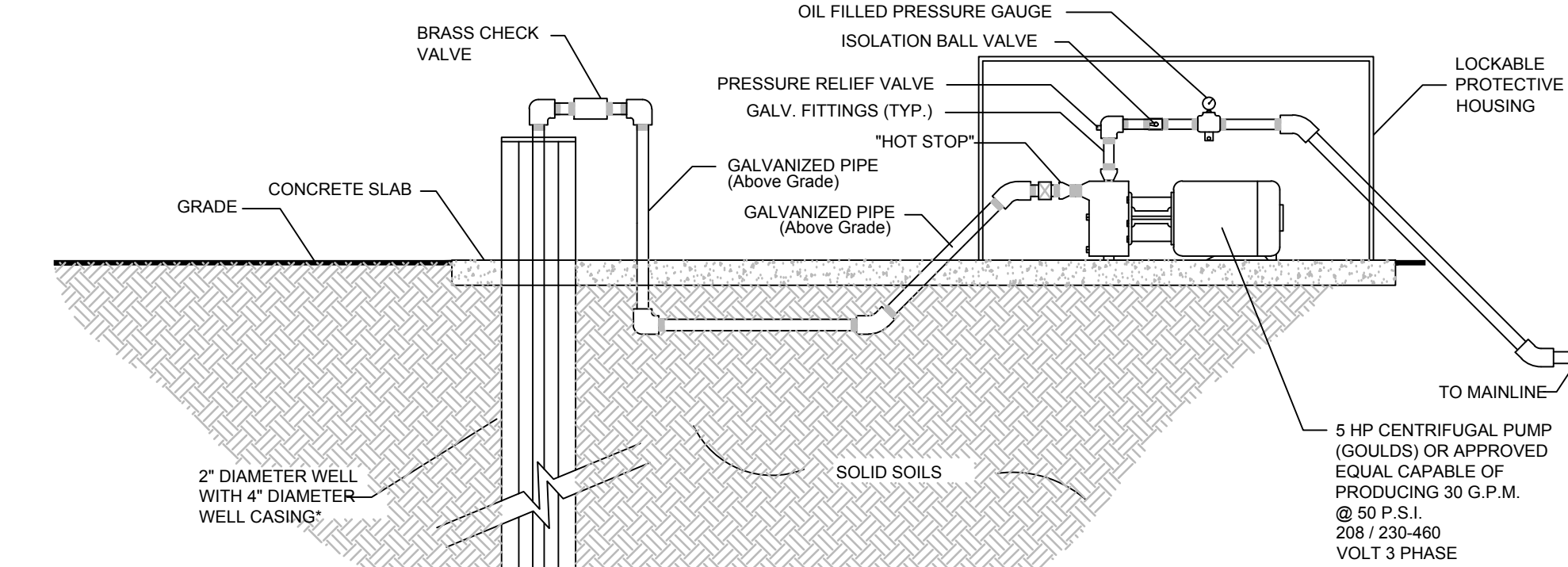
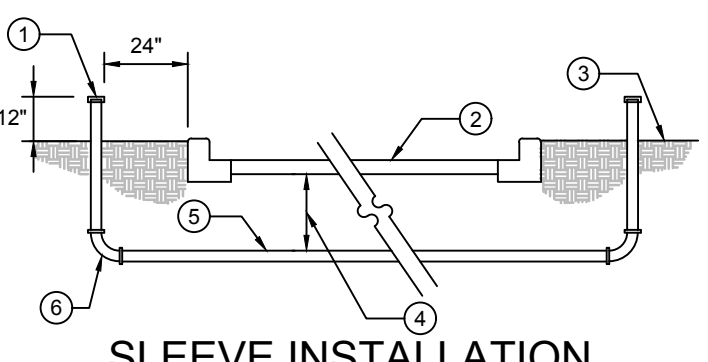


IRRIGATION NOTES

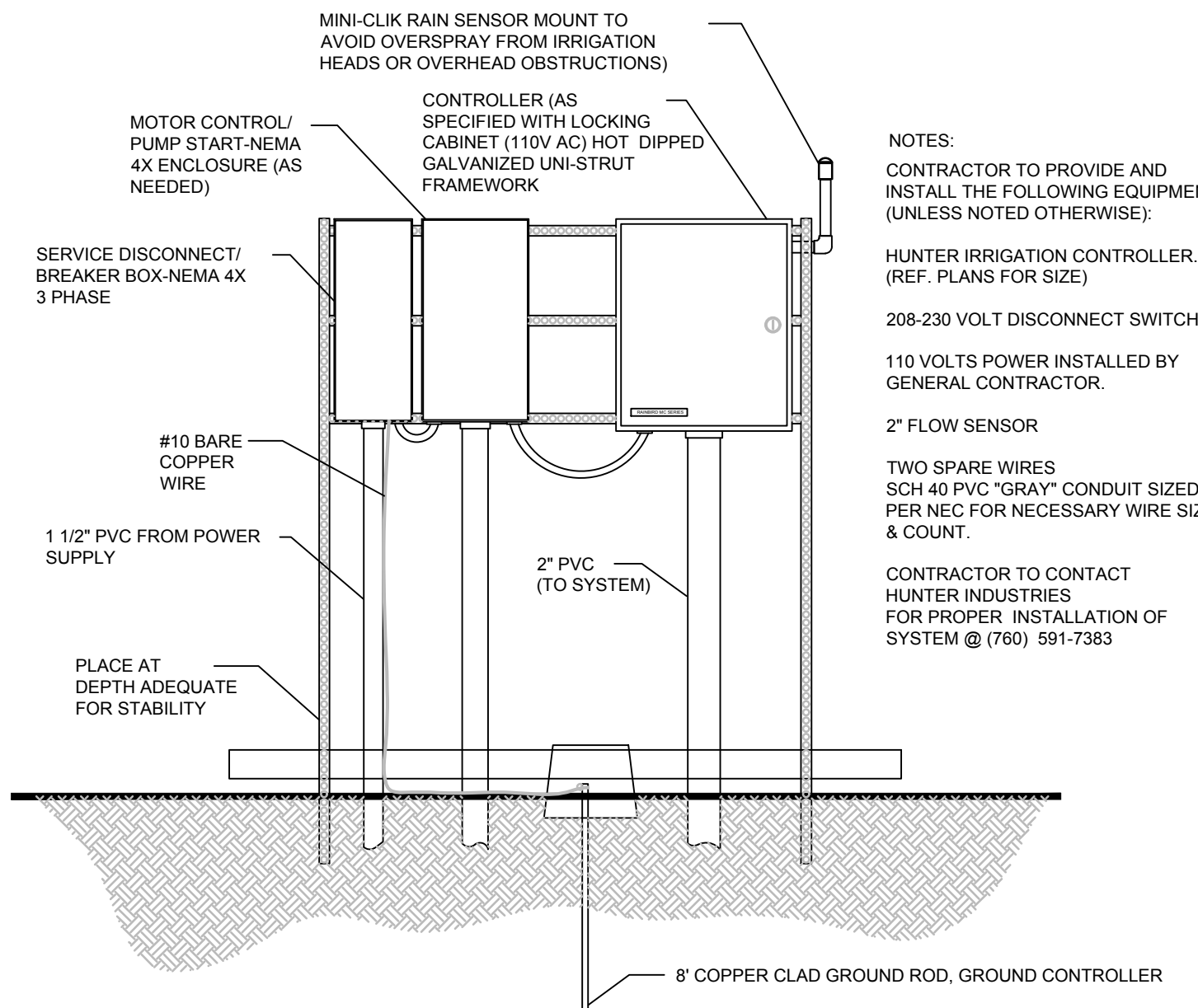
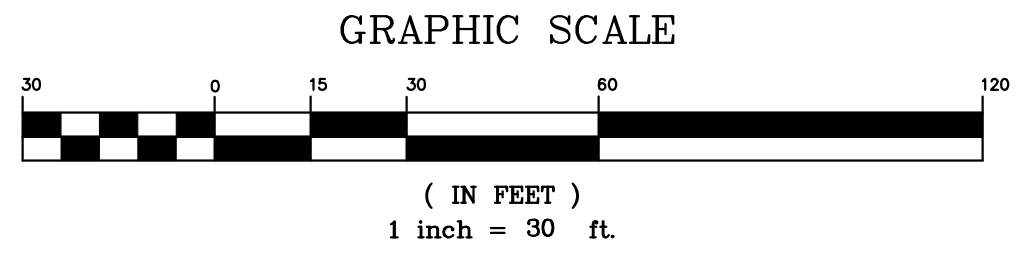
- DO NOT SCALE PLAN FOR EXACT HEAD LOCATION.
- SPRINKLER HEADS SHALL BE PLACED ON RISERS IN SHRUB AREAS. RISERS SHALL BE PAINTED FLAT BLACK.
- THE CONTRACTOR SHALL MAKE ALL ADJUSTMENTS TO THE IRRIGATION SYSTEM TO INSURE 100% COVERAGE.
- THE CONTRACTOR SHALL RUN 3 ADDITIONAL SETS OF WIRES IN EACH DIRECTION TO EACH END OF THE MAIN FOR FUTURE USE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HARD WIRING THE ELECTRICAL SERVICE CONNECTIONS.
- THE FINAL LOCATION OF ALL COMPONENTS SHALL BE SUBJECT TO APPROVAL BY THE OWNER.
- ALL MAIN LINE SLEEVE LOCATIONS ARE ACCOMPANIED WITH A 2" ELECTRICAL CHASE FOR THE CONTROL WIRING.
- VELOCITY SHALL NOT EXCEED A FLOW RATE OF 5' PER SECOND.
- 4" POP-UP HEADS SHALL BE USED IN SODDED AREAS AND 12" POP-UP HEADS SHALL BE USED IN LANDSCAPED AREAS.
- LOCATION OF IRRIGATION MAIN LINE AND VALVES IS FOR CLARITY ONLY. ACTUAL LOCATION OF MAIN LINE SHALL BE 6" OFF BACK OF CURB WHERE POSSIBLE. ACTUAL LOCATION OF VALVES SHALL BE IN THE NEAREST LANDSCAPE AREA.
- SPRINKLER HEADS SHALL BE 12" MIN. FROM THE EDGE OF THE SIDEWALKS AND WALKWAYS.
- IRRIGATION SYSTEM DESIGN PARAMETERS: 30GPM @ 30PSI

- TEMPORARY RISER AND CAP SOLVENT WELD CAP TO RISER
- PAVEMENT
- FINISHED GRADE
- 18" FOR NON-PRESSURIZED LATERAL 2" FOR MAINLINE
- SLEEVE AS SPECIFIED (PROVIDE SEPARATE 2" CHASE FOR CONTROL WIRING.)
- 90° ELL (TYP)



*WELL DEPTH AS REQUIRED TO OBTAIN BEST WATER QUALITY WITH THE LEAST AMOUNT OF IRON OBTAINABLE. WELL CASING TO BE USED ONLY IF NEEDED.

CENTRIFUGAL PUMP STATION DETAIL WITH WELL POINT



CONTROLLER DETAIL

- NOTES:
- CONTRACTOR TO PROVIDE AND INSTALL THE FOLLOWING EQUIPMENT (UNLESS NOTED OTHERWISE):
 - HUNTER IRRIGATION CONTROLLER. (REF. PLANS FOR SIZE)
 - 208-230 VOLT DISCONNECT SWITCH
 - 110 VOLTS POWER INSTALLED BY GENERAL CONTRACTOR.
 - 2" FLOW SENSOR
 - TWO SPARE WIRES SCH 40 PVC "GRAY" CONDUIT SIZED PER NEC FOR NECESSARY WIRE SIZE & COUNT.
 - CONTRACTOR TO CONTACT HUNTER INDUSTRIES FOR PROPER INSTALLATION OF SYSTEM @ (780) 591-7383

IRRIGATION EQUIPMENT SCHEDULE

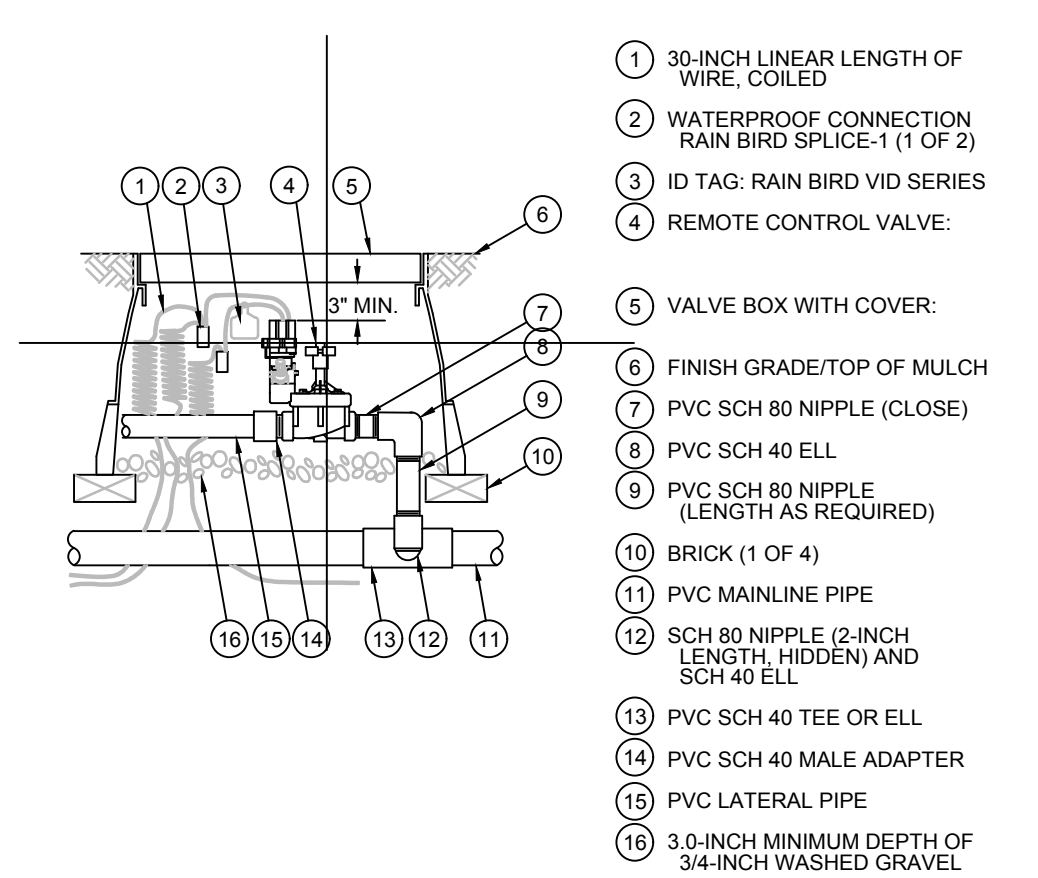
SYMBOL	DESCRIPTION	QTY.
A	HUNTER RZWS-18-25-CV 18" ROOT ZONE WATERING SYSTEM WITH CHECK VALVE, 0.25 GPM	7
B	HUNTER PROS-04-CV-LCS-515 PRO SPRAY 4" POP-UP WITH CHECK VALVE LEFT CORNER STRIP 5'X15" PATTERN	6
C	HUNTER PROS-04-CV-10-H PRO SPRAY 4" POP-UP WITH CHECK VALVE 10' R. 180° PATTERN	18
D	HUNTER PROS-04-CV-10-F PRO SPRAY 4" POP-UP WITH CHECK VALVE 10' R. 360° PATTERN	7
E	HUNTER PROS-04-CV-12-H PRO SPRAY 4" POP-UP WITH CHECK VALVE 12' R. 180° PATTERN	10
	HUNTER PLD-10-24-1000 PROFESSIONAL LANDSCAPE DRIP LINE, 1.0 GPH EMITTERS SPACED AT 24" O.C.	TBD
	HUNTER PGV-100G ELECTRIC REMOTE CONTROL VALVE, 1" PLASTIC GLOBE VALVE	12
	HUNTER PC-1200 ELECTROMECHANICAL CONTROLLER, 12 STATIONS, OUTDOOR MODEL	1
	HUNTER MINI-CLIK RAIN SENSOR, MOUNT AS NOTED	1
	FABCO 785 1" PRESSURE VACUUM BREAKER, INSTALL PER MANUFACTURER'S RECOMMENDATIONS	1
	HUNTER FLOW-CLIK-200 FLOW SENSOR WITH INTERFACE PANEL, 2" SCHEDULE 40 SENSOR BODY, 24 VAC, 2 AMP, INSTALL INTERFACE PANEL AS REQUIRED	1
	IRRIGATION MAIN LINE, PVC SCHEDULE 40	1
	IRRIGATION LATERAL LINE, PVC CLASS 200 SDR 21 ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE AS INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/2" IN SIZE	1
	PIPE SLEEVE, PVC SCHEDULE 40, TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE, PIPE SLEEVE SHALL ALLOW FOR IRRIGATION PIPING AND RELATED COUPLING TO EASILY SLIDE THROUGH SLEEVE. EXTEND SLEEVE 18" BEYOND EDGES OF PAVING OR CONSTRUCTION	1
	IRRIGATION WELL (2"). CONTRACTOR SHALL OBTAIN ALL LOCAL AND STATE PERMITS FOR WELL INSTALLATION AND USE	1

GENERAL IRRIGATION SPECIFICATIONS AND NOTES

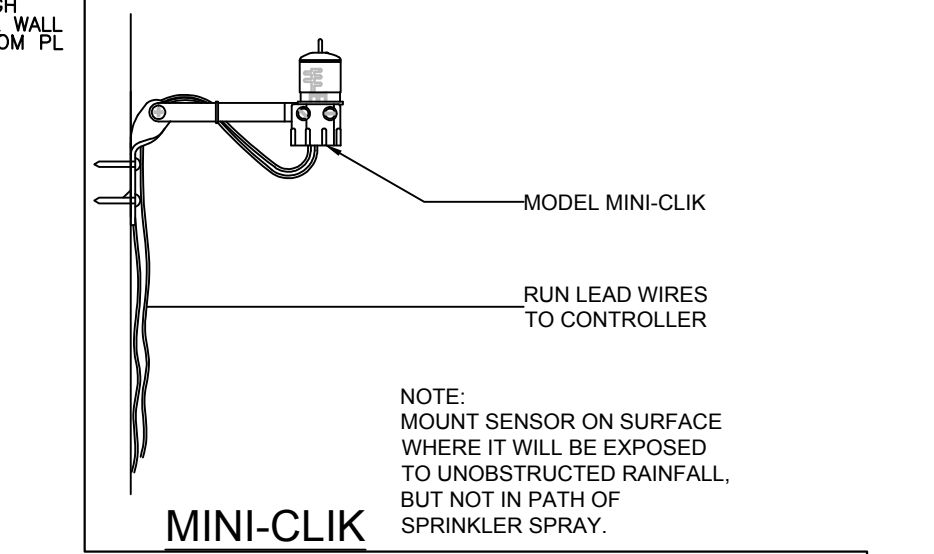
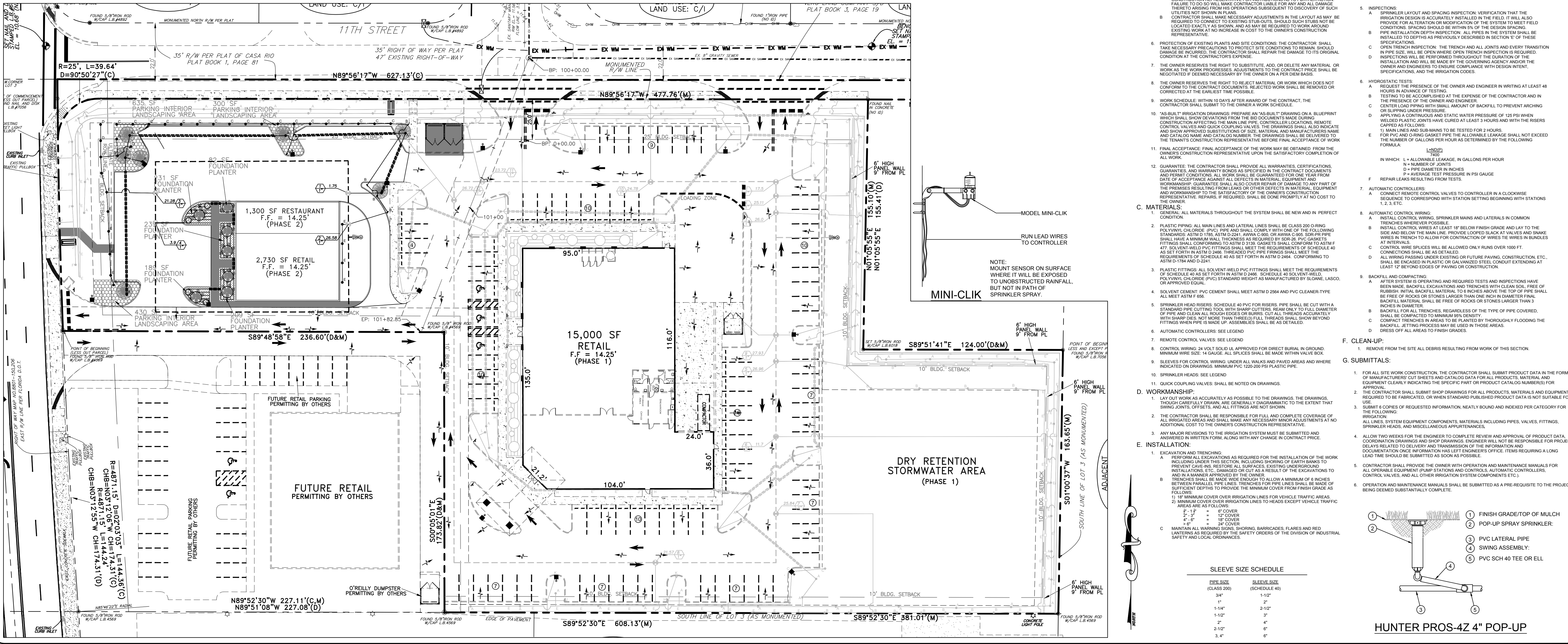
- A. EXTENT:
- INCLUDES FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT FOR THE PROPER INSTALLATION OF THE IRRIGATION SYSTEM. THE WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: (1) TRENCHING AND BACKFILL, (2) AUTOMATICALLY CONTROLLED IRRIGATION SYSTEMS, (3) TEST ALL SYSTEMS AND MAKE OPERATIVE, (4) "AS-BUILT" DRAWINGS.
- B. GENERAL:
- PERMITS AND FEES: OBTAIN ALL PERMITS AND PAY REQUIRED FEES TO ANY GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE WORK. INSPECTIONS REQUIRED BY LOCAL ORDINANCES DURING THE COURSE OF CONSTRUCTION SHALL BE ARRANGED AS REQUIRED. ON COMPLETION OF THE WORK, SATISFACTORY EVIDENCE SHALL BE FURNISHED TO THE OWNER'S CONSTRUCTION REPRESENTATIVE TO SHOW THAT ALL WORK HAS BEEN INSTALLED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, PLUMBING APPENDIX "I" AND CODE REQUIREMENTS.
 - APPROVAL: WHEREVER THE TERMS "APPROVE" OR "APPROVED" ARE USED IN THE SPECIFICATIONS THEY SHALL MEAN THE APPROVAL OF THE OWNER'S CONSTRUCTION REPRESENTATIVE IN WRITING.
 - BEFORE ANY WORK IS STARTED, A CONFERENCE SHALL BE HELD BETWEEN THE CONTRACTOR AND THE OWNER'S CONSTRUCTION REPRESENTATIVE CONCERNING THE WORK UNDER THIS CONTRACT.
 - COORDINATION: COORDINATE AND COOPERATE WITH OTHER CONTRACTORS TO ENABLE THE WORK TO PROCEED AS RAPIDLY AND EFFICIENTLY AS POSSIBLE.
 - INSPECTION OF SITE:
 - CONTRACTOR SHALL ACCUANT HANSEL WITH ALL SITE CONDITIONS. SUBMISSION OF HIS PROPOSAL SHALL BE CONSIDERED EVIDENCE THAT THE EXAMINATION HAS BEEN CONDUCTED. SHOULD UTILITIES NOT SHOWN ON THE PLANS BE FOUND DURING EXCAVATIONS, CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S CONSTRUCTION REPRESENTATIVE FOR INSTRUCTIONS AS TO FURTHER ACTION. FAILURES TO DO SO WILL MAKE CONTRACTOR LIABLE FOR ANY AND ALL DAMAGE THERE TO ARISING FROM HIS OPERATIONS SUBSEQUENT TO DISCOVERY OF SUCH UTILITIES NOT SHOWN IN PLANS.
 - CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS IN THE LAYOUT AS MAY BE REQUIRED TO AVOID UTILITIES NOT SHOWN ON THE PLANS. SUCH ADJUSTMENTS SHALL BE LOCATED EXACTLY AS SHOWN, AND AS MAY BE REQUIRED TO WORK AROUND EXISTING WORK AT INCREASED COST TO THE OWNER'S CONSTRUCTION REPRESENTATIVE.
 - PROTECTION OF EXISTING PLANTS AND SITE CONDITIONS: THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT SITE CONDITIONS TO REMAIN. SHOULD DAMAGE BE INCURRED, THE CONTRACTOR SHALL REPAIR THE DAMAGE TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
 - THE OWNER RESERVES THE RIGHT TO SUBSTITUTE, ADD, OR DELETE ANY MATERIAL OR WORK AS THE WORK PROGRESSES. ADJUSTMENTS TO THE CONTRACT PRICE SHALL BE NEGOTIATED IF DEEMED NECESSARY BY THE OWNER ON A PER UNIT BASIS.
 - THE OWNER RESERVES THE RIGHT TO REJECT MATERIAL OR WORK WHICH DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS. REJECTED WORK SHALL BE REMOVED OR CORRECTED AT THE EARLIEST TIME POSSIBLE.
 - WORK SCHEDULE: WITHIN 10 DAYS AFTER AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE OWNER A WORK SCHEDULE.
 - "AS-BUILT" IRRIGATION DRAWINGS: PREPARE AN "AS-BUILT" DRAWING ON A BLUEPRINT WHICH SHALL SHOW DEVIATIONS FROM THE BID DOCUMENTS MADE DURING CONSTRUCTION. ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM DATE OF ACCEPTANCE AGAINST ALL DEFECTS IN MATERIAL, EQUIPMENT AND WORKMANSHIP. GUARANTEE SHALL ALSO COVER REPAIR OF DAMAGE TO ANY PART OF THE PREMISES RESULTING FROM LEAKS OR OTHER DEFECTS IN MATERIAL, EQUIPMENT AND WORKMANSHIP TO THE SATISFACTORY REPAIR OF THE OWNER'S CONSTRUCTION REPRESENTATIVE. REPAIRS, IF REQUIRED, SHALL BE DONE PROMPTLY AT NO COST TO THE OWNER.
 - FINAL ACCEPTANCE: FINAL ACCEPTANCE OF THE WORK MAY BE OBTAINED FROM THE OWNER'S CONSTRUCTION REPRESENTATIVE UPON THE SATISFACTORY COMPLETION OF ALL WORK.

LANDS	7800
N WHICH: L- ALLOWABLE LEAKAGE, IN GALLONS PER HOUR	N = NUMBER OF JOINTS
D = PIPE DIAMETER IN INCHES	
	D = PRESSURE IN PSI GAUGE
 - REPAIR LEAKS RESULTING FROM TESTS.
 - AUTOMATIC CONTROLLERS:
 - CONNECT REMOTE CONTROL VALVES TO CONTROLLER IN A CLOCKWISE SEQUENCE TO CORRESPOND WITH STATION SETTING BEGINNING WITH STATIONS 1, 2, 3, ETC.
 - GENERAL:
 - ALL MATERIALS THROUGHOUT THE SYSTEM SHALL BE NEW AND IN PERFECT CONDITION.
 - PLASTIC PIPING: ALL MAIN LINES AND LATERAL LINES SHALL BE CLASS 200 DRIP POLYVINYL CHLORIDE (PVC) PIPE AND SHALL COMPLY WITH ONE OF THE FOLLOWING STANDARDS: ASTM D 1785, ASTM D 2241, AWWA C 900, OR AWWA C 905. 300-PR PIPE SHALL HAVE A MINIMUM WALL THICKNESS AS REQUIRED BY AWWA C 900. GASKETS AND FITTINGS SHALL CONFORM TO ASTM D 3139. GASKETS SHALL CONFORM TO ASTM F 447. SOLENT WELD PVC FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2466. THIS ADDED PVC PIPE FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2466, CONFORMING TO ASTM D-1784 AND D-2241.
 - PLASTIC FITTINGS: ALL SOLVENT-WELD PVC FITTINGS SHALL MEET THE REQUIREMENTS OF SCHEDULE 40 AS SET FORTH IN ASTM D 2466. SCHEDULE 40 POLYVINYL CHLORIDE (PVC) STANDARD WEIGHT AS MANUFACTURED BY SLOAN, LASCOR, OR APPROVED EQUAL.
 - SOLVENT CEMENT: PVC CEMENT SHALL MEET ASTM D 2564 AND PVC CLEANER-TYPE ALL MEET ASTM F 696.
 - SPRINKLER HEADS: SCHEDULE 40 PVC FOR RISERS, PIPE SHALL BE CUT WITH A STANDARD PIPE CUTTING TOOL WITH SHARP CUTTERS. REAM ONLY TO FULL DIAMETER OF PIPE AND CLEAN ALL BURRS OR BURRS. THREADS ACCURATE WITH SHARP DIES, NOT MORE THAN THREE (3) FULL THREADS SHALL SHOW BEYOND FITTINGS WHEN PIPE IS MADE OPERATIVE. FITTINGS SHALL BE MADE OF SUFFICIENT DEPTHS TO PROVIDE THE MINIMUM COVER FROM FINISH GRADE AS FOLLOWS:

1" MINIMUM COVER OVER IRRIGATION LINES FOR VEHICLE TRAFFIC AREAS.	
MINIMUM COVER OVER IRRIGATION LINES TO HEADS EXCEPT VEHICLE TRAFFIC AREAS ARE AS FOLLOWS:	
1" - 4" COVER	4" COVER
4" - 6" COVER	6" COVER
6" - 12" COVER	12" COVER
12" - 18" COVER	18" COVER
18" - 24" COVER	24" COVER
 - MAINTAIN ALL WARNING SIGNS, SHORING, BARRICADES, FLARES AND RED LANTERNS AS REQUIRED BY THE SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY AND LOCAL ORDINANCES.

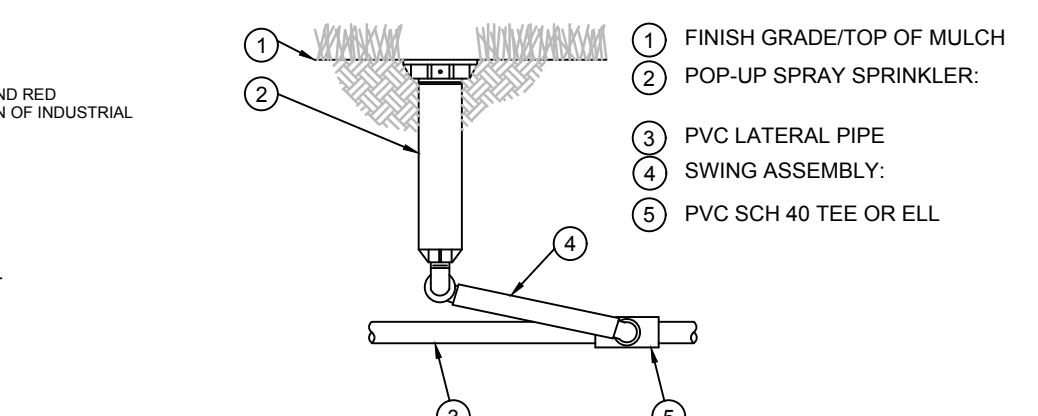


HUNTER PGV ZONE VALVE



SLEEVE SIZE SCHEDULE

PIPE SIZE (CLASS 200)	SLEEVE SIZE (SCHEDULE 40)
3/4"	1-1/2"
1"	2"
1-1/4"	2-1/2"
1-1/2"	3"
2"	3"
2-1/2"	4"
3"	4"
3-1/2"	4"



HUNTER PROS-4Z 4" POP-UP

SCHULKE, BITTLE & STODDARD, L.L.C.
 CIVIL & STRUCTURAL ENGINEERING - LAND PLANNING - ENVIRONMENTAL PERMITTING
 CERTIFICATION OF AUTHORIZATION NO.: 0000868
 1717 INDIAN RIVER BLVD., SUITE 201 VERO BEACH, FLORIDA 32960
 TEL 772 / 770-9622 FAX 772 / 770-9496 EMAIL info@sbseng.com

IRRIGATION PLAN (PHASE 2)

SHOPPES AT 11TH

DATE: 8/7/16
 REVISION: 1
 MARK: 1
 DESIGNED: J.W.B.
 DRAWN: J.W.B.
 CHECKED: J.W.B.
 SCALE: 1"=30'
 DATE: 5/5/16

ENGINEER CERTIFICATION
 JOSEPH W. SCHULKE
 J.W.B. REG. NO. 47048
 J.W.B. REG. NO. 47048
 WILLIAM P. STODDARD
 W.P.S. REG. NO. 57396

DATE: 8/8
 SHEET: 8B
 PROJECT NO.: 16-096