

SUN 'N LAKE
GOLF CLUB
SEBRING, FL
IRRIGATION PLANS

SHEET KEY

SHEET 1: GREENS IRRIGATION RENOVATION
SHEET 2: GREENS IRRIGATION RENOVATION
SHEET 3: DETAILS

IRRIGATION DESIGN BY:



A.S. ALTUM & ASSOCIATES

10311 TOWNE ROAD * CARMEL, INDIANA 46032

PHONE (317) 876-3520 * FAX (317) 876-3521



PIPE QUANTITIES PVC		
QTY	KEY	SIZE
1,370'		2.5"
380'		3"
530'		6"

PIPE QUANTITIES HDPE		
QTY	KEY	SIZE
5,620'		2"
1,330'		3"

LEGEND TORO			
QTY	KEY	DESCRIPTION	RAD/GPM/PSI
1		EXISTING SPRINKLER	
1		TORO MODEL FLX35-338-26 SPRINKLER*	79' 35.8 80
61		TORO MODEL FLX35-338-26 SPRINKLER*	70' 25.3 80
117		TORO MODEL FLX35-338-26 SPRINKLER*	67' 22.6 80
4		TORO MODEL FLX35-318-26 SPRINKLER	57' 17.0 80
3		TORO MODEL FLX35-308-26 SPRINKLER	46' 9.6 80
NOTE: 14/2 COMMUNICATION CABLE TO BE INSTALLED WITH NEW IRRIGATION FOR FUTURE CONVERSION TO TWO WIRE SYSTEM. CABLE TO BE LOOPED AND TAPED TO EACH SWING JOINT. A TWO FOOT COIL TO BE LOOPED AND STORED AT EACH GREEN'S VALVE BOX.			
6		TORO MODEL P2200S-27-04 1" 24 VOLT R.C.V.	
2		TORO MODEL R0R32P010 SATELLITE CONTROLLER (2 NEW, ALL OTHERS EXISTING)	
20		TORO MODEL 476-50 1.5" QUICK COUPLING VALVE	
SEE CHART			
INDICATED SIZE CL2000 PVC PIPE			
2.5" CL2000 PVC PIPE			
3" DR13.5, 4710 HDPE PIPE			
2" DR13.5, 4710 HDPE PIPE			
#12AWG SIGNAL WIRES WITH #12AWG COMMON PULLED BACK TO EXISTING SATELLITE LOCATIONS			
20		HARDED MODEL NUMBER #84130R2PR 3" LATERAL ISOLATION VALVE	
6		CUT AND CAP EXISTING PVC	
58		POINT OF CONNECTION TO EXISTING IRRIGATION SYSTEM	
1		PUMP STATION-EXISTING	
NOTE: *INDICATES THAT A 1.25" SWING JOINT IS REQUIRED			

LEGEND RAIN BIRD			
QTY	KEY	DESCRIPTION	RAD/GPM/PSI
1		EXISTING SPRINKLER	
1		RAIN BIRD MODEL AT-800-E-80-22 SPRINKLER	80' 35.9 80
61		RAIN BIRD MODEL A-751-E-80-36 SPRINKLER	67' 24.0 80
117		RAIN BIRD MODEL A-751-E-80-32 SPRINKLER	61' 21.4 80
4		RAIN BIRD MODEL A-751-E-80-28 SPRINKLER	59' 19.3 80
3		RAIN BIRD MODEL A-550-E-80-53 SPRINKLER	45' 10.8 80
NOTE: 14/2 COMMUNICATION CABLE TO BE INSTALLED WITH NEW IRRIGATION FOR FUTURE CONVERSION TO TWO WIRE SYSTEM. CABLE TO BE LOOPED AND TAPED TO EACH SWING JOINT. A TWO FOOT COIL TO BE LOOPED AND STORED AT EACH GREEN'S VALVE BOX.			
6		RAIN BIRD MODEL 100-FESB-PRS-D R.C.V.	
2		TORO MODEL R0R32P010 SATELLITE CONTROLLER (2 NEW, ALL OTHERS EXISTING)	
20		RAIN BIRD MODEL SNP ACME QUICK COUPLING VALVE	
SEE CHART			
INDICATED SIZE CL2000 PVC PIPE			
2.5" CL2000 PVC PIPE			
3" DR13.5, 4710 HDPE PIPE			
2" DR13.5, 4710 HDPE PIPE			
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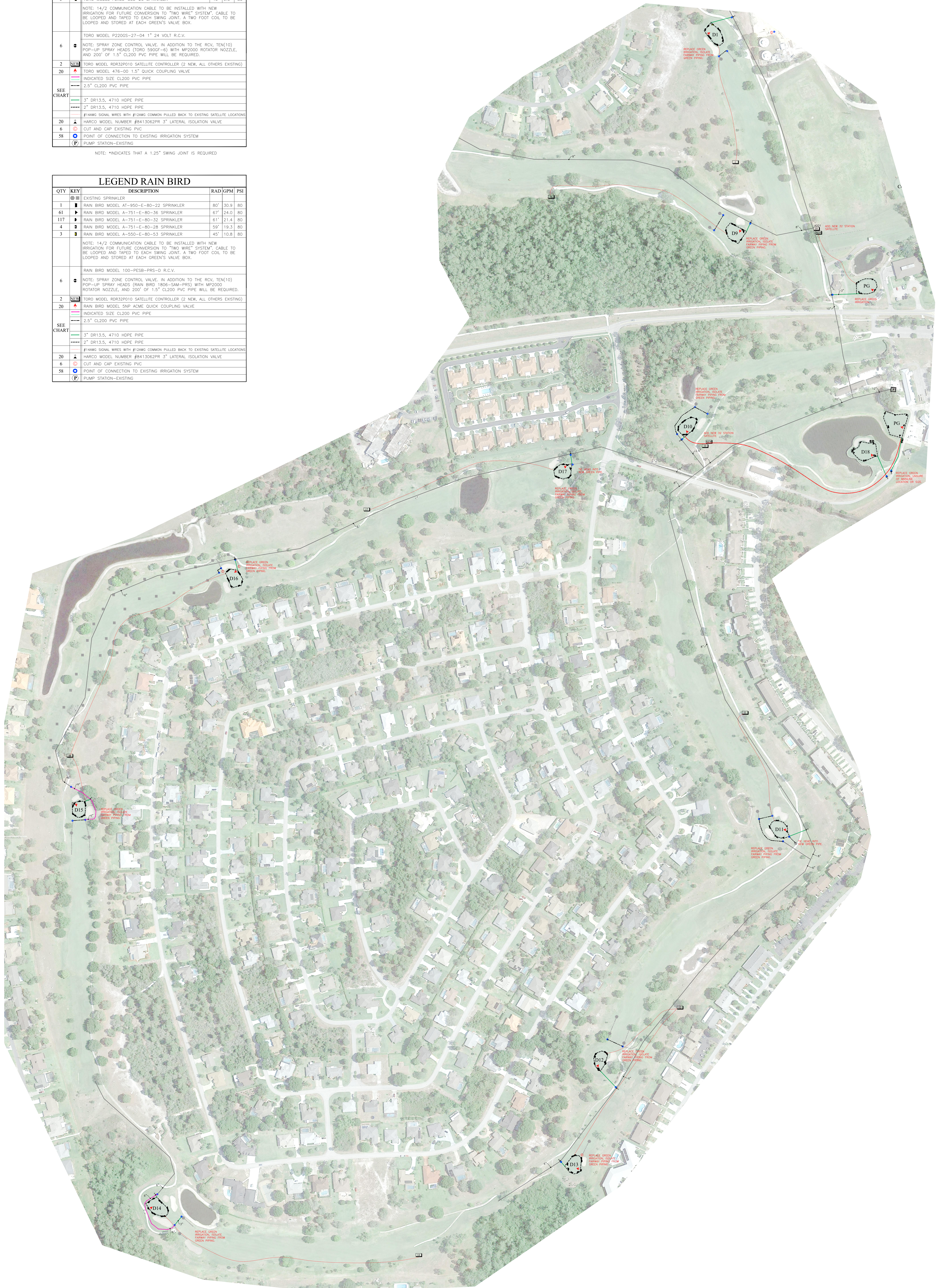
PIPE QUANTITIES PVC		
QTY	KEY	SIZE
1,370'		2.5"
380'		3"
530'		6"

NOTE: MATERIAL QUANTITIES SHOWN ARE EXACTLY WHAT IS ILLUSTRATED ON THE DRAWING. THE QUANTITIES DO NOT REFLECT SITE CONDITIONS OR ELEVATION CHANGES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CALCULATING THEIR OWN BILL OF MATERIALS AND SHALL BE HELD RESPONSIBLE FOR ANY MATERIAL OVERAGES/SHORTAGES.

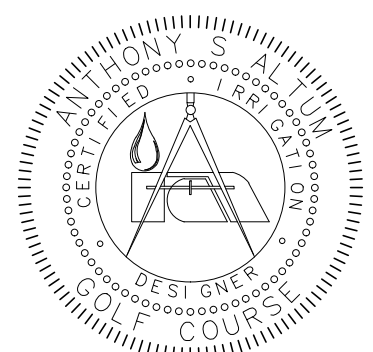
PIPE QUANTITIES HDPE		
QTY	KEY	SIZE
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LEGEND TORO			
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NOTE: 14/2 COMMUNICATION CABLE TO BE INSTALLED WITH NEW IRRIGATION FOR FUTURE CONVERSION TO "TWO WIRE" SYSTEM. CABLE TO BE LOOPED AND TAPED TO EACH SWING JOINT. A TWO FOOT COIL TO BE LOOPED AND STORED AT EACH GREEN'S VALVE BOX.			
6		TORO MODEL P2200S-27-04 1" 24 VOLT R.C.V.	
NOTE: SPRAY ZONE CONTROL VALVE, IN ADDITION TO THE RCV, TEN(10) POP-UP SPRAY HEADS (TORO GROUP-4) WITH MP2000 ROTATOR NOZZLE, AND 200' OF 1.5" CL200 PVC PIPE WILL BE REQUIRED.			
2		TORO MODEL RDR32P010 SATELLITE CONTROLLER (2 NEW, ALL OTHERS EXISTING)	
20		TORO MODEL 476-00 1.5" QUICK COUPLING VALVE	
INDICATED SIZE CL200 PVC PIPE			
2.5" CL200 PVC PIPE			
SEE CHART			
3" DR13.5, 4710 HDPE PIPE			
2" DR13.5, 4710 HDPE PIPE			
#14WG SIGNAL WIRES WITH #12WG COMMON PULLED BACK TO EXISTING SATELLITE LOCATIONS			
20		HARCO MODEL NUMBER #8413062PR 3" LATERAL ISOLATION VALVE	
6		CUT AND CAP EXISTING PVC	
58		POINT OF CONNECTION TO EXISTING IRRIGATION SYSTEM	
		PUMP STATION-EXISTING	
NOTE: *INDICATES THAT A 1.25" SWING JOINT IS REQUIRED			

LEGEND RAIN BIRD			
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RAIN BIRD MODEL 100-PE88-PRS-D R.C.V.			
NOTE: SPRAY ZONE CONTROL VALVE, IN ADDITION TO THE RCV, TEN(10) POP-UP SPRAY HEADS (RAIN BIRD 1806-SAM-PRS) WITH MP2000 ROTATOR NOZZLE, AND 200' OF 1.5" CL200 PVC PIPE WILL BE REQUIRED.			
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SHEET
2
OF
3



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GREENS
IRRIGATION
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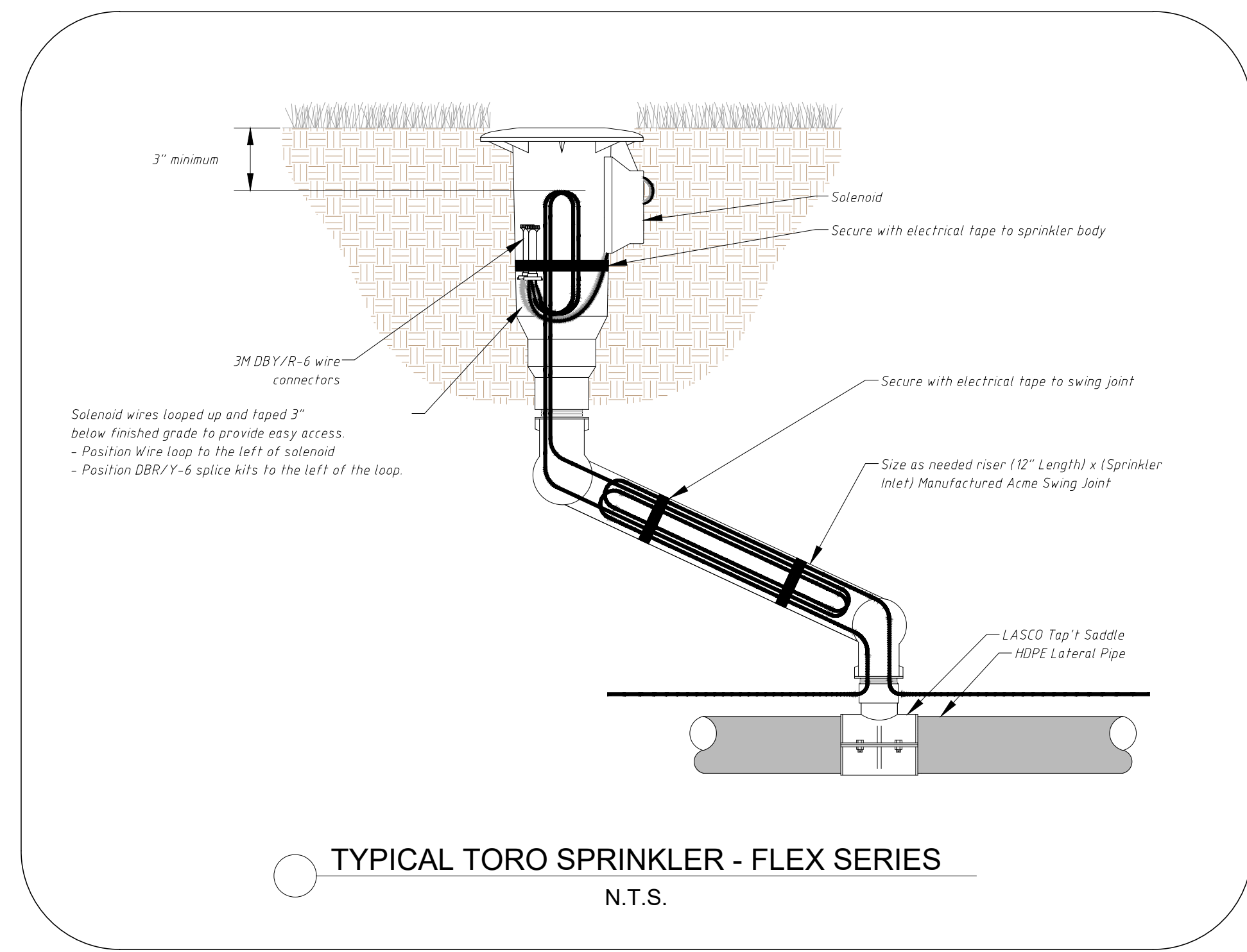
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DATE	BY	REVISION	

DATE: 2/26/2019

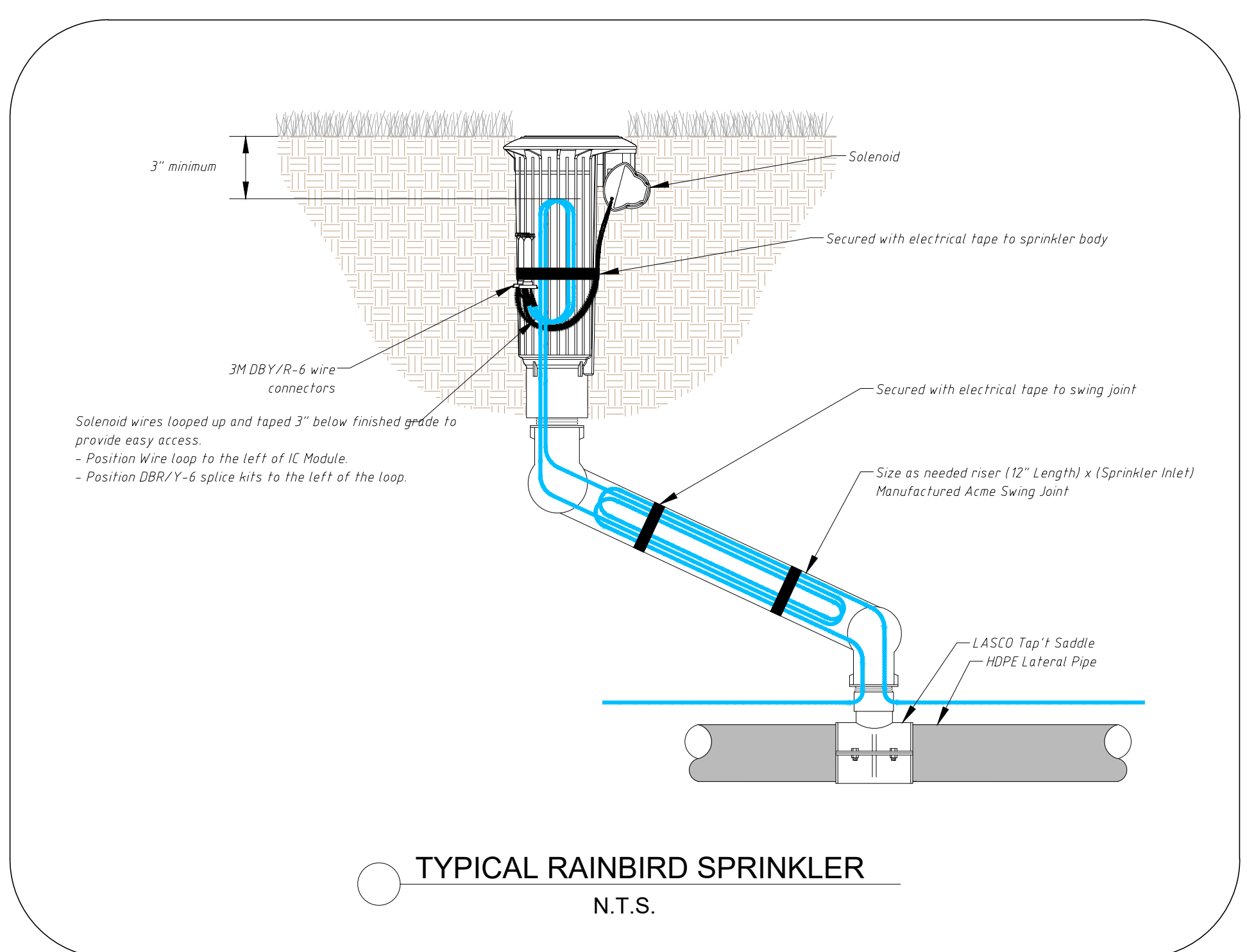
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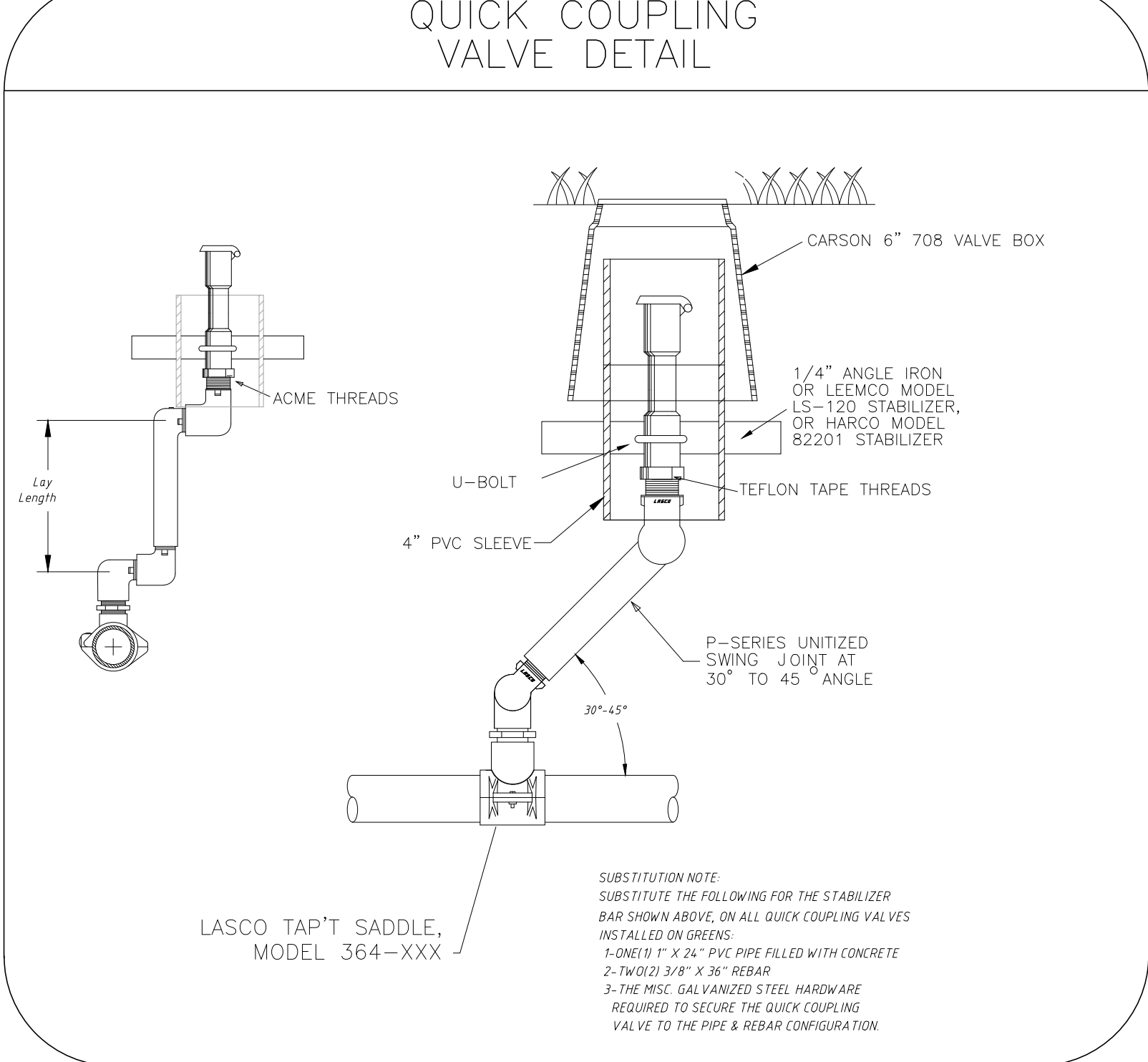
DRAWING NAME:



TYPICAL TORO SPRINKLER - FLEX SERIES
N.T.S.



TYPICAL RAINBIRD SPRINKLER
N.T.S.



QUICK COUPLING VALVE DETAIL

HYDRAULIC NOTES (HDPE)

ALL PIPE 3" AND LARGER SHALL BE INSTALLED TO PROVIDE 24" COVER FROM THE TOP OF THE PIPE TO FINISH GRADE. ALL PIPE 2" AND SMALLER SHALL BE INSTALLED TO PROVIDE 18" OF COVER FROM THE TOP OF THE PIPE TO FINISH GRADE.

ALL FITTINGS 3" AND LARGER ARE TO BE FUSED HDPE (FABRICATED OR MOLDED), DR11, 4710 HDPE MINIMUM. ALL SERVICE TEES TO BE LASCO TAP TEE MODEL 364-XXX.

ALL QUICK COUPLING VALVES SHALL BE INSTALLED ON P SERIES SWING JOINTS AS MANUFACTURED BY LASCO (SEE DETAILS).

ALL THREADED PIPE JOINTS ARE TO UTILIZE THE FOLLOWING THREAD SEALING MATERIALS:

- PVC TO METAL: TEFLON TAPE
- METAL TO METAL: TEFLON TAPE
- ABS TO METAL: TEFLON PASTE
- ABS TO PVC: TEFLON PASTE

ALL SPRINKLER HEADS SHALL BE INSTALLED ON P SERIES SWING JOINTS AS MANUFACTURED BY LASCO (SEE DETAILS).

ALL QUICK COUPLING VALVES AND SPRINKLER HEADS SHALL BE INSTALLED LEVEL WITH FINISH GRADE.

ALL SPRINKLER AND CONTROLLER LOCATIONS ARE TO BE APPROVED BY THE ARCHITECT AND/OR THE OWNERS REPRESENTATIVE PRIOR TO INSTALLATION.

DRAIN VALVES, AIR RELIEF VALVE AND MANUAL LAKE-FILL VALVES INDICATED ON THE PLAN ARE APPROXIMATE. EXACT LOCATIONS WILL BE SELECTED BY THE DESIGNER AT THE TIME OF INSTALLATION. ADDITIONAL UNITS MAY BE REQUIRED, AND COMPENSATION WILL BE DETERMINED BY UNIT PRICES SUBMITTED BY THE CONTRACTOR ON THE ADDITION/DELETION SHEET.

GENERAL CONSTRUCTION NOTES

ALL PIPE AND WIRE ROUTING AS INDICATED ON THIS PLAN IS DIAGRAMMATIC AND SHALL BE ADJUSTED IN THE FIELD TO ACCOMMODATE PROPERTY LINES, BRIDGES/STREAMS, NATURAL AREAS, AND WETLANDS. MINOR ADJUSTMENTS IN ROUTING SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNERS.

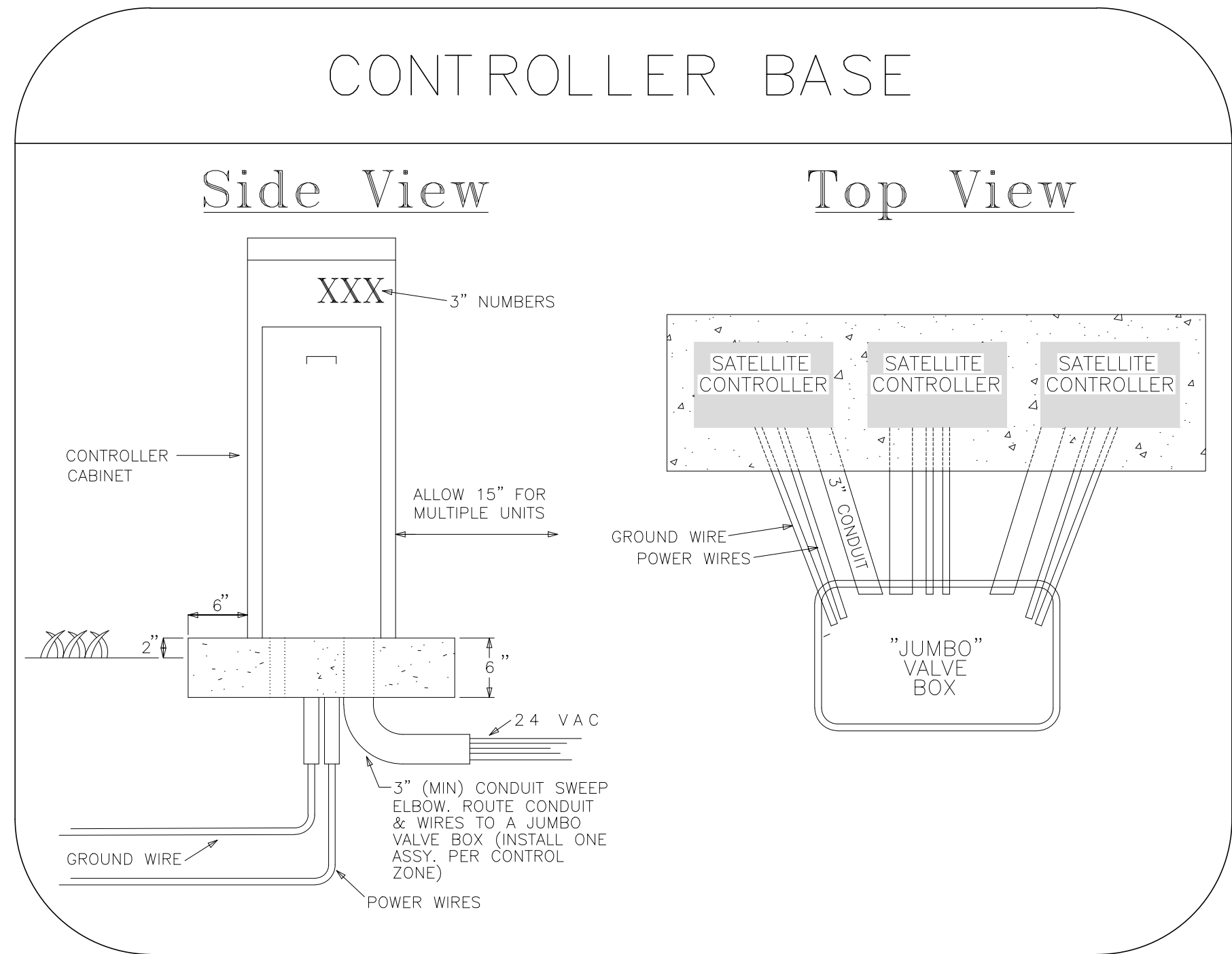
ADJUSTMENTS TO THE SYSTEM DESIGN BY THE DESIGNER, WHICH DO NOT EFFECT THE QUANTITY OF IRRIGATION MATERIALS REQUIRED FOR THE COMPLETED IRRIGATION SYSTEM (e.g. NOZZLE CHANGES, RE-CONFIGURING SATELLITES ETC.) SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNERS.

ALL PERMITS AND FEES REQUIRED FOR THE INSTALLATION OF THE SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

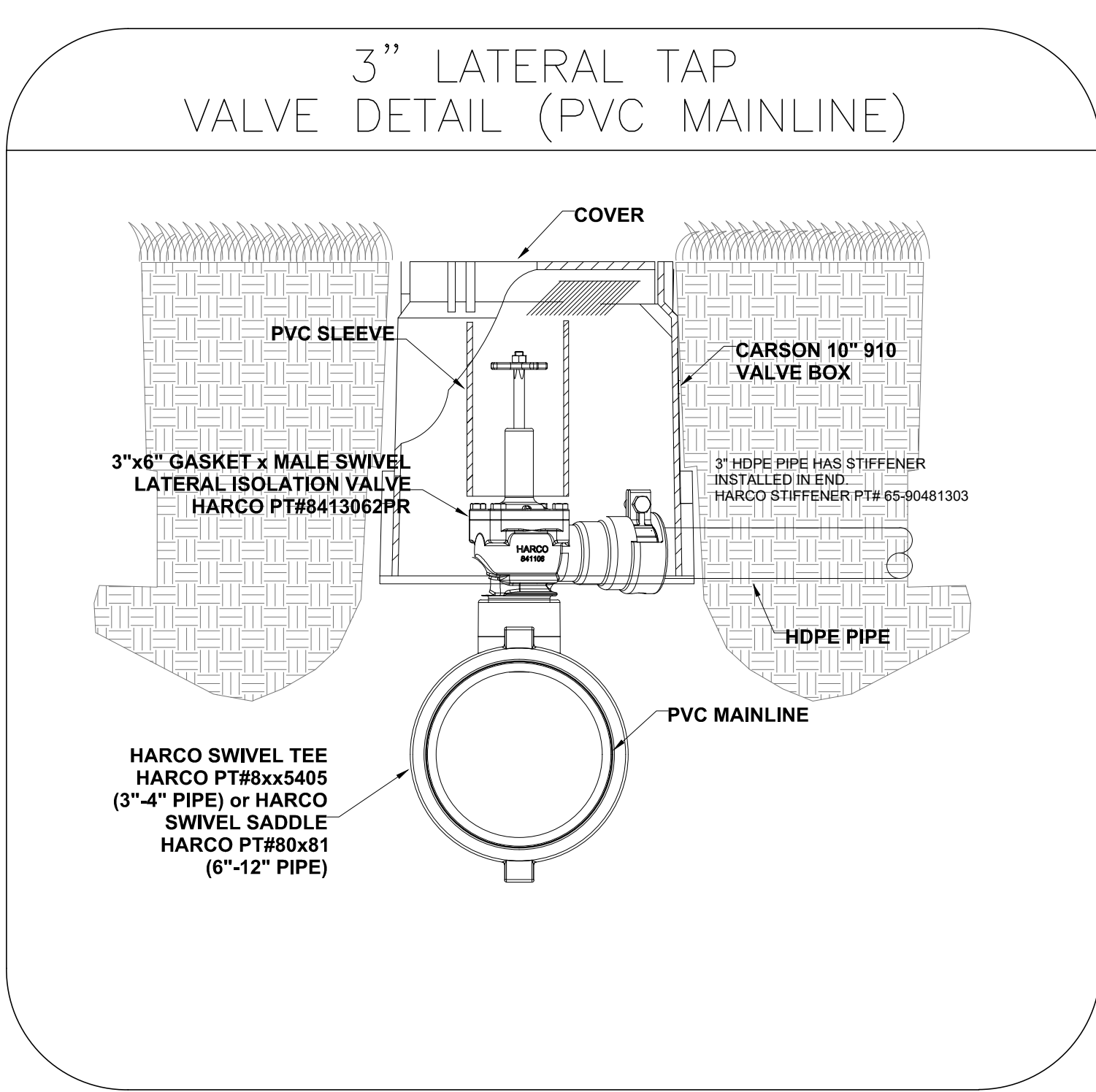
THE CONTRACTOR SHALL VERIFY ALL CRITICAL LOCATIONS AND MEASUREMENTS PRIOR TO SUBMITTING A BID. ALL DISCREPANCIES SHOULD BE REPORTED TO THE DESIGNER, SO THE NECESSARY ADJUSTMENTS AND CHANGES CAN BE MADE TO THE DESIGN. THE BID SHOULD BE ADJUSTED ACCORDINGLY.

ALL LOCAL CODES AND UTILITY COMPANY REGULATIONS ARE TO BE OBSERVED AND STRICTLY ADHERED TO IF APPLICABLE.

THE CONTRACTOR SHALL MAINTAIN THE OWNERS EXISTING IRRIGATION SYSTEM THROUGHOUT THE DURATION OF THE PROJECT. DAMAGES INCURRED AS A RESULT OF WORK PERFORMED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY, SO AS NOT TO INTERFERE WITH OWNERS NORMAL IRRIGATION PROGRAM.



CONTROLLER BASE



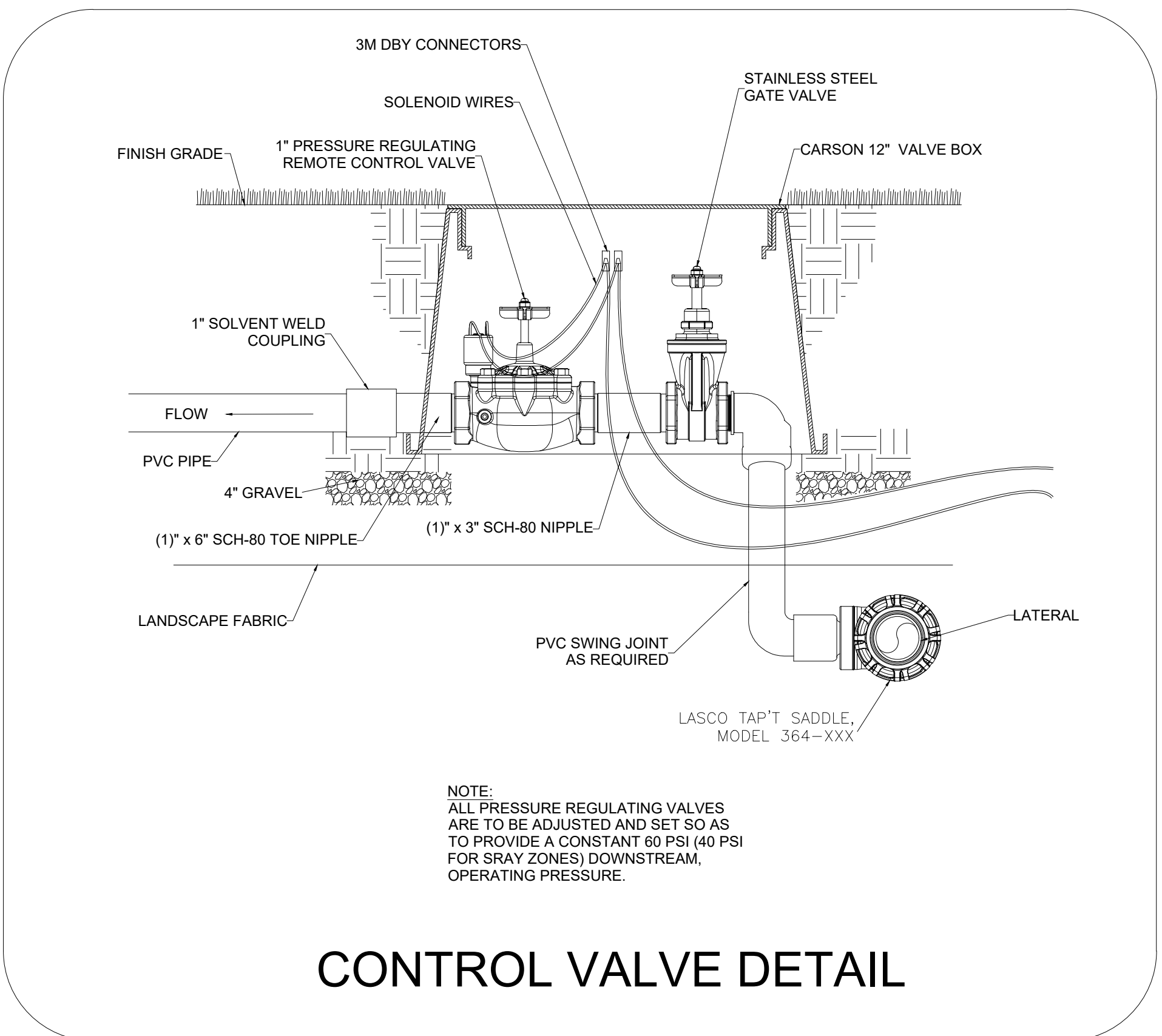
3" LATERAL TAP VALVE DETAIL (PVC MAINLINE)

HYDRAULIC NOTES (PVC)

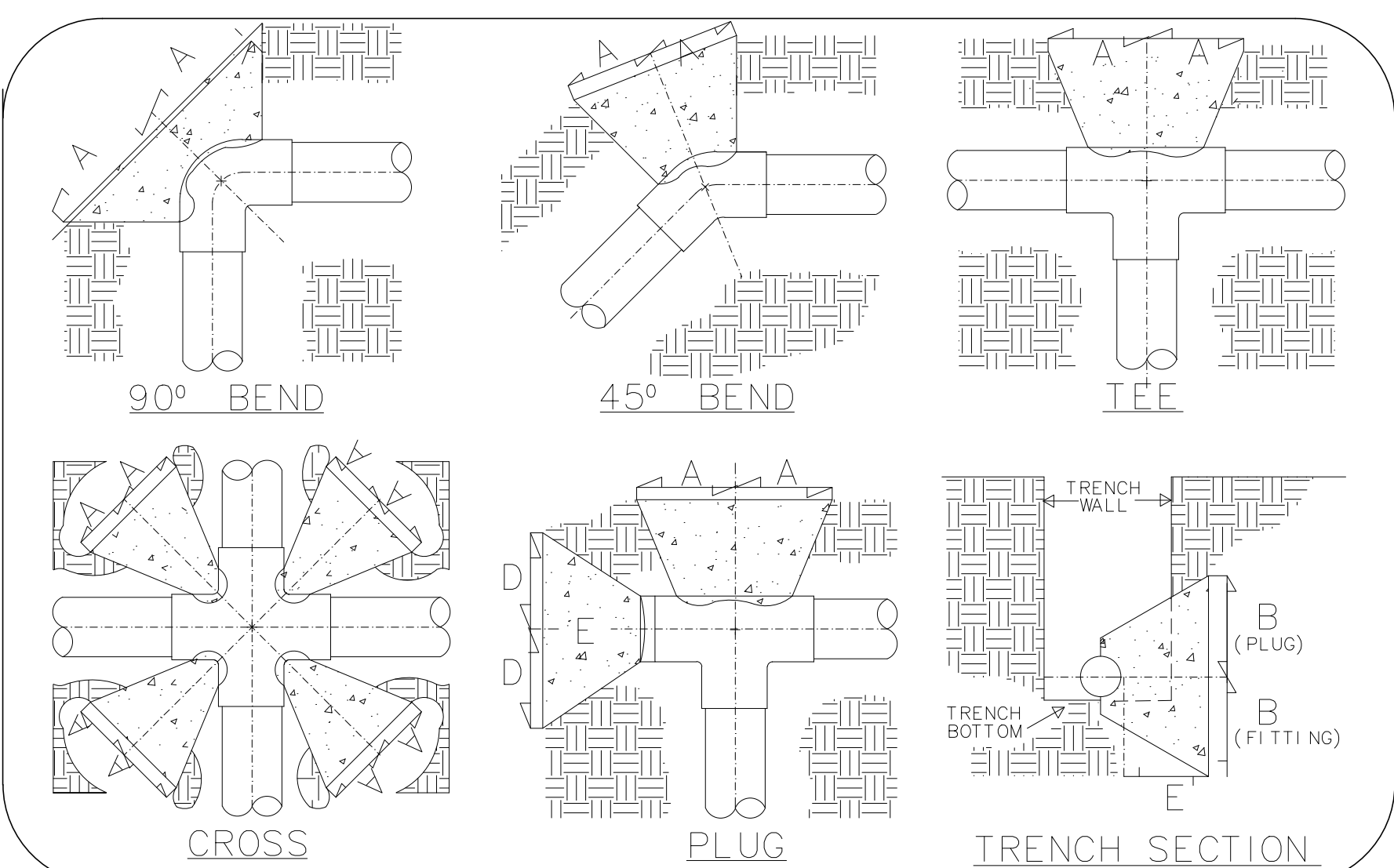
ALL PIPE 3" AND LARGER SHALL BE INSTALLED TO PROVIDE 24" COVER FROM THE TOP OF THE PIPE TO FINISH GRADE.

THE APPROPRIATE SLEEVE AND GASKETED PIPE AND FITTINGS ARE TO BE THRUST BLOKED AT CHANGES OF DIRECTION OF FLOW. THRUST BLOCKING PROCEDURES ARE TO CONFORM WITH THE PIPE MANUFACTURERS RECOMMENDATIONS.

ALL MANUAL GATE VALVES 4" AND LARGER SHALL BE DUCTILE IRON, RESILIENT WEDGE TYPE WITH A 2" SQUARE OPERATING NUT. ALL VALVES ARE TO BE INSTALLED IN A VALVE BOX WITH

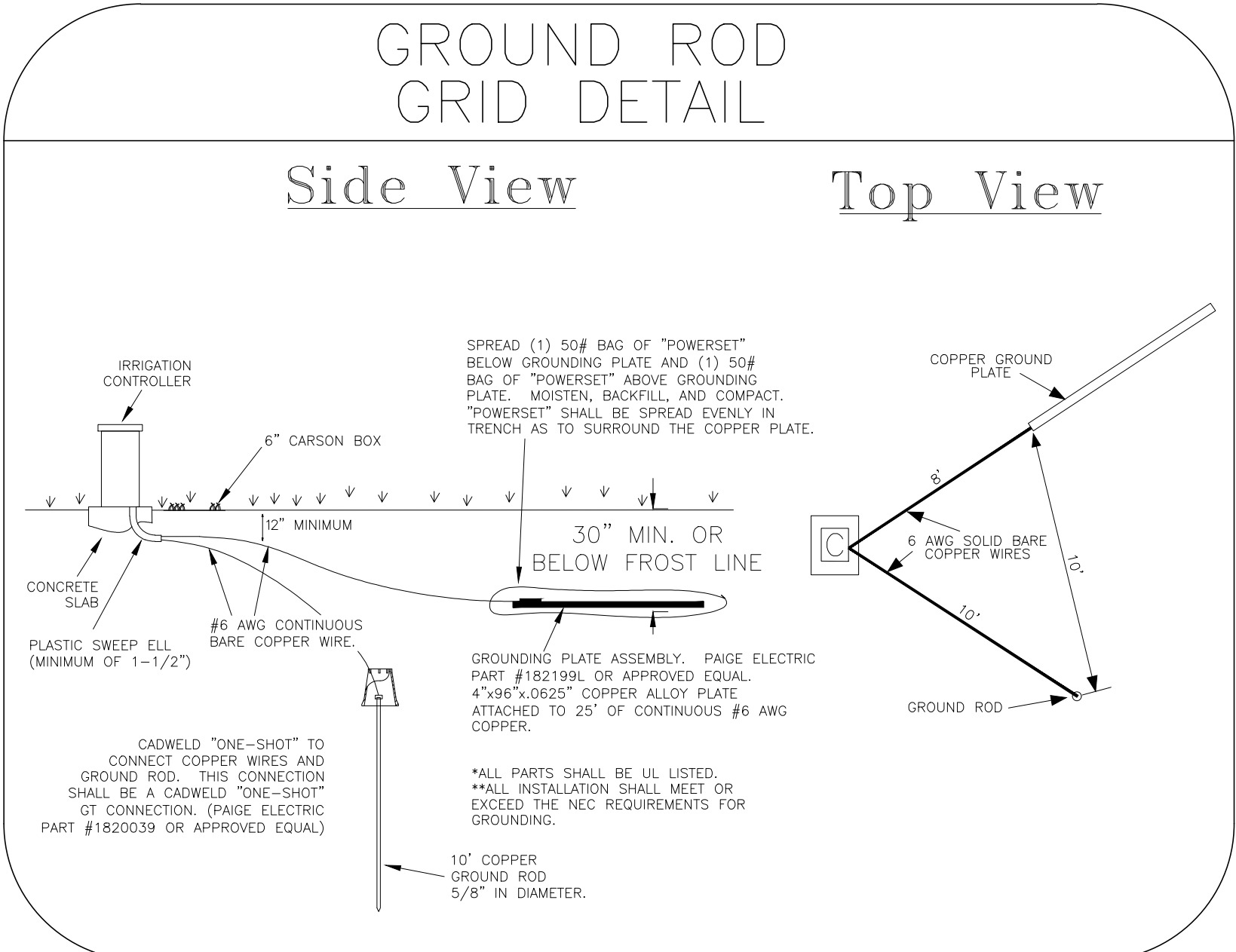


CONTROL VALVE DETAIL



THRUST BLOCK SCHEDULE

PIPE SIZE	HOLD DIMENSIONS	150 P.S.I. TEST PRESSURE							
		90°	45°	22.5°	TEE	CROSS	PLUG		
IN.	E MIN.	B	A	A	A	A	D	E	
3	8	6	8	5	2	6	5	6	6
4	10	7	10	6	3	7	6	7	8
6	16	10	15	8	4	10	8	10	10
8	20	14	18	10	5	14	10	14	12
10	28	16	24	14	7	16	14	16	14
12	30	20	26	16	8	20	16	20	20



GROUND ROD GRID DETAIL

