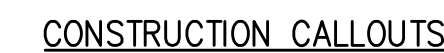


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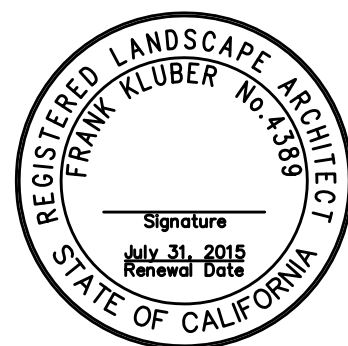
- END OF GENERAL NOTES

END OF CONSTRUCTION AND LAYOUT NOTES



- ① ALIGN BASELINES WITH FACE OF BUILDING.
- ② REFER TO CONSTRUCTION DETAIL SHEET FOR SEATWALL, METAL EDGING, BOULDER PLACEMENT AND CONCRETE HEADER DETAILS.
- ③ INSTALL NATURAL COLOR CONCRETE PAVING WITH SCORING AS SHOWN IN PLANS. APPLY LIGHT BROOM FINISH TO ALL PAVING PERPENDICULAR TO PATH OF TRAVEL.
- ④ INSTALL COLORED CONCRETE PAVEMENT WITHIN 2' WIDE SCORED "PLANKS" AS INDICATED BY HATCHING. COLOR TO BE SCOFIELD SYSTEMS SOLACHROME INTEGRAL COLORING TREATMENT FOR HIGH-SRI CONCRETE, SC4280 "COOL BRICK". APPLY PER MANUFACTURER'S RECOMMENDATION AND QUANTITIES. SPECIFICATIONS FOR PRODUCTS FROM SCOFIELD, PH. 800-800-9900. SUBMIT COLOR SAMPLE TO VA PROJECT MANAGER FOR APPROVAL.
- ⑤ CONCRETE 5'X5' SCORING TO BE CENTERED ON BUILDING FRONT ENTRY, REFER TO CIVIL PLANS FOR SCORING DEPTH AND EXPANSION JOINT LOCATION.

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Drawing Title	Project Title			Project Number		Office of Construction and Facilities Management
CONSTRUCTION PLAN & NOTES	MEDICAL SPECIALTIES BUILDING 648			612-122		
				Building Number		
Approved: Project Director	Location VA MATHER			Drawing Number		
	Date 05/12/14	Checked FK	Drawn FK/JL	L1.00		
				Dwg. of		
						 Department of Veterans Affairs

Office of
Construction
and Facilities
Management



IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	FLOW RATE (GPM)	MAX. RADIUS	MAX. SPACING
	570Z-12P-PRX-COM-O-T-15H,Q	TORO POP-UP SHRUB SPRAY	30	1.16,.58	15'	14'
	570Z-12P-PRX-COM-O-T-12H,Q	TORO POP-UP SHRUB SPRAY	30	.74,.37	12'	11'
	570Z-12P-PRX-COM-O-T-10H,Q	TORO POP-UP SHRUB SPRAY	30	.51,.23	10'	9'
	570Z-12P-PRX-COM-O-T-8H,Q	TORO POP-UP SHRUB SPRAY	30	.33,.17	8'	7'
	570Z-12P-PRX-COM-O-T-5H,Q	TORO POP-UP SHRUB SPRAY	30	.132,.064	5'	5'
	570Z-12P-PRX-COM-O-T-4SST	TORO POP-UP SHRUB STRIP SPRAY	30	.66	4'x30'	4'x20'
	570Z-12P-PRX-COM-O-T-4LCS,RCS	TORO POP-UP SHRUB STRIP SPRAY	30	.33	4'x15'	4'x10'
	570Z-4P-PRX-COM-SB-180-PC2	TORO POP-UP SHRUB STREAM SPRAY	30	.46	2.5'	-
	570Z-4P-PRX-COM-SB-90-PC2	TORO POP-UP SHRUB STREAM SPRAY	30	.21	1.5'	-
	570S-FB25PC	TORO PRESS. COMP. BUBBLER - TREES	30	.25	-	-
	P-220-27-04 / LT-1000-T	TORO REMOTE CONTROL VALVE WITH PRESSURE REGULATOR MODULE AND KBI SCHEDULE 80 PVC BALL VALVE				
	100-2SLLVC/075-MHS	TORO QUICK COUPLING VALVE WITH 3/4" HOSE SWIVEL				
	T-113RR	NIBCO GATE VALVE - 2" AND SMALLER (LINE SIZE)				
	WT-FS-075-DI	WEATHERTRAK 3/4" FLOW SENSOR				
	WT-MV-100G-SNO	WEATHERTRAK 1" MASTER CONTROL VALVE				
	975XL2-1" / GS-1	WILKINS LEAD-FREE REDUCED PRESSURE BACKFLOW ASSEMBLY IN GUARDSHACK ENCLOSURE				
	WT-WRS	WEATHERTRAK RAIN SENSOR				
	WTPRO3-C-C-12-SPT	WEATHERTRAK 12 STATION CONTROLLER IN TOP ENTRY STAINLESS STEEL ENCLOSURE				
	CIM-1A	HYDROPOINT WEATHER DATA SERVICE (1 ADDITIONAL YEAR TO BE PURCHASED BY THE CONTRACTOR - TOTAL OF TWO YEAR SUBSCRIPTION)				
	C-1	CONTROLLER AND STATION NUMBER				
		APPROXIMATE GALLONS PER MINUTE				
		REMOTE CONTROL VALVE SIZE				
		MAIN LINE: 1120-SCHEDULE 40 PVC SOLVENT WELD PLASTIC PIPE WITH SCHEDULE 80 AND SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.				
		LATERAL LINE: 1120-CLASS 200 PSI PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.				
		SLEEVE (SL): 1120-200 PSI PVC PLASTIC PIPE. 24" COVER.				

IRRIGATION DEMAND: 10 GPM AT 55 PSI. FIELD VERIFY EXACT PRESSURE PRIOR TO START OF WORK. IF PRESSURE VARIES FROM REQUIRED PRESSURE, NOTIFY LANDSCAPE ARCHITECT FOR FURTHER INSTRUCTION.

CONNECT IRRIGATION MAINLINE AND BACKFLOW PREVENTER TO DOMESTIC WATER LINE TO BUILDING. FIELD VERIFY EXACT LOCATION OF DOMESTIC LINE PRIOR TO START OF WORK.

IRRIGATION CONTROLLER - MOUNT IN ENCLOSURE AS DIRECTED BY ARCHITECT. SERVICE WITH 120 VOLT A.C. ELECTRICAL. ELECTRICAL SERVICE TO THIS LOCATION PROVIDED BY ELECTRICAL CONTRACTOR.

LATERAL LINE SIZING CHART

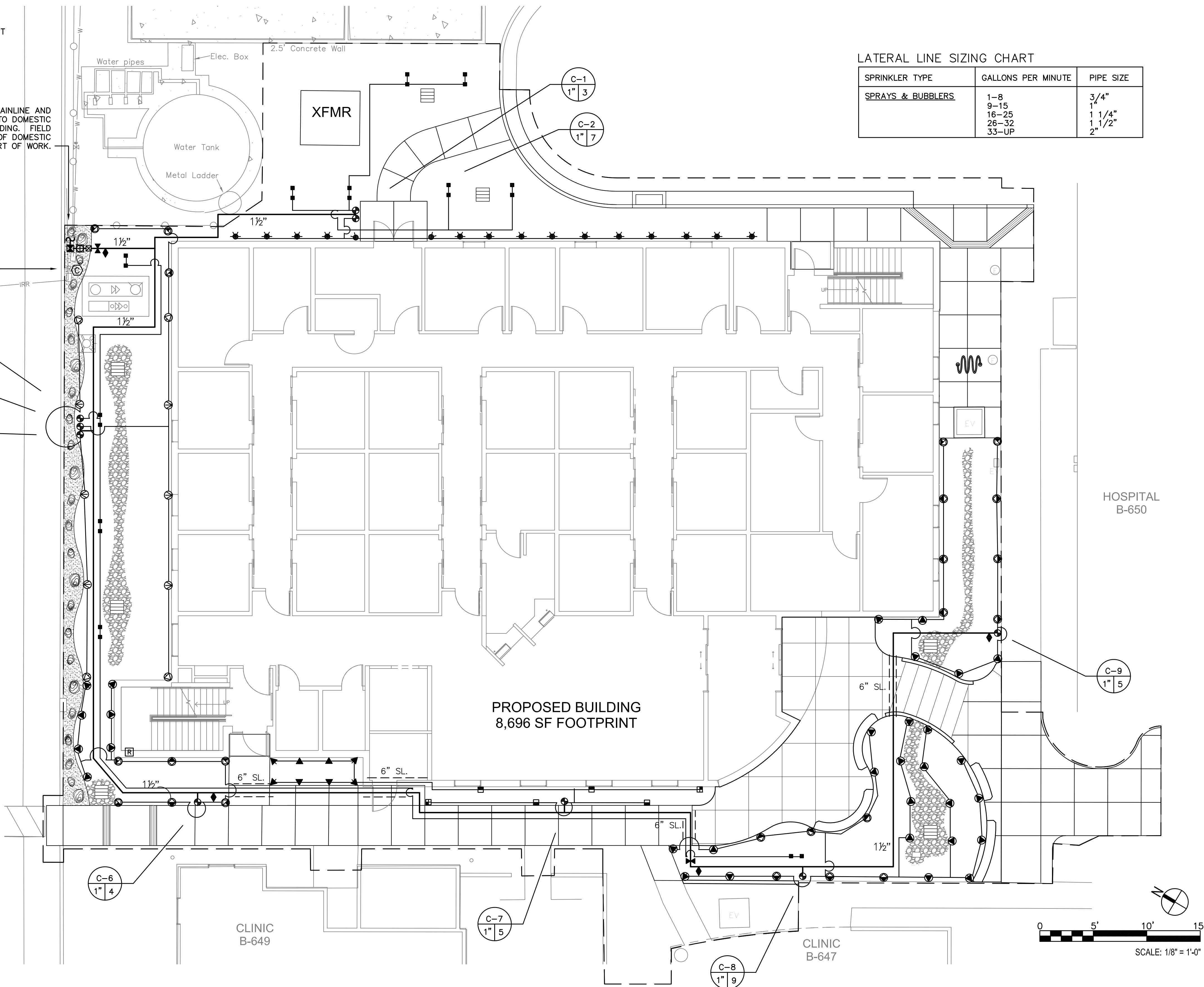
SPRINKLER TYPE	GALLONS PER MINUTE	PIPE SIZE
SPRAYS & BUBBLERS	1-8 9-15 16-25 26-32 33-UP	3/4" 1" 1 1/4" 1 1/2" 2"

IRRIGATION NOTES

- THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.
- THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO THEIR WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER.
- DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY THEIR WORK AT NO ADDITIONAL COST TO THE OWNER.
- DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL WORK AND PLAN WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.
- ELECTRICAL CONTRACTOR TO SUPPLY 120 VAC (2.5 AMP) SERVICE TO CONTROLLER LOCATION. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER. IRRIGATION CONTROL WIRE SHALL BE #14, U.L. APPROVED FOR DIRECT BURIAL. COMMON WIRE SHALL BE #12 U.L. APPROVED AND SHALL BE WHITE IN COLOR. WIRING TO INDIVIDUAL REMOTE CONTROL VALVES SHALL BE COLOR OTHER THAN WHITE.
- EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.
- REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPlicing WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED.
- SPlicing OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 10 FEET ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.
- INSTALL TWO (2) SPARE CONTROL WIRES ALONG THE ENTIRE MAIN LINE. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF

VALVES.

- INSTALL VALVE BOXES MINIMUM 12" FROM AND PERPENDICULAR TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE MINIMUM 12" APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.
- LOCATE QUICK COUPLING VALVE 12" FROM HARDSCAPE AREA.
- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE DESIGNATED ON THE PLANS.
- FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF FIXED ARC (OR AN ADJUSTABLE ARC IF FIXED ARC DOES NOT MATCH THE ARC TO BE IRRIGATED) TO FIT THE SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION HEADS. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.
- WHEN VERTICAL OBSTRUCTIONS (STREET LIGHTS, TREES, FIRE HYDRANTS, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE HEADS SO AS TO PREVENT PROPER COVERAGE, FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER, THIRD OR HALF CIRCLE HEAD AT THE SIDES OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS/HER INSTRUCTIONS ARE OBTAINED.
- LOCATE BUBBLERS ON UPHILL SIDE OF TREES.
- IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
- ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK. ADDITIONALLY, CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.
- THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
- IRRIGATION DEMAND: REFER TO IRRIGATION POINTS OF CONNECTION.
- OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.
- NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.
- NOTIFY UNDERGROUND SERVICE ALERT AT 811 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.



IRRIGATION WATER CONSUMPTION REDUCTION

Reference evapotranspiration rate (ET_o):

8.4

Table WEc1-1. Irrigation Baseline Case (month with the highest irrigation demand)

Note: Click "Calculate" in the summary section of the table to perform the water savings calculations. "Calculate" must be clicked after any or all the data is entered in the table to refresh the calculated values and obtain accurate information.

Landscape Type	Area (sf)	k _s	k _d	k _{mc} ¹	K _L	ET _o	ET _L	Irrigation Type	IE	TWA (gal)
Shrubs	2,312	0.5	1	1	0.5	8.4	4.2	Sprinkler	0.625	9,683.99
Trees	138	0.5	1	1	0.5	8.4	4.2	Bubblers	0.85	425.02

Table WEc1-2. Irrigation Design Case (month with the highest irrigation demand)

Note: Click "Calculate" in the summary section of the table to perform the water savings calculations. "Calculate" must be clicked after any or all the data is entered in the table to refresh the calculated values and obtain accurate information.

Landscape Type	Area (sf)	k _s	k _d	k _{mc} ¹	K _L	ET _o	ET _L	Irrigation Type	IE	CE ²	TWA (gal)
Shrubs	2,312	0.3	1	1	0.3	8.4	2.52	Sprinkler	0.7	0.7	3,631.5
Trees	138	0.3	1	1	0.3	8.4	2.52	Bubblers	0.85	0.7	178.51
Total area (sf)	2,450							Design total water applied (TWA) (gal)			3,810.01
								Nonpotable water used (gal)			0
								Design total potable water applied (TPWA) (gal)			3,810.01

Percentage reduction of potable water:

62.31 %

Percentage reduction of total water:

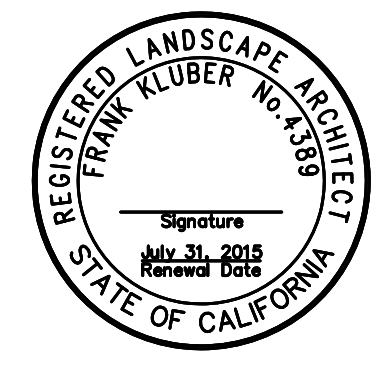
62.31 %

100% CONSTRUCTION SET

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Drawing Title

IRRIGATION PLAN & NOTES

Approved: Project Director

Project Title

MEDICAL SPECIALTIES BUILDING 648

Location

VA MATHER

Date

05/12/14

Checked

FK

Drawn

FK/JL

Project Number

612-122

Building Number

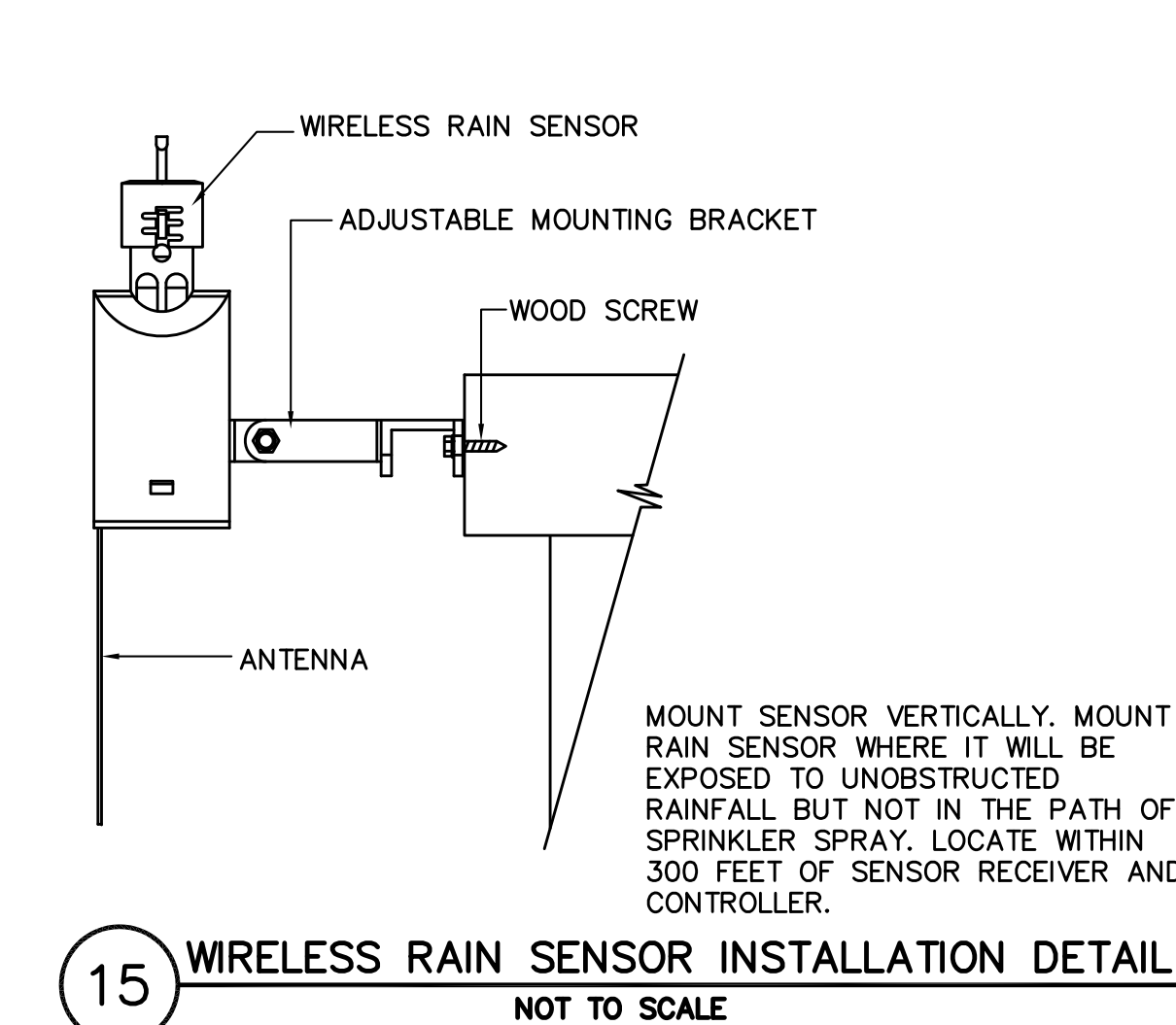
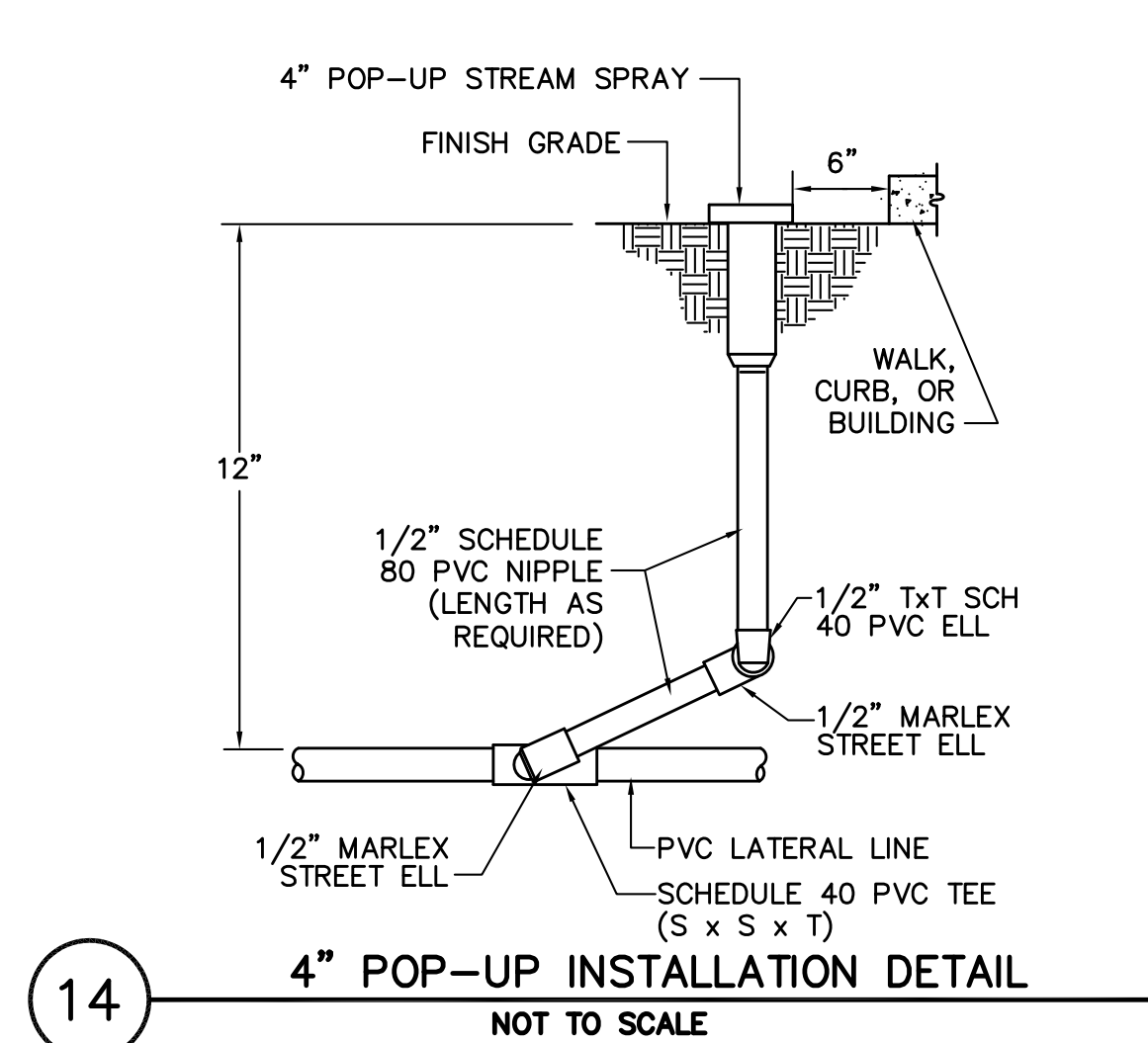
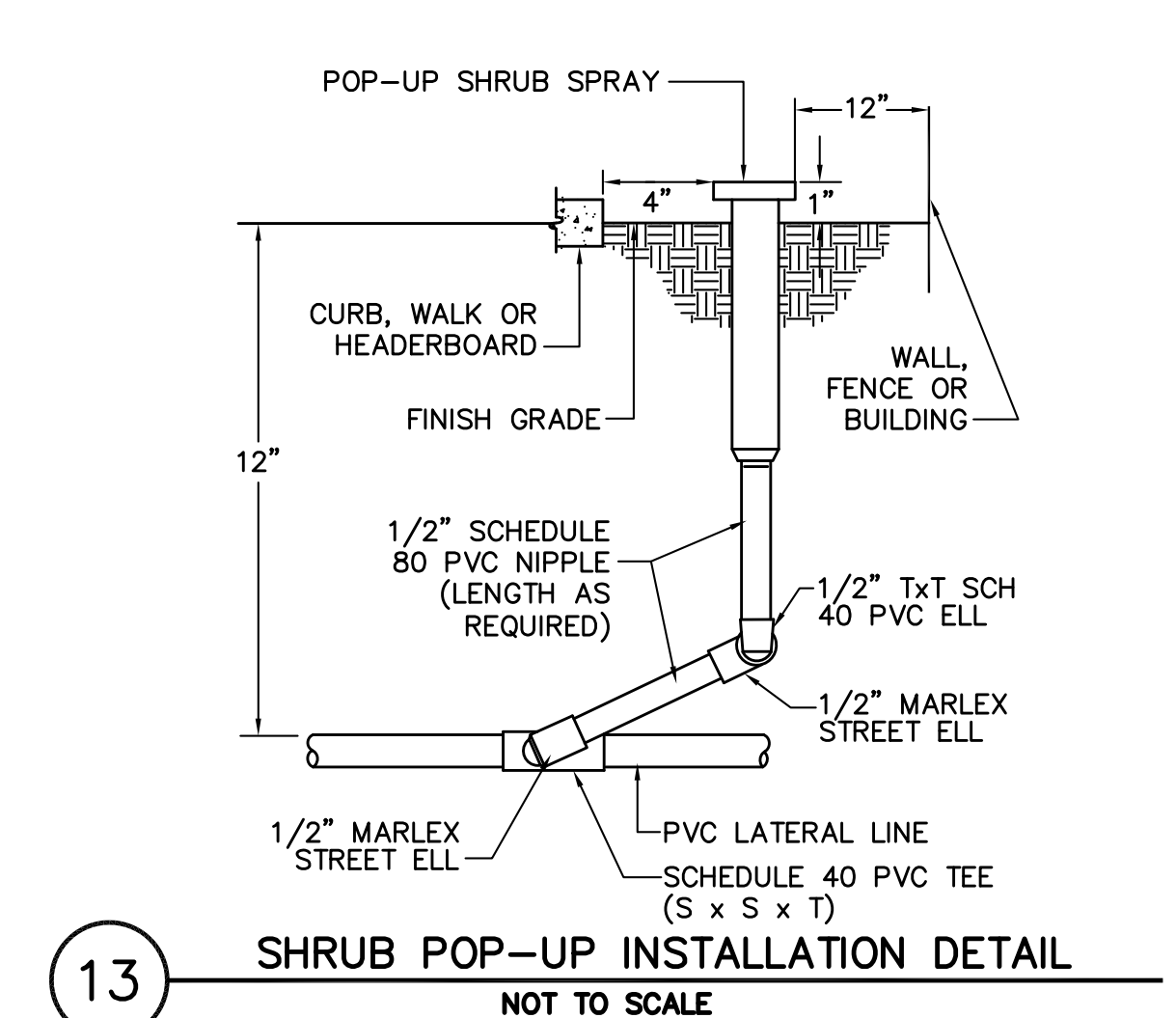
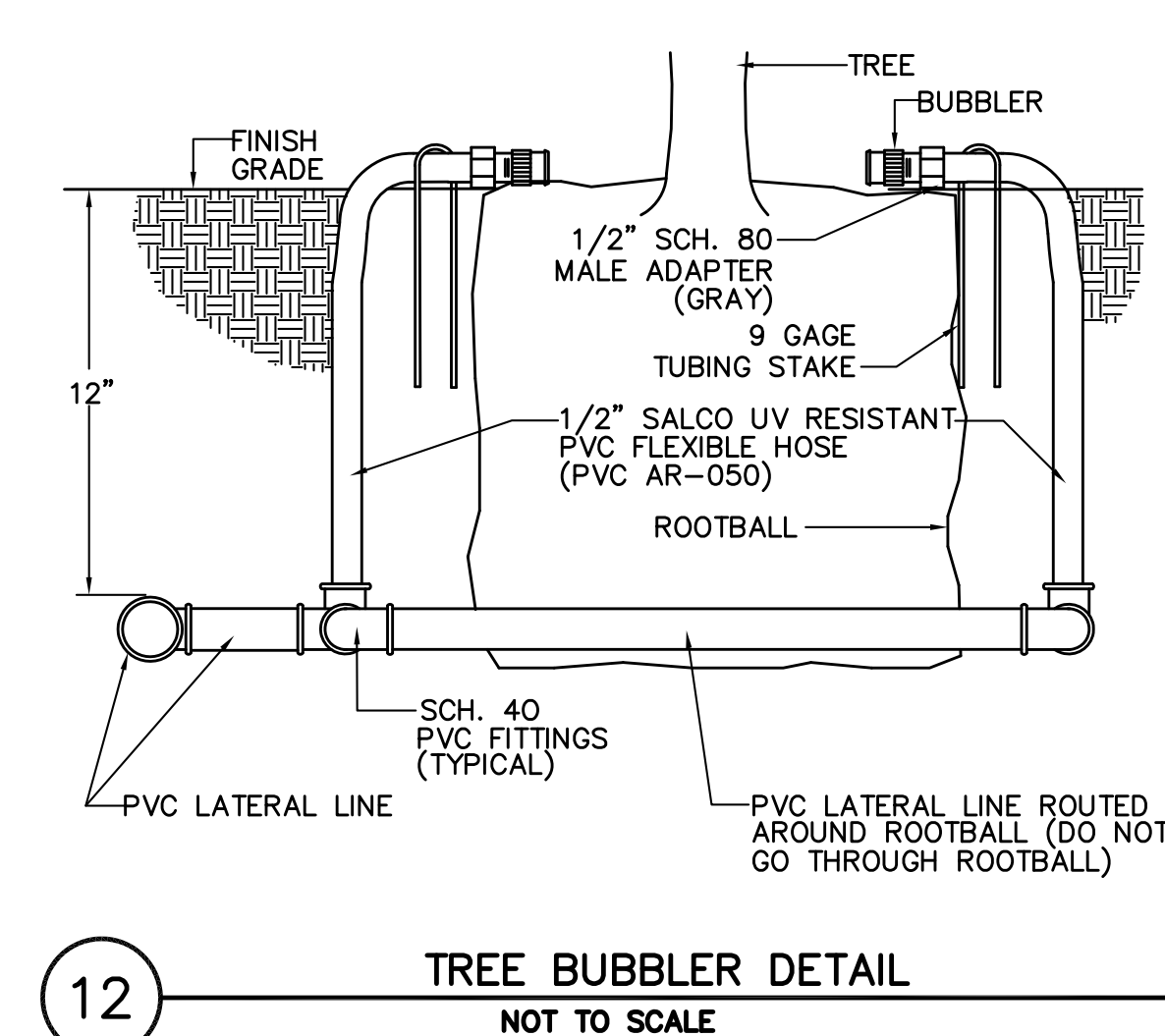
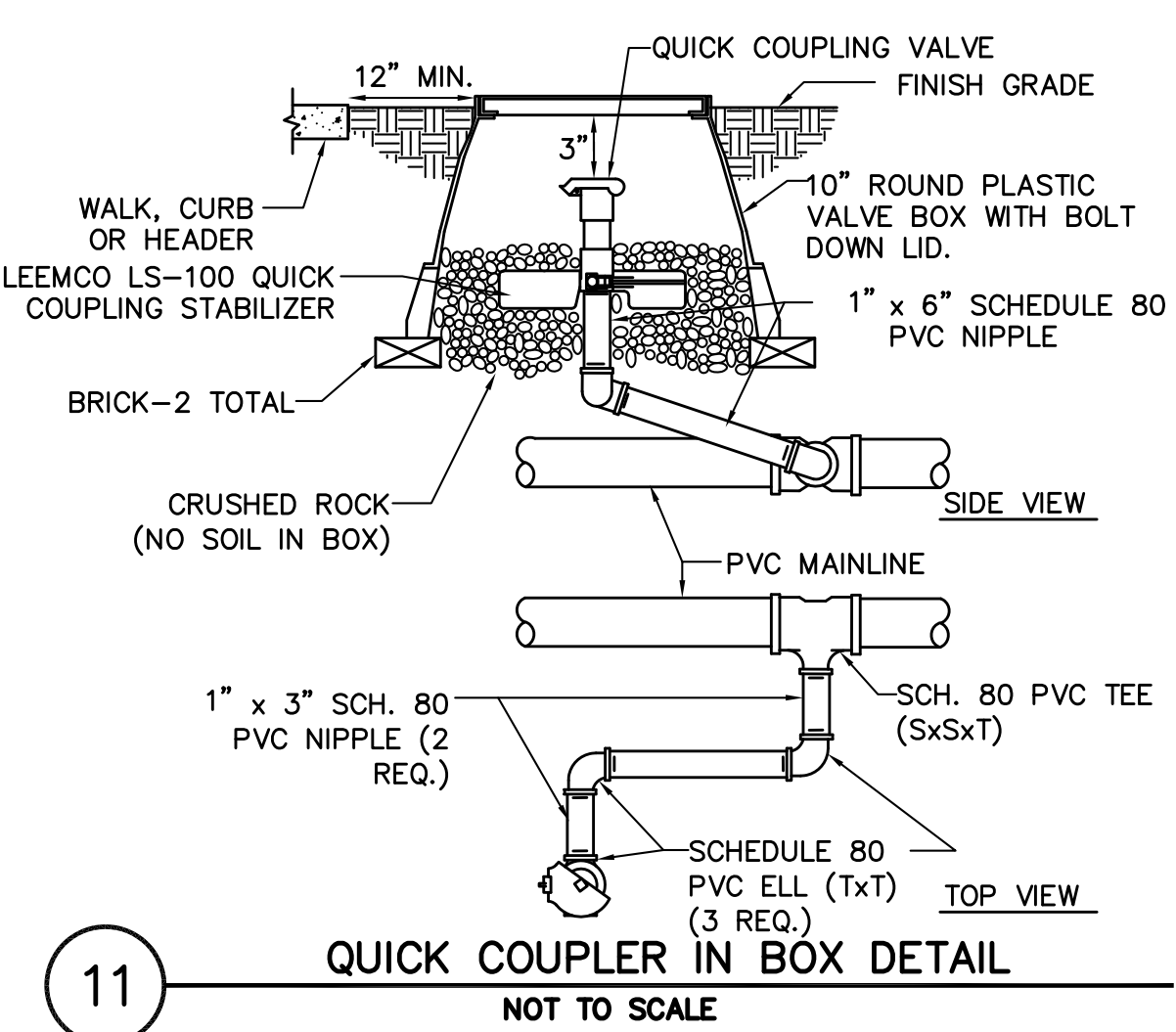
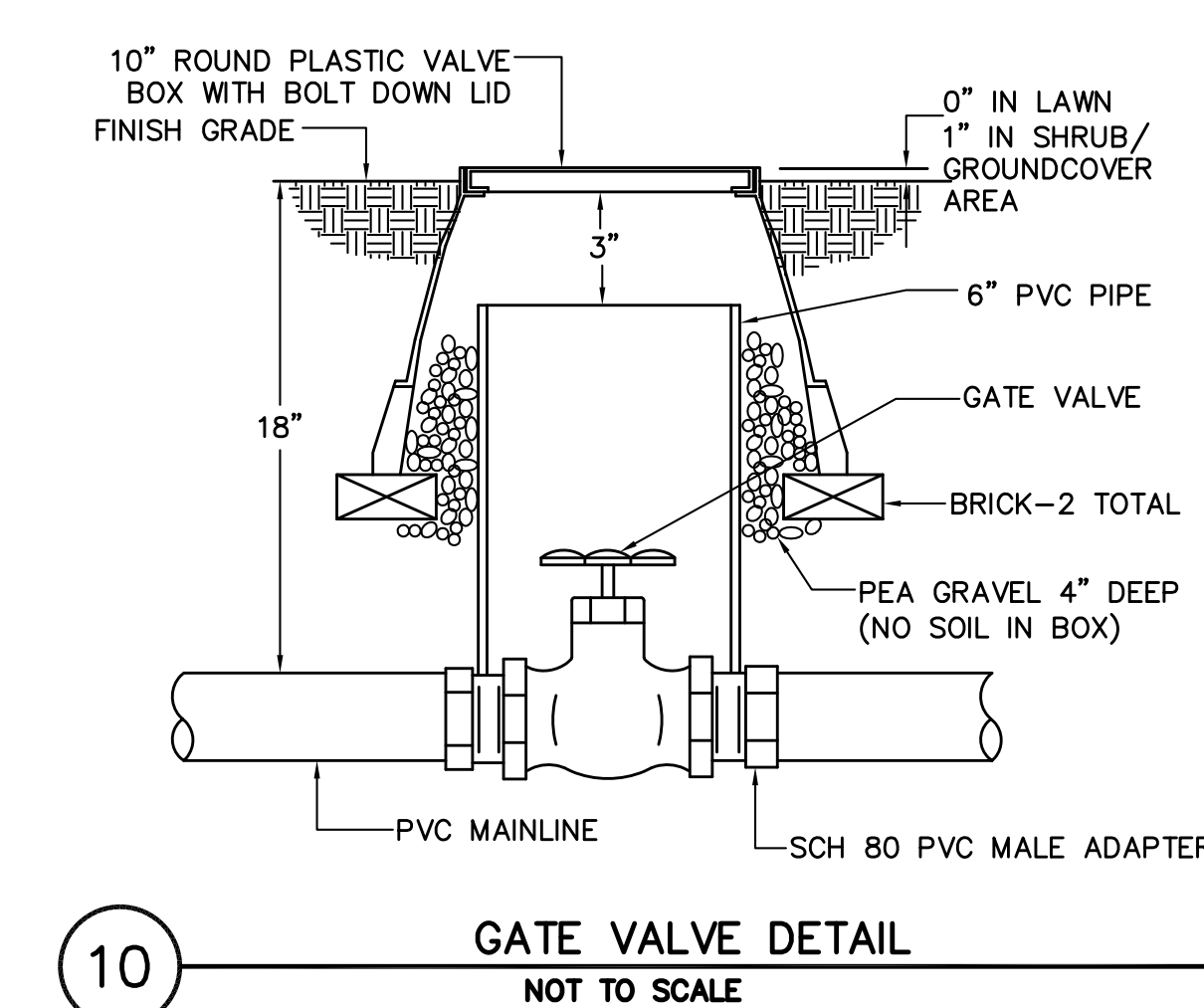
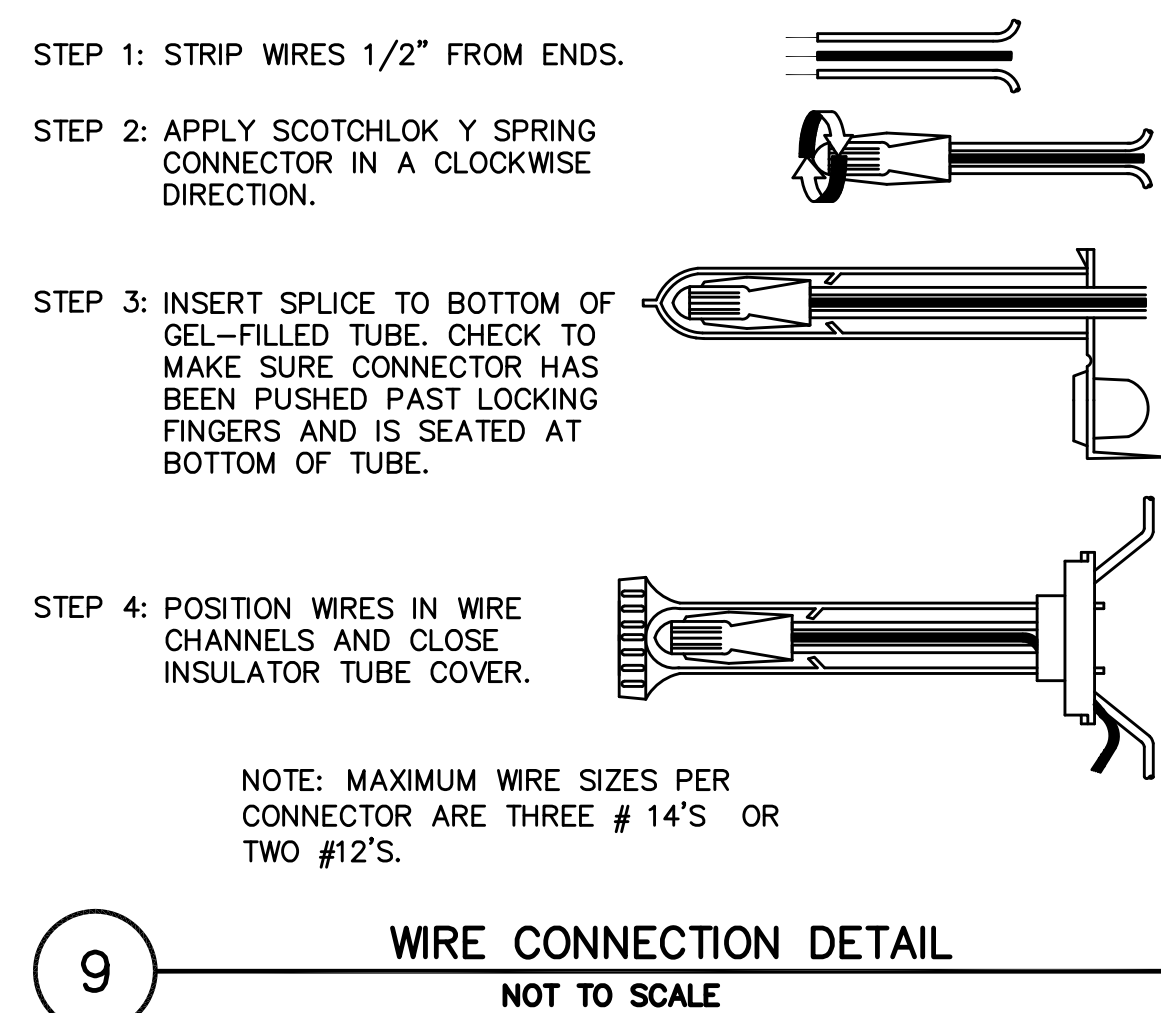
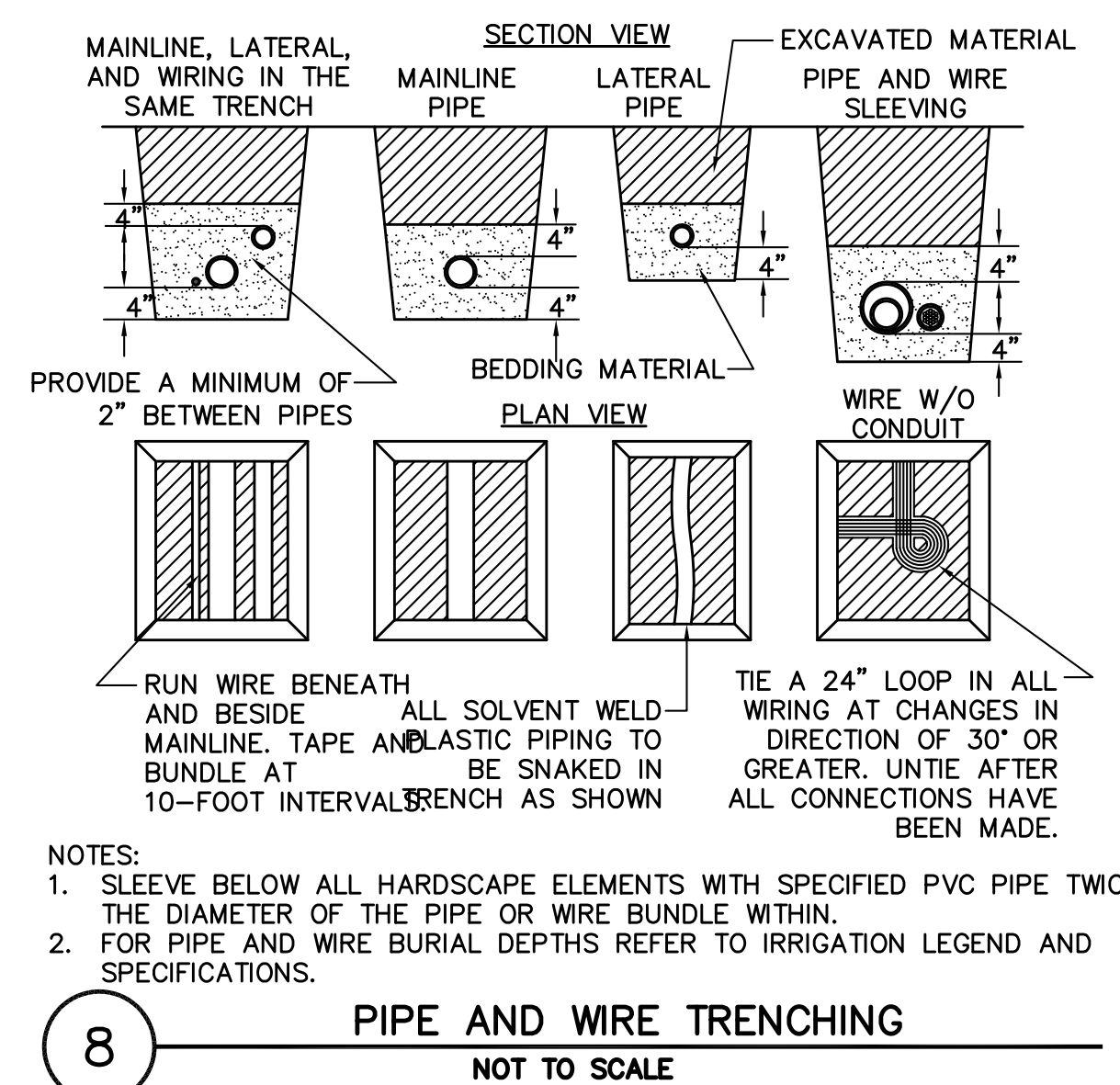
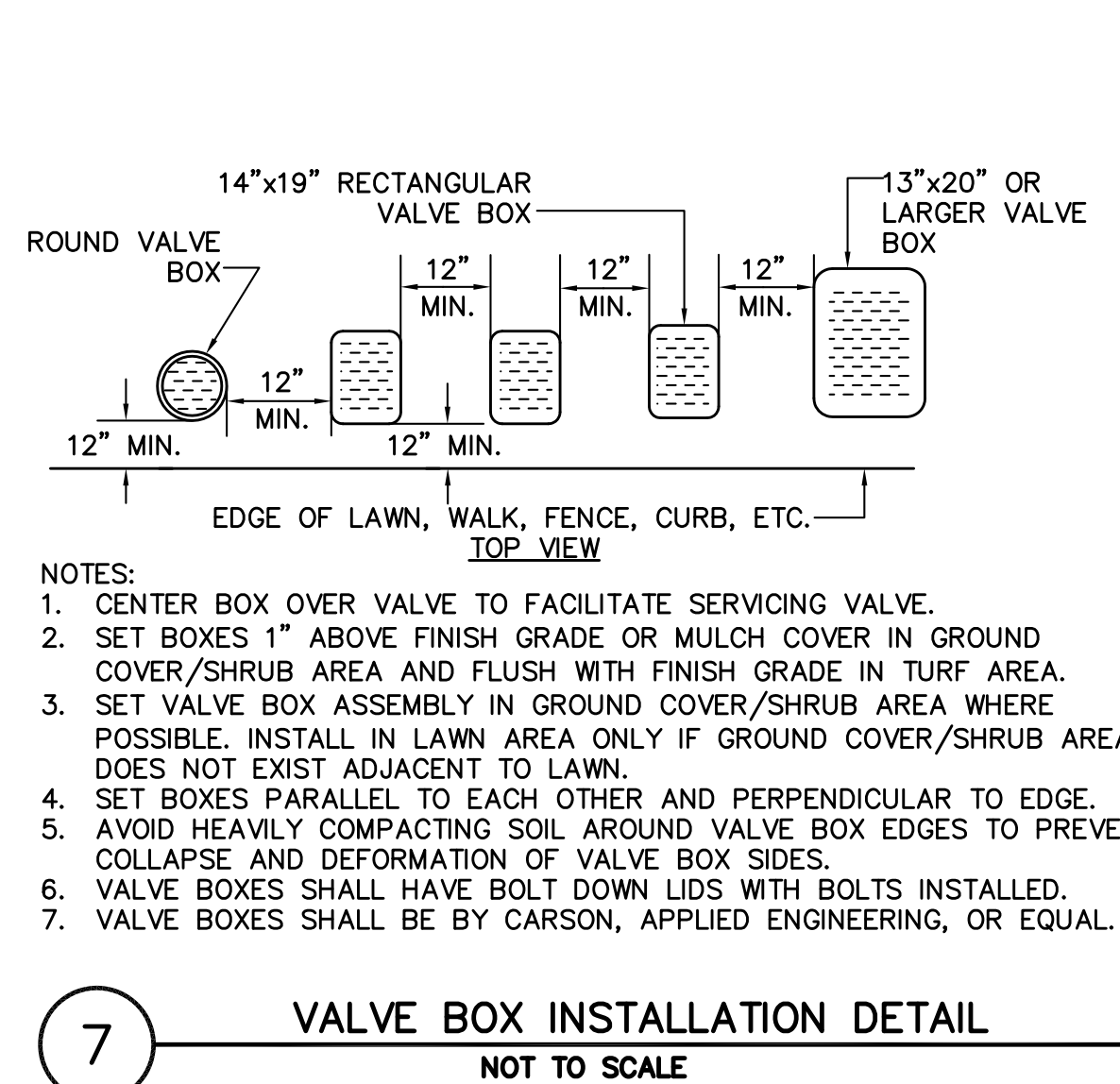
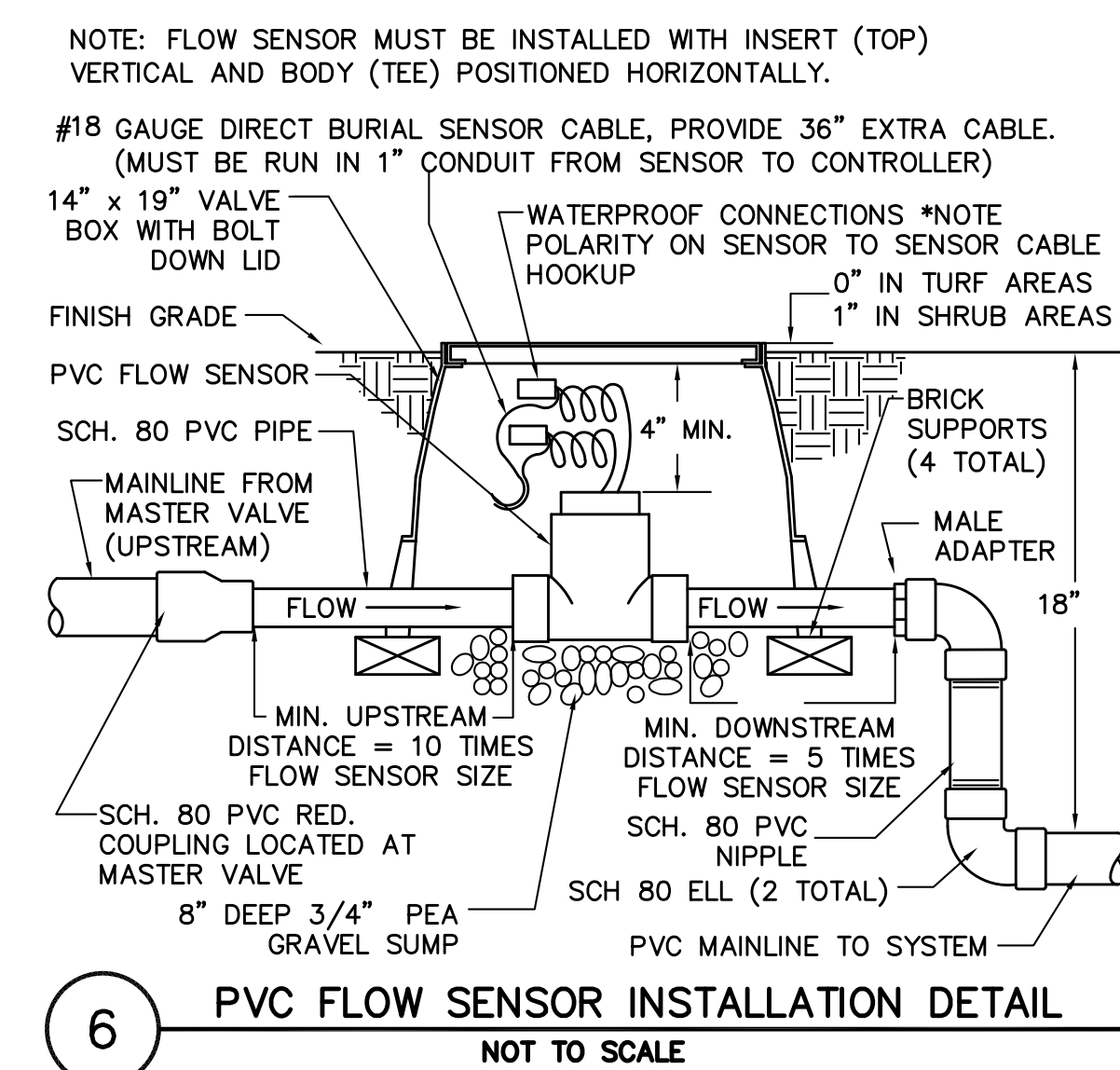
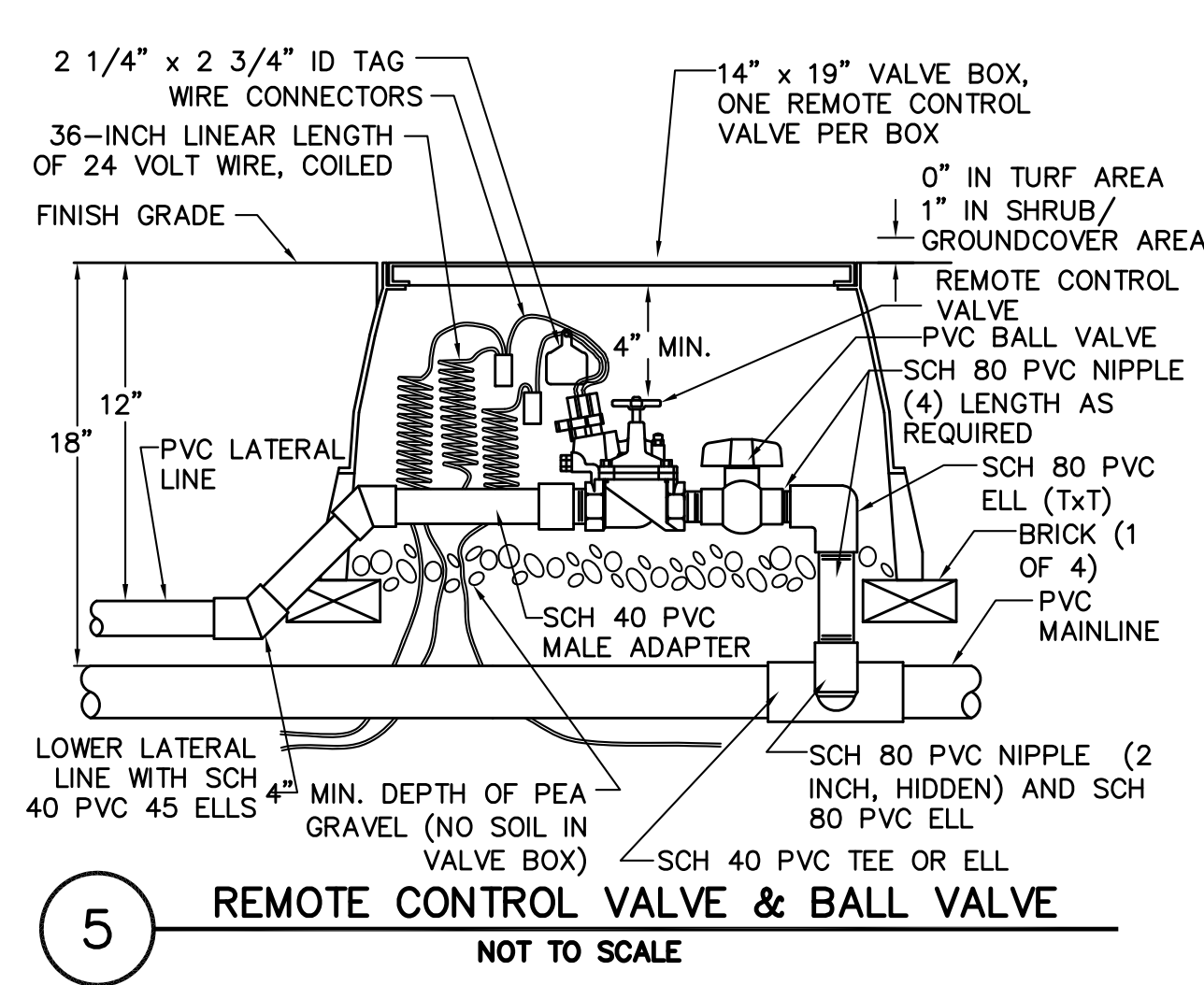
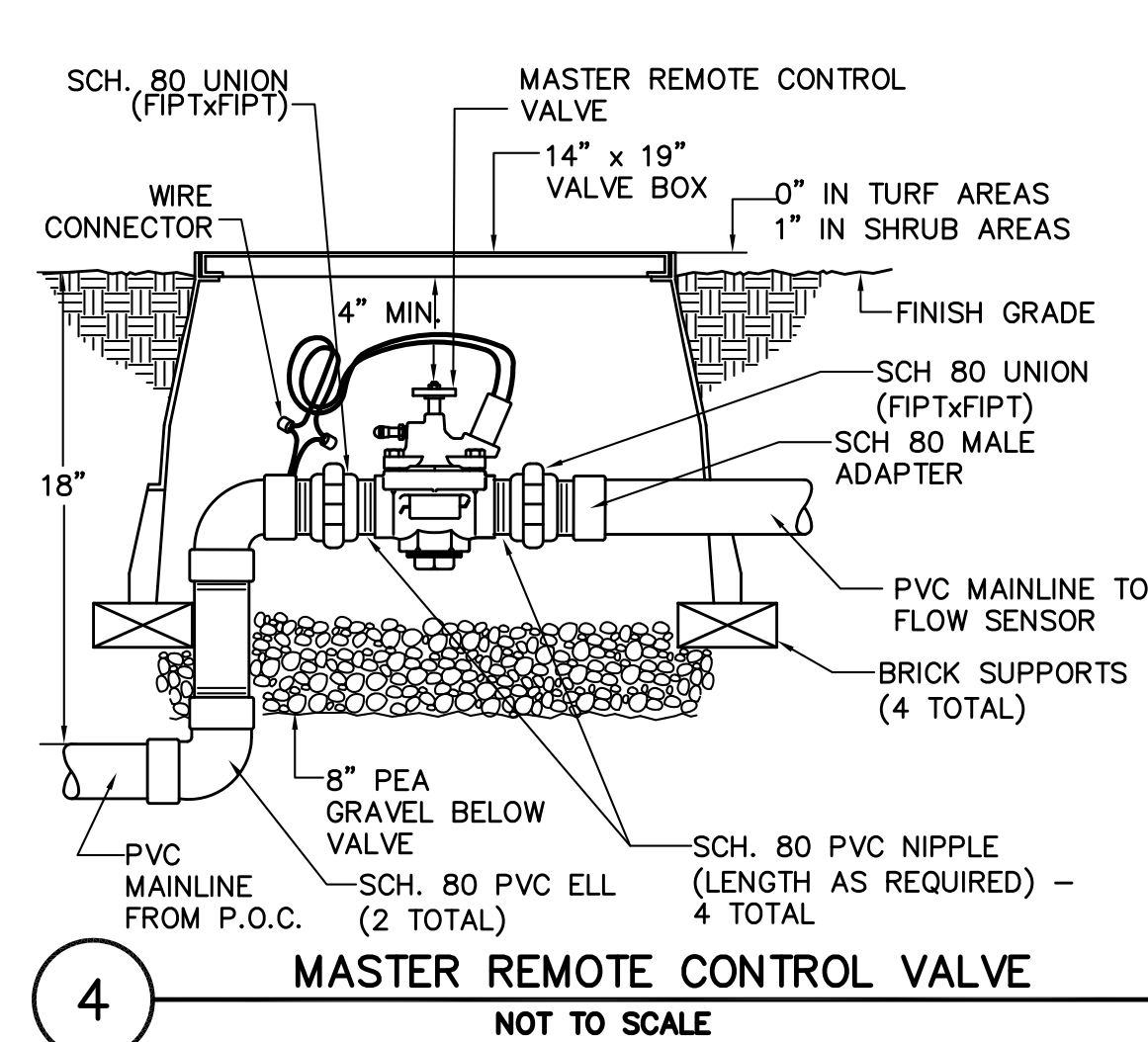
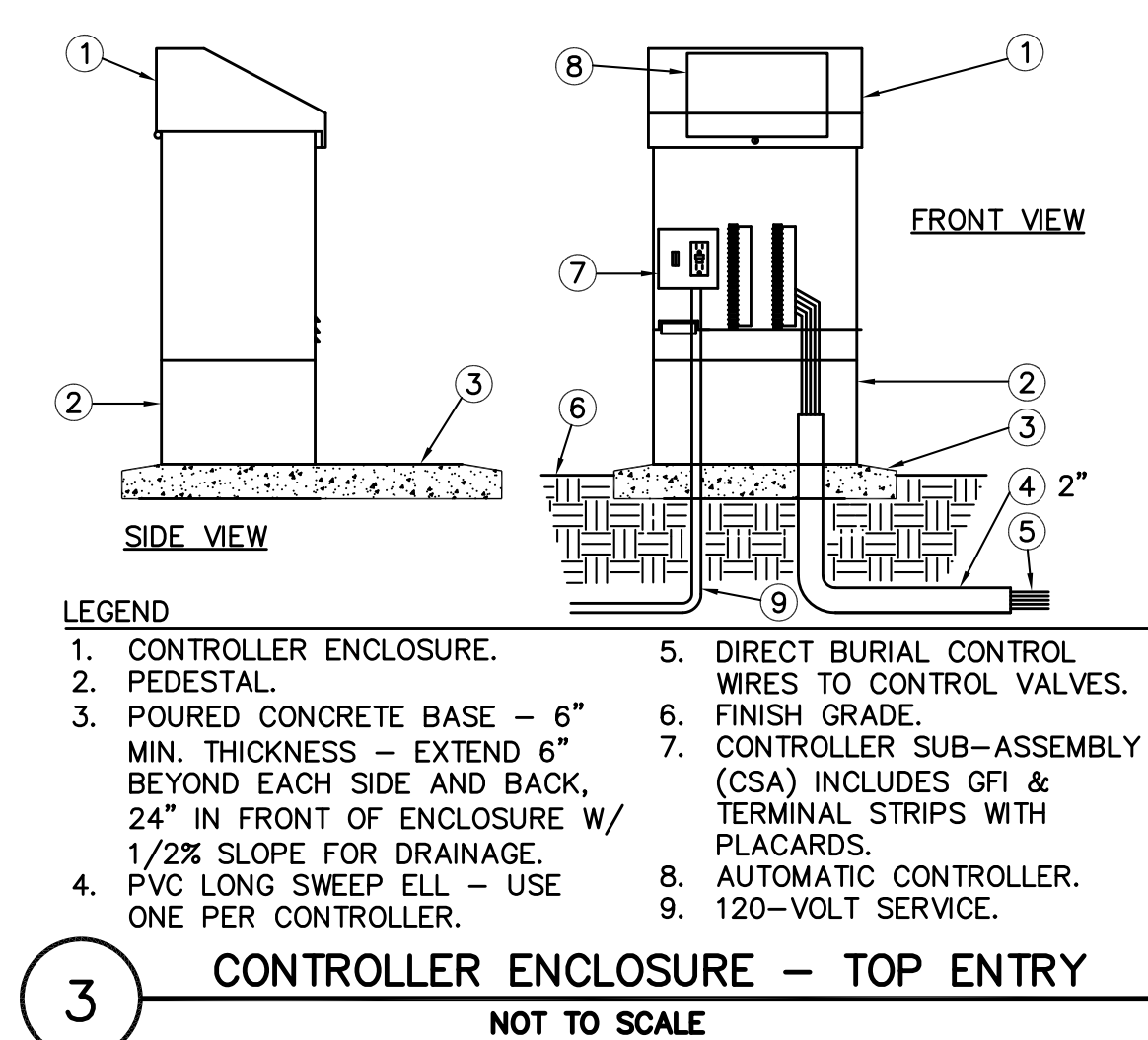
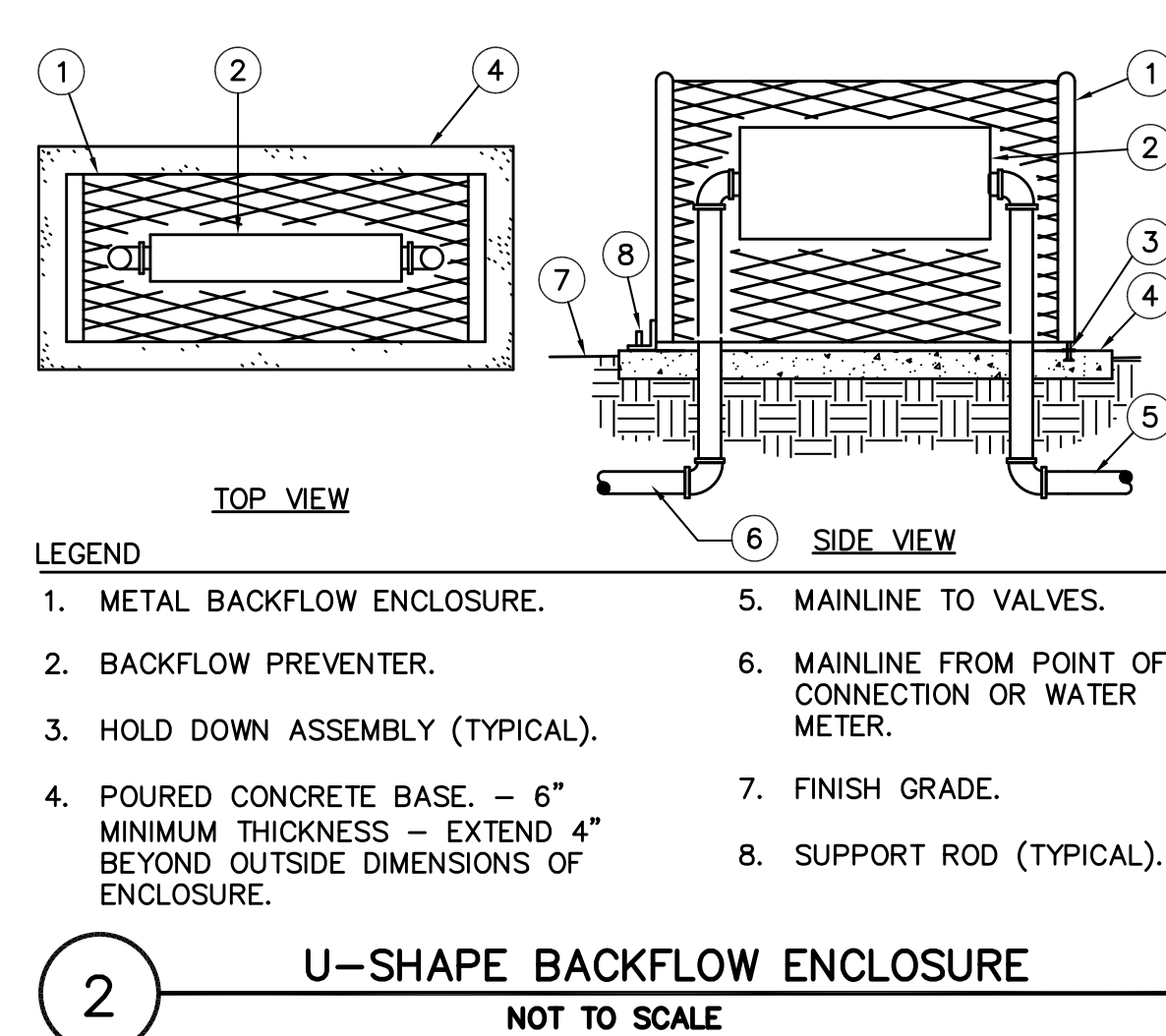
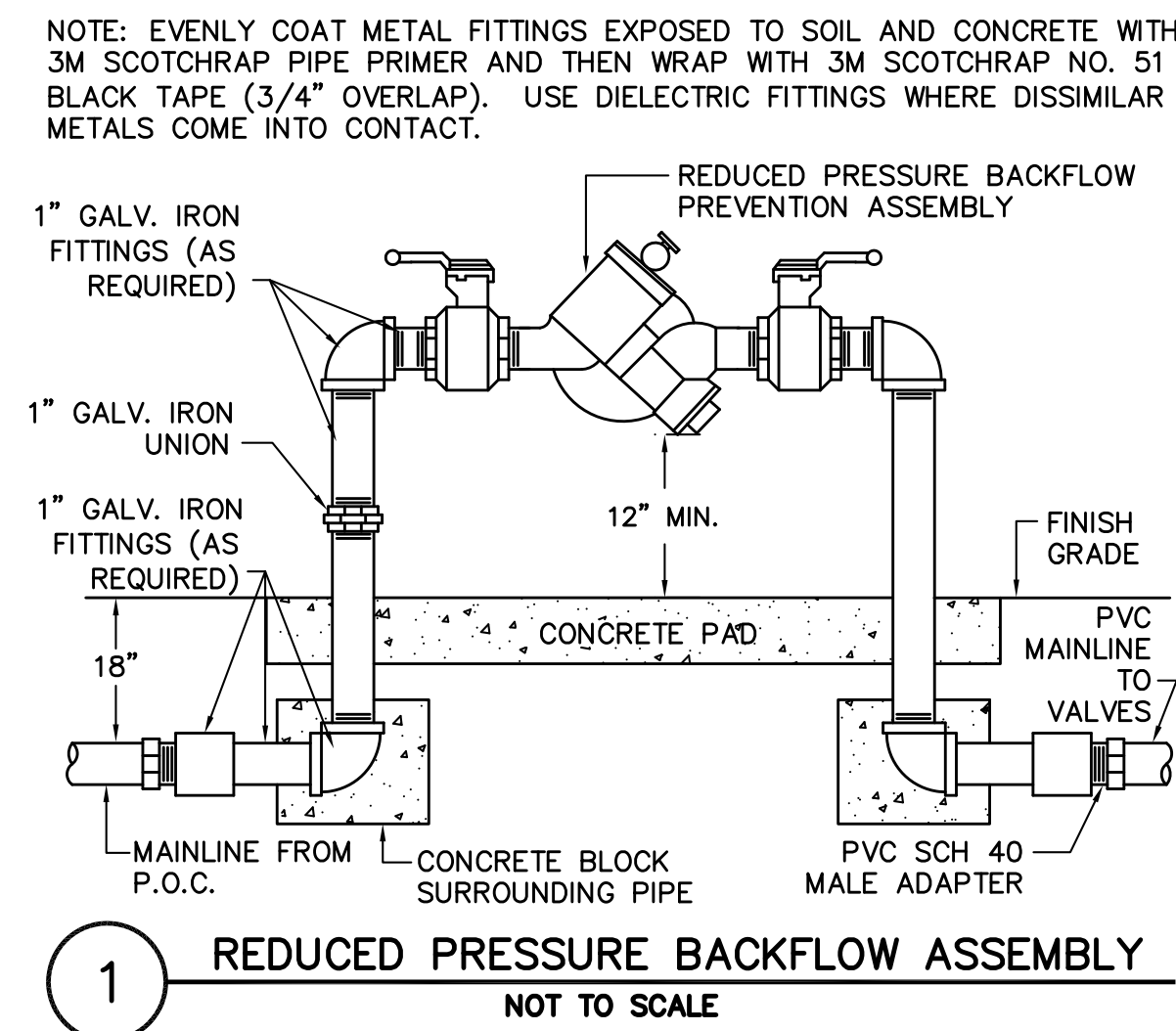
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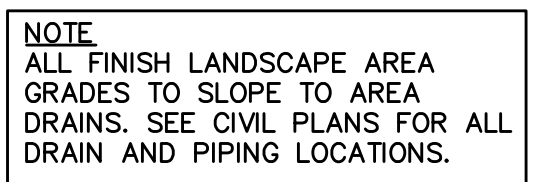
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END OF PLANTING NOTES



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