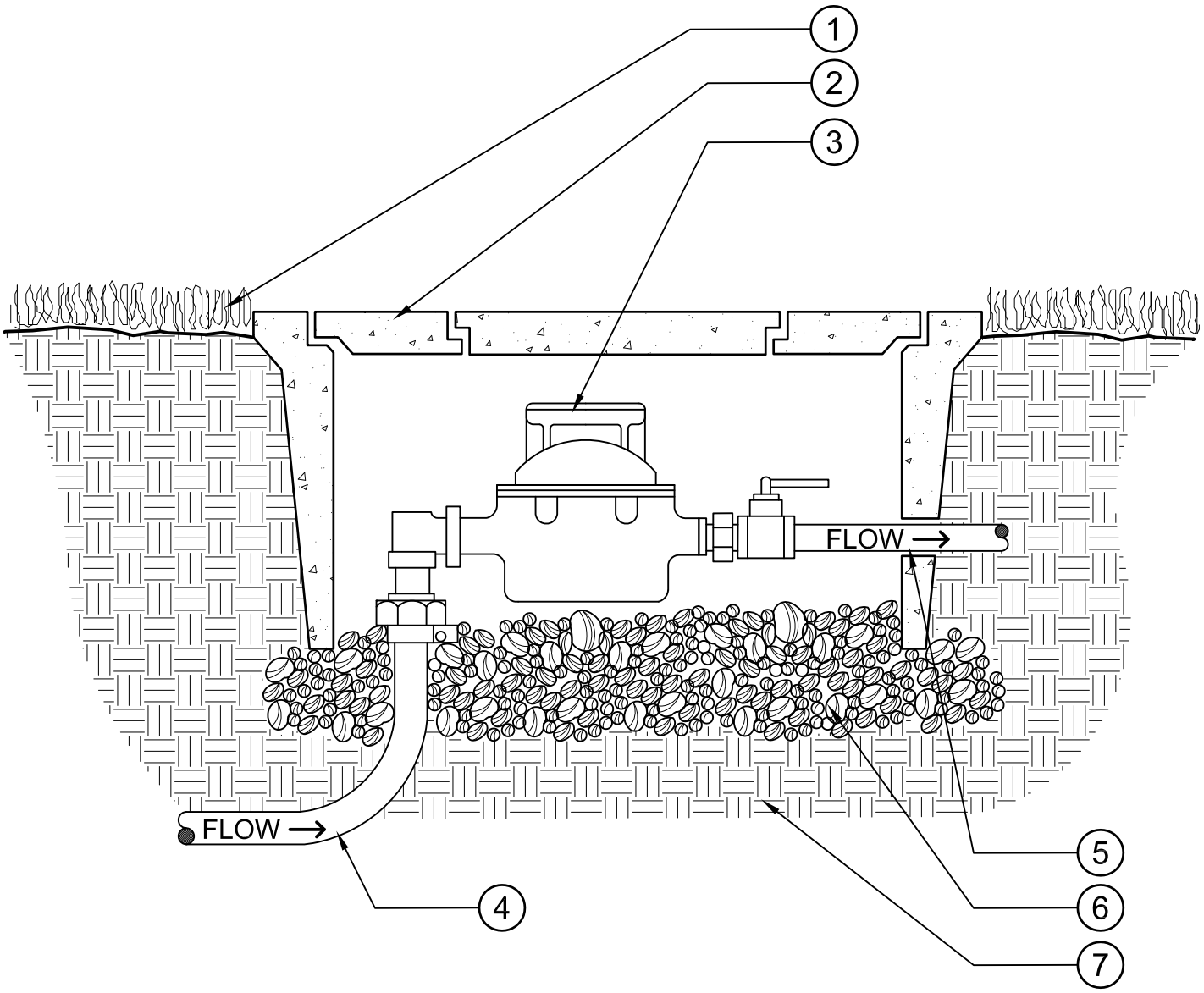
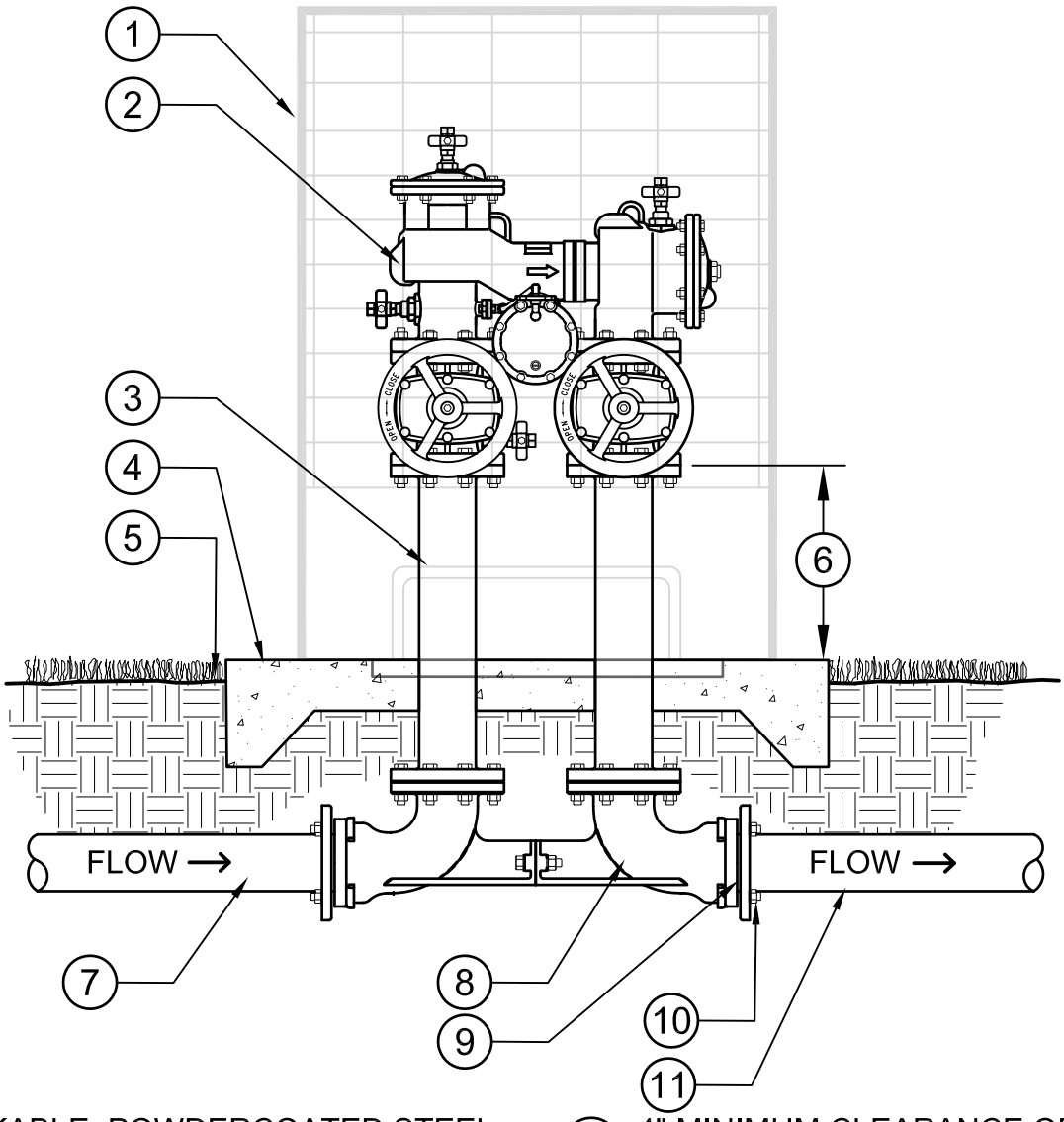


1. FINISH GRADE
2. CONCRETE METER BOX PER WATER DISTRICT STANDARDS
3. WATER METER PER WATER DISTRICT STANDARDS
4. TYPE K COPPER SERVICE LATERAL PER WATER DISTRICT STANDARDS
5. TYPE K COPPER TO BACKFLOW PREVENTION DEVICE
6. 6" MINIMUM CRUSHED GRAVEL PER WATER DISTRICT STANDARDS
7. COMPACT SUBGRADE

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	TYPICAL WATER METER		
	CONNECTION ONLY	APPROVED BY: MPH	
STD. I-001	3"=1'-0"	REV:	

FILE: I-001_TYPICAL WATER METER CONNECTION.DWG



1. LOCKABLE, POWDERCOATED STEEL BACKFLOW ENCLOSURE, COLOR: FOREST GREEN (SEE SPECIFICATIONS)
2. REDUCED PRESSURE BACKFLOW PREVENTION DEVICE, SEE SPECS PAINT FOREST GREEN (AVOID HANDLES AND TEST COCKS)
3. 30" MIN DUCTILE IRON SPOOLS WITH FLANGES
4. 6" THICK CONCRETE PAD FOR BACKFLOW ENCLOSURE
5. FINISH GRADE
6. 4" MINIMUM CLEARANCE OR PER LOCAL CODE REQUIREMENTS
7. STEEL OR PVC SUPPLY LINE FROM WATER SOURCE
8. VALVE SETTER FLANGE BY FLANGE FUSION EPOXY COATED
9. PVC SCH. 80 PVC FLANGE ADAPTER
10. ALL BURIED BOLTS SHALL BE COATED WITH MASTIC (SEE SPECIFICATIONS)
11. STEEL OR PVC SUPPLY LINE TO PUMP OR MASTER VALVE

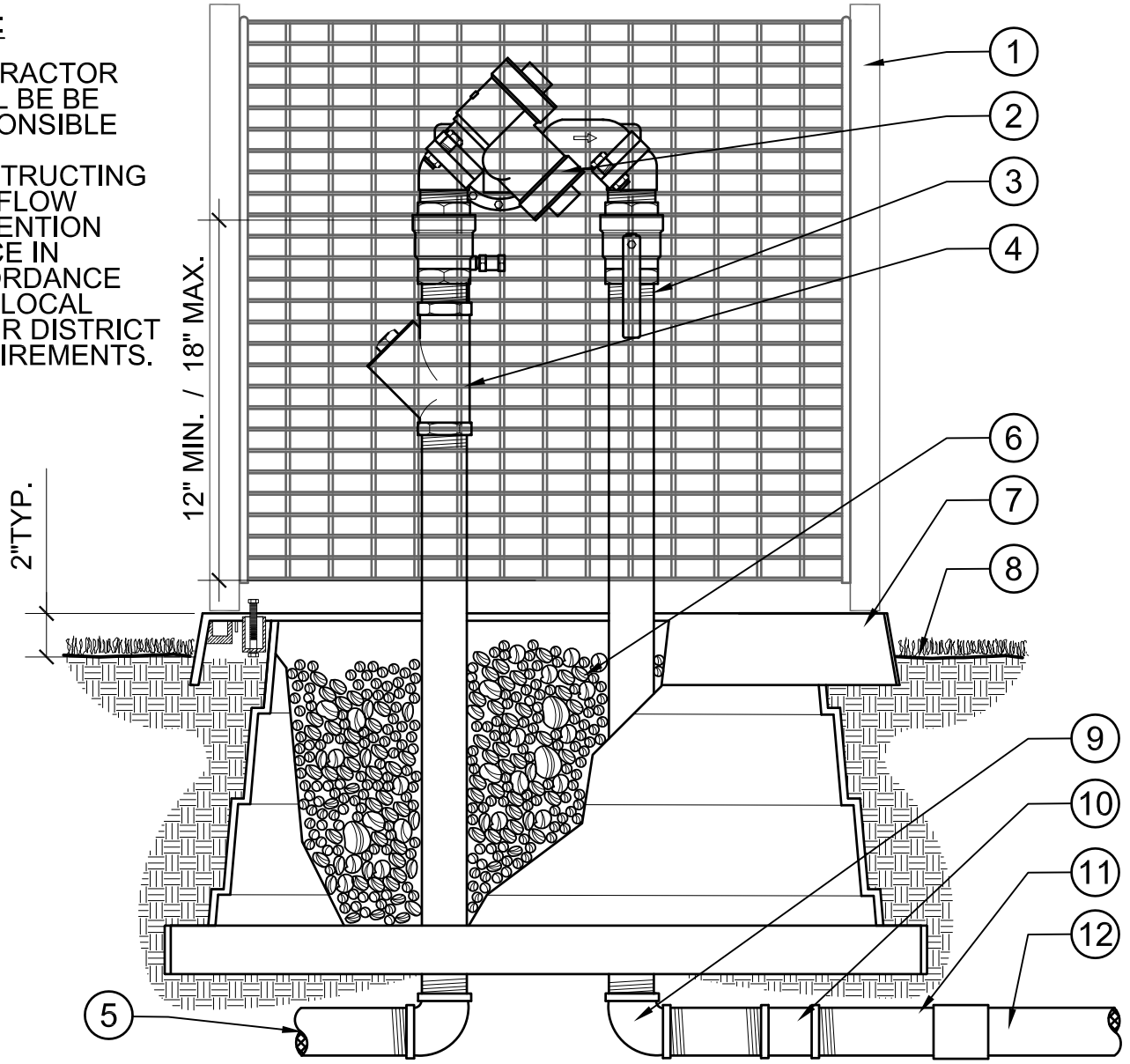
NOTE: WRAP ALL BURIED IRON PIPE WITH (1) ONE LAYER OF 10 MIL. POLY SHEETING

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	BACKFLOW PREVENTION DEVICE		
	2 1/2" AND GREATER	APPROVED BY: MPH	
STD. I-002	1 1/2"=1'-0"	REV:	

FILE: I-002_BACKFLOW PREVENTION DEVICE 2.5.DWG

NOTE:

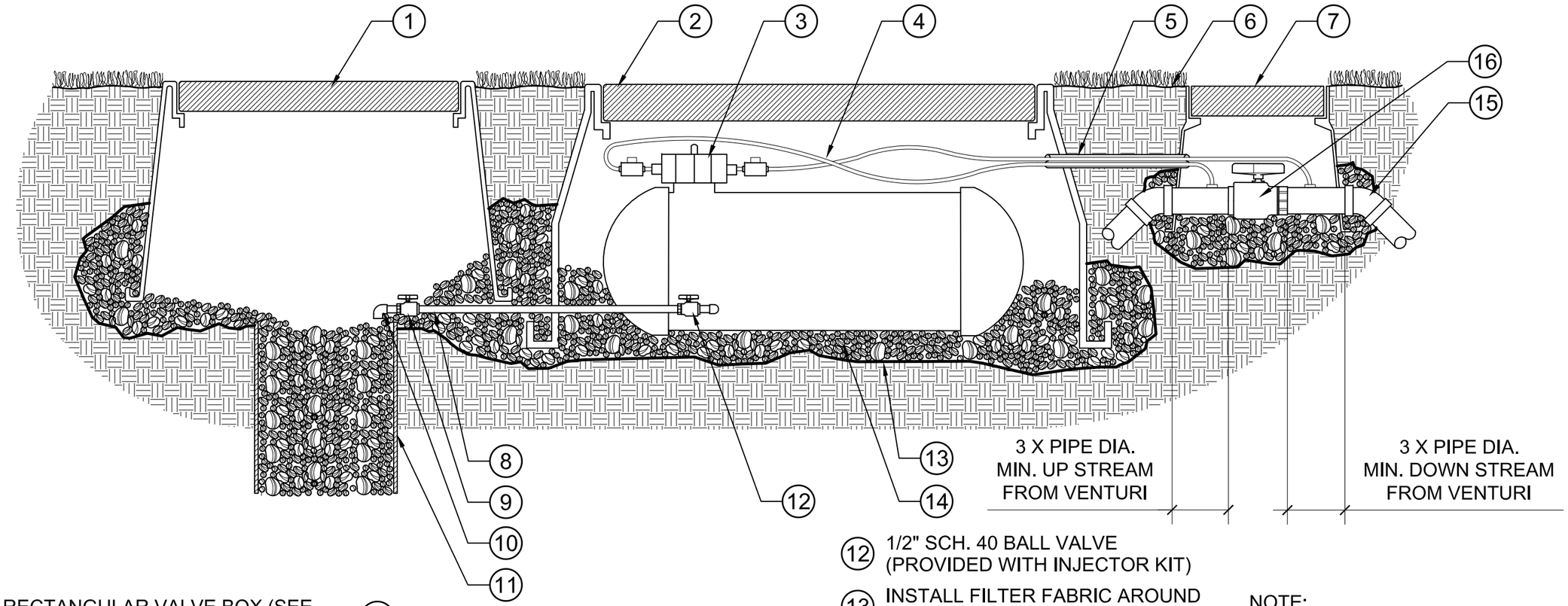
CONTRACTOR SHALL BE BE RESPONSIBLE FOR CONSTRUCTING BACKFLOW PREVENTION DEVICE IN ACCORDANCE WITH LOCAL WATER DISTRICT REQUIREMENTS.



1. LOCKABLE, POWDERCOATED STEEL BACKFLOW ENCLOSURE, COLOR: FOREST GREEN (SEE SPECIFICATIONS)
2. REDUCED PRESSURE BACKFLOW PREVENTION DEVICE, SEE SPECS PAINT FOREST GREEN (AVOID HANDLES AND TEST COCKS)
3. BRASS THREADED RISER/NIPPLE (LINE SIZE) (4 REQUIRED, LENGTH VARIES)
4. BRASS WYE STRAINER AND CLOSED BRASS NIPPLE (LINE SIZE)
5. BRASS / COPPER PIPE FROM WATER SOURCE
6. PEA GRAVEL
7. PRE-FABRICATED QUICKPAD AND MOUNTING HARDWARE
8. FINISH SURFACE
9. BRASS THREADED ELBOW (LINE SIZE) (2 REQUIRED)
10. BRASS THREADED COUPLER (LINE SIZE) (1 REQUIRED)
11. 6" LONG SCH. 80 TOE NIPPLE AND SCH. 80 COUPLER (LINE SIZE)
12. PVC PRESSURE SUPPLY LINE EXTEND AS SHOWN ON PLAN

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	BACKFLOW PREVENTION DEVICE		
	UP TO 2"	APPROVED BY: MPH	
STD. I-003	3"=1'-0"	REV:	

FILE: I-003_BACKFLOW PREVENTION DEVICE 2.DWG



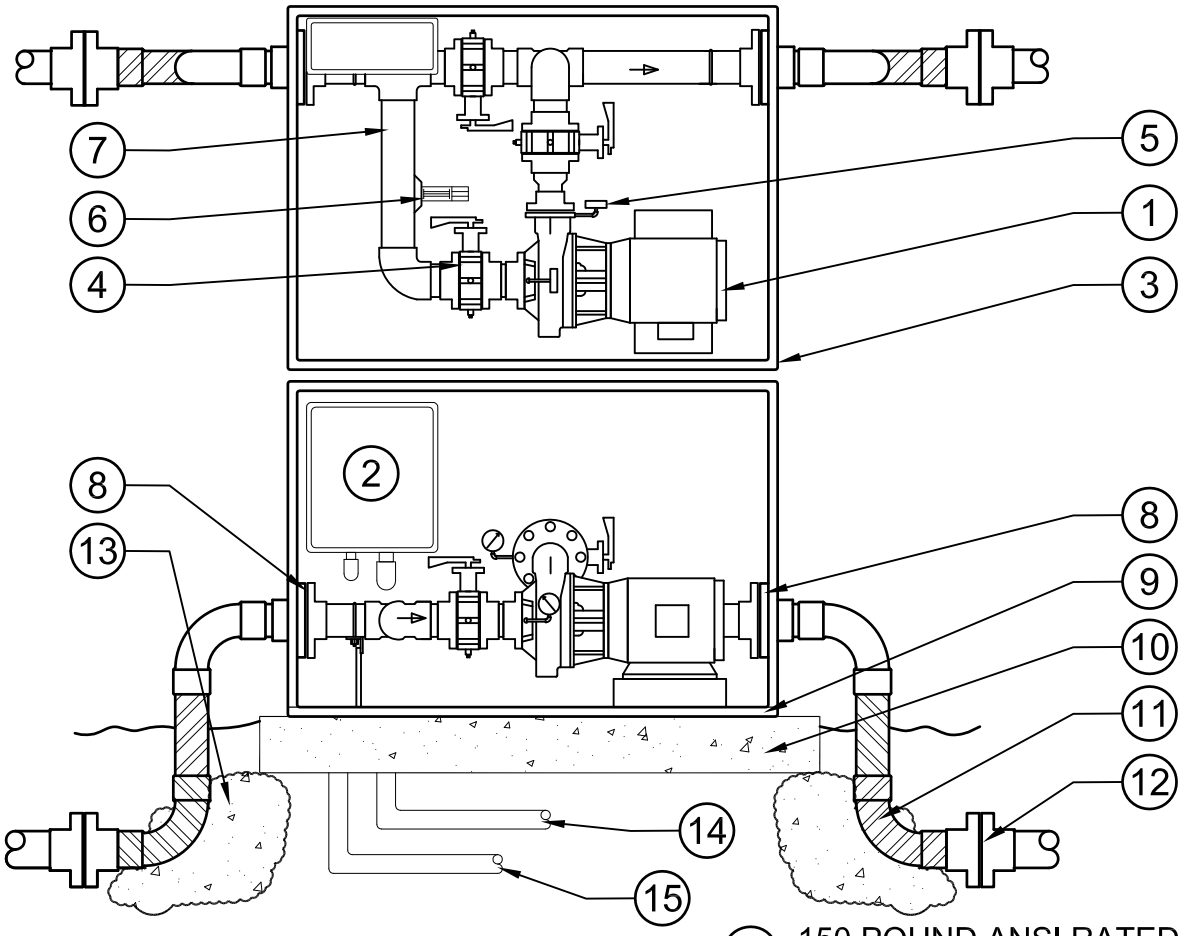
1. PURPLE RECTANGULAR VALVE BOX (SEE SPECIFICATIONS (DO NOT CUT ADDITIONAL HOLES INTO BOX)
2. PURPLE JUMBO VALVE BOX / PLASTIC VAULT WITH LID (BOX SIZE VARIES WITH INJECTOR MODEL. DRAWING ILLUSTRATES MODEL EZ010-FX)
3. FERTILIZER INJECTOR TANK AND AND ADJUSTMENT CAP
4. 1/4" SUPPLY TUBING (PROVIDED WITH INJECTOR KIT)
5. SECTION OF 1" PURPLE SCH. 40 PVC. DRILL HOLES IN VALVE BOXES FOR PASS THROUGH
6. FINISH GRADE
7. PURPLE 10" ROUND VALVE BOX (DO NOT CUT ADDITIONAL HOLES INTO BOX)
8. SEGMENT OF PURPLE 1/2" SCH. 40 PVC, CONNECT TO BALL VALVE AT INJECTOR UNIT
9. 1/2" SCH. 40 BALL VALVE (1 REQUIRED)
10. 1/2" SCH. 40 S X S 90 DEGREE ELBOW (1 REQUIRED)
11. 12" SECTION OF 12" DIA. SDR 35 OR SCH. 40 PVC PIPE, FILL WITH GRAVEL
12. 1/2" SCH. 40 BALL VALVE (PROVIDED WITH INJECTOR KIT)
13. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
14. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
15. SCH. 80 PVC 45 DEGREE ELBOW IN PRESSURE SUPPLY LINE AS NEEDED
16. BALL VALVE / INJECTOR TEE (MAINLINE SIZE)
    INSTALL WITH FLOW ARROWS AS SHOWN ON THE INJECTOR TEE.
    INJECTOR TEE MUST BE INSTALLED EQUAL TO OR BELOW THE LEVEL OF THE CAP ON THE TANK.

NOTE:

INSTALLATION OF BACKFLOW PREVENTION DEVICE DIRECTLY DOWNSTREAM OF WATER METER IS REQUIRED ON POTABLE AND RECYCLED IRRIGATION SYSTEMS USING A FERTILIZER INJECTOR.

FOR SYSTEMS WITH A PRESSURE SUPPLY LINE SIZE GREATER THAN 2" CONSULT WITH RCTLMA REPRESENTATIVE PRIOR TO INSTALLATION OF FERTILIZER INJECTOR.

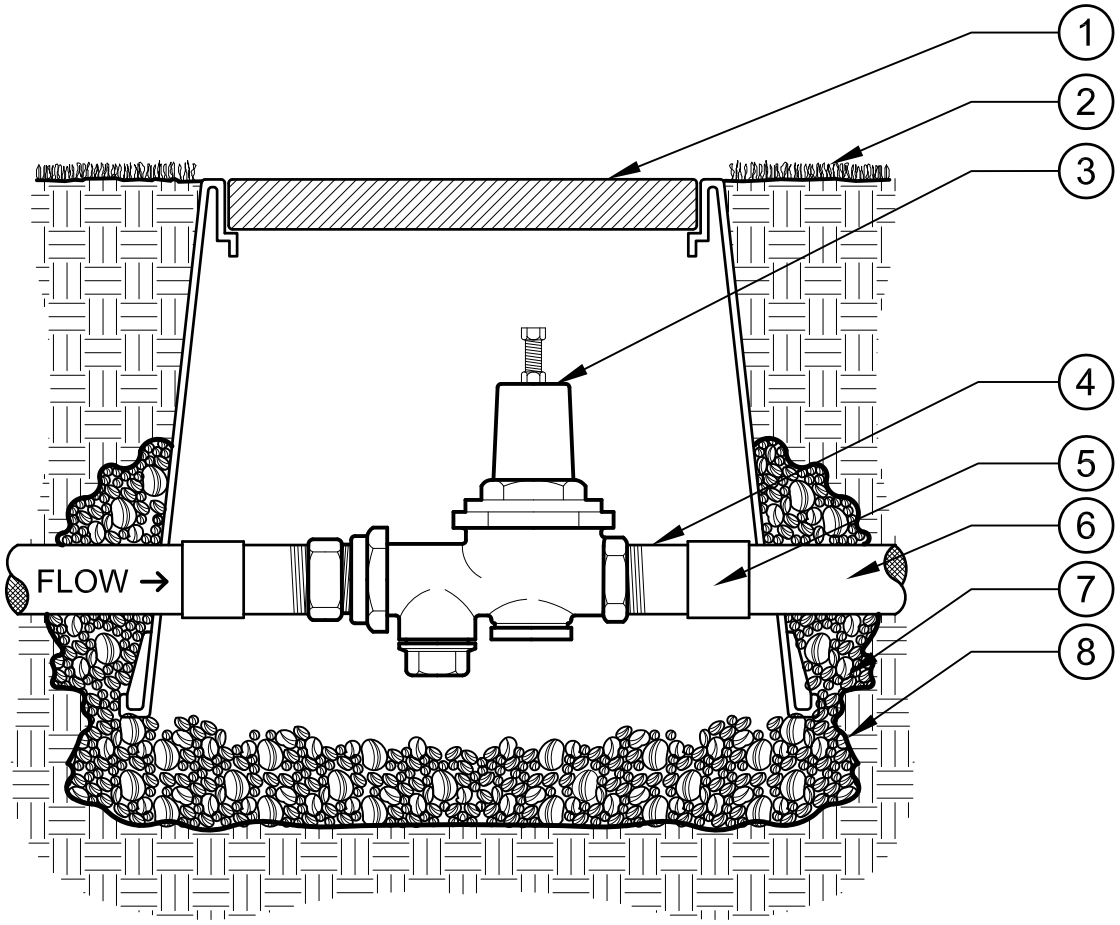
	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS	DATE: 02-05-13
	FERTILIZER INJECTOR FOR UP TO 2" PRESSURE SUPPLY LINE	
	WITH MAINLINE BALL VALVE AND DRAINAGE SUMP	APPROVED BY: MPH
STD. I-004	1 1/2"=1'-0"	REV:



1. CLOSE-COUPLED END SUCTION CENTRIFUGAL PUMP, CAST IRON BRONZE FITTED, BACK PULLOUT DESIGN, MECHANICAL SEAL, ODP MOTOR WITH A VARIABLE FREQUENCY DRIVE SYSTEM.
2. NEMA 4 ENCLOSED CONTROL PANEL, WITH CIRCUIT BREAKER, MAGNETIC STARTER, HOA SWITCH, AND COMPONENTS FOR AUTOMATIC BOOSTER PUMP CONTROL
3. MARINE GRADE ALUMINUM ENCLOSURE HINGED DESIGN WITH VENTING
4. CAST IRON ELASTOMER LINED FULL LUG WAFER STYLE BUTTERFLY VALVE
5. PRESSURE GAUGE, 2 1/2" DIAL, LIQUID FILLED, STAINLESS CASE, 0-200 P.S.I.
6. FLOW SWITCH, BRONZE, PADDLE STYLE NON-ADJUSTABLE, 100 P.S.I. RATED (OPTIONAL)
7. TYPE 304 STAINLESS STEEL (SIZE VARIES)
8. 150 POUND ANSI RATED BRASS OUTPUT FLANGE
9. FABRICATED STRUCTURAL ALUMINIUM BASEPLATE
10. 6" CONCRETE PAD, ASTM C-94, ACI STD. 318-83 DESIGN MIX, 2500 PSI RATED
11. DOUBLE PVC TAPE WRAPPED BRASS PIPE
12. PVC SCH. 80 / BRASS COMPANION FLANGE CONNECTION
13. CONCRETE THRUST BLOCK 4 CUBIC FEET MINIMUM
14. MAIN POWER CONDUIT
15. CONTROLLER / PUMP RELAY CONDUIT

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	BOOSTER PUMP		
	FOR IRRIGATION SYSTEM	APPROVED BY: MPH	
STD. I-010	3/4"=1'-0"	REV:	

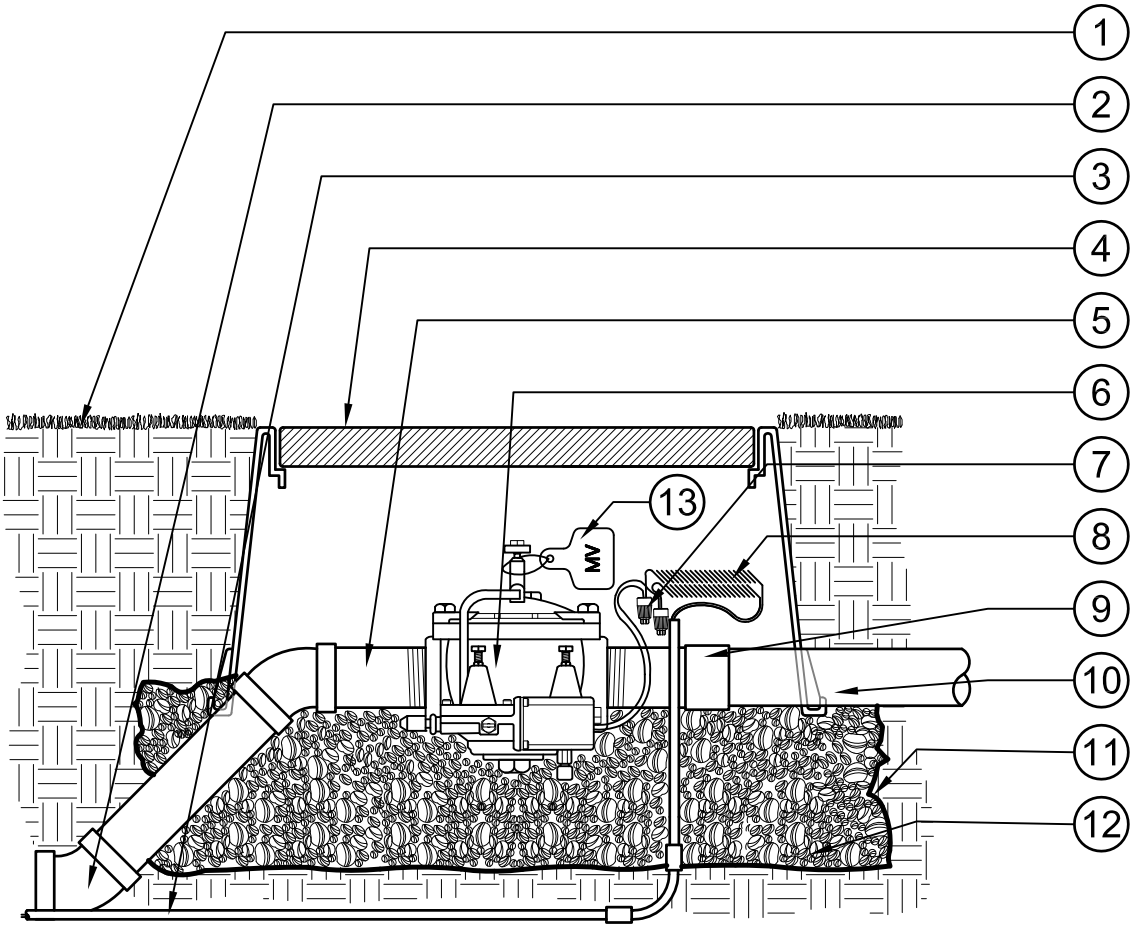
FILE: I-010_BOOSTER PUMP.DWG



1. RECTANGULAR VALVE BOX (SEE SPECIFICATIONS), DO NOT CUT ADDITIONAL HOLES INTO BOX
2. FINISH GRADE
3. PRESSURE REGULATING VALVE (SEE SPECIFICATIONS)
4. 4" LONG SCH. 80 TOE NIPPLE (LINE SIZE) (TWO REQUIRED)
5. SCH. 80 COUPLING (LINE SIZE) (TWO REQUIRED)
6. PRESSURE SUPPLY LINE, ALIGN WITH FLOW SENSOR
7. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX
   FILL TO TOP OF THE HOLES
   WRAP WITH FILTER FABRIC
8. INSTALL FILTER FABRIC AROUND GRAVEL SUMP

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS	DATE: 02-05-13
	PRESSURE REGULATING VALVE	
	APPROVED BY: MPH	
STD. I-011	3"=1'-0"	REV:

FILE: I-011_PRESSURE REGULATING VALVE.DWG

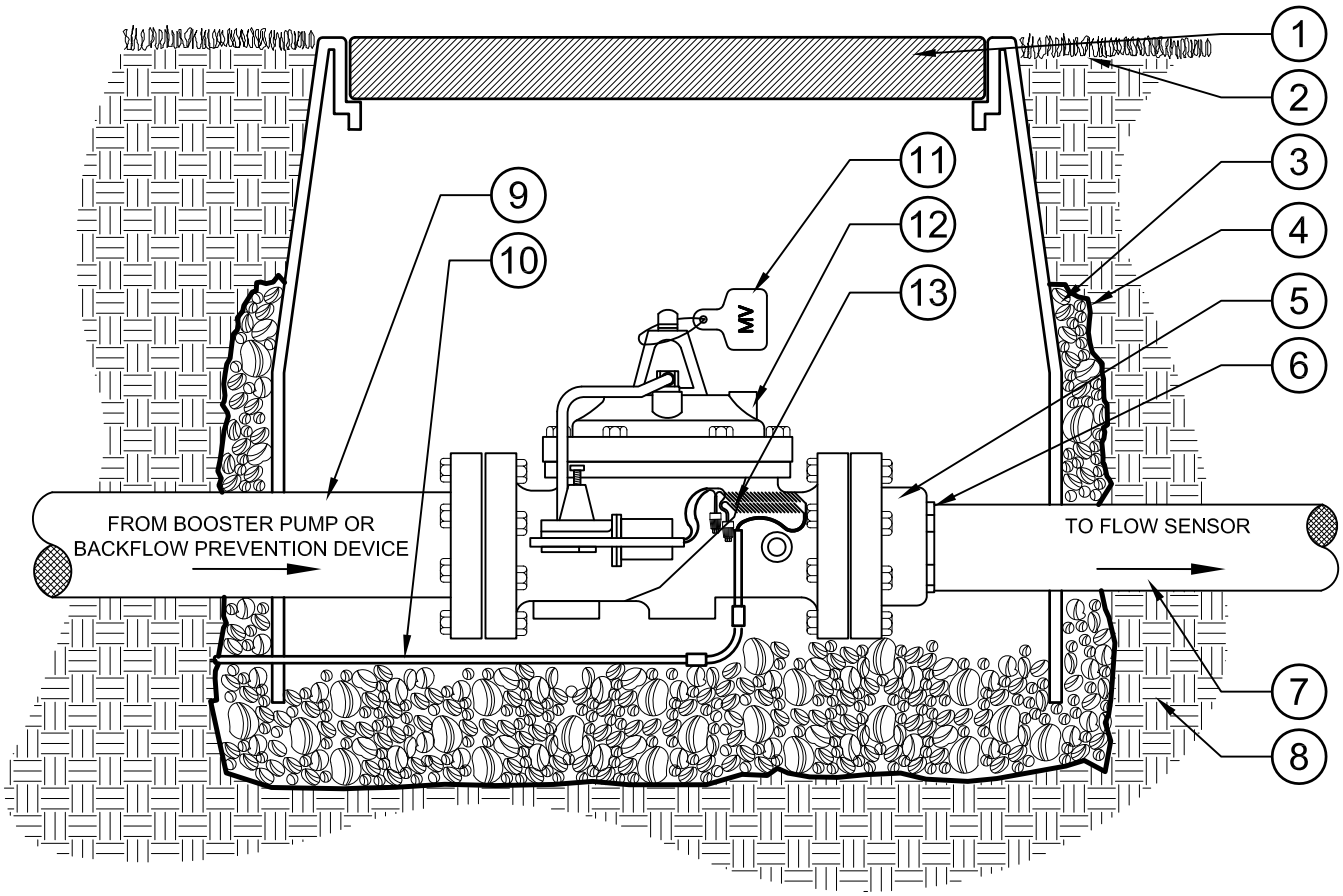


1. FINISH GRADE
2. 45 DEGREE ELL (2 REQUIRED)
3. 3/4" SCH 40 WIRE CONDUIT WITH SWEEP FOR MASTER VALVE WIRES (TO CONTROLLER)
4. JUMBO RECTANGULAR VALVE BOX (SEE SPECIFICATIONS). DO NOT CUT ADDITIONAL HOLES INTO BOX
5. 4" LONG SCH. 80 TOE NIPPLE (LINE SIZE) (2 REQUIRED)
6. MASTER VALVE (SEE SPECS)
7. CONNECT WIRES TO VALVE USING WATER TIGHT CONNECTORS (SEE SPECS)
8. USE 1/2" PVC SCRAP TO WRAP 12" OF ADDITIONAL WIRE BEFORE CONNECTING
9. SCH. 80 COUPLER (ONE REQUIRED) (LINE SIZE)
10. PRESSURE SUPPLY LINE, ALIGN WITH FLOW SENSOR (SEE PLAN FOR SIZE)
11. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
12. 3/4" GRAVEL SUMP, IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
13. VALVE IDENTIFICATION TAG

NOTE: ALL CONDUIT SHALL BE SEALED WATER TIGHT WITH EXPANDING FOAM.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	MASTER VALVE		
	NORMALLY CLOSED AT 12" DEPTH	APPROVED BY: MPH	
STD. I-020	3/4"=1'-0"	REV:	

FILE: I-020_MASTER VALVE 2.DWG



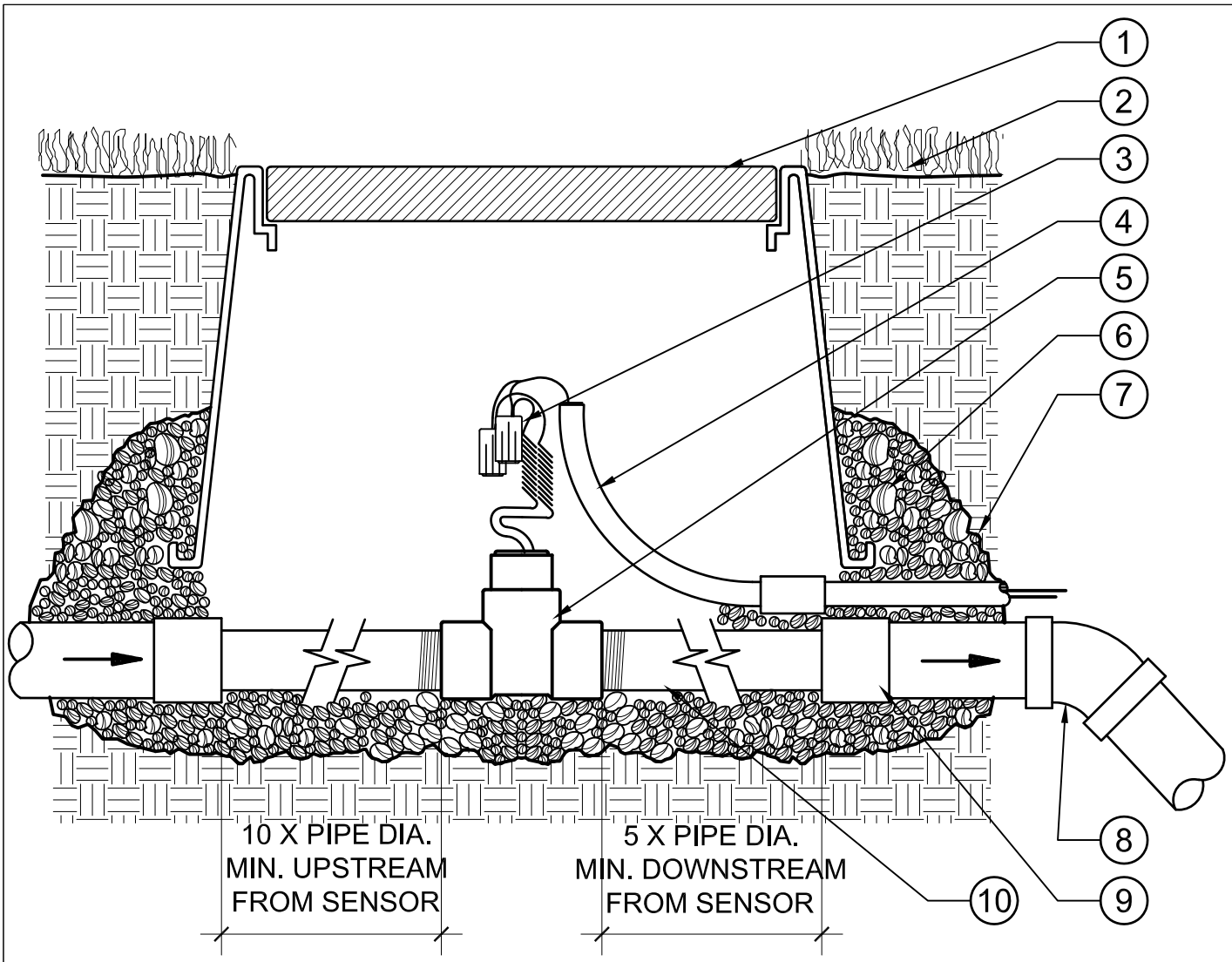
1. JUMBO VALVE BOX / PLASTIC VAULT WITH LID (BOX SIZE VARIES WITH VALVE SIZE)
2. FINISH GRADE
3. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX (FILL TO TOP OF VALVE BOX HOLES)
4. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
5. SCH. 80 PVC FLANGE FLANGE X SLIP (SIZE VARIES)
6. SxS SCH. 80 REDUCER BUSHING (IF NEEDED)
7. PRESSURE SUPPLY LINE TO FLOW SENSOR
8. COMPACTED SUBGRADE
9. SPOOL FROM BACKFLOW PREVENTION DEVICE, STRAINER OR BOOSTER PUMP (SIZE AND LENGTH VARIES)
10. 3/4" SCH 40 WIRE CONDUIT WITH SWEEP FOR MASTER VALVE WIRES (TO CONTROLLER)
11. VALVE IDENTIFICATION TAG
12. MASTER VALVE
13. USE 3/4" PVC SCRAP TO WRAP 24' OF ADDITIONAL WIRE, CONNECT WIRES TO MASTER VALVE USING WATERPROOF WIRE CONNECTORS

NOTE:

- ALL BURIED BOLTS SHALL BE COATED WITH TWO (2) COATS AN APPROVED WATERPROOF COATING.
- ALL BURIED IRON PIPE SHALL BE WRAPPED WITH ONE (1) LAYER 10 MIL. POLYETHYLENE SHEETING TAPED IN PLACE.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	MASTER VALVE (2 1/2" AND LARGER)		
	NORMALLY CLOSED AT 12" DEPTH	APPROVED BY: MPH	
STD. I-021	3/4"=1'-0"	REV:	

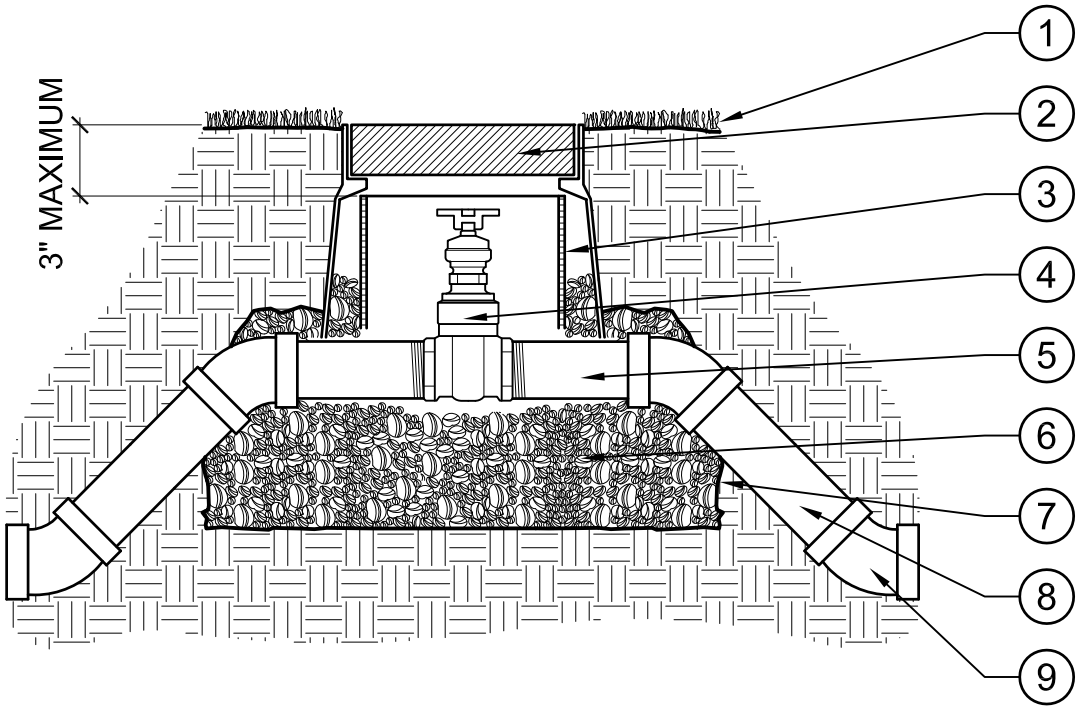
FILE: I-021_MASTER VALVE 2.5.DWG



1. RECTANGULAR VALVE BOX (SEE SPECIFICATIONS) (DO NOT CUT ADDITIONAL HOLES INTO BOX)
2. FINISH GRADE
3. CONNECT WIRE TO FLOW SENSOR USING WATER TIGHT CONNECTORS (SEE SPECIFICATIONS)
4. 3/4" SCH. 40 PVC CONDUIT WITH SWEEP FOR FLOW SENSOR WIRE (TO CONTROLLER)
5. FLOW SENSOR (PVC OR BRASS) (SEE SPECIFICATIONS)
6. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
7. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
8. 45 DEGREE PVC SCH. 40 S x S ELBOW (2 REQUIRED) EXTEND PRESSURE SUPPLY LINE TO 18" DEPTH
9. PVC REDUCING BUSHING FOR REDUCTION IN PIPE SIZE AT FLOW SENSOR (TWO REQUIRED, IF NEEDED)
10. SCH. 80 TOE NIPPLE (SENSOR SIZE - IF BRASS) SCH. 80 PVC SEGMENT (SENSOR SIZE - IF PVC)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	FLOW SENSOR		
	AT 12" DEPTH	APPROVED BY: MPH	
STD. I-022	3"=1'-0"	REV:	

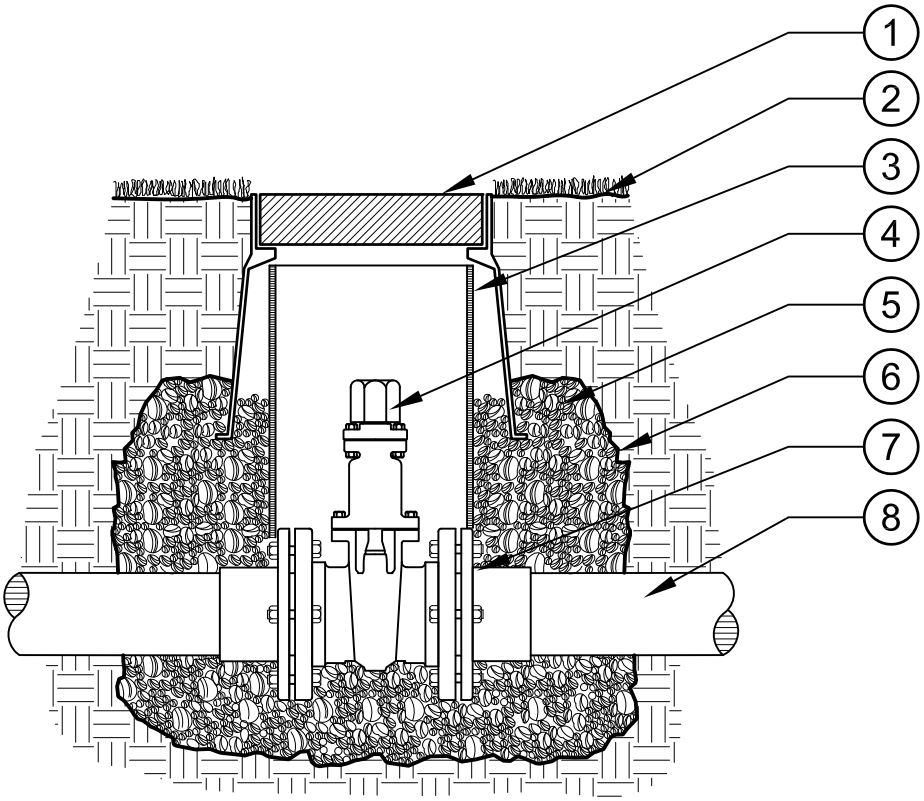
FILE: I-022_FLOW SENSOR.DWG



1. FINISH GRADE
2. 10" ROUND VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
3. 8" DIAMETER CL 160 PVC SLEEVE (TO REST ON TOP EDGE OF ISOLATION GATE VALVE)
4. ISOLATION GATE VALVE (WITH CROSS HANDLE, SEE SPECIFICATIONS)
5. 6" LONG SCH. 80 TOE NIPPLE (LINE SIZE) (TWO REQUIRED)
6. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX, FILL TO TOP OF VALVE BOX HOLES
7. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
8. PRESSURE SUPPLY LINE (REFER TO PLAN FOR SIZE)
9. SLIP X SLIP 45 DEGREE ELL (4 REQUIRED)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	ISOLATION GATE VALVE		
	FOR UP TO 2 1/2" PRESSURE SUPPLY LINE	APPROVED BY: MPH	
STD. I-030	1 1/2"=1'-0"	REV:	

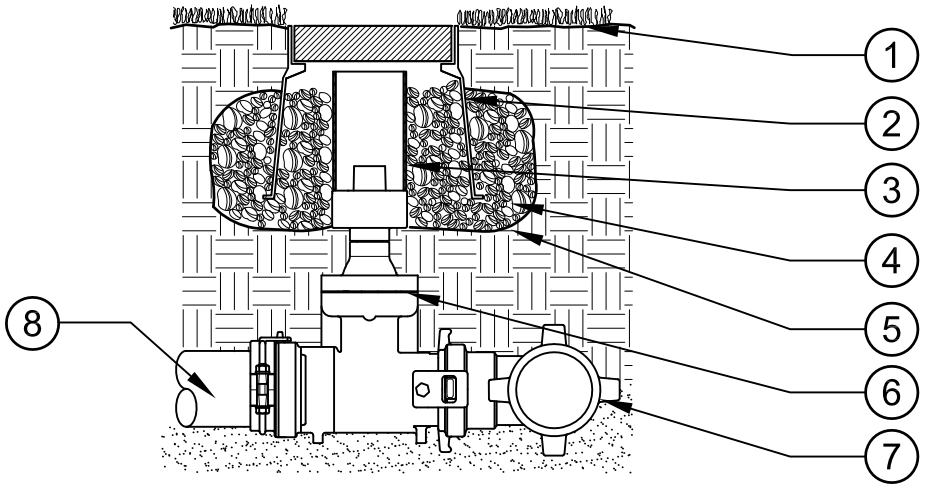
FILE: I-030_ISOLATION GATE VALVE 2.5.DWG



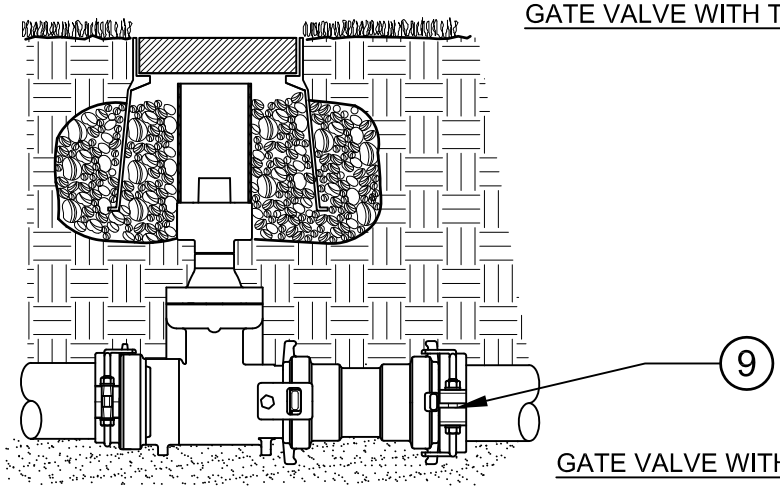
1. 10" ROUND VALVE BOX (SEE SPECIFICATIONS)
(DO NOT CUT ADDITIONAL HOLES INTO BOX)
2. FINISH GRADE
3. 8" CL 160 PVC SLEEVE (TO REST ON TOP
EDGE OF VALVE ASSEMBLY)
4. ISOLATION GATE VALVE WITH 2" SQUARE
OPERATING NUT (SEE SPECIFICATIONS)
5. 3/4" GRAVEL SUMP IN,
UNDER, AND AROUND VALVE BOX
FILL TO TOP OF VALVE BOX HOLES
6. INSTALL FILTER FABRIC
AROUND GRAVEL SUMP
7. FLG X SLIP SCH. 80 PVC FLANGE
(2 REQUIRED)
8. PRESSURE SUPPLY LINE
(REFER TO PLAN FOR SIZE)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	ISOLATION GATE VALVE		
	FOR 3" PRESSURE SUPPLY LINE	APPROVED BY: MPH	
STD. I-031	3"=1'-0"	REV:	

FILE: I-031_ISOLATION GATE VALVE 3.DWG



GATE VALVE WITH TEE FITTING

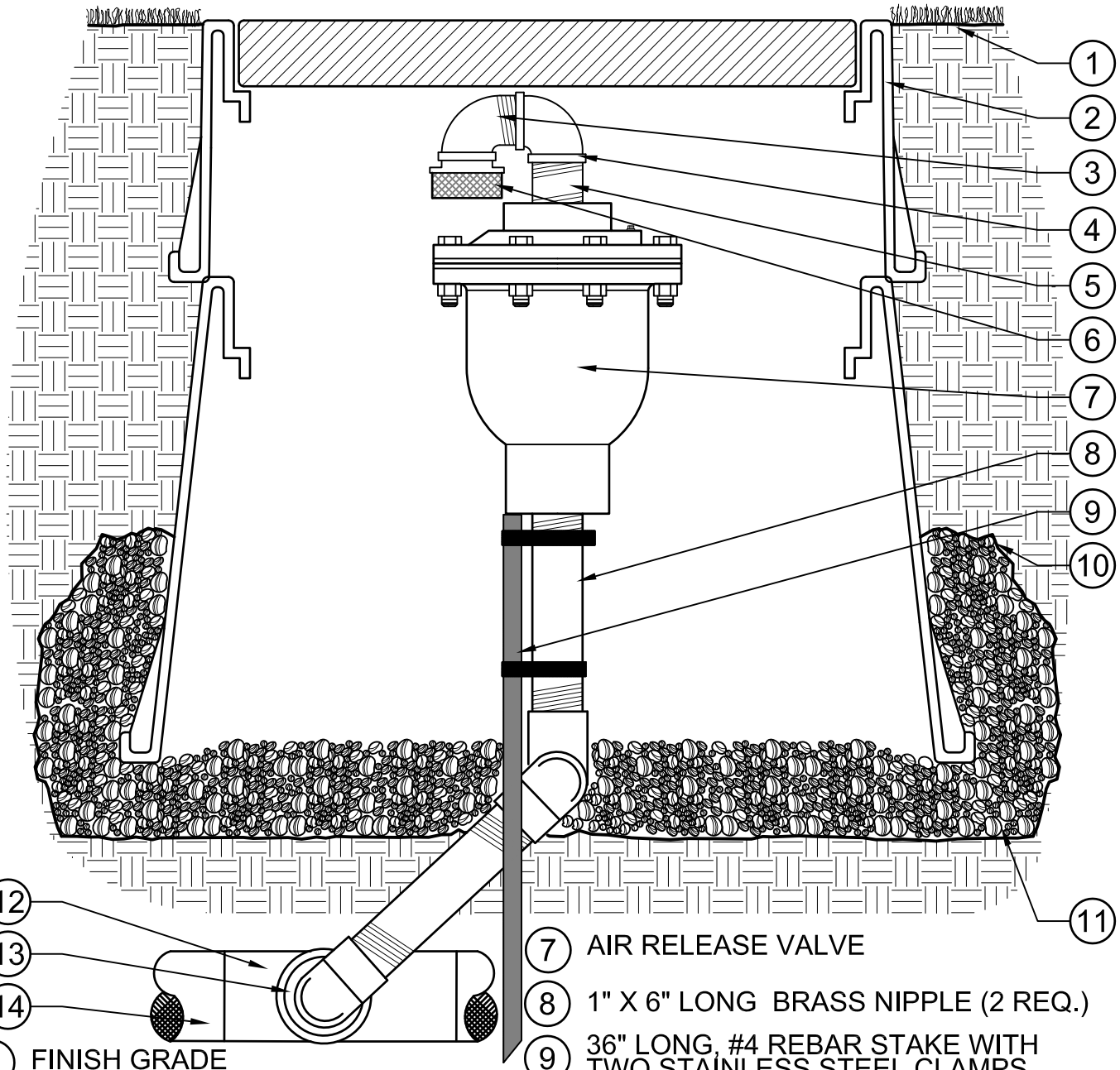


GATE VALVE WITH PIPE FITTING

1. FINISH GRADE
2. 10" ROUND VALVE BOX (SEE SPECIFICATIONS) (DO NOT CUT ADDITIONAL HOLES INTO BOX)
3. 8" DIAMETER CL 160 PVC SLEEVE (TO REST ON TOP EDGE OF ISOLATION VALVE)
4. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX, FILL TO TOP OF VALVE BOX HOLES
5. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
6. SELF RESTRAINED SPIGOT X BELL MAINLINE GATE VALVE
7. BELL X BELL X BELL DUCTILE IRON TEE
8. IRRIGATION PRESSURE SUPPLY LINE
9. SELF RESTRAINED BELL X BELL MAINLINE GATE VALVE

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	GATE VALVE W/ JOINT RESTRAINT		
	FOR PIPE SIZES 4" AND GREATER	APPROVED BY: MPH	
STD. I-032	1"=1'-0"	REV:	

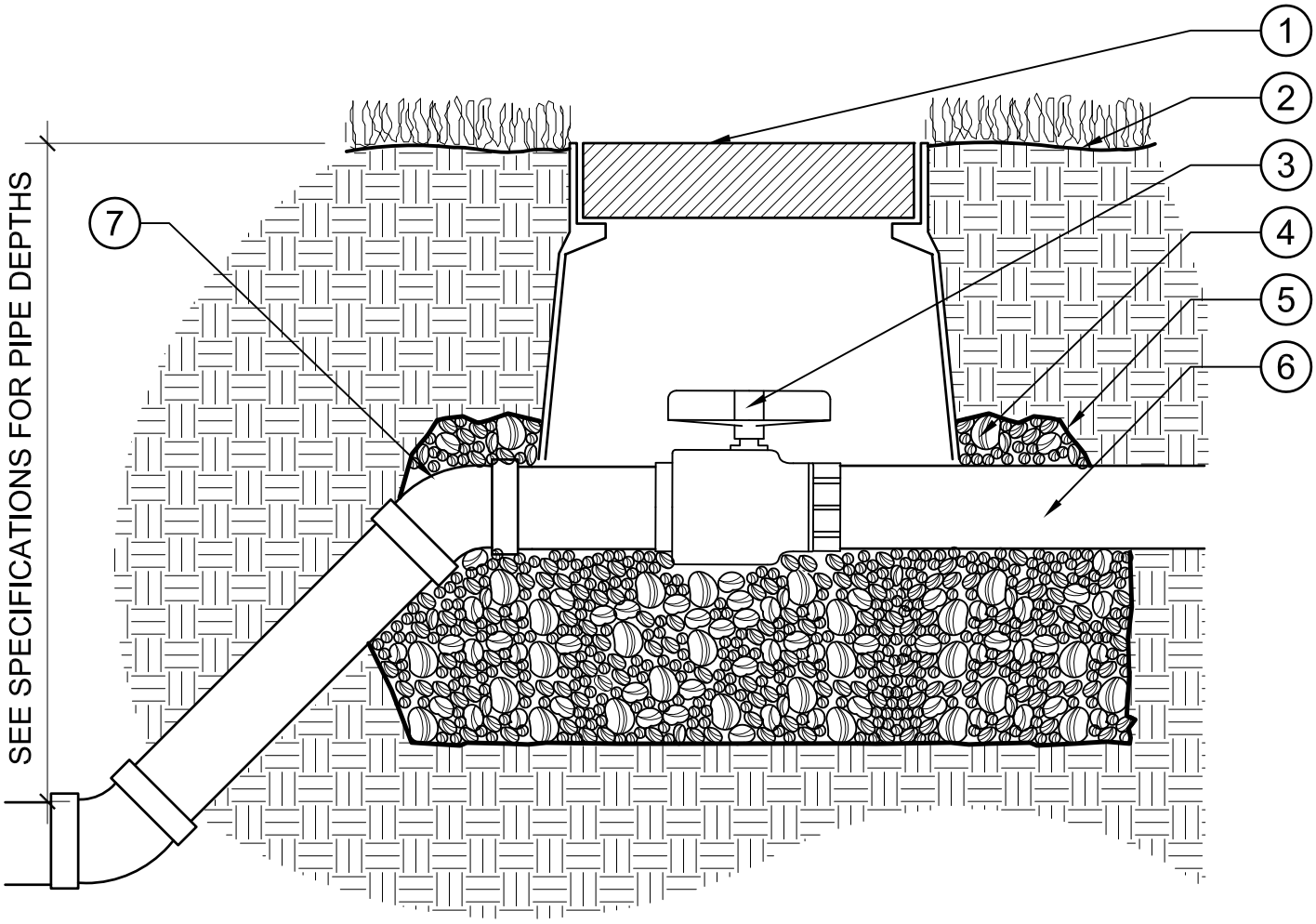
FILE: I-032_RESTRAINED GAVE VALVE.DWG



1. FINISH GRADE
2. RECTANGULAR VALVE BOX, 6" EXTENSION AND LID
3. 1" FIPT X MIPT BRASS STREET ELBOW (3 REQUIRED)
4. 1" FIPT X FIPT BRASS ELBOW (2 REQUIRED)
5. 1" X 2" LONG BRASS NIPPLE (1 REQUIRED)
6. 1" SCREENED CAP (1 REQUIRED)
7. AIR RELEASE VALVE
8. 1" X 6" LONG BRASS NIPPLE (2 REQ.)
9. 36" LONG, #4 REBAR STAKE WITH TWO STAINLESS STEEL CLAMPS
10. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
11. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
12. S X S X S SCH. 80 TEE IN PRESSURE SUPPLY LINE (MATCH LINE SIZE, 1 REQ.)
13. SCH. 80 S X FIPT REDUCER BUSHING (LINE SIZE X 1" FIPT) (1 REQUIRED)
14. PRESSURE SUPPLY LINE

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS	DATE: 02-05-13
	1" AIR RELIEF VALVE	
	FOR PRESSURE SUPPLY LINE	APPROVED BY: MPH
STD. I-033	3"=1'-0"	REV:

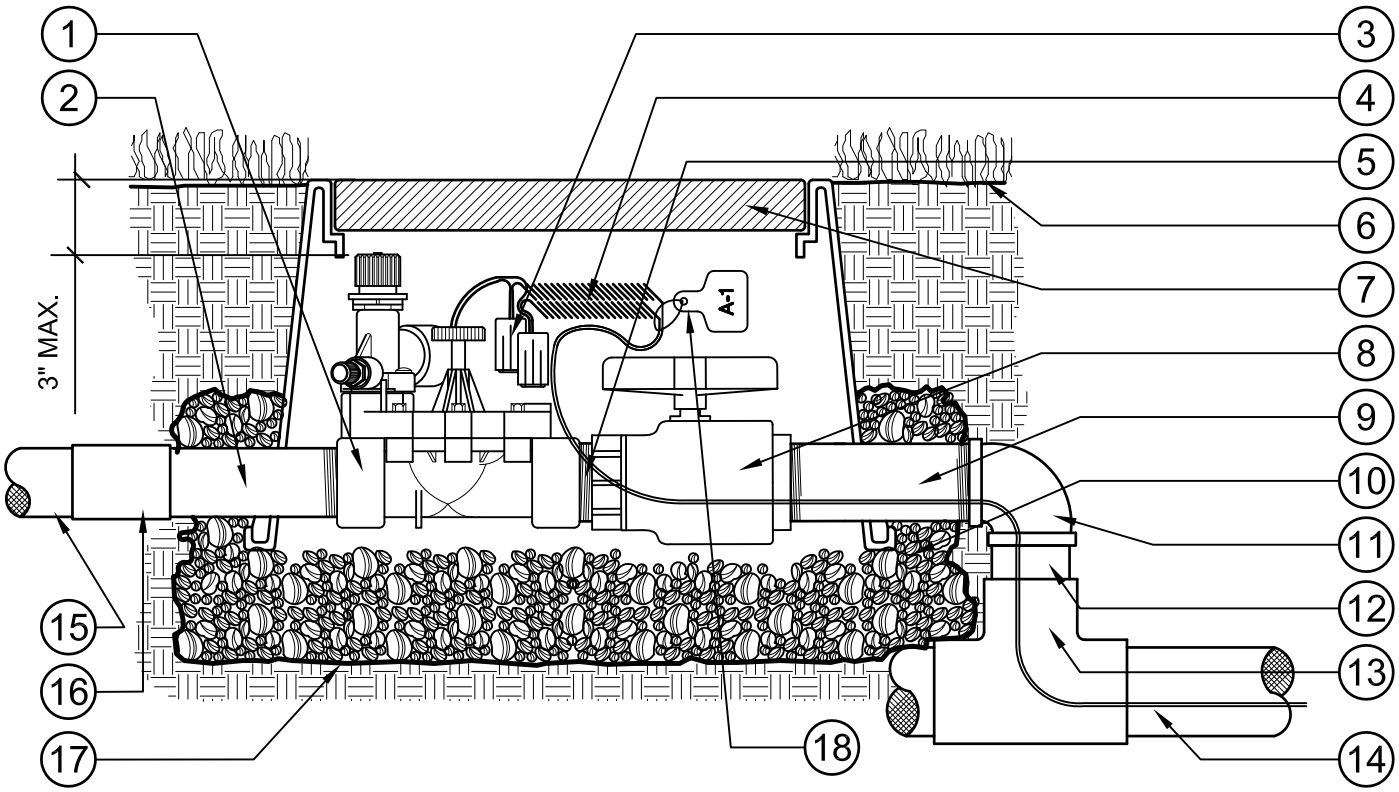
FILE: I-033_AIR RELIEF VALVE.DWG



1. 10" ROUND VALVE BOX (SEE SPECIFICATIONS) (DO NOT CUT ADDITIONAL HOLES INTO BOX)
2. FINISH GRADE
3. ISOLATION BALL VALVE (SEE SPECIFICATIONS)
4. 3/4" GRAVEL SUMP IN, UNDER, AND AROUND VALVE BOX (FILL TO TOP OF VALVE BOX HOLES)
5. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
6. PRESSURE SUPPLY LINE EXTENDED TO MANIFOLDS OR QUICK COUPLER
7. SLIP X SLIP 45 DEGREE ELL (2 REQUIRED)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	ISOLATION BALL VALVE		
	MANIFOLD / QUICK COUPLER	APPROVED BY: MPH	
STD. I-040	3"=1'-0"	REV:	

FILE: I-040_MANIFOLD BALL VALVE.DWG

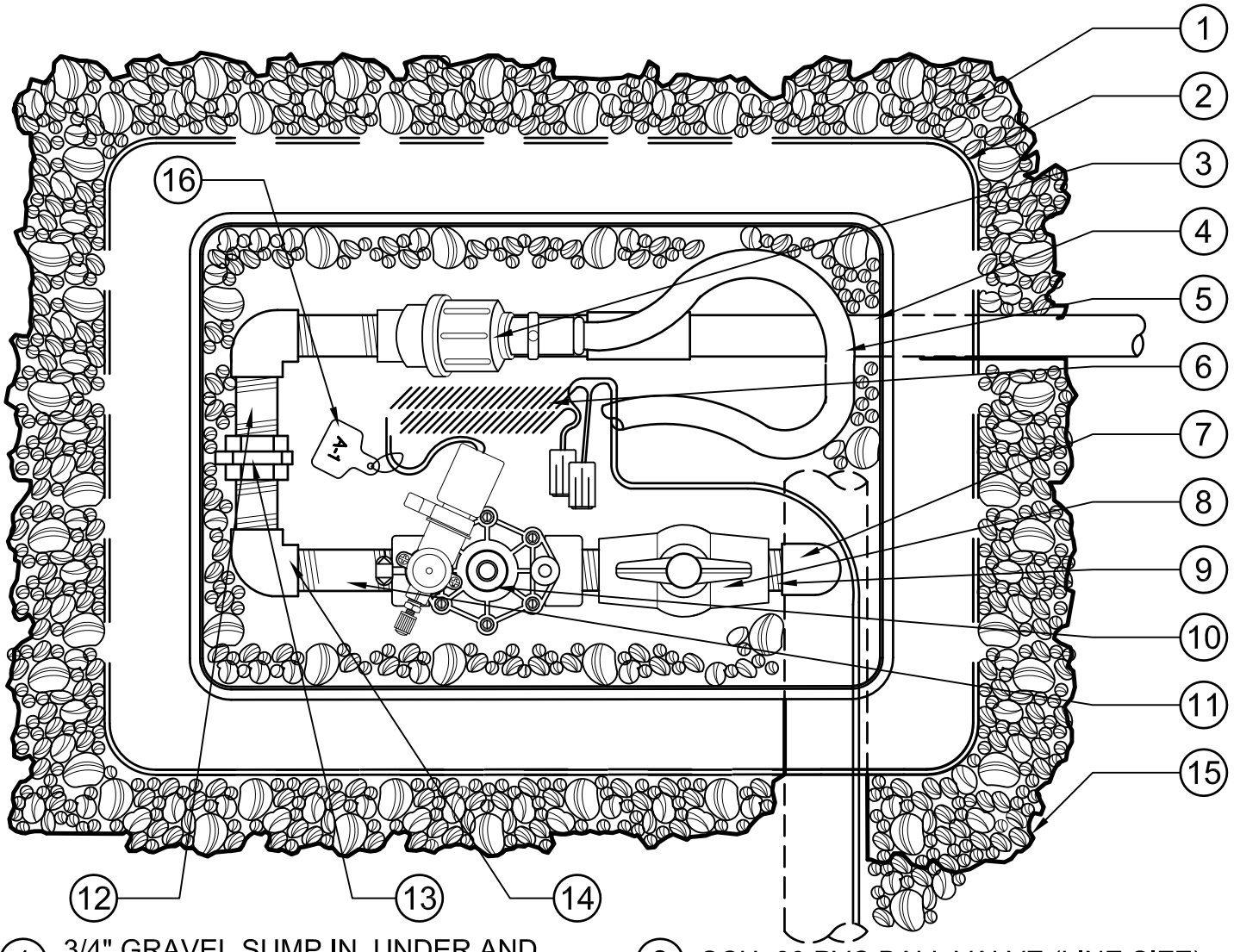


1. ELECTRIC CONTROL VALVE
2. 6" LONG SCH. 80 TOE NIPPLE (LATERAL LINE SIZE)
3. CONNECT WIRES TO VALVE USING WATER TIGHT CONNECTORS (SEE SPECIFICATIONS)
4. USE 1/2" PVC SCRAP T WRAP 12" OF ADDITIONAL WIRE BEFORE CONNECTING
5. CLOSED NIPPLE (LINE SIZE)
6. FINISH GRADE
7. RECTANGULAR VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
8. PVC SCH 80 BALL VALVE (LINE SIZE)
9. 4" SCH 80 NIPPLE (LINE SIZE)
10. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
11. SLIP X FIP ELL (LINE SIZE)
12. PVC PRESSURE SUPPLY LINE (CUT TO FIT MAXIMUM DIMENSION FROM TOP OF VALVE TO TOP OF LID)
13. TEE IN PRESSURE SUPPLY LINE (LINE SIZE)
14. PRESSURE SUPPLY LINE (SEE PLAN FOR SIZE)
15. LATERAL LINE (SEE PLAN FOR SIZE)
16. SCH. 80 COUPLING (LATERAL LINE SIZE)
17. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
18. VALVE IDENTIFICATION TAG

NOTE:
BALL VALVE TO BE USED ONLY IF IRRIGATION CONTROL VALVE IS INSTALLED AS A SINGLE VALVE AND NOT PART OF A MANIFOLD.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	ELECTRIC CONTROL VALVE		
	WITH BALL VALVE	APPROVED BY: MPH	
STD. I-041	1 1/2"=1'-0"	REV:	

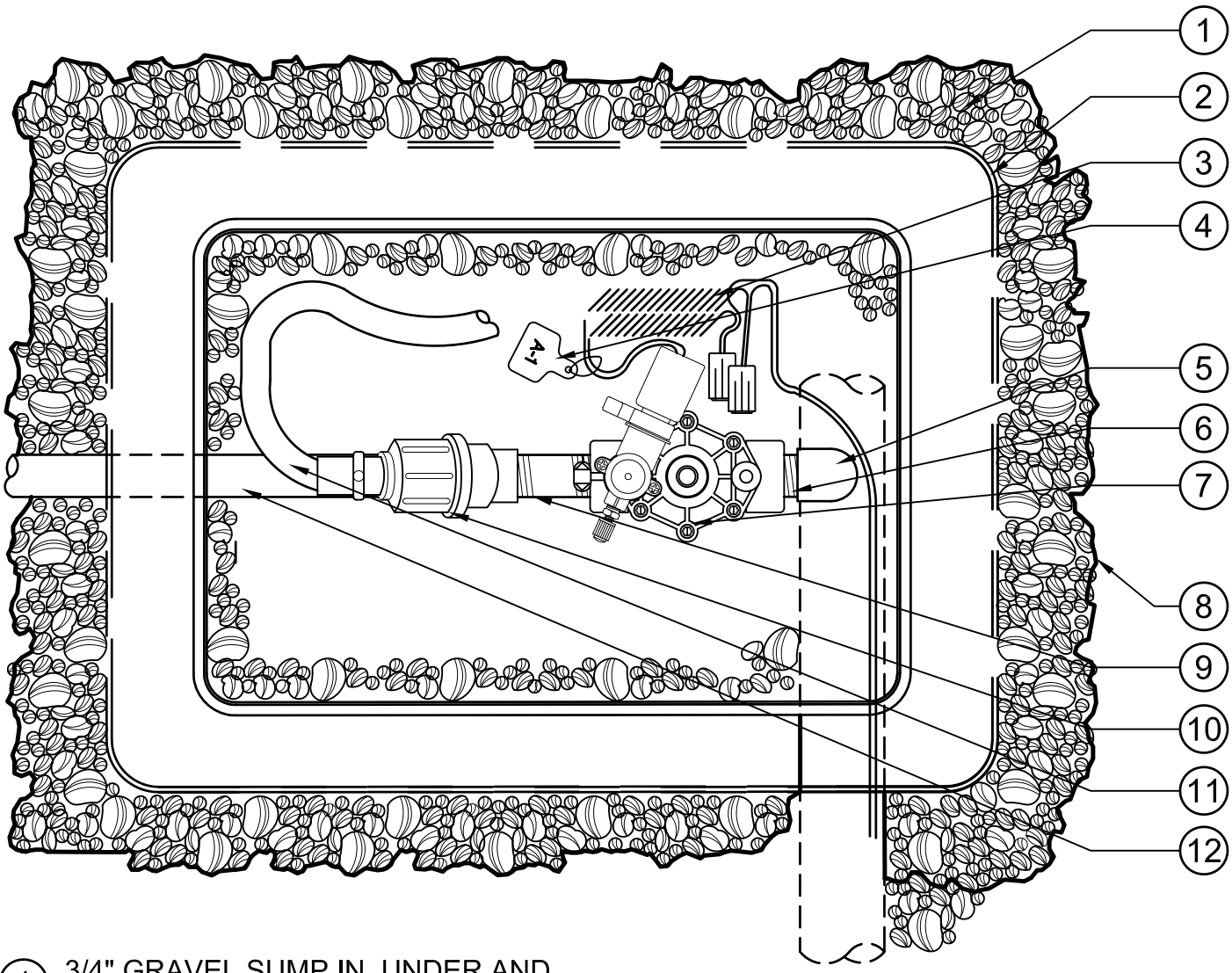
FILE: I-041_ELECTRIC CONTROL VALVE.DWG



1. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
2. RECTANGULAR VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
3. WYE STRAINER (SEE SPECIFICATIONS)
4. PVC NON PRESSURE LATERAL LINE OR POLYETHYLENE TUBING (SEE SPECIFICATIONS)
5. 18" LENGTH OF SCH. 40 FLEXIBLE PVC TUBING CONNECT TO FILTER
6. USE 1/2" PVC SCRAP TO WRAP 12" OF ADDITIONAL WIRE BEFORE CONNECTING
7. PVC SCH. 40 SLIP X FIPT ELL CONNECTING RISER FROM PVC PRESSURE SUPPLY LINE
8. SCH. 80 PVC BALL VALVE (LINE SIZE)
9. CLOSED NIPPLE (2 REQUIRED)
10. 1" ELECTRIC CONTROL VALVE (WITH PRESSURE REGULATING FEATURE, SEE SPECIFICATIONS)
11. 2" SCH. 80 NIPPLE (2 REQUIRED)
12. 1" SCH. 80 NIPPLE (2 REQUIRED)
13. SCH. 80 PVC UNION (LINE SIZE)
14. PVC SCH. 40 FIP X FIP ELL (2 REQUIRED)
15. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
16. VALVE IDENTIFICATION TAG

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	DRIP VALVE ASSEMBLY - 1"		
	WITH BALL VALVE	APPROVED BY: MPH	
STD. I-042	3"=1'-0"	REV:	

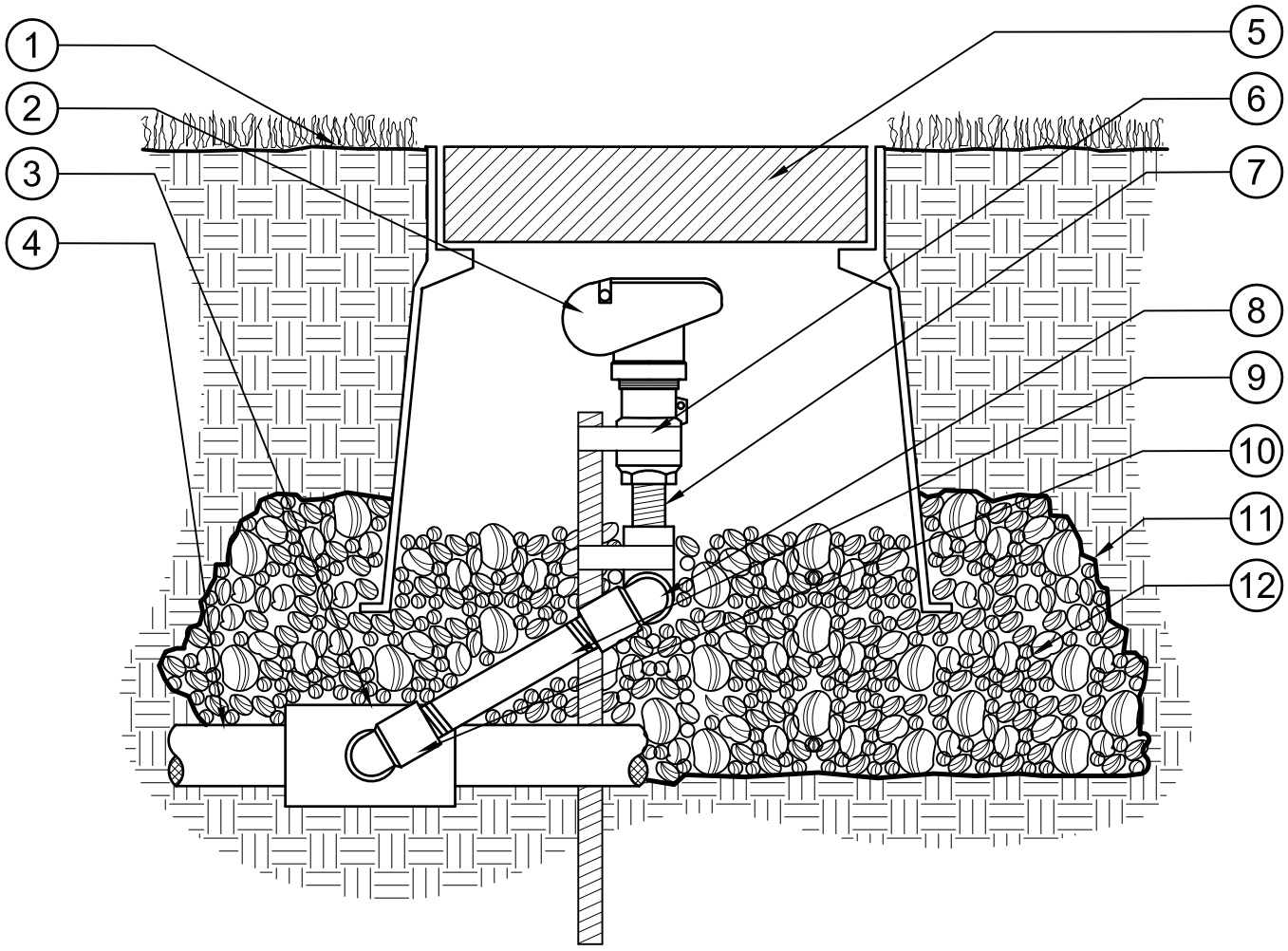
FILE: I-042_DRIP VALVE ASSEMBLY.DWG



1. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
2. RECTANGULAR VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
3. USE 1/2" PVC SCRAP TO WRAP 12" OF ADDITIONAL WIRE BEFORE CONNECTING
4. VALVE IDENTIFICATION TAG
5. PVC SCH. 40 SLIP X FIPT ELL CONNECTING RISER FROM PVC PRESSURE SUPPLY LINE
6. SCH. 80 CLOSED NIPPLE
7. ELECTRIC CONTROL VALVE (WITH PRESSURE REGULATING FEATURE, SEE SPECIFICATIONS)
8. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
9. 2" SCH. 80 NIPPLE (1 REQUIRED)
10. WYE STRAINER (SEE SPECIFICATIONS)
11. 18" LENGTH OF SCH. 40 FLEXIBLE PVC TUBING CONNECT TO FILTER
12. PVC NON PRESSURE LATERAL LINE OR POLYETHYLENE TUBING (SEE SPECIFICATIONS)

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	DRIP VALVE ASSEMBLY		
	COMPACT	APPROVED BY: MPH	
STD. I-043	3"=1'-0"	REV:	

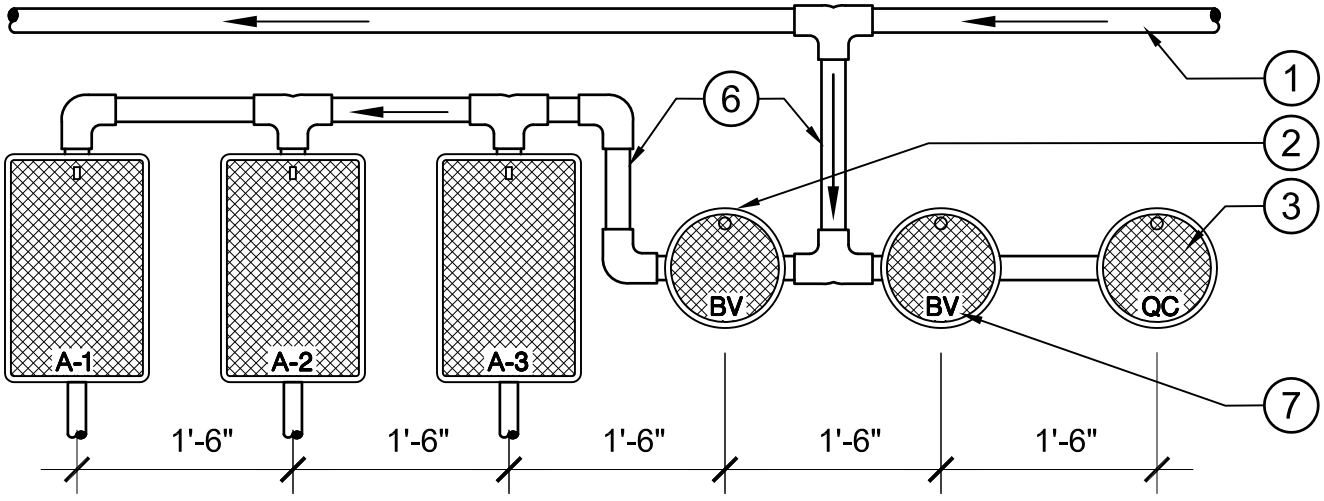
FILE: I-043_COMPACT DRIP VALVE ASSEMBLY.DWG



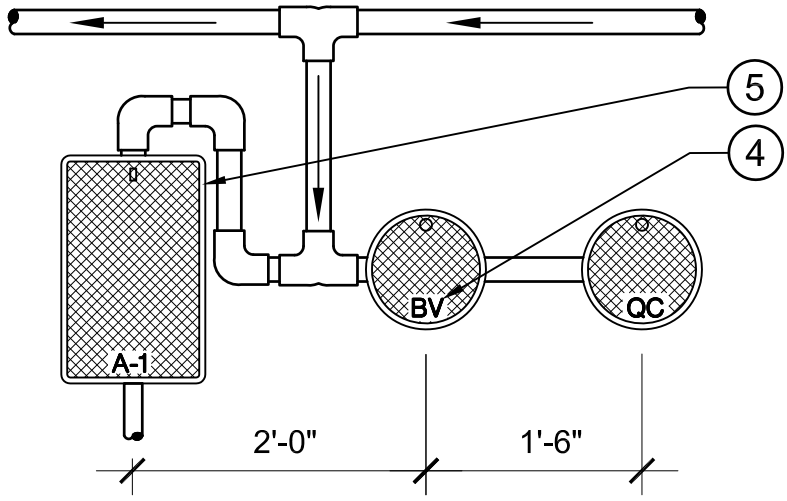
1. FINISH GRADE
2. QUICK COUPLING VALVE (SEE LEGEND AND SPECIFICATIONS)
3. TEE IN PRESSURE SUPPLY LINE
4. PRESSURE SUPPLY LINE (SEE PLAN FOR SIZE)
5. 10" ROUND VALVE BOX (DO NOT CUT ADDITIONAL HOLES INTO BOX)
6. SCH. 40 GALV. 36" STAKE WITH (2) SPRINKLER TIES
7. PVC SCH. 80 THREADED NIPPLE (SIZE TO FIT)
8. 1" MIPT X FIPT SCH 40 90 ELL (2 REQUIRED)
9. 1" X 8" SCH. 80 NIPPLE
10. 1" PVC. SCH. 40 STREET ELL
11. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
12. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	QUICK COUPLING VALVE		
		APPROVED BY: MPH	
STD. I-044	3"=1'-0"	REV:	

FILE: I-044_QUICK COUPLER.DWG



MULTIPLE VALVE MANIFOLD



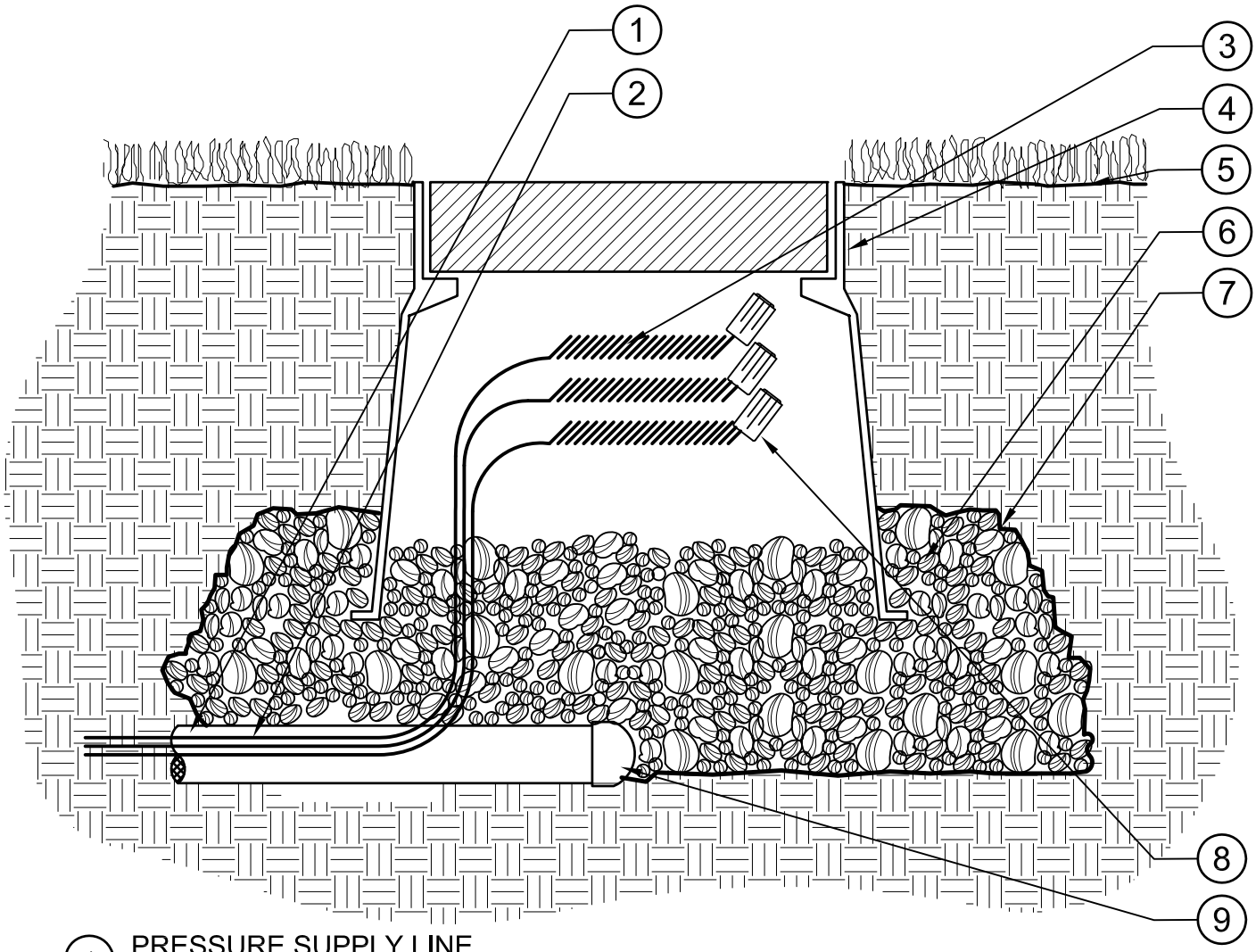
SINGLE VALVE MANIFOLD

NOTE:
NO MORE THAN 5 ELECTRIC CONTROL VALVES ARE TO BE INSTALLED PER MANIFOLD. EACH MANIFOLD SHALL HAVE A MAXIMUM OF 15' SEPARATION. ALL MANIFOLDS ARE TO BE INSTALLED IN PLANTER AREAS WHENEVER POSSIBLE.

1. PRESSURE SUPPLY LINE (SEE PLAN FOR SIZE)
2. BALL VALVES TO MANIFOLD (SEE IRRIG. LEGEND AND DETAIL)
3. QUICK COUPLER (SEE IRRIG. LEGEND AND DETAIL)
4. HEAT BRAND ALL VALVE BOXES PER SPECS
5. ELECTRIC CONTROL VALVE (SEE IRRIG. LEGEND AND VALVE DETAIL)
6. MANIFOLD PIPE SEE PLAN FOR SIZE (SHOWN AT SIDE FOR GRAPHIC CLARITY, LOCATE UNDERNEATH VALVE BOXES)
7. BALL VALVE AND SUPPLY LINE TO QUICK COUPLER (SIZE PER PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	MANIFOLD CONFIGURATION		
	SINGLE AND MULTIPLE VALVES	APPROVED BY: MPH	
STD. I-045	3/4"=1'-0"	REV:	

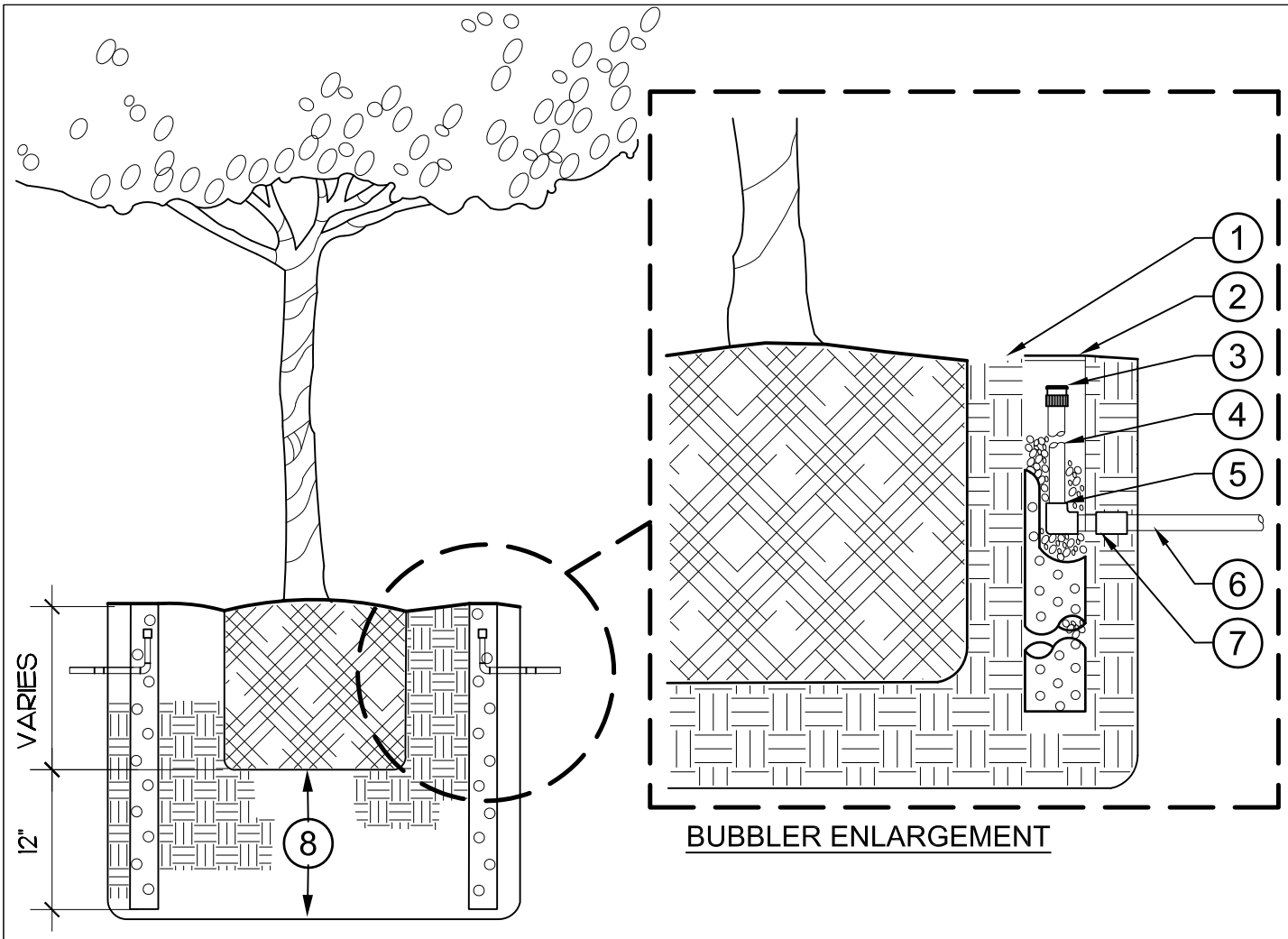
FILE: I-045_MANIFOLD CONFIGURATION.DWG



1. PRESSURE SUPPLY LINE (SEE PLAN FOR SIZE)
2. 2 SPARE WIRES AND 1 COMMON WIRE (CONTINUOUS FROM CONTROLLER) (SEE SPECIFICATIONS FOR SIZE AND COLOR)
3. USE 1/2" PVC SCRAP TO WRAP 24 " OF ADDITIONAL WIRE. LABEL ALL WIRES AS "SPARE"
4. 10" ROUND VALVE BOX (INDEPENDENT FROM ALL OTHER BOXES)
5. FINISH GRADE
6. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
7. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
8. CAP WIRES WITH APPROVED WATERTIGHT WIRE CONNECTOR (SEE SPECIFICATIONS)
9. CAP PRESSURE SUPPLY LINE DIRECTLY BELOW CENTER OF SPARE WIRE VALVE BOX

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SPARE WIRE BOX		
		APPROVED BY: MPH	
STD. I-046	3"=1'-0"	REV:	

FILE: I-046_SPARE WIRE BOX.DWG



BUBBLER ENLARGEMENT

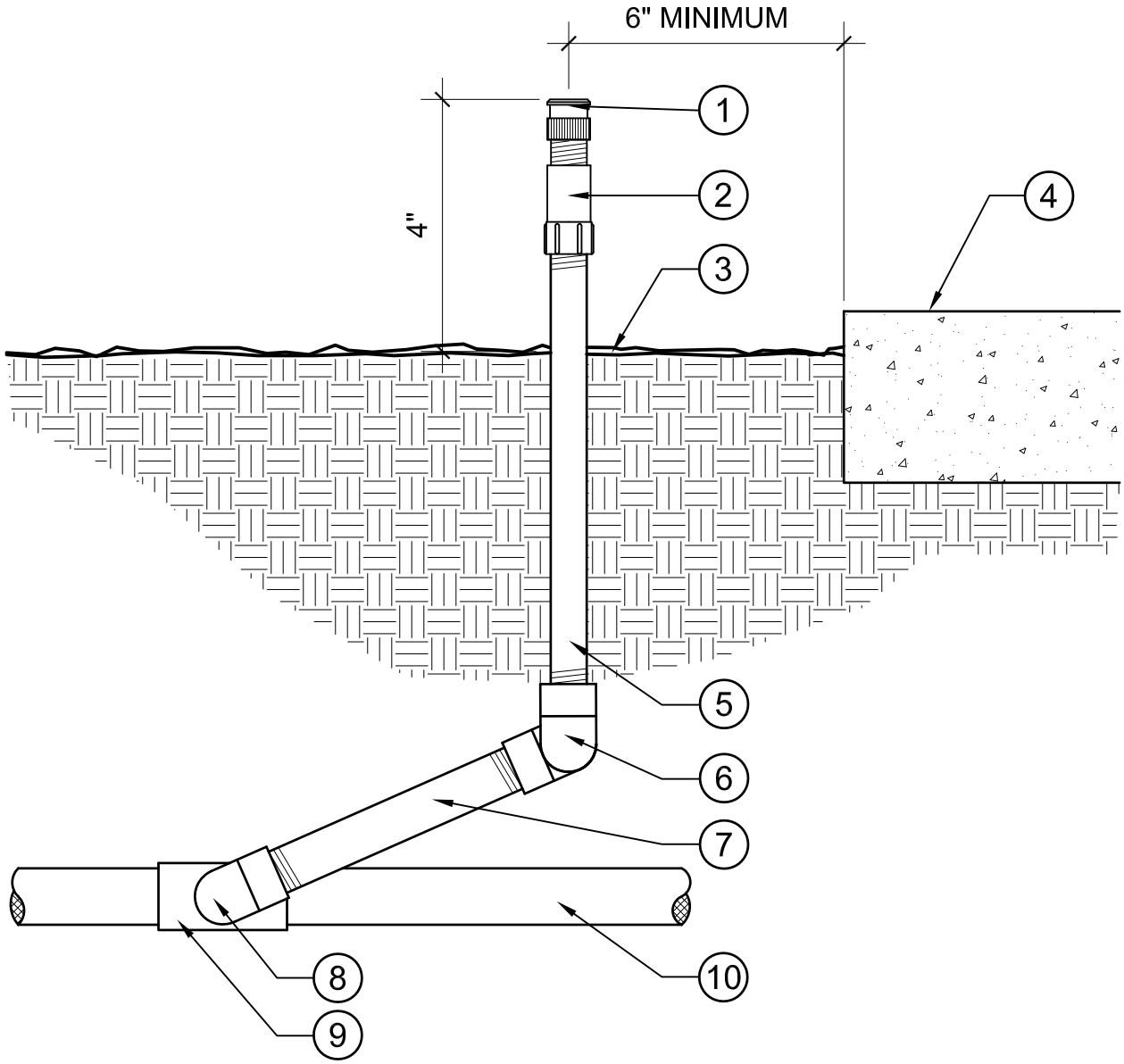
1. FINISH GRADE
2. SCH 40 PVC 4" PERFORATED RIGID PIPE WITH FILTER SOCK AND 4" NDS GREEN DRAINAGE GRATE CAP FASTEN CAP WITH A MINIMUM OF (3) STAINLESS STEEL SCREWS
3. BUBBLER (SEE IRRIGATION LEGEND) INSTALL 1" MINIMUM BELOW DRAIN GRATE
4. 1/2" MIPT X 1/2" MIPT SCH. 80 NIPPLE (LENGTH AS REQUIRED) (2 REQUIRED)
5. 1/2" FIPT X 1/2" FIPT SCH. 40 90 DEGREE ELBOW
6. IRRIGATION LATERAL LINE (PER LEGEND AND SPECIFICATIONS)
7. 1/2" FIPT X 1/2" SLIP SCH. 40 FEMALE ADAPTER
8. TUBE DEPTH BELOW ROOT BALL 1'-0" (SEE PLANTING DETAIL FOR BALL HOLE DEPTH)

TREE BUBBLER SCHEDULE:

15 GALLON - 1 BUBBLER
24" BOX - 1 BUBBLER
36" BOX - 2 BUBBLERS
42" BOX - 2 BUBBLERS
48" BOX AND UP - 4 BUBBLERS

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS	DATE: 02-05-13
	TREE WELL BUBBLER	
	AND SCHEDULE	APPROVED BY: MPH
STD. I-050	N.T.S.	REV:

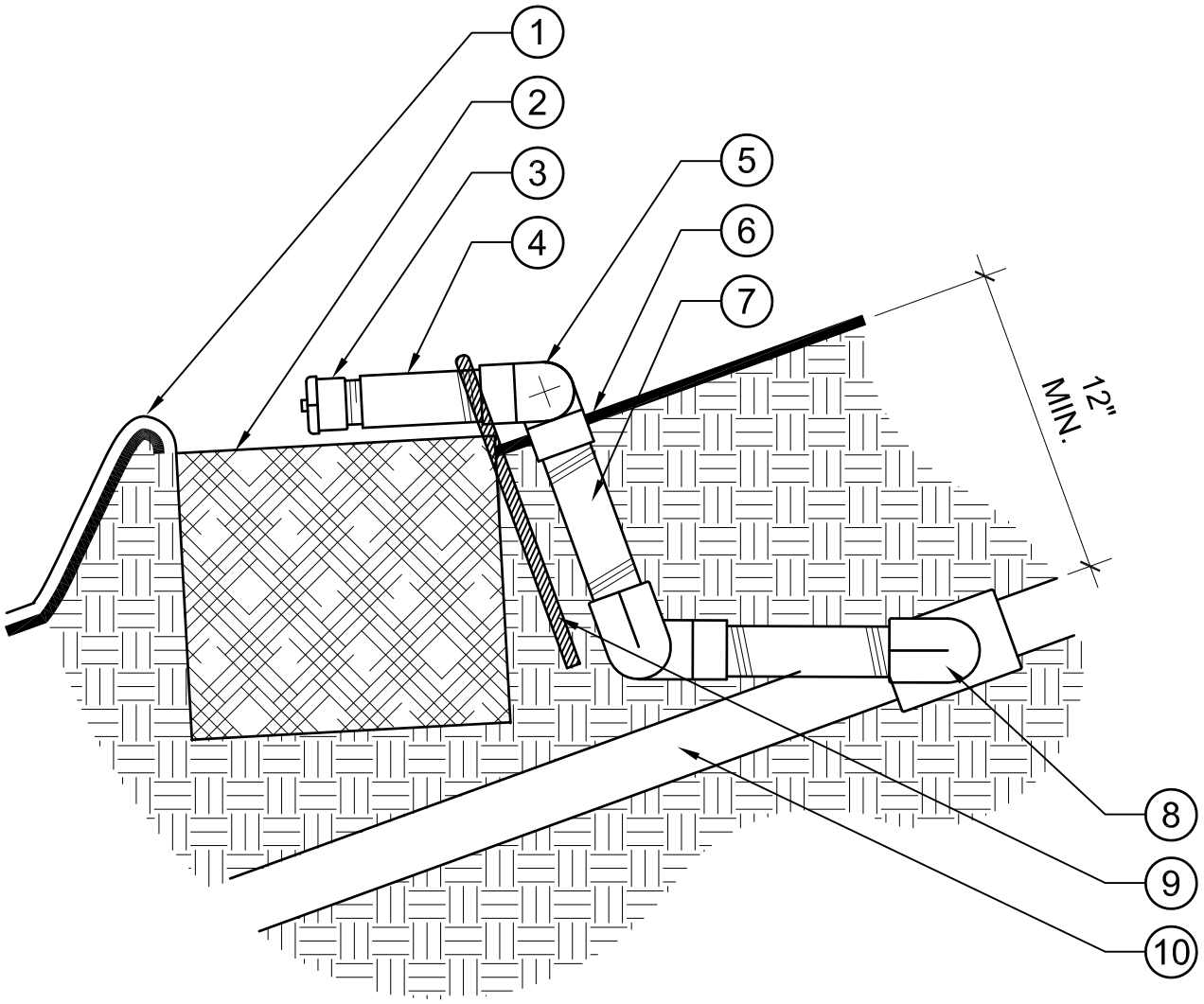
FILE: I-050_TREE WELL BUBBLER.DWG



1. BUBBLER NOZZLE AND SCREEN (SEE LEGEND AND SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. ADJACENT HARDSCAPE (IF APPLICABLE)
5. 1/2" PVC SCH. 80 RISER (LENGTH VARIES)
6. 1/2" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
7. 1/2" x 8" PVC SCH. 80 NIPPLE
8. 1/2" FIPT X MIPT SCH 40 90 DEGREE ELBOW (2 REQUIRED)
9. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 1/2" FIPT)
10. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	BUBBLER NOZZLE ON RISER		
	WITH CHECK VALVE	APPROVED BY: MPH	
STD. I-051	3"=1'-0"	REV:	

FILE: I-051_BUBBLER NOZZLE ON RISER.DWG



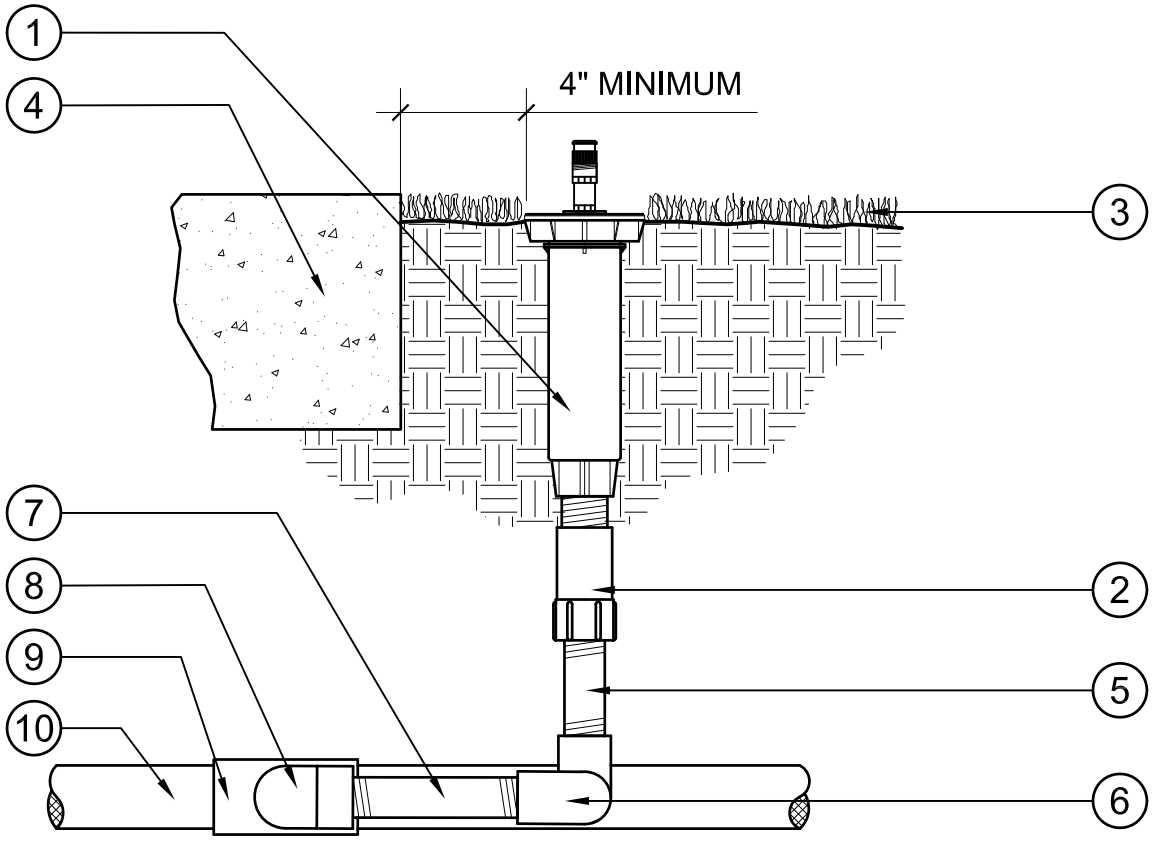
NOTE:

1. BUBBLER SHALL BE PLACED TO IRRIGATE DIRECTLY ADJACENT TO PLANT ROOTBALL.
2. PVC LATERAL SUPPLY LINES SHALL RUN PARALLEL TO SLOPE WITH BUBBLER LINES RUNNING PERPENDICULAR TO SLOPE AS SHOWN ABOVE.
3. ALL IRRIGATION SHALL BE COMPLETELY INSTALLED PRIOR TO PLANT LAYOUTS.

1. WATER BASIN INSTALLED AROUND PLANTING PIT
2. ROOTBALL OF SHRUB GROUNDCOVER OR TREE
3. BUBBLER NOZZLE
4. 1/2" X 6" SCH. 80 PVC NIPPLE
5. 1/2" FIPT T X T SCH. 40 ELBOW AND (2 REQUIRED)
6. FINISH GRADE ON SLOPE
7. 1/2" x 8" PVC SCH. 80 NIPPLE (2 REQUIRED)
8. SCH. 40 1/2" STREET ELBOW T X T (3 REQUIRED)
9. #4 X 18" VINYL COATED REBAR "J" HOOK
10. NON-PRESSURE LATERAL LINE

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	BUBBLER NOZZLE FOR TREES ON SLOPES		
	WITH STEEL "J" HOOK	APPROVED BY: MPH	
STD. I-052	3"=1'-0"	REV:	

FILE: I-052_BUBBLER ON SLOPE.DWG

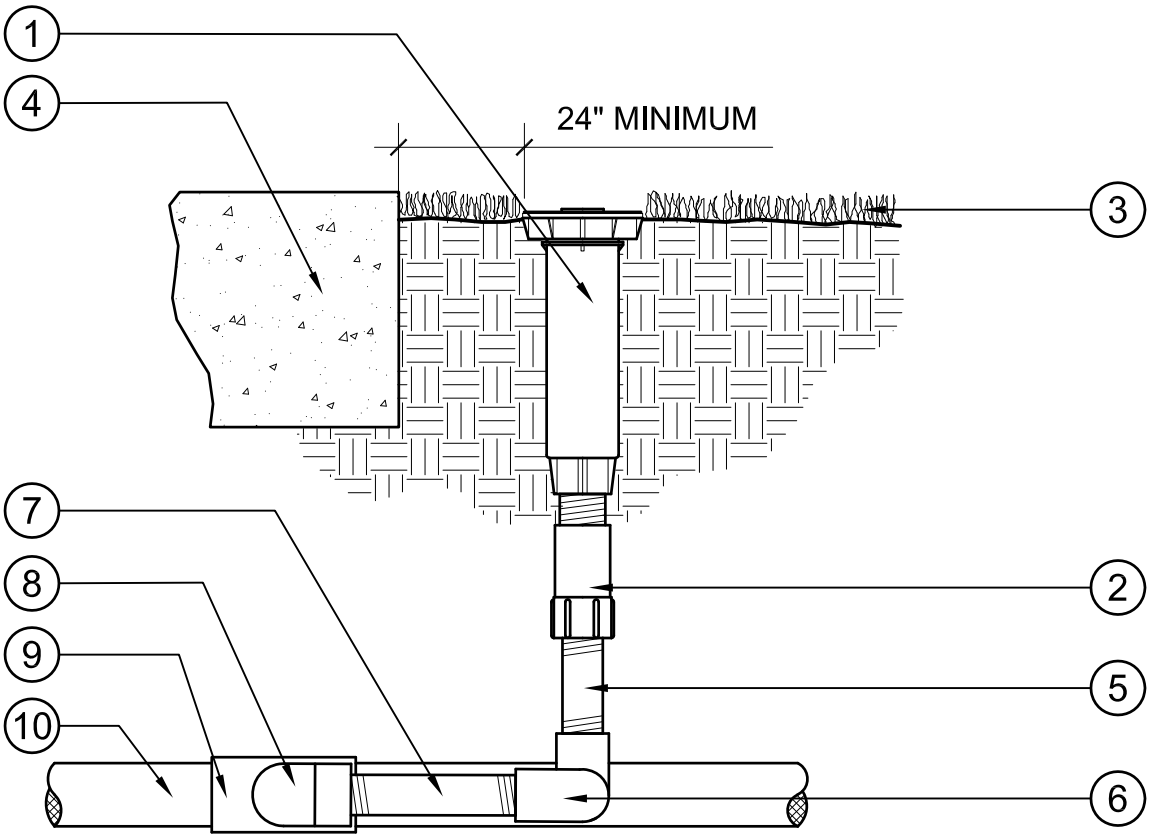


NOTE:
INSTALL EXTERNAL CHECK VALVES ON ALL SPRAYHEADS THAT ARE GREATER THAN 8 VERTICAL FEET IN ELEVATION LOWER THAN THE HIGHEST POINT ON THE COMBINED NON-PRESSURE LATERAL LINE FOR THE ENTIRE ZONE.

1. POP-UP BUBBLER (SEE SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. ADJACENT HARDSCAPE (IF APPLICABLE)
5. 1/2" x 2" SCH. 80 NIPPLE (1 REQUIRED)
6. 1/2" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
7. 1/2" x 8" PVC SCH. 80 NIPPLE
8. 1/2" FIPT X MIPT SCH 40 90 DEGREE ELBOW (2 REQUIRED)
9. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 1/2" FIPT)
10. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	6" POP-UP BUBBLER		
	WITH EXTERNAL CHECK VALVE	APPROVED BY: MPH	
STD. I-053	3"=1'-0"	REV:	

FILE: I-053_POP UP BUBBLER.dwg

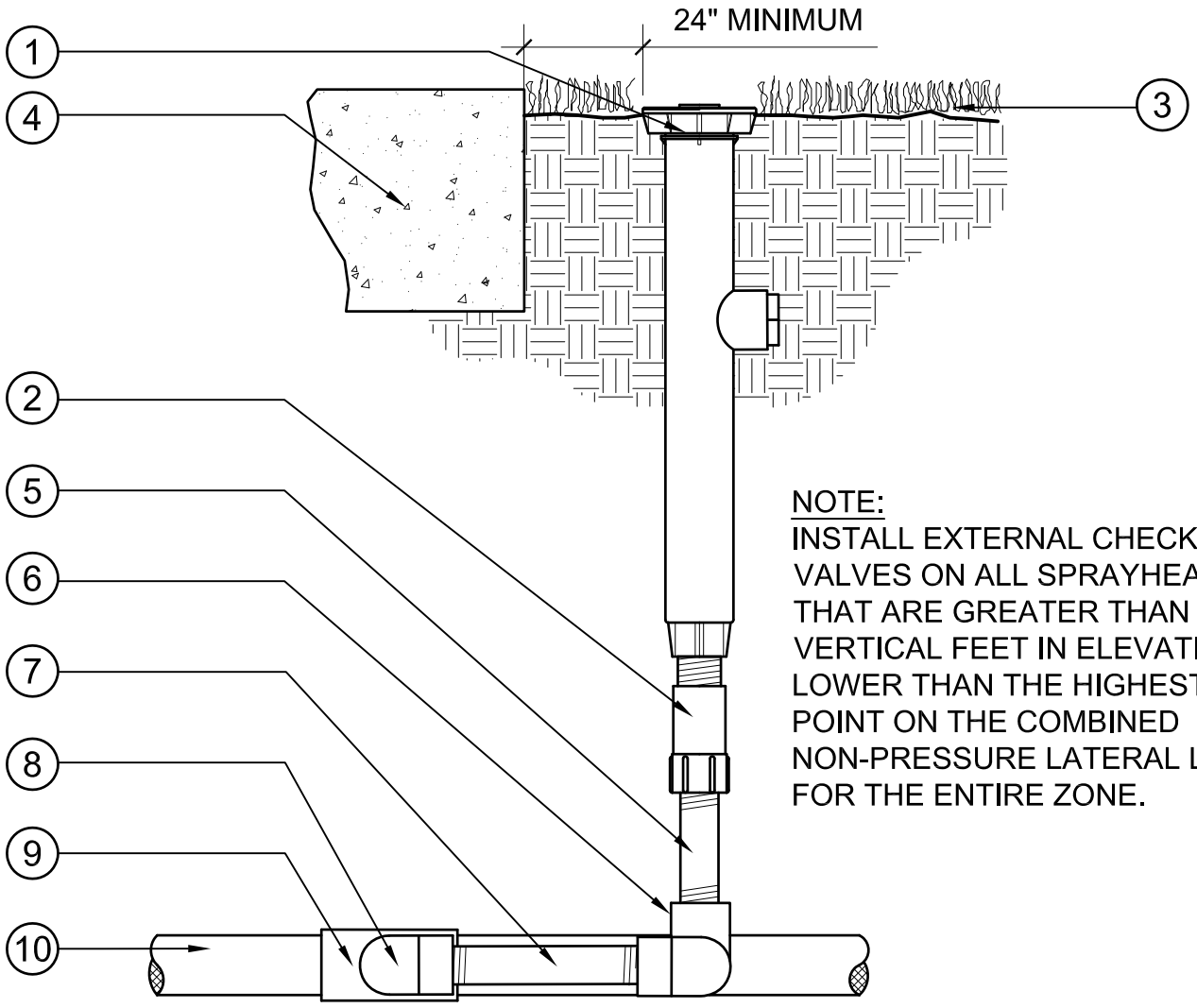


NOTE:
INSTALL EXTERNAL CHECK VALVES ON ALL SPRAYHEADS THAT ARE GREATER THAN 8 VERTICAL FEET IN ELEVATION LOWER THAN THE HIGHEST POINT ON THE COMBINED NON-PRESSURE LATERAL LINE FOR THE ENTIRE ZONE.

1. POP-UP SPRAY HEAD (SEE SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. ADJACENT HARDSCAPE (IF APPLICABLE)
5. 1/2" x 2" SCH. 80 NIPPLE (1 REQUIRED)
6. 1/2" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
7. 1/2" x 8" PVC SCH. 80 NIPPLE
8. 1/2" FIPT X MIPT SCH 40 90 DEGREE ELBOW (2 REQUIRED)
9. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 1/2" FIPT)
10. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	6" POP-UP SPRAY HEAD		
	WITH EXTERNAL CHECK VALVE	APPROVED BY: MPH	
STD. I-060	3"=1'-0"	REV:	

FILE: I-060_6 POP UP SPRAY HEAD.DWG

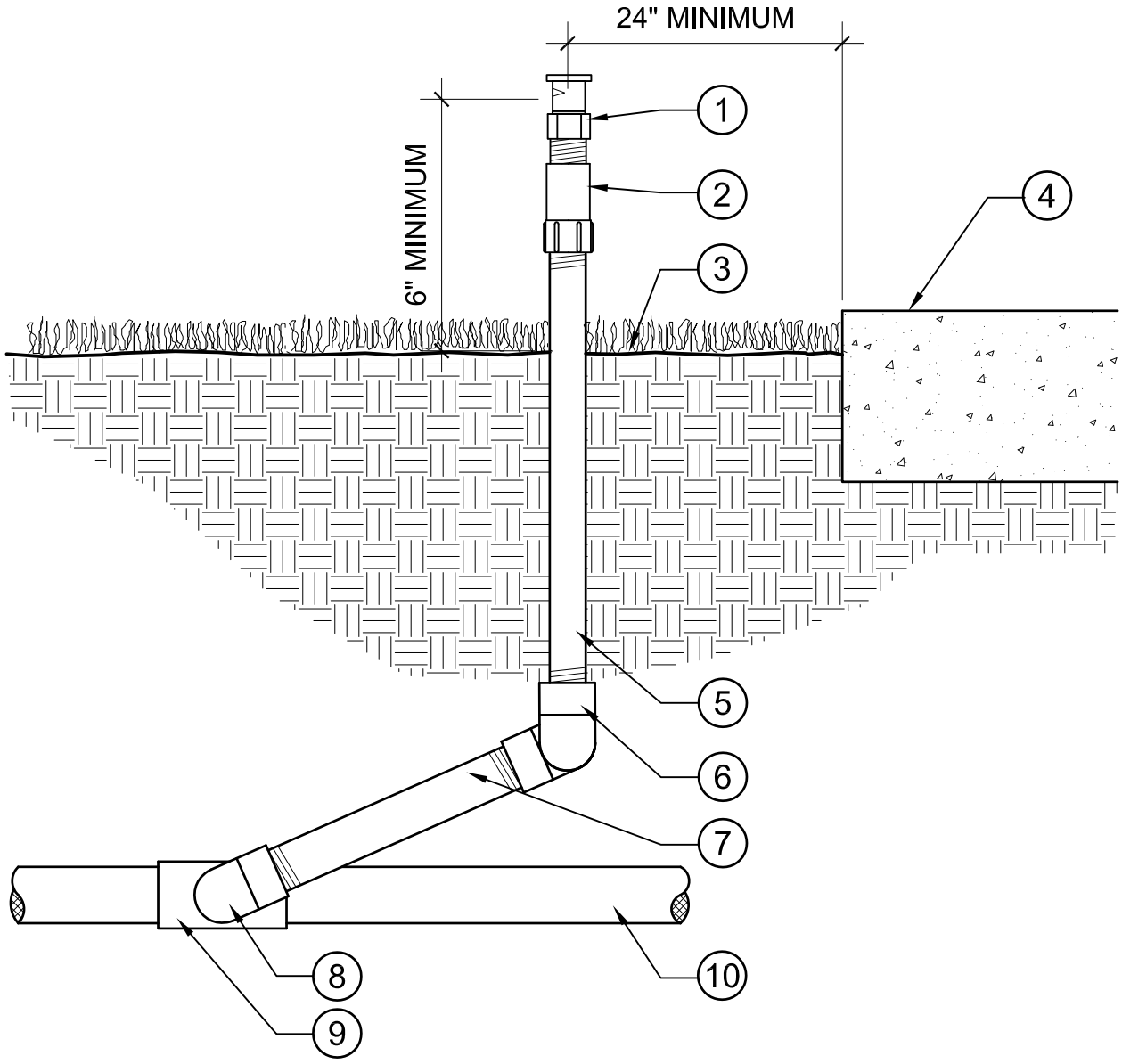


NOTE:
INSTALL EXTERNAL CHECK VALVES ON ALL SPRAYHEADS THAT ARE GREATER THAN 8 VERTICAL FEET IN ELEVATION LOWER THAN THE HIGHEST POINT ON THE COMBINED NON-PRESSURE LATERAL LINE FOR THE ENTIRE ZONE.

1. POP-UP SPRAY HEAD (SEE SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. ADJACENT HARDSCAPE (IF APPLICABLE)
5. 1/2" x 2" SCH. 80 NIPPLE (1 REQUIRED)
6. 1/2" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
7. 1/2" x 8" PVC SCH. 80 NIPPLE
8. 1/2" FIPT X MIPT SCH. 40 90 DEGREE ELBOW (2 REQUIRED)
9. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 1/2" FIPT)
10. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	12" POP-UP SPRAY HEAD		
	WITH EXTERNAL CHECK VALVE	APPROVED BY: MPH	
STD. I-061	3"=1'-0"	REV:	

FILE: I-061_12 POP UP SPRAY HEAD.DWG

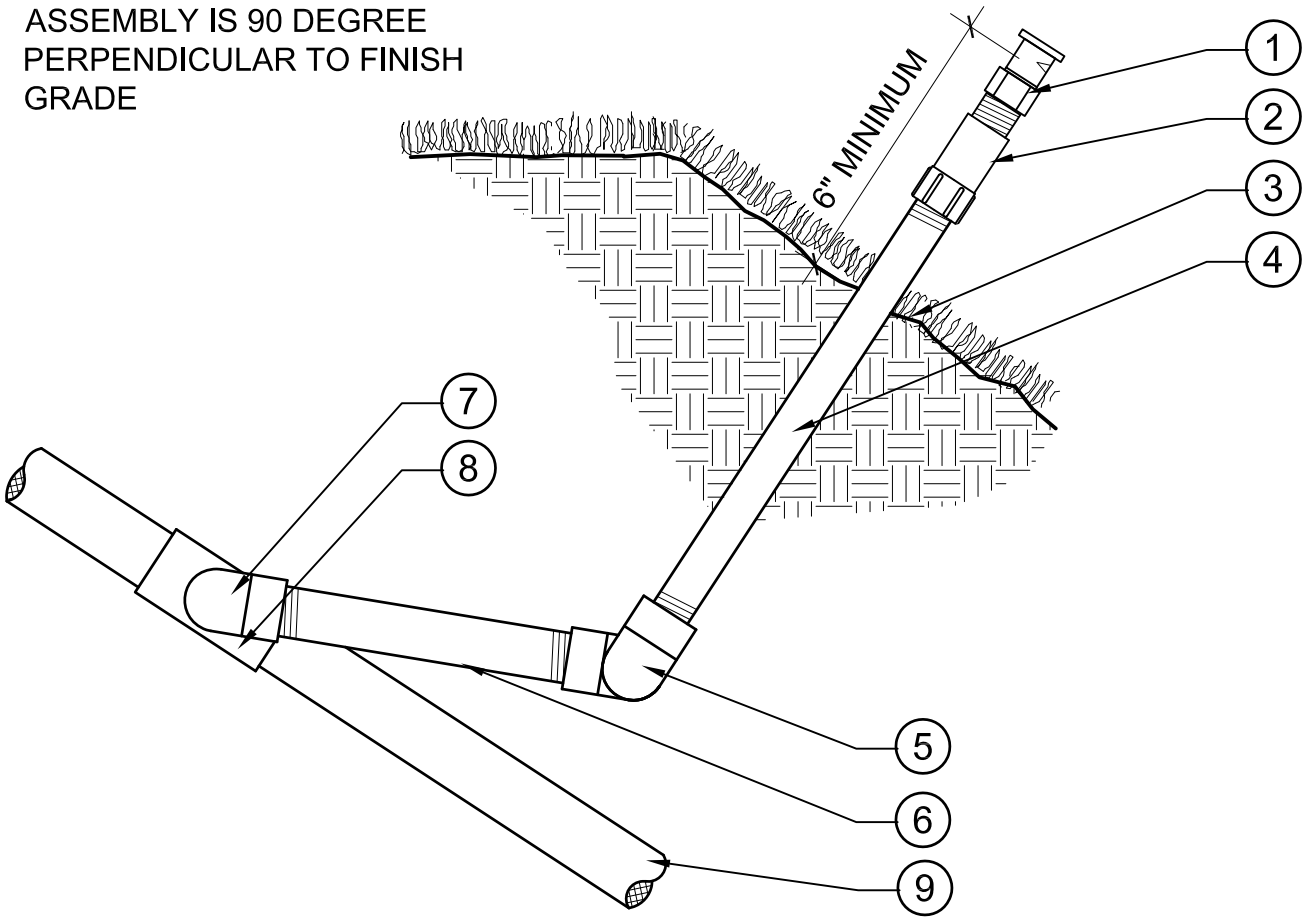


1. SHRUB SPRAY NOZZLE AND SCREEN (SEE SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. ADJACENT HARDSCAPE (IF APPLICABLE)
5. 1/2" PVC SCH. 80 RISER (LENGTH VARIES)
6. 1/2" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
7. 1/2" x 8" PVC SCH. 80 NIPPLE
8. 1/2" FIPT X MIPT SCH 40 90 DEGREE ELBOW (2 REQUIRED)
9. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 1/2" FIPT)
10. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SHRUB SPRAY ON RISER		
	WITH CHECK VALVE	APPROVED BY: MPH	
STD. I-062	3"=1'-0"	REV:	

FILE: I-062_SHRUB RISER.DWG

NOTE:
INSTALL SO THAT RISER ASSEMBLY IS 90 DEGREE PERPENDICULAR TO FINISH GRADE

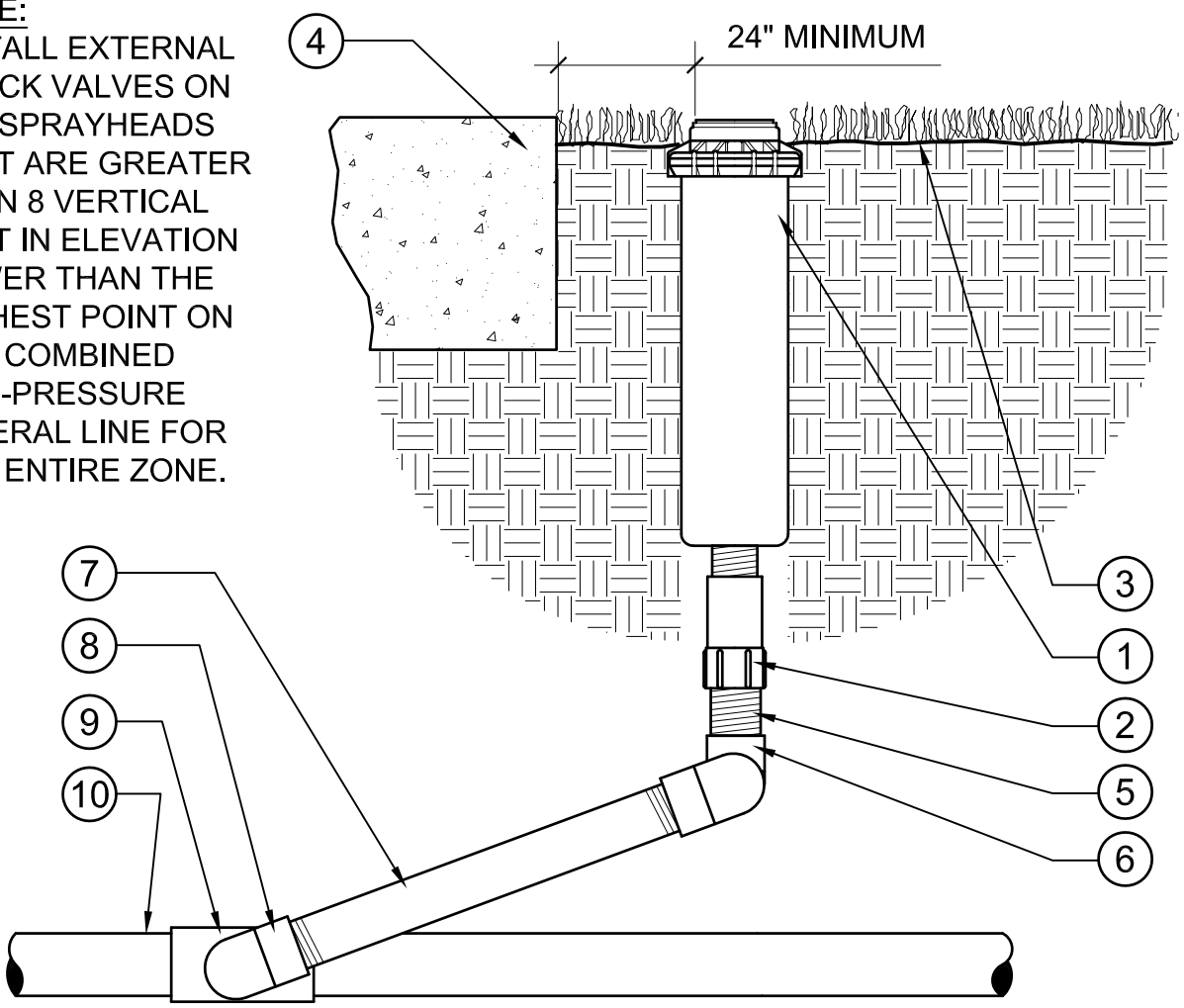


1. SHRUB SPRAY NOZZLE AND SCREEN (SEE SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. 1/2" PVC UV RESISTANT SCH. 80 RISER (LENGTH VARIES)
5. 1/2" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
6. 1/2" x 8" PVC SCH. 80 NIPPLE
7. 1/2" FIPT X MIPT SCH. 40 90 DEGREE ELBOW (2 REQUIRED)
8. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 1/2" FIPT)
9. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SHRUB SPRAY ON RISER (ON SLOPE)		
	WITH CHECK VALVE	APPROVED BY: MPH	
STD. I-063	3"=1'-0"	REV:	

FILE: I-063_SHRUB RISER SLOPE.DWG

NOTE:
INSTALL EXTERNAL CHECK VALVES ON ALL SPRAYHEADS THAT ARE GREATER THAN 8 VERTICAL FEET IN ELEVATION LOWER THAN THE HIGHEST POINT ON THE COMBINED NON-PRESSURE LATERAL LINE FOR THE ENTIRE ZONE.

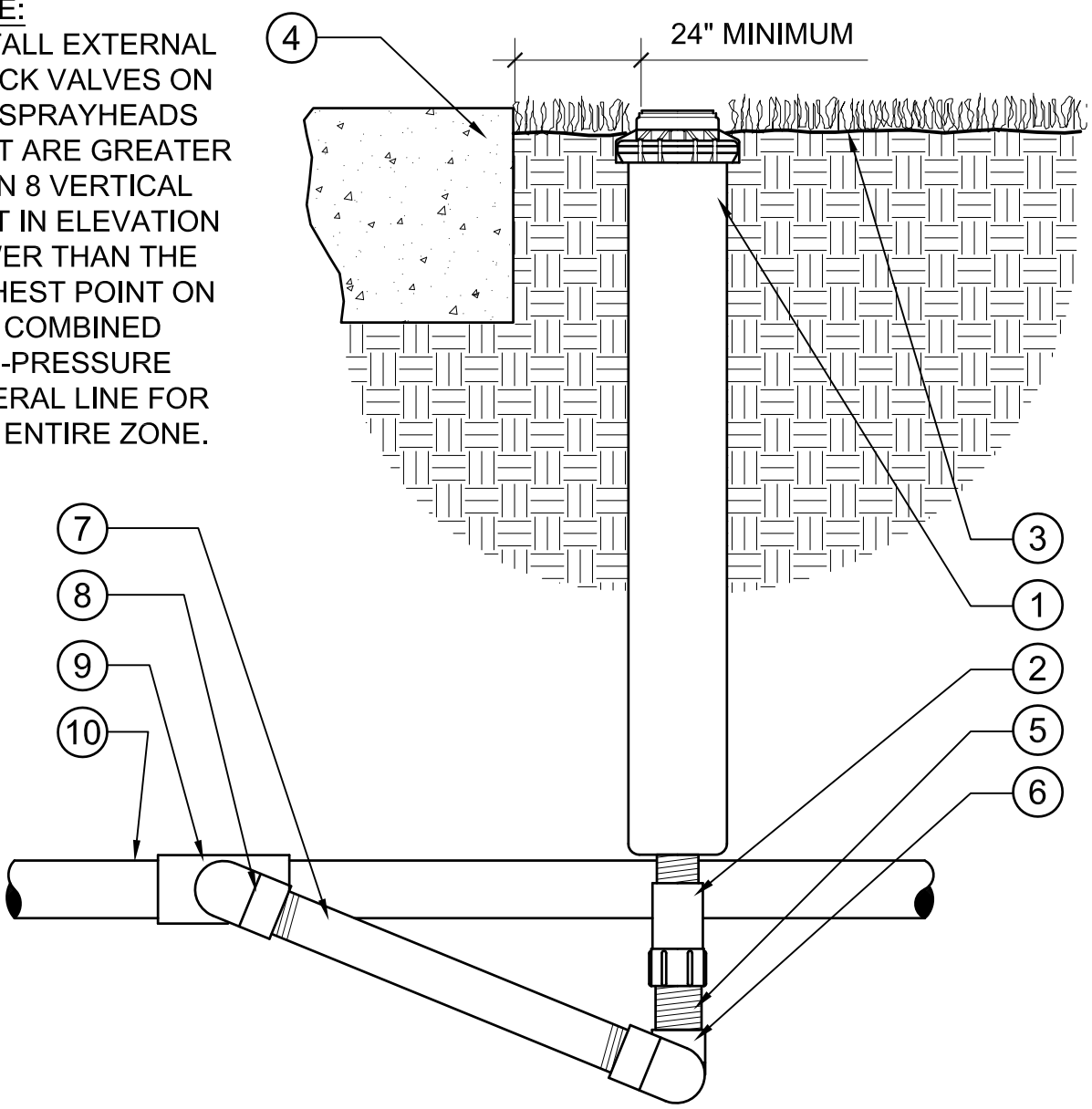


1. POP-UP ROTOR HEAD (SEE SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. ADJACENT HARDSCAPE (IF APPLICABLE)
5. 3/4" x 2" SCH. 80 NIPPLE (1 REQUIRED)
6. 3/4" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
7. 3/4" x 8" PVC SCH. 80 NIPPLE
8. 3/4" FIPT X MIPT SCH. 40 90 DEGREE ELBOW (2 REQUIRED)
9. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 3/4" FIPT)
10. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	6" POP-UP ROTOR		
	WITH EXTERNAL CHECK VALVE	APPROVED BY: MPH	
STD. I-070	3"=1'-0"	REV:	

FILE: I-070_6 POP UP ROTOR.DWG

NOTE:
INSTALL EXTERNAL CHECK VALVES ON ALL SPRAYHEADS THAT ARE GREATER THAN 8 VERTICAL FEET IN ELEVATION LOWER THAN THE HIGHEST POINT ON THE COMBINED NON-PRESSURE LATERAL LINE FOR THE ENTIRE ZONE.

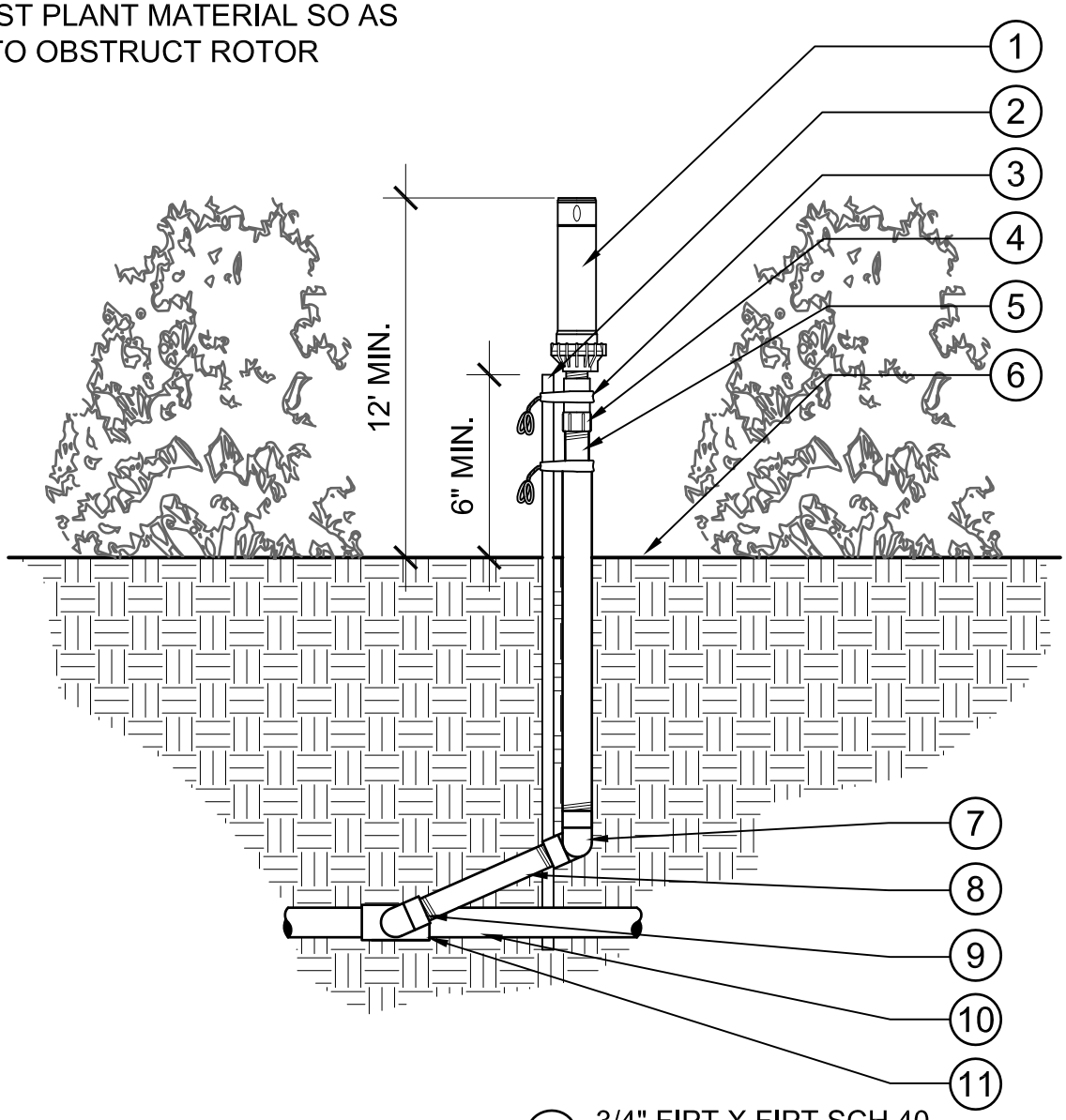


1. POP-UP ROTOR HEAD (SEE SPECIFICATIONS)
2. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
3. FINISH GRADE
4. ADJACENT HARDSCAPE (IF APPLICABLE)
5. 3/4" x 2" SCH. 80 NIPPLE (1 REQUIRED)
6. 3/4" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
7. 3/4" x 8" PVC SCH. 80 NIPPLE
8. 3/4" FIPT X MIPT SCH. 40 90 DEGREE ELBOW (2 REQUIRED)
9. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 3/4" FIPT)
10. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	12" POP-UP ROTOR		
	WITH EXTERNAL CHECK VALVE	APPROVED BY: MPH	
STD. I-071	3"=1'-0"	REV:	

FILE: I-071_12 POP UP ROTOR.DWG

NOTE:
ADJUST PLANT MATERIAL SO AS NOT TO OBSTRUCT ROTOR HEAD



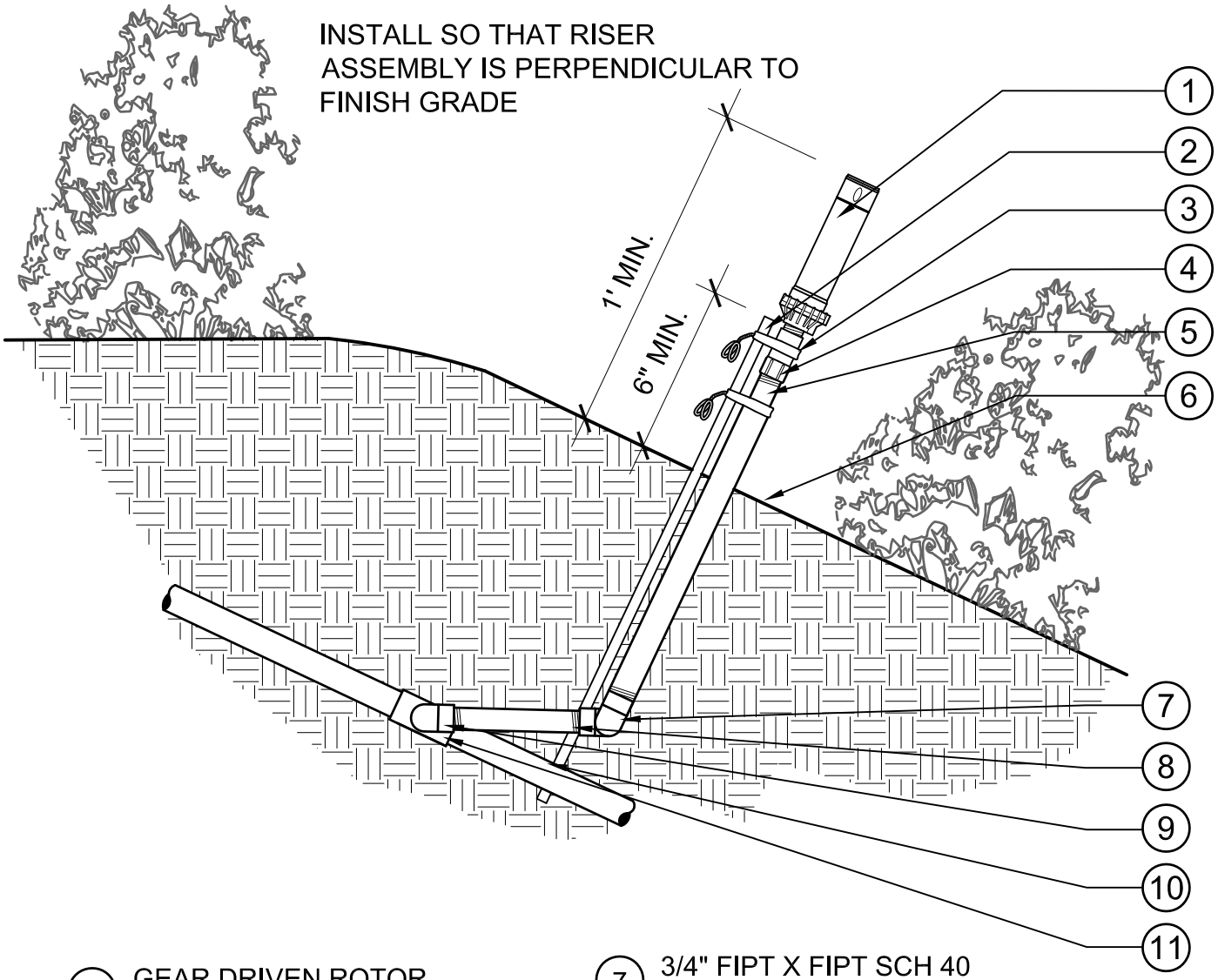
1. GEAR DRIVEN ROTOR (SEE SPECIFICATIONS)
2. SPRINKLER STABILIZER BAR (SEE SPECIFICATIONS)
3. SPRINKLER STABILIZER TIE (SEE SPECIFICATIONS)
4. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
5. 3/4" x 24" PVC SCH. 80 RISER
6. FINISH GRADE
7. 3/4" FIPT X FIPT SCH 40 90 DEGREE ELBOW (1 REQUIRED)
8. 3/4" x 8" PVC SCH. 80 NIPPLE
9. 3/4" FIPT X MIPT SCH 40 90 DEGREE ELBOW (2 REQUIRED)
10. NON-PRESSURE LATERAL LINE (SIZE NOTED ON PLAN)
11. S x S x T TEE IN LATERAL LINE (LATERAL LINE SIZE x 3/4" FIPT)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SHRUB ROTOR ON RISER		
	WITH CHECK VALVE	APPROVED BY: MPH	
STD. I-072	1 1/2"=1'-0"	REV:	

FILE: I-072_ROTOR RISER.DWG

NOTE:
ADJUST PLANT MATERIAL SO AS
NOT TO OBSTRUCT ROTOR HEAD

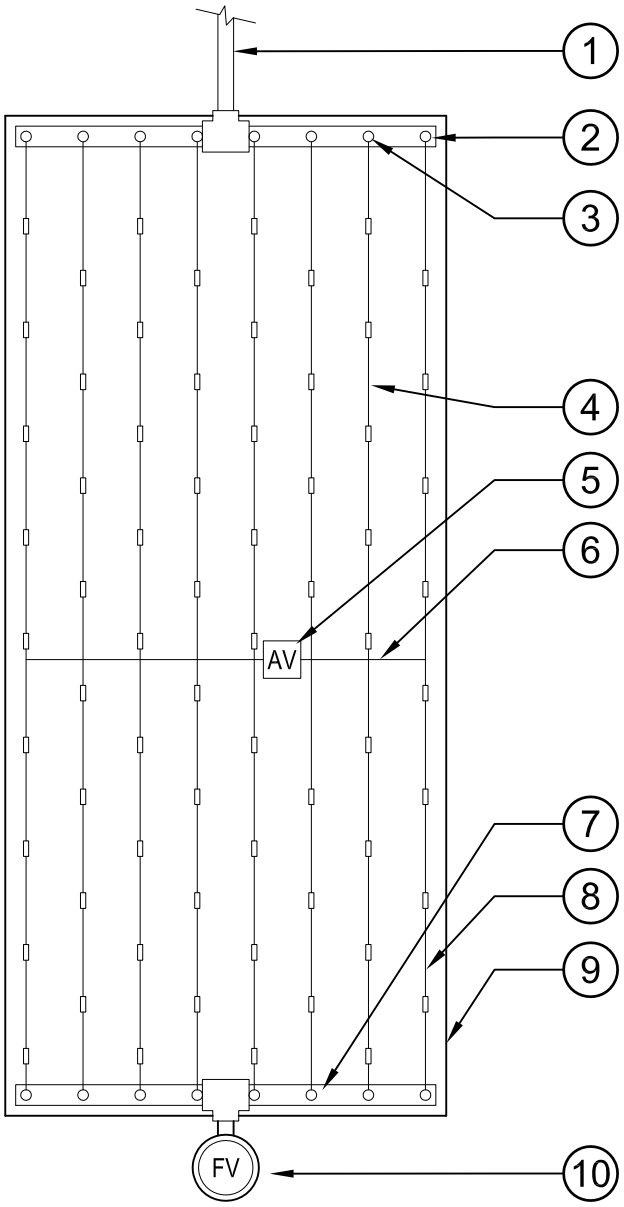
INSTALL SO THAT RISER
ASSEMBLY IS PERPENDICULAR TO
FINISH GRADE



1. GEAR DRIVEN ROTOR (SEE SPECIFICATIONS)
2. SPRINKLER STABILIZER BAR (SEE SPECIFICATIONS)
3. SPRINKLER STABILIZER TIE (SEE SPECIFICATIONS)
4. EXTERNAL CHECK VALVE (SEE SPECIFICATIONS)
5. 3/4" x 24" PVC SCH 80 RISER
6. FINISH GRADE
7. 3/4" FIPT X FIPT SCH 40 90 DEGREE ELBOW (1 REQUIRED)
8. 3/4" x 8" PVC SCH. 80 NIPPLE
9. 3/4" FIPT X MIPT SCH 40 90 DEGREE ELBOW (2 REQUIRED)
10. NON-PRESSURE LATERAL LINE (SIZE NOTED ON PLAN)
11. S x S x T TEE IN LATERAL LINE (LATERAL LINE SIZE x 3/4" FIPT)

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SHRUB ROTOR ON RISER (ON SLOPE)		
	WITH CHECK VALVE	APPROVED BY: MPH	
STD. I-073	1 1/2"=1'-0"	REV:	

FILE: I-073_ROTOR RISER SLOPE.DWG



PLAN

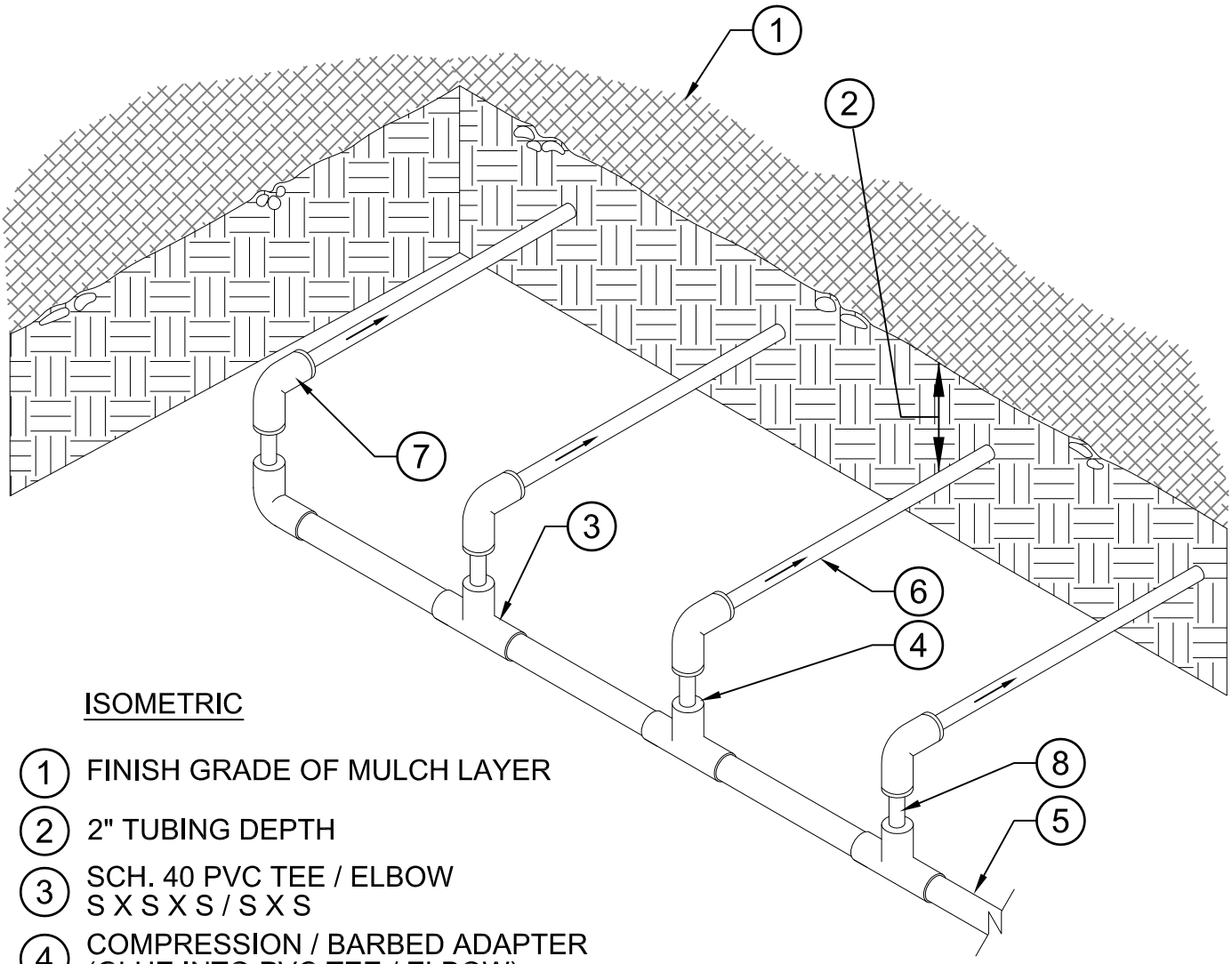
1. PVC LATERAL LINE FROM ELECTRIC CONTROL VALVE
2. PVC SUPPLY MANIFOLD
3. MANIFOLD TO ELBOW CONNECTION
4. DRIP LINE LATERAL
5. AIR/VACUUM RELIEF VALVE AT EACH HIGH POINT
6. AIR/VACUUM RELIEF LATERAL
7. PVC FLUSH MANIFOLD
8. PERIMETER LATERALS 12" FROM EDGE
9. HARDSCAPE EDGE
10. AUTOMATIC FLUSH VALVE PLUMBED TO FLUSH AT LOW POINT

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE SHALL NOT EXCEED THE MAXIMUM RUN LENGTH.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS			DATE: 02-05-13
	SUBSURFACE PIPE AND TUBING LAYOUT			
	END FED CONFIGURATION	APPROVED BY: MPH		
STD. I-080	N.T.S.	REV:		

FILE: I-080_SUBSURFACE PIPE END FED.DWG



ISOMETRIC

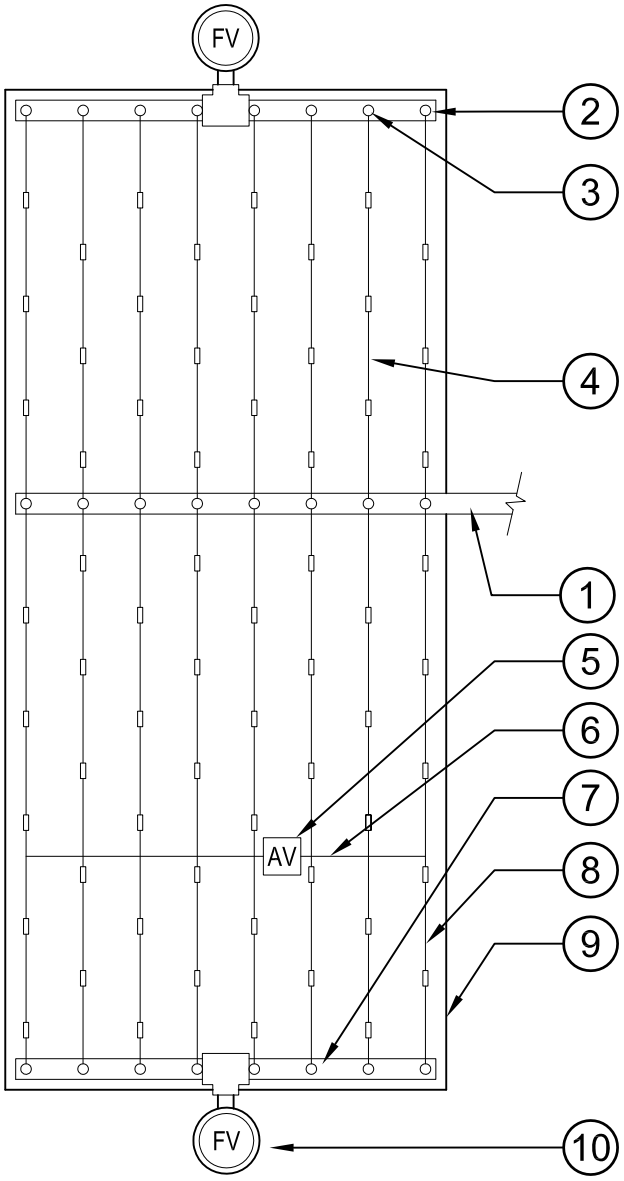
1. FINISH GRADE OF MULCH LAYER
2. 2" TUBING DEPTH
3. SCH. 40 PVC TEE / ELBOW
   S X S X S / S X S
4. COMPRESSION / BARBED ADAPTER
   (GLUE INTO PVC TEE / ELBOW)
5. PVC MANIFOLD/SUPPLY LINE
   FROM DRIP VALVE AND FILTER
6. DRIP LINE WITH INTEGRAL EMITTERS
   2" BELOW FINISH GRADE OF TOP SOIL
7. COMPRESSION / BARBED ELBOW
8. DRIP LINE

NOTES:

INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SUBSURFACE PIPE AND TUBING MANIFOLD		
	END FED CONFIGURATION	APPROVED BY: MPH	
STD. I-081	N.T.S.	REV:	

FILE: I-081_SUBSURFACE MANIFOLD END FED.DWG



1. PVC LATERAL LINE FROM ELECTRIC CONTROL VALVE
2. PVC EXHAUST
3. MANIFOLD TO ELBOW CONNECTION
4. DRIP LINE LATERAL
5. AIR/VACUUM RELIEF VALVE AT EACH HIGH POINT
6. AIR/VACUUM RELIEF LATERAL
7. PVC FLUSH MANIFOLD
8. PERIMETER LATERALS 12" FROM EDGE
9. HARDSCAPE EDGE
10. AUTOMATIC FLUSH VALVE PLUMBED TO FLUSH AT LOW POINT

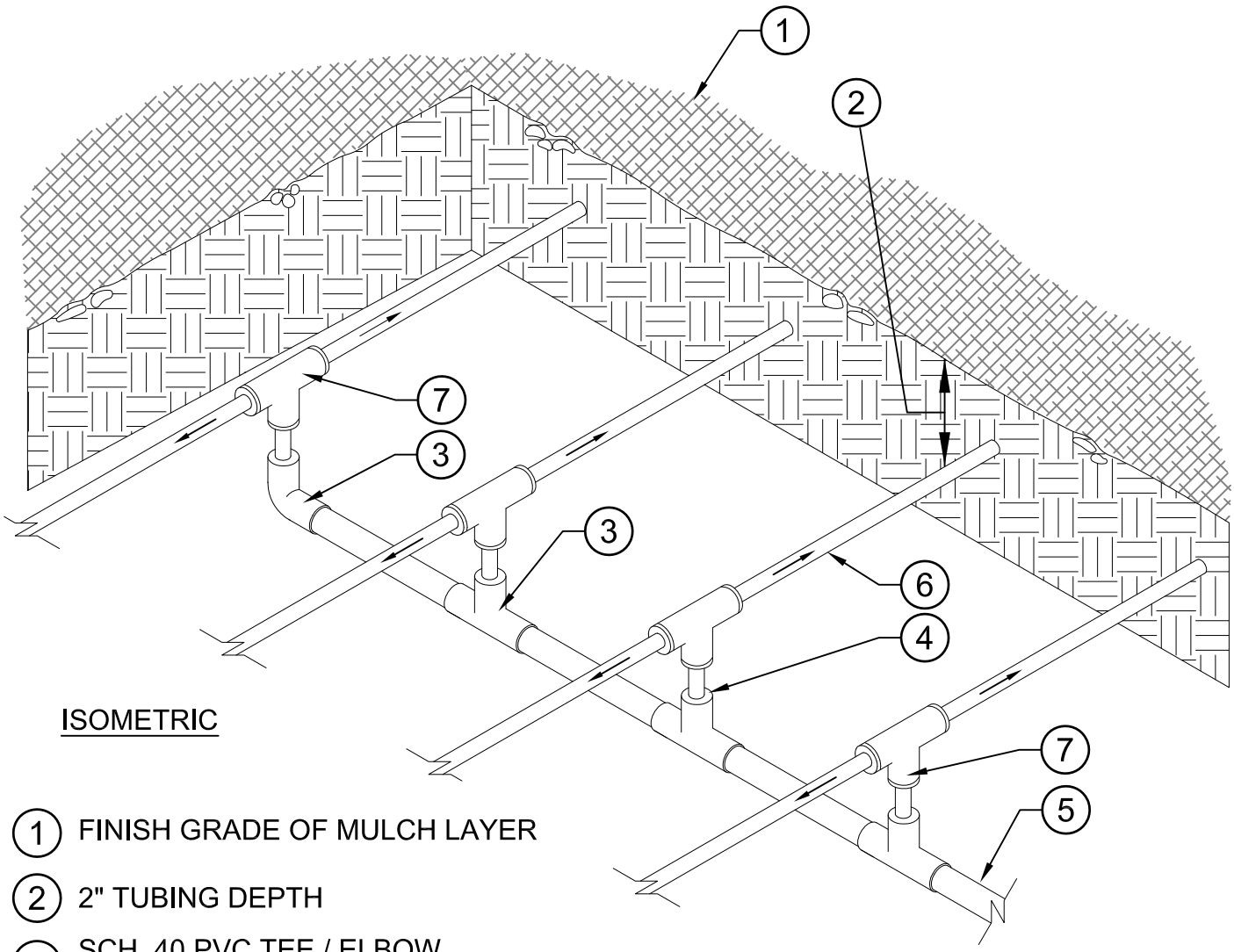
PLAN

NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE SHALL NOT EXCEED THE MAXIMUM RUN LENGTH.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SUBSURFACE PIPE AND TUBING LAYOUT		
	CENTER FED CONFIGURATION	APPROVED BY: MPH	
STD. I-082	N.T.S.	REV:	

FILE: I-082_SUBSURFACE PIPE CENTER FED.DWG



ISOMETRIC

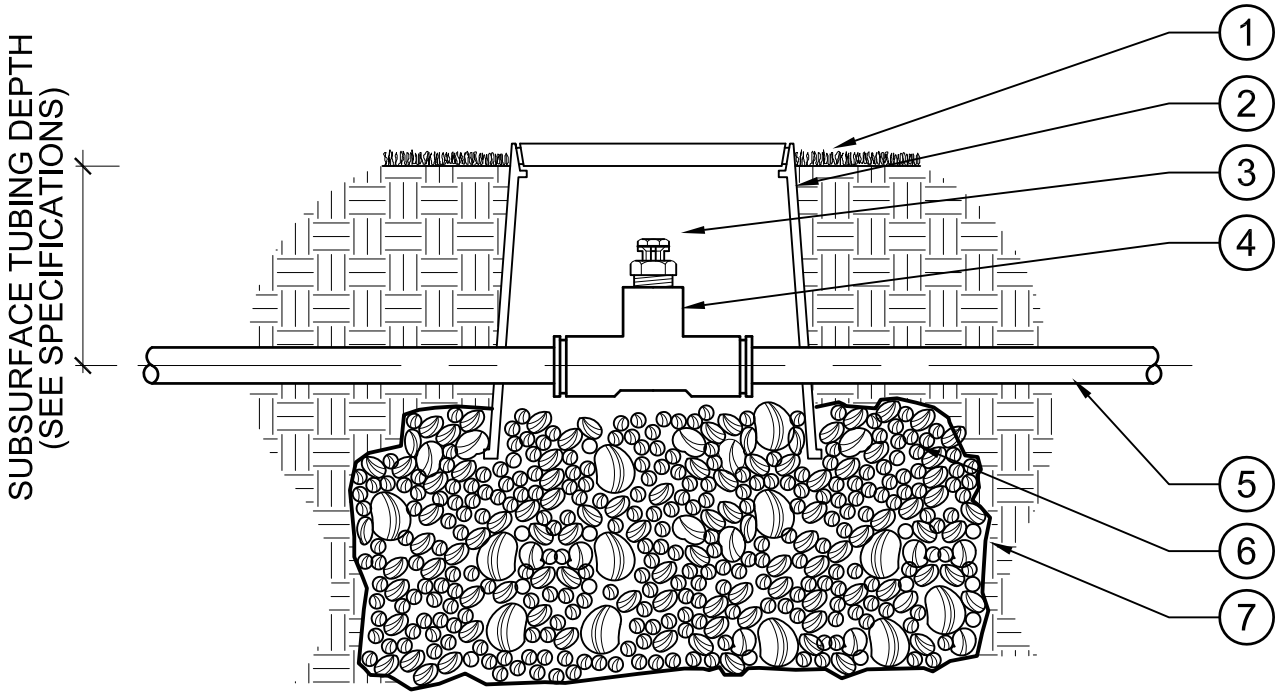
1. FINISH GRADE OF MULCH LAYER
2. 2" TUBING DEPTH
3. SCH. 40 PVC TEE / ELBOW
   S X S X S / S X S
4. COMPRESSION / BARBED ADAPTER
   (GLUE INTO PVC TEE / ELBOW)
5. PVC MANIFOLD/SUPPLY LINE
   FROM DRIP VALVE AND FILTER
6. DRIP LINE WITH INTEGRAL EMITTERS
   2" BELOW FINISH GRADE OF TOP SOIL
7. COMPRESSION / BARBED TEE

NOTES:

INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	SUBSURFACE PIPE AND TUBING MANIFOLD		
	CENTER FED CONFIGURATION	APPROVED BY: MPH	
STD. I-083	N.T.S.	REV:	

FILE: I-083_SUBSURFACE MANIFOLD CENTER FED.DWG

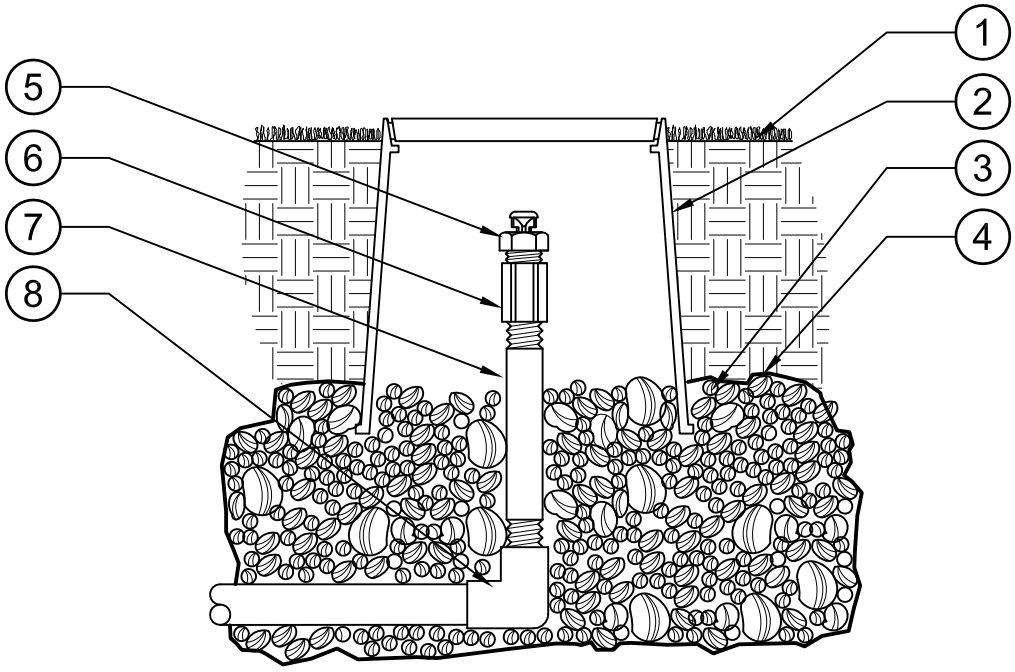


1. FINISH GRADE
2. 6" ROUND PLASTIC VALVE BOX
   HEAT BRAND "AR" ON THE LID IN 1" TALL LETTERS
3. AIR VACUUM RELIEF VALVE
   (SEE SPECIFICATIONS)
4. PVC SCH. 40 COMP X 1/2" FIPT X COMP TEE
5. SUBSURFACE TUBING
   (SEE SPECIFICATIONS)
6. 3/4" GRAVEL SUMP IN, UNDER AND
   AROUND VALVE BOX. FILL TO TOP OF
   VALVE BOX HOLES
7. INSTALL FILTER FABRIC AROUND
   GRAVEL SUMP

NOTE:
LOCATE AIR/VACUUM RELIEF VALVES AT ALL HIGH POINTS IN SUB SURFACE TUBING SYSTEMS

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	AIR / VACUUM RELIEF VALVE		
	ON SUBSURFACE TUBING	APPROVED BY: MPH	
STD. I-084	3"=1'-0"	REV:	

FILE: I-084_AIR RELIEF ON TUBING.DWG

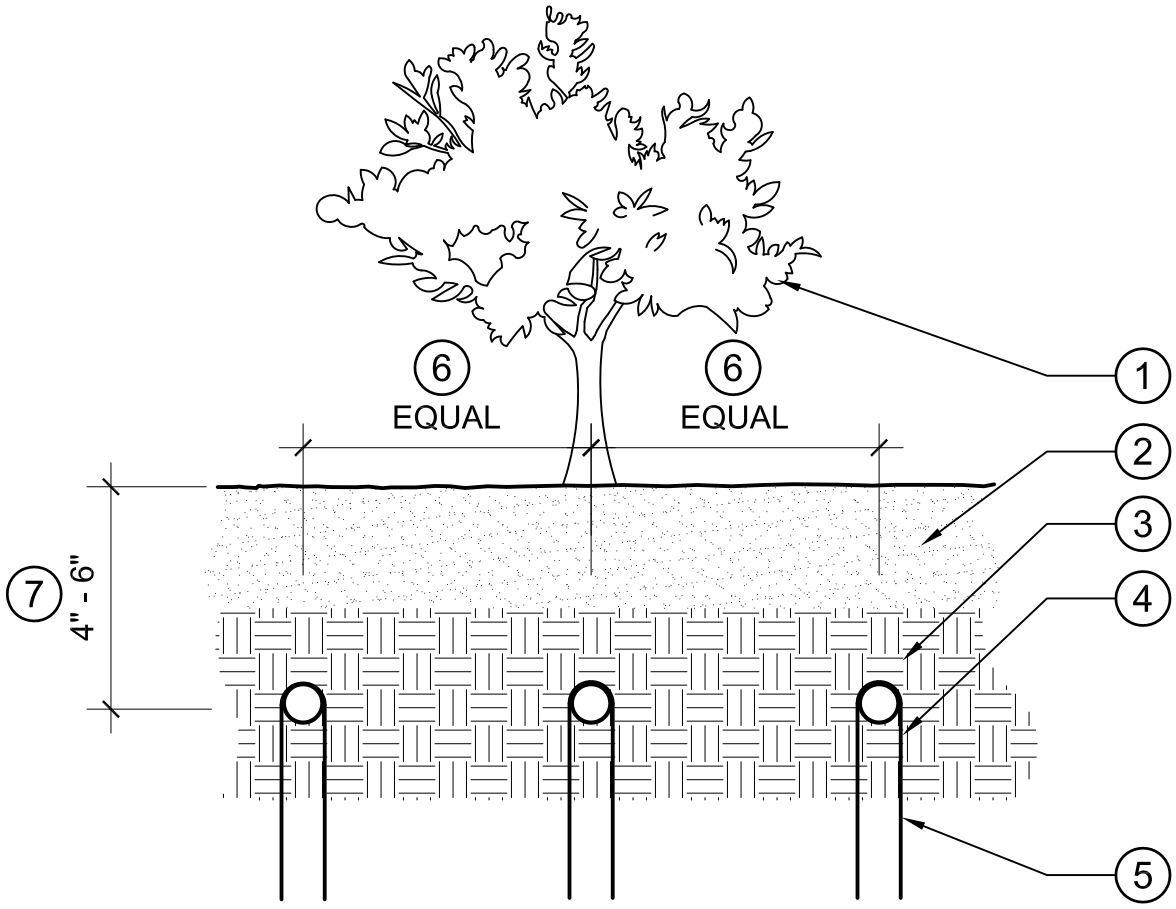


1. FINISH GRADE (REFER TO PLANTING PLANS AND SPECIFICATIONS)
2. 6" ROUND PLASTIC VALVE BOX HEAT BRAND "AR" ON THE LID IN 1" TALL LETTERS
3. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX (FILL TO TOP OF HOLES)
4. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
5. AIR/VACUUM RELIEF VALVE WITH 1/2" MIPT
6. 1/2" T X T SCH. 40 PVC COUPLER
7. 1/2" SCH. 80 PVC NIPPLE SIZE AS NEEDED
8. LATERAL LINE SIZE X 1/2" FIPT 90 DEGREE ELBOW

NOTE:
USE ONE AIR/VACUUM RELIEF VALVE PER EVERY 7 GPM ON EACH ZONE. REFER TO MANUFACTURER'S SPECIFICATIONS.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	AIR / VACUUM RELIEF VALVE		
	ON PVC	APPROVED BY: MPH	
STD. I-085	1 1/2"=1'-0"	REV:	

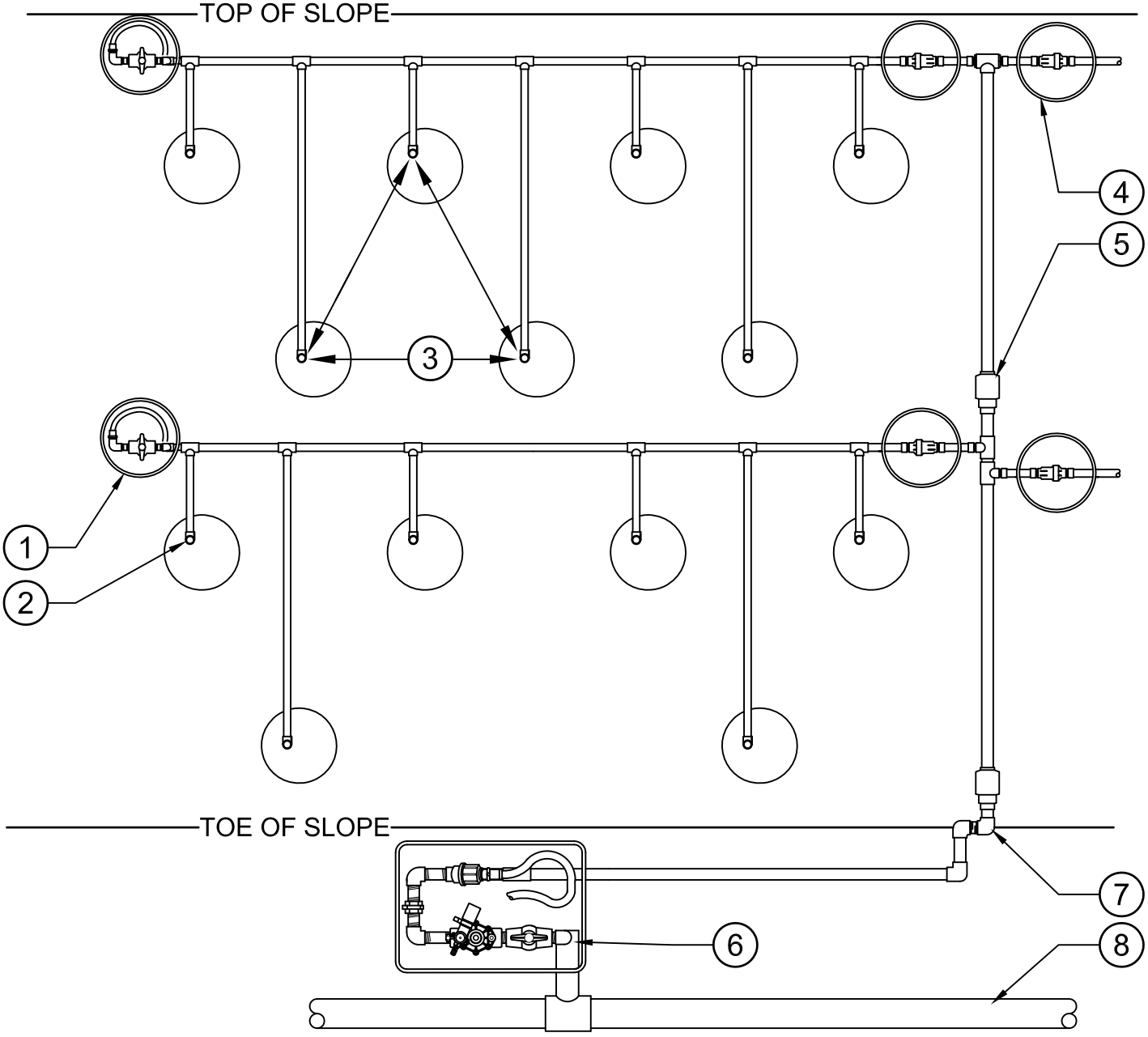
FILE: I-085_AIR RELIEF ON PVC.DWG



1. SHRUB OR GROUNDCOVER (TYPICAL, SEE PLANTING DETAILS)
2. 2" - 4" BARK MULCH LAYER
3. AMENDED SOIL MIX (REFER TO PLANTING SPECIFICATIONS)
4. SUB-SURFACE TUBING, BURIED INTO SOIL MIN. 2" (REFER TO IRRIGATION LEGEND)
5. TUBING STAKE (SEE SPECIFICATIONS FOR SPACING AND MODEL NUMBER)
6. TUBING SPACING VARIES 12" - 18" ON CENTER BASED ON EMITTER SPACING
7. TUBING DEPTH VARIES 4"-6" PER MANUFACTURER'S GUIDELINES

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS			DATE: 02-05-13
	SUBSURFACE TUBING SPACING AND DEPTH			
		APPROVED BY: MPH		
STD. I-086	1 1/2"=1'-0"	REV:		

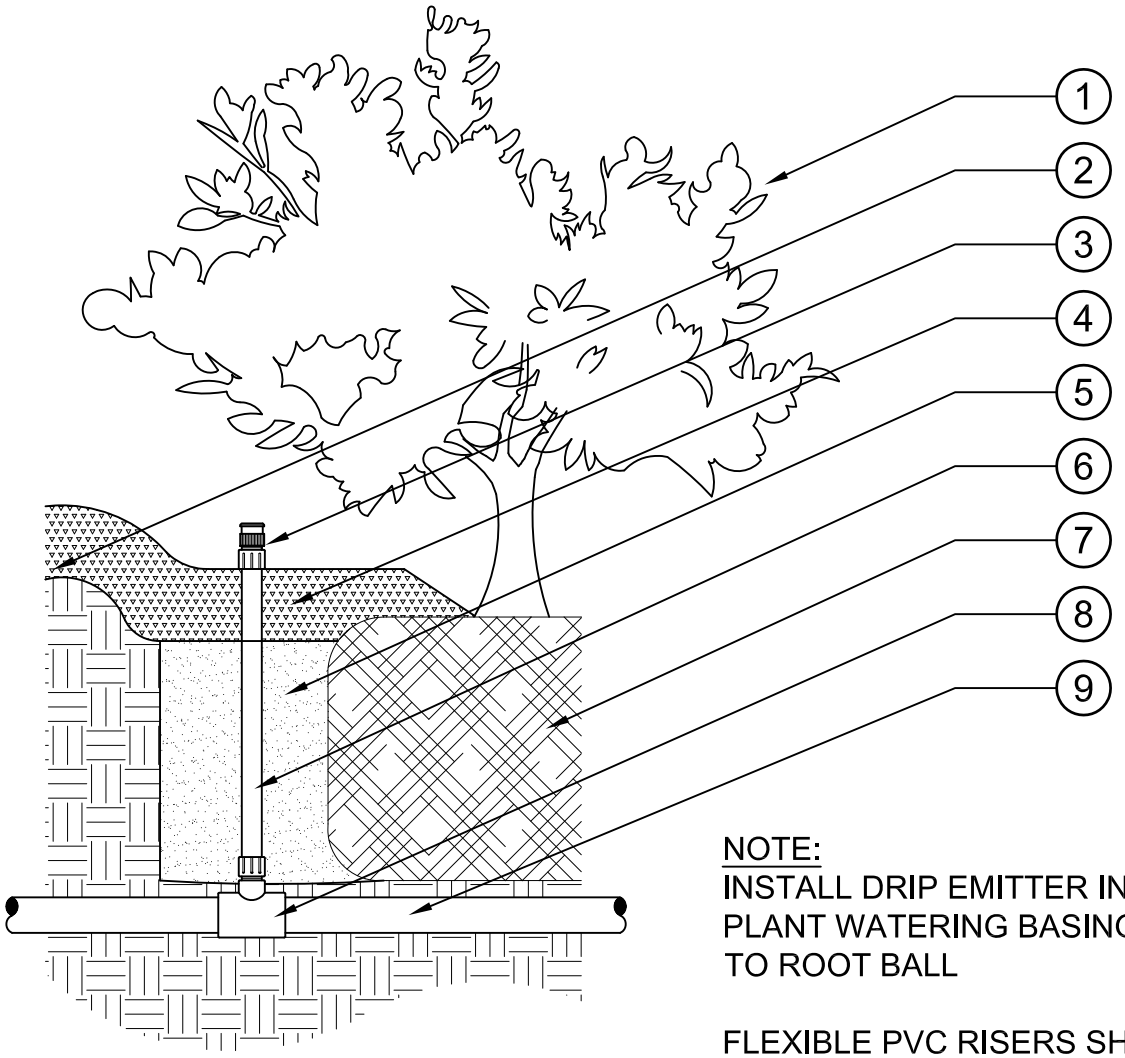
FILE: I-086_SUBSURFACE SPACING.DWG



1. MANUAL FLUSH VALVE ASSEMBLY (SEE DETAIL)
2. EMITTER ON FLEXIBLE RISER (SEE DETAIL)
3. SHRUB SPACING (VARIES - SEE PLANTING PLANS)
4. PRESSURE REGULATOR
5. CHECK VALVE
6. DRIP VALVE ASSEMBLY (SEE DETAIL)
7. SWING ASSEMBLY FOR SLOPE TRANSITION (IF APPLICABLE)
8. IRRIGATION PRESSURE SUPPLY LINE

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	POINT TO POINT IRRIGATION		
	WITH BELOW GRADE LATERALS	APPROVED BY: MPH	
STD. I-090	N.T.S.	REV:	

FILE: I-090_POINT TO POINT BELOW GRADE.DWG



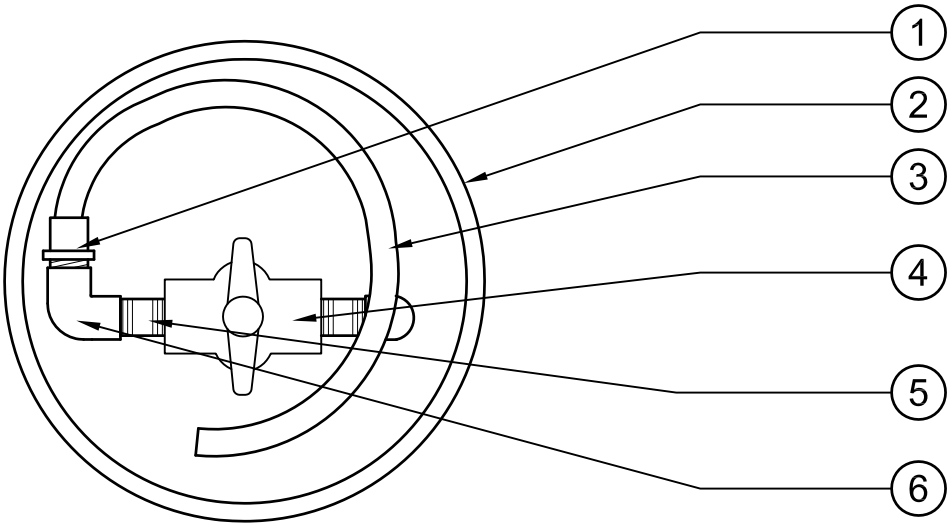
NOTE:
INSTALL DRIP EMITTER INSIDE OF PLANT WATERING BASING ADJACENT TO ROOT BALL

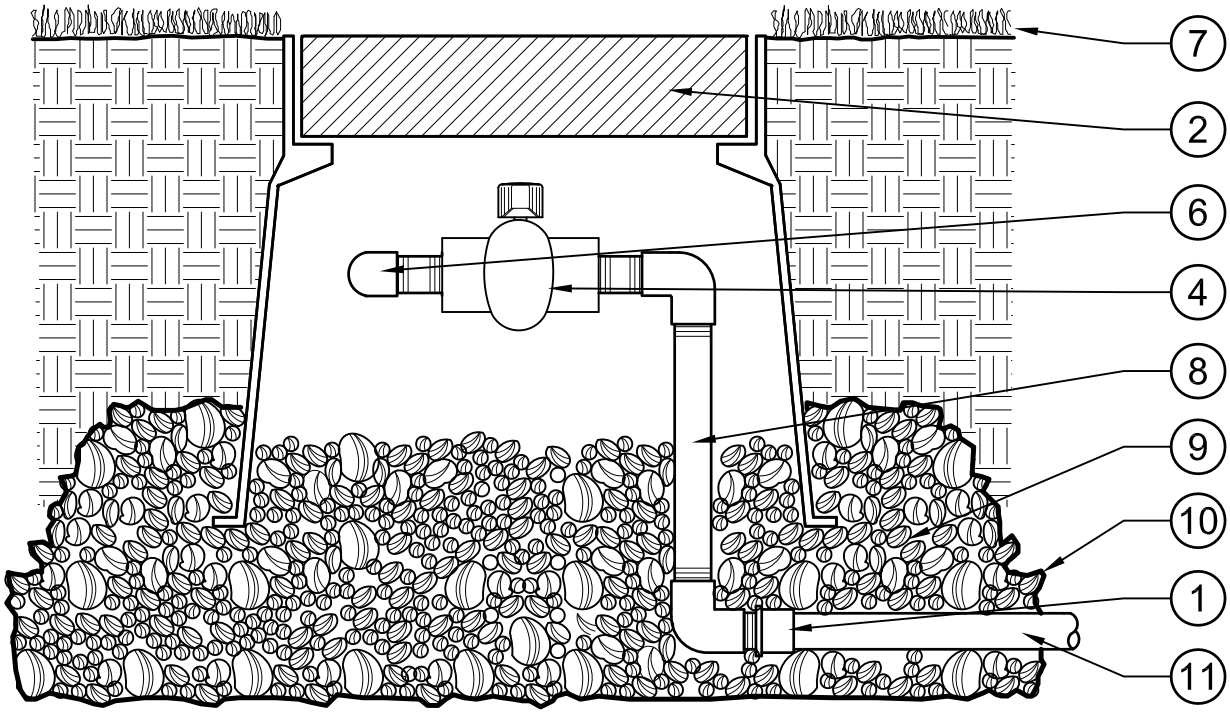
FLEXIBLE PVC RISERS SHALL BE PREFABRICATED BY THE MANUFACTURER UNLESS OTHERWISE APPROVED BY LMD REPRESENTATIVE.

1. SHRUB OR GROUNDCOVER
2. PLANT WATERING BASIN
3. EMITTER NOZZLE AND SCREEN SEE SPECIFICATIONS
4. MULCH PER PLANTING DETAILS
5. AMENDED BACKFILL
6. 1/2" x 12" FLEXIBLE PVC RISER
7. PLANT ROOT BALL
8. SCH 40 S x S x T TEE (OR ELBOW) (LATERAL SIZE x 1/2" FIPT)
9. PURPLE LATERAL LINE

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	EMITTER ON FLEXIBLE RISER		
	WITH BELOW GRADE LATERAL LINE	APPROVED BY: MPH	
STD. I-091	1 1/2"=1'-0"	REV:	

FILE: I-091_EMITTER ON RISER BELOW GRADE.DWG

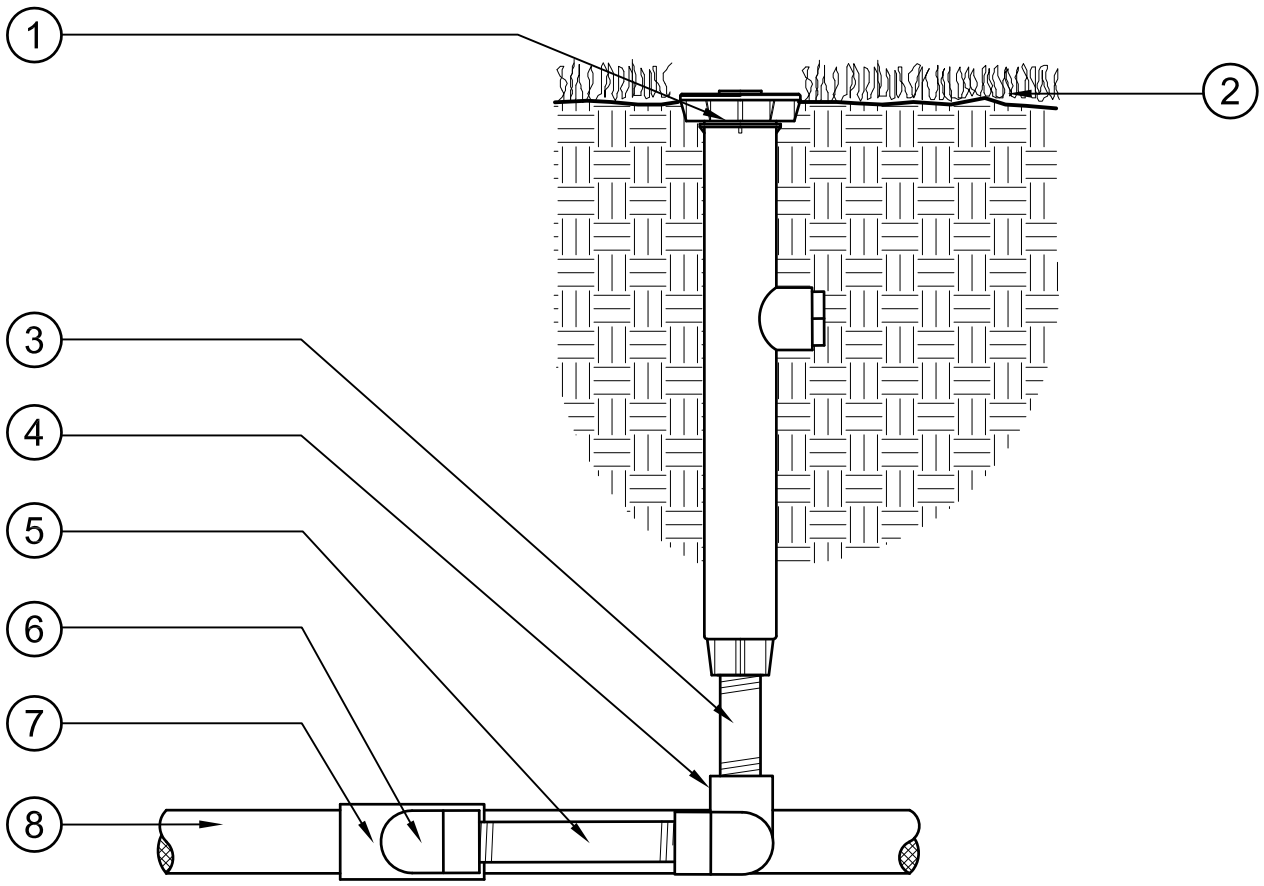




1. SLIP X MIPT SCH 40 PVC ADAPTER (2 REQUIRED)
2. 10" ROUND VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
3. 18" LENGTH OF SCH. 40 FLEXIBLE PVC TUBING FOR FLUSHING OUTSIDE OF BOX
4. SCH. 40 PVC BALL VALVE (LINE SIZE)
5. CLOSED NIPPLE (2 REQUIRED)
6. PVC SCH. 40 FIPT X FIPT ELL (3 REQUIRED)
7. FINISH GRADE
8. 8 " PVC SCH. 80 RISER
9. 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX (FILL TO TOP OF HOLES)
10. INSTALL FILTER FABRIC AROUND GRAVEL SUMP
11. DRIP TUBING AND/OR LATERAL LINE (SEE SPECIFICATIONS)

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	MANUAL FLUSH VALVE ASSEMBLY		
	FOR POINT TO POINT DRIP	APPROVED BY: MPH	
STD. I-092	3"=1'-0"	REV:	

FILE: I-092_MANUAL FLUSH - POINT TO POINT.DWG

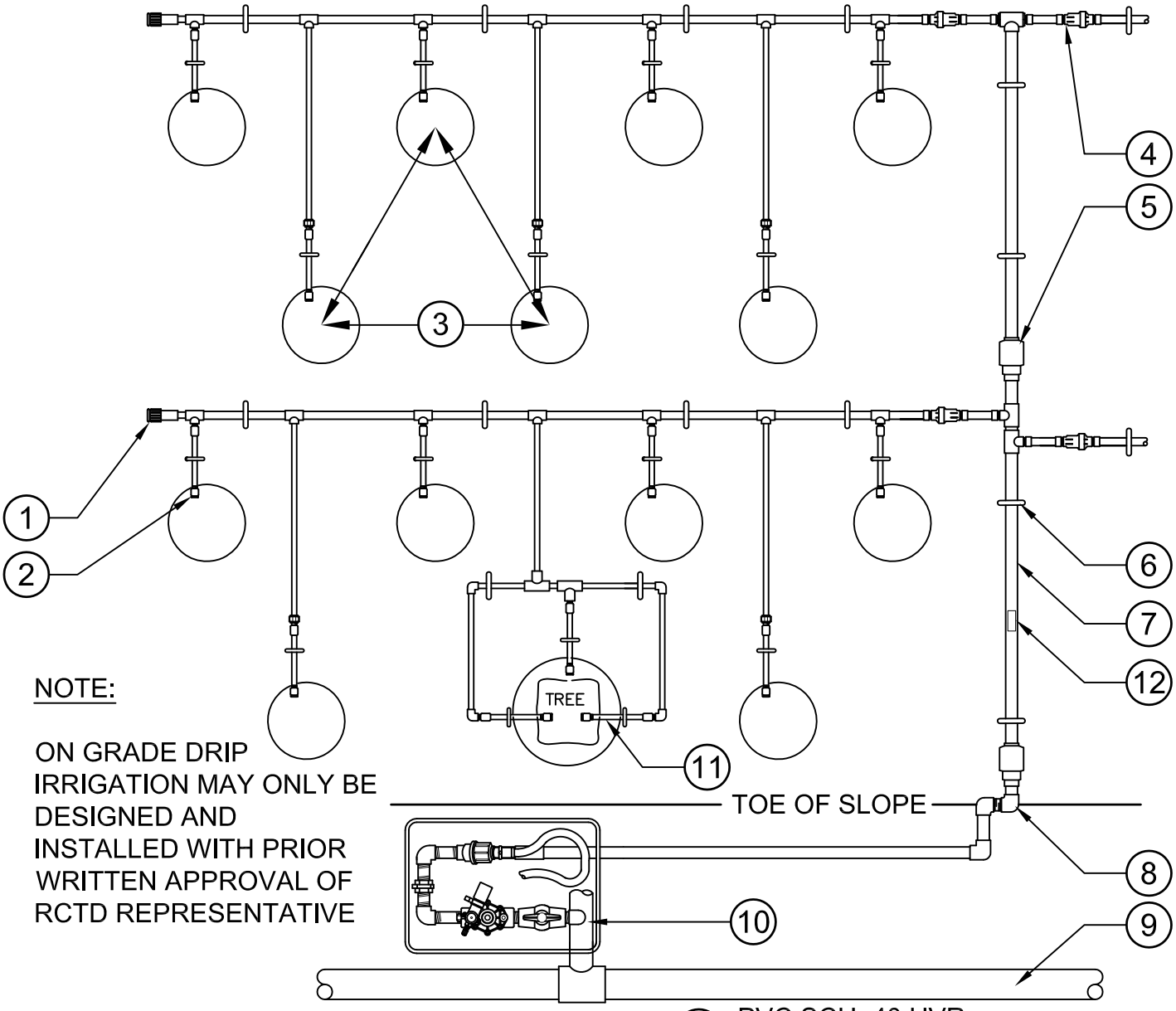


1. 12" POP-UP SPRAY HEAD (SEE SPECIFICATIONS)
   INSTALL (1) ONE VAN NOZZLE PER STANDARD PRODUCTS LIST, AND ADJUST TO CLOSED POSITION.
2. FINISH GRADE
3. 1/2" x 2" SCH. 80 NIPPLE (1 REQUIRED)
4. 1/2" FIPT x FIPT SCH. 40 90 DEGREE ELBOW (1 REQUIRED)
5. 1/2" x 8" PVC SCH. 80 NIPPLE
6. 1/2" FIPT X MIPT SCH. 40 90 DEGREE ELBOW (2 REQUIRED)
7. S x S x T TEE IN LATERAL LINE (LATERAL SIZE x 1/2" FIPT)
8. NON-PRESSURE LATERAL LINE (SIZE AS NOTED ON PLAN)

NOTE:
INSTALL (1) ONE DRIP OPERATION INDICATOR NEAR VALVE BOX FOR EACH DRIP ZONE. MARK LOCATION FOR APPROVAL BY LMD REPRESENTATIVE PRIOR TO INSTALLATION.

LMD	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	DRIP OPERATION INDICATOR		
	POP-UP TYPE	APPROVED BY: MPH	
STD. I-093	3"=1'-0"	REV:	

FILE: I-093_DRIP OPERATION INDICATOR.DWG



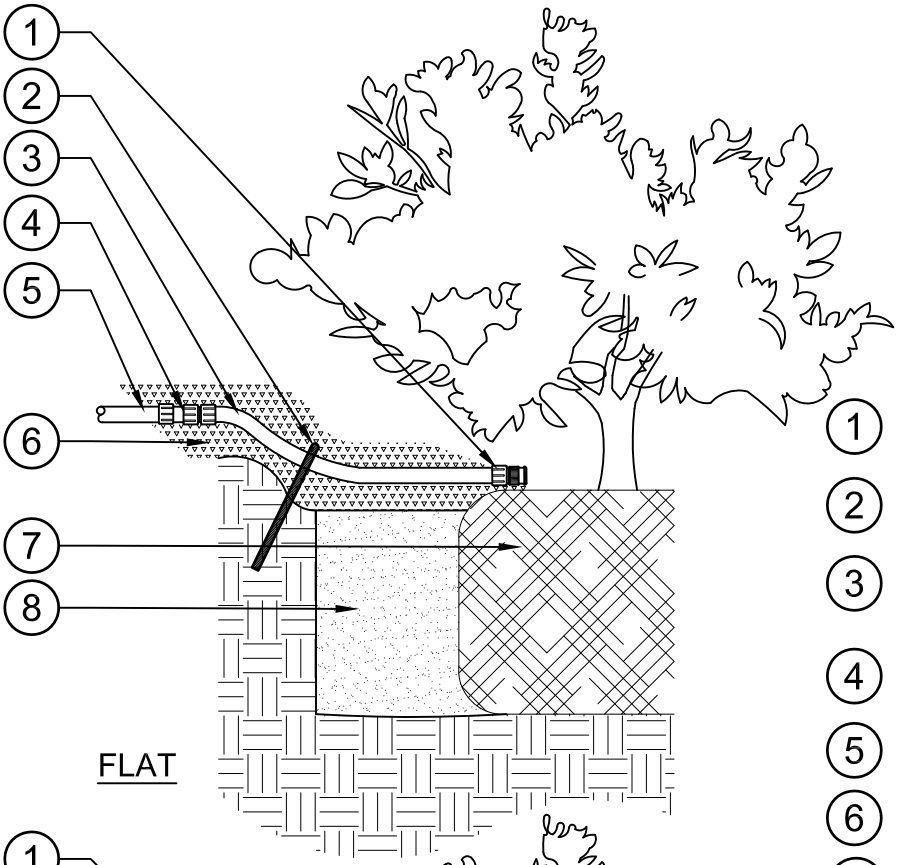
NOTE:

ON GRADE DRIP IRRIGATION MAY ONLY BE DESIGNED AND INSTALLED WITH PRIOR WRITTEN APPROVAL OF RCTD REPRESENTATIVE

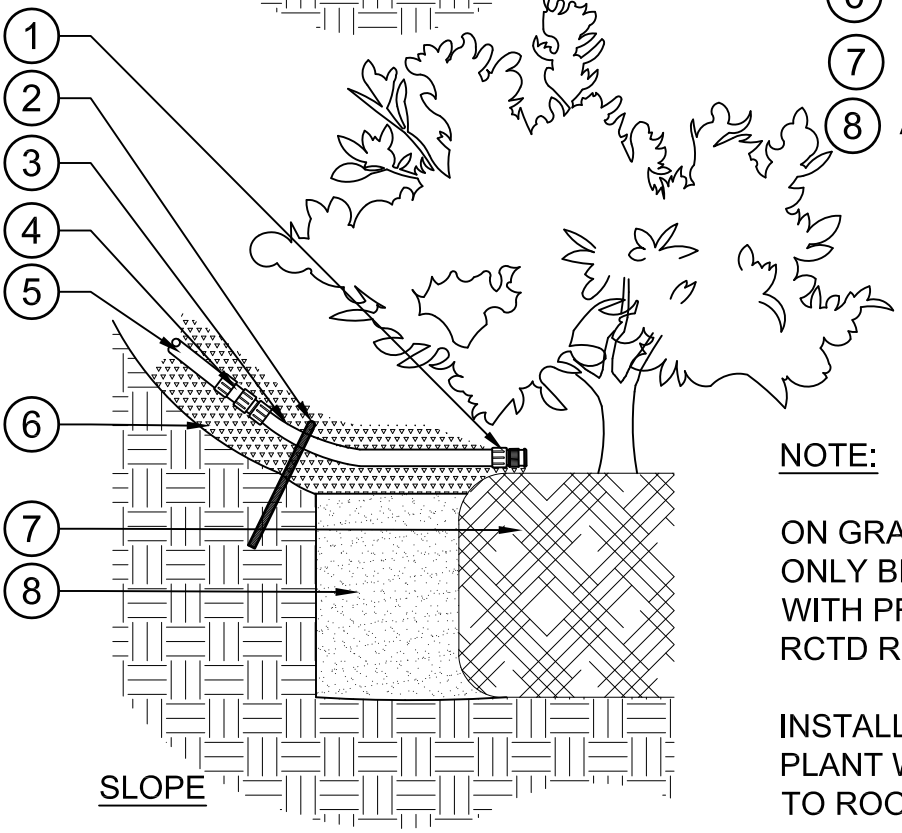
1. MANUAL FLUSH VALVE ASSEMBLY 3/4" S X 3/4" MHT WITH 3/4" FHT CAP
2. EMITTER ON FLEXIBLE RISER (SEE ON GRADE EMITTER DETAIL)
3. SHRUB SPACING (VARIES - SEE PLANTING PLANS)
4. PRESSURE REGULATOR IN BOX
5. CHECK VALVE
6. GALVANIZED VINYL COATED "J" HOOK
7. PVC SCH. 40 UVR LATERAL LINE
8. SWING ASSEMBLY FOR SLOPE TRANSITION (IF APPLICABLE)
9. IRRIGATION PRESSURE SUPPLY LINE
10. DRIP VALVE ASSEMBLY (SEE DETAIL)
11. EMITTERS TO TREE (SEE DETAIL)

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	POINT TO POINT IRRIGATION		
	WITH ON GRADE LATERALS	APPROVED BY: MPH	
STD. I-094	N.T.S.	REV:	

FILE: I-094_POINT TO POINT ON GRADE.DWG



FLAT



SLOPE

1. EMITTER NOZZLE AND SCREEN SEE SPECIFICATIONS
2. GALVANIZED VINYL COATED TUBING "J" HOOK
3. FLEXIBLE 1/2" RISER ASSEMBLY WITH 1/2" MIPT THREADED ENDS
4. 1/2" SCH 40 FIPT X FIPT FEMALE ADAPTER
5. 1/2" SCH 40 UVR PVC
6. BARK MULCH LAYER ON SLOPE (WITH PRIOR APPROVAL ONLY)
7. PLANT ROOT BALL
8. AMENDED BACKFILL

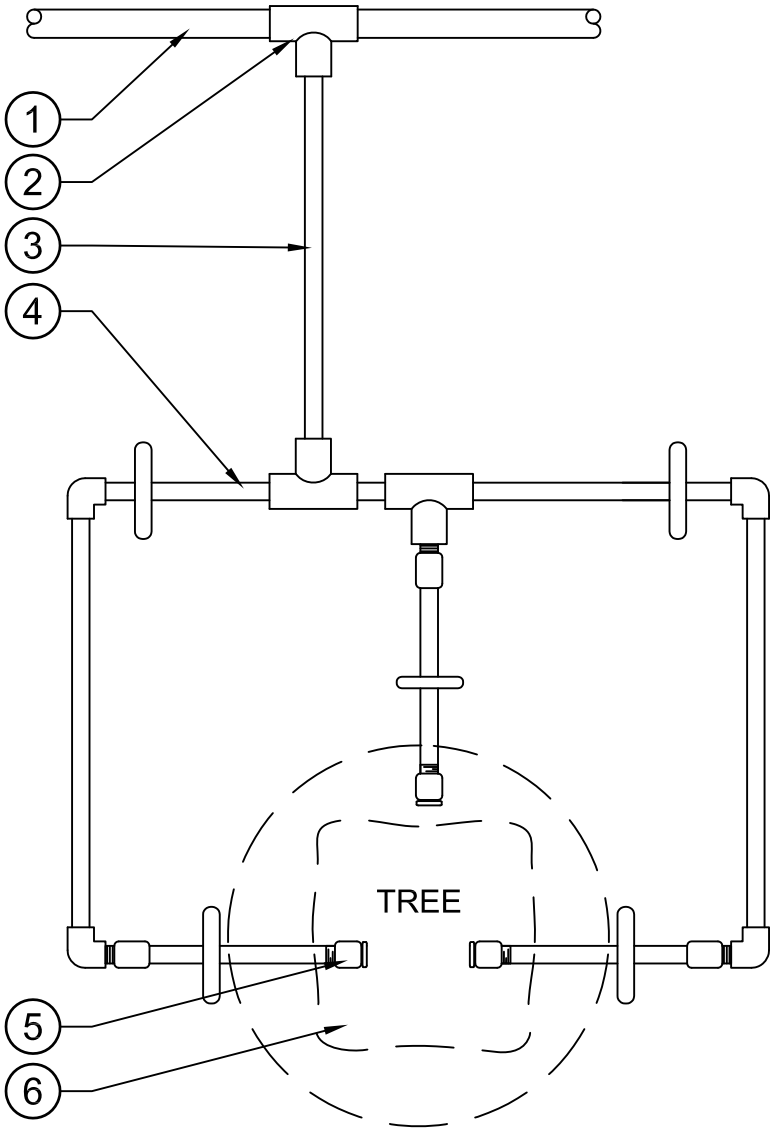
NOTE:

ON GRADE DRIP IRRIGATION MAY ONLY BE DESIGNED AND INSTALLED WITH PRIOR WRITTEN APPROVAL OF RCTD REPRESENTATIVE

INSTALL DRIP EMITTER INSIDE OF PLANT WATERING BASING ADJACENT TO ROOT BALL

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	EMITTER ON FLEXIBLE RISER		
	WITH ON GRADE LATERAL LINE	APPROVED BY: MPH	
STD. I-095	N.T.S.	REV:	

FILE: I-095_EMITTER ON RISER ON GRADE.DWG



NOTE:
ALL TREES SHALL RECEIVE THE NUMBER OF DRIP EMITTERS SHOWN BELOW.

5 AND 15 GALLON TREES - 3 EMITTERS
24" BOX TREES - 4 DRIP EMITTERS
36" BOX TREES - 5 DRIP EMITTERS
48" BOX TREES - 6 DRIP EMITTERS

TREE WITH MORE THAN 3 EMITTERS SHALL USE ASSEMBLIES IN KEEPING WITH THE PVC FITTINGS AND NIPPLES SHOWN ABOVE.

DRIP EMITTERS SHALL BE PLACE DIRECTLY ADJACENT TO TREE ROOTBALL.

ALL IRRIGATION SHALL BE COMPLETELY INSTALLED PRIOR TO PLANTING LAYOUT.

1. SCH 40 PVC UVR LATERAL LINES INSTALLED PARALLEL TO SLOPE FACE
2. SCH 40 UVR S X S X S TEE IN LATERAL LINE
3. 1/2" SCH 40 UVR PVC OR FLEXIBLE PVC INSTALLED PERPENDICULAR TO SLOPE
4. TREE DRIP EMITTER ASSEMBLY TO INCLUDE PVC FITTINGS:
   - 1 1/2" UVR SLIP TEE
   - 1 1/2" UVR SST TEE
   - 2 1/2" UVR SLIP 90 ELLS
   - 2 1/2" UVR ST 90 ELLS
   - 1 SALCO #A-050-12-2MA
   - 2 SALCO #A-050-6-2MA
   - 4 REBAR J-HOOKS
5. DRIP EMITTER MINIMUM 3 PER TREE
6. TREE PLANTING PER PLANTING PLANS

NOTE:

ON GRADE DRIP IRRIGATION MAY ONLY BE DESIGNED AND INSTALLED WITH PRIOR WRITTEN APPROVAL OF RCTD REPRESENTATIVE

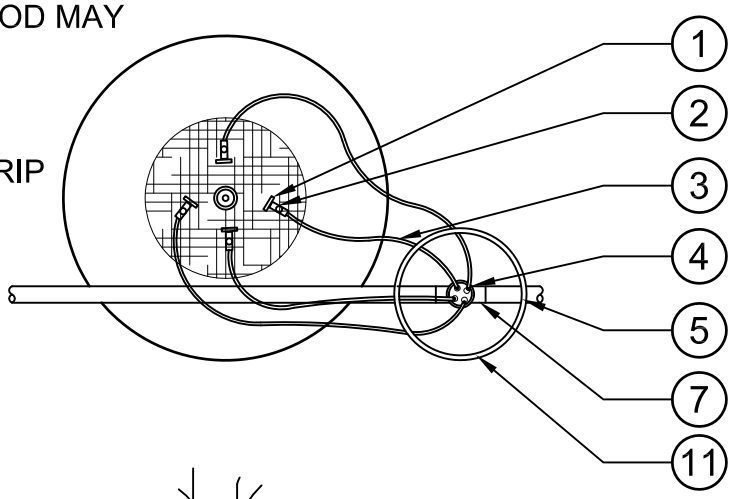
	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	TREE EMITTER ON FLEXIBLE RISER		
	WITH ON GRADE LATERAL LINE	APPROVED BY: MPH	
STD. I-096	N.T.S.	REV:	

FILE: I-096_TREE EMITTER ON GRADE.DWG

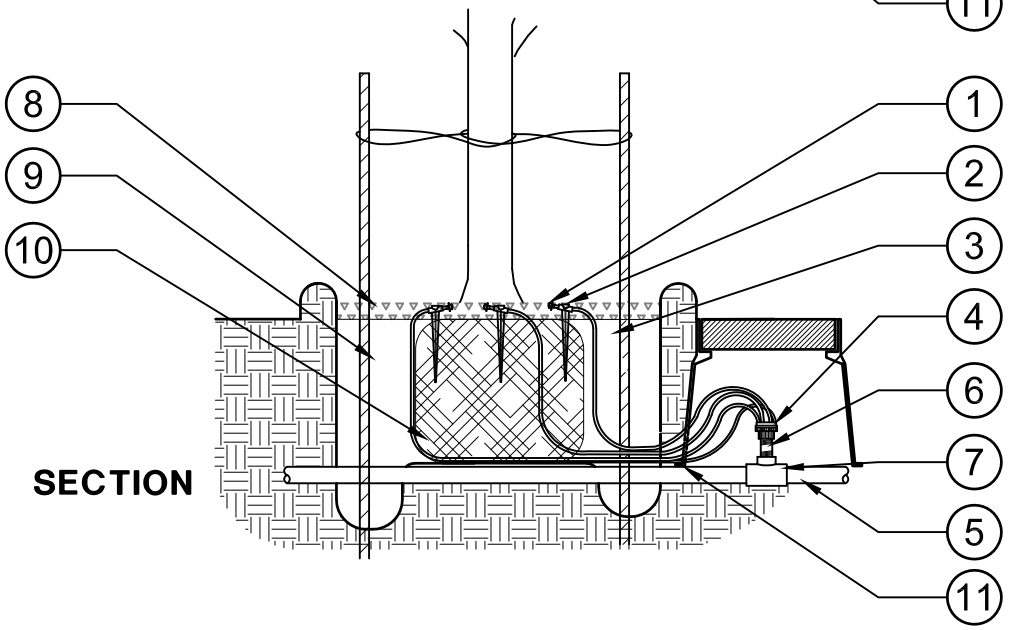
NOTE:
THIS DRIP IRRIGATION METHOD MAY BE USED ONLY WITH PRIOR APPROVAL FROM RCTD

SEE SPECIFICATIONS FOR DRIP EMITTER SCHEDULE

PLAN



SECTION



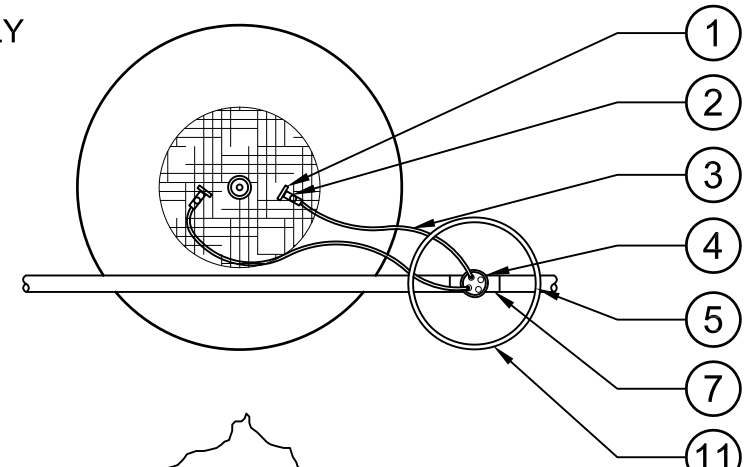
1. DRIP EMITTER (SEE SPECIFICATIONS)
2. 6" GALVANIZED TUBING STAKE (SEE SPECIFICATIONS)
3. 1/4" TUBING (SEE SPECIFICATIONS)
4. PRESSURE COMPENSATING MULTI-OUTLET EMITTER (SEE SPECIFICATIONS)
5. SCH. 40 PVC LATERAL LINE (SEE PLAN FOR SIZE)
6. 1/2" x 2" PVC SCH 80 NIPPLE
7. SCH. 40 PVC 40 TEE IN LATERAL LINE S x S x T (LATERAL SIZE x 1/2" FIPT)
8. FINISH GRADE AND MULCH LAYER
9. PLANTING PIT
10. TREE ROOT BALL
11. 6" ROUND VALVE BOX DO NOT CUT ADDITIONAL HOLES INTO BOX

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	DRIP IRRIGATION TO TREES		
	WITH MULTI-PORT EMITTER	APPROVED BY: MPH	
STD. I-100	1 1/2"=1'-0"	REV:	

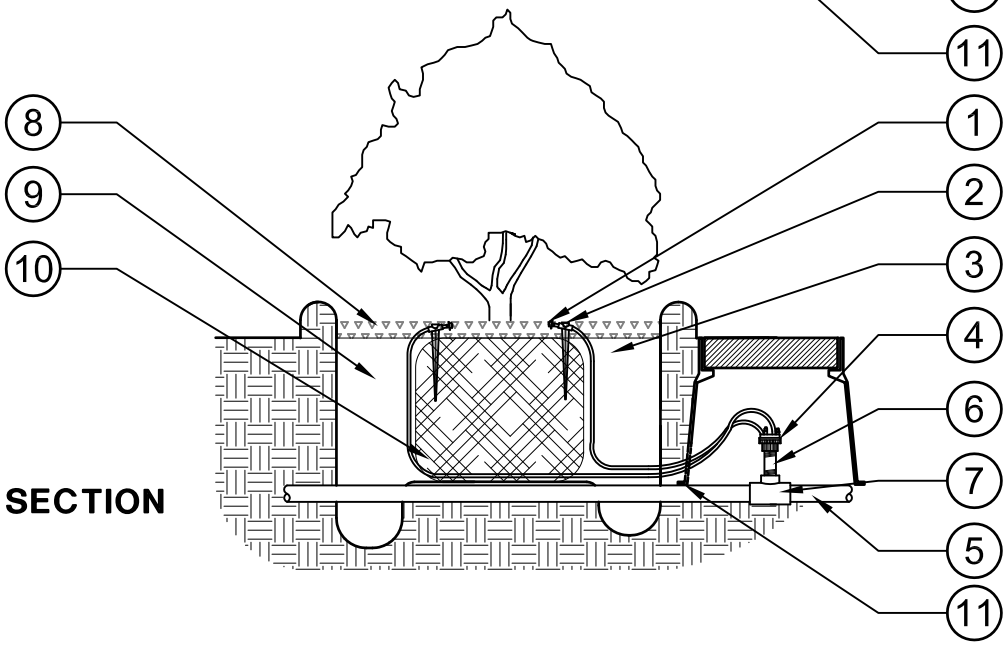
FILE: I-100_DRIP TREE MULTI-PORT.DWG

NOTE:
THIS DRIP IRRIGATION METHOD MAY BE USED ONLY WITH PRIOR APPROVAL FROM RCTD
SEE SPECIFICATIONS FOR EMITTER SCHEDULE

PLAN



SECTION



1. DRIP EMITTER (SEE SPECIFICATIONS)
2. 6" GALVANIZED TUBING STAKE (SEE SPECIFICATIONS)
3. 1/4" TUBING (SEE SPECIFICATIONS)
4. PRESSURE COMPENSATING MULTI-OUTLET EMITTER (SEE SPECIFICATIONS)
5. PVC LATERAL LINE (SEE PLAN FOR SIZE)
6. 1/2" X 2" PVC SCH 80 NIPPLE
7. SCH. 40 PVC 40 TEE IN LATERAL LINE S x S x T (LATERAL SIZE x 1/2" FIPT)
8. FINISH GRADE AND MULCH LAYER
9. PLANTING PIT
10. PLANT ROOT BALL
11. 6" ROUND VALVE BOX DO NOT CUT ADDITIONAL HOLES INTO BOX

	RIVERSIDE COUNTY TLMA: PLANNING AND TRANSPORTATION DEPARTMENTS		DATE: 02-05-13
	DRIP IRRIGATION TO SHRUBS		
	WITH MULTI-PORT EMITTER	APPROVED BY: MPH	
STD. I-101	1 1/2"=1'-0"	REV:	

FILE: I-101_DRIP SHRUB MULTI-PORT.DWG