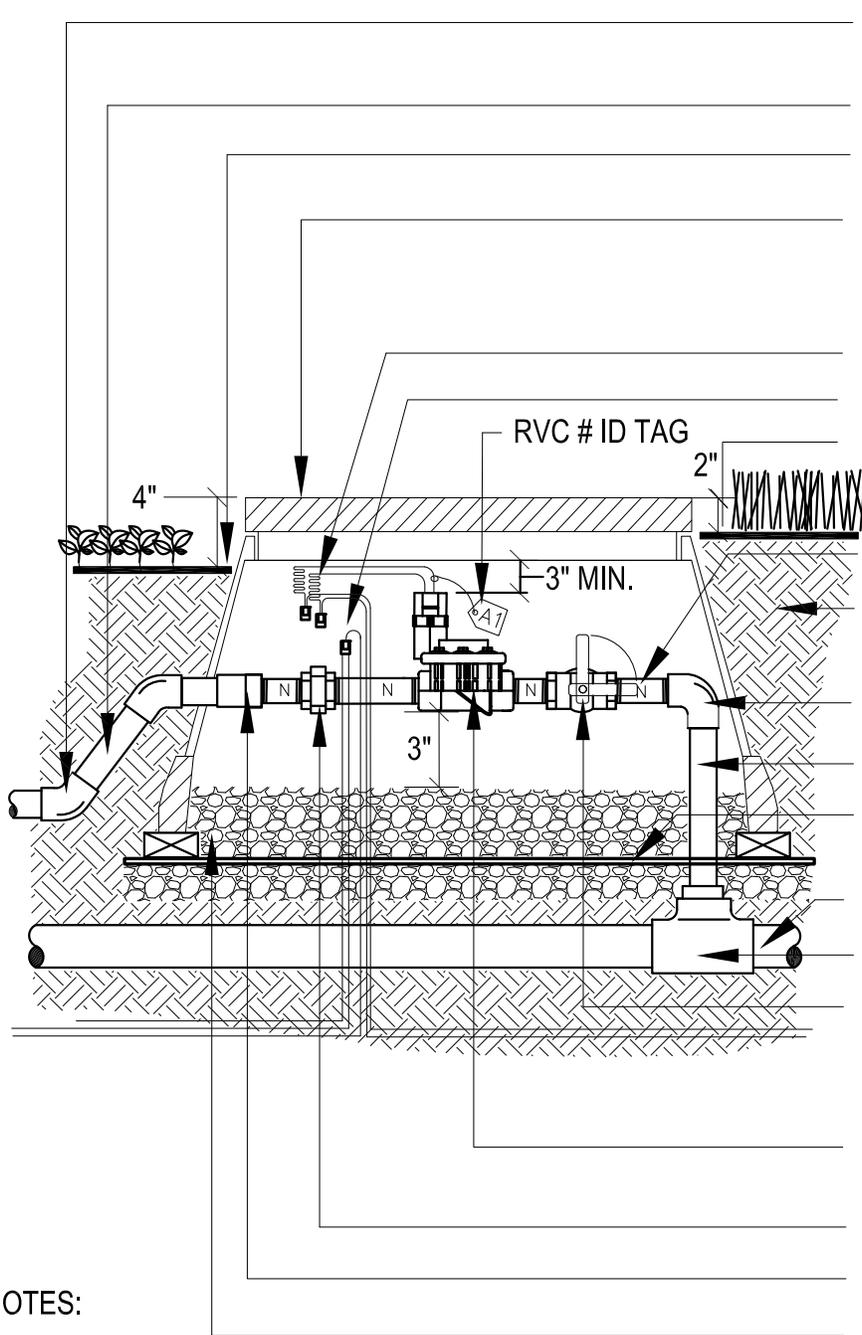




Valley-Wide Recreation & Park District Standard Irrigation Details

Detail No.	Detail Description	Drawing Name
IR-01	Remote Control Valve	IR-001-2012.dwg
IR-02	Drip Remote Control Valve	IR-002-2012.dwg
IR-03	Quick Coupler Valve	IR-003-2012.dwg
IR-04	Brass Ball Valve 2" & Smaller	IR-004-2012.dwg
IR-05	Butterfly Valve 2-1/2" Through 3"	IR-005-2012.dwg
IR-06	Restrained Gate Valve 4" & Over	IR-006-2012.dwg
IR-07	Valve Manifold	IR-007-2012.dwg
IR-08	Valve Box Layout	IR-008-2012.dwg
IR-09	Water Meter 2" and Smaller	IR-009-2012.dwg
IR-10	Backflow Device 2" and Smaller	IR-010-2012.dwg
IR-11	Backflow Device 2-1/2" and Larger	IR-011-2012.dwg
IR-12a	Recycled Water Backflow/Filter	IR-012a-2012.dwg
IR-12b	Potable Water Backflow/Filter	IR-012b-2012.dwg
IR-12c	Auto Filter Without Fertigation	IR-012c-2012.dwg
IR-13	Auto Flush Valve at P.O.C.	IR-013-2012.dwg
IR-14	Booster Pump	IR-014-2012.dwg
IR-15	Master Valve	IR-015-2012.dwg
IR-16	Flow Meter	IR-016-2012.dwg
IR-17	Fertigation Pump and Wiring	IR-017-2012.dwg
IR-18	Fertigation Tank	IR-018-2012.dwg
IR-19	P.O.C. Layout Sequence	IR-019-2012.dwg
IR-20	Irrigation Pedestal Enclosure	IR-020-2012.dwg
IR-21	Irrigation Pedestal Controller	IR-021-2012.dwg
IR-22	Irrigation Indoor Controller	IR-022-2012.dwg
IR-23	Trenching and Sleeving	IR-023-2012.dwg
IR-24	Thrust Block 3" Main & Smaller	IR-024-2012.dwg
IR-25	Mainline Restraints 4" & Larger	IR-025-2012.dwg
IR-26	Street Crossing	IR-026-2012.dwg
IR-27	Pull Box	IR-027-2012.dwg
IR-28	Wire Connectors	IR-028-2012.dwg
IR-29	Recycled Water Sign	IR-029-2012.dwg
IR-30	Point to Point Lateral Layout	IR-030-2012.dwg
IR-31	Emitter Assembly Section View	IR-031-2012.dwg
IR-32	Shrub Emitter Assembly Layout	IR-032-2012.dwg
IR-33	Tree Emitter Assembly Layout	IR-033-2012.dwg
IR-34	Flush Valve Assembly	IR-034-2012.dwg
IR-35	Check Valve & Pressure Reg.	IR-035-2012.dwg
IR-36	Tree Root Watering System	IR-036-2012.dwg
IR-37	Shrub Spray on Grade	IR-037-2012.dwg
IR-38	Shrub Spray on Riser	IR-038-2012.dwg
IR-39	Pop-up Spray Head	IR-039-2012.dwg
IR-40	Shrub Rotor on Grade	IR-040-2012.dwg
IR-41	Pop-up Rotor Head	IR-041-2012.dwg
IR-42	Shrub Rotor on Riser	IR-042-2012.dwg
IR-43	Bench Drain Crossing	IR-043-2012.dwg



- PVC LATERAL USE 45 ELL TO DEPTH PER SPECS.
- LATERAL PIPING PER SPECS.
- GRADE IN PLANTER 4" BELOW BOX
- JUMBO RECTANGULAR VALVE BOX W/ LOCKING SS BOLT
- HEAT BRAND TIMER & STATION #
- CONTROL WIRING PER SPECS.
- EXTRA WIRE PER SPECS.
- GRADE IN TURF 2" BELOW BOX
- SCH 80 NIPPLE TYP. 4X PER VALVE
- NATIVE SOIL COMPACTED TO ORIGINAL DENSITY
- SLIP X FT SCH 80 PVC ELL
- SCH 80 PVC CUT TO LENGTH
- 1/2" GALV. WIRE MESH BELOW BOX OPENING
- MAINLINE PER SPECS.
- SCH 80 MAINLINE FITTING
- VALVE SIZE BRASS BALL VALVE OMIT WHEN USED ON MANIFOLD PER DETAIL IR-07
- REMOTE CONTROL VALVE PER LEGEND & SPECS.
- SCH 80 UNION
- SCH 80 FEMALE ADAPTER
- 3 CU.FT. 3/4" GRAVEL

NOTES:

1. ALL WIRING SHALL BE APPROVED BY THE DISTRICT PRIOR TO BACKFILL
2. TAPE & BUNDLE WIRES @ 10' INTERVALS
3. PROVIDE 24" LONG EXPANSION COILS AT EACH WIRE CONNECTION
4. PROVIDE 3" CLEARANCE BETWEEN VALVE & BOX
5. PROVIDE 4 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
6. USE IRON DUCTILE FITTINGS FOR 4" & LARGER MAINLINE

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

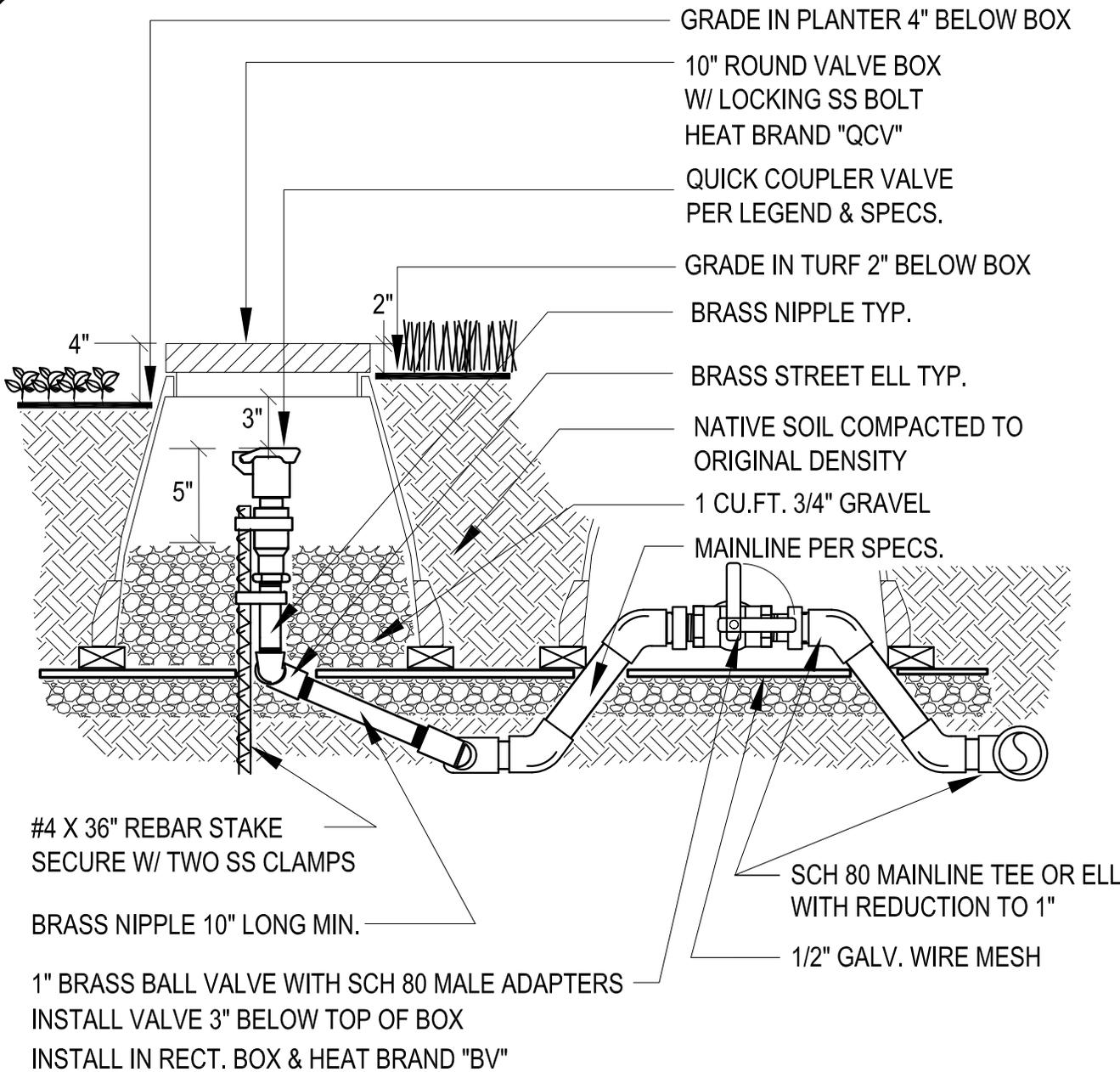


VALLEY-WIDE RECREATION & PARK DISTRICT

REMOTE CONTROL VALVE

IR-01

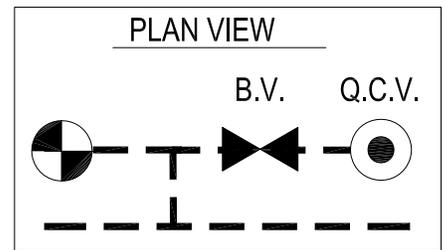
REV. 2012



NOTES:

1. ALL THREADED FITTINGS MUST HAVE 3/4" TEFLON TAPE
2. PROVIDE QUICK COUPLER KEY PER SPECS.
3. USE TWO #4X36" REBAR FOR QCV FOR SPORTS FIELDS
4. PROVIDE 3" CLEARANCE BETWEEN VALVE & BOX
5. PROVIDE 2 EA. CONCRETE BRICKS UNDER VALVE BOX.
6. QUICK COUPLERS VALVES MUST BE 150' APART TYP.

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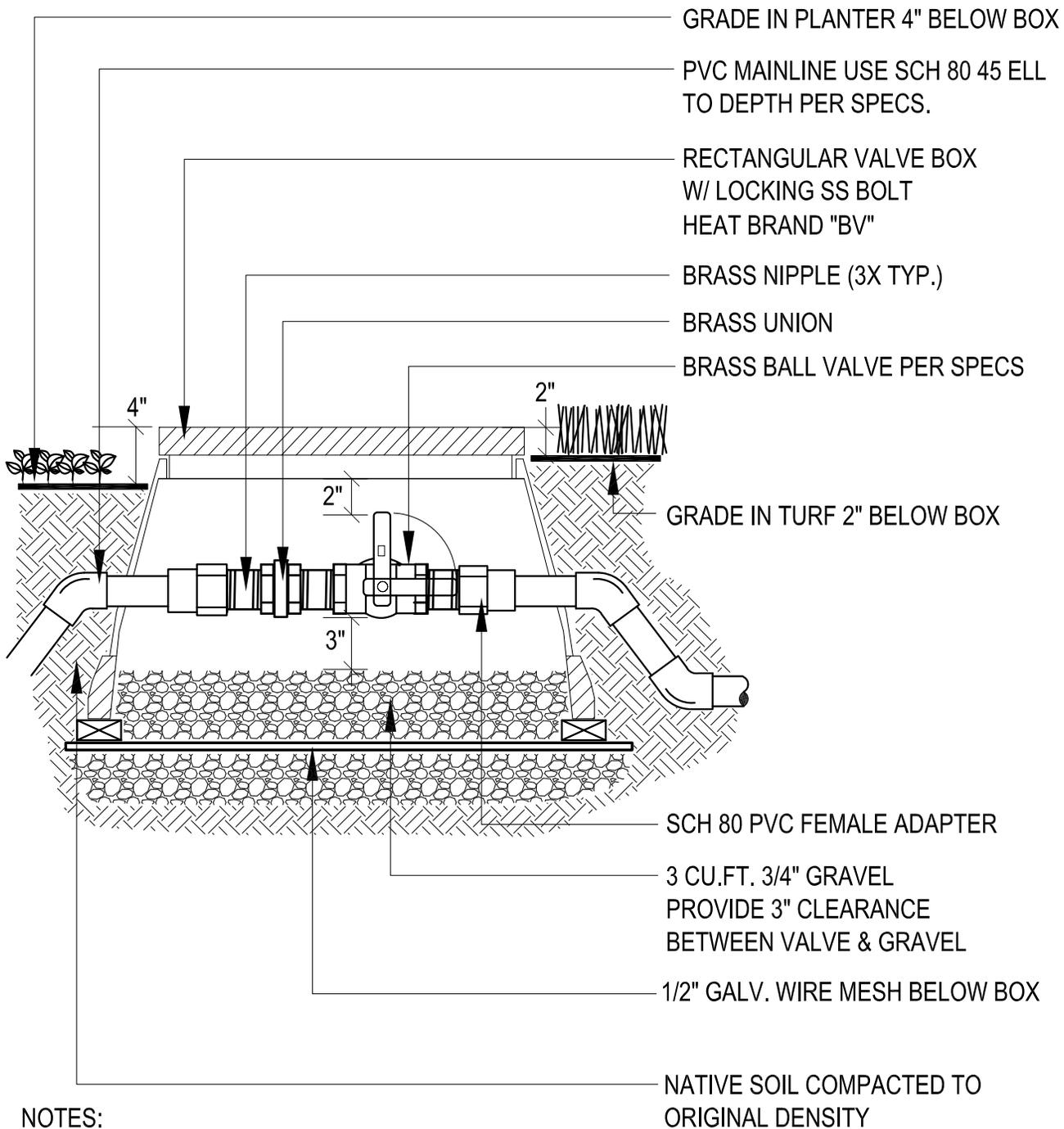


VALLEY-WIDE RECREATION & PARK DISTRICT

QUICK COUPLER VALVE

IR-03

REV. 2012



NOTES:

1. ALL THREADED FITTINGS MUST HAVE 3/4" TEFLON TAPE
2. PROVIDE 2" CLEARANCE BETWEEN VALVE & BOX
3. PROVIDE 4 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
4. PROVIDE 4 EA. SCH 80 45 DEGREE ELLS TO ACHIEVE BALL VALVE HEIGHT PER DETAIL

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

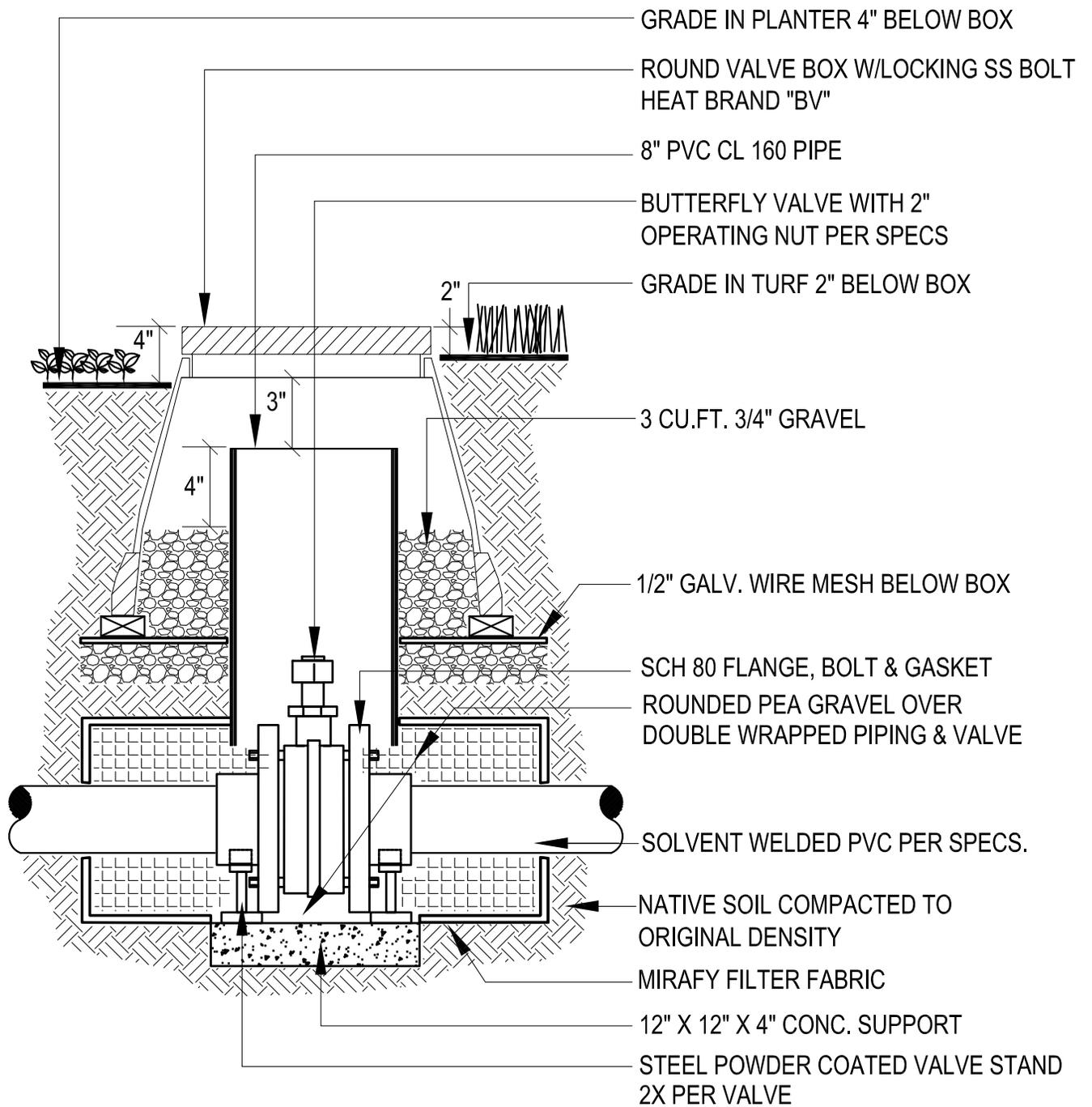


VALLEY-WIDE RECREATION & PARK DISTRICT

BRASS BALL VALVE 2" & SMALLER

IR-04

REV. 2012



NOTES:

1. CONTRACTOR SHALL PROVIDE 5 FOOT TEE WRENCH WITH 2" SQUARE NUT FOR BUTTERFLY VALVE OPERATION
2. PROVIDE 3 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

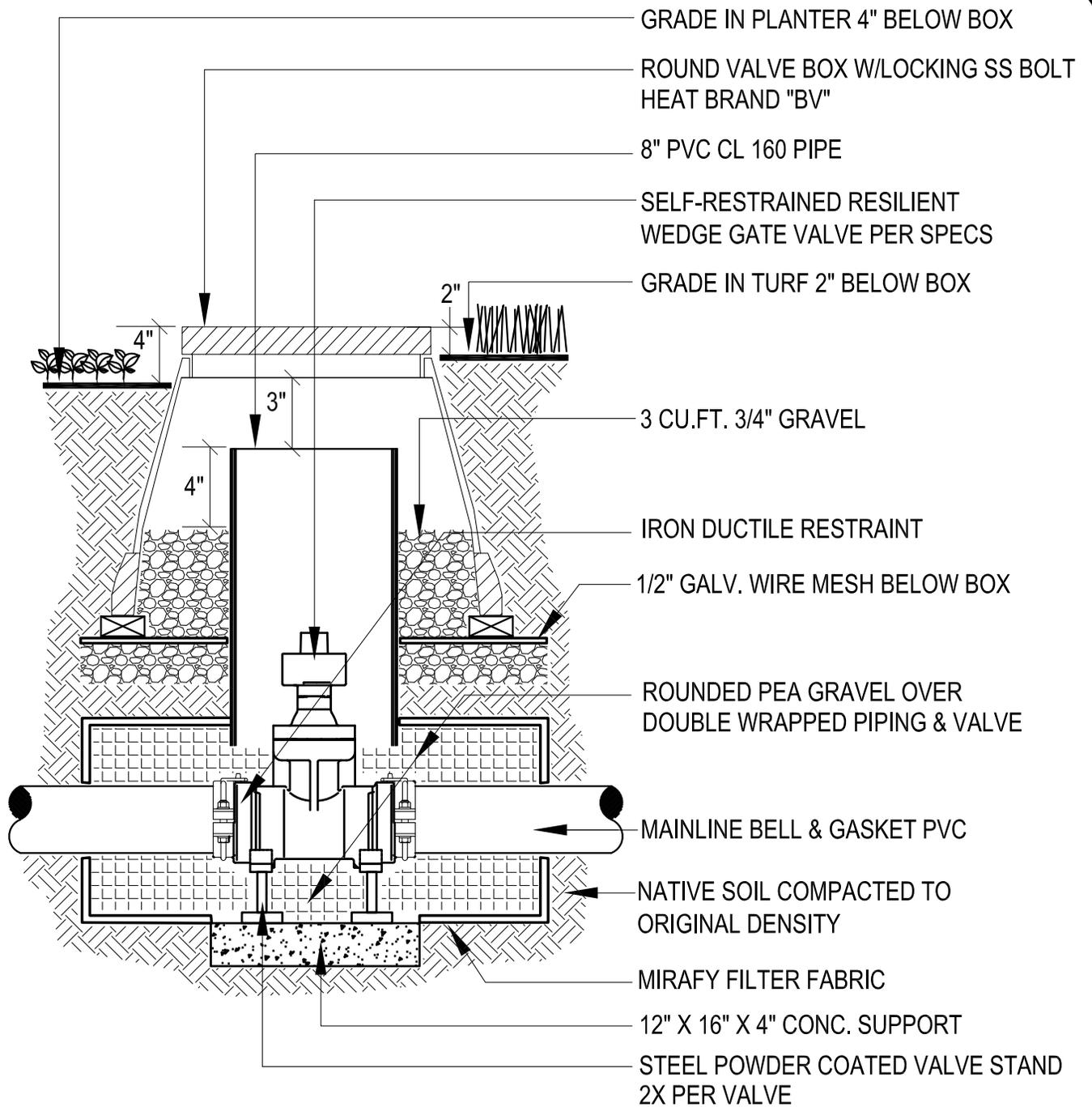


VALLEY-WIDE RECREATION & PARK DISTRICT

BUTTERFLY VALVE 2-1/2" THROUGH 3"

IR-05

REV. 2012



NOTES:

1. CONTRACTOR SHALL PROVIDE 5 FOOT TEE WRENCH WITH 2" SQUARE NUT FOR BUTTERFLY VALVE OPERATION
2. PROVIDE 3 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)

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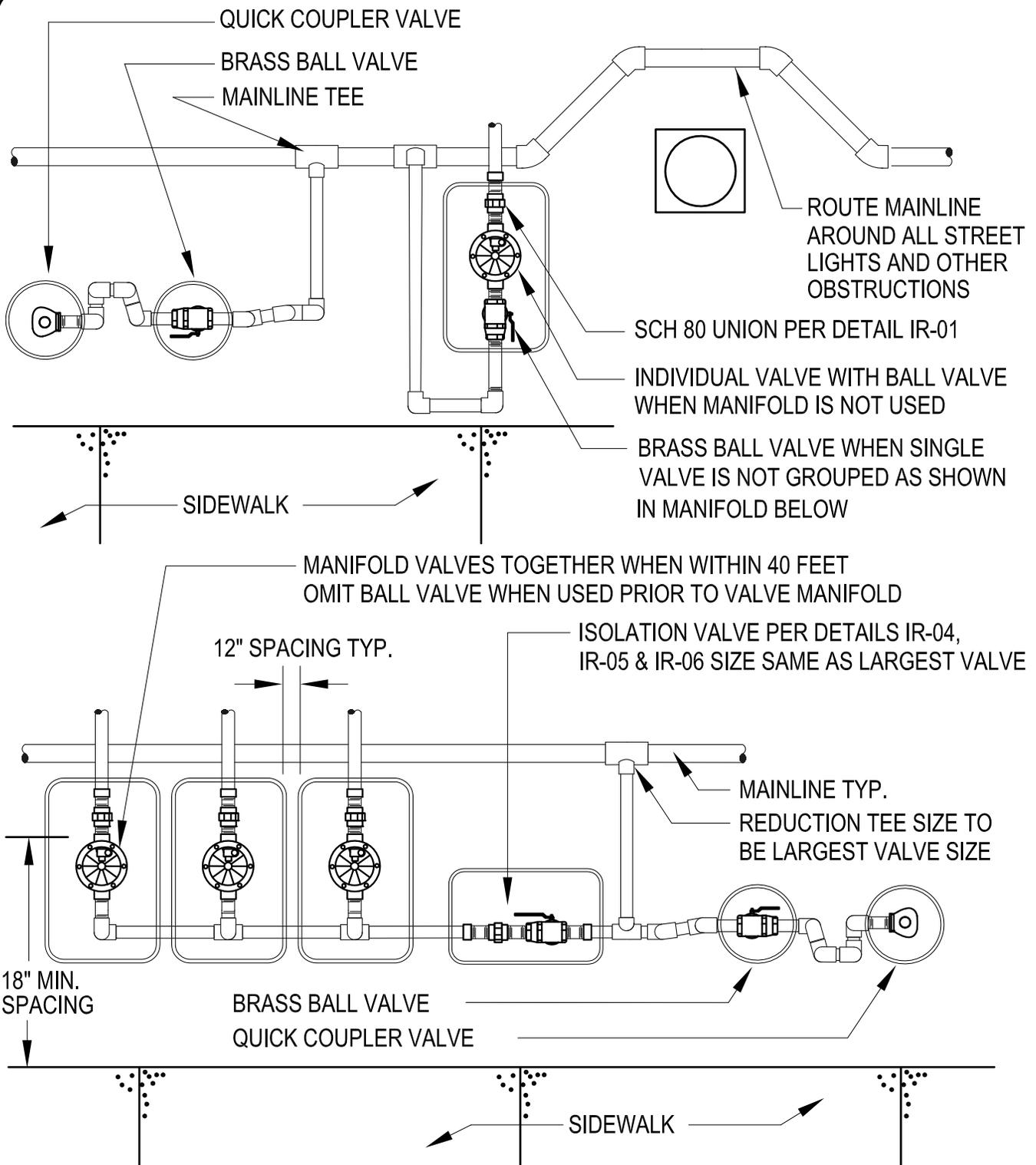


VALLEY-WIDE RECREATION & PARK DISTRICT

RESTRAINED GATE VALVE 4" & OVER

IR-06

REV. 2012



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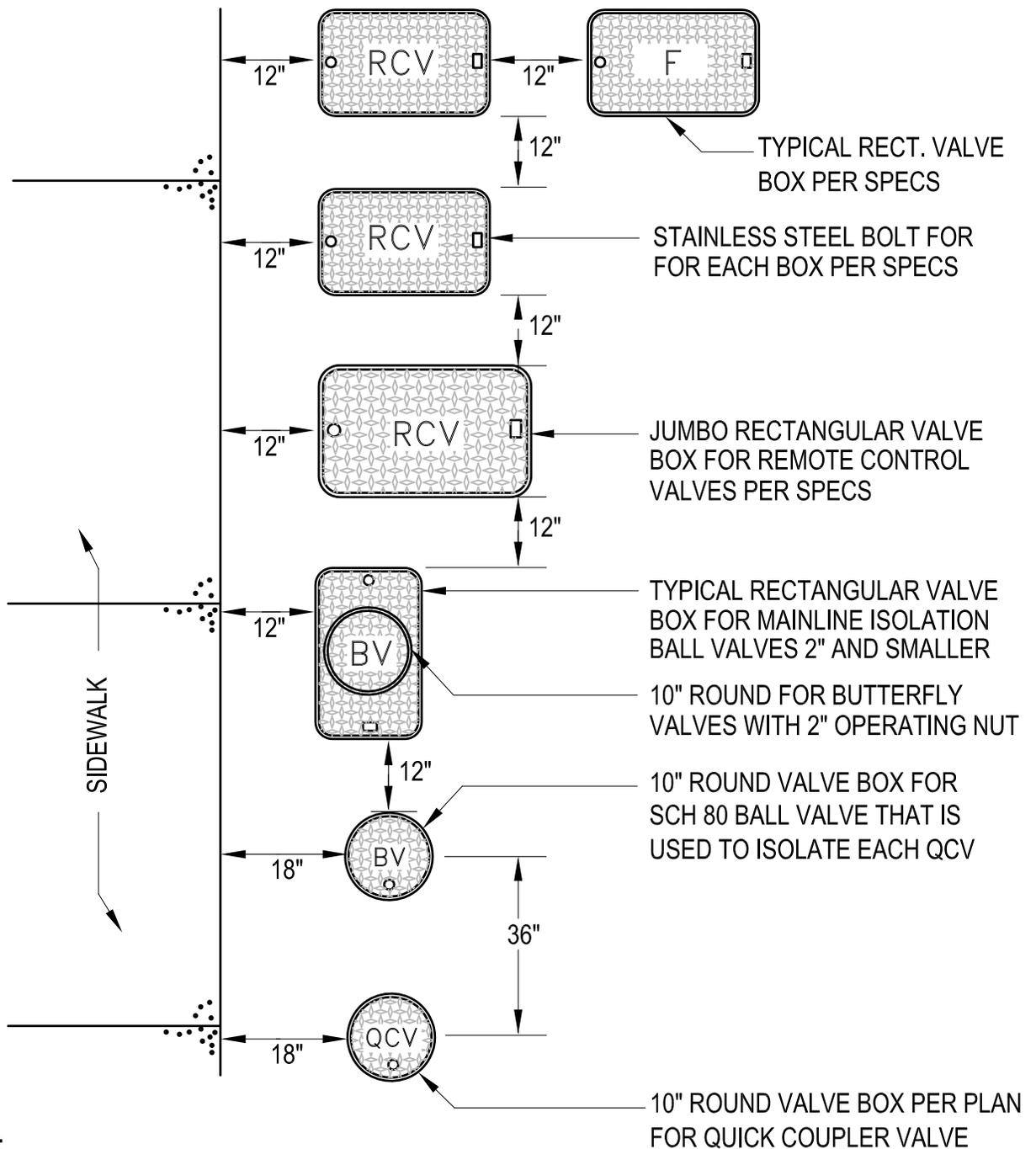


VALLEY-WIDE RECREATION & PARK DISTRICT

VALVE MANIFOLD

IR-07

REV. 2012



NOTES:

1. INSTALL VALVE BOXES IN PLANTER AREAS WHENEVER POSSIBLE
2. ALL VALVE BOXES MUST BE PERPENDICULAR TO SIDEWALKS
3. ALL VALVES MUST BE CENTERED AND INSTALLED PLUMB INSIDE VALVE BOX

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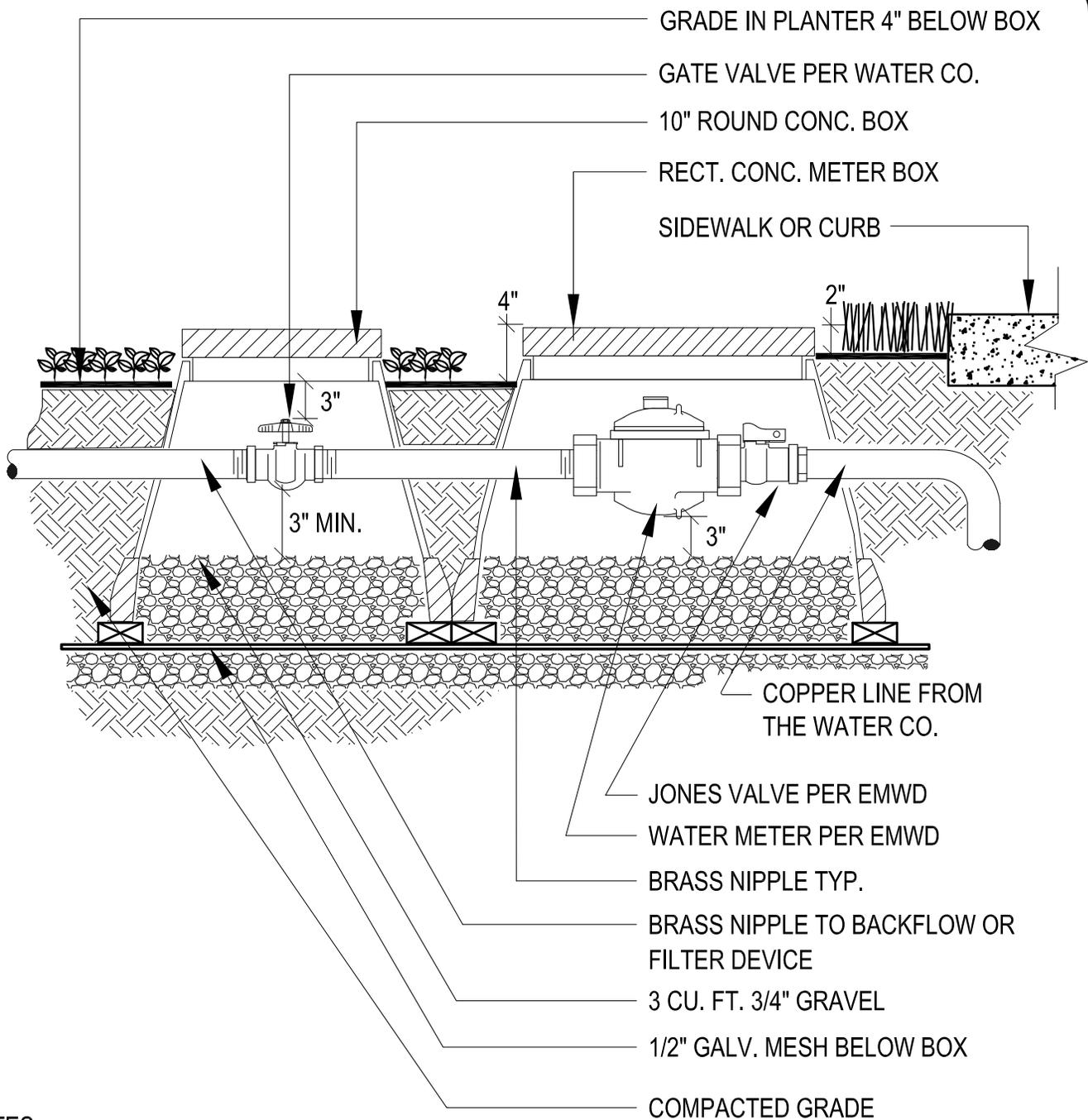


VALLEY-WIDE RECREATION & PARK DISTRICT

VALVE BOX LAYOUT

IR-08

REV. 2012



NOTES:

1. ALL PIPING AND EQUIPMENT UPSTREAM OF WATER METER SHALL BE PER EMWD
2. ALL PIPING, UNIONS AND VALVES MUST BE BRASS PER LOCAL CODE
3. INSTALL CONCRETE VAULTS PER EMWD DETAILS AND SPECS FOR METERS 3" AND LARGER

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

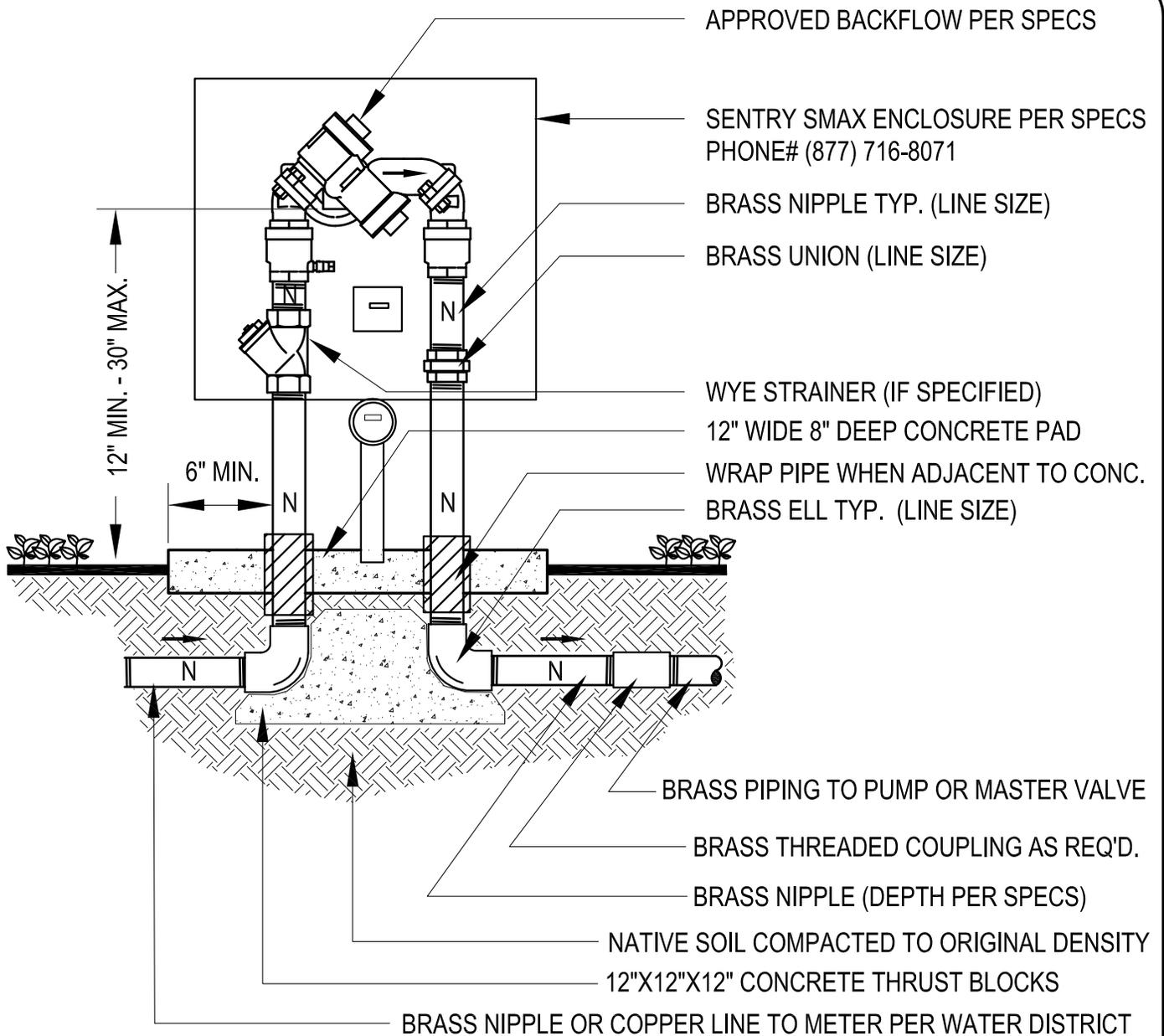


VALLEY-WIDE RECREATION & PARK DISTRICT

WATER METER 2" AND SMALLER

IR-09

REV. 2012



NOTES:

1. INSTALLATION MUST CONFORM TO LOCAL CODES
2. CONTRACTOR MUST PROVIDE BACKFLOW CERTIFICATION
3. LOCATE BACKFLOW IN PLANTER WHERE POSSIBLE
4. WRAP ALL PIPING WHERE CONCRETE OCCURS
5. CONCRETE PAD TO BE 4" ABOVE FINISH GRADE

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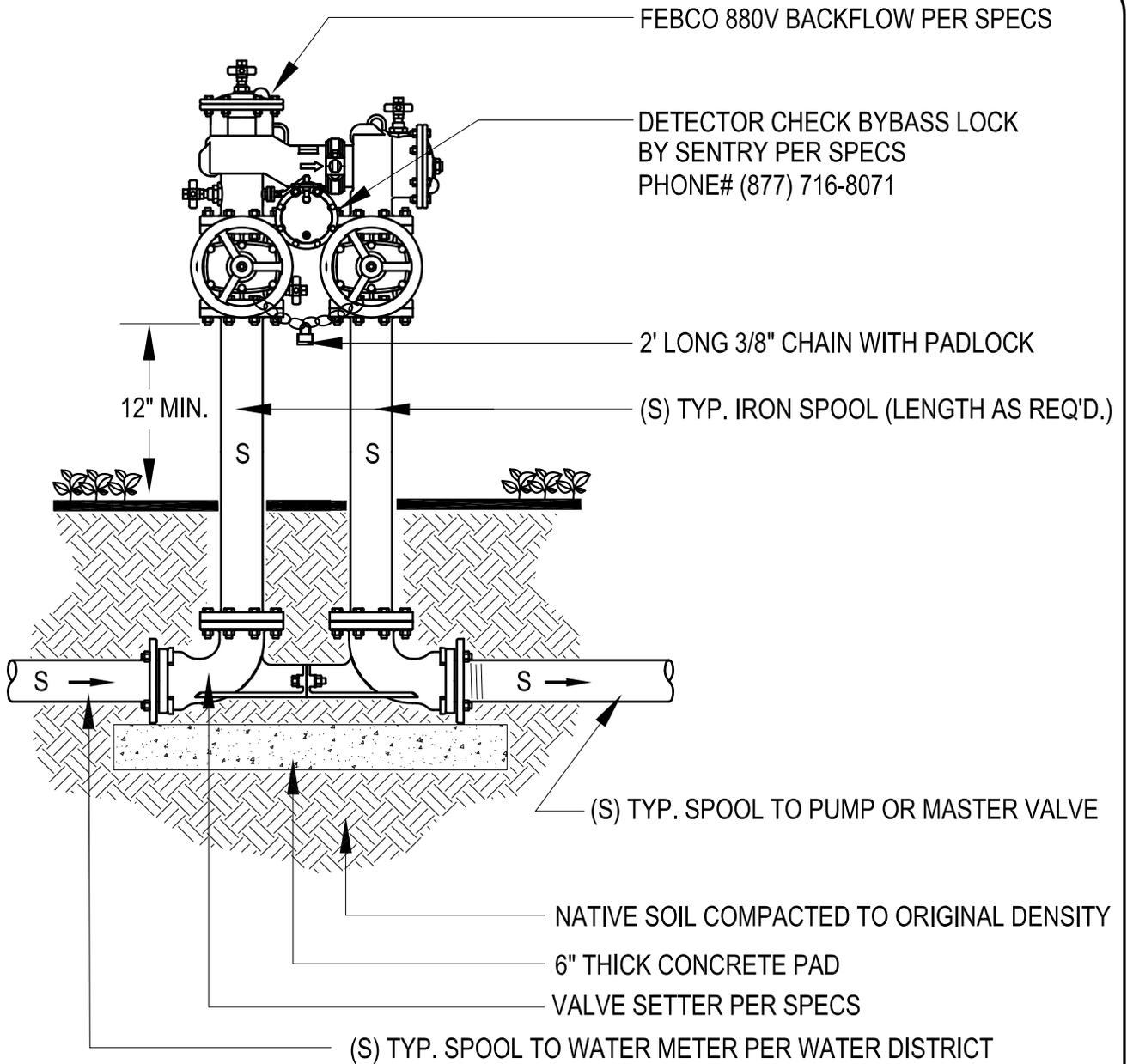


VALLEY-WIDE RECREATION & PARK DISTRICT

BACKFLOW DEVICE 2" AND SMALLER

IR-10

REV. 2012



NOTES:

1. INSTALLATION MUST CONFORM TO LOCAL CODES
2. CONTRACTOR MUST PROVIDE BACKFLOW CERTIFICATION
3. LOCATE BACKFLOW IN PLANTER WHERE POSSIBLE
4. WRAP ALL PIPING WHERE CONCRETE OCCURS
5. WRAP ALL IRON PIPE IN CONTACT WITH SITE SOIL

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

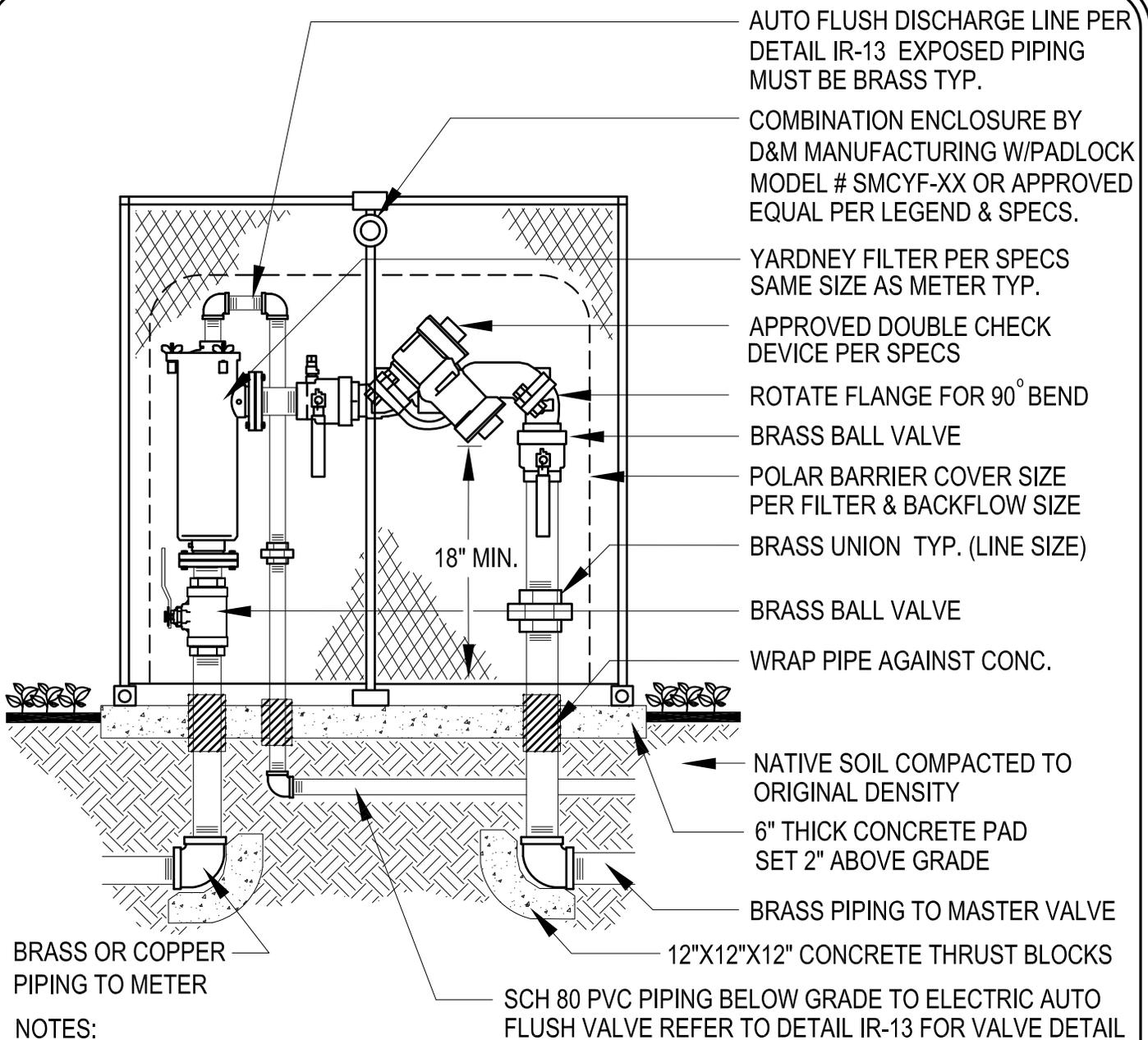


VALLEY-WIDE RECREATION & PARK DISTRICT

BACKFLOW DEVICE 2-1/2" & LARGER

IR-11

REV. 2012



BRASS OR COPPER PIPING TO METER

NOTES:

1. INSTALLATION MUST CONFORM TO LOCAL CODES AND PROVIDE BACKFLOW CERTIFICATION
2. OBTAIN EMWD APPROVAL PRIOR TO INSTALLATION
3. LOCATE BACKFLOW/FILTER IN PLANTER WHERE POSSIBLE
4. WRAP ALL PIPING WHERE CONCRETE OCCURS
5. ALL EXPOSED PIPING FROM FILTER FLUSH LINE SHALL BE BRASS
6. CONTRACTOR MUST PROVIDE BACKFLOW CERTIFICATION PRIOR TO ACCEPTANCE
7. ALL BALL VALVES AND UNIONS MUST BE 4" MIN. ABOVE CONCRETE SLAB

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

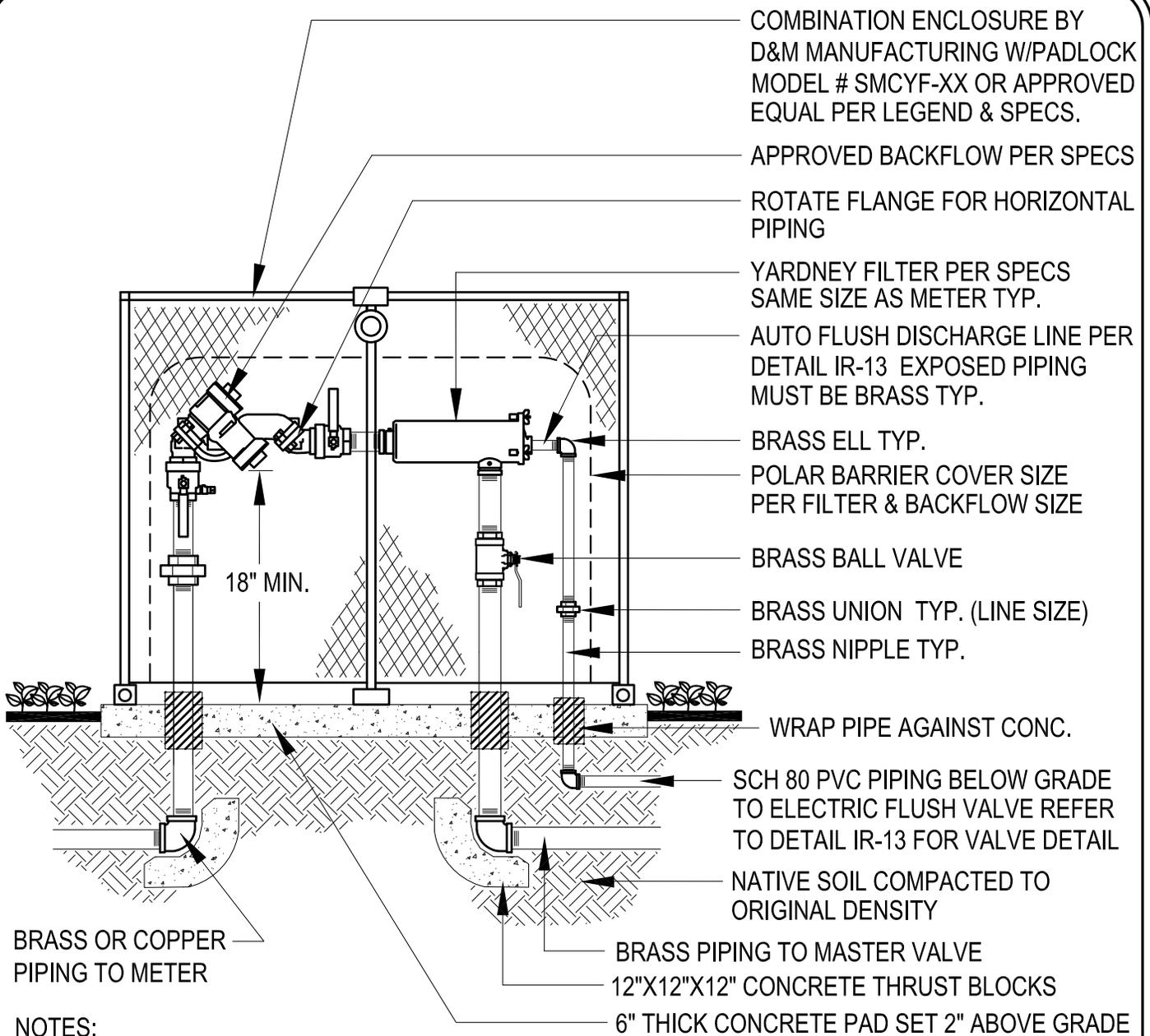


VALLEY-WIDE RECREATION & PARK DISTRICT

RECYCLED WATER BACKFLOW/FILTER

IR-12A

REV. 2012



BRASS OR COPPER
PIPING TO METER

NOTES:

1. INSTALLATION MUST CONFORM TO LOCAL CODES
2. OBTAIN EMWD APPROVAL PRIOR TO INSTALLATION
3. LOCATE FILTER IN PLANTER WHERE POSSIBLE
4. WRAP ALL PIPING WHERE CONCRETE OCCURS
5. ALL EXPOSED PIPING FROM FILTER FLUSH LINE SHALL BE BRASS
6. CONTRACTOR MUST PROVIDE BACKFLOW CERTIFICATION PRIOR TO ACCEPTANCE
7. ALL BALL VALVES AND UNIONS MUST BE 4" MIN. ABOVE CONCRETE SLAB

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

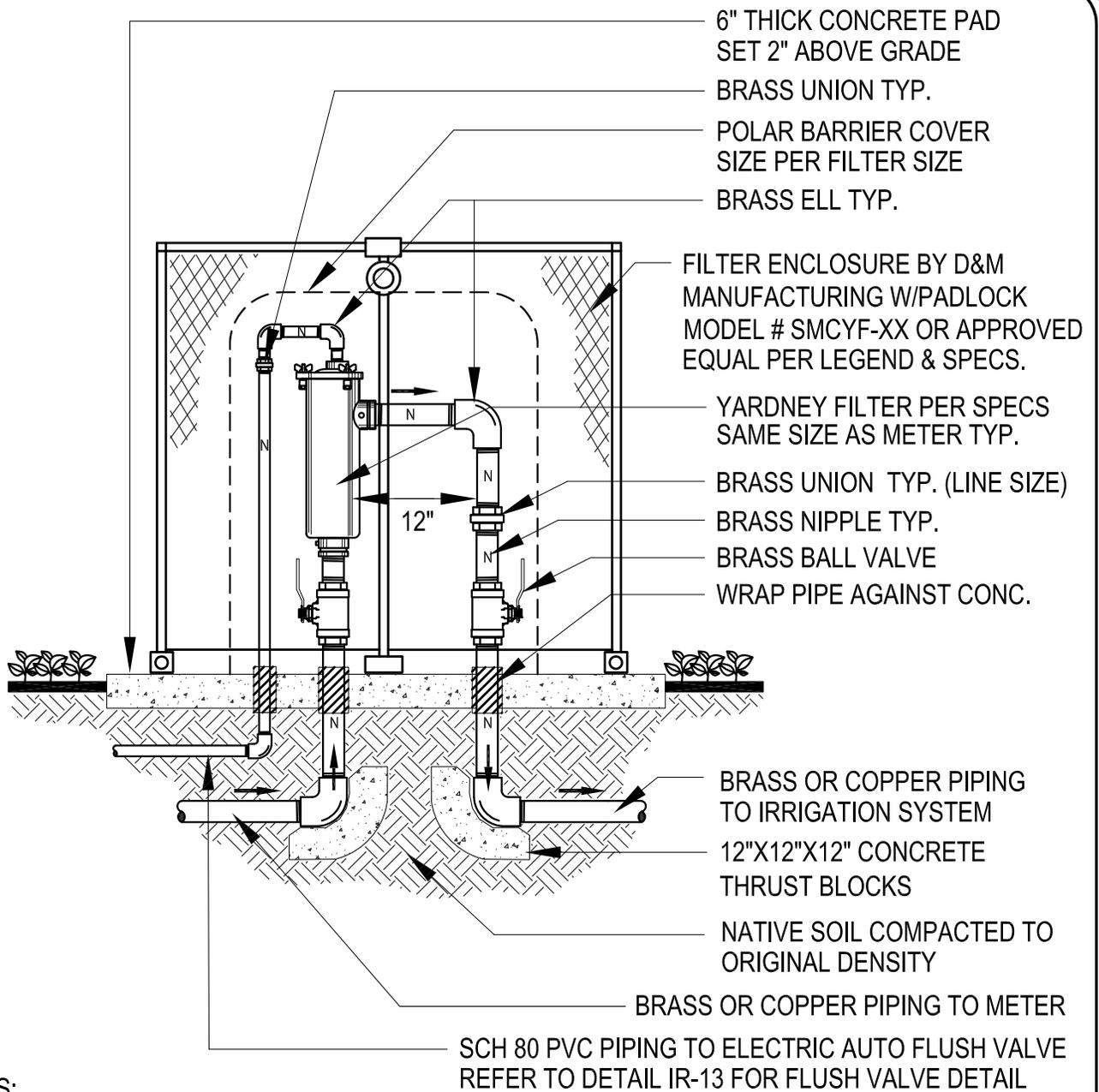


VALLEY-WIDE RECREATION & PARK DISTRICT

POTABLE WATER BACKFLOW/FILTER

IR-12B

REV. 2012



NOTES:

1. INSTALLATION MUST CONFORM TO LOCAL CODES
2. OBTAIN EMWD APPROVAL PRIOR TO INSTALLATION
3. LOCATE FILTER IN PLANTER WHERE POSSIBLE
4. WRAP ALL PIPING WHERE CONCRETE OCCURS
5. ALL EXPOSED PIPING FROM FILTER FLUSH LINE SHALL BE BRASS
6. ALL BALL VALVES AND UNIONS MUST BE 4" MIN. ABOVE CONCRETE SLAB

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

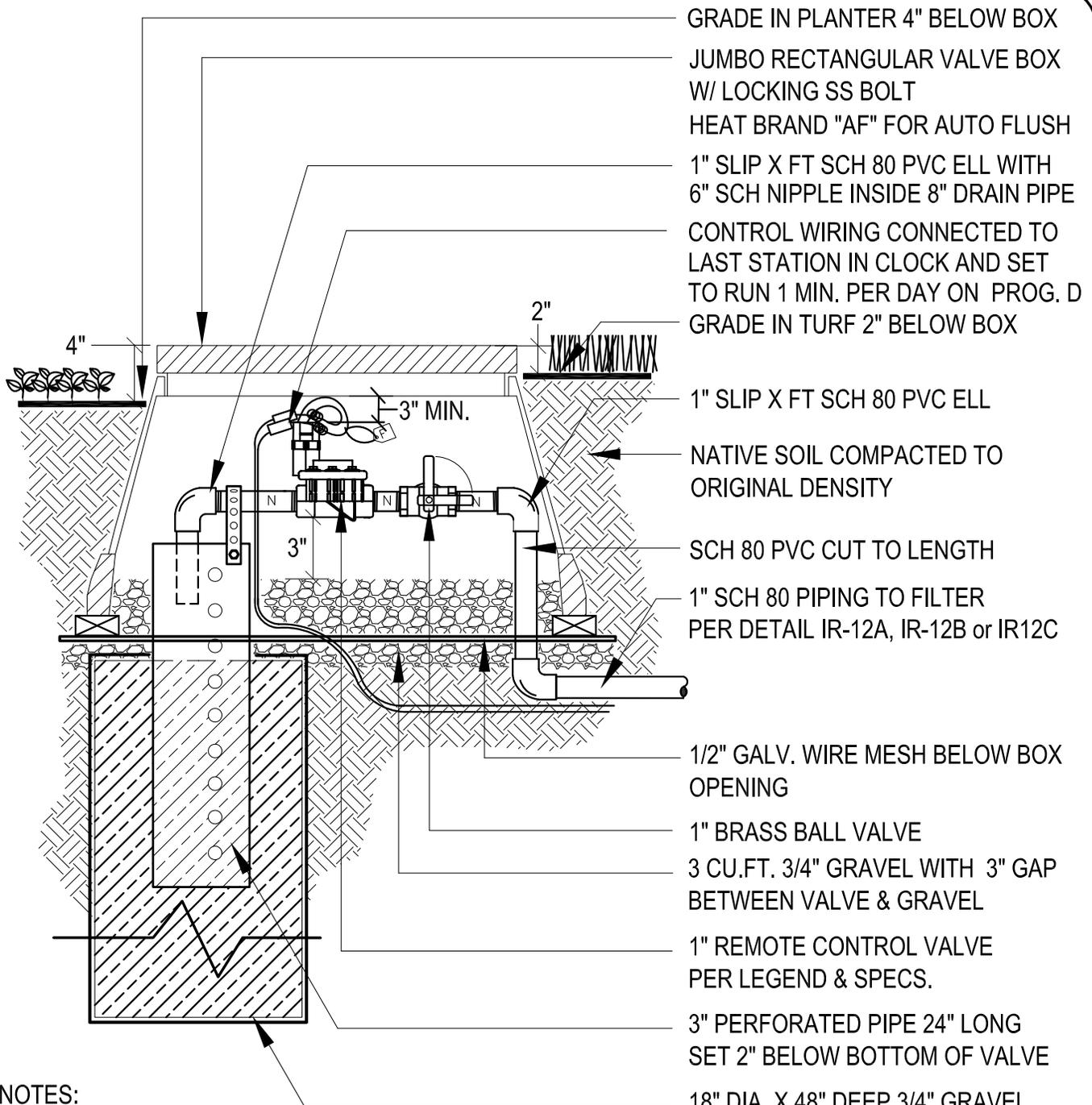


VALLEY-WIDE RECREATION & PARK DISTRICT

AUTO FILTER (WITHOUT FERTIGATION)

IR-12C

REV. 2012



- GRADE IN PLANTER 4" BELOW BOX
- JUMBO RECTANGULAR VALVE BOX W/ LOCKING SS BOLT
- HEAT BRAND "AF" FOR AUTO FLUSH
- 1" SLIP X FT SCH 80 PVC ELL WITH 6" SCH NIPPLE INSIDE 8" DRAIN PIPE
- CONTROL WIRING CONNECTED TO LAST STATION IN CLOCK AND SET TO RUN 1 MIN. PER DAY ON PROG. D
- GRADE IN TURF 2" BELOW BOX
- 1" SLIP X FT SCH 80 PVC ELL
- NATIVE SOIL COMPACTED TO ORIGINAL DENSITY
- SCH 80 PVC CUT TO LENGTH
- 1" SCH 80 PIPING TO FILTER PER DETAIL IR-12A, IR-12B or IR12C
- 1/2" GALV. WIRE MESH BELOW BOX OPENING
- 1" BRASS BALL VALVE
- 3 CU.FT. 3/4" GRAVEL WITH 3" GAP BETWEEN VALVE & GRAVEL
- 1" REMOTE CONTROL VALVE PER LEGEND & SPECS.
- 3" PERFORATED PIPE 24" LONG SET 2" BELOW BOTTOM OF VALVE
- 18" DIA. X 48" DEEP 3/4" GRAVEL SUMP WRAPPED WITH 140N MIRAFY

NOTES:

1. TAPE & BUNDLE WIRES @ 10' INTERVALS
2. PROVIDE 24" LONG EXPANSION COILS AT EACH WIRE CONNECTION
3. PROVIDE 3" CLEARANCE BETWEEN VALVE & BOX
4. PROVIDE 4 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
5. SECURE END OF FLUSH LINE PIPING TO 8" DRAIN PIPE WITH PLUMBER'S TAPE

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

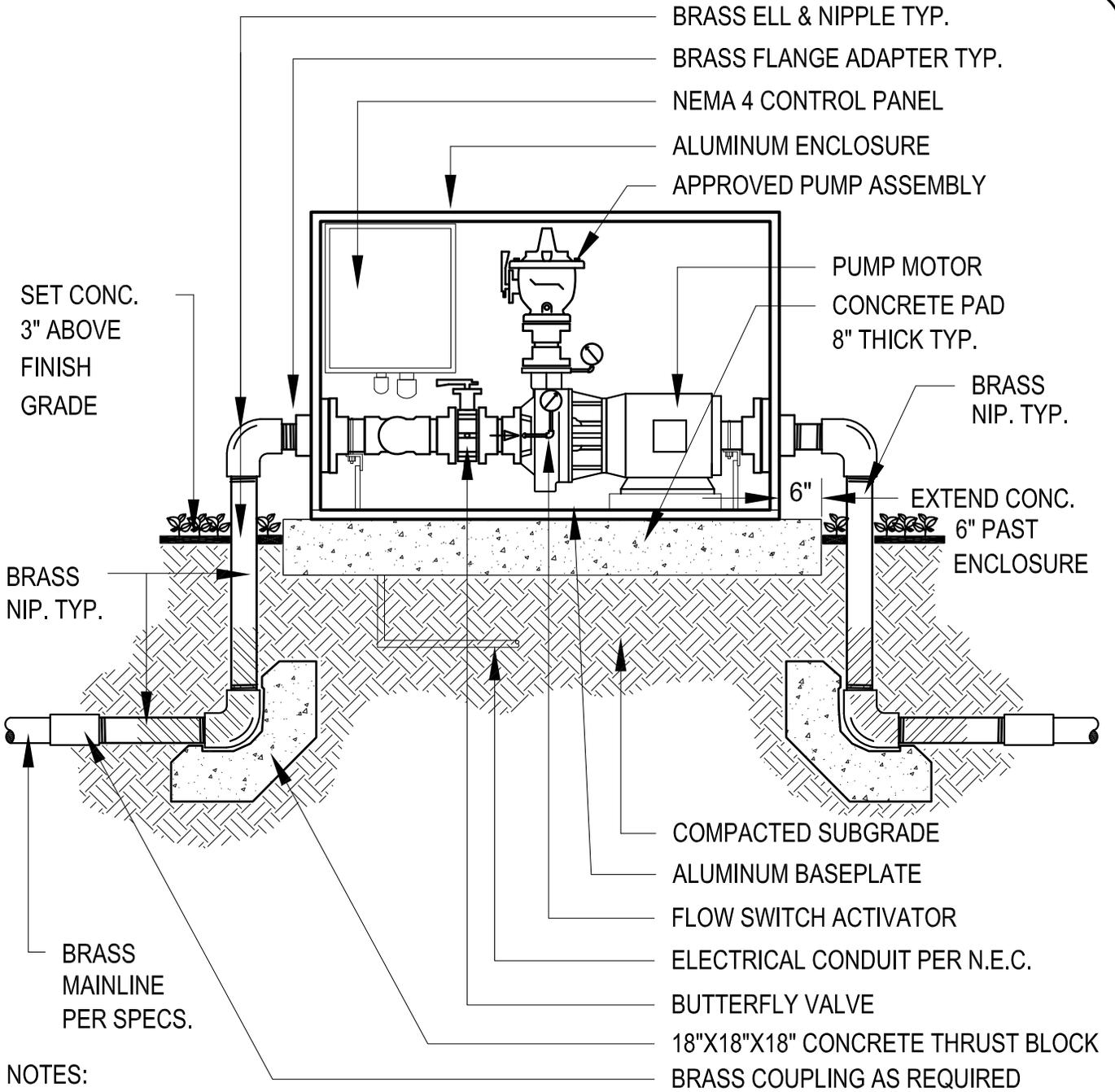


VALLEY-WIDE RECREATION & PARK DISTRICT

AUTO FLUSH VALVE AT P.O.C.

IR-13

REV. 2012



NOTES:

1. BOOSTER PUMP SHALL BE PRE-ASSEMBLED BY BARRETT ENGINEERED PUMPS
2. ALL PIPING OVER 4" SHALL BE FLANGED
3. WRAP ALL PIPING WHERE CONCRETE OCCURS
4. REFER TO PLANS FOR PROJECT SPECIFIC MODEL NUMBERS AND NOTES
5. INSTALL FERTIGATION WIRING, PUMP AND CONTROLS PER DETAILS IR-17 & 18 AND FERTIGATION MANUFACTURER REQUIREMENTS

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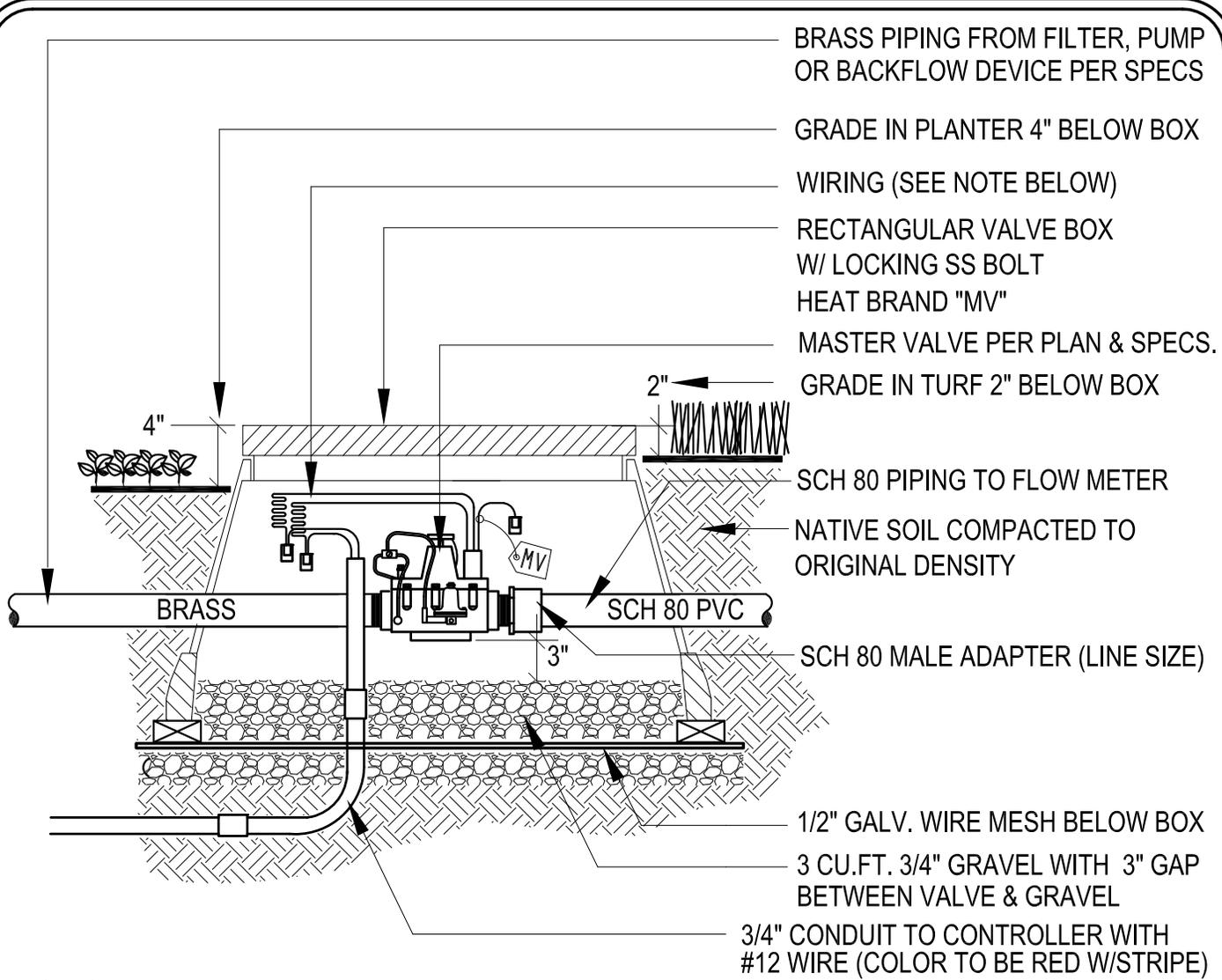


VALLEY-WIDE RECREATION & PARK DISTRICT

BOOSTER PUMP

IR-14

REV. 2012

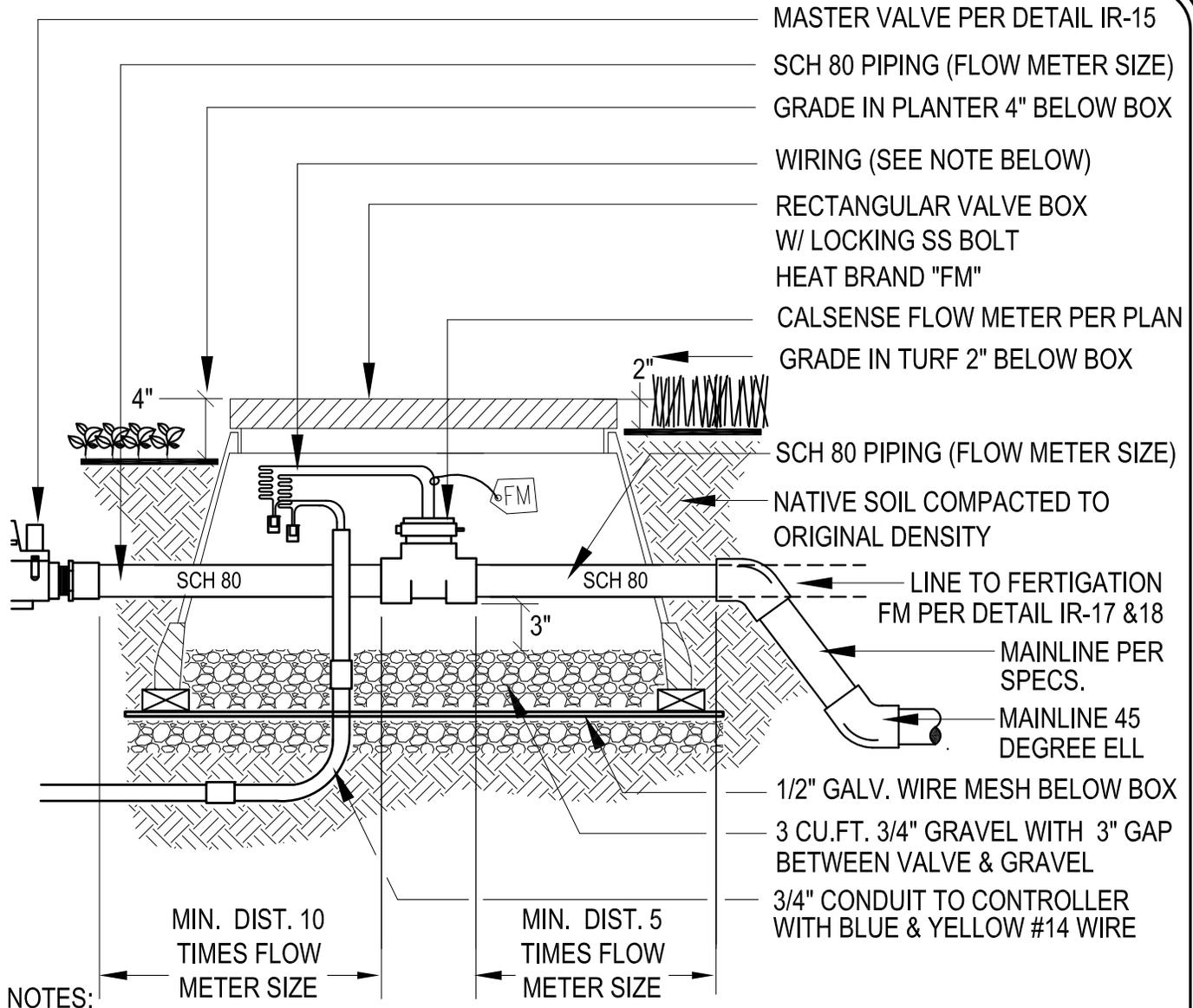


NOTES:

1. ALL WIRING SHALL BE APPROVED BY THE DISTRICT PRIOR TO BACKFILL
2. PROVIDE 24" LONG EXPANSION COILS AT EACH WIRE CONNECTION
3. PROVIDE 4 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
4. USE IRON DUCTILE FITTINGS FOR 4" & LARGER MAINLINE
5. PROVIDE SEPARATE MASTER VALVE AND FLOW METER WHEN AN ADDITIONAL CONTROLLER IS SPECIFIED OR USE SINGLE MASTER VALVE AND FLOW METER WHEN THE "FL" OPTION IS USED FOR MULTIPLE CONTROLLERS AS APPROVED BY THE DISTRICT AND CALSENSE
6. NEVER CONNECT SINGLE MASTER VALVES AND FLOW METERS TO BOTH CONTROLLERS
7. PROVIDE BRASS PIPING IN LIEU OF SCH 80 PVC WHEN BRASS FLOW METER IS SPECIFIED
8. SEAL WIRE CONNECTORS AND CONDUIT OPENING WITH HARDENING SEALANT PER SPECS.
9. FLOW METERS 3" AND LARGER SHALL BE FLANGED. PROVIDE SPOOLS AND ADAPTERS AS REQ'D.
10. MASTER VALVE SHALL BE STAINLESS STEEL W/PRESSURE REDUCING AND SURGE RELIEF OPTIONS

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

	VALLEY-WIDE RECREATION & PARK DISTRICT	
	MASTER CONTROL VALVE	
	IR-15	REV. 2012



NOTES:

1. ALL WIRING SHALL BE APPROVED BY THE DISTRICT PRIOR TO BACKFILL
2. PROVIDE 24" LONG EXPANSION COILS AT EACH WIRE CONNECTION
3. PROVIDE 4 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
4. USE IRON DUCTILE FITTINGS FOR 4" & LARGER MAINLINE
5. PROVIDE SEPARATE MASTER VALVE AND FLOW METER WHEN AN ADDITIONAL CONTROLLER IS SPECIFIED OR USE SINGLE MASTER VALVE AND FLOW METER WHEN THE "FL" OPTION IS USED FOR MULTIPLE CONTROLLERS AS APPROVED BY THE DISTRICT AND CALSENSE
6. NEVER CONNECT SINGLE MASTER VALVES AND FLOW METERS TO BOTH CONTROLLERS
7. PROVIDE BRASS PIPING IN LIEU OF SCH 80 PVC WHEN BRASS FLOW METER IS SPECIFIED
8. SEAL WIRE CONNECTORS AND CONDUIT OPENING WITH HARDENING SEALANT PER SPECS.
9. PIPING AFTER FLOW METER CAN RUN DIRECTLY TO FERTIGATION FLOW METER WHEN USED

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

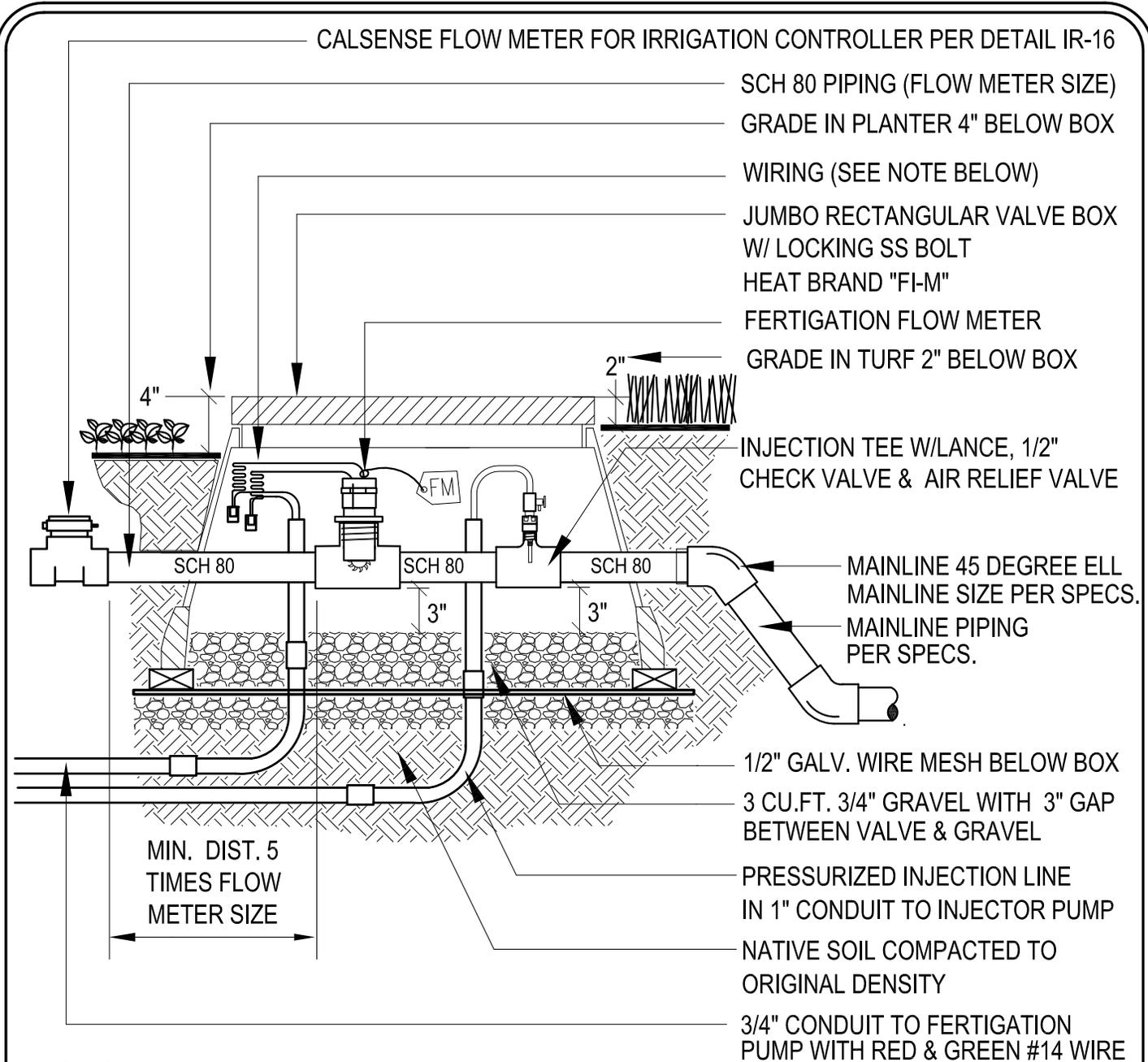


VALLEY-WIDE RECREATION & PARK DISTRICT

FLOW METER

IR-16

REV. 2012



NOTES:

1. PROVIDE 4 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
2. CONTRACTOR SHALL PROVIDE FERTIGATION CERTIFICATION FROM MANUFACTURER
3. FERTIGATION PUMP & PANEL SHALL BE INSTALLED IN BOOSTER PUMP ENCLOSURE WHEN USED
4. PROVIDE WIRING FROM FERTIGATION CONTROL IRRIGATION CONTROLLER IN 3/4" CONDUIT
5. REFER TO MANUFACTURER'S DETAILS AND SPECIFICATIONS FOR WIRING DIAGRAM
6. PROVIDE SEPARATE 15 AMP BREAKER AND INSTALL POWER TO PUMP PER LOCAL CODE

LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)

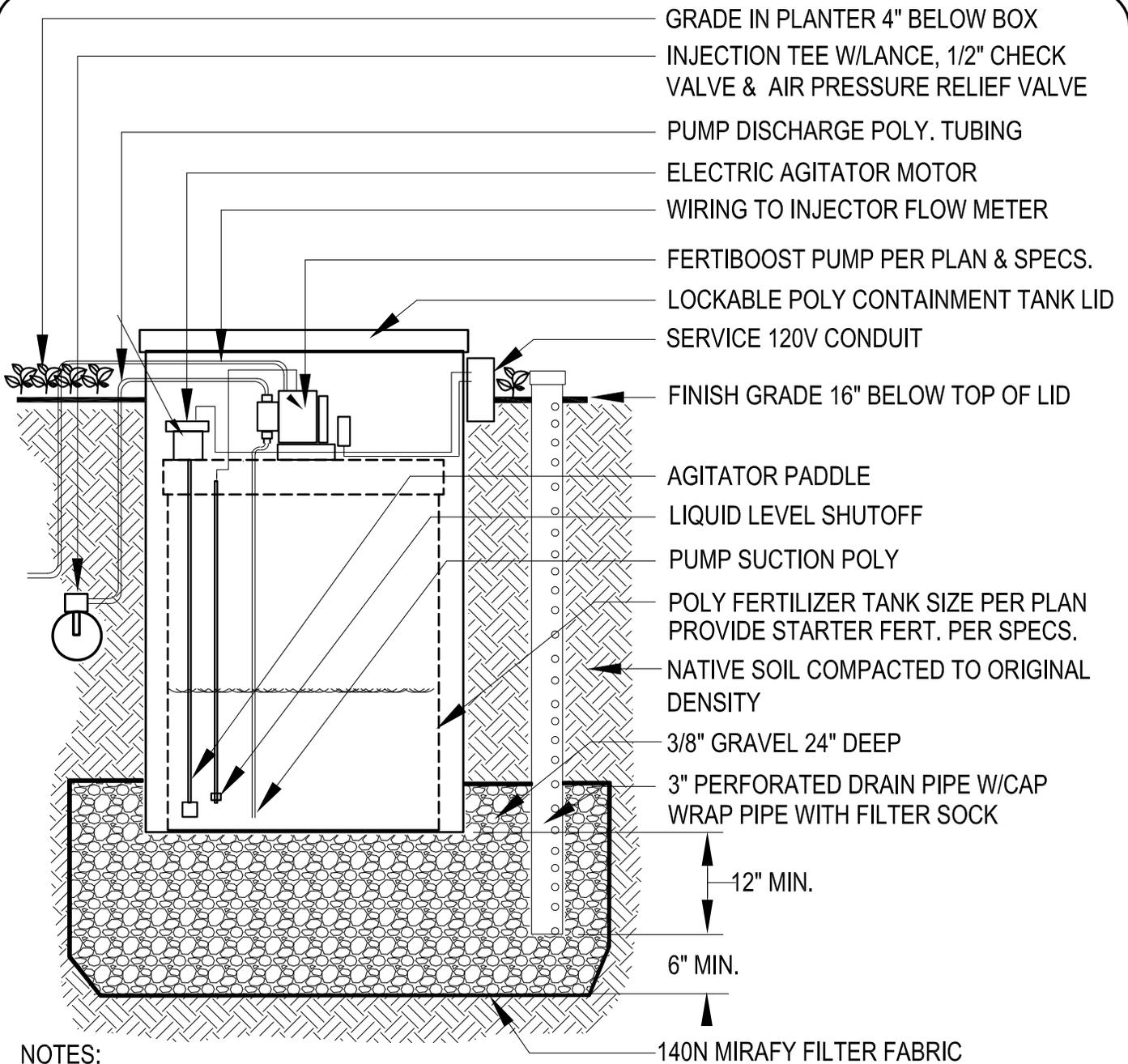


VALLEY-WIDE RECREATION & PARK DISTRICT

FERTIGATION PUMP AND WIRING

IR-17

REV. 2012



NOTES:

1. ALL POLY TUBING, 12V & 120V WIRING SHALL BE INSTALLED IN 3/4" MIN. SIZE CONDUIT
2. CONTRACTOR SHALL INSTALL PROVIDE FERTIGATION CERTIFICATION FROM MANUFACTURER
3. FERTIGATION PUMP & PANEL SHALL BE INSTALLED IN BOOSTER PUMP ENCLOSURE WHEN USED
4. PROVIDE WIRING FROM FERTIGATION CONTROL IRRIGATION CONTROLLER IN 3/4" CONDUIT
5. REFER TO MANUFACTURER'S DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
6. PROVIDE SEPARATE 15 AMP BREAKER AND INSTALL POWER TO PUMP PER LOCAL CODE

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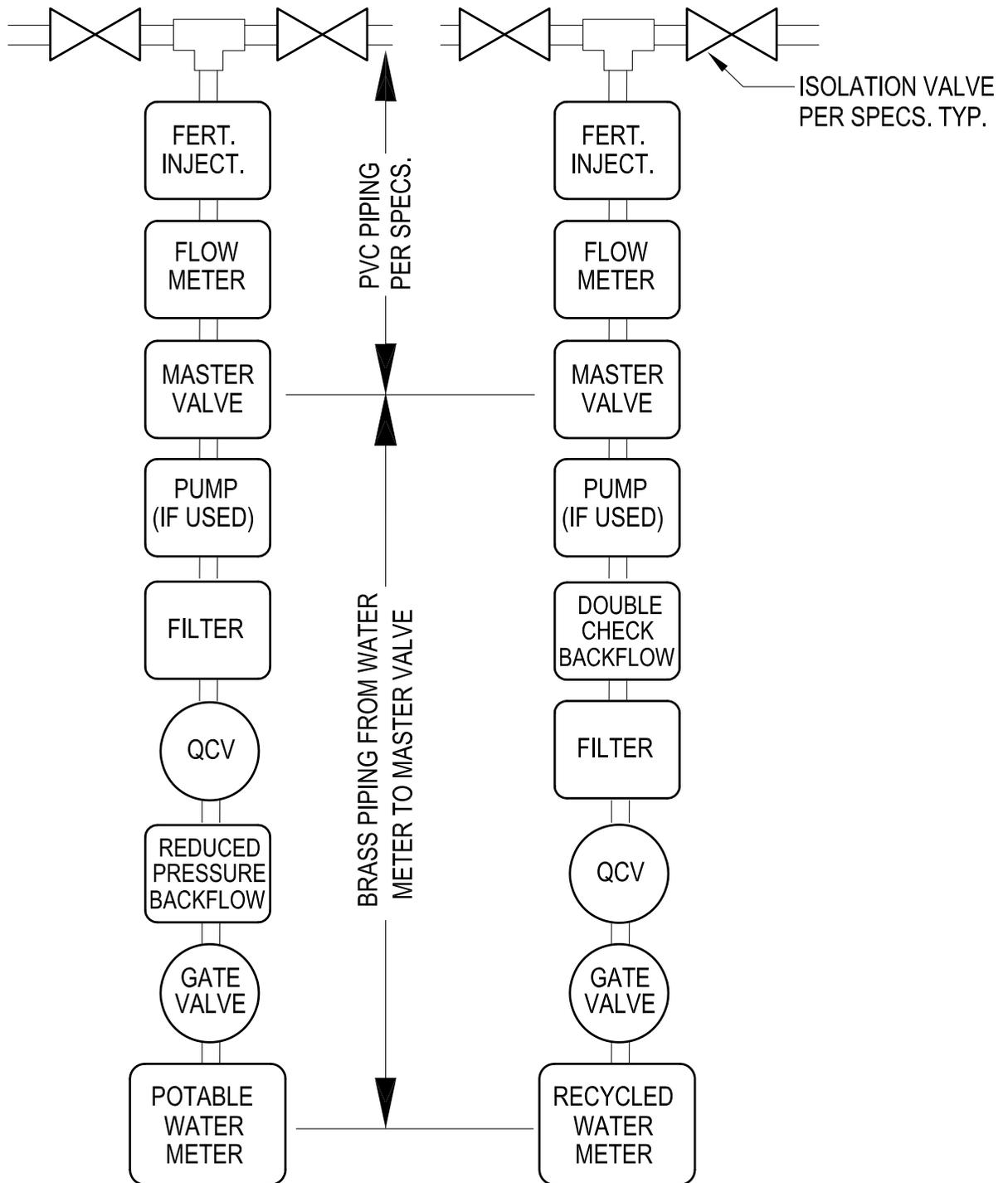


VALLEY-WIDE RECREATION & PARK DISTRICT

FERTIGATION TANK

IR-18

REV. 2012



NOTES:

1. ALL PIPING BETWEEN WATER METER AND MASTER VALVE MUST BE BRASS UNLESS APPROVED IN WRITING BY THE DISTRICT
2. OBTAIN LAYOUT PLACEMENT APPROVAL FOR ALL UTILITIES PRIOR TO INSTALLATION

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VALLEY-WIDE RECREATION & PARK DISTRICT

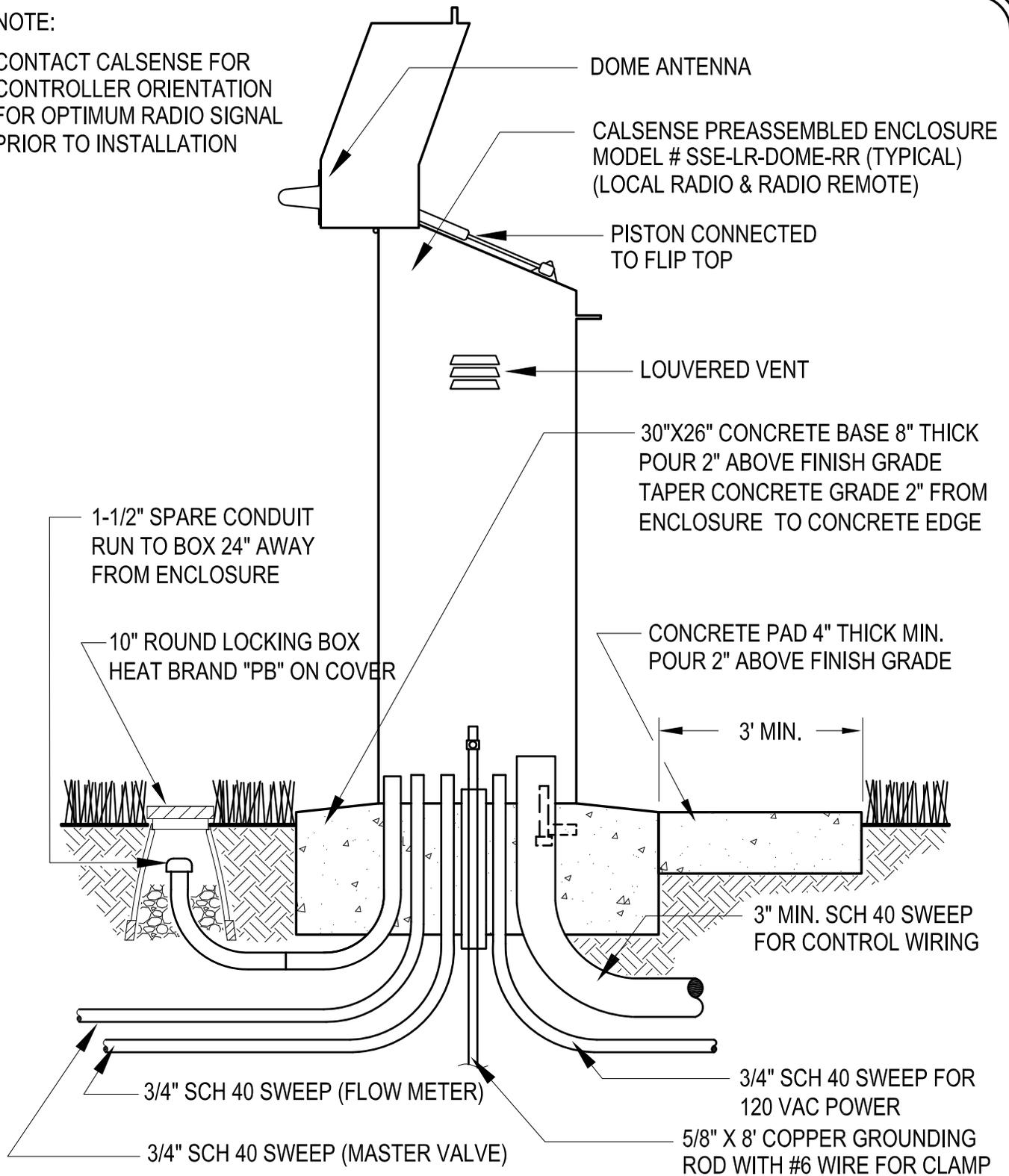
P.O.C. LAYOUT SEQUENCE

IR-19

REV. 2012

NOTE:

CONTACT CALSENSE FOR
CONTROLLER ORIENTATION
FOR OPTIMUM RADIO SIGNAL
PRIOR TO INSTALLATION



LD Consulting 2012 (Any deviation or reproduction of this design must be approved in writing by Valley-Wide Recreation & Park District)



VALLEY-WIDE RECREATION & PARK DISTRICT

IRRIGATION PEDESTAL ENCLOSURE

IR-20

REV. 2012

CALSENSE CONTROLLER ASSEMBLY
 MODEL # ET-2000e-XX-LR-RR-SSE (TYP.)
 WHEN USING MULTIPLE CONTROLLERS
 CONTACT CALSENSE TO CONFIRM MODEL #

FLIP TOP IN OPEN POSITION

CONTRACTOR SHALL ADJUST ALL IRRIGATION TO PREVENT OVER SPRAY ON CONTROLLER ENCLOSURE

GFCI OUTLET & SWITCH

STAINLESS STEEL ENCLOSURE
 (WITH DOME ANTENNA)

CALSENSE TP-1 TRANSIENT PROTECTION BOARD

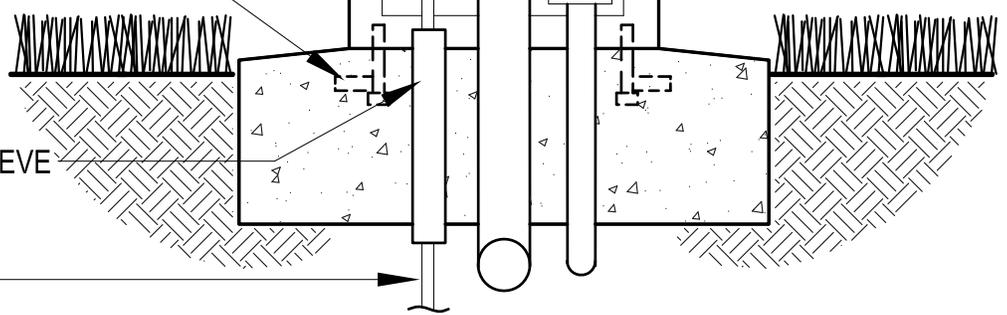
#6 AWG GROUNDING WIRE
 CONNECTED TO GROUND LUG

120 VAC JUNCTION BOX

MOUNTING BOLTS

3/4" GROUNDING ROD SLEEVE

GROUNDING ROD



NOTES:

1. CONTACT CALSENSE FOR SPECIFIC CONTROLLER MODEL NUMBER FOR EACH INDIVIDUAL PROJECT
2. ALL CONTROLLER COMPONENTS MUST BE CERTIFIED BY CALSENSE
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND INSTALLING ALL REQUIRED CONTROLLER COMMUNICATIONS CONTACT CALSENSE FOR EACH PROJECT REQUIREMENTS
4. CONTRACTOR SHALL INSTALL AND PROGRAM FLUSH VALVE TO DRIP 2 PROG. PER SPECS.

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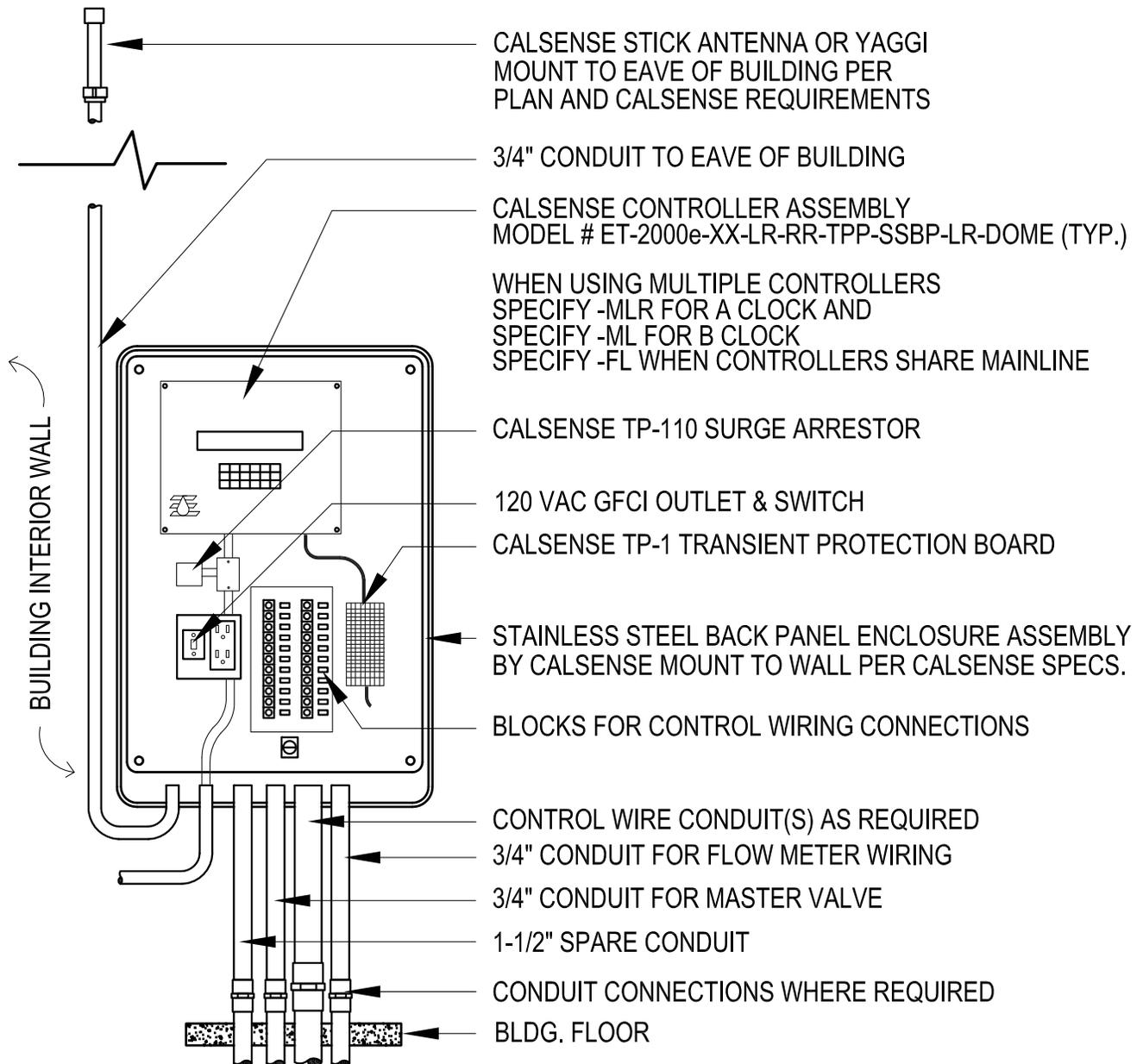


VALLEY-WIDE RECREATION & PARK DISTRICT

IRRIGATION PEDESTAL CONTROLLER

IR-21

REV. 2012



NOTES:

1. CONTACT CALSENSE FOR SPECIFIC CONTROLLER MODEL NUMBER FOR EACH INDIVIDUAL PROJECT
2. ALL CONTROLLER COMPONENTS MUST BE CERTIFIED BY CALSENSE
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND INSTALLING ALL REQUIRED CONTROLLER COMMUNICATIONS CONTACT CALSENSE FOR EACH PROJECT REQUIREMENTS
4. CONTRACTOR SHALL INSTALL AND PROGRAM FLUSH VALVE TO DRIP 2 PROG. PER SPECS.
5. SEAL BETWEEN ALL CONDUITS AND BUILDING SURFACE

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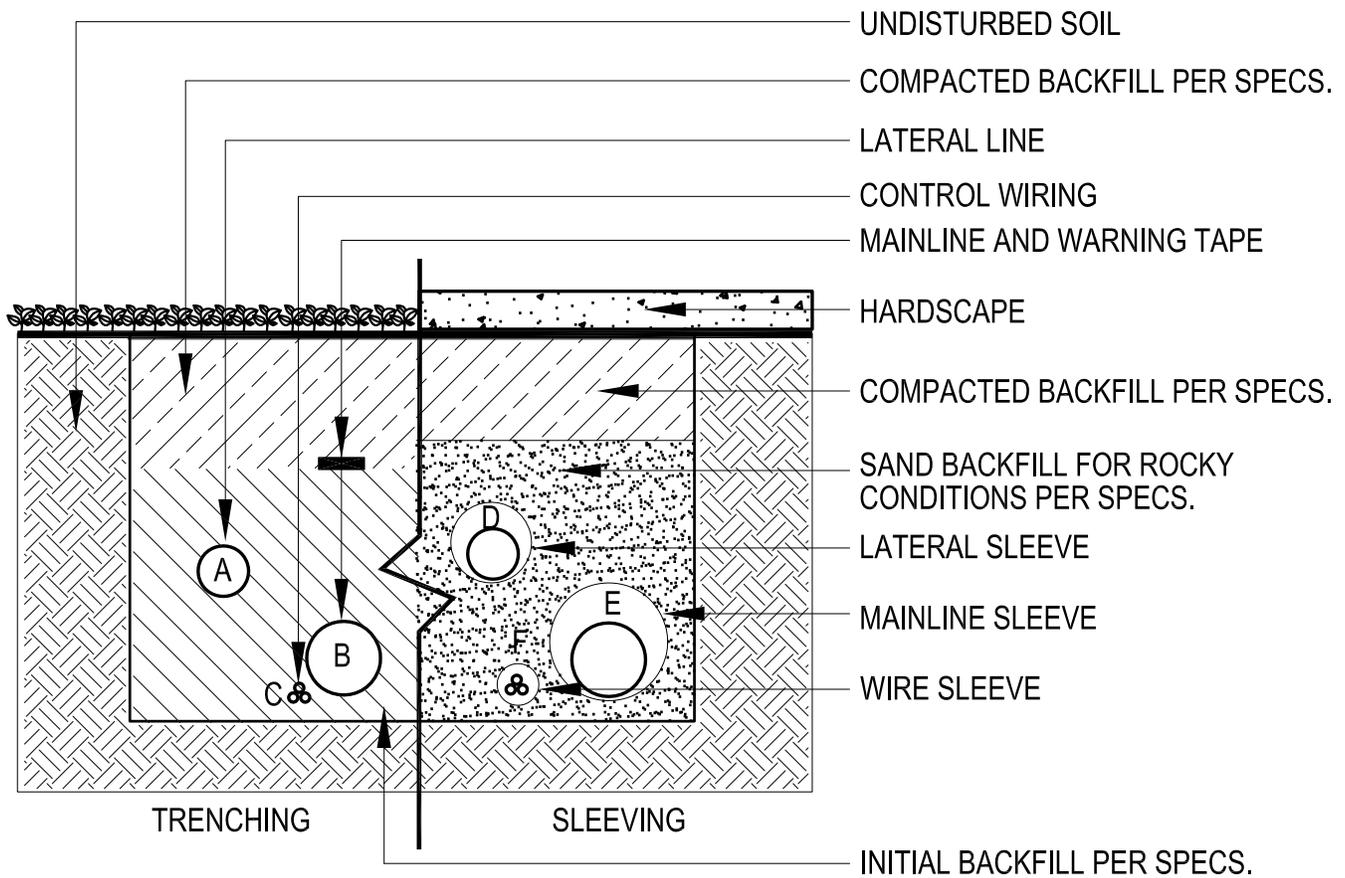


VALLEY-WIDE RECREATION & PARK DISTRICT

IRRIGATION INDOOR CONTROLLER

IR-22

REV. 2012



DEPTH	A	B	C	D	E	F
4" & LARGER	-	30"	30"	36"	36"	36"
3" & SMALLER	18"	24"	24"	30"	36"	36"
2-1/2" & SMALLER	12"	24"	24"	24"	30"	30"
WIRING	-	-	BELOW MAIN	-	-	BELOW MAIN

NOTES:

1. LINES MUST HAVE MIN. CLEARANCE OF 4" FROM EACH OTHER & 24" FROM OTHER TRADES
2. RUN WIRING UNDER MAINLINE, TAPE & BUNDLE @ 10' O.C.
3. PROVIDE A 24" LOOP IN ALL WIRING AT CHANGES IN DIRECTION
4. ALL SLEEVES MUST BE 2 TIMES THE DIAMETER OF THE PIPE WITHIN
5. ALL SLEEVES MUST HAVE FOAM AT PIPE OPENING TO PREVENT DIRT ENTRY
6. ALL SLEEVES MUST EXTEND 12" MIN. DISTANCE PAST CURB OR SIDEWALK
7. CONTRACTOR MUST ADJUST MAINLINE AROUND ALL STREET LIGHT LOCATIONS

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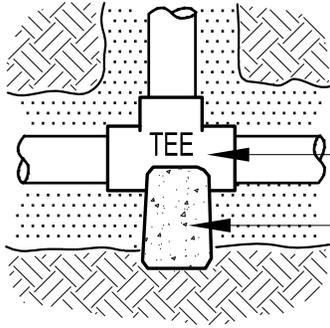


VALLEY-WIDE RECREATION & PARK DISTRICT

TRENCHING & SLEEVING

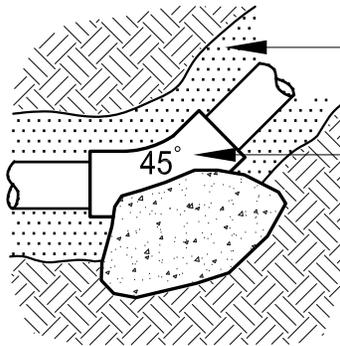
IR-23

REV. 2012



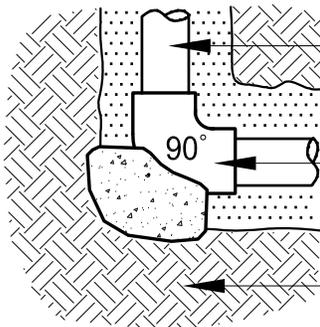
MAINLINE TEE PER SPECS.

CONCRETE THRUST BLOCK TYP.



COMPACTED BACKFILL TYP.

MAINLINE ELL 45 PER SPECS.



MAINLINE PER SPECS. TYP.

MAINLINE ELL 90 PER SPECS.

UNDISTURBED NATIVE SOIL TYP.

NOTES:

1. SUPPLY LINES 2" - 3" IN DIAMETER SHALL RECEIVE CONCRETE THRUST BLOCKS
2. SUPPLY LINES OVER 3" SHALL HAVE IRON DUCTILE RESTRAINT SYSTEM
3. A MINIMUM OF 6" OF CONCRETE SHALL BE POURED ON VIRGIN OR COMPACTED SOIL
4. CONCRETE SHALL BE 3 SACK MIX SLURRY CONTAINING NO GRAVEL
5. WHERE CONCRETE AND PVC ARE TOGETHER PVC PIPE SHALL BE PROTECTED WITH PIPE WRAP

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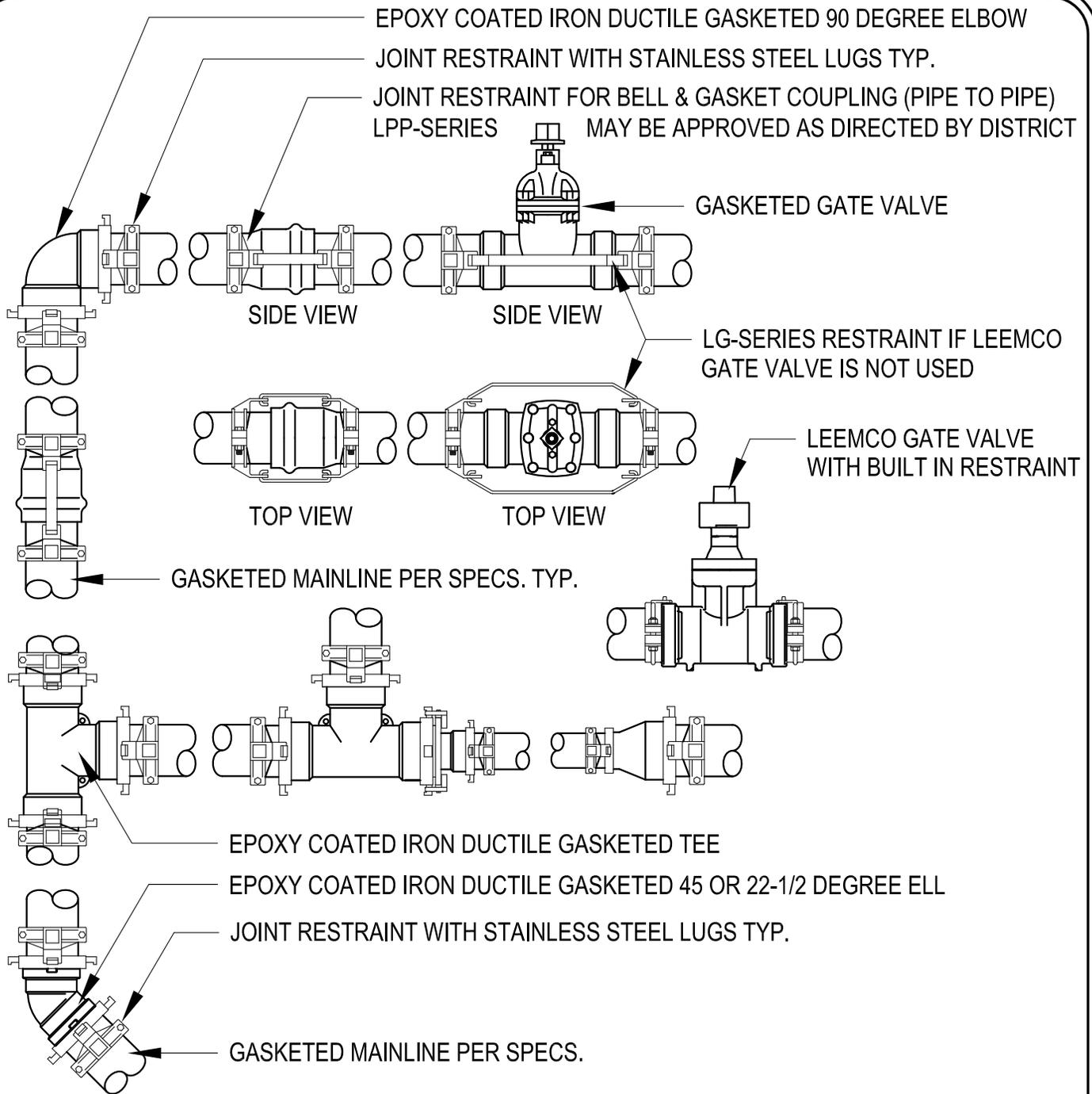


VALLEY-WIDE RECREATION & PARK DISTRICT

THRUST BLOCK 3" MAIN & SMALLER

IR-24

REV. 2012



NOTES:

1. ALL IRON DUCTILE FITTINGS SHALL BE EPOXY COATED WITH INNER GASKET PER SPECS.
2. ALL FITTINGS AND BELL & GASKET COUPLINGS SHALL BE RESTRAINED AS SHOWN ABOVE
3. ALL LUGS SHALL BE STAINLESS STEEL AND TIGHTENED PER MANUFACTURER TORQUE CHART

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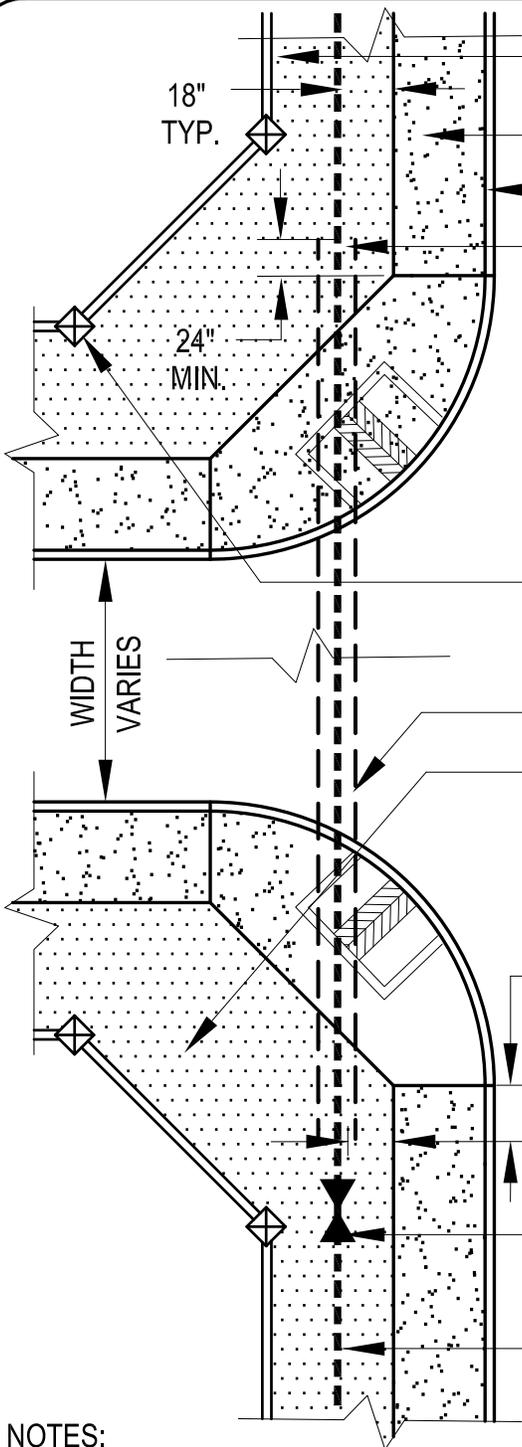


VALLEY-WIDE RECREATION & PARK DISTRICT

MAINLINE RESTRAINTS 4" & LARGER

IR-25

REV. 2012



TRACT BLOCK WALL
 STREET SIDEWALK
 STREET TYP. CURB
 IRRIGATION SLEEVES AS REQ'D
 EXTEND 24" BEYOND EDGE OF
 CURB RADIUS AND 7'-6" FROM
 THE STREET CURB TYP.
 PROVIDE MAINLINE, WIRING AND
 LATERAL SLEEVING PER PLAN AND
 PER DETAIL IR-23
 BLOCK PILASTER TYP.

PROVIDE SEPARATE SLEEVE FOR WIRING PER SPECS.
 TYPICAL PLANTER/MONUMENT ENTRANCE

24" BEYOND B.C.R. (BEGIN CURB RADIUS) TYP.

18" FROM BACK OF SIDEWALK TYP.
 (7'-6" FROM CURB FACE)

ISOLATION VALVE PRIOR TO STREET
 CROSSING PER DETAILS IR-04, 05 & 06

MAINLINE PER PLAN, SPECS AND
 DETAIL IR-23 INSTALL 18" FROM
 BACK OF SIDEWALK

NOTES:

1. PIPING MUST BE 4" MIN. FROM EACH OTHER AND 24" FROM OTHER UTILITY LINES
2. ALL SLEEVES MUST BE SCH 40 2X THE SIZE OF THE LINE SIZE
3. ALL SLEEVES MUST HAVE A MIN. COVER OF 24" AND NO DEEPER THAN 40"

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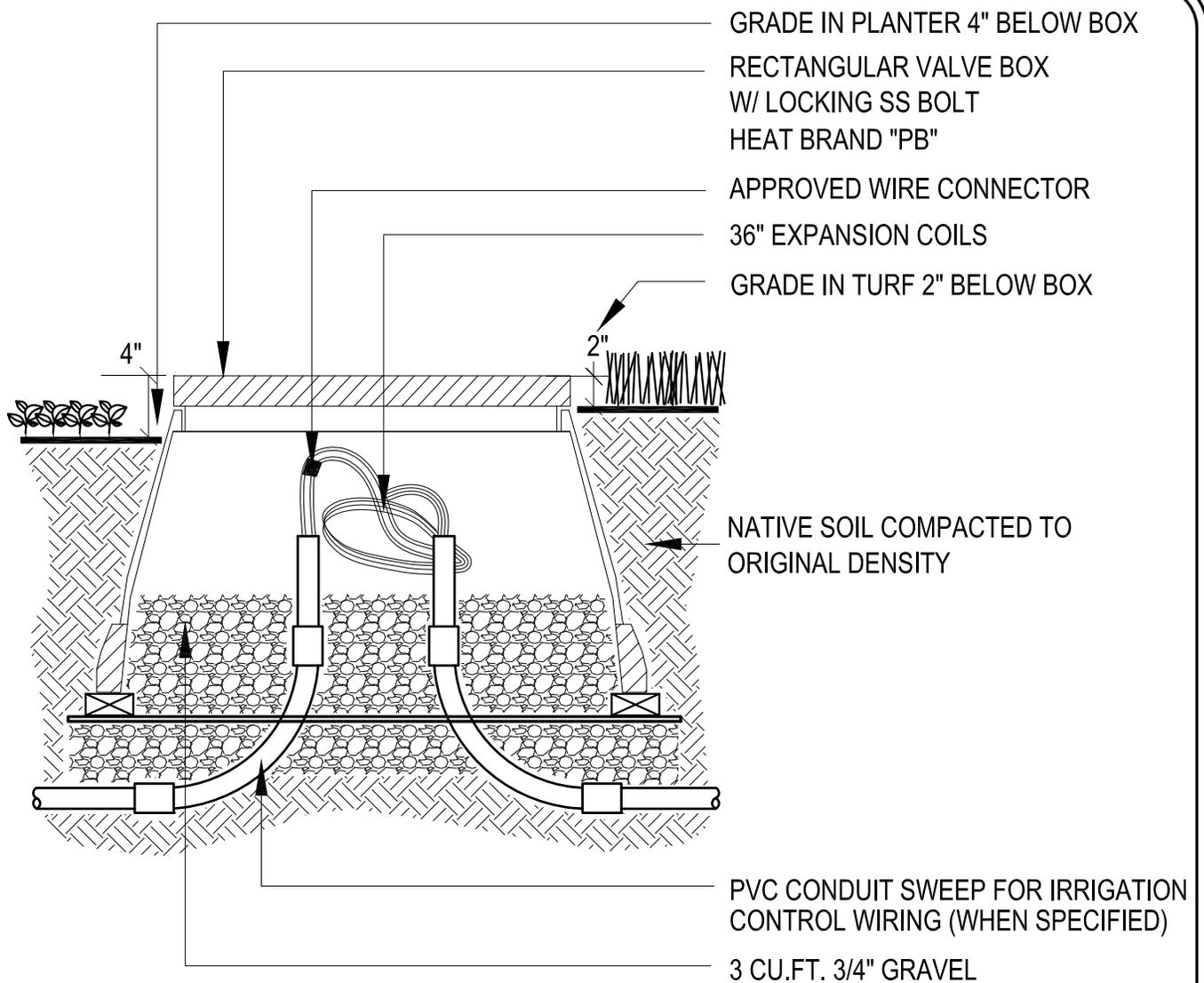


VALLEY-WIDE RECREATION & PARK DISTRICT

TYPICAL STREET CROSSING

IR-26

REV. 2012



NOTES:

1. ALL WIRING MUST CONFORM TO LOCAL CODES
2. PROVIDE 24" EXPANSION COILS AT EACH WIRE CONNECTION
3. PROVIDE 3" CLEARANCE BETWEEN WIRES & BOX
4. EPOXY ALL GAPS BETWEEN WIRE AND CONDUIT AT EXPOSED SWEEP ENDS
5. PROVIDE 4 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
6. NO WIRE SPLICES SHALL BE ALLOWED UNLESS APPROVED BY THE DISTRICT
7. ALL SPARE WIRES FOR END OF RUN SHALL BE IN A PULL BOX TYP. AND SHALL BE LABELED IN BOX AND AT CONTROLLER
8. PROVIDE PULL BOX FOR ALL WIRE SPLICES FOR RUNS OVER 2500 FEET OR AS APPROVED

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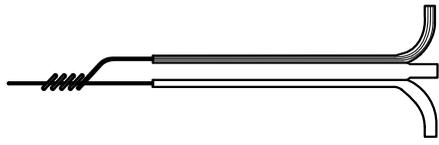


VALLEY-WIDE RECREATION & PARK DISTRICT

PULL BOX

IR-27

REV. 2012



STEP 1 STRIP WIRES AND TWIST TOGETHER LEAVING ONE WIRE OVER HALF OF THE LENGTH OF THE TWISTED DISTANCE



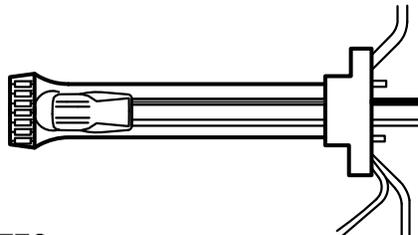
STEP 2 BEND UNTWISTED WIRE BACK OVER TWISTED DISTANCE AS SHOWN



STEP 3 APPLY SCOTCHLOK ELECTRICAL CONNECTOR AND TWIST IN A CLOCKWISE DIRECTION UNTIL TIGHT BUT DO NOT STRIP THREADS



STEP 4 INSERT THE SPLICE INTO THE GEL-FILLED INSULATOR TUBE. PUSH PAST THE LOCKING FINGERS TO HOLD THE SCOTCHLOK CONNECTOR IN PLACE



STEP 5 POSITION WIRE CHANNELS AND SNAP INSULATOR TUBE COVER CLOSED

NOTES:

1. PROVIDE BLUE SEALANT IN ADDITION TO PRE-FILLED CONNECTOR
2. PROVIDE WIRE CONNECTORS FOR ALL CONTROL WIRE SPLICES
3. PROVIDE WIRE CONNECTORS AT ENDS OF ALL EXTRA WIRES
4. WIRE SPLICES SHALL BE INSIDE VALVE BOXES AT VALVES OR FOR RUNS OVER 2500 FEET
5. PROVIDE #12 CONTROL WIRE & #10 COMMON WIRE FOR RUNS OVER 2500 FEET
6. SOLDER WIRE SPLICES FOR MASTER VALVE AND FLOW METER CONNECTIONS
7. WIRE CONNECTORS SHALL BE 3M DBR-6 PER SPECS OR APPROVED EQUAL
8. INSTALL WIRING PER DETAIL LC-23

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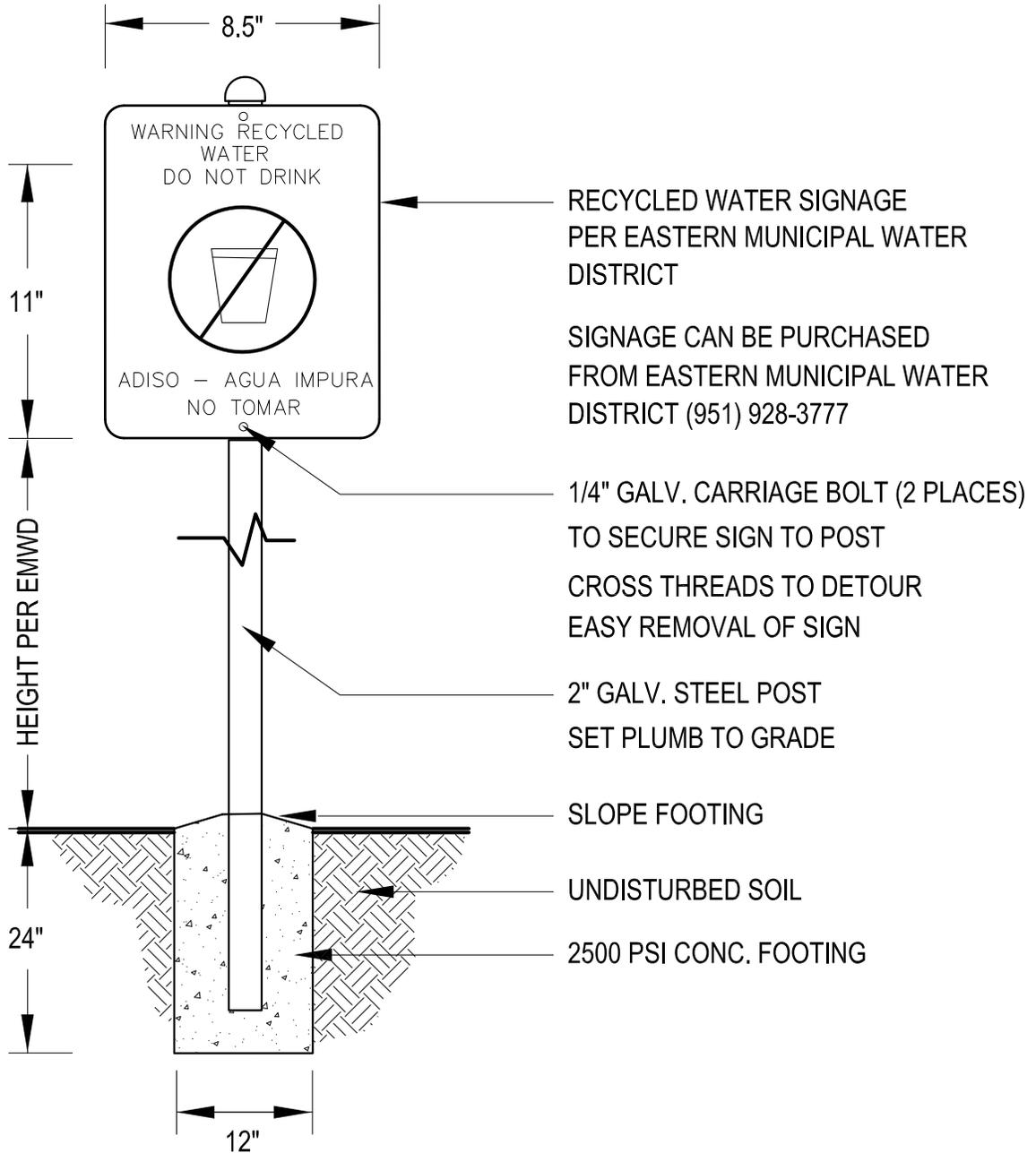


VALLEY-WIDE RECREATION & PARK DISTRICT

WIRE CONNECTORS

IR-28

REV. 2012



NOTES:

1. SIGNAGE MUST COMPLY WITH EMWD REQUIREMENTS
2. PROVIDE SIGNAGE AT ALL PROJECT ENTRIES AND AT EACH WATER METER CONNECTION
3. PROVIDE ADDITIONAL SIGNAGE ALONG PARKWAYS AND TRAILS AS DIRECTED BY EMWD
4. NO SIGN SHALL BE WITHIN COUNTY OR CITY ROW SITE DISTANCE OBSTRUCTION

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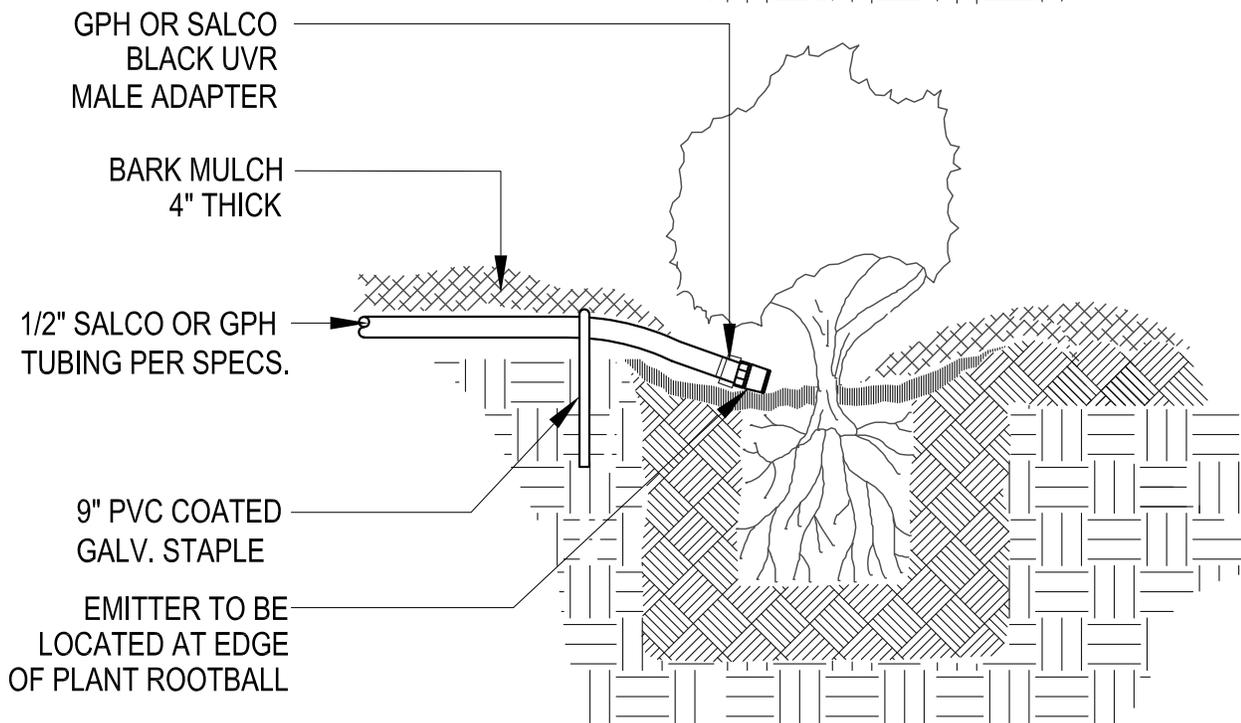
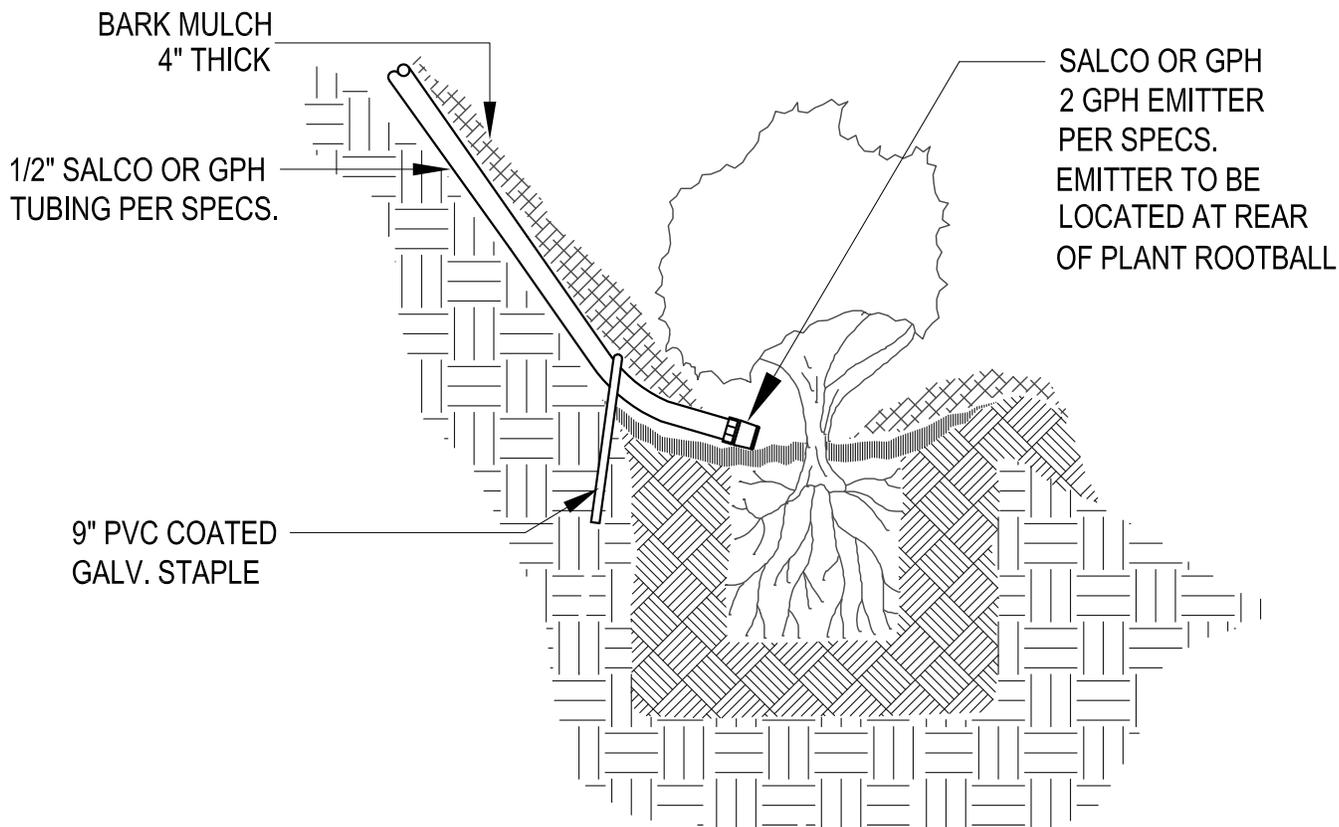


VALLEY-WIDE RECREATION & PARK DISTRICT

RECYCLED WATER SIGN

IR-29

REV. 2012



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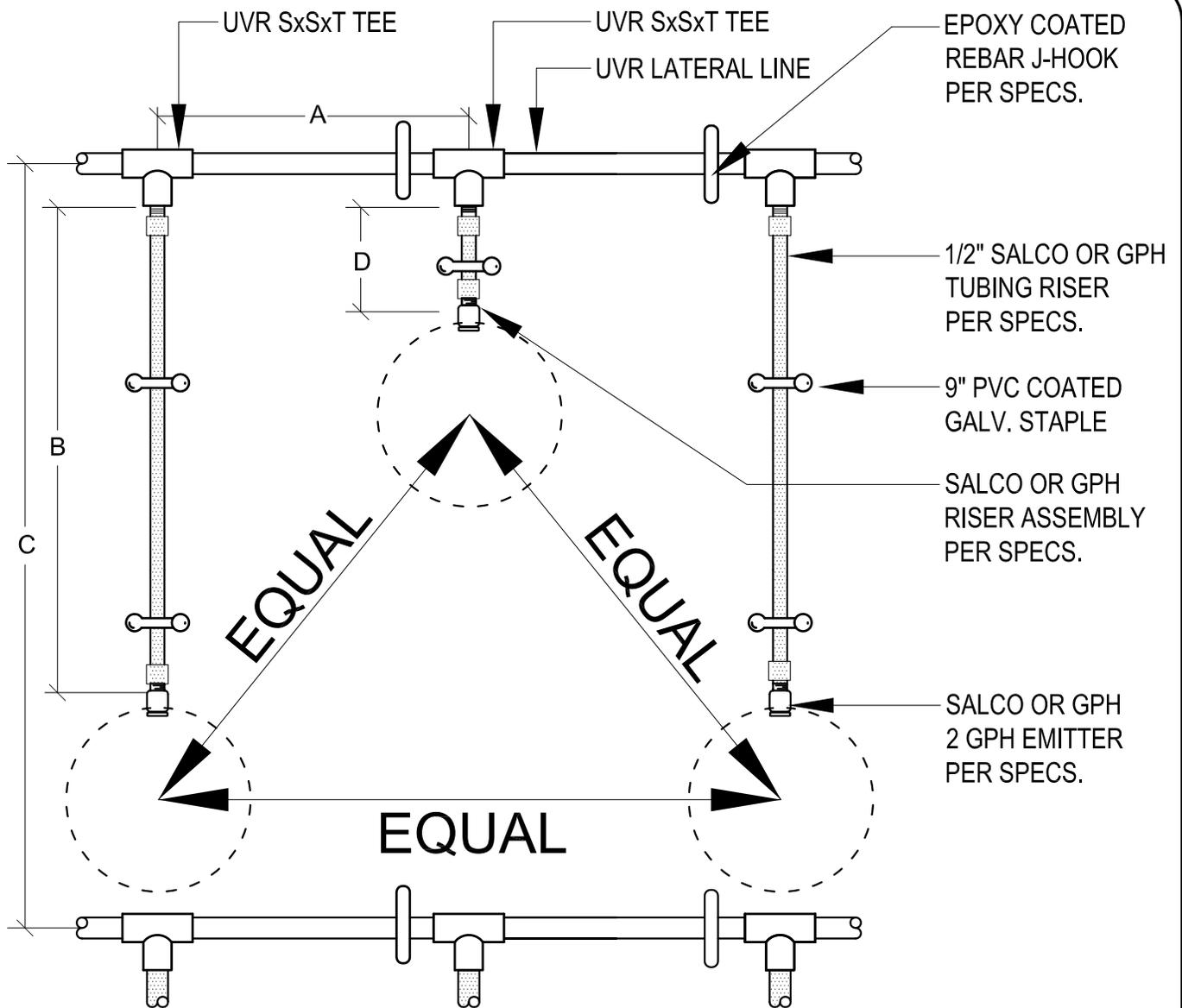


VALLEY-WIDE RECREATION & PARK DISTRICT

EMITTER ASSEMBLY SECTION VIEW

IR-31

REV. 2012



PLANT SPACING	A	B	C	D
2' O.C.	18"	32"	42"	12"
3' O.C.	18"	42"	5'0"	12"
4' O.C.	24"	54"	7'0"	12"
5' O.C.	30"	64"	8'8"	12"

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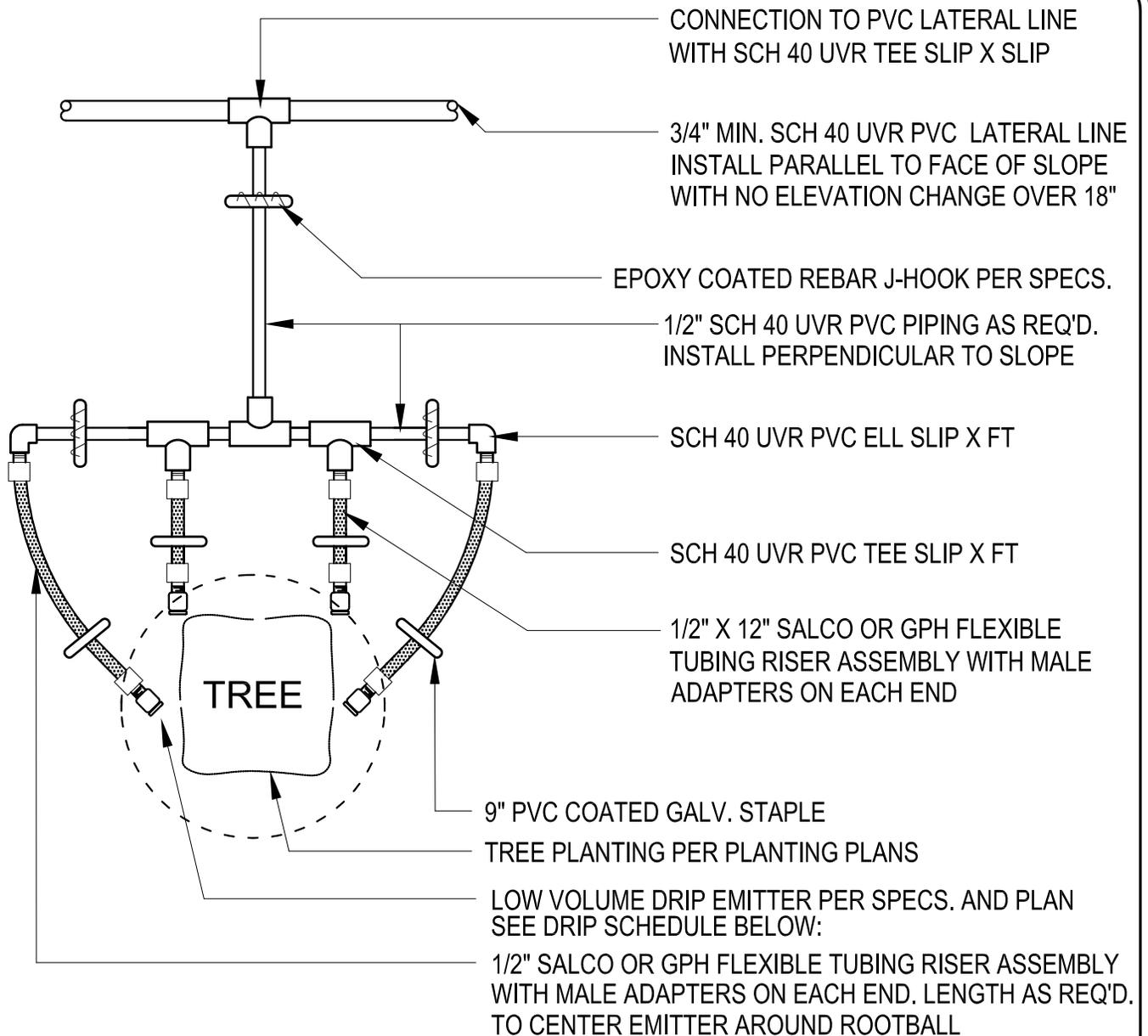


VALLEY-WIDE RECREATION & PARK DISTRICT

SHRUB EMITTER ASSEMBLY LAYOUT

IR-32

REV. 2012



NOTES:

1. ALL TREES SHALL RECEIVE THE NUMBER OF DRIP EMITTERS SHOWN BELOW.
 5 AND 15 GALLON TREES - 3 DRIP EMITTERS
 24" BOX TREES - 4 DRIP EMITTERS
 36" BOX TREES - 5 DRIP EMITTERS
 48" BOX TREES - 6 DRIP EMITTERS
2. DRIP EMITTERS SHALL BE PLACED TO DRIP DIRECTLY ADJACENT TO TREE ROOTBALL.
3. ALL IRRIGATION SHALL BE COMPLETELY INSTALLED PRIOR TO PLANTING.

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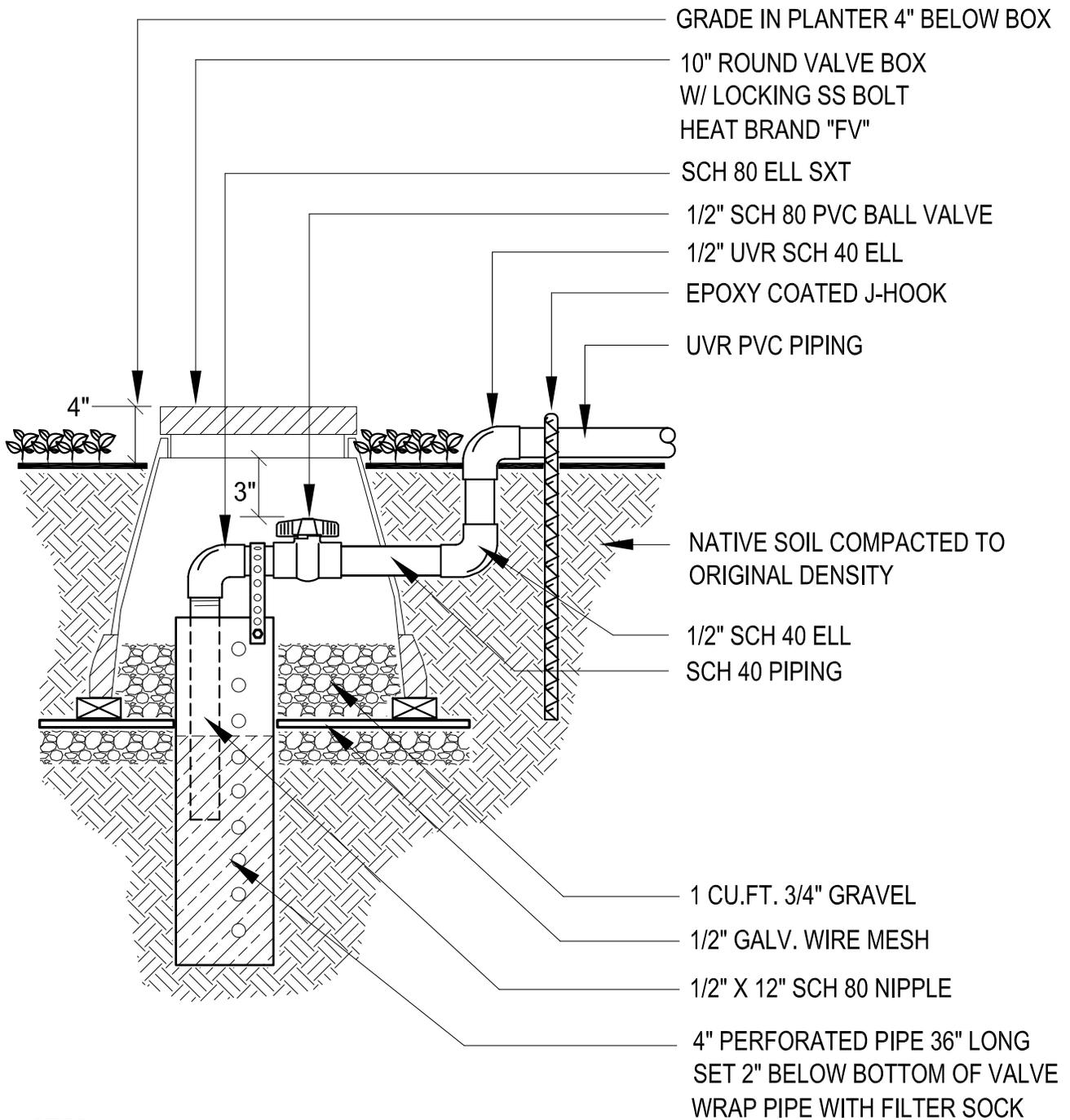


VALLEY-WIDE RECREATION & PARK DISTRICT

TREE EMITTER ASSEMBLY LAYOUT

IR-33

REV. 2012



NOTES:

1. PROVIDE 3" CLEARANCE BETWEEN VALVE & BOX
2. PROVIDE 3 EA. CONCRETE BRICKS UNDER VALVE BOX (TYP.)
3. SECURE END OF FLUSH LINE PIPING TO 4" DRAIN PIPE WITH PLUMBER'S TAPE

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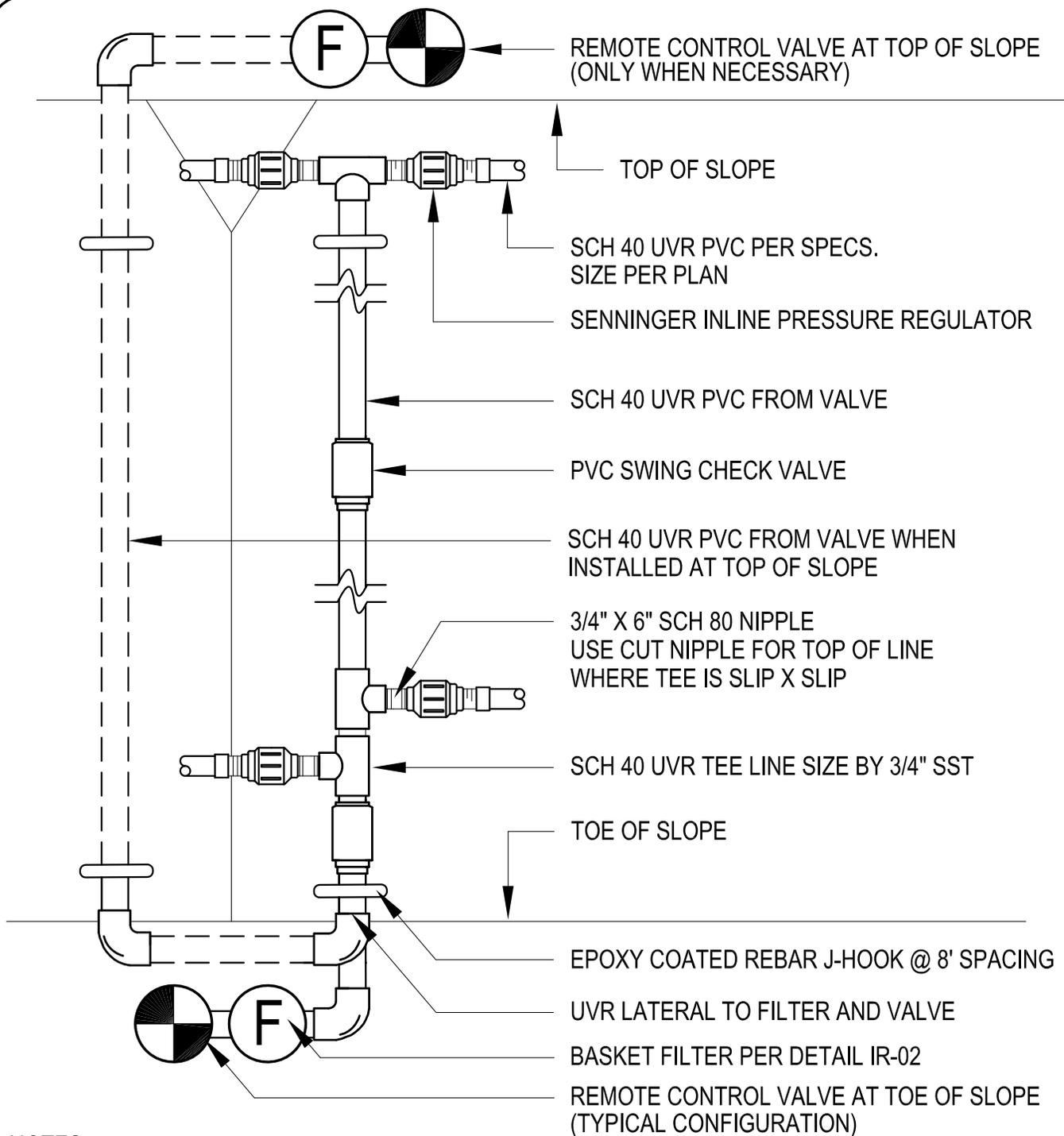


VALLEY-WIDE RECREATION & PARK DISTRICT

FLUSH VALVE ASSEMBLY

IR-34

REV. 2012



NOTES:

1. FLUSH LATERAL LINES COMPLETELY BEFORE INSTALLATION OF PRESSURE REGULATORS
2. ALL PIPING SHALL BE PRIMED PRIOR TO GLUE APPLICATION PER SPECS.

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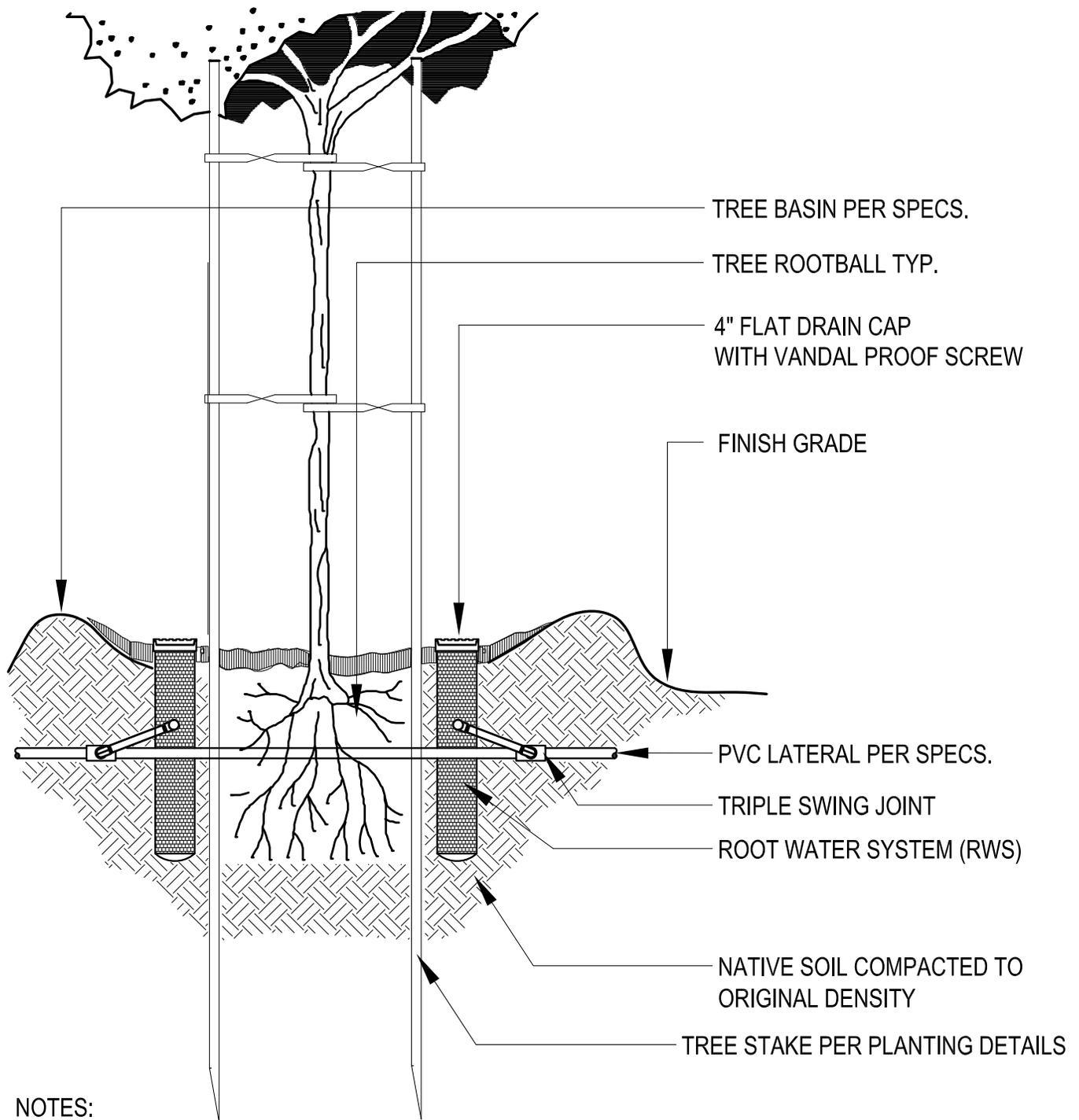


VALLEY-WIDE RECREATION & PARK DISTRICT

CHECK VALVE & PRESSURE REG.

IR-35

REV. 2012



NOTES:

1. ROOT WATERING SYSTEMS SHALL ONLY BE USED WHEN POINT TO POINT IRRIGATION IS NOT USED
2. PROVIDE TWO RWS PER TREE WITH 1 GPM BUBBLER WHEN DRIP IS NOT SPECIFIED
3. PROVIDE PERFORATED PVC PIPE PER PLANTING DETAIL PL-03 IN ADDITION TO RWS

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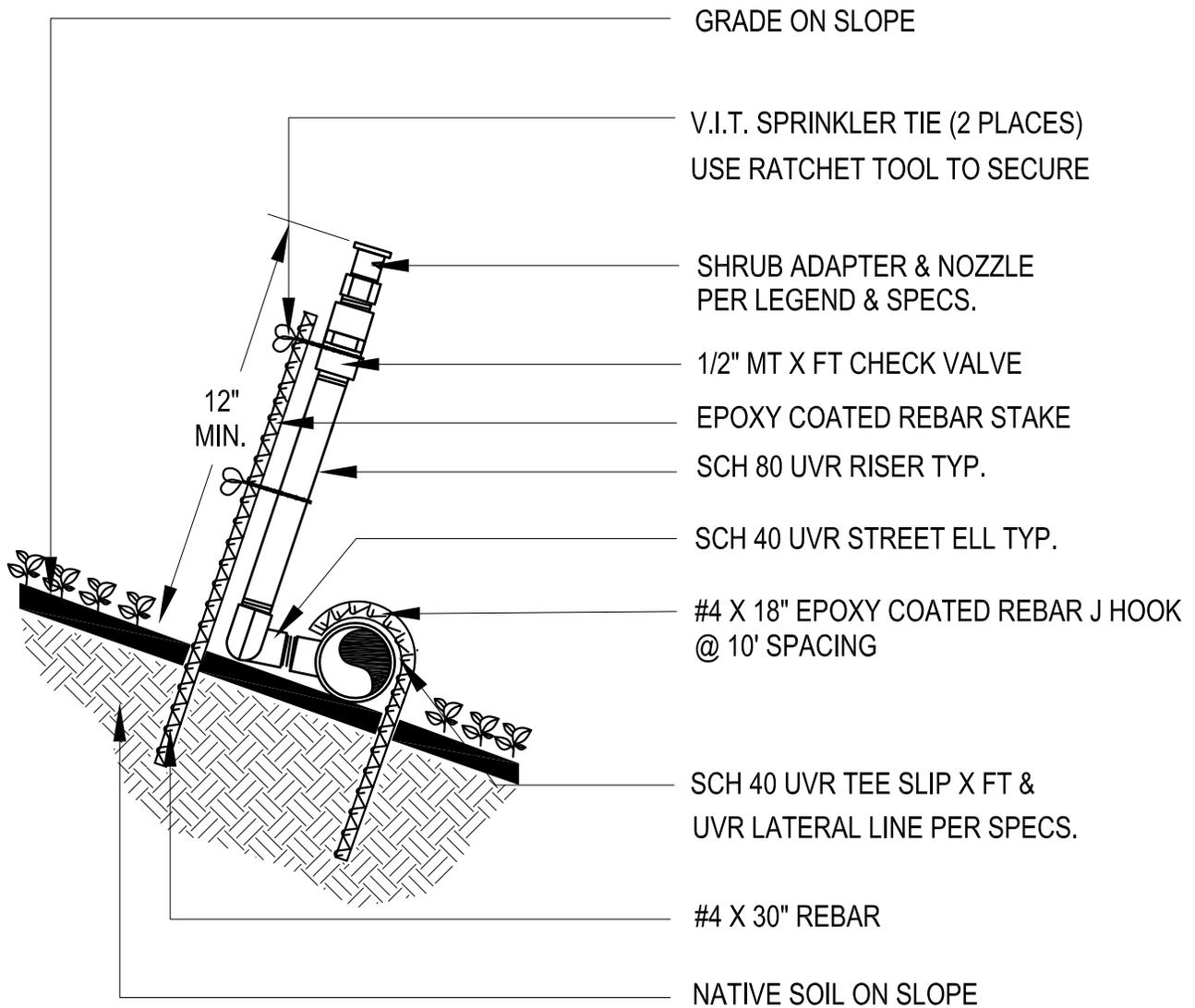


VALLEY-WIDE RECREATION & PARK DISTRICT

TREE ROOT WATERING SYSTEM

IR-36

REV. 2012



NOTES:

1. USE 3/4" TEFLON TAPE AT ALL SCH 40 ELLS
2. INSTALL RISERS PERPENDICULARLY PLUMB TO ADJACENT GRADE
3. INSTALL RISERS 12" FROM WALL OR FENCE
4. ADJUST NOZZLES TO PREVENT OVERSPRAY ONTO HARDSCAPE
5. USE POP-UP SPRAY HEADS @ TOE OF SLOPE & WITHIN 8' OF SIDEWALK, TURF OR CURBING

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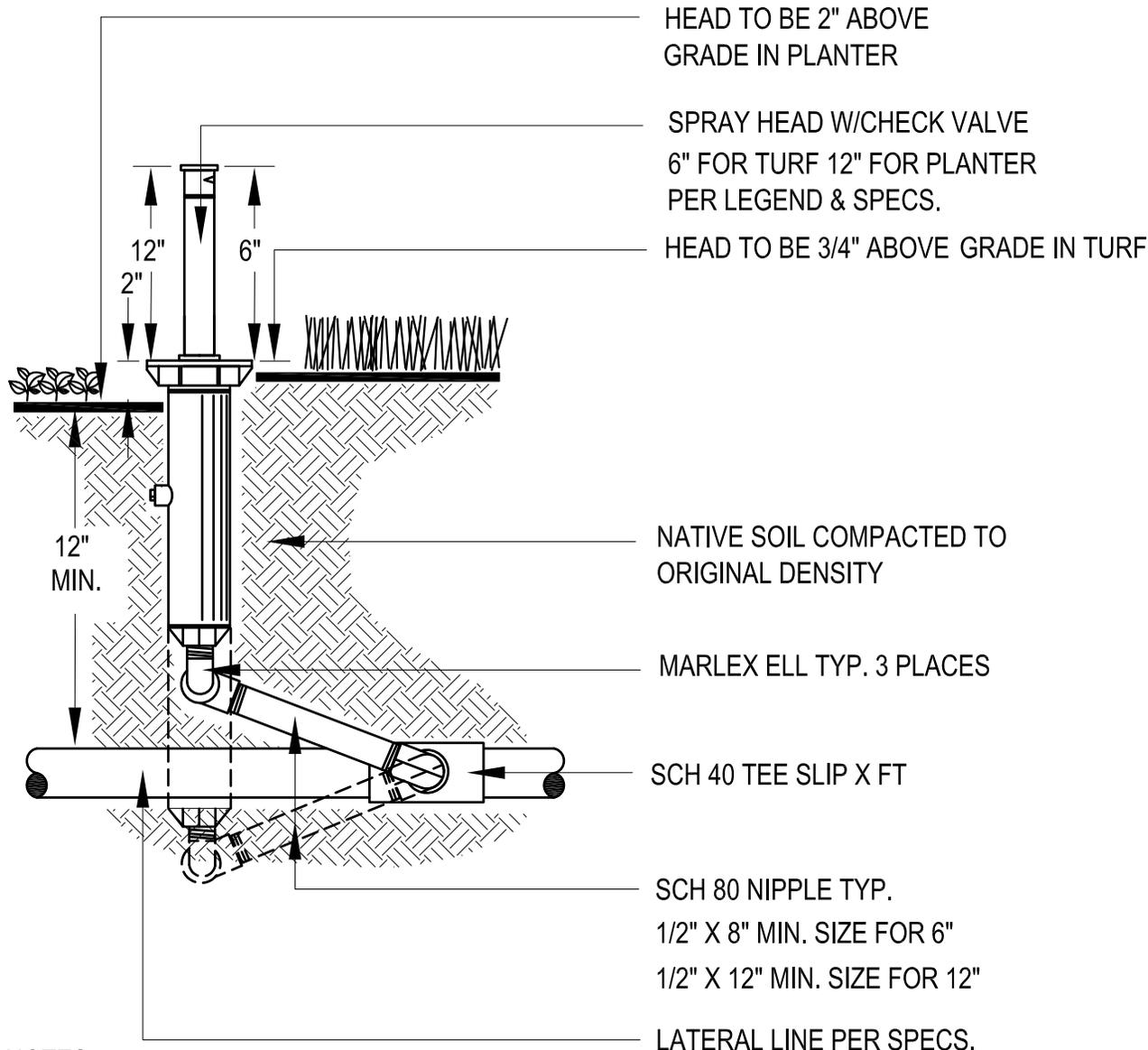


VALLEY-WIDE RECREATION & PARK DISTRICT

SHRUB SPRAY ON GRADE

IR-37

REV. 2012

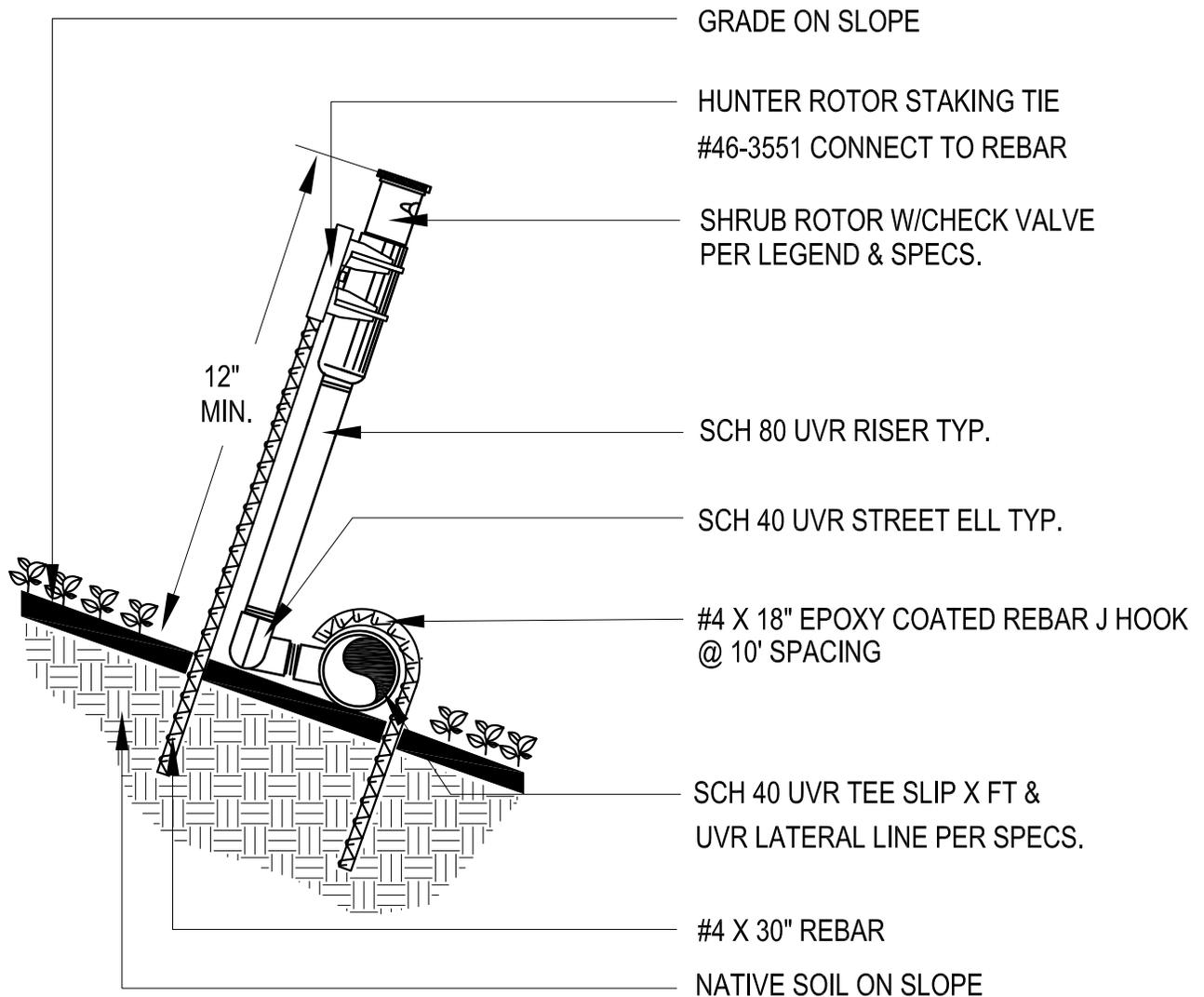


NOTES:

1. USE 3/4" TEFLON TAPE WHERE ELL MEETS SCH 40 TEE
2. INSTALL HEADS PERPENDICULARLY PLUMB TO ADJACENT GRADE
3. ADJUST NOZZLES TO PREVENT OVERSPRAY ONTO HARDSCAPE
4. INSTALL HEADS 2" FROM HARDSCAPE EDGE IN TURF AREAS WHERE ALLOWED PER AB 1881
5. INSTALL HEADS 6" FROM WALLS IN PLANTER AREAS WHERE ALLOWED PER AB 1881
6. ALL HEADS ADJACENT TO CONCRETE SURFACE SHALL BE FLUSH TO TOP OF CONCRETE

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	VALLEY-WIDE RECREATION & PARK DISTRICT	
	POP-UP SPRAY HEAD	
	IR-39	
REV. 2012		



NOTES:

1. USE 3/4" TEFLON TAPE AT ALL SCH 40 ELLS
2. INSTALL RISERS PERPENDICULARLY PLUMB TO ADJACENT GRADE
3. INSTALL RISERS 12" FROM WALL OR FENCE
4. ADJUST NOZZLES TO PREVENT OVERSPRAY ONTO HARDSCAPE
5. USE POP-UP ROTORS @ TOE OF SLOPE & WITHIN 8' OF SIDEWALK, TURF OR CURBING

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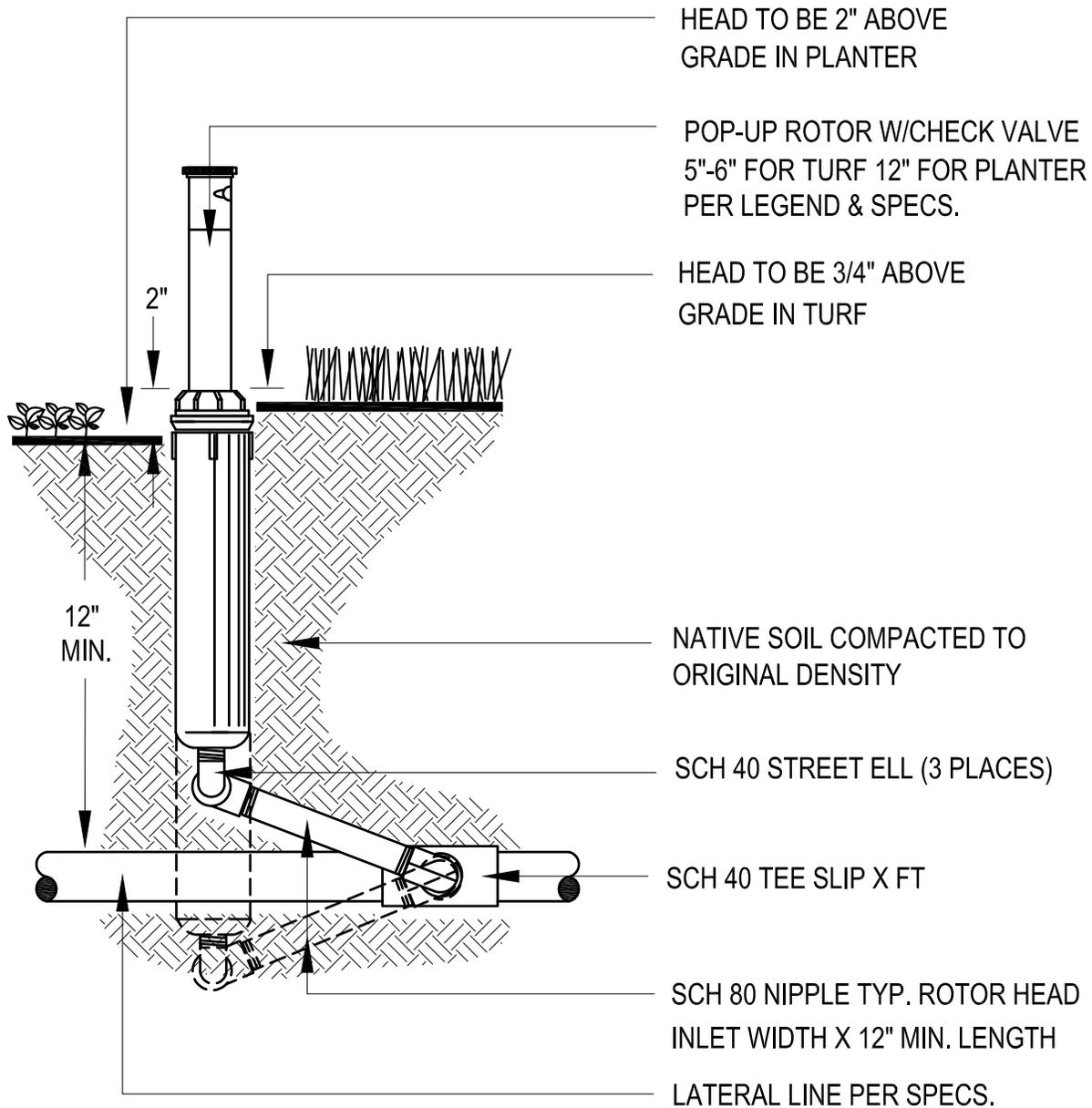


VALLEY-WIDE RECREATION & PARK DISTRICT

SHRUB ROTOR ON GRADE

IR-40

REV. 2012



NOTES:

1. USE 3/4" TEFLON TAPE AT ALL SCH 40 ELLS
2. INSTALL HEADS PERPENDICULARLY PLUMB TO ADJACENT GRADE
3. ADJUST NOZZLES TO PREVENT OVERSPRAY ONTO HARDSCAPE
4. INSTALL HEADS 4" FROM HARDSCAPE EDGE IN TURF AREAS WHERE ALLOWED PER AB 1881
5. INSTALL HEADS 4" FROM HARDSCAPE EDGE IN PLANTER AREAS WHERE ALLOWED PER AB 1881
6. INSTALL 12" POP-UP ROTORS FOR TURF AREAS WITHIN BOTTOM OF DETENTION BASINS

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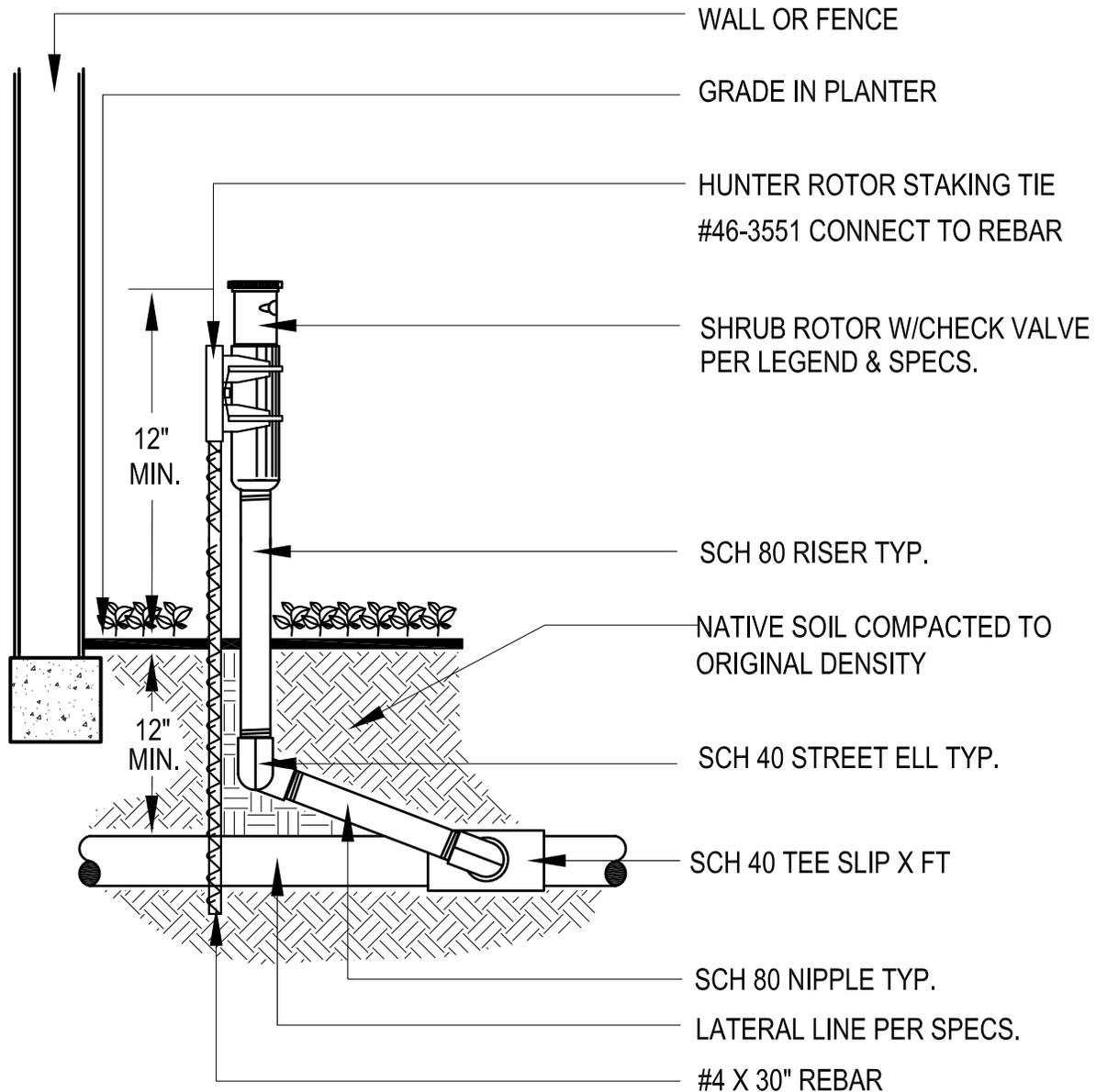


VALLEY-WIDE RECREATION & PARK DISTRICT

POP-UP ROTOR HEAD

IR-41

REV. 2012



NOTES:

1. USE 3/4" TEFLON TAPE AT ALL SCH 40 ELLS
2. INSTALL RISERS PERPENDICULARLY PLUMB TO ADJACENT GRADE
3. INSTALL RISERS 12" FROM WALL OR FENCE
4. ADJUST NOZZLES TO PREVENT OVERSPRAY ONTO HARDSCAPE
5. USE POP-UP ROTORS WITHIN 8' OF SIDEWALK, TURF OR CURBING

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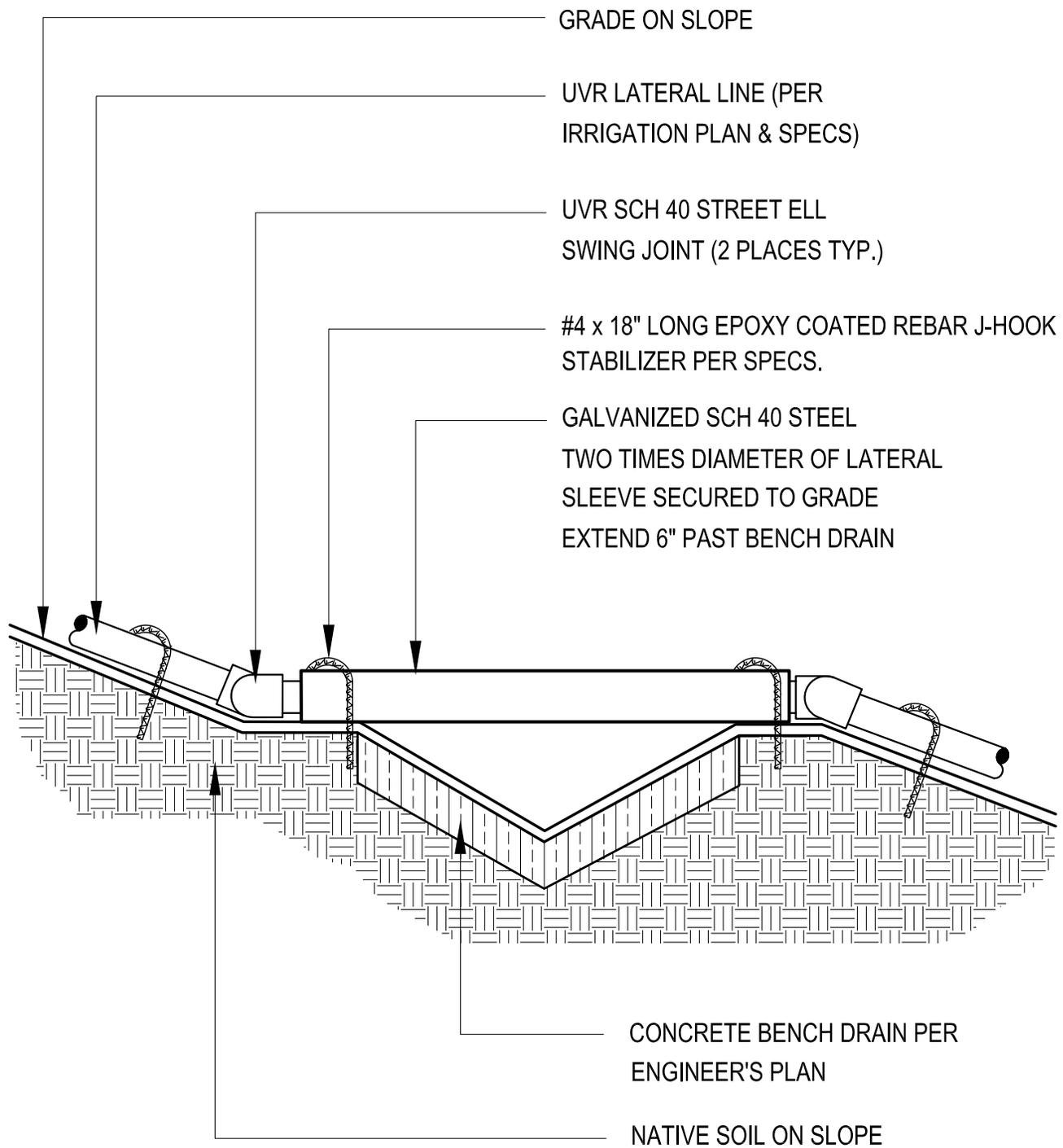


VALLEY-WIDE RECREATION & PARK DISTRICT

SHRUB ROTOR ON RISER

IR-42

REV. 2012



NOTE:

1. EXTEND GALVANIZED STEEL SLEEVE A MIN. OF 6" PAST BENCH DRAIN EDGE

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VALLEY-WIDE RECREATION & PARK DISTRICT

BENCH DRAIN CROSSING

IR-43

REV. 2012