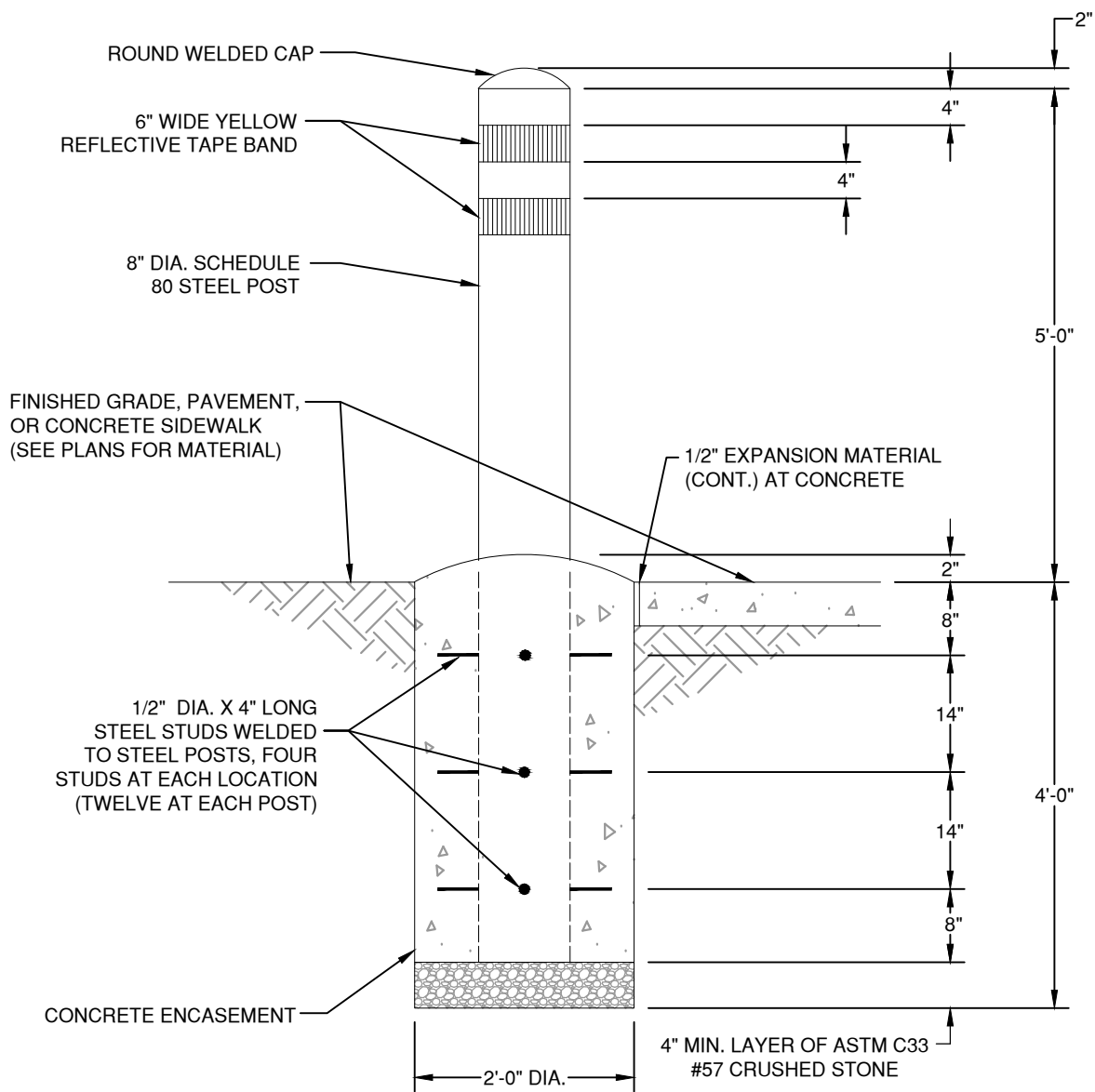


GVSUD DETAIL SHEET LIST

SHEET NUMBER	SHEET TITLE
G-1	BOLLARD
G-2	EQUIPMENT PAD
G-3	BARBED WIRE FENCE GATE
G-4	BARBED WIRE FENCE REPAIR
W-1	PIPE TRENCH
W-2	PIPELINE CONCRETE CAP TYPE 1
W-3	PIPELINE CONCRETE CAP TYPE 2
W-4	PIPELINE CONCRETE ENCASEMENT
W-5	RESTRAINED LENGTHS
W-6	THRUST BLOCKING
W-7	CONCRETE RETARD
W-8	CASING AND SPACERS
W-9	SPLIT CASING - BOLTED
W-10	SPLIT CASING - WELDED
W-11	2" DRAIN VALVE
W-12	2" FLUSH VALVE
W-13	2" TEMPORARY BLOW-OFF ASSEMBLY ON 12" TO 16" MAINS
W-14	4" TEMPORARY BLOW-OFF ASSEMBLY ON 20" OF LARGER MAINS (JOINT RESTRAINT)
W-15	AIR RELEASE VALVE TYPE 1
W-16	AIR RELEASE VALVE TYPE 2
W-17	STANDARD HYDRANT ASSEMBLY INSTALLATION
W-18	BURIED VALVE
W-19	VALVE BOX CASTING LID
W-20	DUAL PRV VAULT
W-21	METER WITH BYPASS VAULT
W-22	WATER SERVICE
W-23	VALVE MARKER
W-24	PIPELINE MARKERS
W-25	#66-D SAMPLING STATION DETAIL
W-26	PRESSURE TRANSMITTER AND GAUGE
W-27	LONG WATER SERVICE DETAIL
WW-1	WASTEWATER PRECAST MANHOLE
WW-2	WASTEWATER MANHOLE CAST IN PLACE BASE
WW-3	WASTEWATER DROP MANHOLE
WW-4	WASTEWATER MANHOLE RING ENCASEMENT
WW-5	WASTEWATER MANHOLE VENT
WW-6	WASTEWATER LATERAL AND CLEANOUT
WW-7	WASTEWATER LATERAL VERTICAL STACK



NOTES:

1. BOLLARDS ARE REQUIRED FOR ALL BURIED VALVES IN UNPAVED AREAS AND AT OTHER LOCATIONS WHERE SHOWN ON DRAWINGS.
2. ASSEMBLY SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
3. INSTALL ASSEMBLY PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

BOLLARD

REVISED

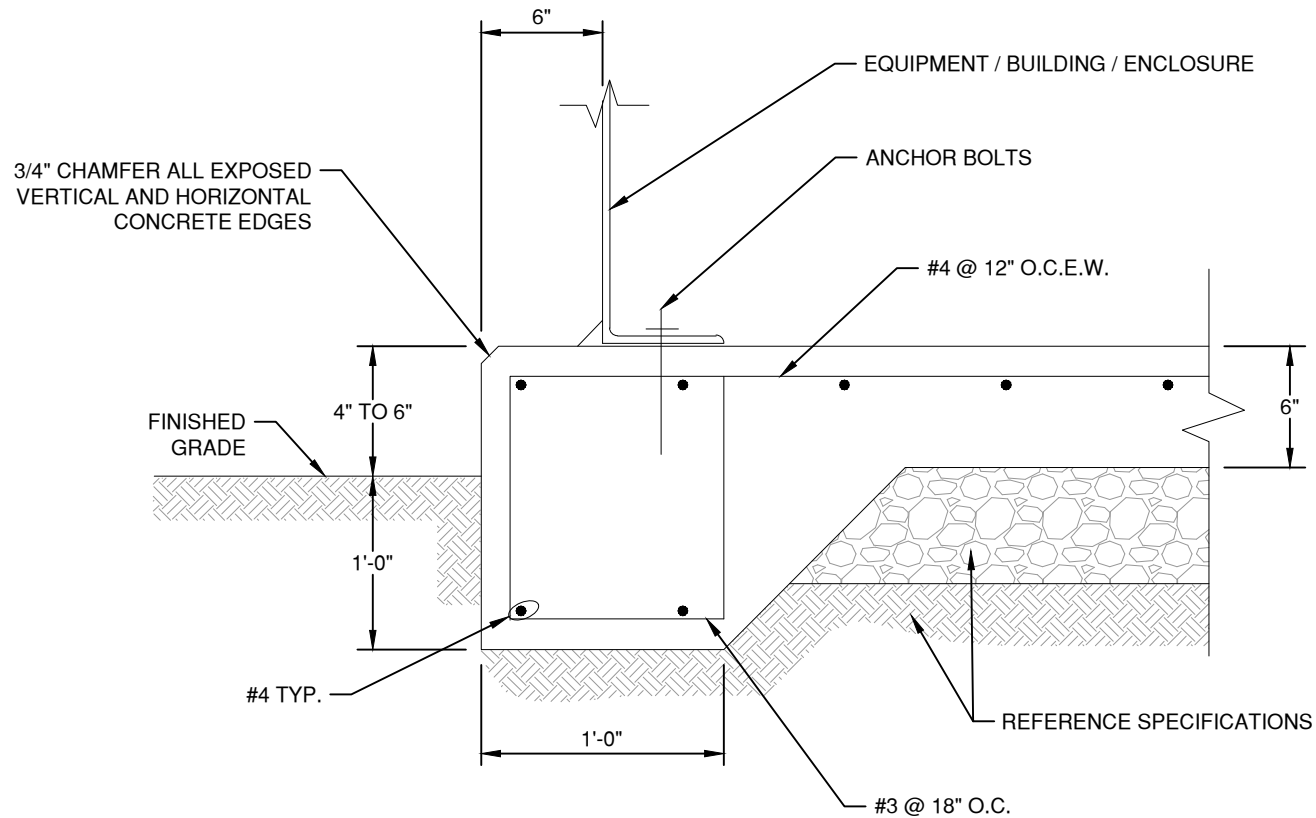
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. G-1



NOTES:

1. THIS DETAIL SHALL BE UTILIZED FOR FIBERGLASS BUILDINGS, GENERATORS, TRANSFORMERS, BLOWERS, PUMP SKIDS, RPZ ENCLOSURES, AND OTHER MISCELLANEOUS EQUIPMENT EXCEPT WHERE SPECIFIED MORE STRINGENT BY THE DESIGN ENGINEER.
2. UNLESS INDICATED OTHERWISE, INSTALL ASSEMBLY PLUMB/LEVEL.
3. FOR SLOPED FLOORS, CLEARANCE BELOW SLAB REBAR MAY BE REDUCED TO 2" MINIMUM.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

EQUIPMENT PAD

REVISED

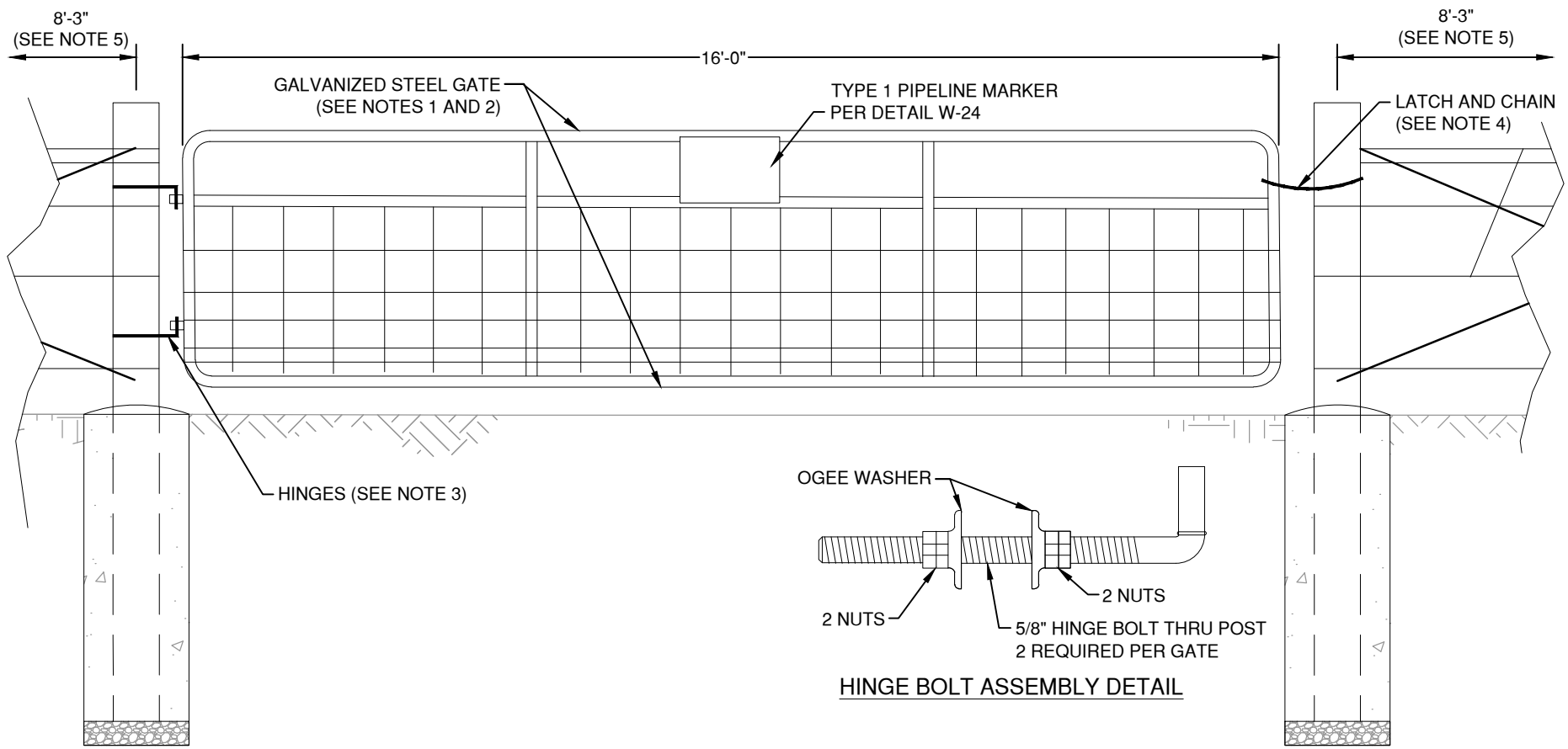
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. G-2



NOTES:

1. INSTALL GATE IN CENTER OF PERMANENT EASEMENT OR CENTERED ON PIPELINE AS DIRECTED BY GVSUD INSPECTOR.
2. GATES SHALL BE CONSTRUCTED OF 16 GAUGE GALVANIZED STEEL 1 5/8" O.D. TUBING WITH WELDED SADDLE CONNECTIONS AND 4 GAUGE GALVANIZED HOG WIRE. CRIMPED CONNECTIONS ARE NOT ACCEPTABLE.
3. HINGE ASSEMBLIES SHALL BE HOT DIP GALVANIZED, THRU BOLT TYPE AT POST, WITH RECEIVERS WELDED TO GATE.
4. LATCH SHALL BE 3 1/2" BRASS DOUBLE BOLT SNAP HOOK WITH 1/4" DIAMETER HOT DIP GALVANIZED CHAIN AROUND POST. SECURE CHAIN TO POST WITH FENCE STAPLES.
5. INSTALL DUAL H-BRACES ON EACH SIDE OF GATE PER DETAIL G-4.
6. FASTEN EXISTING FENCE WIRES TO NEW BRACE POSTS BEFORE CUTTING THE EXISTING WIRES.
7. ALL MATERIAL SHALL BE NEW AND UNUSED.
8. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

BARBED WIRE FENCE GATE

REVISED

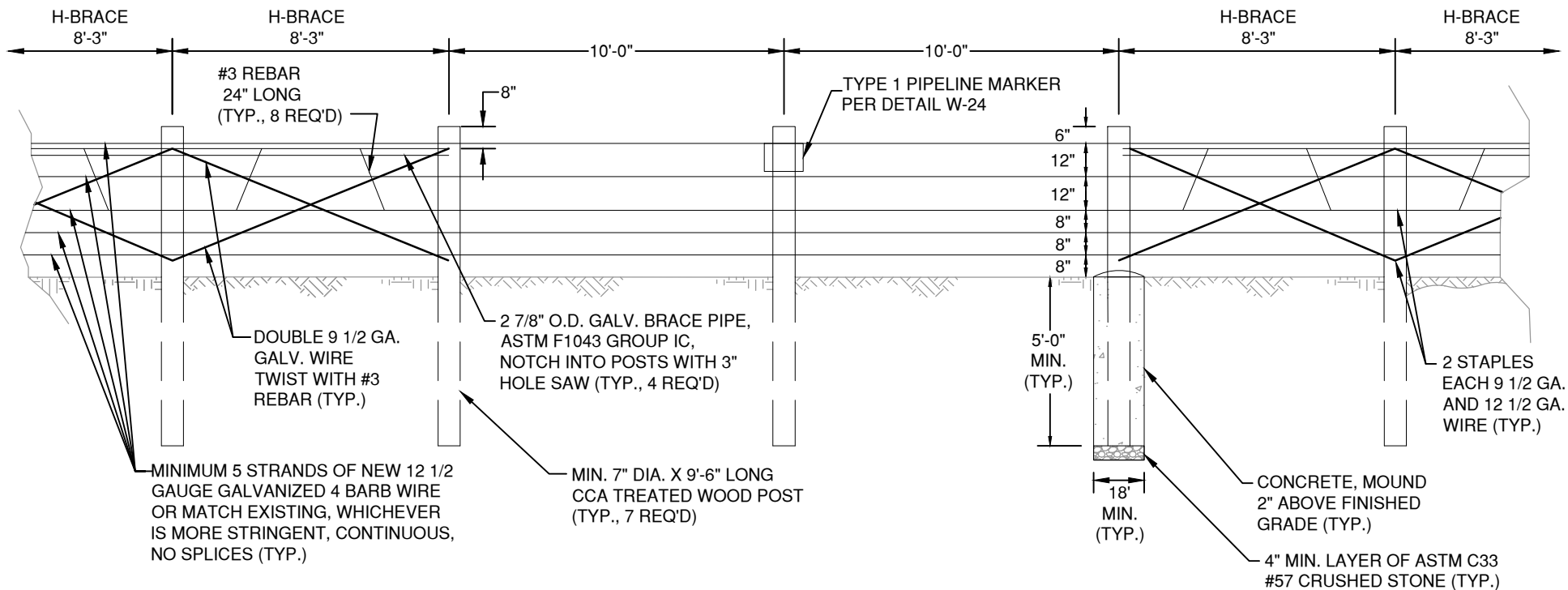
SCALE

NOVEMBER 2025

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. G-3



NOTES:

1. ALL MATERIAL SHALL BE NEW AND UNUSED.
2. FASTEN EXISTING FENCE WIRES TO NEW BRACE POSTS BEFORE CUTTING THE EXISTING WIRES.
3. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

BARBED WIRE FENCE REPAIR

REVISED

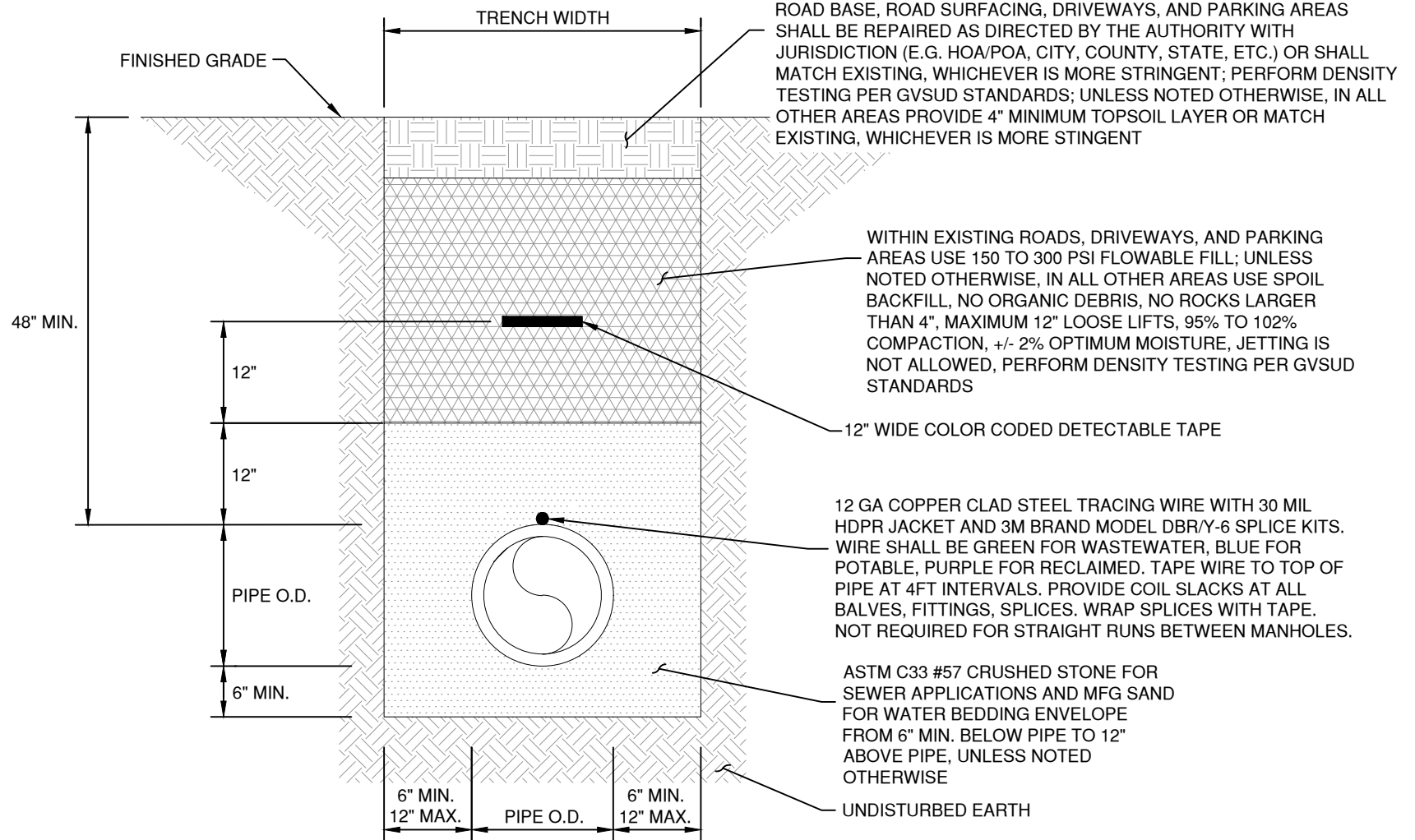
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. G-4



NOTES:

1. TRACING WIRE TEST STATIONS ARE REQUIRED AT ALL FIRE HYDRANTS OR OTHERWISE TO ACHIEVE 500 LF MAX SPACING. TEST STATIONS SHALL BE COLOR CODED COPPERHEAD MODEL RB14TP. INSTALL WITHIN VALVE BOX CONCRETE COLLARS WITH 6' MINIMUM CONCRETE COVER ON ALL SIDES. LEAVE 12" WIRE SLACK INSIDE TEST STATIONS. NOT REQUIRED FOR STRAIGHT RUNS BETWEEN MANHOLES.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

PIPE TRENCH

REVISED

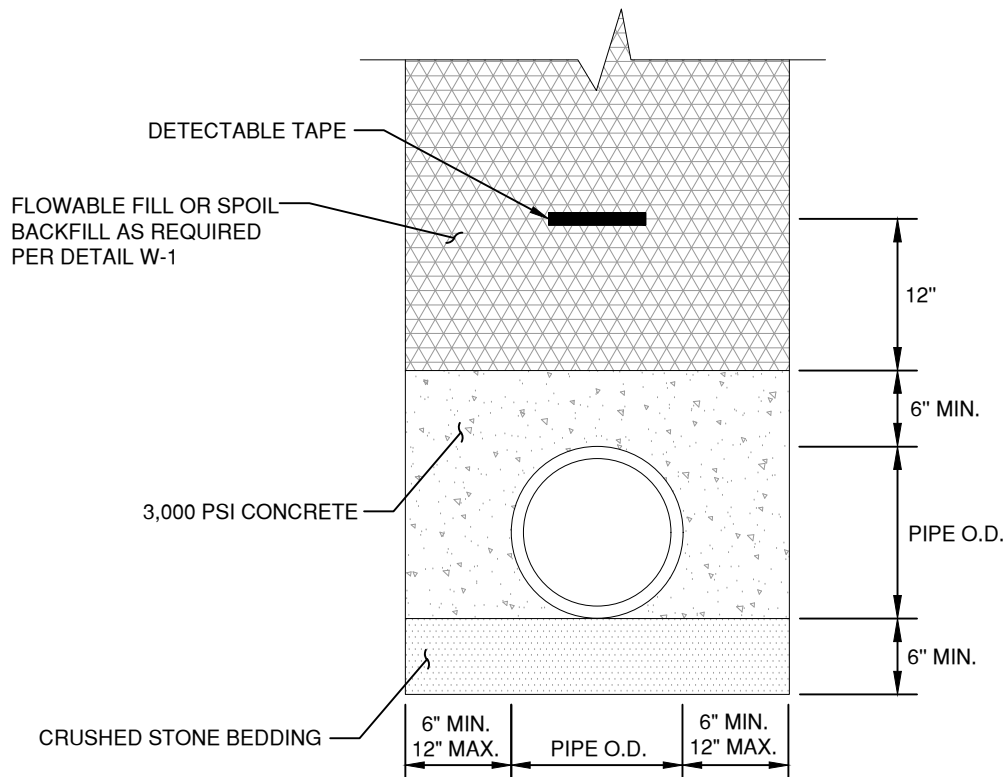
SCALE

NOVEMBER 2025

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-1



NOTES:

1. REFERENCE DETAIL W-1 FOR ADDITIONAL REQUIREMENTS.
2. CONTRACTOR SHALL SECURE PIPE TO MAINTAIN LINE AND GRADE DURING CONCRETE PLACEMENT.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**PIPELINE CONCRETE
CAP TYPE 1**

REVISED

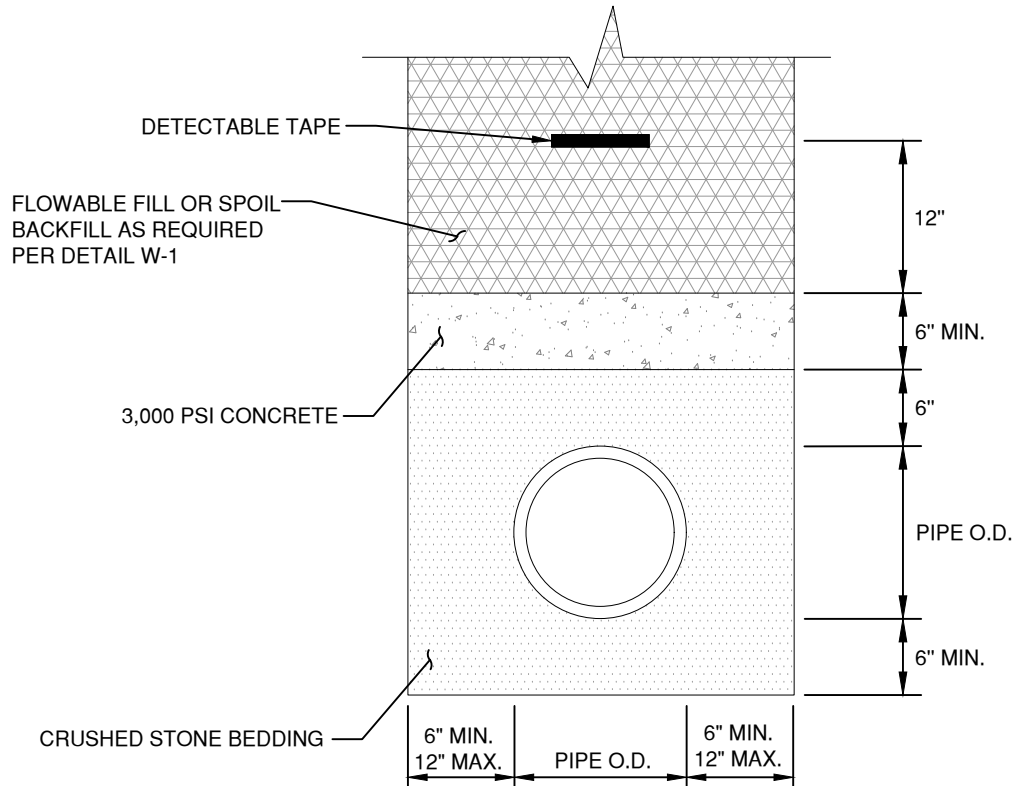
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-2



NOTES:

1. REFERENCE DETAIL W-1 FOR ADDITIONAL REQUIREMENTS.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**PIPELINE CONCRETE
CAP TYPE 2**

REVISED

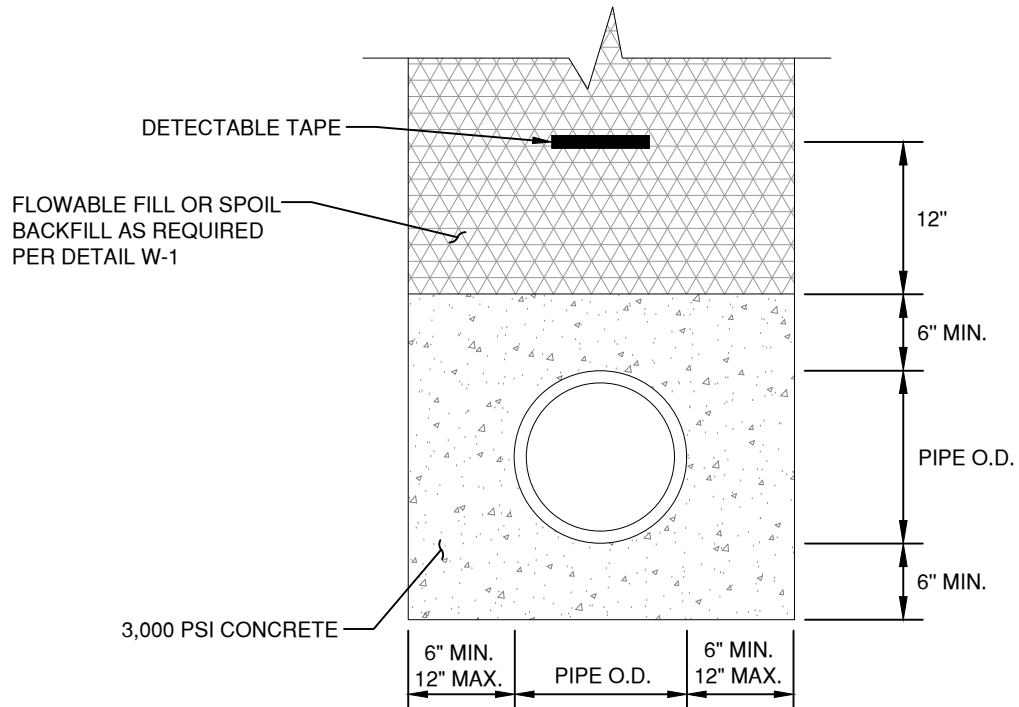
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-3



NOTES:

1. REFERENCE DETAIL W-1 FOR ADDITIONAL REQUIREMENTS.
2. CONTRACTOR SHALL SECURE PIPE TO MAINTAIN LINE AND GRADE DURING CONCRETE PLACEMENT.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**PIPELINE CONCRETE
ENCASEMENT**

REVISED

NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

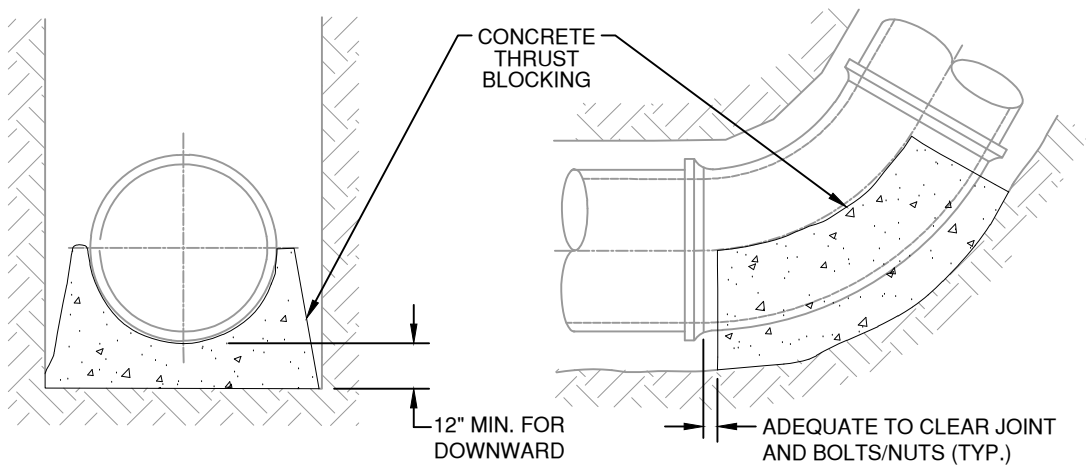
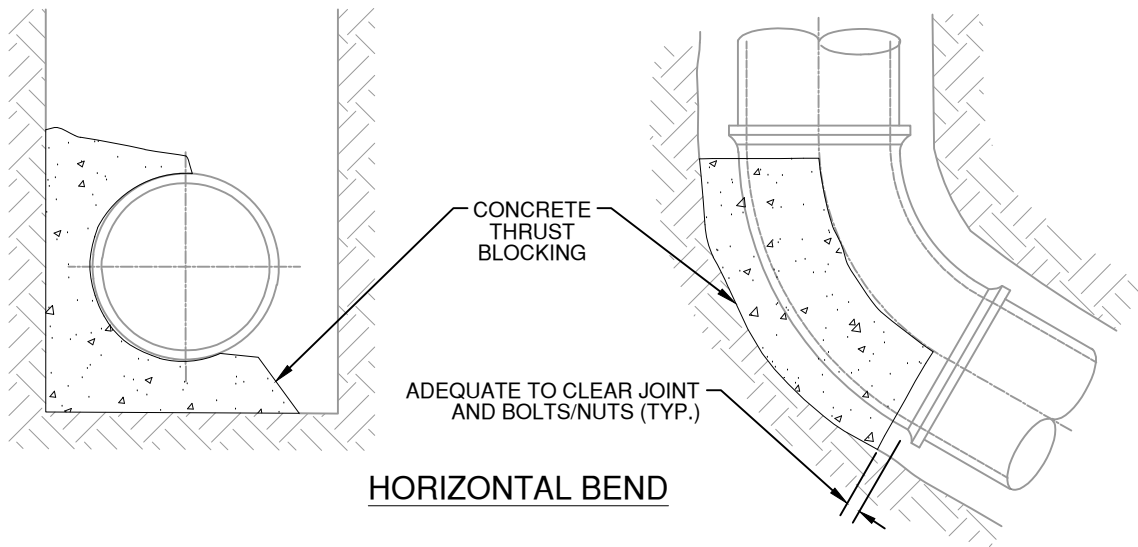
DETAIL NO. W-4

<u>DESCRIPTION</u>	<u>MINIMUM RESTRAINED LENGTH (FT. EACH WAY)</u>
11 1/4° BENDS	30
22 1/2° BENDS	40
45° BENDS	50
90° BENDS, TEES, REDUCERS, TAPPING SLEEVES	60
VALVES, DEAD ENDS	100

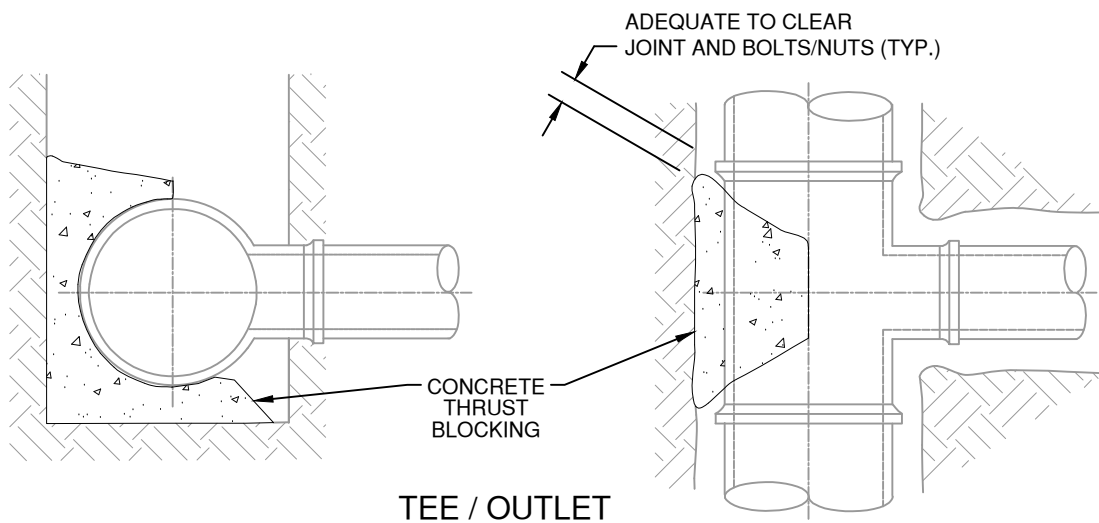
NOTES:

1. THE TABLE ABOVE INDICATES MINIMUM RESTRAINED LENGTH REQUIREMENTS FOR BURIED PRESSURE PIPING SYSTEMS. THE RESTRAINED LENGTHS SHALL BE PROVIDED EACH WAY FROM ALL FITTINGS, VALVES, DEAD ENDS, ETC. THE DESIGN ENGINEER SHALL EVALUATE SOILS AND SYSTEM HYDRAULICS AND DETERMINE IF ANY ADDITIONAL RESTRAINTS ARE REQUIRED.
2. IF THE DESIGN ENGINEER REQUIRES CONCRETE THRUST BLOCKING IN ADDITION TO MECHANICAL RESTRAINTS, THE CONCRETE THRUST BLOCKING MUST BE INSTALLED IN ACCORDANCE WITH DETAIL W-6.
3. REFERENCE GVSUD STANDARDS FOR PIPE, FITTING, AND RESTRAINT MATERIAL REQUIREMENTS.

	GREEN VALLEY SPECIAL UTILITY DISTRICT STANDARD DETAILS	REVISED	SCALE
		NOVEMBER 2025	NONE
	RESTRAINED LENGTHS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	
		DETAIL NO. W-5	



VERTICAL BEND UPWARD (INVERT FOR DOWNWARD)



NOTES:

1. THRUST BLOCKING SHALL BE CAST-IN-PLACE CONCRETE AND MUST BE PLACED UPON AND AGAINST UNDISTURBED EARTH.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

THRUST BLOCKING

REVISED

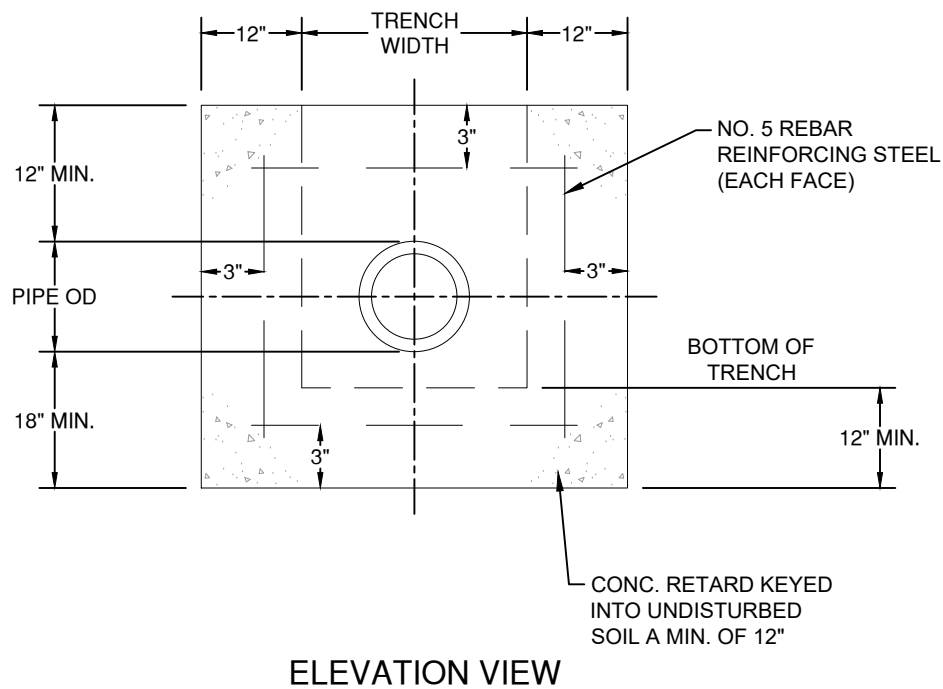
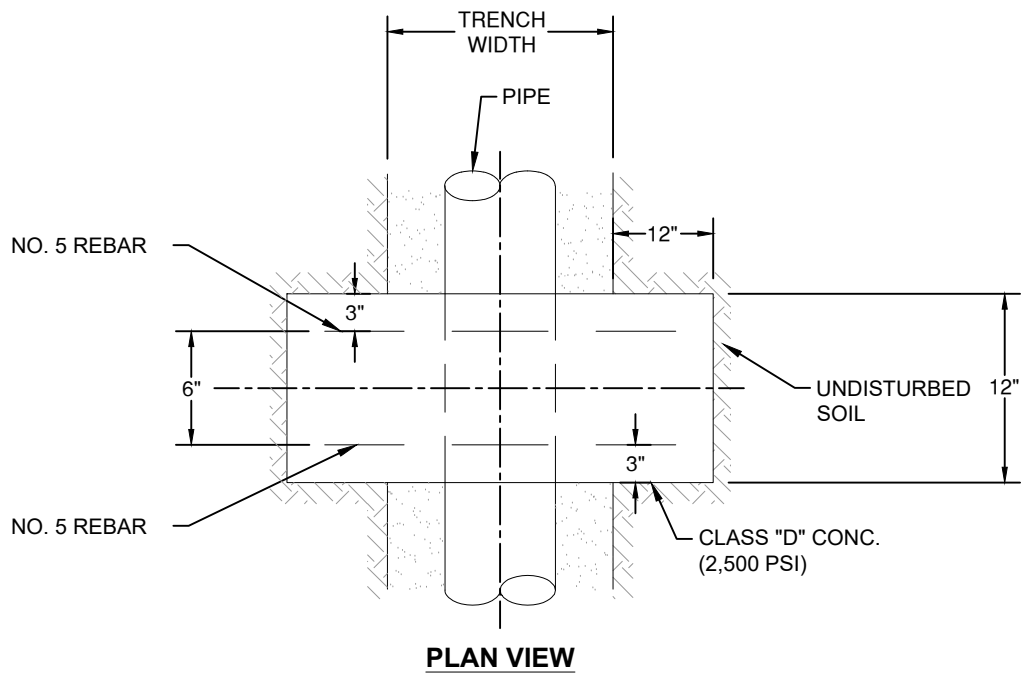
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-6



NOTES:

1. TO BE PLACED ON SLOPES GREATER THAN 10% WITH MAXIMUM SPACING OF 20 FEET.
2. WHEN TRENCHING IN ROCK CONDITIONS, WIDTH MAY BE REDUCED FROM 12 INCHES DOWN TO 6 INCHES.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

CONCRETE RETARD

REVISED

NOVEMBER 2025

SCALE

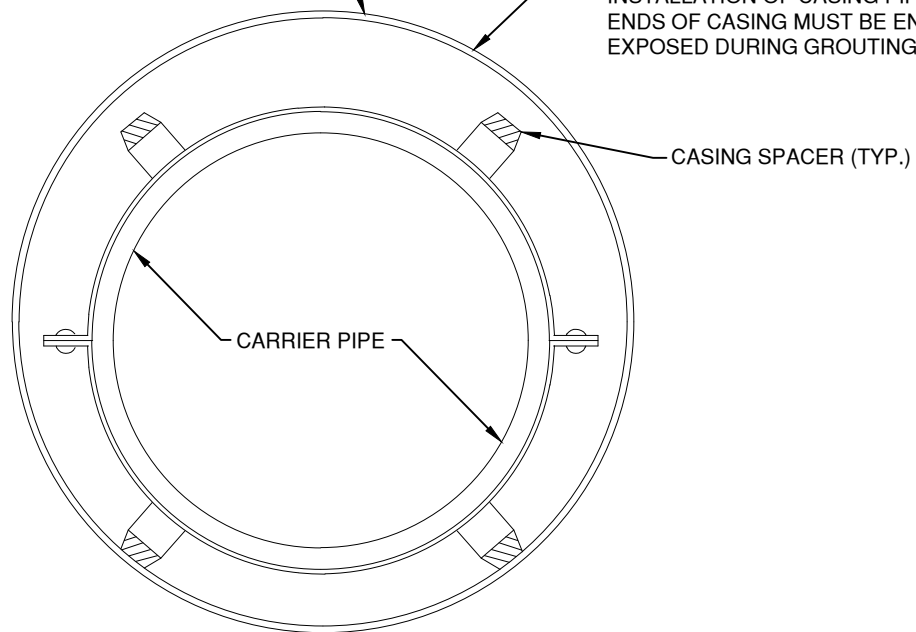
NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-7

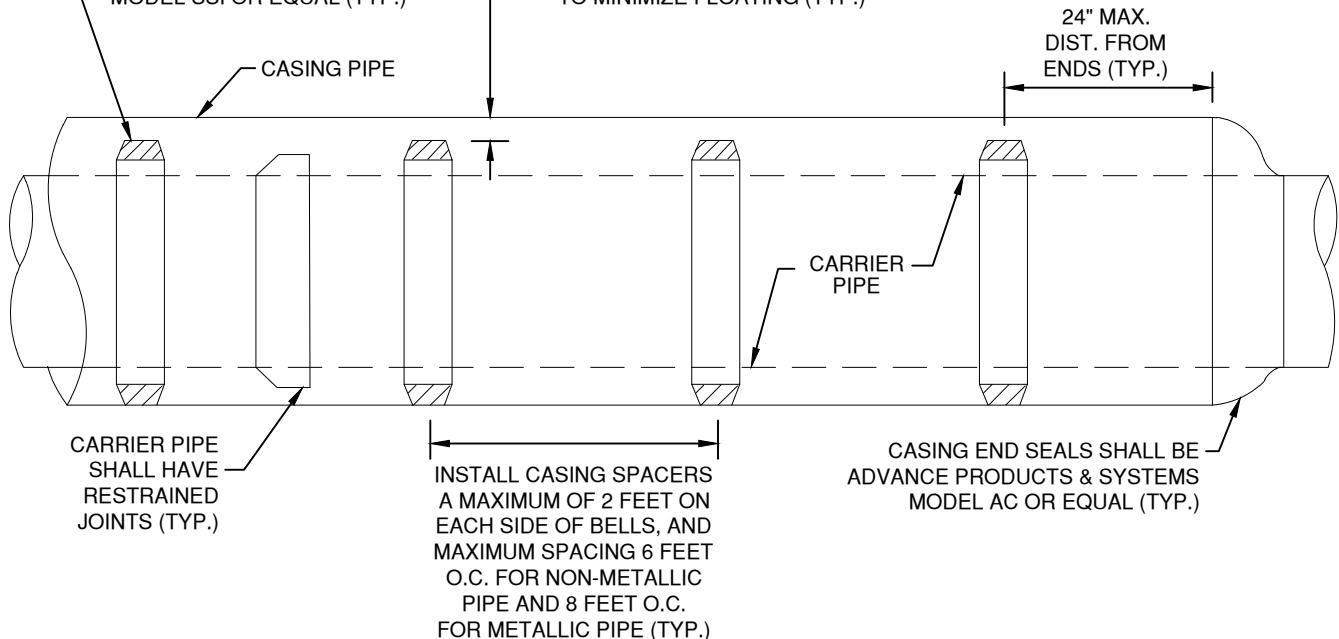
CASING PIPE SHALL BE STRUCTURAL GRADE STEEL, MINIMUM YIELD STRENGTH 35,000 PSI, 3/8" MINIMUM WALL THICKNESS, NOMINAL DIAMETER SHALL BE A MINIMUM OF 6" LARGER THAN OUTSIDE DIAMETER OF CARRIER PIPE JOINT RESTRAINT SYSTEM

PRESSURE GROUT ANNULAR SPACE BETWEEN CASING PIPE AND BORE HOLE WITHIN 72 HOURS AFTER INSTALLATION OF CASING PIPE, BOTH ENDS OF CASING MUST BE ENTIRELY EXPOSED DURING GROUTING



CASING SPACERS SHALL BE ADVANCE PRODUCTS & SYSTEMS MODEL SSI OR EQUAL (TYP.)

CLEARANCE (CASING I.D. MINUS SPACER O.D.) SHALL BE 1/2" TO 3/4" FOR GRAVITY SYSTEMS AND 1" MIN. FOR PRESSURE SYSTEMS; FOR EASE OF REMOVAL AND TO MINIMIZE FLOATING (TYP.)



NOTES:

THE MATERIALS SHOWN APPLY TO JACK AND BORE INSTALLATIONS AND STREAM/RIVER CROSSING. FOR ROAD CROSSINGS, CASING SHALL EXTEND 5 FEET MINIMUM BEYOND ROW ON EACH END. OPEN CUT SLEEVING OF SUBDIVISION UTILITIES UNDER STORM SEWER MAY BE C900 DR18 CASING (COLOR TO MATCH CARRIER PIPE) AND ADVANCE PRODUCTS & SYSTEMS MODEL CI SPACERS, OR EQUAL, WITH STAINLESS STEEL HARDWARE. REFERENCE GVSUD STANDARDS AND DESIGN GUIDELINES FOR ADDITIONAL SLEEVE REQUIREMENTS. THE CLEARANCE AND DIMENSIONS SHOWN APPLY TO ALL INSTALLATIONS.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

CASING AND SPACERS

REVISED

NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-8

EXTERNAL HALF COUPLER,
1/4" THICK X 15" WIDE ROLLED
STEEL WITH BOLT FLANGES TO
MATCH SPLIT CASING, CENTER
OVER UPPER AND LOWER SEAMS,
SEAL ALL SEAMS WITH 1" RAM-NEK
RN103 OR EQUAL (TYP.)

EXISTING PIPE

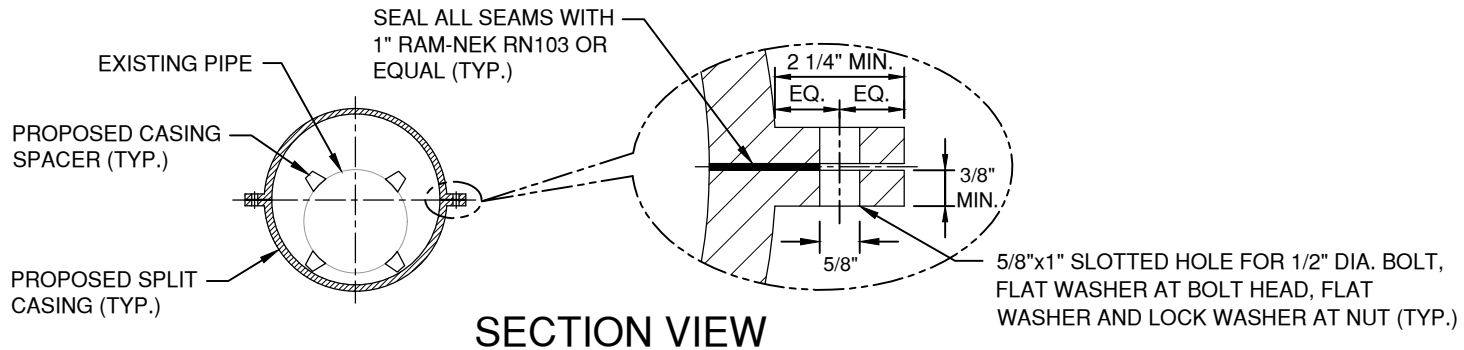
PROPOSED SPLIT
CASING (TYP.)

12" O.C. (TYP.)

6" EACH
END (TYP.)

PROPOSED CASING
SPACER (TYP.)

ISOMETRIC VIEW



SECTION VIEW

NOTES:

1. SPLIT CASING SHALL BE STRUCTURAL GRADE ROLLED STEEL, MINIMUM YIELD STRENGTH 35,000 PSI, 3/8" MINIMUM WALL THICKNESS, MAXIMUM 20 LF SECTIONS, STAGGER TOP AND BOTTOM HALVES, INCORPORATE LIFTING EYES AS NECESSARY, SEAL ALL SEAMS WITH 1" RAM-NEK RN103 OR EQUAL.
2. SPLIT CASING HARDWARE (I.E. BOLTS, NUTS, WASHERS, ETC.) SHALL BE STAINLESS STEEL. FIELD APPLY NICKEL ANTI-SEIZE COMPOUND TO THREADS PRIOR TO ASSEMBLY.
3. CASING SPACERS SHALL BE ADVANCE PRODUCTS & SYSTEMS MODEL SSI OR EQUAL.
4. CASING END SEALS SHALL BE ADVANCE PRODUCTS & SYSTEMS MODEL AW OR EQUAL, WRAP WITH THREE LAYERS OF 8 MIL POLY AND TAPE.
5. REFERENCE DETAIL W-8 FOR ADDITIONAL REQUIREMENTS (E.G. SIZES, DIMENSIONS, CLEARANCES, ETC.).
6. CONTRACTOR SHALL FULLY RESTRAIN ALL EXISTING PIPING THAT WILL BE WITHIN PROPOSED SPLIT CASING. THIS WORK SHALL BE SUBSIDIARY TO COST OF SPLIT CASING. RESTRAINTS SHALL BE FORD UNI-FLANGE SERIES 1390 FOR PVC PIPE AND SERIES 1490 FOR DUCTILE IRON PIPE.

SEQUENCE OF WORK:

1. THE EXISTING PIPELINE SHALL REMAIN PRESSURIZED AND IN SERVICE DURING THIS ENTIRE SEQUENCE OF WORK.
2. POT HOLE AND EXPOSE EACH EXISTING PIPE JOINT THAT WILL BE WITHIN PROPOSED SPLIT CASING.
3. FULLY RESTRAIN ALL EXISTING PIPING THAT WILL BE WITHIN PROPOSED SPLIT CASING.
4. BACKFILL ALL EXCAVATIONS ASSOCIATED WITH ITEMS 2 AND 3.
5. EXPOSE EXISTING PIPING 20 LF MAXIMUM AT A TIME.
6. INSTALL CASING SPACERS ON EXISTING PIPE.
7. INSTALL SPLIT CASING AROUND RESTRAINTS, SPACERS, AND EXISTING PIPE.
8. INSTALL CRUSHED STONE BEDDING AND BACKFILL IN ACCORDANCE WITH DETAIL W-1.
9. REPEAT ITEMS 5 THRU 8 UNTIL PIPELINE SEGMENT IS COMPLETED.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

SPLIT CASING - BOLTED

REVISED

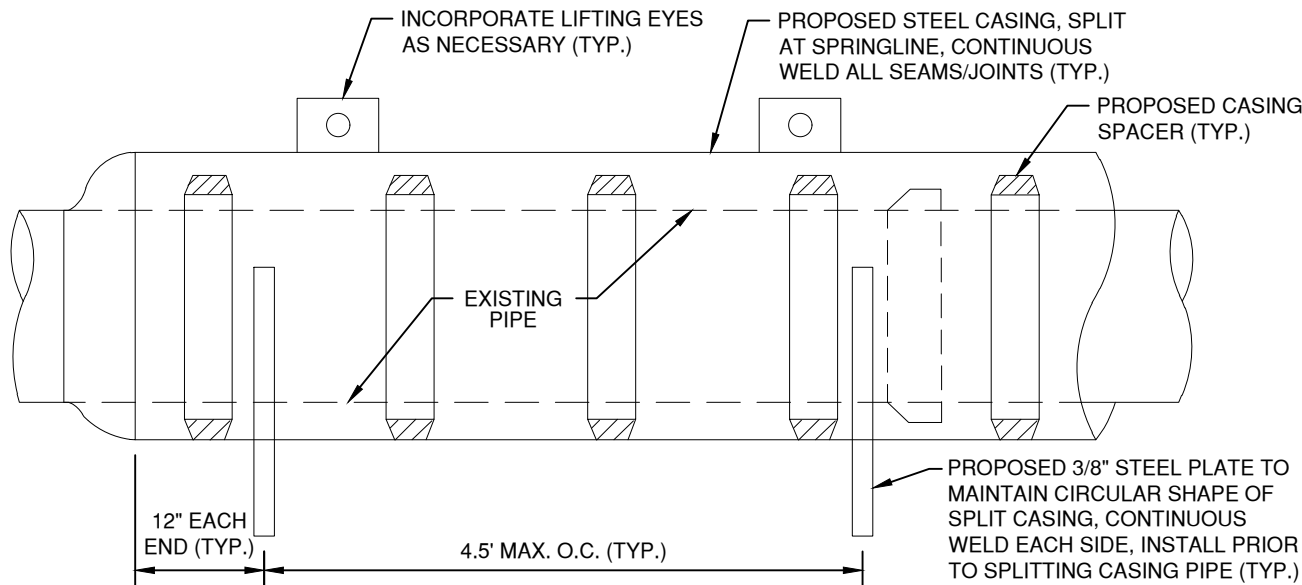
SCALE

NOVEMBER 2025

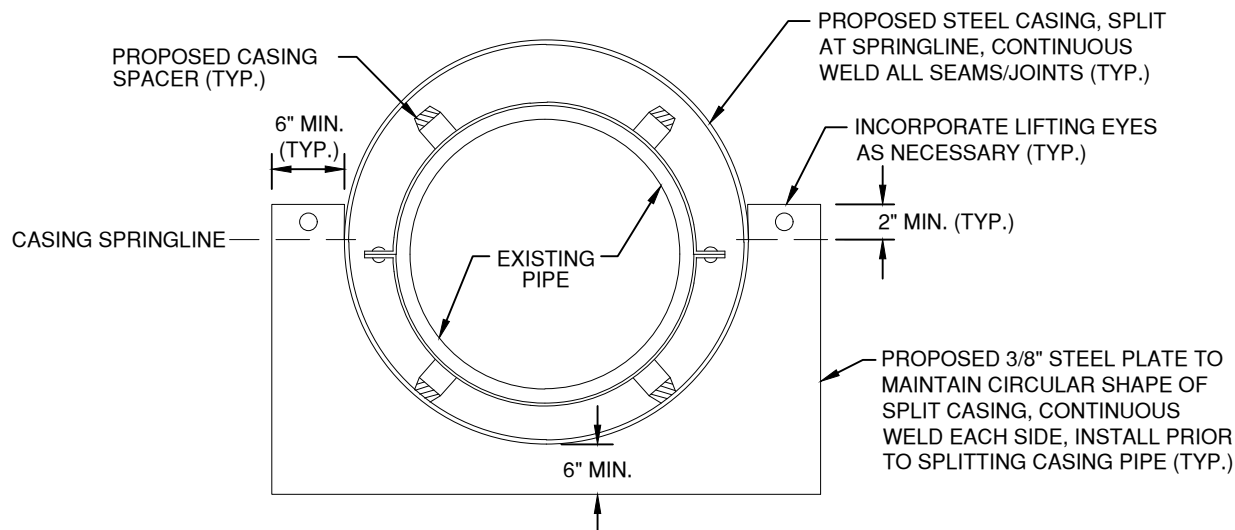
NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-9



PROFILE VIEW



SECTION VIEW

NOTES:

1. CASING PIPE SHALL BE STRUCTURAL GRADE STEEL WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI AND 3/8" MINIMUM WALL THICKNESS.
2. CASING SPACERS SHALL BE ADVANCE PRODUCTS & SYSTEMS MODEL SSI OR EQUAL.
3. CASING END SEALS SHALL BE ADVANCE PRODUCTS & SYSTEMS MODEL AW OR EQUAL, WRAP WITH THREE LAYERS OF 8 MIL POLY AND TAPE.
4. REFERENCE DETAIL W-8 FOR ADDITIONAL REQUIREMENTS (E.G. SIZES, DIMENSIONS, CLEARANCES, ETC.).
5. CONTRACTOR SHALL FULLY RESTRAIN ALL EXISTING PIPING THAT WILL BE WITHIN PROPOSED SPLIT CASING. THIS WORK SHALL BE SUBSIDIARY TO COST OF SPLIT CASING. RESTRAINTS SHALL BE FORD UNI-FLANGE SERIES 1390 FOR PVC PIPE AND SERIES 1490 FOR DUCTILE IRON PIPE.

SEQUENCE OF WORK:

1. THE EXISTING PIPELINE SHALL REMAIN PRESSURIZED AND IN SERVICE DURING THIS ENTIRE SEQUENCE OF WORK.
2. POT HOLE AND EXPOSE EACH EXISTING PIPE JOINT THAT WILL BE WITHIN PROPOSED SPLIT CASING.
3. FULLY RESTRAIN ALL EXISTING PIPING THAT WILL BE WITHIN PROPOSED SPLIT CASING.
4. BACKFILL ALL EXCAVATIONS ASSOCIATED WITH ITEMS 2 AND 3.
5. EXPOSE EXISTING PIPING 20 LF MAXIMUM AT A TIME.
6. INSTALL CASING SPACERS ON EXISTING PIPE.
7. INSTALL SPLIT CASING AROUND RESTRAINTS, SPACERS, AND EXISTING PIPE.
8. INSTALL CRUSHED STONE BEDDING AND BACKFILL IN ACCORDANCE WITH DETAIL W-1.
9. REPEAT ITEMS 5 THRU 8 UNTIL PIPELINE SEGMENT IS COMPLETED.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

SPLIT CASING - WELDED

REVISED

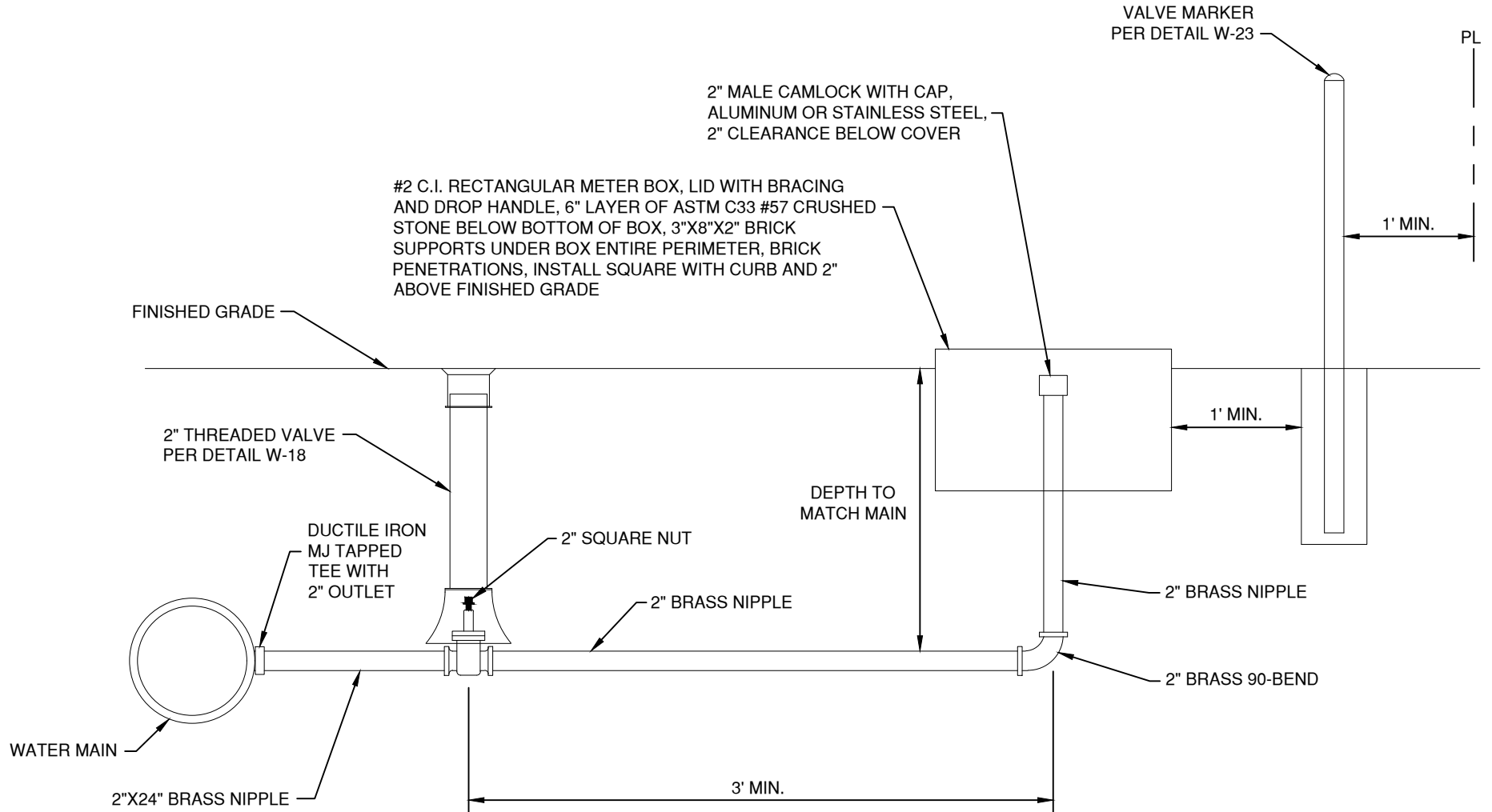
SCALE

NOVEMBER 2025

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-10



NOTES:

1. INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

2" DRAIN VALVE

REVISED

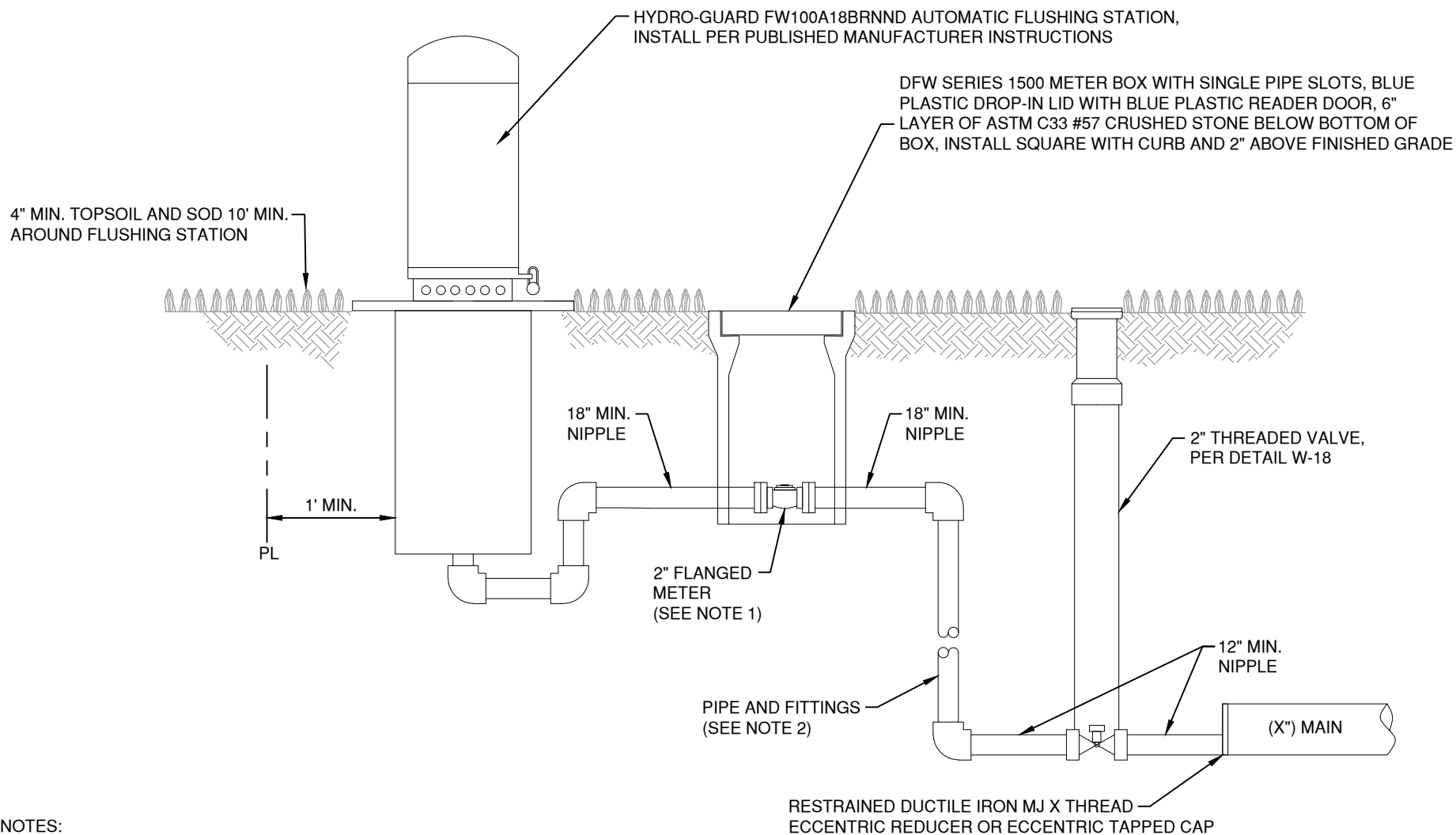
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-11



NOTES:

1. METER ONLY FURNISHED BY GVSUD, TO BE INSTALLED BY CONTRACTOR.
2. ALL PIPE AND FITTINGS SHALL BE 2" BRASS.
3. INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

2" FLUSH VALVE

REVISED

NOVEMBER 2025

SCALE

NONE

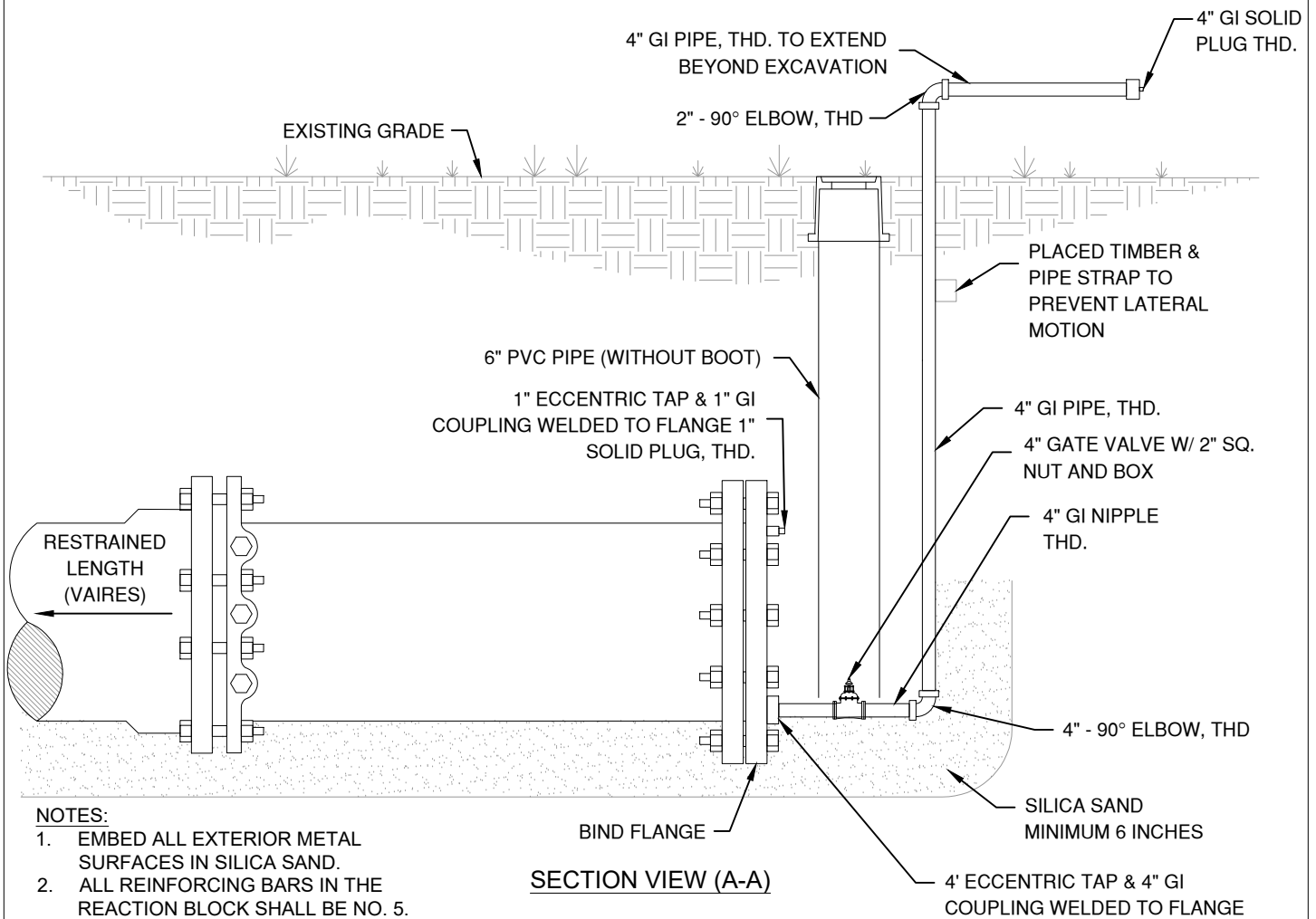
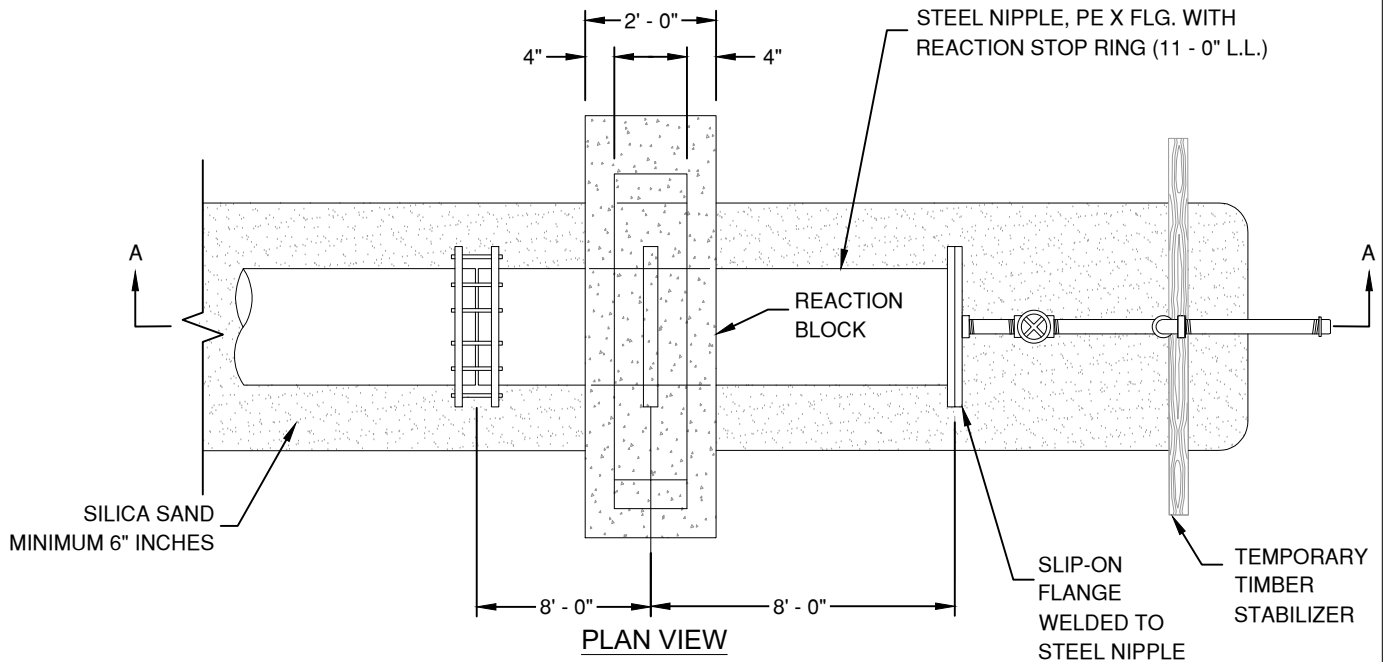
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-12



- NOTES:**
1. BACKFILL ALL EXTERIOR METAL SURFACES IN SILICA SAND.
 2. ALL REINFORCING BARS IN THE REACTION BLOCK SHALL BE NO. 4.

	GREEN VALLEY SPECIAL UTILITY DISTRICT STANDARD DETAILS	REVISED	SCALE
	2" TEMPORARY BLOW-OFF ASSEMBLY ON 12" TO 16" MAINS	NOVEMBER 2025	NONE
		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	
		DETAIL NO. W-13	



NOTES:

1. EMBED ALL EXTERIOR METAL SURFACES IN SILICA SAND.
2. ALL REINFORCING BARS IN THE REACTION BLOCK SHALL BE NO. 5.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**4" TEMPORARY BLOW-OFF
ASSEMBLY ON 20" OR LARGER
MAINS (JOINT RESTRAINT)**

REVISED

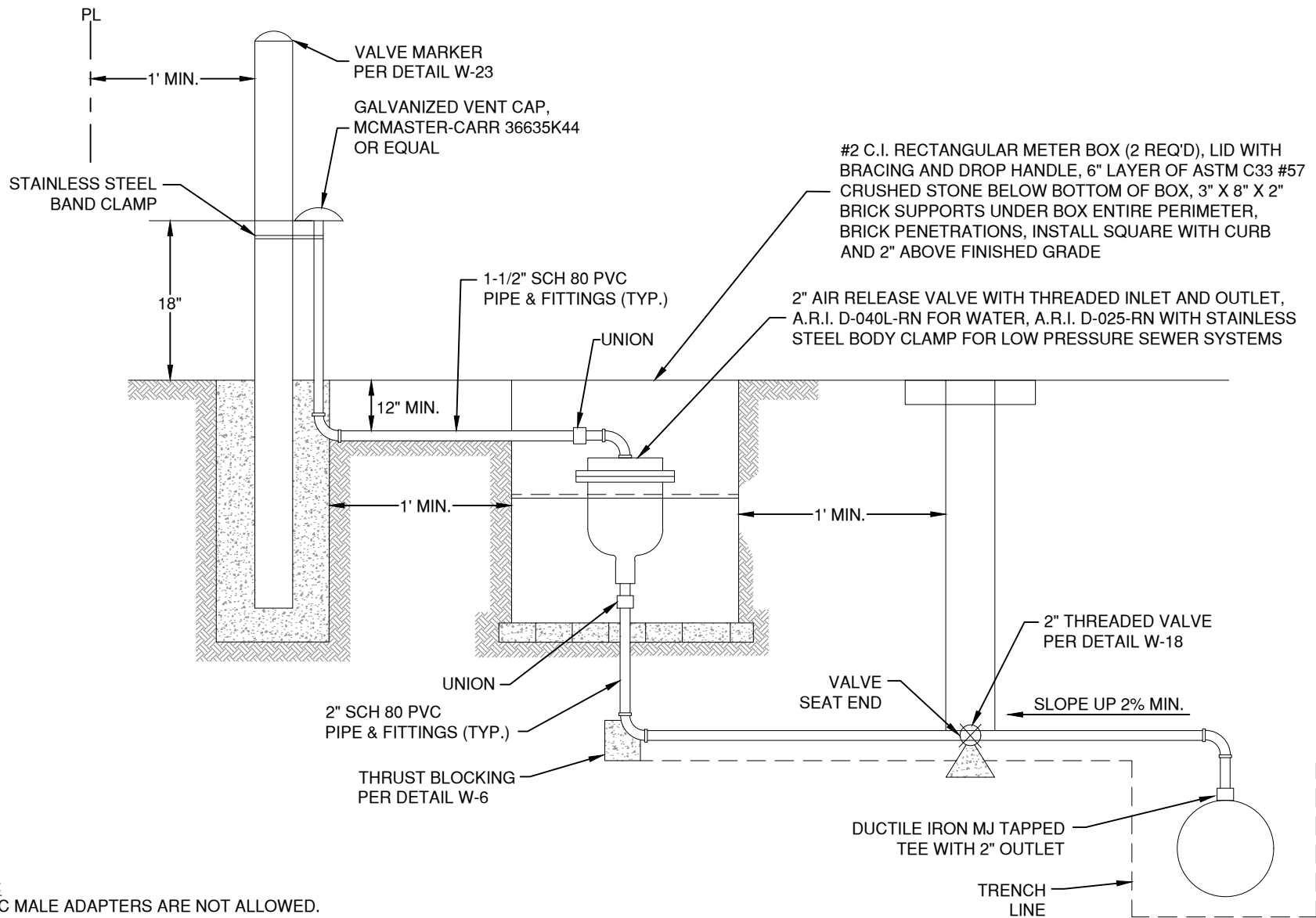
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-14



NOTES:

1. PVC MALE ADAPTERS ARE NOT ALLOWED.
2. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

AIR RELEASE VALVE TYPE 1

REVISED

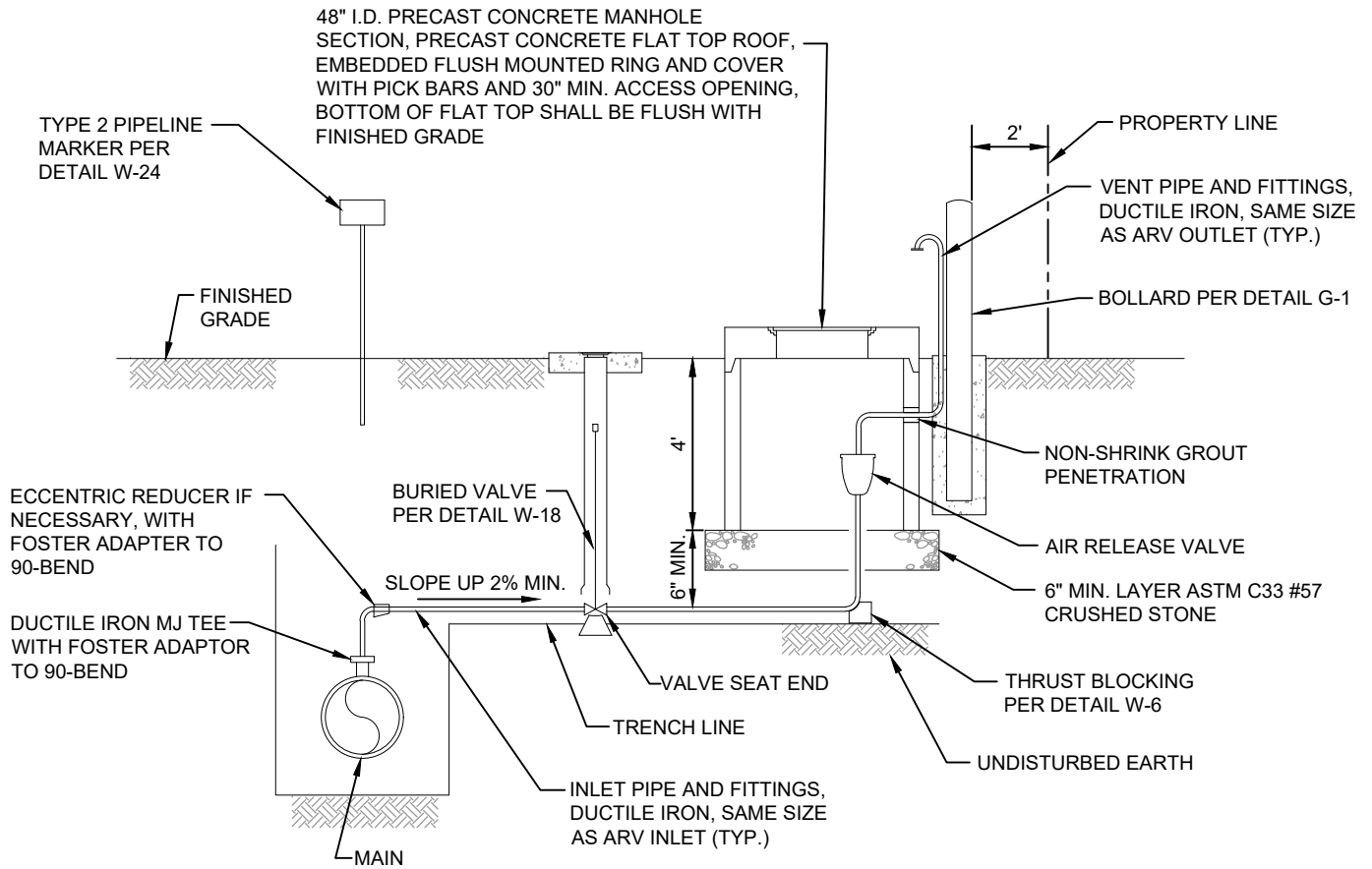
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-15



NOTES:

1. FOR WATER, AIR RELEASE VALVE SHALL BE 4" MINIMUM VAL-MATIC MODEL 204C.15 OR LARGER AS INDICATED ON DRAWINGS, WITH FLANGED INLET AND OUTLET, AND FUSION BONDED EPOXY INTERNAL AND EXTERNAL.
2. FOR WASTEWATER FORCE MAINS, AIR RELEASE VALVE SHALL BE 3" MINIMUM A.R.I. MODEL D-026 OR LARGER AS INDICATED ON DRAWINGS, WITH FLANGED INLET AND OUTLET.
3. USE RESTRAINED MECHANICAL JOINTS IN BURIED LOCATIONS. USE FLANGED JOINTS INSIDE MANHOLE AND ABOVE GRADE.
4. VENT PIPING SHALL TERMINATE WITH RING FLANGE AND ALUMINUM INSECT SCREEN 24" ABOVE FINISHED GRADE.
5. PAINT PIPING, FITTINGS, AND VALVES WITHIN MANHOLE AND ABOVE GRADE (REFERENCE GVSUD STANDARDS FOR PAINTING REQUIREMENTS).
6. EXPOSED VERTICAL AND HORIZONTAL CONCRETE EDGES SHALL BE FORMED WITH 3/4" CHAMFER STRIPS.
7. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**AIR RELEASE
VALVE TYPE 2**

REVISED

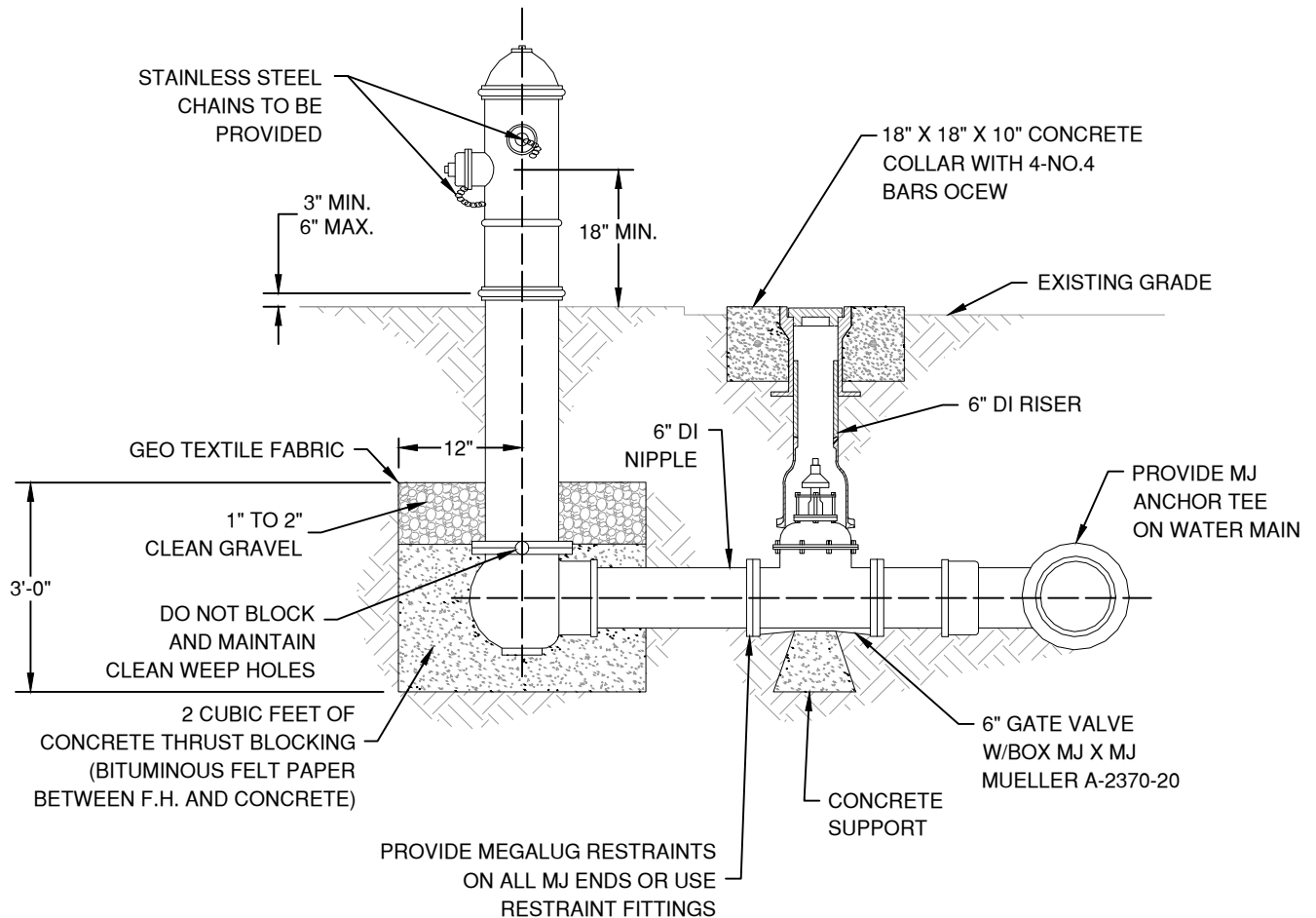
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-16



NOTES

1. HYDRANT ASSEMBLY INCLUDES FIRE HYDRANT, VALVE, DIP, DI FITTINGS, ANCHOR RESTRAINERS, AND PIPE TO DISTRIBUTION SYSTEM.
2. FIRE HYDRANTS SHALL HAVE A MINIMUM OF 3 FEET OF CLEARANCE SURROUNDING HYDRANT.
3. HYDRANTS SHALL BE A MINIMUM DISTANCE OF 3 FEET BEHIND THE CURB OR 3 FEET FROM THE R.O.W. UNDER NO CIRCUMSTANCES SHALL VALVES OR HYDRANTS BE PLACED IN A CURB OR SIDEWALK. IN AREAS WITHOUT CURBS OR SIDEWALKS, HYDRANT SHALL BE PLACED 3-6 FEET FROM THE DISTRIBUTION SYSTEM.
4. FOR BURY DEPTHS GREATER THAN 5 FEET, ONE BARREL EXTENSION NOT EXCEEDING 3 FEET IN LENGTH SHALL BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT.
5. 1 CU FOOT (MIN) OF CRUSHED STONE OR GRAVEL SHALL BE PLACED AROUND WEEP HOLE FOR A RADIUS OF 12 INCHES AND EXTEND 12 INCHES ABOVE THE OUTLET.
6. VALVE, DUCTILE IRON PIPE, AND STANDARD FIRE HYDRANT SYSTEM SHALL BE RESTRAINT JOINT CONTINUOUSLY TOGETHER.
7. FIRE HYDRANT SHALL BE 6 INCH (3) WAY HYDRANT WITH BREAK AWAY BOLTS (SHOE TYPES) PROVIDED WITH STORZ CONNECTION. DEPTH OF BURY SHALL BE 42 INCHES MINIMUM. FIRE HYDRANTS MUST BE SET PLUMB. HOSE CONNECTION MUST FACE ROADWAY.
8. HYDRANT ASSEMBLY SHALL BE RESTRAINED FROM TEE TO HYDRANT.
9. IN THE CITY OF CIBOLO'S CITY LIMITS, FIRE HYDRANTS SHALL BE MUELLER TYPE AND SHALL BE 1 FOOT MINIMUM AND 7 FEET MAXIMUM FROM THE BACK OF CURB.
10. HYDRANTS UPPER BARREL SHALL BE FACTORY PAINTED RED WITH BONNET AND CAPS COATED PER CURRENT NFPA 291 STANDARDS.
11. HYDRANTS LOCATED IN RURAL AREAS SHALL HAVE 6' TALL POLLARD WATER FLEXIFLAG #PP68802.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

STANDARD HYDRANT ASSEMBLY INSTALLATION

REVISED

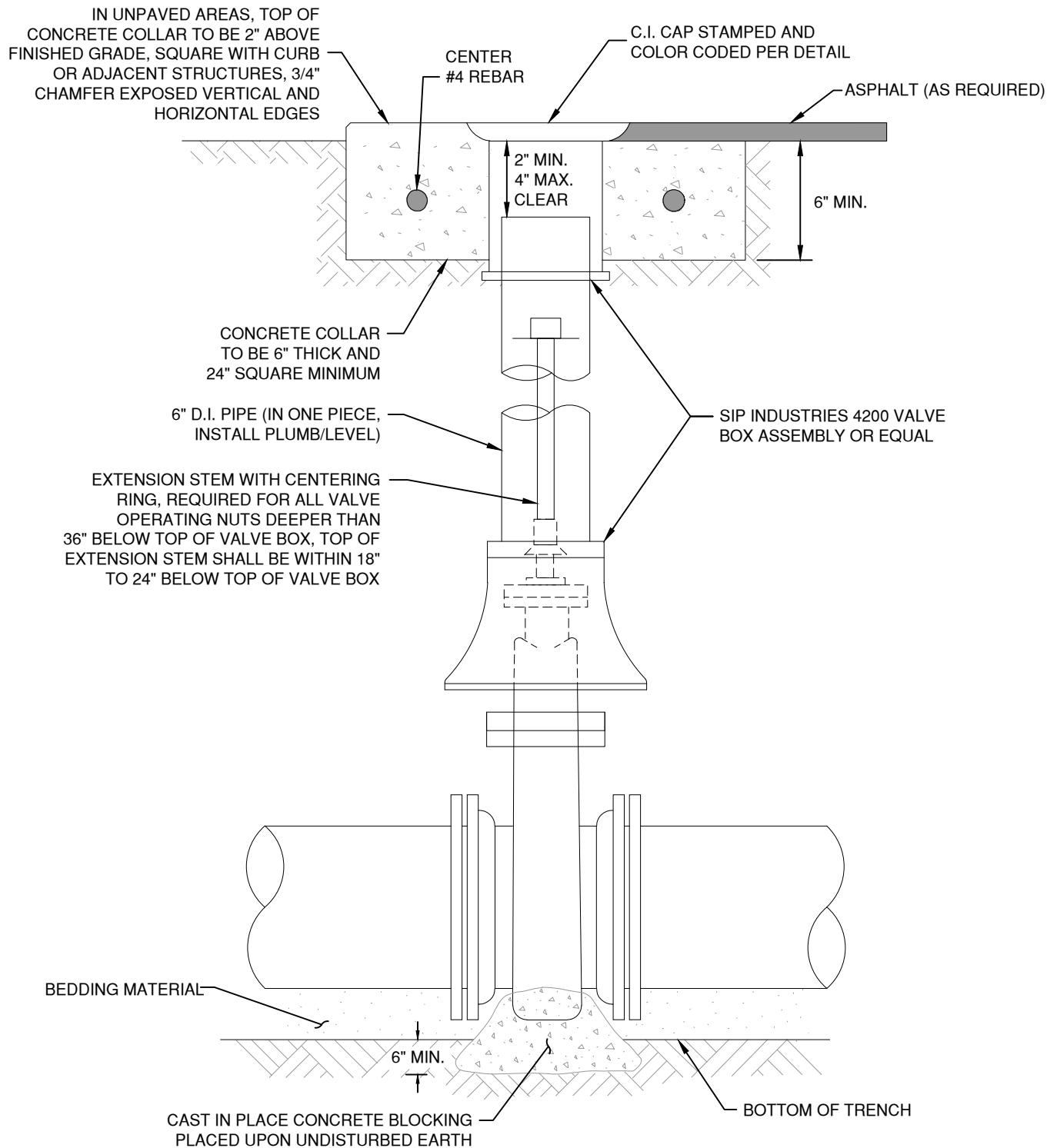
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-17



NOTES:

1. ALL VALVES SHALL OPEN LEFT, EXCEPT RECLAIMED SHALL OPEN RIGHT.
2. ALL VALVES SHALL HAVE RESTRAINED MECHANICAL JOINT END CONNECTIONS UNLESS NOTED OTHERWISE.
3. FOR WATER, PROVIDE RESILIENT WEDGE GATE VALVES, AMERICAN FLOW CONTROL SERIES 2500 OR EQUAL.
4. FOR WASTEWATER, PROVIDE EPOXY LINED AND COATED ROUND PORT PLUG VALVES BY CRISPIN, GA, MILLIKEN, OR PRATT. PLUG VALVES SHALL BE HORIZONTAL SHAFT CLOSING DOWNWARD. INSTALL ORIENTATION OF SEAT END ("SE") AS SHOWN ON DRAWINGS OR AS DIRECTED BY GVSUD INSPECTOR.
5. INSTALL ASSEMBLY PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

BURIED VALVE

REVISED

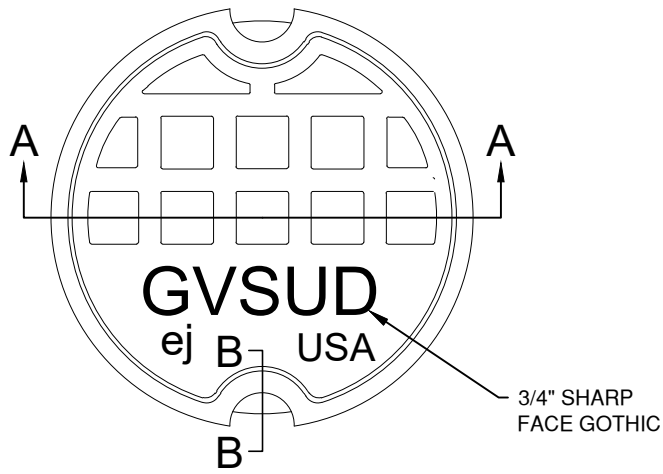
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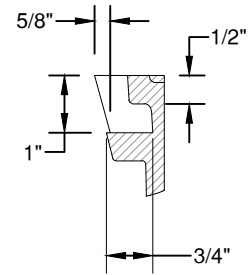
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THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

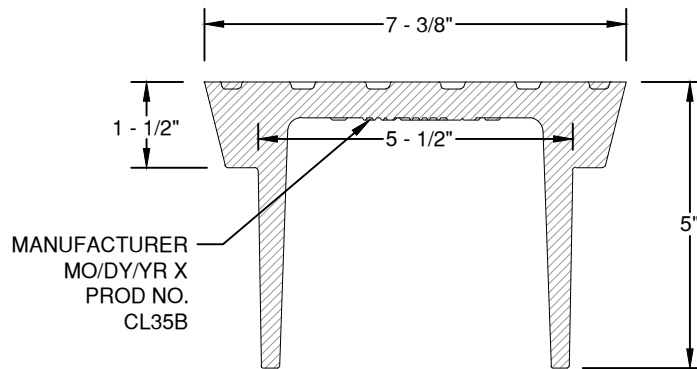
DETAIL NO. W-18



PLAN VIEW



SECTION B - B
VIEW



SECTION A - A
VIEW

NOTES:

1. VALVE BOX COVER SHALL BE EJ GROUP, INC. \$71 VALVE BOX COVER PRODUCT NUMBER 33171011, OR APPROVED EQUIVALENT WITH GVSUD LOGO.
2. TYPICAL FILLET IS 3/16 INCH RADIUS.
3. LETTERING SHALL BE 3/4 INCH SHARP FACE GOTHIC AND LOCATED AS SHOWN.
4. LID REQUIRES TWO (2) PICK SLOTS.
5. THE MANUFACTURER'S IDENTIFICATION, CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID.
6. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
7. FINISH BY REMOVING FINS AND FLASHING AND PAINT WITH BLACK ASPHALT COATING.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

VALVE BOX
CASTING LID

REVISED

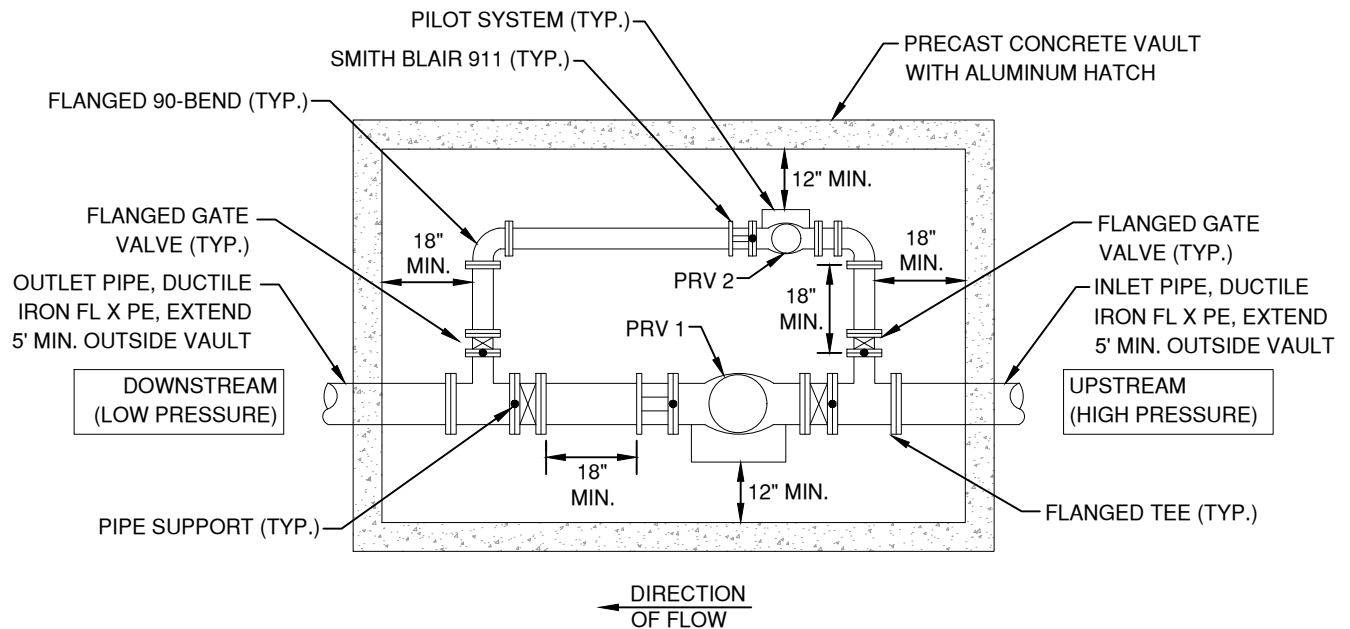
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-19



NOTES:

- SUBMIT PRODUCT DATA FOR ALL MATERIALS AND A DIMENSIONED VAULT AND PIPING LAYOUT DRAWING DEMONSTRATING ALL REQUIRED CLEARANCES AND OBTAIN GVSUD APPROVAL PRIOR TO ORDERING ANY MATERIALS.
- ALL EXPOSED VERTICAL AND HORIZONTAL CONCRETE EDGES SHALL BE FORMED WITH 3/4" CHAMFER STRIPS.
- PRECAST CONCRETE VAULT AND ALUMINUM HATCH SHALL BE H-20 TRAFFIC RATED. HATCH SHALL BE PER CITY OF AUSTIN SPL-614A WITH PADLOCK STAPLE. INSTALL HATCH LENGTHWISE IN CENTER OF VAULT.
- TOP OF VAULT SHALL BE 4" ABOVE FINISHED GRADE.
- VAULT SHALL BE OPEN BOTTOM INSTALLED ON 6" MINIMUM LAYER OF ASTM C33 #57 CRUSHED STONE.
- PROVIDE 24" CLEARANCE FROM BOTTOM OF PIPE TO BOTTOM OF VAULT. DEPTH OF PIPE SHALL BE IN ACCORDANCE WITH DESIGN PROFILES AND MINIMUM COVER REQUIREMENTS.
- PROVIDE PRECAST BLOCKOUTS WITH KEYWAY AT WALL PIPE PENETRATIONS. FORM AND FILL WITH NON-SHRINK GROUT.
- PIPING OUTSIDE VAULT SHALL BE RESTRAINED IN ACCORDANCE WITH GVSUD STANDARDS.
- ALL PIPING INSIDE VAULT SHALL BE FLANGED DUCTILE IRON.
- FLANGE COUPLING ADAPTERS SHALL BE INSTALLED ON LOW PRESSURE SIDE ONLY, SMITH BLAIR MODEL 911 OR EQUAL.
- GATE VALVES SHALL BE FLANGED AMERICAN FLOW CONTROL SERIES 2500 RISING STEM OR EQUAL.
- PRESSURE REDUCING VALVES (PRV) SHALL BE CLA-VAL MODEL 90-01G (OR EQUAL BY SINGER, WATTS, OR ZURN WILKINS) WITH ANTI-CAVITATION TRIM AND STAINLESS STEEL PILOT SYSTEMS. INSTALL PILOT SYSTEMS AND GAUGES ON SIDE OF PRV ADJACENT TO NEAREST WALL. STRAINERS ARE REQUIRED IF PROCESS FLUID IS NOT POTABLE.
- PRV 1 SHALL BE SAME NOMINAL SIZE AS MAIN PIPELINE. PRV 2 SHALL BE HALF NOMINAL SIZE OF MAIN PIPELINE.
- INSTALL A PRESSURE GAUGE ON EACH PRV INLET AND OUTLET PER DETAIL W-26 (TRANSMITTER IS NOT REQUIRED). INSTALL A 45-BEND FITTING BELOW EACH GAUGE SUCH THAT GAUGES ARE LEGIBLE FROM THE HATCH OPENING.
- INSTALL AN ADJUSTABLE PIPE SUPPORT WITH FLANGE CONNECTION AT EACH LOCATION SHOWN. INSTALL A SQUARE CAST-IN-PLACE REINFORCED CONCRETE BEARING PAD UPON UNDISTURBED EARTH CENTERED UNDER EACH SUPPORT. BEARING PADS SHALL BE SQUARE WITH WALLS AND SHALL EXTEND 6" BEYOND BASE PLATES ON ALL SIDES. TOP OF BEARING PADS SHALL BE 2" ABOVE CRUSHED STONE LAYER.
- PAINT PIPING, FITTINGS, AND VALVES WITHIN VAULT (REFERENCE GVSUD STANDARDS FOR PAINTING REQUIREMENTS).



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

DUAL PRV VAULT

REVISED

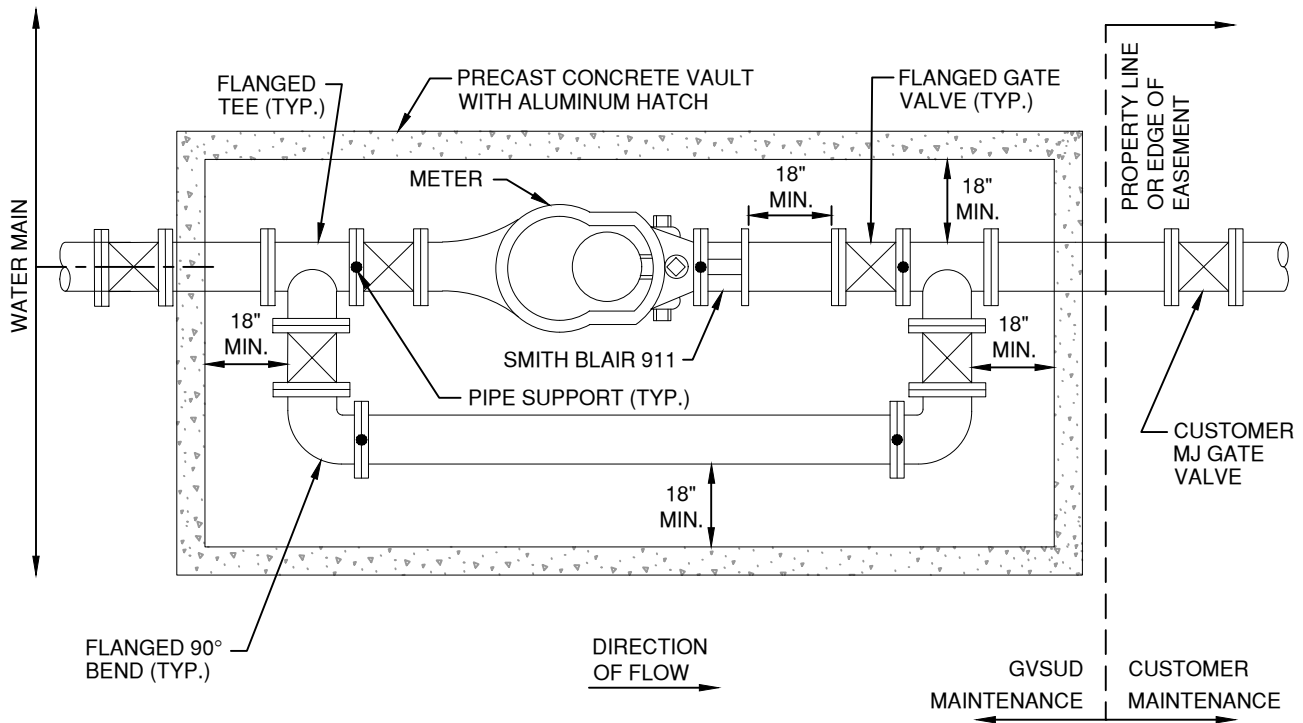
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-20



NOTES:

1. INSTALL SEPARATE TAPS AND VAULTS FOR POTABLE AND FIRE SERVICE. REFERENCE GVSUD STANDARDS FOR TAP REQUIREMENTS.
2. SUBMIT PRODUCT DATA FOR ALL MATERIALS AND A DIMENSIONED VAULT AND PIPING LAYOUT DRAWING DEMONSTRATING ALL REQUIRED CLEARANCES AND OBTAIN GVSUD APPROVAL PRIOR TO ORDERING ANY MATERIALS.
3. FURNISH AND INSTALL THE ENTIRE ASSEMBLY AS DETAILED INCLUDING NEPTUNE MACH 10 R900i WATER METER.
4. FURNISH AND INSTALL APPROPRIATE BACKFLOW PREVENTION DEVICES IN SEPARATE VAULTS DOWNSTREAM OF METER VAULTS FOR EACH SERVICE TYPE (REFERENCE TCEQ 290.47 APPENDIX F).
5. BYPASS PIPING SHALL BE SAME SIZE AS METER PIPING.
6. ALL EXPOSED VERTICAL AND HORIZONTAL CONCRETE EDGES SHALL BE FORMED WITH 3/4" CHAMFER STRIPS.
7. PRECAST CONCRETE VAULT AND ALUMINUM HATCH SHALL BE H-20 TRAFFIC RATED. HATCH SHALL BE PER CITY OF AUSTIN SPL-614A WITH PADLOCK STAPLE. INSTALL HATCH LENGTHWISE IN CENTER OF VAULT.
8. TOP OF VAULT SHALL BE 4" ABOVE FINISHED GRADE.
9. VAULT SHALL BE OPEN BOTTOM INSTALLED ON 6" MINIMUM LAYER OF ASTM C33 #57 CRUSHED STONE.
10. PROVIDE 24" CLEARANCE FROM BOTTOM OF PIPE TO BOTTOM OF VAULT. DEPTH OF PIPE SHALL BE IN ACCORDANCE WITH DESIGN PROFILES AND MINIMUM COVER REQUIREMENTS.
11. PROVIDE PRECAST BLOCKOUTS WITH KEYWAY AT WALL PIPE PENETRATIONS. FORM AND FILL WITH NON-SHRINK GROUT.
12. PIPING OUTSIDE VAULT SHALL BE RESTRAINED IN ACCORDANCE WITH GVSUD STANDARDS.
13. ALL PIPING INSIDE VAULT SHALL BE FLANGED DUCTILE IRON.
14. GATE VALVES SHALL BE FLANGED AMERICAN FLOW CONTROL SERIES 2500 RISING STEM OR EQUAL.
15. INSTALL AN ADJUSTABLE STANCHION PIPE SUPPORT WITH FLANGE CONNECTION AT EACH LOCATION SHOWN. INSTALL A SQUARE CAST-IN-PLACE REINFORCED CONCRETE BEARING PAD UPON UNDISTURBED EARTH CENTERED UNDER EACH SUPPORT. BEARING PADS SHALL BE SQUARE WITH WALLS AND SHALL EXTEND 6" BEYOND BASE PLATES ON ALL SIDES. TOP OF BEARING PADS SHALL BE 2" ABOVE CRUSHED STONE LAYER.
16. PAINT PIPING, FITTINGS, AND VALVES WITHIN VAULT (REFERENCE GVSUD STANDARDS FOR PAINTING REQUIREMENTS).
17. REFERENCE GVSUD STANDARDS FOR INSPECTION REQUIREMENTS.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**METER WITH
BYPASS VAULT**

REVISED

NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-21

MIN. 1" X 3/4" ANGLE STOP OR LARGER AS INDICATED ON PLANS, 300 PSI BALL TYPE BY FORD OR MUELLER, INSTALL PLUMB/LEVEL AND CENTERED WIDTHWISE WITHIN METER BOX, PROVIDE 1" MIN. AND 2" MAX. CLEARANCE LENGTHWISE BETWEEN ANGLE STOP AND METER BOX

DFW METER BOX, SERIES 1500 FOR 1 1/2" AND 2" METERS, SERIES 1300 FOR SMALLER METERS; WITH PLASTIC DROP-IN LID AND PLASTIC READER DOOR, BLUE FOR POTABLE, PURPLE FOR RECLAIMED; INSTALL SQUARE WITH CURB AND 2" ABOVE FINISHED GRADE, FIELD CUT PIPE SLOTS, 6" LAYER OF SILICA SAND BELOW BOTTOM OF BOX

MIN. 1" CORPORATION STOP OR LARGER AS INDICATED ON PLANS, 300 PSI BALL TYPE BY FORD OR MUELLER

MIN. 1" SERVICE SADDLE OR LARGER AS INDICATED ON PLANS, SMITH BLAIR MODEL 317 OR EQUAL

24" MIN. BELOW ROAD SUBGRADE FOR LONG SERVICES,
24" MIN. BELOW FINISHED GRADE FOR SHORT SERVICES

METER BOX TO BE PLACED IN PROPERTY LINE SUCH THAT GVSUD SIDE OF BOX SITS ON P.L.

MIN. 1" PE TUBING OR LARGER AS INDICATED ON PLANS, 200 PSI WITH PLASTIC, SPLICING IS NOT ALLOWED, BLACK OR BLUE FOR POTABLE, PURPLE FOR RECLAIMED, SILICA SAND BEDDING

LONG SERVICES SHALL BE SLEEVED UNDER ROADWAY, SLEEVE SHALL BE 4" SCH. 40 PVC, EXTEND EACH END OF SLEEVE 3 FEET MINIMUM BEHIND BACK OF CURB, POLY WRAP AND TAPE ENDS OF SLEEVE, SILICA SAND BEDDING

NOTES:

1. ALL WATER SERVICES SHALL BE SINGLE SERVICES. DOUBLE WATER SERVICES ARE NOT ALLOWED.
2. UNLESS NOTED OTHERWISE, ALL WATER SERVICES SHALL BE INSTALLED 5 FT FROM THE HIGH LOT CORNER.
3. THE ENTIRE ASSEMBLY AS SHOWN ON THIS DETAIL SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. GVSUD WILL FURNISH AND INSTALL THE WATER METER ONLY.
4. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

WATER SERVICE

REVISED

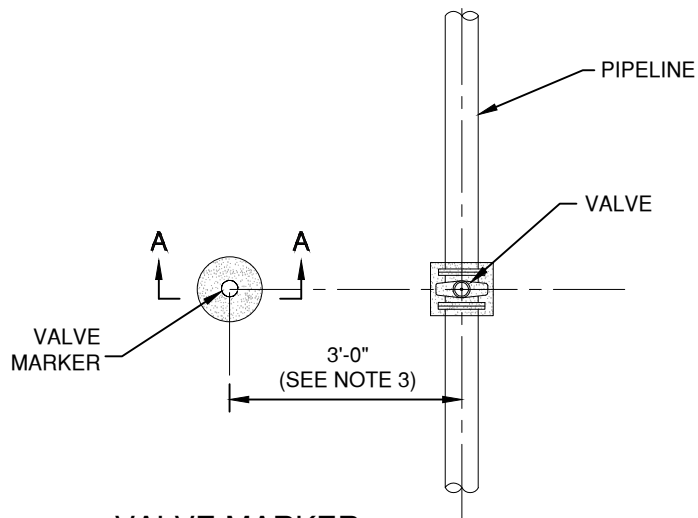
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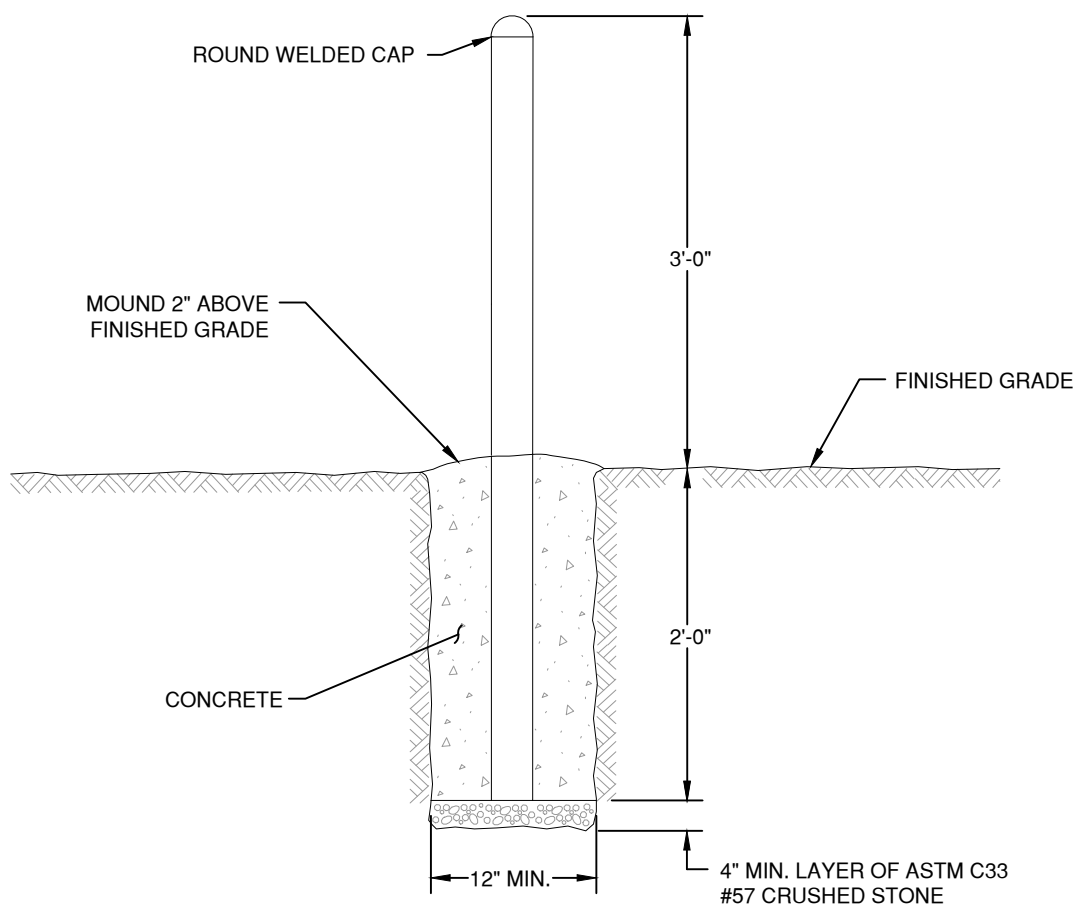
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THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-22



VALVE MARKER



SECTION A-A

NOTES:

1. VALVE MARKERS ARE REQUIRED AT ALL BURIED VALVES IN UNPAVED AREAS AND AT OTHER LOCATIONS INDICATED ON THE DRAWINGS.
2. VALVE MARKERS SHALL BE PAINTED 3" SCH 40 STEEL PIPE (REFERENCE GVSUD STANDARDS FOR PAINTING REQUIREMENTS).
3. EXACT LOCATION AS DIRECTED BY GVSUD.
4. INSTALL PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

VALVE MARKER

REVISED

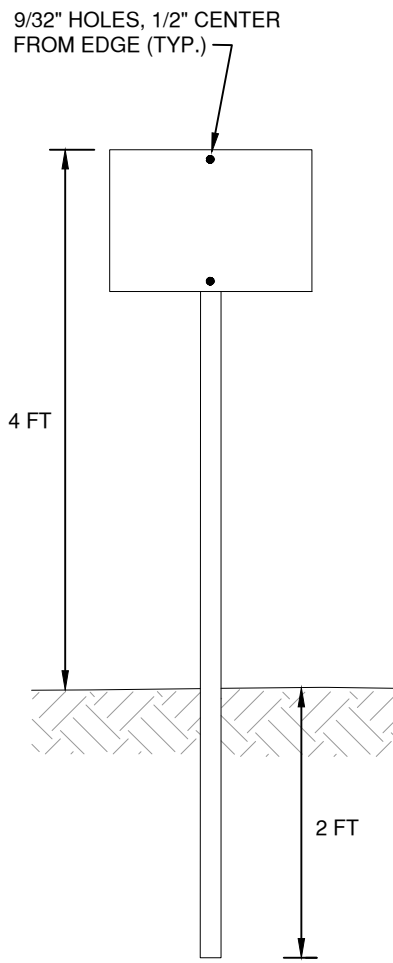
NOVEMBER 2025

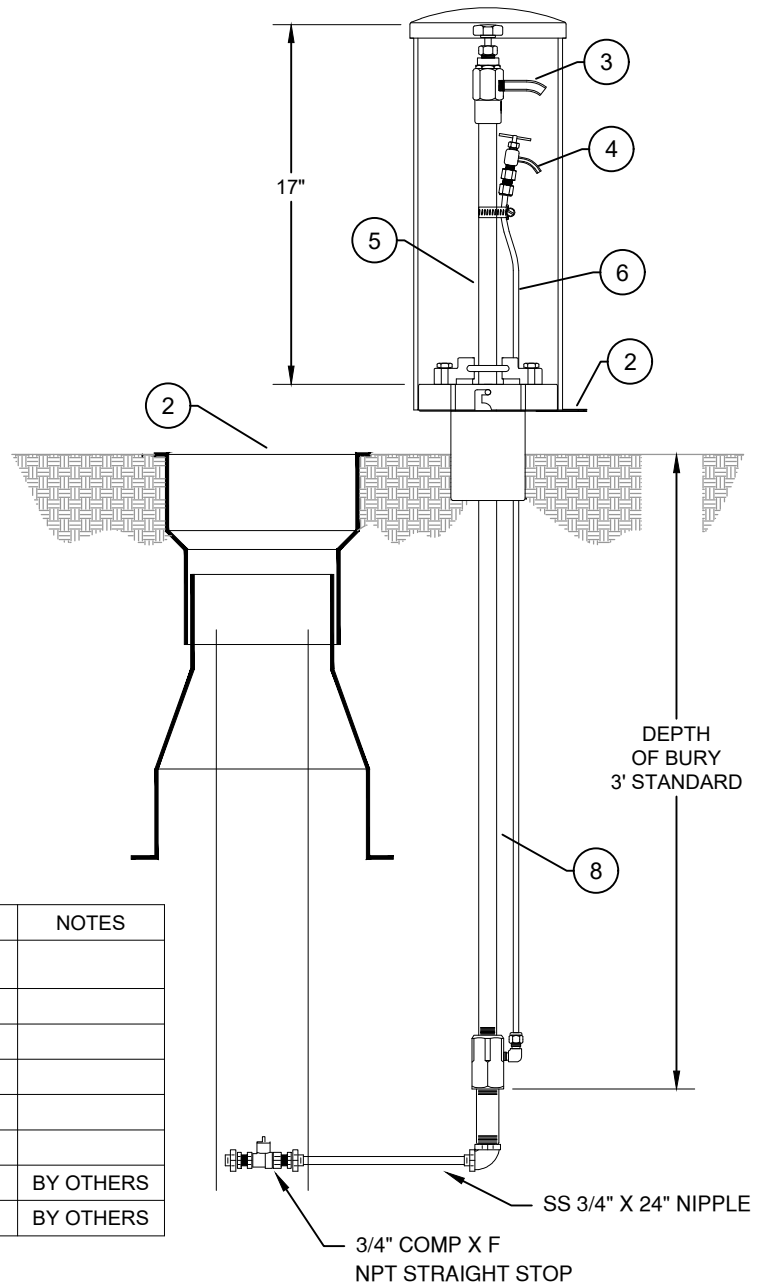
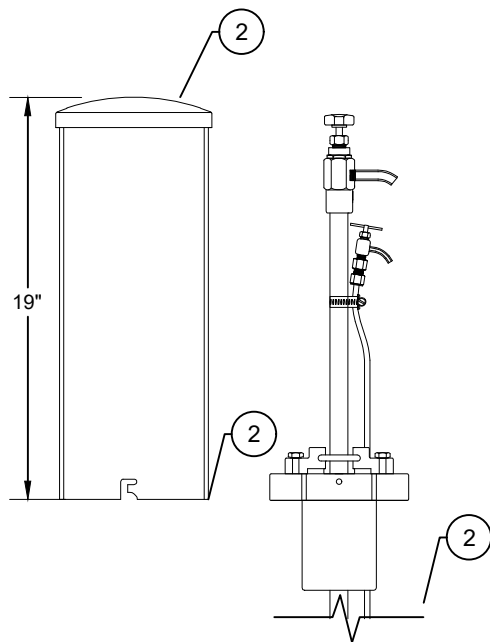
SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-23

TYPE 1 PIPELINE MARKER		TYPE 2 PIPELINE MARKER		
14" 10" WARNING BURIED WATER PIPELINE BEFORE DIGGING OR IN AN EMERGENCY CALL 830-914-2330 GREEN VALLEY SPECIAL UTILITY DISTRICT 1 1/4" WHITE LETTERS, 1" FROM TOP, 1 1/4" ROW SPACE AFTER 3/16" HOLES, 1/2" CENTER FROM EDGES (TYP.) SAFETY BLUE BACKGROUND, SEE NOTE 5 1/2" WHITE LETTERS, 1" ROW SPACE AFTER 2" SYMBOLS, 3/8" FROM EDGE (TYP.) 1/2" WHITE LETTERS, 1" FROM BOTTOM, 3/8" BETWEEN ROWS (TYP.) NOTES: 1. MARKERS SHALL BE FABRICATED IN ACCORDANCE WITH TXDOT ITEM 636 TYPE B. 2. INCLUDE "NO DIG" SYMBOL AND "811 CALL OR CLICK" SYMBOL. 3. INSTALL TYPE 1 MARKERS ON PIPE CENTERLINE AT ALL GATE AND FENCE CROSSINGS AND AT ANY OTHER LOCATIONS INDICATED ON THE DRAWINGS AS DIRECTED BY GVSUD. 4. ATTACH TO GATES AND FENCES WITH 14 GAUGE STAINLESS STEEL WIRE. 5. COLORS AND LABELS SHOWN ARE FOR POTABLE WATER. FOR WASTEWATER, CHANGE BACKGROUND TO SAFETY GREEN AND REPLACE "WATER" WITH "SEWER". FOR RECLAIMED, CHANGE BACKGROUND TO SAFETY PURPLE AND REPLACE "WATER" WITH "RECLAIMED WATER". FOR RAW WATER, CHANGE BACKGROUND TO TAN AND REPLACE "WATER" WITH "RAW WATER". 6. INSTALL PLUMB/LEVEL.		 9/32" HOLES, 1/2" CENTER FROM EDGE (TYP.) 4 FT 2 FT NOTES: 1. REFERENCE TYPE 1 MARKER DETAIL FOR SIGN REQUIREMENTS. ATTACHMENT HOLES WILL DIFFER AS SHOWN. 2. POST SHALL BE DRIVE-IN TYPE GALVANIZED U-CHANNEL (MCMASTER-CARR 5735T61 OR EQUAL). 3. USE 1/4" DIAMETER HOT DIP GALVANIZED BOLTS, FLAT WASHERS, LOCK WASHERS, AND NUTS TO ATTACH SIGN TO POST. INSTALL FLAT WASHERS AT BOLTS AND NUTS. INSTALL BOLT HEADS ON SIGN FACE WITH NUTS ON POST. DO NOT OBSTRUCT LETTERING. 4. TYPE 2 MARKERS ARE REQUIRED IN UNPAVED AREAS AT: ALL MANHOLES AND VAULTS, CENTERLINE OF ALL MAIN LINE BENDS, CENTERLINE OF ALL PLUGS/CAPS, 3 FT FROM ALL VALVE BOXES, AND AT ANY OTHER LOCATIONS INDICATED ON THE DRAWINGS AS DIRECTED BY GVSUD. 5. SIGNS SHALL BE INSTALLED PARALLEL WITH PIPELINES AND SHALL FACE ADJACENT ROADS, EXACT LOCATION AND ORIENTATION AS DIRECTED BY GVSUD. 6. INSTALL PLUMB/LEVEL.		
	GREEN VALLEY SPECIAL UTILITY DISTRICT STANDARD DETAILS		REVISED	SCALE
			NOVEMBER 2025	NONE
	PIPELINE MARKERS		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	
		DETAIL NO. W-24		



ITEM	ITEM / DISCRIPTION	NOTES
1	7" ROUND UV RESISTANT ENCLOSURE	
2	LOCKING BRACKET	
3	BLOW OFF & SAMPLING BIBB	
4	PET COCK	
5	1/2" S.S. WATERWAY	
6	1/4" S.S. TUBING	
7	VALVE BOX	BY OTHERS
8	3/4" S.S. NIPPLE	BY OTHERS

NOTES:

1. SAMPLING STATION SHALL BE ____ BURY, WITH 3/4" FIP INLET, AND 7/16" UNTHREADED BLOW OFF AND SAMPLING BIBB.
2. STATION SHALL BE ENCLOSED IN A LOCKABLE, REMOVABLE 7" ROUND UV RATED ENCLOSURE.
3. WHEN OPEN, THIS STATION SHALL REQUIRE NO KEY FOR OPERATION, AND ALL WATER FLOW SHALL PASS THRY AN ALL STAINLESS STEEL WATERWAY.
4. ALL WORKING PARTS SHALL BE OF STAINLESS STEEL AND SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING OR REPLACEMENT NEEDED.
5. A STAINLESS STEEL PET COCK WILL BE LOCATED BELOW THE SAMPLING BIBB TO ALLOW PUMPING OF ANY WATER REMAINING INSIDE THE STATION TO INSURE NON-FREEZING.
6. THE STATION SHALL BE MODEL #66-D AS MANUFACTURED BY THE KUPFERLE FOUNDRY, ST. LOUIS MO. 63102 OR APPROVED EQUAL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

#66-D SAMPLING
STATION DETAIL

REVISED

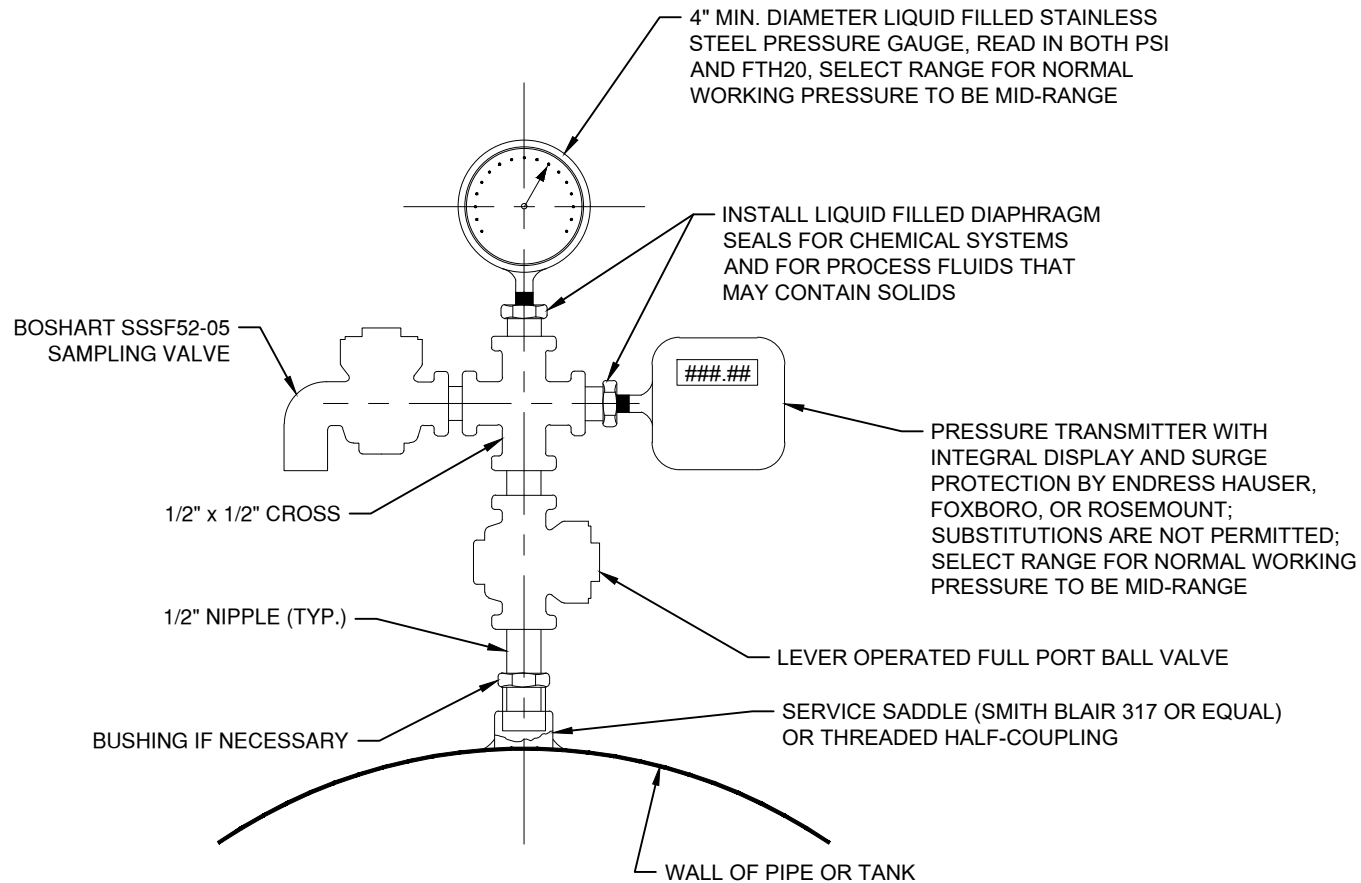
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-25



NOTES:

1. UNLESS CHEMICAL COMPATIBILITY REQUIRES OTHERWISE, ENTIRE ASSEMBLY SHALL BE STAINLESS STEEL WITH NICKEL PTFE ANTI-SEIZE THREAD SEALANT TAPE; 304SS FOR WATER PROJECTS, 316SS FOR WASTEWATER PROJECTS.
2. PRESSURE RATING OF EACH ASSEMBLY COMPONENT SHALL BE GREATER THAN OR EQUAL TO PRESSURE RATING OF THE SYSTEM TO WHICH THE ASSEMBLY IS CONNECTED.
3. DIAPHRAGM SEALS SHALL BE ASHCROFT TYPE 101 OR EQUAL BY WIKA.
4. GAUGES SHALL BE WIKA TYPE 233.30, ASHCROFT TYPE T6500, OR ASHCROFT TYPE 1209.
5. LIQUID FILL MATERIAL SHALL BE COMPATIBLE WITH THE CHEMICAL/PROCESS FLUID.
6. POSITION GAUGE AND TRANSMITTER DISPLAYS LEVEL AND FACING DIRECTION OF OPERATOR ACCESS, INSTALL BEND FITTINGS AS NECESSARY.
7. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**PRESSURE TRANSMITTER
AND GAUGE**

REVISED

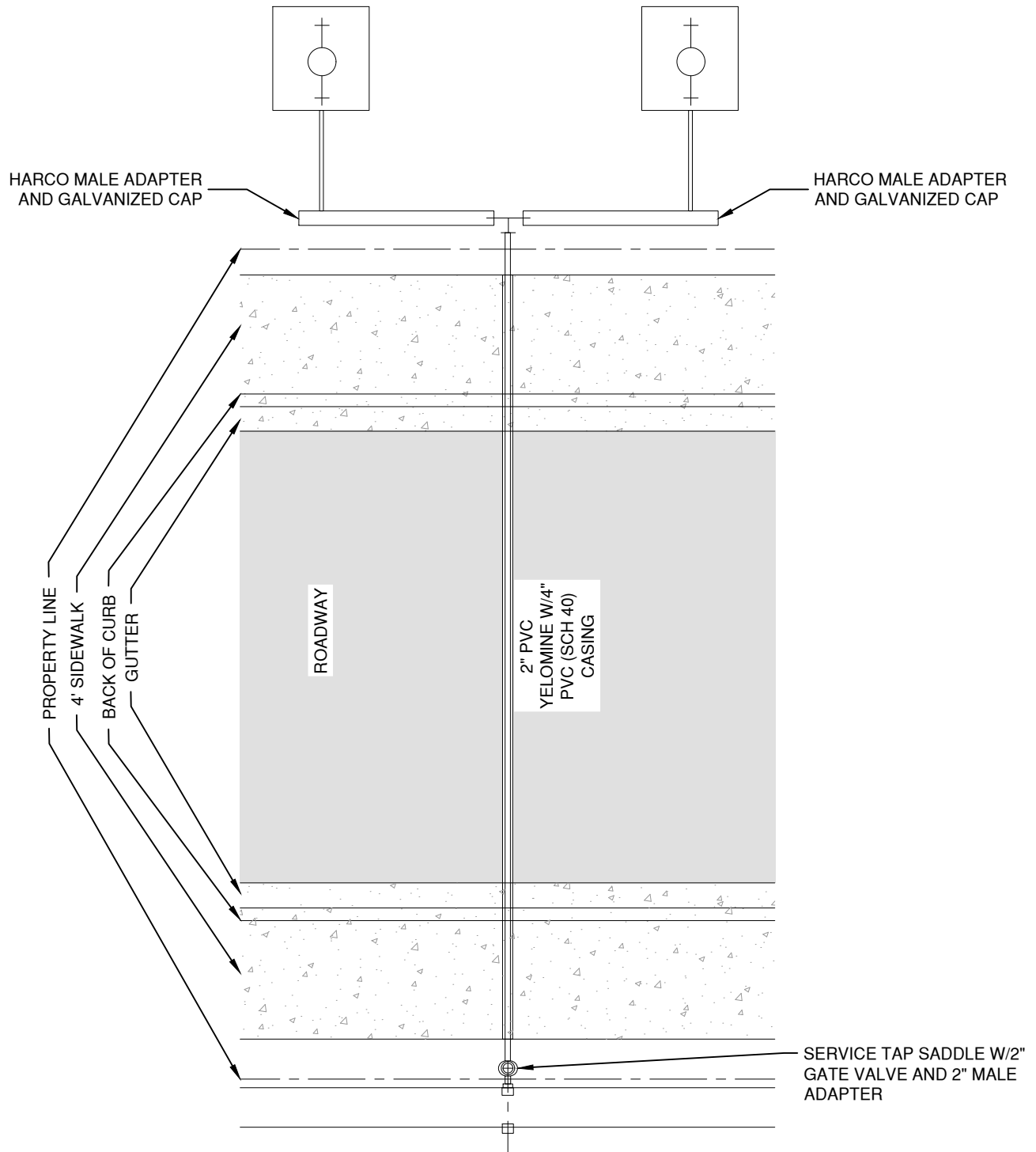
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NOVEMBER 2025

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-26



NOTES:

1. MALE ADAPTOR AND TEE SHALL BE HARCO TYPE FITTINGS OR APPROVED EQUAL
2. ALL PVC SHALL BE YELOMINE OR APPROVED EQUIVALENT



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**LONG WATER SERVICE
DETAIL**

REVISED

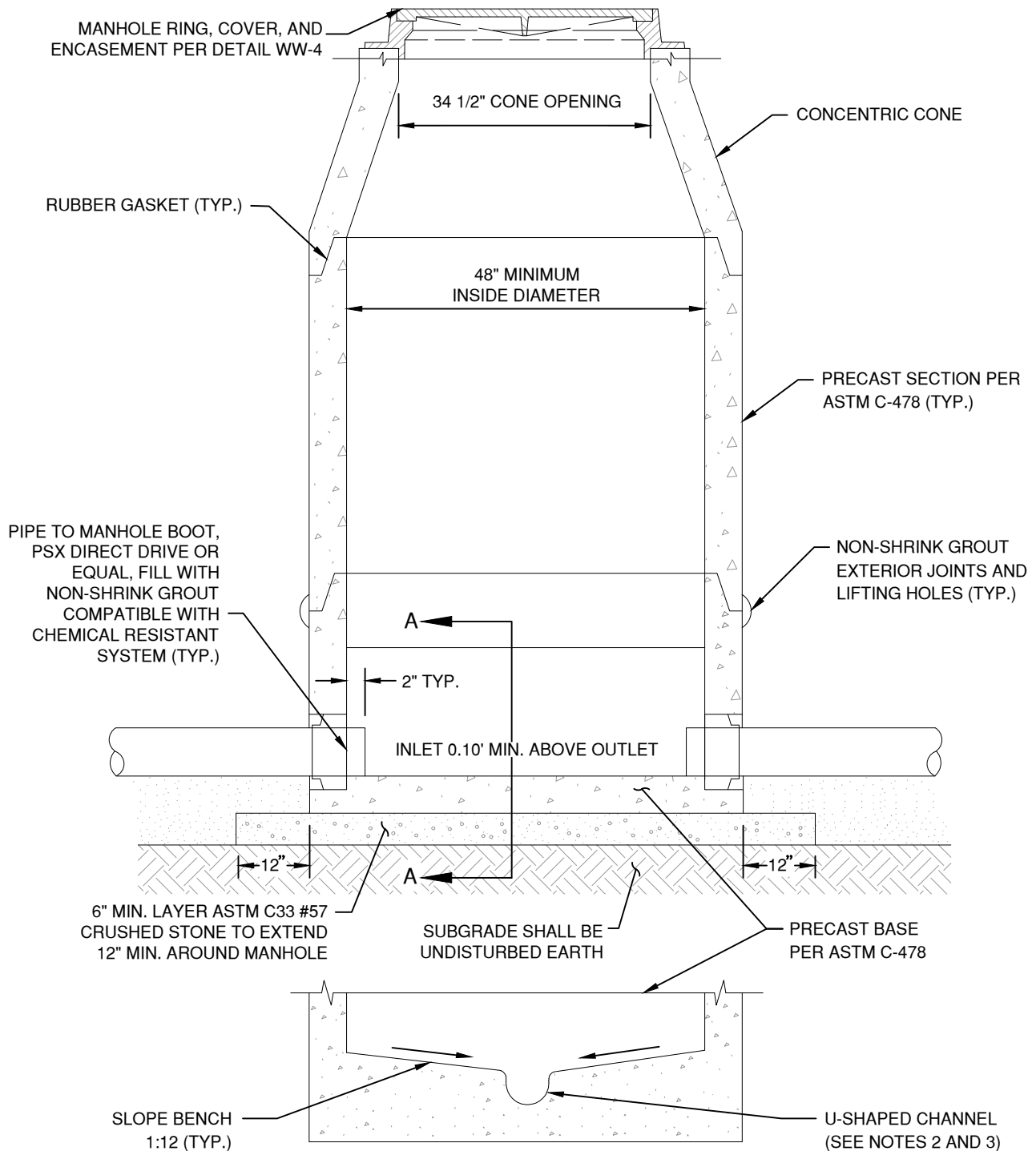
MARCH 2026

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. W-27



SECTION "A-A"
TYPICAL PRECAST BASE

NOTES:

1. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.
2. ALL INTERIOR SURFACES SHALL BE CHEMICAL RESISTANT INCLUDING THROAT RINGS, BENCH, AND CHANNEL INVERTS. REFERENCE GVSUD STANDARDS FOR CHEMICAL RESISTANT MATERIAL REQUIREMENTS.
3. IF CHEMICAL RESISTANT LINING IS UTILIZED, ADJUST CHANNEL INVERTS TO ACCOMMODATE THICKNESS OF LINING SUCH THAT CHANNEL INVERTS, AFTER LINING, MATCH PIPE INVERTS.
4. PROVIDE 6" MINIMUM CLEARANCE BETWEEN CONCRETE PENETRATIONS, AND BETWEEN CONCRETE PENETRATIONS AND CONCRETE JOINTS, AS MEASURED FROM NEAREST EDGE TO NEAREST EDGE.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**WASTEWATER
PRECAST MANHOLE**

REVISED

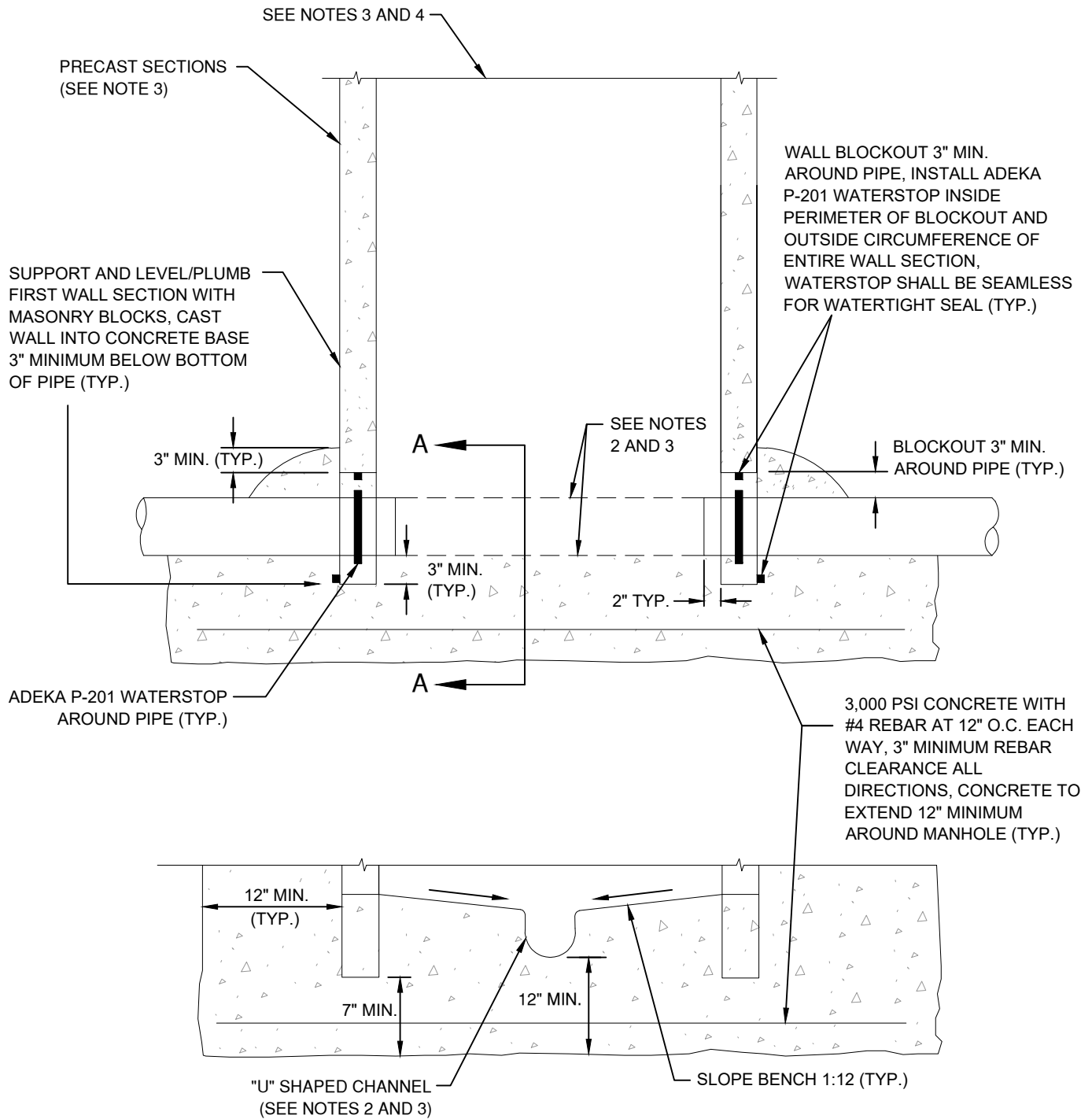
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. WW-1



SECTION "A-A"

NOTES:

1. THIS DETAIL SHALL BE USED TO INSTALL MANHOLES ON EXISTING MAINS ONLY.
2. AFTER SUCCESSFUL VACUUM TESTING, REMOVE EXISTING PIPE FULL CIRCUMFERENCE AND SHAPE CHANNELS FOR NEW AND EXISTING PIPES.
3. REFERENCE DETAIL WW-1 FOR CHEMICAL RESISTANT MATERIAL REQUIREMENTS.
4. REFERENCE DETAIL WW-1 FOR ADDITIONAL REQUIREMENTS.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**WASTEWATER MANHOLE
CAST IN PLACE BASE**

REVISED

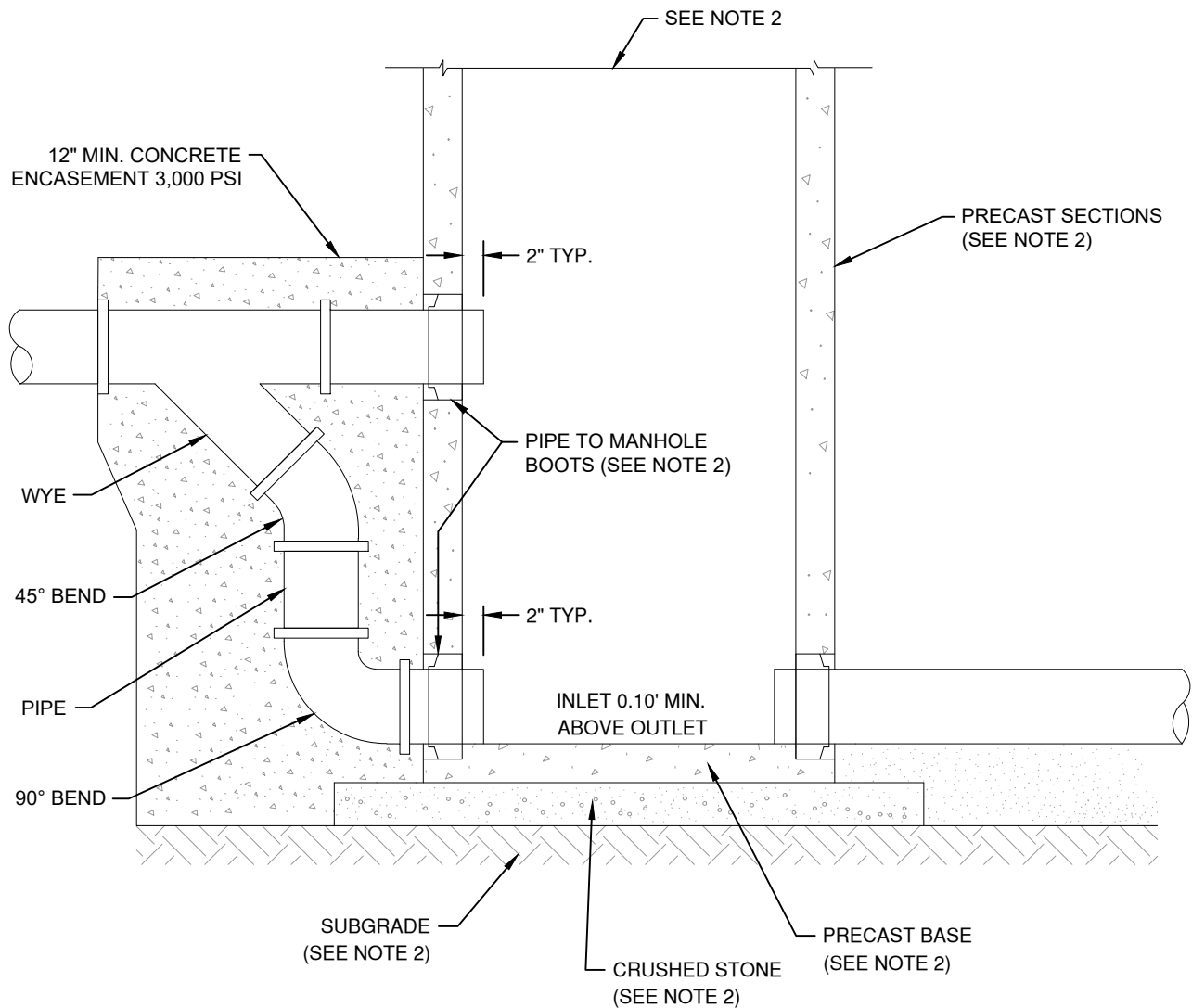
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. WW-2



NOTES:

1. A WASTEWATER COLLECTION SYSTEM PIPE, INCLUDING SERVICE LATERALS, ENTERING A MANHOLE MORE THAN 24" ABOVE THE MANHOLE OUT INVERT MUST HAVE AN EXTERNAL DROP PIPE. INTERNAL DROPS ARE NOT ALLOWED.
2. REFERENCE DETAIL WW-1 FOR ADDITIONAL REQUIREMENTS.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**WASTEWATER DROP
MANHOLE**

REVISED

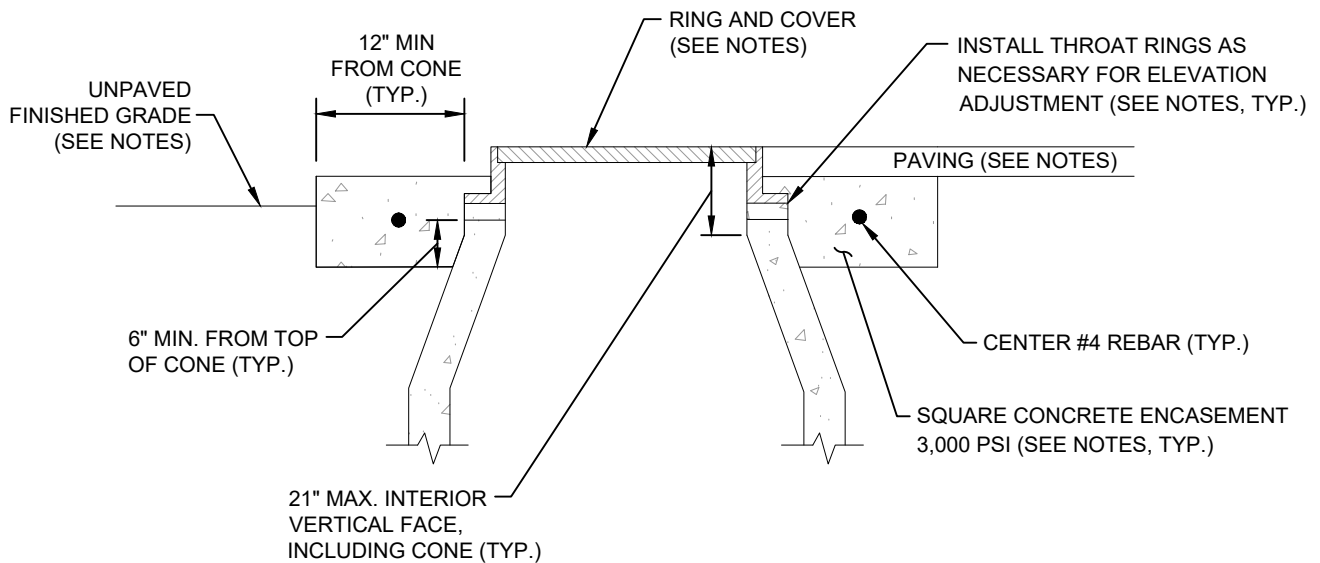
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. WW-3



NOTES:

1. MANHOLE RING CONCRETE ENCASEMENT IS REQUIRED FOR ALL MANHOLES.
2. INSTALL CONCRETE ENCASEMENT SQUARE WITH CURB.
3. MANHOLE RIM ELEVATIONS SHOWN IN PLAN AND PROFILE VIEWS ARE APPROXIMATE.
4. IN UNPAVED AREAS, ASSEMBLY SHALL BE INSTALLED PLUMB/LEVEL, TOP OF CONCRETE ENCASEMENT SHALL BE 4" ABOVE FINISHED GRADE, COVERS SHALL BE 2" ABOVE TOP OF CONCRETE ENCASEMENT, ALL EXPOSED VERTICAL AND HORIZONTAL CONCRETE EDGES SHALL BE FORMED WITH 3/4" CHAMFER STRIPS.
5. IN PAVED AREAS, RINGS AND COVERS SHALL BE FLUSH WITH PAVING AND SLOPED TO MATCH PAVING.
6. THROAT RINGS SHALL BE PRECAST CONCRETE. ALL INTERIOR SURFACES OF MANHOLES SHALL BE CHEMICAL RESISTANT INCLUDING THROAT. UTILIZE NON-SHRINK GROUT FOR INSTALLATION OF THROAT RINGS. GROUT SHALL BE COMPATIBLE WITH THE CHEMICAL RESISTANT SYSTEM.
7. MANHOLE RINGS AND COVERS SHALL BE EJCO PRODUCT NUMBER 414300094W01, OR EQUAL.
8. SCHEDULE GVSUD INSPECTOR TO WITNESS FINAL BOLTING OF MANHOLE COVERS.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**WASTEWATER MANHOLE
RING ENCASEMENT**

REVISED

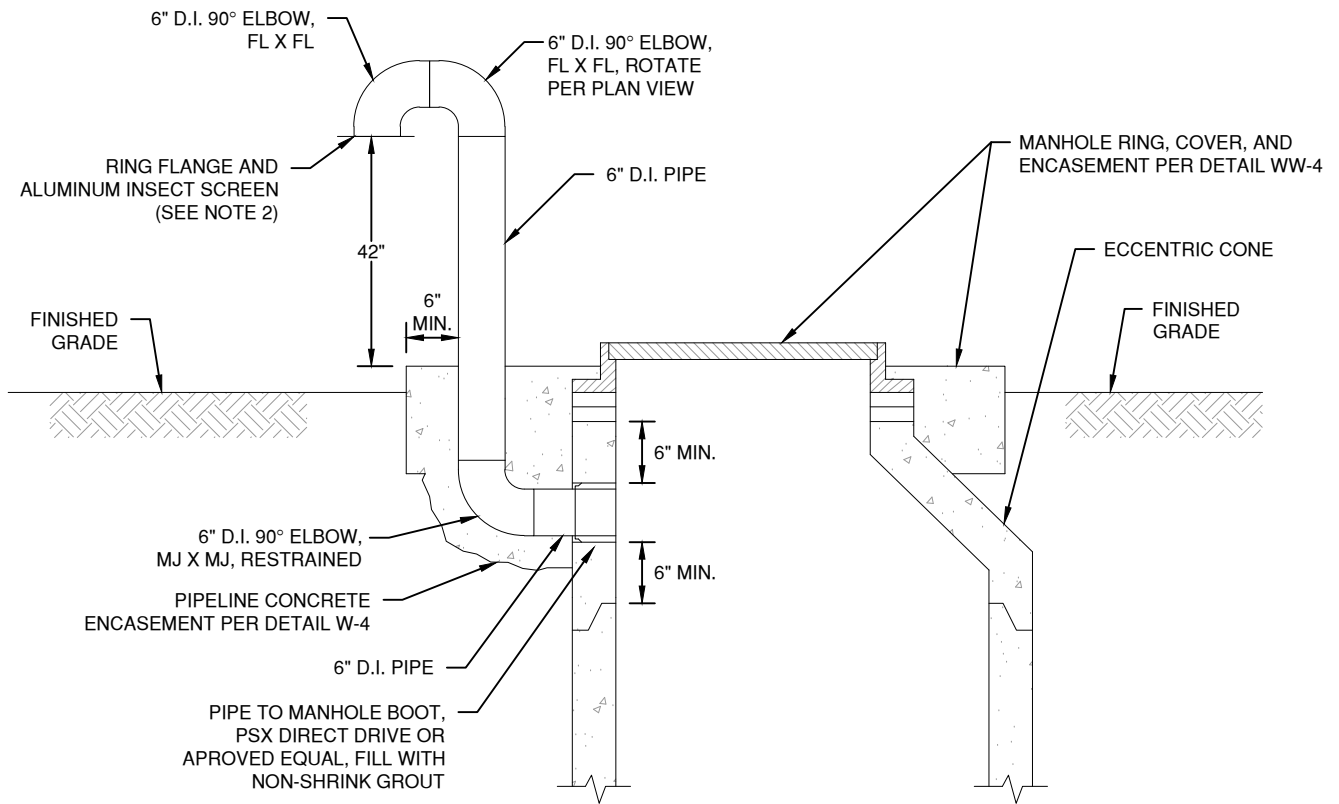
NOVEMBER 2025

SCALE

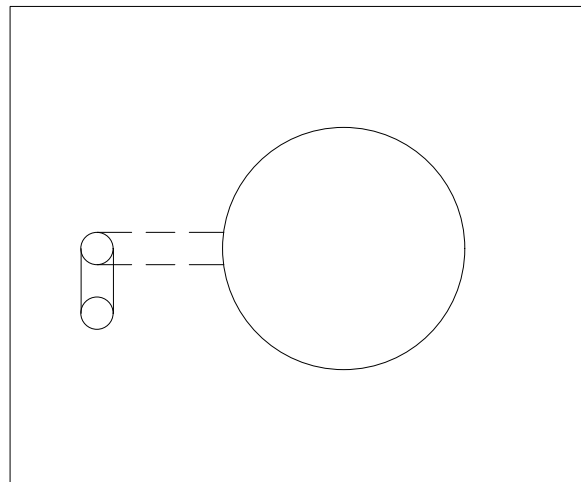
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THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. WW-4



SECTION VIEW



PLAN VIEW

NOTES:

1. REFERENCE DETAIL W-1 FOR ADDITIONAL REQUIREMENTS.
2. INSTALL A TEMPORARY BLIND FLANGE FOR MANHOLE VACUUM TESTING.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**WASTEWATER
MANHOLE VENT**

REVISED

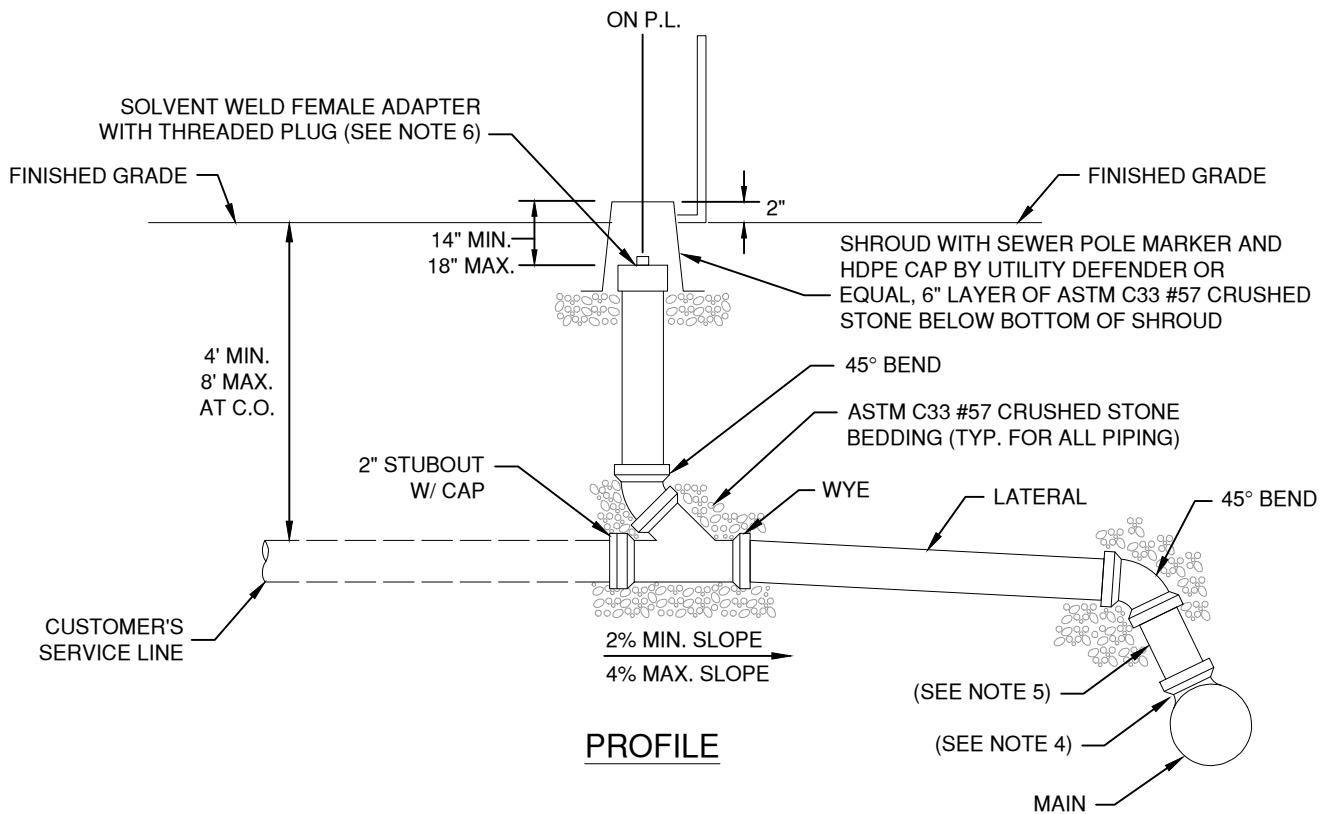
NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

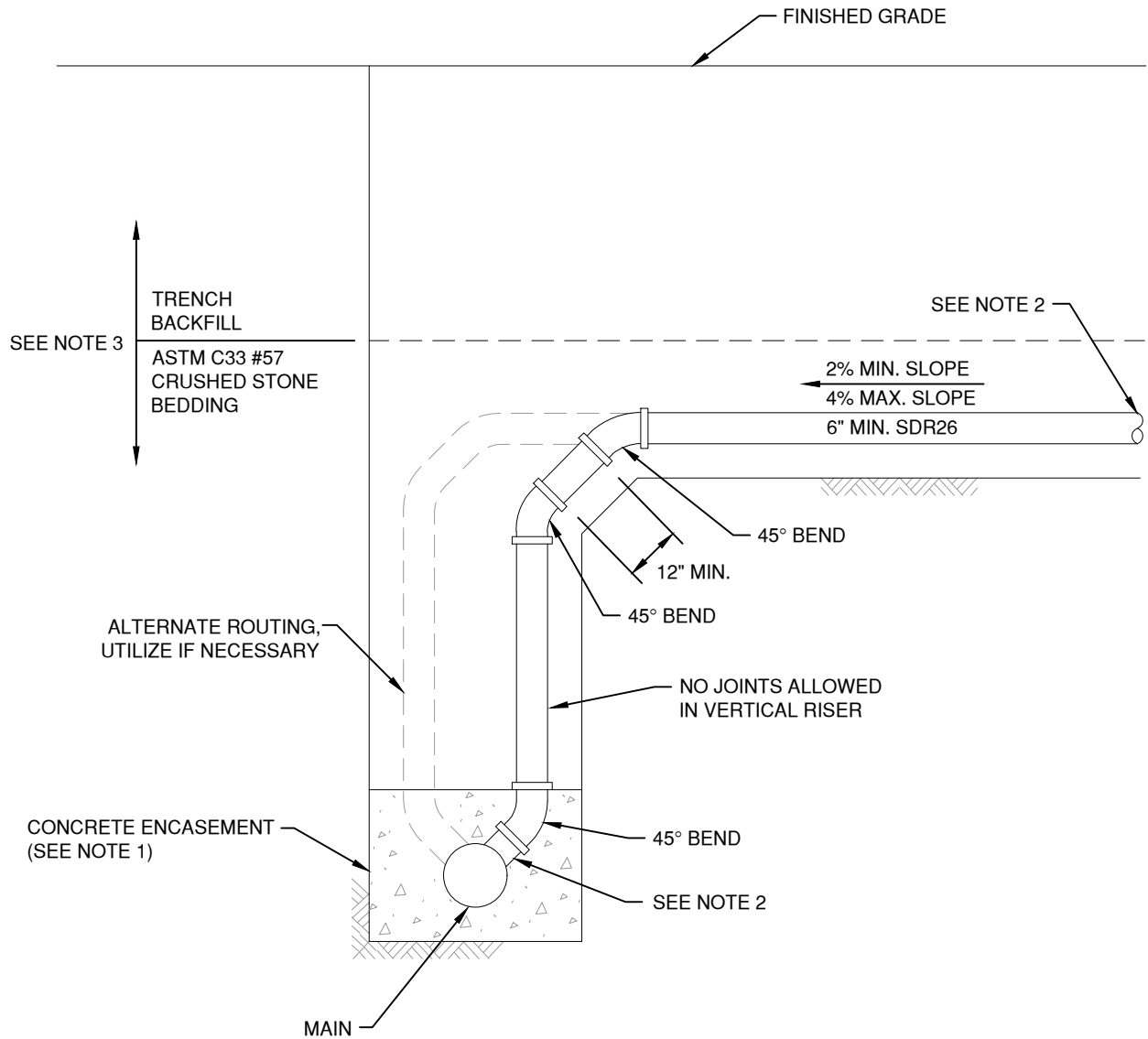
DETAIL NO. WW-5



NOTES:

1. CLEANOUTS (C.O.) ARE NOT ALLOWED WITHIN DRIVEWAYS.
2. PROVIDE SINGLE WASTEWATER SERVICES 5 FT FROM LOW LOT CORNER (TYPICAL). PROVIDE 8 FT WHERE LOT CORNER IS SHARED WITH DRY UTILITIES AND 10 FT WHERE LOT CORNER IS SHARED WITH A FIRE HYDRANT OR AIR RELEASE VALVE.
3. PIPE AND FITTINGS SHALL BE 6" DIAMETER, GREEN COLOR, GASKETED ASTM D3034 SDR26, UNLESS NOTED OTHERWISE. AT WATER CROSSINGS PIPE AND FITTINGS SHALL BE WHITE COLOR, GASKETED, AND 150 PSI MINIMUM PRESSURE RATED.
4. UTILIZE SANITARY TEES FOR NEW CONSTRUCTION.
5. INSTALL PIPE BETWEEN FITTINGS IF NECESSARY. INSTALL PER VERTICAL STACK PER DETAIL WW-7 IF NECESSARY OR WHERE SHOWN.
6. CLEANOUT RISER AND SHROUD SHALL BE INSTALLED PLUMB/LEVEL. CENTERLINE (CL) OF CLEANOUT RISER SHALL BE CENTERED ON PROPERTY LINE.
7. TAPPING SADDLES ARE NOT ALLOWED.

	GREEN VALLEY SPECIAL UTILITY DISTRICT STANDARD DETAILS	REVISED	SCALE
		NOVEMBER 2025	NONE
	WASTEWATER LATERAL AND CLEANOUT	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	
		DETAIL NO. WW-6	



NOTES:

1. CONCRETE ENCASEMENT SHALL BE PLACED, UPON AND AGAINST UNDISTURBED EARTH.
2. REFERENCE DETAIL WW-6 FOR ADDITIONAL REQUIREMENTS.
3. REFERENCE DETAIL W-1 FOR ADDITIONAL REQUIREMENTS.
4. UNLESS INDICATED OTHERWISE, INSTALL COMPONENTS PLUMB/LEVEL.



GREEN VALLEY SPECIAL UTILITY
DISTRICT STANDARD DETAILS

**WASTEWATER LATERAL
VERTICAL STACK**

REVISED

NOVEMBER 2025

SCALE

NONE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY
FOR APPROPRIATE USE OF THIS STANDARD

DETAIL NO. WW-7