

NOTE: METER SHALL BE SAME SIZE AS CITY-OWNED WATER SERVICE LINE (SAME SIZE AS CORPORATION STOP).

WATER SERVICE PIPE SIZE MAY BE INCREASED AFTER THE METER TO MEET DEMAND FOR DOMESTIC AND FIRE SERVICES IN THE FOLLOWING AREAS:

- LOW PRESSURE AREAS WITHIN WATER ZONES
- HILLSIDE SUBDIVISIONS
- CUSTOM HOME SUBDIVISIONS

IF WATER SERVICE PIPE IS INCREASED AFTER THE METER, THE INCREASE MUST OCCUR A MINIMUM OF THREE PIPE DIAMETER LENGTHS AFTER THE METER.

NOTES:

1. CORPORATION STOP SHALL BE M.I.P. BY COMPRESSION.
2. ANGLE METER STOP SHALL HAVE SWIVEL NUT AND LOCK WINGS AND BE VERTICALLY PLUMBED.
3. CORPORATION STOP, CURB STOP, ANGLE METER STOPS, METER, AND SERVICE LINE TO BE SAME SIZE.
4. ALL FITTINGS, VALVES, AND CORPORATION STOPS SHALL BE BRONZE; SERVICE SADDLES SHALL BE BRONZE OR STAINLESS STEEL. ALL BRASS PIPES AND FITTINGS SHALL BE IDENTIFIED AS "LEAD FREE".
5. METER BOX SHALL BE 24" MINIMUM FROM BACK OF WALK, INCREASED TO 36" WHERE SERVICE LINE CROSSES UNDER ROADWAY WITH 80' OR GREATER RIGHT-OF-WAY.
6. POLYETHYLENE SERVICE LINE SHALL BE LAID CONTINUOUS FROM SERVICE SADDLE TO ANGLE METER STOP.
7. SERVICE SADDLES SHALL NOT BE INSTALLED WITHIN 24" OF A VALVE, JOINT, FITTING OR OTHER SERVICE SADDLE.
8. #10 INSULATED COPPER TRACING WIRE SHALL BE ATTACHED TO THE PVC SLEEVE FROM THE MAIN TO THE METER BOX (SEE WR-12), SECURED TO 2" SLEEVE BACK. NO SPLICE IS ALLOWED IN POLYETHYLENE SERVICE LINE OR WIRE. ALL PIPE AND FITTINGS IN EACH SERVICE ASSEMBLY SHALL BE SAME SIZE.
9. SIZE OF SERVICE PIPE AFTER THE METER/BACKFLOW SHALL BE DETERMINED BY HYDRAULIC CALCULATIONS.
10. 2" SCH 40 PVC SLEEVE REQUIRED FOR 1" SERVICES AND 3" SCH 40 PVC FOR 2" SERVICES. WRAP BOTH ENDS OF PVC SLEEVE WITH 10 MIL TAPE.
11. IF WATER SERVICE IS REQUIRED AT A NEW BUSINESS OR TENANT IMPROVEMENT BUSINESS 24 HOURS/DAY, 7 DAYS/WEEK UNINTERRUPTED, A METER BYPASS WITH PARALLEL BACKFLOW ASSEMBLY IS REQUIRED. AT LARGE COMMERCIAL ESTABLISHMENTS THAT HAVE A 1" OR 2" SERVICE, A METER BYPASS MAY BE REQUIRED BY THE CITY.
12. FOR RESIDENTIAL: BRASS COUPLER WITH SCHEDULE 80 TIE NIPPLE. FOR COMMERCIAL: BRASS COUPLER AND BRASS PIPING/FITTINGS TO EXTEND PAST METER BOX UP TO BACKFLOW PREVENTER.

CITY OF FOLSOM

METERED WATER
SERVICE 1" THRU 2"

SCALE: NONE
DATE: AUGUST 2022

WR-01A

NOTES:

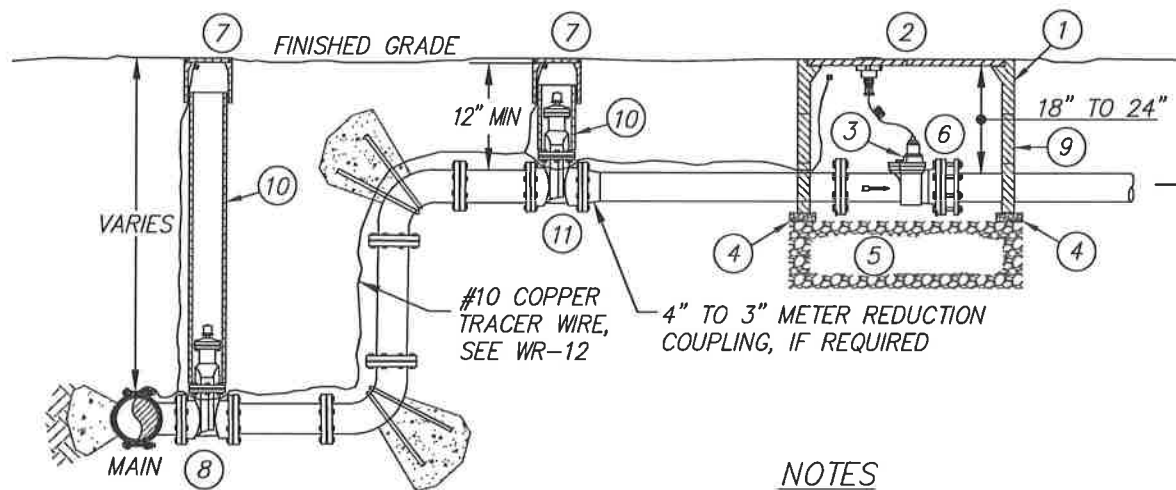
1. ALL METERS (RESIDENTIAL AND IRRIGATION) SHALL BE PURCHASED FROM THE CITY OF FOLSOM AND INSTALLED BY THE IMPROVEMENT PLAN CONTRACTOR.
2. WATER METERS WILL HAVE FACTORY POTTED NICOR WIRES. THE POTTED NICOR WIRES SHALL HAVE A PROTECTIVE END CAP AND SHALL ONLY BE REMOVED BY THE CITY OF FOLSOM.
3. IF THE NICOR WIRE END CAP IS NOT IN PLACE, THE CITY RESERVES THE RIGHT TO REJECT THE METER AND REQUIRE A NEW METER TO BE PURCHASED AND INSTALLED AT THE CONTRACTOR'S EXPENSE.
4. METER ENDS SHALL BE SEALED TO PREVENT ENTRY OF FOREIGN MATTER INTO THE METER BODY AND THE METER SHALL BE PROTECTED AND ENCLOSED IN THE BOX OR CRATE TO PROTECT THE METER ASSEMBLIES. IF THE WATER METER HAS NOT BEEN MAINTAINED IN A CLOSED AND SEALED SYSTEM OR IF THERE IS VISIBLE OPERATIONAL DAMAGE, THE CONTRACTOR WILL BE REQUIRED TO PURCHASE AND INSTALL A NEW METER.
5. ALL METERS WILL BE SET TO ZERO FROM THE FACTORY.
6. THE IMPROVEMENT PLAN CONTRACTOR SHALL PROVIDE AN ELECTRONIC SUBMITTAL (IN EXCEL) TO THE CITY. THE METER ID AND REGISTER ID NEEDS TO BE LISTED WITH THE SPECIFIC FINAL MAP LOT NUMBER THAT IT IS ASSIGNED TO WITHIN EACH VILLAGE PRIOR TO IMPROVEMENT ACCEPTANCE.
7. WHEN THE BUILDER PULLS THE BUILDING PERMIT, THE FINAL MAP LOT NUMBER, ADDRESS AND THE ADDRESS SPECIFIC METER ID AND REGISTER ID SHALL BE PROVIDED TO THE CITY AND SHALL MATCH THE APPROVED SUBMITTAL PROVIDED AT IMPROVEMENT CONSTRUCTION PHASE.
8. IF THERE IS A MISSING METER OR THE METER NUMBERS DO NOT MATCH THE SUBMITTAL DESCRIBED IN NOTE 7, THE BUILDER SHALL BE REQUIRED TO PAY THE CITY TO FURNISH AND INSTALL A NEW METER.
9. WHEN THE HOME BUILDER PULLS THE BUILDING PERMIT, A METERED ACCOUNT WILL BE SET UP FOR UTILITY SERVICE AND SERVICE CHARGES WILL BEGIN. THE BUILDER SHALL BE RESPONSIBLE FOR WATER BASE CHARGE AND ALL WATER CONSUMPTION UP TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
10. A METER PERMIT, TO INSTALL THE END POINT AND START THE BILLING TO THE DEVELOPER, SHALL BE OBTAINED PRIOR TO OR IN CONJUNCTION WITH THE BUILDING PERMIT. THE WATER METER PERMIT FEE HAS BEEN REVISED TO EXCLUDE THE METER COST.
11. THE BUILDER SHALL E-MAIL THE CITY AT METERINSTALLS@FOLSOM.CA.US WITH A PDF SHOWING THAT THE BUILDING PERMIT/WATER PERMIT FEES HAVE BEEN PAID AND THAT THE WATER METER HAS BEEN INSTALLED TO INITIATE FIXED NETWORK ENDPOINT INSTALLATION.
12. THE BUILDER SHALL GIVE THE CITY 10 BUSINESS DAYS NOTICE TO INSTALL THE FIXED NETWORK ENDPOINT, AT METERINSTALLS@FOLSOM.CA.US
13. AT THIS TIME A FIXED NETWORK ENDPOINT WILL BE INSTALLED BY THE CITY AND A FINAL WATER CONSUMPTION READ WILL BE OBTAINED.
14. PAYMENT OF THE WATER BASE CHARGES AND CONSUMPTION SHALL BE PAID BY THE BUILDER PRECEDENT TO RECEIVING A CERTIFICATE OF OCCUPANCY.
15. THE NEW METER PERMIT FEE WILL INCLUDE THE COST FOR THE FIXED NETWORK ENDPOINT AND INSTALLATION, PER FMC 13.24.050. THESE COSTS MAY CHANGE IN THE FUTURE BASED ON MATERIAL OR INSTALLATION COSTS. (THESE COSTS EXCLUDE THE COST OF THE WATER METER.)

CITY OF FOLSOM

METERED WATER
SERVICE 1" THRU 2"
NOTES

SCALE: NONE
DATE: AUGUST 2022

WR-01B



TO BACKFLOW PREVENTER (FOR FIRE
REFERENCE WR-09, FOR IRRIGATION
AND DOMESTIC REFERENCE WR-10)

NOTES

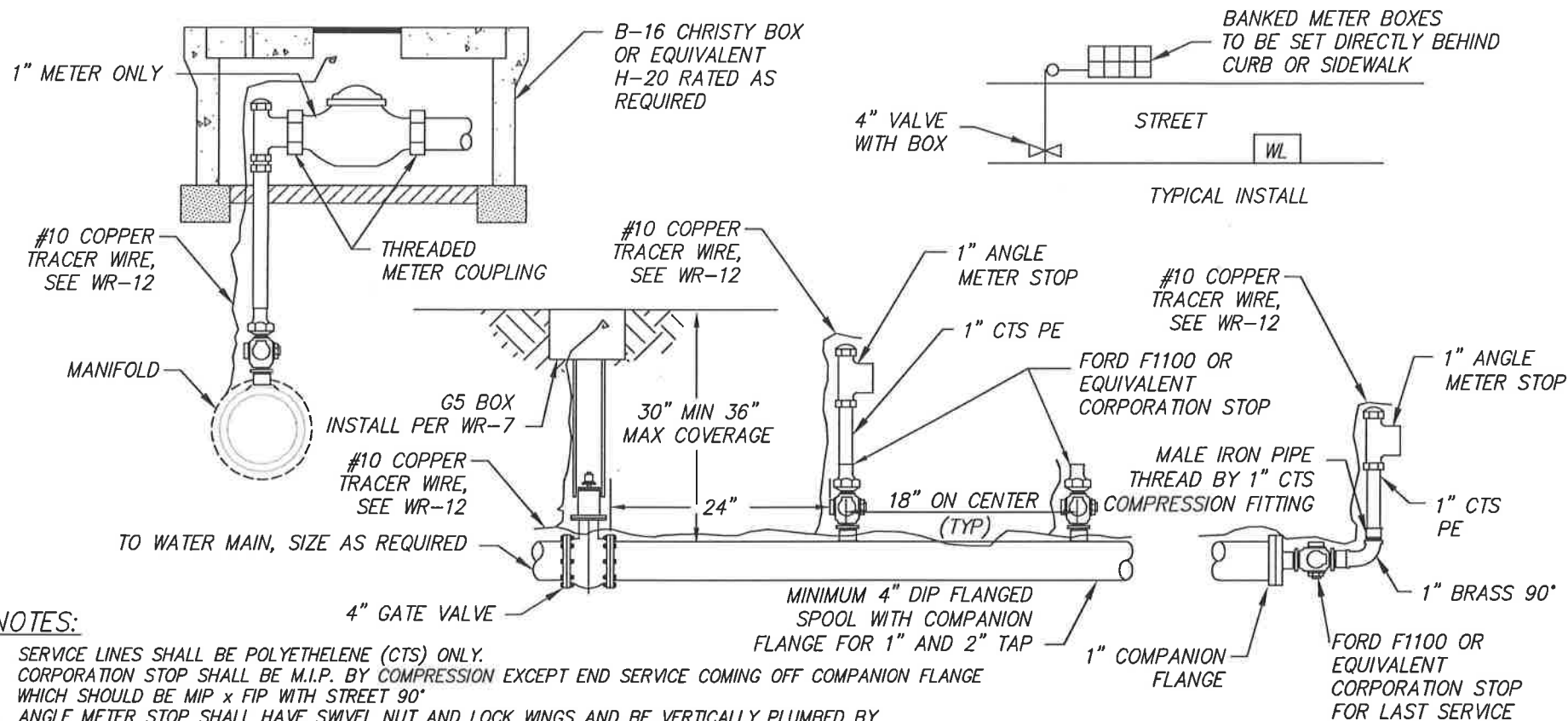
- ① REINFORCED CONCRETE UTILITY BOX (SEE CITY CONSTRUCTION SPECIFICATIONS, SECTION 4 FOR BOX AND LID SIZE).
 - ② 2 PC. STEEL CHECKER PLATE WITH TWO(2) 10" ROUND SELF-CLOSING READING LIDS AND 1 3/4" HOLE FOR TOUCH READ MODULE IN ONE (1) READING LID (CHRISTY B48-62G COVER OR APPROVED EQUAL).
 - ③ METER AND FIXED NETWORK FIREFLY PROVIDED BY CITY UPON PAYMENT OF FEES.
 - ④ MASONRY BLOCK SUPPORT FRAME AROUND BOX PERMETER.
 - ⑤ 3/4" CRUSHED ROCK SUB-BASE, 12" TO 18" DEEP.
 - ⑥ FLANGED COUPLING ADAPTOR.
 - ⑦ VALVE BOX AND LID PER CITY STANDARDS.
 - ⑧ GATE VALVE.
 - ⑨ UTILITY BOX EXTENSION.
 - ⑩ VALVE BOX RISER (FOR REFERENCE SEE WR-07).
 - ⑪ GATE VALVE. (NEEDED IF METER IS MORE THAN 20' FROM MAIN)
- A. METER BOX SIZES SHALL ALLOW FOR METER TO BE REPLACED WITHOUT REMOVING THE BOX AND PROVIDE A MINIMUM 12" CLEARANCE AROUND FLANGES.
 - B. CUT OUT PORTIONS OF THE METER BOX SHALL BE PACKED FROM THE OUTSIDE WITH STIFF CONCRETE, INSIDE SMOOTH FINISH.
 - C. ALL STEEL OR DUCTILE IRON JOINTS BETWEEN MAIN AND METER SHALL BE FLANGE CONNECTED.
 - D. THRUST BLOCKS ARE TO BE CONSTRUCTED PER STANDARD DRAWING WR-04.
 - E. WHERE THRUST BLOCKS ARE NOT FEASIBLE, USE FULLY RESTRAINED PVC OR FLANGED DIP.
 - F. INSTALL TRACER WIRE PER THE STANDARD SPECIFICATIONS & WR-12.
 - G. THIS IS A TYPICAL DRAWING, ACTUAL INSTALLATION WILL VARY WITH FIELD CONDITIONS.
 - H. 3" METERED SERVICE REQUIRES 4" TAP ONTO MAIN; 4" PIPE TO METER WITH REDUCTION COUPLING.
 - I. LATERAL SHALL HAVE A MINIMUM 5X DIAMETER LENGTH OF STRAIGHT PIPE BEFORE METER AND 3X DIAMETER STRAIGHT PIPE AFTER METER.
 - J. PRIVATE WATER SERVICE LINE OWNERSHIP AND RESPONSIBILITY BEGINS AFTER THE WATER METER GASKET.

CITY OF FOLSOM

3" OR LARGER IRRIGATION METER INSTALLATION

SCALE: NONE
DATE: FEBRUARY 2020

WR-02



NOTES:

- SERVICE LINES SHALL BE POLYETHYLENE (CTS) ONLY.
- CORPORATION STOP SHALL BE M.I.P. BY COMPRESSION EXCEPT END SERVICE COMING OFF COMPANION FLANGE WHICH SHOULD BE MIP x FIP WITH STREET 90°
- ANGLE METER STOP SHALL HAVE SWIVEL NUT AND LOCK WINGS AND BE VERTICALLY PLUMBED BY COMPRESSION.
- BRASS PIPES AND FITTINGS SHALL BE IDENTIFIED AS "LEAD FREE".
- CORPORATION STOP, ANGLE METER STOPS, SERVICE LINE TO BE SAME SIZE VALVES.
- METER AND FIXED NETWORK FIREFLY SHALL BE PROVIDED BY CITY UPON PAYMENT OF FEES.
- LOCKABLE ANGLE METER STOP WILL PRECEDE THE METER AND ENTIRE SETUP WILL BE IN THE CONFINES OF THE WATER BOX.
- ALL FITTINGS, VALVES, AND CORPORATION STOPS SHALL BE BRONZE; SERVICE SADDLES SHALL BE BRONZE OR STAINLESS STEEL.
- INCREASE MINIMUM CLEARANCE OF WATER SERVICE TO 36" WHERE SERVICE LINE CROSSES UNDER ROADWAY WITH 80' OR GREATER R/W.
- SERVICE LINE SHALL BE LAID CONTINUOUS FROM SERVICE SADDLE TO METER STOP.
- SERVICE SADDLES SHALL NOT BE INSTALLED WITHIN 2' OF A VALVE, JOINT.
- POLYETHYLENE PIPE SHALL HAVE #10 INSULATED COPPER TRACING WIRE ATTACHED TO THE SERVICE LINE FROM THE MAIN TO THE METER BOX (SEE WR-12)
- D.I.P. SHALL BE DOUBLE WRAPPED IN 8 MIL PLASTIC.
- ALL BACKFILL SHALL BE WASHED SAND.
- ALL CORP STOPS TO BE INSTALLED @ 45° OF HORIZONTAL.
- PRIVATE WATER SERVICE LINE OWNERSHIP AND RESPONSIBILITY BEGINS AFTER THE WATER METER
- METER BOXES TO BE PLACED IN LANDSCAPE AREA ONLY

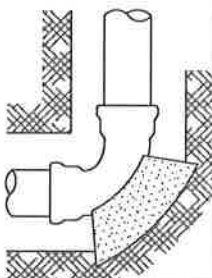
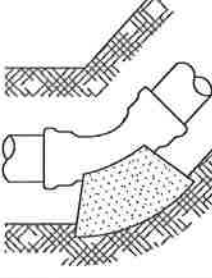
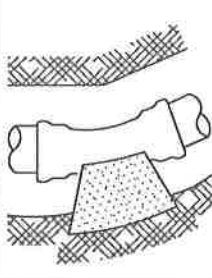
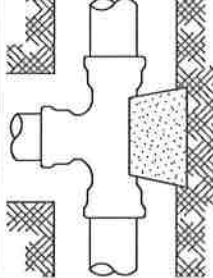
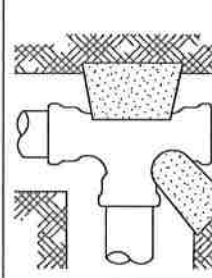
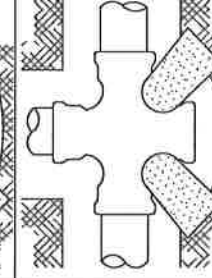
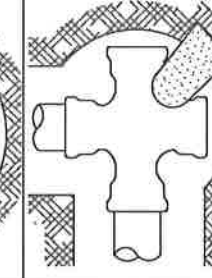
CITY OF FOLSOM

WATER SERVICE MANIFOLD FOR MULTIPLE 1" METERS

SCALE: NONE
DATE: FEBRUARY 2020

WR-03

REQUIRED BEARING AREA — TOTAL SQUARE FEET

TYPE OF FITTING		90° BEND	45° BEND	11 1/4" OR 22 1/2" BEND	TEE OR DEAD END	TEE W/PLUG	CROSS W/PLUG	CROSS W/PLUGS
TYPICAL INSTALLATION								
SIZE OF PIPE	2 1/2"	2	1	1	2	2	2	2
	3"	2	1	1	2	2	2	2
	4"	2	1	1	2	2	2	2
	6"	4	2	1	3	4	4	4
	8"	7	4	2	5	7	7	7
	10"	12	6	3	8	12	12	12
	12"	16	10	5	12	16	16	16

NOTES:

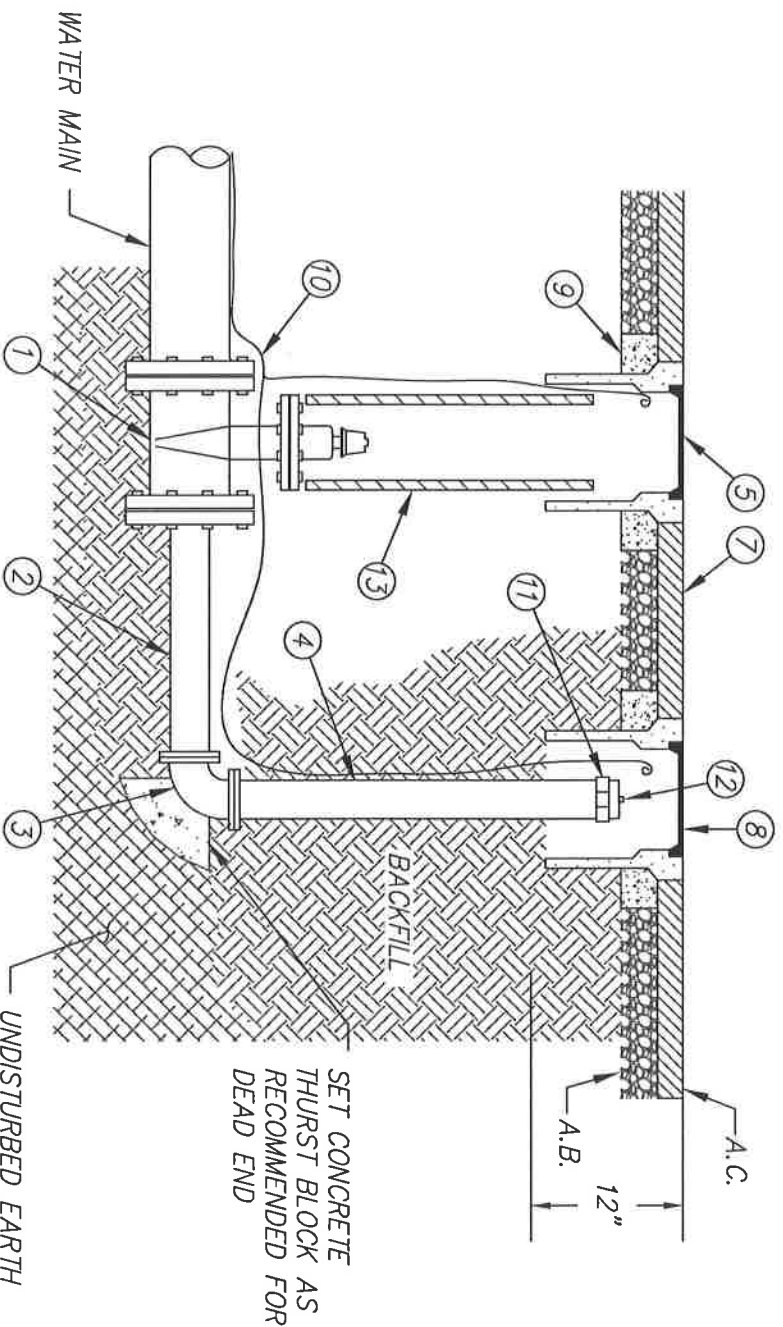
1. THRUST BLOCKS TO BE CONSTRUCTED OF CLASS B CONCRETE.
2. AREAS GIVEN ARE FOR CLASS 150 PIPE AT TEST PRESSURE OF 200 P.S.I. IN SOIL WITH 2,000 P.S.F. BEARING CAPACITY OR HIGHER. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR LESSER SOIL TYPES SHOULD ADJUST AREAS ACCORDINGLY, SUBJECT TO APPROVAL OF ENGINEER.
3. BLOCKS TO BE POURED AGAINST UNDISTURBED OR ENGINEERED SOIL.
4. JOINTS AND FACE OF PLUGS TO BE KEPT CLEAR OF CONCRETE.
5. THRUST BLOCKS MAY BE REQUIRED FOR CASES NOT DEPICTED ABOVE.

CITY OF FOLSOM

THRUST BLOCK
BEARING AREA

SCALE: NONE
DATE: FEBRUARY 2020

WR-04



ELEVATION

NOTES:

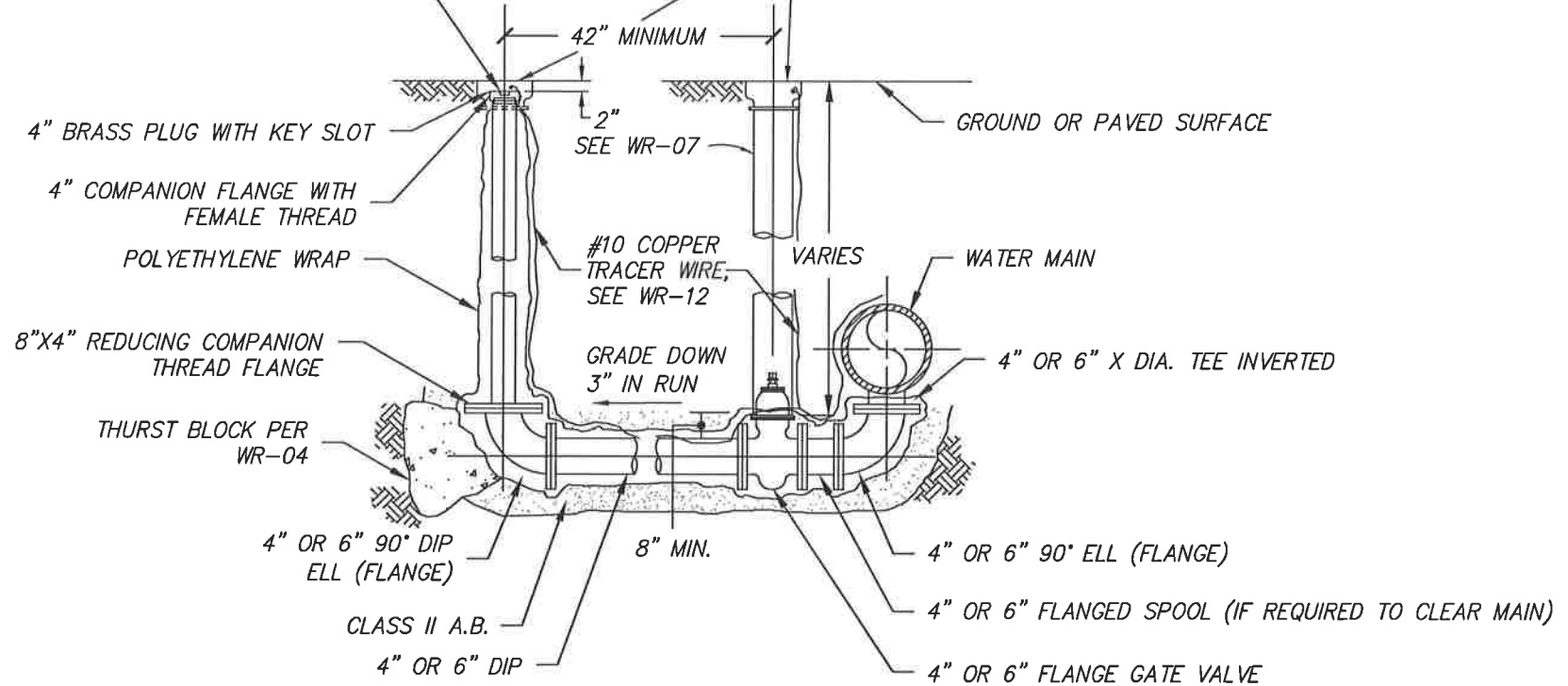
1. REQUIRED TO BE PLACED AT THE END OF 8" OR LARGER WATER MAINS.
2. BLOW OFF VALVE TO BE PLACED AT THE END OF MAIN LINE.
3. TEMPORARY BLOW OFF VALVES MAY BE 4" GALVANIZED.
4. PERMANENT BRASS BLOW OFF SHALL BE IDENTIFIED AS "LEAD FREE".
5. CUL-DE-SAC BLOW OFFS SHALL BE FIRE HYDRANT ONLY. REDUCE WATER MAIN TO 6" AFTER LAST WATER SERVICE.

- 1 GATE VALVE
- 2 2'x4" OR 6" FLANGED SPOOL
- 3 4" OR 6" 90° ELBOW
- 4 4" OR 6" FLANGED DIP SPOOL
- 5 TRAFFIC LID (CHRISTY G5 OR EQUAL)
- 6 NOT USED
- 7 1.5" MIN AC ABOVE COLLAR
- 8 H20 TRAFFIC LID TO READ "BO" (CHRISTY G5 OR EQUAL)
- 9 4"x4" CONCRETE COLLAR, TYP
- 10 #10 COPPER TRACER WIRE (SEE WR-12)
- 11 INSTALL COMPANION FLANGE
- 12 4" BRASS PLUG
- 13 VALVE BOX RISER (FOR REFERENCE SEE WR-07)

CITY OF FOLSOM	
4" & 6" END OF LINE BLOW OFF VALVE ASSEMBLY	
SCALE: NONE DATE: FEBRUARY 2020	WR-05

BLOW-OFF SHALL HAVE MINIMUM
8' CLEAR SEPARATION TO WALLS,
TREES, OR OTHER OBSTRUCTIONS

STANDARD 24" X 24" TRAFFIC
VALVE BOX AND H2O LOADING
COVER TO READ "BO"



NOTES:

1. DOUBLE WRAPPED, 8 MIL POLYETHYLENE REQUIRED.
2. PUSH-ON JOINTS ARE ACCEPTABLE IF JOINT RESTRAINT IS PROVIDED.
3. INSTALL TRACER WIRE PER CITY STANDARDS.
4. FITTINGS FROM END OF MAIN SHALL BE DIP.
5. BLOW-OFF TO BE USED FOR FUTURE LOADING AND TESTING.
6. ALL METALLIC PIPE AND FITTINGS SHALL BE WRAPPED PER CITY CONSTRUCTION SPECIFICATIONS.
7. CUL-DE-SAC BLOW-OFFS SHALL BE FIRE HYDRANT ONLY. REDUCE WATER MAIN TO 6" AFTER LAST WATER SERVICE.
8. IF A 6" BLOW-OFF IS REQUIRED, THE INSTALLATION OF A FIRE HYDRANT SHALL SERVE AS THE BLOW-OFF ASSEMBLY AND SHALL BE CONSTRUCTED AS SHOWN ON WR-08.

CITY OF FOLSOM

**4" AND 6" IN-LINE
BLOW-OFF
VALVE ASSEMBLY**

SCALE: NONE
DATE: FEBRUARY 2020

WR-06

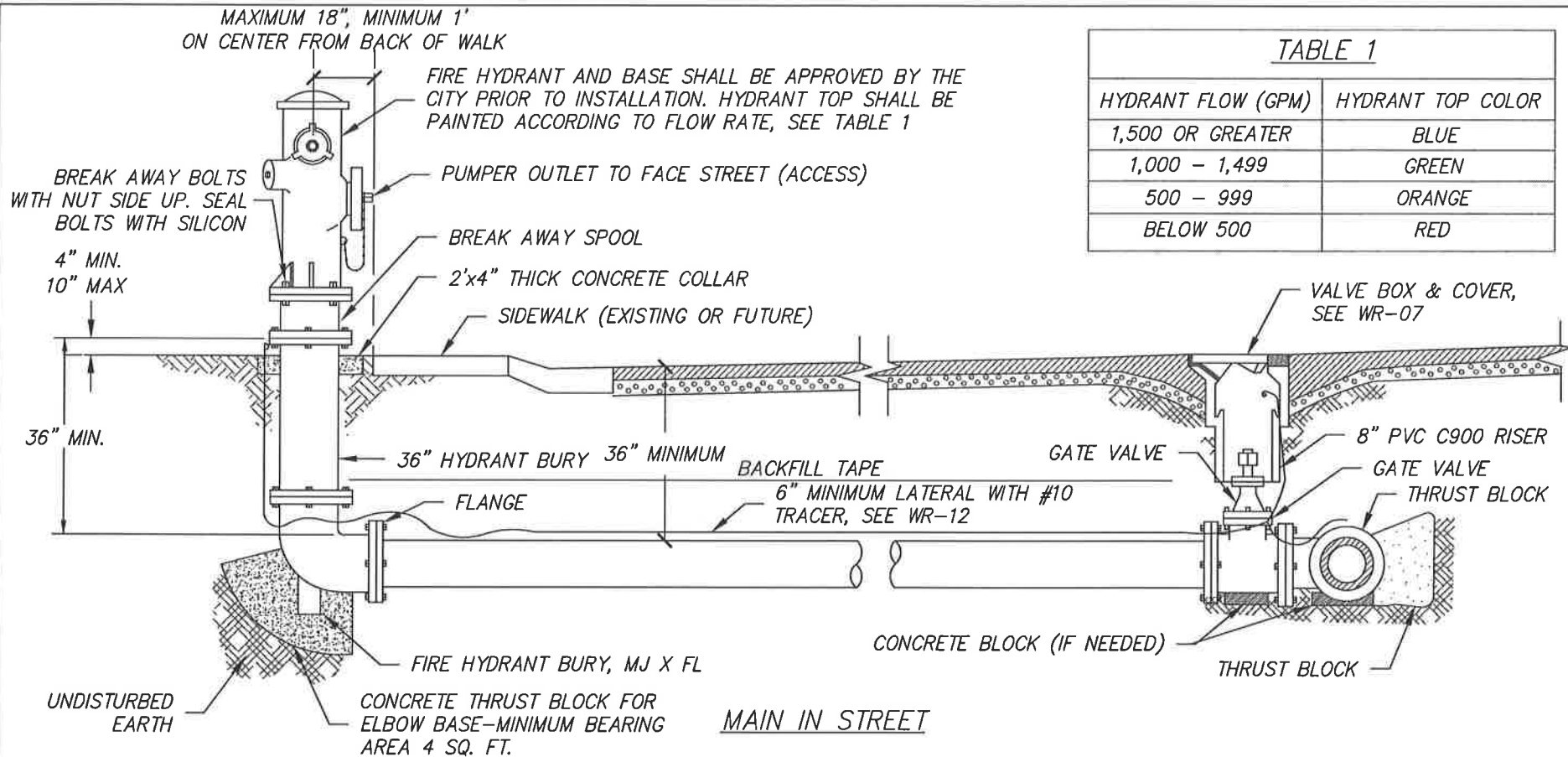


TABLE 1

HYDRANT FLOW (GPM)	HYDRANT TOP COLOR
1,500 OR GREATER	BLUE
1,000 - 1,499	GREEN
500 - 999	ORANGE
BELOW 500	RED

NOTES:

1. HYDRANT LATERALS OVER 50 LINEAR FEET SHALL BE 8".
2. IN COMMERCIAL AREAS, FIRE HYDRANTS SHALL BE PROTECTED FROM VEHICULAR DAMAGE AND ACCESSIBLE TO FIRE PROTECTION EQUIPMENT PER CITY STANDARDS.
3. ALL FITTING AND HYDRANT LATERAL SHALL BE DUCTILE IRON OR PVC C900.
4. DETAILS SHOWN FOR VALVES ON HYDRANT LATERALS SHALL ALSO APPLY TO VALVES ON MAINS.
5. VALVES AND FITTINGS SHALL BE DOUBLE WRAPPED IN 8 MIL POLYETHYLENE.
6. MARK HYDRANT WITH BLUE PAVEMENT REFLECTOR, SEE SPECIFICATIONS.
7. TYPES SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY.
8. GATE VALVE SHALL BE FLANGE CONNECTED ADJACENT TO MAIN.
9. PAINT CITY HYDRANTS WITH TWO COATS OF SAFETY YELLOW AND PRIVATE HYDRANTS WHITE.
10. PLACE HYDRANT 3' FROM BACK OF CURB IF THERE IS NO SIDEWALK.
11. PLACE HYDRANT ON LONG SIDE OF STREET RELATIVE TO MAIN WHEREVER POSSIBLE.
12. WHEN ADJACENT DRIVEWAYS ARE BOTH LOCATED ON THE SHORT SIDE OF A PROPERTY LINE, HYDRANT SHOULD NOT BE LOCATED BETWEEN DRIVEWAYS.

CITY OF FOLSOM

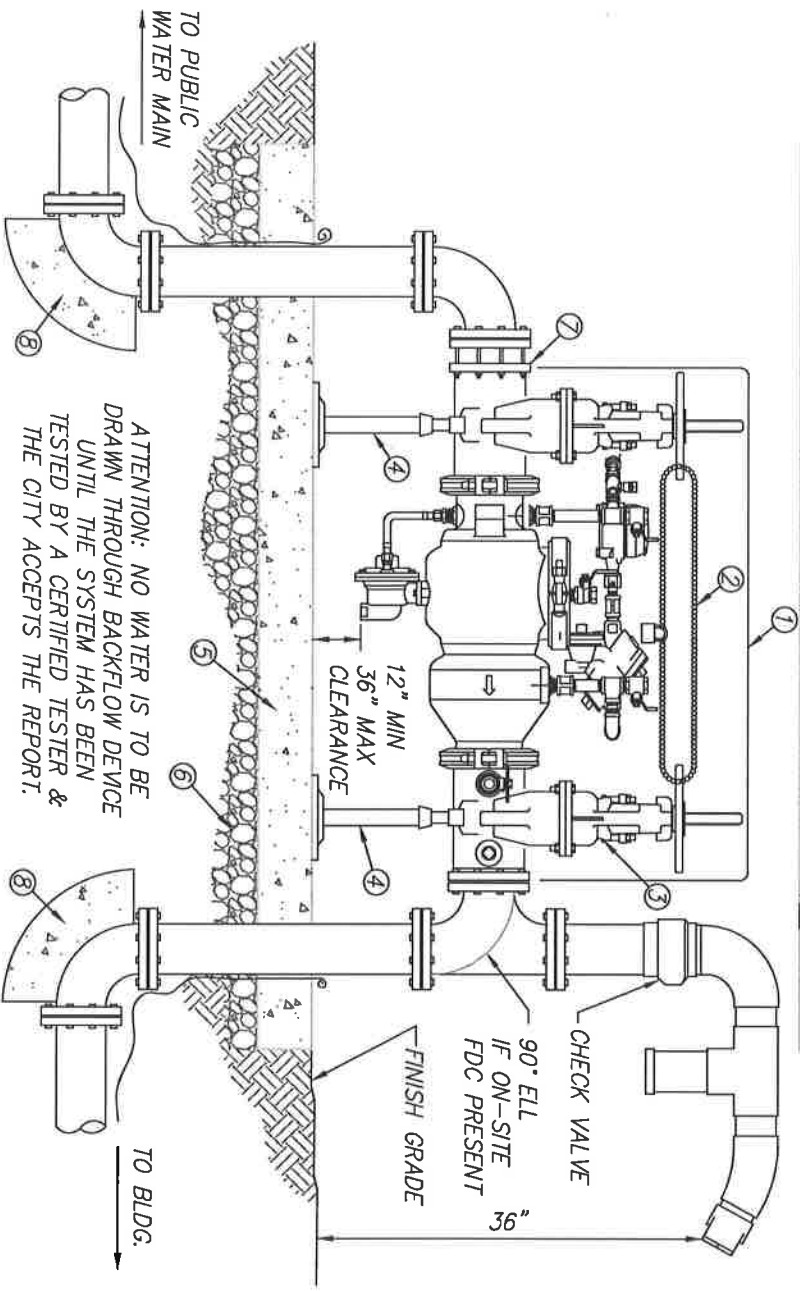
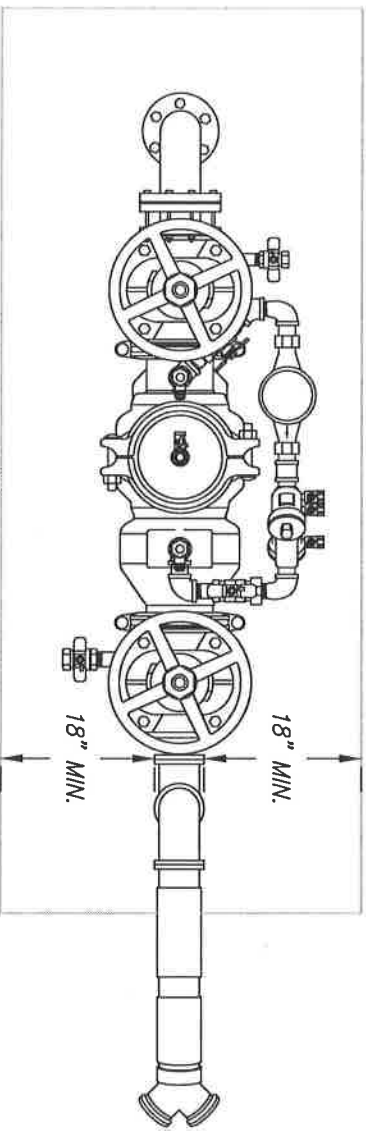
FIRE HYDRANT AND
VALVE INSTALLATION

SCALE: NONE
DATE: FEBRUARY 2020

WR-08

NOTES:

1. REDUCED PRESSURE DETECTOR ASSEMBLY SHALL BE USC APPROVED AND VERIFIED BY THE CITY.
2. ALL MATERIALS SHALL MEET APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.
3. REDUCED PRESSURE PRINCIPLE ASSEMBLY SHOWN MAY NOT REFLECT MANUFACTURERS' CONFIGURATION.
4. PIPE PENETRATION SHALL BE FILLED WITH NON-SHRINK GROUT HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI. OPENING SHALL BE MINIMUM 2" LARGER THAN PIPE O.D.
5. INSTALL #10 TRACER WIRE PER WR-12 AND CITY STANDARDS.
6. ALL JOINTS BETWEEN MAIN AND DETECTOR CHECK SHALL BE FLANGED CONNECTED.
7. FOR RETROFITS, SUBMIT BACKFLOW PREVENTOR FOR CITY APPROVAL.
8. DISTANCE FROM P.O.C. SHALL BE 5' MAXIMUM UNLESS CONDITIONS DO NOT PERMIT.



- ① APPROVED REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) WITH BYPASS METER PER CURRENT USC APPROVED LIST
- ② MIN 3/8" NON CASE HARDENED CHAIN WITH LOCK (KEY TO BE GIVEN TO FIRE DEPARTMENT)
- ③ AWWA C-509 RESILIENT SEAT GATE VALVE
- ④ PIPE SUPPORT, GRINNELL FIG. 264 OR APP. EQUAL
- ⑤ 4" CONCRETE SLAB - 36" WIDE, LENGTH TO EXTEND 6" MIN BEYOND PIPING ON ALL SIDES
- ⑥ 4" THICK AGGREGATE BASE
- ⑦ FLANGED COUPLING ADAPTOR
- ⑧ THRUST BLOCK PER WR-04

CITY OF FOLSOM

**FIRE PROTECTION
BACKFLOW ASSEMBLY**

SCALE: NONE
DATE: FEBRUARY 2020

WR-09

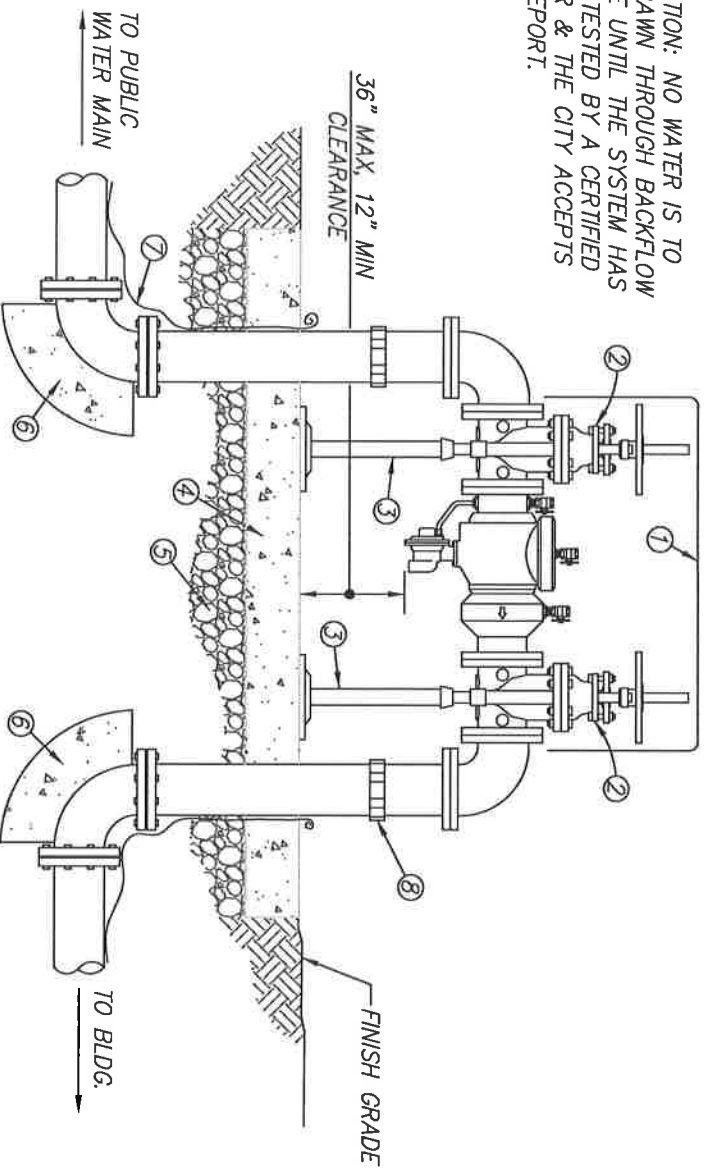
NOTES:

1. REDUCED PRESSURE PRINCIPLE ASSEMBLY TO BE APPROVED BY THE CITY.
2. ALL MATERIALS SHALL MEET APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.
3. BACKFLOW PREVENTER SHOWN MAY NOT REFLECT MANUFACTURERS' CONFIGURATION FOR REDUCED PRESSURE DEVICES.
4. PIPE PENETRATION SHALL BE FILLED WITH NON-SHRINK GROUT HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI. OPENING SHALL BE MINIMUM 2" LARGER THAN PIPE O.D.
5. INSTALL TRACER WIRE PER WR-12 AND CITY STANDARDS.
6. ALL JOINTS BETWEEN MAIN AND BACKFLOW ASSEMBLY SHALL BE FLANGED CONNECTED.
7. FOR BACKFLOW PREVENTERS 3" AND LARGER, DUCTILE IRON PIPE REQUIRED FOR ALL PIPING.
8. PUBLICLY OWNED BACKFLOW PREVENTERS SHALL HAVE "STRONG-BOX" OR APPROVED EQUAL ENCLOSURE.



NOTE: DISTANCE FROM P.O.C. SHALL BE 5' MAXIMUM UNLESS CONDITIONS DO NOT PERMIT.

ATTENTION: NO WATER IS TO BE DRAWN THROUGH BACKFLOW DEVICE UNTIL THE SYSTEM HAS BEEN TESTED BY A CERTIFIED TESTER & THE CITY ACCEPTS THE REPORT.



- ① REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA)
- ② AWWA C-509 RESILIENT SEAT GATE VALVE
- ③ PIPE SUPPORT, GRINNEL FIG. 264 OR APPROVED EQUAL
- ④ 4" CONCRETE SLAB - 36" WIDE, LENGTH TO EXTEND 6" MIN BEYOND PIPING ON ALL SIDES
- ⑤ 4" THICK AGGREGATE BASE
- ⑥ THRUST BLOCK PER WR-04
- ⑦ #10 COPPER TRACER WIRE
- ⑧ UNION

CITY OF FOLSOM

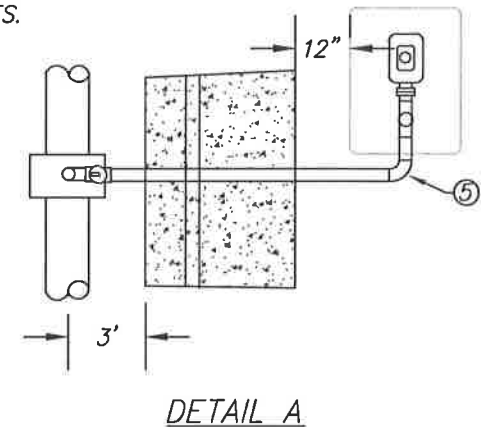
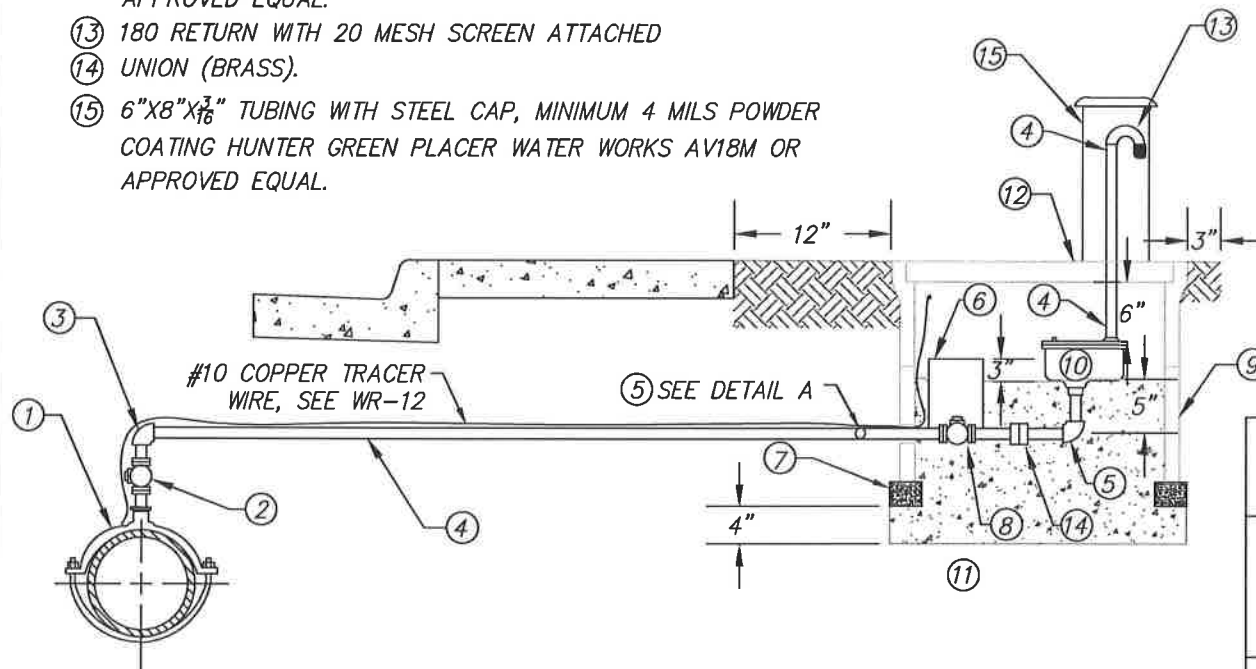
2-1/2" & LARGER
DOMESTIC BACKFLOW
PREVENTER ASSEMBLY

SCALE: NONE
DATE: FEBRUARY 2020

WR-10

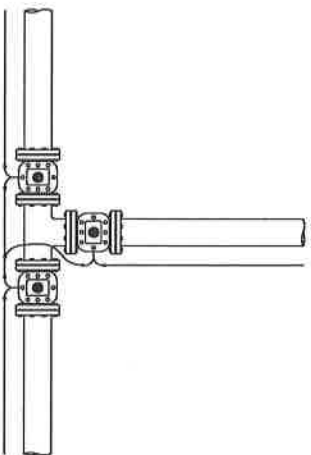
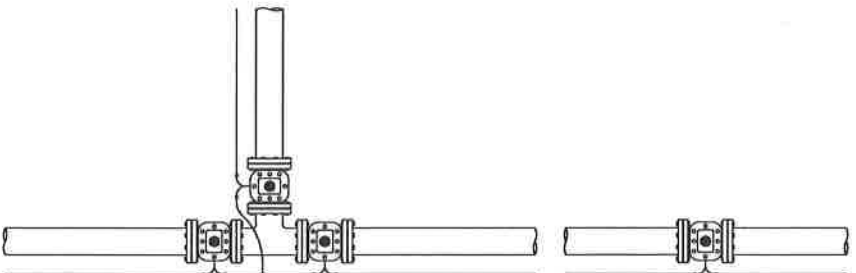
- ① BRONZE SERVICE SADDLE (DOUBLE STRAP)
- ② CORPORATION STOP - BALL VALVE
- ③ STREET ELL (BRASS)
- ④ BRASS PIPE, WRAPPED WITH 20 MIL TAPE
- ⑤ FITTINGS SAME AS PIPE MATERIAL
- ⑥ 6" PVC SLEEVE
- ⑦ STANDARD MASONRY SUPPORT (BRICK)
- ⑧ CURB STOP
- ⑨ CHRISTY B-36 BOX WITH 12" EXTENSIONS AS REQUIRED.
- ⑩ SINGLE BODY COMBINATION AIR/VACUUM RELEASE VALVE APCO MODEL 143 OR APPROVED EQUAL.
- ⑪ $\frac{3}{4}$ " CRUSHED ROCK. FILL TO BOTTOM OF VALVE.
- ⑫ H2O TRAFFIC LOAD RATED STEEL COVER. MINIMUM 4 MILS POWDER COATING - HUNTER GREEN PLACER WATER WORKS AE218M OR APPROVED EQUAL.
- ⑬ 180 RETURN WITH 20 MESH SCREEN ATTACHED
- ⑭ UNION (BRASS).
- ⑮ 6"x8"x $\frac{3}{16}$ " TUBING WITH STEEL CAP, MINIMUM 4 MILS POWDER COATING HUNTER GREEN PLACER WATER WORKS AV18M OR APPROVED EQUAL.

1. MAINTAIN A GRADE UPWARD FROM CORP.
STOP TO AIR VALVE (NO TRAPS).
2. PIPING SIZED TO MATCH SIZE OF ARV.
3. ALL BRASS PIPES AND FITTINGS SHALL BE
IDENTIFIED AS "LEAD FREE".
4. ALL AIR RELEASE VALVES ARE TO BE
COMBINATION RELEASE VALVES.



1" AND 2"
AIR & VACUUM
RELEASE VALVE

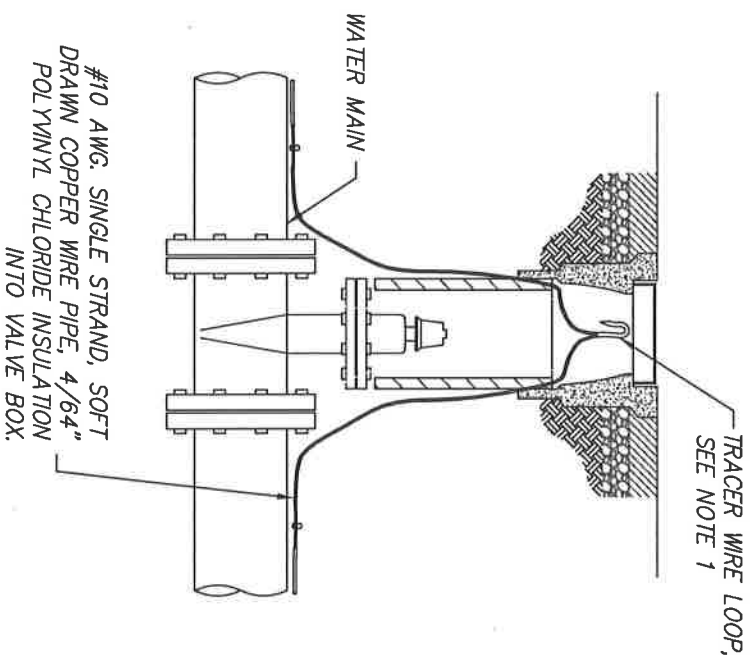
WR-11



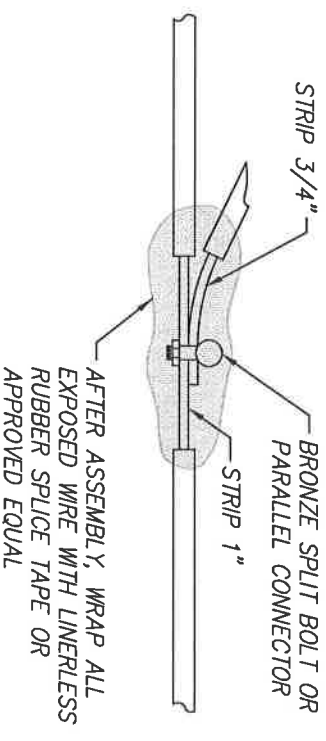
TYPICAL LAYOUT

NOTES:

1. #10 INSULATED COPPER WIRE TO BE CONTINUOUS BETWEEN VALVE BOXES, EXCEPT AS NOTED. TRACER WIRE SHALL HAVE MIN. 12" EXCESS LOOP LOCATED INSIDE THE METER/VALVE BOX. CONTRACTOR SHALL CONDUCT A CONTINUITY TEST ON ALL SPLICES.
2. SITE INSPECTOR WILL PERFORM CONTINUITY TEST ON THE ENTIRE TRACER WIRE SYSTEM PRIOR TO ACCEPTANCE.
3. BARE WIRE MUST NOT TOUCH VALVES OR FITTINGS.
4. LOCATING WIRE TO BE PLACED ON TOP OF PIPE AND TAPED WITH 10 MIL VINYL TAPE EVERY 5'.
5. SOLDERING SHALL BE PERFORMED WHEN REQUESTED BY THE CITY ENGINEER.



VALVE DETAIL



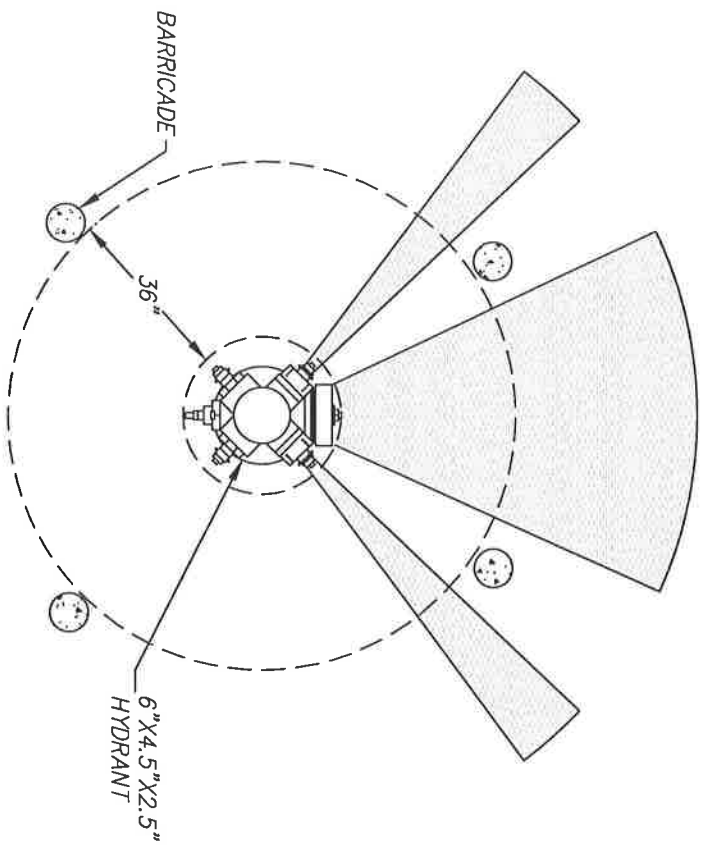
SPLICE DETAIL

CITY OF FOLSOM

LOCATING WIRE FOR WATER MAINS

SCALE: NONE
DATE: FEBRUARY 2020

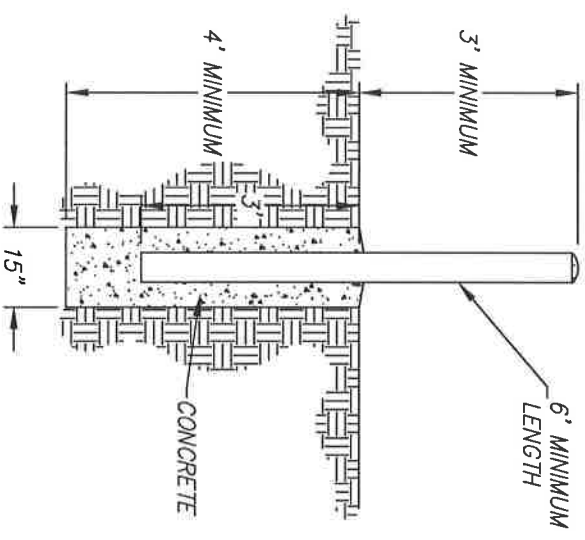
WR-12



PLAN
FIRE HYDRANT BARRICADES
(TYPICAL)

NOTES:

1. PLACEMENT OF BARRICADES SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
2. THE EXACT LOCATION OF BARRICADES MAY BE MODIFIED BY THE FIRE CHIEF FOLLOWING A FIELD INSPECTION.
3. BARRICADES SHALL BE 4" STEEL PIPE POURED FULL OF CONCRETE WITH TOP OF PIPE FINISHED OFF.
4. BARRICADES SHALL BE 6" DIAMETER PIPE IF HEAVY TRUCK TRAFFIC IS ANTICIPATED. SCHEDULE 40 STEEL AND CONCRETE-FILLED.
5. POSTS, FENCES, VEHICLES, VEGETATION, STORAGE, AND OTHER MATERIALS OR THINGS SHALL NOT BE PLACED OR KEPT NEAR FIRE HYDRANTS IN A MANNER THAT WOULD PREVENT FIRE HYDRANTS FROM BEING IMMEDIATELY DISCERNABLE.
6. EXPOSED STEEL PIPE SHALL BE PAINTED WITH A MINIMUM OF TWO COATS OF PRIMER AND FINISHED WITH A MINIMUM OF TWO COATS OF "TRAFFIC SAFETY YELLOW" IN ACCORDANCE WITH AWWA C-502.
7. BURIED STEEL PIPE SHALL BE COAL-TAR COATED IN ACCORDANCE WITH AWWA C-2-5 OR COVERED WITH COLD-APPLIED TAPE IN ACCORDANCE WITH AWWA C-209.



BARRICADE DETAIL

CITY OF FOLSOM

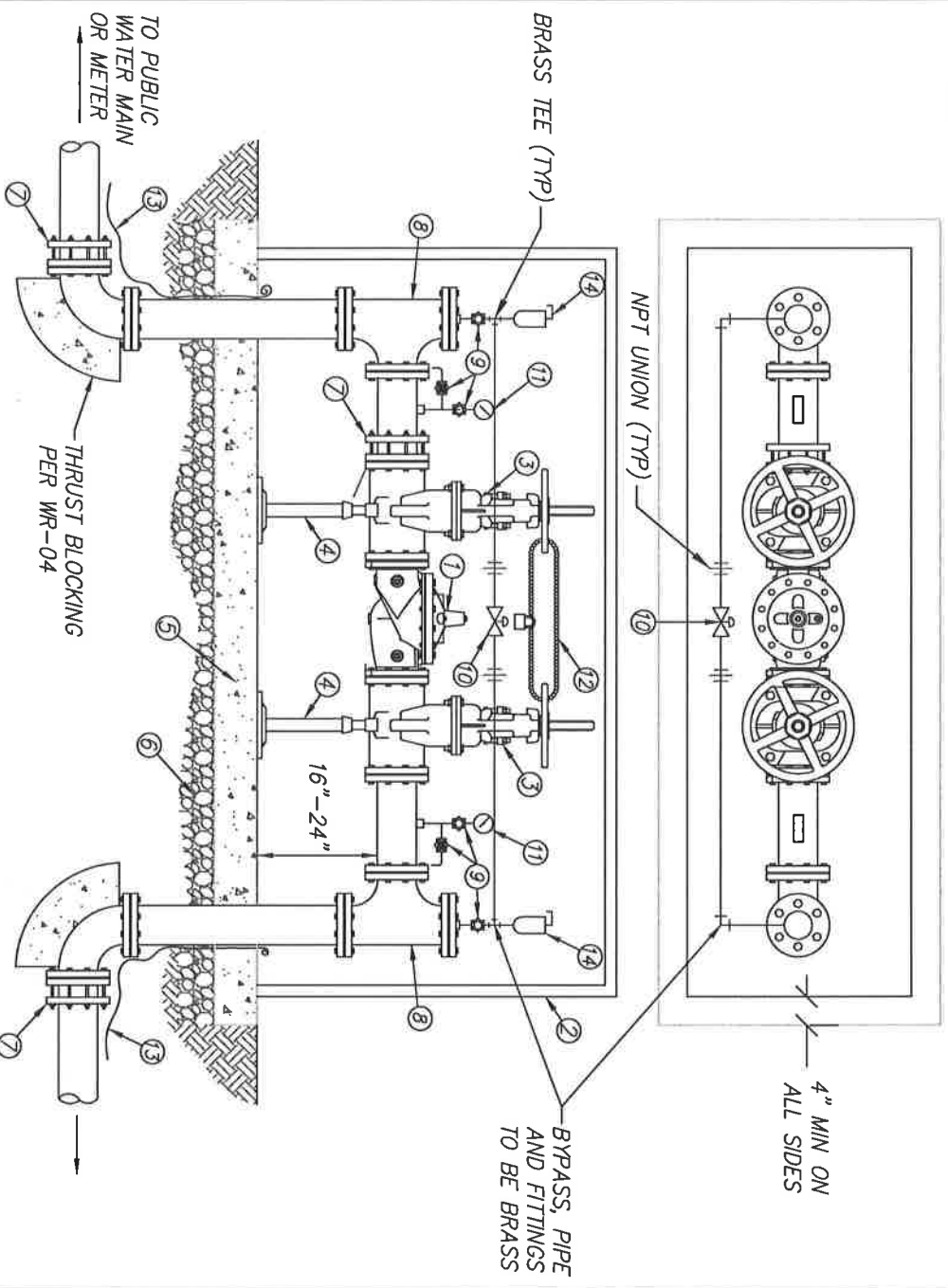
**FIRE HYDRANT
PROTECTION**

SCALE: NONE
DATE: FEBRUARY 2020

WR-13

NOTES:

1. THIS DRAWING IS INTENDED TO ILLUSTRATE REQUIRED COMPONENTS. ACTUAL PRV STATION SHALL BE DESIGNED AND STAMPED BY A LICENSED ENGINEER AND BE EVALUATED FOR SPECIFIC PROJECT SITE AND CONDITIONS.
2. ALL MATERIALS SHALL MEET APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.
3. PIPE PENETRATION SHALL BE FILLED WITH NON-SHRINK GROUT HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI. OPENING SHALL BE MINIMUM 2" LARGER THAN PIPE O.D.
4. LOCATION OF PRV STATION SHALL BE APPROVED BY THE COF ENVIRONMENTAL & WATER RESOURCES DIVISION. PRV SHALL HAVE A PRESSURE RANGE OF 30 PSI TO 300 PSI, EPOXY COATED, WITH POSITION INDICATOR. PRV SHALL MEET THE FOLLOWING CRITERIA: BODY AND COVER TO BE DUCTILE IRON; DISC GUIDE, SEAT, AND COVER BEARING TO BE STAINLESS STEEL; DISC TO BE BUNA-N RUBBER; DISC RETAINER AND COVER TO BE DUCTILE IRON; DIAPHRAGM TO BE NYLON REINFORCED BUNA-N RUBBER; STEM, NUT, AND SPRING TO BE STAINLESS STEEL.



- | | |
|---|--|
| ① CL-VAL FULL PORT PRV OR APPROVED EQUAL
② SAFE-T-COVER ENCLOSURE OR APPROVED EQUAL.
INSIDE DIMENSIONS SHALL ALLOW MIN. 4" CLEAR AROUND
ALL EQUIPMENT. COVER SHALL BE ACCESSIBLE ON BOTH
SIDES AND COLOR TO BE APPROVED BY THE CITY
③ AWWA C-509 RESILIENT SEAT GATE VALVE
④ PIPE SUPPORT, GRINNEL FIG. 264 OR APP. EQUAL
⑤ 4" CONCRETE SLAB - LENGTH TO EXTEND 4" MIN
BEYOND ENCLOSURE ON ALL SIDES
⑥ 4" THICK AGGREGATE BASE
⑦ RESTRAINED FLANGED COUPLING ADAPTOR
⑧ TEE WITH COMPANION FLANGE
⑨ BRASS BALL VALVE
⑩ BYPASS NPT X NPT PRV
⑪ GLYCERINE FILLED PRESSURE GAUGE, TO BE APPROVED
BY THE CITY | ⑫ MIN 3/8" NON CASE HARDENED CHAIN WITH
LOCK (KEY TO BE GIVEN TO FIRE DEPARTMENT)
⑬ #10 TRACER WIRE PER WR-12 AND CITY
STANDARDS
⑭ ARV |
| CITY OF FOLSOM | |
| PRESSURE REDUCING
STATION | |
| SCALE: NONE | W/D 4 A |

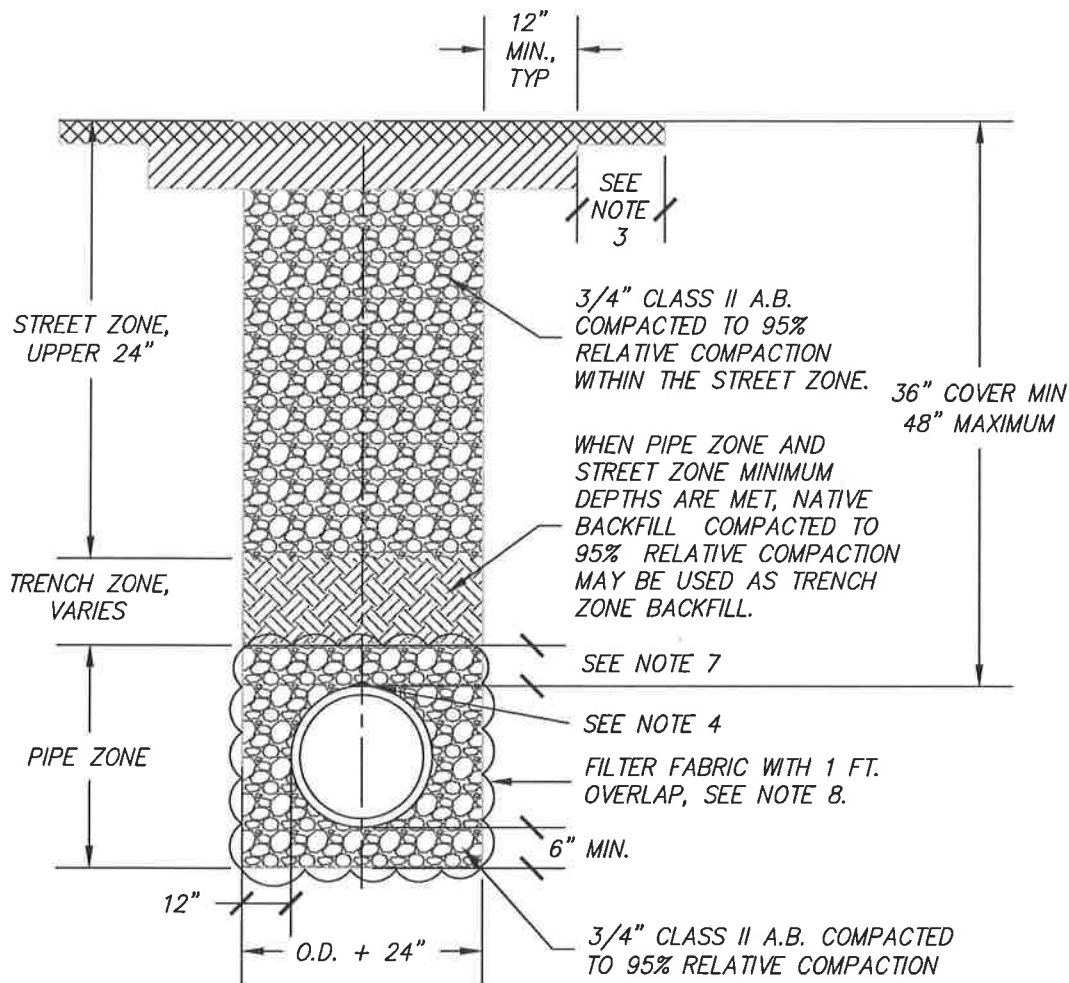
CITY OF FOLSOM

PRESSURE REDUCING STATION

SCALE: NONE

DATE: FEBRUARY 2020

WR-14



NOTES:

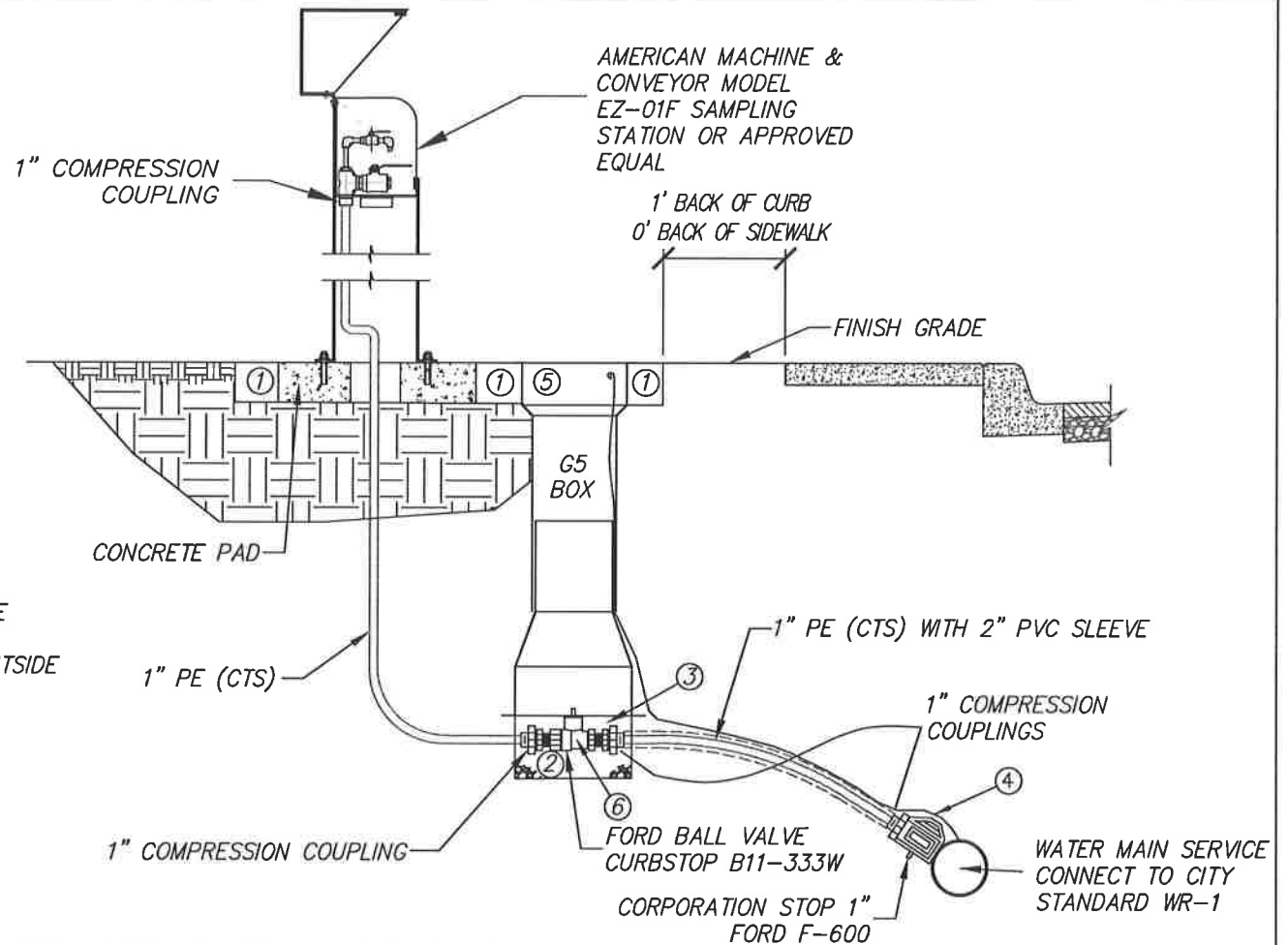
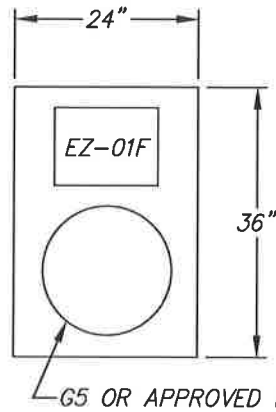
1. MATCH EXISTING A.C. THICKNESS: 4" MINIMUM.
2. SAW CUT 12" BEYOND THE WIDTH OF THE TRENCH.
3. T-GRIND REQUIRED FOR ALL PAVEMENTS (12" MINIMUM WIDTH). 1½" DEEP GRIND AND PAVE TO THE LIP OF GUTTER, LANE LINE, OR CENTER OF ADJACENT TRAFFIC LANE (WHICHEVER IS APPLICABLE).
4. #10 TRACER WIRE. CONNECT SERVICE LATERAL TRACER WIRE TO MAIN LINE TRACER WIRE PER WR-12 AND CITY STANDARDS.
5. BACKFILL SHALL BE MECHANICALLY CONSOLIDATED AND SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE. SEE CITY SPECIFICATIONS FOR BACKFILL AND COMPACTION REQUIREMENTS.
6. 3" WIDE (MINIMUM) BLUE MARKING TAPE, 18" ABOVE PIPE. TAPE SHOULD READ "BURIED WATER MAIN".
7. PIPE ZONE COVER OVER THE TOP OF WATER MAINS SHALL BE A MINIMUM OF 12".
8. IN AREAS OF FLOWING GROUNDWATER, FILTER FABRIC SHALL BE PLACED AROUND THE PIPE ZONE BEDDING AND SHADING IN ACCORDANCE WITH THE ON-SITE GEOTECHNICAL ENGINEER, AS WELL AS METHODS FOR COLLECTING AND CONVEYING GROUNDWATER AWAY FROM UNDERGROUND ROADWAY AND INFRASTRUCTURE PER GEOTECHNICAL ENGINEER.

CITY OF FOLSOM

WATER SYSTEM
PIPE BEDDING FOR
MAINS AND SERVICES

SCALE: NONE
DATE: FEBRUARY 2020

WR-15



- ① 8" REINFORCED CONCRETE SLAB
- ② 3/4" x 6" DEPTH DRAIN ROCK
- ③ 8" PVC RISER NOTCHED OVER PIPE
- ④ #10 TRACER WIRE PER WR-12, OUTSIDE OF RISER, BUT IN BOX
- ⑤ TRAFFIC VALVE BOX W/METAL LID
- ⑥ 1" BALL VALVE, CURB STOP

NOTES:

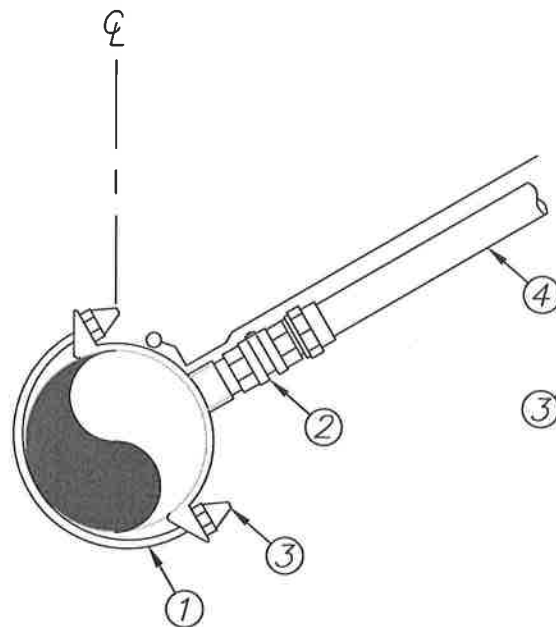
1. SAMPLING STATIONS SHALL BE 30" BURY, WITH A 1/4" BENT-NOSE SAMPLING BIBB WITH A SEPARATE SHUTOFF VALVE.
2. FLUSHING VALVE TUBE SHOULD BE 1" BRASS WITH A 1" MALE CAMLOCK FITTING FOR FLUSHING HOSE CONNECTION.
3. ALL STATIONS SHALL BE ENCLOSED IN A LOCKABLE, NON-REMOVABLE, ALUMINUM HOUSING.
4. WHEN OPENED, THE STATION SHALL REQUIRE NO KEY FOR OPERATION, AND THE WATER WILL FLOW IN AN ALL BRASS WATERWAY.
5. ALL WORKING PARTS WILL BE OF BRASS AND SERVICEABLE FROM ABOVE GROUND WITH NO DIGGING.
6. WATER SAMPLING STATION TO BE A MINIMUM HEIGHT OF 40".
7. ALL BRASS PIPES AND FITTINGS SHALL BE IDENTIFIED AS "LEAD FREE".
8. WHEN SAMPLING STATION IS INSTALLED 1' BACK OF CURB, THE ADDITIONAL 1' OFFSET TO BE CONCRETE.

CITY OF FOLSOM

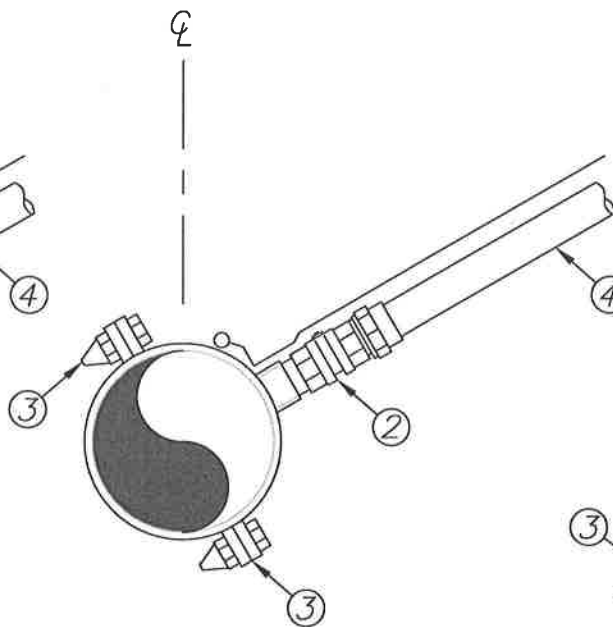
WATER SAMPLING STATION

SCALE: NONE
DATE: FEBRUARY 2020

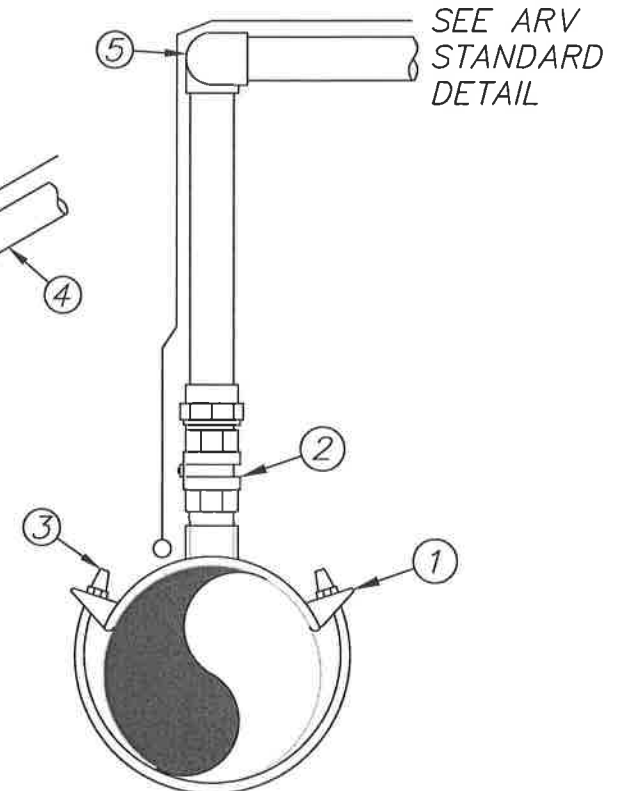
WR-16



DOUBLE STRAP DUCTILE
IRON PIPE SADDLE



PVC PIPE SADDLE



ARV SADDLE

SEE ARV
STANDARD
DETAIL

LEGEND:

- ① DOUBLE STRAP BRONZE SADDLE FOR DUCTILE IRON MAIN, BRONZE SADDLE FOR PVC MAIN
- ② INSULATING CORPORATION STOP
- ③ ZINC CAPS ON ALL BOLTS (ONLY WITH NON-INSULATED CORPORATION STOP)
- ④ PE SERVICE TUBING, CTS
- ⑤ SWING JOINT (2 - BRASS ELBOWS)

NOTES:

- A. WRAP CORPORATION STOP A MINIMUM WITH AN DIELECTRIC TAPE.
- B. SADDLES SHALL BE DOUBLE WRAPPED IN 8 MIL POLYETHYLENE AND BACKFILLED WITH SAND.
- C. NO. 10 COPPER TRACING WIRE PER WR-12 IS REQUIRED ON ARV, HYDRANTS, BLOW OFFS, SERVICE LATERALS, AND OTHER MAJOR APPURENANCES.

CITY OF FOLSOM

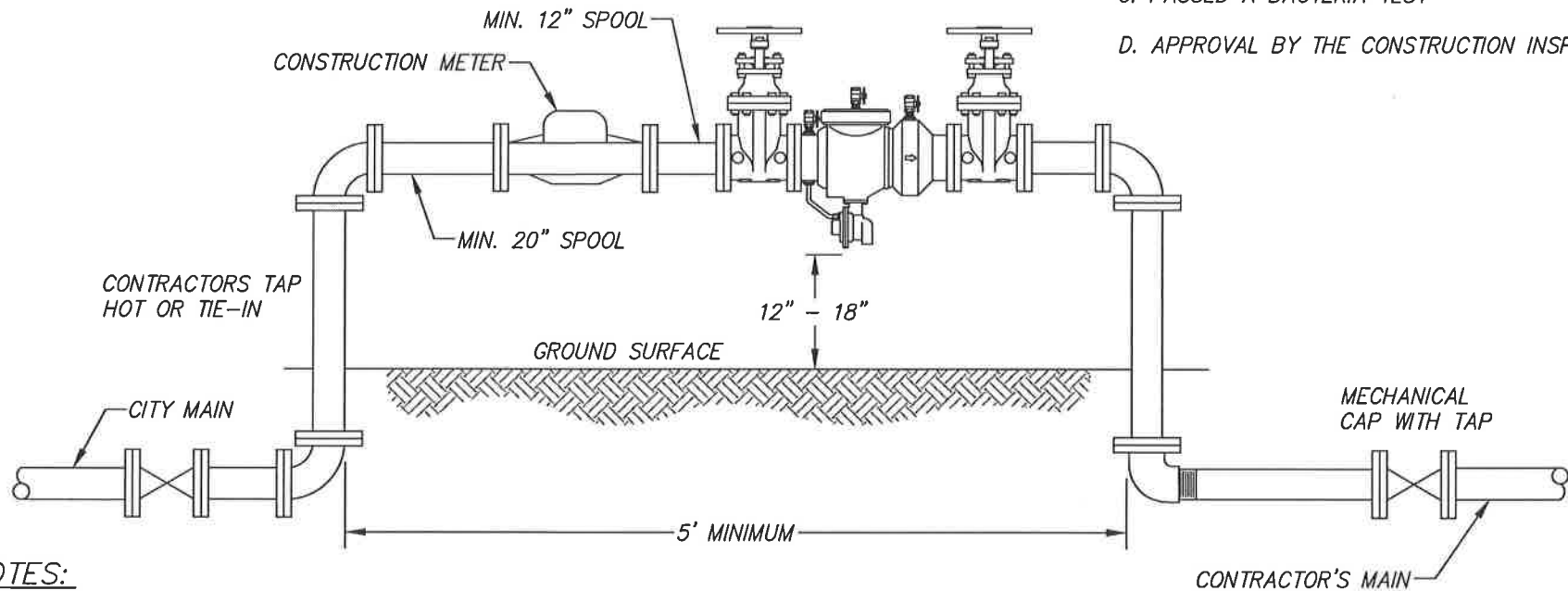
WATER SERVICE AND ARV SADDLE

SCALE: NONE
DATE: FEBRUARY 2020

WR-17

PRIOR TO CONNECTION TO THE CITY MAIN, THE FOLLOWING CONDITIONS SHALL BE MET:

- A. PASSED A PRESSURE TEST
- B. PASSED A CHLORINE TEST
- C. PASSED A BACTERIA TEST
- D. APPROVAL BY THE CONSTRUCTION INSPECTOR



NOTES:

- A. WATER SHALL ONLY BE DRAWN INTO THE CONTRACTOR'S MAIN THROUGH A CONSTRUCTION METER AND A USC APPROVED RP TYPE BACKFLOW DEVICE THAT TESTED BY A CERTIFIED BACKFLOW TESTER AND VERIFIED BY THE ENVIRONMENTAL AND WATER RESOURCES DEPARTMENT.
- B. FINAL SYSTEM COMPONENTS NECESSARY FOR TIE-IN SHALL BE PRE-CHLORINATED AND PRE-FLUSHED IN THE PRESENCE OF THE CONSTRUCTION INSPECTOR.
- C. UPON COMPLETION OF THE CONDITIONS NOTED ABOVE AND WITH THE APPROVAL OF THE CONSTRUCTION INSPECTOR, CONNECTION TO THE CITY SYSTEM MAY BE MADE. THE CONSTRUCTION INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF WORK.
- D. ALL PIPING SHALL BE A MINIMUM 4" WITH 4" METER FOR FLUSHING.
- E. PLACE VALVE RISER AND BOX PER CITY STANDARDS.
- F. CONSTRUCTION METER AND PIPING SHALL BE 4-INCH MINIMUM FOR VELOCITY FLUSHING.
- G. CONTRACTOR TO PROVIDE THE NECESSARY EQUIPMENT FOR THE CHLORINE INJECTION.
- H. CONTRACTOR TO PROVIDE A SAMPLE TAP LOCATION PRIOR TO THE DOWNSTREAM VALVE.

CITY OF FOLSOM

**TEMPORARY CONNECTION
FOR LOADING AND TESTING**

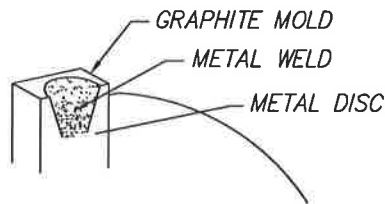
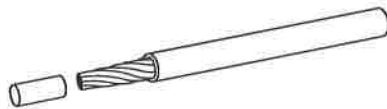
**SCALE: NONE
DATE: FEBRUARY 2020**

WR-18

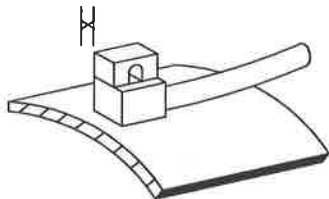
1) FILE TO BARE METAL & CLEAN OVER SURFACE



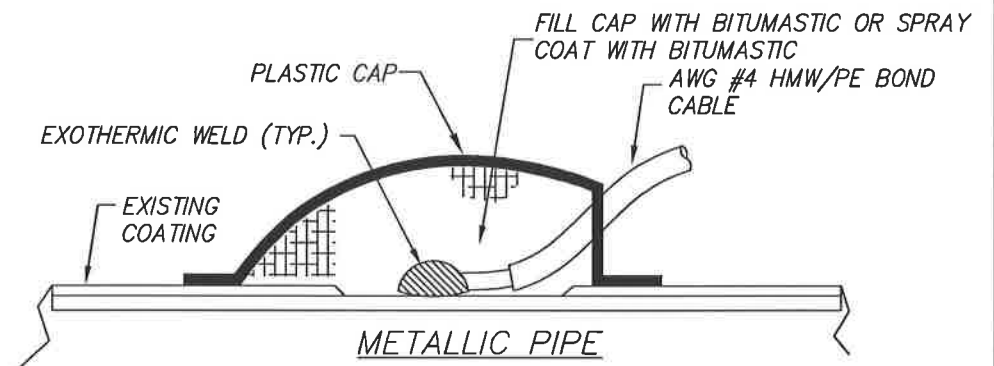
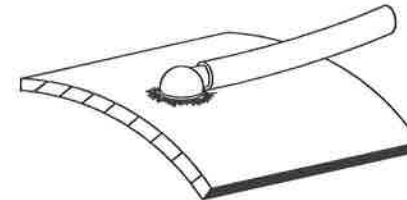
2) STRIP INSULATION FROM WIRE AND ATTACH SLEEVE



3) HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR, IGNITE WITH FLINT GUN



4) REMOVE SLAG FROM CONNECTION, COVER CONNECTION WITH COMPATIBLE COATING AND CAP OVER ALL EXPOSED METAL



NOTES:

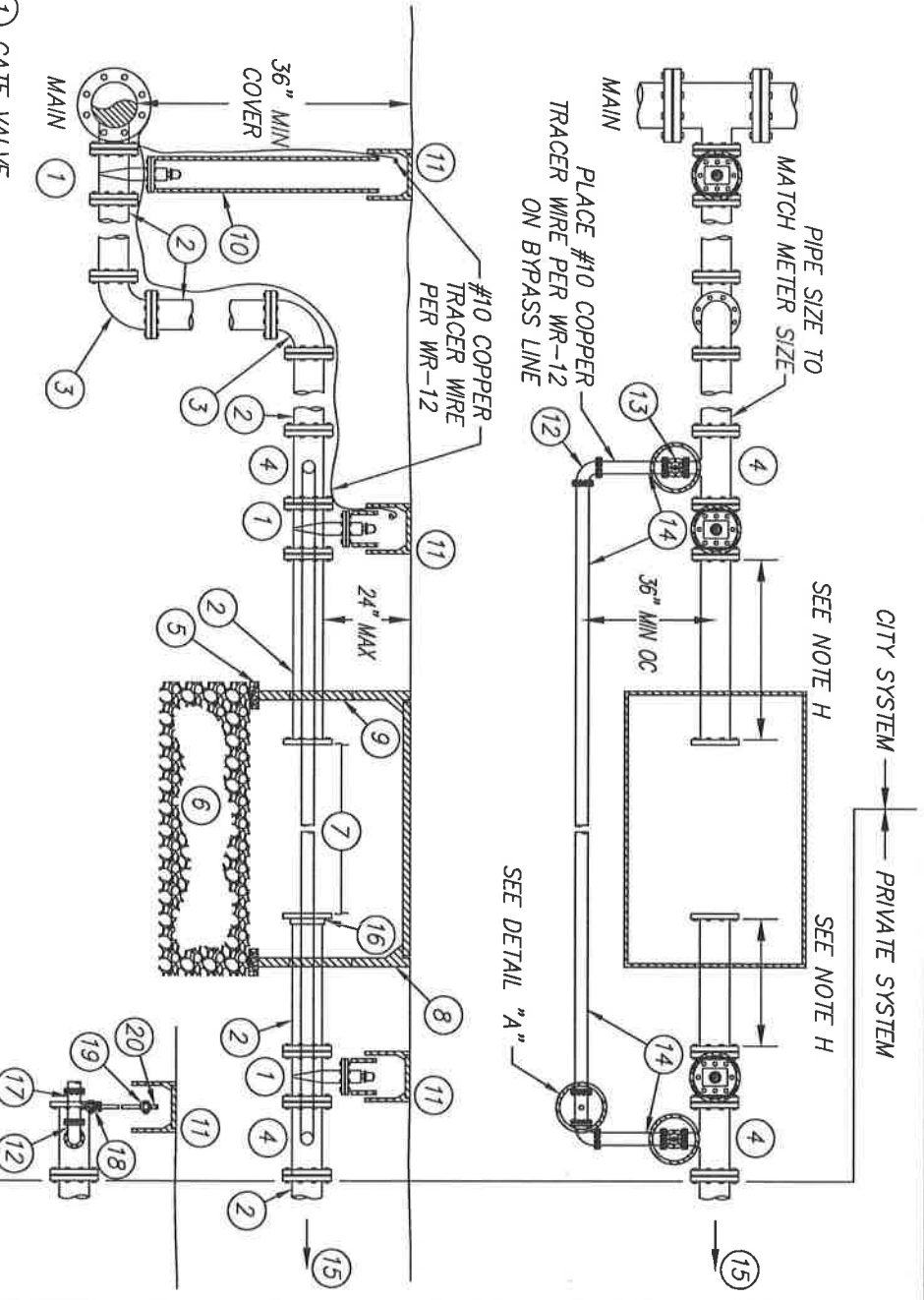
- A. EACH JOINT SHALL HAVE TWO SEPARATE WELD WIRES.

CITY OF FOLSOM

EXOTHERMIC WELDS

SCALE: NONE
DATE: FEBRUARY 2020

WR-19



- ① GATE VALVE
- ② SPOOL
- ③ 90° ELBOW
- ④ REDUCING TEE
- ⑤ MASONRY BLOCK SUPPORT FRAME AROUND BOX PERIMETER
- ⑥ ¾" CRUSHED ROCK SUB-BASE, 12" DEEP
- ⑦ METER AND FIXED NETWORK FIRELY PROVIDED BY THE CITY UPON PAYMENT OF FEES
- ⑧ REINFORCED CONCRETE UTILITY BOX (SEE CITY CONSTRUCTION SPECIFICATIONS, SECTION 4 FOR BOX AND LID SIZE).
- ⑨ UTILITY BOX EXTENSION, IF REQ'D
- ⑩ VALVE BOX RISER (SEE WR-07 FOR DETAILS)
- ⑪ VALVE BOX AND LID PER CITY STANDARDS
- ⑫ 4" 90° ELBOW
- ⑬ 4" GATE VALVE
- ⑭ 4" SPOOL
- ⑮ TO BACKFLOW PREVENTER (FOR FIRE SEE WR-09, FOR IRRIGATION AND DOMESTIC SEE WR-10)
- ⑯ FLANGE COUPLING ADAPTER
- ⑰ 4"x1" SERVICE SADDLE
- ⑱ 1" CORPORATION STOP, MIDxPIP
- ⑲ 1" IPS BRASS
- ⑳ 1" LOCK WING CURB STOP, FIPxPIP

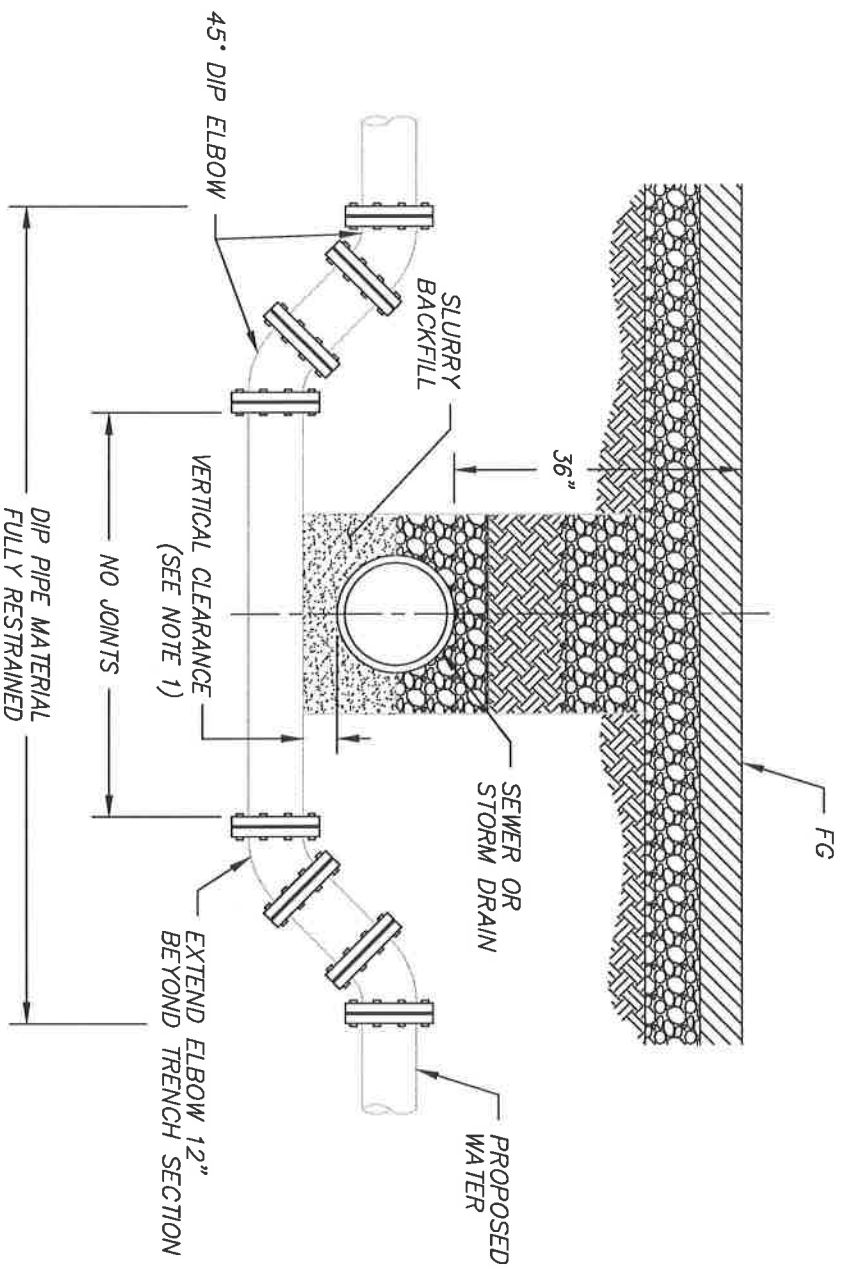
NOTES

- A. METER BOX SIZES SHALL ALLOW FOR METER TO BE REPLACED WITHOUT REMOVING THE BOX AND PROVIDE A MINIMUM 12" CLEARANCE AROUND FLANGES.
- B. CUT OUT PORTIONS OF THE METER BOX SHALL BE PACKED FROM THE OUTSIDE WITH STIFF CONCRETE, INSIDE SMOOTH FINISH.
- C. ALL STEEL OR DUCTILE IRON JOINTS BETWEEN MAIN AND METER SHALL BE FLANGE CONNECTED.
- D. THRUST BLOCKS ARE TO BE CONSTRUCTED PER STANDARD DRAWING WR-4.
- E. WHERE THRUST BLOCKS ARE NOT FEASIBLE, USE FULLY RESTRAINED PVC OR DIP.
- F. INSTALL TRACER WIRE ON SERVICE AND BYPASS PIPING PER WR-12 AND THE STANDARD SPECIFICATIONS.
- G. THIS IS A TYPICAL DRAWING. ACTUAL INSTALLATION WILL VARY WITH FIELD CONDITIONS.
- H. LATERAL SHALL HAVE A MINIMUM 5X DIAMETER LENGTH OF STRAIGHT PIPE BEFORE METER AND 3X DIAMETER STRAIGHT PIPE AFTER METER.

CITY OF FOLSOM

**TYPICAL 6" & 8" DOMESTIC
METER INSTALLATION**

SCALE: NONE	WR-21
DATE: FEBRUARY 2020	



NOTES:

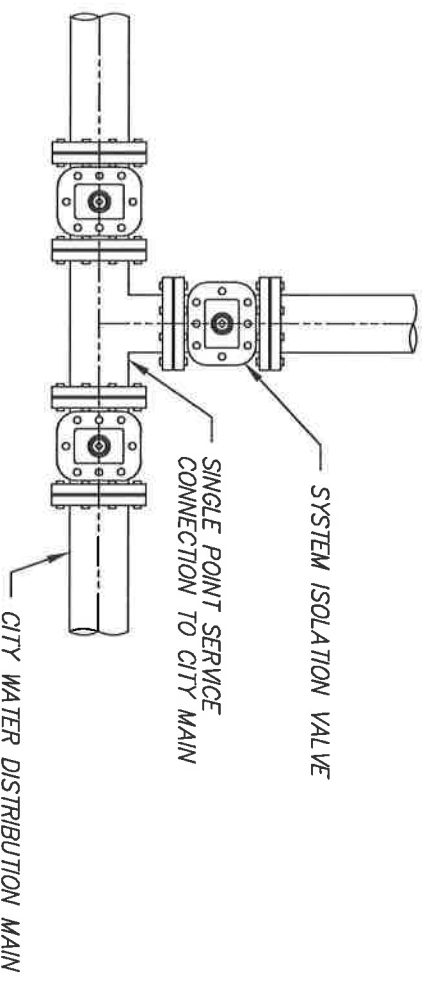
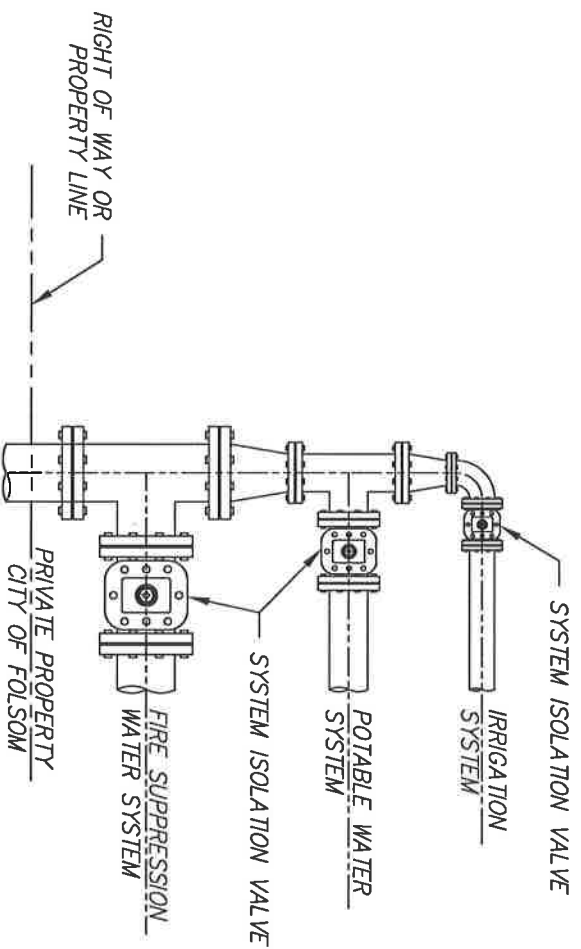
1. REQUIRED MINIMUM VERTICAL CLEARANCES:
6" FOR STORM DRAINS 12" FOR SANITARY SEWERS &
RECYCLED WATER
2. NO WATER SERVICES ALLOWED ALONG THE LOWERED LENGTH
OF WATER MAIN.
4. NO JOINTS IN SEWER OR STORM DRAIN WITHIN 10 FEET OF
CENTERLINE OF WATER MAIN.
5. FOR ADDITIONAL INFORMATION ON UTILITIES THAT CROSS
POTABLE WATER LINES, REFER TO STATE OF CALIFORNIA,
DEPT. OF HEALTH SERVICES.
6. SEWER CROSSING PIPE TO BE DUCTILE IRON PIPE LINED WITH
PROTECTO 401 OR APPROVED EQUAL. CASING SHALL BE
DOUBLE WRAPPED IN 8-MIL POLYETHYLENE FILM PER CITY
SPECIFICATIONS.

CITY OF FOLSOM

**WATER MAINS CROSSING
BELOW SANITARY SEWER
OR STORM DRAIN**

SCALE: NONE
DATE: FEBRUARY 2020

WR-22



NOTES

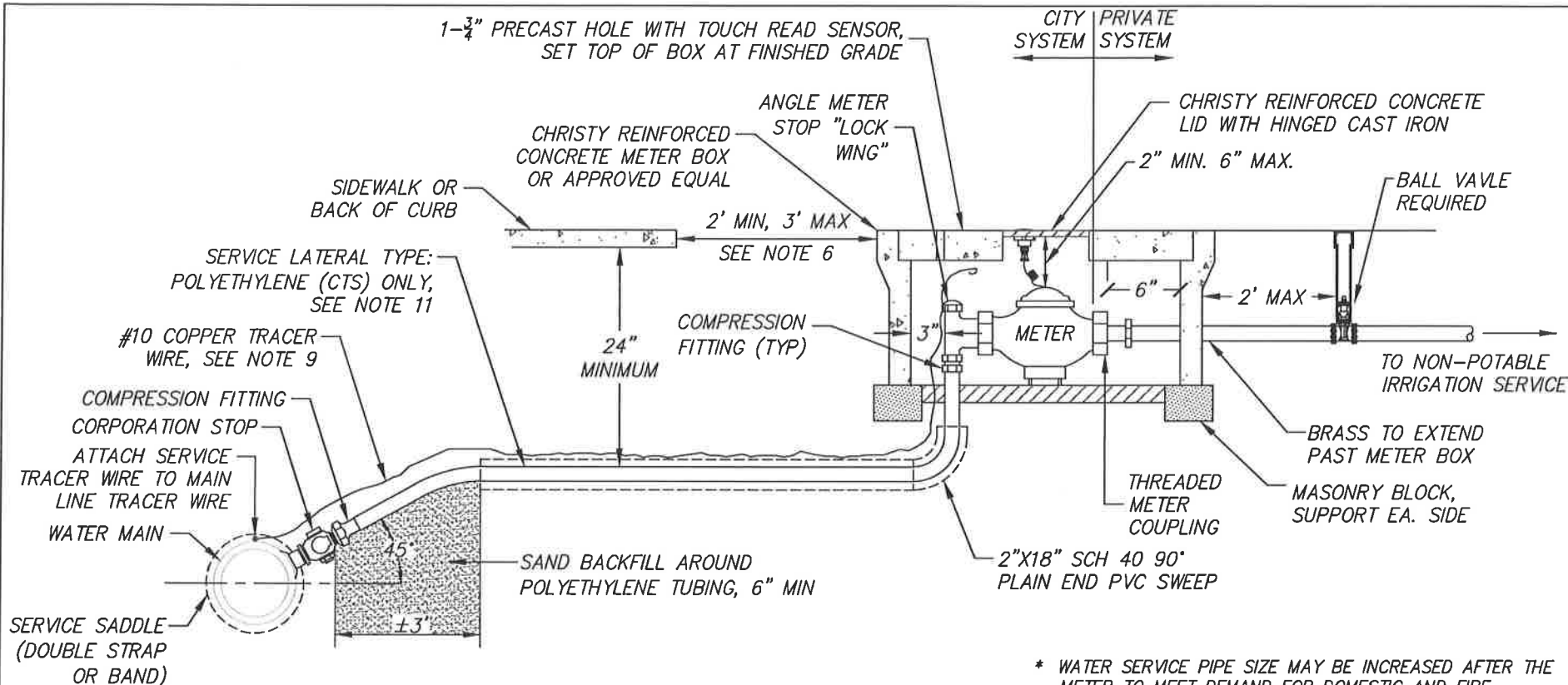
1. WATER SERVICE CONNECTIONS FOR DEVELOPMENTS SHALL BE DESIGNED SUCH THAT ONLY ONE SYSTEM TAP IS REQUIRED. MULTIPLE CONNECTION POINTS TO THE CITY'S WATER DISTRIBUTION MAIN FOR A SINGLE DEVELOPMENT WILL NOT BE ALLOWED.
2. WATER METER AND BACKFLOW PREVENTION DEVICES ARE NOT SHOWN. THE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE LOCATION AND DETAILS OF THE WATER METERS AND BACKFLOW PREVENTION DEVICES FOR APPROVAL BY THE CITY.
3. THE TYPE OF TIE-IN CONNECTION ("HOT TAP" OR "CUT-IN") TO BE INSTALLED WILL BE MADE BY THE CITY UPON REVIEW OF THE WATER AND/OR IMPROVEMENT PLANS.

CITY OF FOLSOM

WATER SERVICE
MULTI--CONNECTION

SCALE: NONE
DATE: FEBRUARY 2020

WR-23



* WATER SERVICE PIPE SIZE MAY BE INCREASED AFTER THE METER TO MEET DEMAND FOR DOMESTIC AND FIRE SERVICES IN THE FOLLOWING AREAS:

- LOW PRESSURE AREAS WITHIN WATER ZONES
- HILLSIDE SUBDIVISIONS
- CUSTOM HOME SUBDIVISIONS

NOTES:

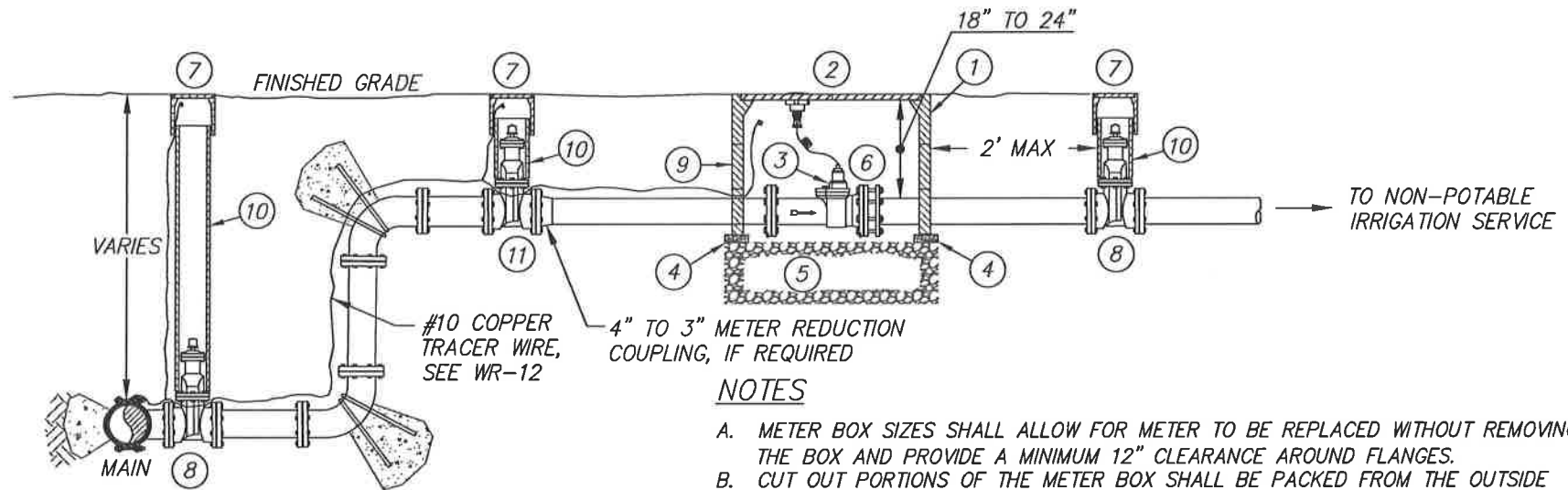
1. CORPORATION STOP SHALL BE M.I.P. BY COMPRESSION.
2. ANGLE METER STOP SHALL HAVE SWIVEL NUT AND LOCK WINGS AND BE VERTICALLY PLUMBED.
3. CORPORATION STOP, CURB STOP, ANGLE METER STOPS, METER AND SERVICE LINE TO BE SAME SIZE.
4. METER AND FIXED NETWORK FIREFLY SHALL BE PROVIDED BY CITY UPON PAYMENT OF FEES.
5. ALL FITTINGS, VALVES, AND CORPORATION STOPS SHALL BE BRONZE; SERVICE SADDLES SHALL BE BRONZE OR STAINLESS STEEL. ALL BRASS PIPES AND FITTINGS SHALL BE IDENTIFIED AS "LEAD FREE".
6. METER BOX SHALL BE 24" MINIMUM FROM BACK OF WALK, INCREASED TO 36" WHERE SERVICE LINE CROSSES UNDER ROADWAY WITH 80' OR GREATER RIGHT-OF-WAY.
7. POLYETHYLENE SERVICE LINE SHALL BE LAID CONTINUOUS FROM SERVICE SADDLE TO ANGLE METER STOP.
8. SERVICE SADDLES SHALL NOT BE INSTALLED WITHIN 24" OF A VALVE, JOINT, FITTING OR OTHER SERVICE SADDLE.
9. #10 INSULATED COPPER TRACING WIRE SHALL BE ATTACHED TO THE PVC SLEEVE FROM THE MAIN TO THE METER BOX (SEE WR-12), SECURED TO 2" SLEEVE. NO SPLICE IS ALLOWED IN POLYETHYLENE SERVICE LINE OR WIRE. ALL PIPE AND FITTINGS IN EACH SERVICE ASSEMBLY SHALL BE SAME SIZE.
10. SIZE OF SERVICE PIPE AFTER THE METER/BACKFLOW SHALL BE DETERMINED BY HYDRAULIC CALCULATIONS.
11. 2" SCH 40 PVC SLEEVE REQUIRED FOR 1" SERVICES AND 3" SCH 40 PVC FOR 2" SERVICES. WRAP BOTH ENDS OF PVC SLEEVE WITH 10 MIL TAPE.

CITY OF FOLSOM

1" THRU 2" NON-POTABLE METERED WATER SERVICE

SCALE: NONE
DATE: FEBRUARY 2020

WR-24



NOTES

- A. METER BOX SIZES SHALL ALLOW FOR METER TO BE REPLACED WITHOUT REMOVING THE BOX AND PROVIDE A MINIMUM 12" CLEARANCE AROUND FLANGES.
- B. CUT OUT PORTIONS OF THE METER BOX SHALL BE PACKED FROM THE OUTSIDE WITH STIFF CONCRETE, INSIDE SMOOTH FINISH.
- C. ALL STEEL OR DUCTILE IRON JOINTS BETWEEN MAIN AND METER SHALL BE FLANGE CONNECTED.
- D. THRUST BLOCKS ARE TO BE CONSTRUCTED PER STANDARD DRAWING WR-4.
- E. WHERE THRUST BLOCKS ARE NOT FEASIBLE, USE FULLY RESTRAINED PVC OR FLANGED DIP.
- F. INSTALL TRACER WIRE PER WR-12 AND THE STANDARD SPECIFICATIONS.
- G. THIS IS A TYPICAL DRAWING, ACTUAL INSTALLATION WILL VARY WITH FIELD CONDITIONS.
- H. 3" METERED SERVICE REQUIRES 4" TAP ONTO MAIN; 4" PIPE TO METER WITH REDUCTION COUPLING.
- I. LATERAL SHALL HAVE A MINIMUM 5X DIAMETER LENGTH OF STRAIGHT PIPE BEFORE METER AND 3X DIAMETER STRAIGHT PIPE AFTER METER.
- J. PRIVATE WATER SERVICE LINE OWNERSHIP AND RESPONSIBILITY BEGINS AFTER THE WATER METER GASKET.

- ① REINFORCED CONCRETE UTILITY BOX (CHRISTY B48 OR APPROVED EQUAL).
- ② 2 PC. STEEL CHECKER PLATE WITH TWO(2) 10" ROUND SELF-CLOSING READING LIDS AND 1 3/4" HOLE FOR TOUCH READ MODULE IN ONE (1) READING LID (CHRISTY B48-62G COVER OR APPROVED EQUAL).
- ③ METER AND FIXED NETWORK FIREFLY PROVIDED BY CITY UPON PAYMENT OF FEES.
- ④ MASONRY BLOCK SUPPORT FRAME AROUND BOX PERMETER.
- ⑤ 3/4" CRUSHED ROCK SUB-BASE, 12" TO 18" DEEP.
- ⑥ FLANGED COUPLING ADAPTOR.
- ⑦ VALVE BOX AND LID PER CITY STANDARDS.
- ⑧ GATE VALVE
- ⑨ UTILITY BOX EXTENSION.
- ⑩ VALVE BOX RISER SHALL BE 8" PIPE.
- ⑪ GATE VALVE. (NEEDED IF METER IS MORE THAN 20' FROM MAIN)

CITY OF FOLSOM

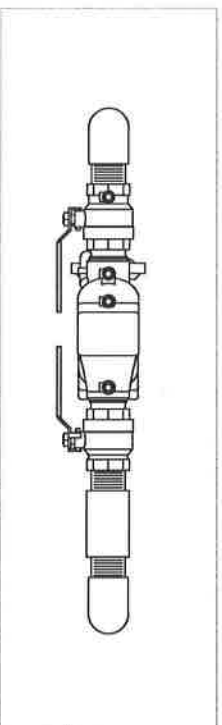
3" OR LARGER NON-POTABLE
METERED WATER SERVICE

SCALE: NONE
DATE: FEBRUARY 2020

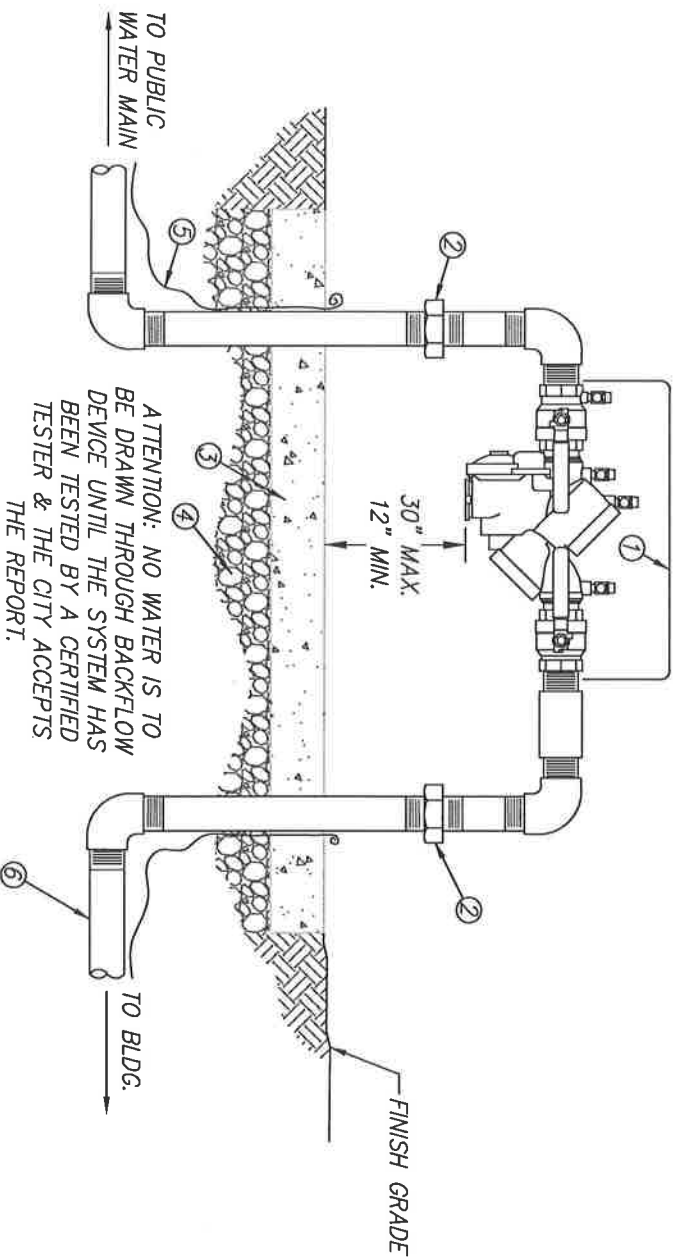
WR-25

NOTES:

1. REDUCED PRESSURE PRINCIPLE ASSEMBLY TO BE LEAD FREE AND APPROVED BY THE CITY.
2. ALL MATERIALS SHALL MEET APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS.
3. BACKFLOW PREVENTER SHOWN MAY NOT REFLECT MANUFACTURERS' CONFIGURATION FOR REDUCED PRESSURE DEVICES.
4. INSTALL TRACER WIRE PER CITY STANDARDS. ALL PIPING FROM METER TO BACKFLOW SHALL BE COPPER OR BRASS.
5. FOR BACKFLOW PREVENTERS 2" AND SMALLER, PIPE SUPPORTS ARE NOT REQUIRED.
6. THRUST BLOCKS NOT REQUIRED FOR BACKFLOW PREVENTERS 2" AND SMALLER.
7. PUBLICLY OWNED IRRIGATION BACKFLOW PREVENTERS SHALL HAVE "STRONG-BOX" OR APPROVED EQUAL ENCLOSURE.
8. BACKFLOW PREVENTER ANNUAL TESTING, MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.



NOTE: DISTANCE FROM P.O.C. SHALL BE 5' MAXIMUM UNLESS CONDITIONS DO NOT PERMIT.



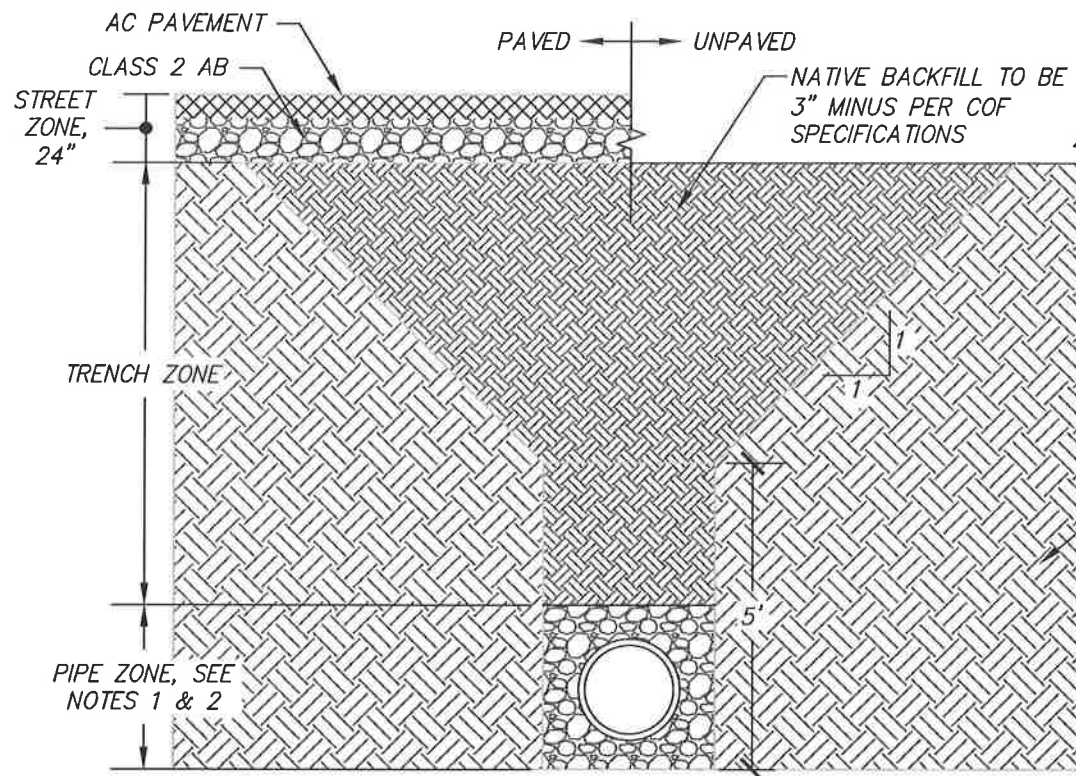
- ① REDUCED PRESSURE PRINCIPLE ASSEMBLY (RPPA)
- ② ALL ABOVE GROUND PIPING TO BE COPPER OR BRONZE WITH UNIONS ON BOTH LEGS
- ③ 4" CONCRETE SLAB - 36" WIDE, LENGTH TO EXTEND 6" MIN BEYOND PIPING ON ALL SIDES
- ④ 4" THICK AGGREGATE BASE
- ⑤ #10 COPPER TRACER WIRE, SEE WR-12
- ⑥ MAY TRANSITION TO PVC

CITY OF FOLSOM

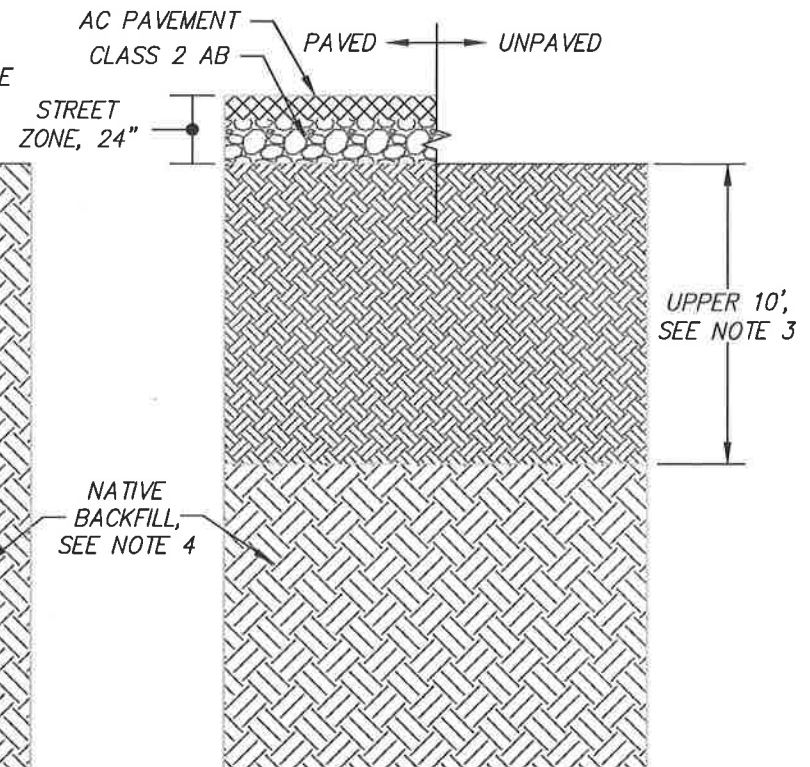
**2" & SMALLER
DOMESTIC BACKFLOW
PREVENTER ASSEMBLY**

SCALE: NONE
DATE: FEBRUARY 2020

WR-26



DEEP FILL WITH UTILITIES



DEEP FILL WITHOUT UTILITIES

NOTES:

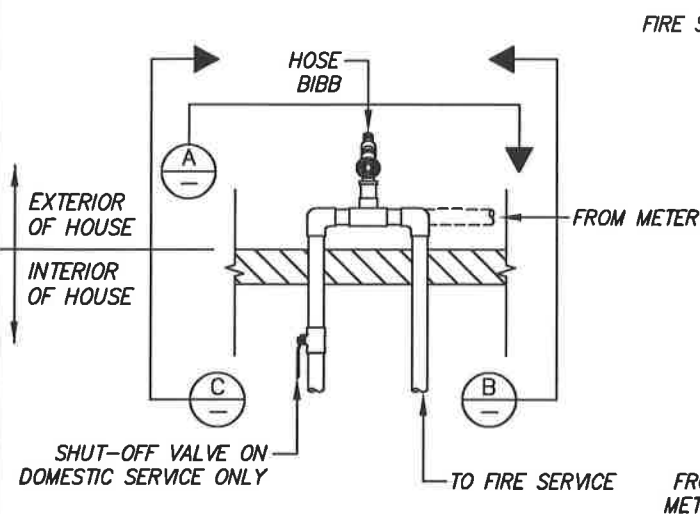
1. BACKFILL SHALL BE MECHANICALLY CONSOLIDATED UNDER THE HAUNCHES OF THE PIPE. SEE CITY SPECIFICATIONS 4.6.8 AND 6.7.8 FOR BACKFILL AND COMPACTION REQUIREMENTS.
2. PIPE ZONE COVER OVER THE TOP OF UTILITY WATER OR SEWER MAINS SHALL BE A MINIMUM OF 12". RELATIVE COMPACTION SHALL OCCUR IN MAXIMUM 8 INCH LOOSE HEIGHTS. PIPE BEDDING AND INTERMEDIATE BACKFILL SHALL BE IN ACCORDANCE WITH STANDARD DETAILS SS-15 AND WR-15.
3. UPPER 10' OF DEEP FILL WITH NO UTILITIES SHALL BE IN ACCORDANCE WITH TRENCH ZONE BACKFILL. FILL SHALL BE 3" MINUS AND COMPACTED PER CITY SPECIFICATIONS 4.6.8 AND 6.7.8.
4. NATIVE BACKFILL TO BE PLACED AND COMPACTED TO 90% RELATIVE COMPACTION.

CITY OF FOLSOM

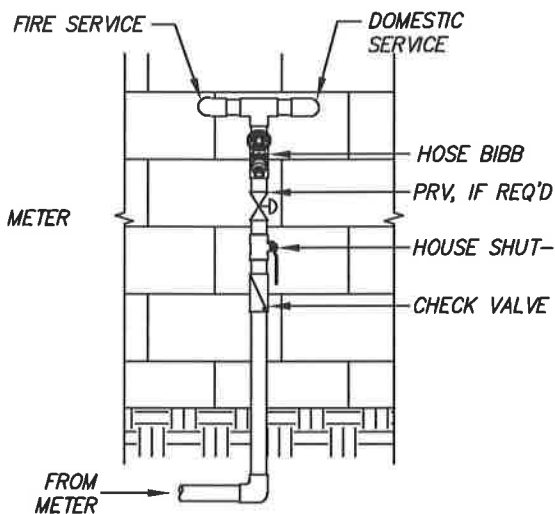
DEEP FILL
TRENCH BACKFILL

SCALE: NONE
DATE: FEBRUARY 2020

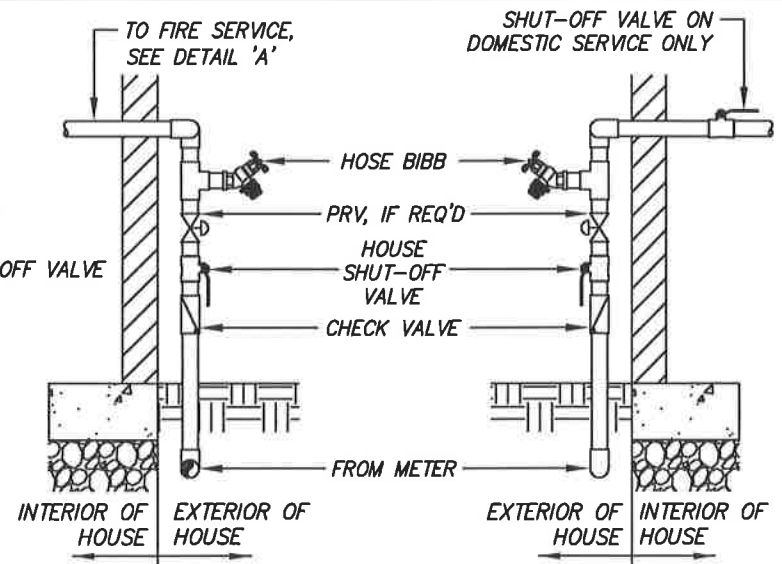
WR-27



PLAN



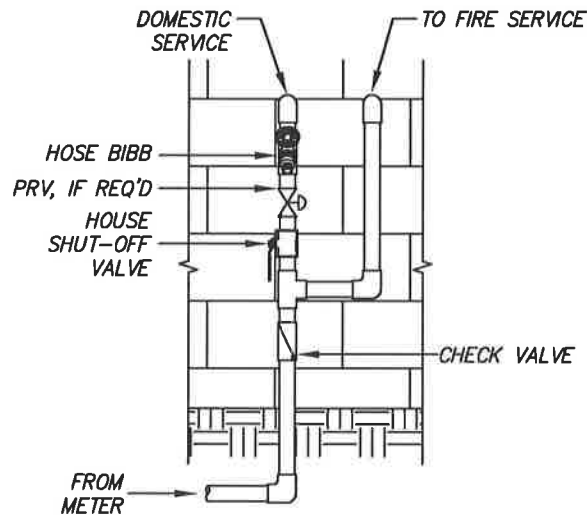
SECTION A



SECTION B

SECTION C

MULTI-PURPOSE DOMESTIC/FIRE SYSTEM



STAND-ALONE FIRE SYSTEM

NOTES:

1. HOUSE SHUT-OFF VALVE, GAUGES, ETC. MUST BE LOCATED ON EXTERIOR OF HOUSE.
2. SHUT-OFF VALVE SHALL BE PLACED IN AN ACCESSIBLE LOCATION AND MUST PROVIDE PROPER DRAINAGE. VALVE SHALL NOT BE PLACED BEHIND FENCES OR LOCKED AREAS.
3. NO SHUT-OFF VALVE IS TO BE INSTALLED ON THE FIRE SERVICE.
4. STANDALONE FIRE SYSTEM IS TO BE USED IN LOW PRESSURE AREAS ONLY AND SHALL BE APPROVED BY THE CITY.
5. ALL SHUT-OFF VALVES TO BE CLEARLY LABELED.

CITY OF FOLSOM

FIRE AND
DOMESTIC SERVICE

SCALE: NONE
DATE: FEBRUARY 2020

WR-28