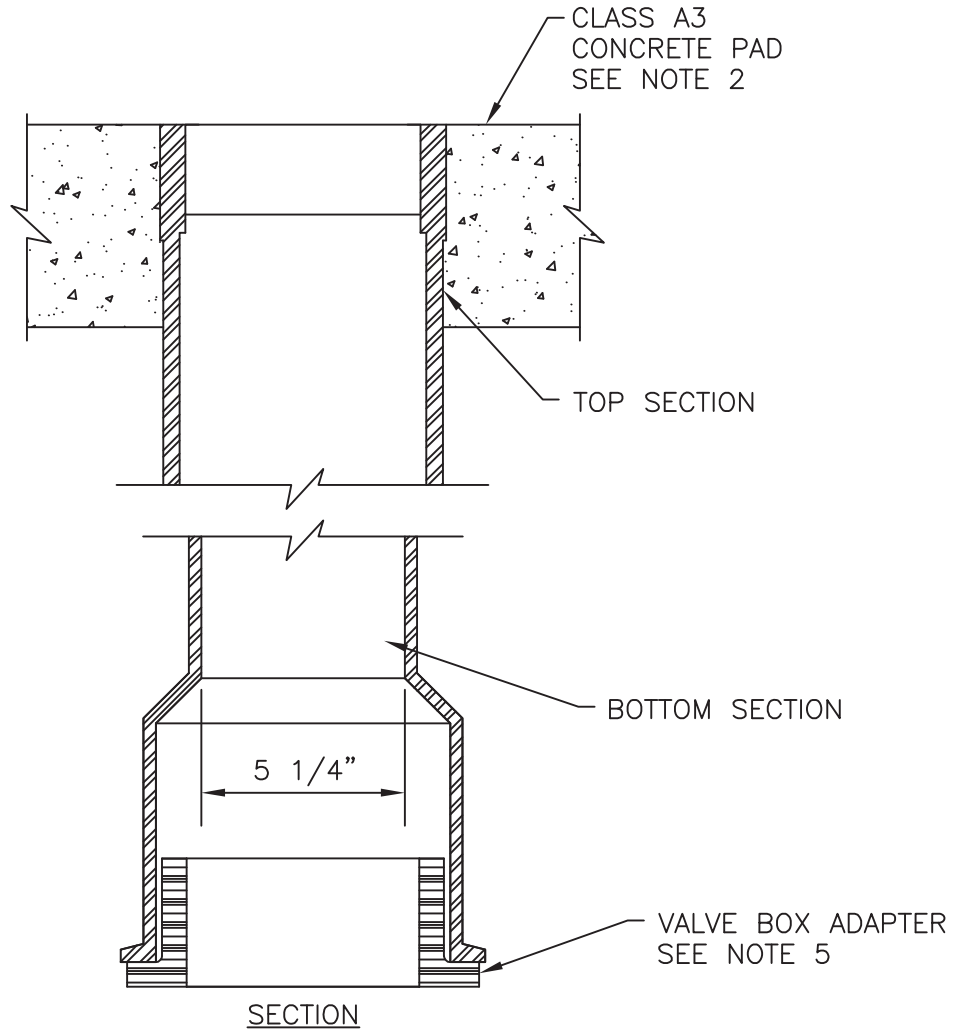




TOP VIEW OF
COVER



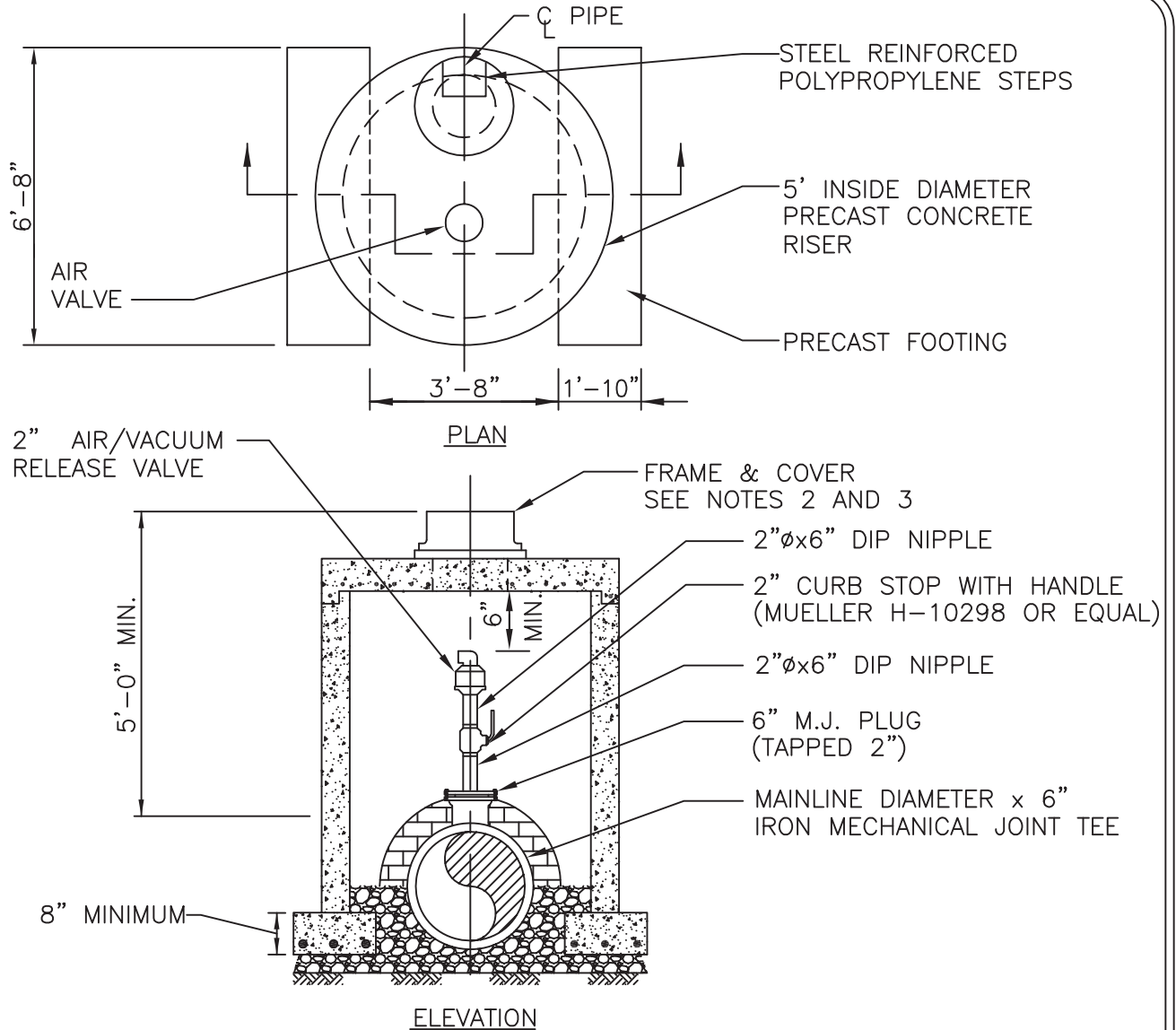
NOTES:

1. PROVIDE EXTENSION OF VALVE STEM WHERE OPERATING NUT IS MORE THAN 5' BELOW GRADE.
2. VALVE BOXES OUTSIDE OF PAVEMENT REQUIRE 18"X18"X6" CONCRETE PAD.
3. REFER TO THE APPROVED MATERIALS LIST FOR APPROVED MANUFACTURERS & PART NUMBERS.
4. ADJUSTMENT BY RISER RINGS PROHIBITED ON NEW CONSTRUCTION.
5. FOR GATE VALVE INSTALLATIONS, PROVIDE VALVE BOX ADAPTER MADE TO FIT SPECIFIC SIZE AND MANUFACTURE OF VALVE. NOT TO BE USED WITH BUTTERFLY VALVES.
6. COVER TO BE PAINTED WITH APPROVED PURPLE COATING.

OCT.
2013

REUSE VALVE BOX

R-1



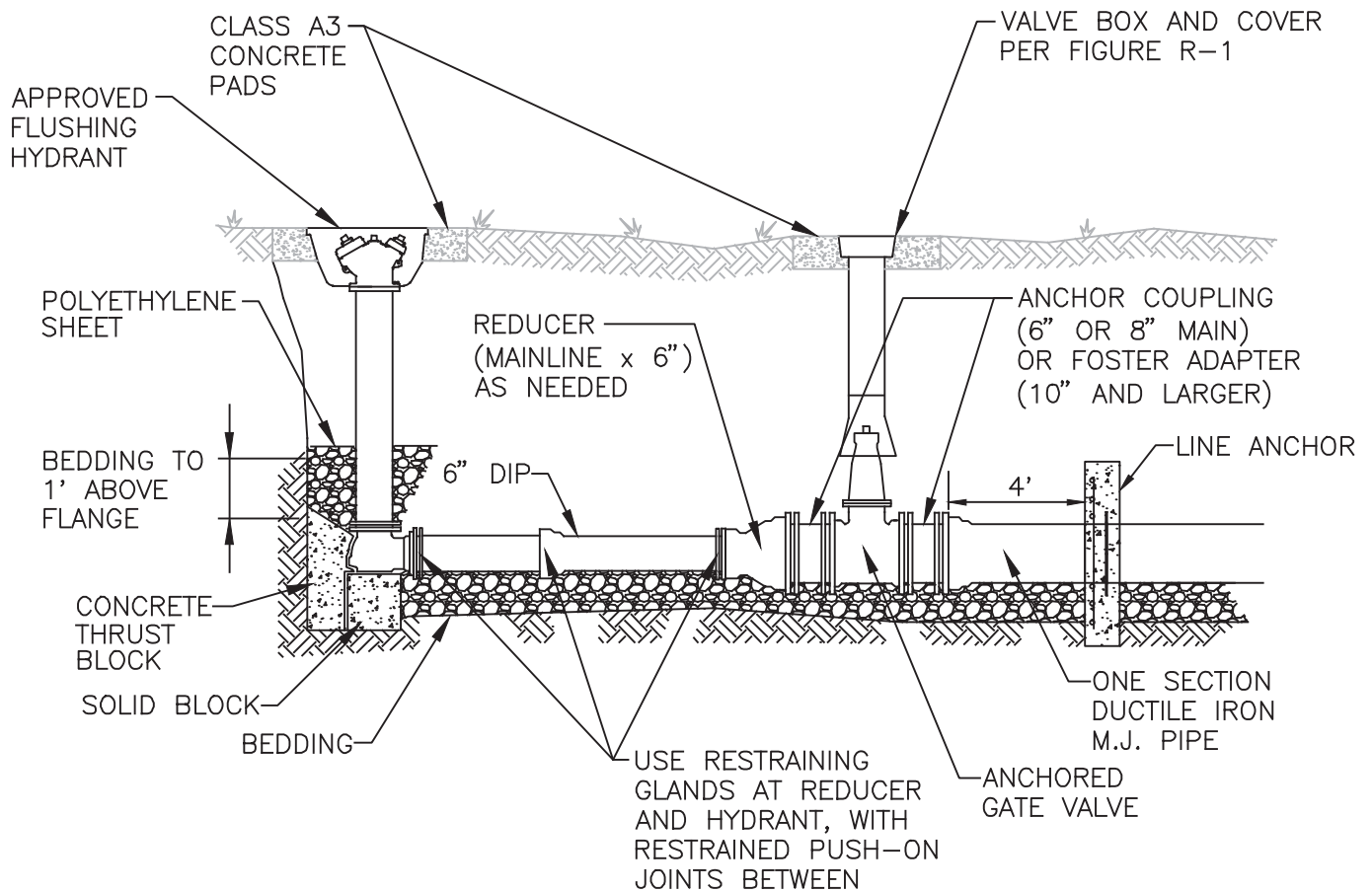
NOTES:

1. ALL PRECAST CONCRETE SHALL CONFORM TO AASHTO M199 AND ASTM A615.
2. FRAME AND COVER TO BE CAST IRON IN SAME PATTERN APPROVED FOR SANITARY SEWER. CAST-IN LETTERING SHALL READ "REUSE" OR "RECLAIM". MAXIMUM FRAME ADJUSTMENT BY GRADE RINGS IS 12" IN PAVEMENT AND 6" ELSEWHERE.
3. IF NOT IN STREET, INSTALL MARKER POST PER FIGURE G-16 BESIDE STRUCTURE. PAINT COVER AND EXPOSED MAIN LINE TEE WITH APPROVED PURPLE COATING.
4. ALL MATERIALS MUST CONFORM TO APPLICABLE SECTIONS OF LOUDOUN WATER'S APPROVED MATERIALS LIST.
5. CONFINED SPACE: ATMOSPHERE MUST BE VENTED AND TESTED PRIOR TO ENTRY.

OCT.
2013

REUSE AIR RELEASE

R-2



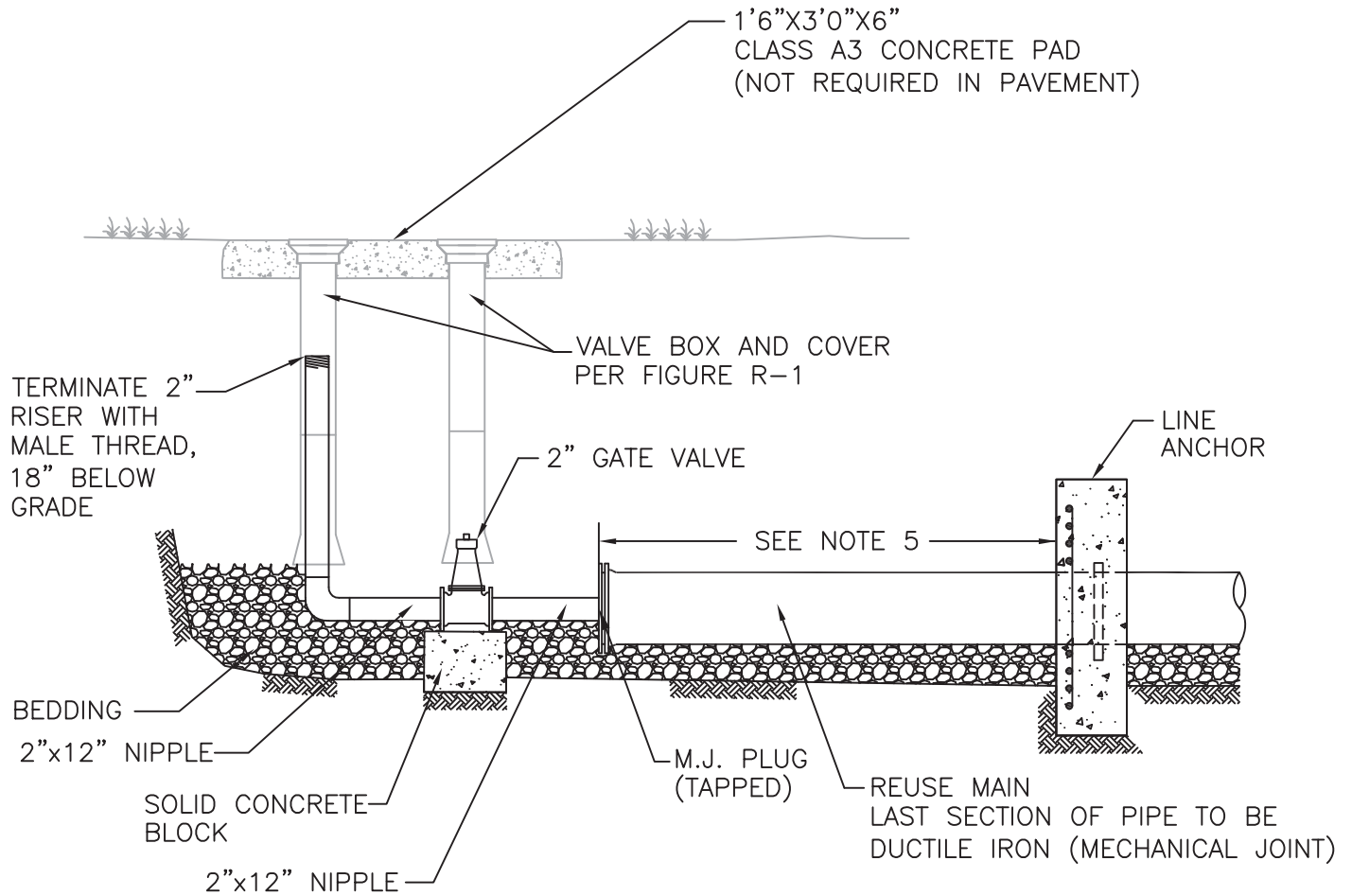
NOTES:

1. THIS FIGURE TO BE USED WHERE MAIN IS BEING TERMINATED FOR POSSIBLE FUTURE EXTENSION. THIS FIGURE MAY ALSO BE USED WITH 6" VALVE FOR PERMANENT TERMINATION OF MAIN.
2. LOCATE HYDRANT WHERE NOT SUBJECT TO VEHICULAR TRAFFIC. LOCATE HYDRANT WITHIN 100' OF A SANITARY SEWER MANHOLE IF PRACTICAL.
3. IF HYDRANT IS NOT ADJACENT TO STREET, INSTALL MARKER POST PER FIGURE G-15 BESIDE HYDRANT.
4. PAINT HYDRANT NOZZELS, CAPS, AND COVER WITH APPROVED PURPLE COATING.
5. MAXIMUM HYDRANT HEIGHT IS 7' BURY. FOR DEEPER MAIN, PROVIDE VERTICAL OFFSET IN LEAD.
6. CONCRETE & POLYETHYLENE MUST BE CLEAR OF WEEP HOLES.
7. LANDSCAPE PLANTINGS ARE PROHIBITED WITHIN 5' OF HYDRANT.

OCT.
2016

TERMINUS BY FLUSHING
HYDRANT

R-3



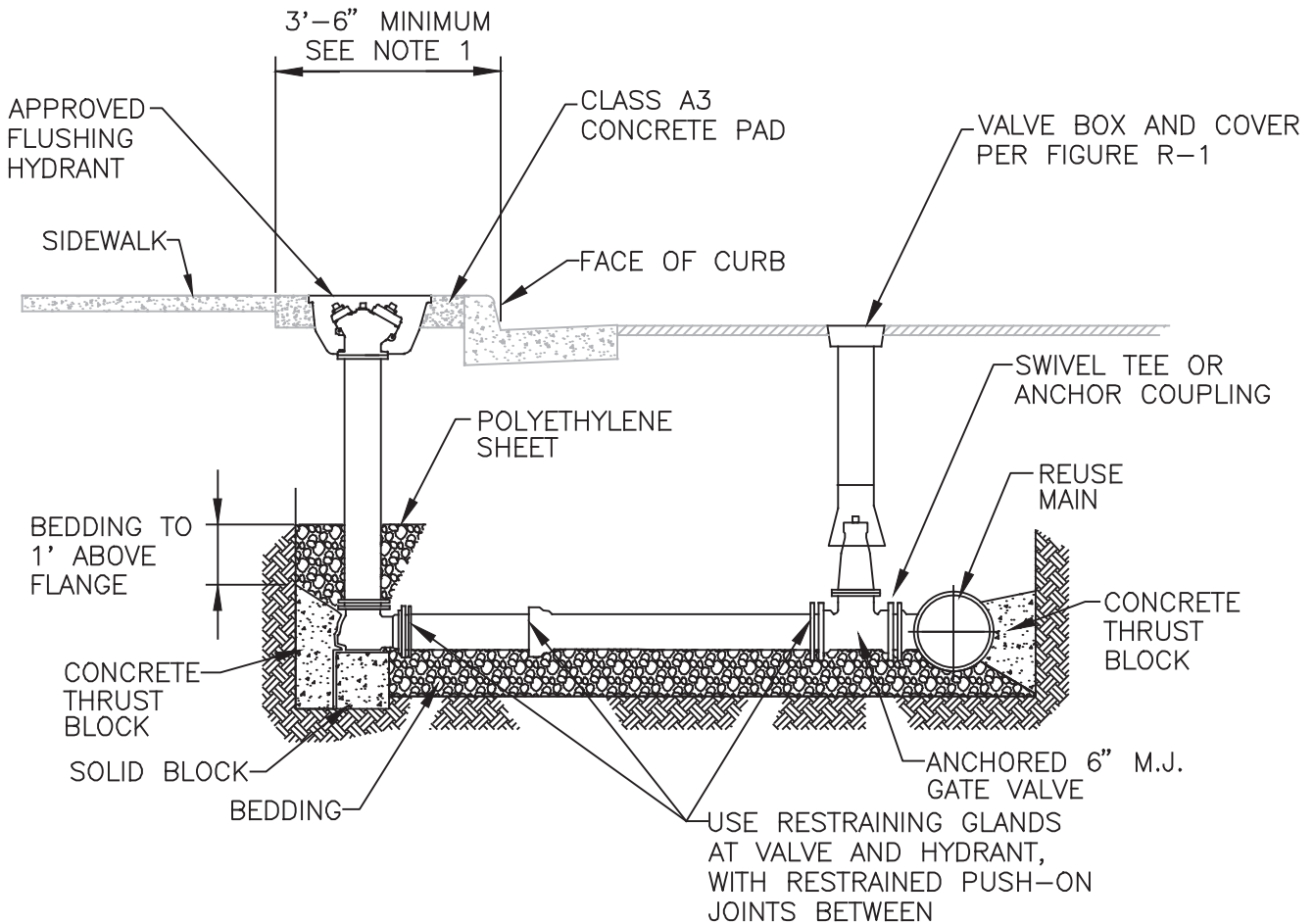
NOTES:

1. TO BE USED ONLY WHERE LOUDOUN WATER DETERMINES THAT FUTURE EXTENSION IS CERTAIN.
2. IF BLOW-OFF IS NOT ADJACENT TO STREET, INSTALL MARKER POST PER FIGURE G-15 BESIDE BLOW-OFF.
3. ALL 2" PIPE AND ELBOW TO BE DUCTILE IRON WITH N.P.T. THREADS AND FUSION BONDED EPOXY COATING.
4. WHERE PLANS DO NOT SPECIFY A MAINLINE VALVE WITHIN 50 FEET, OR WHERE A SERVICE CONNECTION OCCURS DOWNSTREAM OF NEAREST MAINLINE VALVE, PROVIDE MAINLINE VALVE UPSTREAM OF DEAD END ANCHOR. LOCATE VALVE PER NOTE 5 BELOW.
5. 4' TO ANCHOR ON LINE 12"Ø AND SMALLER. 8' TO ANCHOR ON LINE 16"Ø AND LARGER.
6. ALL MATERIALS MUST CONFORM TO APPLICABLE SECTIONS OF LOUDOUN WATER'S APPROVED MATERIALS LIST.

APR.
2010

TEMPORARY TERMINUS BY
BLOW-OFF

R-4



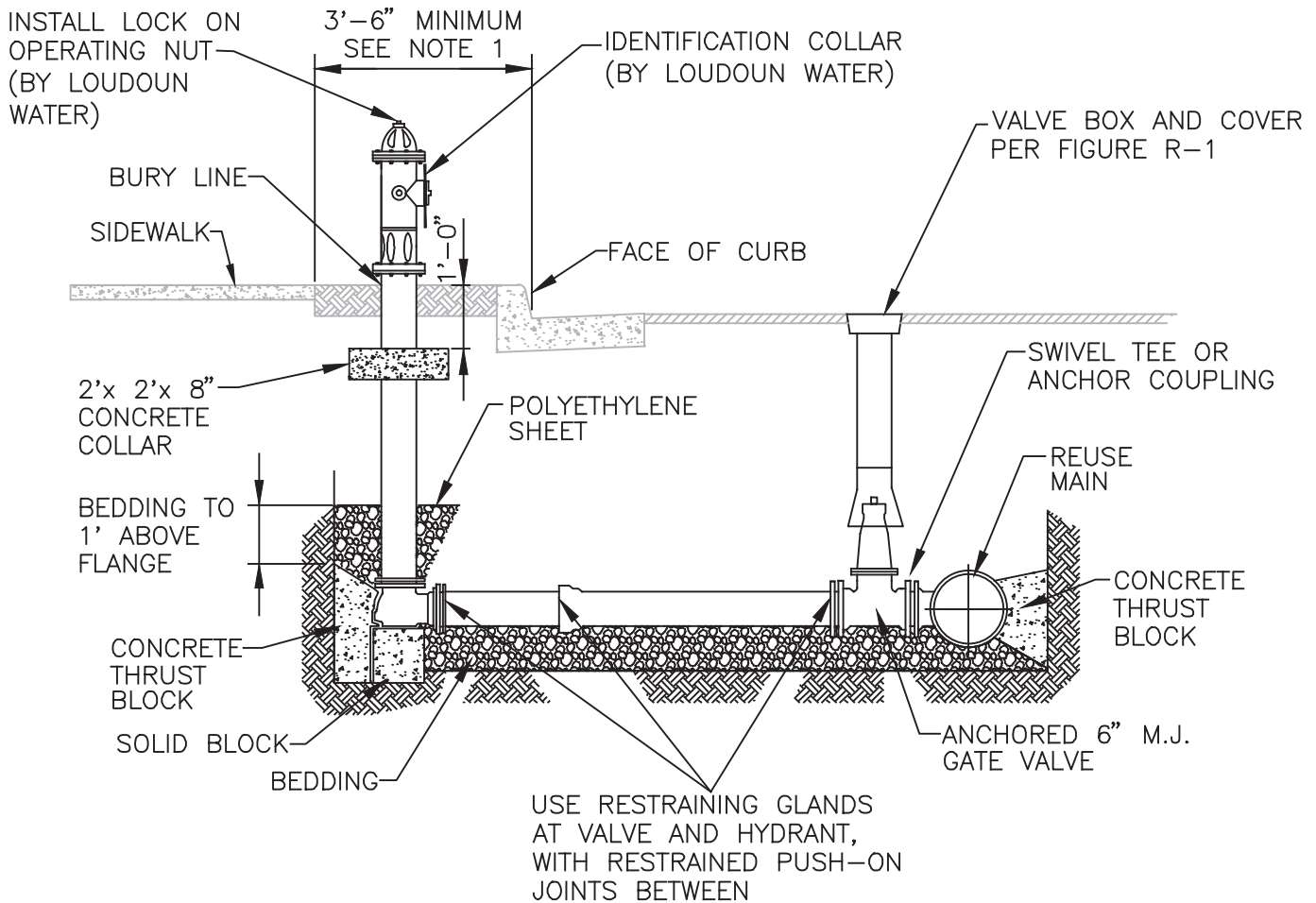
NOTES:

1. WHERE LESS THAN 3'-6" IS AVAILABLE BETWEEN FACE OF CURB AND SIDEWALK, PLACE HYDRANT AT LEAST 2' BEHIND SIDEWALK.
2. LOCATE HYDRANT WHERE NOT SUBJECT TO VEHICULAR TRAFFIC. LOCATE HYDRANT WITHIN 100' OF A SANITARY SEWER MANHOLE IF PRACTICAL.
3. IF HYDRANT IS NOT ADJACENT TO STREET, INSTALL MARKER POST PER FIGURE G-15 BESIDE HYDRANT.
4. PAINT HYDRANT NOZZELS, CAPS, AND COVER WITH APPROVED PURPLE COATING.
5. MAXIMUM HYDRANT HEIGHT IS 7' BURY. FOR DEEPER MAIN, PROVIDE VERTICAL OFFSET IN LEAD.
6. CONCRETE & POLYETHYLENE MUST BE CLEAR OF WEEP HOLES.
7. LANDSCAPE PLANTINGS ARE PROHIBITED WITHIN 5' OF HYDRANT.

OCT.
2016

REUSE FLUSHING HYDRANT
BELOW GRADE

R-5



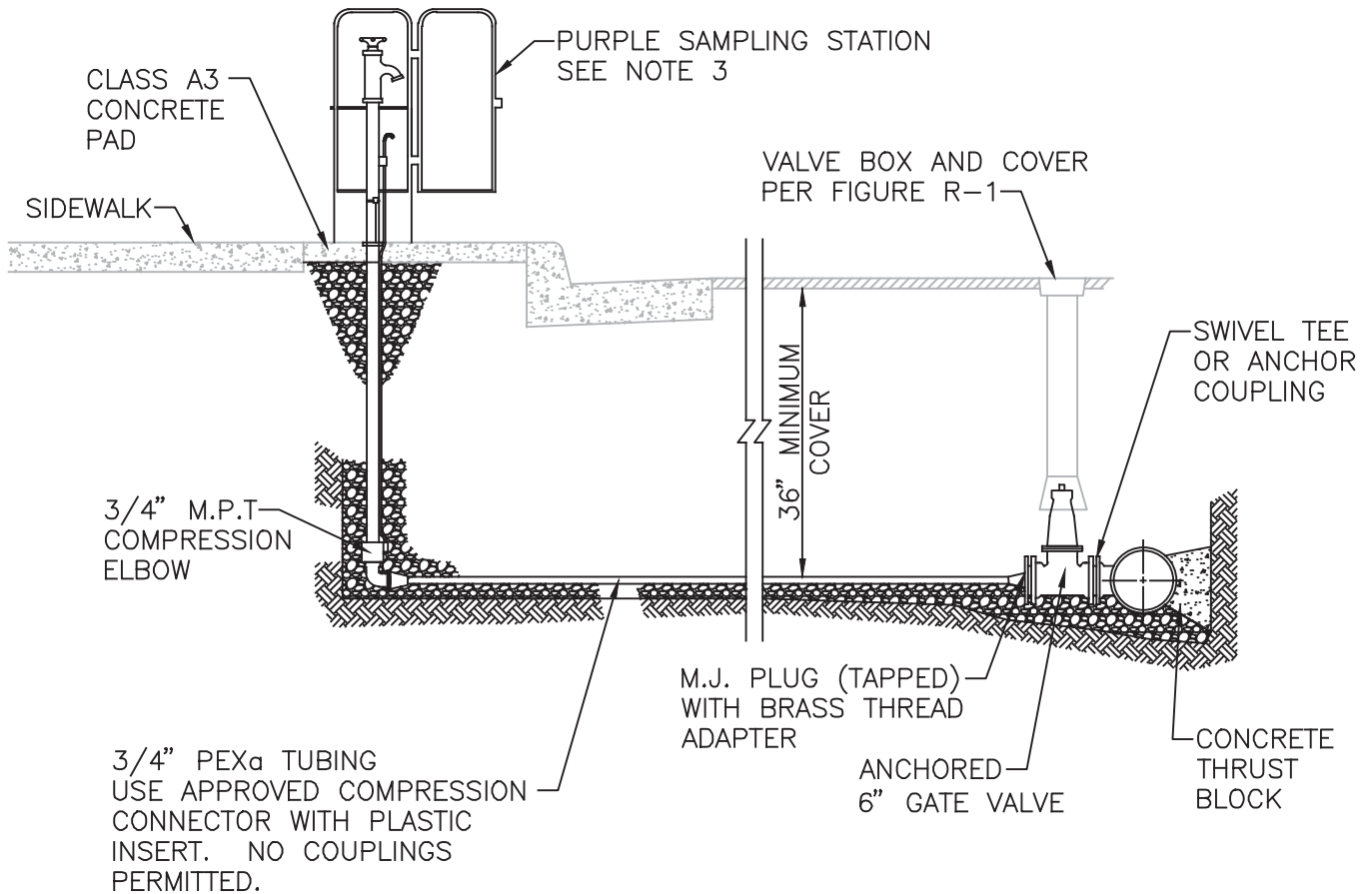
NOTES:

1. WHERE LESS THAN 3'-6" IS AVAILABLE BETWEEN FACE OF CURB AND SIDEWALK, PLACE HYDRANT AT LEAST 2' BEHIND SIDEWALK.
2. LOCATE HYDRANT WHERE NOT SUBJECT TO VEHICULAR TRAFFIC. LOCATE HYDRANT WITHIN 100' OF A SANITARY SEWER MANHOLE IF PRACTICAL.
3. IF HYDRANT IS NOT ADJACENT TO STREET, INSTALL MARKER POST PER FIGURE G-15 BESIDE VALVE.
4. PAINT HYDRANT WITH APPROVED PURPLE COATING.
5. MAXIMUM HYDRANT HEIGHT IS 7' BURY. FOR DEEPER MAIN, PROVIDE VERTICAL OFFSET IN LEAD.
6. CONCRETE & POLYETHYLENE MUST BE CLEAR OF WEEP HOLES.
7. LANDSCAPE PLANTINGS ARE PROHIBITED WITHIN 5' OF HYDRANT.

OCT.
2016

REUSE FLUSHING HYDRANT
ABOVE GRADE

R-6



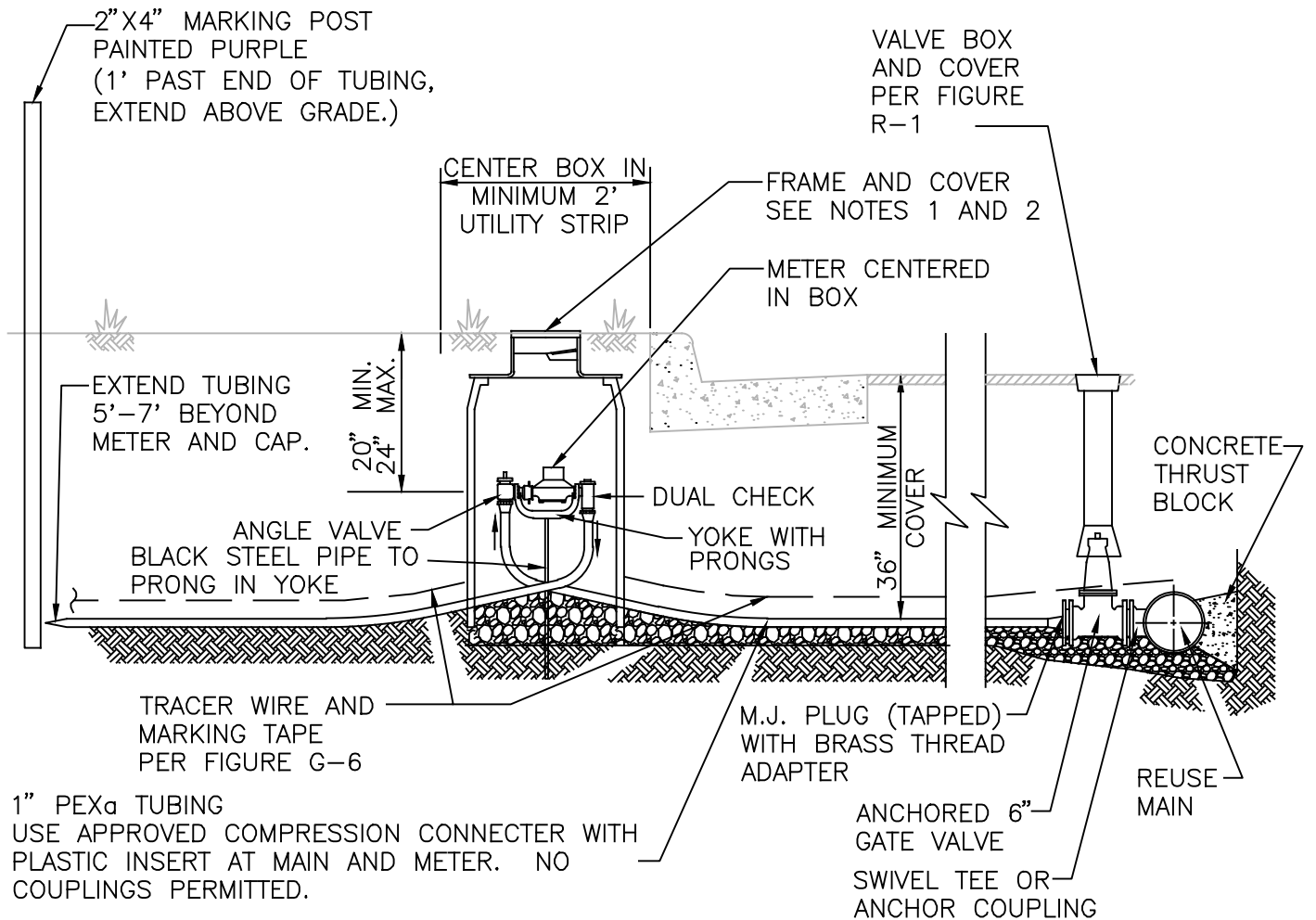
NOTES:

1. EXTEND BEDDING MATERIAL TO BASE OF SAMPLING STATION.
2. IF STATION IS NOT ADJACENT TO STREET INSTALL MARKER POST PER FIGURE G-15 BESIDE STATION.
3. ALL MATERIALS MUST CONFORM TO APPLICABLE SECTIONS OF LOUDOUN WATER'S APPROVED MATERIALS LIST.
4. PROVIDE TRACER WIRE OF AWG#12 SOLID COPPER WITH 45-MIL POLYETHYLENE INSULATION. TERMINATE TRACER WIRE WITHIN SAMPLING STATION.

AUG.
2018

REUSE SAMPLING STATION

R-9



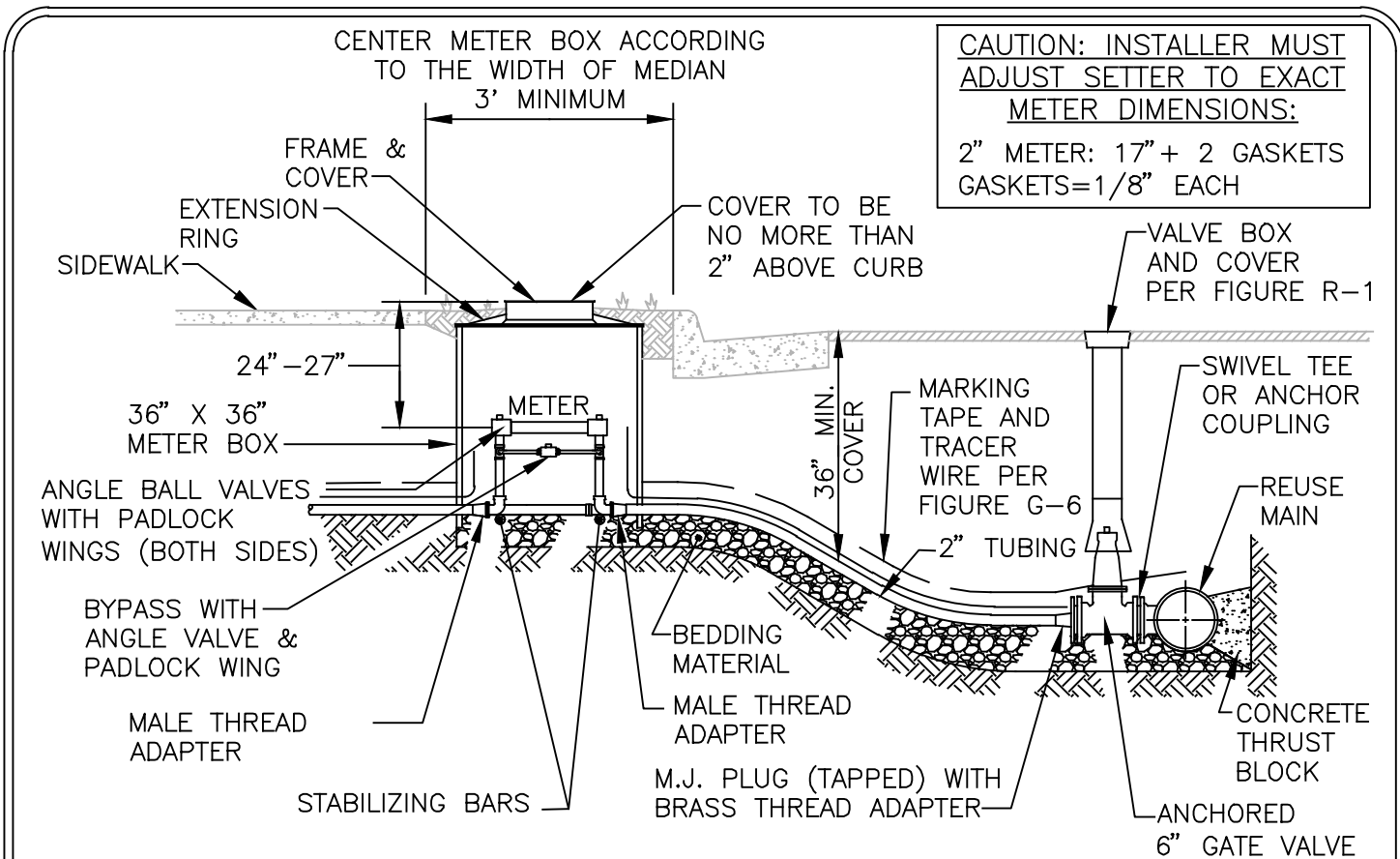
NOTES:

1. PAINT FRAME AND METER BOX COVER WITH APPROVED PURPLE COATING.
2. A) AT INITIAL INSTALLATION, ROTATIONAL (ADJUSTABLE) FRAME TO BE IN CENTER OF HEIGHT RANGE.
B) WHERE AT CURB, SET COVER FLUSH TO 1" ABOVE TOP OF CURB.
C) WHERE NO CURB, SET COVER 1" ABOVE FINAL GRADE.
D) IN SLOPE, PROVIDE TIMBER RETAINING WALL 3' FROM COVER.
3. PROVIDE TRACER WIRE OF AWG #12 SOLID COPPER WITH 45 MIL POLYETHYLENE INSULATION. TURN TRACER WIRE UP INSIDE METER BOX. TERMINATE TRACER WIRE INDOORS OR AT EXTERIOR WALL WITH A SOIL MARKER.
4. ALL MATERIALS MUST CONFORM TO LOUDOUN WATER'S APPROVED MATERIALS LIST.
5. METER FURNISHED AND INSTALLED BY LOUDOUN WATER.

NOV.
2017

REUSE SERVICE FOR
3/4" AND 1" METERS

R-10



CAUTION: INSTALLER MUST ADJUST SETTER TO EXACT METER DIMENSIONS:
 2" METER: 17" + 2 GASKETS
 GASKETS=1/8" EACH

NOTES:

1. PAINT FRAME AND METER BOX COVER WITH APPROVED PURPLE COATING.
2. SERVICE LINE TO BE PEX_a TUBING. THREAD ADAPTERS SHALL HAVE APPROVED COMPRESSION CONNECTION TO TUBING. USE STAINLESS STEEL INSERT IN TUBING. NO COUPLINGS PERMITTED.
3. SEE LOUDOUN WATER'S APPROVED MATERIALS LIST FOR APPROVED MANUFACTURERS & PART NUMBERS.
4. ALL PARTS EXCEPT METER TO BE SUPPLIED BY CONTRACTOR. LOUDOUN WATER WILL SUPPLY METER FOR INSTALLATION BY CONTRACTOR.
5. PROVIDE TRACER WIRE OF AWG #12 SOLID COPPER WITH 45 MIL POLYETHYLENE INSULATION. TURN TRACER WIRE UP IN METER BOX. TERMINATE TRACER WIRE INDOORS OR AT EXTERIOR WALL WITH A SOIL MARKER.
6. THE BUILDING'S INTERNAL PLUMBING SHALL INCLUDE A BACK FLOW PREVENTER (CERTIFIED BY A.S.S.E. OR C.S.A.). INSTALLATION & TESTING SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE (INCLUDING BUT NOT LIMITED TO SECTIONS 312.9.2 & 608.2 & 608.3) & LOUDOUN WATER'S CROSS CONNECTION / BACKFLOW PREVENTION MANUAL. SYSTEMS THAT REQUIRE AN R.P.Z. BACK FLOW PREVENTER SHALL HAVE, AT MINIMUM, AN EQUIVALENTLY SIZED DRAIN. FOR MORE DETAILS CALL LOUDOUN WATER'S BACK FLOW SPECIALIST AT 571-291-7878.

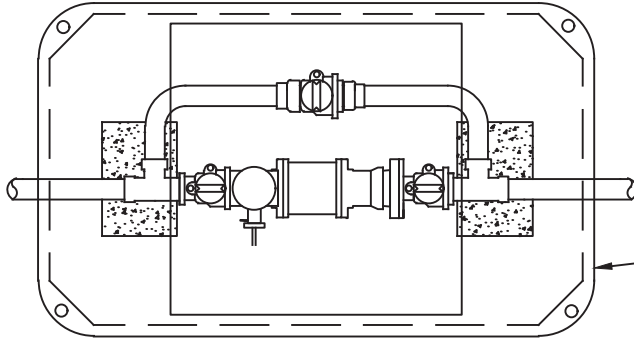
NOV.
2017

REUSE SERVICE FOR
2" ULTRASONIC METER

R-11

LOUDOUN WATER

PLAN



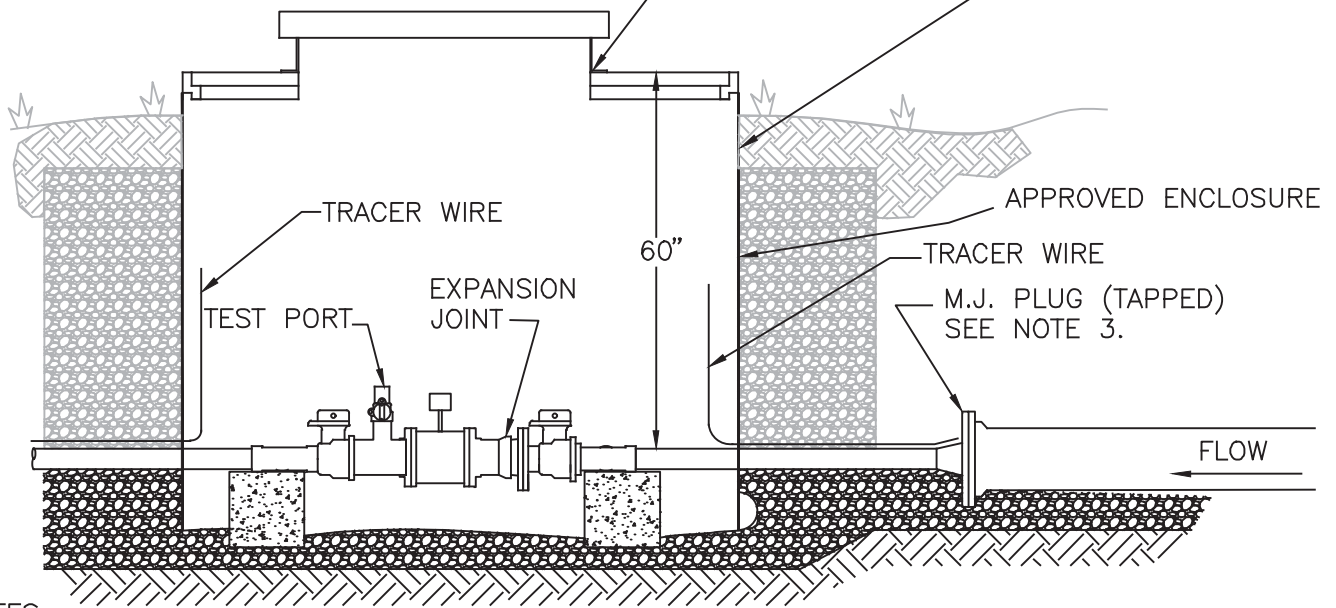
METER	METER LENGTH*	FLANGE
2" MAGNETIC	11.00"	4-BOLT

*ADD FOUR (4) GASKETS AND TWO (2) GROUND RINGS (1/8" EACH).

OLD CASTLE # 4367-60 w/ ALUMINUM COVER

FASTEN HATCH TO TOP WITH 3/8" STAINLESS STEEL BOLTS

ELEVATION



NOTES:

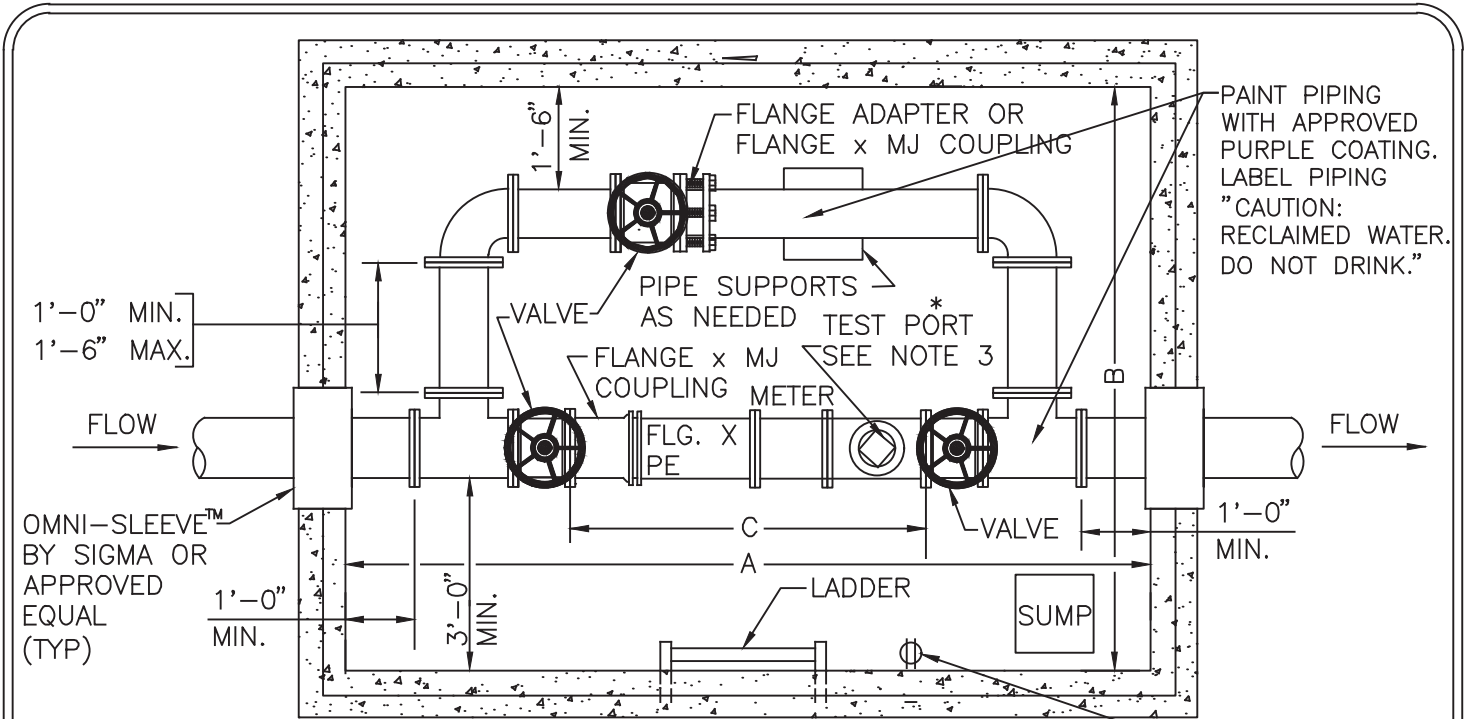
1. METER PIT MUST BE LOCATED IN A MINIMUM 8' x 8' UNPAVED AREA.
2. CONNECTION AT MAIN TO BE 6"Ø WITH RESTRAINED BRANCH VALVE. CONTINUE SERVICE IN 4" DIP OR 2" PEX_a TUBING. RESTRAIN ALL IRON SERVICE LINE BETWEEN MAIN AND METER. USE APPROVED RESTRAINING GLAND AT EACH MECHANICAL JOINT. RESTRAIN ALL PIPE JOINTS WITH LOCKING GASKET OR APPROVED RESTRAINED JOINT PIPING SYSTEM.
3. TRANSITION 4" DIP SERVICE TO 2"Ø PEX_a TUBING. THREAD ADAPTERS SHALL HAVE APPROVED COMPRESSION CONNECTION TO TUBING. USE STAINLESS STEEL INSERT IN TUBING.
4. CONTINUE BEDDING MATERIAL AS BACKFILL AROUND ENCLOSURE TO 1' BELOW GRADE.

AUG.
2018

2" MAGNETIC
REUSE METER

R-12

LOUDOUN WATER



METER SIZE	LAY LENGTH*	MINIMUM DIMENSIONS			
		A	B	C	BYPASS
3"	13.4"	9'0"	7'0"	3'6"	3" ϕ
4"	13.4"	9'0"	7'0"	4'0"	3" ϕ
6"	14.6"	12'0"	8'0"	5'0"	4" ϕ

PAINT PIPING WITH APPROVED PURPLE COATING. LABEL PIPING "CAUTION: RECLAIMED WATER. DO NOT DRINK."

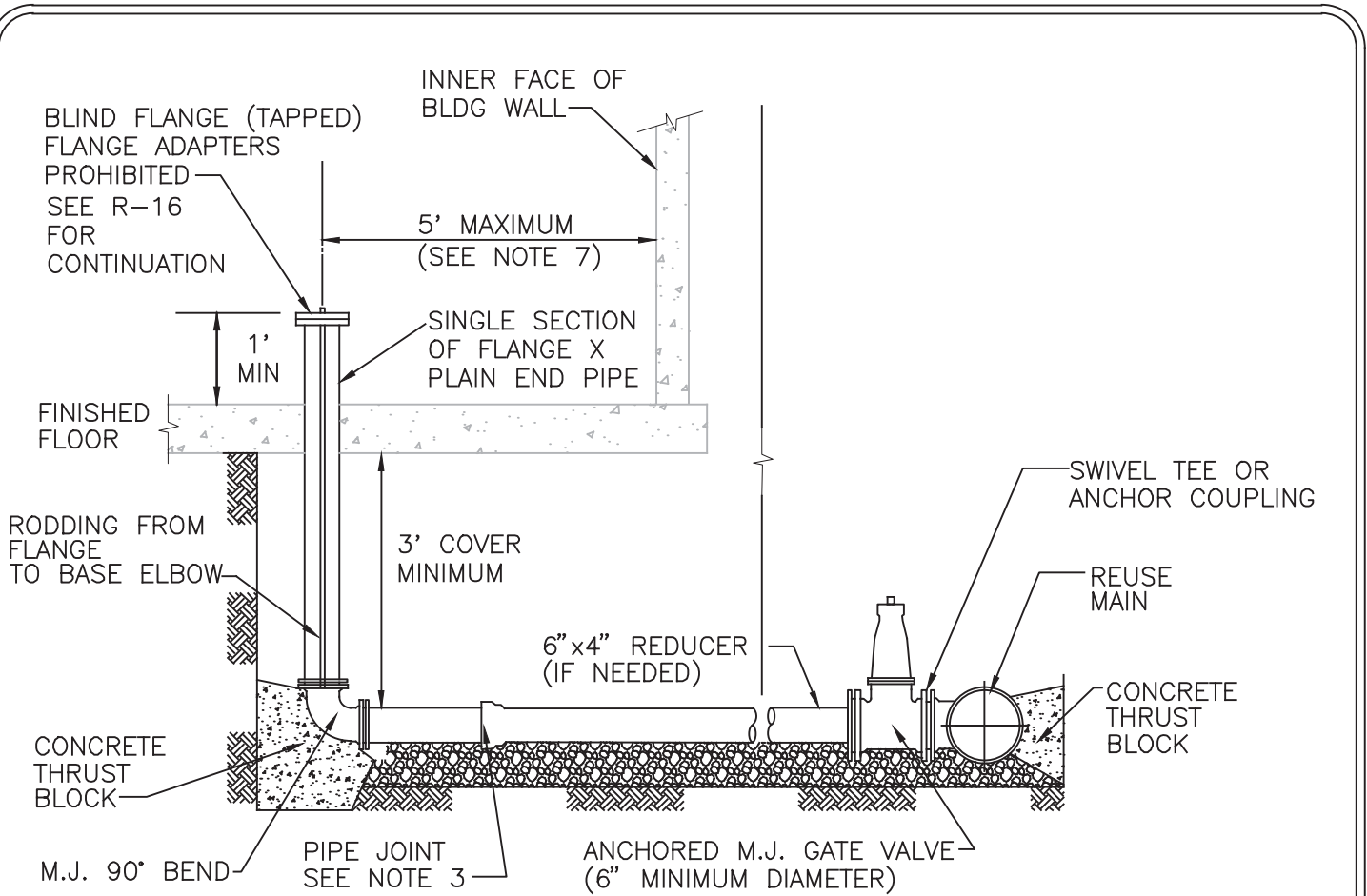
WATERPROOF 120 V 20A DUPLEX RECEPTACLE MIN 5' FROM BOTTOM

*ADD FOUR (4) GASKETS AND TWO (2) GROUND RINGS (1/8" EACH).

NOTES:

1. CONNECTION AT MAIN TO BE 6" MINIMUM WITH RESTRAINED BRANCH VALVE. RESTRAIN ALL SERVICE LINE BETWEEN MAIN AND BUILDING.
2. ALL PIPE IN VAULT TO BE FLANGED DUCTILE IRON. ALL VALVES TO BE RESILIENT WEDGE WITH HAND WHEEL OPERATOR.
3. DOWNSTREAM OF MAGNETIC METER ADD 3"x3", 4"x4" OR 6"x4" TEE WITH BLIND FLANGE (TAPPED 2") TO SERVE AS TEST PORT.
4. CEILING HEIGHT TO BE 6'-6" MINIMUM. PIPE CENTER LINE 2'-6" ABOVE FLOOR. MANWAY TO BE COVERED WITH 36"x36" HINGED FRAME AND COVER.
5. SUBMITTAL REQUIRED FOR VAULT. STRUCTURAL DESIGN TO BE CERTIFIED BY A VIRGINIA PROFESSIONAL ENGINEER. SEE G-20 THROUGH G-23 FOR ADDITIONAL REQUIREMENTS.
6. THE BUILDING'S INTERNAL PLUMBING SHALL INCLUDE A BACK FLOW PREVENTER (CERTIFIED BY A.S.S.E. OR C.S.A.). INSTALLATION & TESTING SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE (INCLUDING BUT NOT LIMITED TO SECTIONS 312.9.2 & 608.2 & 608.3) & LOUDOUN WATER'S CROSS CONNECTION / BACKFLOW PREVENTION MANUAL. SYSTEMS THAT REQUIRE AN R.P.Z. BACK FLOW PREVENTER SHALL HAVE, AT MINIMUM, AN EQUIVALENTLY SIZED DRAIN.

AUG. 2018	3", 4" OR 6" MAGNETIC REUSE METER IN VAULT	R-13
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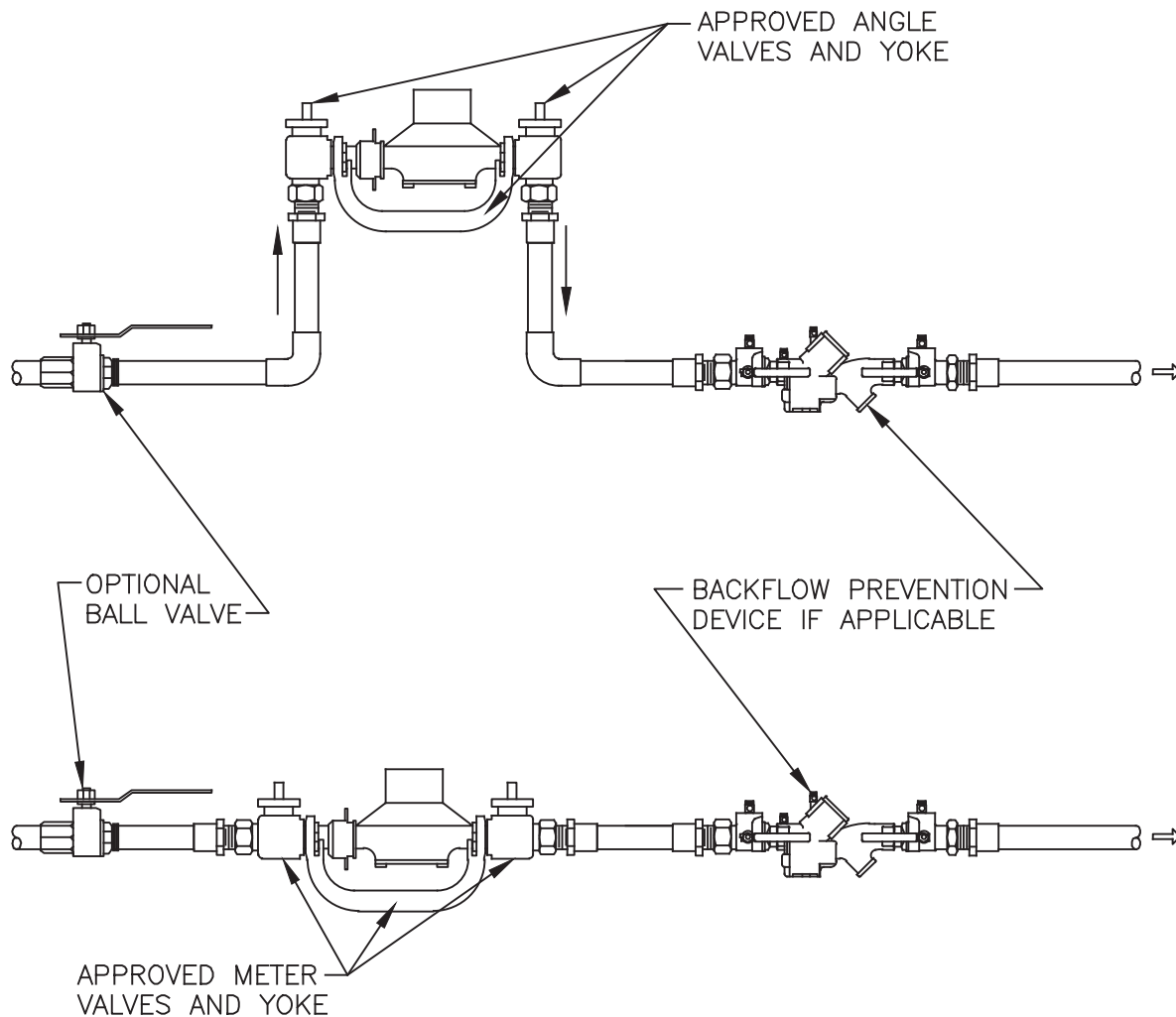
NOTES:

1. UNDERGROUND PIPING TO BE PAINTED PURPLE OR ENCASED IN PURPLE POLYETHYLENE. PAINT ALL INDOOR PIPING WITH APPROVED PURPLE COATING AND LABEL "CAUTION: RECLAIMED WATER. DO NOT DRINK."
2. SERVICE TO BE MINIMUM 4" DIAMETER DUCTILE IRON PIPE, CLASS 52 OR BETTER.
3. USE APPROVED RESTRAINING GLAND AT EACH MECHANICAL JOINT. RESTRAIN ALL PIPE JOINTS WITH LOCKING GASKET OR OTHER APPROVED RESTRAINING SYSTEM.
4. THREADED RODS SHALL BE 3/4" DIAMETER, BITUMASTIC COATED. USE DOG-EAR, DUC LUGS, OR TWISTED EYE BOLTS FOR RODDING.
5. ALL MATERIALS MUST CONFORM TO APPLICABLE SECTIONS OF LOUDOUN WATER'S APPROVED MATERIALS LIST.
6. SERVICE INSTALLATION & HYDROSTATIC TESTING TO BE WITNESSED BY LOUDOUN WATER PERSONNEL (150 PSI FOR 2 HOURS WITH NO LEAKAGE).
7. PIPING SHALL NOT BE EXTENDED UNDER SLAB MORE THAN MAX DISTANCE SHOWN. IF PIPE CANNOT TURN UP INTO BUILDING WITHIN 5' OF WALL, AN OUTDOOR METER MUST BE INSTALLED.

AUG.
2018

REUSE SERVICE ENTRANCE WITH
INDOOR METER

R-14



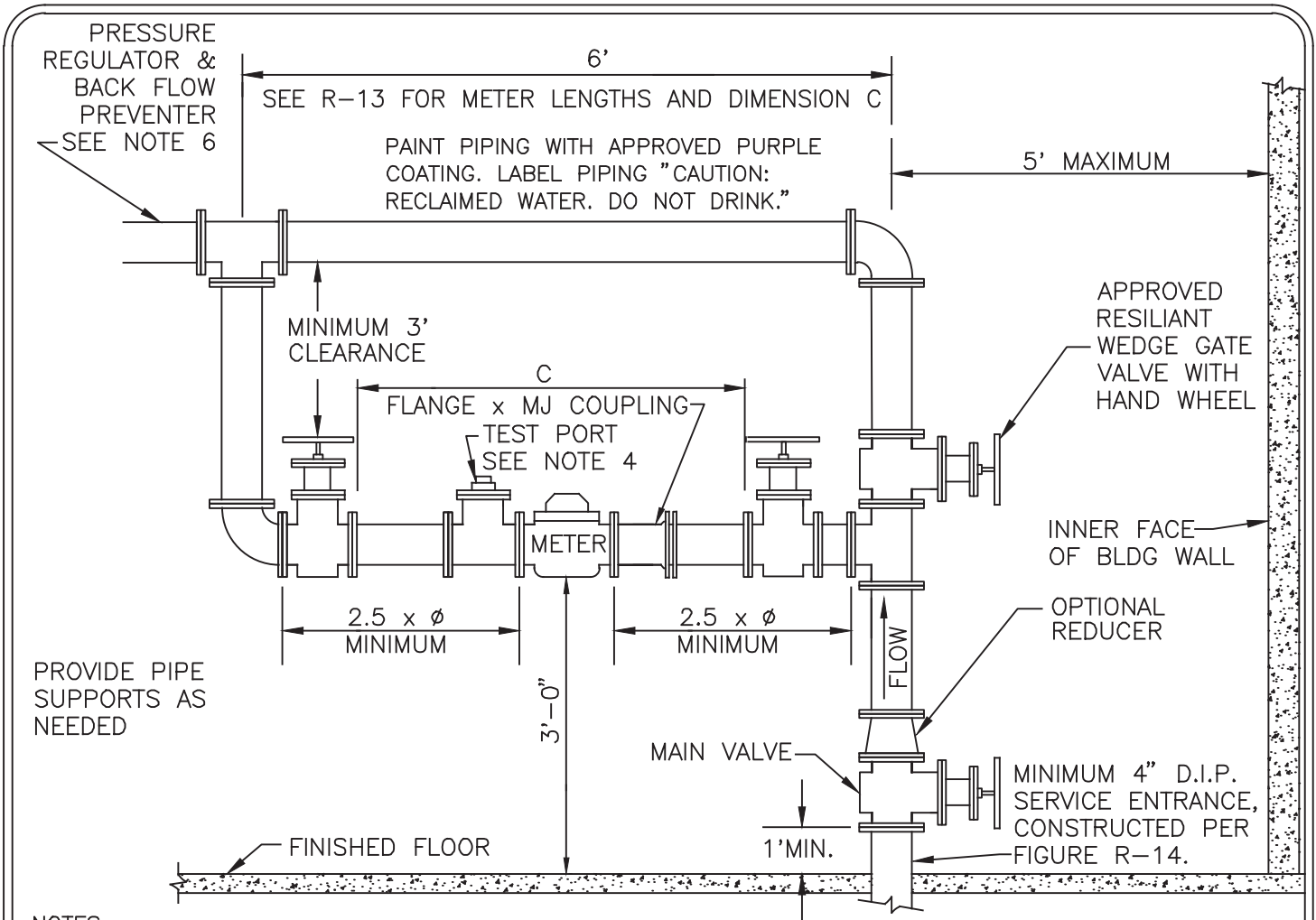
NOTES:

1. PAINT ALL PIPE PURPLE. INSTALL RECLAIMED WATER TAGS AT ALL APPURTENANCES.
2. MOUNT METER'S TRANSMITTER ON EXTERIOR OF BUILDING, ORIENTED TOWARD READING TOWER. PROVIDE 1"Ø PVC CONDUIT FROM METER TO TRANSMITTER. MAXIMUM RUN IS 300'.
3. SEE LOUDOUN WATER'S APPROVED MATERIALS LIST FOR APPROVED MANUFACTURERS AND MODEL NUMBERS. ANGLE VALVES MAY HAVE THREADED OR COMPRESSION CONNECTION TO TUBING.
4. LOUDOUN WATER WILL PROVIDE METER ONLY.

OCT.
2016

3/4" OR 1"
REUSE METER INDOORS

R-15



NOTES:

1. IF DISTANCES SPECIFIED ARE NOT AVAILABLE, PUT METER OUTSIDE IN A VAULT. ALL PIPES MUST CLEAR WALLS BY 1'. FLOOR DRAIN REQUIRED. WATER ROOM MUST HAVE A LOCKED EXTERIOR DOOR. LOUDOUN WATER SHALL BE PROVIDED A KEY.
2. ALL MATERIALS MUST CONFORM TO LOUDOUN WATER'S APPROVED MATERIALS LIST.
3. METER SUPPLIED BY LOUDOUN WATER, FOR INSTALLATION BY CONTRACTOR.
4. DOWNSTREAM OF MAGNETIC METER ADD 3"X3", 4"X4" OR 6"X4" TEE WITH BLIND FLANGE (TAPPED 2") TO SERVE AS TEST PORT.
5. MOUNT METER'S TRANSMITTER ON EXTERIOR OF BUILDING, ORIENTED TOWARD READING TOWER. PROVIDE 1"Ø PVC CONDUIT FROM METER TO TRANSMITTER. MAXIMUM RUN IS 300'.
6. THE BUILDING'S INTERNAL PLUMBING SHALL INCLUDE A BACK FLOW PREVENTER (CERTIFIED BY A.S.S.E. OR C.S.A.). INSTALLATION & TESTING SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE (INCLUDING BUT NOT LIMITED TO SECTIONS 312.9.2 & 608.2 & 608.3) & LOUDOUN WATER'S CROSS CONNECTION / BACKFLOW PREVENTION MANUAL. SYSTEMS THAT REQUIRE AN R.P.Z. BACK FLOW PREVENTER SHALL HAVE, AT MINIMUM, AN EQUIVALENTLY SIZED DRAIN.

AUG.
2018

3", 4" OR 6"
MAGNETIC REUSE
METER INDOORS

R-16

FOR IRRIGATION USES:

Irrigated with
Reclaimed Water



NON-POTABLE WATER DO NOT DRINK
AGUA NO POTABLE, NO BEBER

FOR ALL OTHER USES:

Reclaimed Water
In Use



NON-POTABLE WATER DO NOT DRINK
AGUA NO POTABLE, NO BEBER

NOTES:

1. CUSTOMER MUST MAINTAIN SIGNS AT ALL FIXTURES WHERE RECLAIMED WATER IS USED, IN ACCORDANCE WITH VIRGINIA REGULATIONS AND LOUDOUN WATER'S RECLAIMED WATER MANAGEMENT PLAN.
2. SIGN SHALL BE PANTONE 522 PURPLE WITH BLACK LETTERING. IF PANTONE 522 IS UNAVAILABLE, MAKE SIGN SAFETY PURPLE WITH WHITE LETTERING.

APR.
2010

WARNING SIGNS AT REUSE
FIXTURES

R-18

1. ALL RECLAIMED WATER MAINS AND SERVICES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT LOUDOUN WATER ENGINEERING DESIGN MANUAL, PROJECT SPECIFICATIONS, AND THE VIRGINIA WATER RECLAMATION AND REUSE REGULATION. OWNER MUST ENSURE THAT BUILDING PLANS ACCOMMODATE RECLAIMED WATER SERVICE ENTRANCE POINT, METERING CONSIDERATIONS, AND BACKFLOW PREVENTION DEVICES, TO ACCOMPLISH FULL COMPLIANCE WITH THE REQUIREMENTS OF THE COMMONWEALTH OF VIRGINIA AND LOUDOUN WATER.
2. RECLAIMED WATER MAINS MUST HAVE A MINIMUM 15' HORIZONTAL SEPARATION FROM PROPOSED OR EXISTING BUILDINGS, EXCEPT WHERE PRIOR PERMISSION HAS BEEN GRANTED BY LOUDOUN WATER.
3. RECLAIMED WATER MAINS AND SERVICES SHALL HAVE A MINIMUM 10' HORIZONTAL SEPARATION (OUTSIDE TO OUTSIDE) FROM POTABLE WATER MAINS.
4. RECLAIMED WATER MAINS AND SERVICES SHALL HAVE A MINIMUM 6' HORIZONTAL SEPARATION FROM SANITARY SEWER MAINS AND SERVICES.
5. ALL PIPING OF A BUILDING'S RECLAIMED WATER SUPPLY AND DISTRIBUTION MUST BE INSTALLED WITH IDENTIFICATION MEASURES, IN ACCORDANCE WITH VIRGINIA REGULATIONS.
6. FIXTURES AND IRRIGATION SYSTEMS USING RECLAIMED WATER MUST BE PROVIDED WITH SIGNAGE IN ACCORDANCE WITH VIRGINIA REGULATIONS.

OCT.
2016

STANDARD NOTES FOR
RECLAIMED WATER

R-20