



SHAMMAS MALIK, MAYOR

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

STANDARD CONSTRUCTION
DRAWINGS AND SPECIFICATIONS

JEFFREY J. BRONOWSKI, P.E., BUREAU MANAGER

STANDARD CONSTRUCTION DRAWINGS AND SPECIFICATIONS

GENERAL NOTES & SPECIFICATIONS

DRAWING NO.	DESCRIPTION	ISSUE DATE
G-1.0	MINIMUM PLAN SUBMITTAL REQUIREMENTS FOR SITE PLANS	12/13/2023
G-2.0	WATER SERVICE AND FIRELINE NOTES	07/23/2024
G-3.0	REDUCED PRESSURE PRINCIPLE AND DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY NOTES	12/13/2023

BACKFLOW PREVENTION

DRAWING NO.	DESCRIPTION	ISSUE DATE
B-1.0	APPROVED INSTALLATIONS OF BACKFLOW PREVENTION ASSEMBLIES	12/13/2023

METER SETTINGS

DRAWING NO.	DESCRIPTION	ISSUE DATE
M-1.0	STANDARD METER SETTINGS - NEW 5/8", 3/4", & 1": ELECTROMAGNETIC METERS	12/13/2023
M-2.0	STANDARD MANIFOLD METER SETTING 5/8", 3/4" AND 1" ELECTROMAGNETIC METERS	12/13/2023
M-3.0	STANDARD METER SETTING 1-1/2" AND 2" METERS	12/13/2023
M-4.0	STANDARD LARGE METER INSTALLATION	12/13/2023
M-5.0	STANDARD FIRE AND DOMESTIC MANIFOLD SETTING - CONVENTIONAL INSTALLATION	12/13/2023
M-6.0	STANDARD FIRE AND DOMESTIC MANIFOLD SETTING - STACKED INSTALLATION	12/13/2023
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SERVICE LINES

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S-3.0	STANDARD CURB BOX	12/13/2023
S-4.0	YARD HYDRANT INSTALLATION	12/13/2023
S-5.0	HOSE CONNECTION MANIFOLD 5/8", 3/4", AND 1" ELECTROMAGNETIC METERS	12/13/2023
S-6.0	LAWN IRRIGATION WITH CURB METER PIT AND ABOVE GROUND REDUCED PRESSURE ZONE BACKFLOW PREVENTOR	12/13/2023
S-7.0	INTERIOR METER SETTING	04/10/2024

WATER MAINS

DRAWING NO.	DESCRIPTION	ISSUE DATE
W-1.0	TYPICAL WATER MAIN TRENCH DETAILS	12/13/2023
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W-5.0	MECHANICAL JOINT DUCTILE IRON RESTRAINING GLANDS	12/13/2023
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W-7.0	HYDRANT RUN AND INSTALLATION	12/13/2023
W-7.1	HYDRANT STANDARD HOSE COUPLING	12/13/2023
W-8.0	TYPICAL CONCRETE THRUST BLOCKING	12/13/2023
W-9.0	TYPICAL STEEL CASING DETAIL	12/13/2023
W-10.0	AIR RELEASE DETAILS	06/05/2024
W-11.0	RIVER CROSSING LEAK INDICATOR DETAIL	12/13/2023
W-12.0	WATER MANHOLE DETAIL	12/13/2023

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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

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REV. JULY 23, 2024

MINIMUM PLAN SUBMITTAL REQUIREMENTS FOR SITE PLANS

AKRON WATER SUPPLY BUREAU (AWSB) RULES AND REGULATIONS SHALL APPLY FOR ALL PROJECT REVIEWS INCLUDING AKRON WATER SUPPLY BUREAU STANDARD CONSTRUCTION DRAWINGS AND SPECIFICATIONS, SUBJECT TO CHANGE OR AS REVISED WITHOUT PRIOR NOTICE.

THE BUILDING PERMIT WILL NOT BE RELEASED UNTIL ALL DRAWINGS HAVE BEEN RECEIVED WITH ALL CORRECTIONS MADE AND THE COMPLETE SET OF PLANS ARE APPROVED, INCLUDING FIRE PROTECTION DRAWINGS (SEE NOTE NO. 5 FOR EXCEPTION).

THE FOLLOWING REQUIREMENTS AND NOTES ARE NOT INTENDED AS A COMPLETE LIST OF AWSB RULES AND REGULATIONS, BUT TO BE USED AS A GUIDE TO CLARIFY SOME OF THE MINIMUM INFORMATION NECESSARY FOR PLAN REVIEW.

1. PARKING LOTS/LANDSCAPING/SIGNAGE/MISCELLANEOUS PROJECTS

A. SITE PLAN

B. LANDSCAPE PLAN

C. LAWN IRRIGATION - WITH METER AND BACKFLOW PREVENTER SHOWN

D. UNDERGROUND UTILITIES PLAN - INCLUDES PRIVATE FIRE HYDRANTS
2. BUILDING REMODELING AND/OR ALTERATIONS (INTERIOR CONSTRUCTION ONLY)

A. SITE PLAN (SEE NOTE NO. 1)

B. FLOOR PLAN

C. PLUMBING/MECHANICAL PLANS

1. PLAN AND ISOMETRIC VIEW - EXISTING AND PROPOSED FIXTURES (SEE NOTE NO. 2)

2. PLAN AND SECTION VIEW - EXISTING AND PROPOSED METER SETTING AND BACKFLOW PREVENTER (SEE NOTE NO. 3)

D. FIRE PROTECTION PLAN
3. NEW BUILDING CONSTRUCTION, EXPANSION AND/OR ADDITIONS

A. SITE PLAN

B. UTILITIES PLAN

C. LAWN IRRIGATION

D. PLUMBING/MECHANICAL PLANS (SEE NOTE NO. 4)

1. PLAN AND ISOMETRIC VIEW - EXISTING AND PROPOSED FIXTURES (SEE NOTE NO. 2)

2. PLAN AND SECTION VIEW - EXISTING AND PROPOSED METER SETTINGS AND BACKFLOW PREVENTERS

E. FIRE PROTECTION PLANS (SEE NOTE NO. 5)

NOTES:

1. THE SITE PLAN REQUIREMENT MAY BE WAIVED IN MOST CASES AS DETERMINED BY AWSB. A COMPLETE ADDRESS WITH THE PROPERTY OWNER'S NAME MAY BE SUBSTITUTED.
2. THE EXISTING FIXTURES PLAN MAY BE WAIVED AS DETERMINED BY THE AWSB, WHERE IT IS IMPRACTICAL FOR LARGE COMMERCIAL/INDUSTRIAL TYPE BUILDINGS WITH EXTENSIVE PIPING SYSTEMS.

3. THE EXISTING METER SETTING AND BACKFLOW PREVENTER DRAWINGS MAY NOT BE REQUIRED, AS DETERMINED BY THE AWSB IF THERE IS AN EXISTING BACKFLOW PREVENTER AND IT HAS BEEN TESTED WITHIN THE LAST YEAR AND THE REPORT IS ON FILE. FOR PROJECTS WITH EXISTING BACKFLOW PREVENTERS THAT HAVE NOT BEEN TESTED WITHIN THE LAST YEAR, RETEST AND SEND IN TEST REPORT TO THE BACKFLOW PROGRAM. PROJECTS THAT REQUIRE NEW BACKFLOW PREVENTERS SHALL BE SHOWN ON THE PLANS WITH EXISTING AND/OR PROPOSED METER SETTINGS. LABEL ALL PIPE, FITTINGS, MAKE/MODEL, SIZE AND TYPE OF ALL ASSEMBLIES.
4. SHALL INCLUDE EXISTING AND/OR PROPOSED METER SETTINGS AND BACKFLOW PREVENTERS DETAILING THE FOLLOWING ITEMS:

A. METER VAULT OR INTERIOR WATER ENTRY DETAIL WITH METER SETTING.

B. LABEL SIZE/TYPE OF METER, BACKFLOW PREVENTER, PIPING, INCLUDING VALVES AND FITTINGS.

C. SHOW DISTANCES AND DIMENSIONS TO WALLS, FLOOR, DRAINS, ETC.

D. WIDTH, LENGTH, CEILING HEIGHT OF INTERIOR MECHANICAL ROOM OR METER VAULT.
5. INTERIOR FIRE SPRINKLER DRAWINGS MAY BE SUBMITTED AT A LATER DATE FOR ONLY THOSE PROJECTS THAT REQUIRE A NEW WATER SERVICE INSTALLATION. THE BUILDING PERMIT WILL BE CONDITIONALLY RELEASED SUBJECT TO RECEIPT OF THE SPRINKLER DRAWINGS. PLANS MUST BE RECEIVED FOR REVIEW AND APPROVAL PRIOR TO THE SERVICE INSTALLATION.

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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

MINIMUM PLAN SUBMITTAL REQUIREMENTS FOR
SITE PLANS

REV. DECEMBER 13, 2023


UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

G-1.0

WATER SERVICE AND FIRELINE NOTES

NO WATER SERVICE WILL BE INSTALLED UNTIL ALL REQUIREMENTS OF THE AKRON WATER SUPPLY BUREAU (AWSB) ARE MET, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- 1. REVIEW AND APPROVAL OF ALL BUILDING PLANS.
- 2. RECEIPT OF THE APPLICABLE FEES.
- 3. APPROVAL OF THE HOUSELINE INSTALLATION AND APPURTENANCES.
- 4. APPROVAL OF THE FIRE SYSTEM WHICH INCLUDES REVIEW AND APPROVAL OF SPRINKLER PLANS.

ALL ON-SITE WATER LINE PIPING AND APPURTENANCES SHALL BE INSTALLED ACCORDING TO AWSB SPECIFICATIONS AND MUST BE INSPECTED AND APPROVED BY THE AWSB (330-375-2420) PRIOR TO BACKFILLING.

ALL UNDERGROUND PIPE 2 INCHES AND SMALLER (1 INCH MIN.) SHALL BE TYPE "K" SOFT COPPER WITH FLARED FITTINGS. COMPRESSION FITTINGS MAY BE USED ON 1 1/2 INCH AND 2 INCH PIPE. ALL BRASS FITTINGS USED SHALL BE LEAD FREE PER NSF61-G. PIPE SHALL BE INSTALLED WITH 4 FEET 6 INCHES OF COVER.

ALL UNDERGROUND STRAIGHT LENGTHS OF PIPE LARGER THAN 2 INCHES SHALL BE CLASS 53 CEMENT LINED DUCTILE IRON WITH PUSH-ON JOINTS. PIPE SHALL BE INSTALLED WITH 4 FEET 6 INCHES OF COVER. SEE AWSB WATER MAIN NOTES, CURRENT EDITION FOR APPROVED PIPE, FITTINGS, BOLTS, ETC., FOR WATER LINE INSTALLATION.

MAINTAIN A 10 FOOT HORIZONTAL CLEARANCE FROM EDGE OF WATER LINE TO EDGE OF SANITARY AND STORM SEWER PIPES

MAINTAIN AN 18 INCH MINIMUM VERTICAL CLEARANCE FROM EDGE OF WATER LINE TO EDGE OF SANITARY AND STORM SEWER PIPES WHERE THEY CROSS.

MAINTAIN A 12 INCH VERTICAL CLEARANCE FROM EDGE OF WATER LINE TO EDGE OF GAS, ELECTRIC, ETC.

MAINTAIN A 5 FOOT MINIMUM HORIZONTAL CLEARANCE FROM EDGE OF WATER LINE TO EDGE OF GAS LINE(S), ELECTRIC LINE(S), COMMUNICATION LINE(S), ETC.

REQUIREMENTS FOR EXISTING LEAD AND CERTAIN GALVANIZED STEEL SERVICE LINES:

- 1. NO EXISTING LEAD SERVICE LINE MAY BE USED OR REUSED IN WHOLE OR IN PART TO SUPPLY WATER TO ANY CUSTOMER. THIS INCLUDES ANY PORTION OF THE SERVICE LINE BETWEEN THE WATER MAIN AND POINT OF ENTRY TO THE HOUSE OR THE HOUSE METER IF INSIDE THE HOUSE. NO GALVANIZED STEEL SERVICE LINE MAY BE REUSED IF IT IS, WAS, OR EVER COULD HAVE BEEN LOCATED DOWNSTREAM OF A LEAD SERVICE LINE. FOR CLARIFICATION, THIS APPLIES TO ANY GALVANIZED STEEL HOUSELINE INSTALLED PRIOR TO 1931 OR IF INSTALLED AFTER 1931 AND CONNECTED TO AN EXISTING SERVICE LINE MADE OF LEAD. NO PART OF SUCH SERVICE LINES MAY BE REUSED AND MUST BE ABANDONED, AND A NEW SERVICE TAP AND SERVICE LINE WILL BE REQUIRED. THIS REQUIREMENT APPLIES TO BOTH PUBLIC WATERLINES AND PRIVATE WATERLINES IN ANY PART OF THE AWSB DISTRIBUTION SYSTEM.
- 2. IF REPAIR OR REPLACEMENT OF A HOUSELINE IS CONDUCTED AND LEAD OR GALVANIZED STEEL MEETING THE CRITERIA DESCRIBED IN NOTE 1 IS FOUND, AWSB MUST BE NOTIFIED IMMEDIATELY. SERVICE WILL NOT BE RESTORED UNTIL A NEW SERVICE TAP AND SERVICE LINE, OR OTHER ACCEPTABLE LEAD MITIGATION METHOD, IS CONSTRUCTED OR EMPLOYED. IN NO CASES WILL A PARTIAL SERVICE LINE REPLACEMENT BE ACCEPTED IF LEAD OR GALVANIZED STEEL DESCRIBED IN NOTE 1 REMAINS.
- 3. NO EXISTING LEAD OR GALVANIZED STEEL SERVICE LINE MEETING THE CRITERIA DESCRIBED IN NOTE 1 MAY BE USED AT AN EXISTING OR VACANT PROPERTY BEING REDEVELOPED WHICH INCLUDES A NEW STRUCTURE ON THE PROPERTY.
- 4. NO EXISTING LEAD OR GALVANIZED STEEL SERVICE LINE MEETING THE CRITERIA DESCRIBED IN NOTE 1 MAY BE USED OR REUSED AT AN EXISTING PROPERTY BEING REDEVELOPED WHICH INCLUDES AN EXISTING STRUCTURE. COORDINATION WITH AWSB MUST BE DONE AT THE BEGINNING OF THE PROJECT TO REPLACE THAT PORTION OF THE SERVICE LINE DESCRIBED IN NOTE 1.

REQUIREMENTS FOR AN INSIDE METER SETTING:

- 1. EASILY ACCESSIBLE (CANNOT BE INSTALLED IN CRAWL SPACE).
- 2. BUILDING MUST HAVE A BASEMENT (NO SLAB ON GRADE).
- 3. ADEQUATE HEADROOM (MIN. AREA REQUIRED 4' W X 6' L X 6' H)
- 4. PROPERLY HEATED
- 5. FLOOR DRAIN OR SUMP WITHIN FIVE FEET OF METER
- 6. HOUSELINE NOT LONGER THAN 300 FEET
- 7. METER MUST BE SET WITHIN ONE FOOT OF WHERE LINE ENTERS BUILDING.
- 8. BUILDINGS WITH INTERIOR METER SETTINGS NOT ON OUTSIDE WALL:
 - A. THE HOUSELINE MUST BE INSTALLED IN A CONTINUOUS AWSB APPROVED SCHEDULE 40 CONDUIT FROM A MINIMUM OF 1 FOOT OUTSIDE BUILDING FOOTER UP THROUGH FLOOR SLAB 1 INCH ABOVE FLOOR (HOUSELINE 2 INCH AND SMALLER).*
 - B. THE METER WILL REQUIRE A TRANSMITTER TO BE INSTALLED OUTSIDE OF THE BUILDING. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RUN A CONDUIT TO THE EXTERIOR WALL AND PENETRATE THE WALL FOR THE WIRE TO BE RUN THROUGH TO THE TRANSMITTER. SEE DWG. S-7.0.
- 9. HOUSELINE INSTALLED UNDER PAVED AREAS FOR INSIDE METER SETTING MUST BE IN AN AWSB APPROVED SCHEDULE 40 CONDUIT.*

IF THE INTERIOR METER SETTING DOES NOT MEET ALL THE ABOVE REQUIREMENTS, OR THE BUILDING HAS NO BASEMENT, THEN THE METER MUST BE INSTALLED AT THE STREET IN A CURB METER PIT OR AN APPROVED ABOVE GROUND HEATED ENCLOSURE.

* MINIMUM CONDUIT SIZE SHALL BE 4" FOR 1" AND 1 1/4" HOUSELINE AND 6" FOR HOUSELINES OVER 1 1/4"

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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

WATER SERVICE AND FIRELINE NOTES

REV. JULY 23, 2024


UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

G-2.0

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY

INSTALLATION REQUIREMENTS

- 1. ALL PIPING TO CONFORM TO AKRON WATER SUPPLY BUREAU (AWSB) STANDARD CONSTRUCTION DRAWINGS AND SPECIFICATIONS.
- 2. BYPASSING OF THIS ASSEMBLY IS SPECIFICALLY PROHIBITED.
- 3. INSTALLATION OF THIS ASSEMBLY IN VAULTS IS SPECIFICALLY PROHIBITED.
- 4. UNIONS PRIOR TO BACKFLOW PREVENTION ASSEMBLIES ARE PROHIBITED.
- 5. INSTALLED DIRECTLY AFTER THE METER SETTING AHEAD OF ANY OUTLETS.
- 6. INSTALLED SO AS TO BE READILY ACCESSIBLE FOR INSPECTION, TESTING, AND MAINTENANCE.
- 7. PROVIDED WITH ADEQUATE SPACE FOR INSPECTION, TESTING, MAINTENANCE, AND DISASSEMBLY.
- 8. PROTECTED FROM FREEZING BY INSTALLATION WITHIN A HEATED BUILDING.
- 9. MOUNTED IN A HORIZONTAL POSITION WITH ABUTTING SHUT-OFF VALVES, AS SUPPLIED WITH THE ASSEMBLY, NO LOWER THAN 1' AND NO HIGHER THAN 3' FROM THE FINISH FLOOR. MINIMUM 1' FROM CENTERLINE ON ALL SIDES.
- 10. PROVIDED WITH ADEQUATE DRAINAGE.
- 11. INSTALLED SO THAT THERE IS A VISIBLE FREE DISCHARGE FROM THE RELIEF PORT WITH NO EXTENSION PIPING.
- 12. INSTALLED PER MANUFACTURER'S SPECIFICATIONS. WHERE MANUFACTURER'S SPECIFICATIONS CONFLICT WITH THESE GUIDELINES, THESE GUIDELINES SHALL GOVERN.
- 13. BECAUSE OF THEIR DESIGN, BACKFLOW PREVENTION ASSEMBLIES CREATE A CLOSED SYSTEM AND A DETECTABLE PRESSURE LOSS. BECAUSE OF THESE FACTS, THE INSTALLATION MAY ALTER THE HYDRAULICS OF THE INTERNAL PLUMBING SYSTEM. THE OWNER SHOULD CONTACT A MECHANICAL DESIGNER PRIOR TO INSTALLATION.
- 14. UPON INSTALLATION, ASSEMBLIES MUST BE TESTED BY A BACKFLOW PREVENTION ASSEMBLY TESTER, CERTIFIED BY THE OHIO DEPARTMENT OF COMMERCE. THE ASSEMBLY MUST BE DISMANTLED, INSPECTED INTERNALLY, CLEANED, AND REPAIRED, IF NECESSARY.
- 15. THE BYPASS METER FOR A REDUCED PRESSURE DETECTOR ASSEMBLY SHALL BE APPROVED BY AWSB, FURNISHED AND INSTALLED BY THE OWNER

DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY

INSTALLATION REQUIREMENTS


- 1. ALL PIPING TO CONFORM TO AKRON WATER SUPPLY BUREAU (AWSB) STANDARD CONSTRUCTION DRAWINGS AND SPECIFICATIONS.
- 2. BYPASSING OF THIS ASSEMBLY IS SPECIFICALLY PROHIBITED.
- 3. INSTALLED DIRECTLY AFTER THE METER SETTING AHEAD OF ANY OUTLETS.
- 4. UNIONS PRIOR TO BACKFLOW PREVENTION ASSEMBLIES ARE PROHIBITED.
- 5. INSTALLED SO AS TO BE READILY ACCESSIBLE FOR INSPECTION, TESTING, AND MAINTENANCE.
- 6. PROVIDED WITH ADEQUATE SPACE FOR INSPECTION, TESTING, MAINTENANCE, AND DISASSEMBLY.
- 7. PROTECTED FROM FREEZING BY INSTALLATION WITHIN A HEATED BUILDING.
- 8. MOUNTED IN A HORIZONTAL POSITION WITH ABUTTING SHUT-OFF VALVES, AS SUPPLIED WITH THE ASSEMBLY, NO LOWER THAN 1' AND NO HIGHER THAN 3' FROM THE FINISH FLOOR. MINIMUM 1' FROM CENTERLINE ON ALL SIDES.
- 9. INSTALLATIONS ABOVE GROUND LEVEL ARE PREFERRED. WHERE ABOVE GROUND INSTALLATIONS ARE NOT REASONABLY PRACTICAL, AN UNDERGROUND ENCLOSURE MAY BE USED WITH THE APPROVAL OF AWSB.
- 10. INSTALLED PER MANUFACTURER'S SPECIFICATIONS. WHERE MANUFACTURER'S SPECIFICATIONS CONFLICT WITH THESE GUIDELINES, THESE GUIDELINES SHALL GOVERN.
- 11. BECAUSE OF THEIR DESIGN, BACKFLOW PREVENTION ASSEMBLIES CREATE A CLOSED SYSTEM AND A DETECTABLE PRESSURE LOSS. BECAUSE OF THESE FACTS, THE INSTALLATION MAY ALTER THE HYDRAULICS OF THE INTERNAL PLUMBING SYSTEM. THE OWNER SHOULD CONTACT A MECHANICAL DESIGNER PRIOR TO INSTALLATION.
- 12. UPON INSTALLATION, ASSEMBLIES MUST BE TESTED BY A BACKFLOW PREVENTION ASSEMBLY TESTER, CERTIFIED BY THE OHIO DEPARTMENT OF COMMERCE. THE ASSEMBLY MUST BE DISMANTLED, INSPECTED INTERNALLY, CLEANED, AND REPAIRED, IF NECESSARY.
- 13. THE BYPASS METER FOR A DOUBLE CHECK VALVE ASSEMBLY ON THE BYPASS LINE SHALL BE APPROVED BY THE AKRON WATER SUPPLY BUREAU (AWSB), FURNISHED AND INSTALLED BY THE OWNER.

DO NOT SCALE - USE DIMENSIONS ONLY

FOR ANY QUESTIONS OR CONCERNS CONTACT THE BACKFLOW PREVENTION PROGRAM AT (330) 375-2690

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

REDUCED PRESSURE PRINCIPLE AND DOUBLE
CHECK VALVE BACKFLOW PREVENTION
ASSEMBLY NOTES


UTILITIES ENGINEER

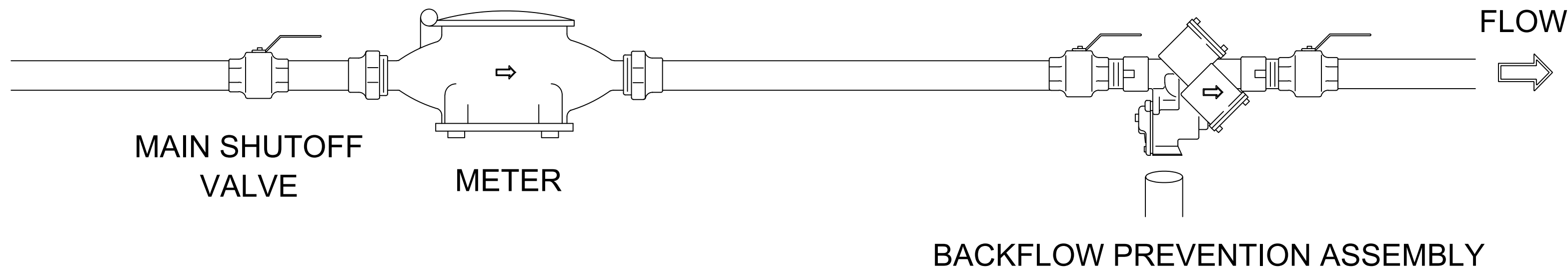
STANDARD CONSTRUCTION
DRAWING NO.

G-3.0

REV. DECEMBER 13, 2023

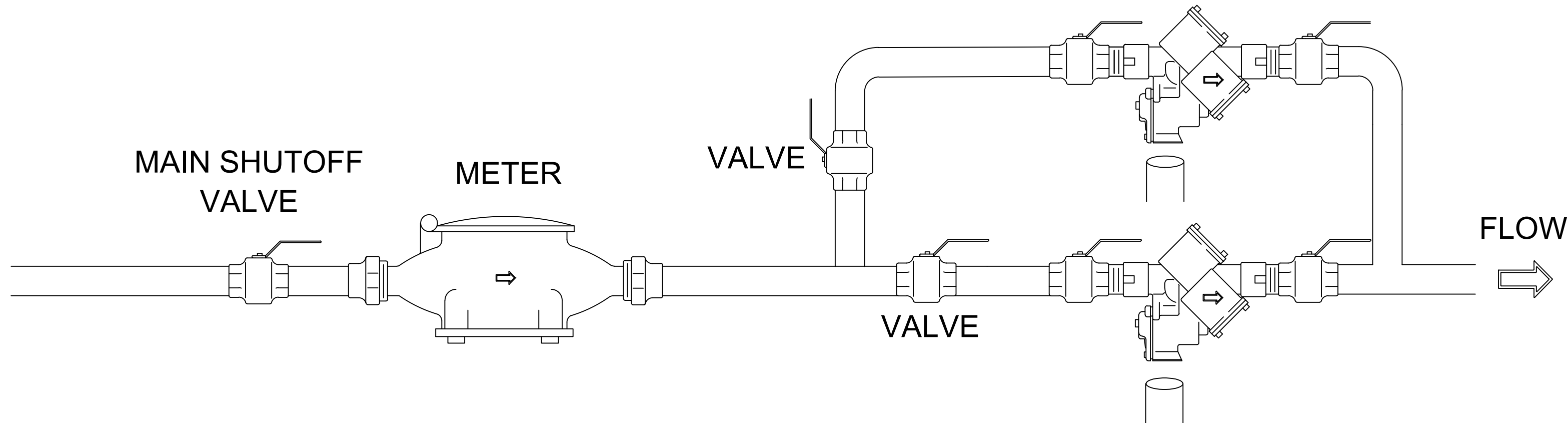
5/8"-1" BACKFLOW ASSEMBLY INSTALLATION

1



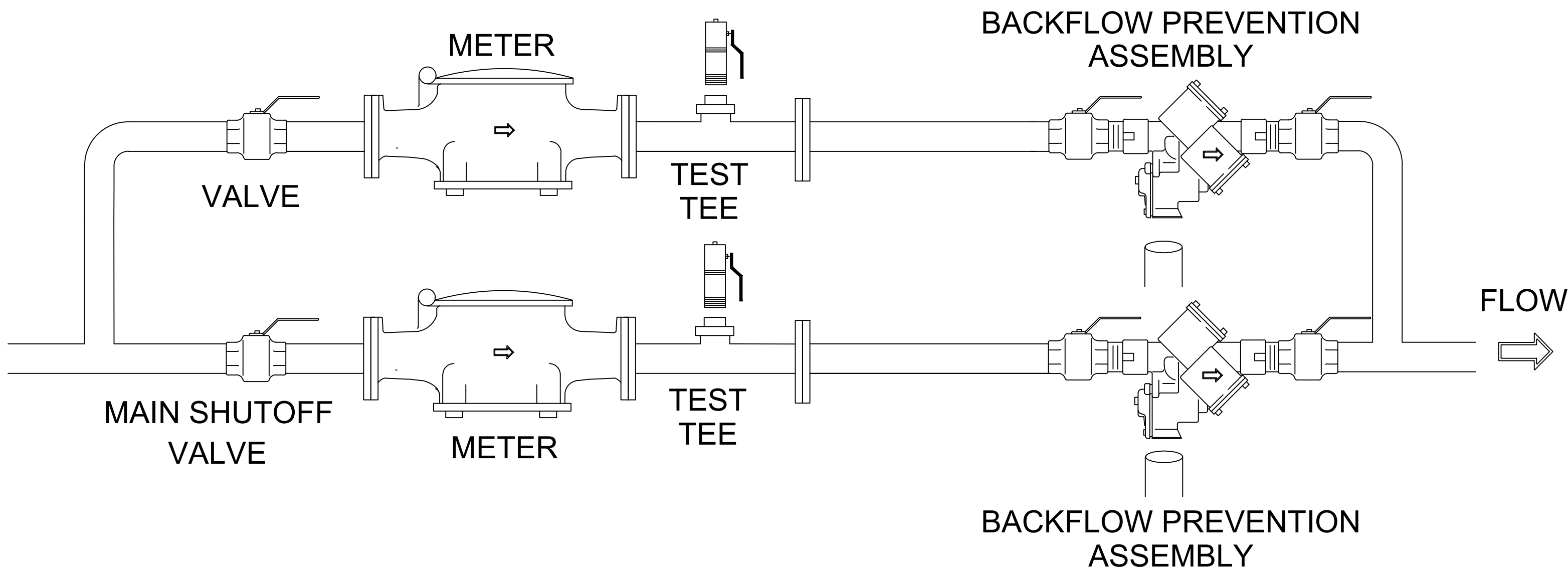
5/8"-1" PARALLEL BACKFLOW ASSEMBLY INSTALLATION

2



1 1/2"-2" PARALLEL METER & BACKFLOW ASSEMBLY INSTALLATIONS

3

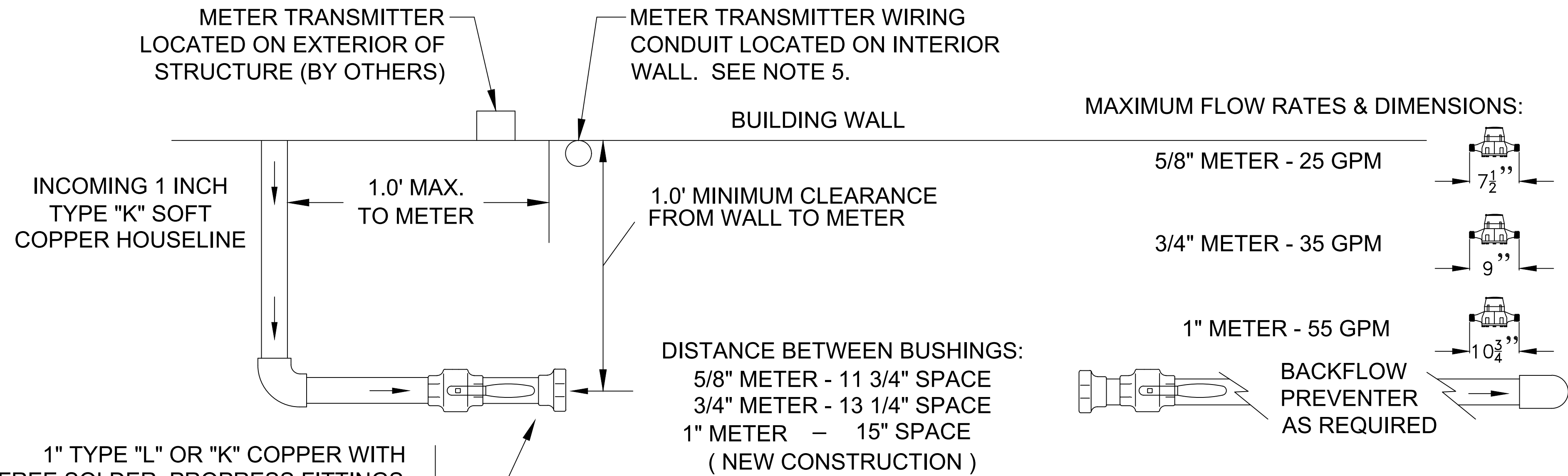


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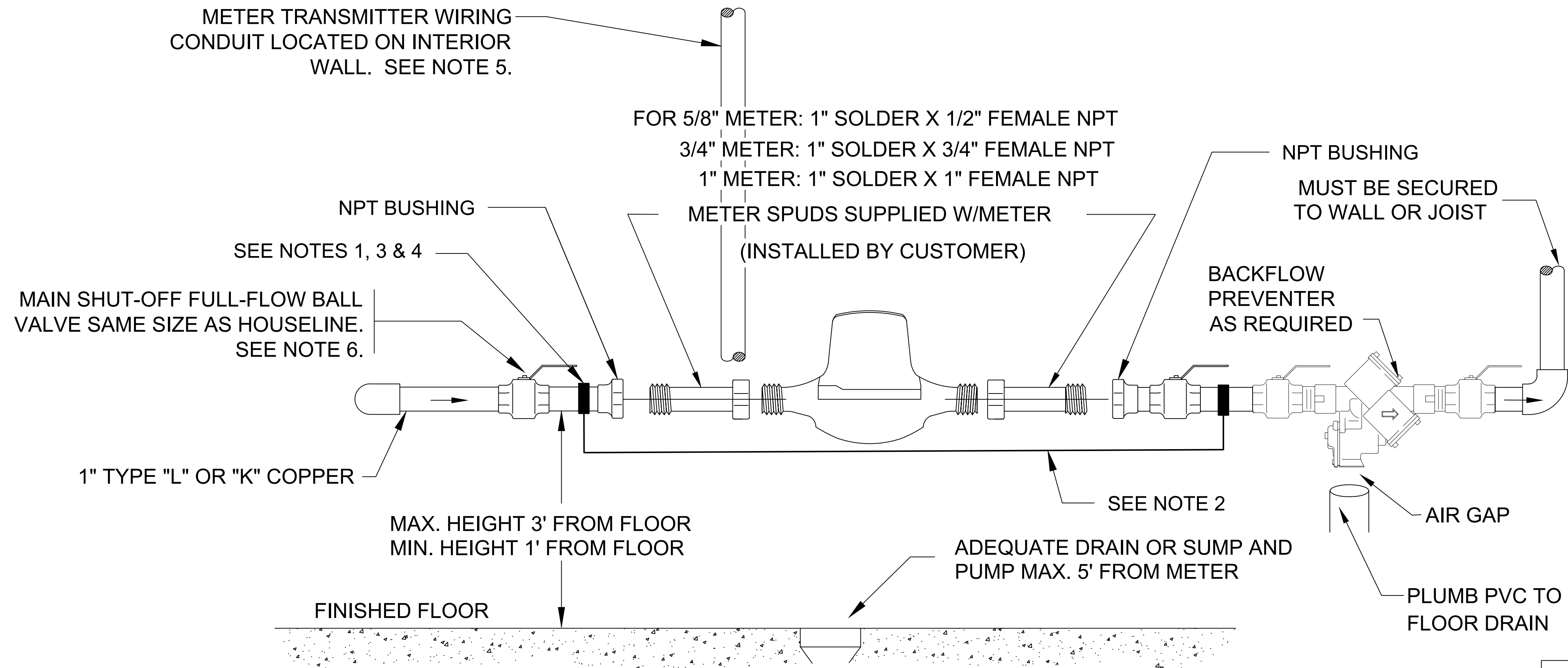
CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

APPROVED INSTALLATIONS OF BACKFLOW
PREVENTION ASSEMBLIES

REV. DECEMBER 13, 2023



PLAN VIEW



ELEVATION VIEW

NOTES:

1. WATER METER JUMPER GROUNDING INSTALLATION SHALL COMPLY WITH NEC ARTICLE 250 REQUIREMENTS. PREPARE PIPING BY PROPERLY REMOVING ANY CORROSION OR FOREIGN COATING TO BARE METAL FOR GROUNDING CLAMP INSTALLATION. PROVIDE COMPARABLE MATERIAL GROUND CLAMP TO PIPING TO PREVENT GALVANIC CORROSION.
2. PROVIDE MINIMUM #4 AWG SOLID COPPER GROUND WIRE (DIAMETER \geq 0.204 INCHES)
3. PROVIDE UL LISTED WATER PIPE CLAMP SIZED ACCORDINGLY FOR METALLIC PIPING ON BOTH SIDES AND MINIMUM #4 SOLID COPPER GROUND WIRE (DIAMETER \geq 0.204 INCHES). USE CAST BRONZE OR BRASS FOR COPPER AND PLAIN OR MALLEABLE IRON FOR GALVANIZED. PROPERLY TIGHTEN ALL SCREWS.
4. CONNECT TO METALLIC WATER PIPING.
5. PROVIDE A 1/2" CONDUIT RUN FROM WITHIN 1 FOOT OF THE WATER METER SETTING, EXTENDING TO AN OUTSIDE WALL, PENETRATING THE WALL A MIN. 3 FEET ABOVE THE OUTSIDE GRADE. THE CONDUIT RUN SHALL NOT EXCEED 100 FEET IN LENGTH. COORDINATE LOCATION WITH AKRON WATER SUPPLY BUREAU.
6. STAB AND COMPRESSION FITTINGS AND RIGHT ANGLE VALVES ARE PROHIBITED.

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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

STANDARD METER SETTINGS - NEW
5/8", 3/4", & 1" ELECTROMAGNETIC METERS

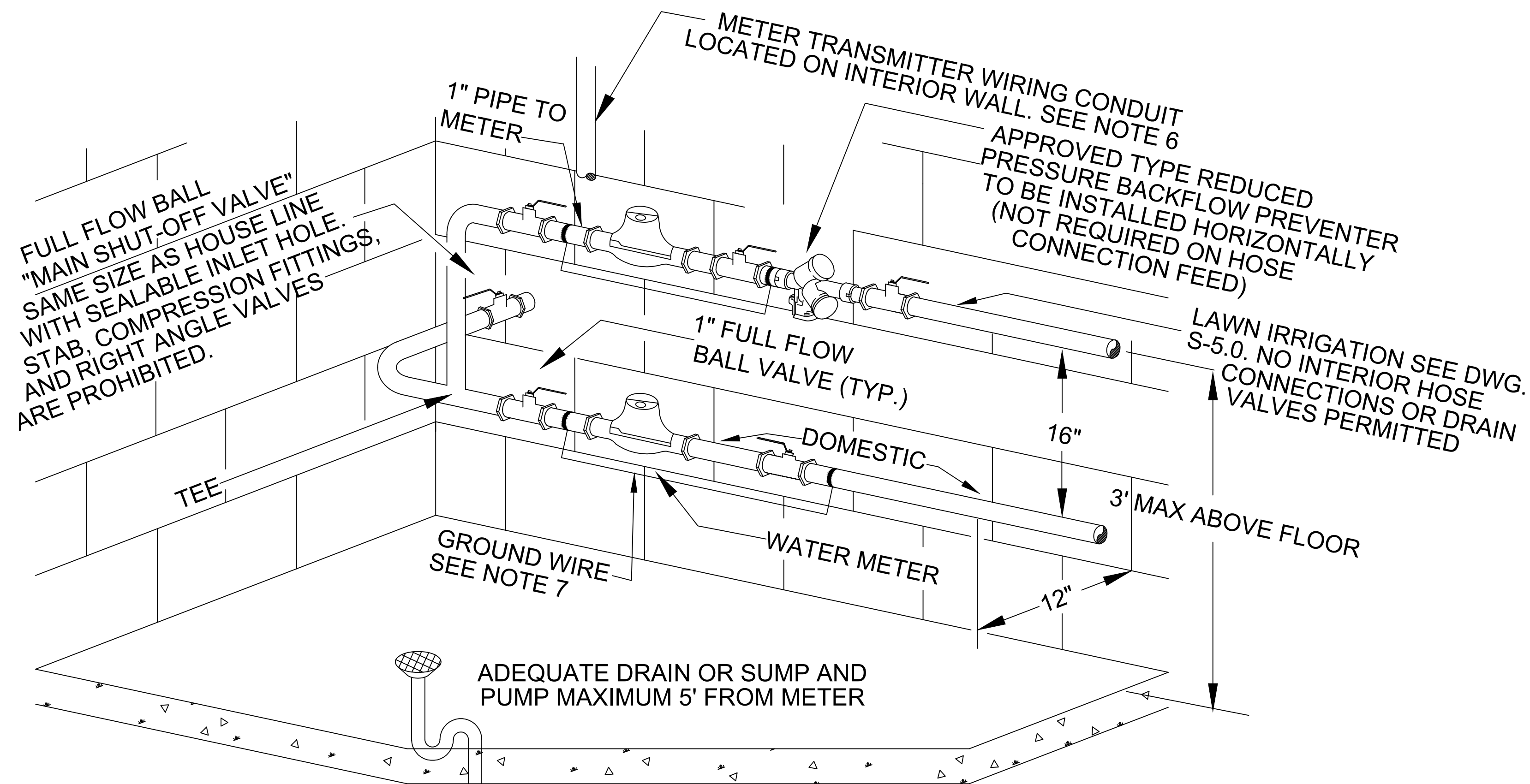
REV. DECEMBER 13, 2023

RAJL
UTILITIES ENGINEER

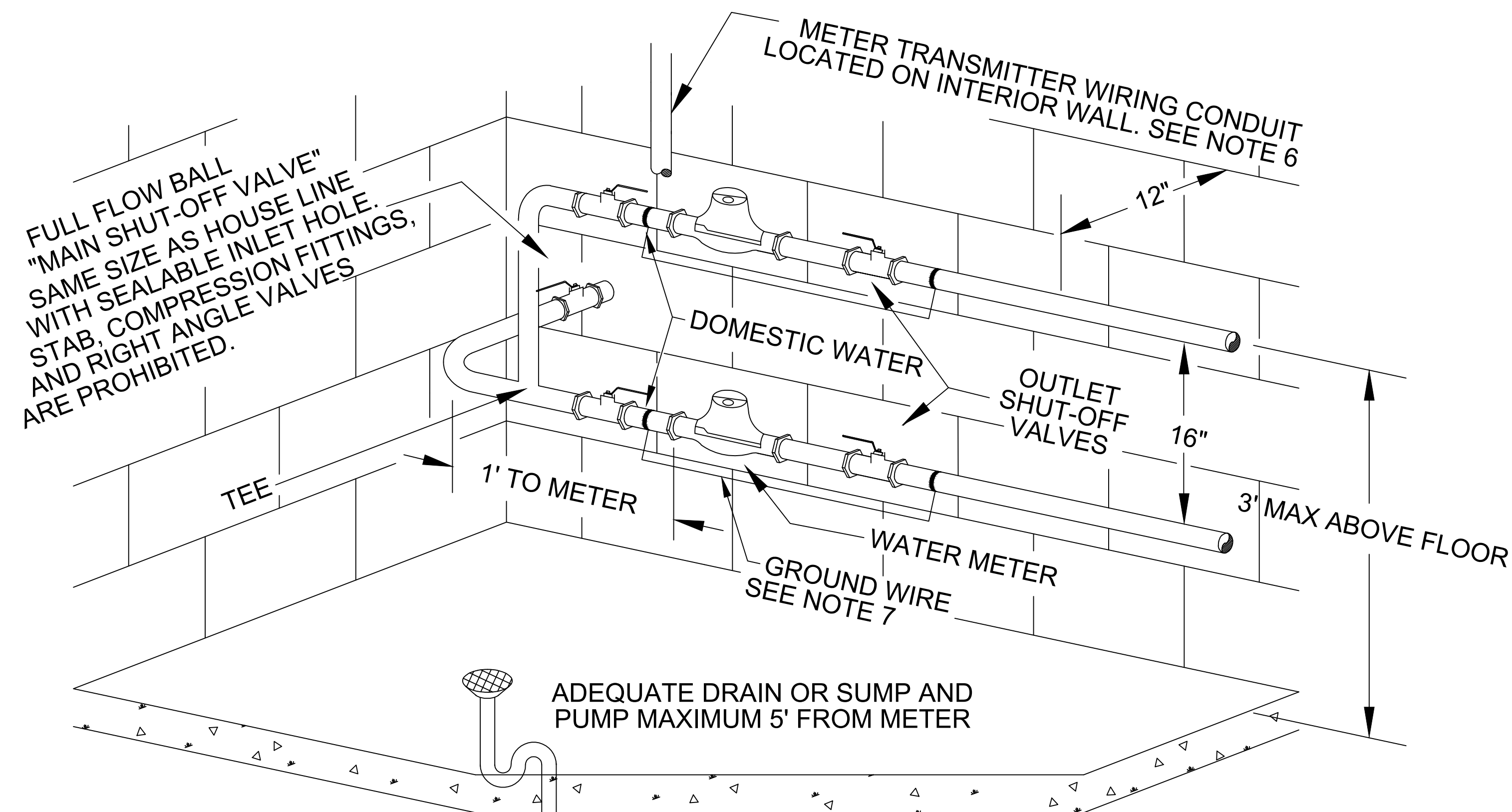
STANDARD CONSTRUCTION
DRAWING NO.

M-1.0

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>



MANIFOLD METER SETTING
LAWN IRRIGATION



MANIFOLD METER SETTING
DOMESTIC MULTI-UNIT

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

NOTES:

1. 1" MINIMUM "L" OR "K" COPPER WITH SOLDIER OR SCREW FITTINGS WITH BRASS NIPPLES FOR METER SETTING.
2. INTERIOR HOSE BIBBS AND DRAIN VALVES ARE PROHIBITED.
3. PIPING DOWNSTREAM OF METER SHALL BE SECURED TO WALL OR JOIST AND VISIBLE AT TIME OF INSPECTION.
4. PIPE SIZE REDUCTION PERMITTED AFTER METER.
5. FOR HOSE CONNECTION MANIFOLD, SEE DWG S-5.0
6. PROVIDE A 1/2" CONDUIT RUN FROM WITHIN 1 FOOT OF THE WATER METER SETTING, EXTENDING TO AN OUTSIDE WALL, PENETRATING THE WALL A MIN. 3 FEET ABOVE THE OUTSIDE GRADE. THE CONDUIT RUN SHALL NOT EXCEED 100 FEET IN LENGTH. COORDINATE LOCATION WITH AKRON WATER SUPPLY BUREAU.
7. PROVIDE MINIMUM #4 AWG SOLID COPPER GROUND WIRE (DIAMETER \geq 0.204 INCHES)

DISTANCE BETWEEN FEMALE
NPT BUSHING
5/8" METER - 11 3/4" SPACE
3/4" METER - 13 1/4" SPACE
1" METER - 15" SPACE

FEMALE NPT BUSHING DIAMETERS
5/8" METER: 1/2"
3/4" METER: 3/4"
1" METER: 1"

MINIMUM AREA REQUIRED FOR METER
SETTING:
4' W X 6' L X 6' H

MAXIMUM FLOW RATE:
5/8" METER - 25 GPM
3/4" METER - 35 GPM
1" METER - 55 GPM

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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

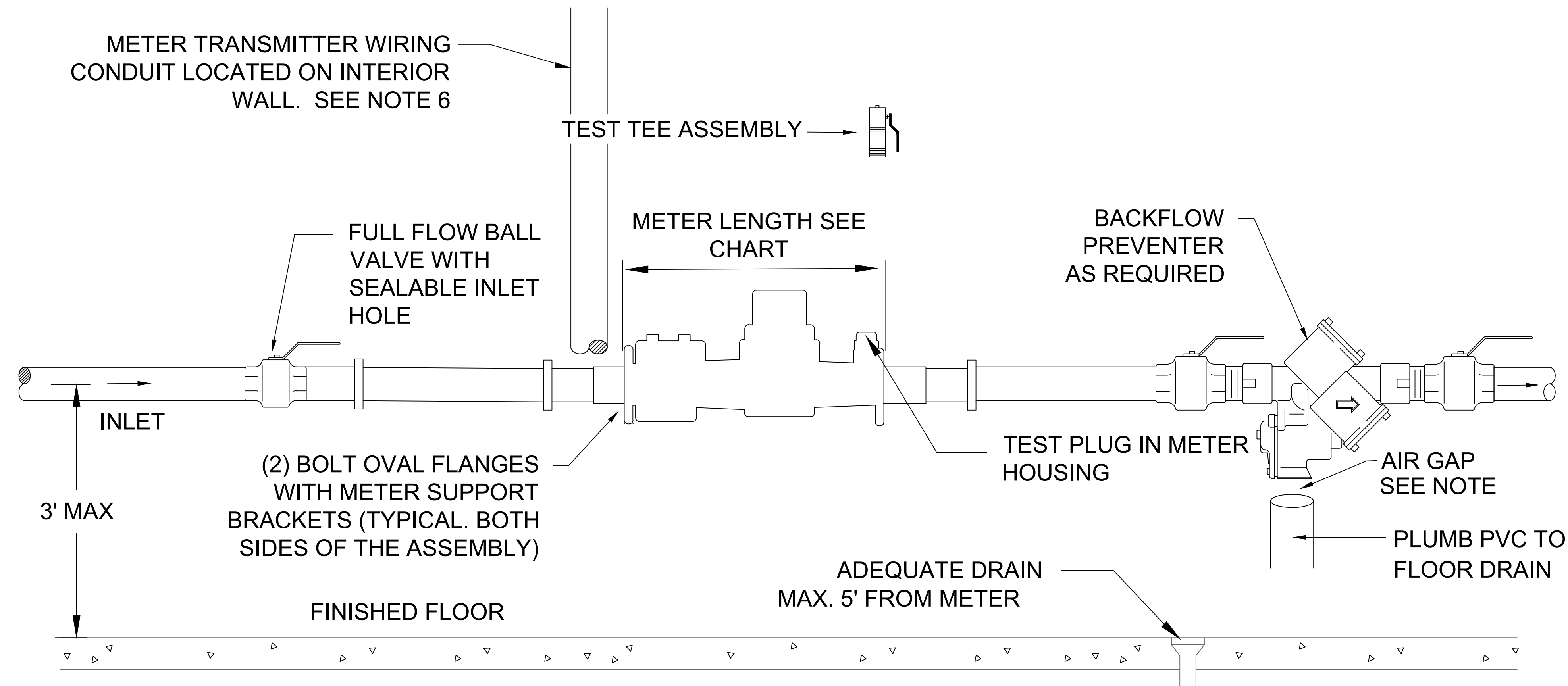
STANDARD MANIFOLD METER SETTING 5/8", 3/4"
AND 1" ELECTROMAGNETIC METERS

REV. DECEMBER 13, 2023

RJLD
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

M-2.0



ELEVATION VIEW

NOTES:

1. TYPE "L" OR "K" COPPER PIPE WITH SOLDER, PRESS, OR SCREW FITTINGS WITH A BRASS NIPPLE AND 2 BOLT OVAL COMPANION FLANGE.
2. WHEN JOINING DISSIMILAR METALS AN AKRON WATER SUPPLY BUREAU (AWSB) APPROVED BRASS TRANSITION FITTING OR AN ELECTROLYSIS INSULATED FLANGE IS REQUIRED.
3. THE METER WILL BE SUPPLIED BY THE AWSB AND PURCHASED BY OWNER.
4. AN AIR GAP MUST BE MAINTAINED BETWEEN THE RPZ RELIEF VALVE OPENING AND ANY DISCHARGE PIPING. THE AIR GAP MUST BE AT LEAST TWICE THE DIMENSION OF THE SUPPLY PIPE, BUT NEVER LESS THAN 1 INCH.
5. OVAL COMPANION FLANGES SHALL ADHERE TO AWWA STANDARD C701, SECTION 4.3.4
6. PROVIDE A 1/2" CONDUIT RUN FROM WITHIN 1 FOOT OF THE WATER METER SETTING, EXTENDING TO AN OUTSIDE WALL, PENETRATING THE WALL A MIN. 3 FEET ABOVE THE OUTSIDE GRADE. THE CONDUIT RUN SHALL NOT EXCEED 100 FEET IN LENGTH. COORDINATE LOCATION WITH AKRON WATER SUPPLY BUREAU.

SENSUS OMNI+ C2 METER CHART				
METER SIZE	METER LENGTH	TEST PLUG & ASSEMBLY SIZE	METER WEIGHT	MAX. FLOW RATE
1 1/2"	13"	1"	18.8 LBS	160 GPM
2"	17"	1"	25.4 LBS	160 GPM

* ALLOW ADDITIONAL LENGTH FOR STANDARD GASKET PER JOINT.

EMERGENCY BYPASS:

IF A EMERGENCY BYPASS IS DESIRED, THEN A PARALLEL METER MUST BE INSTALLED ACCORDING TO AWSB SPECIFICATIONS.

MINIMUM AREA REQUIRED FOR METER SETTING - 4'W x 6'L x 6'H

PROVIDE AN 18" CLEARANCE FROM THE EDGE OF PIPE TO THE WALL OF THE HOTBOX OR BUILDING.

CONTRACTOR MUST REMOVE PLUG AND INSTALL TEST ASSEMBLY IN METER HOUSING - PROVIDED BY AWSB (NIPPLE AND BALL VALVE WITH PLUGGED VERTICAL OUTLET) AND PURCHASED BY OWNER.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

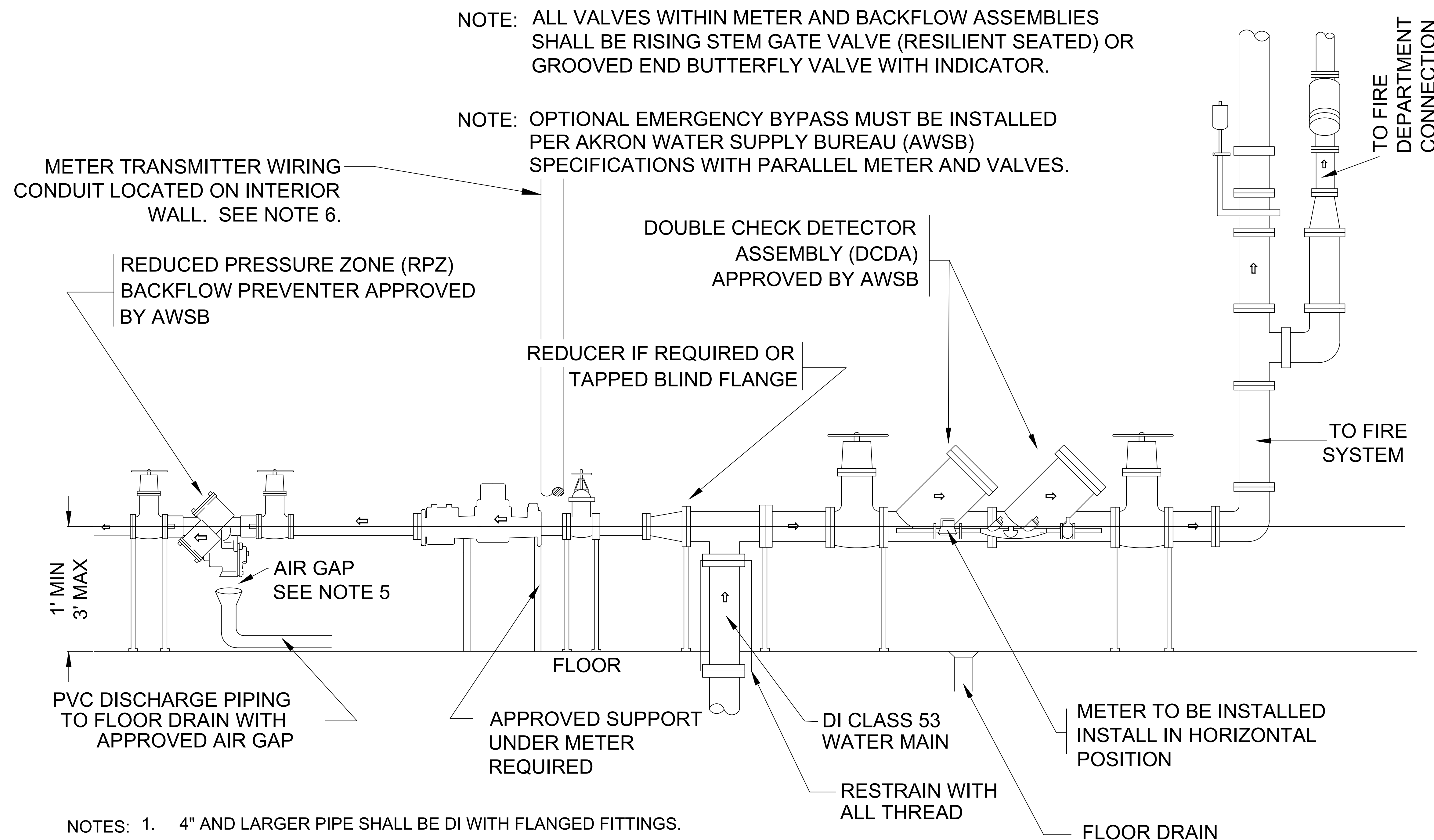
STANDARD METER SETTING 1-1/2" AND 2"
METERS

REV. DECEMBER 13, 2023

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

M-3.0



- NOTES:
1. 4" AND LARGER PIPE SHALL BE DI WITH FLANGED FITTINGS.
 2. FIRE SUPPRESSION SYSTEM SHALL BE ALL WATER-NO ADDITIVES.
 3. 1-FOOT WALL CLEARANCE FROM ALL PIPING, FITTING, & ASSEMBLIES.
 4. DISTANCE A.F.F. OF METER & BACKFLOW ASSEMBLIES NOT TO EXCEED 3'-0".
 5. AN AIR GAP MUST BE MAINTAINED BETWEEN THE RPZ RELIEF VALVE OPENING AND ANY DISCHARGE PIPING. THE AIR GAP MUST BE AT LEAST TWICE THE DIMENSION OF THE SUPPLY PIPE, BUT NEVER LESS THAN 1 INCH.
 6. PROVIDE A 1/2" CONDUIT RUN FROM WITHIN 1 FOOT OF THE WATER METER SETTING, EXTENDING TO AN OUTSIDE WALL, PENETRATING THE WALL A MIN. 3 FEET ABOVE THE OUTSIDE GRADE. THE CONDUIT RUN SHALL NOT EXCEED 100 FEET IN LENGTH. COORDINATE LOCATION WITH AKRON WATER SUPPLY BUREAU

WATER ENTRY DETAIL

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

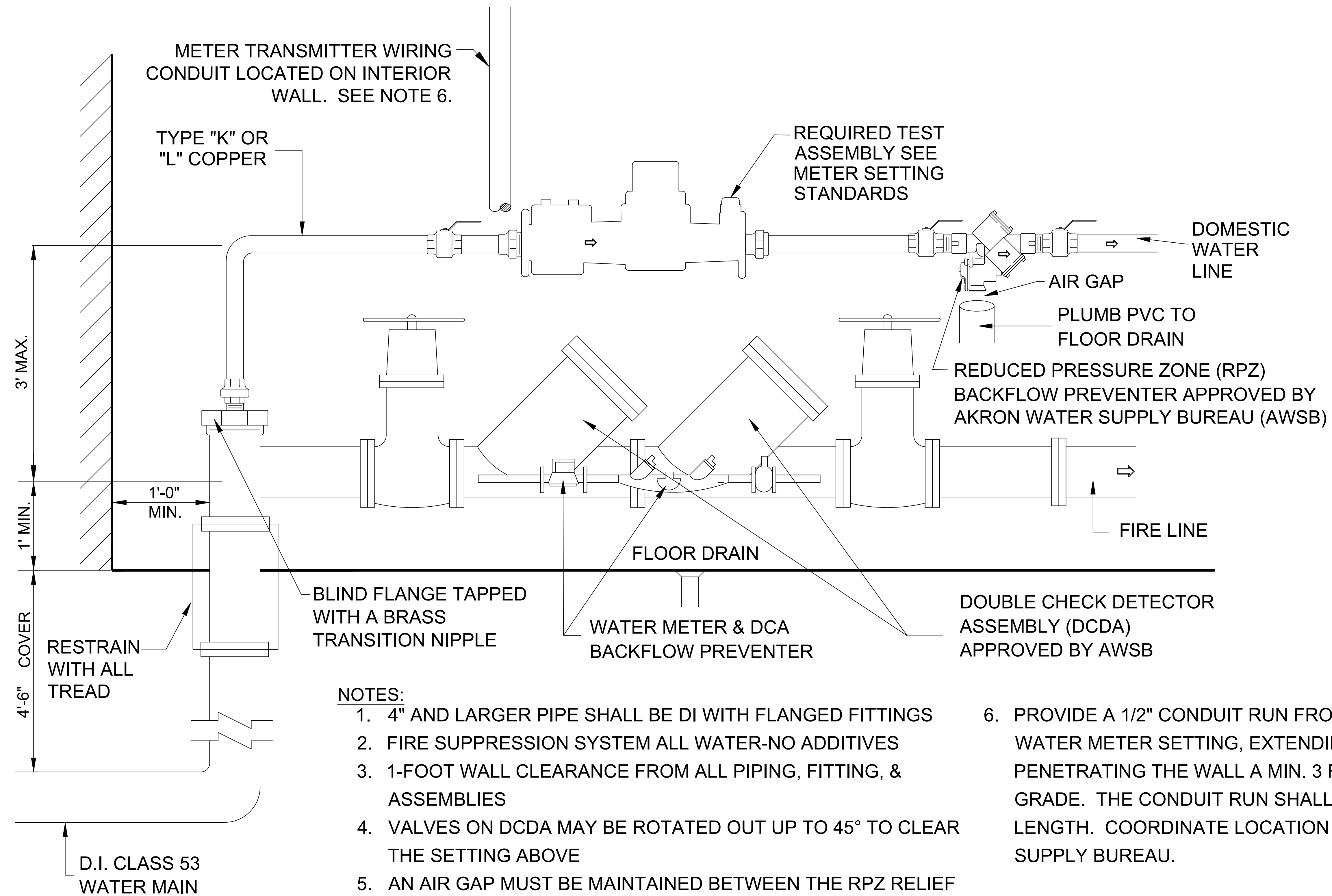
STANDARD FIRE AND DOMESTIC MANIFOLD
SETTING - CONVENTIONAL INSTALLATION

REV. DECEMBER 13, 2023

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

M-5.0



NOTES:

1. 4" AND LARGER PIPE SHALL BE DI WITH FLANGED FITTINGS
2. FIRE SUPPRESSION SYSTEM ALL WATER-NO ADDITIVES
3. 1-FOOT WALL CLEARANCE FROM ALL PIPING, FITTING, & ASSEMBLIES
4. VALVES ON DCDA MAY BE ROTATED OUT UP TO 45° TO CLEAR THE SETTING ABOVE
5. AN AIR GAP MUST BE MAINTAINED BETWEEN THE RPZ RELIEF VALVE OPENING AND ANY DISCHARGE PIPING. THE AIR GAP MUST BE AT LEAST TWICE THE DIMENSION OF THE SUPPLY PIPE, BUT NEVER LESS THAN 1 INCH.
6. PROVIDE A 1/2" CONDUIT RUN FROM WITHIN 1 FOOT OF THE WATER METER SETTING, EXTENDING TO AN OUTSIDE WALL, PENETRATING THE WALL A MIN. 3 FEET ABOVE THE OUTSIDE GRADE. THE CONDUIT RUN SHALL NOT EXCEED 100 FEET IN LENGTH. COORDINATE LOCATION WITH AKRON WATER SUPPLY BUREAU.

ALL VALVES WITHIN METER AND BACKFLOW ASSEMBLIES 4" & LARGER - OS&Y RISING STEM GATE VALVE (RESILIENT SEATED)

WATER ENTRY DETAIL

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
 DEPARTMENT OF PUBLIC SERVICE
 WATER SUPPLY BUREAU

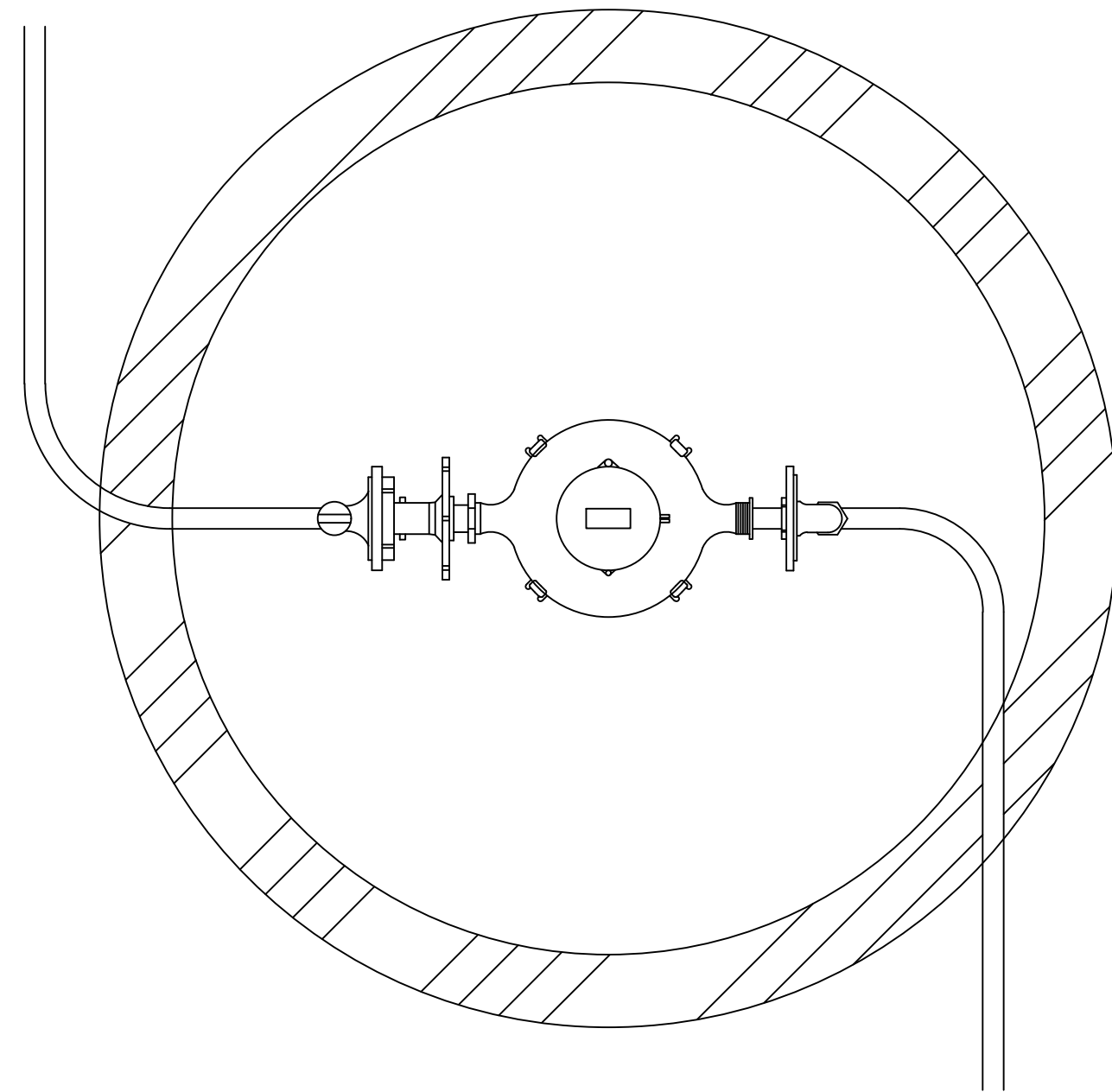
STANDARD FIRE AND DOMESTIC MANIFOLD
 SETTING - STACKED INSTALLATION

REV. DECEMBER 13, 2023

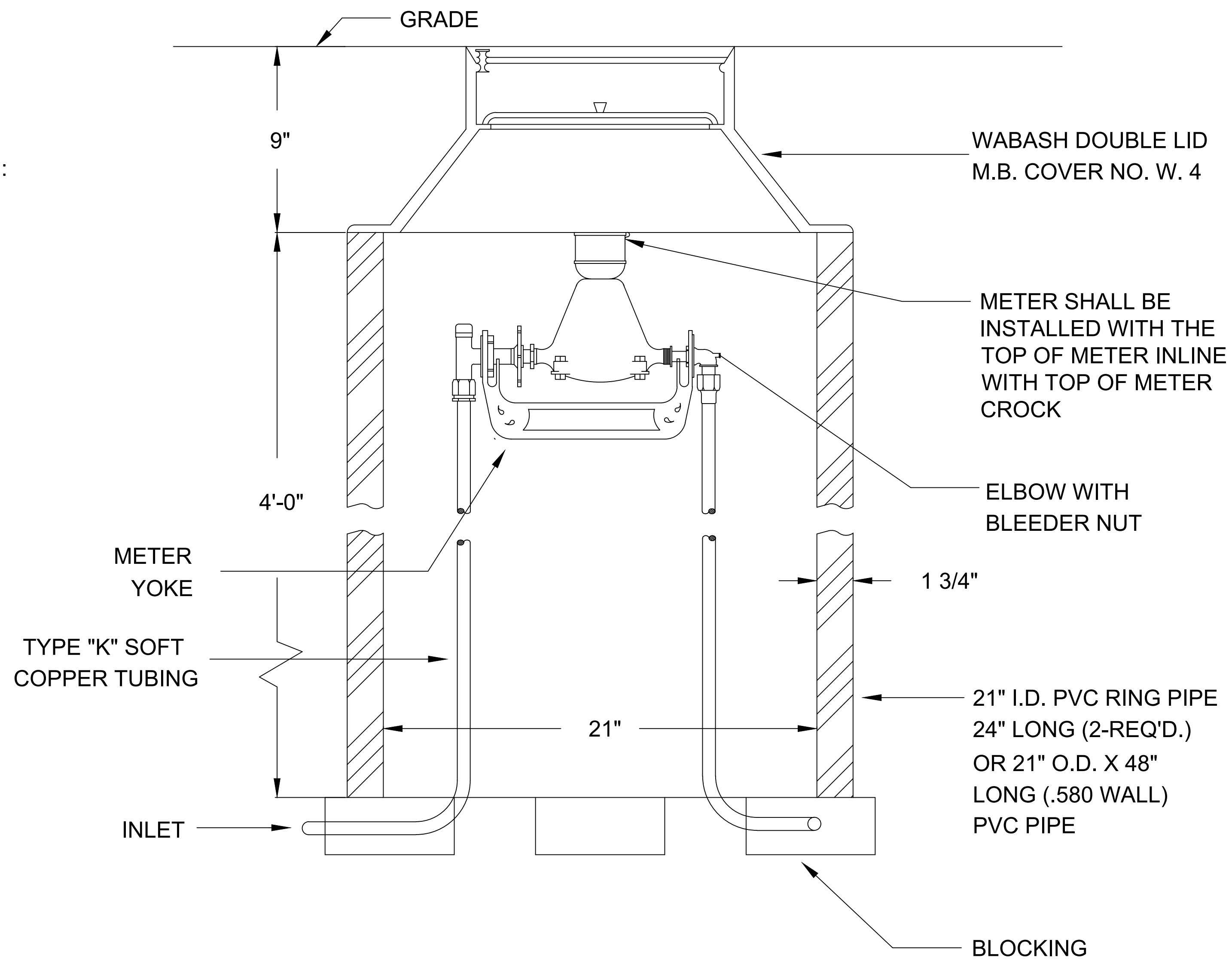
RALD
 UTILITIES ENGINEER

STANDARD CONSTRUCTION
 DRAWING NO.

M-6.0



MAXIMUM FLOW RATE:
 5/8" METER - 25 GPM
 3/4" METER - 35 GPM
 1" METER - 55 GPM



DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
 DEPARTMENT OF PUBLIC SERVICE
 WATER SUPPLY BUREAU

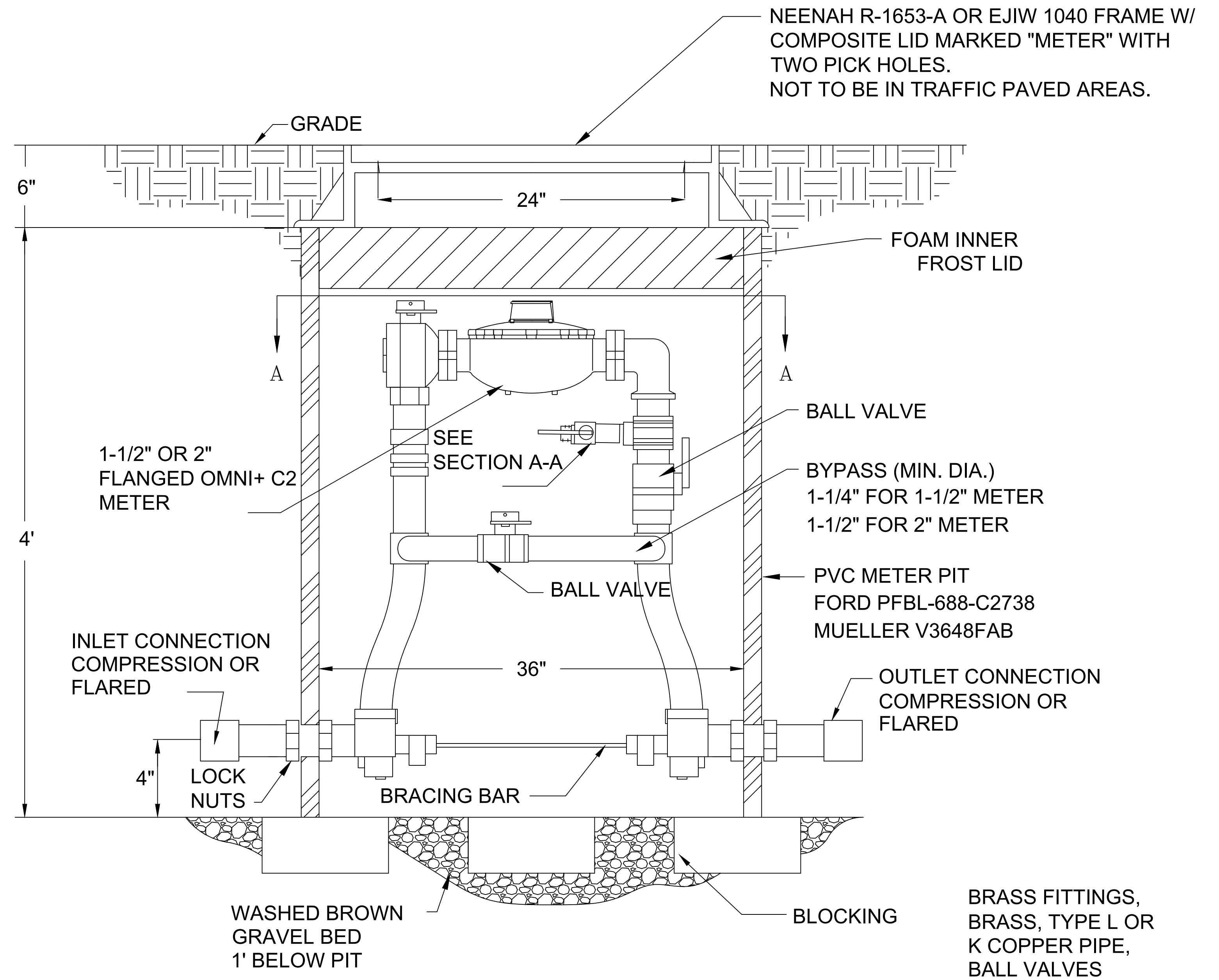
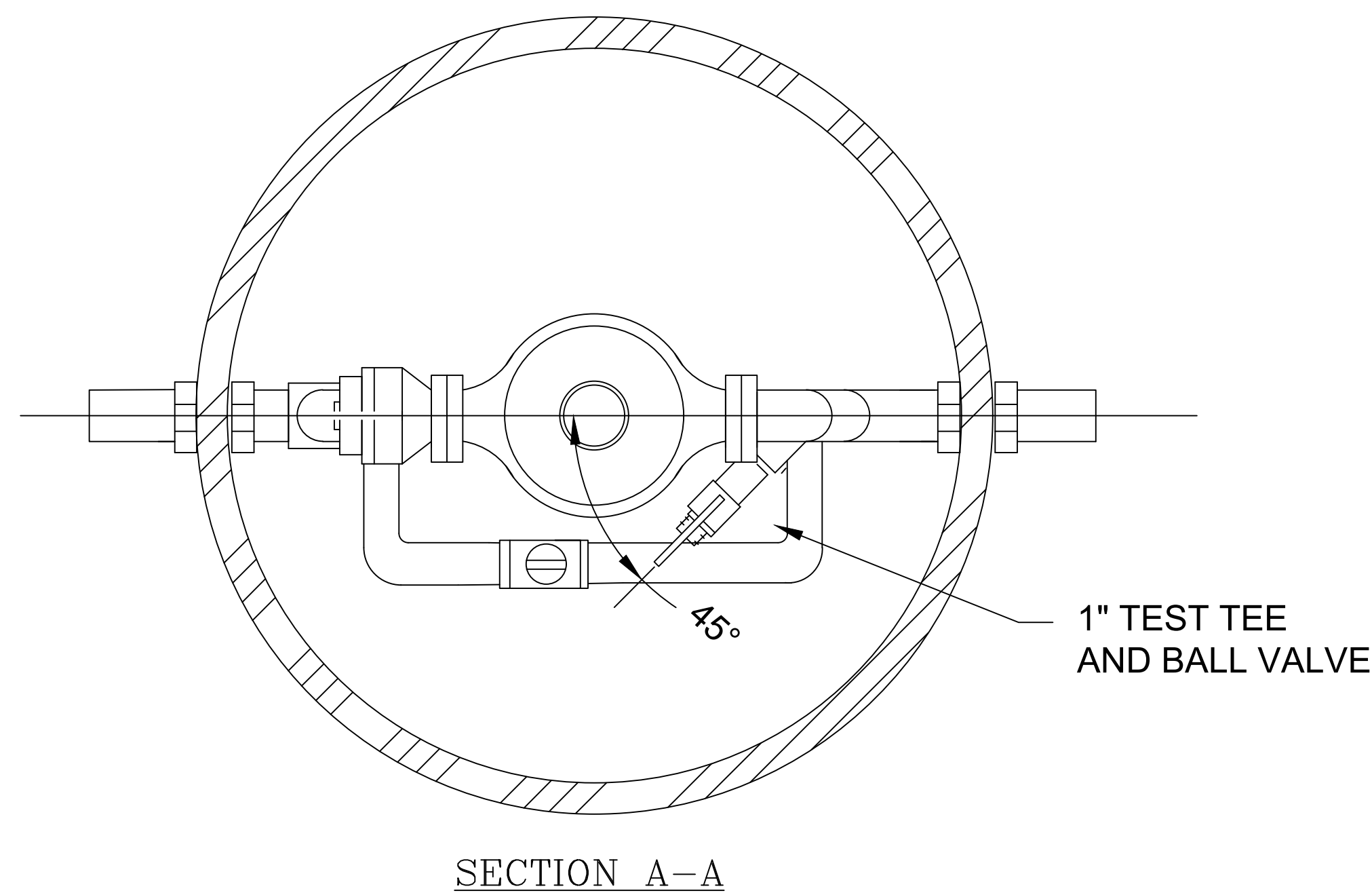
STANDARD FOR 1" CURB METER PIT

REV. DECEMBER 13, 2023

RJLD
 UTILITIES ENGINEER

STANDARD CONSTRUCTION
 DRAWING NO.

M-7.0



METER PIT MUST BE INSTALLED BY CONTRACTOR ON OWNER'S PROPERTY,
NOT WITHIN RIGHT-OF-WAY

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

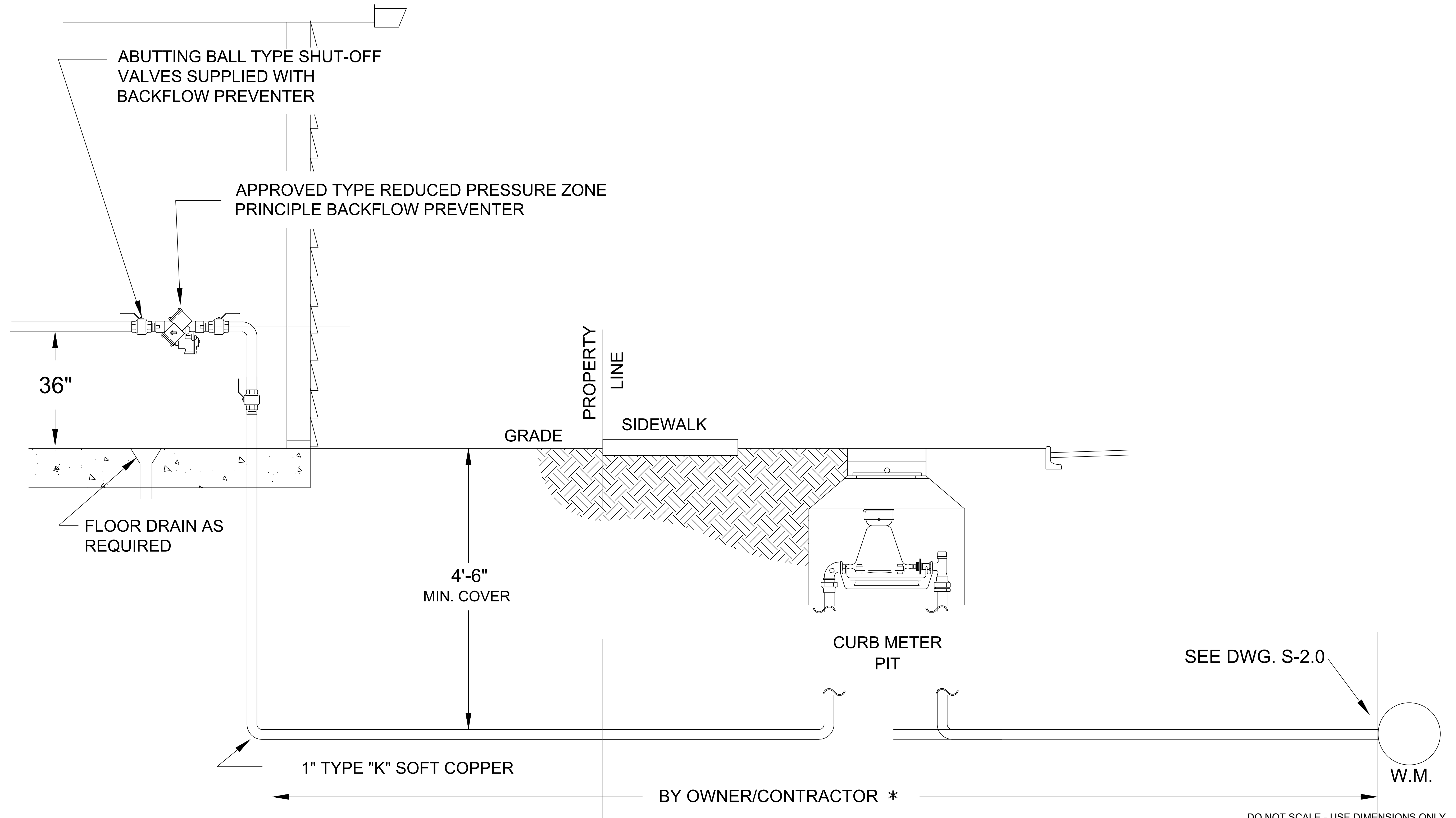
STANDARD FOR 1-1/2" AND 2" METER PIT

REV. DECEMBER 13, 2023

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

M-8.0



* THE OWNER/CONTRACTOR PORTION OF WORK MUST BE INSTALLED AND INSPECTED FOR APPROVAL BY AKRON WATER SUPPLY BUREAU (AWSB) PERSONNEL PRIOR TO BACK FILLING AND THE SERVICE INSTALLATION

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

CITY OF AKRON
 DEPARTMENT OF PUBLIC SERVICE
 WATER SUPPLY BUREAU

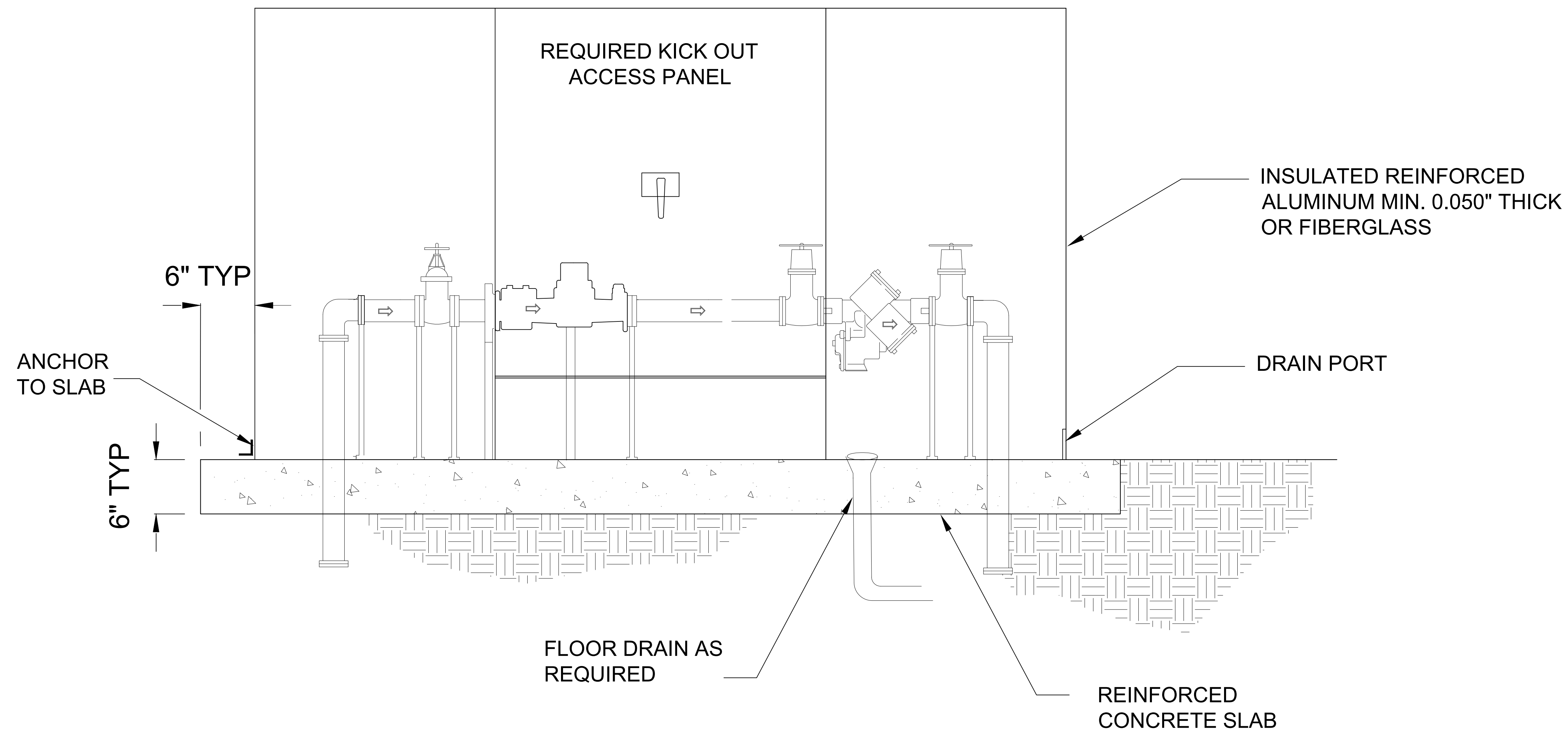
**CURB METER PIT WITH REDUCED PRESSURE
 ZONE BACKFLOW PREVENTOR INSIDE**

REV. DECEMBER 13, 2023

RJLD
 UTILITIES ENGINEER

STANDARD CONSTRUCTION
 DRAWING NO.

M-9.0



- NOTES:
1. ENCLOSURE MUST MEET OSHA 29 CFR 1910.146 AND ASSE 1060
 2. ALL ENCLOSURES INCLUDE A THERMOSTATICALLY-CONTROLLED ELECTRIC POWERED HEATER WITH A GFI.
 3. ENCLOSURE MUST BE A SUFFICIENT SIZE TO HOUSE ALL REQUIRED PIPING.
 4. ENCLOSURE MUST BE LOCKABLE.

ENCLOSURE DETAIL

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
 DEPARTMENT OF PUBLIC SERVICE
 WATER SUPPLY BUREAU

METER AND BACKFLOW PREVENTER
 ABOVE GROUND HEATED ENCLOSURE

REV. DECEMBER 13, 2023

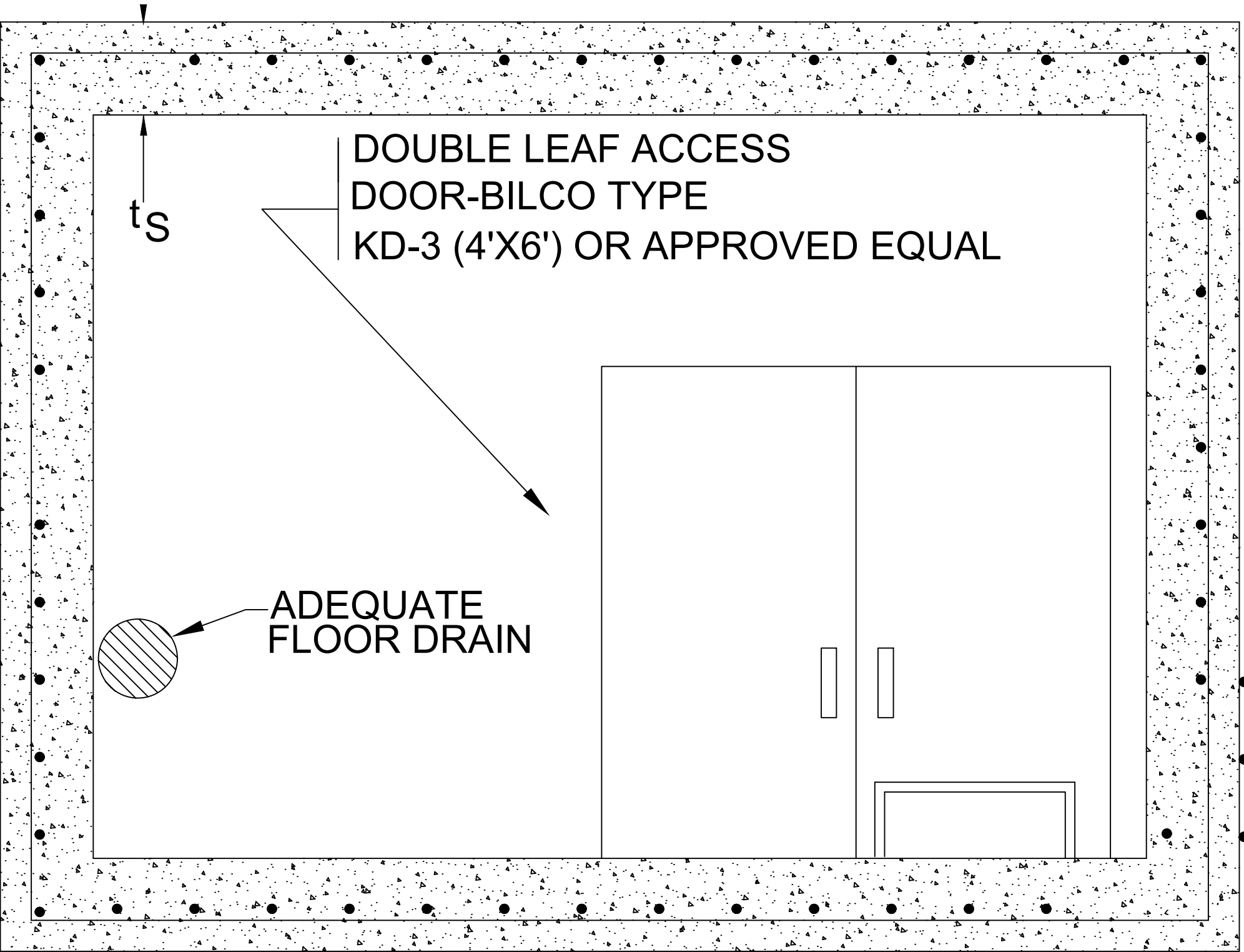
RJLD
 UTILITIES ENGINEER

STANDARD CONSTRUCTION
 DRAWING NO.

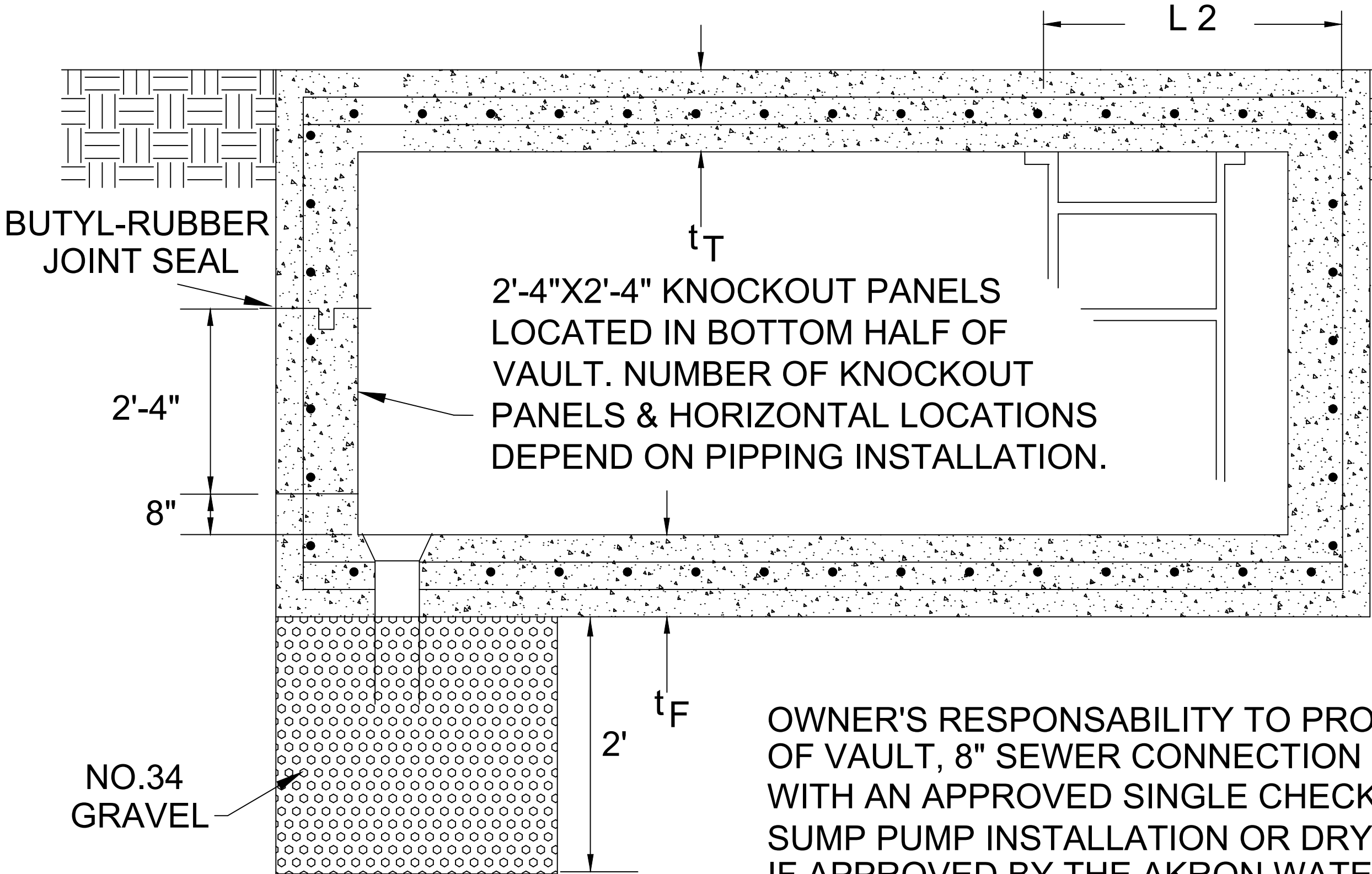
M-10.0

PLAN
VIEW

A



B

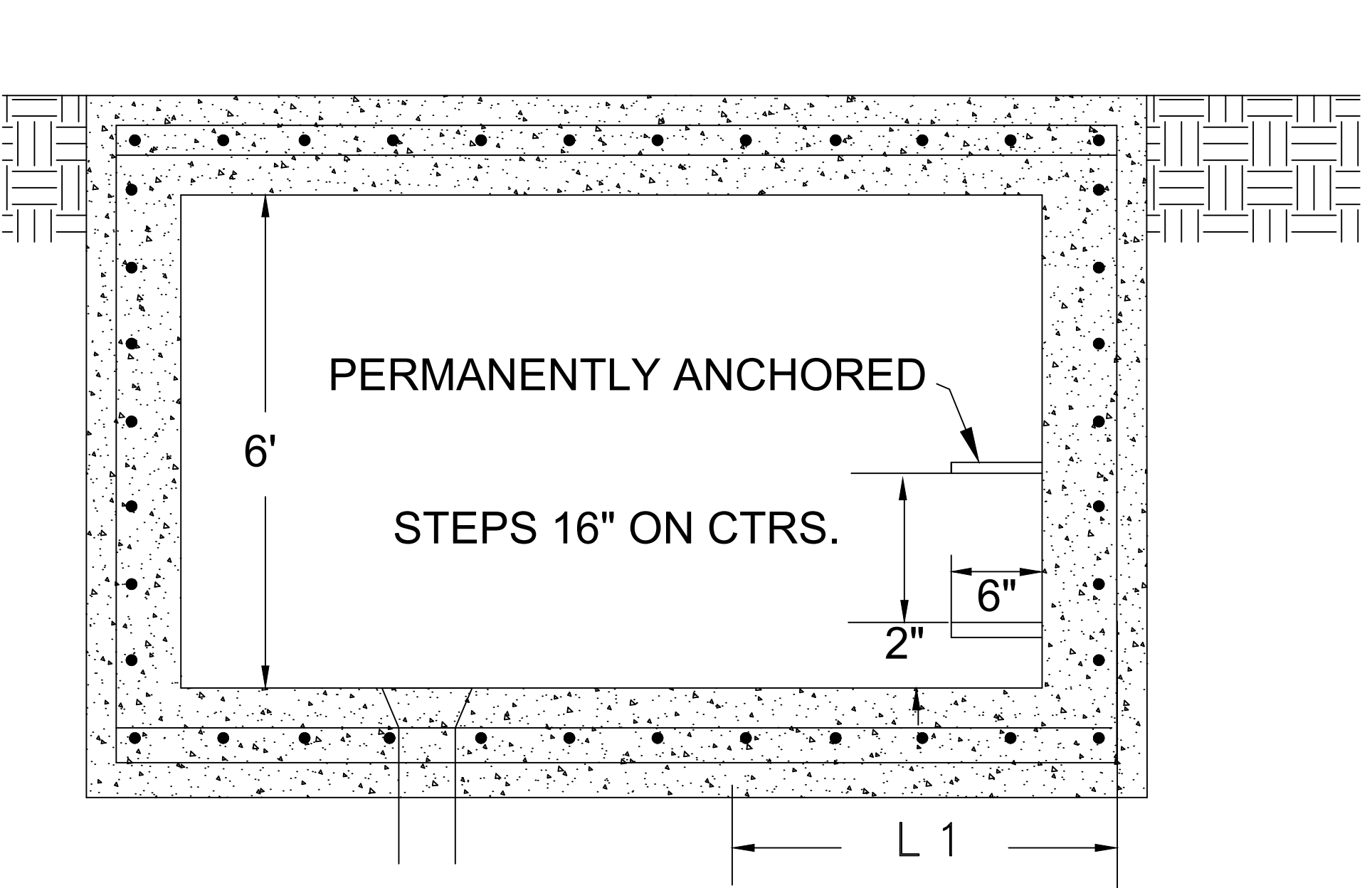


SECTION A

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

* INSIDE DIMENSION
** B-BOTTOM SLAB T-TOP SLAB
+STEEL IS EXTENDED FROM WALLS
L 1 & L 2 FOR FLOOR SAME AS FOR TOP SLAB
COVER ON ALL REBAR SHALL BE 1 1/4"

NEW WATER VAULT INSTALLATION
PROHIBITED. ABOVE GROUND ENCLOSURE
REQUIRED. SEE DWG M-10.0.



SECTION B

CONCRETE THICKNESS & MIN.STEEL REQUIREMENTS								
STD. SER.SIZE VAULT SIZE	TOP SLAB				SIDEWALL		FLOOR	
	t _T	STEEL	L 1	L 2	t _S	STEEL	t _F	STEEL
1 1/2"X2" 4'X6'	8"	#5@8"E.W.-B #5@8"-T+	12"	16"	6"	#5@8"E.W.	6"	#5@8"E.W.-T #5@8"-B+
4" 6'X10'	8"	#5@5"E.W.-B #5@8"-T+	16"	26"	6"	#5@8"E.W.	6"	#5@8"E.W.-T #5@8"-B+
6" 6'X12'	8"	#5@5"E.W.-B #5@8"-T+	19"	31"	6"	#5@8"E.W.	6"	#5@8"E.W.-T #5@8"-B+
8" 8'-4"-15'	8"	#5@4"E.W.-B #5@8"-T+	24"	38"	6"	#5@8"E.W.	6"	#5@8"E.W.-T #5@8"-B+
SPECIAL 10'X17'	8"	#5@3"E.W.-B #5@8"-T+	26"	43"	6"	#5@8"E.W.	6"	#5@8"E.W.-T #5@8"-B+

CONCRETE STRENGTHS
-4500 PSI
STEEL YIELD
STRENGTH-60,000 PSI
VAULT DESIGNED FOR
AASHTO HS20 LIVE
LOAD.

***VAULT SHALL BE LOCATED IN A NON
TRAFFIC BEARING AREA. SHOULD
INSTALLATION CONDITIONS CHANGE FROM
NON-TRAFFIC BEARING TO TRAFFIC
BEARING, OWNER SHALL BE RESPONSIBLE
FOR CHANGING FRAME & COVER TO
TRAFFIC BEARING TYPE AND SHALL ASSUME
ALL LIABILITY FOR FAILURE TO DO SO.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

STANDARD FOR PRECAST METER VAULTS

REV. DECEMBER 13, 2023

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

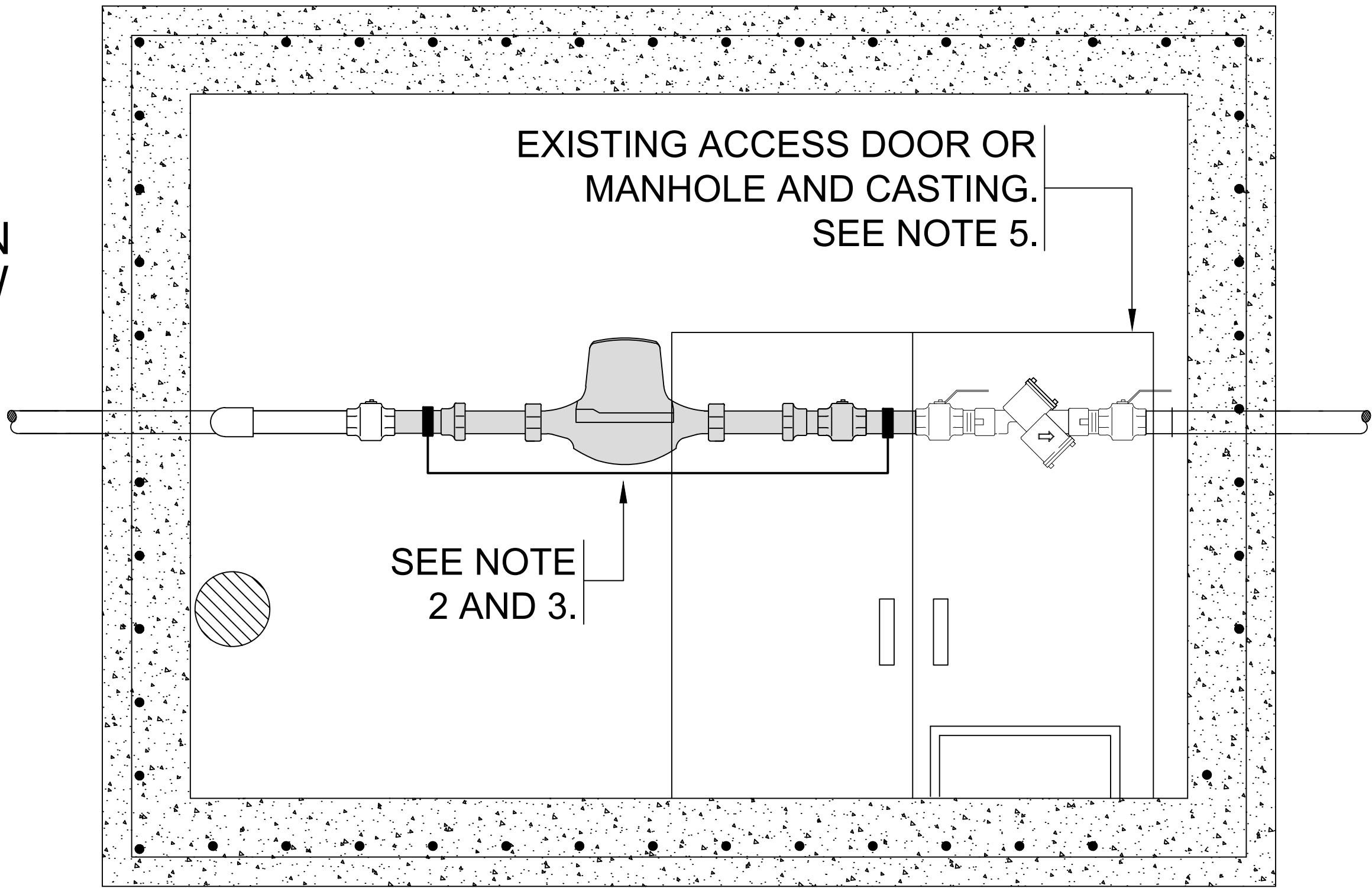
M-11.0

VAULT ABANDONMENT NOTES

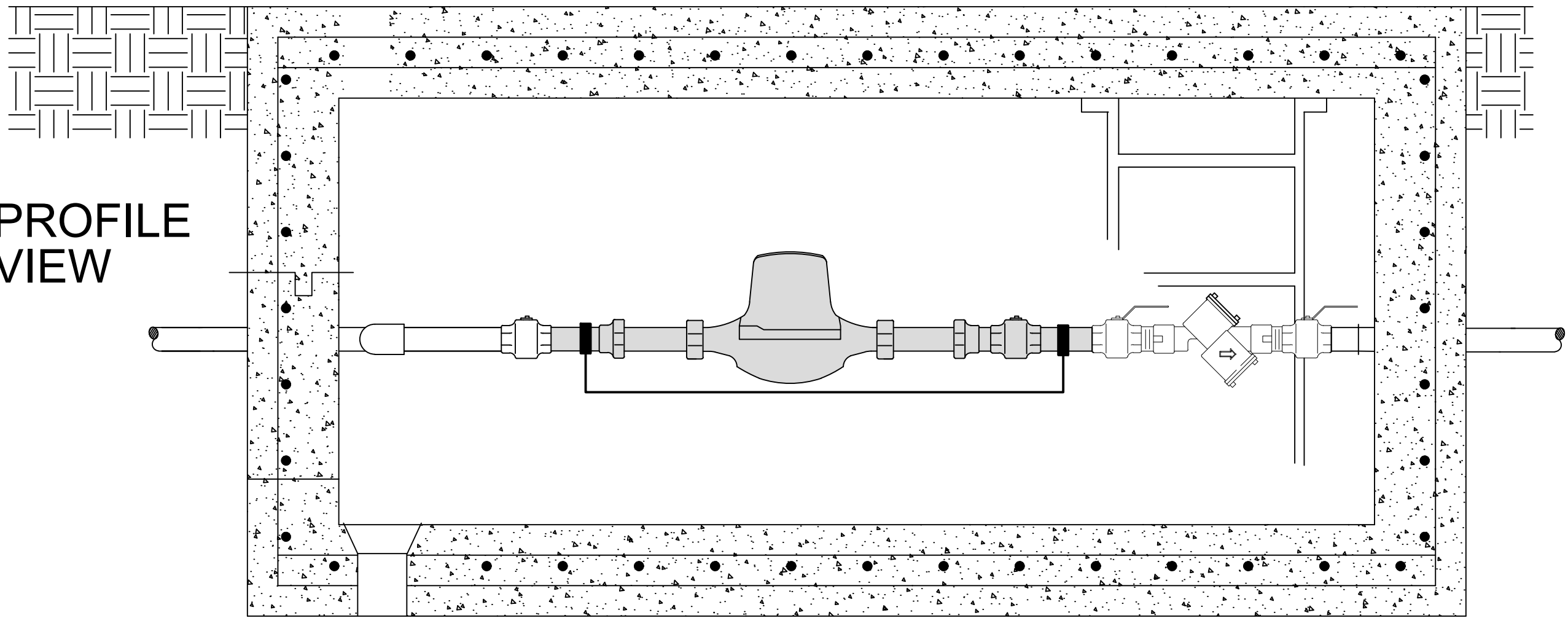
THE FOLLOWING ARE GUIDELINES TO ABANDON AN EXISTING METER VAULT.

1. VAULT ABANDONMENT SHALL BE INSPECTED BY THE AKRON WATER SUPPLY BUREAU (AWSB). NOTIFY BOB GEISER AT (330) 375-2791 AT LEAST 48 HOURS PRIOR TO BEGINNING ABANDONMENT.
2. REMOVE ALL METERS AND VALVES INCLUDING ANY ELECTRONIC READING EQUIPMENT.
3. INSTALL A SPOOL PIECE (STRAIGHT PIPE) THAT REPLACES WHAT WAS REMOVED FROM THE SETTING. APPROVED SPOOL PIECE PIPE, FITTINGS, BOLTS, ETC. SHALL BE PER AWSB WATER MAIN NOTES, CURRENT EDITION.
4. THE FINAL METER READING SHALL BE RECORDED BY THE AWSB IN ORDER TO CLOSE THE ACCOUNT.
5. REMOVE THE VAULT TOP INCLUDING ACCESS DOORS OR MANHOLE AND CASTINGS.
6. HOLES SHALL BE PUNCHED IN THE FLOOR OF THE VAULT OR ALL WALLS CAN BE REMOVED TO ENSURE IT DOES NOT HOLD WATER.
7. COLLAPSE VAULT SIDES AS AN OPTIONAL METHOD.
8. FILL EXISTING VAULT WITH CLEAN SAND (COMPACTED) OR CONTROL DENSITY FILL.

PLAN
VIEW



PROFILE
VIEW



DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

METER VAULT ABANDONMENT

REV. DECEMBER 13, 2023

RALD
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

M-12.0

WE RECOMMEND FOR A HOME OF AVERAGE SIZE THESE PIPE SIZES TO SUPPLY WATER FIXTURES

WATER FIXTURES

SILL FAUCET (HOSE)	3/4"
SINK	1/2"
LAVATORY	1/2"
LAUNDRY TRAY	1/2"
HOT WATER TANK	3/4"
BATH TUB	1/2"
SHOWER BATH	1/2"
SHOWER BATH - NEEDLE TYPE	3/4"
WATER CLOSET - TANK TYPE	1/2"
WATER CLOSET - FLUSHOMETER	1"
URINAL - TANK TYPE	1/2"
URINAL - FLUSHOMETER TYPE	3/4"

RISER OR RUNS SERVING 2 FIXTURES	3/4"
RISERS OR RUNS SERVING 3 OR MORE FIXTURES	1"
RISERS OR RUNS SERVING FLUSHOMETER VALVE	1"
BASEMENT SUPPLY LINE	1"
TYPE "K" HOUSE LINE	1"

WATER SERVICE NOTES FOR PRIVATELY FUNDED WATER SERVICES AND HOUSELINES

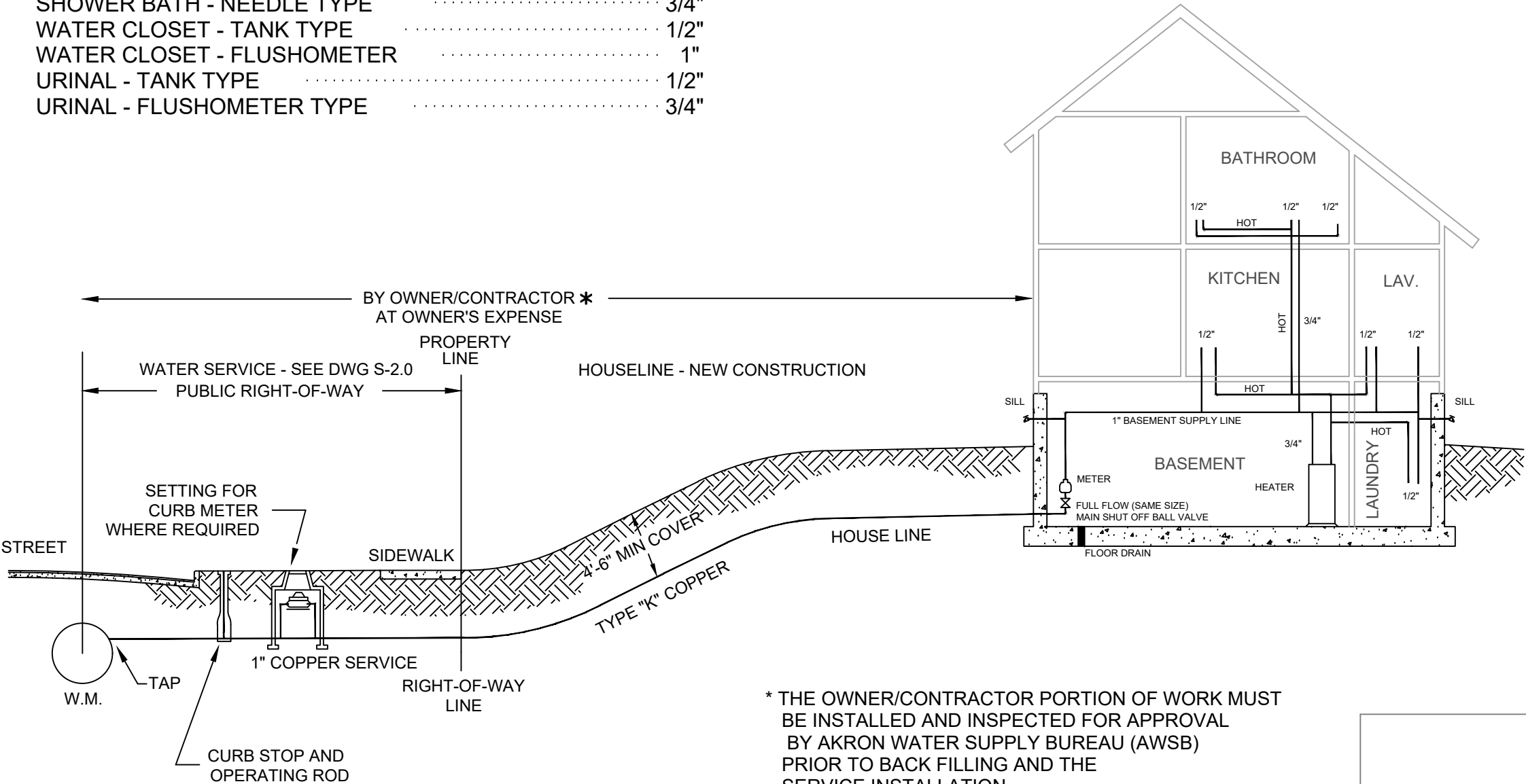
THE OWNER'S CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE WATER SERVICE LINE FROM THE WATER MAIN TAP TO THE CURB BOX WITHIN THE RIGHT-OF-WAY AND THE HOUSELINE FROM THE CURB BOX INTO THE BUILDING. IT MUST INCLUDE A FULL-FLOW (SAME SIZE) MAIN SHUT OFF BALL VALVE IN THE BUILDING PRIOR TO THE METER.

THE OWNER'S CONTRACTOR IS RESPONSIBLE FOR EXPOSING AND PREPARING THE WATER MAIN FOR THE TAP BY THE AKRON WATER SUPPLY BUREAU (AWSB). THE OWNER'S CONTRACTOR WILL ASSIST IN MANEUVERING THE TAPPING MACHINE, BACKFILL THE EXCAVATION (ACCORDING TO LOCAL JURISDICTION GUIDELINES), AND PERFORM COMPLETE RESTORATION WITHIN THE RIGHT-OF-WAY (ACCORDING TO LOCAL JURISDICTION GUIDELINES).

TO COORDINATE THE WATER MAIN TAP WITH AWSB, CALL OUR MAIN OFFICE AT (330) 375-2227 AND ASK FOR NATE GRAY.

IF THE WATER SERVICE LINE WITHIN THE RIGHT-OF-WAY IS INSTALLED BEFORE THE AWSB COMPLETES THE WATER MAIN TAP, THE SERVICE LINE PIPE MUST BE STOPPED APPROXIMATELY SEVEN FEET AWAY FROM THE WATER MAIN TO ALLOW ADEQUATE WORKSPACE FOR THE EXCAVATION AND TAPPING OPERATIONS.

THE OWNER'S CONTRACTOR WILL THEN COMPLETE THE WATER SERVICE LINE INSTALLATION TO THE TAP. ALL UNDERGROUND PIPING MUST SCHEDULE A MANDATORY INSPECTION(S) PRIOR TO BACKFILLING THE TRENCH. TO SCHEDULE THE MANDATORY INSPECTION(S) PRIOR TO BACKFILLING THE TRENCH CONTACT TOMMY BARNETT AT (330) 812-7822. FAILURE TO DO SO MAY RESULT IN THE OWNER'S CONTRACTOR REMOVING THE BACKFILL MATERIAL TO ALLOW THE MANDATORY INSPECTION.



* THE OWNER/CONTRACTOR PORTION OF WORK MUST BE INSTALLED AND INSPECTED FOR APPROVAL BY AKRON WATER SUPPLY BUREAU (AWSB) PRIOR TO BACK FILLING AND THE SERVICE INSTALLATION.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

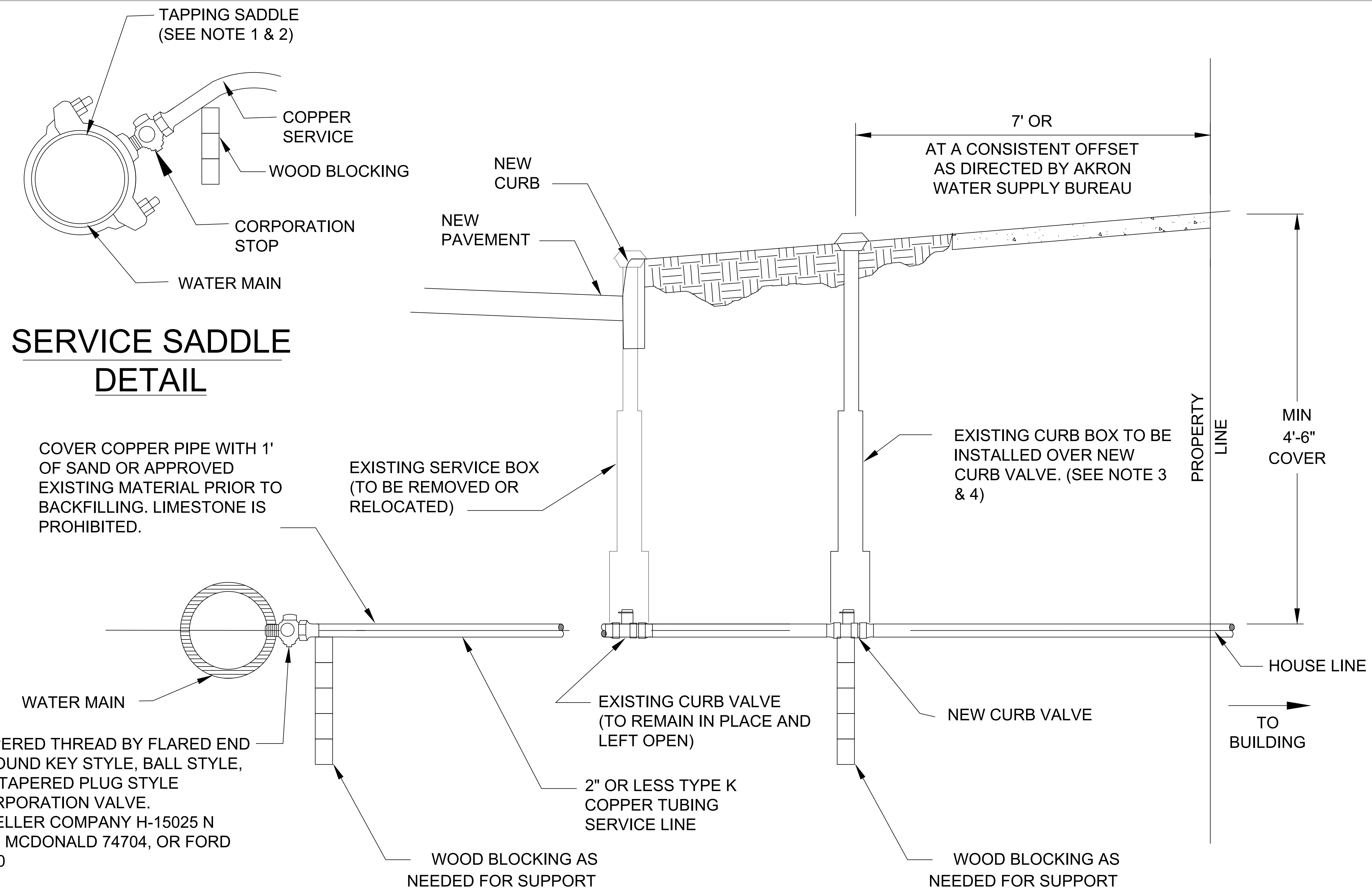
WATER SERVICE AND HOUSELINE
CONNECTIONS WITH RECOMMENDED PIPE SIZES
FOR WATER FIXTURES

REV. DECEMBER 13, 2023

TRALD
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

S-1.0



NOTES:

1. FOR PRIVATELY FUNDED WATER SERVICES, SEE WATER SERVICE NOTES FOR PRIVATELY FUNDED WATER SERVICES AND HOUSELINES, DWG S-1.0.
2. A TAPPING SADDLE IS REQUIRED FOR SERVICES SIZES 1 1/4"-2" ON ALL CAST IRON AND PLASTIC PIPE.
3. SERVICE SADDLES SHALL BE EITHER A.Y. MCDONALD 3825, POWER SEAL 3409 OR APPROVED EQUAL.
4. 1-1/2" CURB BOXES OR CURB BOXES IN POOR CONDITION SHALL BE REPLACED WITH 2" STAINLESS STEEL CURB BOX.
5. CURB BOX SHALL BE INSTALLED IN LAWN STRIP. AVOID INSTALLING BOX IN PAVED OR CONCRETE AREAS.
6. ONLY USE SMOOTH JAW WRENCH ON CORP VALVE.
7. IF ELECTRIC POWER IS ENCOUNTERED ON HOUSELINE, OWNER TO BE NOTIFIED AND ELECTRIC ISOLATING COUPLING INSTALLED.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

WATER SERVICE CONNECTION, 2" OR LESS TYPE
K SERVICE CONNECTION

REV. DECEMBER 13, 2023

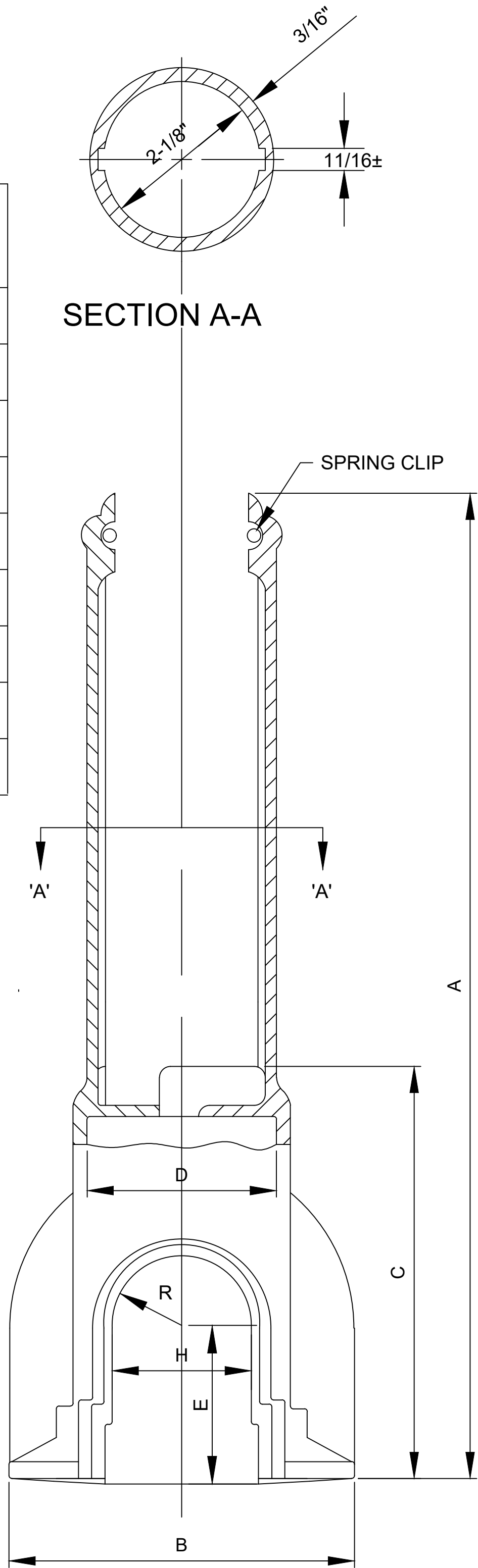
RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

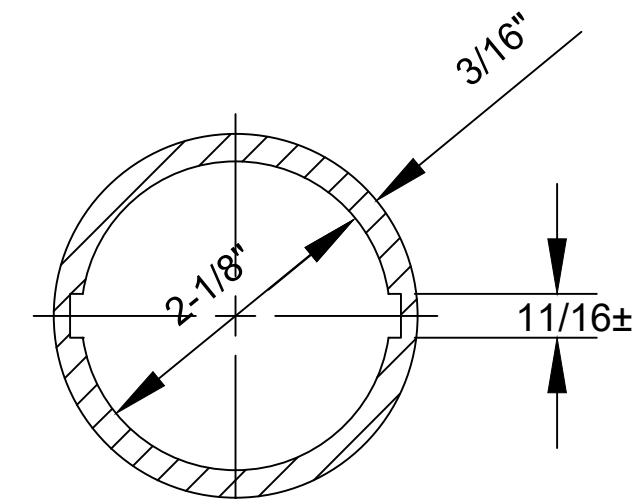
S-2.0

CURB BOX DIMENSIONS
BOTTOM SECTION TO
FIT CURB STOP SIZES:

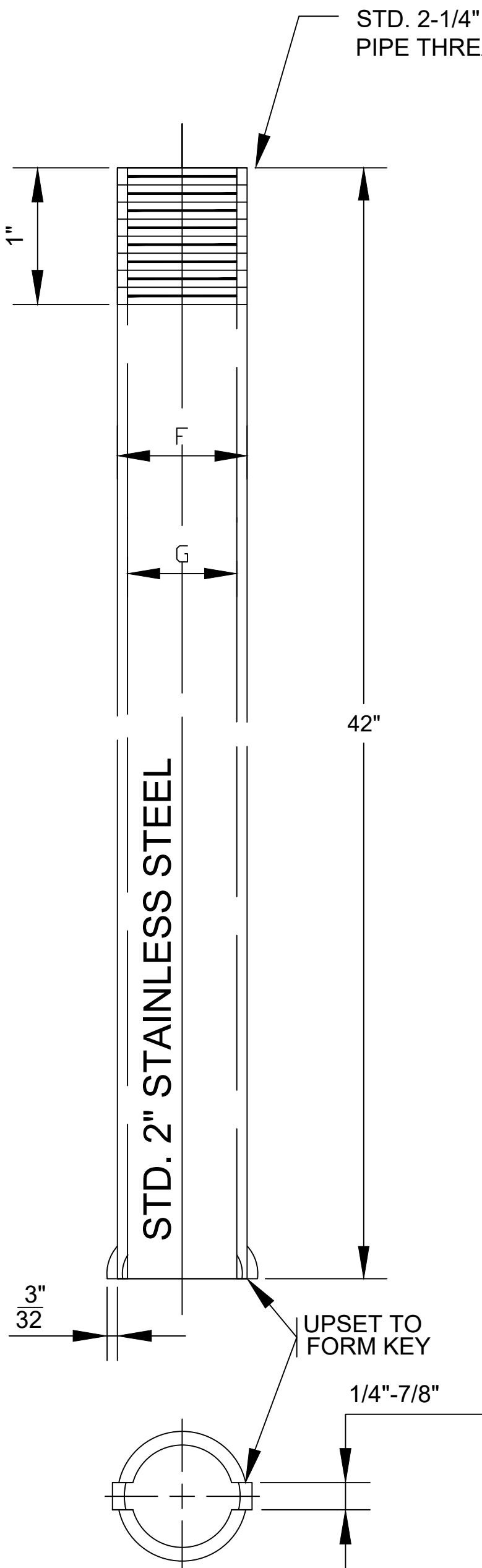
	$\frac{1}{2}$ " - 1"	1 $\frac{1}{4}$ " - 2"
A	1'-6"	1'-6 $\frac{3}{4}$ "
B	6"	7"
C	6 $\frac{11}{16}$ "	8 $\frac{19}{32}$ "
D	3 $\frac{3}{8}$ "	4 $\frac{1}{8}$ "
E	2 $\frac{15}{16}$ "	3 $\frac{17}{32}$ "
F	2 $\frac{3}{8}$ "	2 $\frac{3}{8}$ "
G	2"	2"
H	2 $\frac{1}{2}$ "	3 $\frac{7}{16}$ "
R	1 $\frac{1}{4}$ "	1 $\frac{23}{32}$ "



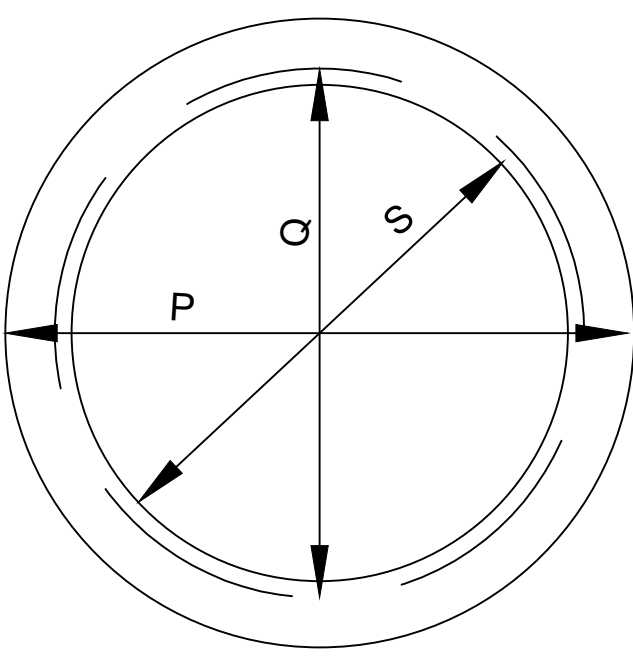
BOTTOM SECTION



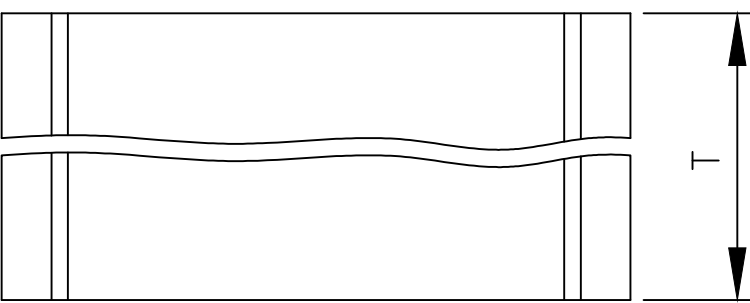
SECTION A-A



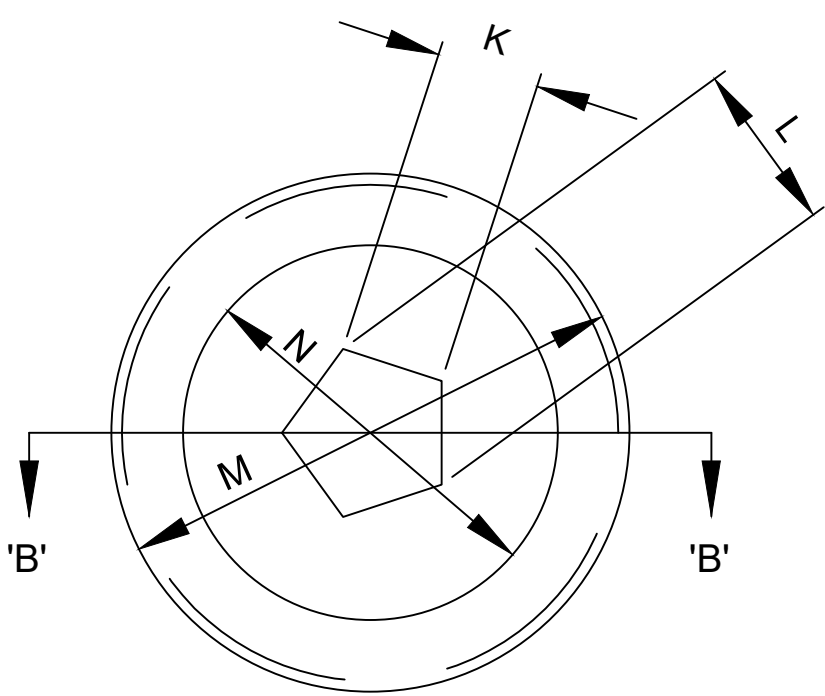
EXTENSION



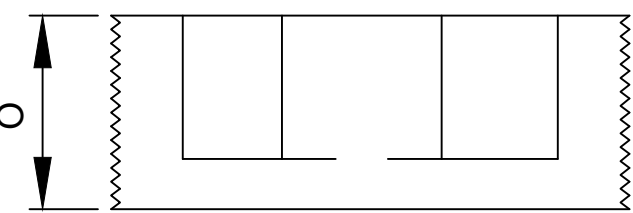
SECTION B-B



BRASS RING



PLUG

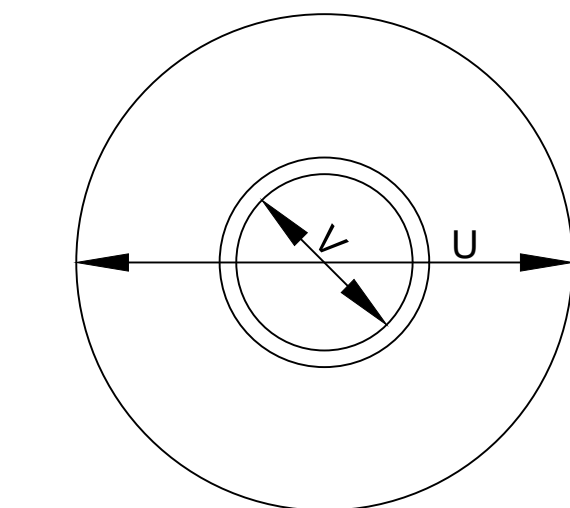


ROD TO BE SUPPLIED WITH
3/16" DIA. BRASS COTTER PIN

STD. 2-1/4"
PIPE THREAD

STD. 2" STAINLESS STEEL

UPSET TO
FORM KEY



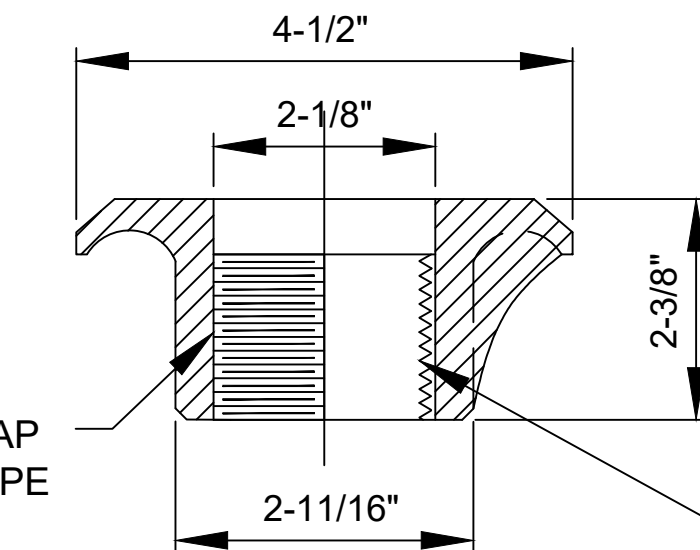
CURB BOX LID

STRAIGHT TAP
FOR 1-1/2" PIPE
THREAD (NO
TAPER) RIGHT
HAND

SECTION
1-1/2" CURB BOX LID

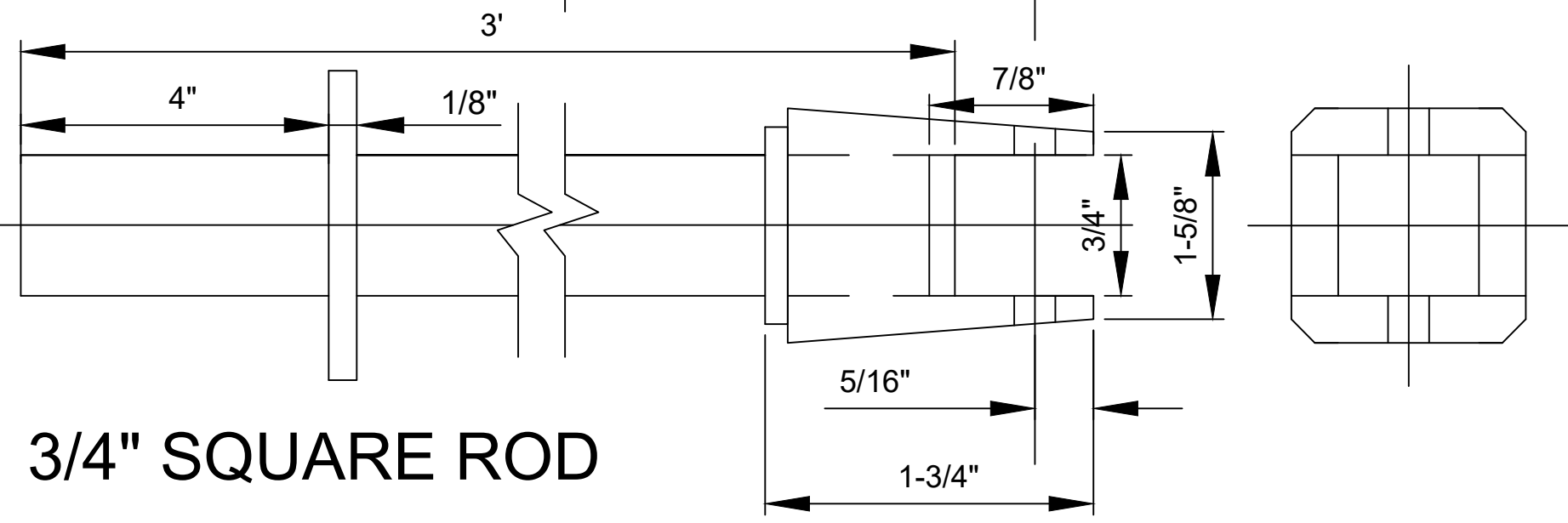
STRAIGHT TAP
FOR 1-1/4" PIPE
THREAD (NO
TAPER) RIGHT
HAND

SECTION
2" CURB BOX LID



3/4" SQUARE ROD

COLD DRAWN STEEL
APPROX. WT. 7 LBS.



CURB BOX DIMENSIONS

	2"	1- $\frac{1}{2}$ "
K	$\frac{1}{2}$ "	$\frac{1}{2}$ "
L	$\frac{3}{4}$ "	$\frac{3}{4}$ "
M	2 $\frac{1}{4}$ "	1 $\frac{3}{4}$ "
N	1 $\frac{3}{4}$ "	1 $\frac{1}{2}$ "
O	$\frac{7}{8}$ "	$\frac{5}{8}$ "
P	2 $\frac{3}{4}$ "	2 $\frac{1}{4}$ "
Q	2 $\frac{5}{16}$ "	1 $\frac{5}{8}$ "
S	2 $\frac{1}{4}$ "	1 $\frac{3}{4}$ "
T	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "
U	5"	4 $\frac{5}{8}$ "
V	2 $\frac{1}{4}$ "	1 $\frac{3}{4}$ "

BRASS RING
INSERT

NOTE: ALL BOX LIDS FURNISHED SEPERATELY SHALL BE
DELIVERED WITH INSIDE THREADS PROTECTED

CURB BOXS SHALL BE INSTALLED IN LAWNSTRIP. AVOID
INSTALLING IN PAVED OR CONCRETE AREAS. SEE DWG
S-2.0.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

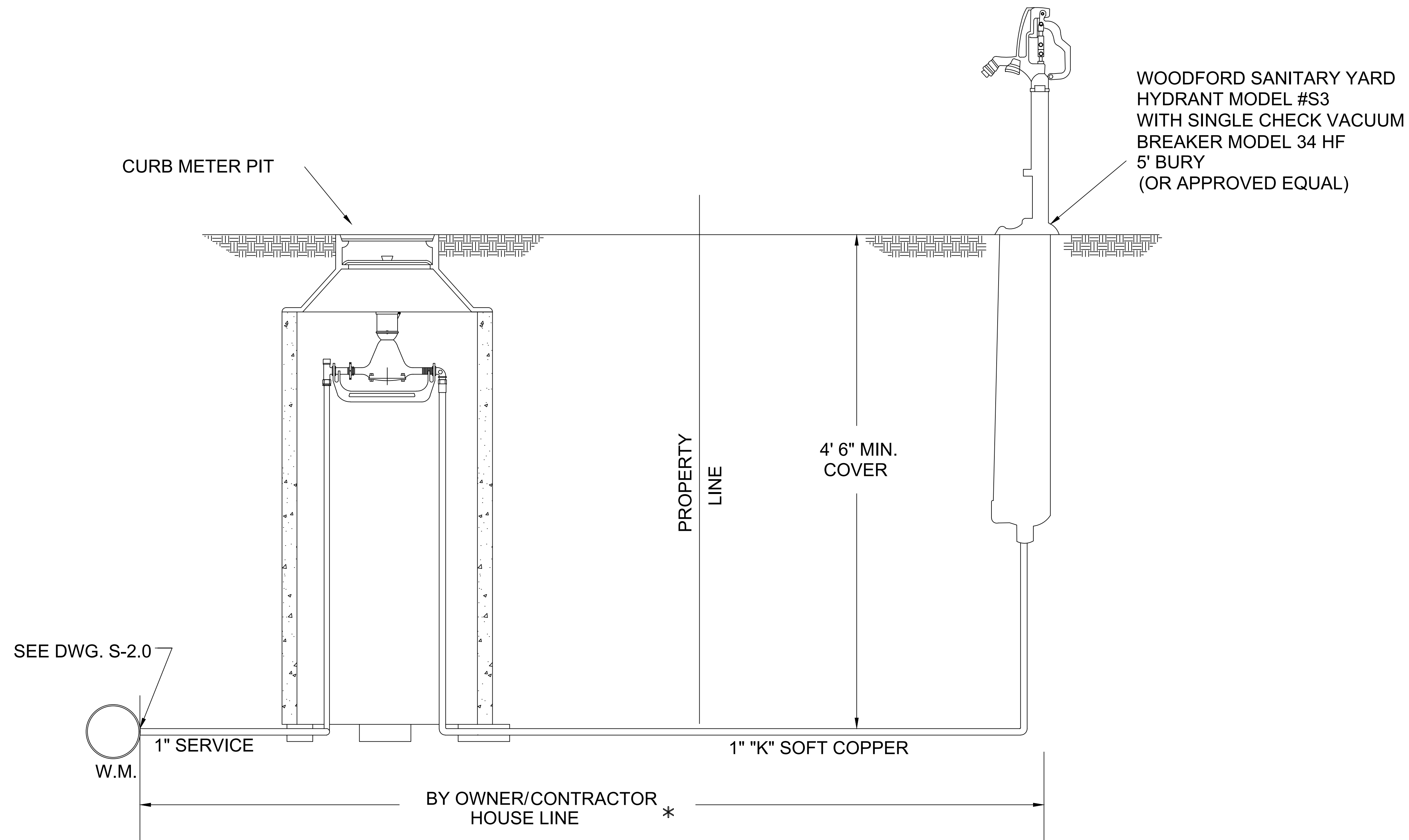
STANDARD CURB BOX

REV. DECEMBER 13, 2023

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

S-3.0



* THE OWNER/CONTRACTOR WORK MUST BE INSTALLED AND INSPECTED FOR APPROVAL BY AKRON WATER SUPPLY BUREAU (AWSB) PRIOR TO BACK FILLING AND THE SERVICE INSTALLATION

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

YARD HYDRANT INSTALLATION

REV. DECEMBER 13, 2023

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

RJLD
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

S-4.0

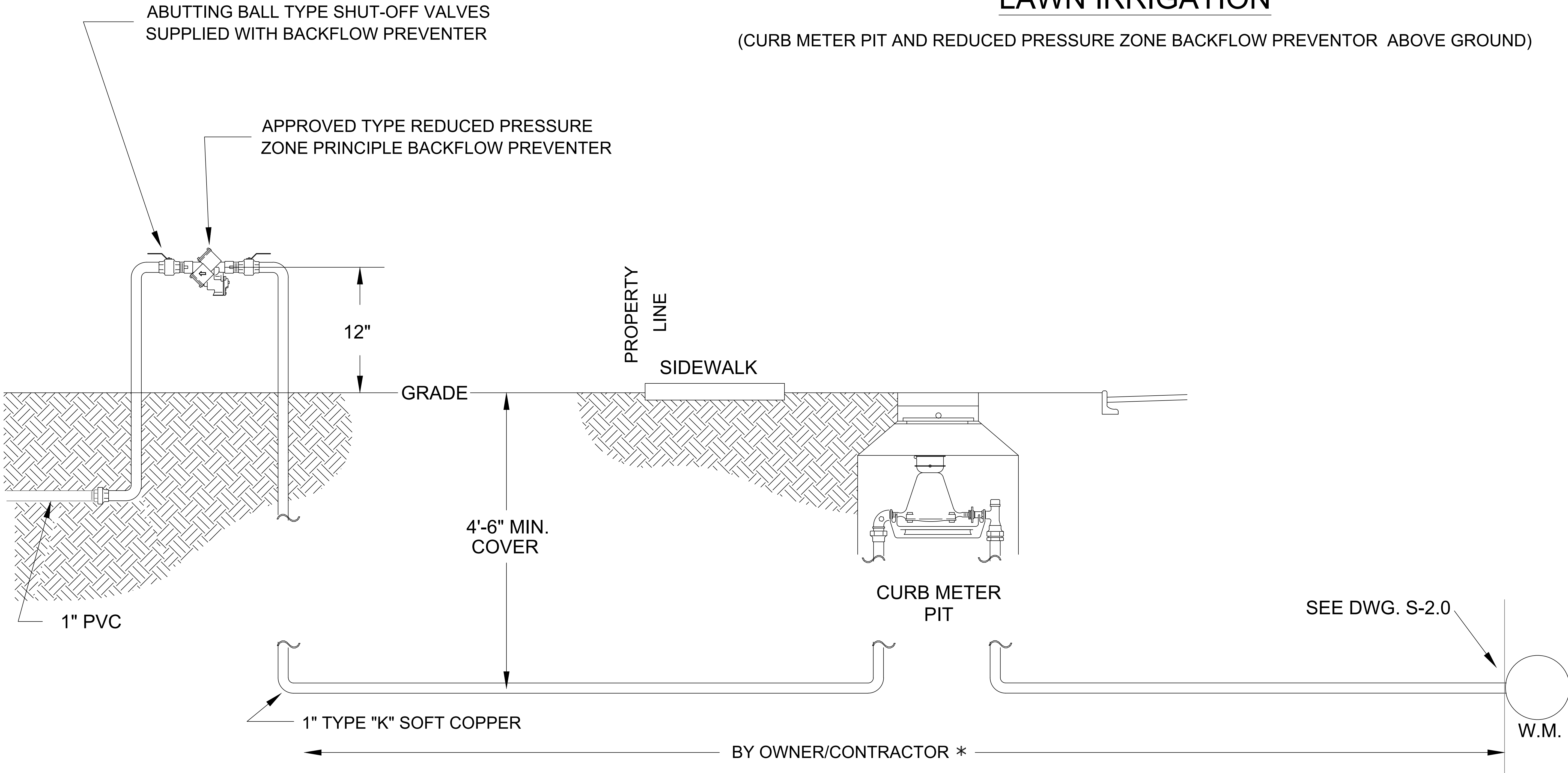


MAXIMUM FLOW RATE:
5/8" METER - 25 GPM
3/4" METER - 35 GPM
1" METER - 55 GPM

S-5.0


LAWN IRRIGATION

(CURB METER PIT AND REDUCED PRESSURE ZONE BACKFLOW PREVENTOR ABOVE GROUND)

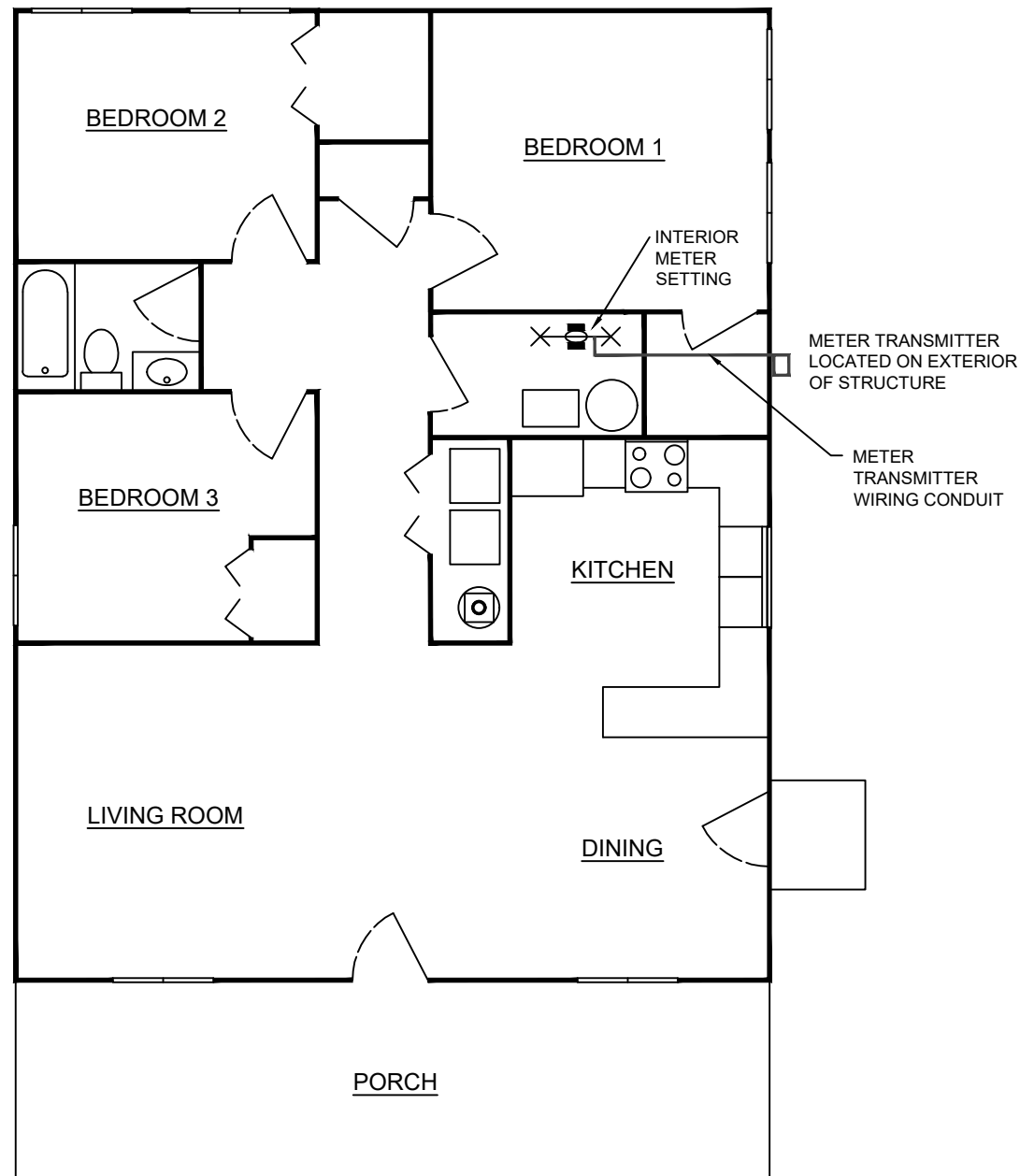


* THE OWNER/CONTRACTOR PORTION OF WORK MUST BE INSTALLED AND INSPECTED FOR APPROVAL BY AKRON WATER SUPPLY BUREAU (AWSB) PRIOR TO BACK FILLING AND THE SERVICE INSTALLATION

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON DEPARTMENT OF PUBLIC SERVICE WATER SUPPLY BUREAU	
LAWN IRRIGATION WITH CURB METER PIT AND ABOVE GROUND REDUCED PRESSURE ZONE BACKFLOW PREVENTOR	
 UTILITIES ENGINEER	STANDARD CONSTRUCTION DRAWING NO. S-6.0

REV. DECEMBER 13, 2023



NOTE

THE AKRON WATER SUPPLY BUREAU (AWSB) SUGGESTS A FLOOR PLAN THAT IS DESIGNED WITH THE WATER ENTRY POINT LOCATED IN A ROOM WITH AN EXTERIOR WALL, SO THE METER TRANSMITTER CAN BE EASILY LOCATED ON THE EXTERIOR OF THE STRUCTURE. OTHERWISE, METER TRANSMITTER WIRING CONDUIT MUST BE INSTALLED BY THE CONTRACTOR THROUGH WALLS OR CEILINGS TO ACCOMMODATE THE INSTALLATION OF THE REQUIRED METER TRANSMITTER WIRING.

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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

INTERIOR METER SETTING

REV. APRIL 10, 2024

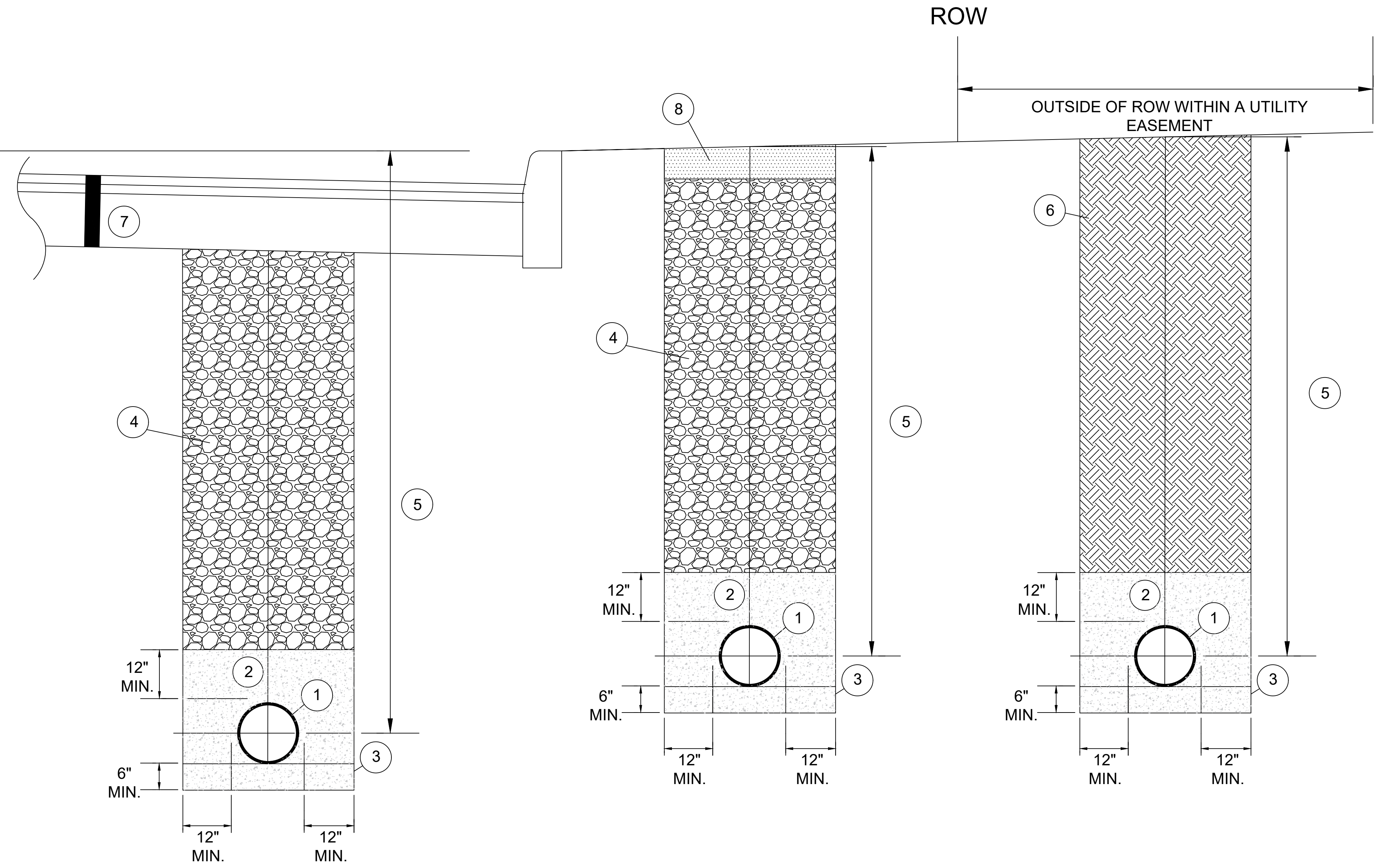
AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

S-7.0

PAVEMENT
CENTERLINE



TYPICAL WATER MAIN TRENCH DETAILS

1. CEMENT LINED DUCTILE IRON PIPE CMS ITEM 254, MINIMUM THICKNESS CLASS 53, WITH V-BIO ENHANCED POLYETHYLENE ENCASEMENT.
2. COMPACTED BANK RUN GRAVEL CMS ITEM 604 (NO CRUSHED/RECYCLED CONCRETE) TO 12 INCHES ABOVE THE PIPE, COST INCLUDED IN THE COST OF WATER MAIN.
3. UNDERCUT TRENCH BOTTOM IN ROCK OR VARIOUS SOIL CONDITIONS AS INDICATED ON THE PLANS, OR AT THE ENGINEER'S DISCRETION, MINIMUM 6 INCHES OF BANK RUN GRAVEL BEDDING CMS ITEM 604. IN WET TRENCH CONDITIONS, #57 WASHED GRAVEL CMS ITEM 603 MAY BE PLACED ON THE TRENCH FLOOR.
4. COMPACTED AGGREGATE BASE CMS ITEM 304 (NO SLAG) OR STABILIZED BACKFILL CMS ITEM 605, COST INCLUDED IN THE COST OF THE WATER MAIN.
5. LAY PROPOSED WATER MAIN WITH AXIS OF PIPE 5 FEET BELOW GRADE OR TO ALLOW A MIN. 4 FEET 6 INCHES COVER ABOVE THE WATER MAIN.
6. NATIVE SOIL, BACKFILL INSTALLATION PER 551.09, AS APPROVED BY THE ENGINEER, INCLUDED IN COST OF WATER MAIN.
7. TYPICAL PAVEMENT RESTORATION DETAIL, SEE CITY OF AKRON BUREAU OF ENGINEERING CONSTRUCTION STANDARD DRAWING BP-2, BP-3, BP-5.1, BP-6
8. TYPICAL LAWN STRIP RESTORATION DETAIL 4 INCHES CONCRETE SIDEWALK OR 6 INCHES DRIVE APRON CMS ITEM 456 OR 4 INCHES TOPSOIL CMS ITEM 653 AND LAWN SEEDING AND MULCHING CMS ITEM 659.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

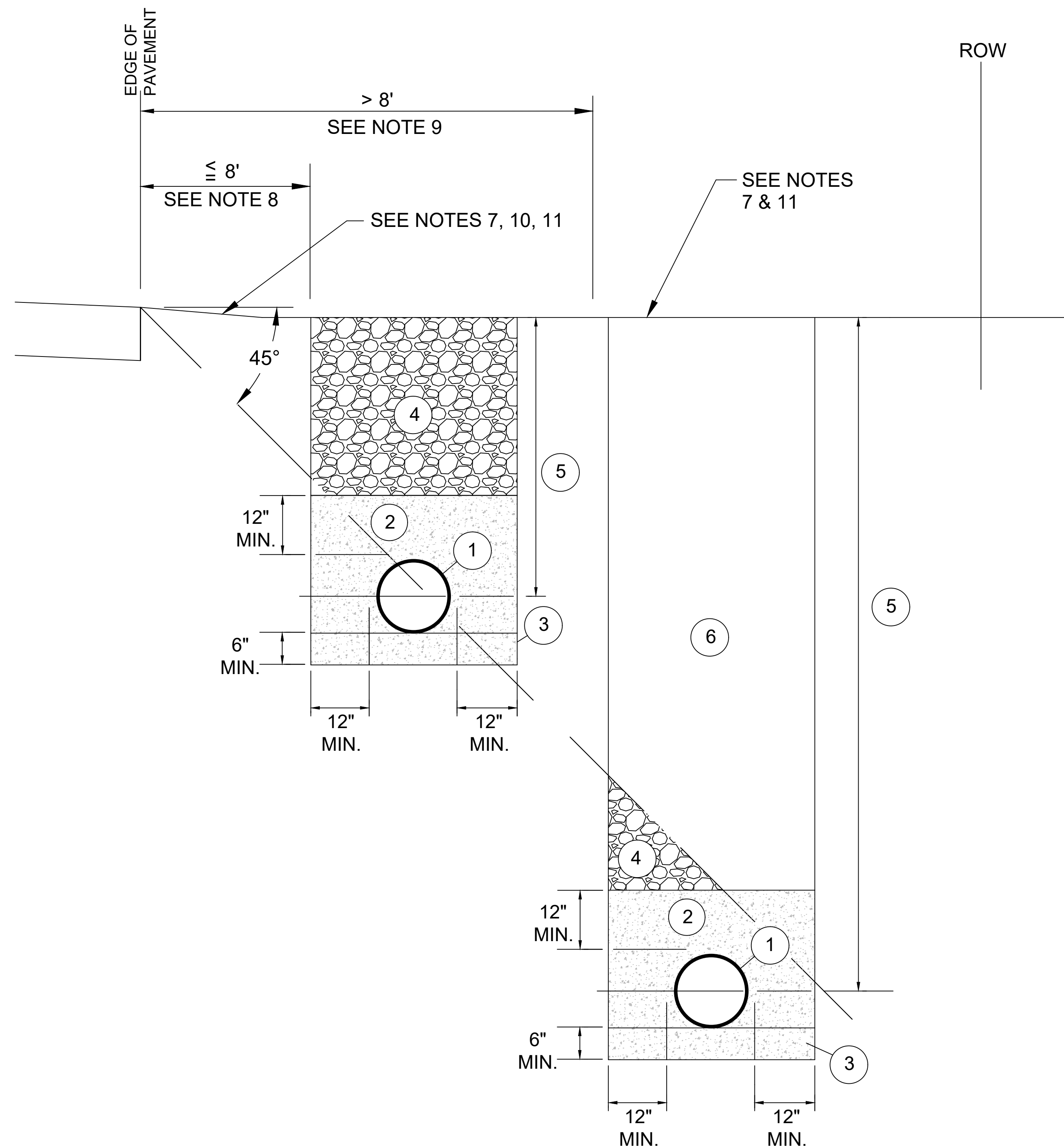
TYPICAL WATER MAIN TRENCH DETAILS

REV. DECEMBER 13, 2023

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

W-1.0



TYPICAL BACKFILL REQUIREMENTS

THIS DETAIL SHALL BE ONLY USED FOR WATER MAIN TRENCHES THAT ARE OUTSIDE OF PAVEMENT, WITHIN THE RIGHT-OF-WAY, OUTSIDE OF AKRON, WITHIN SUMMIT COUNTY.

1. CEMENT LINED DUCTILE IRON PIPE CMS ITEM 254, MINIMUM THICKNESS CLASS 53, WITH V-BIO ENHANCED POLYETHYLENE ENCASEMENT.
2. COMPACTED BANK RUN GRAVEL OR SAND CMS ITEM 604 (NO CRUSHED/RECYCLED CONCRETE) TO 12 INCHES ABOVE THE PIPE, COST INCLUDED IN THE COST OF WATER MAIN.
3. UNDERCUT TRENCH BOTTOM IN ROCK OR VARIOUS SOIL CONDITIONS AS INDICATED ON THE PLANS, OR AT THE ENGINEER'S DISCRETION, MINIMUM 6 INCHES OF BANK RUN GRAVEL BEDDING CMS ITEM 604. IN WET TRENCH CONDITIONS, #57 WASHED GRAVEL CMS ITEM 603 MAY BE PLACED ON THE TRENCH FLOOR.
4. COMPACTED AGGREGATE BASE CMS ITEM 304 (NO SLAG) OR STABILIZED BACKFILL CMS ITEM 605, COST INCLUDED IN THE COST OF THE WATER MAIN.
5. LAY PROPOSED WATER MAIN WITH AXIS OF PIPE 5 FEET BELOW GRADE OR TO ALLOW A MIN. 4 FEET 6 INCHES COVER ABOVE THE WATER MAIN.
6. NATIVE SOIL, BACKFILL INSTALLATION PER 551.09, AS APPROVED BY THE ENGINEER, INCLUDED IN COST OF WATER MAIN.
7. TYPICAL RESTORATION DETAIL 4 INCHES CONCRETE SIDEWALK OR 6 INCHES DRIVEWAY CMS 456 OR 4 INCHES TOPSOIL CMS ITEM 653 AND LAWN SEEDING AND MULCHING CMS ITEM 659.
8. BACKFILL REQUIREMENT FOR EXCAVATIONS LESS THAN OR EQUAL TO 8 FEET FROM EDGE OF PAVEMENT = 304 LIMESTONE.
9. BACKFILL REQUIREMENT FOR EXCAVATIONS GREATER THAN 8 FEET FROM EDGE OF PAVEMENT = 304 LIMESTONE BELOW A 45° STARTING AT EDGE OF PAVEMENT.
10. RESTORE DAMAGED BERM TO ORIGINAL OR BETTER CONDITION WITH THE MINIMUM MATERIAL BEING 304 LIMESTONE.
11. EXISTING DRAINAGE DITCHES SHALL BE MAINTAINED AND FULLY RESTORED.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

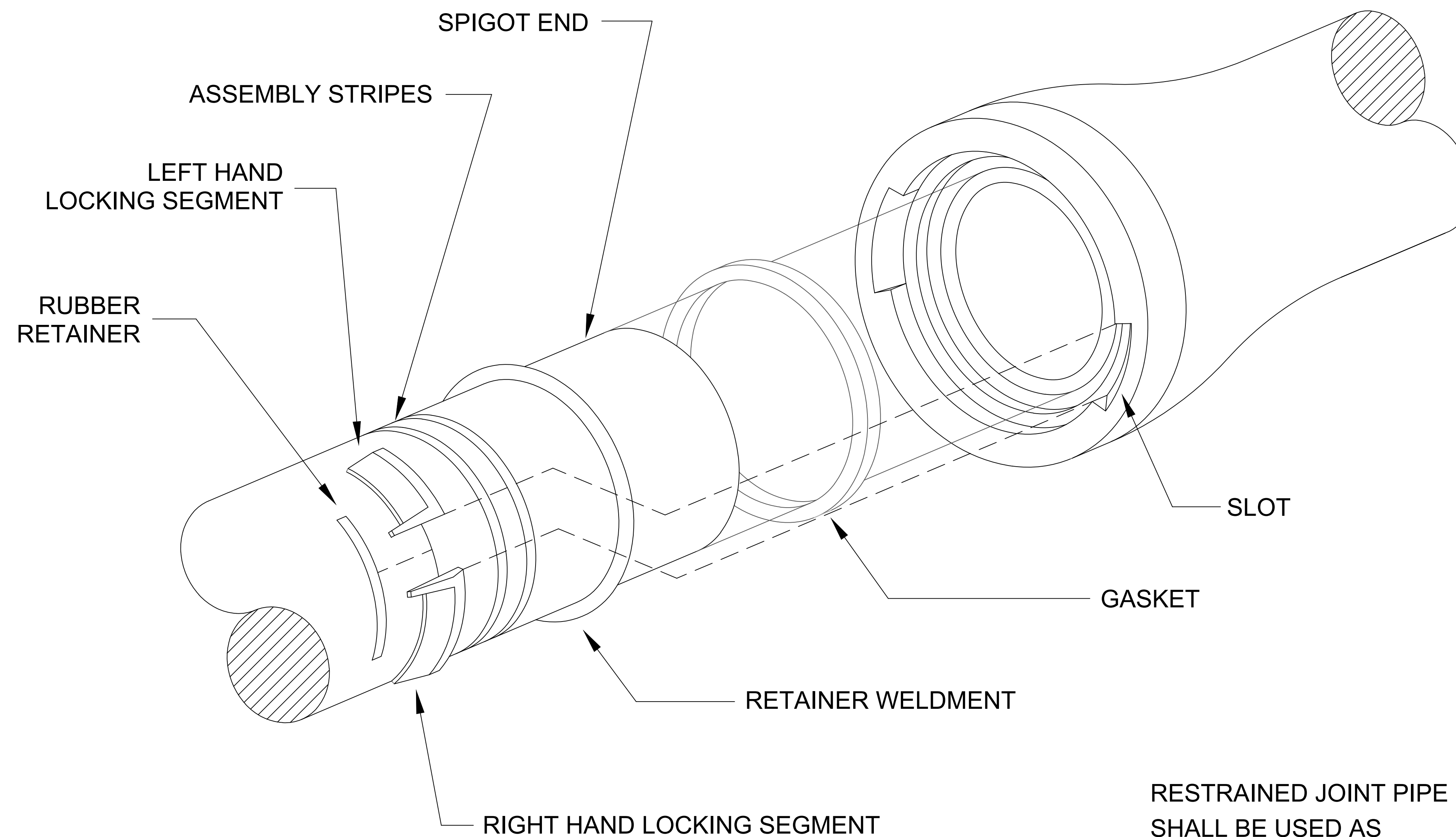
TYPICAL BACKFILL REQUIREMENTS OUTSIDE OF
PAVEMENT, WITHIN THE RIGHT-OF-WAY,
OUTSIDE OF AKRON, WITHIN SUMMIT COUNTY

REV. DECEMBER 13, 2023

RALD
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

W-2.0



RESTRAINED JOINT PIPE
SHALL BE USED AS
SPECIFIED ON PLANS.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

RESTRAINED JOINT PIPE (TR FLEX)

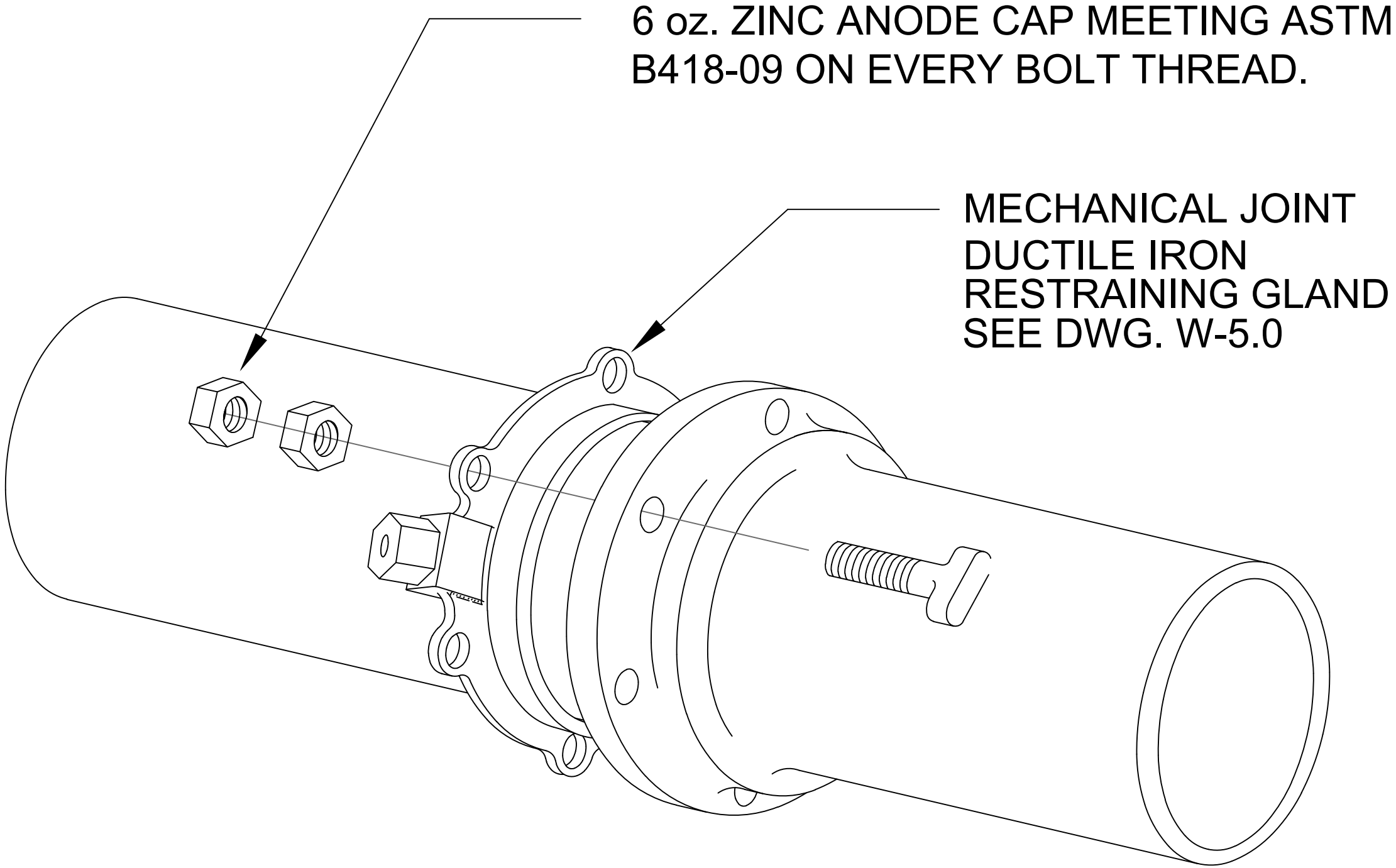
REV. DECEMBER 13, 2023

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
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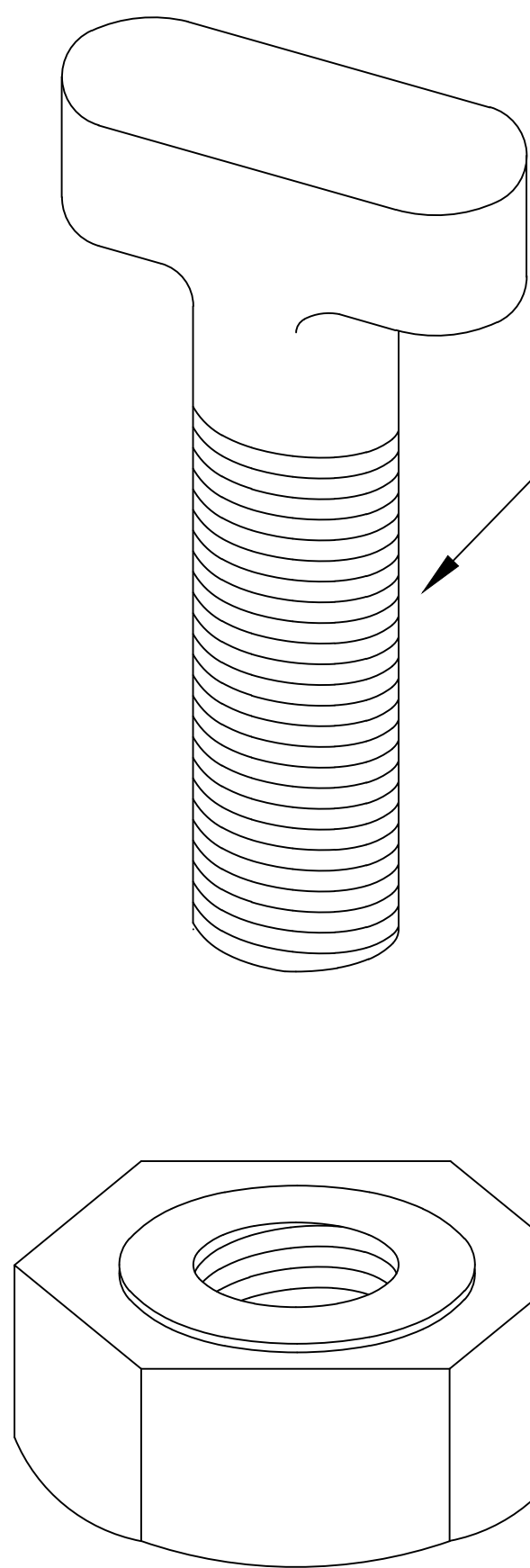
STANDARD CONSTRUCTION
DRAWING NO.

W-3.0



6 oz. ZINC ANODE CAP MEETING ASTM
B418-09 ON EVERY BOLT THREAD.

MECHANICAL JOINT
DUCTILE IRON
RESTRAINING GLAND
SEE DWG. W-5.0



COR-TEN OR ALLOYED DUCTILE
IRON T HEAD BOLTS & NUTS.

C153 COMPACT FITTINGS
T- HEAD BOLT LENGTH

PIPE	BOLT
4"	4"
6"	4"
8"	4 1/2"
12"	4 1/2"
16"	5"
20"	5"
24"	5 1/2"


* NOTE: ADD 1/2" TO LENGTHS FOR
C110 FULL BODY FITTINGS.

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

T-HEAD BOLT AND NUT

REV. DECEMBER 13, 2023


UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

W-4.0

MECHANICAL JOINT DUCTILE IRON RESTRAINING GLANDS NOTES

EACH RESTRAINING GLAND SHALL HAVE THE FOLLOWING WEIGHTS AND HAVE NO LESS THAN THE FOLLOWING NUMBER OF WEDGES WITH AUTO-TORQUING HEADS. T-HEAD BOLTS ARE ½ INCH LONGER THAN NORMAL TO ACCOMMODATE THE RESTRAINING GLAND.

DIAMETER (IN.)	WEIGHT (LBS)	NO. OF WEDGES	¾ IN. BOLT LENGTH (IN.)
4	7	2	4
6	12	3	4
8	16	4	4-1/2
10	24	6	4-1/2
12	33	8	4-1/2
16	58	12	5
20	75	14	5
24	139	16	5-1/2

THE RESTRAINING GLAND SHALL BE PROPERLY PREPARED AND COATED WITH A TGIC POLYESTER-BASED COATING. THE GRIPPING WEDGES AND ACTUATING BOLTS SHALL BE PROPERLY PREPARED AND COATED WITH A XYLAN FLUORPOLYMER COATING.

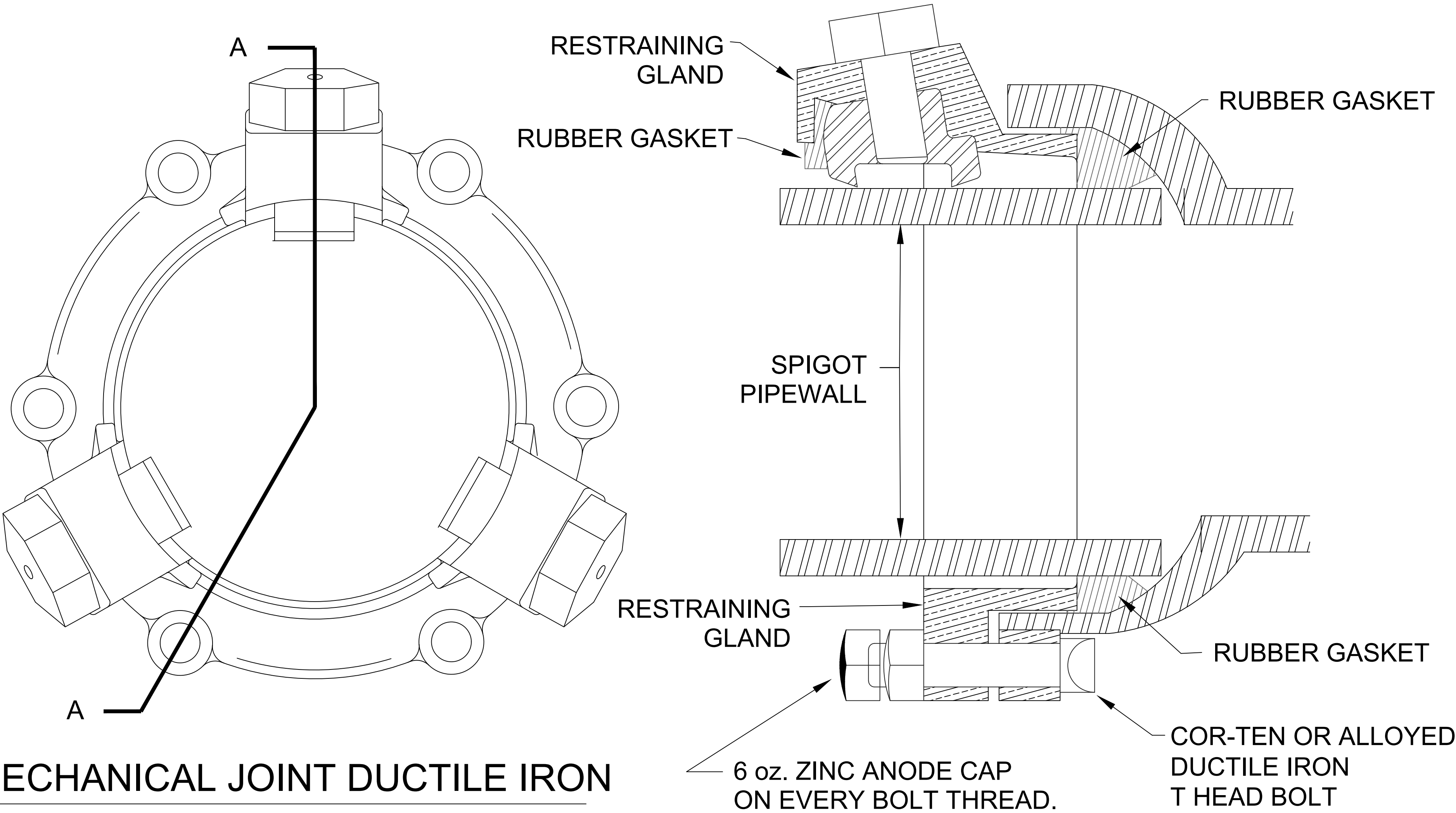
FOR QUALITY CONTROL TRACKING, AN IDENTIFICATION NUMBER INDICATING THE PLANT AND DATE OF PRODUCTION SHALL BE CAST ONTO EACH RESTRAINING GLAND.

THE RESTRAINING GLAND SHALL BE MADE OF DUCTILE IRON AND DISPLAY THE UL/FM APPROVAL.

NUTS AND T-HEAD BOLTS SHALL BE CONSTRUCTION GRADE LOW ALLOY COR-TEN STEEL.

ZINC ANODE CAPS SHALL WEIGH 6 OUNCES EACH, HAVE THE PROPER THREAD DIMENSIONS FOR THE SIZE OF T-HEAD BOLTS INCLUDED IN THE GLAND PACK, MEASURE 1-7/16 INCH FLAT-TO-FLAT, AND CONFORM TO THE CHEMICAL REQUIREMENTS OF ASTM B418-88.

GASKETS MUST CONFORM TO THE LATEST REVISION OF THE AWWA C111 STANDARD FOR RUBBER-GASKET JOINTS FOR PIPE AND FITTINGS AND BE MARKED BY THE MANUFACTURER.



MECHANICAL JOINT DUCTILE IRON RESTRAINING GLAND

MECHANICAL JOINT SECTION A-A

NOTE: DUCTILE IRON RESTRAINED GLAND TO BE USED ON ALL FITTINGS
DO NOT SNAP OFF MEGALUGS (BREAKAWAYS) ON CAST IRON PIPE

PIPE SIZE	WEIGHT (lbs.)
4"	7
6"	12
8"	16
10"	24
12"	33
16"	58

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

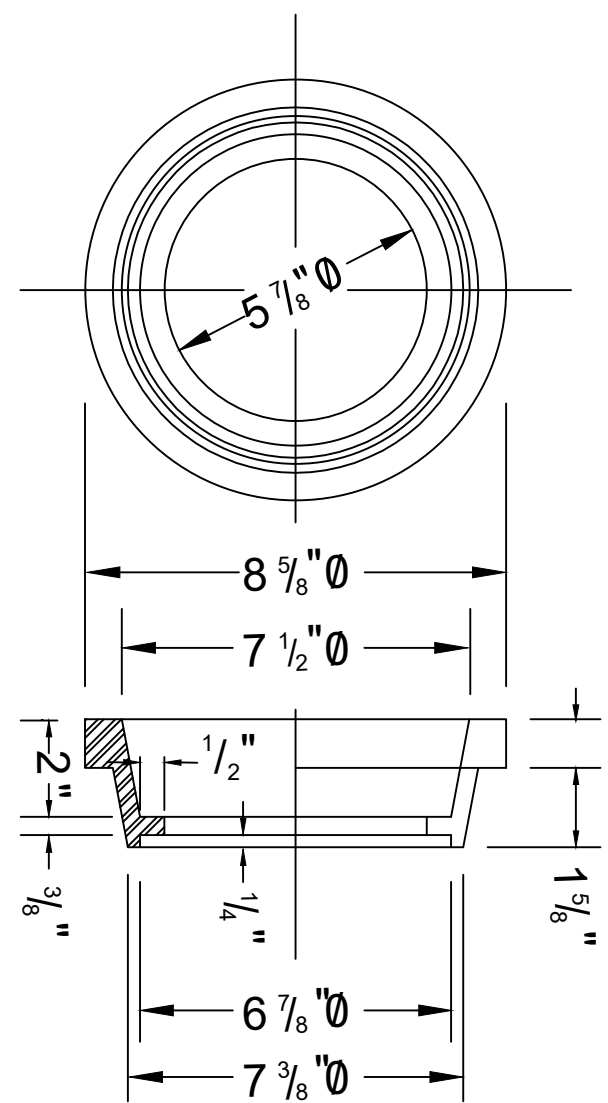
MECHANICAL JOINT DUCTILE IRON RESTRAINING GLANDS

REV. DECEMBER 13, 2023

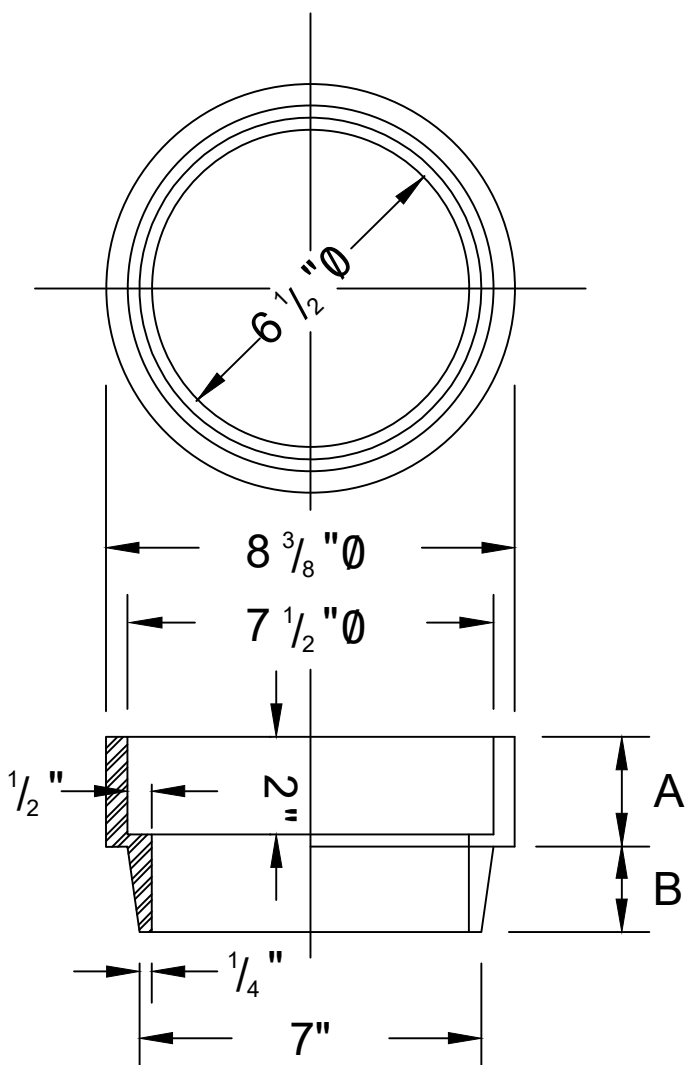
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STANDARD CONSTRUCTION
DRAWING NO.

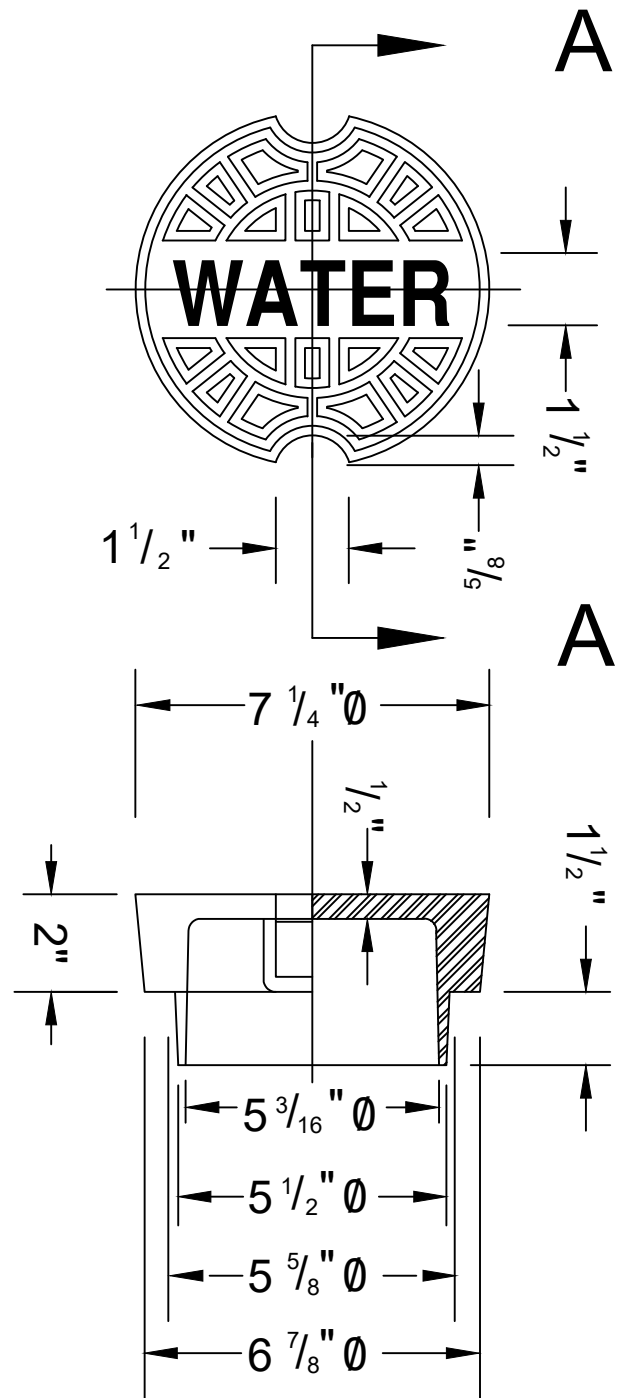
W-5.0



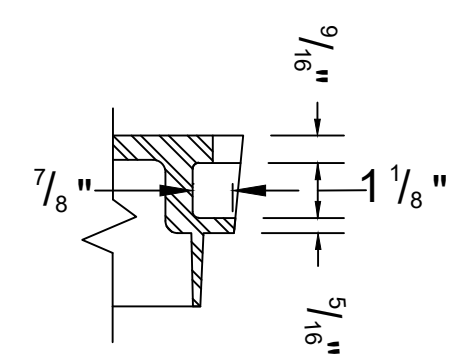
VALVE BOX RISER
1" & 1 1/2" SIZE



VALVE BOX RISER
2" SIZE & LARGER



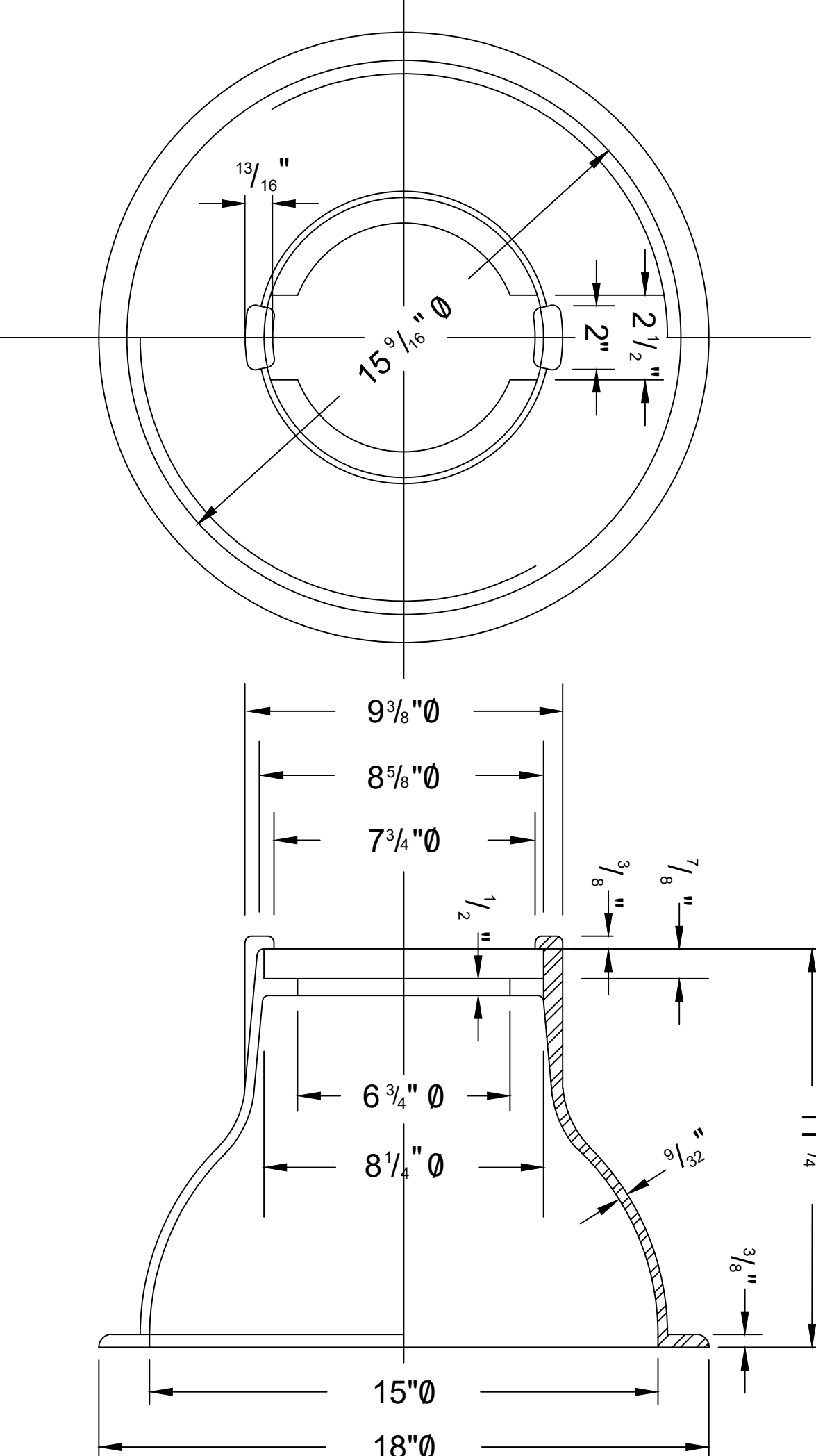
COVER
APPROXIMATE WEIGHT - 15 lbs.



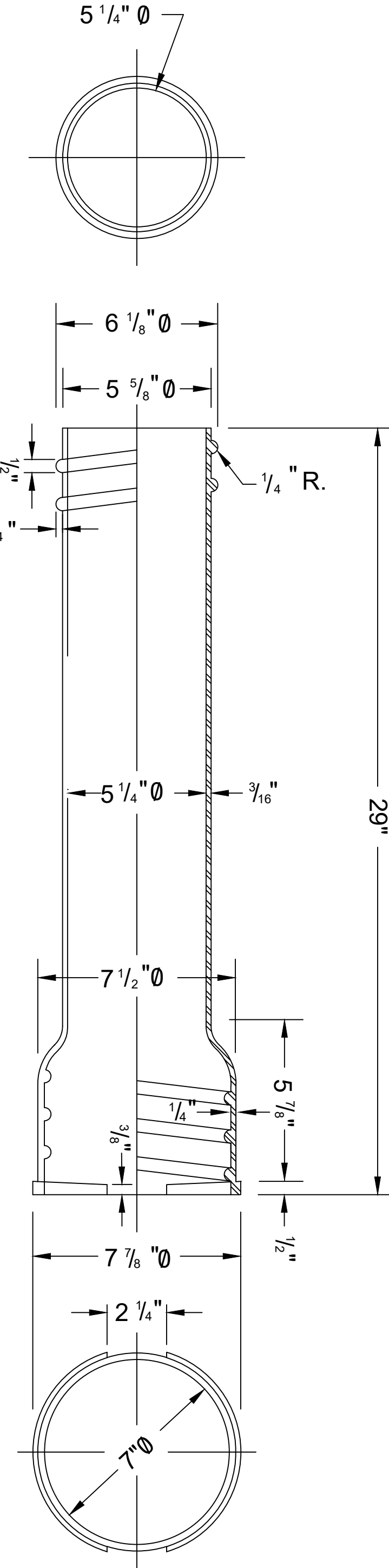
SECTION A-A

VALVE BOX RISER DIMENSIONS

SIZE	A	B
1"	1-1/4"	1-5/8"
1-1/2"	1-3/4"	1-5/8"
2"	2-1/4"	1-3/4"
3"	3-1/4"	2-3/4"
4"	4-1/4"	3-3/4"



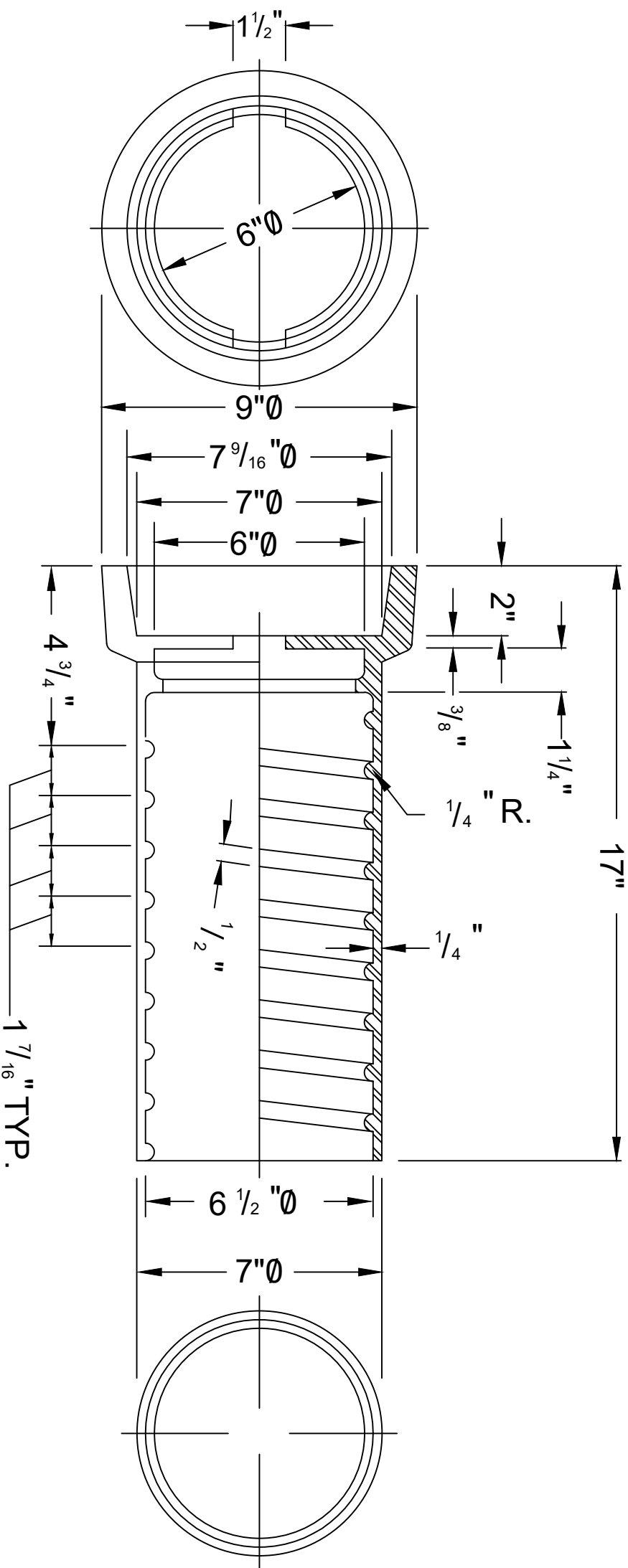
BASE
APPROXIMATE WEIGHT - 33 lbs.



29" CENTER SECTION

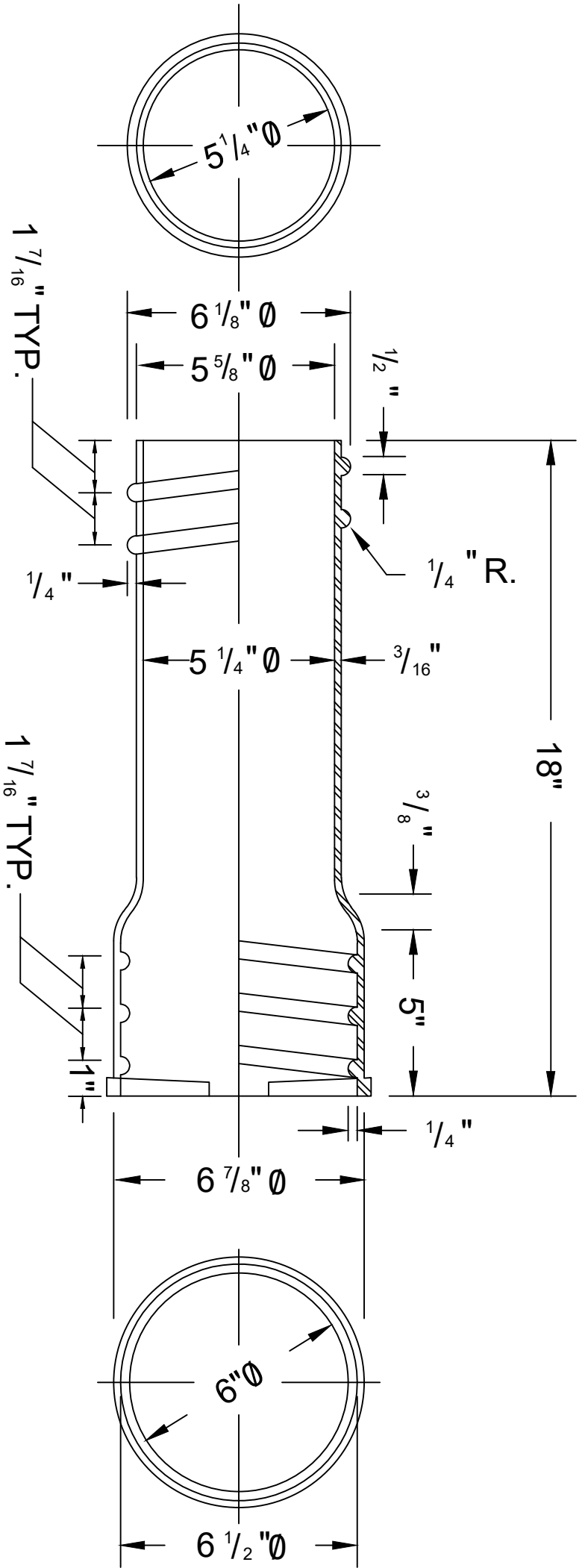
APPROXIMATE WEIGHT - 35 lbs.
NOTE: CENTER SECTIONS ALSO MADE IN 36" LENGTHS

DO NOT SCALE - USE DIMENSIONS ONLY



TOP SECTION
APPROXIMATE WEIGHT - 28 lbs.

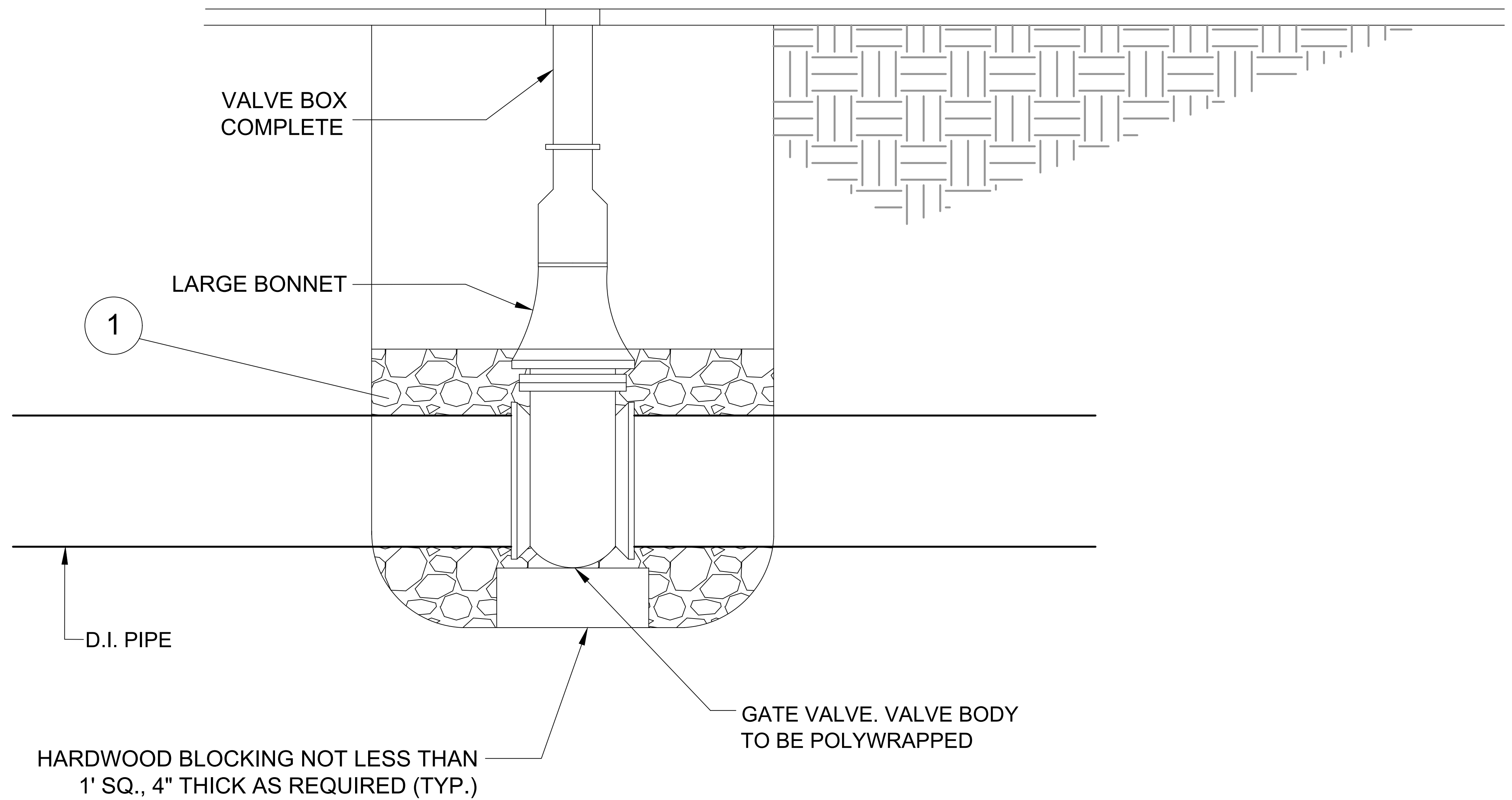
NOTE: TOP SECTION ALSO MADE
IN 24" LENGTHS.



14" EXTENSION
APPROXIMATE WEIGHT - 20 lbs.

NOTE: 10" EXTENSION ALSO
MADE TO 14" OVERALL LENGTH.

VALVE BOXES AND PARTS SHALL BE MADE FROM CAST IRON MEETING LATEST REVISION ASTM A-126. EACH CASTING SHALL BE COATED INSIDE AND OUT WITH COAL-TAR PITCH VARNISH, SIMILAR TO THAT USED FOR COATING CAST IRON PIPE. APPROXIMATE WEIGHT OF BOX COMPLETE, (BASE, CENTER SECTION, TOP SECTION AND COVER) - 110 lbs. A CLEARANCE OF 3/16" SHALL BE MAINTAINED BETWEEN SECTIONS AT ALL POINTS.



1. FILL EXCAVATING WITH #57 LIMESTONE OR #57 GRAVEL MATERIAL TO COVER BOTTOM OF BONNET. COST INCLUDED IN BID PRICE OF THE VALVE.

DO NOT SCALE - USE DIMENSIONS ONLY

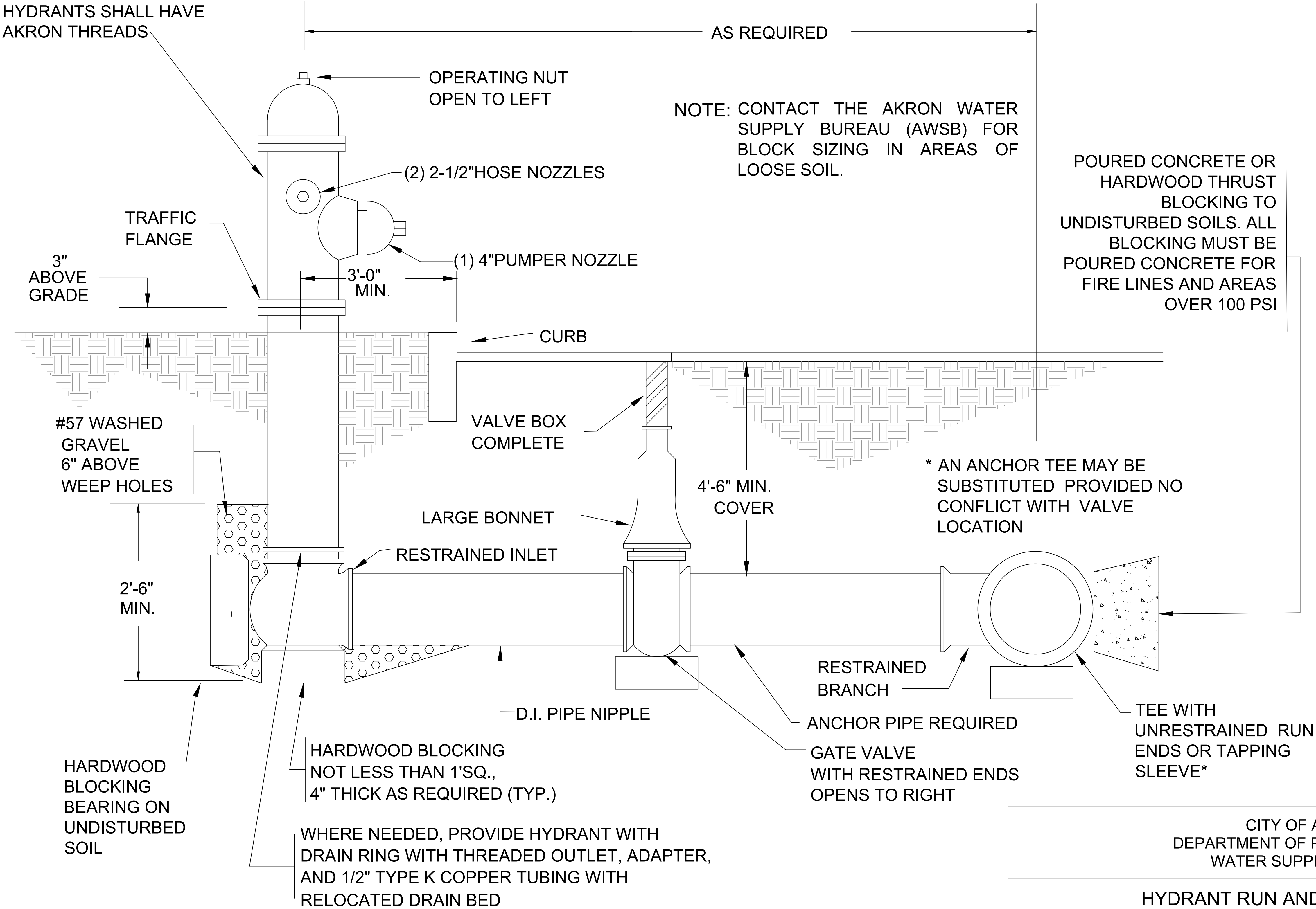
CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

GATE VALVE INSTALLATION

REV. DECEMBER 13, 2023

AMERICAN FLOW CONTROL B62B WITH 6" INLET,
AMERICAN FLOW CONTROL B84B WITH 8" INLET,
EAST JORDAN MODEL CD-250,
KENNEDY GUARDIAN MODEL K-81,
MUELLER "CENTURIAN" MODEL A423.
HYDRANTS SHALL HAVE
AKRON THREADS

JOINTS MAY BE MECHANICAL JOINTS WITH
RESTRAINED FOLLOER GLAND, PUSH-ON JOINT WITH
FIELD LOCK OR FAST GRIP GASKET, OR STAB-FIT
DESIGN REQUIRING ONE STAINLESS STEEL FASTENER.



DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

HYDRANT RUN AND INSTALLATION

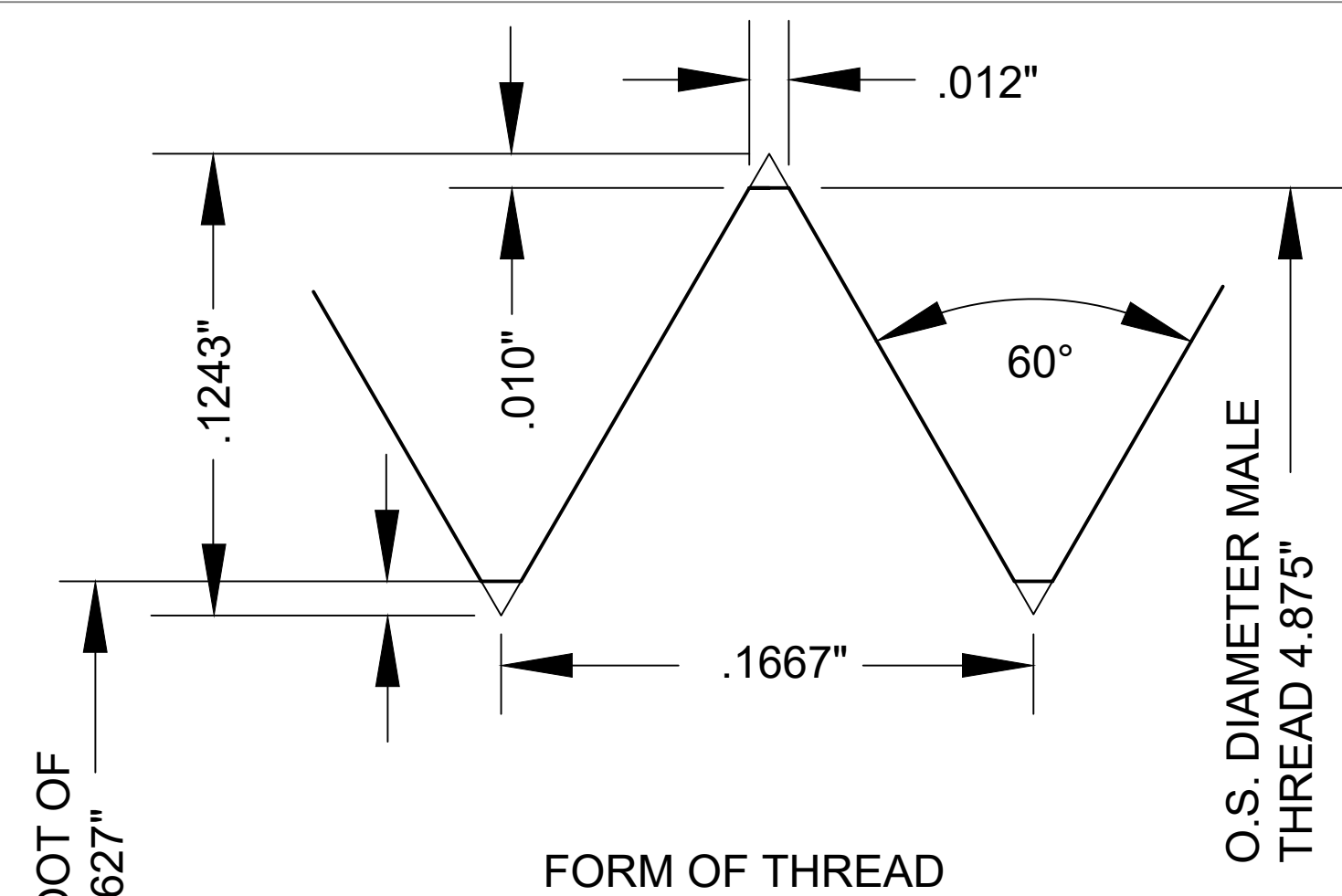
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AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

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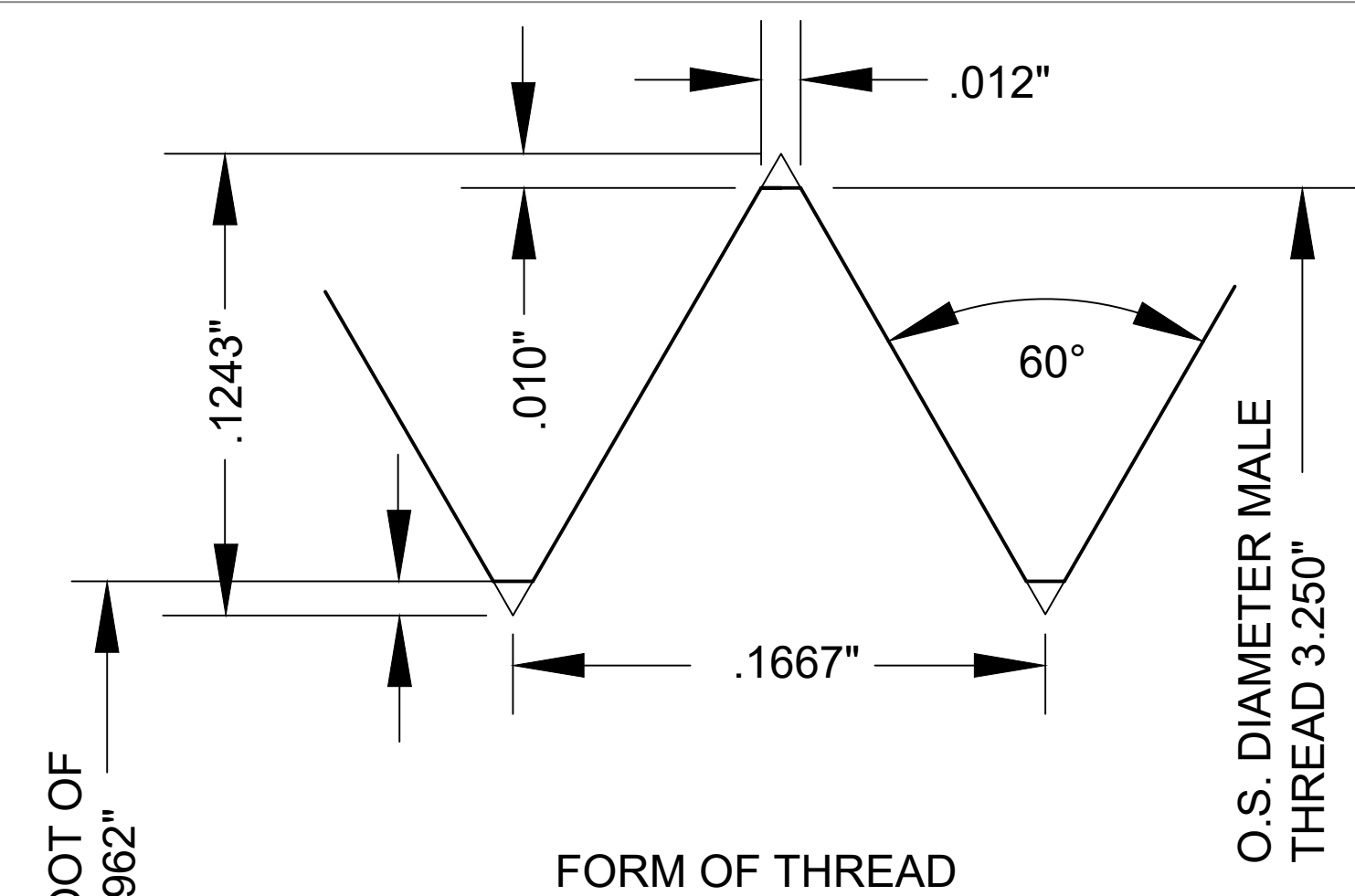
STANDARD CONSTRUCTION
DRAWING NO.

W-7.0



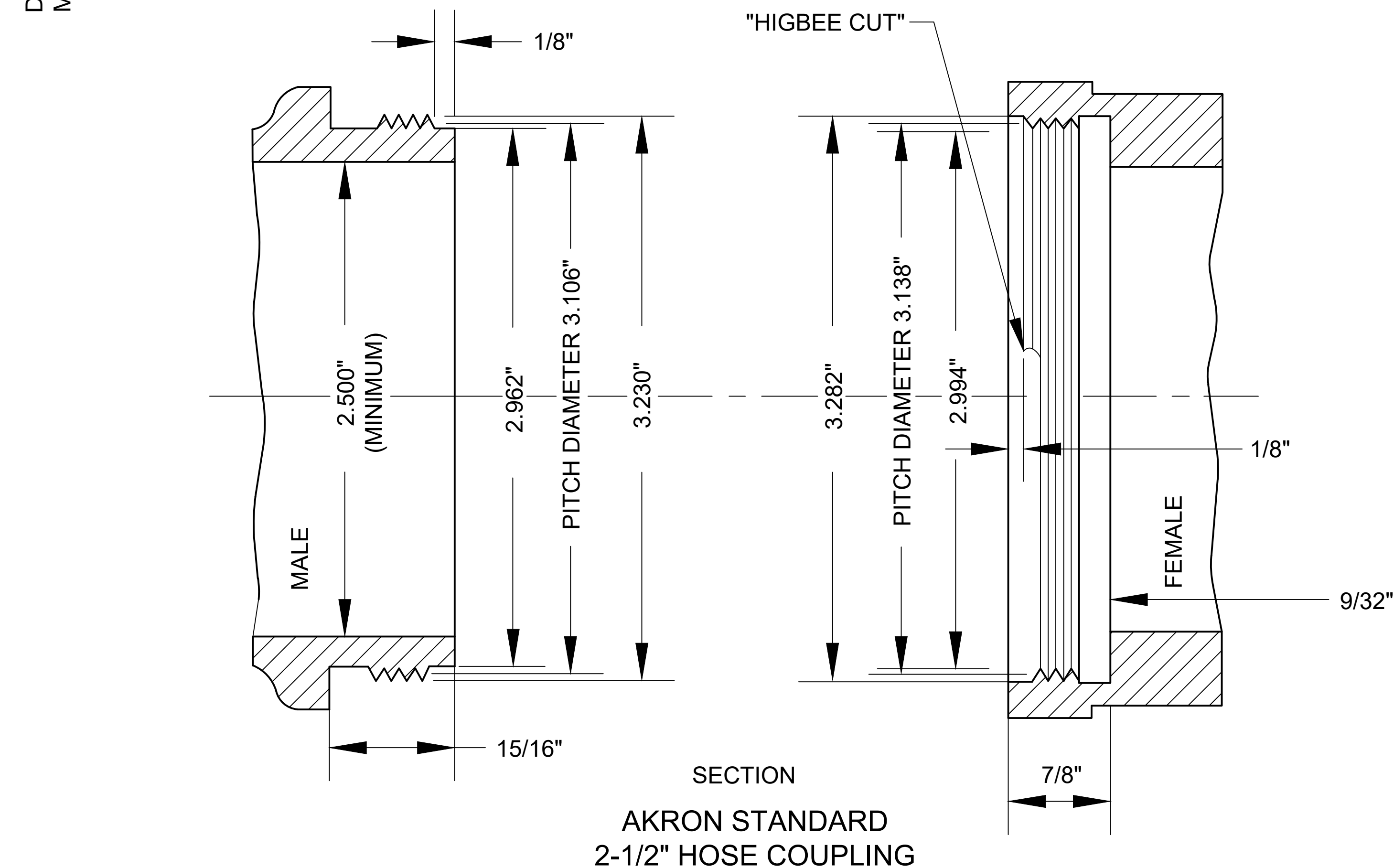
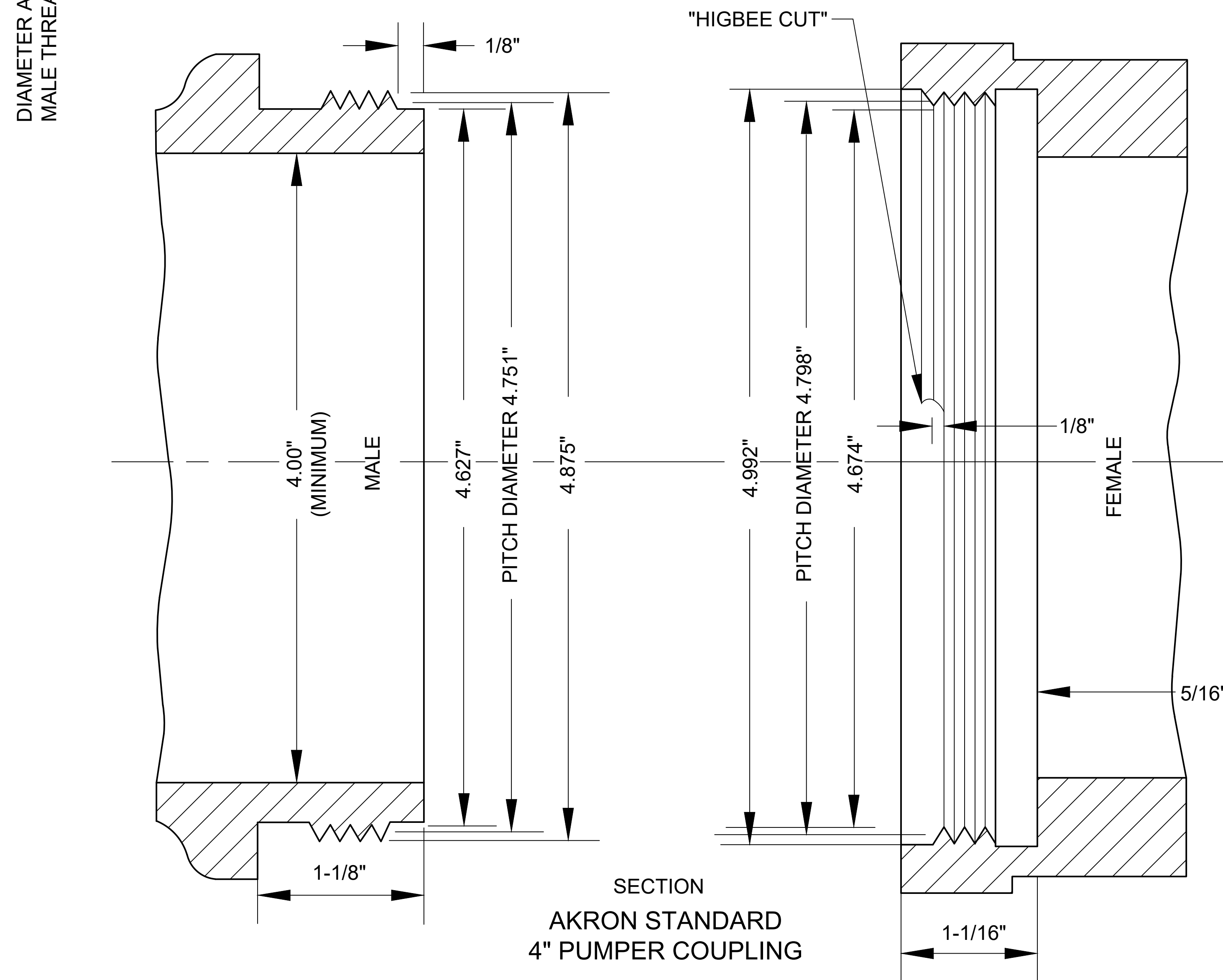
MALE - FEMALE

OUTSIDE DIAMETER OF THREAD	4.875" 4.674"
DIAMETER AT ROOT THREAD	4.627" 4.922"
TOTAL LENGTH THREADED	1-1/8" 1-1/16"
CLEARANCE BETWEEN MALE/FEMALE THREAD	.032"
FLAT AT TOP AND VALLEY OF THREAD	.01
PITCH OR NUMBER OF THREADS PER INCH - 6	
OUTER ENDS OF MALE/FEMALE THREADS	TERMINATED BY THE "HIGBEE CUT" TO AVOID CROSSING THE FINELY DRAWN-OUT THREAD.
OUTER END OF MALE THREAD LEFT BLANK FOR 1/8 INCH.	



MALE - FEMALE

OUTSIDE DIAMETER OF THREAD	3.230" 2.994"
DIAMETER AT ROOT THREAD	2.962" 3.282"
TOTAL LENGTH THREADED	15/16" 7/8"
CLEARANCE BETWEEN MALE/FEMALE THREAD	.032"
FLAT AT TOP AND VALLEY OF THREAD	.01" PITCH OR
NUMBER OF THREADS PER INCH - 6	
OUTER ENDS OF MALE/FEMALE THREADS	TERMINATED BY THE FINELY DRAWN-OUT THREAD.
OUTER END OF MALE THREAD LEFT BLANK FOR 1/8 INCH.	



SECTION
AKRON STANDARD
2-1/2" HOSE COUPLING

DO NOT SCALE - USE DIMENSIONS ONLY

TO BE MADE OF THE FOLLOWING PROPORTIONS:

NOT LESS THAN	83% COPPER
NOT LESS THAN	5% TIN
NOT MORE THAN	7% ZINC
NOT MORE THAN	3% LEAD

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

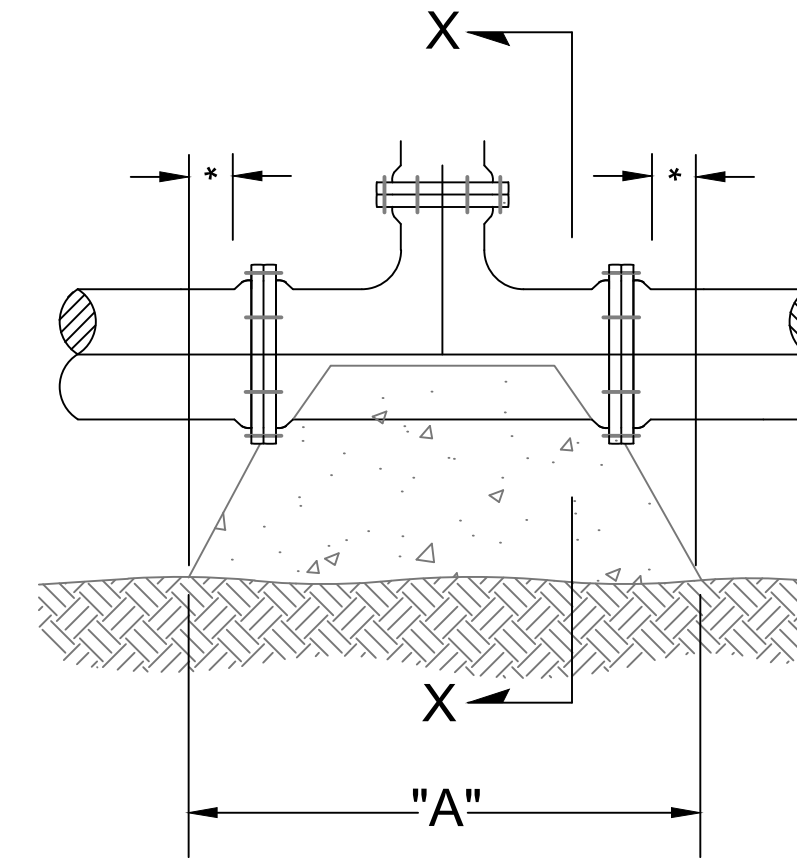
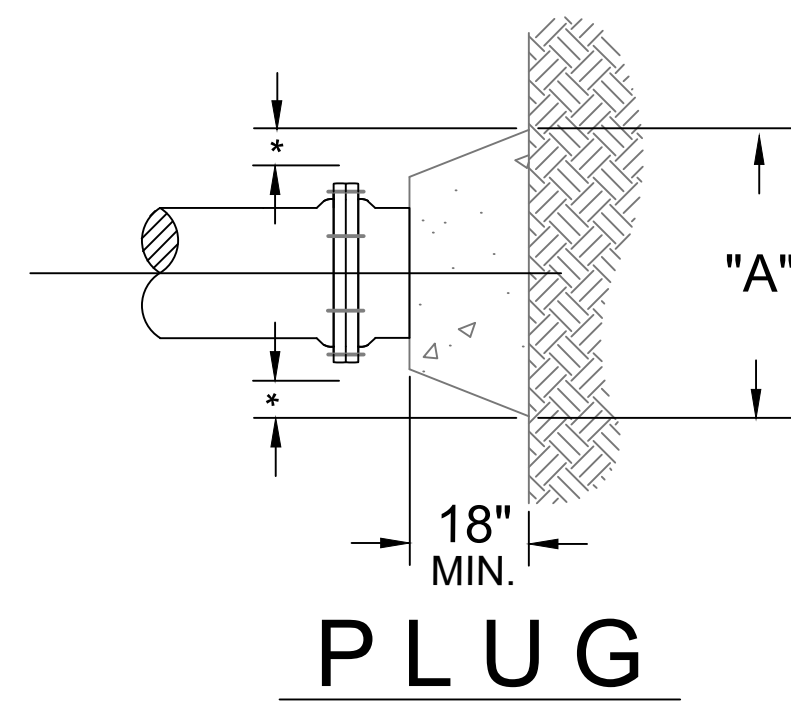
HYDRANT STANDARD HOSE COUPLING

REV. DECEMBER 13, 2023

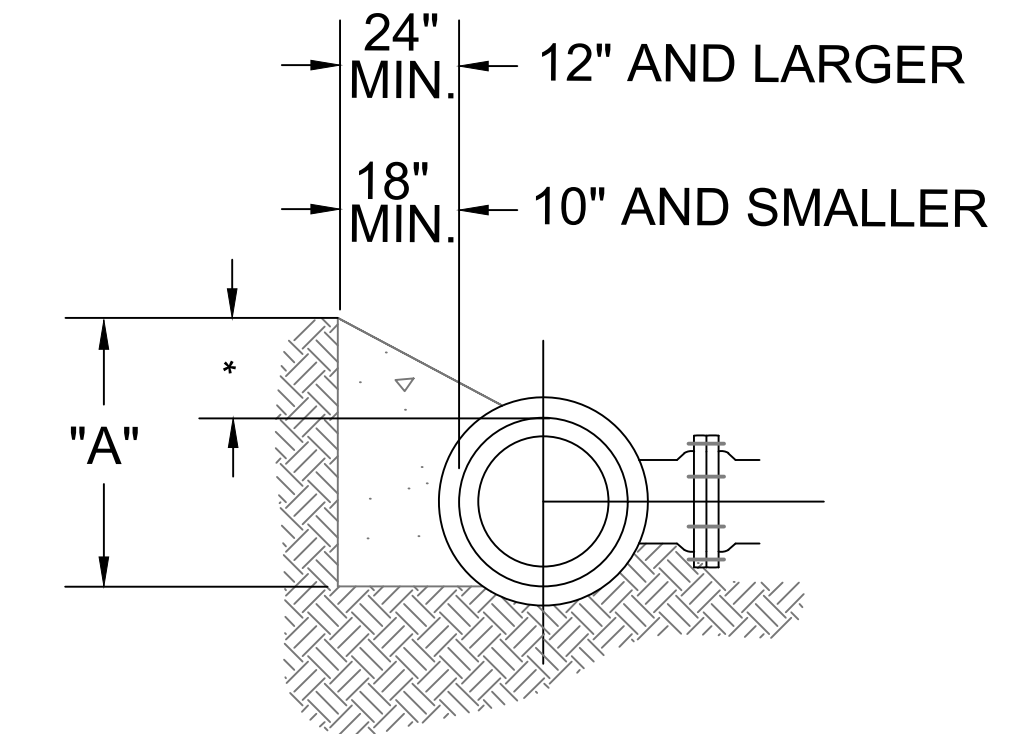
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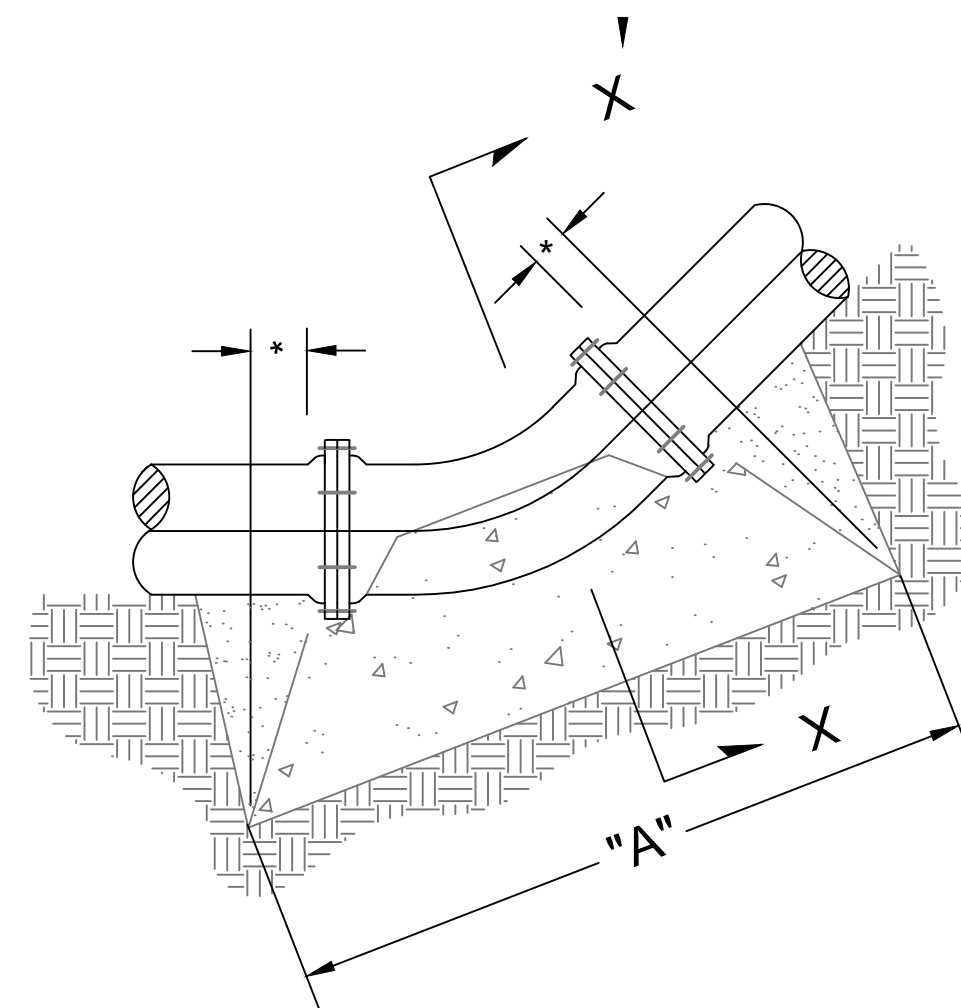
W-7.1



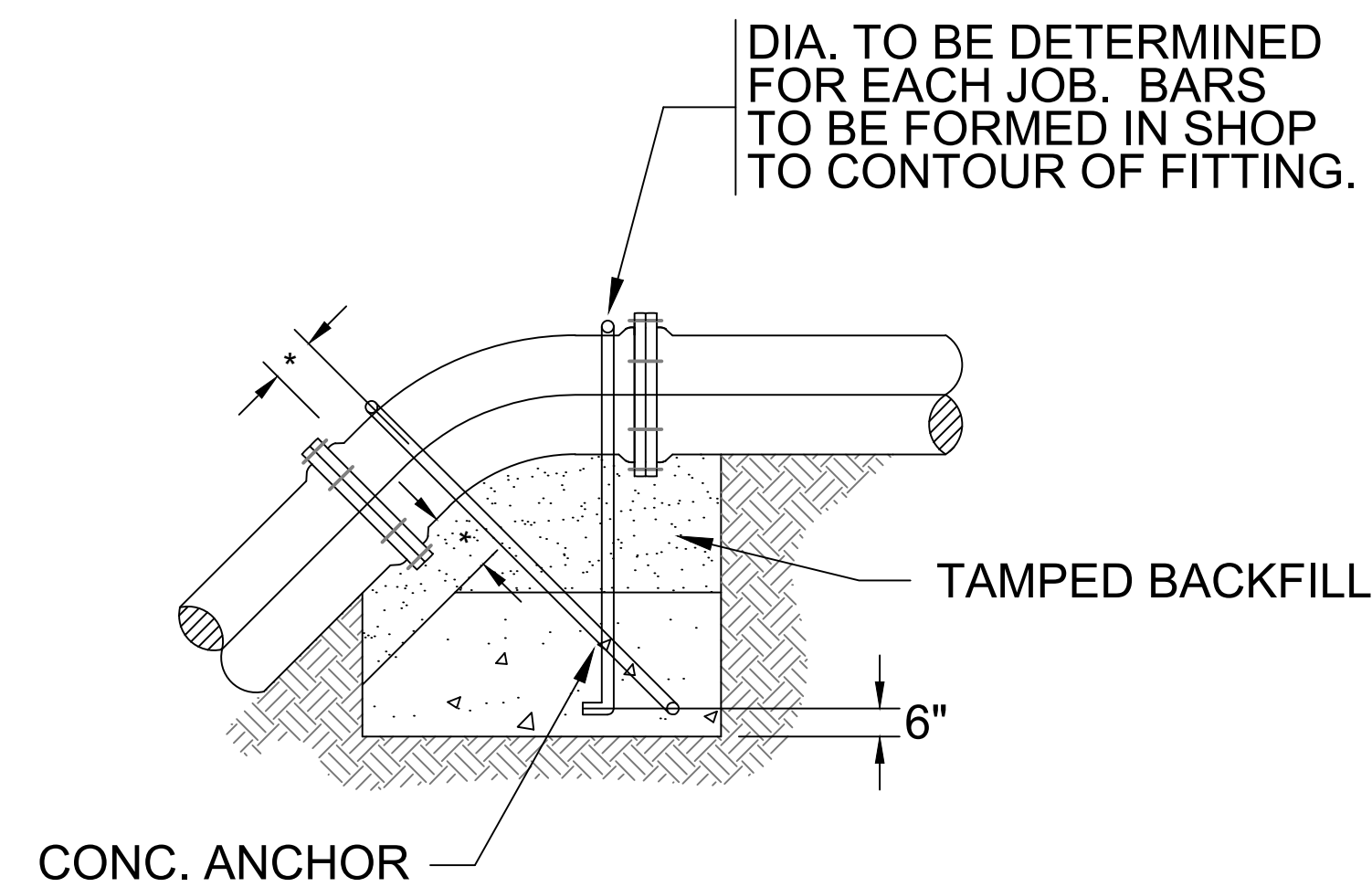
PLAN VIEW OF TEE



SECTION VIEW X-X



HORIZONTAL BEND
VERTICAL BEND
(UPWARD)



VERTICAL BEND
(DOWNWARD)

MINIMUM VOLUME OF
CONCRETE (IN C.F.) FOR TOP
VERTICAL (DOWN) BENDS

6"	4
8"	11
10"	22
12"	37
16"	71
30"	92

NOTE: IN AREAS OVER 100 PSI AWSB WILL
RECOMMEND THRUST BLOCK SIZING

"A" (IN INCHES) FOR HORIZONTAL
AND VERTICAL (UP) BENDS

	90°	45°	22-1/2°	11-1/4°	TEE	PLUG
6	21	15	11	8	17	17
8	23	17	12	11	19	19
10	28	21	15	13	24	24
12	41	30	22	15	34	34
16	54	40	29	20	46	46
24	81	60	43	30	68	68
30	101	74	53	38	85	85
36	121	89	64	45	102	102

NOTE: FOR NON-STANDARD BEND ANGELS, USE
VALVES GIVEN FOR NEXT GREATER ANGLE.

* 6" MINIMUM

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

TYPICAL CONCRETE THRUST BLOCKING

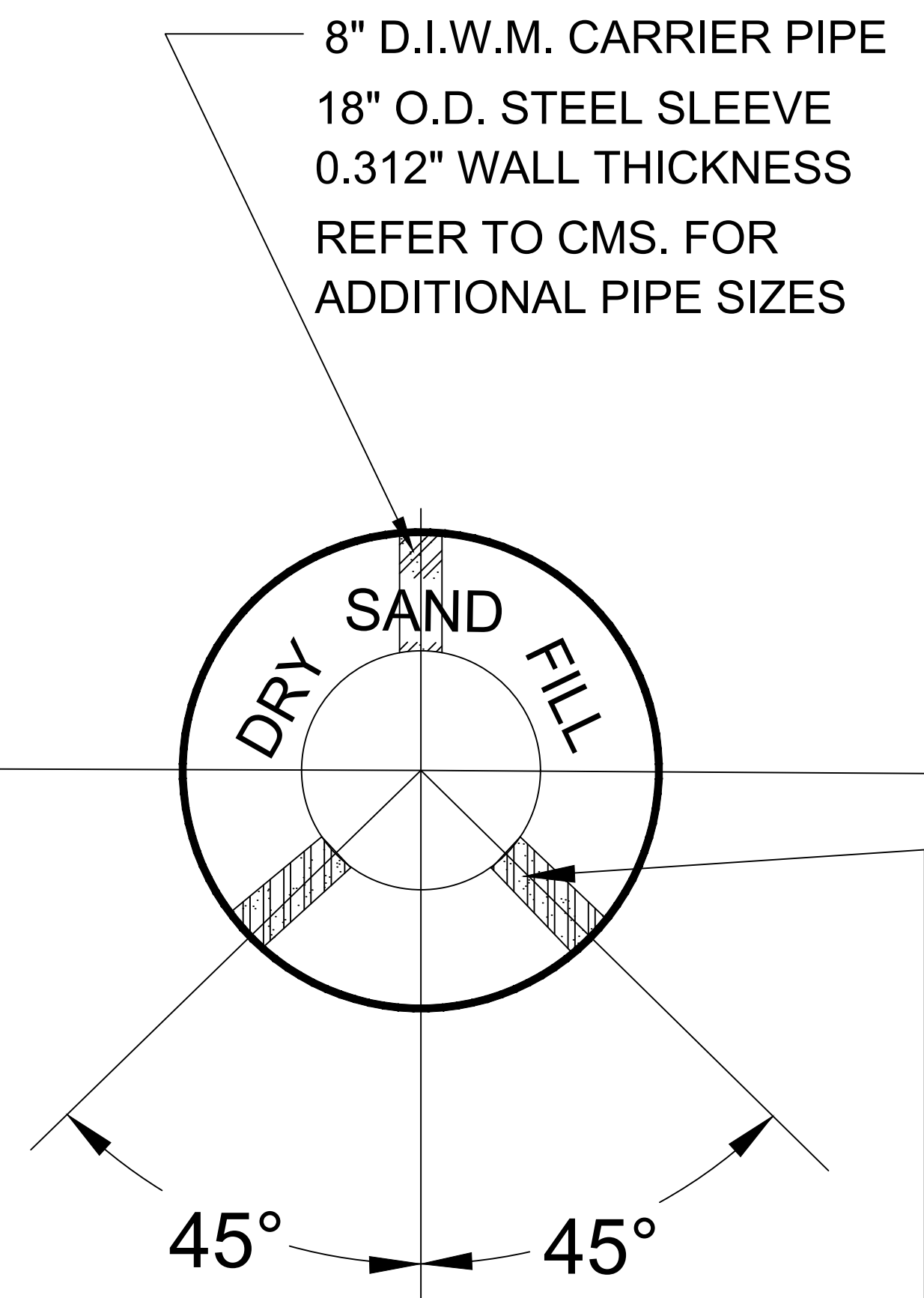
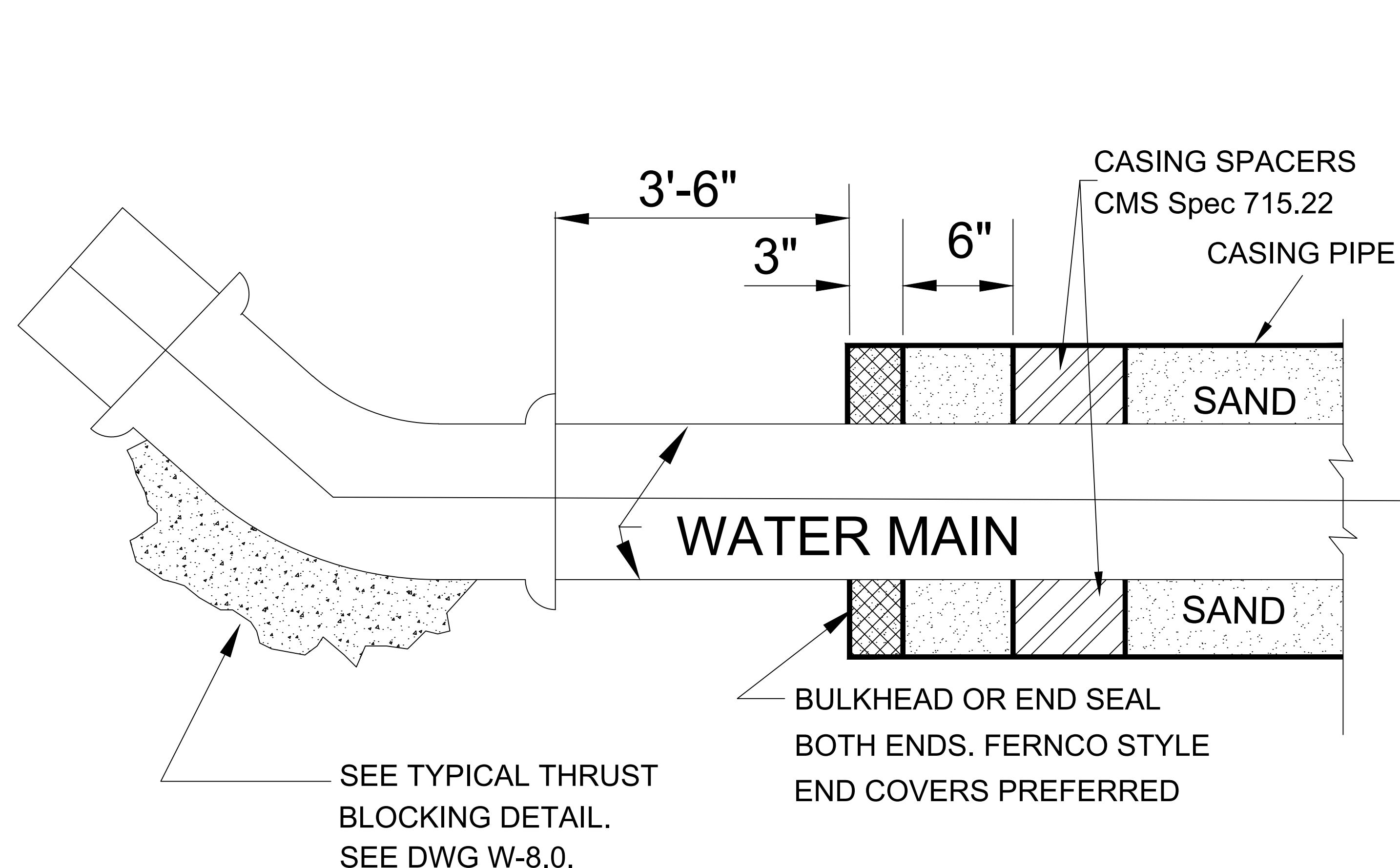
REV. DECEMBER 13, 2023

RJLD
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

W-8.0

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>



NOTE: AFTER WATER MAIN HAS BEEN INSTALLED, DRY SAND SHALL BE BLOWN IN FROM BOTH ENDS.

NOTE: FOR STEEL CASING CROSSING AT A WATERWAY, STEEL CASING SLEEVE SHALL BE INSTALLED AS TO PREVENT FORMATION OF A WATERWAY UNDER THE CHANNEL BED AND WITH AN EVEN BEARING THROUGHOUT ITS LENGTH AND SLOPED TO ONE END. THE CASING PIPE JOINTS ARE TO BE WELDED WATER TIGHT.

NOTE: STEEL CASING PIPE, SPACERS, AND DRY SAND ARE TO BE INCLUDED IN UNIT PRICE BID FOR ITEM 264 - STEEL CASING PIPE PER LIN. FT.

CARRIER PIPE MUST HAVE RESTRAINED JOINTS.

CASING SPACERS
CMS SPEC 715.22
NO HARDWOOD CASING SPACERS

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CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

TYPICAL STEEL CASING DETAIL

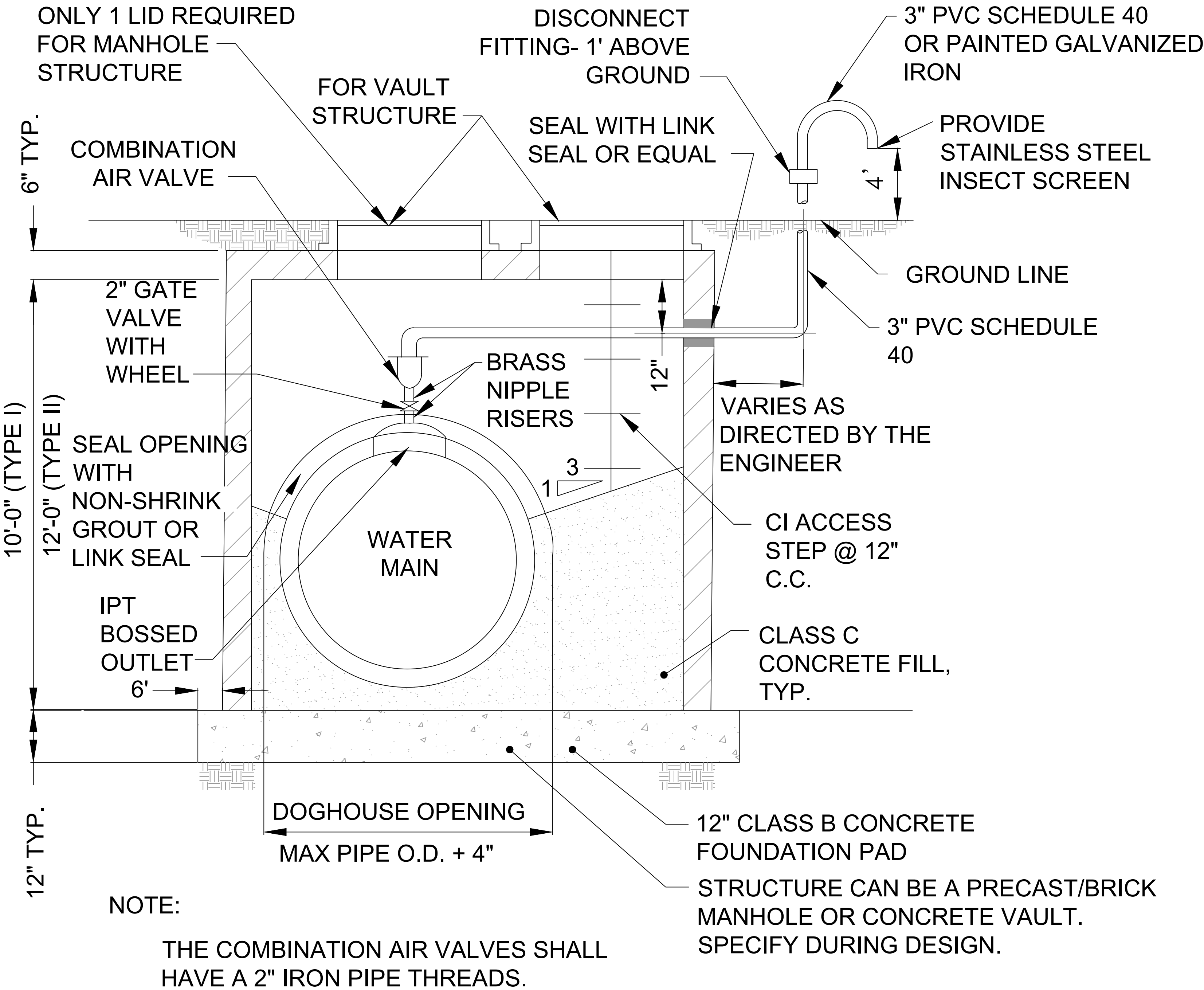
REV. DECEMBER 13, 2023

RJL
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STANDARD CONSTRUCTION
DRAWING NO.

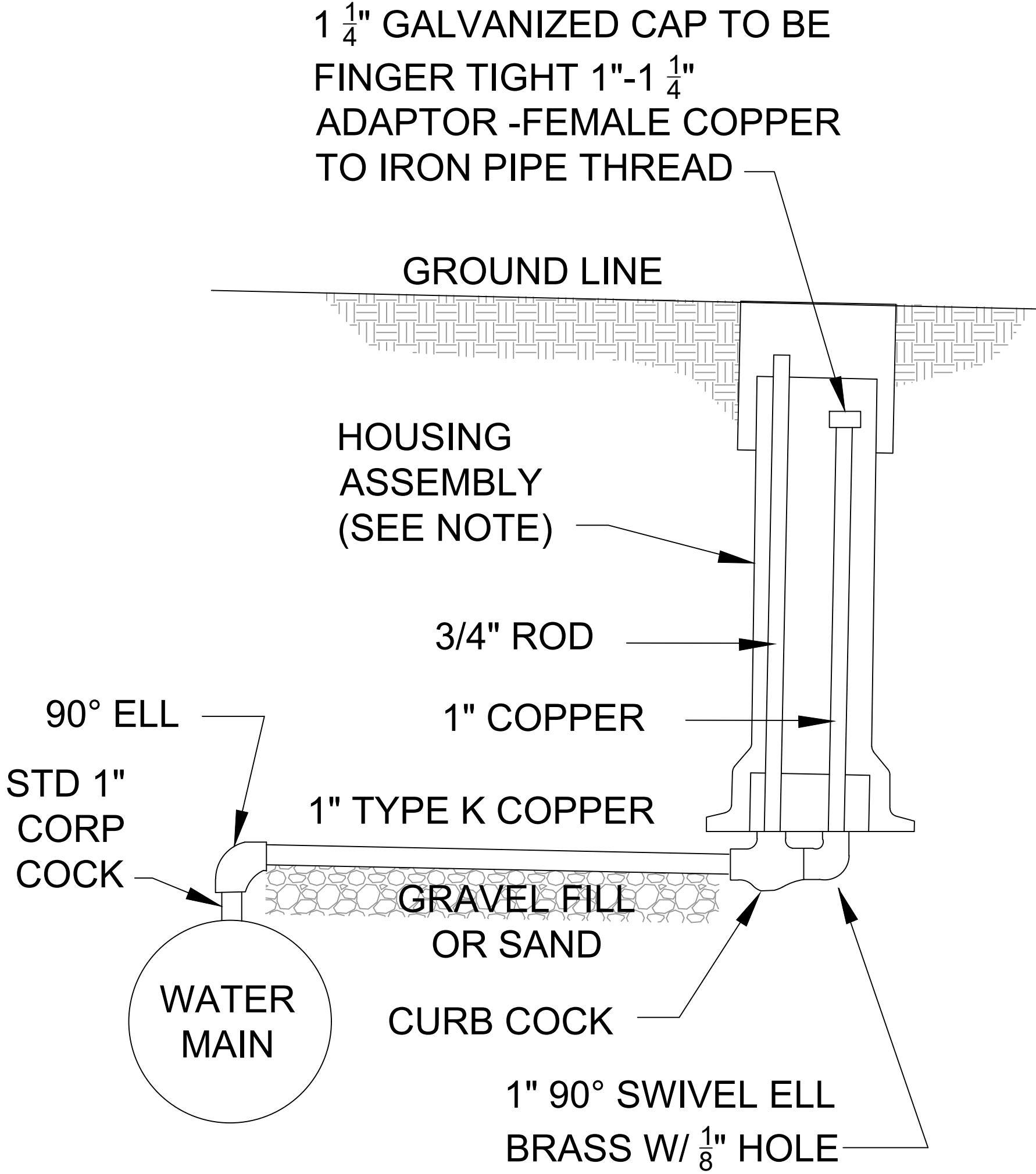
W-9.0

C.I. MANHOLE FRAME & SELF-SEALING LID. (ONE LID SHALL BE CENTERED ABOVE AIR VALVE. NEENAH NO. 1740-B, OR EQUAL.



2" AUTOMATIC AIR RELEASE VALVE DETAIL (MANHOLE OR VAULT)

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>



NOTE:
THE HOUSING ASSEMBLY SHALL BE A VALVE BOX ASSEMBLY IN THE PAVEMENT OR A 24" DIA. METER PIT BEHIND THE CURB.

1" MANUAL AIR RELEASE VALVE DETAIL

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

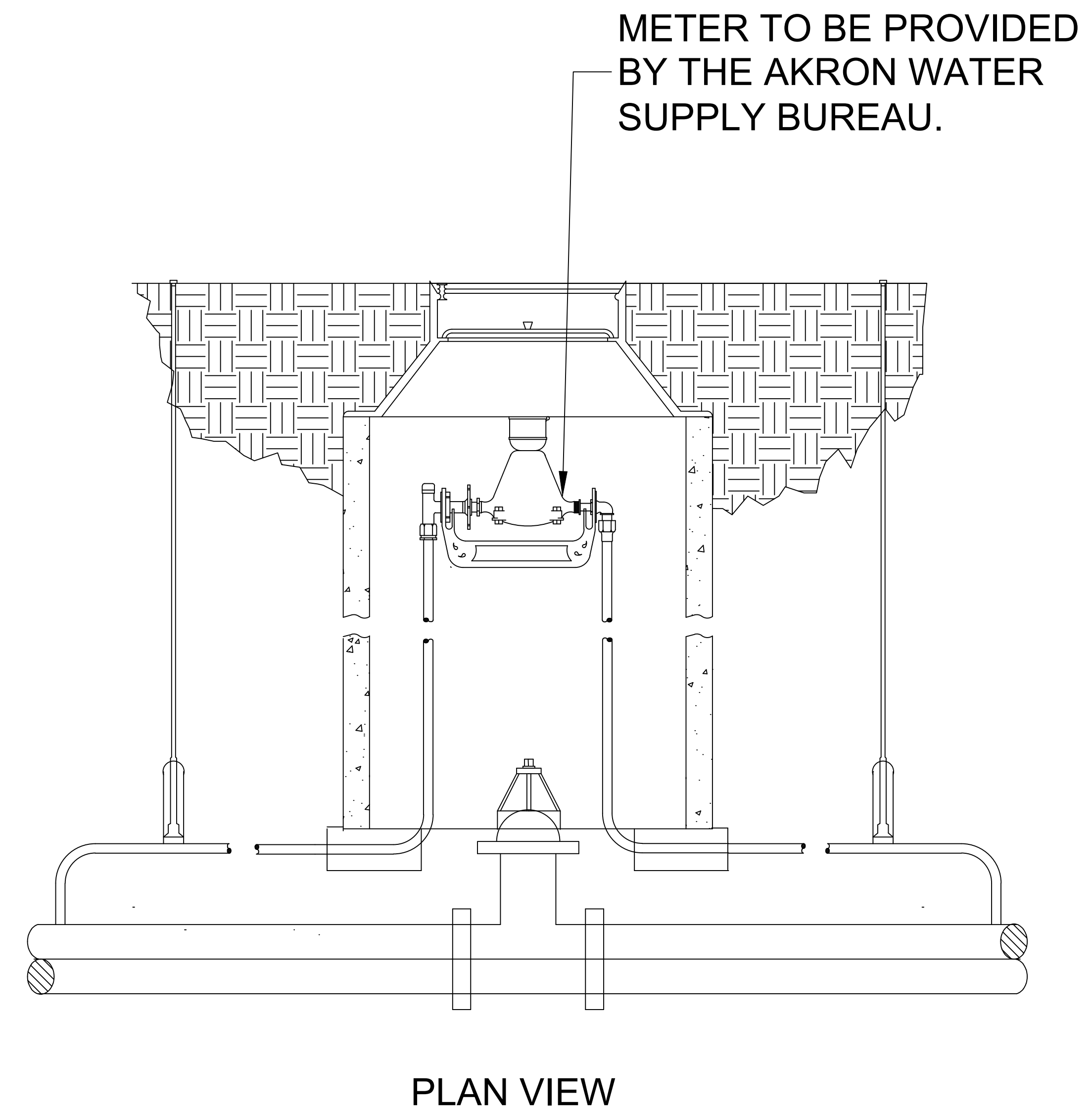
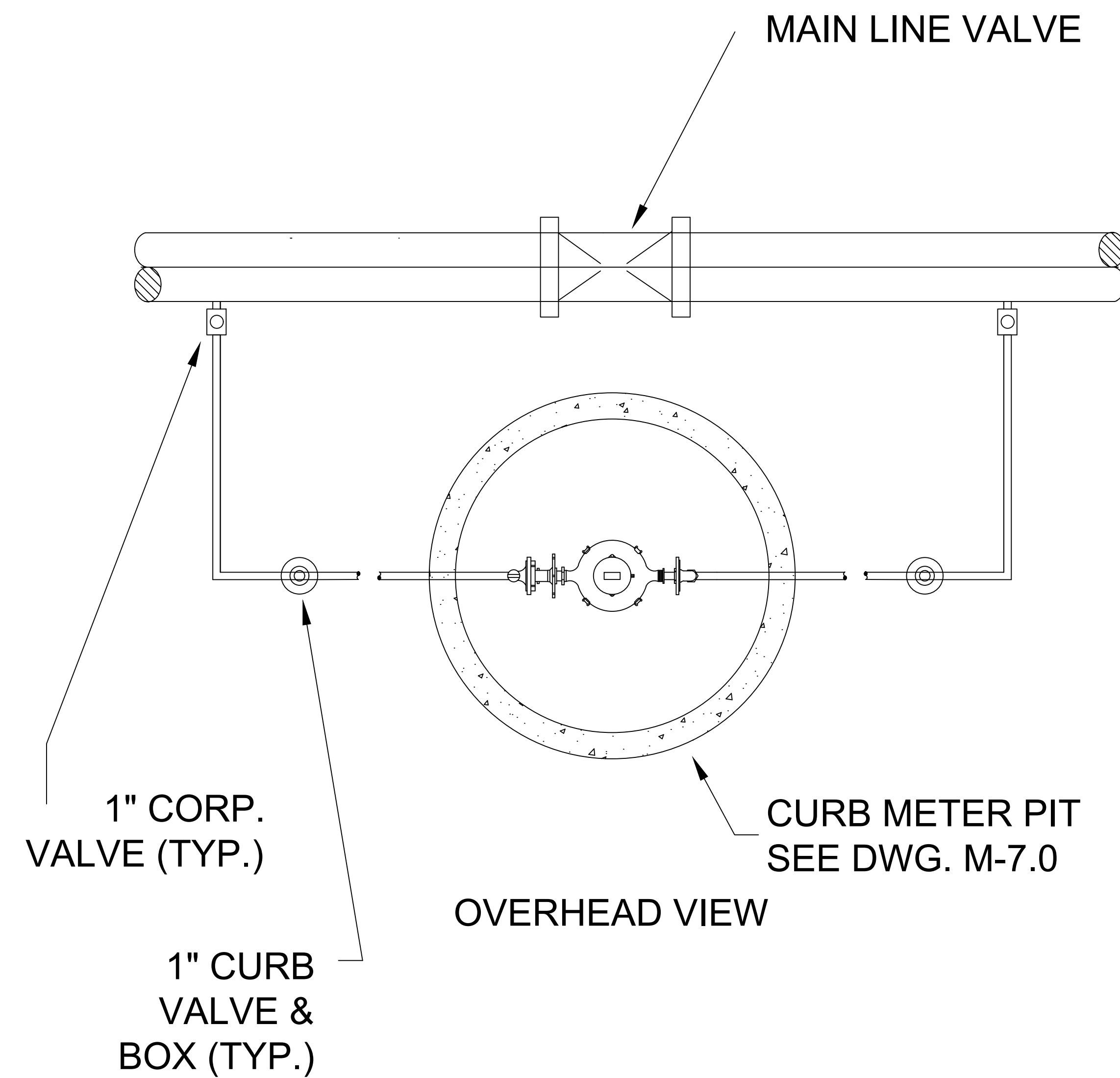
AIR RELEASE DETAILS

REV. JUNE 5, 2024

RAJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

W-10.0



DO NOT SCALE - USE DIMENSIONS ONLY

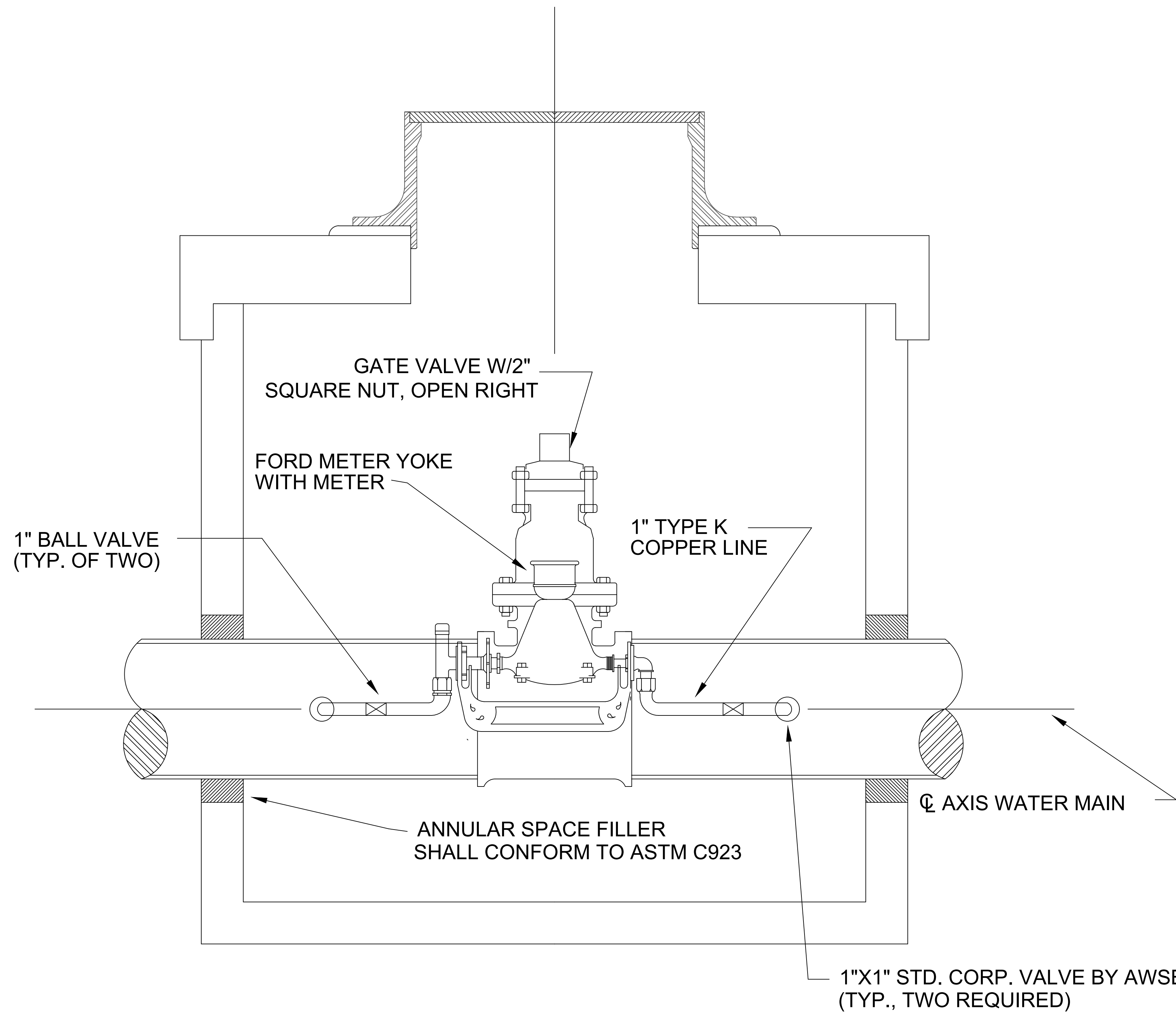
CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

RIVER CROSSING LEAK INDICATOR DETAIL

REV. DECEMBER 13, 2023

RJL
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO. **W-11.0**



NOTE: 1" METER AND YOKE TO BE SUPPLIED BY THE AKRON WATER SUPPLY BUREAU (AWSB). CORPORATION VALVE SHALL BE INSTALLED BY AWSB. CONTRACTOR IS RESPONSIBLE FOR ALL COPPER PIPING, FITTINGS AND BALL VALVES AS REQUIRED PER INSTALLATION AND WILL BE PAID FOR AS THE UNIT PRICE BID FOR SPECIAL, BYPASS METER, COMPLETE

DO NOT SCALE - USE DIMENSIONS ONLY

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU

WATER MANHOLE DETAIL

REV. DECEMBER 13, 2023

AKRON WATER SUPPLY BUREAU STANDARD DRAWINGS FOUND ONLINE AT
<http://www.akronohio.gov/water>

RJLD
UTILITIES ENGINEER

STANDARD CONSTRUCTION
DRAWING NO.

W-12.0