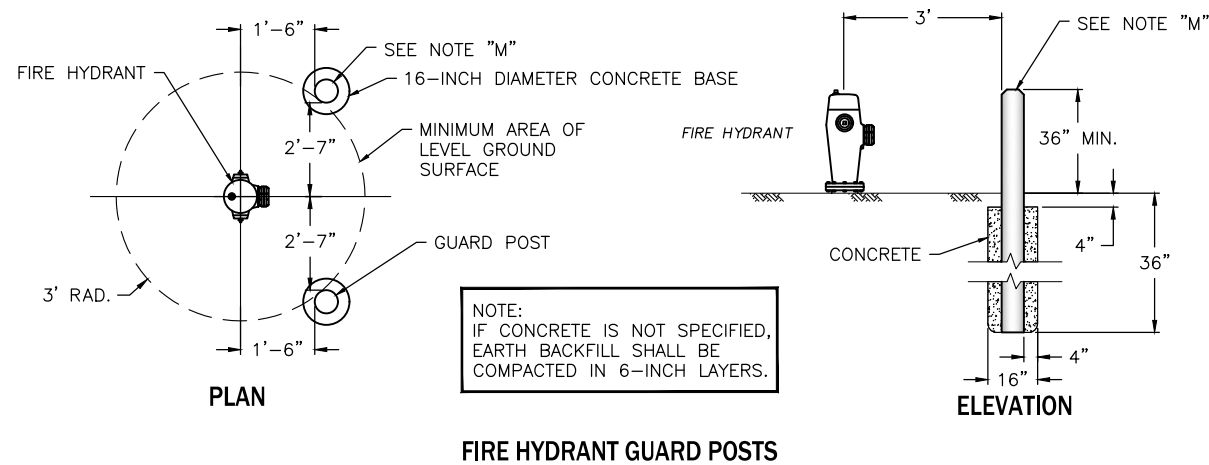
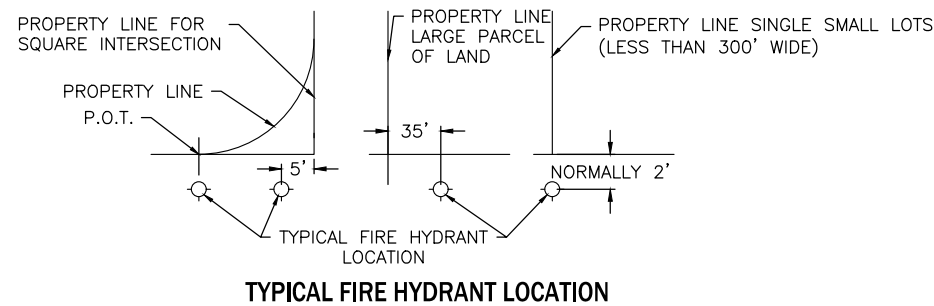
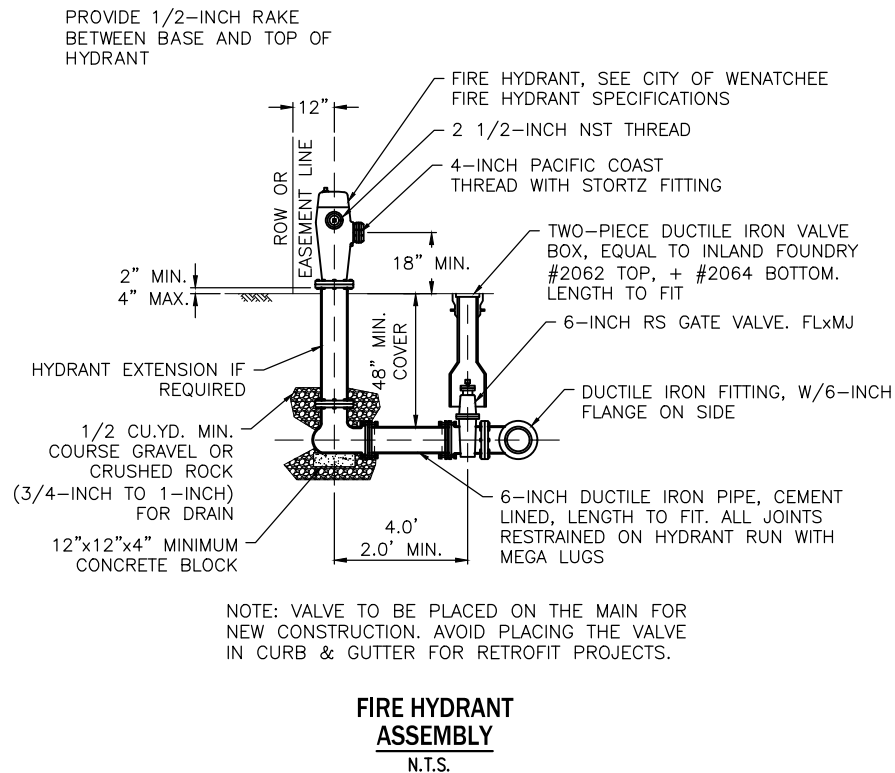
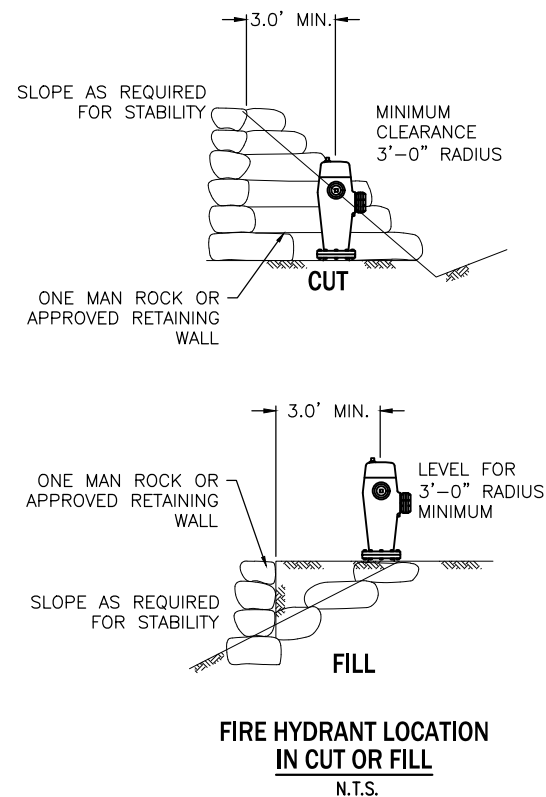


Water Standard Plans



FIRE HYDRANTS SHALL BE FOR ORDINARY WATER WORKS SERVICES AS DESCRIBED IN AWWA C-502-54.

- A. EACH HYDRANT SHALL HAVE 5-INCH MVO WITH "O" RING SEALS, A BREAKAWAY FLANGE, A 1 1/4-INCH OPERATING NUT AND NOZZLE CAP NUTS THAT OPEN COUNTER CLOCKWISE. GASKETS AND NOZZLE CAP SHALL BE INCLUDED.
- B. SHUT-OFF TYPE: COMPRESSION OR GATE.
- C. INLET CONNECTION: 6-INCH MECHANICAL JOINT (125#) INLET.
- D. CONNECTION PORTS:
TWO (2)-2 1/2-INCH I.D. HOSE NOZZLE PORTS WITH N.S.T. THREADS.
ONE (1)-4-INCH I.D. PUMPER OR STEAMER NOZZLE WITH P.C.T. THREADS AT SIX (6) THREADS PER INCH WITH AN O.D. OF 4.828-INCH AND A THREAD BEVEL OF 60. THIS SHALL ALSO HAVE A STORTZ FITTING AS INDICATED ON THE DETAIL.
STORTZ FITTING-4-INCH STORTZ TYPE ADAPTER WITH CAP AND CHAIN AND PYROLITE RIGID FEMALE CONNECTOR WITH SET SCREW. THE THREAD CUT ON THE FITTING SHALL MATCH EXISTING STANDARDS.
THE STORTZ FITTING SHALL NOT EXTEND PAST THE BACK OF THE SIDEWALK AND SHALL BE ORIENTED TO FACE THE WATER MAIN, OR AS DIRECTED BY THE CITY ENGINEER.
- E. DEPTH OF BURY SHALL BE 4 1/2-INCH OR 5 1/2-INCH DEPENDING ON THE CONDITIONS UNLESS OTHERWISE APPROVED.
- F. ALL NOZZLES SHALL CONFORM TO CURRENT CITY OF WENATCHEE HYDRANTS.
- G. HYDRANT SHALL BE PAINTED YELLOW IN ACCORDANCE WITH AWWA C-502-54, SECTION 6.
- H. APPROVED MANUFACTURERS: MUELLER, M & H, EAST JORDAN, OR KENNEDY GUARDIAN K-81. ONLY THESE BRANDS WILL BE ACCEPTED.
- I. ALL HYDRANTS SHALL BE EQUIPPED WITH TRAFFIC BREAKING FLANGES.
- J. ALL INSTALLATIONS WILL HAVE A RESILIENT SEAT AUXILIARY VALVE.
- K. ALL HYDRANTS SHALL HAVE MEGALUG RESTRAINED JOINTS.
- L. THE MINIMUM DISTANCE FROM THE BOTTOM OF THE LOWEST PORT TO FINISHED GRADE SHALL BE 18-INCH. THE DISTANCE FROM FINISHED GRADE TO THE BREAKING FLANGE SHALL BE A MINIMUM OF 2-INCH AND A MAXIMUM OF 4-INCH.
- M. HYDRANT GUARD POST SHALL BE 8-INCH DIAMETER x 6- FEET LONG PRECAST CONCRETE POST EQUAL TO FOG-TITE METER SEAL CO.. PAINT WITH TWO COATS OSHA SAFETY YELLOW ENAMEL.

**STANDARD DETAIL
FIRE HYDRANT
SPECIFICATIONS AND DETAILS**

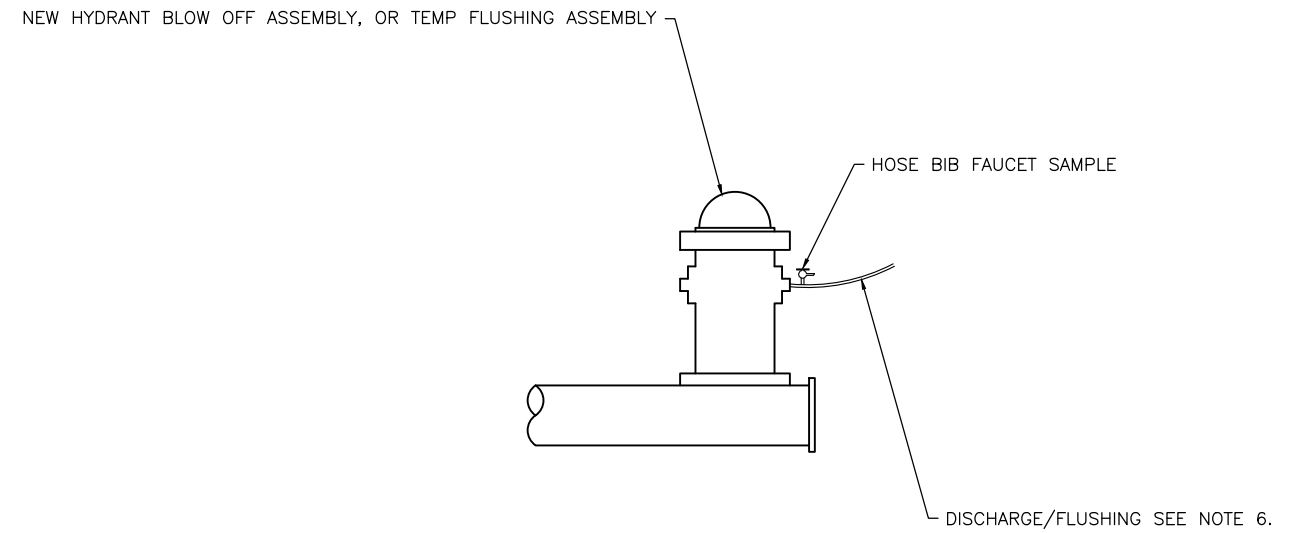
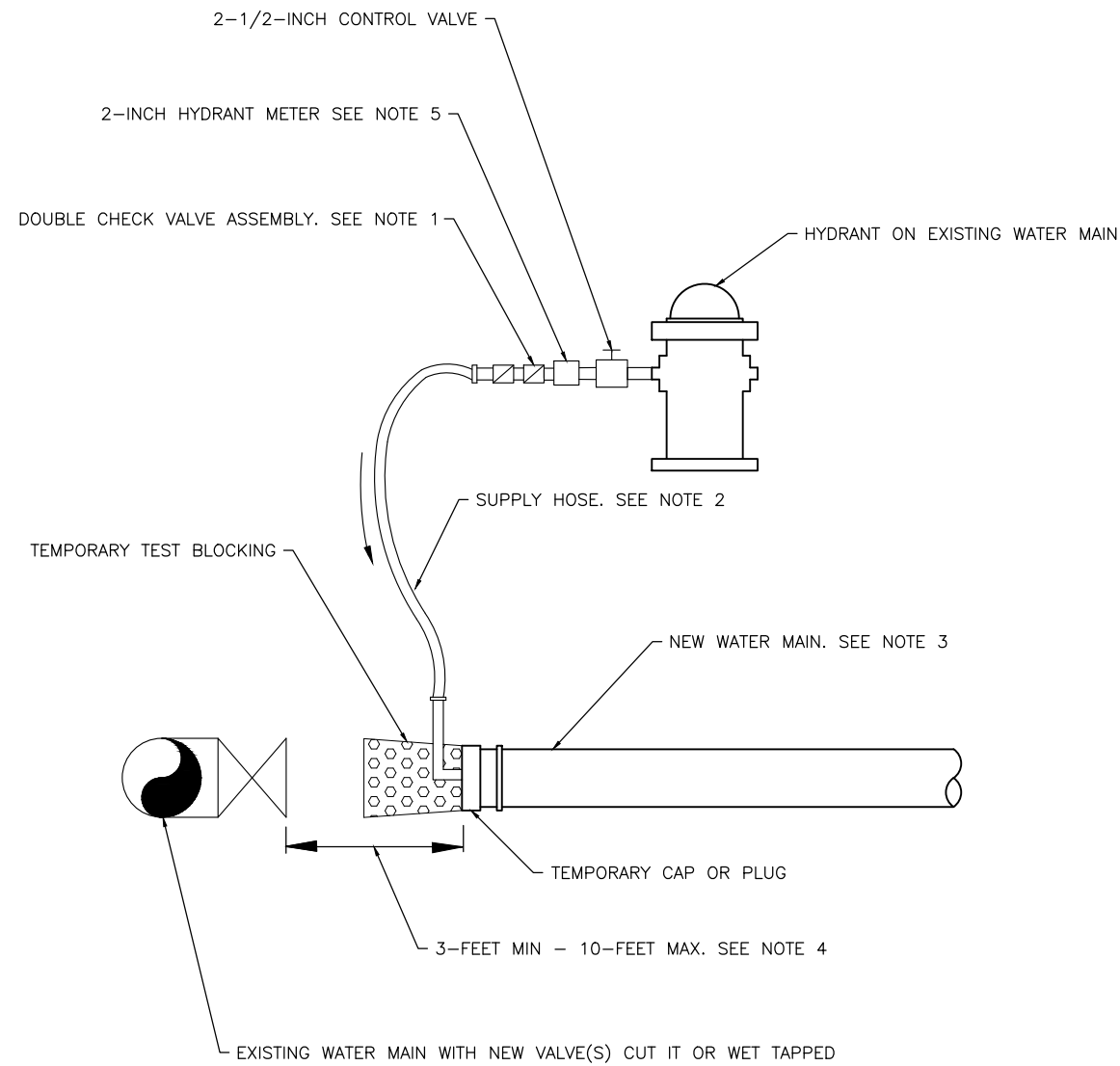


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N.A.	3/23/2015	01/22	AJS	03/31/2023	JTB
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DRAWN: RDH	DATE APPROVED:				
APPROVED BY:					

DETAIL NO. **W-100**

PAGE **1 OF 1**

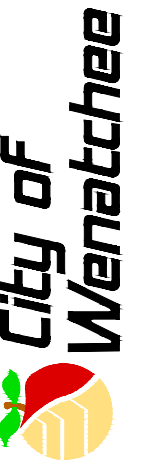
STANDARD SPECIFICATIONS
7-09 WATER MAINS
7-12 VALVES
7-14 HYDRANTS



NOTES:

1. AN APPROVED BACK FLOW ASSEMBLY SHALL BE INSTALLED BETWEEN THE NEW AND EXISTING WATERLINES DURING DISINFECTION AND FLUSHING OF NEW WATER MAIN.
2. THE BACK FLOW PREVENTION ASSEMBLY AND SUPPLY HOSE MUST BE DISCONNECTED DURING HYDROSTATIC PRESSURE TESTING OF THE NEW MAIN.
3. THE NEW WATER MAIN SHALL BE CONNECTED TO THE EXISTING SYSTEM ONLY AFTER THE NEW MAIN IS FLUSHED, DISINFECTED AND SATISFACTORY BACTERIOLOGICAL SAMPLE RESULTS ARE OBTAINED.
4. THE INTERIORS OF ALL PIPES AND FITTINGS TO BE USED IN FINAL CONNECTION MUST BE SWABBED OR SPRAYED WITH A 1% AVAILABLE CHLORINE SOLUTION.
5. 2" HYDRANT METER SHALL BE OBTAINED FROM THE CITY OF WENATCHEE PUBLIC WORKS DEPARTMENT OR CHELAN COUNTY PUD HYDRANT VALVE MAY BE USED UNDER SOME CIRCUMSTANCES.
6. DECHLORINATOR REQUIRED, CONTRACTOR MAY FLUSH TO SEWER OR STORM AFTER USING DECHLORINATOR. NOTIFY WENATCHEE WASTE WATER TREATMENT PLANT PRIOR TO FLUSH AIR GAP AT DISCHARGE.

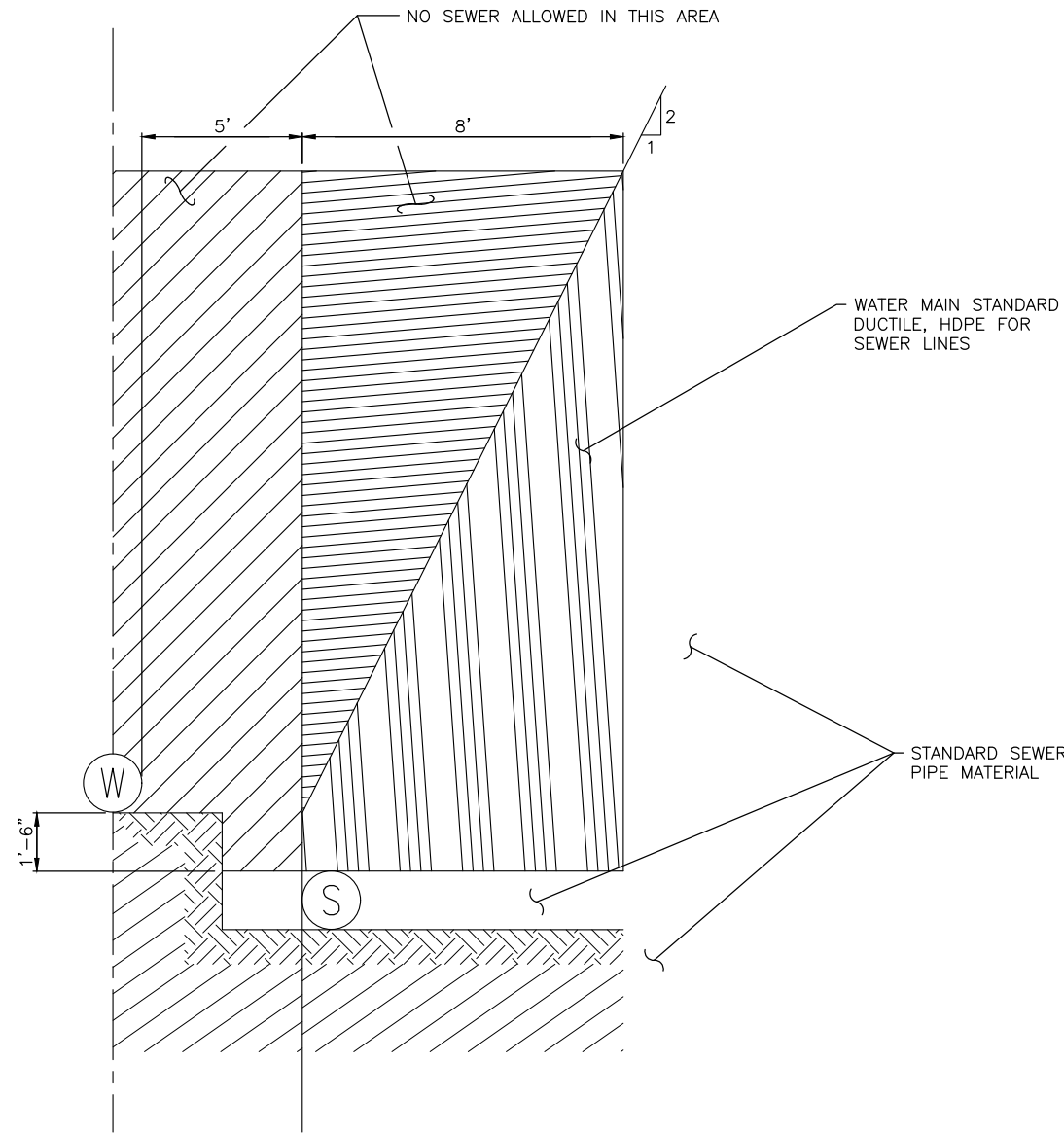
**STANDARD DETAIL
FILLING NEW
WATER MAINS**



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DESIGNED	11/04/2020	01/22	AJS	
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APPROVED BY	DATE APPROVED			
STANDARD SPECIFICATIONS				

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1 OF 1



PARALLEL CONSTRUCTION

WATER MAIN STANDARD PIPE MATERIAL

AWWA STANDARD			
TYPE OF PIPE	PIPE	JOINT	FITTINGS
DUCTILE IRON	C 1.52	C 111	C 110
CONCRETE CYLINDER	C 303		

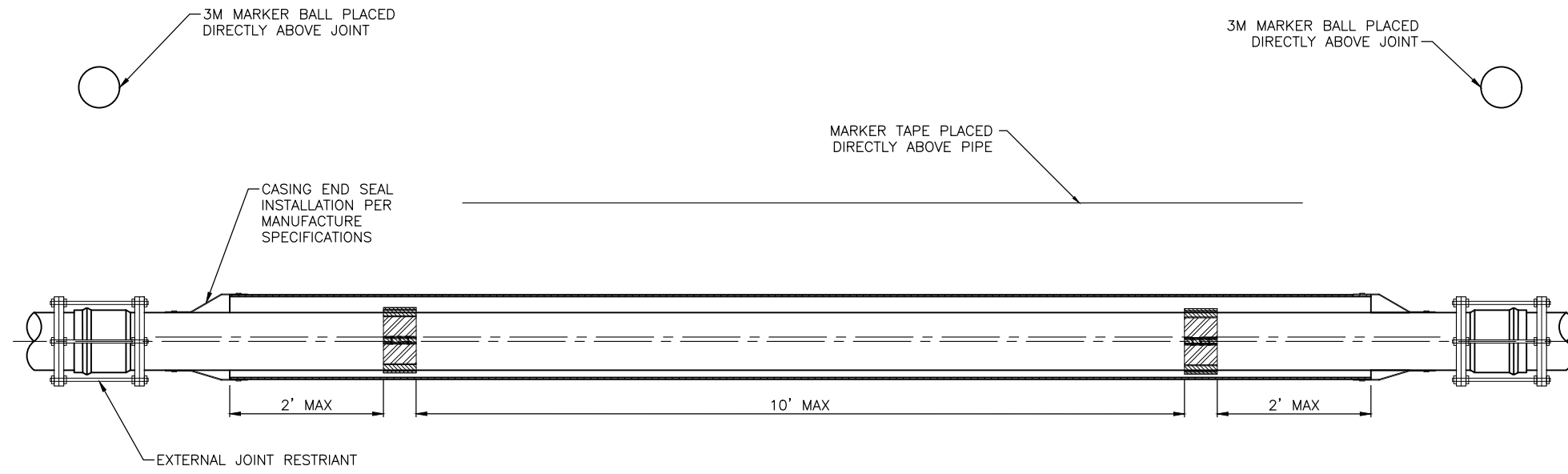
NOTES:

- HORIZONTAL SEPARATION (PARALLEL) – A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET BETWEEN GRAVITY SANITARY SEWERS AND ANY POTABLE WATER LINES SHALL BE MAINTAINED, WHENEVER POSSIBLE. THE DISTANCE SHALL BE MEASURED FROM EDGE TO EDGE.
- UNUSUAL CONDITIONS (PARALLEL) – WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION AS DESCRIBED ABOVE, A GRAVITY SEWER LINE MAY BE LAID CLOSER THAN TEN (10) FEET TO A WATER LINE PROVIDED:
 - IT IS LAID IN A SEPARATE TRENCH; OR IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE THAT IS LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH; AND
 - IN EITHER CASE, THE ELEVATION OF THE CROWN OF THE GRAVITY SEWER MUST BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER LINE. WHEN THIS VERTICAL SEPARATION CANNOT BE OBTAINED, THE GRAVITY SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE 8 EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
- VERTICAL SEPARATION (PERPENDICULAR) – SEWER LINES CROSSING WATER LINES SHALL BE LAID BELOW THE WATER LINES TO PROVIDE A SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE WATER LINE AND THE CROWN OF THE SEWER LINE, WHENEVER POSSIBLE.
- UNUSUAL CONDITIONS (PERPENDICULAR) – WHEN LOCAL CONDITIONS PREVENT A VERTICAL SEPARATION AS DESCRIBED ABOVE, THE FOLLOWING CONSTRUCTION SHALL BE USED:
 - GRAVITY SEWERS PASSING OVER OR UNDER WATER LINES SHALL BE:
 - CONSTRUCTED OF MATERIAL DESCRIBED ON THIS PAGE. THE ONE SEGMENT OF THE MAXIMUM STANDARD LENGTH OF PIPE (BUT NO LESS THAN 18 FEET LONG) SHALL BE USED WITH THE PIPES CENTERED TO MAXIMIZE JOINT SEPARATION; OR
 - CONSTRUCTED OF STANDARD GRAVITY SEWER MATERIAL ENCASED IN CONCRETE OR IN A 1/4" THICK CONTINUOUS STEEL CASING WITH ALL VOIDS PRESSURE-GROUTED WITH SAND-CEMENT GROUT.
 - THE LENGTH OF THE SEWER PIPE, IN BOTH I. AND II. ABOVE, SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.
 - WATER LINES PASSING UNDER GRAVITY SEWERS, IN ADDITION, SHALL BE PROTECTED BY PROVIDING:
 - A VERTICAL SEPARATION OF AT LEAST 18 INCHES BETWEEN THE INVERT OF THE SEWER AND THE CROWN OF THE WATER LINE;
 - ADEQUATE STRUCTURAL SUPPORT FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING OF THE WATER LINES; AND
 - THE LENGTH OF THE SEWER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SO THAT THE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER LINE. THE SEWER PIPE SHALL BE THE LONGEST STANDARD LENGTH AVAILABLE FROM THE MANUFACTURER.
 - PRESSURE SEWERS SHALL ONLY BE CONSTRUCTED UNDER WATER LINES WITH DUCTILE IRON PIPE OR STANDARD SEWER PIPE IN A STEEL CASING FOR A DISTANCE OF AT LEAST TEN (10) FEET ON EACH SIDE OF THE CROSSING.

**STANDARD DETAIL
WATER AND SEWER
SPACING & CLEARANCE**

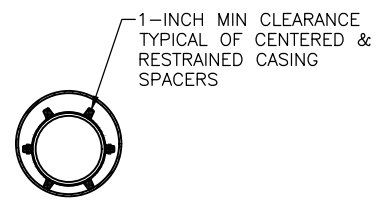


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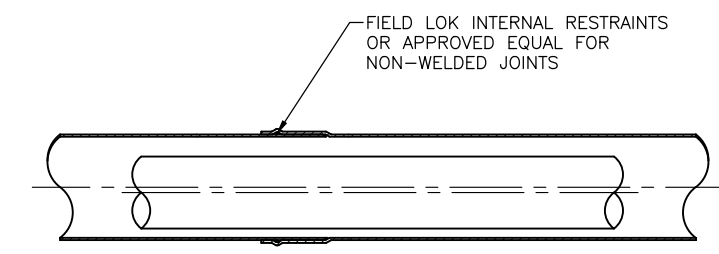


KEY NOTES:

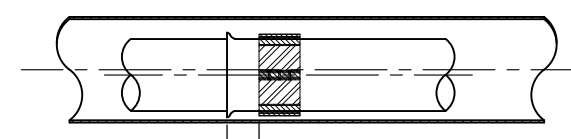
- CARRIER PIPE SHALL BE USED AS REQUIRED WITHIN CITY RIGHT-OF-WAY.
- ALL IRRIGATION PIPE LOCATED WITHIN CITY RIGHT-OF-WAY SHALL BE PVC C900 OR APPROVED EQUAL
- ALL JOINTS THROUGHOUT CASING SHALL BE RESTRAINED WITH FIELD LOC INTERNAL RESTRAINTS OR APPROVED EQUAL.
- RESTRAIN CARRIER PIPE ONE JOINT BEYOND END SEALS.
- MANUFACTURED CASING SPACER INTERVAL PER MANUFACTURER'S SPECIFICATIONS BUT NOT MORE THAN 10- FEET. MINIMUM 3 SPACERS PER PIPE LENGTH.
- CASING SHALL BE WELDED STEEL OR DUCTILE IRON FOR INSTALLATIONS LESS THAN 3- FEET BELOW ROAD GRADE. CPE MAY BE SUBSTITUTED FOR AREAS OUTSIDE OF PAVED ROADWAY.
- CASING PIPE LENGTHS SHALL BE OF THE LONGEST AVAILABLE LENGTH OF PIPE FROM MANUFACTURER
- NON-WELDED STEEL CASING SHALL BE EXTERNALLY RESTRAINED AT ALL JOINTS OR FIELD LOK.
- 3M MARKER BALL TO BE PLACED DIRECTLY ABOVE JOINT RESTRAINT AT END OF PIPE.
- DETECTABLE MARKER TAPE TO BE INSTALLED 12-INCHES TO 14-INCHES ABOVE PIPE CASING. COLOR SHOULD BE ACCORDING TO APWA UNIFORM COLOR CODE FOR MARKING UNDERGROUND UTILITIES. DETECTABLE MARKING TAPE SHALL CONSIST OF INERT POLYETHYLENE PLASTIC THAT IS IMPERVIOUS TO ALL KNOWN ALKALIS, ACIDS, CHEMICAL REAGENTS, AND SOLVENTS LIKELY TO BE ENCOUNTERED IN THE SOIL, WITH A METALLIC FOIL CORE TO PROVIDE FOR THE MOST POSITIVE DETECTION AND PIPELINE LOCATION. DETECTABLE MARKING TAPE SHALL BE NO LESS THAN 2-INCHES WIDE, TYPE OF BURIED UTILITY SHOULD BE CLEARLY MARKED CONTINUOUSLY ALONG THE LENGTH OF THE RIBBON WITH MINIMUM 1-1/2 INCH LETTERS IN THE FOLLOWING FORMAT: "CAUTION BURIED (UTILITY TYPE) LINE"



CASING SPACERS DETAIL
NTS



NON WELDED JOINT DETAIL
NTS



SPACER DISTANCE FROM BELL DETAIL
NTS

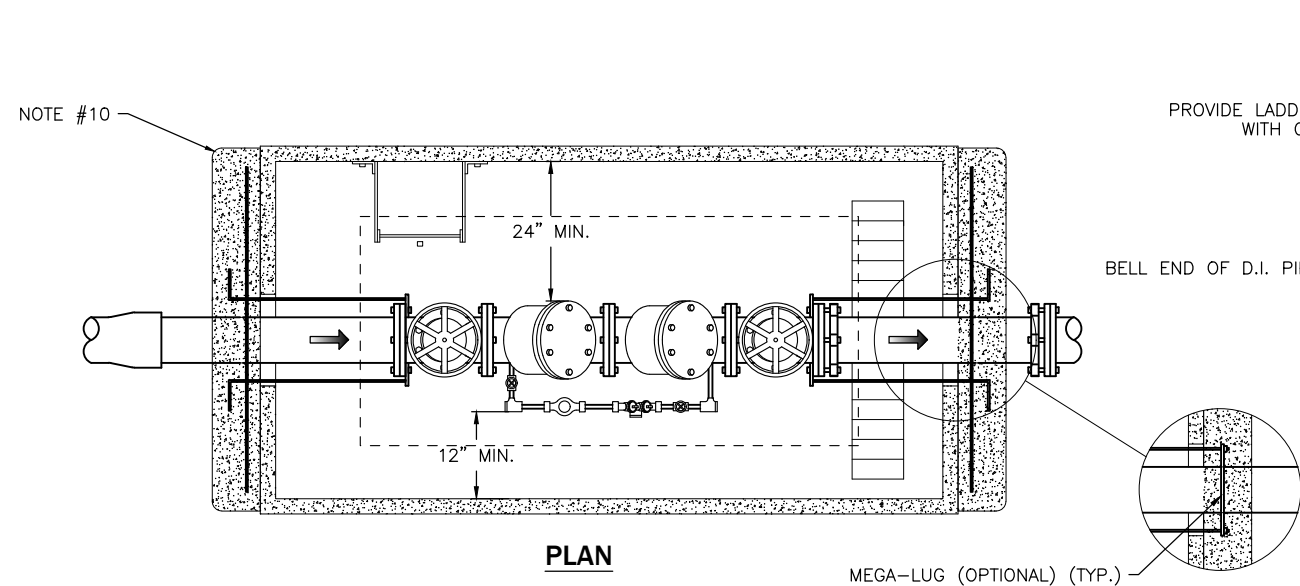
STANDARD DETAIL
CARRIER PIPE



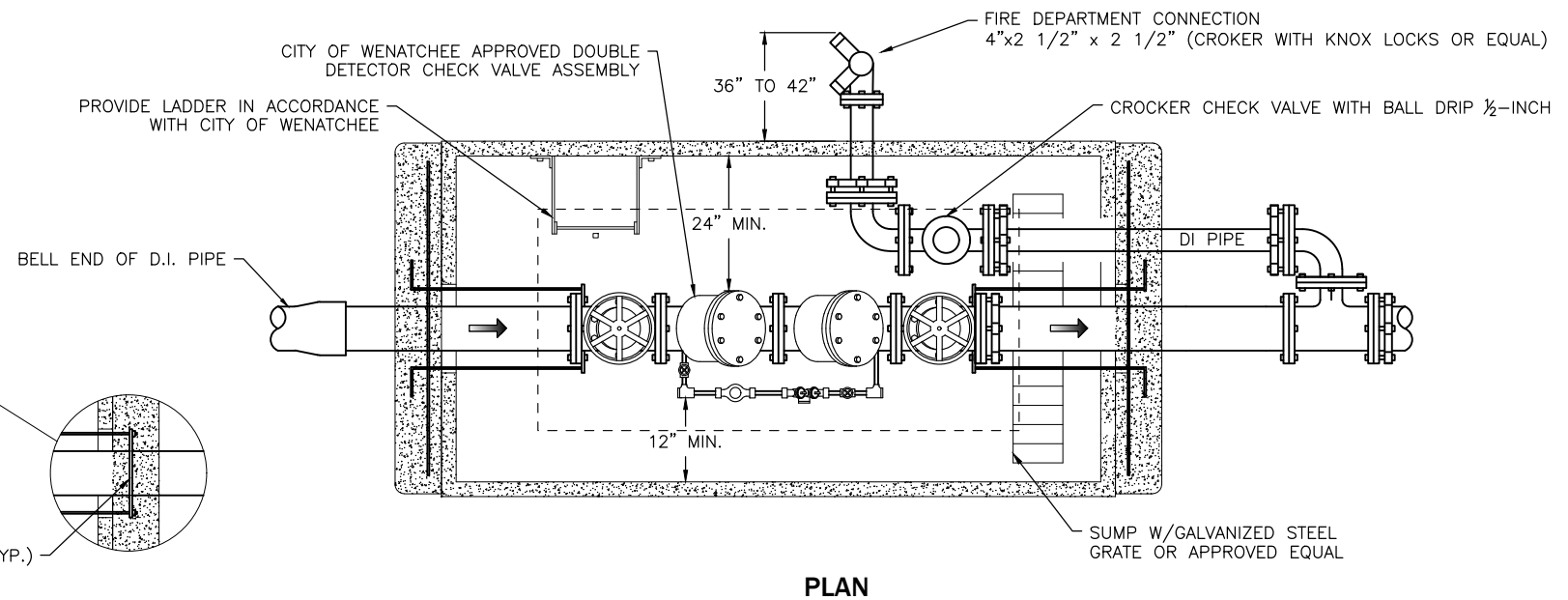
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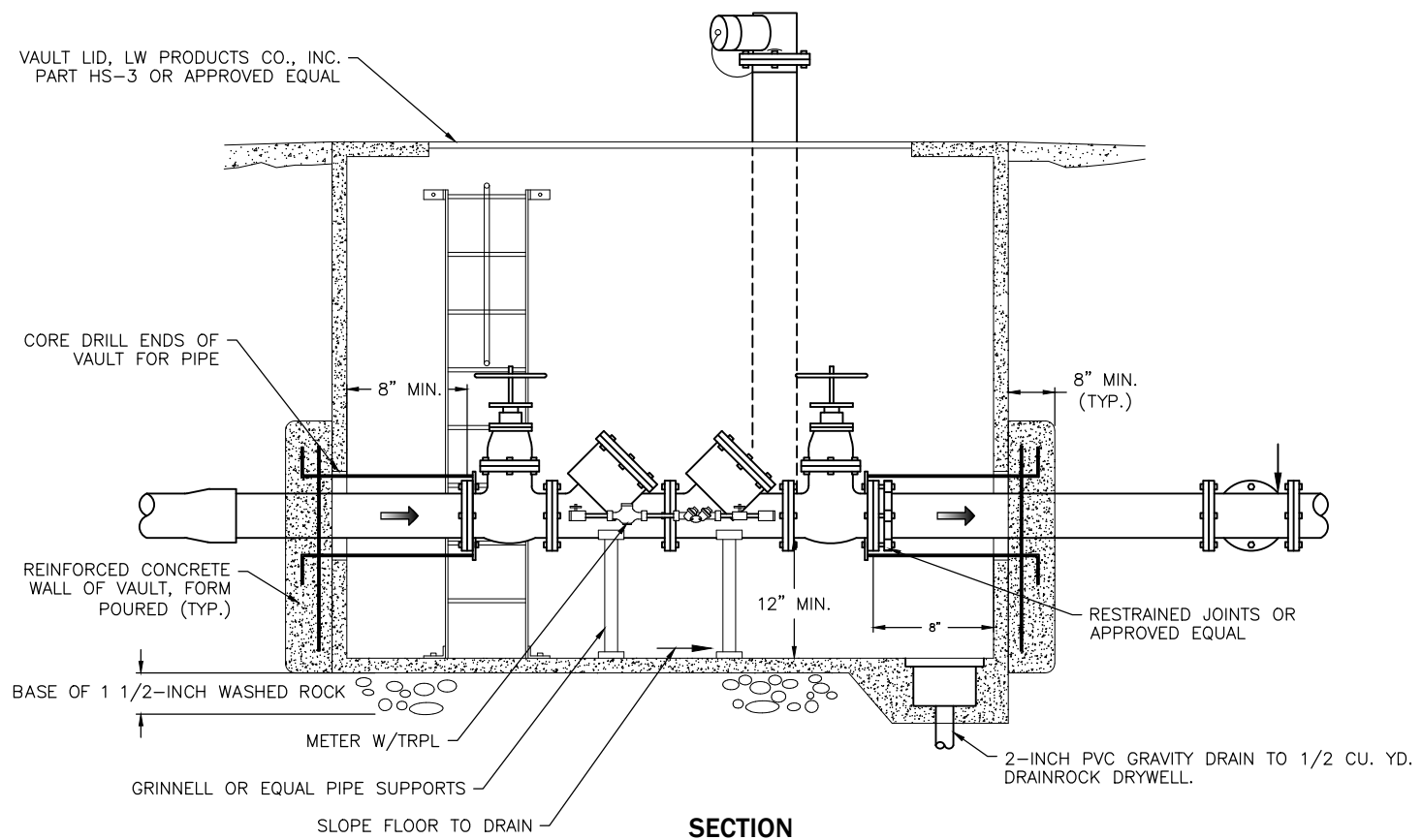
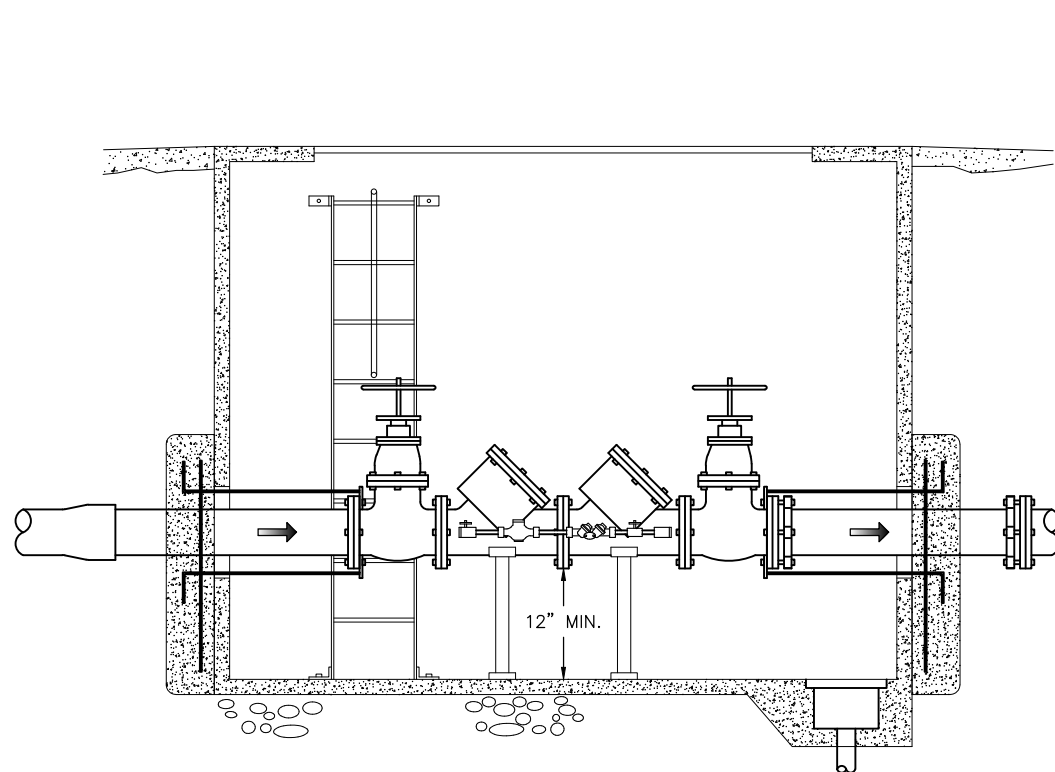
- COVER SHALL NOT EXTEND MORE THAN 2-INCH ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA.
- SLOPE PAVEMENT AWAY FROM COVER.
- VAULT LID SHALL BE OF ADEQUATE HEIGHT TO PROVIDE MIN. 6-INCH CLEARANCE TO O, S & Y VALVE WHEN VALVE IS FULLY OPEN.
- 5/8-INCH BY-PASS METER SHALL BE SENSUS SR II OR NEPTUNE T-10.
- VAULTS SHALL BE AS MANUFACTURED BY UTILITY VAULT OR APPROVED EQUAL AND SHALL BE STRUCTURALLY DESIGNED FOR THE PROPOSED INSTALLATION.
- BACK-FLOW VALVE AND ASSEMBLY MUST APPEAR ON CURRENT DEPT. OF HEALTH'S APPROVED VALVE LISTING.
- ASSEMBLY SHALL BE MAINTAINED BY OWNER WITH A TEST DONE UPON INSTALLATION AND ANNUALLY THEREAFTER BY A CERTIFIED BACK-FLOW ASSEMBLY TESTER (BAT.) A COPY OF EACH ANNUAL TEST REPORT MUST BE SENT TO THE CITY OF WENATCHEE.
- WATER MAIN SHALL NOT BE PLACED IN SERVICE UNTIL AFTER DOUBLE CHECK DETECTOR ASSEMBLY IS INSPECTED, TESTED AND APPROVED BY CITY REPRESENTATIVE.
- RESTRAIN CHECK DETECTOR WITH MEGA-LUGS, RESTRAINED JOINT PIPE, OR SHACKLE RODS BACK TO WATER MAIN AS REQUIRED.
- CONCRETE THRUST RESTRAINT LOCATED OUTSIDE THE VAULT ARE NOT REQUIRED WITH A NEW WATER MAIN TAP AND FULLY RESTRAINED JOINTS HAVE BEEN INSTALLED TO THE VAULT AND A MINIMUM OF 10- FEET DOWNSTREAM OF THE DOUBLE CHECK DEVICE.



SHOWN WITHOUT FIRE DEPARTMENT CONNECTION.
WHEN FDC IS AT ANOTHER LOCATION



THIS DCDA VAULT SERVES A SINGLE BUILDING AND
THE VAULT IS LOCATED ADJACENT TO THE RIGHT
OF WAY WHERE A FIRE HYDRANT IS NEARBY.



STANDARD DETAIL
FIRE SERVICE
DCDA CONNECTION

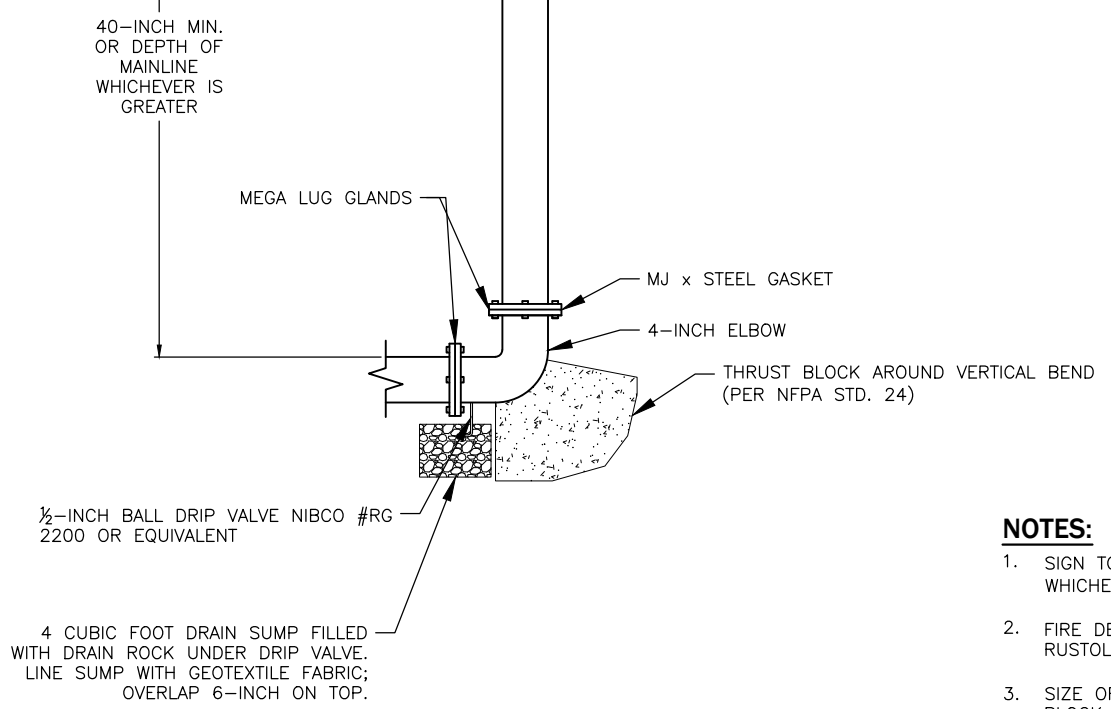
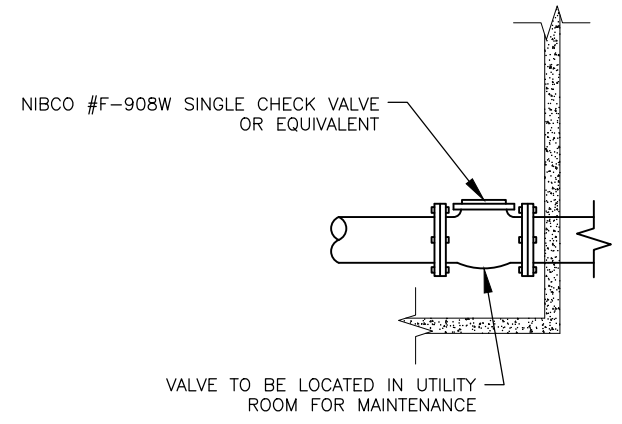
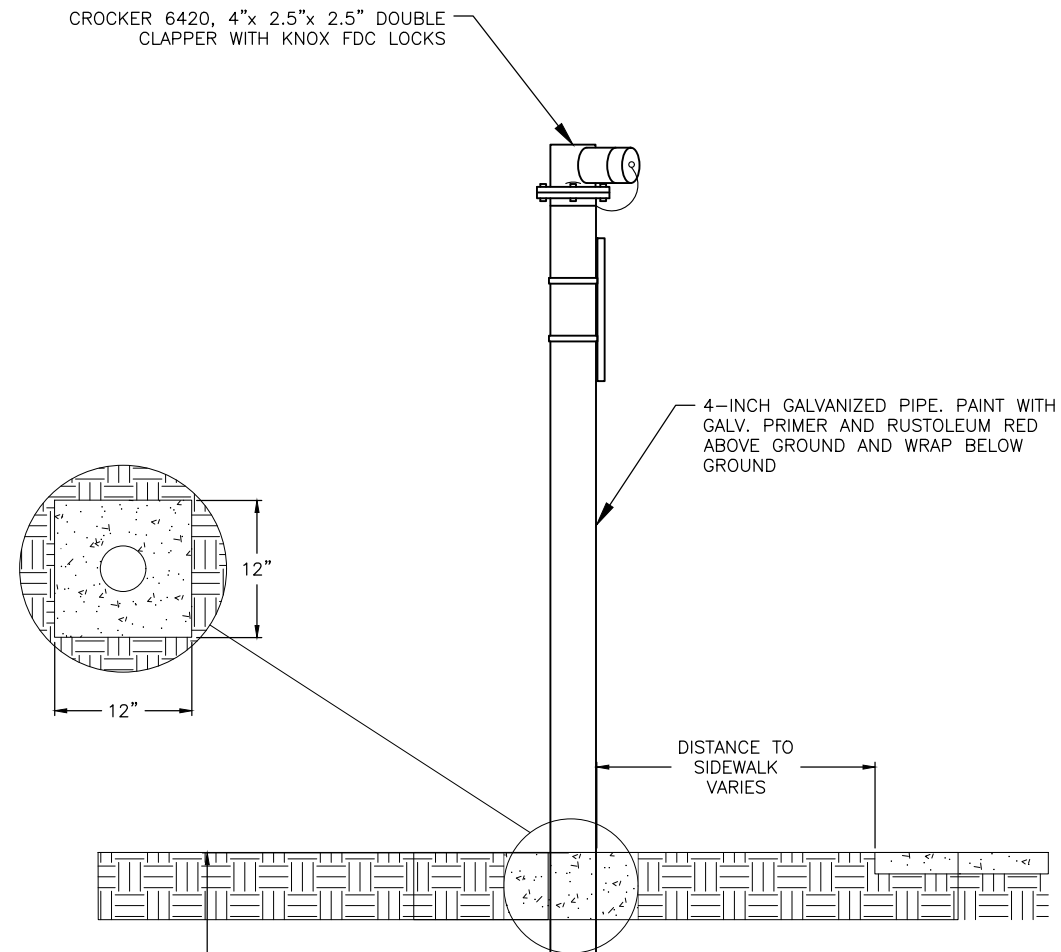
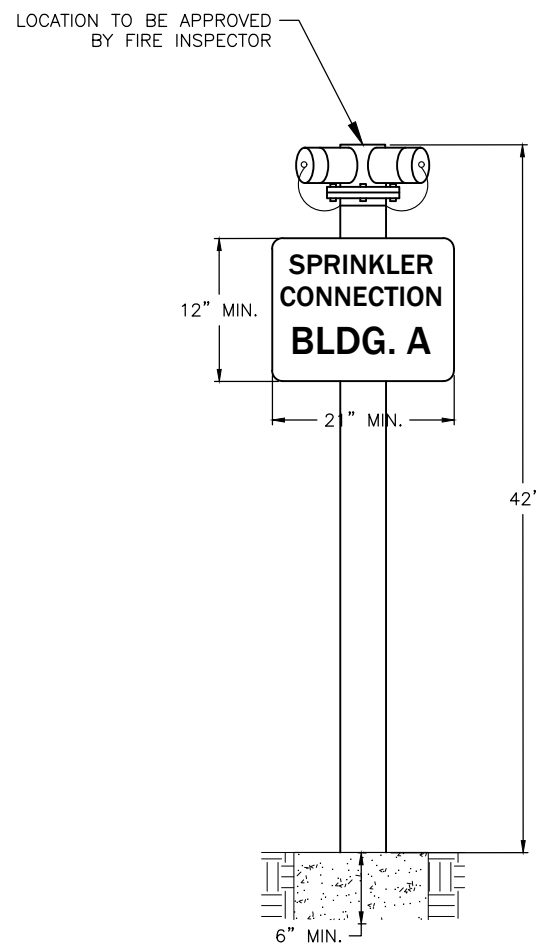


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APPROVED BY	DATE APPROVED	03/31/2023	JTB		

STANDARD SPECIFICATIONS
6-02 CONCRETE STRUCTURES
7-09 WATER MAINS
7-12 VALVES FOR WATER MAINS
7-15 SERVICE CONNECTIONS

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W-200A

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- NOTES:**
- SIGN TO SAY "SPRINKLER CONNECTION" AND "BLDG. A" (OR WHICHEVER BUILDING IS IDENTIFIED).
 - FIRE DEPARTMENT CONNECTION (FDC) PIPE TO BE PAINTED RUSTOLEUM RED.
 - SIZE OF SIGN TO FIT REQUIRED INFORMATION 3.00-INCH BLOCK LETTERS WHITE ON RED BACKGROUND ON 0.080-INCH RUST FREE ALUMINUM BASE OR BETTER.

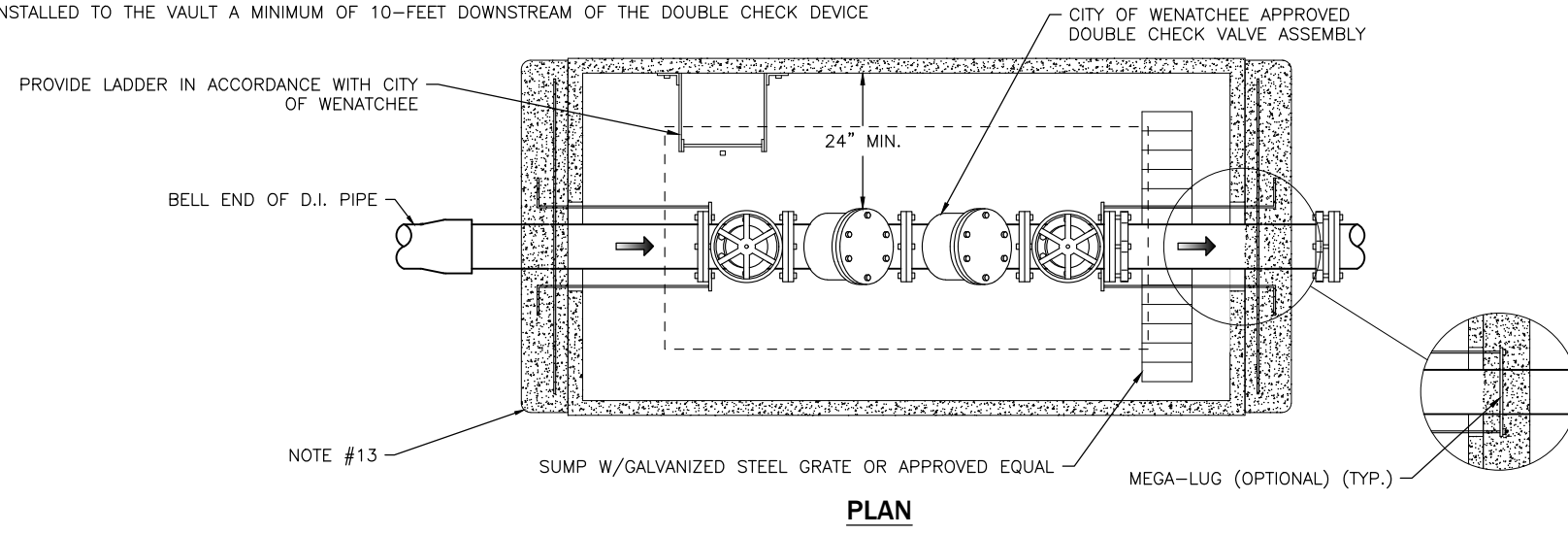
**STANDARD DETAIL
FIRE SERVICE
STANDALONE FDC**



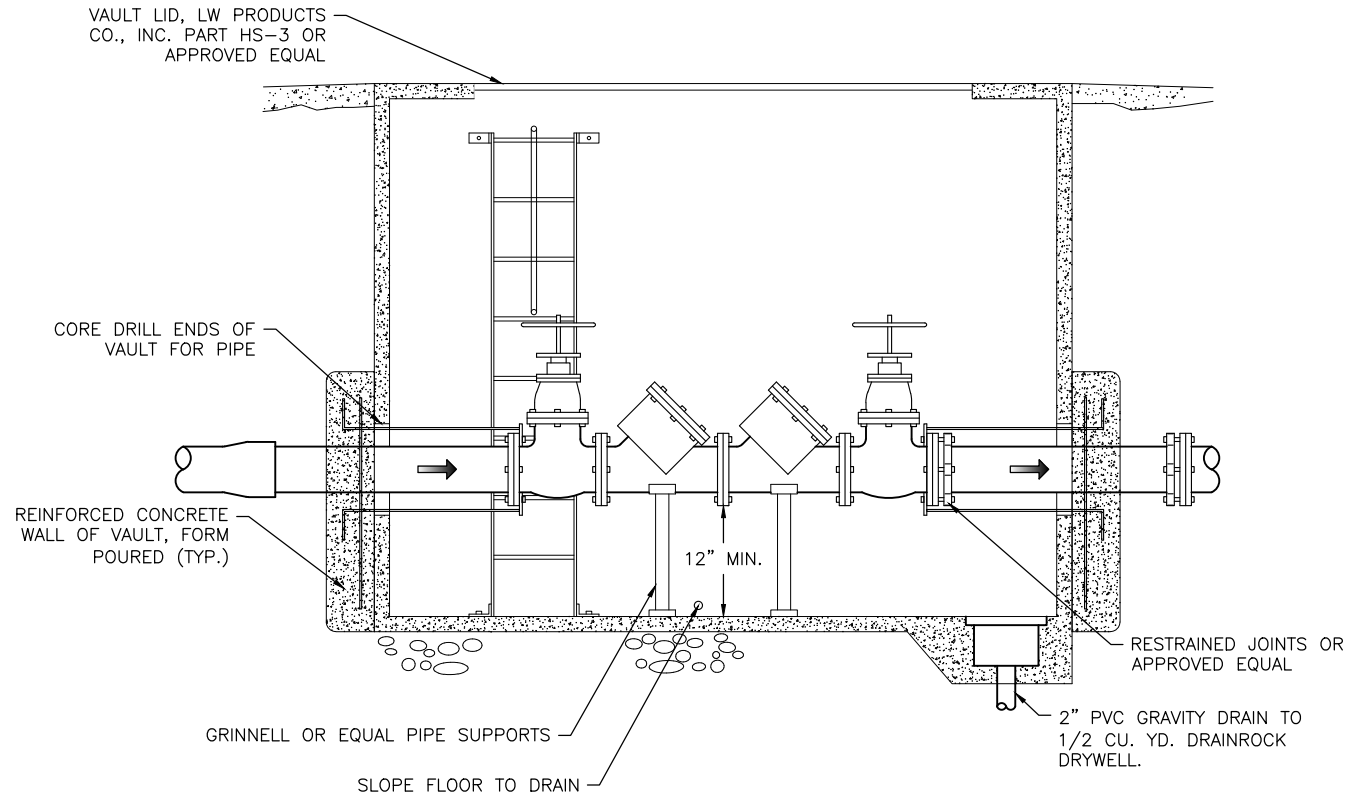
DATE DRAWN	CHECKED	DATE	INITIAL
2/24/2020	DMN	01/22	AJS
	CAW	03/31/2023	JTB

NOTES:

1. TYPICAL LOCATION IS AT OR NEAR THE PROPERTY LINE, AT BACK OF WATER METER CHAMBER.
2. COVER SHALL NOT EXTEND MORE THAN 2" ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA.
3. SLOPE PAVEMENT AWAY FROM COVER.
4. VAULT LID SHALL BE OF ADEQUATE HEIGHT TO PROVIDE MIN. 6" CLEARANCE TO O, S & Y VALUE WHEN VALVE IS FULLY OPEN.
5. VAULTS SHALL BE AS MANUFACTURED BY UTILITY VAULT OR APPROVED EQUAL AND SHALL BE STRUCTURALLY DESIGNED FOR THE PROPOSED INSTALLATION.
6. BACK-FLOW VALVE AND ASSEMBLY MUST APPEAR ON CURRENT DEPT. OF HEALTH'S APPROVED VALVE LISTING.
7. RESTRAIN CHECK DETECTOR WITH MEGA-LUGS, RESTRAINED JOINT PIPE, OR SHACKLE RODS BACK TO WATER MAIN AS REQUIRED.
8. BOTTOMLESS VAULTS MUST PROVIDE CONCRETE SUPPORT FOUNDATIONS FOR PIPE SUPPORTS.
9. ASSEMBLY SHALL BE MAINTAINED BY OWNER WITH A TEST DONE UPON INSTALLATION AND ANNUALLY THEREAFTER BY A CERTIFIED BACK-FLOW ASSEMBLY TESTER (BAT.) A COPY OF EACH ANNUAL TEST REPORT MUST BE SENT TO THE CITY OF WENATCHEE.
10. WATER SERVICE SHALL NOT BE PLACED IN SERVICE UNTIL AFTER DOUBLE CHECK DETECTOR ASSEMBLY IS INSPECTED, TESTED AND APPROVED BY CITY REPRESENTATIVE.
11. ACCOUNT FOR THERMAL EXPANSION WITHIN THE PREMISES.
12. AN ALTERNATE LOCATION MAY BE ALLOWED BY THE WATER PURVEYOR.
13. CONCRETE THRUST RESTRAINT LOCATED OUTSIDE THE VAULT ARE NOT REQUIRED WITH A NEW WATER MAIN TAP AND FULLY RESTRAINED JOINTS HAVE BEEN INSTALLED TO THE VAULT A MINIMUM OF 10- FEET DOWNSTREAM OF THE DOUBLE CHECK DEVICE



PLAN



SECTION

**STANDARD DETAIL
DOUBLE CHECK VALVE
PREMISES ISOLATION**

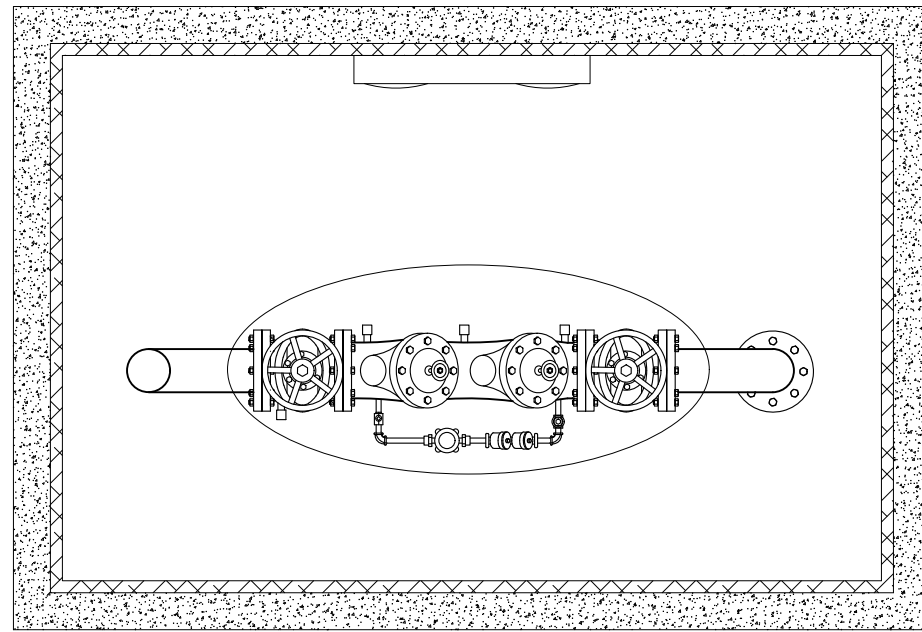


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					01/01/2022	AJS		
					03/31/2023	JTB		

STANDARD SPECIFICATIONS
6-02 CONCRETE STRUCTURES
7-09 WATER MAINS
7-12 VALVES FOR WATER MAINS
7-15 SERVICE CONNECTIONS

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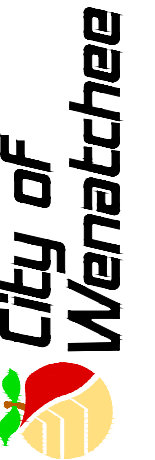


PLAN

NOTES:

1. ASSEMBLY SHALL BE MAINTAINED BY OWNER, TESTING IS REQUIRED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER (BAT) AFTER INSTALLATION, THEN ANNUALLY THEREAFTER. A COPY OF THE TEST REPORT SHALL BE SENT TO THE CITY OF WENATCHEE.
2. WATER MAIN SHALL NOT BE PLACED IN SERVICE UNTIL AFTER REDUCED PRESSURE BACKFLOW ASSEMBLY IS INSPECTED AND APPROVED BY THE CITY OF WENATCHEE.
3. RESTRAIN ASSEMBLY WITH, MEGA-LUGS, RESTRAINED JOINT PIPE OR SHACKLE RODS BACK TO WATER MAIN AS REQUIRED.
4. SEE CURRENT ADDTION OF AWWA CROSS CONNECTION CONTROL MANUAL FOR ADDITIONAL DETAILS.

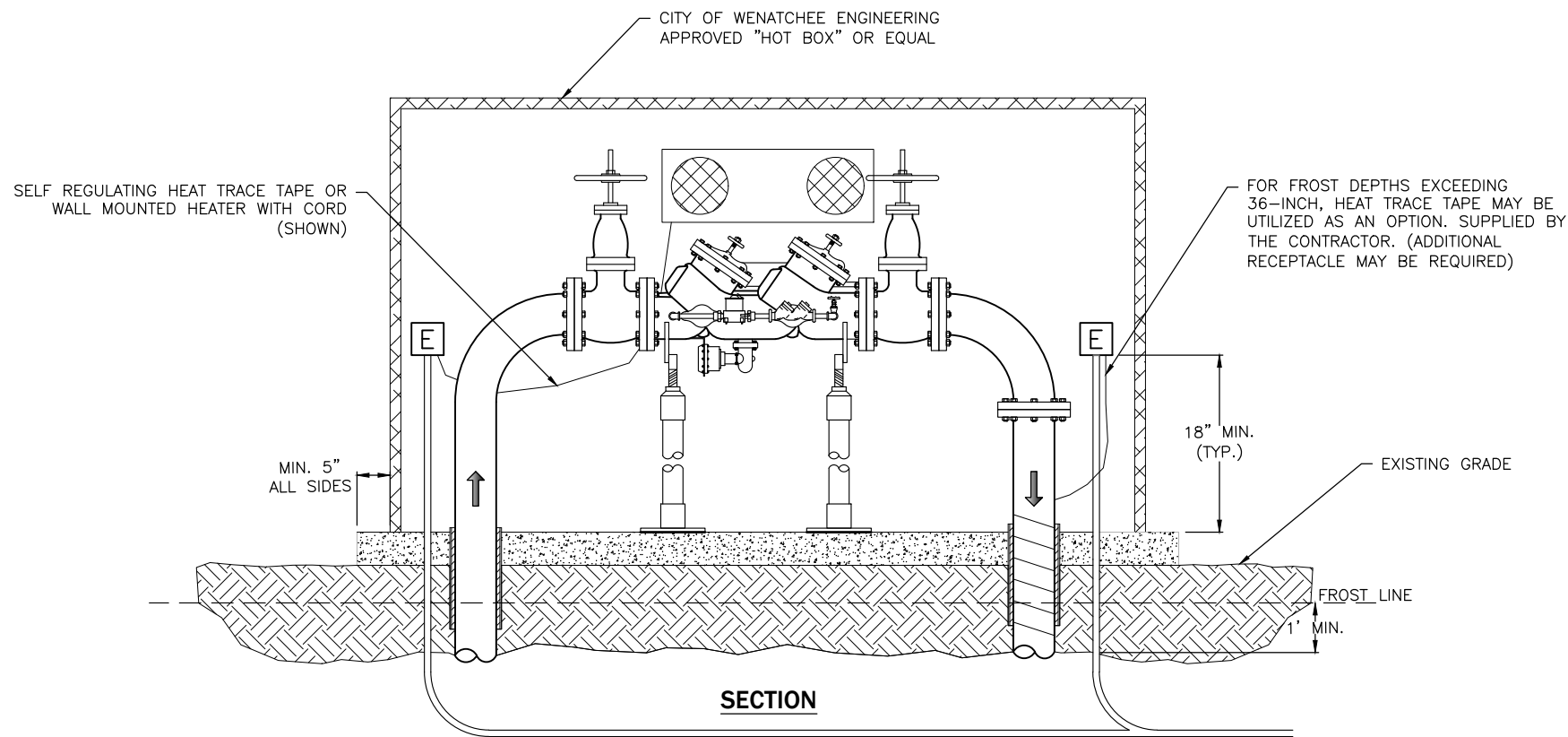
**STANDARD DETAIL
HOT BOX ENCLOSURE
BACK FLOW ASSEMBLY**



SCALE: AS SHOWN	DATE DRAWN	REVISIONS	
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APPROVED BY	DATE APPROVED	03/31/2023	JTB
STANDARD SPECIFICATIONS			

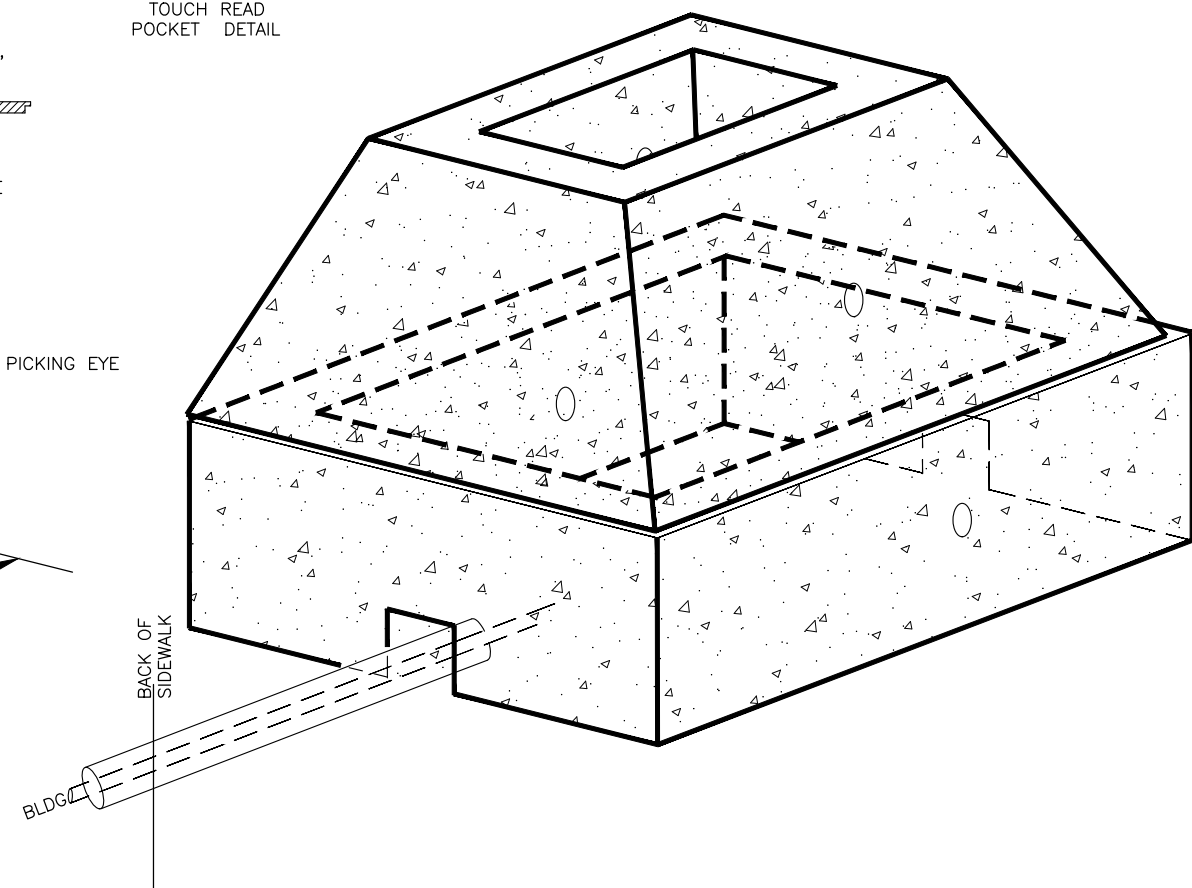
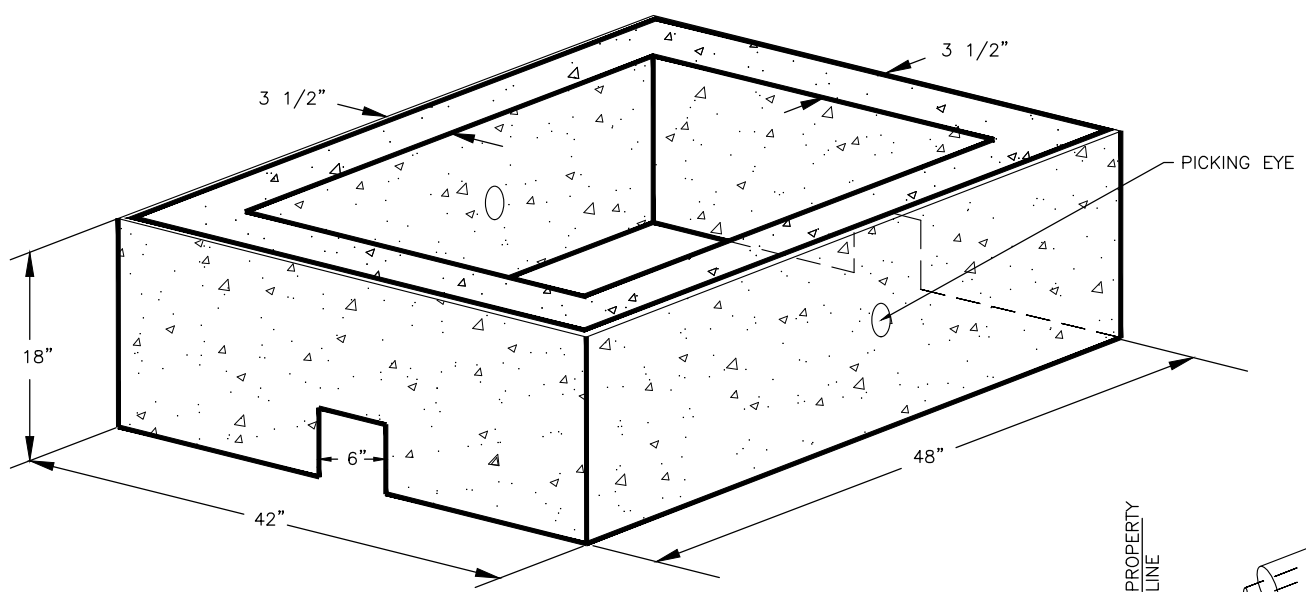
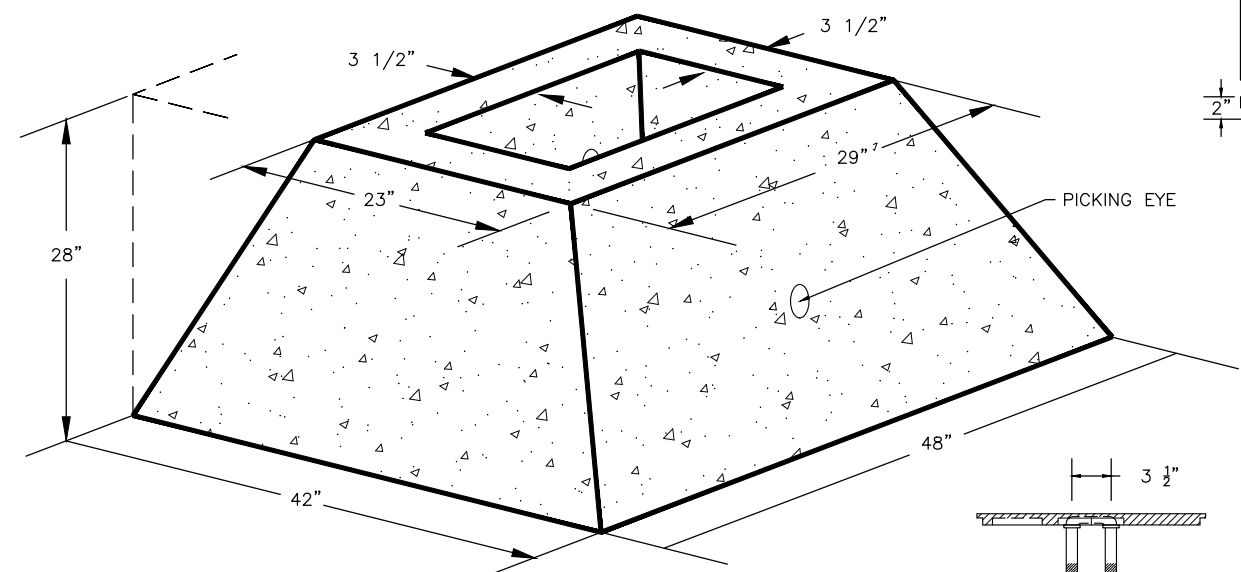
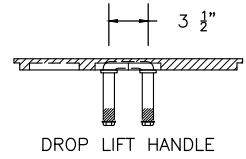
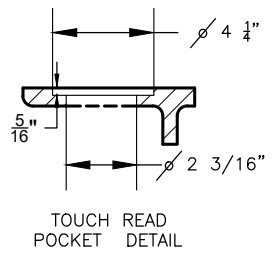
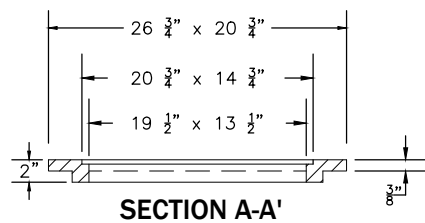
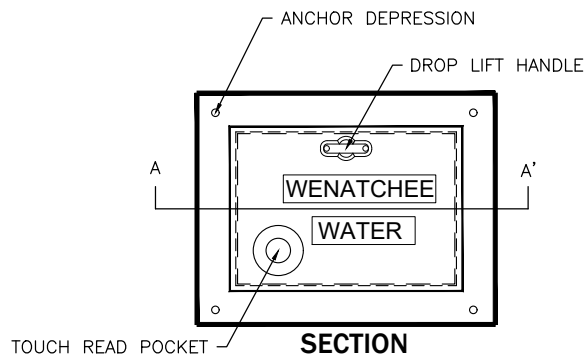
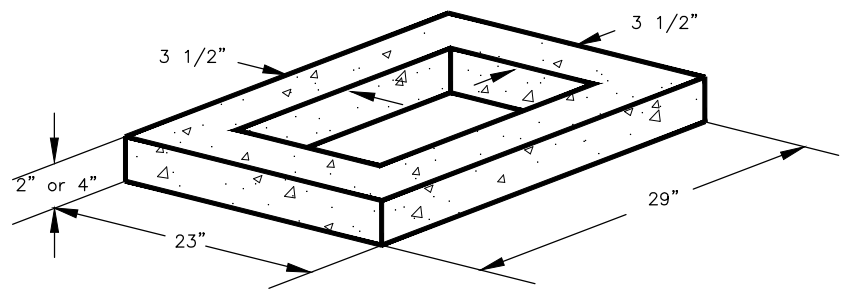
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W-230

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SECTION

**REDUCED PRESSURE
BACKFLOW ASSEMBLIES
RPBA's & RDDA's**

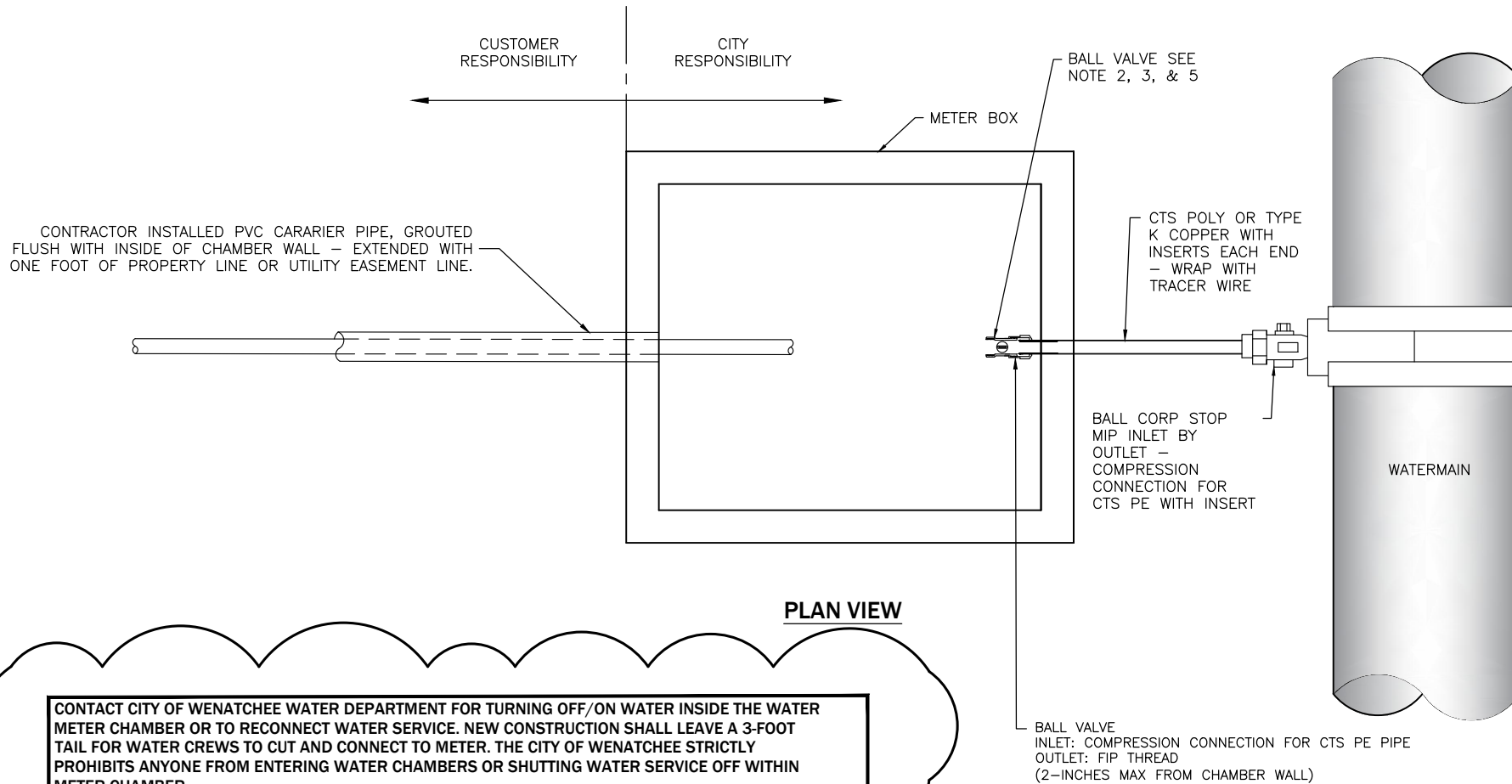


- NOTES:**
1. MATERIALS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION.
 2. USE CITY SIDEWALK DETAIL FOR SIDEWALK SURFACING OVER WATER METER CHAMBERS.
 3. LOCATE WATER METER CHAMBER UNDER SIDEWALK, SET WATER METER CHAMBER LID FLUSH WITH FINAL SIDEWALK GRADE. WATER METER CHAMBER SHALL BE SET AT A DEPTH TO INCLUDE AT LEAST ONE RISER AND A MAXIMUM DEPTH OF 4-INCH RISER UNLESS OTHERWISE APPROVED.
 4. WATER CHAMBER CAST IRON FRAME SHALL HAVE A DEPRESSION FOR PRE-APPROVED "FASTENAL 1/4-INCH X 2 1/2-INCH DRIVE ANCHORS PART NUMBER 50608" OR AS APPROVED BY THE CITY ENGINEER.
 5. SERVICE TO PROPERTY SHALL BE IN A CASING. THE CASING SHALL BE A MINIMUM DIAMETER OF 2-INCH PVC PIPE, OR 50% GREATER THAN THE SERVICE PIPE WHICHEVER IS LARGER. THE CASING PIPE SHALL BE GROUTED FLUSH WITH INSIDE EDGE OF CHAMBER AND EXTENDED TO WITHIN 1-FOOT OF THE PROPERTY LINE OR UTILITY EASEMENT LINE.

**STANDARD DETAIL
WATER BOX CHAMBER
WATER METER SERVICES**



SCALE:	DATE DRAWN	DESIGNED	CHECKED	DATE APPROVED	REVISIONS
AS SHOWN	3/06/2017	MYW	DMN		
					DATE
					INITIAL
					DMN
					DMN
					AJS
					JTB

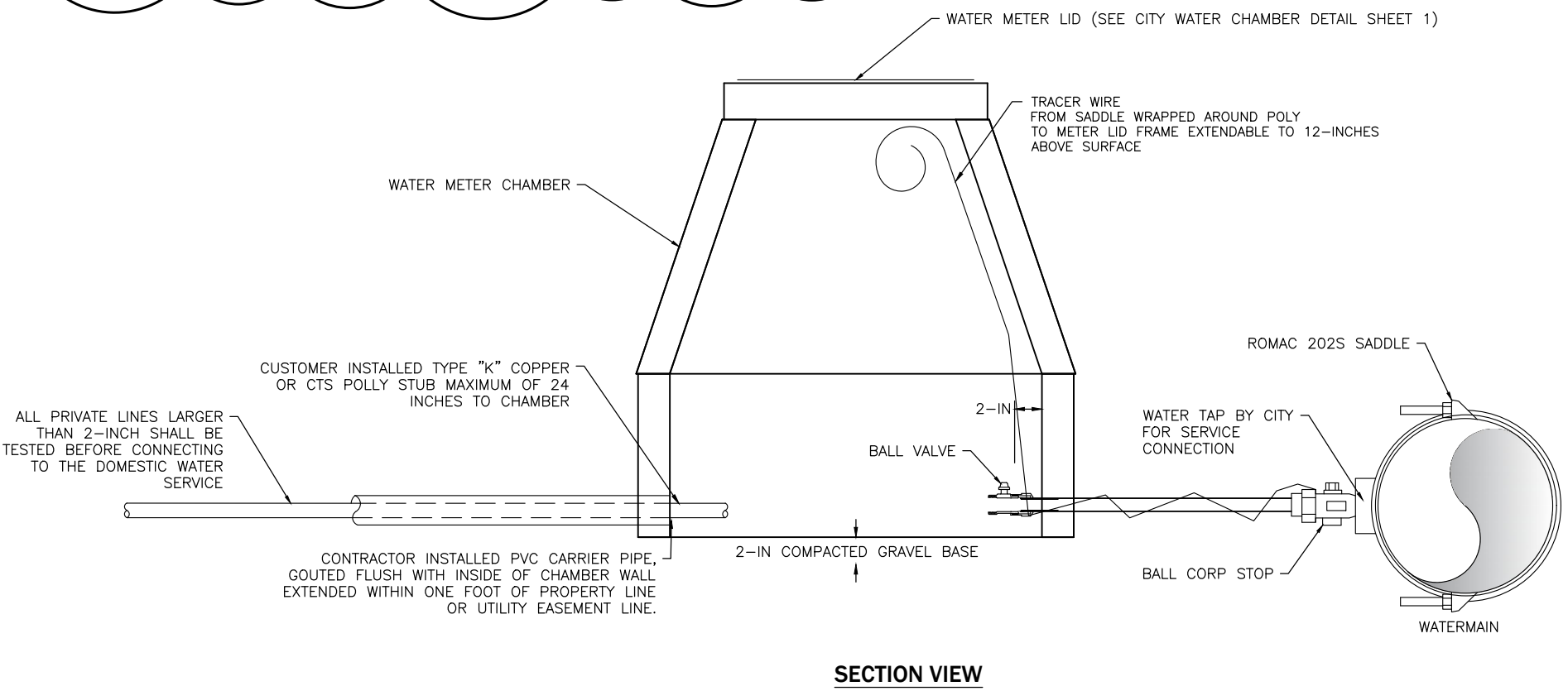


PLAN VIEW

CONTACT CITY OF WENATCHEE WATER DEPARTMENT FOR TURNING OFF/ON WATER INSIDE THE WATER METER CHAMBER OR TO RECONNECT WATER SERVICE. NEW CONSTRUCTION SHALL LEAVE A 3-FOOT TAIL FOR WATER CREWS TO CUT AND CONNECT TO METER. THE CITY OF WENATCHEE STRICTLY PROHIBITS ANYONE FROM ENTERING WATER CHAMBERS OR SHUTTING WATER SERVICE OFF WITHIN METER CHAMBER.

NOTES:

1. MATERIALS SHALL BE SUBMITTED FOR CITY APPROVAL PRIOR TO INSTALLATION.
2. MATERIAL SHALL BE NON-LEAD, SUPPLIERS ARE TYPICALLY: FORD, MEULLER, AND AY MCDONALD.
3. WATCH BALL VALVE SIZE TO CTS POLY, MINIMUM PIPE DIAMETER IS 1 1/2-INCH FOR ALL SINGLE SERVICES FROM WATER MAIN. 1-INCH MINIMUM AS DETERMINED BY CITY.
4. DOWNSTREAM WATER SERVICE PIPE DIAMETER SHALL BE THE SAME AS THE WATER METER FOR TEN (10) FEET.
5. BALL VALVE'S COMPRESSION COUPLING TO THE CTS PE WATER SERVICE PIPE SHALL HAVE INSERT AND BE A MAXIMUM OF 2-INCHES FROM INSIDE OF CHAMBER.
6. ALL TAPS SHALL BE BY CITY CREWS



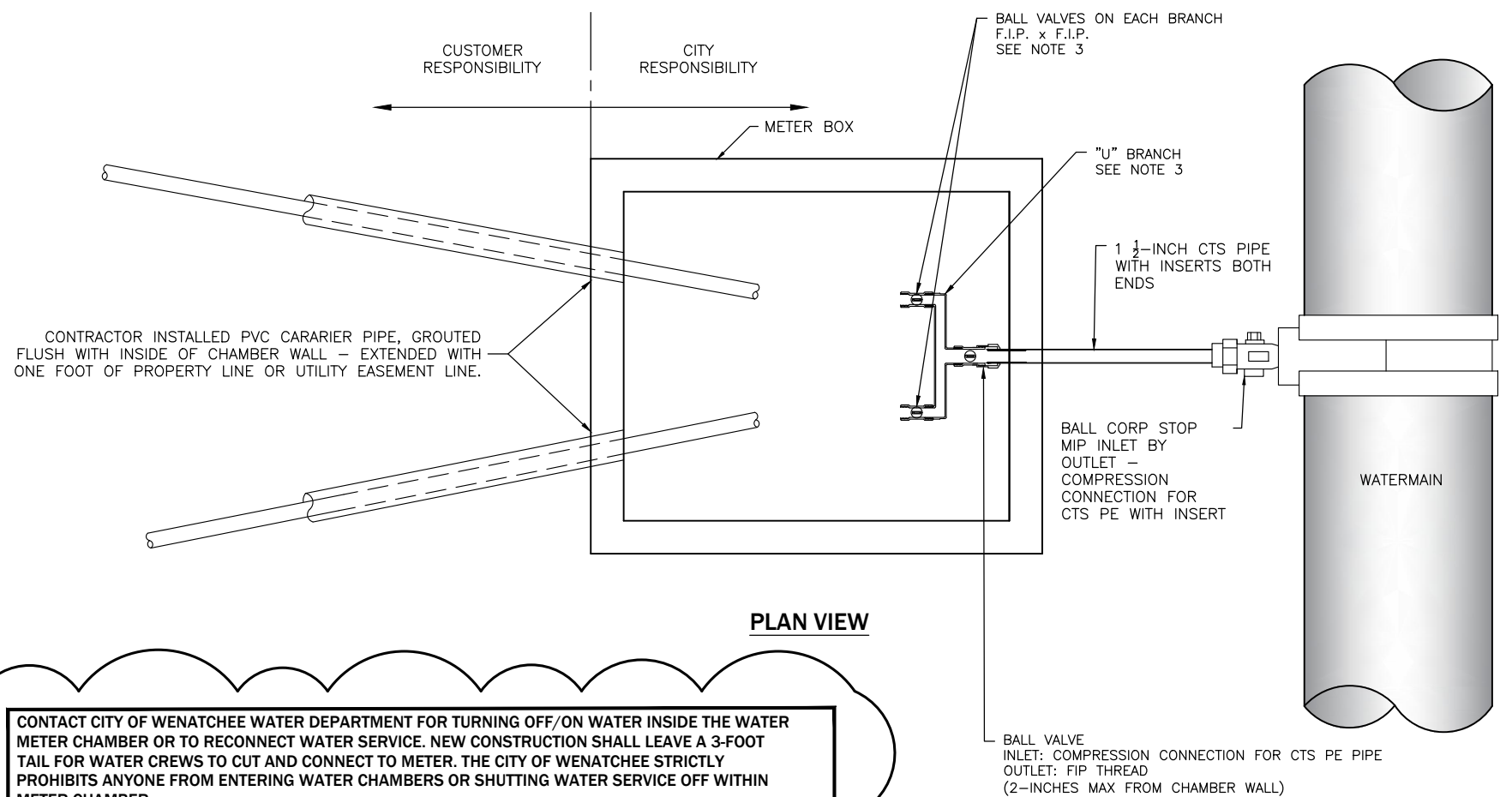
SECTION VIEW

WATER SERVICES		
SINGLE METER SIZE IN CHAMBER (INCHES)	SERVICE TO CHAMBER (INCHES)	SERVICE FROM CHAMBER (INCHES)
3/4 OR 1	1 1/2 *	3/4
1	1 1/2 *	1
1 1/2	1 1/2	1 1/2
2	2	2
* 1-INCH MINIMUM AS DETERMINED BY CITY		

STANDARD DETAIL
1 1/2" OR 2" SINGLE METER SERVICE
WATER METER SERVICES



SCALE: AS SHOWN	DESIGNED	DRAWN	CHECKED	DATE DRAWN	REVISIONS					
					DATE	INITIAL	BY	DATE		
		MYW	DMN	3/06/2017	04/26/2017	DMN	01/01/2022	AJS	03/01/2023	JTB

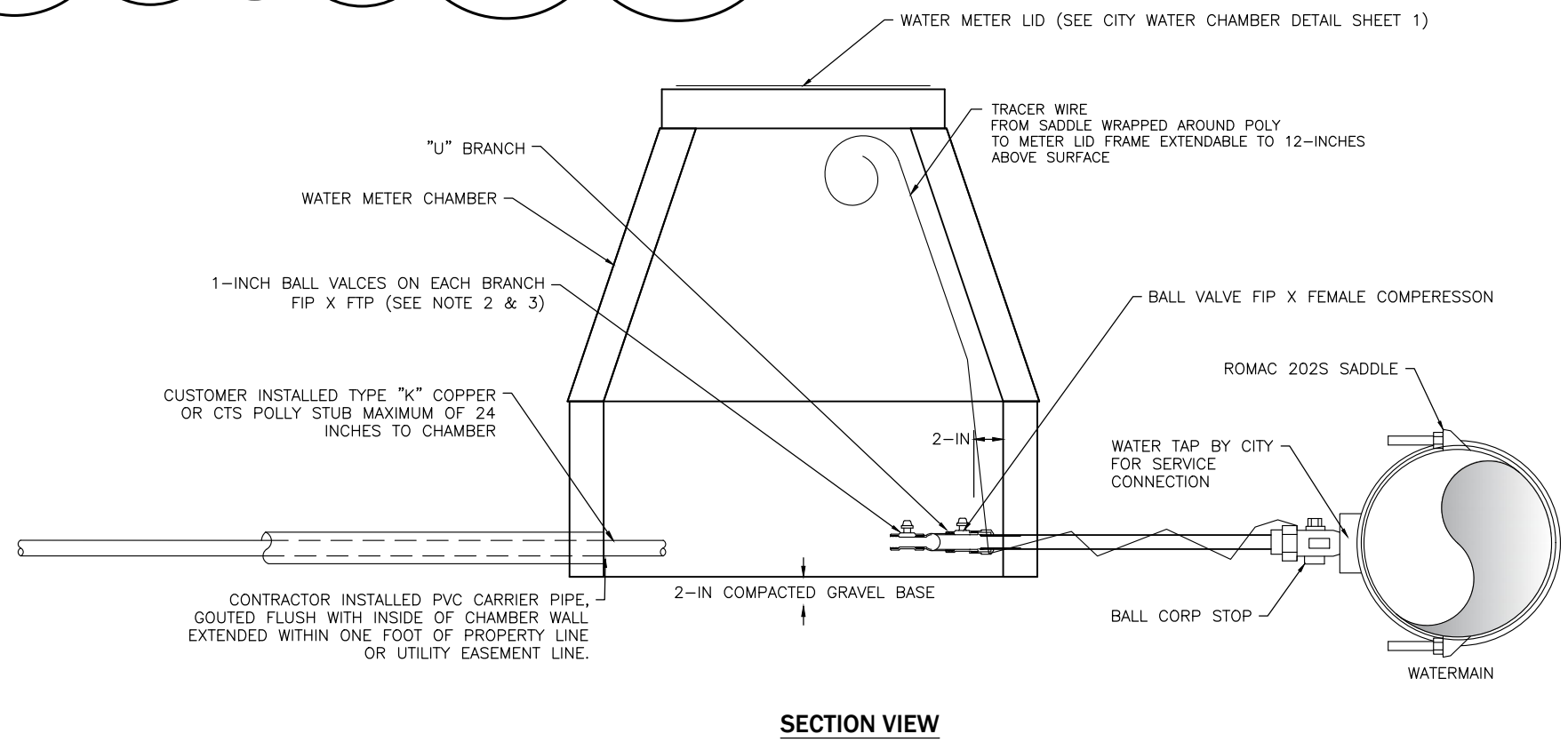


PLAN VIEW

CONTACT CITY OF WENATCHEE WATER DEPARTMENT FOR TURNING OFF/ON WATER INSIDE THE WATER METER CHAMBER OR TO RECONNECT WATER SERVICE. NEW CONSTRUCTION SHALL LEAVE A 3-FOOT TAIL FOR WATER CREWS TO CUT AND CONNECT TO METER. THE CITY OF WENATCHEE STRICTLY PROHIBITS ANYONE FROM ENTERING WATER CHAMBERS OR SHUTTING WATER SERVICE OFF WITHIN METER CHAMBER.

NOTES:

1. MATERIALS SHALL BE SUBMITTED FOR CITY APPROVAL PRIOR TO INSTALLATION.
2. MATERIAL SHALL BE NON-LEAD, SUPPLIERS ARE TYPICALLY: FORD, MEULLER, AND AY MCDONALD.
3. MATCH BALL VALVE SIZE TO CTS POLY, 1-1/2 INCH BY 1-INCH U-BRANCH SET 12-INCH ON CENTER CONNECTED TO 1 1/2 INCH BALL VALVE NEAR CHAMBER WALL AND WITH 1-INCH BALL VALVES ON EACH BRANCH.
4. DOWNSTREAM WATER SERVICE PIPE DIAMETER SHALL BE THE SAME AS THE WATER METER FOR TEN (10) FEET.
5. 1 1/2 INCH BALL VALVE COMPRESSION COUPLING TO THE CTS PE SERVICE PIPE SHALL BE A MAXIMUM OF 2-INCHES FROM SIDE OF CHAMBER WALL.
6. ALL TAPS SHALL BE BY CITY CREWS

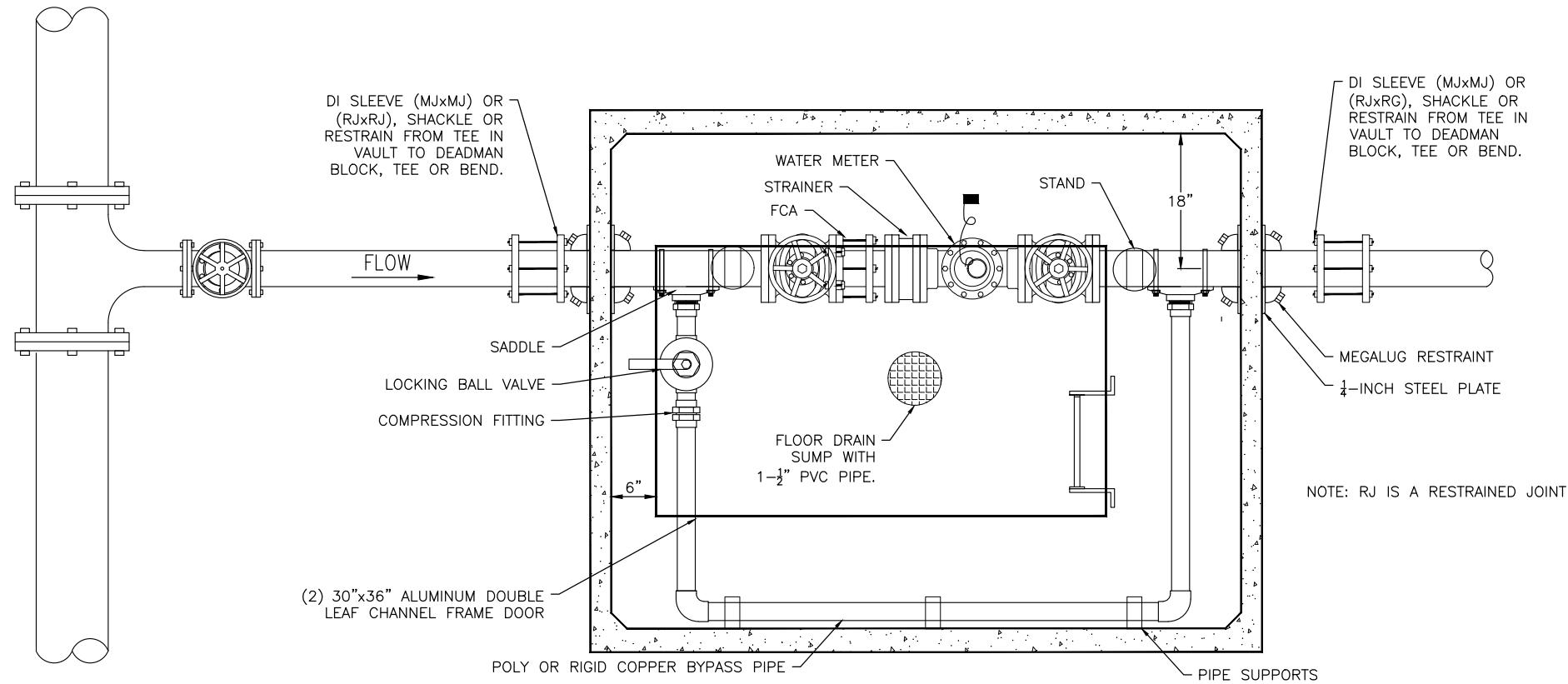


SECTION VIEW

STANDARD DETAIL
2 1" SPLIT FROM 1 1/2" DOUBLE METER SERVICE
WATER METER SERVICES

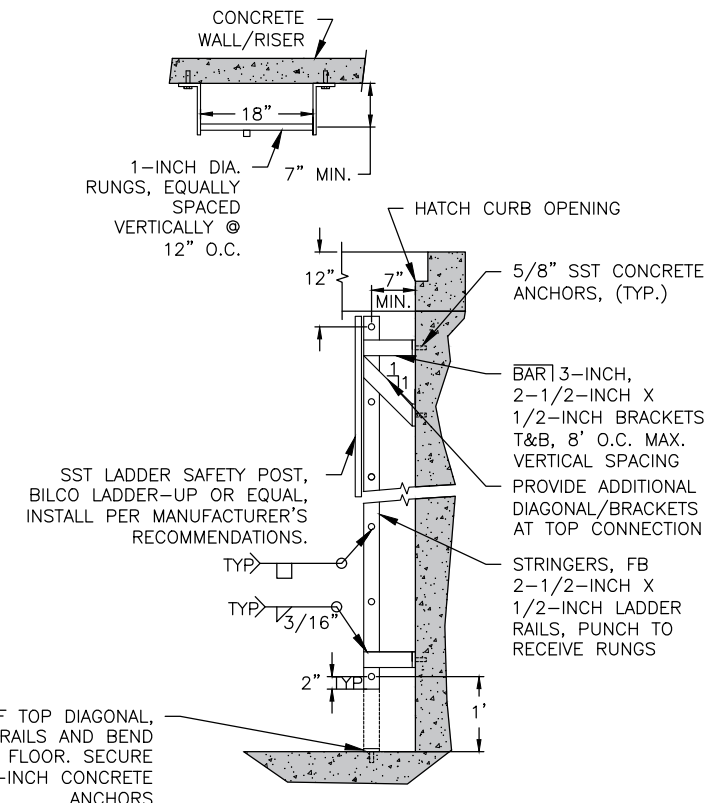


SCALE: AS SHOWN	DATE DRAWN	REVISIONS				
		DATE	INITIAL	BY	DATE	INITIAL
DESIGNED	3/06/2017	04/26/2017	DMN	DMN		
DRAWN	MYW	01/01/2022	AJS	AJS		
APPROVED BY		03/01/2023	JTB	JTB		

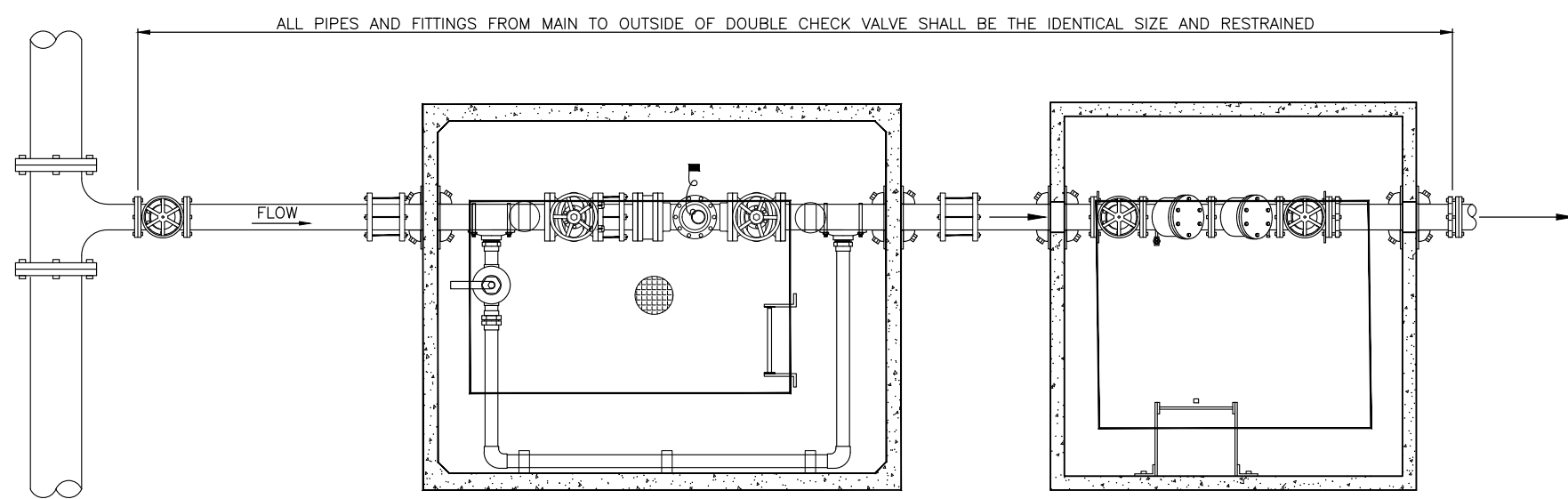


WATER PIPING AND VAULT
N.T.S.

- NOTES:
 1. LADDERS SHALL BE ALUMINUM.
 2. LADDER MUST MEET CONSTRUCTION REQUIREMENTS OF ANSI A14.3



LADDER DETAIL
N.T.S.



WATER PIPING AND VAULT
N.T.S.

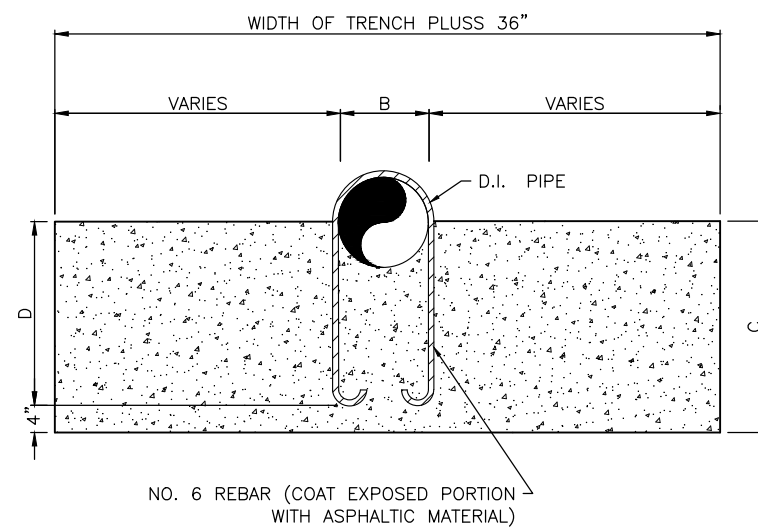
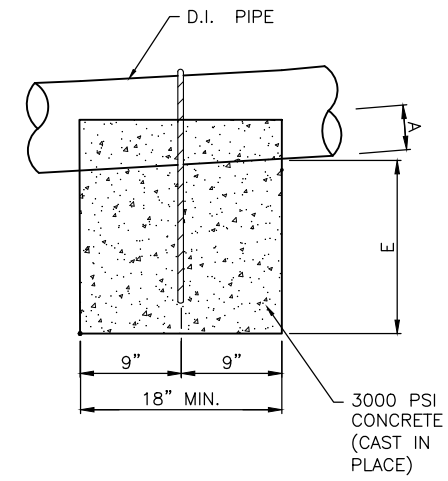
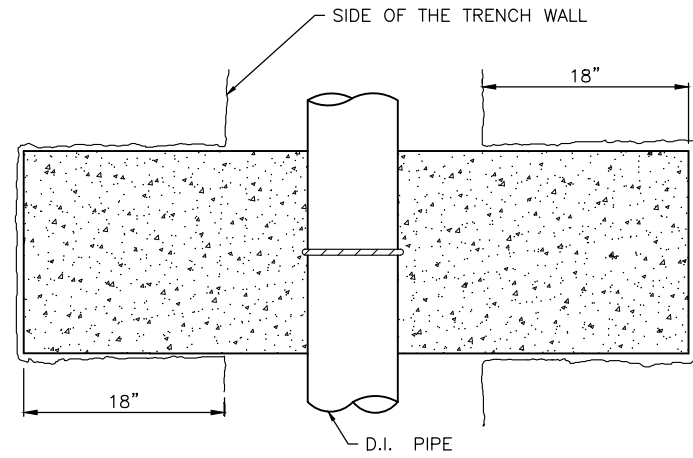
DOUBLE CHECK VAULT
N.T.S.

- NOTES:
 1. MATERIALS SHALL BE SUBMITTED FOR CITY APPROVAL PRIOR TO INSTALLATION.
 2. MATERIALS SHALL BE NON-LEAD.
 3. MATCH BALL VALVE SIZE TO CTS POLY.
 4. BALL VALVE COMPRESSION COUPLING TO THE CTS PE WATER SERVICE PIPE SHALL HAVE INSERT AND BE A MAXIMUM OF 2 INCHES FROM INSIDE CHAMBER WALL.
 5. DOWNSTREAM WATER SERVICE PIPE DIAMETER SHALL BE THE SAME AS THE WATER METER FOR 3 FEET.
 6. ALL TAPS SHALL BE BY CITY CREWS.
 7. WATER METER TO BE LOCATED AT BACK OF WALK. SET WATER METER CHAMBER LID FLUSH WITH FINAL SIDEWALK GRADE.
 8. EASEMENTS REQUIRED WHEN OUTSIDE RIGHT-OF-WAY.
 9. BYPASS PIPE 2-INCH TYP. IN ALL CASES POLY OR RIGID COPPER.

STANDARD DETAIL
3", 4", AND 6" WATER
METER CHAMBER



SCALE: AS SHOWN	DESIGNED	DRAWN	CHECKED	REVISIONS	
				DATE	INITIAL
01/28/21	CAW	CAW		01/01/2022	AJS
				03/31/2023	JTB



PIPE SIZE	DIMENSIONS (INCHES)				
	A	B	C	D	E
4"	2.4	4.8	17	13	14.6
6"	3.5	6.9	18	14	14.5
8"	4.5	9.1	19	15	14.5
10"	5.6	11.1	20	16	14.4
12"	6.6	13.2	21	17	14.4
14"	7.7	15.3	22	18	14.3
16"	8.7	17.4	23	19	14.3
18"	9.8	19.5	24	20	14.2

SLOPES > 20% – PROVIDE CONCRETE SLOPE ANCHORS (20' TO 25' ON CENTER.)

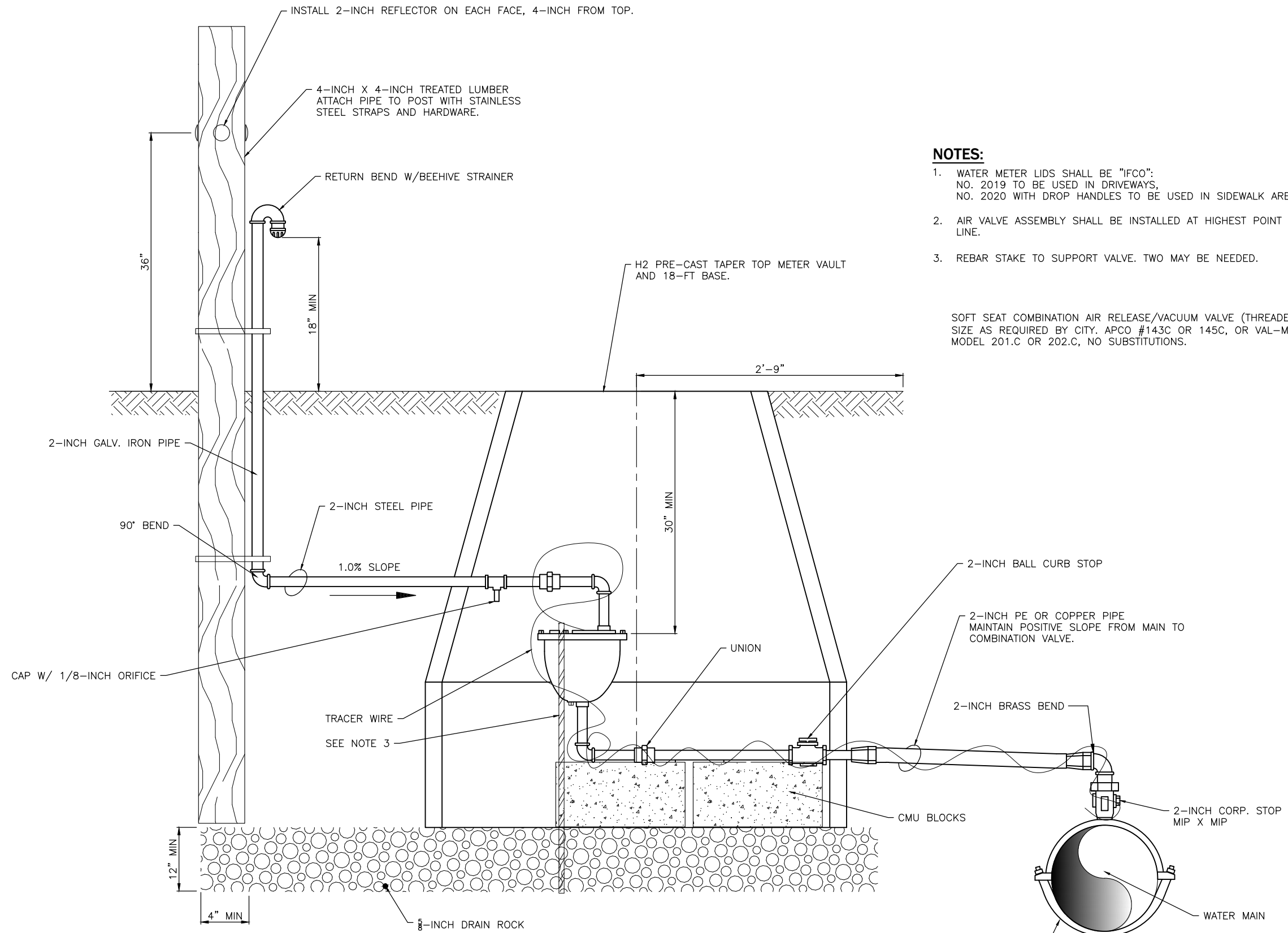
**STANDARD DETAIL
CONCRETE SLOPE
ANCHOR**



SCALE: AS SHOWN	DESIGNED	DRAWN CAW	APPROVED BY	DATE DRAWN 11/04/2020	CHECKED	DATE APPROVED	REVISIONS	
							DATE	INITIAL
							01/01/2022	AJS

DETAIL NO.
W-310

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NOTES:

1. WATER METER LIDS SHALL BE "IFCO": NO. 2019 TO BE USED IN DRIVEWAYS, NO. 2020 WITH DROP HANDLES TO BE USED IN SIDEWALK AREAS
2. AIR VALVE ASSEMBLY SHALL BE INSTALLED AT HIGHEST POINT OF LINE.
3. REBAR STAKE TO SUPPORT VALVE. TWO MAY BE NEEDED.

SOFT SEAT COMBINATION AIR RELEASE/VACUUM VALVE (THREADED), SIZE AS REQUIRED BY CITY, APCO #143C OR 145C, OR VAL-MATIC MODEL 201.C OR 202.C, NO SUBSTITUTIONS.

ALL PIPE FITTINGS AFTER CURB STOP TO BE GALVANIZED STEEL (WRAPPED), UNLESS OTHERWISE NOTED. PIPE FROM MAIN TO CURB STOP SHALL NOT BE GALVANIZED STEEL.

DOUBLE STRAP SERVICE CLAMP W/2-INCH IPS TAP TO FIT, EQUAL TO FORD CO.

COMBINATION AIR VALVE
N.T.S.

STANDARD DETAIL
COMBINATION
AIR VALVE



SCALE: AS SHOWN	DATE DRAWN	REVISIONS			
		DATE	INITIAL	BY	DATE
DESIGNED	08/03/2006				
DRAWN					
CHECKED					
APPROVED BY					

DETAIL NO.
W-400

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