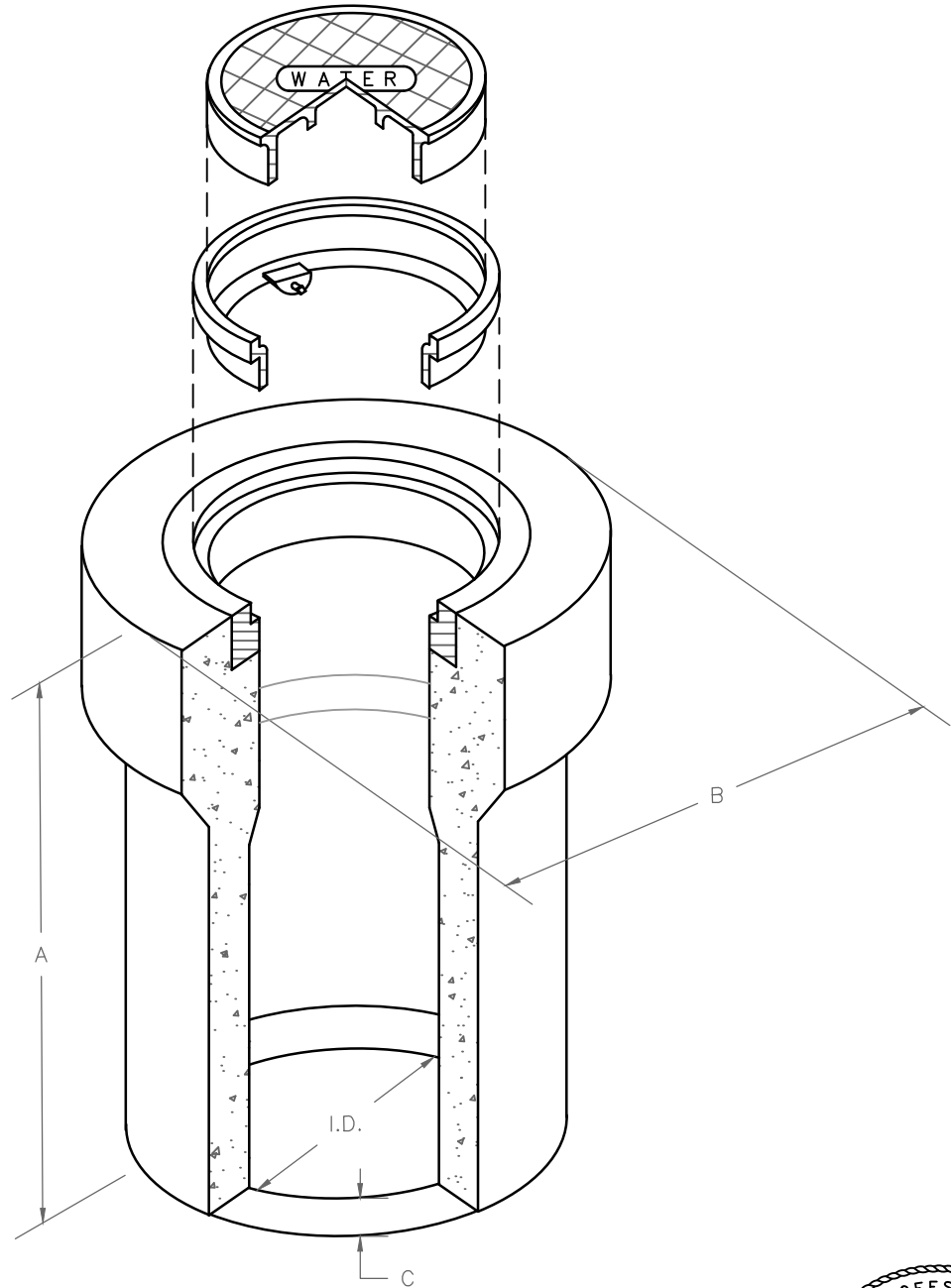
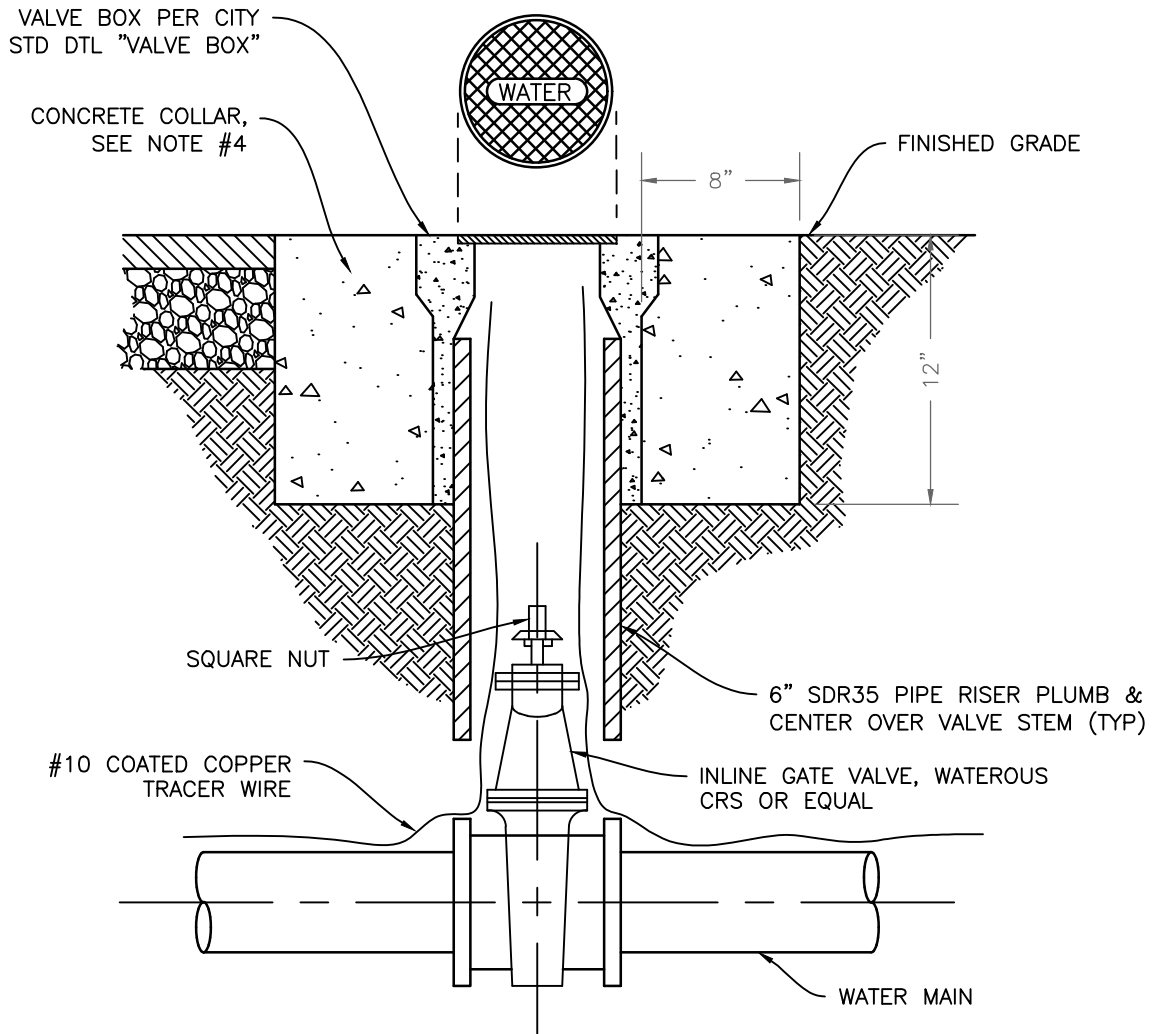




VALVE BOX	TYPE	A	B	C	I.D.
CURB	F1	7 3/4"	12 3/8"	1 1/2"	8 1/4"
CURB	F8	11 3/4"	12 3/8"	1 3/8"	8 1/4"
TRAFFIC	G5	12"	14 1/4"	1"	10 3/8"
TRAFFIC	G8	12"	16 3/4"	1 1/4"	13"



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				VALVE BOX	 N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-01



NOTES:

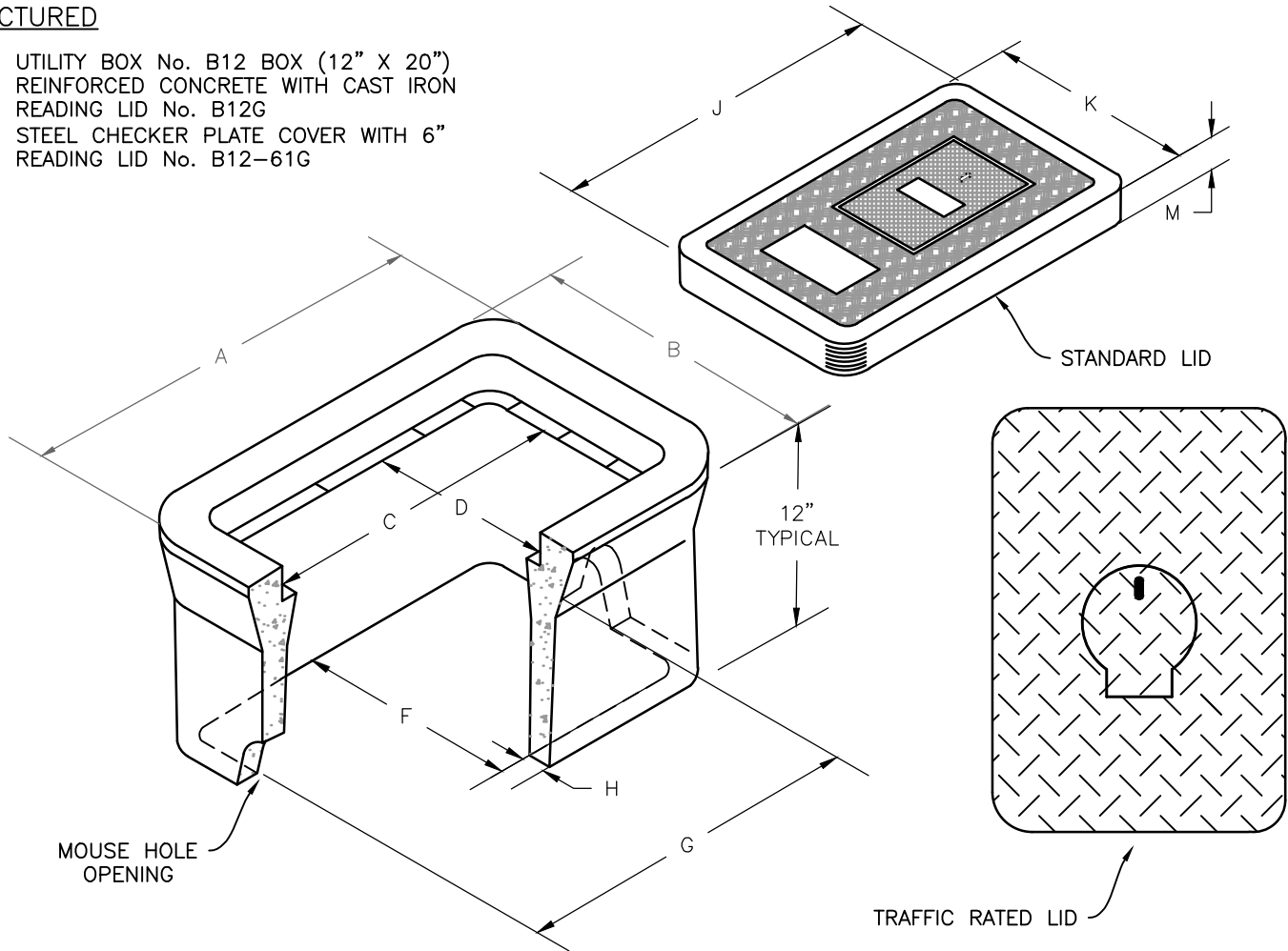
1. VALVES 2" THROUGH 10" SHALL BE RESILIENT WEDGE GATE VALVES WHEREAS ANY VALVES LARGER THAN 10" SHALL BE BUTTERFLY VALVES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
2. VALVE BOX AS PER CITY STD DTL "VALVE BOX", G5 WITH LID STAMPED "WATER".
3. THRUST BLOCK REQUIRED ON ALL VALVE ASSEMBLIES PER CITY STD DTL "THRUST BLOCK INSTALL".
4. ALL CONCRETE SHALL BE 520-C-2500 AS PER THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
5. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	GATE VALVE AND BOX INSTALLATION	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER
					W-02

PICTURED

- UTILITY BOX No. B12 BOX (12" X 20")
- REINFORCED CONCRETE WITH CAST IRON READING LID No. B12G
- STEEL CHECKER PLATE COVER WITH 6" READING LID No. B12-61G



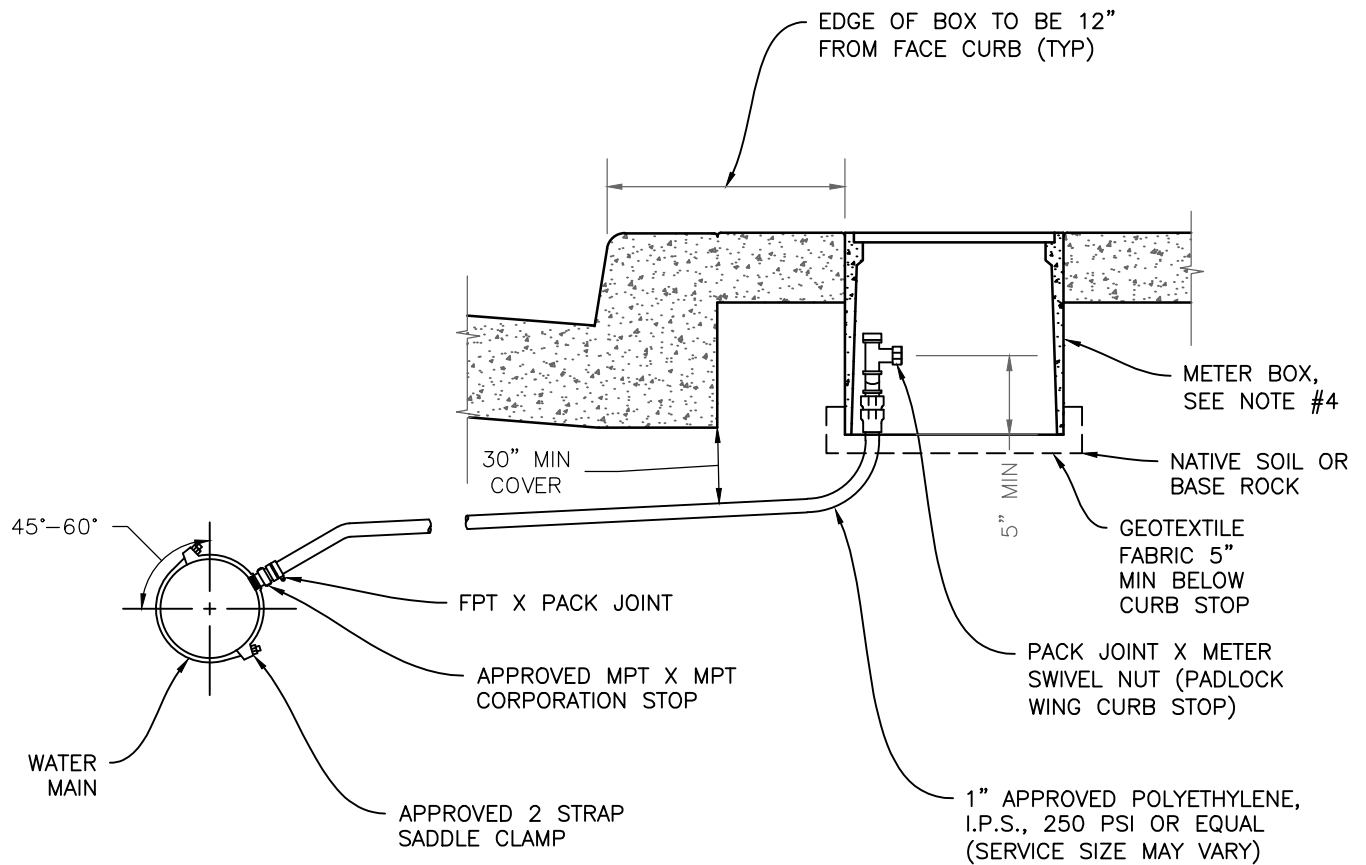
WATER SERVICE TYPE	A	B	C	D	F	G	H	J	K	M	CODE
ONE 3/4" OR 5/8" OR 1" WATER METER	22 3/4	15 1/4	16 1/2	9 7/8	12	20	1 1/4	18 1/8	11 3/8	1 3/4	B12 BOX, B12G LID
ONE 3/4" OR 5/8" OR 1" WATER METER	25 1/8	15 5/8	19 1/2	9 1/4	11 3/4	22 1/4	1 1/4	20 3/4	10 5/8	2	B16 BOX, B16G LID
TWO 3/4" OR 5/8" OR 1" WATER METERS	24	23 1/2	18 1/8	16 1/2	19 1/4	20 3/4	1 1/2	19 1/2	18	2	B24 BOX, B24G LID
ONE 2" OR 4" WATER METER	27 1/2	18	22	12 1/2	13 1/4	24 1/4	1 1/2	23 1/4	13 3/4	2	N30 BOX, B30G LID

NOTES:

1. TRAFFIC RATED LID & OTHER LID VARIATIONS REQUIRE PRE-APPROVAL.
2. TRAFFIC RATED BOXES AND LIDS TO BE INSTALLED IN DRIVEWAYS AND LOCATIONS WHERE VEHICULAR TRAFFIC MAY OCCUR.
3. MOUSE HOLE SIZE AND LOCATION MAY VARY WITH BOX SIZE AND CODE No.
4. TABLE MEASUREMENTS SHOWN ABOVE ARE IN INCHES.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				CHRISTY WATER METER BOXES	 N. B. KHATRI, R.C.E. #75428 DRAWING NUMBER W-04

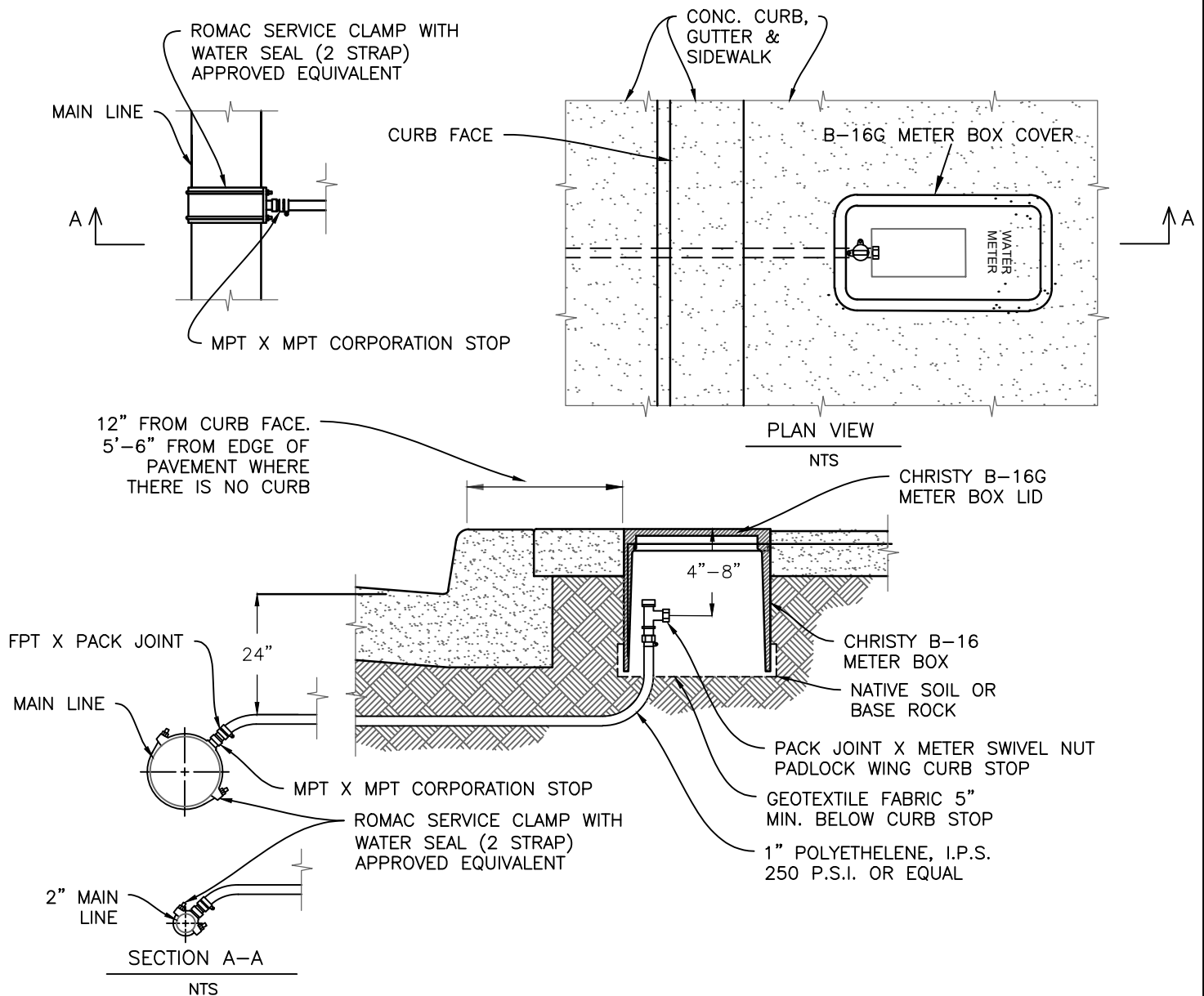


NOTES:

1. ALL MAINS SHALL HAVE 2 STRAP SADDLES FOR SERVICE CONNECTIONS.
2. SADDLES SHALL BE 2" MINIMUM WIDTH.
3. SIZES INDICATED ARE MINIMUM.
4. METER BOX AND LID PER CITY STD DTL "METER BOXES".
5. TRAFFIC LOADING BOX AND LID TO BE INSTALLED IN ALL DRIVEWAYS OR LOCATIONS WHERE VEHICULAR TRAFFIC MAY OCCUR, OR WHERE SPECIFIED ON PLANS.
6. METER BOXES TO BE SET FLUSH WITH SIDEWALK, CURB, OR FINISHED GRADE.
7. PRIOR TO METER SET, ADDRESS TO BE CLEARLY MARKED ON TOPSIDE LIP OF METER BOX W/PERMANENT FELT MARKER.
8. AN APPROVED REDUCING ADAPTER SHALL BE USED FOR $\frac{3}{4}$ " METER INSTALLATION ON A 1" WATER SERVICE LATERAL.
9. ANY OVERSIZED SADDLES REQUIRE A BRASS REDUCING BUSHING BEFORE CORP STOP.
10. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 48 HOURS IN ADVANCE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				SINGLE SERVICE (STANDARD)	 N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-05

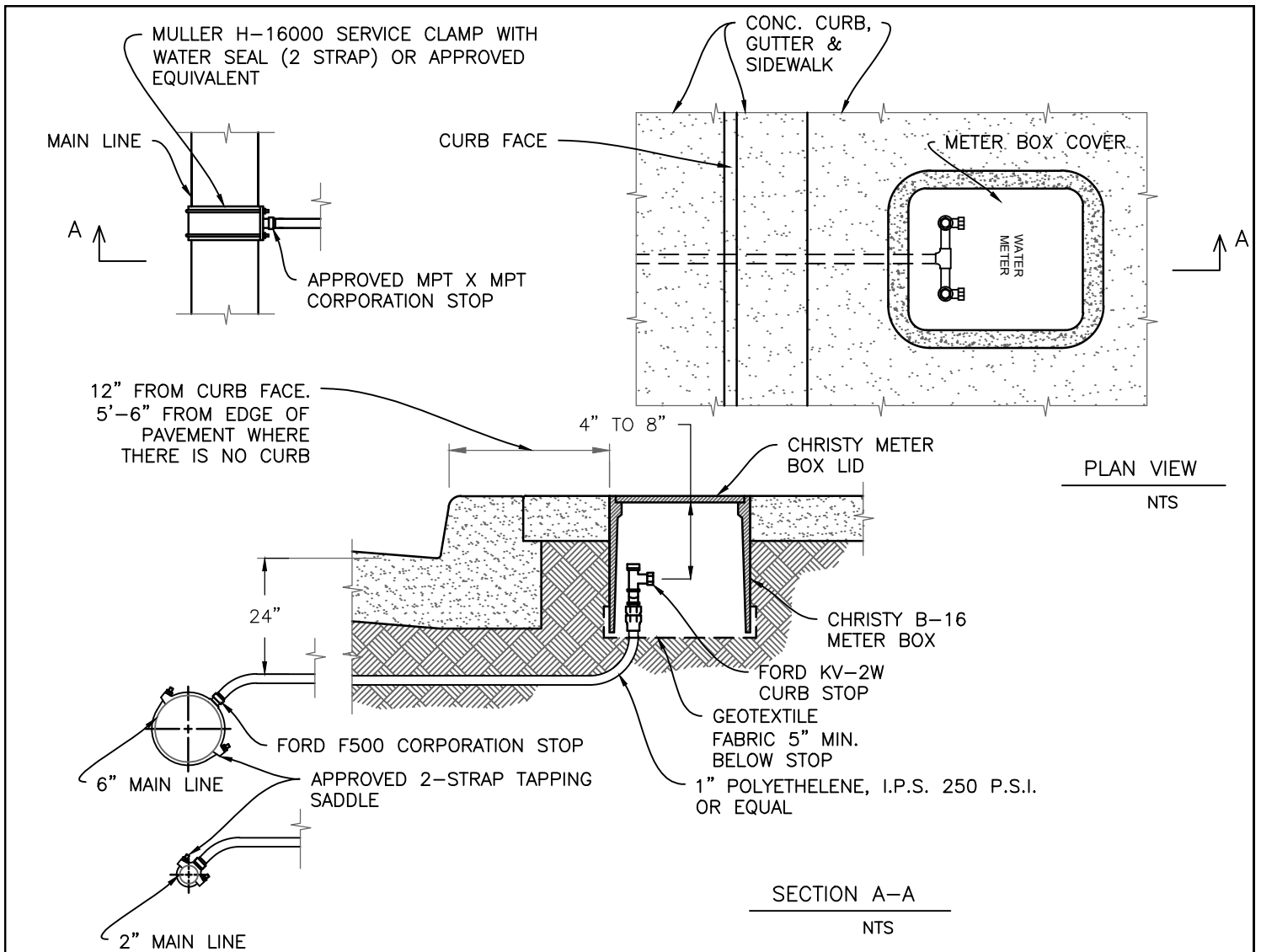


NOTES:

1. ALL MAINS SHALL HAVE 2 STRAP LIP SADDLES FOR SERVICE CONNECTIONS AND BE CLEARLY MARKED ON TOPSIDE OF METER BOX W/ PERMANENT FELT MARKER.
2. SADDLES SHALL BE 2" MINIMUM WIDTH.
3. SIZES INDICATED ARE MINIMUM.
4. FOR SINGLE SERVICE USE CHRISTY WATER SERVICE LATERAL, USE A BRASS B-16 BOX AND COVER OR APPROVED EQUIV. REDUCING ADAPTER AFTER THE CURB STOP.
5. TRAFFIC LOADING BOX AND LID TO BE INSTALLED IN ALL DRIVEWAYS OR LOCATIONS WHERE VEHICULAR TRAFFIC MAY OCCUR, OR WHERE SPECIFIED ON PLANS.
6. IF OVERSIZED SADDLE, USE A BRASS OR REDUCING BUSHING BEFORE CORP STOP.
7. CONTACT CITY STAFF PRIOR TO MAKING ANY NEW CONNECTIONS.
8. METER BOXES TO BE SET FLUSH WITH TOP OF CURB OR SIDEWALK, IF APPLICABLE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY: 
UPDATE	KLR	DFC	03/2023		
				1-INCH SINGLE WATER METER SERVICE	N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-05A

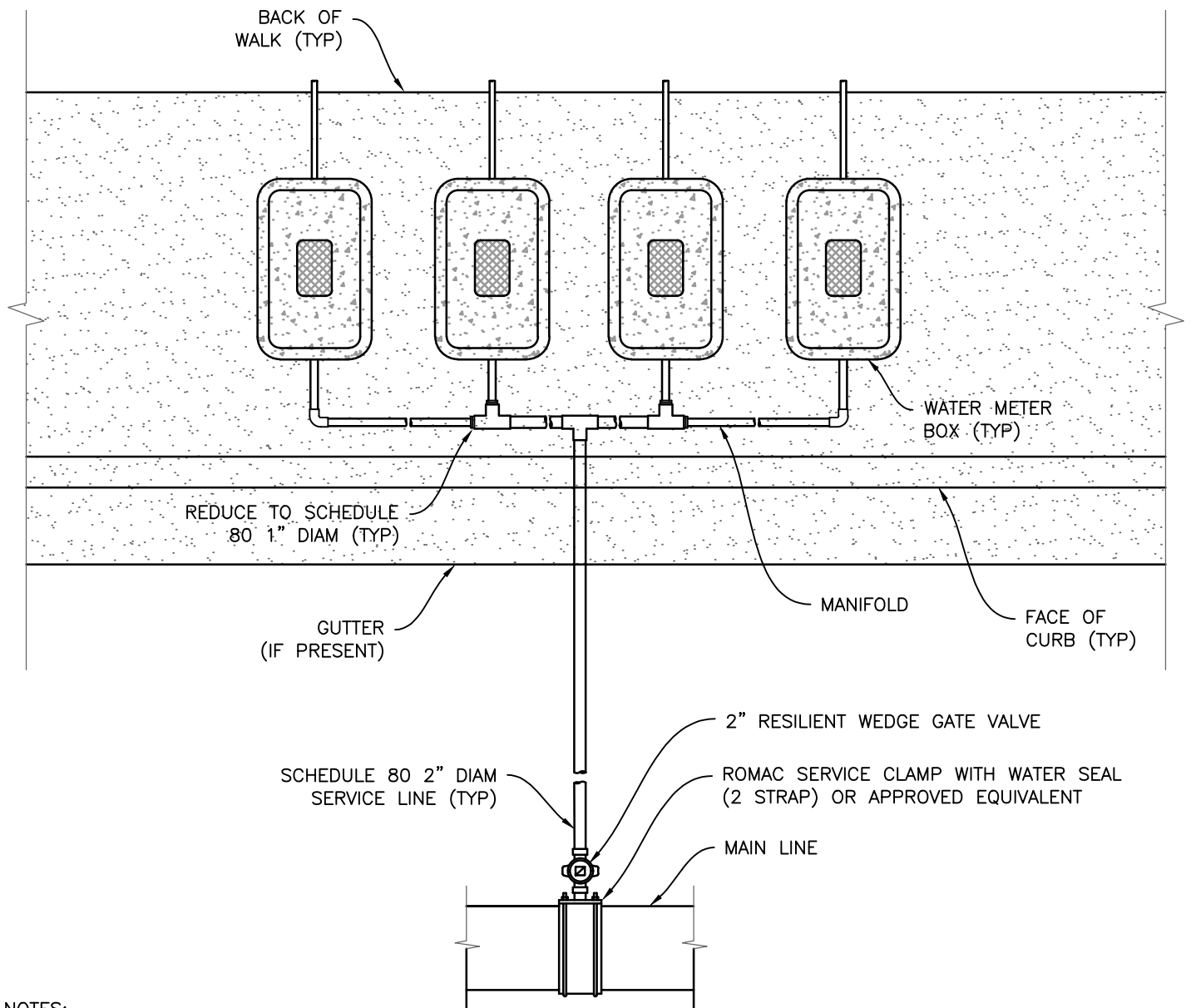


NOTES:

1. ALL PVC MAINS SHALL HAVE SADDLES FOR SERVICE CONNECTIONS.
2. SADDLES SHALL BE 2" MINIMUM WIDTH.
3. SIZES INDICATED ARE MINIMUM.
4. FOR DOUBLE SERVICE USE CHRISTY B-12 BOX AND COVER OR APPROVED EQUIV.
5. TRAFFIC LOADING BOX AND LID TO BE INSTALLED IN ALL DRIVEWAYS OR LOCATIONS WHERE VEHICULAR TRAFFIC MAY OCCUR, OR WHERE SPECIFIED ON PLANS.
6. METER BOXES TO BE SET FLUSH WITH TOP OF CURB OR SIDEWALK, IF APPLICABLE.
7. PRIOR TO METER SET, ADDRESS TO BE CLEARLY MARKED ON TOPSIDE LIP OF METER BOX W/ PERMANENT FELT MARKER.
8. FOR $\frac{3}{4}$ " METER INSTALLATION ON A 1" WATER SERVICE LATERAL, USE A REDUCING ADAPTER.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				DOUBLE METER SERVICE FOR UP TO 1 INCH LINE	 N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-06



NOTES:

1. ALL MAINS SHALL HAVE SADDLES FOR SERVICE CONNECTIONS.
2. SADDLES SHALL BE 2" MINIMUM WIDTH.
3. SEE CITY STD DTL "GATE VALVE AND BOX INSTALLATION" FOR GATE VALVE INSTALLATION.
4. SEE CITY STD DTL "CHRISTY WATER METER BOXES" FOR METER BOX SELECTION AND SIZING.
5. SEE CITY STD DTL "SINGLE SERVICE" FOR METER BOX AND CURB STOP INSTALLATION.
6. METER BOXES TO BE SET FLUSH WITH SIDEWALK, CURB, OR FINISHED GRADE.
7. PRIOR TO METER SET, ADDRESS TO BE CLEARLY MARKED ON TOPSIDE LIP OF METER BOX W/PERMANENT FELT MARKER.
8. A REDUCING ADAPTER SHALL BE USED FOR $\frac{3}{4}$ " AND $\frac{5}{8}$ " METER INSTALLATION ON A 1" SERVICE LATERAL.
9. OVERSIZED SADDLES REQUIRE A BRASS REDUCING BUSHING BEFORE CURB STOP.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY: 
UPDATE	KLR	DFC	03/2023		
				MULTIPLE SERVICES	N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER
					W-07

THE PROPERTY
OWNER SHALL BE
RESPONSIBLE FOR
INDIVIDUAL UNIT
METERS

SERVICE LINE

* () = SIZE TO BE DETERMINED
BY PROJECT DEMAND

METER * ()

FACE OF
CURB

SERVICE LINE * ()

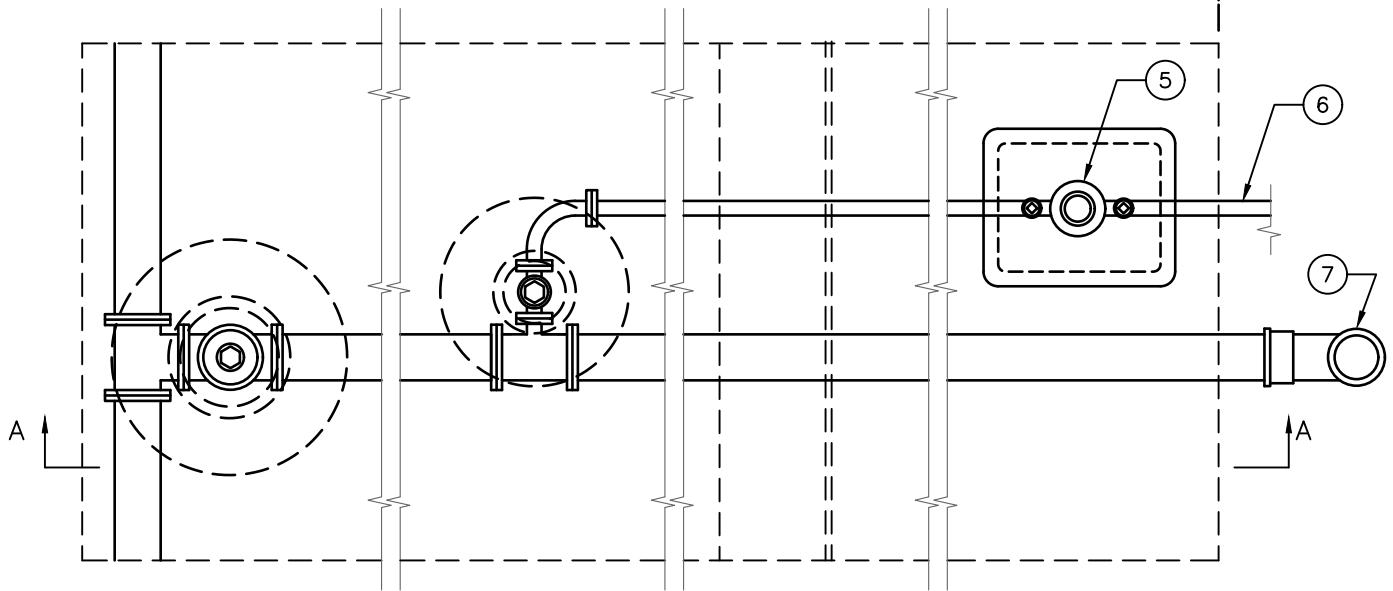
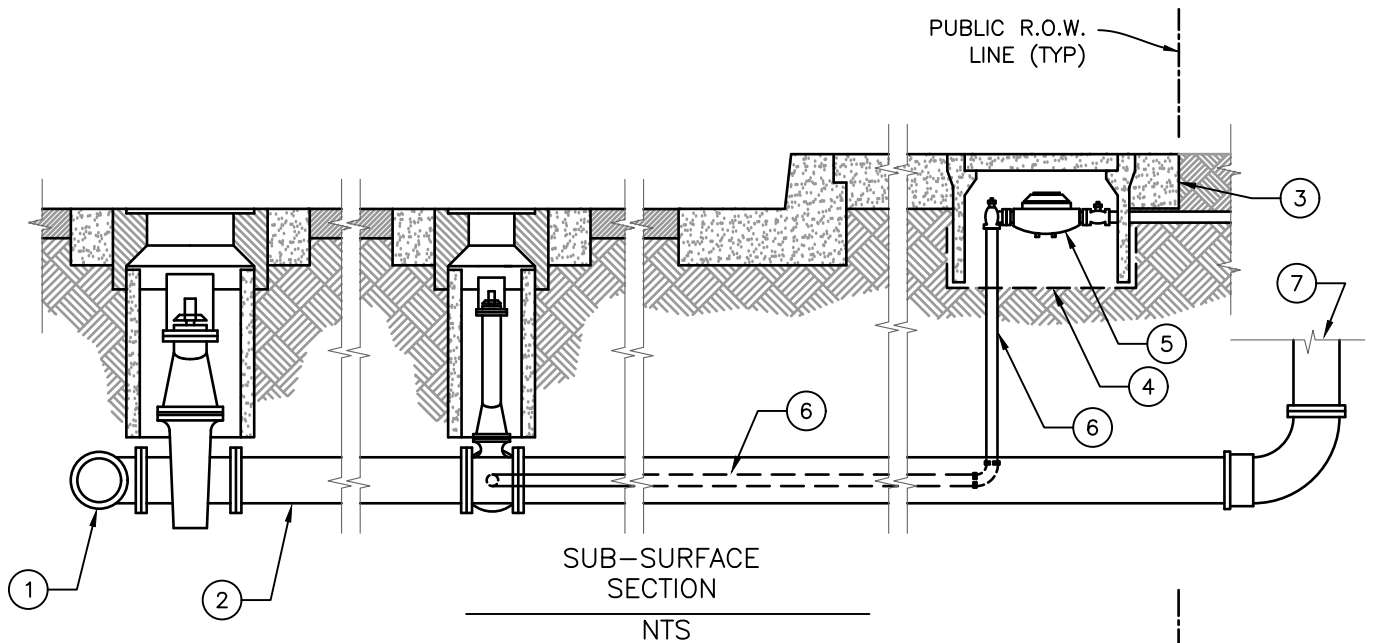
VALVE

NOTES:

1. FOUR OR MORE METERS REQUIRE A 2" SERVICE LINE
2. METER INSTALLATION SHALL BE AS PER CITY STD DTL "MULTIPLE SERVICES"



REVISION	BY	APPROVED	DATE	CITY OF ARCATA		APPROVED BY:
UPDATE	KLR	DFC	03/2023	WATER METERING FOR OVER FOUR METERS		
						N. B. KHATRI, R.C.E. #75428
						DRAWING NUMBER
						W-08



NOTES:

1. MAINLINE
2. SERVICE LINE
3. BACK OF SIDEWALK (TYP)
4. GEOTEXTILE FABRIC 5" MIN. BELOW CURB STOP
5. WATER METER
6. DOMESTIC WATER LINE
7. TO DETECTOR CHECK VALVE



REVISION	BY	APPROVED	DATE
UPDATE	KLR	DFC	03/2023

CITY OF ARCATA

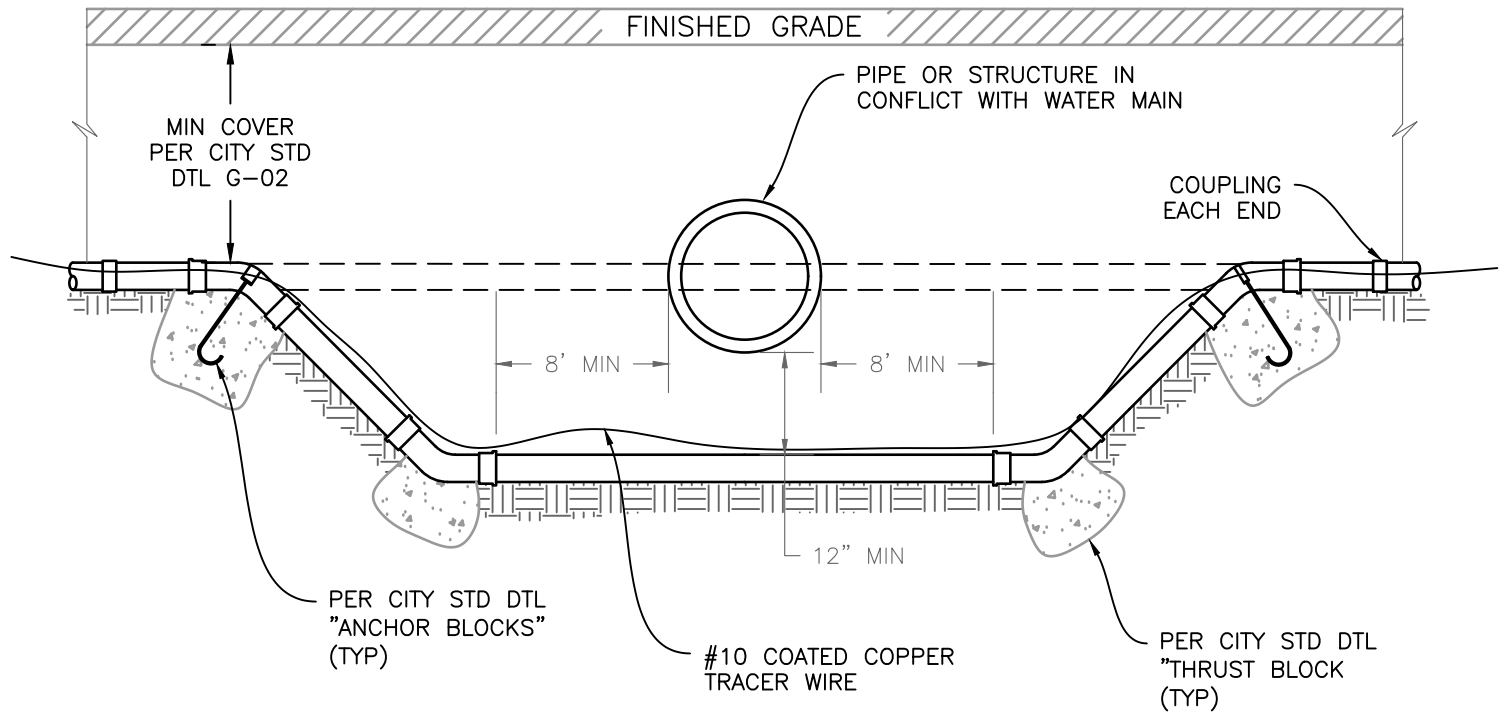
FIRE LINE INSTALLATION

APPROVED BY:

N. B. KHATRI, R.C.E. #75428

DRAWING
NUMBER

W-09

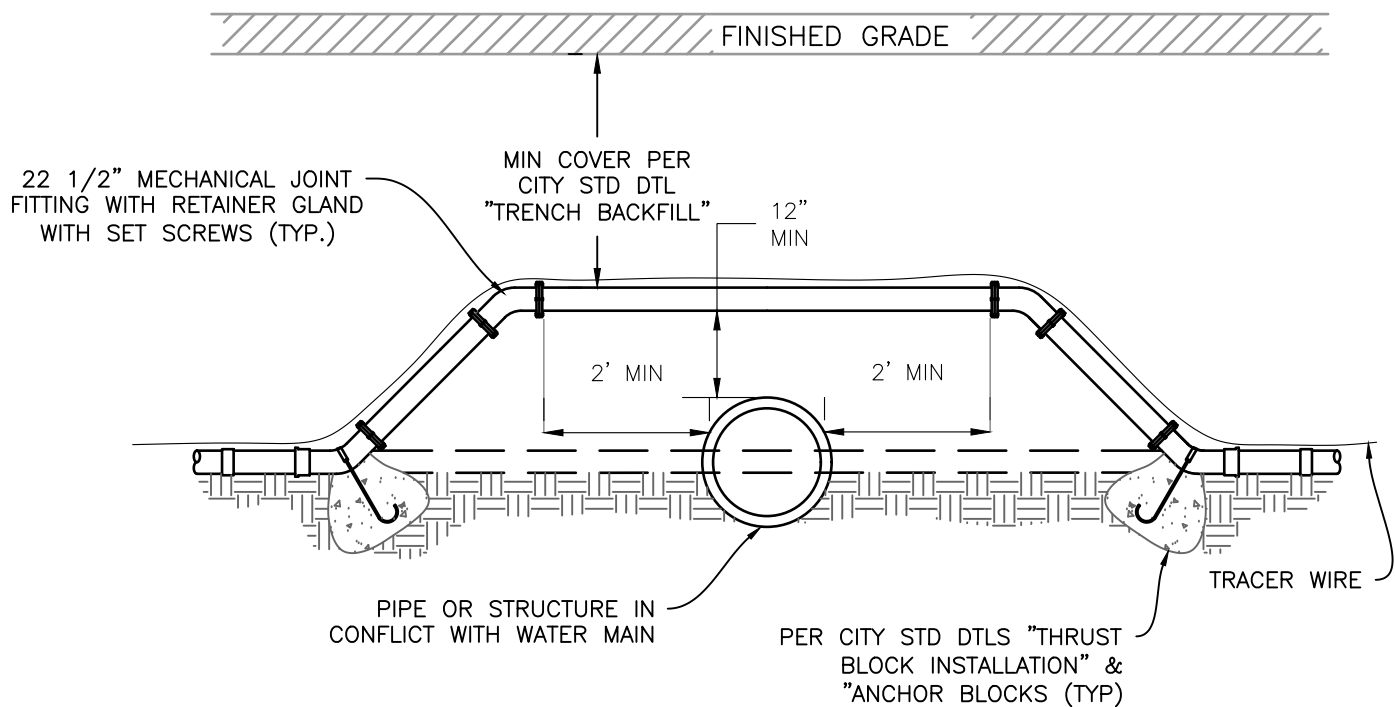


NOTES:

1. ALL PIPE FITTINGS SHALL BE CEMENT LINED CLASS 50 DUCTILE IRON PIPE ENCASED IN POLYETHYLENE FILM IN TUBE FORM PER CITY OF ARCATA STD SPECIFICATIONS.
2. ONLY MECHANICAL JOINT FITTINGS WITH RETAINER GLANDS MAY BE USED.
3. ALL BENDS SHALL BE 22-1/2° FITTINGS UNLESS APPROVED BY CITY ENGINEER.
4. TO BE USED ONLY WITH THE DIRECT APPROVAL OF THE CITY ENGINEER.
5. TRACER WIRE SHALL BE #10 COATED COPPER WIRE.
6. TRENCH AND BACKFILL PER CITY STD DTL "TRENCH BACKFILL".



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				LOWERING THE WATER MAIN	N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER
					W-10



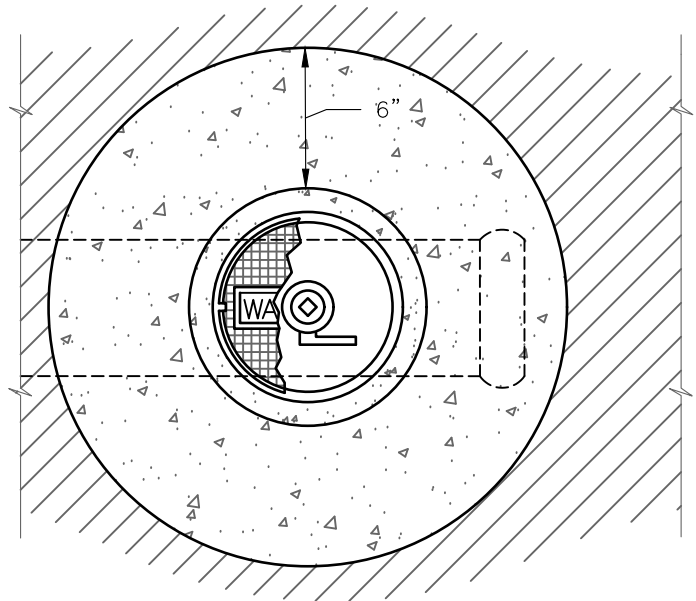
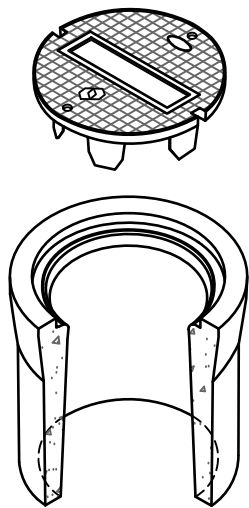
NOTES:

1. ALL PIPE FITTINGS SHALL BE CEMENT LINED CLASS 50 DUCTILE IRON PIPE ENCASED IN POLYETHYLENE FILM IN TUBE FORM PER CITY OF ARCATA STD SPECIFICATIONS.
2. ONLY MECHANICAL JOINT FITTINGS WITH RETAINER GLANDS MAY BE USED.
3. ALL BENDS SHALL BE 22-1/2" FITTINGS UNLESS APPROVED BY CITY ENGINEER.
4. TO BE USED ONLY WITH THE DIRECT APPROVAL OF THE CITY ENGINEER.
5. TRACER WIRE SHALL BE #10 COATED COPPER WIRE.
6. TRENCH AND BACKFILL PER CITY STD DTL "TRENCH BACKFILL".

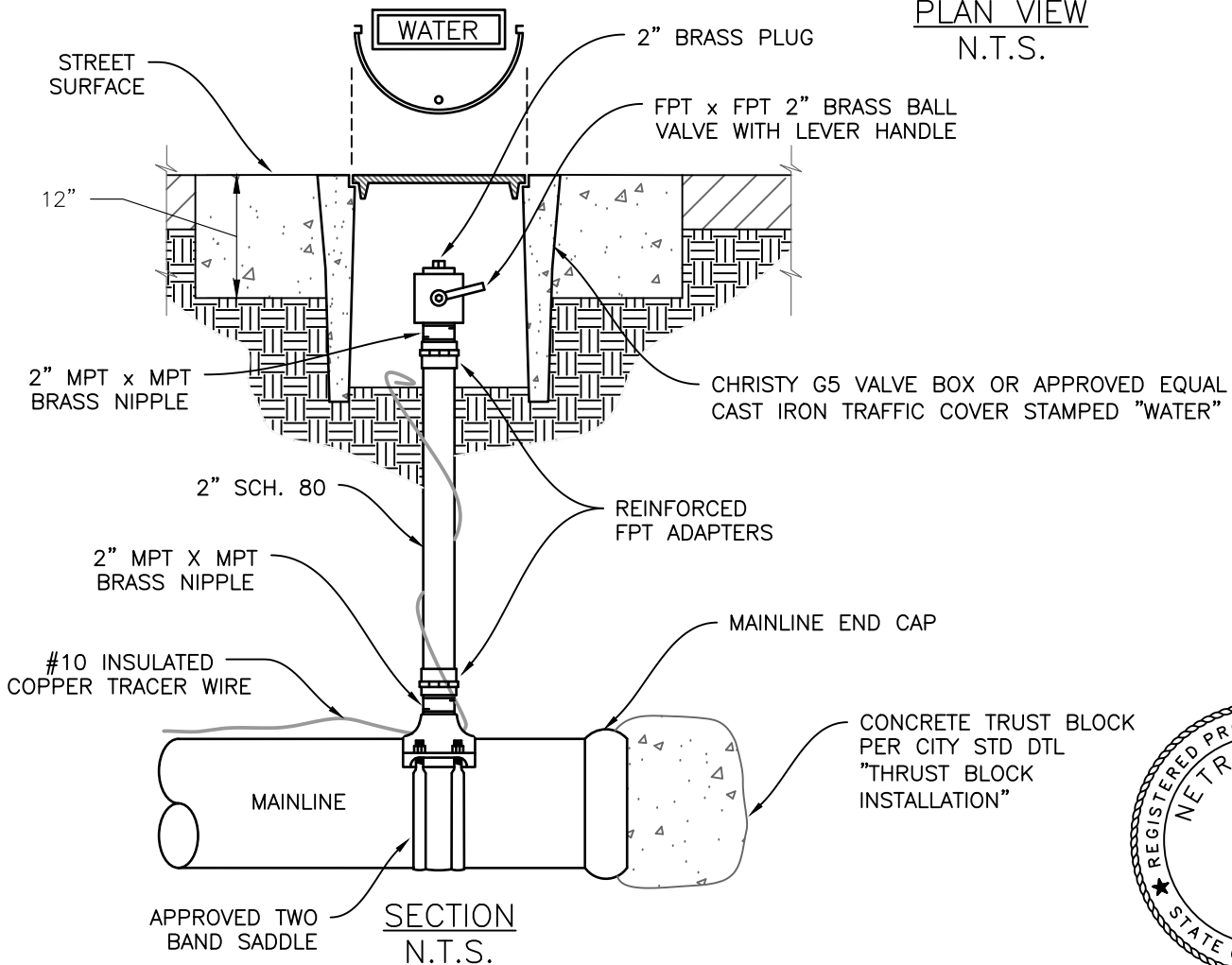


REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				WATER MAIN INSTALLATION OVER STRUCTURE	 N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-12

G5 VALVE BOX



PLAN VIEW
N.T.S.



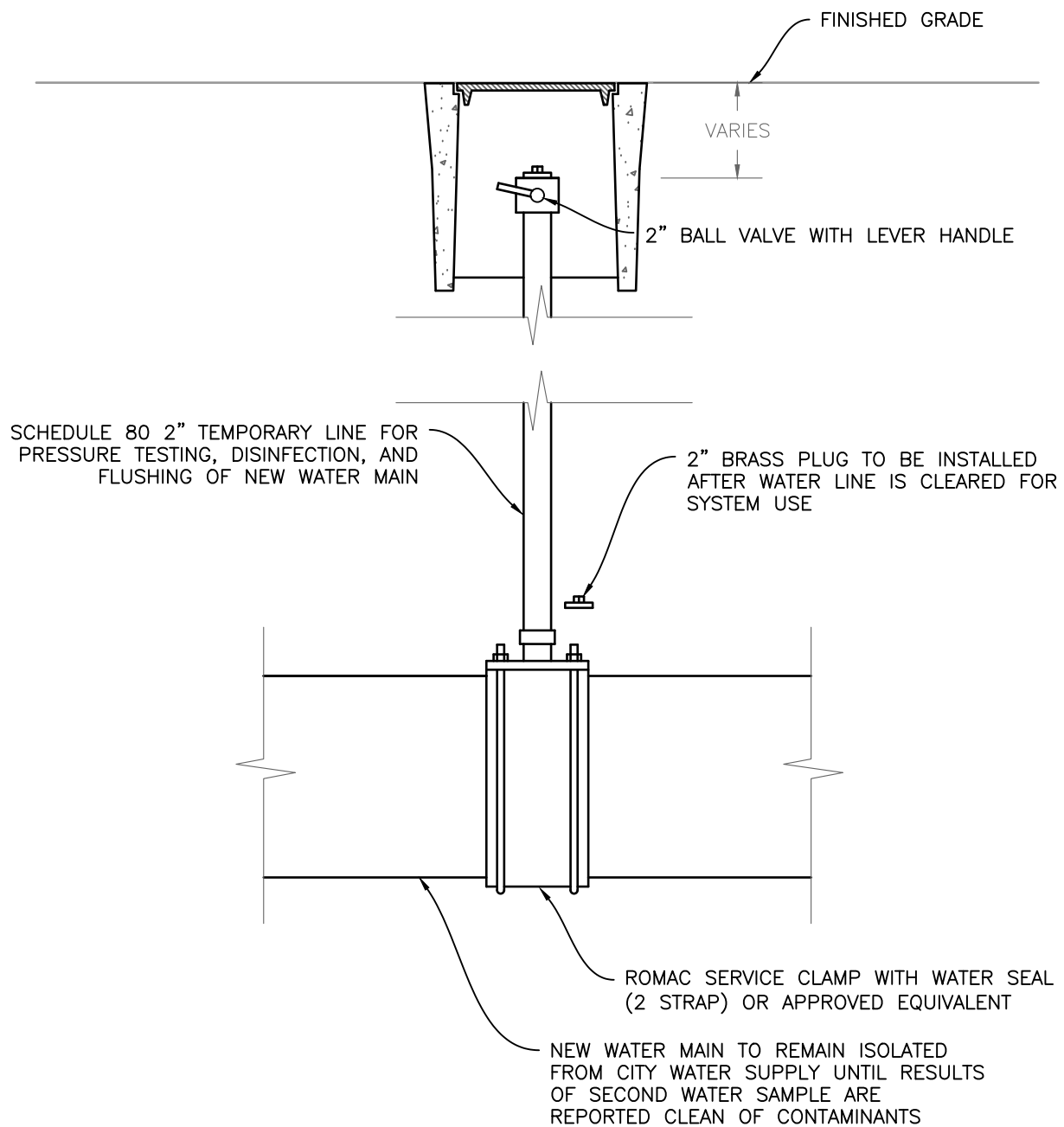
SECTION
N.T.S.



REVISION	BY	APPROVED	DATE
UPDATE	KLR	DFC	03/2023

CITY OF ARCATA
ENDLINE BLOW-OFF

APPROVED BY:	
N. B. KHATRI, R.C.E. #75428	
DRAWING NUMBER	W-13

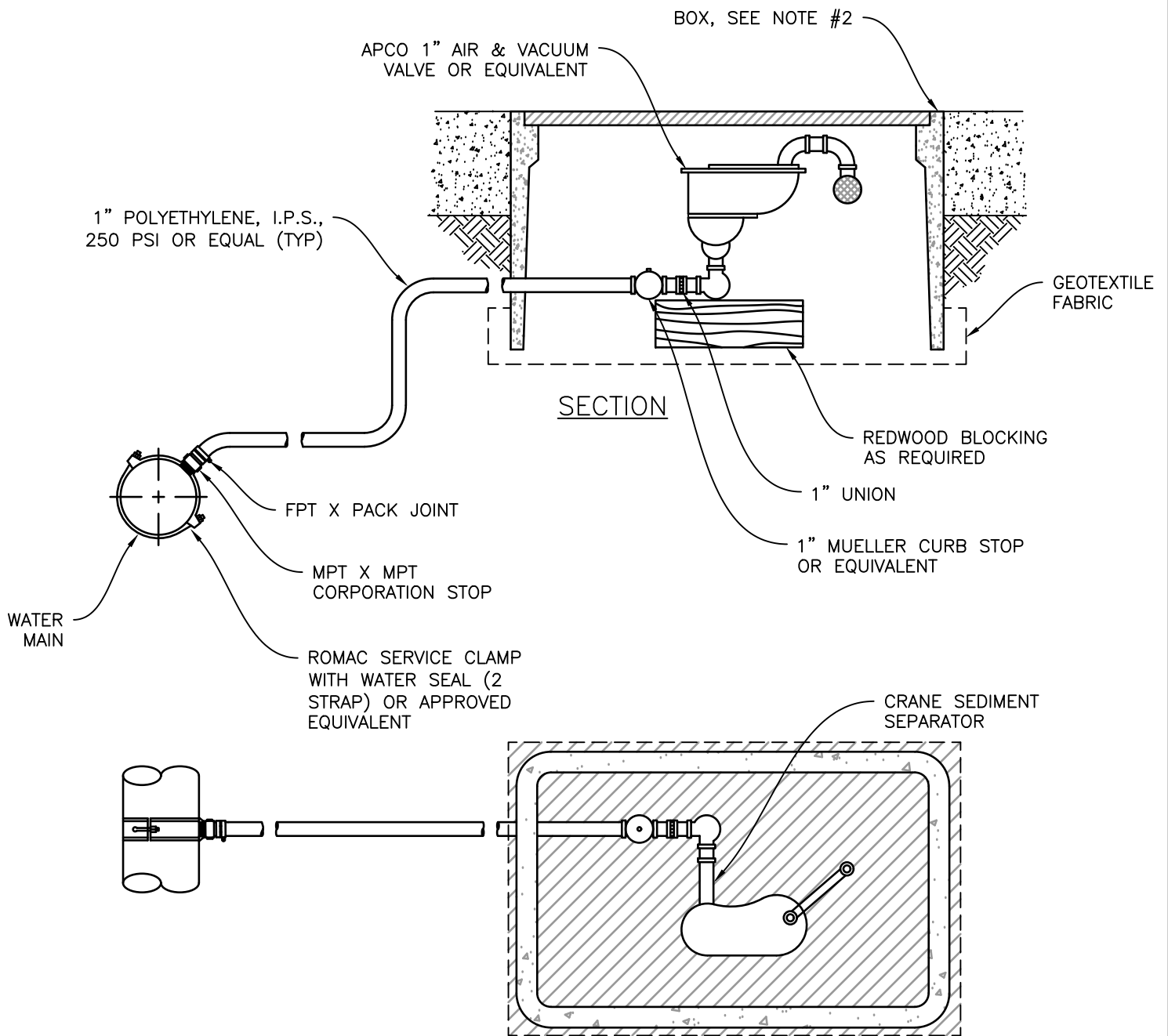


NOTES:

1. ALL MAINS SHALL HAVE SADDLES FOR SERVICE CONNECTIONS.
2. SADDLES SHALL BE 2" MINIMUM WIDTH.
3. SIZES INDICATED ARE MINIMUM.
4. OVERSIZED SADDLES REQUIRE A BRASS REDUCING BUSHING BEFORE CORP STOP.
5. TRENCH BACKFILL PER CITY STD DTL "TRENCH BACKFILL".
6. PAVEMENT RESTORATION PER CITY STD DTL "PAVEMENT RESTORATION".
7. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 48 HOURS IN ADVANCE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				TEMPORARY BLOW-OFF	N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-13A



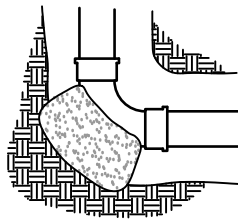
NOTES:

1. SADDLES SHALL BE 2" MINIMUM WIDTH.
2. BOX AND LID PER CITY STD DTL "CHRISTY WATER METER BOXES".
3. TRAFFIC LOADING BOX AND LID TO BE INSTALLED IN ALL DRIVEWAYS OR LOCATIONS WHERE VEHICULAR TRAFFIC MAY OCCUR, OR WHERE SPECIFIED ON PLANS.
4. METER BOXES TO BE SET FLUSH WITH SIDEWALK, CURB, OR FINISHED GRADE.
5. OVERSIZED SADDLES REQUIRE A BRASS REDUCING BUSHING BEFORE CORP STOP.
6. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 48 HOURS IN ADVANCE.

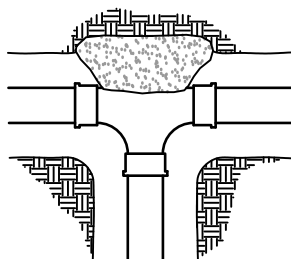
PLAN



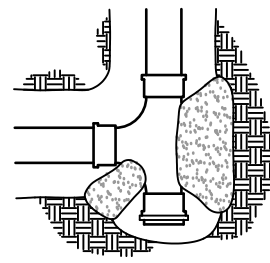
REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	AIR & VACUUM RELEASE VALVE ASSEMBLY	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-14



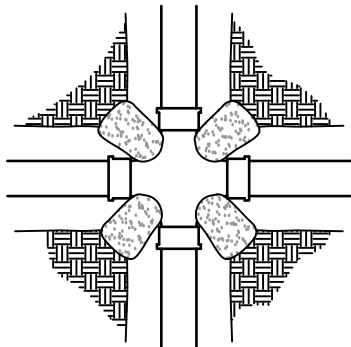
BEND



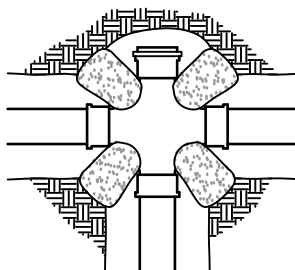
TEE



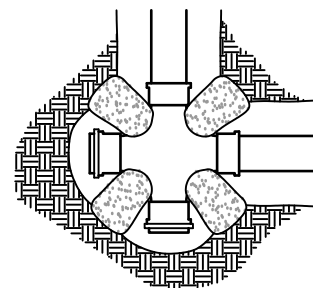
TEE W/END CAP



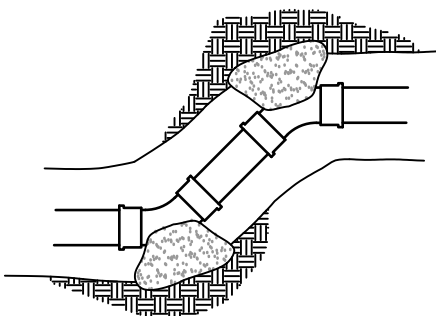
CROSS



CROSS W/END CAP



CROSS W/END CAPS



OFFSET

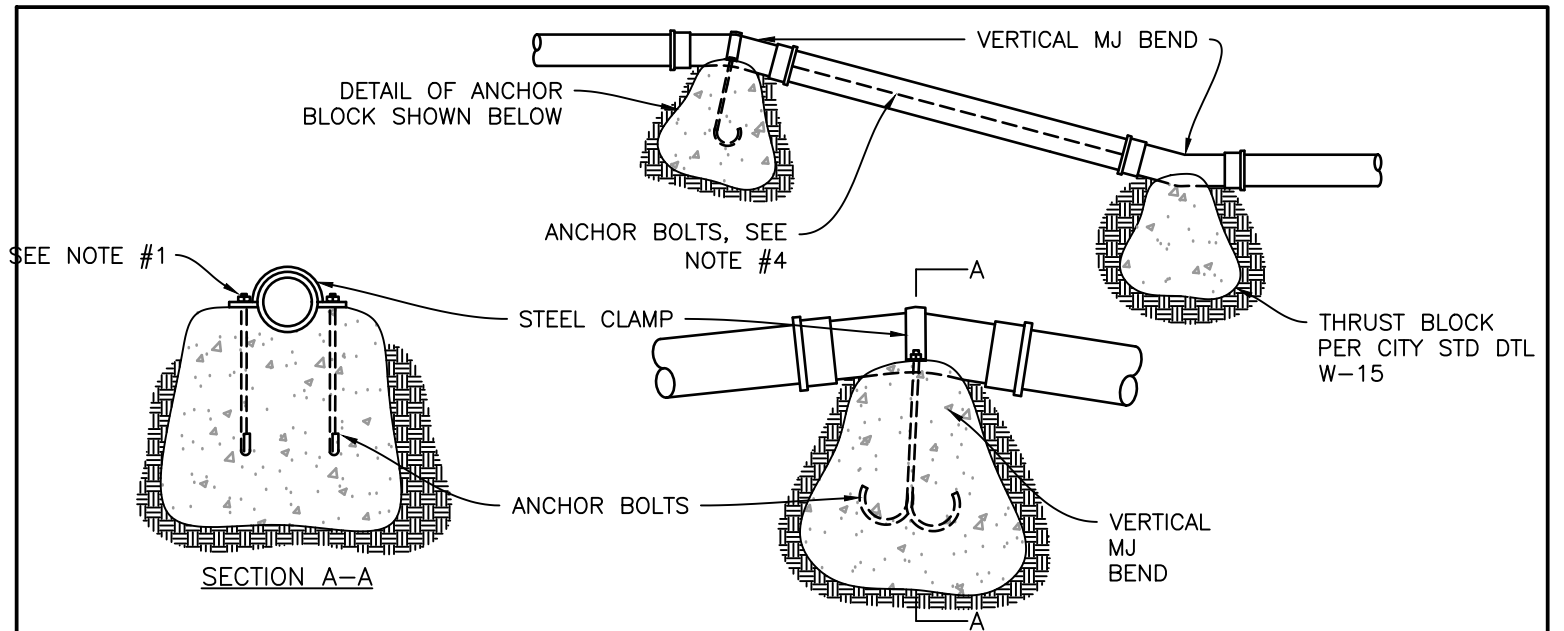
MINIMUM BEARING AREAS IN SQUARE FEET				
PIPE SIZE	TEES	90° BEND	45° BEND	22.5° BEND
2" DIAM	2	3	2	1
4" DIAM	2	3	2	1
6" DIAM	3	5	3	2
8" DIAM	6	10	5	3
10" DIAM	10	15	8	4
12" DIAM	16	22	13	6

NOTES:

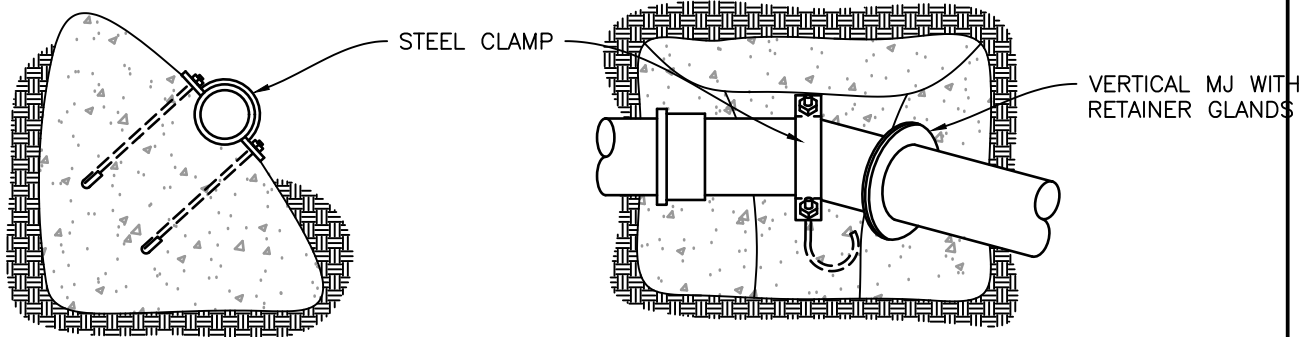
1. THE LOCATION OF THRUST BLOCKS IS DEPENDENT ON DIRECTION OF THRUST AS SHOWN.
2. INSTALL THRUST BLOCKS AGAINST FIRM UNDISTURBED EARTH. CONCRETE SHALL ATTAIN A MIN OF 2000 PSI COMPRESSIVE STRENGTH IN 28 DAYS.
3. SHORT LENGTHS MUST BE INSTALLED NEXT TO FITTING: 3'-3" MAXIMUM LENGTHS FOR PIPES 6" OR LESS IN DIAMETER, AND 6'-6" MAXIMUM LENGTHS FOR PIPES LARGER THAN 6" IN DIAMETER.
4. TABLE SHOWS THRUST BLOCK BEARING AREAS FOR PVC PIPE IN SANDY SOIL (150 PSI WATER PRESSURE). FOR SOFT CLAY THE AREAS LISTED ABOVE SHALL BE DOUBLED.
5. CONCRETE SHALL BE PLACED SO THAT FITTINGS AND VALVES WILL BE ACCESSIBLE FOR REPAIR OR REPLACEMENT.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				THRUST BLOCK INSTALLATION	 N. B. KHATRI, R.C.E. #75428 DRAWING NUMBER W-15



TYPICAL CONCRETE ANCHOR BLOCKS FOR VERTICAL BEND



TYPICAL CONCRETE ANCHOR BLOCKS FOR COMBINATION HORIZONTAL-VERTICAL BEND

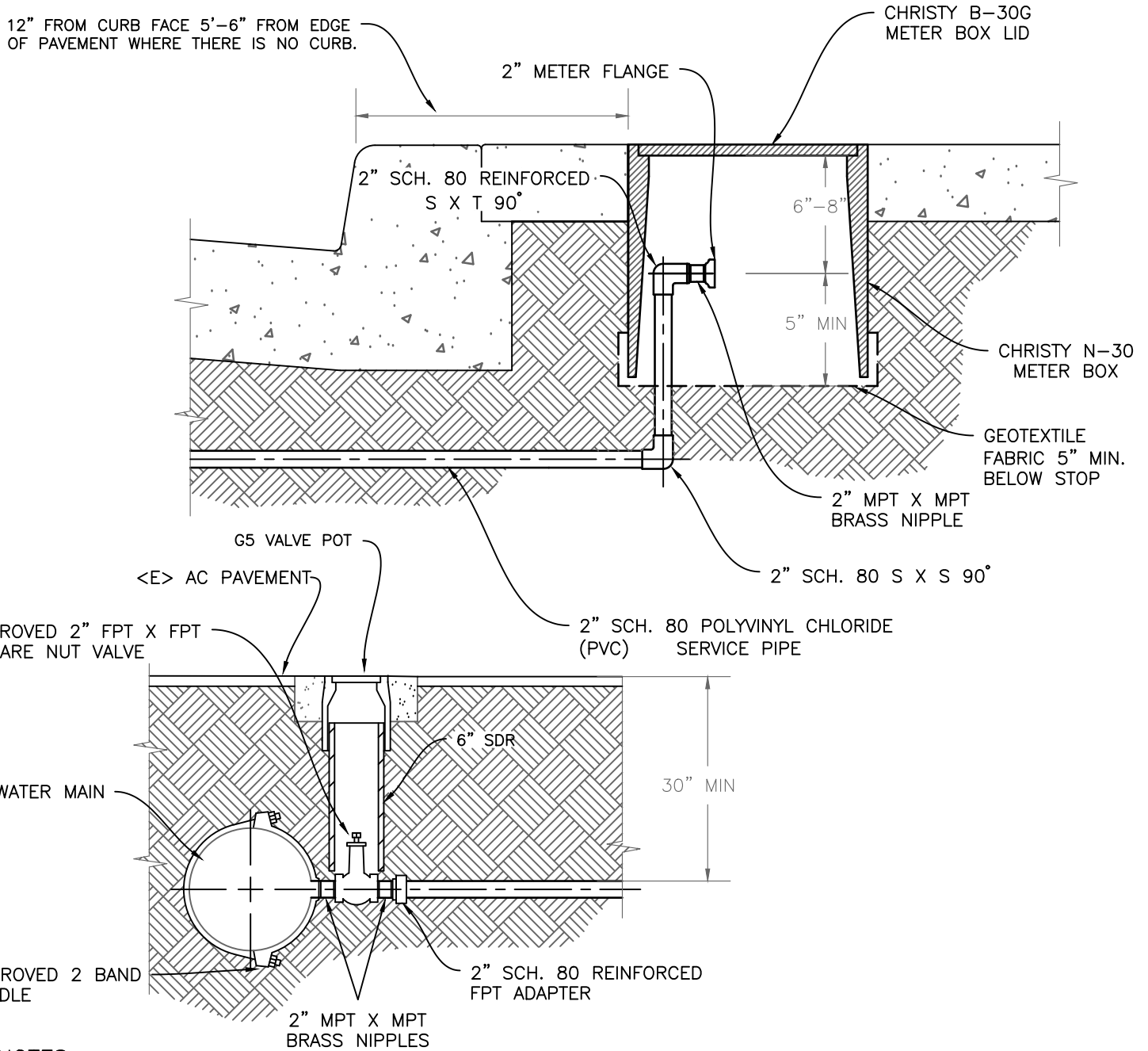
PIPE SIZE	TIE RODS	STEEL CLAMPS
6"	5/8"	3" x 1/4"
8"	3/4"	3-1/4" x 1/4"
12"	1-1/4"	3" x 1/2"

NOTES

1. ALL EXPOSED THREADS SHALL BE PAINTED OR SEALED WITH AN APPROVED SUBSTITUTE AFTER NUTS ARE TIGHTENED.
2. CONCRETE ANCHOR BLOCKS SHALL BE INSTALLED TO WITHSTAND A THRUST PRODUCED BY THE TEST PRESSURE PLUS 50 PSI MIN.
3. DIMENSIONS FOR TIE RODS AND CLAMPS ARE LISTED IN TABLE.
4. FOR PVC PIPE, TIE RODS (THREADED FULL LENGTH) BETWEEN FITTINGS (MIN 2 REQUIRED) MAY BE USED IN LIEU OF RETAINING GLANDS.
5. USE MECHANICAL JOINT RETAINER GLANDS AT ALL FITTINGS.
6. THRUST BLOCK CONSTRUCTION PER CITY STD DTL "THRUST BLOCK INSTALLATION".



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	ANCHOR BLOCKS	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-16

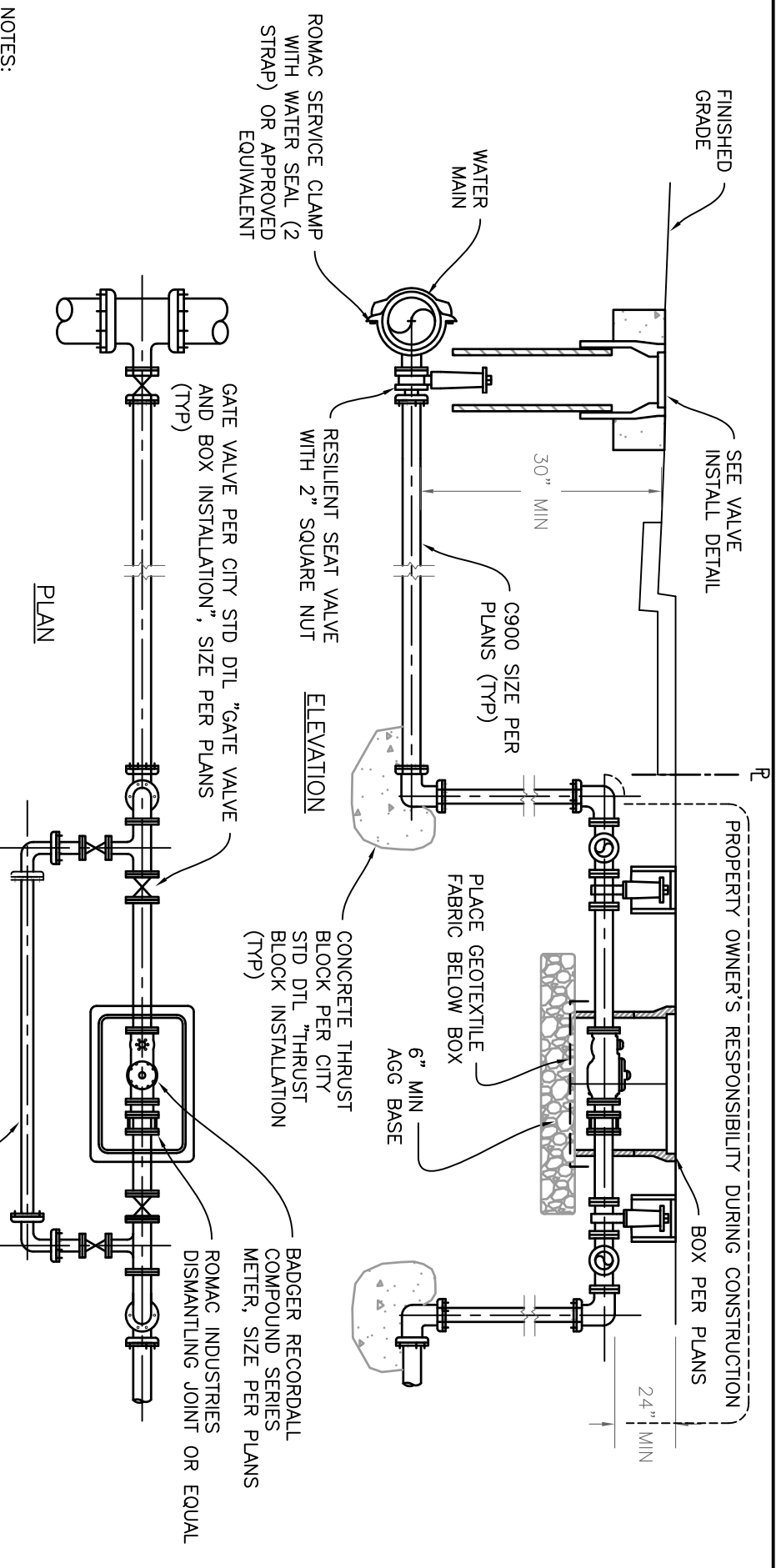


NOTES:

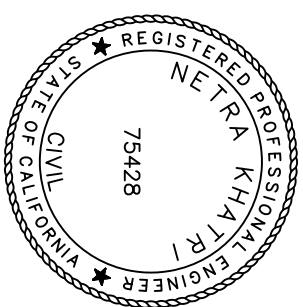
1. ALL MAINS SHALL HAVE SADDLES FOR SERVICE CONNECTIONS.
2. SADDLES SHALL BE 2" MINIMUM WIDTH.
3. SIZES INDICATED ARE MINIMUMS.
4. FOR SINGLE SERVICE USE CHRISTY N-30 BOX WITH B-30G COVER OR APPROVED EQUIV.
5. METER BOXES TO BE SET FLUSH WITH TOP OF CURB OR SIDEWALK, OR FINISHED GRADE.
6. PRIOR TO METER SET, ADDRESS TO BE CLEARLY MARKED ON TOPSIDE LIP OF METER BOX WITH PERMANENT FELT MARKER.
7. CONTACT CITY STAFF PRIOR TO MAKING ANY NEW CONNECTIONS.
8. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 48 HOURS IN ADVANCE.



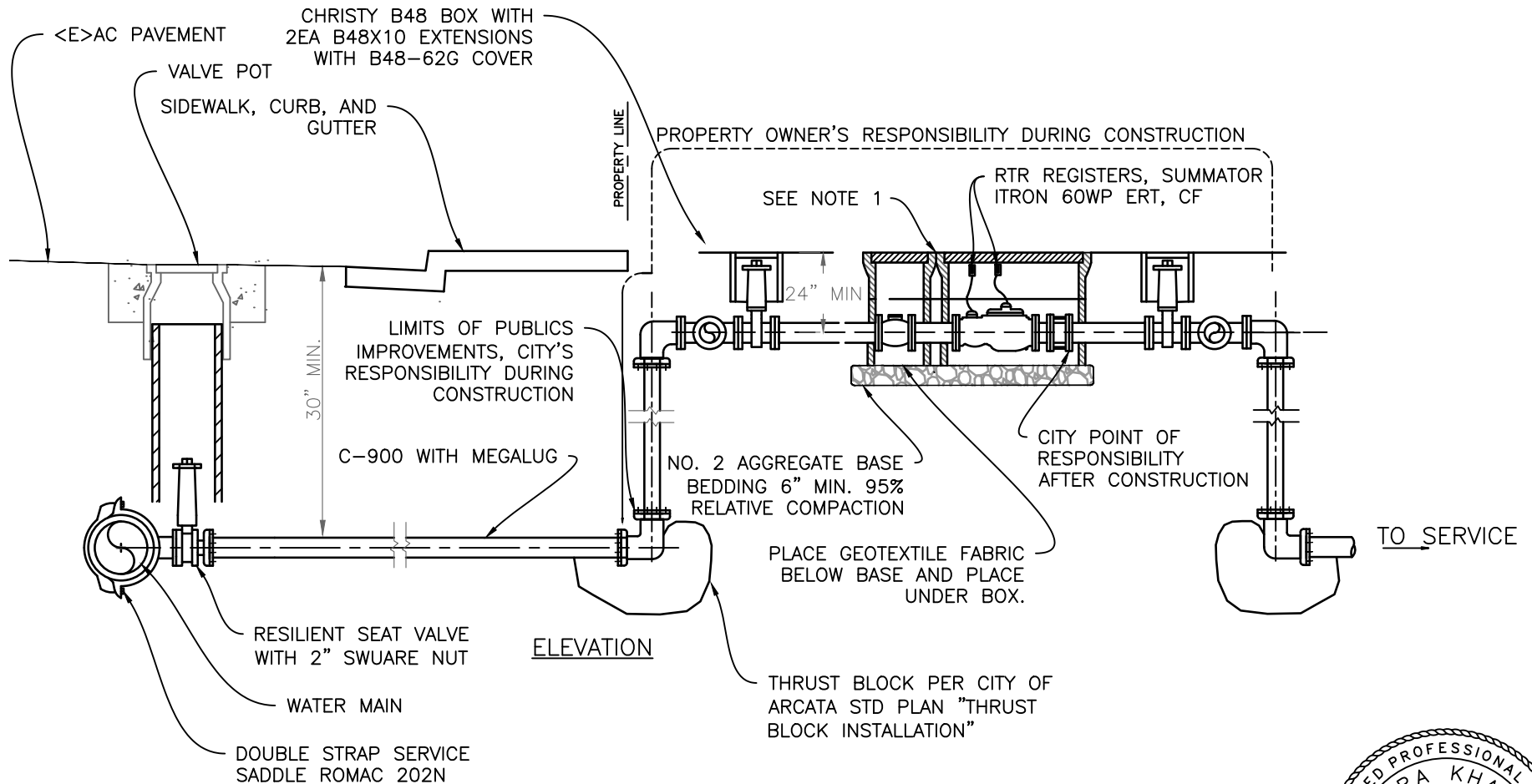
REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	2-INCH SINGLE WATER METER SERVICE	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-17



- NOTES:
- METER BOX TO BE SET FLUSH WITH FINISHED SURFACE.
 - METER AND METER BOX SHALL BE FURNISHED AND INSTALLED BY PRIVATE FORCES.
 - PIPE OPENINGS SHALL BE GROUTED PRIOR TO PLACING BACKFILL. BACKFILL TO BE PLACED AS PER CITY STD DTL "TRENCH BACKFILL."
 - AGGREGATE BASE MATERIAL SHALL BE CALTRANS CLASS 2, MAX 3/4" AGGREGATE BASE, COMPACTED TO 95% RELATIVE COMPACTION.
 - TRACER WIRE IS REQUIRED FROM THE CORPORATION VALVE TO THE METER BOX.
 - WATER METER AND BYPASS TO BE PLUMBED WITH DUCTILE IRON PIPE.
 - VALVES SHALL BE RESILIENT WEDGE GATE VALVES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
 - VALVE BOX AS PER CITY STD DTL "VALVE BOX", WITH LID STAMPED "WATER".
 - THRUST BLOCK REQUIRED ON ALL VALVE ASSEMBLIES PER CITY STD DTL "THRUST BLOCK INSTALLATION".
 - ALL CONCRETE SHALL BE 520-C-2500 AS PER THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. ALL CONCRETE SHALL CONTAIN 3 LBS OF LAMP BLACK PER CUBIC YARD.
 - INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATATA	
UPDATE	KLR	DFC	03/2023	COMPOUND METER WITH BYPASS	
APPROVED BY:				N. B. KHATRI, R.C.E. #75428	
DRAWING NUMBER				W-21	

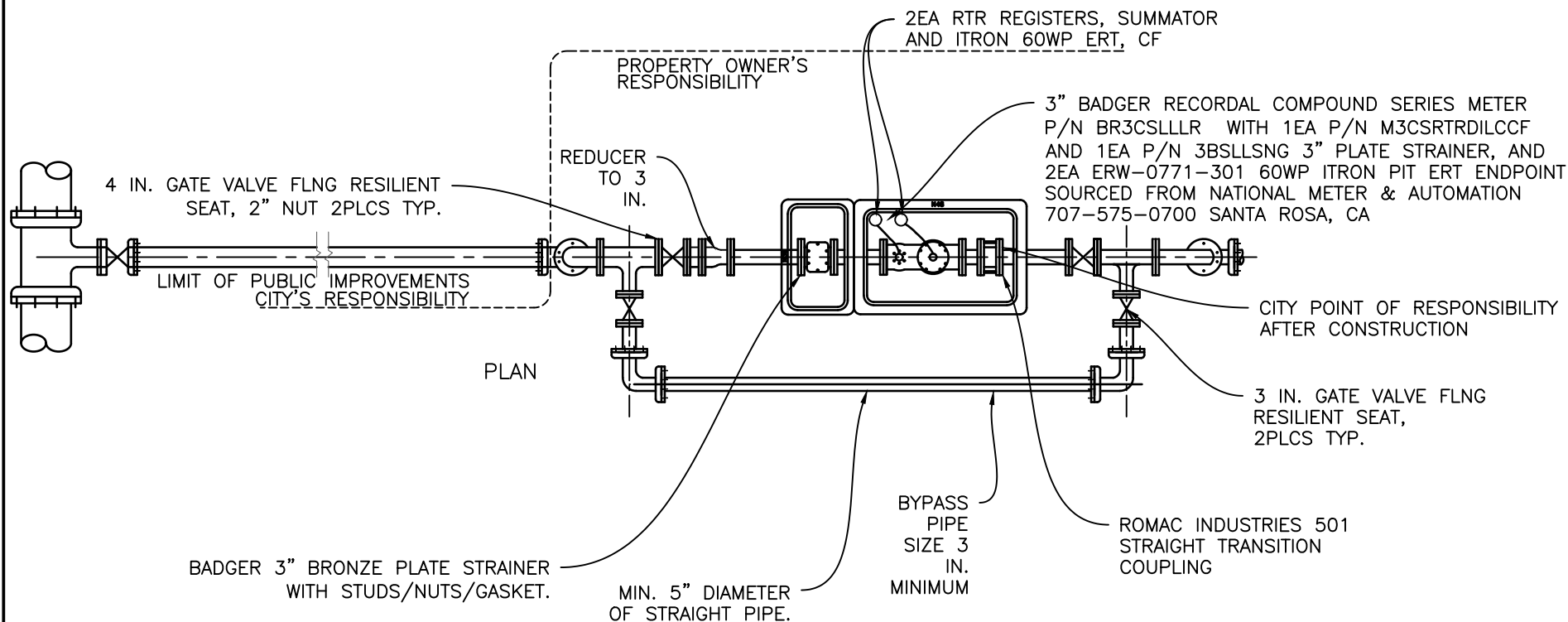


NOTES

1. CHRISTY BOXES: USE N36BOX WITH B36X12 EXTENSION AND B36-61G LID FOR STRAINER. USE N48BOX WITH N48X10 EXTENSION AND B48-62G LID FOR METER. CUSTOM CAST IN PLACE BOX MAY BE USED WITH APPROVED SUBMITTAL FOR LID ACCESS FROM THE CITY ENGINEER.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA 3" METER WITH BYPASS	APPROVED BY: N. B. KHATRI, R.C.E. #75428	DRAWING NUMBER W-22A
UPDATE	KLR	DFC	03/2023			

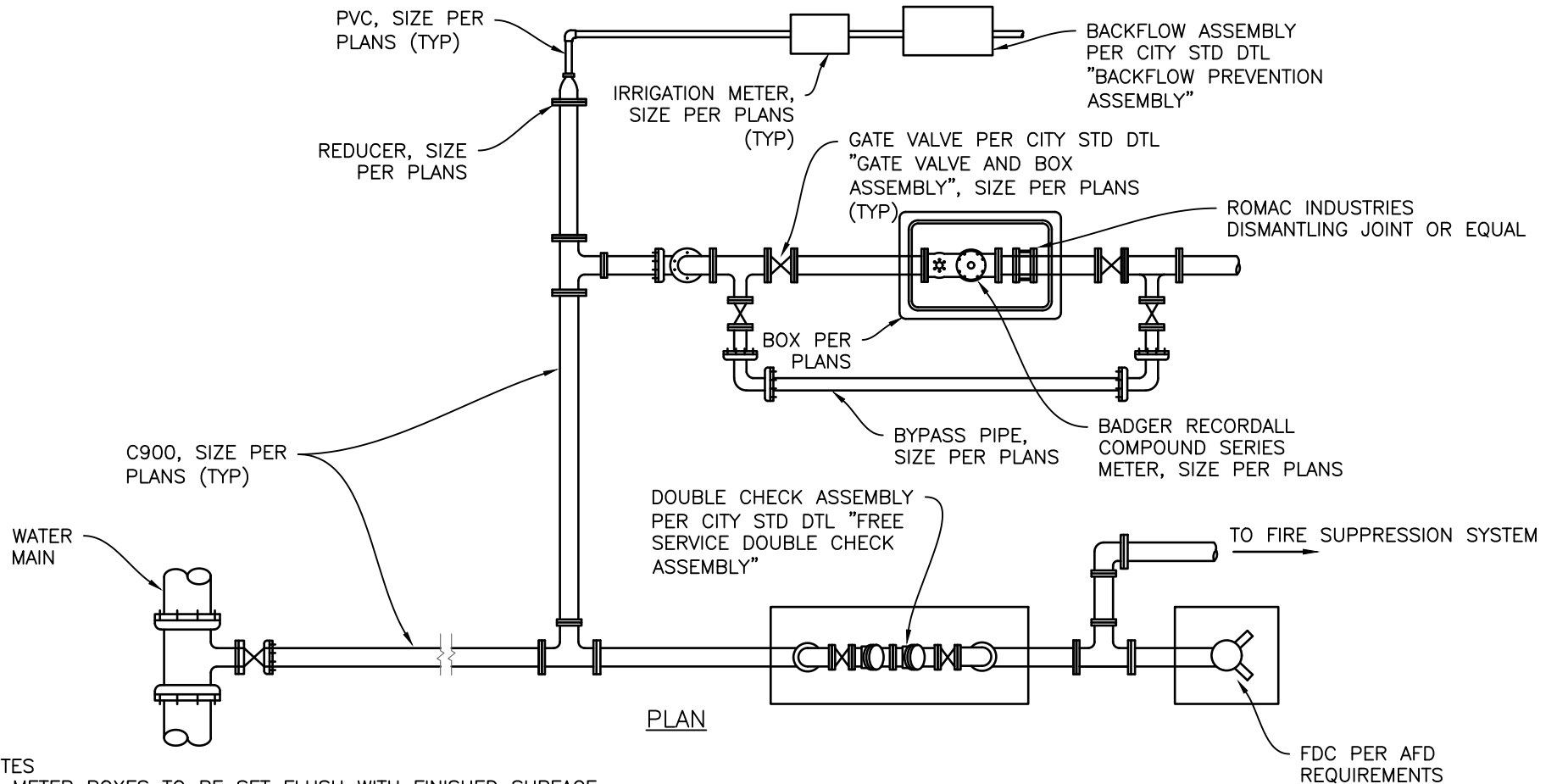


NOTES:

1. SET METER BOX COVER FLUSH WITH FINISHED SURFACE.
2. METER SHALL BE FURNISHD AND INSTALLED BY CNTRACTOR.
3. PROVIDE TRANSMITTING REGISTER WITH 5FT LEAD.
4. PIPE OPENINGS IN METER BOX SHALL BE CUT — DO NOT USE HAMMER. PRIOR TO BACKFILLING, PIPE OPENINGS SHALL BE GROUTED.
5. TRACER WIRE REQUIRED FROM CORPORATION VALVE TO METER BOX.
6. NO FENCING SHALL BE INSTALLED BETWEEN STREET AND METER BOX.
7. WATER METER AND BYPASS TO BE PLUMBED WITH DUCTILE IRON PIPE.
8. INSTALLATION SHALL BE INSPECTED BY CITY PRIOR TO BACKFILL.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA 3" METER WITH BYPASS	APPROVED BY:  N. B. KHATRI, R.C.E. #75428	DRAWING NUMBER W-22B
UPDATE	KLR	DFC	03/2023			

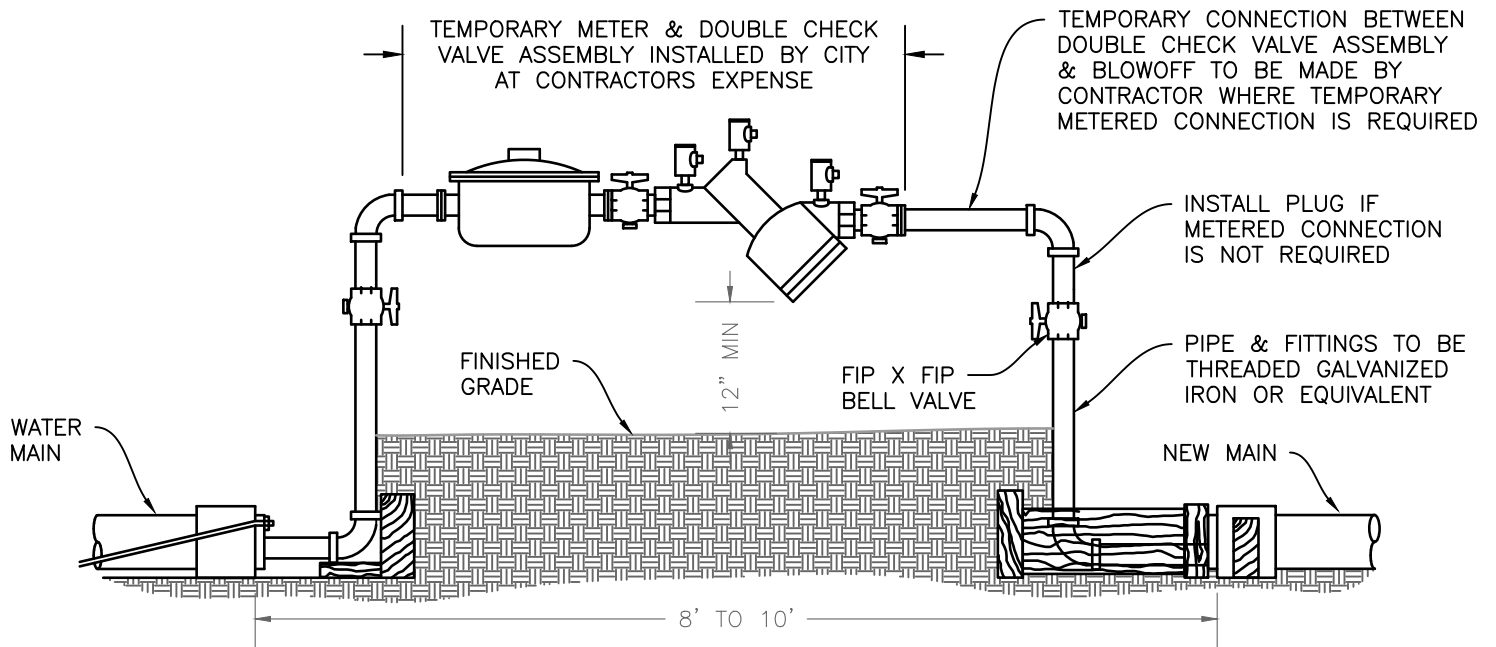


NOTES

1. METER BOXES TO BE SET FLUSH WITH FINISHED SURFACE.
2. COMPOUND METER AND METER BOXES SHALL BE FURNISHED AND INSTALLED BY PRIVATE FORCES.
3. PIPE OPENINGS SHALL BE GROUTED PRIOR TO PLACING BACKFILL. BACKFILL TO BE PLACED AS PER CITY STANDARD DETAIL "TRENCH BACKFILL".
4. AGGREGATE BASE MATERIAL SHALL BE CALTRANS CLASS 2, MAX 3/4" AGGREGATE BASE, COMPACTED TO 95% RELATIVE COMPACTION.
5. TRACER WIRE IS REQUIRED FROM THE CORPORATION VALVE TO THE METER BOX.
6. WATER METER AND BYPASS TO BE PLUMBED WITH DUCTILE IRON PIPE.
7. VALVES SHALL BE RESILIENT WEDGE GATE VALVES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
8. ALL STRUCTURES TO BE IN CITY EASEMENTS WITH NO IMPEDIMENTS TO ACCESS.
9. VALVE BOX AS PER CITY STD DTL "VALVE BOX", WITH LID STAMPED "WATER".
10. THRUST BLOCK REQUIRED ON ALL VALVE ASSEMBLIES PER CITY STD DTL "THRUST BLOCK INSTALLATION".
11. ALL CONCRETE SHALL BE 520-C-2500 AS PER THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
12. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 48 HOURS IN ADVANCE.

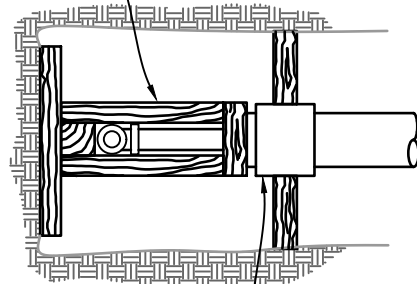


REVISION	BY	APPROVED	DATE	CITY OF ARCATA OVERSIZE METER WITH FIRE AND IRRIGATION	APPROVED BY:  N. B. KHATRI, R.C.E. #75428	DRAWING NUMBER W-23A
UPDATE	KLR	DFC	03/2023			



ELEVATION

TEMPORARY WOOD BLOCKING SUFFICIENT
TO HOLD TEST PRESSURE (TYP)



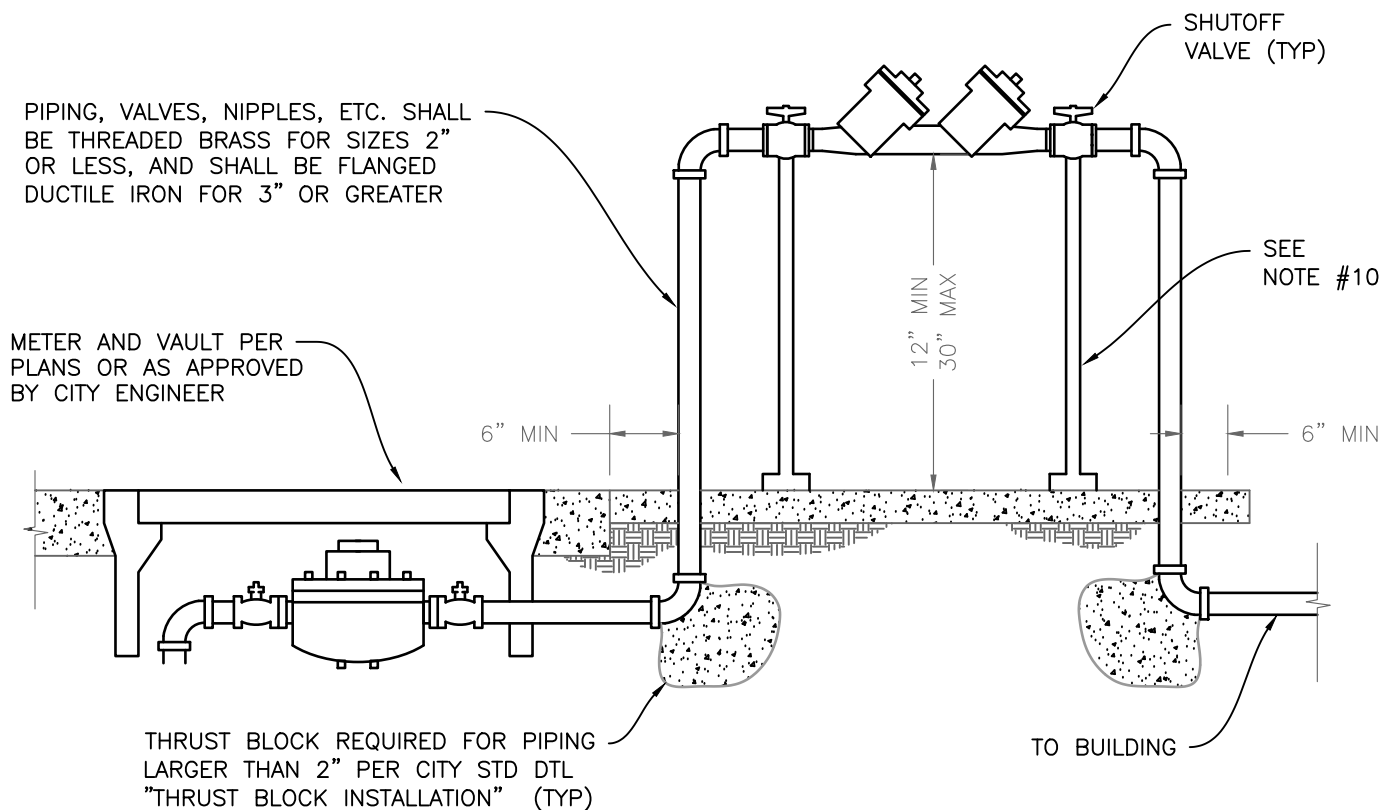
PLAN

NOTES:

1. END OF NEW MAIN TO MATCH EXISTING SIZE, TYPE, AND GRADE WHERE FEASIBLE.
2. WOOD BLOCKING SHALL BE SUFFICIENT FOR THRUST PRODUCED BY TEST PRESSURE PLUS 50 PSI.
3. SAFE BEARING LOAD OF SOIL FOR HORIZONTAL THRUST SHALL NOT BE EXCEEDED.
4. THE CONTRACTOR SHALL MAKE FINAL TIE-INS AT THE DEVELOPER'S EXPENSE UNDER CITY INSPECTION.
5. SHOULD THE BLOWOFF ON THE EXISTING MAIN BE LOCATED OUT OF THE TRAVELED WAY, THE TEMPORARY BLOWOFF PIPING SHALL BE EXTENDED OUT OF THE TRAVELED WAY AND THE RISERS, METER, AND CHECK VALVE WILL BE INSTALLED OUT OF TRAVELED WAY.
6. TRENCH BACKFILL PER CITY STD DTL "TRENCH BACKFILL".
7. PAVEMENT RESTORATION PER CITY STD DTL "PAVEMENT RESTORATION".
8. 2-INCH TEMPORARY CONSTRUCTION METER IS ACCEPTABLE UNTIL COMBUSTIBLE MATERIALS STORED ONSITE OR CONSTRUCTION ABOVE GRADE BEGINS.
9. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 48 HOURS IN ADVANCE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				TEMPORARY BLOWOFF W/ METERED CONNECTION	 N. B. KHATRI, R.C.E. #75428 DRAWING NUMBER W-25



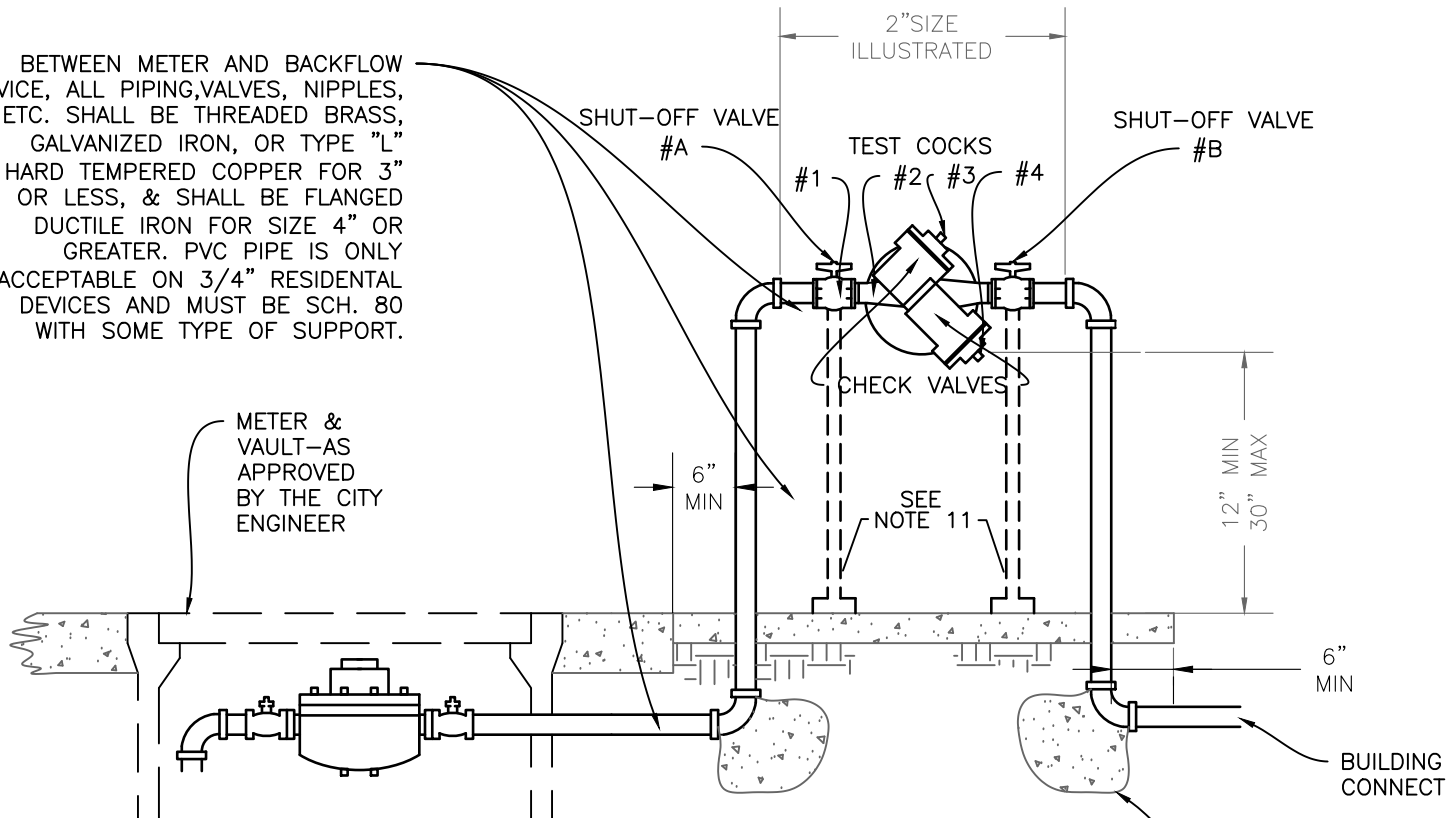
NOTES

1. DOUBLE CHECK VALVE ASSEMBLY SHALL BE INSTALLED ADJACENT TO AND ON PROPERTY SIDE OF SIDEWALK WHERE APPLICABLE. WHERE NO SIDEWALK EXISTS, THE ASSEMBLY SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE WATER METER LOCATION.
2. APPROVED DOUBLE CHECK VALVE ASSEMBLY SHALL BE AS SHOWN ON "LIST OF APPROVED BACKFLOW PREVENTION DEVICES" (LATEST REVISION) BY THE UNIVERSITY OF SOUTHER CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. DOUBLE CHECK VALVE ASSEMBLY SHALL BE PROVIDED WITH A MINIMUM OF FOUR (4) TEST COCKS AND TWO (2) SHUT OFF VALVES. APPROVED DEVICES COME PREASSEMBLED.
4. VALVES 2" & LESS SHALL BE THREADED BALL VALVES, WHILE 3" SHALL BE BALL VALVES, AND 4" & LARGER SHALL BE RESILIENT SEATED VALVES.
5. THE PIPING FROM THE DOUBLE CHECK VALVE ASSEMBLY AND THE BACKFLOW PREVENTION ASSEMBLY MUST BE THE SAME SIZE AS THE SERVICE LINE UNLESS OTHERWISE APPROVED BY THE DEPARTMENT OF PUBLIC WORKS.
6. DOUBLE CHECK VALVE ASSEMBLY SHALL BE REQUIRED FOR ANY USE WHERE TOXIC MATERIALS ARE USED OR STORED ONSITE, OR WHERE POSITIVE PROTECTION FOR THE PUBLIC WATER SUPPLY IS REQUIRED. TYPICAL APPLICATIONS INCLUDE: ALL IRRIGATION SERVICES & PARKS, HOSPITALS, MEDICAL & DENTAL LABORATORIES, MORTUARIES, INDUSTRIAL PLANTS, DRY CLEANERS, OR AS DETERMINED BY THE CITY'S DEPARTMENT OF ENVIRONMENTAL SERVICES.
7. THE ADDITION OF SPOOLS MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO INSTALLATION.
8. ANY COVER OR SCREENING FOR THE DEVICE MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO INSTALLATION. GUARD POSTS MAY BE REQUIRED FOR PROTECTION AND VISIBILITY.
9. PROTECTIVE ENCLOSURE FOR AESTHETIC, FREEZING, AND VANDALISM CONCERNS MAY BE REQUIRED.
10. ADJUSTABLE SUPPORTS ARE REQUIRED FOR 4" & LARGER DOUBLE CHECK VALVE ASSEMBLIES; GRINNELL OR APPROVED EQUAL (2 REQUIRED).
11. ALL BARE STEEL OR IRON SHALL BE COATED AND PROTECTED AS PER SPECIFICATIONS PRIOR TO PLACING BACKFILL.
12. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 48 HOURS IN ADVANCE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	BACKFLOW PREVENTION ASSEMBLY (LOW HAZARD)	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-26

BETWEEN METER AND BACKFLOW PREVENTER, ALL PIPING, VALVES, NIPPLES, ETC. SHALL BE THREADED BRASS, GALVANIZED IRON, OR TYPE "L" HARD TEMPERED COPPER FOR 3" OR LESS, & SHALL BE FLANGED DUCTILE IRON FOR SIZE 4" OR GREATER. PVC PIPE IS ONLY ACCEPTABLE ON 3/4" RESIDENTIAL DEVICES AND MUST BE SCH. 80 WITH SOME TYPE OF SUPPORT.



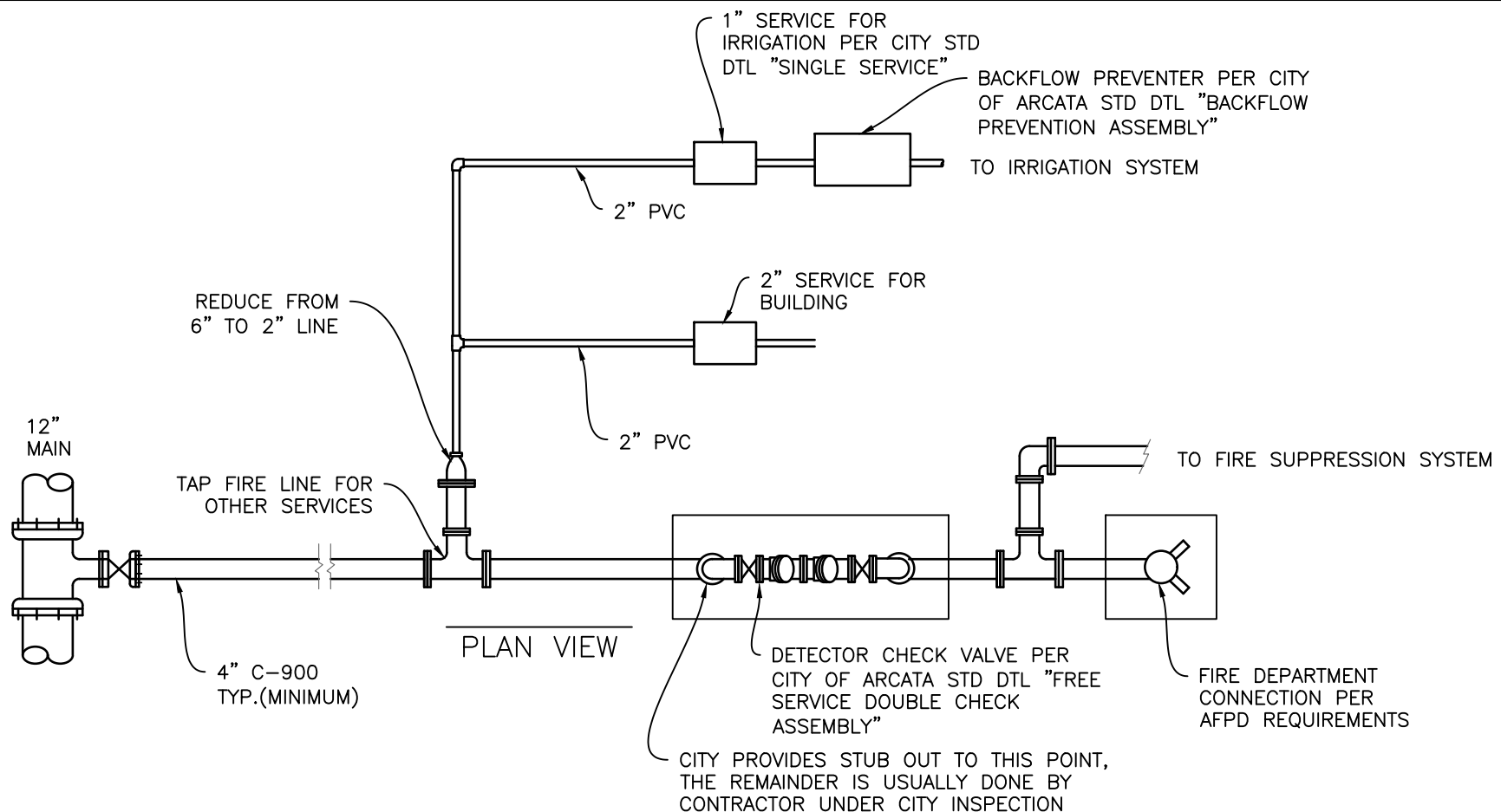
NOTES:

1. DOUBLE CHECK VALVE ASSEMBLIES SHALL BE INSTALLED ADJACENT TO AND ON PROPERTY SIDE OF SIDEWALK WHERE APPLICABLE. WHERE NO SIDEWALK EXISTS, THE ASSEMBLY SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE WATER METER LOCATION.
2. APPROVED DOUBLE CHECK VALVE ASSEMBLIES SHALL BE AS SHOWN ON "LIST OF APPROVED BACKFLOW PREVENTION DEVICES" (LATEST REVISION) BY THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS-CONNECTION CONTROL & HYDRALIC RESEARCH.
3. ALL DOUBLE CHECK VALVE ASSEMBLIES SHALL BE PROVIDED WITH A MINIMUM OF FOUR (4) TEST COCKS. AND TWO (2) SHUT OFF VALVES. APPROVED DEVICES COME PREASSEMBLED.
4. A VALVE OF THE SAME SIZE AS THE BACKFLOW PREVENTER SHALL BE INSTALLED ON EACH SIDE OF THE BACKFLOW PREVENTION ASSEMBLY VALVES 2" & LESS SHALL BE THREADED FORD BALL VALVES, 3" SHALL BE WATTS BALL VALVES, AND 4" & LARGER SHALL BE RESILIENT SEATED VALVES.
5. THE PIPING FROM THE DOUBLE CHECK VALVE ASSEMBLIES AND THE REDUCED PRESSURE BACKFLOW PREVENTER VALVE ASSEMBLY ITSELF MUST BE THE SAME SIZE AS THE SERVICE LINE UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
6. DOUBLE CHECK VALVE ASSEMBLIES SHALL BE REQUIRED FOR ANY USE WHERE TOXIC MATERIALS ARE USED OR STORED ON SITE OR WHERE POSITIVE PROTECTION FOR THE PUBLIC WATER SUPPLY IS REQUIRED. TYPICAL APPLICATIONS INCLUDE: ALL IRRIGATION SERVICES & PARKS, HOSPITALS, MEDICAL & DENTAL LABORATORIES, MORTUARIES, INDUSTRIAL PLANTS, DRY CLEANERS, OR AS DETERMINED BY THE CITY'S DEPARTMENT OF ENVIROMENTAL SERVICES.
7. THE ADDITION OF SPOOLS MUST BE APPROVED BY THE CITY INSPECTOR PRIOR TO INSTALLATION.
8. ANY COVER OR SCREENING FOR THE DEVICE MUST BE APPROVED BY THE CITY ENGINEER DEPARTMENT PRIOR TO INSTALLATION. GUARD POST FOR PROTECTION AND VISIBILITY.
9. PROTECTIVE ENCLOSURE FOR AESTHETIC, FREEZING, AND VANDALISM.
10. FOR 4" & LARGER DOUBLE CHECK VALVE ASSEMBLIES INSTALL ADJUSTABLE SUPPORTS; GRINNELL OR APPROVED EQUAL (TWO REQUIRED).

CONC. ANCHOR BLOCKS PER STD DTL "ANCHOR BLOCKS" (4" & LARGER)



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	REDUCED PRESS. BACKFLOW PREVENTER HIGH HAZARD	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-28



NOTES:

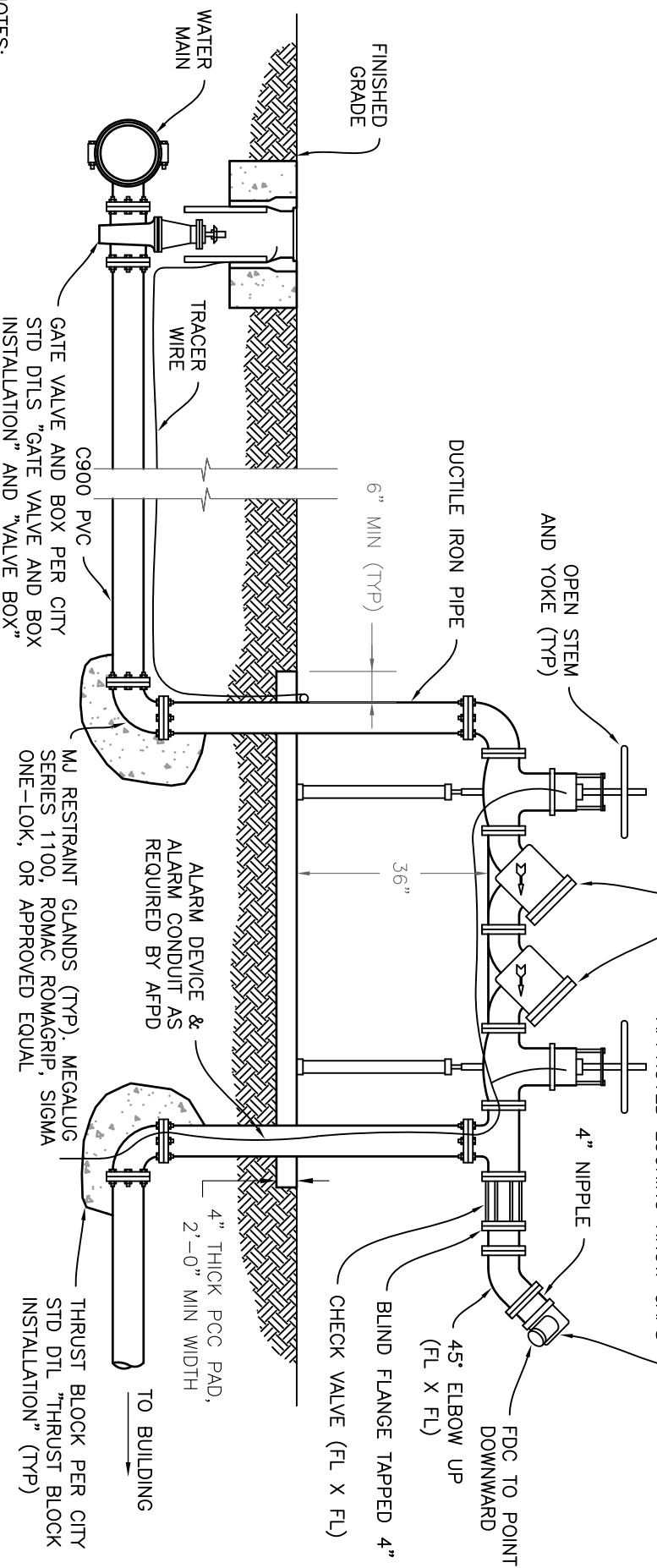
1. SET METER BOX COVER FLUSH WITH FINISHED SURFACE.
2. PIPE OPENINGS IN METER BOX SHALL BE CUT - DO NOT USE HAMMER. PRIOR TO BACKFILLING, PIPE OPENINGS SHALL BE GROUTED.
3. TRACER WIRE REQUIRED FROM CORPORATION VALVE TO METER BOX.
4. ALL STRUCTURES TO BE IN CITY EASEMENTS WITH NO INPEDIMENTS TO ACCESS.
5. SEE CITY STD DTL "VALVE BOX" FOR VALVE BOX INSTALLATION.
6. SEE CITY STD DTL "GATE VALVE AND BOX INSTALLATION FOR GATE VALVE INSTALLATION.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA FIRE LINE SERVING 2" SERVICE & IRRIGATION	APPROVED BY:  N. B. KHATRI, R.C.E. #75428	DRAWING NUMBER W-29
UPDATE	KLR	DFC	03/2023			

DOUBLE CHECK DETECTOR CHECK ASSEMBLY
FEBCO SERIES 856 OR APPROVED EQUAL
(MUST INCLUDE ¾" BYPASS AND METER)

90° TWO-WAY PUMPER CONNECTION
(FDC) 4" X 2-1/2" X 2-1/2" WITH
APPROVED LOCKING KNOW CAPS

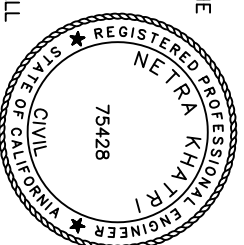


GATE VALVE AND BOX PER CITY
STD DTLS "GATE VALVE AND BOX
INSTALLATION" AND "VALVE BOX"

MJ RESTRAINT GLANDS (TYP), MEGALUG
SERIES 1100, ROMAC ROMAGRIP, SIGMA
ONE-LOK, OR APPROVED EQUAL

THRUST BLOCK PER CITY
STD DTL "THRUST BLOCK
INSTALLATION" (TYP)

- NOTES:
1. THE DOUBLE CHECK DETECTOR ASSEMBLY SHALL BE REQUIRED FOR USE IN CLASS I AND CLASS II FIRE SPRINKLER SYSTEMS ONLY. CLASS I AND CLASS II AUTOMATIC FIRE SPRINKLER SYSTEMS ARE THOSE WITH DIRECT CONNECTION TO THE PUBLIC WATER MAIN ONLY; NO RESERVOIRS OR AUXILIARY SOURCES, NO ANTI-FREEZE OR ADDITIVES OF ANY KIND, AND ALL SPRINKLER DRAINS DISCHARGE TO THE ATMOSPHERE OR OTHER SAGE OUTLETS (AWWA MANUAL NO. M-14).
 2. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE INSTALLED AT A LOCATION ACCEPTABLE TO AFPD, AND APPROVED BY THE CITY, WHEN SPACE ALLOWS, ACCEPTABLE TO THE FIRE DEPARTMENT.
 3. THE FDC SHALL BE WITHIN 200 FEET OF THE PROTECTED STRUCTURE AND WITHIN 50 FEET OF A FIRE HYDRANT. WHEN NOT READILY VISIBLE FROM THE STREET, ADDITIONAL MARKINGS MAY BE REQUIRED.
 4. ASSEMBLY SHALL BE PROTECTED FROM DAMAGE BY VEHICLES AND MAY REQUIRE BOLLARDS.
 5. FIRE SPRINKLER SYSTEM ALARM MONITORING SHALL BE PER CURRENT STATE AND LOCAL FIRE CODES.
 6. AGGREGATE BASE MATERIAL SHALL BE CALTRANS CLASS 2, MAX " AGGREGATE BASE, COMPACTED TO 95% RELATIVE COMPACTION.
 7. VALVES SHALL BE RESILIENT WEDGE GATE VALVES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
 8. ALL STRUCTURES TO BE IN CITY EASEMENTS WITH NO IMPEDIMENTS TO ACCESS.
 9. THRUST BLOCK REQUIRED ON ALL VALVE ASSEMBLIES PER CITY STD DTL "THRUST BLOCK INSTALLATION".
 10. ALL CONCRETE SHALL BE 520-C-2500 AS PER THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. ALL CONCRETE SHALL CONTAIN 3 LBS OF LAMP BLACK PER CUBIC YARD.
 11. ALL BARE STEEL OR IRON SHALL BE COATED AND PROTECTED AS PER SPECIFICATIONS. SEE CITY STD DTL "TRENCH BACKFILL" FOR PLACEMENT OF BACKFILL.
 12. INSPECTION OF FINISHED WORK REQUIRED. SCHEDULE INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE.



REVISION	BY	APPROVED	DATE	CITY OF ARCATATA	APPROVED BY:	DRAWING NUMBER
UPDATE	KLR	DFC	03/2023	FREE SERVICE DOUBLE CHECK ASSEMBLY	N. B. KHATRI, R.C.E. #75428	W-33A

ARCATA FIRE PREVENTION DISTRICT
631 9TH ST.
ARCATA, CA 95521
(707) 825-2000

FIRE SPRINKLER UNDERGROUND DESIGN

NOTE: ALL MATERIALS AND CONSTRUCTION MUST CONFORM TO APPLICABLE CODES ADOPTED BY THE ARCATA FIRE PROTECTION DISTRICT AND THE STATE OF CALIFORNIA.

A – REQUIREMENTS DURING CONSTRUCTION:

FIRE SAFETY DURING CONSTRUCTION SHALL COMPLY WITH CHAPTER 14 OF THE CALIFORNIA FIRE CODE INCLUDING BUT NOT LIMITED TO:

1. FIRE DEPARTMENT ACCESS ROADS SHALL BE MAINTAINED DURING CONSTRUCTION. CFC 1410

B – DESIGN REQUIREMENTS

1. SPRINKLER UNDERGROUND SUPPLY PLANS ARE A SEPARATE SUBMITTAL AND MAY NOT BE DEFERRED.
2. SPRINKLER PLANS ARE A SEPARATE SUBMITTAL AND MAY NOT BE DEFERRED.
3. THE UNDERGROUND SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE ARCATA FIRE PROTECTION DISTRICT STANDARD, CALIFORNIA BUILDING CODE, AND NFPA STANDARDS. SEE ATTACHED DOUBLE CHECK VALVE ASSEMBLY DIAGRAM.
4. THE UNDERGROUND SYSTEM SHALL BE DESIGNED AND INSTALLED BY A CONTRACTOR LICENSED IN THE STATE OF CALIFORNIA.
5. NO PIPE SMALLER THAN 6" IN DIAMETER SHALL BE INSTALLED AS A PRIVATE SERVICE MAIN. NFPA 13 15.1.3.1
6. PROVIDE CUT SHEETS FOR DEVICES, FIXTURES, ETC.
7. PROVIDE PIPE AND FITTING SCHEDULES.
8. ALL DEVICES, FIXTURES AND MATERIALS USED IN THE SYSTEM SHALL BE APPROVED BY AND INSTALLED PER NFPA, UL AND/OR FACTORY MUTUAL AND THE MANUFACTURER'S SPECIFICATIONS. WHERE THERE IS A CONFLICT IN SPECIFICATIONS THE MOST STRINGENT SHALL APPLY.
9. ONLY APPROVED DEVICES, FIXTURES, PIPES AND FITTINGS, ETC. WILL BE INSTALLED IN THE SYSTEM. ANY ADDITION OR VARIANCE IN MATERIALS OR DEVICES MUST BE APPROVED PRIOR TO INSTALLATION. APPROVAL MAY REQUIRE SUBMISSION OF ADDITIONAL PLAN REVISIONS, CALCULATIONS AND/OR CUT SHEETS DEPENDING ON THE PROPOSED CHANGES. INSTALLATION OF UN-APPROVED ITEMS WILL BE REQUIRED TO BE REMOVED.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA FREE SERVICE DOUBLE CHECK ASSEMBLY	APPROVED BY:  N. B. KHATRI, R.C.E. #75428	DRAWING NUMBER W-33B
UPDATE	KLR	DFC	03/2023			

C – INSPECTION AND TESTING

1. AN UNDERGROUND INSPECTION IS REQUIRED WHILE ALL PIPING IS STILL VISIBLE.
2. A WITNESSED 200# WORKING SIDE HYDROSTATIC TEST IS REQUIRED PRIOR TO CONNECTION TO THE SYSTEM.
3. A WITNESSED UNDERGROUND FLUSH IS REQUIRED PRIOR TO CONNECTION TO THE SYSTEM.

D – FIRE DEPARTMENT CONNECTION

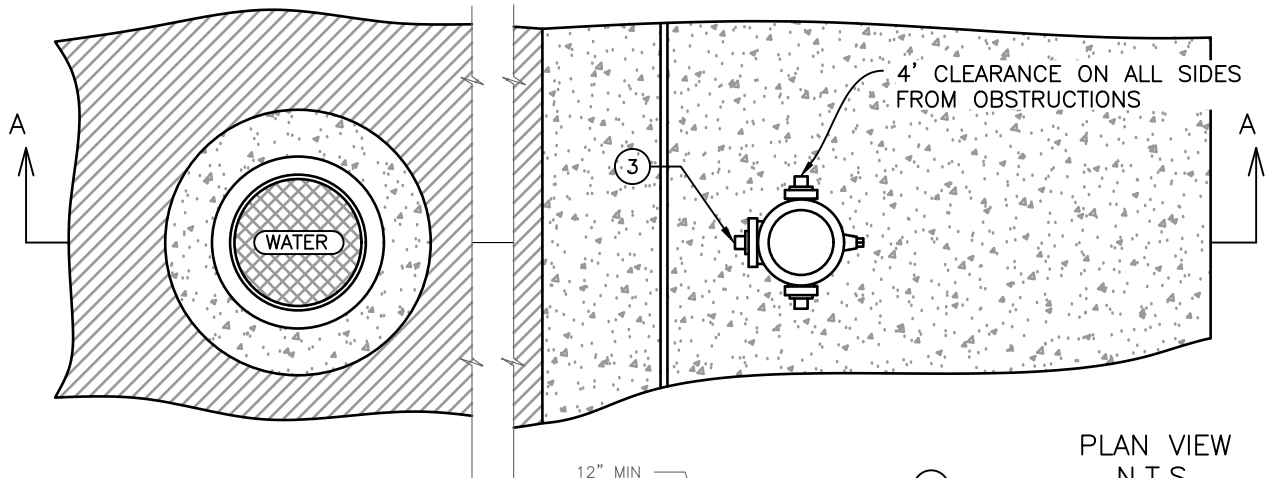
1. THE FDC SHALL BE LOCATED ON THE SYSTEM SIDE OF THE CONTROL VALVE. NO VALVE IS PERMITTED ON SYSTEM SIDE OF FDC. NFPA 13 8.16.2.5.2
2. THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE INSTALLED AT AN ACCEPTABLE LOCATION THAT IS ACCESSIBLE TO A FIRE ENGINE.
3. PROVIDE DETAIL OF CHECK-VALVE ASSEMBLY AND FDC LOCATION AND ORIENTATION. FDC SHALL BE LOCATED ON THE STREET SIDE OF THE BUILDING AND SHALL BE LOCATED AND ARRANGED SO THAT HOSE LINES CAN BE READILY AND CONVENIENTLY ATTACHED TO THE INLETS WITHOUT INTERFERENCE FROM ANY NEARBY OBJECTS. NFPA 13 8.16.2.4.6
4. AN OFF-STREET LOCATION OF THE CHECK-VALVE ASSEMBLY MAY REQUIRE ADDITIONAL SYSTEM SIDE UNDERGROUND PIPING TO A REMOTE, ACCESSIBLE LOCATION FOR THE FDC.
5. WHEN SPACE ALLOWS THE FDC SHALL BE LOCATED REMOTE FROM THE PROTECTED BUILDING AND NEAR A FIRE HYDRANT, PREFERABLY WITHIN FIFTY FEET.
6. THE FDC SHALL BE "WET" WITH A CHECK-VALVE PLACED AS CLOSE TO THE CONNECTION AS POSSIBLE.
7. THE FDC IS TO BE 2@2-1/2" FEMALE NATIONAL STANDARD THREAD.
8. WHEN NOT READILY VISIBLE FROM THE STREET, ADDITIONAL SIGNAGE MAY BE REQUIRED.
9. THE FIRE DEPARTMENT CONNECTION SHALL BE ORIENTED TOWARDS THE STREET FRONTING THE BUILDING AND CONSTRUCTED SO THAT THE COUPLINGS FOR THE FIRE HOSE SHALL BE ANGLED DOWNWARD AT 45 DEGREES. THIS MAY REQUIRE SEPARATE CONNECTION PIPING DEPENDING ON CHECK-VALVE ASSEMBLY LOCATION OR ORIENTATION.
10. THE FIRE DEPARTMENT CONNECTION SHALL BE EQUIPPED WITH LOCKING "KNOX" BRAND FDC CAPS.

E – CONTROL VALVES AND CHECK-VALVE ASSEMBLY

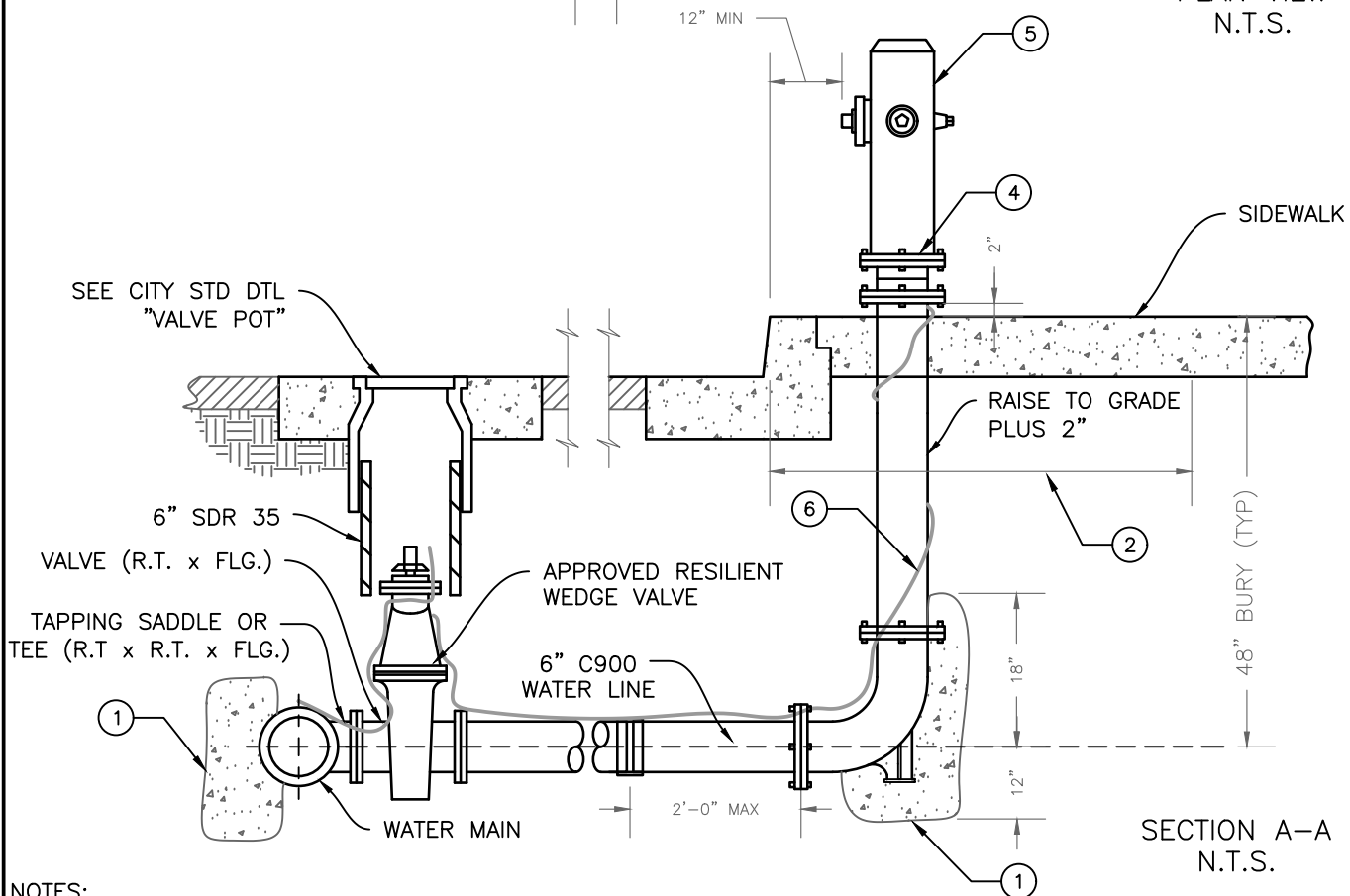
1. SYSTEM CONTROL VALVES SHALL BE MONITORED FOR TAMPERING BY AN ALARM COMPANY. CONTROL VALVES SHALL ALSO BE CHAINED. CFC 903.4. A VALVE TAMPER SWITCH FOR ALARM FUNCTION IS REQUIRED IN THE PRESENCE OF THE FIRE MARSHAL OR DESIGNEE PRIOR TO OCCUPANCY.
2. AN APPROVED DOUBLE CHECK-VALVE ASSEMBLY IS REQUIRED BETWEEN THE PROPERTY LINE AND THE SYSTEM TO PROTECT THE CITY WATER SUPPLY. SEE ATTACHED SPECIFICATIONS.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA FREE SERVICE DOUBLE CHECK ASSEMBLY	APPROVED BY:  N. B. KHATRI, R.C.E. #75428	DRAWING NUMBER W-33C
UPDATE	KLR	DFC	03/2023			



PLAN VIEW
N.T.S.



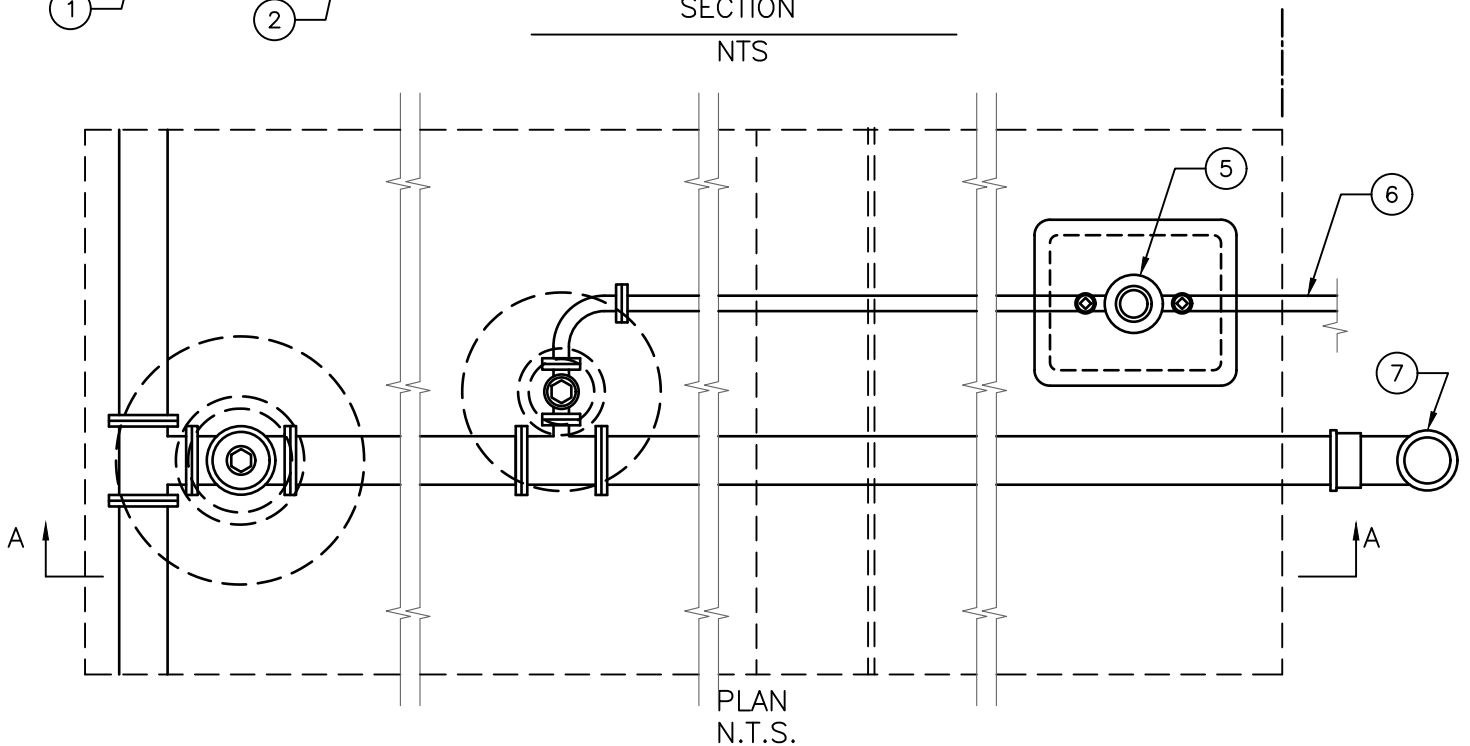
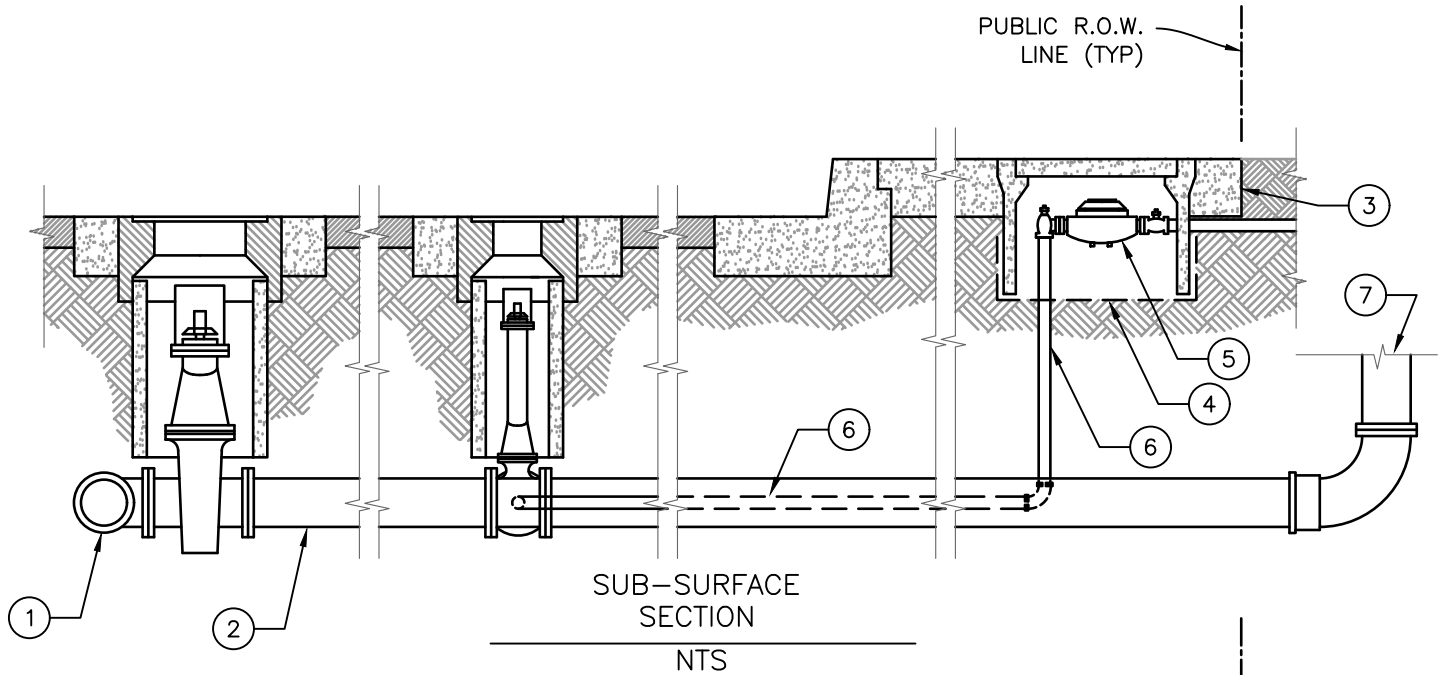
SECTION A-A
N.T.S.

NOTES:

1. CONCRETE TRUST BLOCK PLACED AGAINST UNDISTURBED SOIL
2. WHERE NO SIDEWALK EXISTS OR WHERE F.H. IS INSTALLED IN PLANTER STRIP, A 4" THICK x 4' SQ. CONCRETE PAD SHALL BE INSTALLED
3. 4" OUTLET TO BE DIRECTED TOWARDS THE STREET
4. BREAK-OFF RISER WITH BREAK-OFF BOLTS
5. FIRE HYDRANT TO BE TRAFFIC YELLOW (REPAINT ONE COAT AFTER INSTALLATION.)
6. #10 INSULATED COPPER TRACER WIRE
7. RESIDENTIAL HYDRANT N.S.T. 2.5" & 4" (CLOW 950 OR APPROVED EQUAL)
8. COMMERCIAL HYDRANT N.S.T. 2.5" & 2.5" & 4" (CLOW 960 OR APPROVED EQUAL)
9. VERIFY FIRE PROTECTION REQUIREMENTS WITH THE FIRE DEPARTMENT
10. INSTALL 10' FROM DRIVEWAY
11. FURNISH ONE BLUE PAVEMENT MARKER 4" OFFSET CENTERLINE ON F.H. SIDE



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	TYPICAL FIRE HYDRANT INSTALLATION	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER W-40

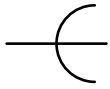


NOTES:

1. MAINLINE
2. SERVICE LINE
3. BACK OF SIDEWALK (TYP)
4. GEOTEXTILE FABRIC 5" MIN. BELOW CURB STOP
5. WATER METER
6. DOMESTIC WATER LINE
7. TO DETECTOR CHECK VALVE



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023	LOW HAZARD FIRE LINE INSTALLATION	
					N. B. KHATRI, R.C.E. #75428
					DRAWING NUMBER
					W-44



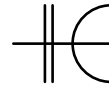
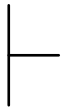
MECHANICAL JOINT (MJ)



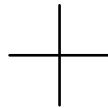
GATE VALVE



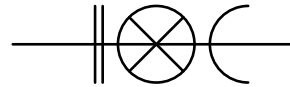
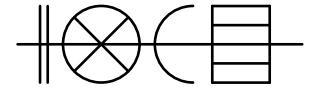
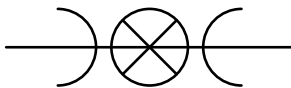
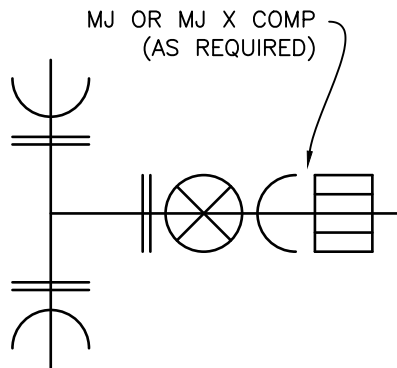
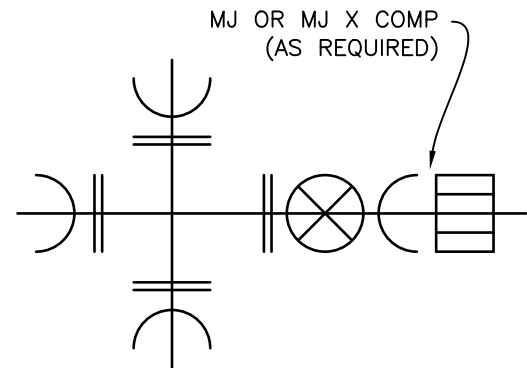
FLANGE (FLG)

COMPRESSION
COUPLER (COMP)FLG X MJ
ADAPTER

TEE



CROSS

FLG X VALVE X MJ
(OPTION-A)FLG X VALVE X MJ X COMP
(OPTION-B)MJ X VALVE X MJ
(OPTION-C)3FLG TEE: NUMBER & SIZE
OF VALVES VARIES PER PLANS4FLG CROSS: NUMBER & SIZE
OF VALVES VARIES PER PLANS

NOTES

1. BENDS AND CROSSES TO BE SIMILAR.
2. FITTINGS SHALL BE EITHER FLANGED OR MECHANICAL JOINT TYPE.
3. ALL CROSSES AND TEES SHALL BE DUCTILE IRON (AWWA C-110 OR C-153) CLASS 150.
4. COMPRESSION COUPLING TO BE APPROVED BY CITY ENGINEER.
5. ALL NUTS, BOLTS AND MISCELLANEOUS STEEL THAT ARE INSTALLED BELOW GROUND SHALL BE POLYETHYLENE ENCASED AS PER AWWA C-105 OR TAPE WRAPPED PER AWWA C-209, WITH A MIN THICKNESS OF 20 MILS IN EITHER CASE.
6. PVC STUBS SHALL BE 2' MIN LENGTH AND SHALL HAVE A CLASS AND PRESSURE RATING EQUAL TO, OR GREATER THAN, THE EXISTING WATER MAIN.



REVISION	BY	APPROVED	DATE	CITY OF ARCATA	APPROVED BY:
UPDATE	KLR	DFC	03/2023		
				TYPICAL FITTINGS & JOINTS	 N. B. KHATRI, R.C.E. #75428 DRAWING NUMBER W-50