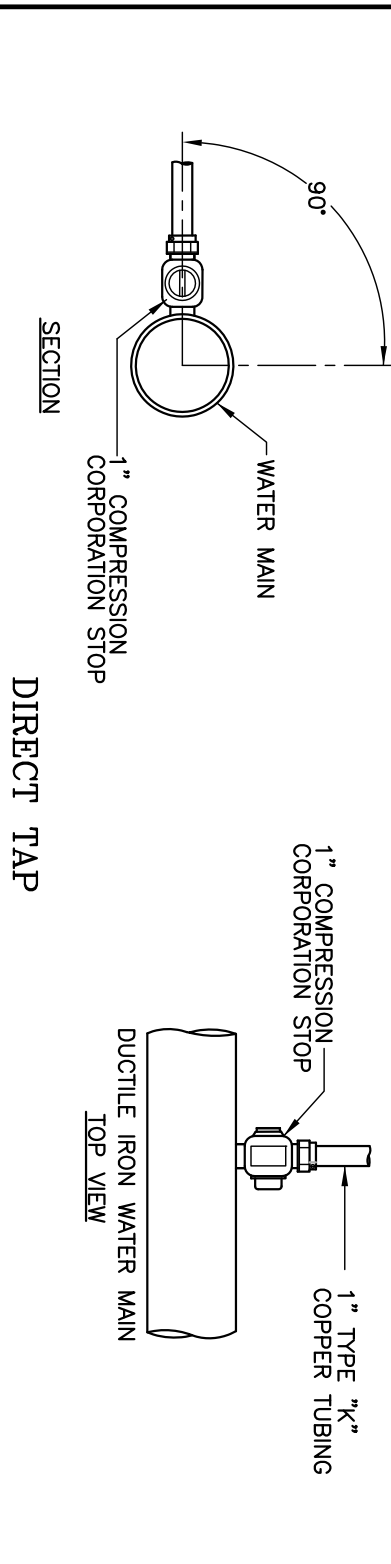


**SERVICE LINE DETAILS**



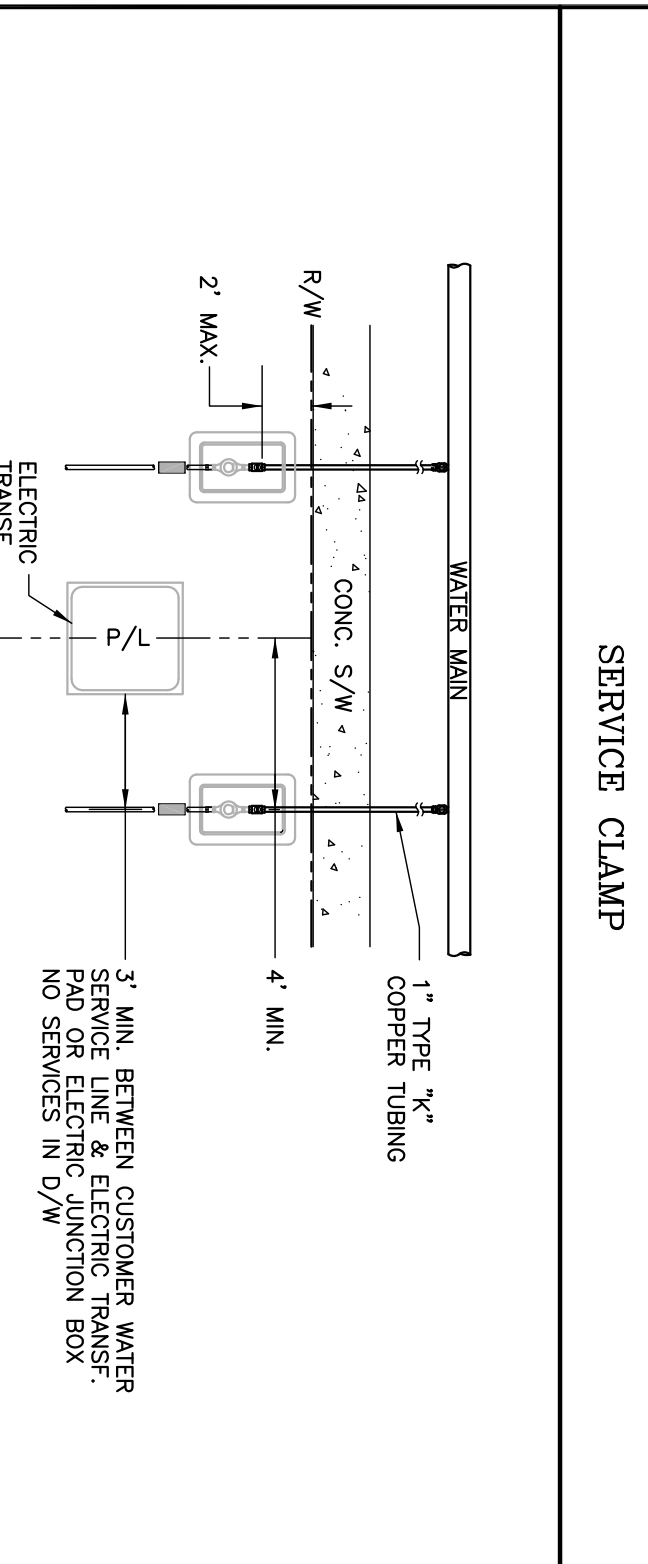
**SERVICE LINE NOTES**

- NOTE:
1. O.U.C. SHALL FINISH/INSTALL ALL WATER METERS.
  2. O.U.C. SHALL FINISH/INSTALL WATER BOXES. DEVELOPER'S CONTRACTOR TO INSTALL.
  3. METER SHOULD BE ON THE CUSTOMER SIDE OF THE RIGHT-OF-WAY NO FURTHER THAN 2' BEYOND RIGHT-OF-WAY LINE AND ALWAYS ALONG THE BACK SIDE OF CONC. SIDEWALK.

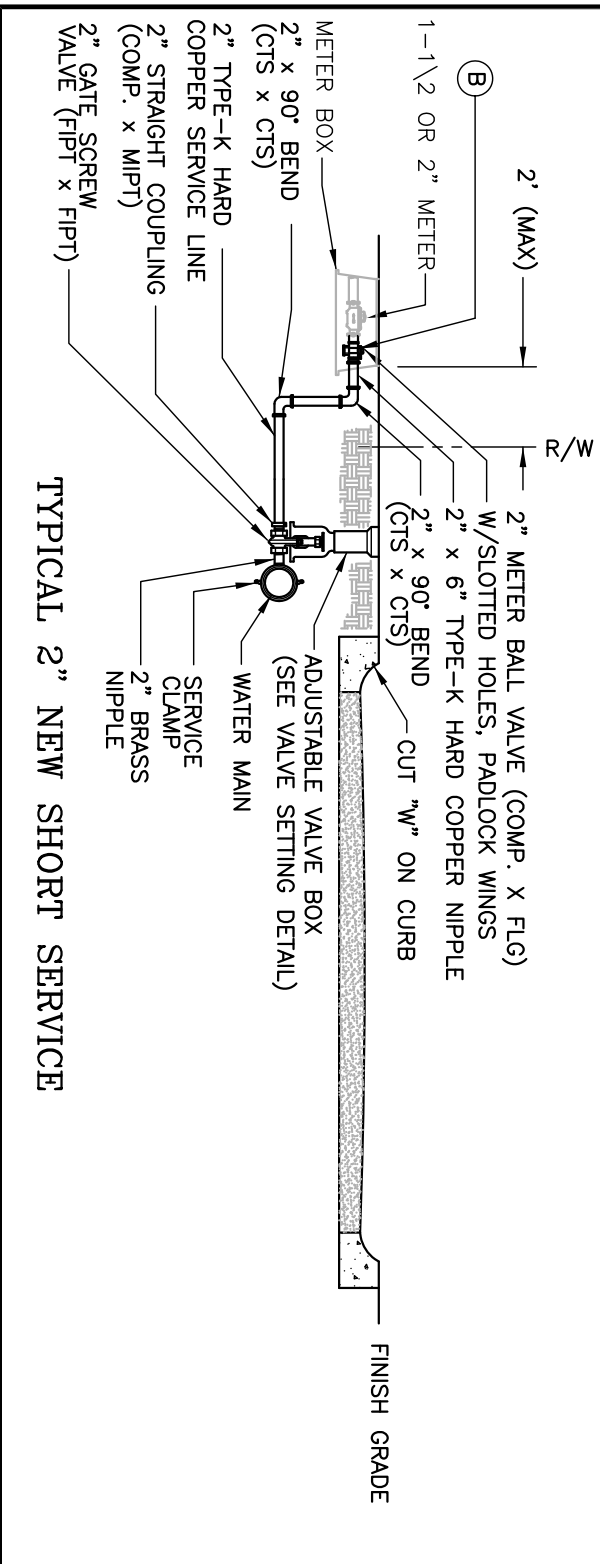
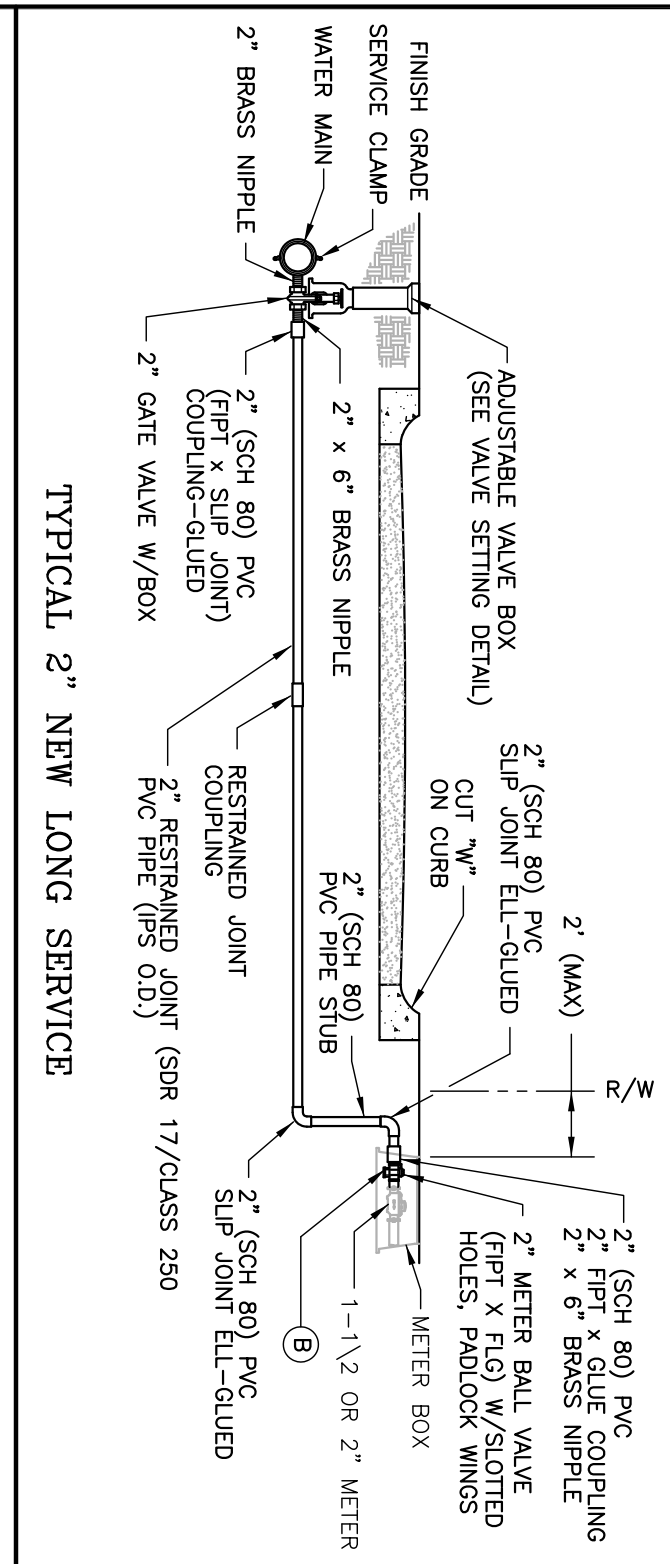
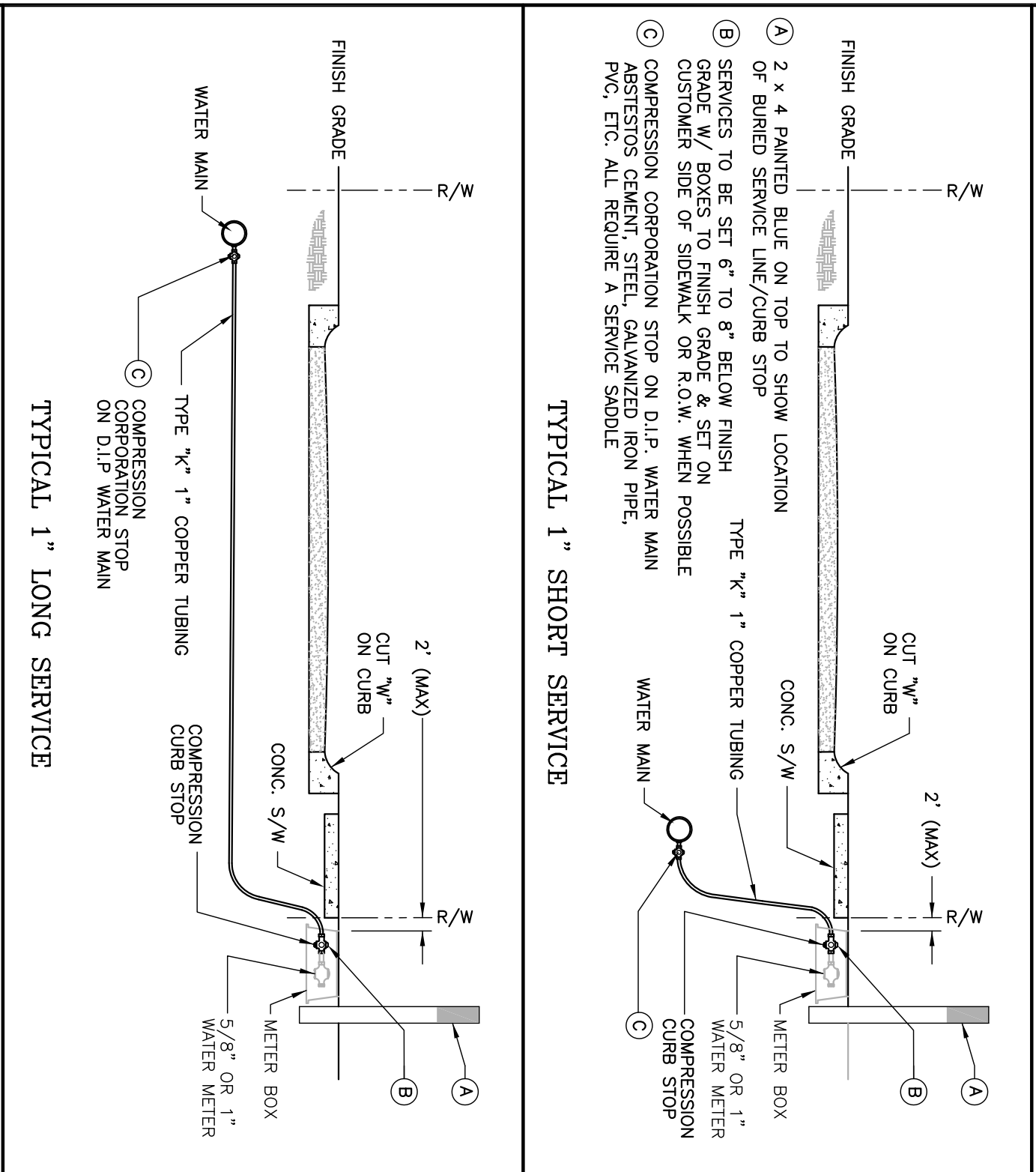
**LEGEND**

PIPE SIZE	CORPORATION TAP SIZE
12"	2"
10"	2"
8"	2"
6"	2"
4"	2"
2"	2"
1"	2"

**TAPPING FOR 1" CORP. STOP, & 2" GATE VALVE**

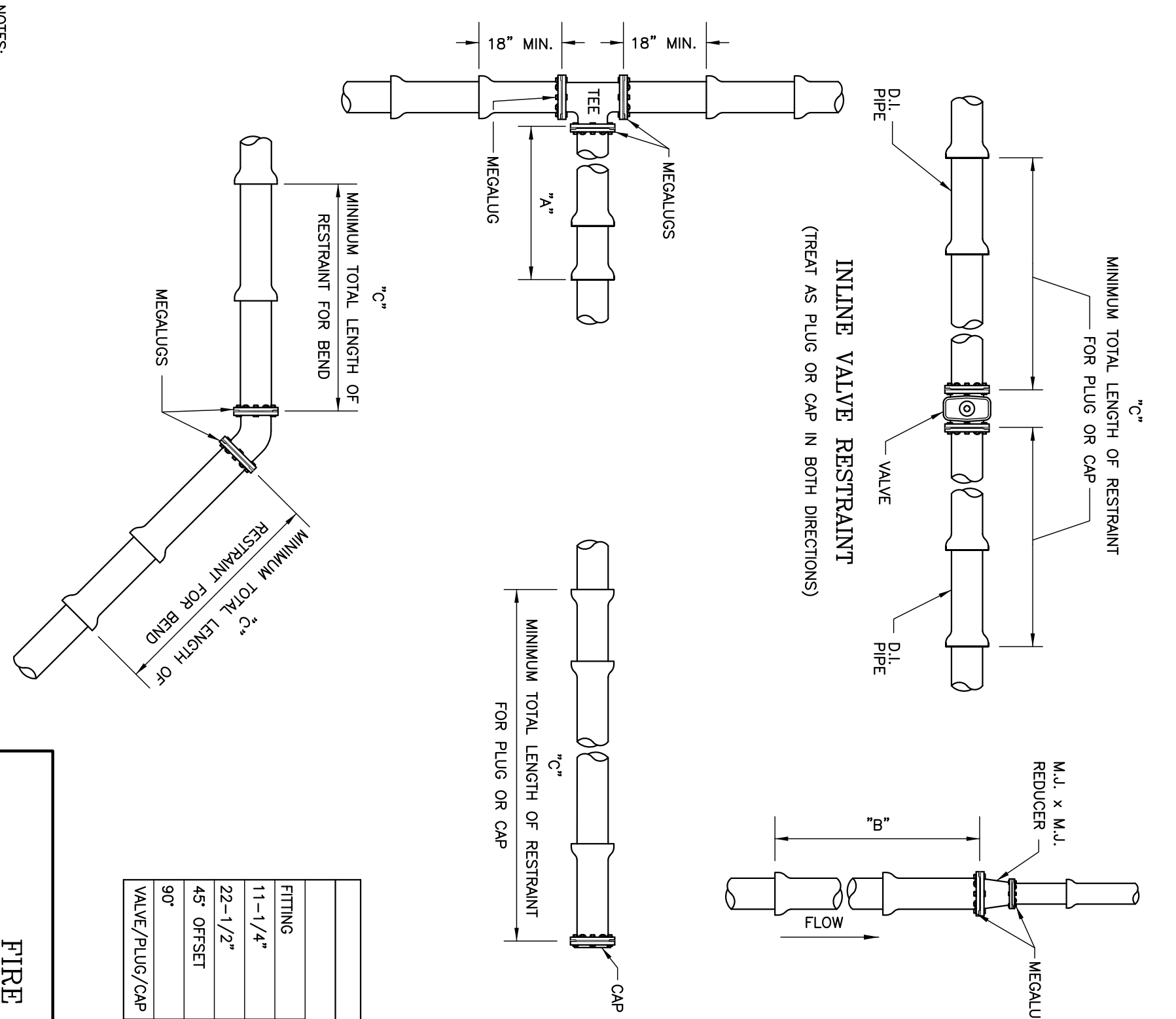


**TYPICAL 1" SERVICE LOCATION (SHORT OR LONG)**



**RESTRAINED JOINT STANDARDS**

**CONTACT O.U.C. FOR SPECIAL RESTRAINED DETAILS FOR WORK ON EXISTING PIPING.**



PIPE SIZE	RESTRAINT "C"	PVC PIPE
4"	6"	2"
6"	8"	2"
8"	10"	2"
10"	12"	2"
12"	14"	2"
14"	16"	2"
16"	18"	2"
18"	20"	2"
20"	22"	2"
22"	24"	2"
24"	26"	2"
26"	28"	2"
28"	30"	2"
30"	32"	2"
32"	34"	2"
34"	36"	2"
36"	38"	2"
38"	40"	2"
40"	42"	2"
42"	44"	2"
44"	46"	2"
46"	48"	2"
48"	50"	2"
50"	52"	2"
52"	54"	2"
54"	56"	2"
56"	58"	2"
58"	60"	2"
60"	62"	2"
62"	64"	2"
64"	66"	2"
66"	68"	2"
68"	70"	2"
70"	72"	2"
72"	74"	2"
74"	76"	2"
76"	78"	2"
78"	80"	2"
80"	82"	2"
82"	84"	2"
84"	86"	2"
86"	88"	2"
88"	90"	2"
90"	92"	2"
92"	94"	2"
94"	96"	2"
96"	98"	2"
98"	100"	2"
100"	102"	2"
102"	104"	2"
104"	106"	2"
106"	108"	2"
108"	110"	2"
110"	112"	2"
112"	114"	2"
114"	116"	2"
116"	118"	2"
118"	120"	2"
120"	122"	2"

**GENERAL SPECIFICATIONS**

1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR TO ENSURE THAT ALL REQUIRED PERMITS ARE IN-HAND BEFORE BEGINNING ANY CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND VERIFYING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES AND UTILITIES COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISRUPTION OF SERVICE, OR CLAMPING OR ACTING BEARING UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING STRUCTURES CONTRACTOR SHALL COORDINATE ANY NECESSARY ADJUSTMENTS AND COMPARE WITH THE OWNER.
3. THE RESPONSIBILITY OF THE VARIOUS UTILITIES SHALL BE NEONIAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
4. ALL CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL MEET CURRENT ORLANDO WATER DEPARTMENT STANDARDS FOR MATERIAL, INSTALLATION AND DISTRIBUTION. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL MATERIALS WILL BE IN COMPLIANCE WITH THE CONDITIONS OF TIEP PERMITS AND APPROVALS.
5. WATER MAIN SEPARATION FROM SEWER, STORM, AND RECLAIM LINES WILL BE IN COMPLIANCE WITH TIEP GUIDELINES.
6. THE MINIMUM SEPARATION REQUIREMENTS FROM SANITARY FORCE MAINS, MUST BE OBSERVED WITH NO STANDARD ALLOWED.
7. ALL CONDUIT TO BE A MINIMUM 2' FROM ALL WATER MAINS, AND APPURTENANCES, A MINIMUM OF 18" SEPARATION FROM BUILDINGS AND STRUCTURES IS REQUIRED. FROM THE POISSABLE WATER MAIN WHERE PRACTICAL, IF IT IS NOT PRACTICAL RECLAIMED WATER MAINS SHALL BE BELOW POISSABLE WATER MAINS WITH A MINIMUM VERTICAL SEPARATION OF 12".
8. ALL HYDROSTATIC TESTING SHALL BE IN ACCORDANCE WITH ANSI/AWWA G600 FOR D.I. PIPE AND ANSI/AWWA C200 FOR P.V.C. ACTIVE WATER MAINS FROM BROKELON CONSTRUCTION DURING FIELD TESTING, ESTIMATING AND MAINTAINING A PRESSURE IN THE NEW PIPING UNTIL A TIEP LETTER OF CLEARANCE IS OBTAINED.
9. THE DISINFECTION OF WATER MAINS SHALL BE IN COMPLIANCE WITH RULES AND REGULATIONS OF THE FLORIDA DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION (FDEP) AND THE FLORIDA DEPARTMENT OF HEALTH (FDOH) IN ACCORDANCE WITH ANSI/AWWA STANDARDS C651. CHLORINATION IS A 5 DAY PROCESS, STARTING ON MONDAYS UNLESS APPROVED BY O.U.C.
10. GROSS CONNECTION CONTROL SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS OF THE FLORIDA DEPARTMENT OF HEALTH AND ENVIRONMENTAL PROTECTION (FDEP) AND THE FLORIDA DEPARTMENT OF HEALTH (FDOH) IN ACCORDANCE WITH ANSI/AWWA STANDARDS C651. 62-255 "FEMALING AND CONSTRUCTION OF PUBLIC WATER SYSTEMS."
11. BACKFLOW PREVENTERS SHALL BE LOCATED NO MORE THAN 10 FEET FROM POINT OF SERVICE. ALL PIPING SHALL BE APPROVED BY O.U.C. ALL PIPING SHALL BE APPROVED BY O.U.C. NOT TO EXCEED 60" DEEP UNLESS APPROVED BY O.U.C.
12. A PRE-CONSTRUCTION MEETING FOR THE INSTALLATION OF WATER FACILITIES IS REQUIRED. CONTACT O.U.C. WATER CONSTRUCTION 407-434-2535.
13. ON NEWLY INSTALLED PIPE, ONLY ONE (1) REPAIR EVERY EIGHT-HANDED (800") WILL BE ALLOWED. ALL REPAIRS SHALL BE APPROVED BY O.U.C. REPAIRS ARE TO BE MADE USING A MECHANICALLY RESTRAINED SLEEVE. BELL CLAMPS ARE NOT TO BE USED. ANY OTHER METHODS MUST BE APPROVED BY THE O.U.C. ENGINEER.
14. ALL O.U.C. APPROVED TAPPING CONTRACTOR.
15. ALL O.U.C. OWNED SERVICES ASSEMBLIES SHALL HAVE A MINIMUM OF 10' SEPARATION FROM STRUCTURES AND TREES.
16. THE CONNECTION OF ROUNDING SYSTEMS FOR NEW OR RENOVATION CONSTRUCTION TO O.U.C. WATER SYSTEM FACILITIES IS PROHIBITED.

**GENERAL MATERIAL SPECIFICATIONS**

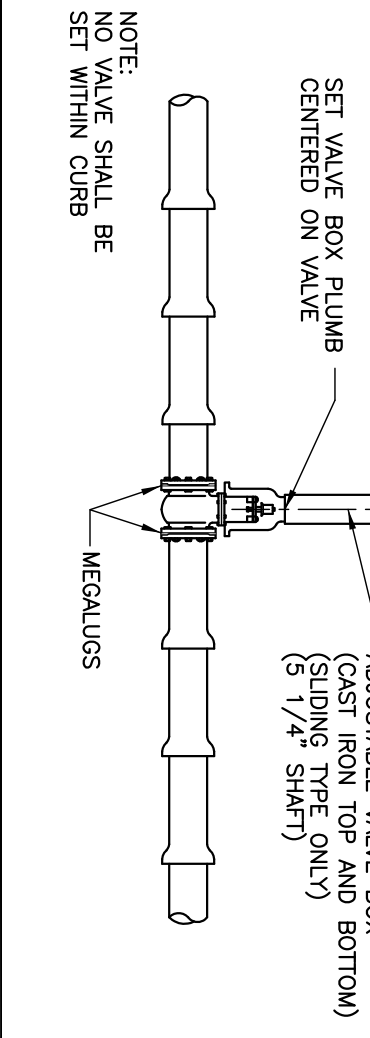
1. MATERIAL USED IN THE CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THE O.U.C. WATER DISTRIBUTION SYSTEM GENERAL GUIDANCE IN THE PREPARATION OF APPROVE OR DISAPPROVE PLANS AND SPECIFICATIONS, AND IN NO WAY LIMITS O.U.C.'S RIGHTS TO APPROVE OR DISAPPROVE PLANS AND SPECIFICATIONS OF INSTALLATIONS. MOST GENERAL FLORIDA UTILITY SUPPLY COMPANIES HAVE A COPY OF O.U.C.'S SPECIFICATION STANDARDS MANUAL.
1. THE TYPICAL O.U.C. DISTRIBUTION SYSTEM PIPE SIZES AND MATERIAL USED ARE:  
 1. TWO INCH (2") WATER MAINS SHALL BE ASTM 2241 CLASS 200 SPR21 POLYVINYL CHLORIDE (PVC) PIPE  
 2. TWO INCH (2") WATER MAIN UNDER ROADWAY REQUIRES 2" RESTRAINED JOINT SDR 17/CLASS 250 PIPE  
 3. FOUR INCH (4") WATER MAINS SHALL BE EITHER PRESSURE CLASS 350 DUCTILE IRON PIPE (DIP) WITH ANTI-SIPHONING WITH CONDITIONS W/AMVA, SDR18 CLASS 150 PVC PIPE.  
 4. SIX INCH (6") THROUGH TWENTY FOUR INCH (24") WATER MAINS SHALL BE PRESSURE CLASS 350 D.I. PIPE IN ACCORDANCE WITH ANSI/AWWA TAPING JOINT (SJR) AND LARGER WATER MAINS SHALL BE PRESSURE CLASS 250 D.I. PIPE IN ACCORDANCE WITH ANSI/AWWA C150/421-50 AND ANSI/AWWA C151/421-51.  
 NOTE:  
 1. THE USE OF 2" AND/OR 4" PVC PIPE MUST BE APPROVED BY O.U.C.  
 2. PVC PIPE MUST BE BLUE IN COLOR OR HAVING CONTINUOUS BLUE MARKINGS TO CONFORM TO AWWA COLOS WITH NSF LOGO FOR POTABLE WATER USE.  
 3. DUCTILE IRON POTABLE WATER MAINS REQUIRE SPECIAL IDENTIFICATION, SUCH AS THE STRIPE METHOD. THE STRIPE SHALL BE MINIMUM TWO INCHES IN WIDTH FOR PIPE 4-12 INCH IN DIAMETER AND FOUR (4) INCHES IN WIDTH FOR AT LEAST FIVE LAMDS TO BE IDENTIFY DUCTILE BACKFILL SHALL NOT BE PLACED FOR ALL PIPE FITTINGS 4" UP TO 30" SHALL BE CEMENT OR EPOXY LINED (CLASS 350) OR LARGER SHALL BE CEMENT LINED (CLASS 250) DUCTILE IRON, WITH MECHANICAL JOINT RESTRAINTS.  
 4. ALL PVC PIPE SHALL BE APPROVED BY O.U.C.  
 5. ALL VALVES 4" THROUGH 12" SHALL BE RESIN ESTER SERVICE GATE VALVES WITH EPOXY COATING INTERNALLY/EXTERNALLY AND CONFORM TO ANSI/AWWA STANDARD C509 OR LATEST REVISION. ALL VALVES 16" AND LARGER SHALL BE BITTERFLY, HAVE EPOXY COATING AND CONFORM TO ANSI/AWWA STANDARD C510 OR LATEST REVISION.  
 6. ALL VALVE BOXES SHALL BE CAST IRON USING THE ONLY:  
 7. FOR VALVES OVER 3" STEP A TEE OF 8" SDR 40 BLUE PVC PIPE SHALL BE INSTALLED BETWEEN THE VALVE BOX TOP AND BOTTOM.

**MAXIMUM ALLOWABLE LEAKAGE**

NOTE: PER ISO TESTING, 2 HOUR LEAKAGE TESTS. MAXIMUM LEAKAGE ALLOWED PER 1000 FT OF PIPE.

PIPE SIZE	GALLONS PER TWO (2) HOUR	PVC PIPE	GALLONS PER TWO (2) HOUR
2"	0.42	0.65	
4"	0.72	0.85	
6"	1.10		
8"	1.44		
10"	1.84		
12"	2.20		
14"	2.54		
20"	3.68		
24"	4.42		
30"	5.52		
36"	6.62		
42"	7.73		
48"	8.83		

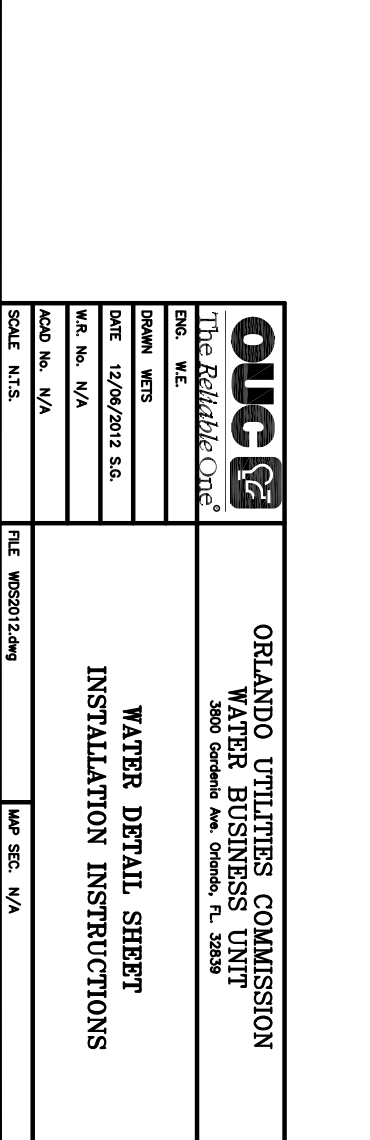
**VALVE SETTING**



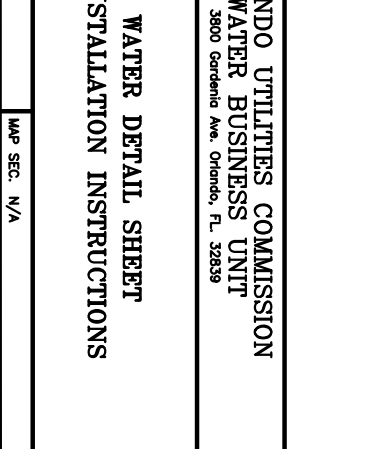
**PVC PIPE DETAIL**



**FIRE HYDRANT ASSEMBLY**



**TEMPORARY BLOW OFF (4" THROUGH 12") FOR CONSTRUCTION PURPOSE**



**OUC** ORLANDO UTILITIES COMMISSION  
 1000 GORRISON BLVD. SUITE 1000  
 ORLANDO, FLORIDA 32801  
 407-434-2535  
 www.ouc.com  
**WATER DETAIL SHEET**  
 INSTALLATION INSTRUCTIONS