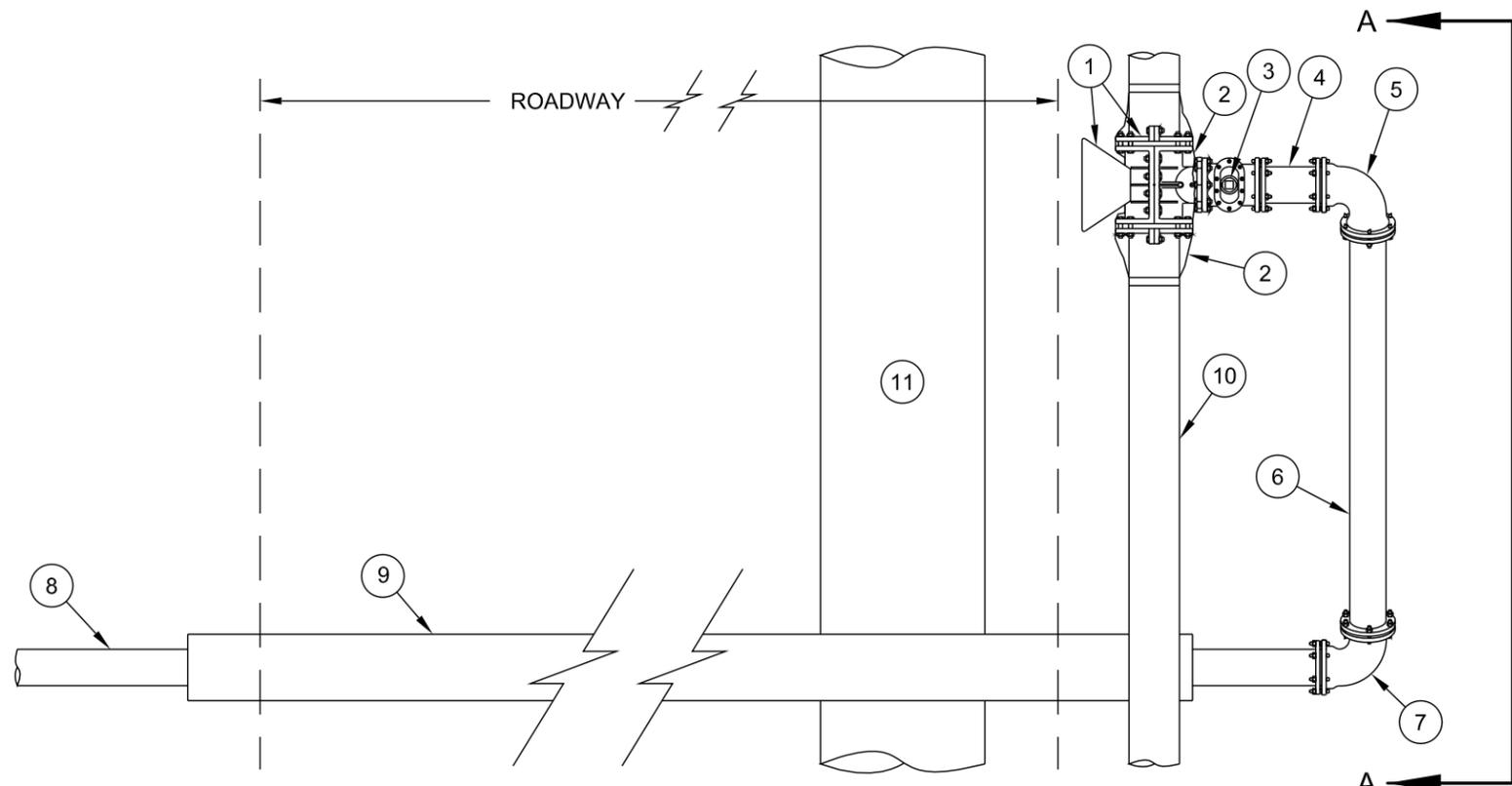


PROFILE



PLAN

- | NO. | DESCRIPTION |
|-----|---|
| 1 | TAPPING SLEEVE WITH CONCRETE THRUST BLOCKING (REQUIRED). (A) SEE SPECIFICATIONS FOR APPROVED MODELS, (B) SIZE ON SIZE TAPPING SLEEVES SHALL BE MECHANICAL JOINT FULL BODY DUCTILE / CAST IRON ONLY. |
| 2 | WRAP TAPPING SLEEVE WITH 2 LAYERS HDPE PLASTIC FILM (HDCLPE PER AWWA C-105) - 4 MILS. EACH LAYER - EXTEND HDPE 3 FT. EACH WAY FROM FITTINGS - DUCT TAPE ENDS. |
| 3 | TAPPING VALVE - FLANGE x R.M.J. |
| 4 | D.I.P. SHORT L $\geq 18"$ |
| 5 | R.M.J. DUCTILE IRON 90° BEND - ROTATE DOWN, AS APPROVED |
| 6 | DUCTILE IRON PIPE - RESTRAINED |
| 7 | R.M.J. DUCTILE IRON 90° BEND - ROTATE UP, AS APPROVED, CONCRETE THRUST BLOCKING MAY ALSO BE REQUIRED. SEE NOTE IN CHART A BELOW |
| 8 | DUCTILE IRON PIPE -RESTRAINED - SEE CHART A |
| 9 | STEEL CASING - SEE CHART B |
| 10 | EXISTING WATER MAIN |
| 11 | EXISTING INFRASTRUCTURE THAT PREVENTS FRONT SIDE TAP - BACKSIDE TAP WILL BE PERMITTED ONLY WHERE EXISTING INFRASTRUCTURES PREVENTS FRONT SIDE TAP, AND REQUIRES APPROVAL OF THE CMU ENGINEER. |
| 12 | STANDARD VALVE BOX ASSEMBLY |
| 13 | VALVE EXTENSION (WHEN OPERATING NUT IS GREATER THAN 4.5 FEET DEEP) |

CHART A - RESTRAINED LENGTH REQUIREMENTS

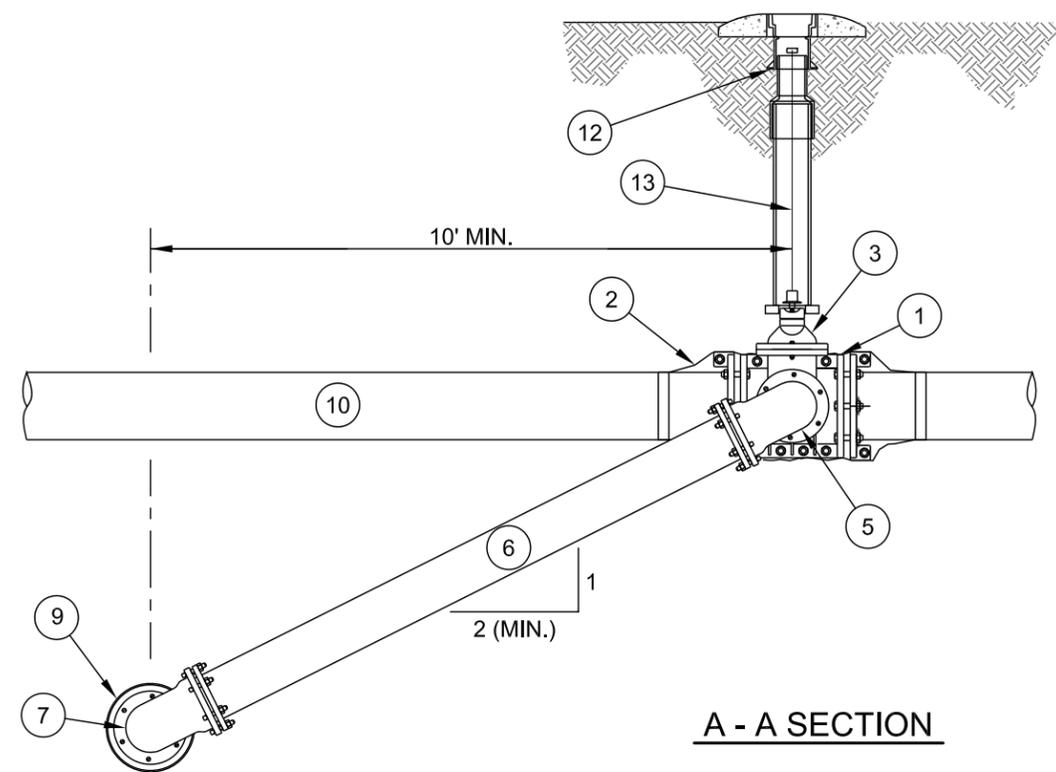
PIPE DIA. (INCHES)	TOTAL RESTRAINED LENGTH - R.L. - (FT)
3"	64' + CASING LENGTH (C.L.)
4"	77' + CASING LENGTH (C.L.)
6"	109' + CASING LENGTH (C.L.)
8"	140' + CASING LENGTH (C.L.)
10"	169' + CASING LENGTH (C.L.)
12"	196' + CASING LENGTH (C.L.)
16"	249' + CASING LENGTH (C.L.)

CHART B - ROADWAY CASING REQUIREMENTS

PIPE DIA. (INCHES)	CASING MIN. DIAMETER (INCHES)	CASING WALL THICKNESS - MIN. (INCHES)
3"	8"	0.250"
4"	8"	0.250"
6"	12.75"	0.250"
8"	16"	0.250"
10"	18"	0.250"
12"	20"	0.250"
16"	24"	0.250"

CONCRETE THRUST BLOCK (WRAP BEND PER (2)) REQUIRED AT BOTTOM BEND (7), IF REQUIRED RESTRAINED LENGTH (R.L.) CAN NOT BE COMPLETELY INSTALLED.

LARGER DIAMETER CASING MAY BE REQUIRED DUE TO LENGTH OF CROSSINGS AND RESTRAINED JOINT DIMENSIONS. SEE PLANS AND SPECIFICATIONS.



A - A SECTION

NO SCALE

STANDARD NO.	C
VERSION NO.	1.1
VERSION DATE	9.02.2009

**BACK SIDE TAP
16" AND SMALLER MAINS**

CHARLOTTE-MECKLENBURG
UTILITIES
STANDARD DETAILS
WATER

