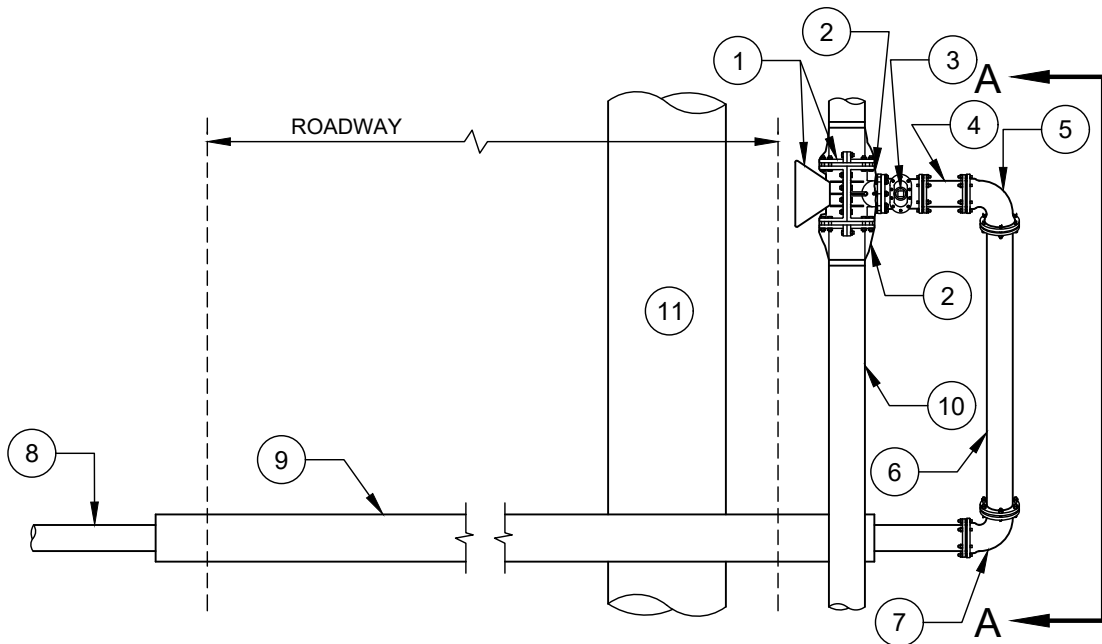
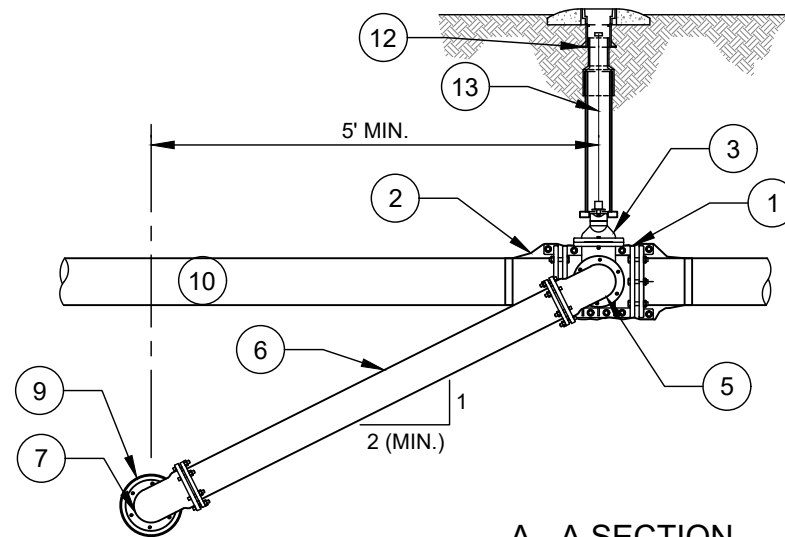


PROFILE



PLAN



A - A SECTION

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.)

CONCRETE THRUST BLOCK (WRAP BEND PER NO. 2) REQUIRED AT BOTTOM BEND NO. 7, IF REQUIRED RESTRAINED LENGTH (R.L.) CAN NOT BE COMPLETELY INSTALLED.

CHART B - ROADWAY CASING REQUIREMENTS

PIPE DIA. (INCHES)	CASING MIN. DIA. (INCHES)	CASING WALL THICKNESS MIN. (INCHES)
3"	8"	0.25"
4"	8"	0.25"
6"	12.75"	0.25"
8"	16"	0.25"
10"	18"	0.25"
12"	20"	0.25"
16"	24"	0.25"

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

NO. DESCRIPTION:

- TAPPING SLEEVE WITH CONCRETE THRUST BLOCKING (REQUIRED). SEE SPECIFICATIONS FOR APPROVED MODELS. SIZE ON SIZE TAPPING SLEEVES SHALL BE MECHANICAL JOINT FULL BODY DUCTILE ONLY.
- WRAP TAPPING SLEEVE WITH 2 LAYERS HDPE PLASTIC FILM (HDCLPE PER AWWA C-105) - 4 MILS. EACH LAYER - EXTEND HDPE 3' EACH WAY FROM FITTINGS - DUCT TAPE ENDS.
- TAPPING VALVE - FLANGE X RMJ.
- DUCTILE IRON PIPE SHORT L ≥ 18".
- RMJ DUCTILE IRON 90° BEND - ROTATE DOWN, AS APPROVED.
- DUCTILE IRON PIPE - RESTRAINED.
- RMJ DUCTILE IRON 90° BEND - ROTATE UP, AS APPROVED, CONCRETE THRUST BLOCKING MAY ALSO BE REQUIRED. SEE NOTE IN CHART A.
- DUCTILE IRON PIPE - RESTRAINED - SEE CHART A.
- STEEL CASING - SEE CHART B.
- EXISTING WATER MAIN.
- EXISTING INFRASTRUCTURE THAT PREVENTS FRONT SIDE TAP - BACKSIDE TAP WILL BE PERMITTED ONLY WHERE EXISTING INFRASTRUCTURE PREVENTS FRONT SIDE TAP, AND REQUIRES CLTW APPROVAL.
- VALVE BOX ASSEMBLY PER CLTW STD. DETAIL.
- VALVE EXTENSION (WHEN OPERATING NUT IS GREATER THAN 3' DEEP).

NOTE:

- A. TRACER WIRE INSTALLED PER CLTW TRACER WIRE DETAIL.