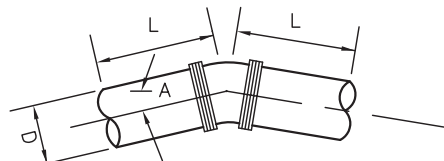
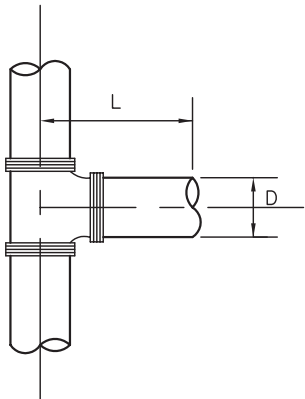
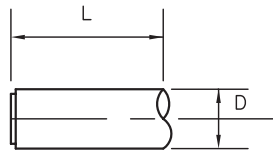


TAPPING SLEEVE AND VALVE DETAIL

ALL JOINTS TO BE RESTRAINED.
MECHANICAL RESTRAINT DEVICES SHALL BE AWWA ACCEPTED.

NOTES

- A.** BELL JOINT RESTRAINTS – USE FIELD LOCK BY U.S. PIPE OR APPROVED EQUIVALENT.
- B.** MECHANICAL JOINT RESTRAINTS – EBAA IRON MEGALUG RETAINER GLAND OR EQUIVALENT.
- C.** CONTRACTOR TO USE RESTRAINED JOINTS UNLESS THRUST BLOCKING IS PREAPPROVED FOR SPECIAL CONDITIONS BY THE CITY PRIOR TO THE BEGINNING OF CONSTRUCTION.



SEE TABLE FOR L,
REQUIRED LENGTH OF RESTRAINED JOINTS

		REQUIRED LENGTH OF RESTRAINED JOINTS IN FEET							
		D-DIAMETER OF PIPE							
A ~ DEGREE OF DEFLECTION		4"	6"	8"	10"	12"	16"	20"	24"
	11 1/4°	*	*	*	*	*	2	3	3
	22 1/2°	*	2	3	3	4	5	6	6
	45°	3	4	5	6	8	10	12	13
	90°	18	25	33	40	47	60	72	85
	TEE	18	25	33	40	47	60	72	85
END	18	25	33	40	47	60	72	85	

DESIGN PARAMETERS

LAYING CONDITIONS – TYPE 5
SOIL DESIGNATION – SILT
DEPTH OF COVER – 4'
DESIGN PRESSURE – 80 PSI
SAFETY FACTOR – 1.50
BARE PIPE
THIS CHART AND PARAMETERS
WILL BE UTILIZED UNLESS
APPROVED BY THE UTILITY
DIRECTOR.

REQUIRED LENGTH OF RESTRAINED JOINTS FOR WATER MAINS

* REQUIRED RESTRAINED JOINT AT FITTING.

**CITY OF
URBANA**

**RESTRAINING JOINTS AND
TAPPING SLEEVE FOR WATER MAINS**

REVISIONS:

DATE
APPROVED:
01-13-06
PAGE No.

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