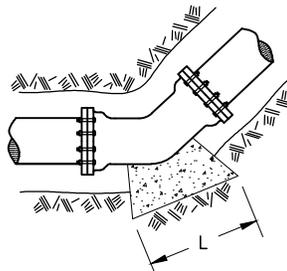
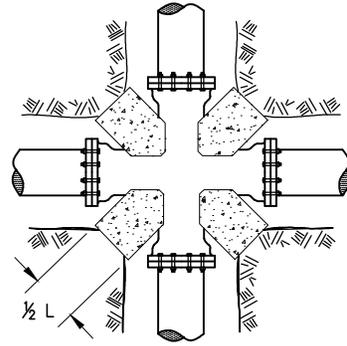


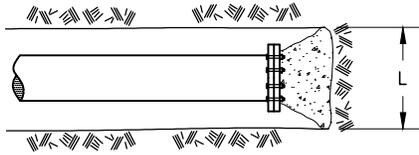
TEE



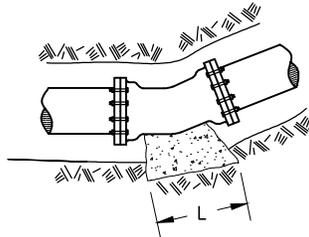
45° BEND



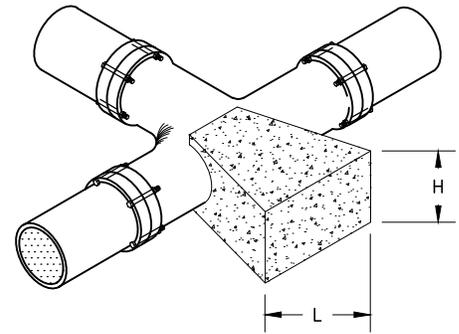
CROSS



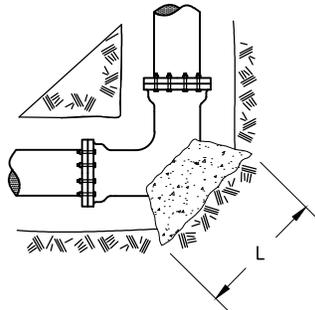
DEAD END



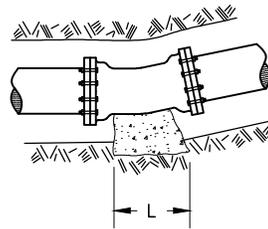
22H° BEND



TYPICAL THRUST BLOCK



90° BEND



11G° BEND

GENERAL NOTES

1. FORCE MAIN PRESSURE TEST SHALL BE PERFORMED IN ACCORD WITH CONCRETE CURING REQUIREMENTS. CONCRETE SHALL BE 560-C-3250.
2. THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED SOIL, BACKFILL COMPACTED TO 100% RELATIVE COMPACTION, OR CLASS 100 E 100 SLURRY.
3. BEARING AREAS L x H ARE COMPUTED FOR TEST PRESSURES OF 225 PSI IN MAINS LAID IN A COHESIONLESS SOIL (C=0) WITH INTERNAL ANGLE OF FRICTION OF 37°, A UNIT WEIGHT OF 110 PCF, AND AT LEAST 36" OF COVER.
4. BEARING AREAS L x H SHALL BE APPROVED BY THE ENGINEER WHERE MAINS: (A) BEAR AGAINST WEAKER SOIL THAN DESCRIBED ABOVE, (B) HAVE LESS THAN 36" OF COVER, (C) WILL BE TESTED AT MORE THAN 225 PSI OR (D) ARE NOT REPRESENTED BY A FITTING OR SIZE SHOWN HEREON.
5. L IS APPROXIMATELY EQUAL TO H FOR SMALLER THRUST BLOCKS. L IS GREATER THAN H FOR LARGER THRUST BLOCKS. H SHALL NOT EXCEED TRENCH HEIGHT. SEE STD 106 FOR STANDARD TRENCH DIMENSIONS.
6. ALL DUCTILE IRON FITTINGS SHALL BE ENCASED IN POLYETHYLENE WRAP PER AWWA STANDARD C105.

THRUST BLOCK BEARING AREA L x H IN SQUARE FEET

FITTING & SIZE	DEAD END	TEE OR CROSS	90° BEND	45° BEND	22H° BEND	11G° BEND
4"	1.7	2.4	2.4	1.3	0.7	0.3
6"	3.7	5.3	5.3	2.9	1.5	0.7
8"	6.7	9.4	9.4	5.1	2.6	1.3
12"	15.0	21.2	21.2	11.5	5.8	2.9
16"	26.6	37.6	37.6	20.4	10.4	5.2
18"	33.7	47.6	47.6	25.8	13.1	6.6
24"	59.9	84.6	84.6	45.8	23.3	11.7
30"	93.6	132.2	132.2	71.5	36.5	18.3

FORMER CITY STANDARD PLAN NUMBER (2004 EDITION): STD 510-L-A

APP. *James M. Hinkle* 51568
 CITY ENGINEER RCE 11/24/2020
 DATE

NO.	DATE	DESCRIPTION OF REVISIONS

CITY OF NEWPORT BEACH DEPARTMENT OF PUBLIC WORKS

DRAWN: M. ELIAS
 DATE: 11/3/2020

THRUST BLOCKS

STANDARD DRAWING NO.

516-A

SHEET 1 OF 1