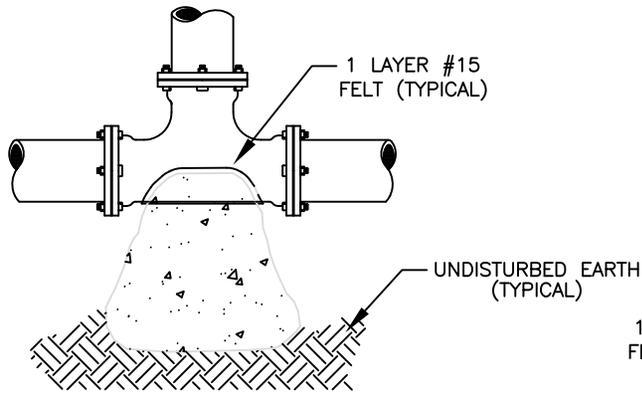


**11.25°, 22.5°, 45° + 90° BEND**

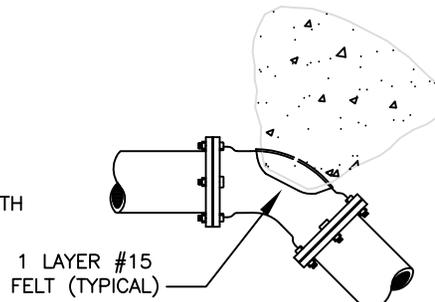
BEARING AREA DIMENSIONS OF THRUST BLOCK, H X B (FT)					
PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	1.0 X 1.5	1.5 X 1.5	1.0 X 1.0	1.0 X 1.0	1.0 X 1.0
6"	1.5 X 2.0	1.5 X 2.5	1.0 X 2.0	1.0 X 1.5	1.0 X 1.0
8"	2.0 X 2.5	2.0 X 3.5	1.5 X 2.5	1.0 X 2.0	1.0 X 1.0
10"	2.5 X 3.5	3.0 X 4.0	2.0 X 3.0	1.5 X 2.0	1.0 X 1.5
12"	3.0 X 4.0	3.5 X 5.0	2.5 X 3.5	2.0 X 2.5	1.0 X 2.0
16"	4.0 X 5.5	4.5 X 6.5	3.0 X 5.0	2.5 X 3.5	1.5 X 2.5

NOTES:

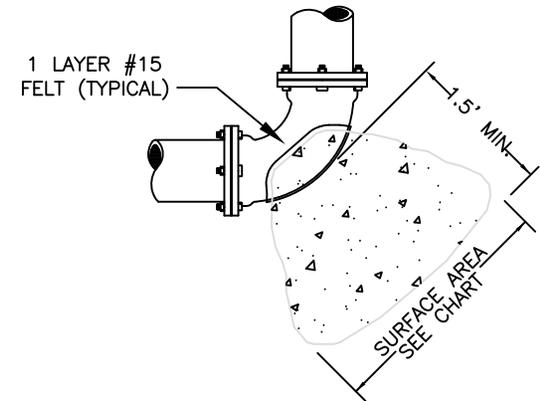
- ONE LAYER OF #15 FELT TO BE USED TO PREVENT ADHESION OF CONCRETE TO FITTING.
- ALL THRUST BLOCKS TO BE BACKED BY UNDISTURBED SOIL.
- THRUST BLOCK DIMENSIONS BASED ON SM SOIL CLASSIFICATION WITH A SOIL BEARING PRESSURE OF 3000 LB/FT<sup>2</sup>
- CONCRETE MIN. 2,500 PSI.
- BEARING AREAS SHALL BE MINIMUM 1.0 FT<sup>2</sup>
- JOINT RESTRAINTS ARE TO BE USED ON ALL FITTINGS. THRUST BLOCKS REQUIRED ON 90° BENDS, 45° BENDS, 22.5° BENDS, 11.25° BENDS, TEES, TAPPING SLEEVES AND DEAD ENDS.



**TEE - M.J.**



**11.25°, 22.5° + 45° BENDS - M.J.**



**90° BEND - M.J.**

**TYPICAL THRUST BLOCK INSTALLATION**

DETAIL

**D-52**



SCALE: N.T.S.  
DATE: 12/18/14