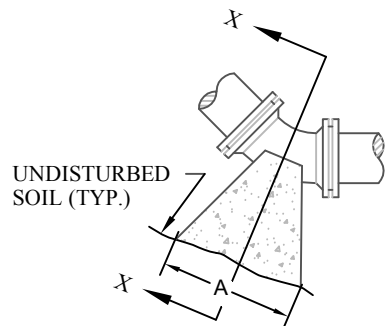


THRUST BLOCK SPECIFICATIONS AND DIMENSIONS

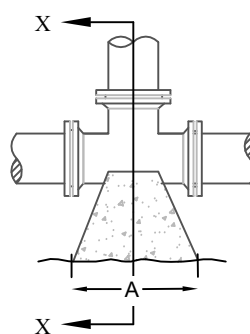
FITTING	AREA (IN ²)	TEES		AREA OF THRUST BLOCK (FT ²)	90° BENDS AND DEAD MAN (FT)		AREA OF THRUST BLOCK (FT ²)	45° BENDS AND "Y"'S (FT)		AREA OF THRUST BLOCK (FT ²)	22.5° BENDS (FT)		AREA OF THRUST BLOCK (FT ²)	11.25° BENDS (FT)		AREA OF THRUST BLOCK (FT ²)
SIZES (IN)		A (FT)	B (FT)		A (FT)	B (FT)		A (FT)	B (FT)		A (FT)	B (FT)		A (FT)	B (FT)	
6	28.3	2.1	1.0	2.1	2.4	1.2	3.0	1.8	0.9	1.6	1.3	0.6	0.8	1.3	0.6	0.8
8	50.3	2.7	1.4	3.8	3.3	1.6	5.3	2.4	1.2	2.9	1.7	0.9	1.5	1.7	0.9	1.5
10	78.5	3.4	1.7	5.9	4.1	2.0	8.3	3.0	1.5	4.5	2.1	1.1	2.3	2.1	1.1	2.3
12	113.1	4.1	2.1	8.5	4.9	2.4	12.0	3.6	1.8	6.5	2.6	1.3	3.3	2.6	1.3	3.3
14	153.9	4.8	2.4	11.5	5.7	2.9	16.3	4.2	2.1	8.8	3.0	1.5	4.5	3.0	1.5	4.5
16	201.1	5.5	2.7	15.1	7.1	3.0	21.3	4.8	2.4	11.5	3.4	1.7	5.9	3.4	1.7	5.9
18	254.5	6.4	3.0	19.1	18.0	CY	27.0	5.4	2.7	14.6	3.9	1.9	7.4	3.9	1.9	7.4
20	314.2	7.9	3.0	23.6	22.2	CY	33.3	6.0	3.0	18.0	4.3	2.1	9.2	4.3	2.1	9.2
24	452.4	22	CY	33.9	32.0	CY	48.0	17.3	CY	26.0	5.1	2.6	13.2	5.1	2.6	13.2

NOTES:

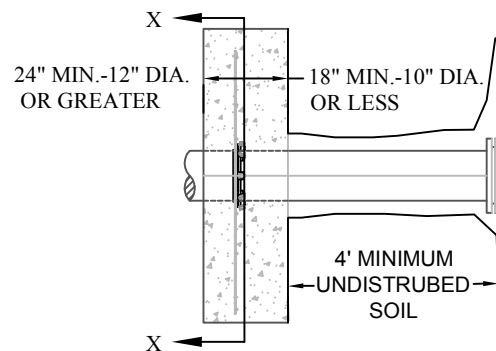
1. BASED ON 200 PSI STATIC PRESSURE PLUS AWWA WATER HAMMER ALLOWANCE ASSUMING 4000 PSF BEARING CAPACITY OF SOIL.
2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED GROUND.
3. THRUST BLOCKS TO BE USED AT ALL LINES OPERATING UNDER PRESSURE.
4. THESE DETAILS IN NO WAY LIMIT THE SIZE OR LOCATION OF ADDITIONAL BLOCKING WHEN REQUESTED BY THE COUNTY ENGINEER.
5. DEPTH FROM GROUND SURFACE TO TOP OF BLOCKING SHALL BE GREATER THAN HEIGHT OF BLOCKING.
6. ALL FITTINGS, VALVES, ETC. SHALL BE WRAPPED WITH VISQUEEN OR POLYWRAP BEFORE CONCRETE IS PLACED, TO PREVENT CORROSION OR BONDING OF THE CONCRETE TO THE BOLTS, FITTINGS, OR PIPE.
7. WIDTH OF THE THRUST BLOCK SHOULD BE AT LEAST TWO TIMES THE HEIGHT OF THE THRUST BLOCK.
8. CUBIC YARDS OF CONCRETE IS SPECIFIED TO OPPOSE THE THRUST FORCE WHEN DIMENSION "A" EXCEEDS 8 FEET.
9. ALTHOUGH THE BEARING STRENGTHS USED IN THIS TABLE HAVE BEEN USED SUCCESSFULLY IN THE DESIGN OF THRUST BLOCKS AND ARE CONSIDERED TO BE CONSERVATIVE, THEIR ACCURACY IS TOTALLY DEPENDANT ON ACCURATE SOIL IDENTIFICATION AND EVALUATION. THE ULTIMATE RESPONSIBILITY FOR SELECTING THE PROPER BEARING STRENGTH OF A PARTICULAR SOIL TYPE RESTS WITH THE DESIGN ENGINEER.



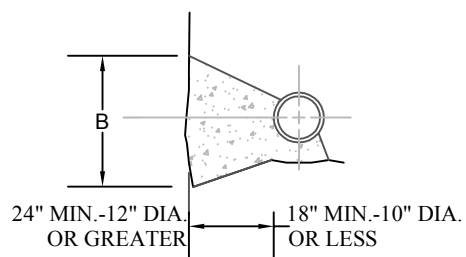
PLAN-BENDS



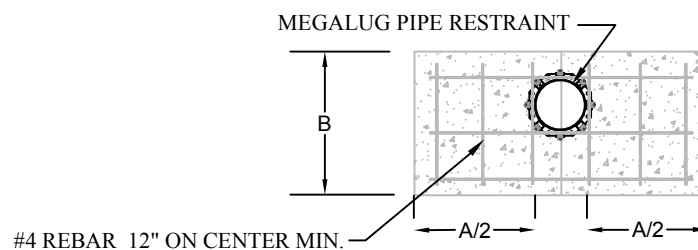
PLAN-TEES



PLAN-DEADMAN



SECTION X-X
BENDS & TEES



SECTION X-X
DEAD MAN
BLOCKING



LINCOLN COUNTY PUBLIC WORKS
115 W. MAIN STREET
LINCOLNTON, NC 28092
Phone (704) 736-8497 Fax (704) 736-8499

THRUST BLOCKING DETAIL

APPROVED:	MCN	12/31/2013	DRAWN BY:	JDH
SCALE:	N.T.S.		FIGURE :	WS-01