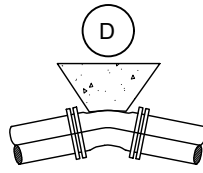
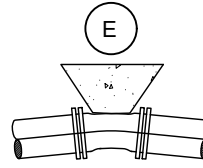


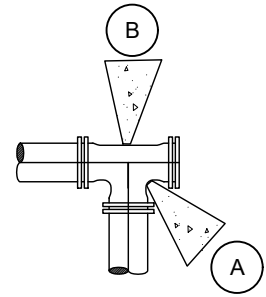
CAPPED CROSS



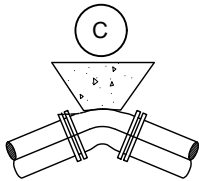
22 1/2° BEND



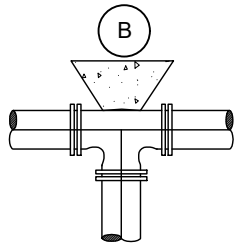
11 1/4° BEND



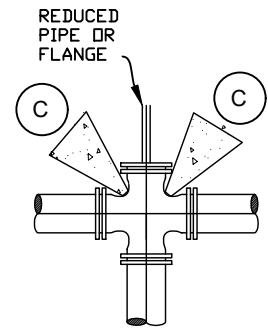
TEE



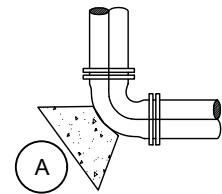
45° BEND



90° BEND



CROSS



90° BEND

HORIZONTAL THRUST BLOCK TABLE						
PIPE SIZE	(A)	(B)	(C)	(D)	(E)	X
4	3	1	1	1	1	NONE
6	4	4	2	1	1	NONE
8	7	6	4	2	1	3
10	11	10	6	3	2	4
12	16	14	9	5	3	5
14	22	19	12	6	3	7
16	29	25	16	8	4	10
18	36	31	20	10	5	13
20	45	39	24	13	6	16
22	54	47	29	15	8	23
24	64	56	35	18	9	
26	87	76	48	24	12	
30	101	87	55	28	14	
36	145	125	78	40	20	

*SAFE BEARING LOADS (LB/SQFT)	
SOIL	SAFE BEARING
MUCK, PEAT, ETC	0
SOFT CLAY	1000
SAND	2000
SAND & GRAVEL	3000
SAND & GRAVEL CEMENTED W/CLAY	4000
HARD SHALE	10000

*BEARING LOADS WHEN DEPTH OF COVER GREATER THAN 2'

NOTES:

1. BEARING AREA OF CONCRETE THRUST BLOCK IS BASED ON 200 PSI PRESSURE AND SOIL BEARING LOAD OF 2000 PSF AGAINST UNDISTURBED NATIVE EARTH.
2. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZES, PRESSURES, AND SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF 1/4 SQFT BEARING AGAINST THE FITTING.
4. THE CLOCK SHALL BEAR AGAINST THE FITTING ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT TAKING UP OR DISMANTLING OF FITTING.
5. THE CONTRACTOR SHALL INSTALL LOCKING DEVICES ADEQUATE TO WITHSTAND FULL TEST PRESSURE AND CONTINUOUSLY WITHSTAND OPERATION PRESSURE UNDER ALL CONDITIONS.
6. WHEN MAIN IS INSTALLED IN PEAT OR MUCK, ALL PIPE SHALL BE RESTRAINED BYPILES OR TIE RODS TO SOLID FOUNDATION OR REMOVAL OF UNSUITABLE AND REPLACEMENT WITH CITY APPROVED BALLAST.



City of Bremerton

PUBLIC WORKS

DESIGN/CONSTRUCTION STANDARDS

HORIZONTAL THRUST BLOCKING

Alteration of this drawing is prohibited. Any approval of an altered drawing is unauthorized and void.

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Revision Date
04/26/21