



**NOTES:**

- ALL CONCRETE SHALL BE 3000 PSI MINIMUM, 28 DAYS COMPRESSIVE STRENGTH. CONCRETE IS TO BE PLACED AGAINST UNDISTURBED EARTH. TABLE BELOW DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN CALCULATIONS ARE TO BE SUBMITTED TO SBMWD FOR APPROVAL IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 PSF. ALL VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED. ALL THRUST BLOCKS SHALL BE PLACED IN THE PRESENCE OF AN SBMWD INSPECTOR.

PIPE ID	BEARING AREA IN SQ.FT						CONC/CU YDS		
	FIGURE	FIGURE	FIGURE 3, $\Delta$				FIGURE 4, $\Delta$		
	1	2	90°	45°	22-1/2°	11-1/4°	45°	22-1/2°	11-1/4°
4"	2	2	2	2	1	1	1.0	0.5	0.5
6"	2	3	4	2	1	1	1.5	1.0	0.5
8"	3	5	7	4	2	1	3.0	1.5	1.0
10"	4	8	11	6	3	2	4.0	2.5	1.5
12"	6	11	15	8	4	2	6.0	3.0	1.5
16"	10	20	28	15	8	4	10.5	6.0	3.0
18"	13	25	35	19	10	5	13.5	7.5	3.5
20"	16	31	44	24	12	6	16.0	9.0	4.5
24"	22	44	63	34	17	9	23.5	12.5	6.5

- USE OF THRUST BLOCKS REQUIRES PRIOR DEPARTMENT APPROVAL AND WILL BE EVALUATED ON A CASE BY CASE BASIS.

REVISION DATE: 12/29/2010

<b>SAN BERNARDINO MUNICIPAL WATER DEPARTMENT</b>		DRAWING NUMBER
<b>THRUST BLOCK INSTALLATION</b>		SBMWD
APPROVED  DATE <u>07/04/2019</u>		W6.4A
SCALE: <b>NONE</b>		WARREN HUANG, P.E. RCE 49208