ELEVATION B-B

SECTION C-C

Labels in diagram:
- TRENCH WIDTH — BC
- GROUND
- GROUND
- 24 IN. MIN.
- 12 IN. MIN.
- USE 6 MIL POLYETHYLENE WRAP OR EQUAL BETWEEN CONCRETE AND BEND TO PREVENT CONCRETE FROM ADHERING TO BEND
- 2000 PSI CONCRETE
- REINF BARS #4
- REINF BARS #4 @ 12 IN. O.C. ON 12 IN. PIPE AND LARGER
- BC + 24 IN. MIN.
- UNDISTURBED EARTH
- ASSUMED HORIZONTAL
- I.D.
- VERTICAL COMPONENT OF THRUST = TABULATED VALUE
- 2000 PSI CONCRETE
- VARIABLE

I.D. (IN.)	I.D. (IN.)	VERTICAL BENDS												I.D. (IN.)
Δ→		11.25º		22.50º		30º		45º		67.5º		90º		←Δ
		THRUST TONS	VOLUME C.Y.	THRUST TONS	VOLUME C.Y.	THRUST TONS	VOLUME C.Y.	THRUST TONS	VOLUME C.Y.	THRUST TONS	VOLUME C.Y.	THRUST TONS	VOLUME C.Y.	
4,6,8	4,6,8	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4,6,8
10,12	10,12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10,12
16,18	16,18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	25.5	12.7	16,18
20	20	6.1	3.1	12.0	6.0	15.7	7.9	22.3	11.1	29.2	14.5	31.4	15.7	20
24	24	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24
30	30	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30
36	36	14.9	7.5	29.2	14.6	38.2	19.1	54.0	27.0	70.5	35.3	76.4	38.2	36
42	42	20.3	10.1	39.8	19.9	52.0	23.0	73.5	36.7	96.0	48.0	104.0	52.0	42
48	48	26.5	13.2	51.9	26.0	67.9	33.9	96.0	48.0	126.0	62.7	136.0	67.9	48
54	54	33.5	16.8	65.7	32.9	58.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54
60	60	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60
66	66	50.1	25.0	98.2	49.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66
72	72	59.6	29.8	117.0	58.4	153.0	76.3	215.0	108.0	282.0	141.0	305.0	153.0	72
78	78	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	166.0	358.0	179.0	78
84	84	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84
90	90	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90
96	96	106.0	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96

TYPICAL VERTICAL BEND THRUST BLOCK

(NO SCALE)

SEE W-3A FOR GENERAL NOTES

REVISIONS				DATE 01/01/2024
NO.	COMMENTS	BY	DATE	
##	DESCRIPTION	FL	MM/DD/YYYY	W-3E