

PIPE Ø (mm)	250	300	375	450	525	600	675	750	825	900	975	1050
Bc (mm)	300	400	490	580	670	750	840	930	1020	1100	1190	1280
Bd (mm)	1200	1200	1300	1400	1400	1500	1600	1700	1800	1900	2000	2000
	1000	8048	11.31	14.50	15.95	17.05	18.52	19.79	21.38	23.26	24.25	26.24
	1500	12.72	16.96	20.78	24.59	31.06	33.07	35.14	36.81	38.93	41.05	43.06
	2000	16.96	22.62	27.70	32.79	37.88	42.40	45.49	51.49	55.20	57.67	62.19
	2500	21.20	28.27	34.63	40.99	47.35	53.00	59.36	65.73	71.18	75.81	80.45
	3000	25.44	33.92	41.56	49.19	56.82	63.60	71.24	77.08	82.59	88.10	93.63
	3500	29.68	39.58	48.48	57.39	66.29	74.18	80.49	86.83	93.20	99.58	105.99
	4000	33.92	45.23	55.41	65.58	74.48	81.56	88.69	95.86	103.07	110.30	117.56
	4500	38.16	50.88	62.33	73.78	80.47	88.33	96.25	104.22	112.25	120.31	128.41
	5000	42.40	56.54	69.26	81.98	85.94	94.54	103.22	111.97	120.79	129.66	138.58
	5500	46.64	62.19	76.18	90.18	90.91	100.23	109.64	119.15	128.74	138.39	148.10
	6000	50.88	67.85	83.11	95.45	95.45	105.45	115.57	125.80	136.13	146.54	157.03
	6500	55.12	73.50	89.11	99.58	99.58	110.23	121.03	131.96	143.01	154.16	165.39
	7000	59.36	79.15	92.29	103.35	103.35	114.62	126.07	137.67	149.41	161.27	173.23
	7500	63.61	83.82	95.17	106.78	106.78	118.64	130.71	142.96	155.36	167.91	180.58
	8000	67.85	85.93	97.77	109.91	109.91	122.31	134.99	147.85	160.90	174.11	187.46
	8500	72.09	87.83	100.12	112.77	112.77	125.72	138.94	152.39	166.05	179.90	193.91
	9000	76.33	89.53	102.25	115.36	115.36	128.82	142.57	156.59	170.85	185.31	199.95
	9500	80.57	91.05	104.18	117.73	117.73	131.66	145.93	160.49	175.31	190.36	205.61
	10000	84.81	92.42	105.92	119.89	119.89	134.27	149.02	164.09	179.45	195.07	210.92
PIPE Ø (mm)	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	3000
Bc (mm)	1450	1630	1800	1980	2160	2330	2510	2680	2860	3030	3210	3560
Bd (mm)	2300	2600	2800	3100	3400	3600	3800	3900	4100	4300	4500	4800
	1000	31.15	34.10	37.65	41.05	44.37	47.86	51.09	54.55	57.67	60.53	63.52
	1500	50.01	54.83	60.04	64.37	69.61	74.43	78.76	84.09	88.93	94.22	98.91
	2000	72.14	78.03	82.77	90.30	96.88	104.51	109.74	116.17	121.81	127.91	134.30
	2500	94.40	105.21	111.95	119.41	126.19	133.93	143.09	150.26	160.35	168.45	178.46
	3000	110.28	127.00	138.17	153.36	162.42	168.62	177.39	186.37	197.27	207.29	217.78
	3500	125.29	144.70	157.68	177.20	196.76	209.02	221.85	229.44	241.47	247.83	258.32
	4000	139.48	161.54	176.31	198.53	220.81	235.70	250.60	258.06	272.99	287.93	302.88
	4500	152.89	177.56	194.09	218.98	243.96	260.66	277.38	285.75	302.50	319.27	336.05
	5000	165.56	192.80	211.07	238.60	266.25	284.73	303.25	312.52	331.08	349.67	368.28
	5500	177.53	207.29	227.27	257.41	287.69	307.95	328.25	338.42	358.78	379.17	399.59
	6000	188.85	221.08	242.74	275.44	308.33	330.35	352.42	363.47	385.61	407.79	430.01
	6500	199.54	234.20	257.51	292.74	328.20	351.95	375.76	387.70	411.60	435.56	459.56
	7000	209.65	246.67	271.61	309.32	347.32	372.78	398.33	411.13	436.79	462.50	488.27
	7500	219.20	258.54	285.07	325.23	365.73	392.88	420.13	433.80	461.18	488.64	516.16
	8000	228.22	269.83	297.92	340.48	383.44	412.26	441.21	455.72	484.82	514.00	543.26
	8500	236.75	280.56	310.18	355.10	400.49	430.96	461.57	476.92	507.71	538.61	569.59
	9000	244.81	290.78	321.89	369.13	416.90	448.99	481.25	497.43	529.90	562.48	595.17
	9500	252.43	300.49	333.07	382.57	432.69	466.38	500.26	517.27	551.39	585.64	620.02
	10000	259.63	309.74	343.74	395.47	447.89	483.16	518.64	536.45	572.21	608.11	644.16

- NOTES
- TRENCH CONDITIONS BELOW HEAVY LINE
 - EMBANKMENT CONDITIONS ABOVE HEAVY LINE

- $K_{\mu} = 0.130$
- $w = 18.846 \text{ KN/m}^3$
- Bc = DEPTH OF COVER
- Bd = WIDTH OF TRENCH



STANDARD

BACKFILL LOAD ON PIPES
(ON SITE BACKFILL MATERIALS)

EFF. DATE	2002-01-01	SCALE	N.T.S.
REV.		STANDARD No.	2112.040