

Grade	24" 600mm		27" 675mm		30" 750mm		33" 825mm		36" 900mm		39" 975mm		42" 1050mm		48" 1200mm	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
0.20	0.2746	0.9712	0.3759	1.0505	0.4979	1.1270	0.6419	1.2009	0.8096	1.2726	1.0022	1.3424	1.2212	1.4103	1.7436	1.5417
0.25	0.3070	1.0858	0.4203	1.1745	0.5566	1.2600	0.7177	1.3426	0.9052	1.4228	1.1205	1.5008	1.3654	1.5768	1.9494	1.7236
0.30	0.3363	1.1894	0.4604	1.2866	0.6098	1.3802	0.7862	1.4708	0.9915	1.5886	1.2275	1.6440	1.4957	1.7273	2.1354	1.8881
0.35	0.3633	1.2847	0.4973	1.3897	0.6586	1.4908	0.8492	1.5886	1.0710	1.6835	1.3258	1.7758	1.6155	1.8657	2.3065	2.0394
0.40	0.3883	1.3735	0.5316	1.4856	0.7041	1.5938	0.9078	1.6983	1.1449	1.7997	1.4174	1.8984	1.7271	1.9945	2.4658	2.1802
0.42	0.3979	1.4074	0.5448	1.5223	0.7215	1.6331	0.9303	1.7402	1.1732	1.8442	1.4524	1.9453	1.7697	2.0438	2.5267	2.2341
0.44	0.4073	1.4405	0.5576	1.5582	0.7385	1.6715	0.9522	1.7812	1.2008	1.8876	1.4865	1.9910	1.8114	2.0919	2.5861	2.2866
0.46	0.4164	1.4729	0.5701	1.5932	0.7551	1.7091	0.9736	1.8212	1.2278	1.9300	1.5200	2.0358	1.8521	2.1389	2.6442	2.3380
0.48	0.4254	1.5045	0.5824	1.6274	0.7713	1.7459	0.9945	1.8604	1.2542	1.9715	1.5526	2.0796	1.8919	2.1849	2.7011	2.3883
0.50	0.4342	1.5356	0.5944	1.6610	0.7872	1.7819	1.0150	1.8988	1.2801	2.0122	1.5847	2.1225	1.9309	2.2299	2.7568	2.4376
0.52	0.4428	1.5660	0.6062	1.6939	0.8028	1.8172	1.0351	1.9364	1.3054	2.0520	1.6160	2.1645	1.9692	2.2741	2.8114	2.4858
0.54	0.4512	1.5958	0.6177	1.7262	0.8181	1.8518	1.0548	1.9733	1.3303	2.0911	1.6468	2.2057	2.0067	2.3174	2.8650	2.5332
0.56	0.4595	1.6251	0.6290	1.7578	0.8331	1.8858	1.0742	2.0095	1.3547	2.1295	1.6771	2.2462	2.0435	2.3600	2.9175	2.5797
0.58	0.4676	1.6539	0.6402	1.7890	0.8478	1.9191	1.0932	2.0450	1.3787	2.1672	1.7067	2.2860	2.0797	2.4017	2.9692	2.6253
0.60	0.4756	1.6821	0.6511	1.8195	0.8623	1.9519	1.1119	2.0800	1.4023	2.2042	1.7359	2.3250	2.1152	2.4428	3.0199	2.6702
0.62	0.4835	1.7099	0.6619	1.8496	0.8766	1.9842	1.1303	2.1144	1.4254	2.2407	1.7646	2.3635	2.1502	2.4832	3.0699	2.7144
0.64	0.4912	1.7373	0.6725	1.8792	0.8906	2.0160	1.1483	2.1482	1.4482	2.2765	1.7928	2.4013	2.1846	2.5229	3.1190	2.7578
0.66	0.4988	1.7642	0.6829	1.9083	0.9044	2.0472	1.1662	2.1815	1.4707	2.3118	1.8206	2.4385	2.2185	2.5620	3.1673	2.8005
0.68	0.5063	1.7908	0.6932	1.9370	0.9180	2.0780	1.1837	2.2143	1.4928	2.3466	1.8480	2.4752	2.2518	2.6005	3.2150	2.8427
0.70	0.5137	1.8169	0.7033	1.9653	0.9314	2.1083	1.2010	2.2466	1.5146	2.3808	1.8750	2.5113	2.2847	2.6385	3.2619	2.8842
0.72	0.5210	1.8427	0.7133	1.9932	0.9446	2.1382	1.2180	2.2785	1.5361	2.4146	1.9016	2.5469	2.3171	2.6759	3.3082	2.9251
0.74	0.5282	1.8681	0.7231	2.0207	0.9577	2.1677	1.2348	2.3099	1.5573	2.4479	1.9278	2.5821	2.3491	2.7128	3.3538	2.9654
0.76	0.5353	1.8932	0.7328	2.0478	0.9705	2.1968	1.2514	2.3410	1.5782	2.4808	1.9537	2.6167	2.3806	2.7493	3.3988	3.0052
0.78	0.5423	1.9179	0.7424	2.0746	0.9832	2.2256	1.2677	2.3716	1.5988	2.5132	1.9792	2.6509	2.4117	2.7852	3.4433	3.0445
0.80	0.5492	1.9424	0.7518	2.1010	0.9957	2.2539	1.2839	2.4018	1.6192	2.5452	2.0045	2.6847	2.4424	2.8207	3.4871	3.0833
0.82	0.5560	1.9665	0.7612	2.1271	1.0081	2.2819	1.2998	2.4316	1.6393	2.5768	2.0294	2.7181	2.4728	2.8557	3.5305	3.1216
0.84	0.5628	1.9903	0.7704	2.1529	1.0203	2.3096	1.3156	2.4611	1.6592	2.6081	2.0540	2.7510	2.5028	2.8903	3.5732	3.1594
0.86	0.5694	2.0139	0.7795	2.1784	1.0324	2.3369	1.3312	2.4902	1.6788	2.6389	2.0783	2.7836	2.5324	2.9245	3.6155	3.1968
0.88	0.5760	2.0372	0.7885	2.2036	1.0443	2.3639	1.3466	2.5190	1.6982	2.6694	2.1023	2.8158	2.5616	2.9584	3.6573	3.2338
0.90	0.5825	2.0602	0.7975	2.2285	1.0561	2.3906	1.3618	2.5475	1.7174	2.6996	2.1260	2.8476	2.5906	2.9918	3.6987	3.2703
0.92	0.5889	2.0829	0.8063	2.2531	1.0678	2.4170	1.3768	2.5756	1.7364	2.7294	2.1495	2.8790	2.6192	3.0248	3.7395	3.3065
0.94	0.5953	2.1055	0.8150	2.2775	1.0794	2.4432	1.3917	2.6035	1.7552	2.7589	2.1728	2.9102	2.6475	3.0575	3.7800	3.3422
0.96	0.6016	2.1277	0.8236	2.3016	1.0908	2.4690	1.4064	2.6310	1.7737	2.7881	2.1958	2.9410	2.6756	3.0899	3.8200	3.3776
0.98	0.6078	2.1498	0.8321	2.3254	1.1021	2.4946	1.4210	2.6583	1.7921	2.8170	2.2185	2.9714	2.7033	3.1219	3.8595	3.4126
1.00	0.6140	2.1716	0.8406	2.3490	1.1133	2.5199	1.4354	2.6853	1.8103	2.8456	2.2411	3.0016	2.7307	3.1536	3.8987	3.4472
1.10	0.6440	2.2776	0.8816	2.4637	1.1676	2.6429	1.5055	2.8163	1.8987	2.9845	2.3504	3.1481	2.8640	3.3075	4.0890	3.6155
1.20	0.6726	2.3789	0.9208	2.5732	1.2195	2.7605	1.5724	2.9416	1.9831	3.1172	2.4550	3.2881	2.9914	3.4546	4.2708	3.7763
1.30	0.7001	2.4760	0.9584	2.6783	1.2693	2.8732	1.6366	3.0617	2.0641	3.2445	2.5552	3.4224	3.1135	3.5957	4.4452	3.9305
1.40	0.7265	2.5695	0.9946	2.7794	1.3172	2.9816	1.6984	3.1772	2.1420	3.3670	2.6516	3.5515	3.2310	3.7314	4.6130	4.0788
1.50	0.7520	2.6597	1.0295	2.8769	1.3635	3.0863	1.7580	3.2888	2.2172	3.4852	2.7447	3.6762	3.3444	3.8624	4.7749	4.2220
1.60	0.7767	2.7469	1.0633	2.9713	1.4082	3.1875	1.8157	3.3966	2.2899	3.5995	2.8347	3.7968	3.4541	3.9891	4.9315	4.3604
1.70	0.8006	2.8314	1.0960	3.0627	1.4515	3.2856	1.8716	3.5011	2.3604	3.7102	2.9220	3.9136	3.5604	4.1118	5.0833	4.4946
1.80	0.8238	2.9135	1.1278	3.1515	1.4936	3.3809	1.9258	3.6027	2.4288	3.8178	3.0067	4.0271	3.6637	4.2310	5.2307	4.6250
1.90	0.8464	2.9934	1.1587	3.2379	1.5345	3.4735	1.9786	3.7014	2.4953	3.9224	3.0891	4.1374	3.7640	4.3470	5.3740	4.7517
2.00	0.8683	3.0711	1.1888	3.3220	1.5744	3.5637	2.0300	3.7975	2.5602	4.0243	3.1693	4.2449	3.8618	4.4599	5.5136	4.8751
2.50	0.9708	3.4336	1.3291	3.7141	1.7602	3.9844	2.2696	4.2458	2.8624	4.4993	3.5434	4.7459	4.3177	4.9863	6.1644	5.4506
3.00	1.0635	3.7614	1.4559	4.0686	1.9283	4.3647	2.4862	4.6510	3.1356	4.9288	3.8816	5.1989	4.7298	5.4622		
3.50	1.1487	4.0627	1.5726	4.3946	2.0828	4.7144	2.6855	5.0237	3.3868	5.3237						
4.00	1.2280	4.3432	1.6812	4.6980	2.2266	5.0399										
4.50	1.3025	4.6067	1.7832	4.9830												
5.00	1.3730	4.8559	1.8796	5.2526												

City of Pickering

Engineering Services Department

DRAWN	P. NEUMAN
APPROVED	R. W. HOLBORN
DATE	JANUARY 1993

DISCHARGE & VELOCITY FOR CIRCULAR PIPES  
600mm to 1200mm (n=0.013)

REVISION NO.	1
DATE	FEB, 1997
P-506	