
Appendix D

Sanitary Sewer Design Sheets

Existing Madoc SPS Sanitary Sewer Calculation Sheet

LOCATION	DRAINAGE AREA DISCRPTION															OUTLET PIPE DATA										
	MANHOLE		INCREMENTAL AREA		CONTRIBUTING AREAS		POPULATION				Σ	q	M	PEAK FLOW	Σ	IA	Q	SIZE	SLOPE	CAP	Q/Qfull	VELOCITY	LENGTH	FALL	OUTLET PIPE DATA	
	From	To	No.	Ha			Ppha	P	P(1000)	P(1000)	(l/cap/d)		(l/s)	Area (ha)	(l/s)	(l/s)	(mm)	(%)	(l/s)		(m/s)	(m)	(m)	U/S	D/S	
Mckenzie St.	SANI-177	SANI-184	A56	0.52	A50-A56	14	7	0.007	0.040	350	4.00	0.66	3.13	0.44	1.09	200	0.4%	20.36	0.05	0.65	67.74	0.261	172.905	172.644		
Mckenzie St.	SANI-184	SANI-183	A57	0.68	A50-A57	0	0	0.000	0.040	350	4.00	0.66	3.81	0.53	1.19	200	0.4%	19.85	0.06	0.63	68.54	0.251	172.63	172.379		
Victoria St.	SANI-247	SANI-183	A58-A59	0.36	A58-A59	14	5	0.005	0.005	350	4.00	0.08	0.36	0.05	0.13	200	5.1%	74.19	0.00	2.36	44.52	2.278	174.707	172.429		
Mckenzie St.	SANI-183	SANI-182	A60	0.24	A50-A60	0	0	0.000	0.045	-	-	-	4.41	-	-	-	-	-	-	-	-	-	-	-		
Mckenzie St.	SANI-183	SANI-182	A61	0.25	A50-A61	14	3	0.003	0.048	350	4.00	0.79	4.66	0.65	1.45	200	0.4%	20.72	0.07	0.66	91	0.363	172.369	172.006		
Mckenzie St.	SANI-182	SANI-181	A62	0.99	A50-A62	14	13	0.013	0.061	350	4.00	1.02	5.65	0.79	1.81	200	3.7%	62.91	0.03	2.00	73	2.686	171.986	169.3		
Mckenzie St.	SANI-181	SANI-180	-	0	A50-A62	0	0	0.000	0.061	350	4.00	1.02	5.65	0.79	1.81	200	5.4%	76.38	0.02	2.43	53.24	2.887	169.32	166.433		
Dingman St.	SANI-180	SANI-179	A63-A64	0.65	A50-A64	14	9	0.009	0.070	350	4.00	1.16	6.3	0.88	2.04	200	0.2%	14.17	0.14	0.45	84.12	0.157	166.423	166.266		
Dingman St.	SANI-179	SANI-167	A65	0.2	A50-A65	14	3	0.003	0.073	350	4.00	1.21	6.5	0.91	2.12	200	1.8%	43.72	0.05	1.39	39.68	0.705	166.206	165.501		
Elgin St.	SANI-167	SANI-166	A66	0.32	A35-A66	14	4	0.004	0.163	350	4.00	2.70	13.92	1.95	4.65	250	0.3%	33.10	0.14	0.67	52.3	0.162	165.491	165.329		
Elgin St.	SANI-166	SANI-165	A67	0.2	A1-A67	14	3	0.003	0.474	350	3.99	7.81	37.31	5.22	13.04	350	0.4%	93.22	0.14	0.97	102.35	0.418	164.789	164.371		
Elgin St.	SANI-165	SANI-161	A68	0.39	A1-A68	14	5	0.005	0.479	-	-	-	37.7	-	-	-	-	-	-	-	-	-	-	-		
Elgin St.	SANI-165	SANI-161	A69	5.05	A1-A69	46	234	0.234	0.713	350	3.89	11.48	42.75	5.99	17.47	350	0.2%	64.68	0.27	0.67	102.74	0.202	163.651	163.449		
Davidson St.	SANI-241	SANI-240	A70	0.82	A70	14	11	0.011	0.011	350	4.00	0.18	0.82	0.11	0.30	200	0.6%	26.08	0.01	0.83	68.15	0.431	173.318	172.887		
Prince Albert St. E	SANI-240	SANI-227	A71	0.95	A70-A71	14	13	0.013	0.024	350	4.00	0.40	1.77	0.25	0.65	200	1.9%	45.14	0.01	1.44	123.33	2.336	172.847	170.511		
Nelson St.	SANI-227	SANI-252	A72-A73	0.73	A70-A73	14	10	0.010	0.034	350	4.00	0.56	2.5	0.35	0.91	200	0.7%	26.53	0.03	0.84	52.74	0.345	170.451	170.106		
Nelson St.	SANI-252	SANI-230	A74-A75	0.86	A70-A75	14	12	0.012	0.046	350	4.00	0.76	3.36	0.47	1.23	200	3.9%	64.80	0.02	2.06	81.17	3.168	170.066	166.898		
Nelson St.	SANI-230	SANI-224	A76	0.91	A70-A76	14	12	0.012	0.058	350	4.00	0.96	4.27	0.60	1.56	200	0.4%	19.84	0.08	0.63	106.02	0.388	166.868	166.48		
St. Lawrence St.	SANI-225	SANI-224	A77	1.5	A77	14	20	0.020	0.020	350	4.00	0.34	1.5	0.21	0.55	200	0.5%	22.82	0.02	0.73	93.39	0.452	166.832	166.38		
St. Lawrence St.	SANI-224	SANI-223	A78	0.36	A70-A78	14	5	0.005	0.083	350	4.00	1.38	6.13	0.86	2.24	200	0.2%	15.60	0.14	0.50	70.74	0.16	166.36	166.2		
Church St.	SANI-223	SANI-161	A79	0.41	A70-A79	80	33	0.033	0.116	-	-	-	6.54	-	-	-	-	-	-	-	-	-	-	-		
Church St.	SANI-223	SANI-161	A80	0.36	A70-A80	14	5	0.005	0.121	350	4.00	2.00	6.9	0.97	2.97	200	0.8%	29.42	0.10	0.94	114.5	0.921	166.17	165.249		
Elgin St.	SANI-161	SANI-154	A81	0.2	A1-A81	14	3	0.003	0.837	-	-	-	49.85	-	-	-	-	-	-	-	-	-	-	-		
Elgin St.	SANI-161	SANI-154	A82	1.66	A1-A82	0	0	0.000	0.837	350	3.85	13.33	51.51	7.21	20.54	350	0.3%	81.53	0.25	0.85	95.39	0.298	163.369	163.071		
Baldwin St.	SANI-154	SANI-152	A83	0.16	A1-A83	14	2	0.002	0.839	350	3.85	13.36	51.67	7.23	20.59	350	0.9%	137.42	0.15	1.43	66.48	0.59	163.041	162.451		
Baldwin St.	SANI-152	SANI-145	A84	0.21	A1-A84	14	3	0.003	0.842	350	3.85	13.40	51.88	7.26	20.66	350	0.3%	84.60	0.24	0.88	108.51	0.365	162.391	162.026		
Livingstone Ave. E	SANI-149	SANI-148	A85	0.85	A85	14	12	0.012	0.012	350	4.00	0.19	0.85	0.12	0.31	250	1.1%	61.54	0.01	1.25	95.99	1.028	163.577	162.549		
Livingstone Ave. E	SANI-148	SANI-145	A86	0.7	A85-A86	14	10	0.010	0.021	350	4.00	0.35	1.55	0.22	0.57	250	2.6%	95.00	0.01	1.94	91.03	2.323	162.479	160.156		
Baldwin St.	SANI-145	SANI-245	A87	0.25	A1-A87	14	3	0.003	0.867	-	-	-	53.68	-	-	-	-	-	-	-	-	-	-	-		
Baldwin St.	SANI-145	SANI-245	A88	0.56	A1-A88	0	0	0.000	0.867	350	3.84	13.76	54.24	7.59	21.36	350	0.3%	84.00	0.25	0.87	82.93	0.275	162.046	161.771		
Baldwin St.	SANI-245	SANI-144	A89-A90	0.38	A1-A90	14	5	0.005	0.872	350	3.84	13.84	54.62	7.65	21.49	350	0.4%	86.90	0.25	0.90	25.92	0.092	161.761	161.669		
Richardson Lane	SANI-321	SANI-244	A91	1.6	A91	14	22	0.022	0.022	350	4.00	0.36	1.6	0.22	0.58	200	0.5%	22.11	0.03	0.70	74.62	0.339	162.654	162.315		
Richardson Lane	SANI-244	SANI-144	A92	0.49	A91-A92	0	0	0.000	0.022	350	4.00	0.36	2.09	0.29	0.65	200	0.4%	20.51	0.03	0.65	124.24	0.486	162.275	161.789		
Baldwin St.	SANI-144	SANI-143	A94	1.6	A1-A92,A94	14	22	0.022	0.915	-	-	-	58.31	-	-	-	-	-	-	-	-	-	-	-		
Baldwin St.	SANI-144	SANI-143	A93	0.11	A1-A94	0	0	0.000	0.915	350	3.82	14.48	58.42	8.18	22.66	350	0.3%	74.08	0.31	0.77	109.33	0.282	161.669	161.387		
Furnace St.	SANI-143	SANI-3	A95	0.54	A1-A95	14	7	0.007	0.922	350	3.82	14.59	58.96	8.25	22.84	350	0.2%	67.42	0.34	0.70	116.09	0.248	161.377	161.129		
Durham St.	SANI-5	SANI-4	A96-A98	2.01	A96-A98	14	27	0.027	0.027	350	4.00	0.45	2.01	0.28	0.73	200	3.9%	64.81	0.01	2.06	55.22	2.156	164.898	162.742		
Durham St.	SANI-4	SANI-3	A99-A100	0.96	A96-A100	14	13	0.013	0.040	350	4.00	0.67	2.97	0.42	1.08	200	2.2%	48.13	0.02	1.53	74.92	1.613	162.722	161.109		
Durham St.	SANI-3	SANI-94	A101	0.58	A1-A101	80	46	0.046	1.009	350	3.80	15.85	62.51	8.75	24.61	350	0.2%	64.98	0.38	0.68	101.8	0.202	161.089	160.887		
Seymour St. E	SANI-312	SANI-246	A102	0.77	A102	80	62	0.062	0.062	-	-	-	0.77	-	-	-	-	-	-	-	-	-	-	-		
Seymour St. E	SANI-312	SANI-246	A103	0.69	A102-A103	14	9	0.009	0.071	350	4.00	1.17	1.46	0.20	1.38	200	4.2%	67.11	0.02	2.14	59.6	2.495	163.711	161.216		
Seymour St. E	SANI-246	SANI-94	A104	0.32	A102-A104	80	26	0.026	0.097	-	-	-	1.78	-	-	-	-	-	-	-	-	-	-	-		
Seymour St. E	SANI-246	SANI-94	A105	0.68	A102-A105	14	9	0.009	0.106	350	4.00	1.75	2.46	0.34	2.10	250	0.4%	37.53	0.06	0.76	100.18	0.399	161.176	160.777		
Durham St.	SANI-128	SANI-94	A106	0.55	A106	14	0	0.000	0.000	-	-	-	0.55	-	-	-	-	-	-	-	-	-	-	-		
Durham St.	SANI-128	SANI-94	A107	1.34	A106-A107	14	18	0.018	0.018	350	4.00	0.30	1.89	0.26	0.57	200	6.2%	81.75	0.01	2.60	124.85	7.757	168.544	160.787		
Seymour St. W	SANI-94	SANI-95	A108	0.24	A1-A108	14	3	0.003	1.136	350	3.76	17.69	67.1	9.39	27.09	350	0.4%	87.56	0.31	0.91	94.91	0.342	160.777	160.435		

Existing Madoc SPS Sanitary Sewer Calculation Sheet

LOCATION	DRAINAGE AREA DISCRPTION														OUTLET PIPE DATA											
	MANHOLE		INCREMENTAL AREA		CONTRIBUTING AREAS		POPULATION				Σ	q	M	PEAK FLOW	Σ	IA	Q	SIZE	SLOPE	CAP	Q/Qfull	VELOCITY	LENGTH	FALL	OUTLET PIPE DATA	
	From	To	No.	Ha			Ppha	P	P(1000)	P(1000)	(l/cap/d)		(l/s)	Area (ha)	(l/s)	(l/s)	(mm)	(%)	(l/s)		(m/s)	(m)	(m)	U/S	D/S	
Bonjour Blvd.	SANI-270	SANI-319																								
Bonjour Blvd.	SANI-271	SANI-319																								
Bonjour Blvd.	SANI-319	SANI-269	A109	0.17	A109	0	0	0.000	0.000	350	4.00	0.00	0.17	0.02	0.02	200	0.4%	21.64	0.00	0.69	90.02	0.392	174.166	173.774		
Bonjour Blvd.	SANI-269	SANI-268	A110	0.23	A109-A110	0	0	0.000	0.000	350	4.00	0.00	0.4	0.06	0.06	200	0.5%	22.08	0.00	0.70	90.06	0.408	173.734	173.326		
Bonjour Blvd.	SANI-268	SANI-267	A111	0.21	A109-A111	0	0	0.000	0.000	350	4.00	0.00	0.61	0.09	0.09	200	0.6%	24.57	0.00	0.78	90.37	0.507	173.256	172.749		
Bonjour Blvd.	SANI-267	SANI-266	-	0	A109-A111	0	0	0.000	0.000	350	4.00	0.00	0.61	0.09	0.09	200	12.1%	114.02	0.00	3.63	11.27	1.362	172.779	171.417		
Bonjour Blvd.	SANI-266	SANI-317	A112	0.48	A109-A112	80	38	0.038	0.038	-	-	-	1.09	-	-	-	-	-	-	-	-	-	-	-		
Bonjour Blvd.	SANI-266	SANI-317	A113	0.08	A109-A113	0	0	0.000	0.038	350	4.00	0.64	1.17	0.16	0.80	200	1.5%	40.29	0.02	1.28	110.56	1.668	171.177	169.509		
ROW	SANI-264	SANI-317	A114	0.59	A114	80	47	0.047	0.047	350	4.00	0.78	0.59	0.08	0.86	200	3.5%	61.19	0.01	1.95	59.55	2.073	171.522	169.449		
ROW	SANI-317	SANI-318	-	0	A109-A114	0	0	0.000	0.086	350	4.00	1.42	1.76	0.25	1.66	200	1.1%	34.40	0.05	1.09	6	0.066	169.429	169.363		
ROW	SANI-28	SANI-27	A115	0.65	A115	80	52	0.052	0.052	350	4.00	0.86	0.65	0.09	0.95	200	0.7%	27.85	0.03	0.89	97.79	0.705	170.558	169.853		
ROW	SANI-27	SANI-318	-	0	A115	0	0	0.000	0.052	350	4.00	0.86	0.65	0.09	0.95	200	0.9%	31.71	0.03	1.01	46	0.43	169.803	169.373		
ROW	SANI-318	SPS-1	-	0	A109-A115	0	0	0.000	0.138	350	4.00	2.28	2.41	0.34	2.61	200	0.6%	25.04	0.10	0.80	4.46	0.026	169.323	169.297		
Russel St.	SPS-1	SANI-23	-	0	-	0	0	0.000	0.000	0	0.00	0.00	0	0.00	10.00	0	0.0%	0.00	0.00	0.00	0	0	0	0		
ROW	SANI-320	SPS-3	A116	1.82	A116	80	146	0.146	0.146	350	4.00	2.41	1.82	0.25	2.66	200	3.4%	60.50	0.04	1.93	5.26	0.179	170.274	170.095		
ROW	SPS-3	SANI-22	-	0	-	0	0	0.000	0.000	0	0.00	0.00	0	0.00	7.50	0	0.0%	0.00	0.00	0.00	0	0	0	0		
Russel St.	SANI-22	SANI-23	A117	0.9	A117,SPS-3	80	72	0.072	0.072	350	4.00	1.19	0.9	0.13	8.82	250	0.5%	40.81	0.22	0.83	19.11	0.09	170.245	170.155		
Russel St.	SANI-23	SANI-24	A118	1.17	SPS-1,SPS-3,A117-A118	80	94	0.094	0.166	-	-	-	2.07	-	-	-	-	-	-	-	-	-	-	-		
Russel St.	SANI-23	SANI-24	A119	0.26	SPS-1,SPS-3,A117-A119	14	4	0.004	0.169	350	4.00	2.80	2.33	0.33	20.63	250	0.3%	33.43	0.62	0.68	105.04	0.332	170.115	169.783		
Russel St.	SANI-24	SANI-21	A120	0.29	SPS-1,SPS-3,A117-A120	0	0	0.000	0.169	-	-	-	2.62	-	-	-	-	-	-	-	-	-	-	-		
Russel St.	SANI-24	SANI-21	A121	0.05	SPS-1,SPS-3,A117-A121	14	1	0.001	0.170	350	4.00	2.81	2.67	0.37	20.68	250	0.1%	16.23	SURCHARGED	0.33	24.18	0.018	169.773	169.755		
Gladstone St.	SANI-316	SANI-18	A122	0.09	A122	14	1	0.001	0.001	350	4.00	0.02	0.09	0.01	0.03	200	5.7%	78.31	0.00	2.49	28.31	1.614	176.718	175.104		
Gladstone St.	SANI-18	SANI-19	A123	0.85	A122-A123	14	12	0.012	0.013	350	4.00	0.21	0.94	0.13	0.34	200	2.2%	48.80	0.01	1.55	84.87	1.879	173.314	171.435		
Gladstone St.	SANI-19	SANI-20	A124	0.57	A122-A124	14	8	0.008	0.021	350	4.00	0.34	1.51	0.21	0.55	200	2.2%	49.14	0.01	1.56	66.64	1.496	171.405	169.909		
Gladstone St.	SANI-20	SANI-21	-	0	A122-A124	0	0	0.000	0.021	350	4.00	0.34	1.51	0.21	0.55	200	1.7%	42.67	0.01	1.36	10.87	0.184	169.889	169.705		
Russel St.	SANI-21	SANI-34	A125	0.23	SPS-1,SPS-3,A117-A125	14	3	0.003	0.193	-	-	-	4.41	-	-	-	-	-	-	-	-	-	-	-		
Russel St.	SANI-21	SANI-34	A126	0.35	SPS-1,SPS-3,A117-A126	80	28	0.028	0.221	350	4.00	3.66	4.76	0.67	21.83	250	0.4%	36.82	0.59	0.75	106.94	0.41	169.665	169.255		
Russel St.	SANI-34	SANI-35	A127	0.25	SPS-1,SPS-3,A117-A127	80	20	0.020	0.241	350	4.00	4.00	5.01	0.70	22.20	250	0.02%	9.11	SURCHARGED	0.19	12.78	0.003	169.235	169.232		
Durham St. N	SANI-17	SANI-16	A128-A129	1.51	A128-A129	14	21	0.021	0.021	350	4.00	0.34	1.51	0.21	0.55	200	1.9%	45.31	0.01	1.44	99.5	1.899	172.693	170.794		
Durham St. N	SANI-14	SANI-15	A130	0.79	A130	14	11	0.011	0.011	350	4.00	0.18	0.79	0.11	0.29	200	4.2%	66.88	0.00	2.13	49.26	2.048	173.087	171.039		
Durham St. N	SANI-15	SANI-16	A131	0.83	A130-A131	14	11	0.011	0.022	350	4.00	0.36	1.62	0.23	0.59	200	0.3%	16.82	0.04	0.54	85.52	0.225	171.019	170.794		
Queen Vitoria St. E	SANI-16	SANI-33	A132	0.87	A128-A132	14	12	0.012	0.054	350	4.00	0.90	4	0.56	1.46	250	0.4%	39.58	0.04	0.81	117.17	0.519	170.704	170.185		
Queen Vitoria St. E	SANI-33	SANI-35	A133-A134	0.36	A128-A134	14	5	0.005	0.059	350	4.00	0.98	4.36	0.61	1.59	250	2.1%	85.69	0.02	1.75	44.93	0.933	170.165	169.232		
Queen Vitoria St. W	SANI-35	SANI-45	A135	0.22	SPS-1,SPS-3,A117-A135	14	3	0.003	0.304	350	4.00	5.02	9.59	1.34	23.87	200	0.4%	21.28	SURCHARGED	0.68	63.66	0.268	169.112	168.844		
Madawaska St.	SANI-45	SANI-44	A136	0.82	SPS-1,SPS-3,A117-A136	14	11	0.011	0.315	350	-	-	10.41	-	-	-	-	-	-	-	-	-	-	-		
Madawaska St.	SANI-45	SANI-44	A137	0.16	SPS-1,SPS-3,A117-A137	80	13	0.013	0.328	350	4.00	5.42	10.57	1.48	24.40	200	0.5%	22.20	SURCHARGED	0.71	86.01	0.394	168.794	168.4		
Madawaska St.	SANI-44	SANI-42	A138	0.28	SPS-1,SPS-3,A117-A138	14	4	0.004	0.331	-	-	-	10.85	-	-	-	-	-	-	-	-	-	-	-		
Madawaska St.	SANI-44	SANI-42	A139	0.09	SPS-1,SPS-3,A117-A139	80	7	0.007	0.339	350	4.00	5.60	10.94	1.53	24.63	250	0.6%	45.45	0.54	0.93	75.84	0.443	168.38	167.937		
St. Lawrence St. W	SANI-76	SANI-75	A140	1.6	A140	80	128	0.128	0.128	350	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-		
St. Lawrence St. W	SANI-76	SANI-75	A141	0.87	A140-A141	100	87	0.087	0.215	350	-	-	2.47	-	-	-	-	-	-	-	-	-	-	-		
St. Lawrence St. W	SANI-76	SANI-75	A142	0.75	A140-A142	14	10	0.010	0.225	350	4.00	3.73	3.22	0.45	4.18	250	1.1%	62.89	0.07	1.28	50.07	0.56	173.091	172.531		
St. Lawrence St. W	SANI-75	SANI-74	A143	1.05	A140-A143	14	14	0.014	0.239	350	4.00	3.96	4.27	0.60	4.56	250	1.0%	58.72	0.08	1.20	75.27	0.734	172.531	171.797		
St. Lawrence St. W	SANI-74	SANI-73	A144	1.73	A140-A144	14	23	0.023	0.263	350	4.00	4.35	6	0.84	5.19	250	0.4%	36.00	0.14	0.73	107.79	0.395	171.787	171.392		
St. Lawrence St. W	SANI-73	SANI-72	A145	1.06	A140-A145	14	14	0.014	0.277	350	4.00	4.59	7.06	0.99	5.58	250	0.3%	33.27	0.17	0.68	81.79	0.256	171.372	171.116		
Rollins St.	SANI-85	SANI-81	A146	0.35	A146	14	5	0.005	0.005	-	-	-	0.35	-	-	-	-	-	-	-	-	-	-	-		
Rollins St.	SANI-85	SANI-81	A272	0.1	A272	0	0	0.000	0.005	350	4.00	0.08	0.45	0.06	0.14	200	1.0%	32.03	0.00	1.02	33.13	0.316	178.464	178.148		
Marmora St.	SANI-81	SANI-82	A147	0.27	A146-147,A272	14	4	0.004	0.008	350	4.00	0.14	0.72	0.10	0.24	200	0.1%	12.34	0.02	0.39	33.22	0.047	178.038	177.991		
Marmora St.	SANI-82	SANI-83	A148	0.26	A146-148,A272	14	4	0.004	0.012	350	4.00	0.20	0.98	0.14	0.33	200	7.5%	90.05	0.00	2.87	33.52</					

Existing Madoc SPS Sanitary Sewer Calculation Sheet

		DRAINAGE AREA DISCRPTION										OUTLET PIPE DATA												
LOCATION	MANHOLE		INCREMENTAL AREA		CONTRIBUTING AREAS	POPULATION				q	M	PEAK FLOW	Σ	IA	Q	SIZE	SLOPE	CAP	Q/Qfull	VELOCITY	LENGTH	FALL	OUTLET PIPE DATA	
	From	To	No.	Ha		Ppha	P	P(1000)	P(1000)														(l/cap/d)	(l/s)
Livingstone Ave. W	SANI-124	SANI-123	A241	0.36	A238-A241	14	5	0.005	0.048	350	4.00	0.80	1.95	0.27	1.07	250	6.3%	148.73	0.01	3.03	35.33	2.21	166.095	163.885
Livingstone Ave. W	SANI-123	SANI-125	-	0	A238-A241	0	0	0.000	0.048	350	4.00	0.80	1.95	0.27	1.07	250	8.7%	175.22	0.01	3.57	14.26	1.238	162.995	161.757
ROW	SANI-125	SANI-261	-	0	A117-A225,SPS-1,SPS-2,SPS-3,A231-A241,A272	0	0	0.000	1.793	350	3.62	26.87	59.45	8.32	65.70	300	0.3%	55.84	SURCHARGED	0.79	59.08	0.197	161.707	161.51
ROW	SANI-261	SANI-126	-	0	A117-A225,SPS-1,SPS-2,SPS-3,A231-A241,A272	0	0	0.000	1.793	350	3.62	26.87	59.45	8.32	65.70	300	0.4%	62.16	SURCHARGED	0.88	99.22	0.41	161.49	161.08
ROW	SANI-126	SANI-262	-	0	A117-A225,SPS-1,SPS-2,SPS-3,A231-A241,A272	0	0	0.000	1.793	350	3.62	26.87	59.45	8.32	65.70	300	0.3%	56.25	SURCHARGED	0.80	69.16	0.234	161.05	160.816
ROW	SANI-262	SANI-99	A242	1.98	A117-A225,SPS-1,SPS-2,SPS-3,A231-A242,A272	80	158	0.158	1.952	350	3.59	29.02	61.43	8.60	68.12	300	0.4%	61.22	SURCHARGED	0.87	65.61	0.263	160.806	160.543
ROW	SANI-99	SANI-95	-	0	A117-A225,SPS-1,SPS-2,SPS-3,A231-A242,A272	0	0	0.000	1.952	350	3.59	29.02	61.43	8.60	68.12	300	0.3%	50.76	SURCHARGED	0.72	60.98	0.168	160.523	160.355
Colborne St.	SANI-108	SANI-107	A243	2.19	A243	14	30	0.030	0.030	350	4.00	0.49	2.19	0.31	0.80	200	2.0%	46.93	0.02	1.49	101.49	2.078	167.323	165.245
Colborne St.	SANI-107	SANI-106	A244	0.2	A243-A244	14	3	0.003	0.032	350	4.00	0.54	2.39	0.33	0.87	200	1.1%	34.94	0.02	1.11	37.9	0.43	165.235	164.805
Rollins St.	SANI-106	SANI-105	A245	0.83	A243-A245	14	11	0.011	0.044	350	4.00	0.72	3.22	0.45	1.17	200	0.9%	30.46	0.04	0.97	87.64	0.756	164.715	163.959
Rollins St.	SANI-105	SANI-305	A246	0.26	A243-A246	14	4	0.004	0.047	350	4.00	0.78	3.48	0.49	1.27	200	4.6%	70.23	0.02	2.24	59.95	2.749	163.936	161.187
Rollins St.	SANI-305	SANI-104	A247	0.17	A243-A247	14	2	0.002	0.050	350	4.00	0.82	3.65	0.51	1.33	200	0.3%	18.39	0.07	0.59	28	0.088	161.187	161.099
Seymour St. W	SANI-307	SANI-308	A248	1.31	A248	0	0	0.000	0.000	350	4.00	0.00	1.31	0.18	0.18	300	0.4%	58.33	0.00	0.83	20.34	0.074	161.386	161.312
Seymour St. W	SANI-308	SANI-309	A249-A250	0.56	A248-A250	14	8	0.008	0.008	350	4.00	0.13	1.87	0.26	0.39	300	0.2%	43.67	0.01	0.62	72.58	0.148	161.302	161.154
Seymour St. W	SANI-309	SANI-104	-	0	A248-A250	0	0	0.000	0.008	350	4.00	0.13	1.87	0.26	0.39	300	0.3%	50.73	0.01	0.72	5.45	0.015	161.094	161.079
Rollins St.	SANI-306	SANI-302	A251-A252	1.01	A251-A252	14	14	0.014	0.014	350	4.00	0.23	1.01	0.14	0.37	200	0.4%	21.42	0.02	0.68	45.03	0.192	161.559	161.367
Rollins St.	SANI-302	SANI-104	-	0	A251-A252	0	0	0.000	0.014	350	4.00	0.23	1.01	0.14	0.37	200	0.3%	19.07	0.02	0.61	43.77	0.148	161.347	161.199
Seymour St. W	SANI-104	SANI-103	A253	0.19	A243-A253	14	3	0.003	0.073	350	4.00	1.22	6.72	0.94	2.16	300	0.1%	34.03	0.06	0.48	38.76	0.048	161.049	161.001
Seymour St. W	SANI-103	SANI-101	A254-A255	1.1	A243-A255	14	15	0.015	0.088	-	-	-	7.82	-	-	-	-	-	-	-	-	-	-	-
Seymour St. W	SANI-103	SANI-101	A256	0.05	A243-A256	0	0	0.000	0.088	350	4.00	1.46	7.87	1.10	2.56	300	0.2%	44.88	0.06	0.63	118.38	0.255	160.991	160.736
Seymour St. W	SANI-101	SANI-96	-	0	A243-A256	0	0	0.000	0.088	350	4.00	1.46	7.87	1.10	2.56	150	-	22.27	0.12	0.63	-	-	-	-
Seymour St. W	SANI-96	SANI-95	-	0	A243-A256	0	0	0.000	0.088	350	4.00	1.46	7.87	1.10	2.56	300	0.3%	50.97	0.05	0.72	3.24	0.009	160.614	160.605
ROW	SANI-95	SANI-100	-	0	A1-A256,SPS-1,SPS-2,SPS-3,A272	0	0	0.000	3.177	350	3.42	44.96	136.4	19.10	94.56	350	0.1%	48.31	SURCHARGED	0.50	10.03	0.011	160.345	160.334
ROW	SANI-100	SANI-142	-	0	A1-A256,SPS-1,SPS-2,SPS-3,A272	0	0	0.000	3.177	350	3.42	44.96	136.4	19.10	94.56	350	0.3%	86.13	SURCHARGED	0.90	124.18	0.433	160.324	159.891
ROW	SANI-142	SANI-141	-	0	A1-A256,SPS-1,SPS-2,SPS-3,A272	0	0	0.000	3.177	350	3.42	44.96	136.4	19.10	94.56	350	0.2%	61.30	SURCHARGED	0.64	75.32	0.133	159.891	159.758
ROW	SANI-141	SANI-140	-	0	A1-A256,SPS-1,SPS-2,SPS-3,A272	0	0	0.000	3.177	350	3.42	44.96	136.4	19.10	94.56	350	0.3%	82.55	SURCHARGED	0.86	79.3	0.254	159.758	159.504
ROW	SANI-140	SANI-138	-	0	A1-A256,SPS-1,SPS-2,SPS-3,A272	0	0	0.000	3.177	350	3.42	44.96	136.4	19.10	94.56	350	0.3%	80.77	SURCHARGED	0.84	88.72	0.272	159.494	159.222
Maud St.	SANI-304	SANI-132	A257	0.33	A257	14	4	0.004	0.004	350	4.00	0.07	0.33	0.05	0.12	200	0.7%	27.89	0.00	0.89	18.39	0.133	166.777	166.644
Maud St.	SANI-132	SANI-131	A258-A259	1.45	A257-A259	0	0	0.000	0.004	-	-	-	1.78	-	-	-	-	-	-	-	-	-	-	-
Maud St.	SANI-132	SANI-131	A260	0.39	A257-A260	14	5	0.005	0.010	350	4.00	0.16	2.17	0.30	0.47	200	0.02%	4.05	0.11	0.13	52.38	0.008	166.584	166.576
Maud St.	SANI-131	SANI-130	A261	0.16	A257-A261	14	2	0.002	0.012	350	4.00	0.20	2.33	0.33	0.52	200	3.5%	61.79	0.01	1.97	44.55	1.581	166.416	164.835
Durham St.	SANI-129	SANI-130	A262	1.34	A262	14	18	0.018	0.018	-	-	-	1.34	-	-	-	-	-	-	-	-	-	-	-
Durham St.	SANI-129	SANI-130	A263-A264	0.16	A262-A264	0	0	0.000	0.018	350	4.00	0.30	1.5	0.21	0.51	200	4.4%	69.01	0.01	2.20	56.44	2.499	167.344	164.845
Durham St.	SANI-130	SANI-133	A265	0.22	A257-A265	14	3	0.003	0.033	350	4.00	0.55	4.05	0.57	1.12	250	4.2%	121.83	0.01	2.48	62.59	2.627	164.685	162.058
Durham St. S	SANI-133	SANI-134	A266-A268	1.18	A257-A268	14	16	0.016	0.049	350	4.00	0.81	5.23	0.73	1.55	250	3.7%	113.79	0.01	2.32	60.36	2.21	162.028	159.818
Durham St. S	SANI-134	SANI-136	A269-A270	0.91	A257-A270	14	12	0.012	0.062	350	4.00	1.02	6.14	0.86	1.88	250	0.4%	38.80	0.05	0.79	56.84	0.242	159.808	159.566
ROW	SANI-136	SANI-138	A271	0.28	A257-A271	100	28	0.028	0.090	350	4.00	1.48	6.42	0.90	2.38	250	0.2%	28.20	0.08	0.57	81.82	0.184	159.546	159.362
ROW	SANI-138	SANI-139	-	0	A1-A272,SPS-1,SPS-2,SPS-3	0	0	0.000	3.266	350	3.41	46.09	142.82	19.99	96.58	350	0.3%	83.41	SURCHARGED	0.87	53.21	0.174	159.192	159.018
ROW	SANI-139	SANI-263	-	0	A1-A272,SPS-1,SPS-2,SPS-3	0	0	0.000	3.266	350	3.41	46.09	142.82	19.99	96.58	350	0.4%	90.90	SURCHARGED	0.94	5.15	0.02	158.588	158.568
ROW	SANI-263	SANI-254	-	0	A1-A272,SPS-1,SPS-2,SPS-3	0	0	0.000	3.266	350	3.41	46.09	142.82	19.99	96.58	350	0.1%	55.94	SURCHARGED	0.58	129.85	0.191	158.248	158.057
ROW	SANI-254	SANI-255	-	0	A1-A272,SPS-1,SPS-2,SPS-3	0	0	0.000	3.266	350	3.41	46.09	142.82	19.99	96.58	350	0.2%	67.84	SURCHARGED	0.71	153.48	0.332	158.047	157.715
ROW	SANI-255	SANI-256	-	0	A1-A272,SPS-1,SPS-2,SPS-3	0	0	0.000	3.266	350	3.41	46.09	142.82	19.99	96.58	350	0.2%	68.28	SURCHARGED	0.71	152.89	0.335	157.705	157.37
DESIGN PARAMETERS										Designed By:					PROJECT:									
Mannings n	0.013		Population Density																					

Existing Madoc SPS Sanitary Sewer Calculation Sheet



	DRAINAGE AREA DISCRIPTION										OUTLET PIPE DATA														
LOCATION	MANHOLE		INCREMENTAL AREA		CONTRIBUTING AREAS	POPULATION				Σ	q	M	PEAK FLOW	Σ	IA	Q	SIZE	SLOPE	CAP	Q/Qfull	VELOCITY	LENGTH	FALL	OUTLET PIPE DATA	
	From	To	No.	Ha		Ppha	P	P(1000)	P(1000)															(l/cap/d)	(l/s)
Infiltration Rate	0.14				Residential	14																			
Students	820				Industrial	100																			
Average Daily Flow (q)					Commercial	80																			
Residential	350				School	46																			
Industrial	35000				= Refer to the Inverted Siphons sheet for the details.																				
Commercial	28000																								
School	100																								
										Prabhkaran Singh Cheema															
										MADOC INFRASTRUCTURE CAPACITY ASSESSMENT															
										Checked By: Matthew Morkem, P.Eng															
										LOCATION: MADOC, ON, CANADA															
										Dwg. Reference: Figure 15					Project Number: 32508					Date: 22-May-24					