

**STORM SEWER DESIGN SHEET
WILMER STREET
FIVE YEAR FLOW DESIGN**

Where

Q 2.78 AIR

Q peak flow in litres per second (L/s)

A area in hectares (ha)

I rainfall intensity in millimetres per hour (mm/h)

R weighted runoff co-efficient

Time of concentration assumed as 15 minutes

LOCATION				AREA (ha)			indiv. 2.78 AR	Accum. 2.78 AR	Time of Conc.	Rainfall Intensity I	Peak Flow Q (L/s)	SEWER DATA							
SUB-AREA	STREET	FROM	TO	R = 0.80	R = 0.60	R = 0.30						Diameter (mm)	Slope (%)	Length (m)	Capacity (L/s) n = .013	Velocity (m/s)	Time of Flow (Minutes)	Upstream Invert (m)	Downstream Invert (m)
102b	Wilmer	38a	38		0.25	0.19	0.575	0.575	20.00	72.40	41.7	300	0.50	39.0	68.4	0.97	0.67		
									20.67										
103b	Conner Drive	38	36		0.25		0.417	4.718	20.67	71.02	335.0	375	2.80	27.0	293.4	2.66	0.17		
105a,106a	Conner Drive	36	34	0	0.3	0.23	0.692	5.410	20.84	70.68	382.4	450	1.60	92.0	360.6	2.27	0.68		
									21.52										
106b	Thomas Avenue	46	48	0	0	0.42	0.350	0.350	20.00	70.00	24.5	300	2.00	83.0	136.8	1.93	0.72		
107b	Thomas Avenue	48	50	0	0.29	0	0.484	0.834	20.72	71.00	59.2	300	2.00	41.0	136.8	1.93	0.35		
108b, 109b	Thomas Avenue	50	34	0	0.63	0.43	1.409	2.243	21.07	71.00	159.3	375	1.00	45.0	175.3	1.59	0.47		
									21.54										
110b, to 113	Conner Drive	34	32	0	0.7	0.42	1.518	9.171	21.54	71.00	651.2	600	0.80	80.0	595.0	2.10	0.63		
	Conner Drive	32	10	0	0	0	0.000	9.171	22.17	71.00	651.2	600	0.80	80.0	595.0	2.10	0.63		
									22.81										
116a	Conner Drive	10	8	0	0	0.18	0.150	24.583	24.59	71.00	1745.4	900	0.70	22.0	1640.8	2.58	0.14		
117a, 118a	Conner Drive	8	6	0	0.22	0.28	0.600	25.183	24.73	63.73	1604.9	900	0.70	53.0	1640.8	2.58	0.34		
119a, 120a	Conner Drive	6	2	0	0.46	0.18	0.917	26.101	25.07	63.19	1649.2	900	0.80	120.0	1754.1	2.76	0.73		
									25.80										

DESIGN CJ	PROJECT: Wilmer Street Gananoque	SHEET No.
CHECKED		
February 23 2018		