

Version Number: 2

Version Date: October 15, 2021

Project Information

Applewood

120164

Drawing Reference

Existing Conditions - 1:5-Year Return Frequency Design Storm

September 16-21

Prepared By

DRT

September 16-21

Reviewed By

JM

September 16-21

Municipality

Town of The Blue Mountains

Runoff Coefficient Adjustment

Year	A	B
10	0.80	0.20
25	0.70	0.30
50	0.60	0.40
100	0.50	0.50

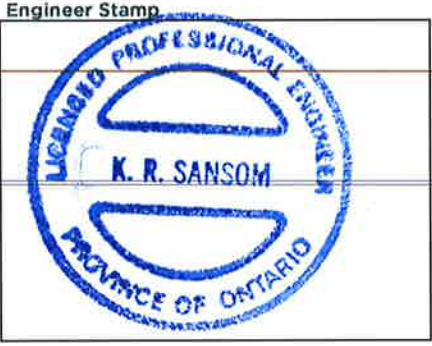
Manning's Coefficient

Pipe	Value
CSP	0.024
Concrete	0.013
PVC	0.009

Time of Concentration

15 mins

IDF Curve Coefficients			
Year	A	B	C
2	807.44	6.75	0.83
5	1135.40	7.50	0.84
10	1387.00	7.97	0.85
25	1676.20	8.30	0.86
50	1973.10	9.00	0.87
100	2193.10	9.04	0.87



Street Name	Area ID / Label	Upstream Maintenance Hole	Downstream Maintenance Hole	Area (ha)	5 Year Runoff Coefficient (C)	Design Storm (Year)	Adjusted Runoff Coefficient (C)	Area x Runoff Coefficient	Cumulative Area (ha)	Cumulative Area x Adjusted Runoff Coefficient	Time of Concentration (min)	Rainfall Intensity (mm/hr)	Peak Flow (m ³ /s)	Manning's Roughness Coefficient	Sewer Length (m)	Sewer Slope (%)	Actual Sewer Diameter (mm)	Full Flow Velocity (m/s)	Full Flow Capacity (L/s)	Actual Velocity (m/s)	Travel Time (min)	Calculated Sewer Diameter (mm)	Percentage of Full Flow Capacity (%)	Total Time of Travel (min)
King Street	S-STST249	STST249	STST239	0.12	0.80	5	0.80	0.10	0.12	0.10	15.00	82.79	0.022	0.013	45.8	0.7%	300	1.11	0.078	0.89	0.86	186	28.2%	15.86
King Street	S-STST239	STST239	STST241	0.19	0.65	5	0.65	0.12	0.31	0.22	15.86	80.21	0.049	0.013	42.3	1.1%	300	1.41	0.100	1.31	0.54	230	49.1%	16.40
King Street	S-STST241	STST241	STST250	0.15	0.82	5	0.82	0.12	0.46	0.34	16.40	78.69	0.074	0.013	46.3	0.9%	300	1.27	0.090	1.27	0.61	279	82.8%	17.01
King Street	S-STST250	STST250	STST252	0.68	0.81	5	0.81	0.55	1.14	0.89	17.01	77.05	0.191	0.013	41.0	0.5%	300	0.95	0.067	0.95	0.72	443	283.1%	17.72
King Street	S-STST252	STST252	STST254	0.47	0.54	5	0.54	0.25	1.61	1.15	17.72	75.20	0.240	0.013	50.5	0.6%	300	1.06	0.075	1.06	0.80	465	321.2%	18.52
King Street	S-STST254_	STST254	STST1810	1.31	0.67	5	0.67	0.87	2.92	2.02	18.52	73.26	0.411	0.013	13.7	1.0%	375	1.57	0.173	1.57	0.15	518	237.2%	18.67
King Street	S-STST1810	STST1810	STST1546	0.51	0.82	5	0.82	0.42	3.43	2.44	18.67	72.92	0.495	0.013	11.4	0.6%	375	1.28	0.141	1.28	0.15	600	350.7%	18.81
King Street		STST1546	STST256	0.00	0.00	5	0.00	0.00	3.43	2.44	18.81	72.57	0.492	0.013	20.1	0.5%	375	1.07	0.119	1.07	0.31	639	415.2%	19.13
King Street	S-STST256	STST256	STST258	0.09	0.81	5	0.81	0.07	3.52	2.51	19.13	71.85	0.502	0.013	45.0	0.2%	525	0.93	0.202	0.93	0.81	738	248.6%	19.93
King Street	S-STST258	STST258	STST260	0.24	0.81	5	0.81	0.19	3.76	2.70	19.93	70.08	0.526	0.013	47.6	0.4%	525	1.29	0.279	1.29	0.62	666	188.8%	20.55
King Street	S-STST260	STST260	STST262	1.01	0.79	5	0.79	0.79	4.76	3.49	20.55	68.78	0.668	0.013	37.7	0.4%	525	1.25	0.271	1.25	0.50	736	246.0%	21.05
King Street	S-STST263	STST263	STST264	0.25	0.54	5	0.54	0.13	0.25	0.13	15.00	82.79	0.031	0.013	50.8	0.8%	300	1.21	0.086	1.04	0.82	204	35.7%	15.82
King Street	S-STST264	STST264	STST265	0.15	0.66	5	0.66	0.10	0.40	0.23	15.82	80.34	0.052	0.013	4.1	4.8%	300	3.01	0.212	2.33	0.03	177	24.4%	15.85
King Street	S-STST265	STST265	STST266	2.70	0.42	5	0.42	1.14	3.10	1.37	15.85	80.25	0.306	0.013	46.9	1.1%	300	1.41	0.100	1.41	0.55	457	306.8%	16.40
King Street	S-STST266	STST266	STST267	3.55	0.52	5	0.52	1.85	6.65	3.22	16.40	78.69	0.704	0.013	15.1	1.3%	300	1.57	0.111	1.57	0.16	599	632.2%	16.56
King Street	S-STST267	STST267	STST262	0.78	0.26	5	0.26	0.20	7.43	3.42	16.56	78.25	0.744	0.013	12.1	19.0%	450	7.81	1.241	7.79	0.03	371	59.9%	16.59
Elgin Street	S-STST262	STST262	STST1217	0.13	0.70	5	0.70	0.09	12.33	7.01	21.05	67.76	1.319	0.013	40.4	1.3%	600	2.47	0.697	2.47	0.27	762	189.2%	21.32
Elgin Street	S-STST1217	STST1217	STST1218	0.10	0.69	5	0.69	0.07	12.42	7.07	21.32	67.22	1.321	0.013	60.4	1.2%	600	2.42	0.684	2.42	0.42	768	193.2%	21.74
Elgin Street	S-STST1218	STST1218	STST1219	0.36	0.47	5	0.47	0.17	12.78	7.25	21.74	66.41	1.337	0.013	108.9	2.1%	600	3.18	0.898	3.18	0.57	696	148.8%	22.31
Elgin Street	S-STST1219	STST1219	STST1500	0.61	0.63	5	0.63	0.38	13.40	7.63	22.31	65.34	1.385	0.013	26.1	2.8%	675	3.96	1.417	3.96	0.11	669	97.7%	22.42
Elgon Street	S-STST1500	STST1500	Outlet	0.15	0.54	5	0.54	0.08	13.54	7.71	22.42	65.14	1.395	0.013	19.9	0.3%	675	1.29	0.460	1.29	0.26	1022	303.0%	22.68

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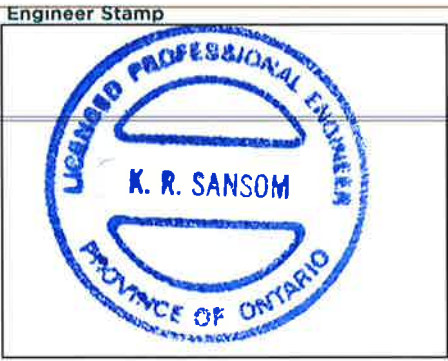
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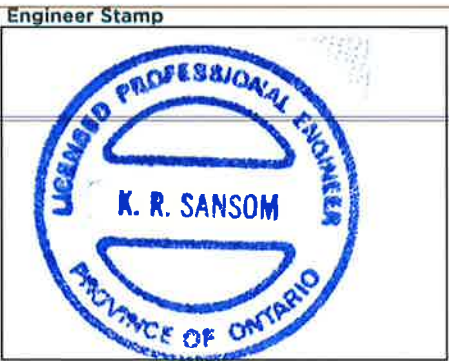
Street Name	Area ID / Label	Upstream Maintenance Hole	Downstream Maintenance Hole	Area (ha)	5 Year Runoff Coefficient (C)	Design Storm (Year)	Adjusted Runoff Coefficient (C)	Area x Runoff Coefficient	Cumulative Area (ha)	Cumulative Area x Adjusted Runoff Coefficient	Time of Concentration (min)	Rainfall Intensity (mm/hr)	Peak Flow (m ³ /s)	Manning's Roughness Coefficient	Sewer Length (m)	Sewer Slope (%)	Actual Sewer Diameter (mm)	Full Flow Velocity (m/s)	Full Flow Capacity (L/s)	Actual Velocity (m/s)	Travel Time (min)	Calculated Sewer Diameter (mm)	Percentage of Full Flow Capacity (%)	Total Time of Travel (min)
King Street	S-STST249	STST249	STST239	0.12	0.80	5	0.80	0.10	0.12	0.10	15.00	82.79	0.022	0.013	45.8	0.7%	300	1.11	0.078	0.89	0.86	186	28.2%	15.86
King Street	S-STST239	STST239	STST241	0.19	0.65	5	0.65	0.12	0.31	0.22	15.86	80.21	0.049	0.013	42.3	1.1%	300	1.41	0.100	1.31	0.54	230	49.1%	16.40
King Street	S-STST241	STST241	STST250	0.15	0.82	5	0.82	0.12	0.46	0.34	16.40	78.69	0.074	0.013	46.3	0.9%	300	1.27	0.090	1.27	0.61	279	82.8%	17.01
King Street	S-STST250	STST250	STST252	0.68	0.81	5	0.81	0.55	1.14	0.89	17.01	77.05	0.191	0.013	41.0	0.5%	450	1.25	0.199	1.25	0.55	443	96.0%	17.55
King Street	S-STST252	STST252	STST254	0.47	0.54	5	0.54	0.25	1.61	1.15	17.55	75.63	0.241	0.013	50.5	0.6%	525	1.53	0.332	1.53	0.55	466	72.6%	18.10
King Street	S-STST254	STST254	STST1810	1.31	0.67	5	0.67	0.87	2.92	2.02	18.10	74.27	0.417	0.013	13.7	1.0%	525	1.96	0.425	1.96	0.12	521	98.0%	18.22
King Street	S-STST1810	STST1810	STST1546	0.51	0.82	5	0.82	0.42	3.43	2.44	18.22	73.98	0.502	0.013	11.4	0.6%	675	1.89	0.676	1.89	0.10	603	74.2%	18.32
King Street		STST1546	STST256	0.00	0.00	5	0.00	0.00	3.43	2.44	18.32	73.74	0.500	0.013	20.1	0.5%	675	1.59	0.568	1.59	0.21	643	88.0%	18.53
King Street	S-STST256	STST256	STST258	0.09	0.81	5	0.81	0.07	3.52	2.51	18.53	73.24	0.511	0.013	45.0	0.2%	750	1.18	0.522	1.18	0.64	744	97.9%	19.17
King Street	S-STST258	STST258	STST260	0.24	0.81	5	0.81	0.19	3.76	2.70	19.17	71.77	0.539	0.013	47.6	0.4%	675	1.52	0.545	1.52	0.52	672	98.9%	19.69
King Street	S-STST260	STST260	STST262	1.01	0.79	5	0.79	0.79	4.76	3.49	19.69	70.61	0.685	0.013	37.7	0.4%	750	1.59	0.702	1.59	0.40	743	97.6%	20.08
						5																		
King Street	S-STST263	STST263	STST264	0.25	0.54	5	0.54	0.13	0.25	0.13	15.00	82.79	0.031	0.013	50.8	0.8%	300	1.21	0.086	1.04	0.82	204	35.7%	15.82
King Street	S-STST264	STST264	STST265	0.15	0.66	5	0.66	0.10	0.40	0.23	15.82	80.34	0.052	0.013	4.1	4.8%	300	3.01	0.212	2.33	0.03	177	24.4%	15.85
King Street	S-STST265	STST265	STST266	2.70	0.42	5	0.42	1.14	3.10	1.37	15.85	80.25	0.306	0.013	46.9	1.1%	525	2.05	0.444	2.05	0.38	457	69.0%	16.23
King Street	S-STST266	STST266	STST267	3.55	0.52	5	0.52	1.85	6.65	3.22	16.23	79.17	0.708	0.013	15.1	1.3%	675	2.70	0.968	2.70	0.09	600	73.2%	16.32
King Street	S-STST267	STST267	STST262	0.78	0.26	5	0.26	0.20	7.43	3.42	16.32	78.91	0.750	0.013	12.1	19.0%	375	6.91	0.763	6.91	0.03	372	98.2%	16.35
Elgin Street	S-STST262	STST262	STST1217	0.13	0.70	5	0.70	0.09	12.33	7.01	20.08	69.76	1.358	0.013	40.4	1.3%	825	3.05	1.630	3.05	0.22	770	83.3%	20.30
Elgin Street	S-STST1217	STST1217	STM MH5	0.10	0.69	5	0.69	0.07	12.42	7.07	20.30	69.29	1.362	0.013	22.0	1.2%	825	2.99	1.598	2.99	0.12	777	85.2%	20.43

Pipe	Value
CSP	0.024
Concrete	0.013
PVC	0.009

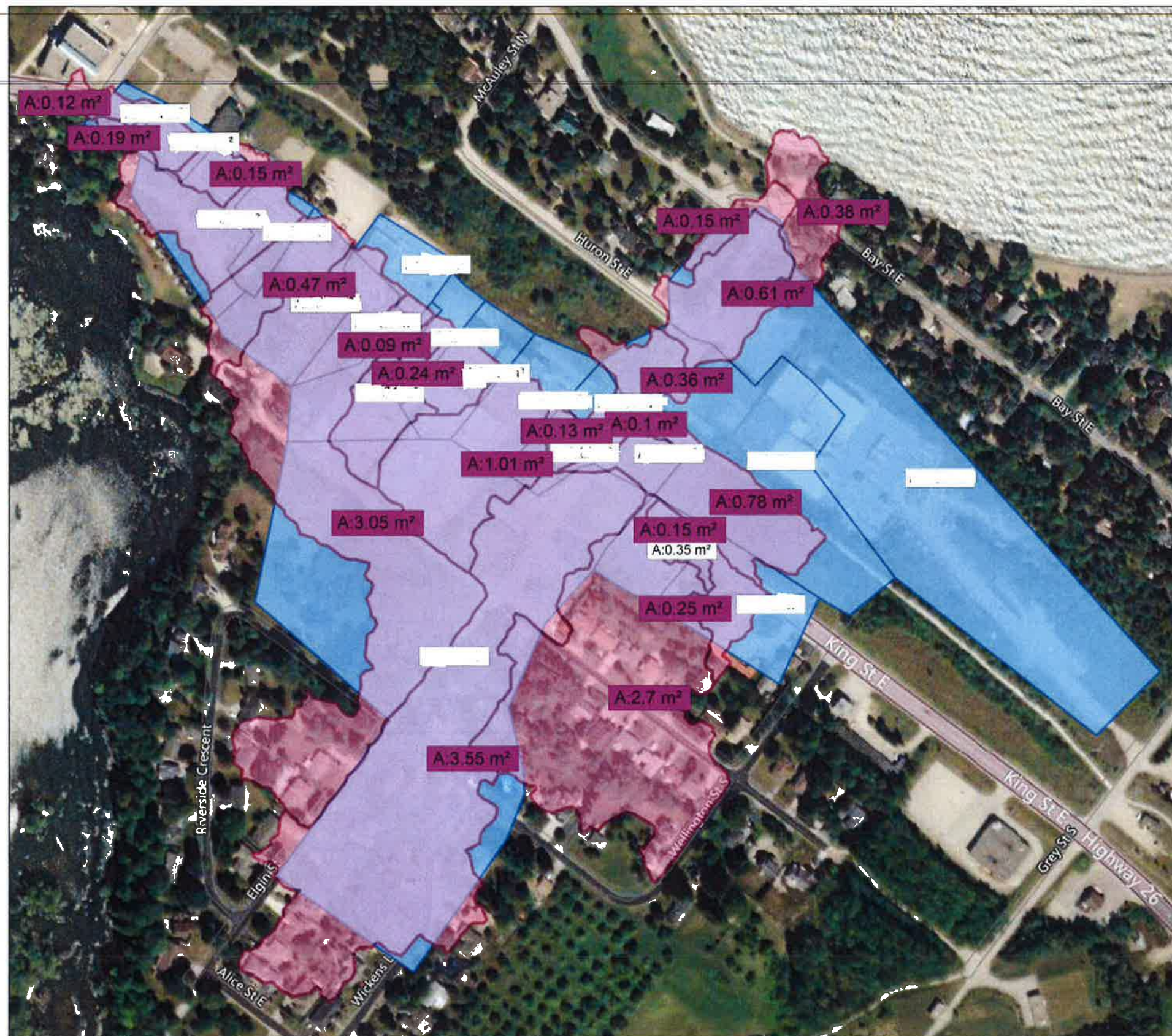
Time of Concentration

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Year	A	B	C
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5	1135.40	7.50	0.84
10	1387.00	7.97	0.85
25	1676.20	8.30	0.86
50	1973.10	9.00	0.87
100	2193.10	9.04	0.87

[illegible]

CIDERY TOWNS



Legend

- ORIGINAL CATCHMENT AREAS (SUPERSEDED)
- REVISED CATCHMENT AREAS

