



Appendices



Appendix A

Background Information on Residential and Non- Residential Growth Forecast



Appendix A: Background Information on Residential and Non-Residential Growth Forecast



Schedule 1 Municipality of North Middlesex Residential Growth Forecast Summary

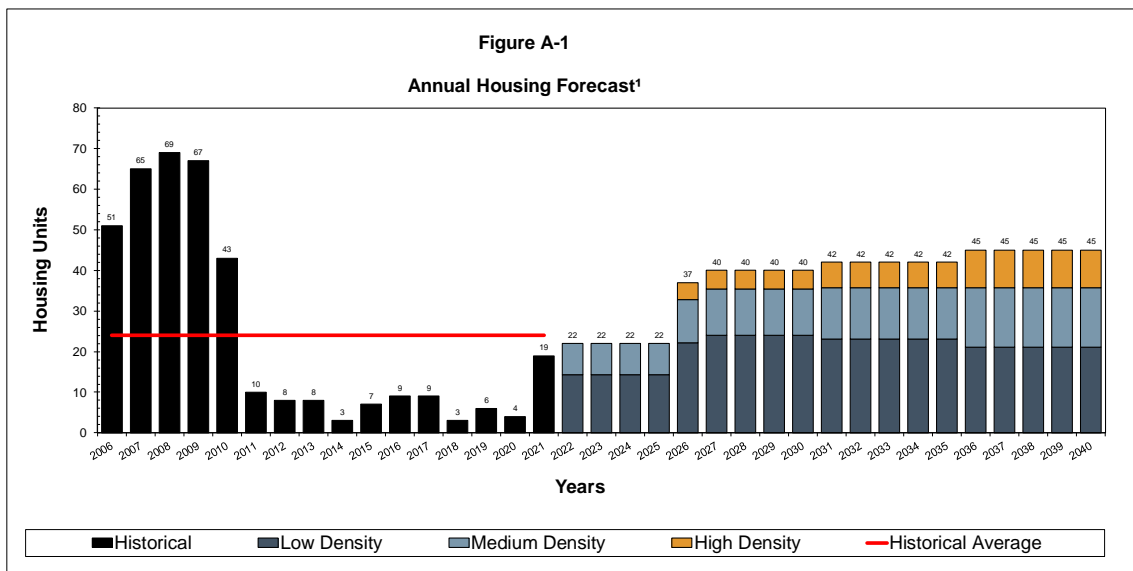
	Year	Population (Including Census Undercount) ^[1]	Excluding Census Undercount			Housing Units					Persons Per Unit (P.P.U.): Total Population/ Total Households
			Population	Institutional Population	Population Excluding Institutional Population	Singles & Semi-Detached	Multiple Dwellings ^[2]	Apartments ^[3]	Other	Total Households	
Historical	Mid 2006	6,970	6,740	265	6,475	2,165	20	100	25	2,310	2.918
	Mid 2011	6,890	6,658	258	6,400	2,195	9	129	9	2,342	2.843
	Mid 2016	6,570	6,352	212	6,140	2,180	10	115	25	2,330	2.726
Forecast	Early 2022	6,610	6,384	215	6,169	2,219	11	116	25	2,371	2.693
	Early 2032	7,110	6,867	241	6,626	2,415	104	142	25	2,686	2.557
	Mid 2041	7,770	7,512	282	7,230	2,614	227	212	25	3,078	2.441
Incremental	Mid 2006 - Mid 2011	-80	-82	-7	-75	30	-11	29	-16	32	
	Mid 2011 - Mid 2016	-320	-306	-46	-260	-15	1	-14	16	-12	
	Mid 2016 - Early 2022	40	32	3	29	39	1	1	0	41	
	Early 2022 - Early 2032	500	483	26	457	196	93	26	0	316	
	Early 2022 - Mid 2041	1,160	1,128	67	1,061	396	216	96	0	707	

Source: Derived from Population and Housing Projections for Middlesex County forecast for the Municipality of North Middlesex and discussions with municipal staff regarding servicing and land supply by Watson & Associates Economists Ltd., 2022.

^[1] Census undercount estimated at approximately 103.5%. Note: Population including the undercount has been rounded.

^[2] Includes townhouses and apartments in duplexes.

^[3] Includes bachelor, 1-bedroom and 2-bedroom+ apartments.



Source: Historical housing activity derived from building permits from the Municipality of North Middlesex.

^[1] Growth forecast represents calendar year.



Schedule 2
Municipality of North Middlesex
Estimate of the Anticipated Amount, Type and Location of
Residential Development for Which Development Charges can be Imposed

Development Location	Timing	Single & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total Residential Units	Gross Population In New Units	Existing Unit Population Change	Net Population Increase, Excluding Institutional	Institutional Population	Net Population Including Institutional
Ailsa Craig	2022 - 2032	44	41	12	97	240	-67	174	5	178
	2022 - 2041	112	99	45	255	619	-133	486	12	498
Parkhill	2022 - 2032	106	51	14	171	448	-101	347	7	354
	2022 - 2041	212	116	51	379	966	-203	763	18	782
Nairn	2022 - 2032	6	1	0	7	20	-27	-7	2	-5
	2022 - 2041	12	1	0	13	38	-53	-15	5	-11
Rural	2022 - 2032	40	0	0	40	119	-176	-57	12	-45
	2022 - 2041	60	0	0	60	179	-352	-173	32	-141
Municipality of North Middlesex	2022 - 2032	196	93	26	316	828	-371	457	26	483
	2022 - 2041	396	216	96	707	1,802	-741	1,061	67	1,128

Source: Derived from Population and Housing Projections for Middlesex County forecast for the Municipality of North Middlesex and discussions with municipal staff regarding servicing and land supply by Watson & Associates Economists Ltd., 2022.

^[1] Includes townhouses and apartments in duplexes.

^[2] Includes accessory apartments, bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



Schedule 3
Municipality of North Middlesex
Current Year Growth Forecast
Mid 2016 to Early 2022

		Population
Mid 2016 Population		6,352
Occupants of New Housing Units, Mid 2016 to Early 2022	<i>Units (2)</i>	41
	<i>multiplied by P.P.U. (3)</i>	3.427
	<i>gross population increase</i>	139
Occupants of New Equivalent Institutional Units, Mid 2016 to Early 2022	<i>Units</i>	2
	<i>multiplied by P.P.U. (3)</i>	1.100
	<i>gross population increase</i>	2
Decline in Housing Unit Occupancy, Mid 2016 to Early 2022	<i>Units (4)</i>	2,330
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.047
	<i>total decline in population</i>	-109
Population Estimate to Early 2022		6,384
<i>Net Population Increase, Mid 2016 to Early 2022</i>		32

(1) 2016 population based on Statistics Canada Census unadjusted for Census undercount.

(2) Estimated residential units constructed, Mid-2016 to the beginning of the growth period assuming a six-month lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	3.500	95%	3.327
<i>Multiples (6)</i>	2.308	2%	0.057
<i>Apartments (7)</i>	1.721	2%	0.042
Total		100%	3.427

¹ Based on 2016 Census custom database

² Based on Building permit/completion activity

(4) 2016 households taken from Statistics Canada Census.

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



**Schedule 4
Municipality of North Middlesex
Ten Year Growth Forecast
Early 2022 to Early 2032**

		Population
Early 2022 Population		6,384
Occupants of New Housing Units, Early 2022 to Early 2032	<i>Units (2)</i>	316
	<i>multiplied by P.P.U. (3)</i>	2,624
	<i>gross population increase</i>	828
		828
Occupants of New Equivalent Institutional Units, Early 2022 to Early 2032	<i>Units</i>	24
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	26
		26
Decline in Housing Unit Occupancy, Early 2022 to Early 2032	<i>Units (4)</i>	2,371
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.157
	<i>total decline in population</i>	-371
		-371
Population Estimate to Early 2032		6,867
<i>Net Population Increase, Early 2022 to Early 2032</i>		483

(1) Early 2022 Population based on:

2016 Population (6,352) + Mid 2016 to Mid 2022 estimated housing units to beginning of forecast period (41 x 3.427 = 139) + (2 x 1.1 = 2) + (2,330 x -0.047 = -109) = 6,384

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	2.980	62%	1.855
<i>Multiples (6)</i>	2.126	30%	0.628
<i>Apartments (7)</i>	1.718	8%	0.141
<i>one bedroom or less</i>	1.279		
<i>two bedrooms or more</i>	2.029		
Total		100%	2.624

¹ Persons per unit based on adjusted Statistics Canada Custom 2016 Census database.

² Forecast unit mix based upon historical trends and housing units in the development process.

(4) Mid 2022 households based upon 2016 Census (2,330 units) + Mid 2016 to Mid 2022 unit estimate (41 units) = 2,371 units.

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



Schedule 5
Municipality of North Middlesex
Early 2022 to Mid 2041

		Population
Early 2022 Population		6,384
Occupants of New Housing Units, Early 2022 to Mid 2041	<i>Units (2)</i>	707
	<i>multiplied by P.P.U. (3)</i>	2,549
	<i>gross population increase</i>	1,802
Occupants of New Equivalent Institutional Units, Early 2022 to Mid 2041	<i>Units</i>	61
	<i>multiplied by P.P.U. (3)</i>	1,100
	<i>gross population increase</i>	67
Decline in Housing Unit Occupancy, Early 2022 to Mid 2041	<i>Units (4)</i>	2,371
	<i>multiplied by P.P.U. decline rate (5)</i>	-0.313
	<i>total decline in population</i>	-741
Population Estimate to Mid 2041		7,512
<i>Net Population Increase, Early 2022 to Mid 2041</i>		1,128

(1) Early 2022 Population based on:

2016 Population (6,352) + Mid 2016 to Mid 2022 estimated housing units to beginning of forecast period (41 x 3.427 = 139) + (2 x 1.1 = 2) + (2,330 x -0.047 = -109) = 6,384

(2) Based upon forecast building permits/completions assuming a lag between construction and occupancy.

(3) Average number of persons per unit (P.P.U.) is assumed to be:

Structural Type	Persons Per Unit ¹ (P.P.U.)	% Distribution of Estimated Units ²	Weighted Persons Per Unit Average
<i>Singles & Semi Detached</i>	2.980	56%	1.667
<i>Multiples (6)</i>	2.126	31%	0.649
<i>Apartments (7)</i>	1.718	14%	0.232
<i>one bedroom or less</i>	1.279		
<i>two bedrooms or more</i>	2.029		
Total		100%	2.549

¹ Persons per unit based on Statistics Canada Custom 2016 Census database.

² Forecast unit mix based upon historical trends and housing units in the development process.

(4) Mid 2022 households based upon 2016 Census (2,330 units) + Mid 2016 to Mid 2022 unit estimate (41 units) = 2,371 units.

(5) Decline occurs due to aging of the population and family life cycle changes, lower fertility rates and changing economic conditions.

(6) Includes townhouses and apartments in duplexes.

(7) Includes bachelor, 1-bedroom and 2-bedroom+ apartments.

Note: Numbers may not add to totals due to rounding.



Schedule 6
Municipality of North Middlesex
Summary of Active Development Applications as of 2021

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total
Registered Not Built	8	0	0	8
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Draft Plan Approved	46	30	0	76
<i>% Breakdown</i>	<i>61%</i>	<i>39%</i>	<i>0%</i>	<i>100%</i>
Application Under Review	592	186	0	778
<i>% Breakdown</i>	<i>76%</i>	<i>24%</i>	<i>0%</i>	<i>100%</i>
Vacant lands designated for Residential ^[3]	940	23	212	1,175
<i>% Breakdown</i>	<i>80%</i>	<i>2%</i>	<i>18%</i>	<i>100%</i>
Total	1,586	239	212	2,037
<i>% Breakdown</i>	<i>78%</i>	<i>12%</i>	<i>10%</i>	<i>100%</i>

^[1] Includes townhomes and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

^[3] Include potential housing units on vacant designated residential lands based on North Middlesex Council presentation on May 10, 2021.

Source: Data provided by the Municipality of North Middlesex as of June 2021.



Schedule 6a
Municipality of North Middlesex
Ailsa Craig
Summary of Active Development Applications as of 2021

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total
Registered Not Built	0	0	0	0
<i>% Breakdown</i>				
Draft Plan Approved	9	30	0	39
<i>% Breakdown</i>	23%	77%	0%	100%
Application Under Review	250	96	0	346
<i>% Breakdown</i>	72%	28%	0%	100%
Vacant lands designated for Residential ^[3]	305	8	69	382
<i>% Breakdown</i>	80%	2%	18%	100%
Total	564	134	69	767
<i>% Breakdown</i>	74%	17%	9%	100%

^[1] Includes townhomes and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

^[3] Include potential housing units on vacant designated residential lands based on North Middlesex Council presentation on May 10, 2021.

Source: Data provided by the Municipality of North Middlesex as of June 2021.



Schedule 6b
Municipality of North Middlesex
Parkhill
Summary of Active Development Applications as of 2021

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total
Registered Not Built	8	0	0	8
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Draft Plan Approved	23	0	0	23
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Application Under Review	342	90	0	432
<i>% Breakdown</i>	<i>79%</i>	<i>21%</i>	<i>0%</i>	<i>100%</i>
Vacant lands designated for Residential ^[3]	379	9	85	473
<i>% Breakdown</i>	<i>80%</i>	<i>2%</i>	<i>18%</i>	<i>100%</i>
Total	752	99	85	936
<i>% Breakdown</i>	<i>80%</i>	<i>11%</i>	<i>9%</i>	<i>100%</i>

^[1] Includes townhomes and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

^[3] Include potential housing units on vacant designated residential lands based on North Middlesex Council presentation on May 10, 2021.

Source: Data provided by the Municipality of North Middlesex as of June 2021.



Schedule 6c
Municipality of North Middlesex
Nairn
Summary of Active Development Applications as of 2021

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total
Registered Not Built	0	0	0	0
<i>% Breakdown</i>				
Draft Plan Approved	6	0	0	6
<i>% Breakdown</i>	100%	0%	0%	100%
Application Under Review	0	0	0	0
<i>% Breakdown</i>				
Vacant lands designated for Residential ^[3]	256	6	58	320
<i>% Breakdown</i>	80%	2%	18%	100%
Total	262	6	58	326
<i>% Breakdown</i>	80%	2%	18%	100%

^[1] Includes townhomes and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

^[3] Include potential housing units on vacant designated residential lands based on North Middlesex Council presentation on May 10, 2021.

Source: Data provided by the Municipality of North Middlesex as of June 2021.



Schedule 6d
Municipality of North Middlesex
Remaining Rural Areas
Summary of Active Development Applications as of 2021

Stage of Development	Density Type			
	Singles & Semi-Detached	Multiples ^[1]	Apartments ^[2]	Total
Registered Not Built	0	0	0	0
<i>% Breakdown</i>				
Draft Plan Approved	8	0	0	8
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Application Under Review	0	0	0	0
<i>% Breakdown</i>				
Vacant lands designated for Residential ^[3]	0	0	0	0
<i>% Breakdown</i>				
Total	8	0	0	8
<i>% Breakdown</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>

^[1] Includes townhomes and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

^[3] Include potential housing units on vacant designated residential lands based on North Middlesex Council presentation on May 10, 2021.

Source: Data provided by the Municipality of North Middlesex as of June 2021.



Schedule 7
Municipality of North Middlesex
Historical Residential Building Permits
Years 2011 to 2020

Year	Residential Building Permits			
	Singles & Semi Detached	Multiples ^[1]	Apartments ^[2]	Total
2011	10	0	0	10
2012	8	0	0	8
2013	6	1	1	8
2014	3	0	1	4
2015	7	0	0	7
Sub-total	34	1	2	37
Average (2011 - 2015)	7	0	0	7
% Breakdown	91.9%	2.7%	5.4%	100.0%
2016	8	0	1	9
2017	9	0	0	9
2018	3	0	0	3
2019	6	0	1	7
2020	3	1	0	4
Sub-total	29	1	2	32
Average (2016 - 2020)	6	0	0	6
% Breakdown	90.6%	3.1%	6.3%	100.0%
2011 - 2016				
Total	63	2	4	69
Average	6	0	0	7
% Breakdown	91.3%	2.9%	5.8%	100.0%

^[1] Includes townhouses and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

Source: Building permits provided by the Municipality of North Middlesex.



Schedule 8a
Municipality of North Middlesex
Person Per Unit by Age and Type of Dwelling
(2016 Census)

Age of Dwelling	Singles and Semi-Detached						25 Year Average	25 Year Average Adjusted ^[1]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	-	-	-	-	3.500		
6-10	-	-	-	3.000	-	3.286		
11-15	-	-	-	3.182	-	3.308		
16-20	-	-	-	2.333	-	2.938		
20-25	-	-	-	2.423	-	2.714	3.149	2.980
25-35	-	-	-	2.821	-	2.647		
35+	-	-	1.657	2.658	3.412	2.605		
Total	-	-	1.617	2.696	3.571	2.696		

Age of Dwelling	All Density Types					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	-	-	-	3.091	-	2.929
6-10	-	-	-	-	-	3.357
11-15	-	-	-	3.091	-	3.308
16-20	-	-	-	2.625	-	2.684
20-25	-	-	-	2.520	-	2.613
25-35	-	-	-	2.821	-	2.500
35+	-	-	1.548	2.637	3.485	2.571
Total	-	1.059	1.603	2.693	3.583	2.624

^[1] Adjusted based on 2001-2016 historical trends.

Note: Does not include Statistics Canada data classified as 'Other'

P.P.U. not calculated for samples less than or equal to 50 dwelling units, and does not include institutional population.



Schedule 8b
Middlesex County
Person Per Unit by Age and Type of Dwelling
(2016 Census)

Age of Dwelling	Singles and Semi-Detached						25 Year Average	25 Year Average Adjusted ^[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	-	1.918	3.083	4.343	3.094		
6-10	-	-	1.960	3.208	4.458	3.256		
11-15	-	-	1.794	3.150	4.295	3.125		
16-20	-	-	1.867	2.999	3.857	2.969		
20-25	-	-	1.963	2.866	3.623	2.884	3.066	3.049
25-35	-	-	1.873	2.806	3.469	2.830		
35+	-	1.437	1.792	2.574	3.360	2.484		
Total	1.900	1.457	1.813	2.759	3.669	2.703		

Age of Dwelling	Multiples ^[1]						25 Year Average	25 Year Average Adjusted ^[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	-	1.810	2.481	-	2.308		
6-10	-	-	1.725	2.324	-	2.124		
11-15	-	1.333	1.688	2.401	-	2.081		
16-20	-	-	1.690	2.575	-	2.296		
20-25	-	-	1.813	2.725	3.364	2.491	2.260	2.126
25-35	-	1.571	1.982	2.778	-	2.601		
35+	-	1.313	1.846	2.717	2.952	2.370		
Total	-	1.328	1.827	2.666	3.269	2.383		

Age of Dwelling	Apartments ^[2]						25 Year Average	25 Year Average Adjusted ^[3]
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	-	1.329	1.940	2.914	-	1.721		
6-10	-	1.299	1.944	2.609	-	1.686		
11-15	-	1.331	1.977	2.118	-	1.733		
16-20	-	1.227	2.118	3.000	-	1.837		
20-25	-	1.193	1.875	3.125	-	1.687	1.733	1.718
25-35	0.778	1.221	1.877	2.678	-	1.635		
35+	1.077	1.175	1.898	2.641	2.240	1.582		
Total	1.060	1.206	1.914	2.685	2.074	1.630		

Age of Dwelling	All Density Types					
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total
1-5	-	1.350	1.928	2.980	4.373	2.602
6-10	-	1.301	1.908	3.081	4.393	2.716
11-15	-	1.331	1.857	3.048	4.227	2.722
16-20	-	1.245	1.963	2.911	3.821	2.567
20-25	-	1.215	1.863	2.828	3.579	2.433
25-35	1.000	1.229	1.895	2.794	3.498	2.402
35+	1.115	1.201	1.851	2.594	3.296	2.217
Total	1.152	1.225	1.871	2.742	3.620	2.360

^[1] Includes townhouses and apartments in duplexes.

^[2] Includes bachelor, 1 bedroom and 2 bedroom+ apartments.

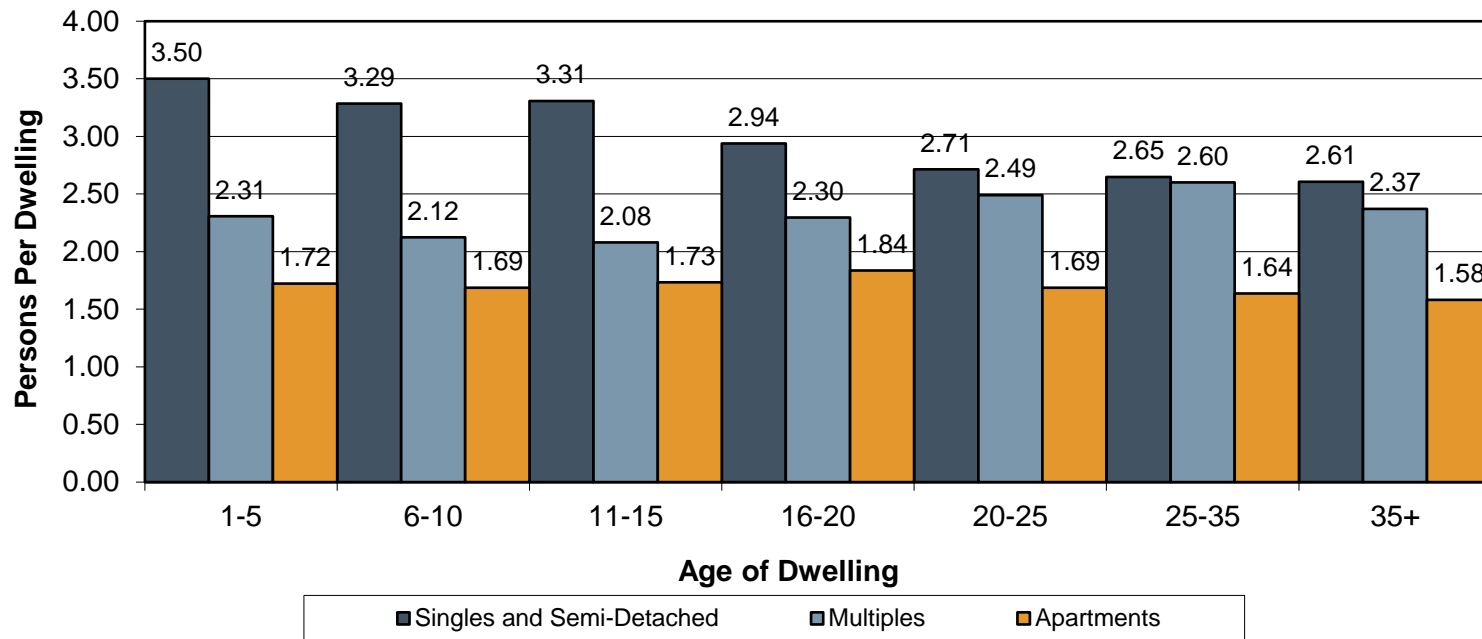
^[3] Adjusted based on 2001-2016 historical trends.

Note: Does not include Statistics Canada data classified as 'Other'

P.P.U. Not calculated for samples less than or equal to 50 dwelling units, and does not include institutional population.



Schedule 9
Municipality of North Middlesex
Person Per Unit Structural Type and Age of Dwelling
(2016 Census)



Multiple and Apartment P.P.U.s are based on Middlesex County.



Schedule 10a
Municipality of North Middlesex
Employment Forecast, 2022 to 2041

Period	Population	Activity Rate								Employment								Employment Total (Excluding Work at Home and N.F.P.O.W.)
		Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W. ^[1]	Total Including N.F.P.O.W.	Primary	Work at Home	Industrial	Commercial/ Population Related	Institutional	Total	N.F.P.O.W. ^[1]	Total Employment (Including N.F.P.O.W.)	
Mid 2006	6,740	0.019	0.114	0.032	0.061	0.063	0.289	0.009	0.298	130	770	215	410	425	1,950	61	2,011	1,180
Mid 2011	6,658	0.020	0.085	0.021	0.057	0.070	0.252	0.005	0.258	135	565	138	378	465	1,680	36	1,716	1,115
Mid 2016	6,352	0.041	0.091	0.036	0.056	0.076	0.300	0.008	0.308	260	575	228	358	485	1,905	52	1,957	1,330
Early 2022	6,384	0.045	0.091	0.039	0.056	0.076	0.306	0.008	0.314	287	607	246	358	486	1,984	52	2,036	1,377
Early 2032	6,867	0.045	0.094	0.040	0.056	0.075	0.311	0.010	0.321	309	647	277	385	515	2,133	69	2,202	1,486
Mid 2041	7,512	0.046	0.094	0.041	0.056	0.075	0.312	0.013	0.325	347	707	310	417	563	2,344	99	2,443	1,637
Incremental Change																		
Mid 2006 - Mid 2011	-82	0.001	-0.029	-0.011	-0.004	0.007	-0.037	-0.004	-0.041	5	-205	-78	-33	40	-270	-25	-295	-65
Mid 2011 - Mid 2016	-306	0.021	0.006	0.015	0.000	0.007	0.048	0.003	0.050	125	10	90	-20	20	225	16	241	215
Mid 2016 - Early 2022	32	0.004	0.000	0.003	0.000	0.000	0.006	0.000	0.006	27	32	19	0	1	79	0	79	47
Early 2022 - Early 2032	483	0.000	0.004	0.002	0.000	-0.001	0.004	0.002	0.006	22	40	31	28	29	150	17	167	110
Early 2022 - Mid 2041	1,128	0.001	0.004	0.003	0.000	-0.001	0.006	0.005	0.011	60	100	64	60	77	361	47	408	261
Annual Average																		
Mid 2006 - Mid 2011	-16	0.000	-0.006	-0.002	-0.001	0.001	-0.007	-0.001	-0.008	1	-41	-16	-7	8	-54	-5	-59	-13
Mid 2011 - Mid 2016	-61	0.004	0.001	0.003	0.000	0.001	0.010	0.001	0.010	25	2	18	-4	4	45	3	48	43
Mid 2016 - Early 2022	6	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001	5	6	3	0	0	14	0	14	8
Early 2022 - Early 2032	48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	2	4	3	3	3	15	2	17	11
Early 2022 - Mid 2041	59	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	3	5	3	3	4	19	2	21	14

^[1] Statistics Canada defines no fixed place of work (N.F.P.O.W.) employees as "persons who do not go from home to the same work place location at the beginning of each shift". Such persons include building and landscape contractors, travelling salespersons, independent truck drivers, etc.
Source: Derived from Population and Housing Projections for Middlesex County forecast for the Municipality of North Middlesex and discussions with municipal staff regarding servicing and land supply by Watson & Associates Economists Ltd., 2022.



Schedule 10b
Municipality of North Middlesex
Employment and Gross Floor Area (G.F.A.) Forecast, 2022 to 2041

Period	Population	Employment					Gross Floor Area in Square Feet (Estimated) ^[1]				
		Primary ^[2]	Industrial	Commercial/ Population Related	Institutional ^[3]	Total	Primary	Industrial	Commercial/ Population Related	Institutional	Total
Mid 2006	6,740	130	215	410	425	1,180					
Mid 2011	6,658	135	138	378	465	1,115					
Mid 2016	6,352	260	228	358	485	1,330					
Early 2022	6,384	287	246	358	485	1,376					
Early 2032	6,867	309	277	385	502	1,473					
Mid 2041	7,512	347	310	417	531	1,605					
Incremental Change											
Mid 2006 - Mid 2011	-82	5	-78	-33	40	-65					
Mid 2011 - Mid 2016	-306	125	90	-20	20	215					
Mid 2016 - Early 2022	32	27	19	1	0	46					
Early 2022 - Early 2032	483	22	31	27	17	97	66,000	57,500	14,900	11,200	149,600
Early 2022 - Mid 2041	1,128	60	64	59	46	229	180,000	114,000	32,500	30,800	357,300
Annual Average											
Mid 2006 - Mid 2011	-16	1	-16	-7	8	-13					
Mid 2011 - Mid 2016	-61	25	18	-4	4	43					
Mid 2016 - Early 2022	6	5	4	0	0	9					
Early 2022 - Early 2032	48	2	3	3	2	10	6,600	5,750	1,490	1,120	14,960
Early 2022 - Mid 2041	58	3	3	3	2	12	9,231	5,846	1,667	1,579	18,323

^[1] Square Foot Per Employee Assumptions
 Primary 3,000
 Urban Industrial 1,500
 Rural Industrial 2,500
 Commercial/ Population Related 550
 Institutional 670

^[2] Primary industry includes bona-fide and non bona-fide farming which can include cannabis growing operation related employment.

^[3] Forecast institutional employment and gross floor area has been adjusted downward to account for employment associated with special care units.

Note: Numbers may not add to totals due to rounding.

Source: Watson & Associates Economists Ltd. ,2022.



Schedule 10c
Municipality of North Middlesex
Estimate of the Anticipated Amount, Type and Location of
Non-Residential Development for Which Development Charges can be Imposed

Development Location	Timing	Primary G.F.A. S.F. ^[1]	Industrial G.F.A. S.F. ^[1]	Commercial G.F.A. S.F. ^[1]	Institutional G.F.A. S.F. ^[1]	Total Non-Residential G.F.A. S.F.	Employment Increase ^[2]
Ailsa Craig	2022 - 2032	-	4,500	4,400	3,300	12,200	16
	2022 - 2041	-	15,000	11,500	11,400	37,900	48
Parkhill	2022 - 2032	-	24,000	8,200	5,900	38,100	40
	2022 - 2041	-	49,500	17,600	16,000	83,100	89
Nairn	2022 - 2032	-	1,500	600	700	2,800	3
	2022 - 2041	-	4,500	600	700	5,800	5
Rural	2022 - 2032	66,000	27,500	1,700	1,300	96,500	38
	2022 - 2041	180,000	45,000	2,800	2,700	230,500	87
Municipality of North Middlesex	2022 - 2032	66,000	57,500	14,900	11,200	149,600	97
	2022 - 2041	180,000	114,000	32,500	30,800	357,300	229

^[1] Square feet per employee assumptions:

Primary	3,000
Urban Industrial	1,500
Rural Industrial	2,500
Commercial	550
Institutional	670

^[2] Employment Increase does not include No Fixed Place of Work.

Note: Figures may not add precisely due to rounding.
Source: Watson & Associates Economists Ltd., 2022.



Schedule 11
Municipality of North Middlesex
Non-Residential Construction Value
Years 2007 to 2016
(000's 2018 \$)

YEAR	Industrial				Commercial				Institutional				Total			
	New	Improve	Additions	Total	New	Improve	Additions	Total	New	Improve	Additions	Total	New	Improve	Additions	Total
2007	5,651	432	755	6,839	144	49	0	193	0	49	0	49	5,796	530	755	7,081
2008	2,294	125	396	2,815	0	104	0	104	0	269	0	269	2,294	498	396	3,187
2009	2,281	495	757	3,534	932	148	0	1,080	0	423	0	423	3,214	1,066	757	5,036
2010	4,315	284	346	4,945	365	200	0	564	0	443	0	443	4,680	927	346	5,952
2012	1,183	0	0	1,183	177	68	0	244	0	16	0	16	1,360	84	0	1,444
2013	5,369	514	0	5,884	1,222	33	0	1,255	4,094	161	0	4,255	10,686	708	0	11,394
2014	1,171	402	277	1,850	83	401	0	484	43	2	0	45	1,297	806	277	2,380
2015	2,723	79	255	3,057	153	1,753	0	1,906	215	65	0	280	3,091	1,897	255	5,243
2016	8,018	1,442	0	9,460	2,115	639	0	2,754	0	0	0	0	10,133	2,081	0	12,215
Subtotal	35,329	4,116	3,072	42,518	7,150	3,518	0	10,667	9,825	1,436	0	11,262	52,305	9,071	3,072	64,448
Percent of Total	83%	10%	7%	100%	67%	33%	0%	100%	87%	13%	0%	100%	81%	14%	5%	100%
Average	3,533	457	439	4,252	794	352		1,067	2,456	160		1,251	5,230	907	439	6,445
2007 - 2011 Period Total				21,083				4,024				6,665				31,772
2007 - 2011 Average				4,217				805				1,333				6,354
% Breakdown				66.4%				12.7%				21.0%				100.0%
2012 - 2016 Period Total				21,435				6,644				4,597				32,676
2012 - 2016 Average				4,287				1,329				919				6,535
% Breakdown				65.6%				20.3%				14.1%				100.0%
2007 - 2016 Period Total				42,518				10,667				11,262				64,448
2007 - 2016 Average				4,252				1,067				1,126				6,445
% Breakdown				66.0%				16.6%				17.5%				100.0%

Note: Inflated to year-end 2017 (January, 2018) dollars using Reed Construction Cost Index.

Source: Statistics Canada Publication, 64-001-XIB



Schedule 12
Municipality of North Middlesex
Employment to Population Ratio by Major Employment Sector, 2006 to 2016

NAICS		Year			Change		Comments
		2006	2011	2016	06-11	11-16	
Employment by industry							
Primary Industry Employment							
11	<i>Agriculture, forestry, fishing and hunting</i>	625	475	565	-150	90	Categories which relate to local land-based resources
21	<i>Mining and oil and gas extraction</i>	10	0	0	-10	0	
Sub-total		635	475	565	-160	90	
Industrial and Other Employment							
22	<i>Utilities</i>	0	0	15	0	15	Categories which relate primarily to industrial land supply and demand
23	<i>Construction</i>	155	40	110	-115	70	
31-33	<i>Manufacturing</i>	35	40	60	5	20	
41	<i>Wholesale trade</i>	50	25	65	-25	40	
48-49	<i>Transportation and warehousing</i>	75	15	55	-60	40	
56	<i>Administrative and support</i>	20	38	28	18	-10	
Sub-total		335	158	333	-178	175	
Population Related Employment							
44-45	<i>Retail trade</i>	155	120	145	-35	25	Categories which relate primarily to population growth within the municipality
51	<i>Information and cultural industries</i>	15	0	25	-15	25	
52	<i>Finance and insurance</i>	55	50	45	-5	-5	
53	<i>Real estate and rental and leasing</i>	0	0	15	0	15	
54	<i>Professional, scientific and technical services</i>	40	30	70	-10	40	
55	<i>Management of companies and enterprises</i>	0	0	0	0	0	
56	<i>Administrative and support</i>	20	38	28	18	-10	
71	<i>Arts, entertainment and recreation</i>	10	35	0	25	-35	
72	<i>Accommodation and food services</i>	120	90	90	-30	0	
81	<i>Other services (except public administration)</i>	120	190	90	70	-100	
Sub-total		535	553	508	18	-45	
Institutional							
61	<i>Educational services</i>	115	100	115	-15	15	
62	<i>Health care and social assistance</i>	300	335	325	35	-10	
91	<i>Public administration</i>	30	60	60	30	0	
Sub-total		445	495	500	50	5	
Total Employment		1,950	1,680	1,905	-270	225	
Population		6,740	6,658	6,352	-82	-306	
Employment to Population Ratio							
Industrial and Other Employment		0.05	0.02	0.05	-0.03	0.03	
Population Related Employment		0.08	0.08	0.08	0.00	0.00	
Institutional Employment		0.07	0.07	0.08	0.01	0.00	
Primary Industry Employment		0.09	0.07	0.09	-0.02	0.02	
Total		0.29	0.25	0.30	-0.04	0.05	

Note: 2006-2016 employment figures are classified by North American Industry Classification System (NAICS) Code.
Source: Statistics Canada Employment by Place of Work.



Appendix B

Level of Service



Appendix B: Level of Service

SUMMARY OF SERVICE STANDARDS AS PER DEVELOPMENT CHARGES ACT, 1997, AS AMENDED							
Service Category	Sub-Component	10 Year Average Service Standard					Maximum Ceiling LOS
		Cost (per capita)	Quantity (per capita)		Quality (per capita)		
Service Related to a Highway	Services Related to a Highway - Roads	\$83,499.70	0.0727	km of roadways	1,148,552	per km	94,187,662
	Services Related to a Highway - Bridges, Culverts & Structures	\$31,837.80	0.0128	Number of Bridges, Culverts & Structures	2,487,328	per item	35,913,038
	Services Related to a Highway - Sidewalks and Active Transportation	\$496.80	0.0038	km of sidewalks and active transportation	130,737	per km	560,390
	Services Related to a Highway - Streetlights	\$166.70	0.1090	No. of Streetlights	1,529	per signal	188,038
	Services Related to a Highway - Facilities	\$1,222.20	4.3892	sq.ft. of building area	278	per sq.ft.	1,378,642
	Services Related to a Highway - Vehicles & Equipment	\$672.37	0.0039	No. of vehicles and equipment	172,403	per vehicle	758,433
Fire Protection	Fire Protection Services - Facilities	\$345.11	0.9560	sq.ft. of building area	361	per sq.ft.	389,284
	Fire Protection Services - Vehicles & Equipment	\$499.57	0.0010	No. of vehicles	499,570	per vehicle	563,515
	Fire Protection Services - Small Equipment and Gear	\$96.84	0.0121	No. of equipment and gear	8,003	per item	109,236
Parks & Recreation	Parkland Development	\$412.51	0.0132	Acres of Parkland	31,251	per acre	199,242
	Parkland Amenities	\$853.33	0.0067	No. of parkland amenities	127,363	per amenity	412,158
	Parkland Trails	\$8.69	0.4545	Linear Metres of Paths and Trails	19	per linear m	4,197
	Recreation Facilities	\$4,591.12	12.1560	sq.ft. of building area	378	per sq.ft.	2,217,511
	Parks & Recreation Vehicles and Equipment	\$46.18	0.0018	No. of vehicles and equipment	25,656	per vehicle	22,305
Library	Library Services - Facilities	\$382.50	1.2541	sq.ft. of building area	305	per sq.ft.	184,748



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Services Related to a Highway - Roads
Unit Measure: km of roadways

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/km)
Urban Paved	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	\$2,340,000
Semi-urban Paved	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	\$2,130,000
Gravel	369.0	369.0	369.0	369.0	369.0	369.0	369.0	369.0	369.0	369.0	\$877,000
Total	467.0	467.0	467.0	467.0	467.0	467.0	467.0	467.0	467.0	467.0	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0707	0.0713	0.0720	0.0728	0.0735	0.0734	0.0732	0.0733	0.0733	0.0733

10 Year Average	2012-2021
Quantity Standard	0.0727
Quality Standard	\$1,148,552
Service Standard	\$83,500

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$83,500
Eligible Amount	\$94,187,662



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Services Related to a Highway - Bridges, Culverts & Structures
Unit Measure: Number of Bridges, Culverts & Structures

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/item)
Bridges	39	39	39	39	39	39	38	38	38	38	\$4,950,000
Culverts	43	43	43	43	43	43	44	44	44	44	\$311,000
Total	82	82	82	82	82	82	82	82	82	82	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0124	0.0125	0.0126	0.0128	0.0129	0.0129	0.0129	0.0129	0.0129	0.0129

10 Year Average	2012-2021
Quantity Standard	0.0128
Quality Standard	\$2,487,328
Service Standard	\$31,838

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$31,838
Eligible Amount	\$35,913,038



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Services Related to a Highway - Sidewalks and Active Transportation
Unit Measure: km of sidewalks and active transportation

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/km)
Sidewalks	24	24	24	24	24	24	24	24	24	24	\$133,000
Total	24	24	24	24	24	24	24	24	24	24	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0036	0.0037	0.0037	0.0037	0.0038	0.0038	0.0038	0.0038	0.0038	0.0038

10 Year Average	2012-2021
Quantity Standard	0.0038
Quality Standard	\$130,737
Service Standard	\$497

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$497
Eligible Amount	\$560,390



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Services Related to a Highway - Streetlights
Unit Measure: No. of Streetlights

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/item)
Ailsa Craig	200	200	200	200	200	200	200	200	200	200	\$1,530
Parkhill	380	380	380	380	380	380	380	380	380	380	\$1,530
Nairn	120	120	120	120	120	120	120	120	120	120	\$1,530
Total	700	700	700	700	700	700	700	700	700	700	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.1060	0.1069	0.1079	0.1092	0.1102	0.1100	0.1098	0.1099	0.1098	0.1099

10 Year Average	2012-2021
Quantity Standard	0.1090
Quality Standard	\$1,529
Service Standard	\$167

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$167
Eligible Amount	\$188,038



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Class of Service: Services Related to a Highway - Facilities
Unit Measure: sq.ft. of building area

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Lieury Shop	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	\$271	\$306
Lieury Salt Dome	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	8,200	\$217	\$224
Parkhill Shop	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	4,200	\$255	\$288
McGillivray Shop	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	\$271	\$306
Ailsa Craig Shop	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	\$255	\$288
Total	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200		

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	4.2688	4.3067	4.3472	4.3973	4.4388	4.4319	4.4228	4.4270	4.4249	4.4270

10 Year Average	2012-2021
Quantity Standard	4.3892
Quality Standard	\$278
Service Standard	\$1,222

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$1,222
Eligible Amount	\$1,378,642



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Class of Service: Services Related to a Highway - Vehicles & Equipment
Unit Measure: No. of vehicles and equipment

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/Vehicle)
Plow and Sanding Truck	6	6	6	6	6	6	6	6	6	6	\$275,000
F250 Pick up	3	3	3	3	3	3	3	3	3	3	\$41,000
Rubber Tire Back Hoe	1	1	1	1	1	1	1	1	1	1	\$179,000
Cat/Heavy Duty Loader	1	1	1	1	1	1	1	1	1	1	\$255,000
Trackless	2	2	2	2	2	2	2	2	2	2	\$92,000
John Deere 6200 Tractor	1	1	1	1	1	1	1	1	1	1	\$128,000
Ford Boom Truck	1	1	1	1	1	1	1	1	1	1	\$77,000
Roadside Mower	1	1	1	1	1	1	1	1	1	1	\$20,000
EZ Load Tag Trailer	1	1	1	1	1	1	1	1	1	1	\$33,000
John Deere 6130M Tractor	1	1	1	1	1	1	1	1	1	1	\$204,000
Grader	3	3	3	3	3	3	3	3	3	3	\$383,000
Vermeer Chipper	-	-	-	-	-	-	-	1	1	1	\$82,000
Kubota Cab Tractor	1	1	1	1	1	1	1	1	1	1	\$41,000
Doosan Excavator	1	1	1	1	1	1	1	1	1	1	\$184,000
21' Diamond Boom Mower	1	1	1	1	1	1	1	1	1	1	\$66,000
Rotary Tiller	1	1	1	1	1	1	1	1	1	1	\$2,040
Total	25	25	25	25	25	25	25	26	26	26	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0038	0.0038	0.0039	0.0039	0.0039	0.0039	0.0039	0.0041	0.0041	0.0041

10 Year Average	2012-2021
Quantity Standard	0.0039
Quality Standard	\$172,403
Service Standard	\$672

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$672
Eligible Amount	\$758,433



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Fire Protection Services - Facilities
Unit Measure: sq.ft. of building area

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Parkhill Fire Hall	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	3,700	\$306	\$361
Ailsa Craig Fire Hall	2,200	2,200	2,200	2,200	2,200	2,200	2,800	2,800	2,800	2,800	\$306	\$361
Total	5,900	5,900	5,900	5,900	5,900	5,900	6,500	6,500	6,500	6,500		

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.8931	0.9010	0.9095	0.9200	0.9287	0.9272	1.0194	1.0204	1.0199	1.0204

10 Year Average	2012-2021
Quantity Standard	0.9560
Quality Standard	\$361
Service Standard	\$345

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$345
Eligible Amount	\$389,284



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Fire Protection Services - Vehicles & Equipment
Unit Measure: No. of vehicles

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/Vehicle)
Tanker	2	2	2	2	2	2	2	1	1	1	\$490,000
Pumper/Tanker	-	-	-	-	-	-	-	1	1	1	\$620,000
Engine	2	2	2	2	2	2	2	2	2	2	\$620,000
Rescue	2	2	2	2	2	2	2	2	2	2	\$460,000
Pick-Up Truck	-	-	-	-	1	1	1	1	1	1	\$50,000
Total	6	6	6	6	7	7	7	7	7	7	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0009	0.0009	0.0009	0.0009	0.0011	0.0011	0.0011	0.0011	0.0011	0.0011

10 Year Average	2012-2021
Quantity Standard	0.0010
Quality Standard	\$499,570
Service Standard	\$500

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$500
Eligible Amount	\$563,515



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Fire Protection Services - Small Equipment and Gear
Unit Measure: No. of equipment and gear

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/item)
SCBA	24	24	24	24	24	24	24	24	24	24	\$9,200
Bunker Gear	50	50	50	50	50	50	50	50	50	50	\$5,800
Thermal Imaging Camera	1	1	1	1	2	2	2	2	2	2	\$12,200
Rescue Tools (Cutter, Spreader, Ram)	2	2	2	2	2	2	2	2	2	2	\$45,900
Total	77	77	77	77	78	78	78	78	78	78	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0117	0.0118	0.0119	0.0120	0.0123	0.0123	0.0122	0.0122	0.0122	0.0122

10 Year Average	2012-2021
Quantity Standard	0.0121
Quality Standard	\$8,003
Service Standard	\$97

D.C. Amount (before deductions)	20 Year
Forecast Population	1,128
\$ per Capita	\$97
Eligible Amount	\$109,236



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Parkland Development
Unit Measure: Acres of Parkland

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/Acre)
Passive Park	33	33	33	33	33	33	33	33	33	33	\$3,100
Active Park	52	52	52	52	52	52	52	52	52	52	\$49,000
Total	85	85	85	85	85	85	85	85	85	85	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0129	0.0130	0.0131	0.0133	0.0134	0.0134	0.0133	0.0133	0.0133	0.0133

10 Year Average	2012-2021
Quantity Standard	0.0132
Quality Standard	\$31,251
Service Standard	\$413

D.C. Amount (before deductions)	10 Year
Forecast Population	483
\$ per Capita	\$413
Eligible Amount	\$199,242



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Parkland Amenities
Unit Measure: No. of parkland amenities

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/item)
Playgrounds	6	6	6	6	6	6	6	6	6	6	\$77,000
Baseball Diamonds (Lit)	5	5	5	5	5	5	5	5	5	5	\$357,000
Soccer Fields - Full Size - Unlit	4	4	4	4	4	4	4	4	4	4	\$112,000
Soccer Fields - Youth Size - Unlit	2	2	2	2	2	2	2	2	2	2	\$51,000
Skate Parks	1	1	2	2	2	2	2	2	2	2	\$204,000
Tennis Court	2	2	2	2	2	2	2	2	2	2	\$66,000
Beach Volleyball Court	-	-	-	-	-	-	-	-	1	1	\$2,000
Splash Pads	1	1	1	2	2	2	2	2	2	2	\$255,000
Stand Alone Pavilion	4	4	4	3	3	3	3	3	3	3	\$153,000
Stand Alone Outdoor Washrooms	3	3	3	2	2	2	2	2	2	2	\$122,000
Ball Hockey/Basketball Court	1	1	1	1	1	1	1	1	1	1	\$66,000
Pavilion with Washrooms	3	3	3	4	4	4	4	4	4	4	\$224,000
Bleachers	10	10	10	10	10	10	10	10	10	10	\$7,000
Total	42	42	43	43	43	43	43	43	44	44	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0064	0.0064	0.0066	0.0067	0.0068	0.0068	0.0067	0.0068	0.0069	0.0069

10 Year Average	2012-2021
Quantity Standard	0.0067
Quality Standard	\$127,363
Service Standard	\$853

D.C. Amount (before deductions)	10 Year
Forecast Population	483
\$ per Capita	\$853
Eligible Amount	\$412,158



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Parkland Trails
Unit Measure: Linear Metres of Paths and Trails

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/ Linear Metre)
Lions Park Trails	920	920	920	920	920	920	920	920	920	920	\$19
Parkhill Rail Trail	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	\$19
Total	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	2,920	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.4420	0.4459	0.4501	0.4553	0.4596	0.4589	0.4580	0.4584	0.4582	0.4584

10 Year Average	2012-2021
Quantity Standard	0.4545
Quality Standard	\$19
Service Standard	\$9

D.C. Amount (before deductions)	10 Year
Forecast Population	483
\$ per Capita	\$9
Eligible Amount	\$4,197



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Recreation Facilities
Unit Measure: sq.ft. of building area

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
North Middlesex Fitness Centre	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	\$275	\$311
North Middlesex Arena	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	\$398	\$446
Ailsa Craig Recreation Centre	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	11,500	\$281	\$316
North Middlesex Community Centre	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	\$281	\$316
Parkhill Leisure Club	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	\$230	\$260
West Williams Community Centre	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	\$224	\$255
Total	78,100	78,100	78,100	78,100	78,100	78,100	78,100	78,100	78,100	78,100		

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	11.8226	11.9273	12.0395	12.1784	12.2934	12.2741	12.2491	12.2606	12.2548	12.2606

10 Year Average	2012-2021
Quantity Standard	12.1560
Quality Standard	\$378
Service Standard	\$4,591

D.C. Amount (before deductions)	10 Year
Forecast Population	483
\$ per Capita	\$4,591
Eligible Amount	\$2,217,511



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Parks & Recreation Vehicles and Equipment
Unit Measure: No. of vehicles and equipment

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Value (\$/Vehicle)
Olympia	1	1	1	1	1	1	1	1	1	1	\$102,000
Pickup Trucks	2	2	2	3	3	3	3	3	4	4	\$40,800
Floor Scrubber (Self-Propelled)	-	-	-	1	2	3	3	3	3	3	\$8,700
Genie Boom	1	1	1	1	1	1	1	1	1	1	\$10,200
72" Gas Zero Turn	2	2	2	2	2	2	2	2	2	2	\$13,800
54" Gas Zero Turn	2	2	2	2	2	2	2	2	2	2	\$8,200
Olympia Ice Edger	1	1	1	1	1	1	1	1	1	1	\$6,100
Total	9	9	9	11	12	13	13	13	14	14	

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.0014	0.0014	0.0014	0.0017	0.0019	0.0020	0.0020	0.0020	0.0022	0.0022

10 Year Average	2012-2021
Quantity Standard	0.0018
Quality Standard	\$25,656
Service Standard	\$46

D.C. Amount (before deductions)	10 Year
Forecast Population	483
\$ per Capita	\$46
Eligible Amount	\$22,305



**Municipality of North Middlesex
Service Standard Calculation Sheet**

Service: Library Services - Facilities
Unit Measure: sq.ft. of building area

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 Bld'g Value (\$/sq.ft.)	Value/sq.ft. with land, site works, etc.
Middlesex County Library (Parkhill)	2,100	2,100	2,100	7,000	7,000	7,000	7,000	7,000	7,000	7,000	\$284	\$305
Middlesex County Library (Ailsa Craig)	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	\$284	\$305
Total	4,600	4,600	4,600	9,500	9,500	9,500	9,500	9,500	9,500	9,500		

Population	6,606	6,548	6,487	6,413	6,353	6,363	6,376	6,370	6,373	6,370
Per Capita Standard	0.6963	0.7025	0.7091	1.4814	1.4954	1.4930	1.4900	1.4914	1.4907	1.4914

10 Year Average	2012-2021
Quantity Standard	1.2541
Quality Standard	\$305
Service Standard	\$383

D.C. Amount (before deductions)	10 Year
Forecast Population	483
\$ per Capita	\$383
Eligible Amount	\$184,748



Appendix C

Long-Term Capital and Operating Cost Examination



Appendix C: Long-Term Capital and Operating Cost Examination

Municipality of North Middlesex Annual Capital and Operating Cost Impact

As a requirement of the *Development Charges Act, 1997*, as amended, under subsection 10 (2) (c), an analysis must be undertaken to assess the long-term capital and operating cost impacts for the capital infrastructure projects identified within the development charge. As part of this analysis, it was deemed necessary to isolate the incremental operating expenditures directly associated with these capital projects, factor in cost savings attributable to economies of scale or cost sharing where applicable and prorate the cost on a per unit basis (i.e. sq.ft. of building space, per vehicle, etc.). This was undertaken through a review of the Municipality's approved 2020 Financial Information Return (F.I.R.).

In addition to the operational impacts, over time the initial capital projects will require replacement. This replacement of capital is often referred to as lifecycle cost. By definition, lifecycle costs are all the costs which are incurred during the life of a physical asset, from the time its acquisition is first considered, to the time it is taken out of service for disposal or redeployment. The method selected for lifecycle costing is the sinking fund method which provides that money will be contributed annually and invested, so that those funds will grow over time to equal the amount required for future replacement. The following factors were utilized to calculate the annual replacement cost of the capital projects (annual contribution = factor X capital asset cost) and are based on an annual growth rate of 2% (net of inflation) over the average useful life of the asset.

Table C-1 depicts the annual operating impact resulting from the proposed gross capital projects at the time they are all in place. It is important to note that, while Municipal program expenditures will increase with growth in population, the costs associated with the new infrastructure (i.e. facilities) would be delayed until the time these works are in place.



Table C-1
Municipality of North Middlesex
Lifecycle Cost Factors and Average Useful Lives

Asset	Lifecycle Cost Factors	
	Average Useful Life	Factor
Water and Wastewater Infrastructure	80	0.0052
Facilities	50	0.0118
Services Related to a Highway - Roads	50	0.0118
Parkland Development and Amenities	40	0.0166
Vehicles	15	0.0578
Fire Vehicles	20	0.0412
Fire Small Equipment & Gear	10	0.0913

Table C-2 depicts the annual operating impact resulting from the proposed gross capital projects at the time they are all in place. It is important to note that, while Municipal program expenditures will increase with growth in population, the costs associated with the new infrastructure (i.e. facilities) would be delayed until the time these works are in place.



Table C-2
Municipality of North Middlesex
Operating and Capital Expenditure Impacts for Future Capital Expenditures

SERVICE/CLASS OF SERVICE	GROSS COST LESS BENEFIT TO EXISTING	ANNUAL LIFECYCLE EXPENDITURES	ANNUAL OPERATING EXPENDITURES	TOTAL ANNUAL EXPENDITURES
Parkhill				
1. Wastewater Services				
1.1 Wastewater	13,046,550	415,883	32,666	448,549
2. Water Services				
2.1 Water	1,795,000	61,432	44,005	105,437
Ailsa Craig & Nairn				
3. Wastewater Services				
3.1 Ailsa Craig & Nairn Sewers	14,279,801	441,039	35,754	476,793
4. Water Services				
4.1 Ailsa Craig & Nairn Distribution	4,717,190	127,079	115,642	242,721
5. Services Related to a Highway				
5.1 Roads and Related	922,805	32,474	370,783	403,257
5.2 Facilities, Vehicles, and Equipment	275,000	21,402	284,769	306,171
6. Fire Protection Services				
6.1 Fire facilities, vehicles, and equipment	4,301,300	126,193	97,529	223,722
7. Parks and Recreation Services				
7.1 Park development, amenities, trails, recreation facilities, and vehicles	182,000	7,152	81,070	88,222
8. Growth Studies				
8.1 Water Services	51,800	-	-	-
8.2 Wastewater Services	72,000	-	-	-
8.3 Stormwater Drainage and Control Services	20,400	-	-	-
8.4 Services Related to a Highway	18,200	-	-	-
8.5 Fire Protection Services	57,300	-	-	-
8.6 Parks and Recreation Services	122,900	-	-	-
Total	39,862,245	1,232,654	1,062,219	2,294,873

Annual Operating Expenditures base on Schedule 40 of FIR (do not include columns 2, 6, 8, 9, 12 & 16)



Appendix D

D.C. Reserve Fund Policy



Appendix D: D.C. Reserve Fund Policy

D.1 Legislative Requirements

The *Development Charges Act, 1997*, as amended (D.C.A.) requires development charge (D.C.) collections (and associated interest) to be placed in separate reserve funds. Sections 33 through 36 of the D.C.A. provide the following regarding reserve fund establishment and use:

- A municipality shall establish a reserve fund for each service to which the D.C. by-law relates; section 7, however, allows services to be grouped into categories of services for reserve fund (and credit) purposes and for classes of services to be established.
- The municipality shall pay each D.C. it collects into a reserve fund or funds to which the charge relates.
- The money in a reserve fund shall be spent only for the “capital costs” determined through the legislated calculation process (as per subsection 5 (1) 2-7).
- Money may be borrowed from the fund but must be paid back with interest (O. Reg. 82/98, subsection 11 (1) defines this as Bank of Canada rate either on the day the by-law comes into force or, if specified in the by-law, the first business day of each quarter).
- D.C. reserve funds may not be consolidated with other municipal reserve funds for investment purposes and may only be used as an interim financing source for capital undertakings for which D.C.s may be spent (section 37).

Annually, the Treasurer of the municipality is required to provide Council with a financial statement related to the D.C. by-law(s) and reserve funds. This statement must be made available to the public and may be requested to be forwarded to the Minister of Municipal Affairs and Housing. The D.C.A. does not prescribe how the statement is to be made available to the public. We would recommend that a resolution of Council make the statement available on the municipality’s website or upon request.

Subsection 43 (2) and O. Reg. 82/98 prescribe the information that must be included in the Treasurer’s statement, as follows:

- opening balance;



- closing balance;
- description of each service and/or service category for which the reserve fund was established (including a list of services within a service category);
- transactions for the year (e.g. collections, draws) including each asset's capital costs to be funded from the D.C. reserve fund and the manner for funding the capital costs not funded under the D.C. by-law (i.e. non-D.C. recoverable cost share and post-period D.C. recoverable cost share);
- for projects financed by D.C.s, the amount spent on the project from the D.C. reserve fund and the amount and source of any other monies spent on the project;
- amounts borrowed, purpose of the borrowing, and interest accrued during previous year;
- amount and source of money used by the municipality to repay municipal obligations to the D.C. reserve fund;
- list of credits by service or service category (outstanding at the beginning of the year, given in the year, and outstanding at the end of the year by the holder);
- for credits granted under section 14 of the previous D.C.A., a schedule identifying the value of credits recognized by the municipality, the service to which it applies and the source of funding used to finance the credit; and
- a statement as to compliance with subsection 59 (1) of the D.C.A., whereby the municipality shall not impose, directly or indirectly, a charge related to a development or a requirement to construct a service related to development, except as permitted by the D.C.A. or another Act.

Based upon the above, Figure 1 and Attachments 1 and 2, set out the format for which annual reporting to Council should be provided.

D.2 D.C. Reserve Fund Application

Section 35 of the D.C.A. states that:

“The money in a reserve fund established for a service may be spent only for capital costs determined under paragraphs 2 to 8 of subsection 5(1).”

This provision clearly establishes that reserve funds collected for a specific service are only to be used for that service, or to be used as a source of interim financing of capital undertakings for which a D.C. may be spent.



Figure 1
Municipality of North Middlesex
Annual Treasurer's Statement of Development Charge Reserve Funds

Description	Services to which the Development Charge Relates													Total
	Municipal-wide Services					Parkhill Services				Ailsa Craig & Nairn Services				
	Services Related to a Highway	Fire Protection Services	Parks and Recreation Services	Library Services	Growth Studies	Wastewater Treatment	Wastewater Sewers	Water Storage	Water Distribution	Wastewater Treatment	Wastewater Sewers	Water Storage	Water Distribution	
Opening Balance, January 1, _____														0
Plus:														
Development Charge Collections														0
Accrued Interest														0
Repayment of Monies Borrowed from Fund and Associated Interest ¹														0
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less:														
Amount Transferred to Capital (or Other) Funds ²														0
Amounts Refunded														0
Amounts Loaned to Other D.C. Service Category for Interim Financing														0
Credits ³														0
Sub-Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Closing Balance, December 31, _____	0	0	0	0	0	0	0	0	0	0	0	0	0	0

¹ Source of funds used to repay the D.C. reserve fund

² See Attachment 1 for details

³ See Attachment 2 for details

The Municipality is compliant with s.s. 59.1 (1) of the *Development Charges Act*, whereby charges are not directly or indirectly imposed on development nor has a requirement to construct a service related to development been imposed, except as permitted by the *Development*



Attachment 1
Municipality of North Middlesex
Amount Transferred to Capital (or Other) Funds - Capital Fund Transactions

Capital Fund Transactions	Gross Capital Cost	D.C. Recoverable Cost Share					Non-D.C. Recoverable Cost Share				
		D.C. Forecast Period		Post D.C. Forecast Period			Other Reserve/Reserve Fund Draws	Tax Supported Operating Fund Contributions	Rate Supported Operating Fund Contributions	Debt Financing	Grants, Subsidies Other Contributions
		D.C. Reserve Fund Draw	D.C. Debt Financing	Grants, Subsidies Other Contributions	Post-Period Benefit/Capacity Interim Financing	Grants, Subsidies Other Contributions					
Services Related to a Highway											
Capital Cost A											
Capital Cost B											
Capital Cost C											
Sub-Total - Services Related to Highways	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fire Protection Services											
Capital Cost D											
Capital Cost E											
Capital Cost F											
Sub-Total - Water	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Parks and Recreation Services											
Capital Cost G											
Capital Cost H											
Capital Cost I											
Sub-Total - Wastewater	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Amount Transferred to Operating (or Other) Funds - Operating Fund Transactions

Operating Fund Transactions	Annual Debt Repayment Amount	D.C. Reserve Fund Draw		Post D.C. Forecast Period			Non-D.C. Recoverable Cost Share		
		Principal	Interest	Principal	Interest	Source	Principal	Interest	Source
Services Related to a Highway									
Capital Cost J									
Capital Cost K									
Capital Cost L									
Sub-Total - Services Related to a Highway	\$0	\$0	\$0	\$0	\$0		\$0	\$0	
Fire Protection Services									
Capital Cost M									
Capital Cost N									
Capital Cost O									
Sub-Total - Water	\$0	\$0	\$0	\$0	\$0		\$0	\$0	
Parks and Recreation Services									
Capital Cost P									
Capital Cost Q									
Capital Cost R									
Sub-Total - Wastewater	\$0	\$0	\$0	\$0	\$0		\$0	\$0	



Attachment 2
Municipality of North Middlesex
Statement of Credit Holder Transactions

Credit Holder	Applicable D.C. Reserve Fund	Credit Balance Outstanding Beginning of Year _____	Additional Credits Granted During Year	Credits Used by Holder During Year	Credit Balance Outstanding End of Year _____
Credit Holder A					
Credit Holder B					
Credit Holder C					
Credit Holder D					
Credit Holder E					
Credit Holder F					



Appendix E

Local Service Policy



Appendix E: Local Service Policy

Local Service Policy for Services Related to a Highway

A. Services Related to a Highway

A highway and services related to a highway are intended for the transportation of people and goods via many different modes including, but not limited to passenger automobiles, commercial vehicles, transit vehicles, bicycles, and pedestrians. The highway shall consist of all land and associated infrastructure built to support (or service) this movement of people and goods regardless of the mode of transportation employed, thereby achieving a complete street. A complete street is the concept whereby a highway is planned, designed, operated, and maintained to enable pedestrians, cyclists, public transit users and motorists to safely and comfortably be moved, thereby allowing for the efficient movement of persons and goods. The Municipality has 2 classifications of roads – Local Residential and Industrial Commercial – which are defined in the Municipality’s Design Guidelines & Construction Standards.

The associated infrastructure to achieve this concept shall include, but is not limited to: road pavement structure and curbs; grade separation/bridge structures (for any vehicles, railways and/or pedestrians); grading, drainage and retaining wall features; culvert structures; storm water drainage systems; utilities; traffic control systems; signage; gateway features; street furniture; active transportation facilities (e.g. pedestrian crossovers, cross-walks, sidewalks, bike lanes, multi-use trails which interconnect the transportation network, etc.); transit lanes & lay-bys; roadway illumination systems; boulevard and median surfaces (e.g. sod & topsoil, paving, etc.); street trees and landscaping; parking lanes & lay-bys; (excluding on-street parking in the downtown) and driveway entrances; noise attenuation systems; railings and safety barriers.

- 1) Local Residential Roads (including land)
 - a. Local Residential Roads Internal to Development, inclusive of all land and associated infrastructure – direct developer responsibility under s.59 of the D.C.A. as a local service.



- b. Local Residential Roads External to Development, inclusive of all land and associated infrastructure – if needed to support a specific development or required to link with the area to which the plan relates, direct developer responsibility under s.59 of the D.C.A.; otherwise, included in D.C. calculation to the extent permitted under s.5(1) of the D.C.A.
 - c. Local Residential Roads intersecting with County Roads – the share of the costs for the Municipality will be included in the D.C. calculation to the extent permitted under s.5(1) of the D.C.A.
- 2) Industrial Commercial Roads
- a. Industrial Commercial Roads Internal to Development, inclusive of all land and associated infrastructure – direct developer responsibility under s.59 of the D.C.A. as a local service.
 - b. Industrial Commercial Roads External to Development, inclusive of all land and associated infrastructure – if needed to support a specific development or required to link with the area to which the plan relates, direct developer responsibility under s.59 of the D.C.A.; otherwise, included in D.C. calculation to the extent permitted under s.5(1) of the D.C.A.
 - c. Industrial Commercial Roads intersecting with County Roads – the share of the costs for the Municipality will be included in the D.C. calculation to the extent permitted under s.5(1) of the D.C.A.
- 3) Traffic Control Systems, Signals, and Intersection Improvements
- a. On new local residential roads and industrial commercial road improvements unrelated to a specific development: included as part of road costing funded through D.C.'s.; if it is a requirement of specific development, would be developer's responsibility;
 - b. On local residential roads and industrial commercial roads for any private site entrances or entrances to specific development: direct developer responsibility under s.59 of D.C.A.: recovered as a local service.



- c. On local residential and industrial commercial road intersections with County roads: included as part of road costing funded through D.C.'s.; if it is a requirement of specific development, would be developer's responsibility;
 - d. Intersection improvements, new or modified signalization, signal timing & optimization plans, area traffic studies for highways attributed to growth and unrelated to a specific development: included in D.C. calculation as permitted under s.5(1) of the D.C.A.
- 4) Streetlights
- a. Streetlights on new local residential roads and industrial commercial road improvements: considered part of the complete street and included as part of the road costing funded through D.C.'s, may be direct developer responsibility through local service provisions (s.59 of D.C.A.).
 - b. Streetlights on local residential roads and industrial commercial internal to development: considered part of the complete street and included as a direct developer responsibility under s. 59 of the D.C.A. (as a local service).
 - c. Streetlights on local residential roads and industrial commercial external to development, needed to support a specific development or required to link with the area to which the plan relates: considered part of the complete street and included as a direct developer responsibility under s. 59 of the D.C.A. (as a local service).
- 5) Transportation Related Pedestrian and Cycling Facilities
- a. Pedestrian crossovers, sidewalks, multi-use trails, cycle tracks, and bike lanes, inclusive of all required infrastructure, located within local residential roads and industrial commercial: considered part of the complete street and included in D.C.'s, or, may be direct developer responsibility through local service provisions (s.59 of D.C.A.).
 - b. Sidewalks, multi-use trails, cycle tracks, and bike lanes, inclusive of all required infrastructure, located within or linking to local residential roads



and industrial commercial roads internal to development: considered part of the complete street and is a direct developer responsibility through local service provisions (s.59 of D.C.A.).

- c. Other sidewalks, multi-use trails, cycle tracks, and bike lanes, inclusive of all required infrastructure, located within local residential road and industrial commercial road corridors external to development and needed to support a specific development or required to link with the area to which the plan relates: direct developer responsibility under s.59 of D.C.A. (as a local service).

6) Noise Abatement Measures

- a. Noise abatement measures external and internal to development where it is related to, or a requirement of a specific development: direct developer responsibility under s.59 of D.C.A. (as a local service).
- b. Noise abatement measures on new local residential roads and industrial commercial road improvements abutting an existing community and unrelated to a specific development: included as part of road costing funded through D.C.'s.

B. PARKLAND DEVELOPMENT

1) RECREATIONAL TRAILS

Recreational trails (Multi-use trails) that do not form part of the municipality's active transportation network, and their associated infrastructure (landscaping, bridges, trail surface, etc.), is included in area municipal parkland D.C.'s.

2) PARKLAND

- a. Parkland Development for Community Parks and Neighbourhood Parks: direct developer responsibility to provide at base condition, as follows:
 - i. Clearing and grubbing. Tree removals as per the subdivision's tree preservation and removals plan.



- ii. Topsoil Stripping, screening, and stockpiling.
- iii. Rough grading (pre-grading) to allow for positive drainage of the Park, with minimum slopes based on the Municipality's requirement/standard. If necessary, this may include some minor drainage tile work and grading as per the overall subdivision grading design complete with any required swales or catch basins. Runoff from the development property shall not drain into the park unless approved by the Manager of Public Works.
- iv. Spreading of topsoil to the Municipality's required depth (import topsoil if existing on-site is insufficient to reach required depth).
- v. Seeding of site with Municipality-approved seed mix. Maintenance of seed until acceptance by Municipality.
- vi. Parks shall be free of any contaminated soil or subsoil.
- vii. Parks shall not be mined for fill.
- viii. Parks shall be conveyed free and clear of all encumbrances.
- ix. 100% of Municipal approved perimeter fencing to the Municipal standards to separate the development lands from the Municipal lands or lands to be dedicated to the Municipality, unless the perimeter fencing is on land that will be dedicated to the Municipality to fulfil the requirement of parkland dedication under the Planning Act, in which case the cost shall be shared 50/50.
- x. When Park parcels cannot be developed in a timely manner, they shall be graded to ensure positive drainage and seeded to minimize erosion and dust. These shall be maintained by the developer until construction commences thereon.
- xi. The Park block shall not be used for topsoil or other construction material, equipment storage, or sales pavilions.



xii. Required heritage features within the Park as set out within the Planning approval conditions.

b. Program facilities, amenities, and furniture, within parkland: are included in D.C.'s.

3) LANDSCAPE BUFFER BLOCKS, FEATURES, CUL-DE-SAC ISLANDS, BERMS, GRADE TRANSITION AREAS, WALKWAY CONNECTIONS TO ADJACENT ARTERIAL ROADS, OPEN SPACE, ETC.

a. The cost of developing all landscape buffer blocks, landscape features, cul-de- sac islands, berms, grade transition areas, walkway connections to adjacent arterial roads, open space and other remnant pieces of land conveyed to the municipality shall be a direct developer responsibility as a local service. Such costs include but are not limited to:

- i. pre-grading, sodding, or seeding, supply and installation of amended topsoil, (to the Municipality's required depth), landscape features, perimeter fencing and amenities and all planting.
- ii. Perimeter fencing to the Municipal standard located on the private property side of the property line adjacent land uses (such as but not limited to arterial roads) as directed by the Municipality.

4) NATURAL HERITAGE SYSTEM (N.H.S.)

N.H.S. includes engineered and in situ stream corridors, natural buffers for woodlots, wetland remnants, etc. as well as subwatersheds within the boundaries of the Municipality.

Direct developer responsibility as a local service provision including but not limited to the following:

- a) Riparian planting and landscaping requirements (as required by the Municipality, Conservation Authority or other authorities having



jurisdiction) as a result of creation of, or construction within in the N.H.S. and associated buffers.

- b) Perimeter fencing of the N.H.S. to the Municipal standard located on the private property side of the property line adjacent land uses (residential, industrial, commercial) as required by the Municipality.
- c) All works to be in conformance with the requirements of the local Conservation Authority for stream corridors, natural buffers and subwatersheds areas as directed by the approved studies and reports related to any approved Plan that development occurs in.

Infrastructure Assets Constructed by Developers

- a) All infrastructure assets constructed by Developers must be designed in accordance with the Municipality's Design Guidelines & Construction Standards as revised
- b) All infrastructure assets shall be conveyed in accordance with the Municipality's Design Guidelines & Construction Standards as revised
- c) Any Parks and Open Space infrastructure assets approved to be built by the developer on behalf of the Municipality shall be in accordance with the Municipality's Design Guidelines & Construction Standards as revised.

C. Underground Services (Stormwater, Water and Sanitary Sewers)

Underground services (linear infrastructure for stormwater, stormwater management facilities, water, and sanitary services) within the road allowance are not included in the cost of road infrastructure and are treated separately. The responsibility for such services as well as stormwater management facilities and pumping stations, which are undertaken as part of new developments or redevelopments, will be determined by the following principles:

Water

The costs of the following items shall be direct developer responsibilities as a local service:



- a) providing all underground services internal to the development;
- b) providing service connections from existing underground services to the development;
- c) providing new underground services or upgrading existing underground services external to the development if the services are required to service the development, If external services are required by two or more developments, the developer for the first development will be responsible for the cost of the external services and the Municipality will include Best Efforts clauses in subsequent development agreements; and
- d) water booster pumping stations, reservoir pumping stations, and transmission mains servicing developments in one basin area unless the project services primarily industrial lands within the basin area.

The costs of the following items shall be paid through development charges:

- a) external underground services involving trunk infrastructure and pipes;
- b) water and reservoir pumping stations servicing multiple basin areas; and
- c) water storage facilities, re-chlorination/sampling stations and upstream capacity improvements associated with multiple basin areas.
- d) water storage facilities, re-chlorination/sampling stations and upstream capacity improvements associated with one or more basin areas servicing primarily industrial lands shall be included in the D.C.

Wastewater

The costs of the following items shall be direct developer responsibilities as a local service:

- a) providing all underground services internal to the development;
- b) providing service connections from existing underground services to the development;



- c) providing new underground services or upgrading existing underground services external to the development if the services are required to service the development, if external services are required by two or more developments, the developer for the first development will be responsible for the cost of the external services and the Municipality will include Best Efforts clauses in subsequent development agreements; and
- d) Sanitary pumping stations, and transmission mains servicing developments in one basin area unless the project services primarily industrial lands within the basin area.

The costs of the following items shall be paid through development charges:

- a) external underground services involving trunk infrastructure and pipes;
- b) sanitary pumping stations servicing multiple basin areas; and
- c) wastewater treatment plants, biosolids, and downstream capacity improvements servicing multiple basin areas shall be included in the D.C.
- d) wastewater treatment plants, biosolids, and downstream capacity improvements servicing one or more basin areas servicing primarily industrial lands shall be included in the D.C.

Stormwater

The costs of the following items shall be direct developer responsibilities as a local service:

- a) providing all underground services internal to the development;
- b) providing service connections from existing underground services to the development;
- c) providing new underground services or upgrading existing underground services external to the development if the services are required to service the development, if external services are required by two or more developments, the developer for the first development will be responsible for



the cost of the external services and the Municipality will include Best Efforts clauses in subsequent development agreements;

- d) providing stormwater facilities for quality and/or quantity management, including downstream erosion works, inclusive of land and all associated infrastructure, such as landscaping and perimeter fencing; and
- e) storm sewer systems and drainage works that are required for a specific development, either internal or external to the area to which the plan relates.

The costs of the following items shall be paid through development charges:

- a) external underground services involving linear infrastructure for stormwater services;
- b) over-sizing cost of stormwater facilities capacity, excluding land, to accommodate runoff from new, widened, extended, or upgraded municipal arterial roads that are funded as a development charges project; and
- c) Stormwater monitoring works



Appendix F

Asset Management Plan



Appendix F: Asset Management Plan

The recent changes to the Development Charges Act, 1997, as amended (D.C.A.) (new subsection 10 (2) (c.2)) require that the background study must include an asset management plan (A.M.P.) related to new infrastructure. Section 10 (3) of the D.C.A. provides:

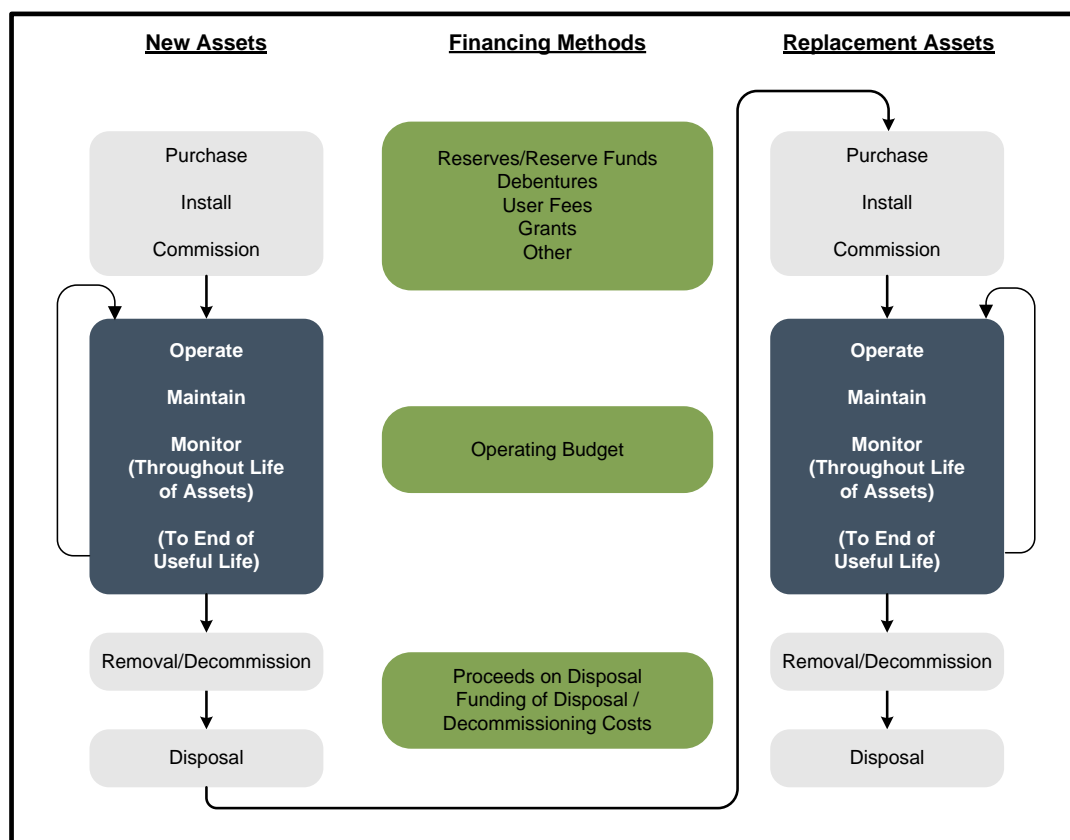
“The asset management plan shall,

- (a) deal with all assets whose capital costs are proposed to be funded under the development charge by-law;
- (b) demonstrate that all the assets mentioned in clause (a) are financially sustainable over their full life cycle;
- (c) contain any other information that is prescribed; and
- (d) be prepared in the prescribed manner.”

In regard to the above, section 8 of the regulations was amended to include subsections (2), (3), and (4) which set out specific detailed requirements for transit (only). For all services except transit, there are no prescribed requirements at this time, thus requiring the municipality to define the approach to include in the background study.

At a broad level, the A.M.P. provides for the long-term investment in an asset over its entire useful life along with the funding. The schematic below identifies the costs for an asset through its entire lifecycle. For growth-related works, the majority of capital costs will be funded by the development charge (D.C.). Non-growth-related expenditures will then be funded from non-D.C. revenues as noted below. During the useful life of the asset, there will be minor maintenance costs to extend the life of the asset along with additional program-related expenditures to provide the full services to the residents. At the end of the life of the asset, it will be replaced by non-D.C. financing sources.

It should be noted that with the recent passing of the *Infrastructure for Jobs and Prosperity Act* (I.J.P.A.) municipalities are now required to complete A.M.P.s, based on certain criteria, which are to be completed by 2022 for core municipal services and 2024 for all other services. The amendments to the D.C.A. do not require municipalities to complete these A.M.P.s (required under I.J.P.A.) for the D.C. background study, rather the D.C.A. requires that the D.C. background study include information to show the assets to be funded by the D.C. are sustainable over their full lifecycle.



In 2012, the Province developed Building Together: Guide for municipal asset management plans which outlines the key elements for an A.M.P., as follows:

State of local infrastructure: asset types, quantities, age, condition, financial accounting valuation and replacement cost valuation.

Desired levels of service: defines levels of service through performance measures and discusses any external trends or issues that may affect expected levels of service or the municipality's ability to meet them (for example, new accessibility standards, climate change impacts).

Asset management strategy: the asset management strategy is the set of planned actions that will seek to generate the desired levels of service in a sustainable way, while managing risk, at the lowest lifecycle cost.

Financing strategy: having a financial plan is critical for putting an A.M.P. into action. By having a strong financial plan, municipalities can also demonstrate that they have



made a concerted effort to integrate the A.M.P. with financial planning and municipal budgeting and are making full use of all available infrastructure financing tools.

Commensurate with the above, the Municipality prepared an A.M.P. in 2014 for its existing assets; however, it did not take into account future growth-related assets. As a result, the asset management requirement for the D.C. must be undertaken in the absence of this information.

In recognition to the schematic above, the following table (presented in 2022 \$) has been developed to provide the annualized expenditures and revenues associated with new growth. Note that the D.C.A. does not require an analysis of the non-D.C. capital needs or their associated operating costs so these are omitted from the table below. As well, as all capital costs included in the D.C.-eligible capital costs are not included in the Municipality's A.M.P., the present infrastructure gap and associated funding plan have not been considered at this time. Hence the following does not represent a fiscal impact assessment (including future tax/rate increases) but provides insight into the potential affordability of the new assets:

1. The non-D.C. recoverable portion of the projects that will require financing from municipal financial resources (i.e. taxation, rates, fees, etc.). This amount has been presented on an annual debt charge amount based on 20-year financing.
2. Lifecycle costs for the 2022 D.C. capital works have been presented based on a sinking fund basis. The assets have been considered over their estimated useful lives.
3. Incremental operating costs for the D.C. services (only) have been included.
4. The resultant total annualized expenditures are \$5.43 million.
5. Consideration was given to the potential new taxation and user fee revenues which will be generated as a result of new growth. These revenues will be available to finance the expenditures above. The new operating revenues are \$1.37 million. This amount, totalled with the existing operating revenues of \$15.39 million, provide annual revenues of \$16.76 million by the end of the period.



6. In consideration of the above, the capital plan is deemed to be financially sustainable.

Municipality of North Middlesex
Asset Management – Future Expenditures and Associated Revenues
2022 \$

	Sub-Total	2040 (Total)
Expenditures (Annualized)		
Annual Debt Payment on Non-Growth Related Capital ¹		2,748,220
Annual Debt Payment on Post Period Capital ²		390,793
Lifecycle:		
Annual Lifecycle - Municipal-wide Services	\$187,221	
Annual Lifecycle - Area-specific Services ³	\$1,045,433	
Sub-Total - Annual Lifecycle	\$1,232,654	\$1,232,654
Incremental Operating Costs (for D.C. Services)		\$1,062,219
Total Expenditures		\$5,433,885
Revenue (Annualized)		
Total Existing Revenue ⁴		\$15,388,931
Incremental Tax and Non-Tax Revenue (User Fees, Fines, Licences, etc.)		\$1,367,349
Total Revenues		\$16,756,280

¹ Non-Growth Related component of Projects

² Interim Debt Financing for Post Period Benefit

³ All infrastructure costs included in Area Specific by-laws have been included

⁴ As per Sch. 10 of FIR



Appendix G

Proposed D.C. By-law



**The Corporation of the Municipality of North Middlesex
By-law Number 21-
Being a By-law for the Imposition of Development Charges**

WHEREAS the Municipality of North Middlesex will experience growth through development and re-development;

AND WHEREAS development and re-development require the provision of physical and social services by the Municipality of North Middlesex;

AND WHEREAS Council desires to ensure that the capital cost of meeting growth-related demands for, or burdens on, municipal services does not place an excessive financial burden on the Municipality of North Middlesex or its existing taxpayers, while at the same time ensuring new taxpayers contribute no more than the net capital cost attributable to providing the current level of municipal services;

AND WHEREAS subsection 2(1) of the *Development Charges Act, 1997 c. 27*, as amended (hereinafter called "the Act") provides that the council of a municipality may pass By-laws for the imposition of development charges against land for increased capital costs required because of the need for services arising from development in the area to which the by-law applies;

AND WHEREAS the Council of The Corporation of the Municipality of North Middlesex has given Notice on --, 2022 according to section 12 of *the Development Charges Act, 1997 as amended*, of its intention to pass a by-law under section 2 of the said Act;

AND WHEREAS the Council of the Municipality of North Middlesex has heard all persons who applied to be heard no matter whether in objection to, or in support of, the development charge proposal at a public meeting held on April 6, 2022;

AND WHEREAS the Council of the Municipality of North Middlesex had before it a report entitled 2022 Development Charge Background Study dated February 18, 2022 prepared by Watson & Associates Economists Ltd., wherein it is indicated that the development of any land within the Municipality will increase the need for services as defined herein;

AND WHEREAS the Council of the Municipality of North Middlesex on April 6, 2022, approved the applicable Development Charge Background Study, as amended (if



applicable) inclusive of the capital forecast therein, in which certain recommendations were made relating to the establishment of a development charge policy for the Municipality of North Middlesex pursuant to the *Development Charges Act, 1997, as amended*;

AND WHEREAS the Council of the Municipality of North Middlesex on April 6, 2022 determined that no additional public meeting was required to be held as part of the approval process.

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE MUNICIPALITY OF NORTH MIDDLESEX ENACTS AS FOLLOWS:

1. Interpretation

1.1 In this by-law, the following items shall have corresponding meanings:

"accessory use" means where used to describe a use, building, or structure that the use, building or structure is naturally and normally incidental, subordinate in purpose of floor area or both, and exclusively devoted to a principal use, building or structure;

"Act" means the *Development Charges Act, 1997, c.27, as amended*;

"administration service" means any and all development-related studies carried out by the municipality which are with respect to eligible services for which a development charge by-law may be imposed under the *Development Charges Act, 1997, as amended*;

"agreement" shall mean a contract between the municipality and an owner of land and any amendment thereto;

"Agricultural Use" means the cultivation of land, the production of crops and the selling of such product on the premises, and the breeding and care of livestock and the selling of such livestock or the product of such livestock raised on the premises, and without limiting the generality of the foregoing includes aviaries, apiaries, fish farming, animal husbandry, and the raising and harvesting of field, bush, or tree crops, market gardening, nurseries and greenhouses. However, "agricultural use" does not include facilities for the permanent or temporary housing of persons employed on the lot;



"ancillary residential building" means a residential building or structure that would be ancillary to a detached dwelling, semi-detached dwelling, or row dwelling and includes an accessory dwelling;

"apartment unit" means any residential unit within a building containing four or more dwelling units where access to each residential unit is obtained through a common entrance or entrances from the street level and the residential units are connected by an interior corridor and is not a special care/special dwelling unit;

"bedroom" means a habitable room which can be used as sleeping quarters, but does not include a bathroom, living room, dining room or kitchen;

"benefiting area" means an area defined by map, plan, or legal description in a front-ending agreement as an area that will receive a benefit from the construction of a service;

"Board of Education" means a board defined in s.s. 1(1) of the *Education Act*;

"bona fide farm uses" means the proposed development will qualify as a farm business operating with a valid Farm Business Registration Number issued by the Ontario Ministry of Agriculture, Food and Rural Affairs and be assessed in the Farmland Realty Tax Class by the Ontario Property Assessment Corporation;

"Building Code Act" means the *Building Code Act, 1992, S.O. 1992, c.23, as amended*;

"cannabis" means:

- a. cannabis plant;
- b. any part of a cannabis plant, including the phytocannabinoids produced by, or found in, such a plant regardless of whether that part has been processed or not;
- c. any substance or mixture of substances that contains or has on it any part of such a plant; and



- d. any substance that is identical to any phytocannabinoid produced by, or found in, such a plant, regardless of how the substance was obtained;

"cannabis plant" means a plant that belongs to the genus Cannabis;

"Cannabis Production Facilities" means a building, or part thereof, designed, used, or intended to be used for one or more of the following: growing, production, processing, harvesting, testing, alteration, destruction, storage, packaging, shipment, or distribution of cannabis where a licence, permit or authorization has been issued under applicable federal law and does include, but is not limited to such buildings as a greenhouse and agricultural building associated with the use. It does not include a building or part thereof solely designed, used, or intended to be used for retail sales of cannabis;

"capital cost" means costs incurred or proposed to be incurred by the municipality or a local board thereof directly or by others on behalf of, and as authorized by, the municipality or local board,

- a. to acquire land or an interest in land, including a leasehold interest;
- b. to improve land;
- c. to acquire, lease, construct or improve buildings and structures;
- d. to acquire, lease, construct or improve facilities including,
 - i. rolling stock with an estimated useful life of seven years or more,
 - ii. furniture and equipment, other than computer equipment, and
 - iii. materials acquired for circulation, reference or information purposes by a library board as defined in the *Public Libraries Act, R. O. 1990, c. 57*, and;
- e. to undertake studies in connection with any of the matters referred to in clauses (a) to (d);



f. to complete the development charge background study under Section 10 of the Act;

g. interest on money borrowed to pay for costs in (a) to (d);

required for provision of services designated in this by-law within or outside the municipality.

"charitable dwelling" means a residential building, a part of a residential building or the residential portion of a mixed-use building maintained and operated by a corporation approved under the *Charitable Institutions Act, R.S.O. 1990, c. C.9*, for persons requiring residential, specialized or group care and charitable dwelling includes a children's residence under the *Child, Youth and Family Services Act, 2017, S.O. 2017, C. 14, Sched. 1*, a psychiatric facility under the *Mental Health Act, R.S.O. 1990, c. M.7*, long-term care home under the *Long-Term Care Homes Act, 2007, S.O. 2007, c. 8, c. N.7*, and a home for special care under the *Homes for Special Care Act, R.S.O. 1990, c. H.12*;

"class" means a grouping of services combined to create a single service for the purposes of this by-law and as provided in section 7 of the *Development Charges Act*;

"commercial" means any use of land, structures or buildings for the purposes of buying or selling commodities and services, but does not include industrial or agricultural uses, but does include hotels, motels, motor inns and boarding, lodging and rooming houses;

"Condominium Act" means the *Condominium Act, 1998, S.O. 1998, Chap. c. 19*;

"Corporation" means the Corporation of the Municipality of North Middlesex;

"Council" means the Council of the Corporation of the Municipality of North Middlesex;

"developer" means a person who undertakes development or redevelopment;

"development" means the construction, erection or placing of one or more buildings or structures on land or the making of an addition or alteration to a



building or structure that the effect of increasing the size of usability thereof, and includes redevelopment;

"development charge" means a charge imposed with respect to this by-law;

"dwelling unit" means any part of a building or structure used, designed or intended to be used as a domestic establishment in which one or more persons may sleep and are provided with culinary and sanitary facilities for their exclusive use;

"exemption" means that no development charge is payable;

"existing" means the number, use and size that existed as of the date this by-law was passed;

"farm building" means that part of a bona fide farming operation that is located upon land which is assessed and used for farm purposes encompassing barns, silos and other ancillary development to an agricultural use, but excluding a residential use;

"floor" does not include a storey;

"floor above ground level" means any floor, the entire area of which is located below the lowest level at which the land upon which the building or structure stands abuts any land;

"floor below ground level" means any floor the entire area of which is located below the lowest level at which the land upon which the building or structure stands abuts any land;

"Grade" means the average level of finished ground adjoining a building or structure at all exterior walls;

"Group home" means a residential building or the residential portion of a mixed-use building containing a single housekeeping unit, supervised on a 24 hour a day basis on site by agency staff on a shift rotation basis, funded wholly or in part by any government and licensed, approved or supervised by the Province of Ontario under a general or special Act and amendments or replacements thereto,



for the accommodation of not less than 3 and not more than 8 residents, exclusive of staff;

"gross floor area" means:

- a. in the case of a residential building or structure, the total area of all floors above grade of a dwelling unit measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of party walls dividing the dwelling unit from any other dwelling unit or other portion of a building; and
- b. in the case of a non-residential building or structure, or in the case of a mixed-use building or structure in respect of the non-residential portion thereof, the total area of all building floors above or below grade measured between the outside surfaces of the exterior walls, or between the outside surfaces of exterior walls and the centre line of party walls dividing a non-residential use and a residential use, except for:
 - i. a room or enclosed area within the building or structure above or below that is used exclusively for the accommodation of heating, cooling, ventilating, electrical, mechanical or telecommunications equipment that service the building;
 - ii. loading facilities above or below grade; and
 - iii. a part of the building or structure below grade that is used for the parking of motor vehicles or for storage or other accessory use;

"hospice" means a building or portion of a mixed-use building designed and intended to provide palliative care and emotional support to the terminally ill in a home or homelike setting so that quality of life is maintained, and family members may be active participants in care;

"industrial" means lands, buildings or structures used or designed or intended for use for manufacturing, processing, fabricating or assembly of raw goods,



warehousing or bulk storage of goods, and includes office uses and the sale of commodities to the general public where such uses are accessory to an industrial use, but does not include the sale of commodities to the general public through a warehouse club;

"institutional" means land, buildings, structures or any part thereof used by any organization, group or association for promotion of charitable, educational or benevolent objectives and not for profit or gain and shall not include special care/special dwelling units;

"institutional development" means development of a building or structure, or portions thereof, intended for use;

- a. as a long-term care home within the meaning of subsection 2 (1) of the Long-Term Care Homes Act, 2007;
- b. as a retirement home within the meaning of subsection 2 (1) of the Retirement Homes Act, 2010;
- c. by any of the following post-secondary institutions for the objects of the institution:
 - i. a university in Ontario that receives direct, regular, and ongoing operating funding from the Government of Ontario,
 - ii. (ii) a college or university federated or affiliated with a university described in subclause (i), or
 - iii. (iii) an Indigenous Institute prescribed for the purposes of section 6 of the *Indigenous Institutes Act, 2017*;
- d. as a memorial home, clubhouse, or athletic grounds by an Ontario branch of the Royal Canadian Legion; or
- e. as a hospice to provide end of life care.

"large industrial" means an industrial use whereby the wastewater volume per employee exceeds 0.500 cu.m.



"live/work unit" means a unit which contains separate residential and non-residential areas intended for both residential and non-residential uses concurrently, and shares a common wall or floor with direct access between the residential and non-residential areas;

"lawfully existing" means a building:

- a. that is not prohibited by a by-law passed under Section 34 of the Planning Act, or a predecessor of that section; or
- b. that is a legal non-conforming use; or
- c. that is allowed by a minor variance authorized under *Section 45 of the Planning Act*, or a predecessor of that section;

"Local Board" means a school board, public utility, commission, transportation commission, public library board, board of park management, local board of health, board of commissioners of police, planning board, or any other board, commission, committee, body or local authority established or exercising any power or authority under any general or special Act with respect to any of the affairs or purposes, including school purposes, of the Municipality of North Middlesex or any part or parts thereof;

"local services" means those services, facilities or things which are under the jurisdiction of the Municipality of North Middlesex and are related to a plan of subdivision or within the area to which the plan relates in respect of the lands under Sections 41, 51 or 53 of the *Planning Act, R.S.O. 1990, Chap. P.13*, as amended, or any successor thereof;

"lot" means a parcel of land capable of being conveyed lawfully without any approval under the Planning Act or successor thereto which meets the minimum lot area requirements under the Municipality's Zoning By-law;

"mixed-use" means land or buildings used or designed or intended to be used for a combination of non-residential development and residential development;

"multiple dwellings" means all dwellings other than single-detached, semi-detached, apartments, and special care/special dwelling units;



"Municipality" means the Corporation of the Municipality of North Middlesex;

"net capital cost" shall mean the capital cost, less capital grants, subsidies, and other contributions made to the municipality or that the Council anticipates will be made, including conveyances or payments under Sections 42, 51 and 53 of the *Planning Act*, in respect of the capital cost;

"Non-profit housing development" means development of a building or structure intended for use as residential premises by:

- a. a corporation without share capital to which the Corporations Act applies, that is in good standing under that Act and whose primary object is to provide housing;
- b. a corporation without share capital to which the Canada Not-for-Profit Corporations Act applies, that is in good standing under that Act and whose primary object is to provide housing; or
- c. a non-profit housing co-operative that is in good standing under the Co-operative Corporations Act, or any successor legislation;

"non-residential use" means a building or structure of any kind whatsoever used, designed, or intended to be used for other than a residential use;

"Official Plan" means the Official Plan adopted for the Municipality, as amended and approved;

"owner" means the owner of land or a person who has made application for an approval for the development of land upon which a development charge is imposed;

"place of worship" means that part of a building or structure that is exempt from taxation as a place of worship under the Assessment Act, R.S.O. 1990, Chap. A.31, as amended, or any successor thereof;

"Planning Act" means the *Planning Act, 1990, R.S.O. 1990, c.P.13, as amended*;

"prescribed index" means the price index as prescribed in the Regulation;



"rate" means the interest rate established weekly by the Bank of Canada based on Treasury Bills having a term of 91 days;

"redevelopment" means the construction, erection or placing of one or more buildings on land where all or part of a building on such land has been previously demolished, or changing the use of all or part of a building from a residential purpose to a non-residential purpose or from a non-residential purpose to a residential purpose, or changing all or part of a building from one form of residential development to another form of residential development or from one form of non-residential development to another form of non-residential development;

"regulation" means any regulation made pursuant to the Act;

"rental housing" means development of a building or structure with four or more dwelling units all of which are intended for use as rented residential premises;

"residential dwelling" means a building, occupied or capable of being occupied as a home, residence or sleeping place by one or more persons, containing one or more dwelling units but not including motels, hotels, tents, truck campers, tourist trailers, mobile camper trailers or boarding, lodging or rooming houses;

"residential development" means land, buildings or portions thereof used, designed, or intended to be used as living accommodations for one or more individuals, and shall include a single detached dwelling, a semi-detached dwelling, a multiple dwelling, an apartment unit dwelling, a special care/special need dwelling, an ancillary residential building, and the residential portion of a mixed-use building and "residential use" and "residential purpose" has the same meaning;

"residential use" means the use of a building or structure or portion thereof for one or more dwelling units. This also includes a dwelling unit on land that is used for an agricultural use;

"retirement home or lodge" means a residential building or the portion of a mixed-use building which provides accommodation primarily for retired persons or couples where each private bedroom or living accommodation has a separate private bathroom and separate entrance from a common hall, but do not include



private culinary facilities and instead where common facilities for the preparation and consumption of food are provided, and common lounges, recreation rooms and medical care facilities may also be provided;

"row dwelling" means a building containing three or more attached dwelling units in a single row, each of which dwelling units has an independent entrance from the outside and is vertically separated from any abutting dwelling unit;

"school, private" means a private school defined under the Education Act or any successor thereto, being "an institution at which instruction is provided at any time between the hours of 9 a.m. and 4 p.m. on any school day for five or more pupils who are of, or over compulsory school age in any of the subjects of the elementary or secondary school courses of study".

"semi-detached dwelling" means a dwelling unit in a residential building consisting of two dwelling units having one vertical wall or one horizontal wall, but not other parts, attached or another dwelling unit where the residential unit are not connected by an interior corridor;

"service" means a service designed in Schedule "A" to this By-law, and
"services" shall have a corresponding meaning;

"servicing agreement" means an agreement between a landowner and the Municipality relative to the provision of municipal services to specified land within the Municipality;

"single detached dwelling" means a completely detached building containing only one dwelling unit and not attached to another structure.

"special care/special dwelling unit/room" means a residence in an assisted living facility:

- a. Containing two or more dwelling rooms, which rooms have common entrance from street level; and
- b. where the occupants have the right to use in common with other occupants, halls, stairs, yards, common room, and accessory buildings; and



- c. that is designed to accommodate persons with specific needs, including but not limited to, independent permanent living arrangements; and where support services, such as meal preparation, grocery shopping, laundry, housing, nursing, respite care and attending services are provided at various levels; but
- d. excludes group homes.

"Zoning By-law" means the Zoning By-law of the Municipality of North Middlesex, or any successor thereof passed pursuant to section 34 of the *Planning Act, S.O. 1998*.

2. Designation of Services and Classes of Services

- 2.1 The categories of services and classes of services for which development charges are imposed under this By-law are as follows:
 - (a) Services Related to a Highway;
 - (b) Fire Protection Services;
 - (c) Parks and Recreation Services
 - (d) Library Services;
 - (e) Growth Studies;
 - (f) Water Services; and
 - (g) Wastewater Services.
- 2.2 The components of the services and classes designated in subsection 2.1 are described in Schedule A.

3. Application of By-law Rules

- 3.1 Development charges shall be payable in the amounts set out in this by-law where:
 - (a) the lands are located in the area described in subsection 3.2; and



- (b) the development of the lands requires any of the approvals set out in subsection 3.4(a).

Areas to Which By-law Applies

- 3.2 Subject to subsection 3.3, this by-law applies to all lands within the Municipality of North Middlesex. Charges for water and wastewater services apply in the Parkhill and Ailsa Craig/Nairn service areas, whether or not the land or use thereof is exempt from taxation under s. 13 or the *Assessment Act*.
- 3.3 Notwithstanding clause 3.2 above, this by-law shall not apply to lands that are owned by and used for the purposes of:
- (a) the municipality or a local board thereof;
 - (b) a board of education;
 - (c) the Corporation of the County of Middlesex or a local board thereof; or
 - (d) land vested in or leased to a university that receives regular and ongoing operating funds from the government for the purposes of post-secondary education is exempt from development charges imposed under the Development Charges Act, 1997 if the development in respect of which development charges would otherwise be payable is intended to be occupied and used by the university.

Approvals for Development

- 3.4 (a) Development charges shall be imposed on all lands, buildings or structures that are developed for residential or non-residential uses if the development requires:
- i. the passing of a zoning by-law or of an amendment to a zoning by-law under section 34 of the *Planning Act*;
 - ii. the approval of a minor variance under section 45 of the *Planning Act*;
 - iii. a conveyance of land to which a by-law passed under subsection 50(7) of the *Planning Act* applies;



- iv. the approval of a plan of subdivision under section 51 of the *Planning Act*,
- v. a consent under section 53 of the *Planning Act*,
- vi. the approval of a description under section 50 of the *Condominium Act, R.S.O. 1990, Chap. C.26, as amended*, or any successor thereof; or
- vii. the issuing of a permit under the *Building Code Act* in relation to a building or structure.

(b) No more than one development charge for each service designated in subsection 2.1 shall be imposed upon any lands, buildings or structures to which this by-law applies even though two or more of the actions described in subsection 3.4(a) are required before the lands, buildings or structures can be developed.

(c) Despite subsection 3.4(b), if two or more of the actions described in subsection 3.4(a) occur at different times, additional development charges shall be imposed if the subsequent action has the effect or increasing the need for services.

Exemptions

Rules with Respect to Exemptions for Intensification of Existing Housing or New Housing

3.5 Notwithstanding the provisions of this By-law, development charges shall not be imposed with respect to developments or portions of developments as follows:

- (a) the enlargement to an existing residential dwelling unit;
- (b) one or two additional dwelling units in an existing single detached dwelling or prescribed ancillary structure to the existing residential building;
- (c) the creation of additional dwelling units equal to the greater of one or 1% of the existing dwelling units in an existing residential rental



building containing four or more dwelling units or prescribed ancillary structure to the existing residential building;

(d) the creation of one additional dwelling unit in any other existing residential building already containing at least one dwelling unit or prescribed ancillary structure to the existing residential building; or

(e) the creation of a second dwelling unit in prescribed classes of proposed new residential buildings, including structures ancillary to dwellings, subject to the following restrictions:

Item	Name of Class of Proposed New Residential Buildings	Description of Class of Proposed New Residential Buildings	Restrictions
1	Proposed new detached dwellings	Proposed new residential buildings that would not be attached to other buildings and that are permitted to contain a second dwelling unit, that being either of the two dwelling units, if the units have the same gross floor area, or the smaller of the dwelling units.	The proposed new detached dwelling must only contain two dwelling units. The proposed new detached dwelling must be located on a parcel of land on which no other detached dwelling, semi-detached dwelling or row dwelling would be located.
2	Proposed new semi-detached dwellings or row dwellings	Proposed new residential buildings that would have one or two vertical walls, but no other parts, attached to other buildings and that are permitted to contain a second dwelling unit, that being either of the two dwelling units, if the units have the same gross floor area, or the smaller of the dwelling units.	The proposed new semi-detached dwelling or row dwelling must only contain two dwelling units. The proposed new semi-detached dwelling or row dwelling must be located on a parcel of land on which no other detached dwelling, semi-detached dwelling or row dwelling would be located.
3	Proposed new residential buildings that would be ancillary to a proposed new detached dwelling, semi-detached dwelling or row dwelling	Proposed new residential buildings that would be ancillary to a proposed new detached dwelling, semi-detached dwelling or row dwelling and that are permitted to contain a single dwelling unit.	The proposed new detached dwelling, semi-detached dwelling or row dwelling, to which the proposed new residential building would be ancillary, must only contain one dwelling unit. The gross floor area of the dwelling unit in the proposed new residential building must be equal to or less than the gross floor area of the detached dwelling, semi-detached dwelling or row dwelling to which the proposed new residential building is ancillary.

3.5.1 Notwithstanding subsection 3.5(b), development charges shall be imposed if the total gross floor area of the additional one or two units exceeds the gross floor area of the existing dwelling unit;

3.5.2 Notwithstanding subsection 3.5(d), development charges shall be imposed if the additional unit has a gross floor area greater than:

(a) in the case of a semi-detached or row dwelling, the gross floor area of the existing dwelling unit; and



- (b) in the case of any other residential building, the gross floor area of the smallest dwelling unit already contained in the residential building.

Rules with Respect to an Industrial Expansion Exemption

3.6 If a development includes the enlargement of the gross floor area of an existing industrial building, the amount of the development charges that is payable in respect of the enlargement is determined in accordance with the following:

(a) Subject to subsection 3.6 (c), if the gross floor area is enlarged by 50 per cent or less of the lesser of:

- i. the gross floor area of the existing industrial building, or
- ii. the gross floor area of the existing industrial building before the first enlargement for which:

a. an exemption from the payment of development charges was granted, or

b. a lesser development charge than would otherwise be payable under this by-law, or predecessor thereof, was paid,

pursuant to Section 4 of the Act and this subsection, the amount of the development charge in respect of the enlargement is zero;

(b) Subject to subsection 3.6 (c), if the gross floor area is enlarged by more than 50 per cent or less of the lesser of:

(i) the gross floor area of the existing industrial building, or

(ii) the gross floor area of the existing industrial building before the first enlargement for which:

a. an exemption from the payment of development charges was granted, or



b. a lesser development charge than would otherwise be payable under this by-law, or predecessor thereof, was paid,

pursuant to Section 4 of the Act and this subsection, the amount of the development charge in respect of the enlargement is the amount of the development charge that would otherwise be payable multiplied by the fraction determined as follows:

c. determine the amount by which the enlargement exceeds 50 per cent of the gross floor area before the first enlargement, and

d. divide the amount determined under subsection (A) by the amount of the enlargement;

(c) For the purposes of calculating the extent to which the gross floor area of an existing industrial building is enlarged in subsection 3.6 (b), the cumulative gross floor area of any previous enlargements for which:

(i) An exemption from the payment of development charges was granted, or

(ii) A lesser development charge than would otherwise be payable under this by-law, or predecessor thereof, was paid,

pursuant to Section 4 of the Act and this subsection, shall be added to the calculation of the gross floor area of the proposed enlargement.

(d) For the purposes of this subsection, the enlargement must not be attached to the existing industrial building by means only of a tunnel, bridge, passageway, canopy, shared below grade connection, such as a service tunnel, foundation, footing or parking facility.

3.7 For the purpose of section 3.6, "existing industrial building" is used as defined in the Regulation made pursuant to the Act.



Other Exemptions

- 3.8 For vacant lots within the Ailsa Craig, Nairn and Petty area which have paid a capital charge for sanitary services under the Development Charges Act, 1997 or Municipal Act, no further development charges for this service are payable.

Amount of Charges

Residential

- 3.9 The development charges set out in Schedule B shall be imposed on residential uses of lands, buildings, or structures, including a dwelling unit accessory to a non-residential use and, in the case of a mixed-use building or structure, on the residential uses in the mixed-use building or structure, according to the type of residential unit, and calculated with respect to each of the services according to the type of residential use.

Non-Residential

- 3.10 The development charges described in Schedule B to this by-law shall be imposed on non-residential uses of lands, buildings, or structures, and, in the case of a mixed-use building or structure, on the non-residential uses in the mixed-use building or structure, and calculated with respect to each of the services according to the gross floor area of the non-residential use.

Reduction of Development Charges for Redevelopment

- 3.11 Despite any other provisions of this by-law, where, as a result of the redevelopment of land, a building or structure existing on the same land within 5 years prior to the date of payment of development charges in regard to such redevelopment was, or is to be demolished, in whole or in part, or converted from one principal use to another principal use on the same land, in order to facilitate the redevelopment, the development charges otherwise payable with respect to such redevelopment shall be reduced by the following amounts:

- (a) in the case of a residential building or structure, or in the case of a mixed-use building or structure, the residential uses in the mixed-use building or structure, an amount calculated by multiplying the applicable development charge under subsection 3.9 by the number, according to type, of dwelling



units that have been or will be demolished or converted to another principal use; and

- (b) in the case of a non-residential building or structure or, in the case of mixed-use building or structure, the non-residential uses in the mixed-use building or structure, an amount calculated by multiplying the greater of the applicable development charges under subsection 3.10 by the gross floor area that has been or will be demolished or converted to another principal use;

provided that such amounts shall not exceed, in total, the amount of the development charges otherwise payable with respect to the redevelopment.

Time of Calculation and Payment of Development Charges

- 3.12 Development charges imposed under this By-law are calculated, payable, and collected upon issuance of the first building permit for the development.
- 3.13 Notwithstanding subsection 3.12 development charges for rental housing and institutional developments are due and payable in 6 equal annual payments commencing with the first instalment payable on the earlier of the date the first occupancy permit is granted or the date of first occupancy, and each subsequent instalment, including interest calculated in accordance with the Municipality's D.C. Interest Rate Policy.
- 3.14 Notwithstanding subsections 3.12 and 3.13 development charges for non-profit housing developments are due and payable in 21 equal annual payments commencing with the first instalment payable on the earlier of the date the first occupancy permit is granted or the date of first occupancy, and each subsequent instalment, including interest calculated in accordance with the Municipality's D.C. Interest Rate Policy, continuing on the anniversary of that date.
- 3.15 Where the development of land results from the approval of a site plan or zoning by-law amendment received on or after January 1, 2020, and the approval of the application occurred within two years of building permit issuance, the development charges under subsections 3.9 and 3.10 shall be calculated on the rates set out in Schedule "B" on the date of the planning application, including interest as per the Municipality's D.C. Interest Rate Policy. Where both planning



applications apply, development charges under subsections 3.9 and 3.10 shall be calculated on the rates, including interest as provided in the Municipality's D.C. Interest Rate Policy, payable on the anniversary date each year thereafter, set out in Schedule "B" on the date of the later planning application, including interest.

- 3.16 Despite sections 3.12 to 3.15, Council from time to time, and at any time, may enter into agreements providing for all or any part of a development charge to be paid before or after it would otherwise be payable, in accordance with section 27 of the Act.

4. Payment by Services

- 4.1 Despite sections 3.12 to 3.15, Council may, by agreement, give a credit towards a development charge in exchange for work that relates to a service to which a development charge relates under this by-law.

5. Indexing

- 5.1 Development charges imposed pursuant to this by-law shall be adjusted annually, without amendment to this by-law, commencing on January 1, 2022 and annually thereafter, in accordance with the prescribed index in the Act.

6. Schedules

- 6.1 The following schedules shall form part of this by-law:

Schedule A: Components of Services and Classes of Services Designated in Subsection 2.1

Schedule B: Residential and Non-Residential Development Charges

Schedule C: Map of Parkhill Urban Service Area

Schedule D: Map of Ailsa Craig Urban Service Area

Schedule E: Map of Nairn Urban Service Area



7. Conflicts

- 7.1 Where the Municipality and an owner or former owner have entered into an agreement with respect to land within the area to which this by-law applies, and a conflict exists between the provisions of this by-law and such agreement, the provisions of the agreement shall prevail to the extent that there is a conflict.
- 7.2 Notwithstanding section 7.1, where a development which is the subject of an agreement to which section 7.1 applies, is subsequently the subject of one or more of the actions described in subsection 3.4(a), an additional development charge in respect of the development permitted by the action shall be calculated, payable and collected in accordance with the provisions of this By-law if the development has the effect of increasing the need for services, unless such agreement provides otherwise.

8. Severability

- 8.1 If, for any reason, any provision of this by-law is held to be invalid, it is hereby declared to be the intention of Council that all the remainder of this by-law shall continue in full force and effect until repealed, re-enacted, amended or modified.

9. By-law In Force

- 9.1 This by-law shall come into effect on the date of passage hereof.

10. Date By-law Expires

- 10.1 This by-law will expire at 12:01 AM on April --, 2027 unless it is repealed by Council at an earlier date.

11. Existing By-law Repealed

- 11.1 By-law Number 17 of 2018, as amended, is hereby repealed as of the date and time of this By-law coming into effect.



ENACTED and PASSED THIS --, DAY OF April, 2022

Mayor

Municipality of North Middlesex Clerk



**Schedule “A”
To By-law 21-____**

Components of Services and Classes of Services Designated in Subsection 2.1

Municipal-wide D.C.-Eligible Services

- Services Related to a Highway
 - Roads
 - Public Works Facilities, Vehicles, and Equipment
- Fire Protection Services
 - Fire Facilities
 - Fire Vehicles
 - Small Equipment and Gear
- Parks and Recreation Services
 - Parkland Development, Amenities, and Trails
 - Recreation Facilities
 - Recreation Vehicles and Equipment
- Library Services
 - Library Facilities

Urban Area D.C.-Eligible Services

- Water Services
 - Storage
 - Distribution
- Wastewater Services
 - Treatment Plants
 - Sewers

Municipal-wide D.C.-Eligible Class of Service

- Growth Studies:
 - Services Related to a Highway
 - Fire Protection Services
 - Parks and Recreation Services
 - Library Services
 - Water Services
 - Wastewater Services
 - Stormwater Drainage and Control Services

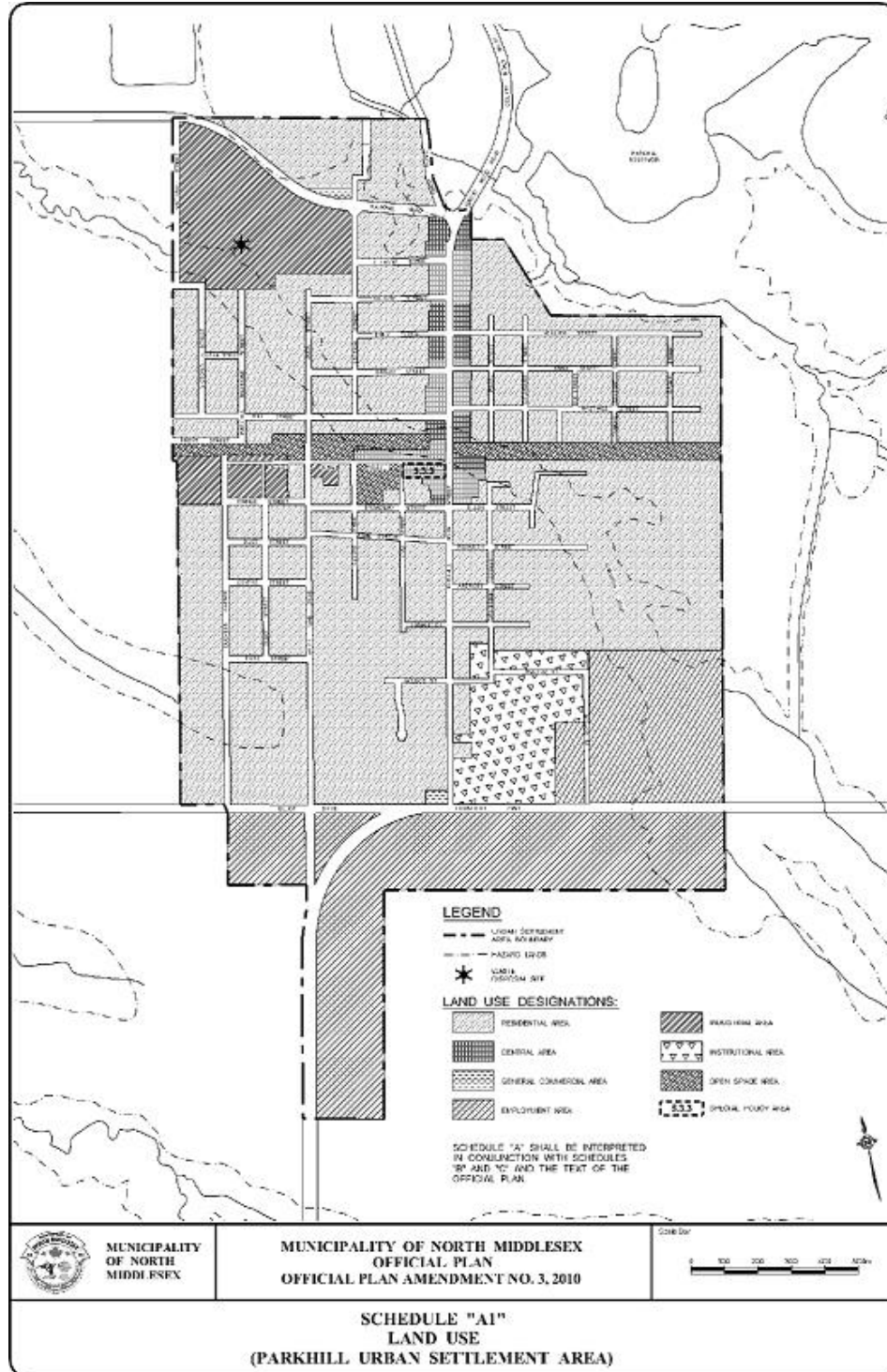


**Schedule “B”
To By-law 21-____
Schedule of Development Charges**

Service/Class of Service	RESIDENTIAL					NON-RESIDENTIAL	
	Single and Semi-Detached Dwelling	Other Multiples	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	Commercial, Institutional, and Small Industrial (per sq.ft. of Gross Floor Area)	Large Industrial (per sq.ft. of Gross Floor Area)
Municipal Wide Services/Class of Service:							
Services Related to a Highway	1,525	1,088	1,038	655	563	0.55	0.55
Fire Protection Services	1,405	1,002	956	603	518	0.50	0.50
Parks and Recreation Services	603	430	411	259	223	0.06	0.06
Growth Studies	972	693	662	417	359	0.38	0.38
Total Municipal Wide Services/Class of Services	4,505	3,213	3,067	1,934	1,663	1.49	1.49
Urban Services - Parkhill							
Wastewater Treatment	10,135	7,230	6,900	4,350	3,741	5.23	14.80
Wastewater Sewers	1,097	783	747	471	405	0.49	0.49
Water Storage	2,059	1,469	1,402	884	760	0.74	0.74
Water Distribution	2,562	1,828	1,744	1,100	946	1.13	1.13
Total Urban Services	15,852	11,310	10,793	6,805	5,852	7.59	17.16
Urban Services - Ailsa Craig & Nairn							
Wastewater Treatment	5,900	4,209	4,017	2,532	2,178	3.45	8.61
Wastewater Sewers	1,450	1,034	987	622	535	0.84	0.84
Water Storage	3,842	2,741	2,616	1,649	1,418	1.56	1.56
Water Distribution	700	499	477	300	258	0.40	0.40
Total Urban Services	11,892	8,483	8,097	5,103	4,389	6.25	11.42
GRAND TOTAL RURAL AREA	4,505	3,213	3,067	1,934	1,663	1.49	1.49
GRAND TOTAL - PARKHILL	20,357	14,523	13,860	8,739	7,515	9.08	18.65
GRAND TOTAL - AILSA CRAIG & NAIRN	16,396	11,696	11,164	7,037	6,052	7.74	12.91

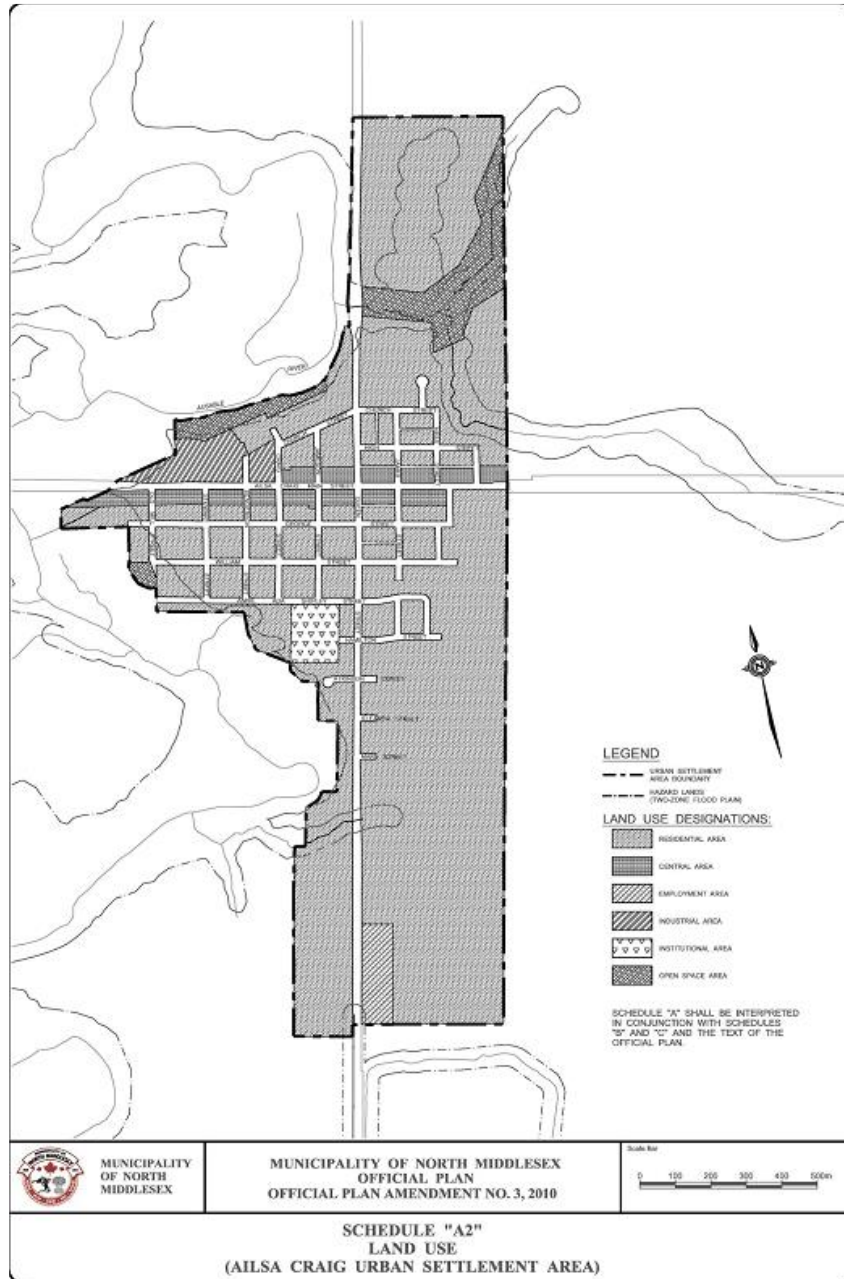


Schedule "C"
To By-law 21-___
Map of Parkhill Urban Service Area



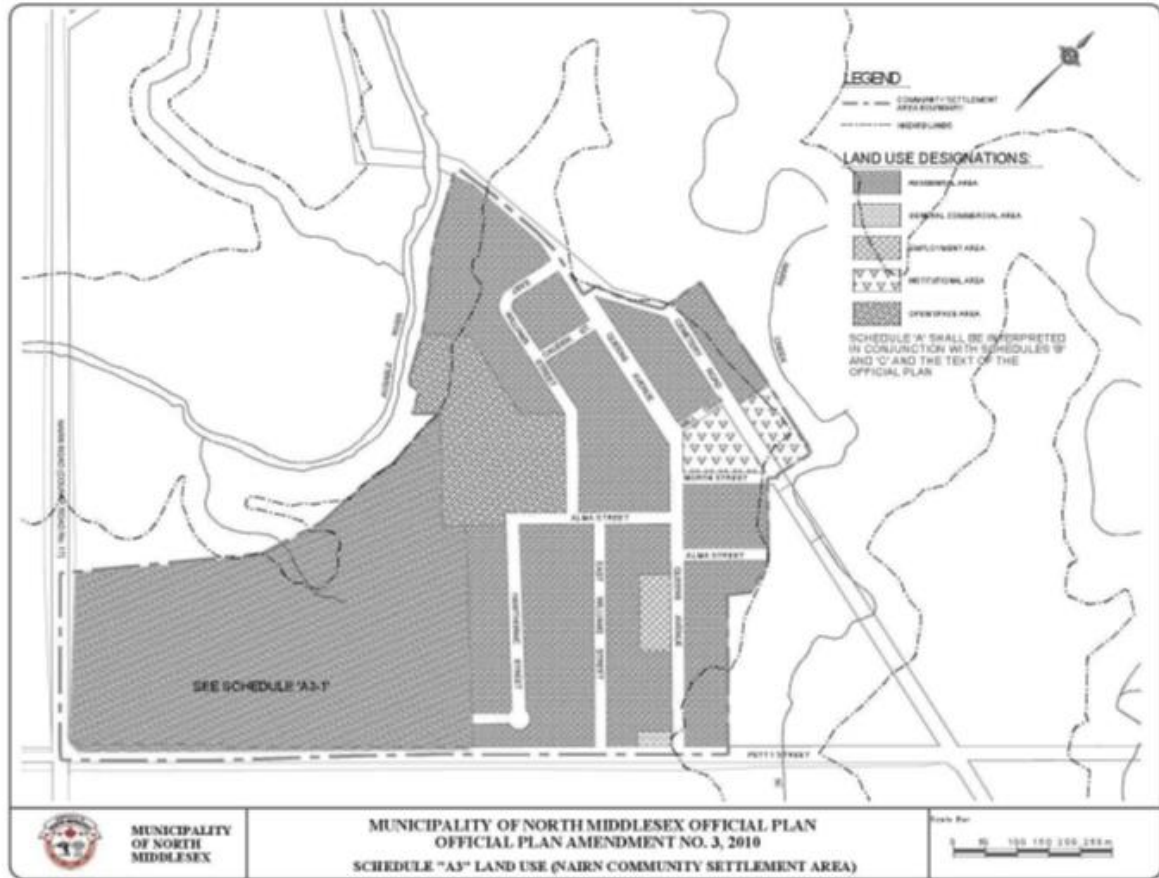


Schedule "D"
To By-law 21-___
Map of Ailsa Craig Urban Service Area





Schedule "E"
To By-law 21-___
Map of Ailsa Craig Urban Service Area





Appendix H

Alternative Urban Area D.C. Calculations



Appendix H: Alternative Urban Area D.C. Calculations

H.1 Introduction

The Municipality's current approach to calculating development charges for urban services (e.g. water and wastewater) provides for separate charges for the Parkhill area vs. the Ailsa Craig/Nairn areas. As discussed in Chapter 5 and Chapter 6, the capital needs have been identified separately, and the D.C. calculations are based on the capital needs and growth in the respective urban areas. Through updates to the Municipality's water and wastewater rates over the past few years, the Municipality has moved towards consolidating the two area rates into one. Similarly, Council has the option to consider calculation of D.C.s in the same manner. The following sections outline the D.C. calculations for water and wastewater services on a combined urban-area basis.

H.2 Revised Infrastructure Costs and D.C. Calculations

Water and Wastewater Linear

As discussed in section 5.4 of this report, the capital needs for water and wastewater linear services include various watermain and sewer upgrades along with upgrades to existing pumping stations. For the purposes of the calculations, the deductions for benefit to existing development, post period benefit, and other deductions remain the same. Table H-1 provides the capital needs for linear water services and H-2 provides the capital needs for linear wastewater services.

Based on the D.C. recoverable amounts, the urban area D.C. for water would be \$1,805 per single detached unit and \$0.88 per sq.ft. of non-residential development. The D.C. for wastewater would be \$1,240 per single detached unit and \$0.60 per sq.ft. of non-residential development



Table H-1
Infrastructure Cost Included in the Development Charges Calculation
Water Services – Linear

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2022\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
	2022-Urban Buildout										
1	Parkhill Main Street Watermain Rehabilitation and Reservoir Works	2025-2026	9,400,000	-		9,400,000	8,460,000		940,000	846,000	94,000
2	Watermain upgrade - 300mm - New elevated tank site to Elgin Road (Queen and Petty St. Rehab and upgrade)	2022-2023	5,050,000	2,180,700		2,869,300	2,693,300		176,000	158,400	17,600
	Total		14,450,000	2,180,700	-	12,269,300	11,153,300	-	1,116,000	1,004,400	111,600



Table H-2
Infrastructure Cost Included in the Development Charges Calculation
Wastewater Services – Linear

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2022\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Potential D.C. Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 90%	Non-Residential Share 10%
2022-Urban Buildout											
1	Gravity Sewer Upgrades on Parkhill Main Street (23m)	2022	44,000	14,800		29,200	19,800		9,400	8,460	940
2	Gravity Sewer Upgrades on Mill Street (279m)	2025-2026	350,000	117,600		232,400	157,500		74,900	67,410	7,490
3	Gravity Sewer Upgrades on Hastings Street (356m)	2023-2024	500,000	168,000		332,000	225,000		107,000	96,300	10,700
4	Gravity Sewer Upgrades on Station Street (55m)	2026-2027	95,000	31,900		63,100	42,800		20,300	18,270	2,030
5	Victoria Street Upgrades (Pump Station)	2023-2024	490,000	299,300		190,700	-		190,700	171,630	19,070
6	Replace and Upgrade Sewers on Petty Street - 1452m 300mm pipe and 16 Manhole Structures	2026-2027	2,410,000	1,338,000		1,072,000	964,000		108,000	97,200	10,800
7	Replace and Upgrade Sewers on Queen Street - 160m 300mm pipe sewer and 2 Manhole structures	2022	247,000	137,100		109,900	98,800		11,100	9,990	1,110
8	Replace and Upgrade Sewers on Queen Street - 932m 375mm pipe sewer and 2 Manhole structures	2023-2025	1,900,000	1,142,800		757,200	665,000		92,200	82,980	9,220
9	Replace and Upgrade Sewers on Annie Ada Shipley Street - 315m 375mm pipe sewer and 3 Manhole structures	2026-2027	561,000	337,400		223,600	196,400		27,200	24,480	2,720
10	Replace and Upgrade Sewers on Henderson Street - 113m 375mm pipe sewer and 1 Manhole Structure	2027-2028	201,000	120,800		80,200	70,400		9,800	8,820	980
11	Replace and Upgrade Sewers on William Street - 184m 375 mm pipe sewer and 3 Manhole Structures	2028-2029	358,000	215,300		142,700	125,300		17,400	15,660	1,740
12	New Ontario Pump Station Upgrade	2029-2030	435,000	378,400		56,600	26,100		30,500	27,450	3,050
13	William Street Pump Station Upgrade	2024-2025	627,000	551,100		75,900	31,400		44,500	40,050	4,450
14	William Street PS Forcemain Upgrade (600m 250mm diameter)	2025-2026	533,000	291,000		242,000	218,500		23,500	21,150	2,350
	Total		8,751,000	5,143,500	-	3,607,500	2,841,000	-	766,500	689,850	76,650



Water Storage

As noted in section 5.4, The Municipality has identified the need for an expansion to the Mount Carmel reservoir and an elevated storage tank. These works will produce a storage capacity of 4,975 cu.m. The total cost of these works is estimated at approximately \$9.87 million.

Based upon the information provided above, a capacity calculation is provided below, which calculates a net cost per cubic metre and then, based on storage capacity requirements (based on discussions with staff), provides a capital cost per capita and per employee. These costs are then multiplied by the assumed cubic metres of volume required per person and per employee. It is assumed that the volume per person is equal to the volume per employee.

Water		Residential	Non-residential
Mount Carmel Reservoir Expansion (2022 \$)	\$3,420,000		
Ailsa Craig Elevated Storage Tank (2022 \$)	\$6,446,000		
Total Cost of Works	\$9,866,000		
Total Capacity of Works (cu.m)	4,975		
Cost per cu.m	\$1,983.12	\$1,983.12	\$1,983.12
Volume per capita/employee (cu.m)		0.500	0.500
Cost per capita/employee		\$991.56	\$991.56

For the calculation of the residential charges, the capital cost per person was multiplied by the persons per unit for each housing type. The calculations are provided below:

Residential Unit Type	Persons per Unit	Charge per Capita	DC by Unit Type
Single and Semi-Detached Dwelling	2.980	\$991.56	\$2,955
Other Multiples	2.126	\$991.56	\$2,108
Apartments - 2 Bedrooms +	2.029	\$991.56	\$2,012
Apartments - Bachelor and 1 Bedroom	1.279	\$991.56	\$1,268
Special Care/Special Dwelling Units	1.100	\$991.56	\$1,091

The non-residential development charge has been calculated as described above. The per employee capital cost of \$991.56 is divided by the average square feet of building space per employee to derive the development charge per square foot of building space as follows:

Capital Cost per employee	\$991.56
Average sq.ft. per employee	893
Non-residential charge per sq.ft.	\$1.11



Wastewater Treatment

As noted in section 5.4 of this report the Municipality has identified the need to expand the Ailsa Craig treatment plant and construct a treatment plant in Parkhill. The total capacity for both plants will be 3,500 cu.m. The total cost of the works is estimated at approximately \$40.94 million.

Based upon the information provided above, a capacity calculation is provided below, which calculates a net cost per cubic metre and then, based on capacity requirements (based on discussions with staff), provides a capital cost per capita and per employee. These costs are then multiplied by the assumed cubic metres of volume required per person and per employee. It is assumed that the volume per person is equal to the volume per employee.

Wastewater		Residential	Non-residential Commercial/ Institutional/ Small Industrial	Non-residential Large Industrial*
Parkhill Wastewater Treatment Plant (Phase 1 and 2) (2022 \$)	\$31,400,000			
Ailsa Craig Treatment Plant Expansion and Addition (2022 \$)	\$9,537,000			
Total Cost of Work	\$40,937,000			
Total Capacity of Works	3,500			
Cost per cu.m	\$11,696.29	\$11,696.29	\$11,696.29	\$11,696.29
Volume per capita/employee (cu.m)		0.249	0.358	1.626
Cost per capita/employee		\$2,913.63	\$4,183.49	\$19,015.88

*Non-residential Large Industrial is categorized as industrial wastewater users with a per employee flow greater than 0.500 cu.m

For the calculation of the residential charges, the capital cost per person was multiplied by the persons per unit for each housing type. The calculations are provided below:

Residential Unit Type	Persons per Unit	Charge per Capita	DC by Unit Type
Single and Semi-Detached Dwelling	2.980	\$2,913.63	\$8,683
Other Multiples	2.126	\$2,913.63	\$6,194
Apartments - 2 Bedrooms +	2.029	\$2,913.63	\$5,912
Apartments - Bachelor and 1 Bedroom	1.279	\$2,913.63	\$3,727
Special Care/Special Dwelling Units	1.100	\$2,913.63	\$3,205

The non-residential development charge has been calculated as described above. With respect to commercial, institutional, and small industrial developments, the per employee capital cost of \$4,183.49 is divided by the average square feet of building space per employee to derive the development charge per square foot of building space as follows:



Capital Cost per employee	\$4,183.49
Average sq.ft. per employee (Commercial/ Institutional /Small Industrial)	893
Non-residential charge per sq.ft.	\$4.68

With respect to industrial developments with higher wastewater use, the per employee capital cost of \$19,015.88 is divided by the average square feet of building space per employee for industrial uses to derive the development charge per square foot of building space as follows:

Capital Cost per employee	\$19,015.88
Average sq.ft. per employee (Large Industrial)	1,500
Non-residential charge per sq.ft.	\$12.68

H.3 Comparison of D.C. Rates

Based on the above, the following tables present comparisons of the rates based on a combined urban-area and separated urban areas. For Parkhill, the combined urban area calculation would decrease the single detached unit charge by \$1,170 and the per sq.ft. non-residential charges by \$0.31 for commercial, institutional, and small industrial, and by \$1.89 for large industrial. For Ailsa Craig and Nairn, the combined urban area calculation would increase the single detached unit charge by \$2,791 and the per sq.ft. non-residential charges by \$1.03 for commercial, institutional, and small industrial and by \$3.85 for large industrial.

Single-detached Unit

Urban Service Area	Total Water and Wastewater DCs		Difference
	Separated Urban Area	Combined Urban Area	
Parkhill	\$15,852	\$14,682	(\$1,170)
Ailsa Craig & Nairn	\$11,892	\$14,682	\$2,791

Per sq.ft. of Non-residential Development (Commercial, Institutional, and Small Industrial)

Urban Service Area	Total Water and Wastewater DCs		Difference
	Separated Urban Area	Combined Urban Area	
Parkhill	\$7.59	\$7.28	(\$0.31)
Ailsa Craig & Nairn	\$6.25	\$7.28	\$1.03

Per sq.ft. of Non-residential Development (Large Industrial)

Urban Service Area	Total Water and Wastewater DCs		Difference
	Separated Urban Area	Combined Urban Area	
Parkhill	\$17.16	\$15.27	(\$1.89)
Ailsa Craig & Nairn	\$11.42	\$15.27	\$3.85



H.4 Revised Table for By-law

As per the revised calculations above, the following provides the schedule of charges to be included in the by-law, should Council decide to proceed with a combined urban area charge.



Table H-3
Schedule "B" to By-law – of 2022
Calculated Development Charges

Service/Class of Service	RESIDENTIAL					NON-RESIDENTIAL	
	Single and Semi-Detached Dwelling	Other Multiples	Apartments - 2 Bedrooms +	Apartments - Bachelor and 1 Bedroom	Special Care/Special Dwelling Units	Commercial, Institutional, and Small Industrial (per sq.ft. of Gross Floor Area)	Large Industrial (per sq.ft. of Gross Floor Area)
Municipal Wide Services/Class of Service:							
Services Related to a Highway	1,525	1,088	1,038	655	563	0.55	0.55
Fire Protection Services	1,405	1,002	956	603	518	0.50	0.50
Parks and Recreation Services	603	430	411	259	223	0.06	0.06
Growth Studies	972	693	662	417	359	0.38	0.38
Total Municipal Wide Services/Class of Services	4,505	3,213	3,067	1,934	1,663	1.49	1.49
Urban Services							
Wastewater Treatment	8,683	6,194	5,912	3,727	3,205	4.68	12.68
Wastewater Sewers	1,240	885	844	532	458	0.60	0.60
Water Storage	2,955	2,108	2,012	1,268	1,091	1.11	1.11
Water Distribution	1,805	1,288	1,229	775	666	0.88	0.88
Total Urban Services	14,682	10,475	9,997	6,302	5,420	7.28	15.27
GRAND TOTAL RURAL AREA	4,505	3,213	3,067	1,934	1,663	1.49	1.49
GRAND TOTAL - URBAN	19,187	13,688	13,064	8,236	7,083	8.77	16.76