

# **APPENDIX 2**

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## **POPULATION & EMPLOYMENT FORECASTS BY TRAFFIC ZONES 2011 - 2041**



# **POPULATION AND EMPLOYMENT FORECASTS BY TRAFFIC ZONES**

**2011-2041**

MARCH 2013  
CITY OF BRANTFORD  
POLICY PLANNING DEPARTMENT

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## **Introduction**

The following information will distribute population and employment growth in the City of Brantford based on traffic zones within the City's boundaries and beyond. The base year for population growth is taken from the 2011 Census. Employment figures from the 2011 Census have not been released at the time of data preparation. Therefore, the base year for employment is taken from a forecast completed in 2009. The population and employment figures are projected over 5-year intervals for 2016, 2021, 2026, 2031, 2036, and 2041. The information is intended to be a high level projection to illustrate the location and intensity of potential population and employment growth in the City.

The population and employment projections for the City of Brantford are attributed to two main sources of information (1) 2009 Development Charges Background Study which includes population and employment projections for 2009-2031 which are consistent with the Growth Plan for the Greater Golden Horseshoe and (2) The Places to Grow Growth Plan for the Greater Golden Horseshoe- Proposed Amendment #2 Population and Employment Forecasts for the years 2036 and 2041.

The distribution of population and employment growth is applied to traffic zones within and outside of the City's existing municipal boundary (see Appendix 1A-1B). The data retrieval from the census enumeration has been modified to fit the City's traffic zones as the census dissemination areas and blocks do not precisely match the City's traffic zone boundaries. As a result, several dissemination blocks have been combined to correspond with the traffic zone boundaries. Appendix 2 illustrates the combination of dissemination blocks that comprise the City's traffic zones within the municipality's boundary.

It should be noted that at the time of data preparation, the Ministry of Infrastructures Proposed Amendment 2 to the Growth Plan for the Greater Golden Horseshoe has not been finalized. However, the City will use the proposed figures for 2036 and 2041 projections.

The population and employment projection figures may not exactly match the figures found in the growth projection sources due to three factors, (1) rounding of multiple traffic zone population projections (2) the 2009 Development Charges Background Study does not include a Census undercount (estimate of residents not attributed for in the initial Census count) whereas the Growth Plan projections include an undercount, for the purposes of this report, the Census undercount has not been included and (3) Since 2006, the City of Brantford has grown at a rate below the required level to achieve its growth targets. As a result, for the purposes of this exercise population and employment projections to 2021 have been reduced to reflect the previous years of slow growth.

## **Population Projection Methodology**

The distribution of anticipated population is based on two sources of information. The first is known plans for development received by the City's Planning Department as illustrated on the residential monitoring map (Appendix #3). The information is quantified through Registered Plans, Draft Plans of Subdivision and Condominiums, and Planning Application received by the City. The second source is lands with development potential. This category is based on sites identified by the City as having residential, commercial, institutional, office or mixed use development potential as a result of Provincial Plans (i.e. Places to Grow), Municipal Planning Policies (i.e. Official Plan Designations, Zoned Sites), Planning Studies (i.e. Intensification Strategy and Neighbourhood Plans) and the City's Growth Management Plan outlined as Schedule 1-2 in the Official Plan (See Appendix 4). This information forms the basis for growth distribution which will be projected over 5-year intervals to coincide with growth projections and targets.

Population distribution between 2031 and 2041 is based on the City acquiring additional lands outside of the municipal boundary. The preferred development area for developable land outside of the City's municipal boundary is taken from the preferred growth scenario provided in the City's 2006 Growth Management Plan (Appendix 5). Please note that for the purposes of this study the scenario represents only the developable land area and general uses.

The figures used to prepare residential population growth beyond 2031 is taken from the City's most recent secondary plan completed for the West of Conklin Secondary Plan which was designed to achieve an overall density of 57 people and/or jobs per hectare. The population component of the distribution on lands outside the municipal boundary is based on an overall net residential density of 52 people per hectare. The following information was used to calculate the distribution of population growth.

- Registered Plans;
- Draft Approved Plans of Subdivisions and Condominiums ;
- Pending Applications;
- Sites with redevelopment potential;
- Lands with General Capability for Development;
- The Urban Growth Centre Target of 150 people and/or jobs per Hectare by 2031;
- Minimum infill target of 40% development in the Built Boundary to 2031
- City of Brantford – Intensification Strategy: Opportunities Report
- North of Shellard Neighbourhood Plan ;

- Empire Communities Neighbourhood Plan;
- West of Conklin Secondary Plan; and
- 2006 Growth Management Plan: Preferred Scenario (Area 1)

In addition to the studies, reports, and plans listed above, several assumptions based on development potential and timing of developments were made.

The distribution of population projections is based on several key assumptions:

- Population Growth between the 2011-2021 period is anticipated to be below the figures projected in the 2009 Development Charges Background Study due to the slow pace of development in the City over the past 5 years;
- Population growth will keep pace with the forecasted rate required for the City to achieve its 2031 Population target outlined in the Places to Grow Growth Plan for the Greater Golden Horseshoe (600+ units per year);
- The average Persons Per Unit (PPU) overall in the City will decrease from 2.38 to 2.29 between 2011 – 2031;
- 2.5 PPU average will be used for 2031 to 2041;
- The total development potential in the City's Intensification Corridors has been reduced to 40% to better reflect the market potential for intensification in the City to 2031;
- The total development potential in the City's Urban Growth Centre has been reduced to 60% to 2031 to reflect the market potential in the area while still achieving the Urban Growth Centre target of 150 people and/or jobs per hectare established in the Places to Grow Growth Plan for the Greater Golden Horseshoe;
- To achieve the 150 people and/or jobs per hectare target in the Urban Growth Centre, 6,000 people or 2,900 – 4,000 residential units are required;
- The distribution of development potential in the City's intensification corridors are broken down into 1/4 distributions over the periods of 2011-2016, 2016-2021, 2021-2026, and 2026-2031;
- Intensification growth beyond 2031 is based on the remaining development potential in the Intensification Corridors and Urban Growth Centre;
- The 40% infill rate is not applied beyond 2031 due to the low supply of infill opportunities and the increase in Greenfield development potential;

- The City's Urban Growth Centre is comprised of traffic zones 23,24, and 34, to achieve the 150 people and/or jobs per hectare, development will occur proportionally across all 3 traffic zones;
- Population Growth in traffic zone 24 is increased over the 2011-2016 period. This assumption is based on several projects anticipated for development within the next 4 years and the development goals of Wilfrid Laurier Brantford in the same time period;
- The population distribution in traffic zones 23 and 34 contain no major development before 2016. After 2016, development is evenly distributed between 2016 and 2031;
- The form of development in the Intensification Corridors and Urban Growth Centres are based on mixed use forms. (See Appendix 6) for an outline of the general building characteristics;
- Traffic zones 9 and 10 have a negative population growth projection as the residential dwellings are surrounded by industrial uses and it is anticipated that the residential uses will not be maintained;
- Population decline attributed to the overall decrease in PPU has been off-set by the addition of small infill developments and secondary dwelling units;
- The commencement of development are based on the following:
  - Registered Plans, Draft approved plans of subdivision and condominium, and applications with no immediately known constraints have a commencement date in the 2011-2021 time frame.
  - Lands with general capabilities and lands zoned for multi-residential uses are presented based on known assumptions regarding the level of constraints.
  - Lands with high levels of constraints are positioned for commencement towards the 2021-2031 timeframe to allow for the constraints to be resolved.
- The form of development on lands outside of the municipal boundary beyond 2031 is based on the residential components of the Net Land Area/Housing Mix calculation found in the West of Conklin Secondary Plan (see Appendix 7).

## **Employment Projection Methodology**

The employment projections are based on the figures prepared as part of the 2009 Development Charges Background Study. At the time of data preparation, employment figures from the 2011 Census have not been released by Statistics Canada. It should be noted that the 2009 Development Charges Background Study forecasts a higher total employment figure than the Growth Plan due to higher activity levels that reflect the City being the urban centre of the local economic region. Employment projections beyond 2031 will be based on figures provided in proposed amendment #2 to the Growth Plan for the Greater Golden Horseshoe.

The distribution of projected employment is based on the following: development potential of employment lands as identified on the City's vacant industrial lands map (Appendix 8); the potential for institutional, office, and commercial development in the City's Intensification Corridors and Urban Growth Centre; employment potential in the West of Conklin Secondary Plan Area; and home occupations.

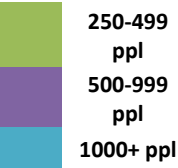
The sources of information listed are used to project employment growth to 2041 over 5 year intervals. Beyond 2031, lands outside of the municipal boundary will be used to project employment growth on employment land and in new residential neighbourhoods.

The following assumptions guide the distribution of projected employment growth:

- Employment lands are developed with a lot coverage of 20.35%;
- Employment lands have a density of 93 square metres per employee to 2031;
- Employment land density in Traffic Zones 58, 59, and 60 are increased to 70 square metres per employee from 2031-2041 to reflect the potential for office development and other business uses;
- City owned serviced industrial land will be developed before privately owned unserviced land;
- Additional employment growth is apportioned to employment lands that are zoning to permit commercial uses;
- Commercial development in the Intensification Corridors and Urban Growth Centre are calculated with a density of 40 square metres per employee;
- To achieve the 150 people and/or jobs per hectare in the Urban Growth Centre requires 3,000 jobs through a combination of commercial, office, and institutional uses;
- 3 jobs per hectare used to calculate job growth in New residential subdivisions outside the current municipal boundary; and
- Traffic zone 7 will function as a commercial node with increased retail and mixed use opportunities.

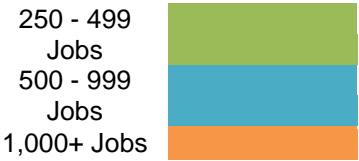
Population Distribution 2011-2041

Traffic Zones	2011 Population	2016 Population	2021 Population	2026 Population	2031 Population	2036 Population	2041 Population	Increase
1	5,646	5,702	5,735	5,769	5,800	5,880	5,960	314
2	2,680	2,724	2,772	2,820	2,867	2,947	3,027	347
3	2,543	2,574	2,610	2,646	2,681	2,761	2,841	298
4	1,353	1,404	1,457	1,510	1,562	1,632	1,702	349
5	10,619	10,641	11,161	11,202	11,238	11,329	11,420	801
6	4,680	4,681	4,689	4,698	4,705	4,726	4,747	67
7	5	155	229	303	377	468	559	554
8	0	0	0	0	0	0	0	0
9	19	19	0	0	0	0	0	-19
10	73	73	0	0	0	0	0	-73
11	2,232	2,388	2,499	2,610	2,612	2,612	2,665	433
12	74	162	250	337	339	339	466	392
13	3,080	3,081	3,209	3,283	3,285	3,285	3,500	420
14	2,479	2,481	2,509	2,593	2,594	2,594	2,836	357
15	2,972	2,973	3,154	3,334	3,511	3,686	3,861	889
16	4,832	4,856	4,888	4,921	4,951	5,031	5,111	279
17	5	5	5	5	5	5	5	0
18	1,879	1,879	1,880	1,881	1,882	1,882	1,882	3
19	1,434	1,616	1,845	1,902	1,901	1,901	1,901	467
20	1,535	1,582	1,631	1,681	1,729	1,799	1,869	334
21	1,759	1,759	1,759	1,759	1,760	1,760	1,760	1
22	1,929	1,996	2,169	2,240	2,308	2,448	2,588	659
23	997	998	999	1,853	2,697	2,860	3,023	2,026
24	1,082	1,400	1,719	2,033	2,340	2,503	2,666	1,584
25	3,290	3,338	3,541	3,743	3,893	3,893	3,893	603
26	2,461	2,462	2,564	2,665	2,764	2,971	3,178	717
27	3,755	3,820	4,121	4,121	4,121	4,121	4,121	366
28	1,556	1,558	1,557	1,557	1,559	1,559	1,559	3
29	331	332	481	629	776	983	1,190	859
30	2,461	2,462	2,604	2,745	2,837	2,837	2,837	376
31	0	0	0	804	1,592	1,592	1,592	1,592
32	2,296	2,334	2,823	3,625	3,625	3,636	3,647	1,351
33	2,244	2,244	2,244	2,244	2,246	2,257	2,268	24
34	79	80	80	79	1,954	2,117	2,280	2,201
35	2,327	2,327	2,625	3,533	4,141	4,152	4,163	1,836
36	687	728	767	767	767	767	767	80
37	5,821	8,189	9,681	10,768	11,847	11,847	11,847	6,026
39	0	0	0	0	0	0	0	0
45	2,994	3,002	3,683	4,361	5,151	5,151	5,151	2,157
46	34	34	1,403	1,405	1,406	1,406	1,406	1,372
47	1,589	2,063	2,772	2,772	2,772	2,772	2,772	1,183
48	3,569	3,854	4,123	4,157	4,188	4,258	4,328	759
49	4,249	4,251	4,481	4,482	4,482	4,503	4,524	275
54	0	0	0	0	0	7,339	7,339	7,339
55	0	0	0	0	0	8,848	8,848	8,848
57	0	0	0	0	0	2,616	2,616	2,616
58	0	0	0	0	0	1,763	1,763	1,763
59	0	0	0	0	0	4,101	4,101	4,101
53	0	0	0	0	0	0	3,849	3,849
56	0	0	0	0	0	0	8,001	8,001
57	0	0	0	0	0	0	1,101	1,101
Total	93,650	98,225	106,723	113,839	121,264	147,936	162,892	69,242



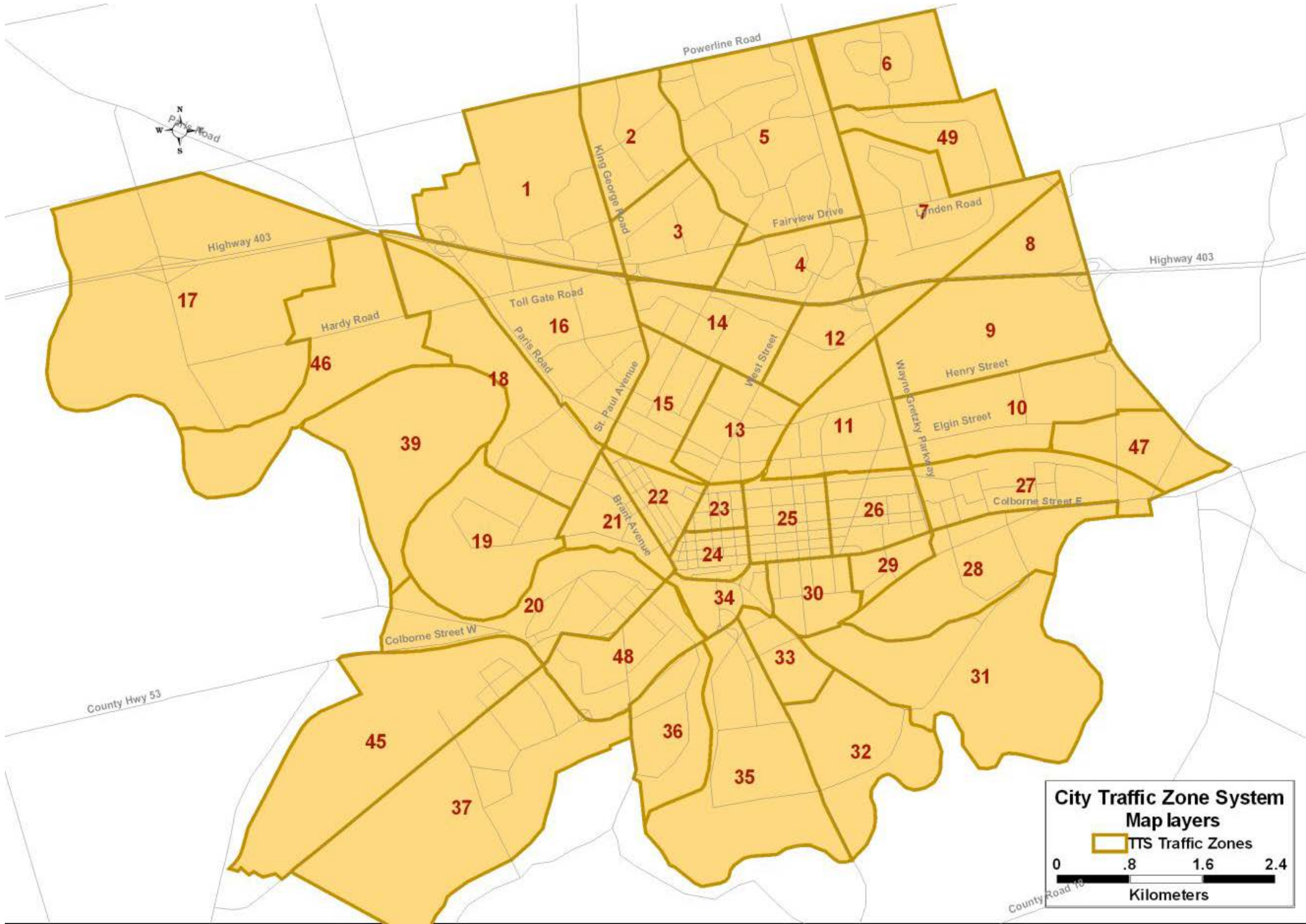
Employment Distribution 2009-2041

TAZ	2009 Forecast	2016 Employment	2021 Employment	2026 Employment	2031 Employment	2036 Employment	2041 Employment	Employment Growth
1	1,300	1,328	1,356	1,383	1,396	1,444	1,449	149
2	1,350	1,371	1,393	1,414	1,421	1,464	1,465	115
3	900	921	942	964	970	1,012	1,014	114
4	1,375	1,438	1,465	1,492	1,534	1,535	1,585	210
5	1,055	1,112	1,140	1,197	1,239	1,263	1,273	218
6	345	365	386	406	412	412	430	85
7	5,110	5,170	5,493	5,677	5,712	5,968	6,223	1,113
8	1,800	1,825	2,112	2,162	2,162	2,212	2,262	462
9	1,550	1,844	2,741	2,971	3,000	3,090	3,104	1,554
10	4,800	4,855	5,264	5,344	5,374	5,463	5,477	677
11	875	925	1,013	1,017	1,021	1,021	1,024	149
12	1,621	1,662	1,702	1,708	1,709	1,711	1,712	91
13	1,025	1,055	1,089	1,109	1,113	1,120	1,120	95
14	840	860	879	899	903	908	917	77
15	2,600	2,633	2,666	2,699	2,732	2,818	2,903	303
16	910	936	962	988	1,014	1,070	1,095	185
17	2,144	2,305	2,305	5,024	6,672	8,320	8,320	6,176
18	445	449	453	457	461	464	467	22
19	1,032	1,035	1,038	1,041	1,044	1,047	1,049	17
20	1,400	1,416	1,433	1,449	1,465	1,508	1,550	150
21	565	569	572	576	580	583	585	20
22	625	648	671	694	696	756	816	191
23	500	535	619	704	788	803	917	417
24	4,300	4,485	4,820	5,154	5,489	5,503	5,616	1,316
25	410	439	468	496	525	630	685	275
26	600	605	610	616	621	691	760	160
27	450	458	466	474	482	549	555	105
28	140	143	147	150	153	156	158	18
29	600	622	645	667	690	756	822	222
30	575	580	585	591	596	700	753	178
31	400	400	400	400	400	403	405	5
32	50	56	61	67	73	81	89	39
33	120	126	131	137	142	149	155	35
34	1,550	1,688	2,025	2,363	2,701	2,714	2,827	1,277
35	1,400	1,406	1,411	1,417	1,423	1,433	1,441	41
36	100	101	103	104	106	107	108	8
37	180	255	330	405	480	499	515	335
39	0	0	0	0	0	0	0	0
45	500	569	638	707	776	784	791	291
46	0	0	0	0	0	3	5	5
47	0	3	85	88	91	96	100	100
48	950	971	991	1,012	1,032	1,079	1,125	175
49	400	420	439	459	478	518	556	156
54	0	0	0	0	0	406	416	416
55	0	0	0	0	0	489	501	501
57	0	0	0	0	0	145	270	270
58	0	0	0	0	0	1,762	1,764	1,764
59	0	0	0	0	0	2,676	2,681	2,681
60	0	0	0	0	0	4,300	11,046	11,046
53	0	0	0	0	0	0	213	213
56	0	0	0	0	0	0	442	442
TOTAL	46,892	48,582	52,049	56,682	59,678	72,619	81,557	34,665



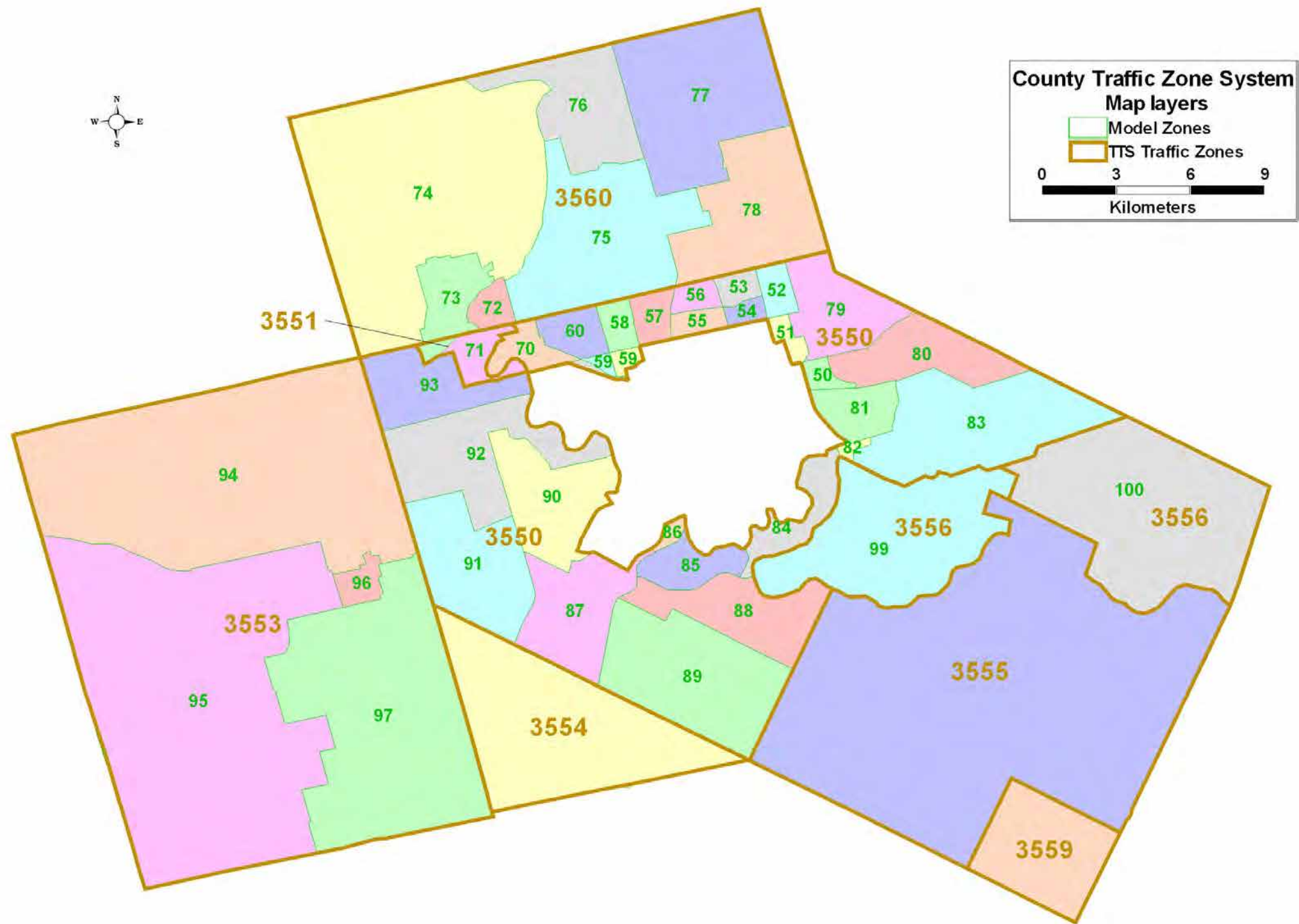
# APPENDICIES

APPENDIX 1A – POPULATION BY TRAFFIC ZONES within Municipal Boundary



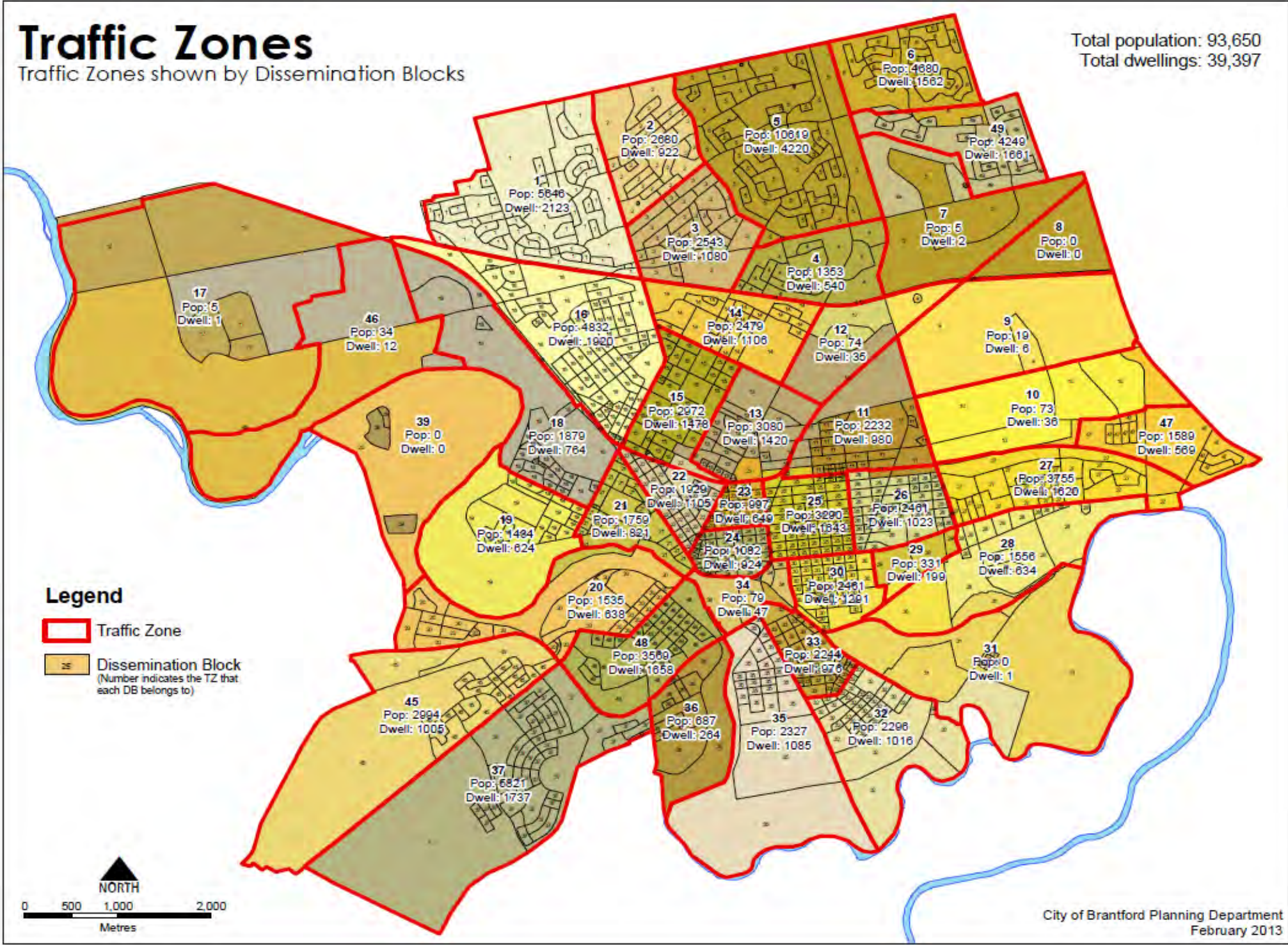
Source: City of Brantford, Engineering Department 2013

APPENDIX 1B – POPULATION BY TRAFFIC ZONES outside Municipal Boundary



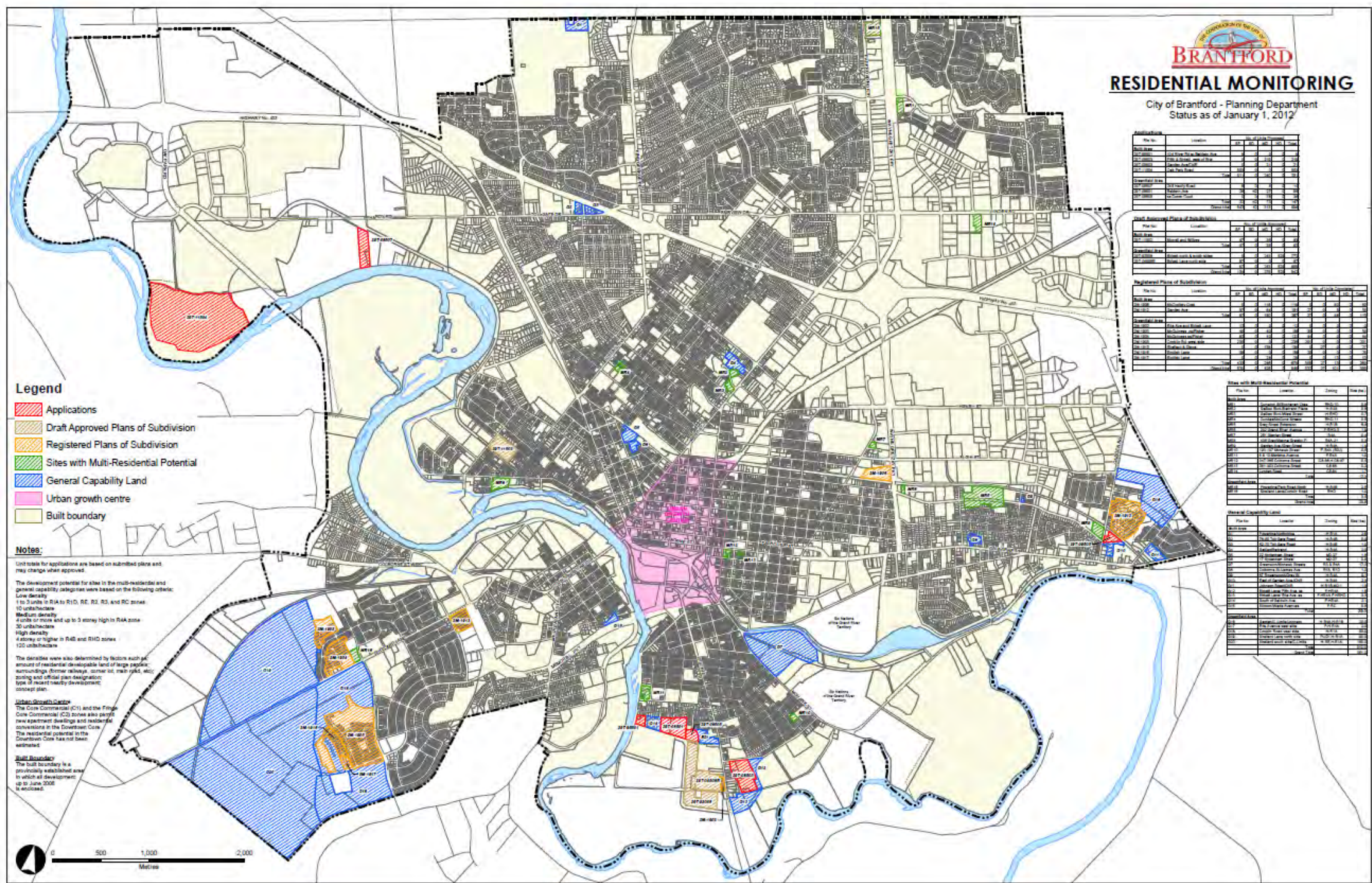
Source: City of Brantford, Engineering Department 2013

Appendix 2 – Traffic Zones by Dissemination Blocks

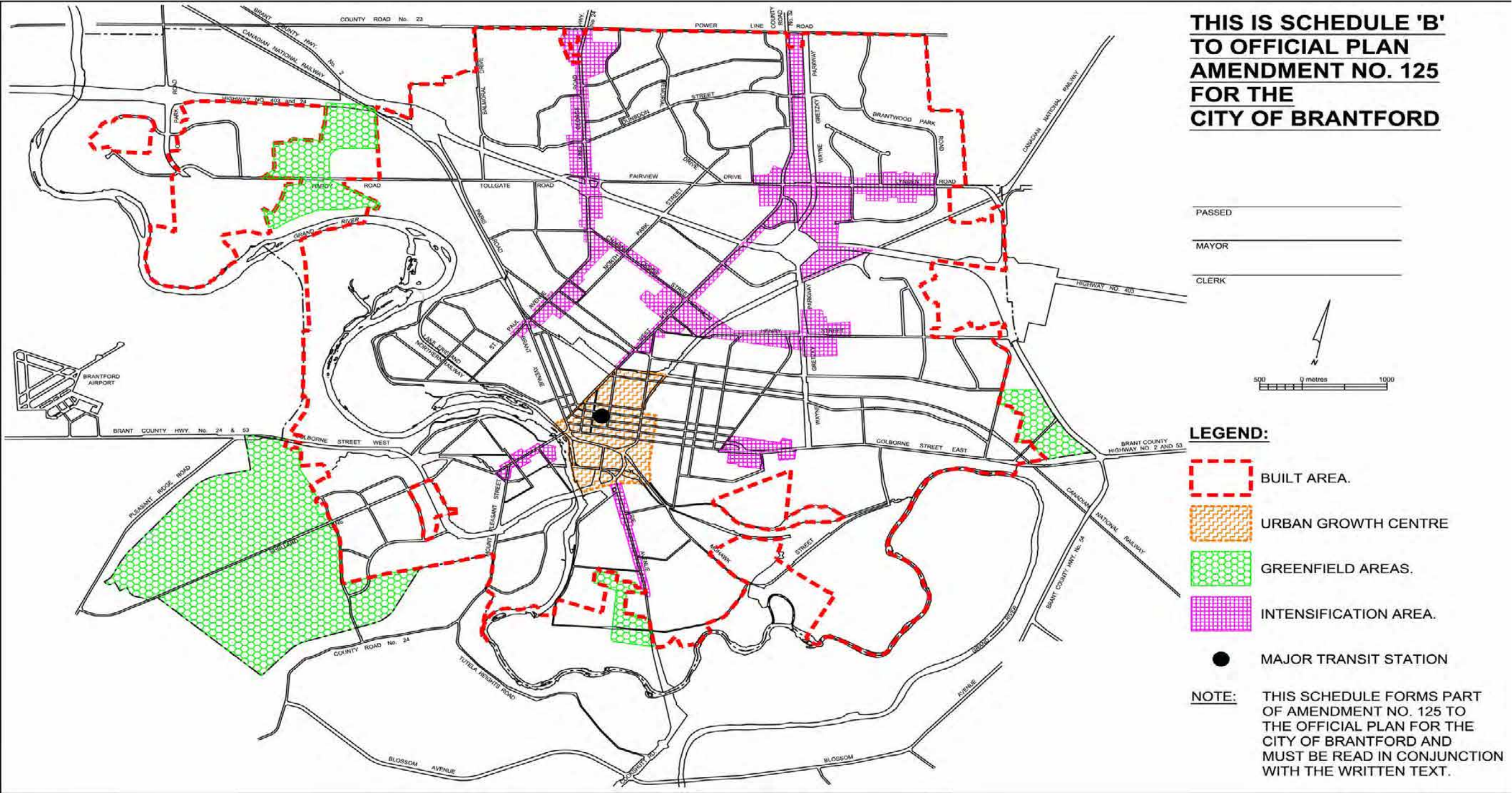


Source: City of Brantford, Planning Department, 2013

APPENDIX 3 – Residential Monitoring Map 2012

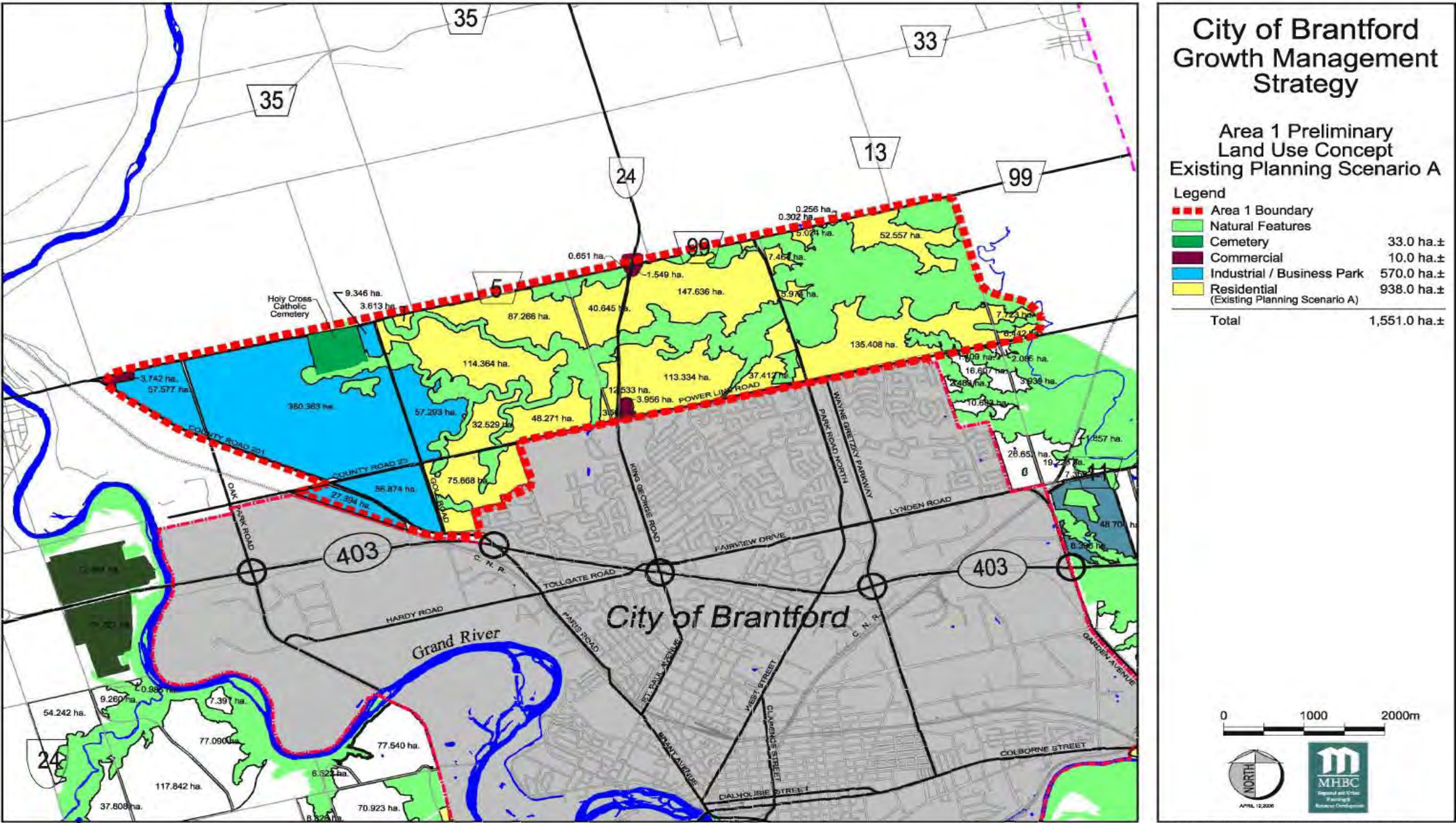


APPENDIX 4 – Schedule 1-2 Growth Management Plan



Source: City of Brantford, Planning Department, 2013

APPENDIX 5 – 2006 Growth Management Strategy: Land use Concept



Please note: The area located West of Oak Park Road and allocated for Industrial/Business Park and Commercial uses are not included in the employment growth calculations

Source: 2006 Growth Management Study prepared for the City of Brantford by MHBC Planning

APPENDIX 6 – Building Characteristics for Intensification Corridors and Urban Growth Centre

Typical Mixed Use Building With Surface Parking Street front Retail, Standard Corridor Redevelopment	
Typical Building	
Site Area:	1.0 ha
Building Space Coverage:	1.0 times
Total Building Space:	10,000 square meters
Floors:	4.0
Total Space Per Floor:	2,500 square meters
Gross to net adjustment:	80% Stairwells, utilities, etc.
Net Floor Area:	2,000 square meters
Units Per ha Estimate	
Number of Res Floors:	3
Total Net Res Space:	6,000 square meters
Unit Size:	80 square meters
Units Per ha:	75
Employment Per Ha Estimate	
Number of Res Floors:	1
Net Space:	2,000
Space Per Worker:	40 square meters
Employment per ha:	50

Typical Mixed Use Building With Surface Parking Taller Building Urban Growth Centre Retail	
Typical Building	
Site Area	1.0 ha
Building Space Coverage	1.5 times
Total Building Space	15,000 square meters
Floors	6.0
Total Space Per Floor	2,500 square meters
Gross to net adjustment	80% Stairwells, utilities, etc.
Net Floor Area	2,000 square meters
Units Per ha Estimate	
Number of Res Floors	5
Total Net Res Space	10,000 square meters
Unit Size	80 square meters
Units Per ha	125
Employment Per Ha Estimate	
Number of Res Floors	1
Net Space	2,000
Space Per Worker	40 square meters
Employment per ha	50

Source: 2012 Intensification Strategy: Opportunities Report, prepared for the City of Brantford by Hemson Consulting Ltd

APPENDIX 7 – Net Land Area/Density/Housing Mix Calculations for the West of Conklin Secondary Plan

APPENDIX V-B:  
NET LAND AREA/DENSITY/HOUSING MIX

ESTIMATED NET LAND AREA

TOTAL - Exclusive of env, os, swm and roads - 190 hectares  
Net Residential - 160 ha  
Net Commercial/Mixed Use - 9 ha (5% of total land area)  
Institutional - 21 ha

RESIDENTIAL

Proposed Housing Mix  
- 70 percent Singles and Semis  
- 20 percent TH and Low Rise Apartments  
- 10 percent Mid Rise and High Rise Apartments

Density Ranges By Housing Type

- Singles and Semis - 15 uph to 30 uph - based on 90 percent singles - 16.5 uph  
- TH and LRA - 30 uph to 50 uph - based on 90 percent TH - 32 uph  
- MRA and HRA - 50 to 100 uph - based on 90 percent MRA - 55 uph

Persons Per Household

- Singles and Semis - 3.0 pph  
- TH and LRA - 2.5 pph  
- MRA and HRA - 1.5 pph

Average Net Density Based on Proposed Housing Mix  
 $= .7(16.5) + .2(32) + .1(55)$   
23.45

Average Persons Per Household Based on Proposed Housing Mix  
 $= .7(3.0) + .2(2.5) + .1(1.5)$   
2.75

Average Persons Per Net Hectare

$= 23.45 \text{ uph} \times 2.75 \text{ ppu}$   
64.4875  
Housing Yield - 3,750 dwelling units  
Population Yield - 10,300 residents

COMMERCIAL/MIXED USE

Estimated at approximately 30 residents and/or employees per net hectare  
Resident/Job Yield - 270 residents and/or jobs

INSTITUTIONAL

Estimated at approximately 15 jobs per net hectare  
Job Yield - 315 jobs

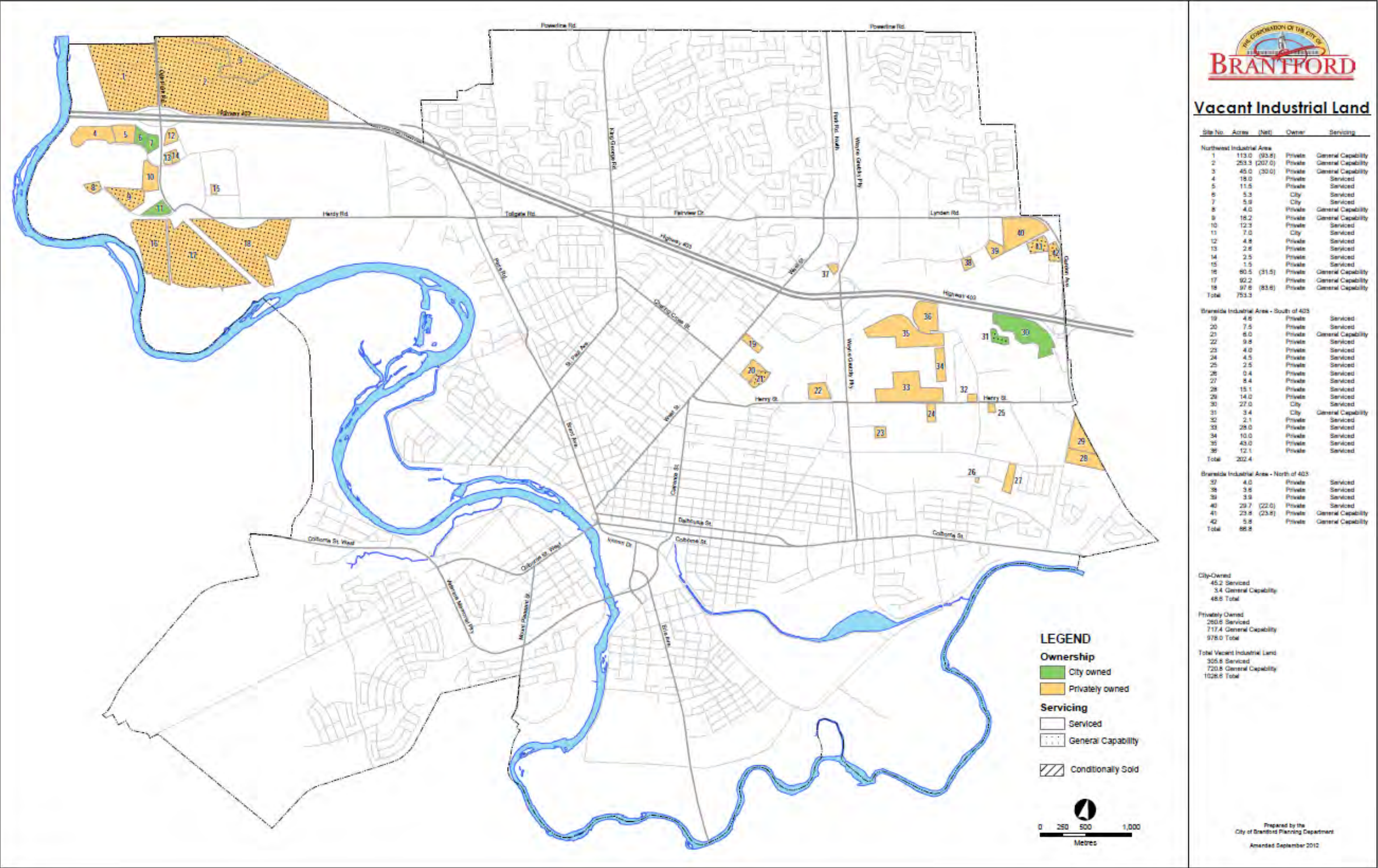
TOTAL YIELD/DENSITY

Total Residents and/or Jobs - 10,885

**Overall Density - 57 residents and/or jobs per hectare**

Source: 2007 West of Conklin Secondary Plan, prepared for the City of Brantford by The Planning Partnership

APPENDIX 8 – Vacant Industrial Land Map



Source: City of Brantford, Planning Department, 2012