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75 YEARS

THE CORPORATION OF THE CITY OF BRANTFORD

APPENDIX C

Transportation Demand Forecasting Model

DILLON CONSULTING

CITY OF BRANTFORD

Transportation Demand Forecasting Model

Model Migration and Calibration Report

November 2020 - 17-6501

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1.0 Introduction

In 2016, in preparation for the Transportation Master Plan Update, Dillon Consulting migrated the City's 4-step travel demand model from TransCAD to VISUM[1]. The purpose of this migration was to prepare the strategic model for potential next phase microsimulation[2] activities for Secondary Plan and Environmental Assessment study analysis. The migration included the update of population and employment data (existing and future) and the recalibration of the model using update count data. At the conclusion of the TMP activities, the strategic model will be migrated back to TransCAD as required.

This transportation planning model is a representation of the County of Brant and the City of Brantford transportation facilities and the travel patterns using these facilities with a focus on the City of Brantford. The model contains inventories of the existing roadway facilities and of land use and demographic data in the area. These inventories are used to calculate 'modeled traffic counts', which are compared with current 'existing traffic counts'. When the model matches the modeled and existing traffic counts within acceptable ranges of error, the model can then be used to test future year scenarios. These scenarios may be changes in population, employment, travel behavior patterns, or roadway improvements. The transportation engineer or planner, using the transportation planning model, can project future traffic volumes without the cost of building inappropriate roadways or waiting for traffic congestion to severely impact travelers.

This document details the methodology that was used to migrate the model. Because modeling is a complex process, much of the theory, terminology, and concepts are also discussed.

1.1 Scope of Work

The scope of the project included the following primary tasks:

- A complete migration of the existing TransCAD model to the VISUM platform;
- An update of the existing and future population and employment; and
- A recalibration of strategic screenlines for auto vehicles using updated traffic count data.

[1] VISUM is a Windows based multimodal transportation modeling software made by PTV Group.

[2] Microsimulation models simulate the behaviour of individual vehicles within a predefined road network and are used to predict the likely impact of changes in traffic patterns resulting from changes to traffic flow or from changes to the physical environment. Unlike conventional intersection capacity analysis tools (such as Synchro), microsimulation models consider vehicle and driver behavior theories, and vehicles can be influenced by other vehicles, pedestrians and bicycles, roadway grades, curves, and many other factors.

1.2 Model Foundations

While enhancements to the model content have been made, the foundational elements of model have not been changed as part of this migration process. Specifically the following has not been revisited:

- Trip Generation;
- Trip Distribution;
- Mode Share; and
- Assignment Processes.

The original TransCAD model utilised the 2006 Transportation Tomorrow Survey (TTS) to capture trip making patterns of City residents throughout a typical weekday. Since that model was developed, the results of both the 2011 and 2016 TTS surveys were released. To ensure the models foundational elements were still valid, the 2016 TTS data was comparted against the 2006 TTS data. This comparison confirmed that the models foundations were still relevant and as such the model should be considered reflective of the 2016 TTS.

The TTS survey remains as the cornerstone of the model. Its findings were primarily used in the development of the transportation model and include the identification of peak travel periods, the development of trip generation rates, the identification of travel mode share, the estimation of automobile occupancy, etc.

2.0 Model Refinement & Development

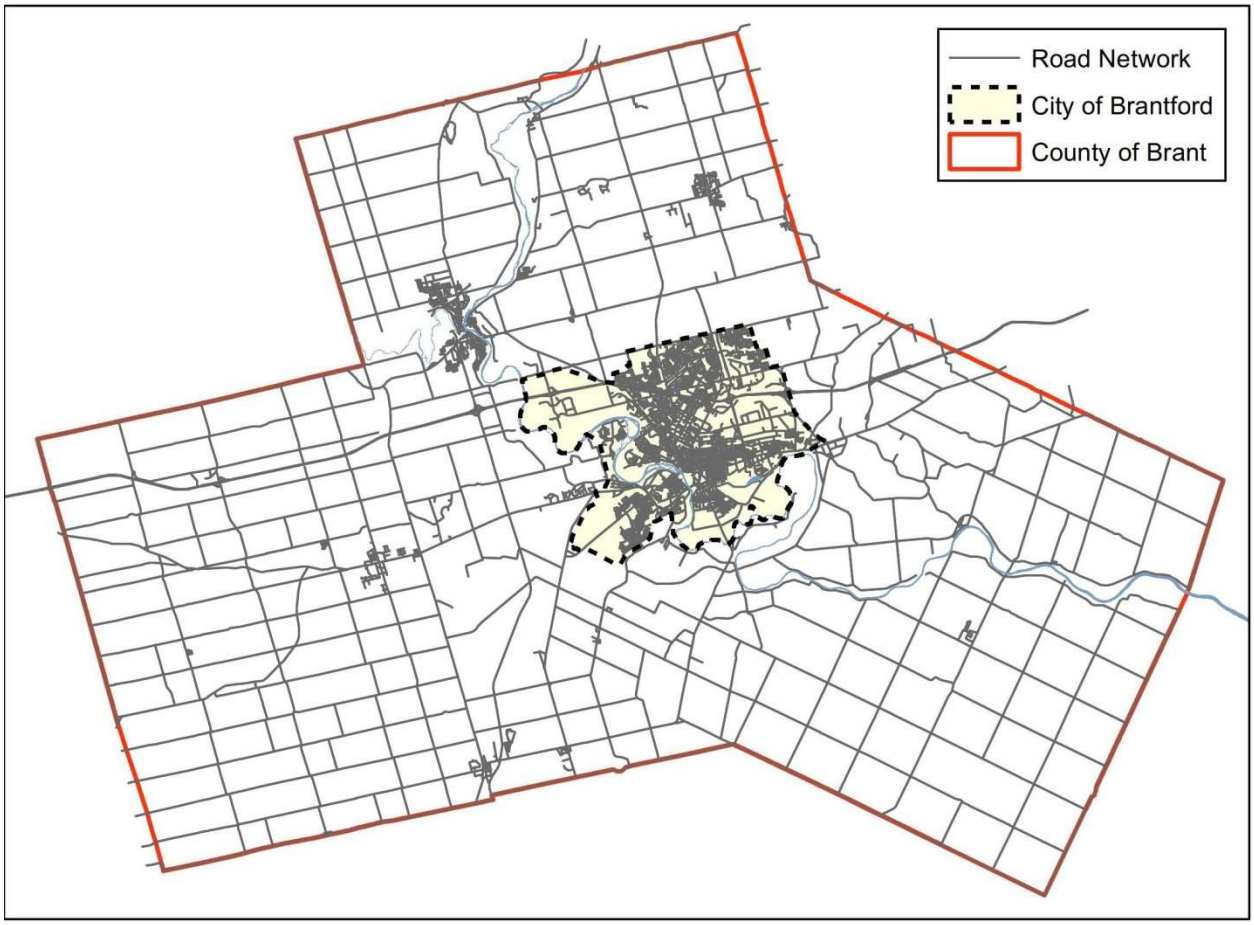
The Brantford model refinement and development involved the following items:

- Model Area;
- Transportation Network Enhancement; and
- Transportation Analysis Zones (TAZ).

2.1 Model Area

The modeling process begins with the identification of model area. In case of the Brantford model, the model contains the entire County of Brant and the City of Brantford. However, the main focus area of the model is the City of Brantford. ***Figure 1*** illustrates the model area, highlighting both the County of Brant and the City of Brantford.

Figure 1: Brantford Model Area



2.2 Transportation Network Enhancement

The road network in the transportation model is represented by a series of links and nodes, which reflect lines of travel and points where roadways intersect. Typically, links represent roadway segments and nodes represent intersections.

2.2.1 Road Links

The functional road classifications in the model are used to characterize each roadway based on how it operates and the role it serves in the transportation network. Functional road classifications were adapted from the previous TransCAD transportation model and disaggregated to allow different capacities for single road classification types with different speed limits. This method provides additional flexibility during calibration, as capacities can be modified to mimic actual operating conditions.

Each roadway link in the model was assigned a functional classification / speed (i.e., Link Type attribute in VISUM) and its directional number of lanes. Using VISUM's model run procedures (see ***Section 3.4***) the planning capacity in vehicles per hour (vph) was automatically calculated.

The planning capacities used in the model reflect free flow conditions at on a link for a given operating condition and influence the movement of traffic through the network. As an example, a typical arterial roadway has a saturation flow rate of 2200 vehicles per hour per lane (vphpl) of green time at a traffic signal. For a typical intersection of two major arterial roads, the strategic assumption is that the available green time is roughly split 50/50. After reducing the time required for the amber and all-red signal phases, approximately 41% of the available time within an hour is used for the green phase on each road. This translates to a planning capacity of 900 vphpl.

Roadways with a lower functional classification are assigned lower planning capacities to reflect the reduced flow rate due to lower priority at intersections with major roads.

The link types, functional road classifications, planning capacity, and speeds as coded in the model are defined in in ***Table 1***. The functional classifications for the roads within the County of Brant and the City of Brantford as coded in the VISUM model are shown and ***Figure 2*** and ***Figure 3***.

Table 1: Functional Road Classification, Speed Limit & Planning Capacity

Link Type Number	Functional Road Classification Name	Speed (km/h)	Planning Capacity Per Lane / Direction (vehicles / lane / hour)
11	Freeway	90 km/h	1500
12	Freeway	100 km/h	1800
15	Rural Highway	60 km/h	1000
16	Rural Highway	70 km/h	1100
17	Rural Highway	80 km/h	1200
18	Rural Highway	90 km/h	1300
21	Freeway Ramp	60 km/h	1000
22	Freeway Ramp	70 km/h	1100
23	Freeway Ramp	80 km/h	1200
31	Major Arterial	50 km/h	800
32	Major Arterial	60 km/h	900
33	Major Arterial	70 km/h	1000
34	Major Arterial	80 km/h	1100
41	Minor Arterial	50 km/h	700
42	Minor Arterial	60 km/h	800
43	Minor Arterial	70 km/h	900
44	Minor Arterial	80 km/h	1000
51	Major Collector	50 km/h	600
52	Major Collector	60 km/h	750
53	Major Collector	70 km/h	800
54	Major Collector	80 km/h	900
61	Minor Collector	50 km/h	500
62	Minor Collector	60 km/h	600
63	Minor Collector	70 km/h	700
64	Minor Collector	80 km/h	800
71	Local Road	30 km/h	350
72	Local Road	40 km/h	400
73	Local Road	50 km/h	500

Figure 2: Road Network / Classification – County of Brant

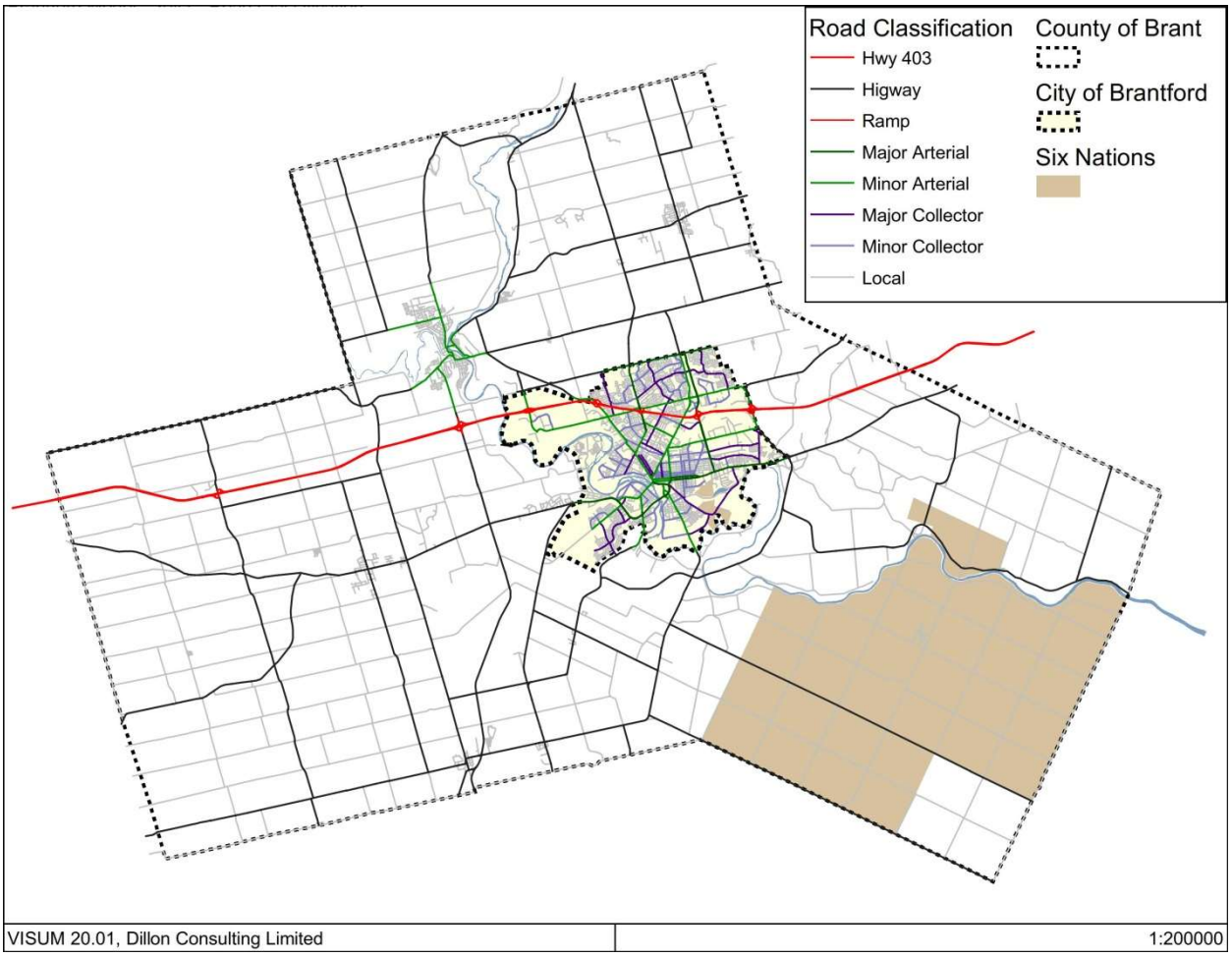
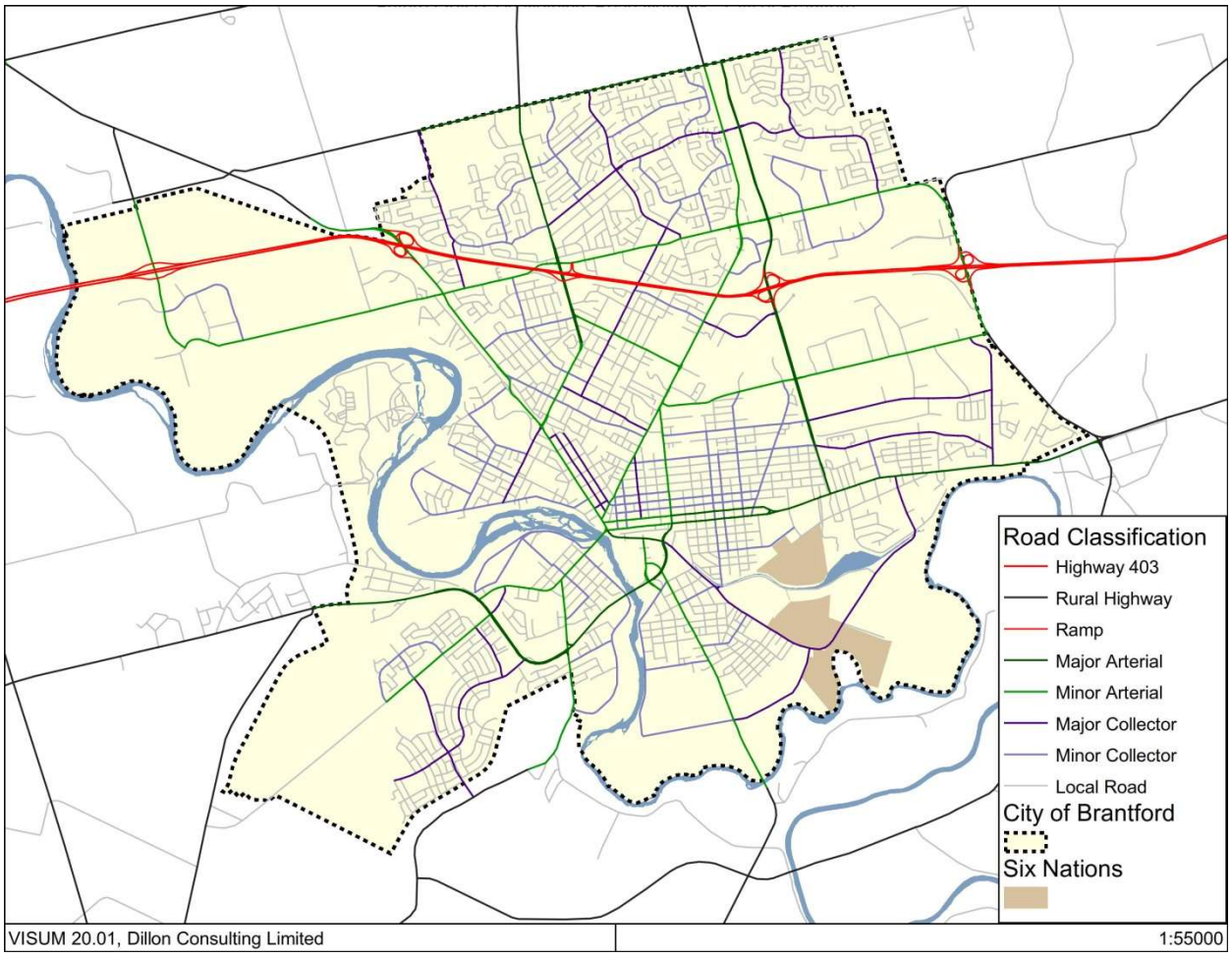


Figure 3: Road Network / Classification – City of Brantford



2.2.2 Volume Delay Function

Based on the road type, capacity, and posted speed, a volume-delay function (VDF) is used to describe how each road segment in the model behaves as traffic volumes increase. These functions are required by the Equilibrium Lohse assignment algorithm used by VISUM, for updating travel times in response to traffic volumes. As the volume using a road begins to approach the capacity of that road, the vehicle speeds will tend to drop and delays will increase the travel time on that route.

The Equilibrium Lohse assignment uses an iterative process where trips are assigned and re-assigned to the road network until the paths between specific TAZ pairs converge to a similar travel time (i.e., no traveler can improve their travel times by shifting routes) within a given threshold. The "loaded" travel times are determined by the VDF assigned to each link.

The link performance functions used are taken from the previous TransCAD model and are based on the Bureau of Public Roads (BPR) formulation, which is as follows:

$tc = tff\ (1+\alpha\ (v/c)^{ß})$

where: tc = travel time based on volume
tff= free flow travel time on the link
v = link volume
c = link capacity
α,β= calibrated link performance parameters

The α and β values are applied based on the functional classification for each of the different roadway types in the model, and are shown in ***Table 2*** below:

Table 2: Link Performance Functions Parameters by Roadway Type

Roadway Type	Parameters α	β
Freeway	0.72	6.14
Rural Highway	0.72	6.14
Freeway Ramp	0.72	6.14
Major Arterial	0.60	5.87
Minor Arterial	0.51	4.96
Major Collector	0.51	4.96
Minor Collector	0.51	4.96
Local Road	0.51	4.96

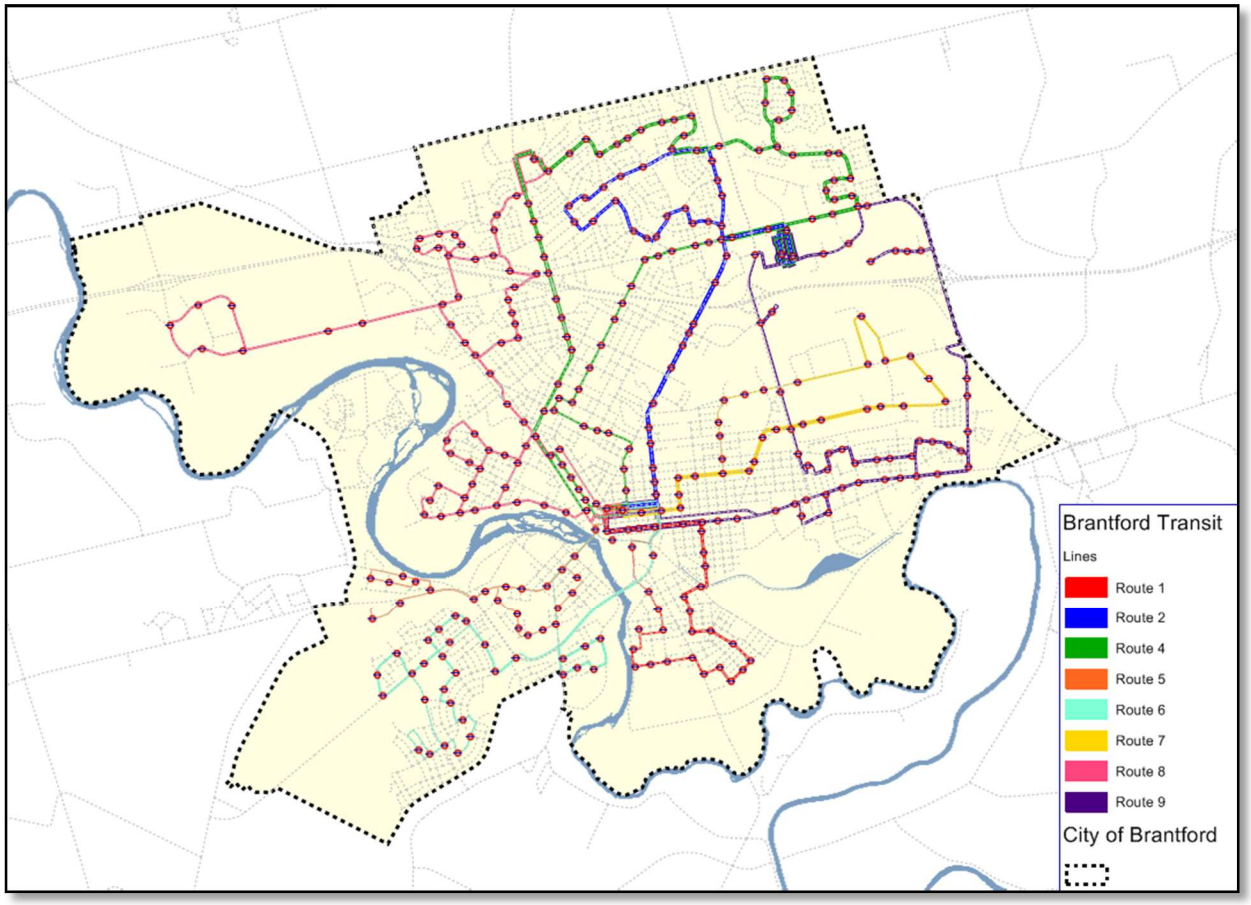
2.2.3 Transit Network

In addition to the model migration from TransCAD to VISUM, a basic transit enhancement was undertaken to allow transit person trips to be assigned along the road network, in addition to the basic automobile trip assignment. Using VISUM's native import function, the General Transit Feed Specification (GTFS) data for Brantford Transit was imported to the VISUM data format and merged with the transportation model. This included the following network objects:

- **Transit Stop Locations** – Point objects in the road network to allow for the boarding/alighting of person trips as the beginning, transfer, or end points of journeys.
- **Transit Route Paths** – Lines and line route objects along the road network where transit vehicles follow, servicing stop locations.

After the transit network was imported, detailed checks were made to ensure accuracy of the network. The resulting transit network is shown in ***Figure 4***.

Figure 4: Transit Network: Routes & Stop Locations



2.3 Transportation Analysis Zones (TAZ)

A transportation analysis zone (TAZ) is an area of geography used in conventional transportation planning models and is used to break down the city and region into a series of areas with similar land uses and travel patterns. The size and structure of the TAZ system has a definite impact on the degree of accuracy of the travel demand forecasting model.

The TAZ system for the Brantford TransCAD model contained 398 zones. This included 337 zones within the City of Brantford, 46 zones within Brant County and 15 external zones. The TAZ system from the previous model was maintained as there was no technical justification for alteration.

Figure 5 and ***Figure 6*** illustrate the traffic zone boundaries and the external traffic zones used in the model.

Figure 5: Transportation Analysis Zones – County of Brant

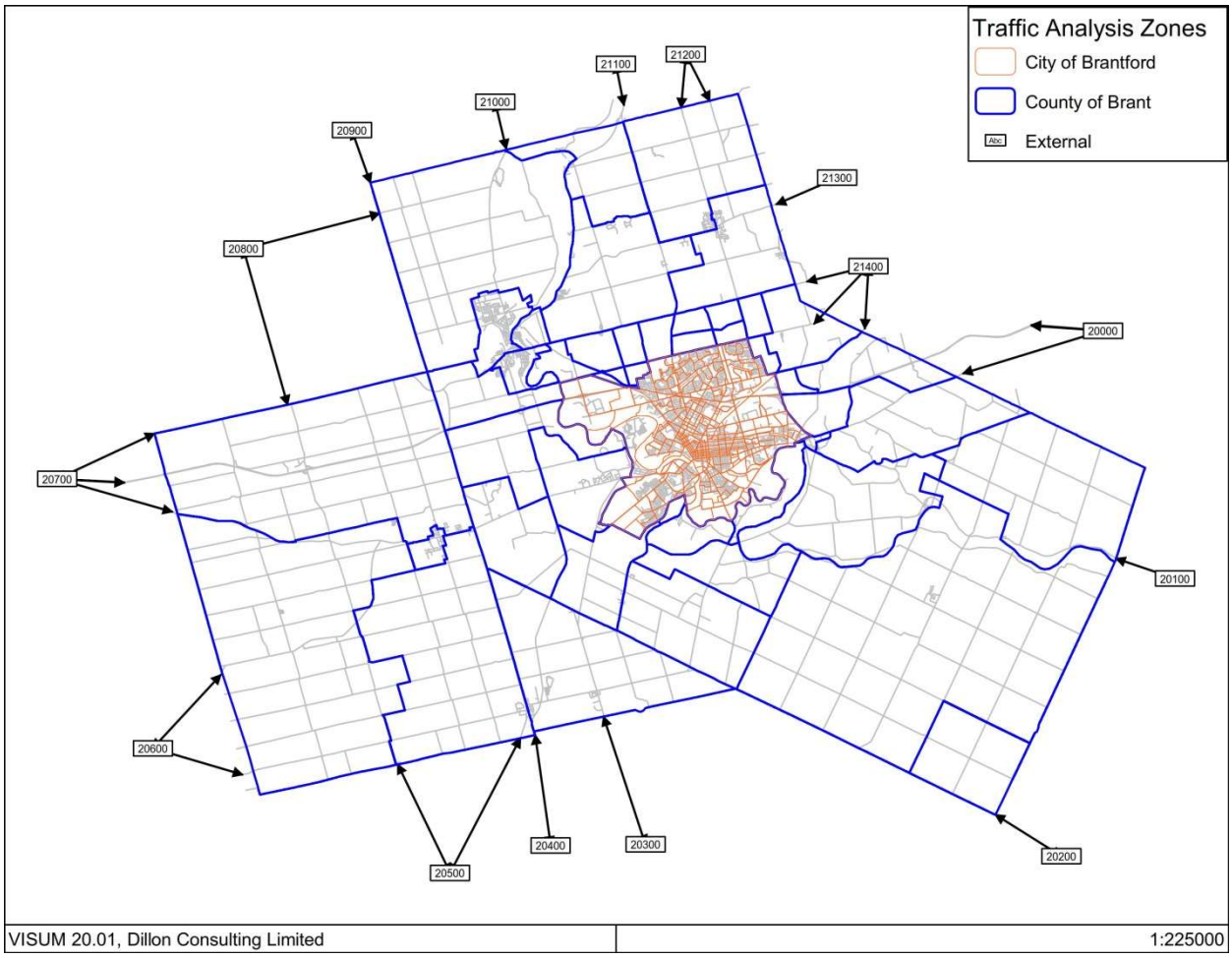
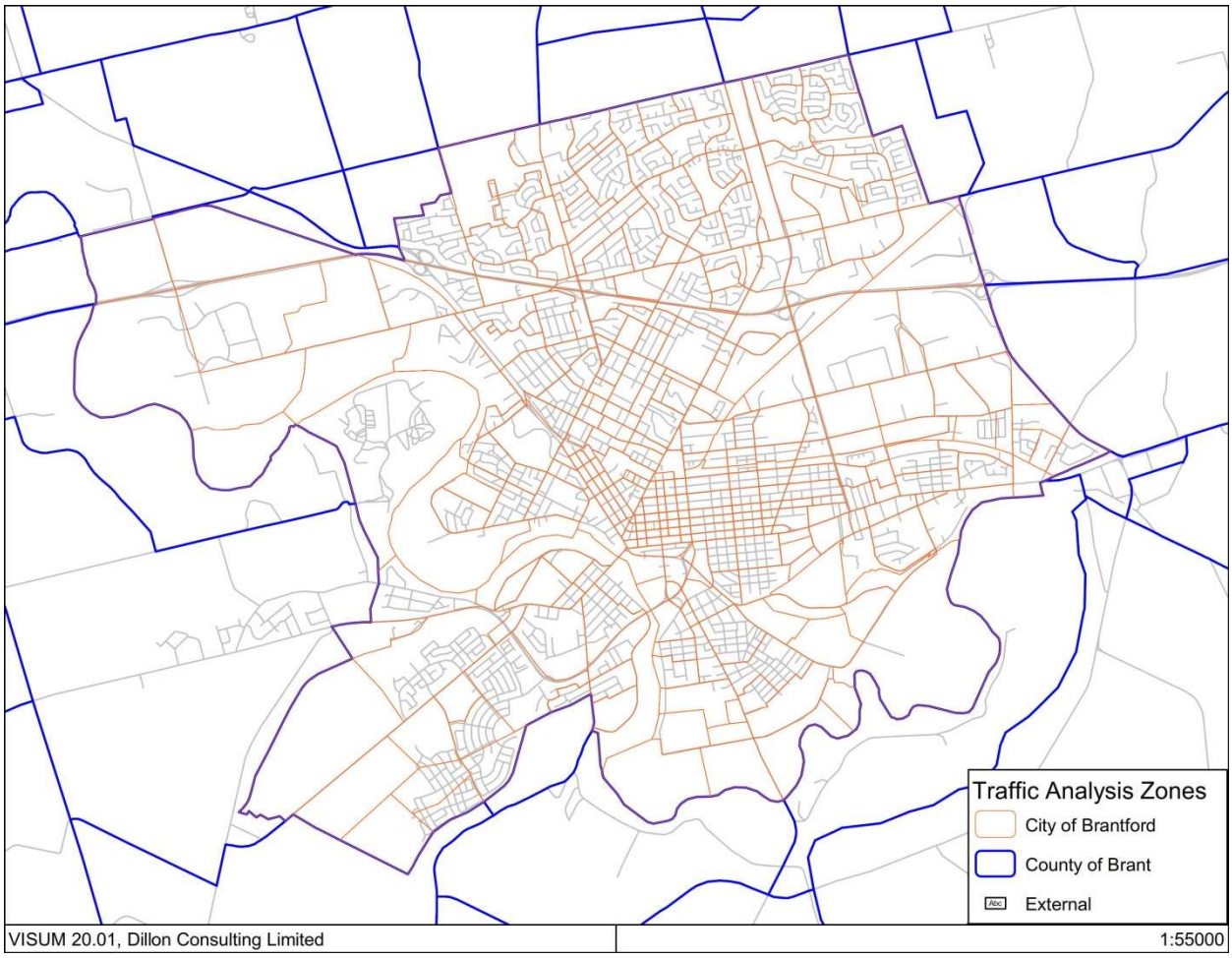


Figure 6: Transportation Analysis Zones – City of Brantford



2.3.1 TAZ Centroids and Connectors

The centroid for a TAZ is the location within a zone where all trips to/from that zone either starts or ends. Centroids are connected to the transportation network by a series of special links called connectors, which are representative links of potentially multiple streets or accesses that vehicles use to enter or exit the road network.

Connectors are usually laid out to try and emulate the loading pattern provided by the local street network, and often connect to minor intersections or local streets just upstream or downstream of a more major collector or arterial road. Trips are prohibited from using a centroid connector unless they originate or are destined to the zone.

The TAZ connectors were taken from the previous TransCAD model.

3.0 Model Approach

The 4-step travel demand model structure adopted in Visum is based on an aggregate modeling methodology which explicitly models homogeneously divided behavioral and socio-economic data aggregated at a zonal level. It involves the sequential execution of the 4 steps:

- Trip Generation;
- Trip Distribution;
- Mode Choice; and
- Trip Assignment

This procedure is consequently iterative and converges towards a solution, measured as the minimal transportation cost considering a given travel demand and characteristics of the transportation network.

3.1 Trip Generation

In a travel demand model, land use input is the key determinant in the generation of trips. The land use pattern of a particular area will have an influence on trips to/from TAZs within the area. Population and employment are used as the inputs to a TAZ area. Trip generation rates for specific land use types are applied to the TAZ level land use forecasts to estimate the trips generate by the TAZ (zonal productions and attractions). The land use data (population and employment) in the model was updated to a 2016 base year. It was provided by statistics Canada on a census tract level, this data was disaggregated by SGL Planning & Design Inc. to match the more refined TAZ level. The trip generation rates were carried forward from TransCAD to VISUM during the model migration process, as described below in this section. The model process for developing trip generation, and carried forward to the VISUM model, is described below.

Peak Period trip generation rates were developed from the 2006 Transpiration Tomorrow Survey (TTS) (and where confirmed by the 2016 TTS) for both the AM and PM peak periods. The AM peak period is defined as between 6:00 am to 9:00 am and the PM peak period is defined as between 3:00 pm to 6:00 pm, representing total person trips (independent of the mode of travel). Trip generation equations for both productions and attractions were formulated for four different trip purposes, including:

- Home-based work (HBW) trips, which include any trip with an origin or destination to or from home and work;
- Home Based Other (HBO) trips which include any non-work trips having an origin or destination to or from home;
- Non-home based (NHB) trips which have neither an origin nor destination to or from home; and

- Home-based school (HBS) trips which include any trips with an origin or destination to or from home and school.

Regression analysis was used to estimate the relevant variables used for each trip purpose as summarized in ***Table 3*** and ***Table 4***.

Table 3: Trip Generation Variables (AM Peak Period)

TRIP PURPOSE	AM								
	VARIABLES								
	TOTAL POP.	TOTAL EMP.	POP. SALES/ SERV	POP. PROF.	LABOR FORCE	EMP. OFFICE	EMP. PROF.	EMP. SALES/ SERV	EMP. MANUF.
HBW_P (Int –Int)					0.4870				
HBW_A (Int - Int)		0.5150							
HBW_P (Ext –Int)		Employment Growth Rate							
HBW_A (Ext - Int)	External Zone Population Growth Rate								
HBW_P (Int - Ext)	External Zone Population Growth Rate								
HBW_A (Int - Ext)		Employment Growth Rate							
HBO_P	0.1140								
HBO_A	0.0510						0.1170	0.3520	
NHB_P	0.0250						0.0600	0.1250	0.0900
NHB_A				0.0291			0.2910	0.0950	0.0212
HBS_P	Population Growth Rate								
HBS_A	N/A								

Table 4: Trip Generation Variables (PM Peak Period)

TRIP PURPOSE	PM								
	VARIABLES								
	TOTAL POP.	TOTAL EMP.	POP. SALES/ SERV	POP. PROF.	LABOR FORCE	EMP. OFFICE	EMP. PROF.	EMP. SALES/ SERV	EMP. MANUF.
HBW_P (Int –Int)						0.9450	0.5700	0.2000	0.4700
HBW_A (Int - Int)					0.4500				
HBW_P (Ext –Int)	External Zone Population Growth Rate								
HBW_A (Ext - Int)		Employment Growth Rate							
HBW_P (Int - Ext)		Employment Growth Rate							
HBW_A (Int - Ext)	External Zone Population Growth Rate								
HBO_P	0.1758							1.0148	
HB0_A		0.2065	1.0030	0.5074					
NHB_P	0.0064						0.3048	0.8128	
NHB_A			0.1715					0.9855	
HBS_P	N/A								
HBS_A	Population Growth Rate								

3.1.1 Trip Generation for Home Based Work Trips

The internal HBW trip production and attraction rates within the City of Brantford are:

HBW Trip Productions (AM) = 0.4807 * Labour Force
HBW Trip Attractions (AM) = 0.5150 * Total Employment

HBW Trip Productions (PM) = 0.9450 * Employment Office + 0.5700 * Employment Professional + 0.2000 * Employment Sales/Service + 0.4700 * Employment Manufacturing
HBW Trip Attractions (PM) = 0.4500 * Labour Force

External – Internal work trips produced from external zones and Internal – External work trips attracted to the external zones were assumed to grow at the same growth rates as the external traffic traveling to/ from those external zones. Historical and future population and employment data was used to develop the growth factor for each external zone. ***Table 5*** summarizes the respective external traffic growth rates used.

Table 5: External TAZ Growth Rates

TAZ	Road Link	External Area	Growth per Year: Pop	Growth per Year: Emp	Growth per Year: Pop+Emp
20000	Hwy 403 E	GTA	1.1612	1.1559	1.1594
20100	CR 54 S	Haldimand County	1.0725	1.0588	1.0688
20200	CR 20 S	Haldimand County	1.0725	1.0588	1.0688
20300	CR 7 S	Haldimand County	1.0725	1.0588	1.0688
20400	CR 16 S	Haldimand County	1.0725	1.0588	1.0688
20500	Hwy 24 S	Haldimand County	1.0725	1.0588	1.0688
20600	CR 3 W	Norwich - Oxford County	1.1487	1.1594	1.1522
20700	Hwy 2, CR 53, Hwy 403 W	Norwich - Oxford County	1.1487	1.1594	1.1522
20800	CR 25 N	Kitchener - Region of Waterloo	1.1996	1.1836	1.1941
20900	CR 16 N	Kitchener - Region of Waterloo	1.1996	1.1836	1.1941
21000	CR 24A N	Kitchener - Region of Waterloo	1.1996	1.1836	1.1941
21100	Hwy 24 N	Kitchener - Region of Waterloo	1.1996	1.1836	1.1941
21200	CR 13 N	Kitchener - Region of Waterloo	1.1996	1.1836	1.1941
21300	Hwy 5 E	Hamilton	1.0980	1.1429	1.1111
21400	CR 99 E	Hamilton	1.0980	1.1429	1.1111

3.1.2 Trip Generation for Home Based Other and Non-Home Based Trips

The HBO trip production and attraction rates within the City of Brantford are:

HBO Trip Productions (AM) = 0.1140 * Total Population
HBO Trip Attractions (AM) = 0.0510 * Total Population + 0.1170 * Employment Professional + 0.3520 Employment Sales/Service

HBO Trip Productions (PM) = 0.1758 * Total Population + 1.0148 Employment Sales/Service
HBO Trip Attractions (PM) = 0.2065 * Total Employment + 1.0030 Population Sales/Service + 0.5074 Population Professional

The NHB trip production and attraction rates within the City of Brantford are:

NHB Trip Productions (AM) = 0.0250 * Total Population + 0.0600 * Employment Professional + 0.1250 Employment Sales/Service + 0.0900 Employment Manufacturing
NHB Trip Attractions (AM) = 0.0291 * Population Professional + 0.2910 * Employment Professional + 0.0950 Employment Sales/Service + 0.0212 Employment Manufacturing

NHB Trip Productions (PM) = 0.0064 * Total Population + 0.3048 * Employment Professional + 0.8128 Employment Sales/Service
NHB Trip Attractions (PM) = 0.1715 * Population Sales/Service + 0.9855 Employment Sales/Service

3.1.3 Trip Generation for Home Based School Trips

The HBS trips are assumed to be primarily dependent on population growth for respective TAZs. School trips that are attracted to a particular TAZ are assumed to be directly correlated to the population growth in that TAZ. Therefore, trip generation rates were not estimated for school trips, and future HBS attractions were based on existing HBS trips factored by the population growth rates of the traffic zones.

3.2 Trip Distribution

Using the productions and attractions by TAZ calculated in trip generation, trip distribution is the process by which the origin-to-destination choices are derived for trip makers. The result of this process is a series of trip matrices that are used in the travel demand model for additional matrix calculations and ultimately the assignment of trips to the transportation network.

The TransCAD model utilized the Fratar Method as the trip distribution method. This process was maintained in the migration to the VISUM platform. The Fratar Method utilizes a doubly constrained "Growth Factor" method (except for HBS trips which are singly constrained) to predict future trip patterns between zones. The Fratar Method uses the existing trip matrix as a basis for forecasting the future patterns, and develops growth factors for total trip productions and attractions by traffic zone to scale the values in the matrix. The equation for the growth factor method is shown by:

$$T_{ij} = t_{ij} * a_i * b_j$$

Where T_{ij} = forecast flow between zone i and zone j
t_{ij} = the base year flow between zone i and zone j
a_i = balancing factor for row i
b_j = balancing factor for row j

The methodology uses an iterative process that alternates between factoring the productions and then factoring the attractions to match the total forecast productions and attractions for each zone, with a pre-set convergence factor.

3.3 Mode Choice

The total person trip matrices derived in trip distribution (See ***Section 3.2***) are divided into person trips by specific travel modes. Mode share matrices were retained from the TransCAD model. Mode share was derived from TTS data and produced mode share percentage relationships for specific OD pairs in the model.

The City of Brantford currently takes a "policy approach" to mode share in their travel demand model. This means that the existing base year (i.e. 2016) mode share is derived from available data and future horizon year mode shares conform to policy mode share targets. A summary of the existing mode shares implemented in the model are presented in ***Table 6*** and ***Table 7.***

Table 6: 2016 Mode Share Percentages (Full Model)

Travel Mode	Mode Share (%)
Auto Driver	77.3%
Auto Passenger	10.2%
Transit	1.7%
School Bus	4.6%
Cycle/walk	6.0%
Other	0.2%
TOTAL	**100%**

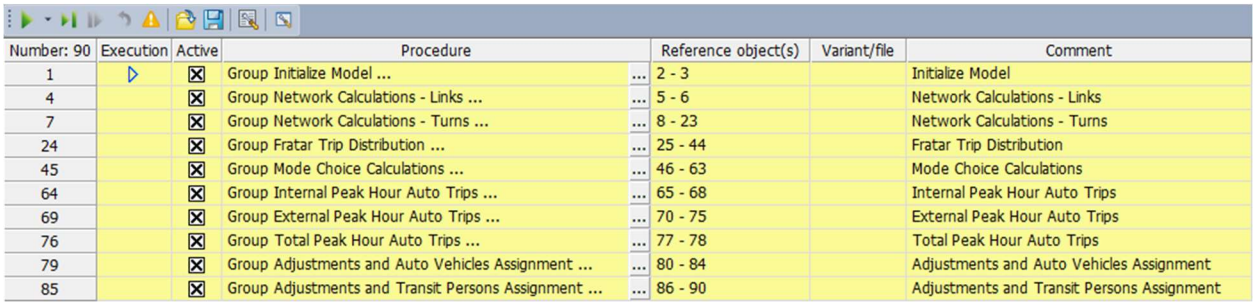
Table 7: 2016 Mode Share Percentages (Brantford Households only)

Travel Mode	Mode Share (%)
Auto Driver	73.9%
Auto Passenger	12.1%
Transit	2.4%
School Bus	4.8%
Cycle/walk	6.6%
Other	0.2%
TOTAL	**100%**

3.4 Model Run Procedures

The model run procedures implemented in VISUM were based on the previous procedures outlined in the TransCAD version of the model. The purpose of these procedures was to tie various objects, attributes, and matrices from within the travel demand model into a single one-click process that provides a reproducible, consistent approach to calculations within the VISUM model. ***Figure 7*** provides an overview screenshot of the Procedure Sequence window in VISUM.

Figure 7: VISUM Procedure Sequence Window



Number: 90	Execution	Active	Procedure	Reference object(s)	Variant/file	Comment
1		☒	Group Initialize Model ...	2 - 3		Initialize Model
4		☒	Group Network Calculations - Links ...	5 - 6		Network Calculations - Links
7		☒	Group Network Calculations - Turns ...	8 - 23		Network Calculations - Turns
24		☒	Group Fratar Trip Distribution ...	25 - 44		Fratar Trip Distribution
45		☒	Group Mode Choice Calculations ...	46 - 63		Mode Choice Calculations
64		☒	Group Internal Peak Hour Auto Trips ...	65 - 68		Internal Peak Hour Auto Trips
69		☒	Group External Peak Hour Auto Trips ...	70 - 75		External Peak Hour Auto Trips
76		☒	Group Total Peak Hour Auto Trips ...	77 - 78		Total Peak Hour Auto Trips
79		☒	Group Adjustments and Auto Vehicles Assignment ...	80 - 84		Adjustments and Auto Vehicles Assignment
85		☒	Group Adjustments and Transit Persons Assignment ...	86 - 90		Adjustments and Transit Persons Assignment

Once the procedure sequence has been initiated, model run processes execute in numerical order. The Procedure Sequence functionality in VISUM is model-specific and can be tailored to the unique requirements of each model. Over time, these procedures can be modified and expanded as the travel demand model methodology continues to evolve. ***Table 8*** further details the purpose of each model procedure group.

Table 8: Brantford Travel Demand Model Methodology

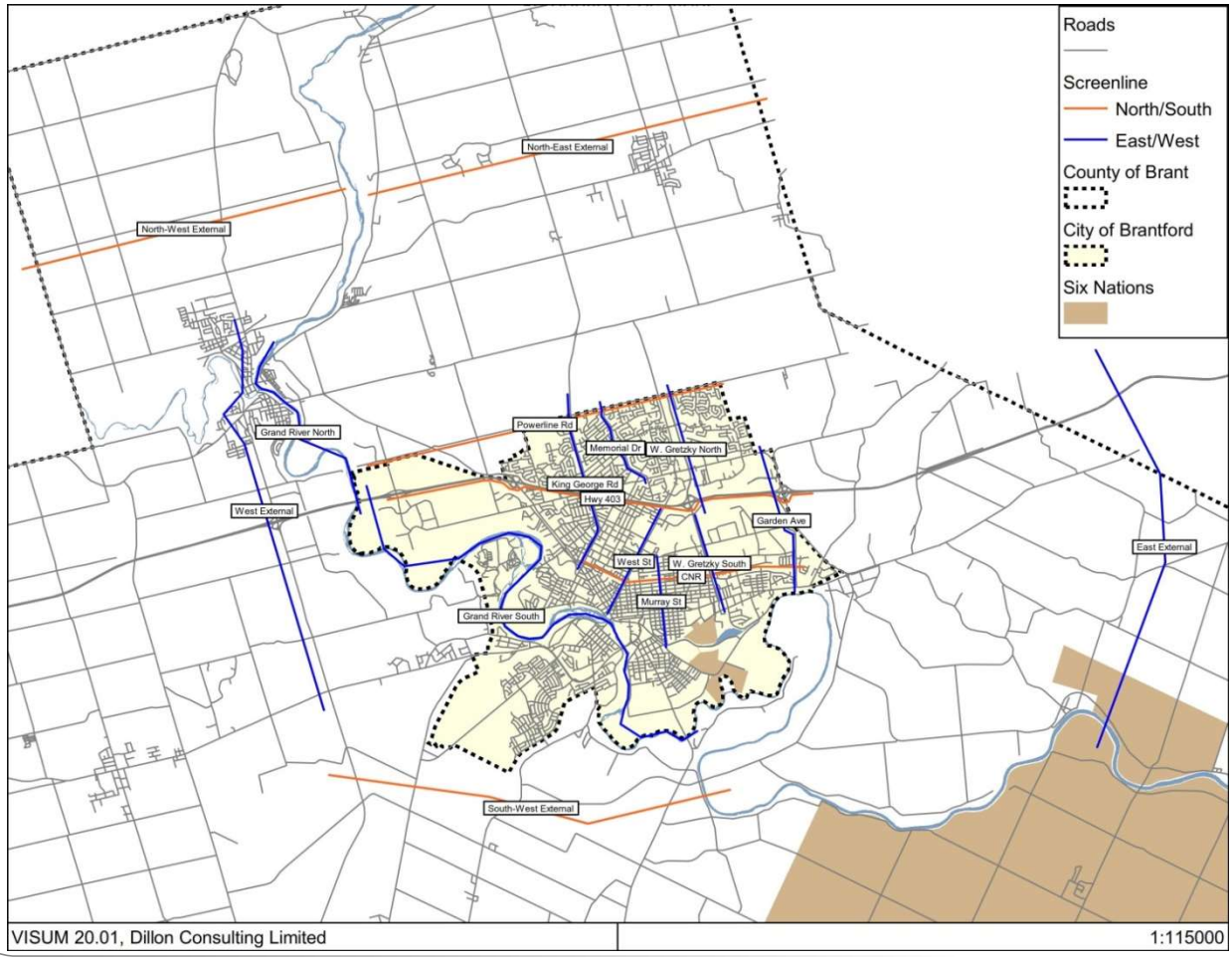
Procedure Group	Step Range	Procedure Purpose
Initialize Model	1-3	• Initialize previous assignment and filter settings to prepare for a new model run.
Network Calculations - Links	4-6	• Use Link Type attributes (see ***Table 1***) and number of lanes to calculate directional capacity and free flow speeds.
Network Calculations - Turns	7-23	• Calculate Node capacities based on sum of outbound link capacities by 0.5. • Left turn and U-turn capacities set to 10% of approach link capacity and initial delay of 10 seconds. • Right turn capacities set to 15% of approach link capacity and initial delay of 1 second.
Fratar Trip Distribution	24-44	• Apply growth factor method (Fratar) or Iterative Proportional Fitting (IPF) to initial seed matrix, using trip end totals.
Mode Choice Calculations	45-63	• Sum Trip Purposes to Total Internal Person Trips. • Multiply Total Internal Person Trips by each mode share.
Internal Peak Hour Auto Trips	64-68	• Sum Internal Auto Person Trips. • Convert Auto Person Trips to Vehicle Trips by using an Auto Occupancy factor. • Convert peak period (3-hour) demands to peak hour by using a Peak Hour Factor (PHF).
External Peak Hour Auto Trips	69-75	• Sum External Auto Person Trips • Apply 1% Compound Annual Growth Rate (CAGR) to External-Through matrix. • Convert peak period (3-hour) demands to peak hour by using a Peak Hour Factor (PHF).
Total Peak Hour Auto Trips	76-78	• Sum all Auto Vehicle matrices from 'Internal Peak Hour Auto Trips' and 'External Peak Hour Auto Trips'
Adjustments and Auto Vehicles Assignment	79-84	• Apply auto vehicle matrix correction factors. • Run 500 iterations of "Equilibrium Lohse" type assignment.
Adjustments and Transit Persons Assignment	85-90	• Apply transit vehicle matrix correction factors. • Run "Headway-based" assignment.

4.0 Calibration and Validation

Once the updated model was calibrated to predict base year trip generation, the model was tested to determine if the trip assignment process could replicate existing observed volumes on the road network. This process is referred to as validation.

For automobile vehicle trips, validation of the model was performed by comparing the observed volumes from the existing traffic count data[3] (2015-2018) with the simulated volumes for the same links from the model. Validation is usually undertaken at the screenline level of detail in travel demand models. Screenlines are imaginary lines, in which the locations are chosen strategically to capture traffic that crosses major arterial roads, rivers, or other major physical boundaries in an area. ***Figure 8*** displays the strategic screenline locations in the Brantford travel demand model.

Figure 8: Screenline Locations



[3] Existing traffic count data consists of 65 Turing Movement Counts (TMC) or Automatic Traffic Recorder (ATR) counts that were collected between 2015 and 2018, of which 71% or 46 of the counts were collected in 2017 and 2018.

Based on the validation results presented in ***Table 9*** and ***Table 10*** for the AM peak Hour and ***Table 11*** and ***Table 12*** for the PM Peak Hour, the updated model is capable of forecasting flows within 5-10% (or a GEH[4] of 5.0) of observed volumes across most major screenlines. Screenlines are used to compare model estimated volumes with traffic counts in key areas of the City and they are also used to determine corridors that have road network deficiencies.

Table 9: Screenline Calibration Results – AM Peak Hour (summary)

SCREENLINES	Passed 6 of 6								ON
Criteria	Flow Range		Criteria		Goal	Current	Count	Model	
Within 150 veh/h, for Flow < 1500 veh/h > 85% of cases	0	1500	150	veh	85%	100%	12	12	✓
Within 15%, for 1500 veh/h < Flow < 5000 >85% of cases	1500	5000	15	%	85%	100%	22	22	✓
Within 750 veh/h, for Flow > 5000 veh/h > 85% of cases	5000		750	veh	85%	--	0	0	
Sum of all screenline flows within 5% of sum of all screenline counts	Overall		5	%	5%	1%	68998	68635	✓
GEH < 5 for Individual screenline Flows > 85% of cases	Overall		5	GEH	85%	100%	34	34	✓
GEH < 10 for individual screenline flows, 95% of cases	Overall		10	GEH	95%	100%	34	34	✓
GEH < 4 for sum of all screenline counts	Overall		4	GEH	4.0	1.4	68998	68635	✓

[4] GEH statistic is a formula used in traffic modelling to compare two sets of traffic volumes. It provides a goodness-of-fit measures that takes into account the significant variability in real world traffic volumes. For example, a freeway may carry 5000 vehicles per hour, while one of the on-ramps leading to the freeway might carry only 50 vehicles per hour. In that situation it would not be possible to select a single percentage of variation that is acceptable for both volumes. A GEH value of less than 5.0 is considered a good match between the modelled and observed hourly volumes, while a GEH of between 5.0 and 10.0 may warrant investigation, and a GEH greater than 10.0 is a poor match.

Table 10: Screenline Calibration Results – AM Peak Hour (detailed)

SCREENLINE ANALYSIS

Analysis Period	AM Car
Secondary	

ACCEPTABLE RANGE	
VOLUME	750
% DIFF	10
GEH	5

SCREENLINE SUMMARY							
#	Name	Direction	Count	Model	DIFF	% DIFF	GEH
1	Grand River South	EB	3628	3619	-9	-0.2%	0.1
	Grand River South	WB	2514	2510	-4	-0.2%	0.1
2	Grand River North	EB	1918	2011	93	4.8%	2.1
	Grand River North	WB	1656	1662	6	0.4%	0.1
3	Highway 403	NB	3857	3999	142	3.7%	2.3
	Highway 403	SB	4672	4650	-22	-0.5%	0.3
4	King George Road	EB	3336	3206	-130	-3.9%	2.3
	King George Road	WB	2594	2403	-191	-7.4%	3.8
5	Wayne Gretzky Parkway (North)	EB	3056	3153	97	3.2%	1.7
	Wayne Gretzky Parkway (North)	WB	3121	3172	51	1.6%	0.9
6	Wayne Gretzky Parkway (South)	EB	1398	1499	101	7.2%	2.7
	Wayne Gretzky Parkway (South)	WB	1082	1070	-12	-1.1%	0.4
7	Memorial Drive	EB	1031	949	-82	-8.0%	2.6
	Memorial Drive	WB	1148	1145	-3	-0.3%	0.1
8	West Street	EB	1527	1431	-96	-6.3%	2.5
	West Street	WB	1486	1506	20	1.3%	0.5
9	CNR Corridor	NB	3006	3071	65	2.2%	1.2
	CNR Corridor	SB	2788	2793	5	0.2%	0.1
10	Garden Avenue	EB	3158	3108	-50	-1.6%	0.9
	Garden Avenue	WB	2994	2895	-99	-3.3%	1.8
11	Powerline Road	NB	1616	1602	-14	-0.9%	0.3
	Powerline Road	SB	2027	2041	14	0.7%	0.3
12	Murray Street	EB	1255	1247	-8	-0.6%	0.2
	Murray Street	WB	1129	1209	80	7.1%	2.3
13	West External	EB	1676	1601	-75	-4.5%	1.9
	West External	WB	1535	1478	-57	-3.7%	1.5
14	South-West External	NB	1595	1564	-31	-1.9%	0.8
	South-West External	SB	823	836	13	1.6%	0.5
15	East External	EB	2667	2466	-201	-7.5%	4.0
	East External	WB	2392	2204	-188	-7.9%	3.9
16	North-East External	NB	561	682	121	21.6%	4.9
	North-East External	SB	453	482	29	6.4%	1.3
17	North-West External	NB	713	728	15	2.1%	0.6
	North-West External	SB	586	643	57	9.7%	2.3

Table 11: Screenline Calibration Results – PM Peak Hour (summary)

SCREENLINES	Passed 7 of 7								ON
Criteria	Flow Range		Criteria		Goal	Current	Count	Model	
Within 150 veh/h, for Flow < 1500 veh/h > 85% of cases	0	1500	150	veh	85%	86%	7	6	✓
Within 15%, for 1500 veh/h < Flow < 5000 >85% of cases	1500	5000	15	%	85%	100%	25	25	✓
Within 750 veh/h, for Flow > 5000 veh/h > 85% of cases	5000		750	veh	85%	100%	2	2	✓
Sum of all screenline flows within 5% of sum of all screenline counts	Overall		5	%	5%	1%	88396	89602	✓
GEH < 5 for Individual screenline Flows > 85% of cases	Overall		5	GEH	85%	97%	34	33	✓
GEH < 10 for individual screenline flows, 95% of cases	Overall		10	GEH	95%	100%	34	34	✓
GEH < 4 for sum of all screenline counts	Overall		4	GEH	4.0	4.0	88396	89602	✓

Table 12: Screenline Calibration Results – PM Peak Hour (detailed)

SCREENLINE ANALYSIS

Analysis Period	PM Car
Secondary	

ACCEPTABLE RANGE	
VOLUME	750
% DIFF	10
GEH	5

SCREENLINE SUMMARY

#	Name	Direction	Count	Model	DIFF	% DIFF	GEH
1	Grand River South	EB	3614	3566	-48	-1.3%	0.8
	Grand River South	WB	3762	3939	177	4.7%	2.9
2	Grand River North	EB	2327	2365	38	1.6%	0.8
	Grand River North	WB	2261	2429	168	7.4%	3.5
3	Highway 403	NB	5783	5884	101	1.7%	1.3
	Highway 403	SB	5349	5582	233	4.4%	3.2
4	King George Road	EB	3533	3490	-43	-1.2%	0.7
	King George Road	WB	3817	3747	-70	-1.8%	1.1
5	Wayne Gretzky Parkway (North)	EB	3652	3766	114	3.1%	1.9
	Wayne Gretzky Parkway (North)	WB	3989	4256	267	6.7%	4.2
6	Wayne Gretzky Parkway (South)	EB	1438	1534	96	6.7%	2.5
	Wayne Gretzky Parkway (South)	WB	1818	2031	213	11.7%	4.9
7	Memorial Drive	EB	1688	1691	3	0.2%	0.1
	Memorial Drive	WB	1537	1432	-105	-6.8%	2.7
8	West Street	EB	1799	1948	149	8.3%	3.4
	West Street	WB	2236	2268	32	1.4%	0.7
9	CNR Corridor	NB	3557	3602	45	1.3%	0.8
	CNR Corridor	SB	4164	4385	221	5.3%	3.4
10	Garden Avenue	EB	3835	3590	-245	-6.4%	4.0
	Garden Avenue	WB	4099	3963	-136	-3.3%	2.1
11	Powerline Road	NB	2512	2605	93	3.7%	1.8
	Powerline Road	SB	2470	2555	85	3.4%	1.7
12	Murray Street	EB	1483	1408	-75	-5.1%	2.0
	Murray Street	WB	1818	1881	63	3.5%	1.5
13	West External	EB	2091	2053	-38	-1.8%	0.8
	West External	WB	1923	1833	-90	-4.7%	2.1
14	South-West External	NB	1038	1045	7	0.7%	0.2
	South-West External	SB	1729	1696	-33	-1.9%	0.8
15	East External	EB	2858	2611	-247	-8.6%	4.7
	East External	WB	2902	2837	-65	-2.2%	1.2
16	North-East External	NB	705	806	101	14.3%	3.7
	North-East External	SB	917	1112	195	21.3%	6.1
17	North-West External	NB	780	819	39	5.0%	1.4
	North-West External	SB	912	873	-39	-4.3%	1.3

5.0 Conclusion

Based on the foregoing, the City of Brantford's 4-step travel demand model was successfully migrated from the TransCAD platform to the VISUM platform. The model captures travel behavior for the area and calibrates well against measured data. Its procedure parameters are suitable for use when testing land use and transport facility scenarios for forecasting demand and assignment of travel.

6.0 Future Assessment

The *Places to Grow* (May 2019) policies include growth forecasts for the City of Brantford with a residential population of 163,000 and an employment level of 79,000 by 2041. Brantford's 2041 population and employment forecasts were disaggregated by SGL Planning & Design Inc. to match the Traffic Analysis Zone (TAZ) structure within the City's strategic transportation model. The allocations were based on intensification policies and targets, Schedule 1: Growth Management in the City's draft Official Plan, land use designations, and sites with known development potential.

At a summary level, the growth forecasts used in this TMP growth analysis are shown in ***Table 13*** and ***Table 14*** below for the City of Brantford and County of Brant respectively. Detailed TAZ level population and employment data for Brantford and Brant County (2016 and 2041) can be found in ***Appendix A***.

Table 13: City of Brantford Population and Employment to 2041

Horizon Year	Population (Persons)	Employment (Jobs)
2016	101,700	44,900
2021	111,300	53,600
2026	125,200	60,300
2031	139,000	67,000
2036	152,000	72,000
2041	163,000	79,000

Source: Envisioning Brantford -MCR Part 1 Report, SGL Planning and Design et al.

Table 14: County of Brant Population and Employment to 2041

Horizon Year	Population (Persons)	Employment (Jobs)
2016	36,700	22,100
2021 Est	39,000	22,000
2026 Est	44,000	22,000
2031	49,000	22,000
2036	53,000	24,000
2041	57,000	26,000

Source: A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019

Applying updated growth forecasts, disaggregated to the TAZ level-of-detail, the City's model was utilized to forecast future travel demands (i.e. Future Conditions) resulting from population growth, employment growth, and future land use patterns and densities as provided by the City. These were further enhanced using output from the ongoing Official Plan Update. Forecasted Future Conditions and

various alternative transportation strategies were subsequently assessed based on the strategic direction criteria.

6.1 2041 'Do Minimal' Scenario

The 2041 'Do Minimal' Scenario accounts for proposed growth under a transportation network scenario with minimal improvements over today's condition, were identified. The changes to the road network include only short term committed projects (e.g. The Oak Park Road/Highway 403 interchange upgrade) and collector roads required to support the expansion growth areas (required to provide access to future development).

An overview of the link attributes and volumes (AM and PM) and screenline capacities for the 2041 'Do Minimal' network are illustrated in ***Appendix B*** and ***Appendix C*** respectively.

6.2 2041 Manage Travel Demand Scenario

The 2041 Mange Travel Demand Scenario increases the transit mode share from 2.8% under existing conditions to 5.8% and the combined Active Transportation (walking and cycling) modes shares to 10%. This Transportation Demand Management (TDM) scenario is assigned to the 'Do Minimal' network.

An overview of the link volumes and screenline capacities for the 2041 Mange Travel Demand network are illustrated in ***Appendix B*** and ***Appendix C*** respectively.

6.3 2041 Increase Infrastructure Scenario

The 2041 Increase Infrastructure Scenario enhances the carrying capacity of the network through strategic road widenings and extensions. This includes short-term committed improvements, as well as a full program of infrastructure projects as was identified in the 2014 Transportation Master Plan (excluding a Veteran's Memorial Parkway extension, due to recent Glebe Lands resolution).

An overview of the link volumes and screenline capacities for the 2041 Increase Infrastructure network are illustrated in ***Appendix B*** and ***Appendix C*** respectively.

6.4 2041 Recommended Scenario

The 2041 Recommended Scenario combines the mode shares from the 2041 Mange Travel Demand Scenario, with many of the infrastructure projects from the 2041 Increase Infrastructure Scenario and a number of additional infrastructure projects. A comprehensive list of the Recommended Scenario infrastructure projects include:

- Infrastructure widenings:
    - Wayne Gretzky Parkway between Henry Street and Lynden Road;
    - Veterans Memorial Parkway between Mount Pleasant and Market Street South;

  - Colborne Street West from County Road 7 to the existing 4-lane section;
  - Paris Road from Golf Road to Oak Park Road;
  - Oak Park Road from Hardy Road to Powerline Road; and
  - Powerline Road from Oak Park Road to the City east limits.
- New roads:
  - Oak Park Road extension to Colborne Road West;
  - Wayne Gretzky Parkway extension to connect with Park Road; and
  - Charing Cross Street extension to Henry Street.
- Corridor Transportation System Management (TSM):
  - Golf Road;
  - Paris Road;
  - Brant Ave;
  - Hardy Road;
  - West Street;
  - King George Road;
  - Erie Avenue;
  - Clarence Street; and
  - County Road 18 (note that this is a County Road. The City will work with the County to determine potential for improvements to the corridor).

An overview of the link volumes and screenline capacities for the 2041 Recommended network are illustrated in ***Appendix B*** and ***Appendix C*** respectively.

Appendix A

TAZ Population & Employment

Brantford Model: TAZ Population & Employment

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
101	1,675	40	1,570	144
102	0	0	0	0
103	85	2	212	308
104	870	21	763	67
105	960	23	839	61
106	630	15	556	43
107	410	10	363	41
108	270	115	448	140
109	200	761	536	805
110	70	172	110	180
111	30	1	24	5
201	225	916	934	982
202	390	9	341	38
203	240	6	247	21
204	270	6	239	21
205	5	176	79	187
206	425	10	420	40
207	880	21	771	76
301	585	14	587	61
302	520	143	485	189
303	820	20	717	66
304	55	1	33	14
305	80	383	0	429
306	495	234	576	260
401	490	171	428	221
402	245	6	219	24
403	270	166	326	190
404	165	4	149	25
405	5	518	1,032	573
406	0	1,204	461	1,125
407	115	316	367	339
501	720	17	685	50
502	990	24	883	61
503	520	12	460	47
504	275	126	866	153
505	525	13	459	45
506	880	186	785	239
507	475	11	428	29
508	725	17	638	59
509	895	21	786	56
510	545	13	490	48
511	1,050	25	937	56

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
512	350	492	625	543
513	445	11	628	22
514	930	22	1,002	58
515	1,145	164	1,129	221
516	195	5	362	12
601	355	9	309	45
602	545	13	488	60
603	955	23	831	61
604	915	22	795	49
605	725	17	635	50
606	1,000	24	867	74
701	0	694	0	769
702	0	546	174	602
703	0	1,623	141	1,493
704	0	995	267	951
705	5	916	701	1,009
706	0	381	357	445
707	0	154	0	489
708	0	887	1,251	954
801	0	2,042	0	2,351
901	5	1,826	649	2,953
902	0	506	0	544
903	0	319	0	372
1001	0	836	819	919
1002	0	364	406	399
1003	15	1,180	0	1,190
1004	0	1,525	0	1,419
1005	5	404	0	467
1006	0	0	0	13
1007	0	597	0	666
1008	0	0	0	296
1101	30	1	0	10
1102	45	1	0	14
1103	35	1	21	4
1104	425	10	454	28
1105	140	185	135	205
1106	200	130	533	190
1107	315	8	279	56
1108	330	8	307	26
1109	455	11	436	25
1110	575	14	546	29
1201	55	155	186	191
1202	150	4	221	22
1203	155	607	377	822

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
1204	75	258	57	298
1205	0	193	0	219
1206	5	0	662	31
1301	365	9	436	26
1302	190	5	184	13
1303	25	1	0	51
1304	600	14	682	50
1305	60	1	0	5
1306	120	3	125	9
1307	240	6	222	24
1308	65	2	47	4
1309	25	126	110	136
1310	345	8	657	20
1311	205	170	184	200
1312	60	1	0	8
1401	245	245	306	273
1402	305	7	272	16
1403	305	7	290	24
1404	145	3	159	16
1405	320	8	296	25
1406	240	6	217	18
1407	440	11	429	42
1408	465	290	423	361
1501	100	1,715	147	1,778
1502	415	10	492	29
1503	105	3	135	6
1504	245	6	240	19
1505	30	1	12	2
1506	115	3	154	5
1507	240	6	244	20
1508	200	261	273	278
1509	355	145	410	167
1510	720	273	826	317
1511	315	8	301	25
1512	50	206	47	215
1601	485	12	479	68
1602	560	127	738	165
1603	520	12	455	53
1604	315	326	275	380
1605	125	3	112	13
1606	720	17	644	61
1607	185	306	250	331
1608	635	15	559	63
1609	255	6	239	28

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
1610	330	8	320	29
1611	420	10	382	37
1612	155	4	138	25
1701	0	0	0	1,131
1702	5	546	38	3,406
1703	0	0	0	2,943
1704	5	2,486	0	2,771
1801	315	8	279	82
1802	465	142	429	291
1803	130	3	118	19
1804	475	11	420	41
1805	110	372	109	452
1806	410	10	418	30
1901	285	155	399	371
1902	0	438	0	479
1903	370	288	333	338
1904	205	5	186	18
1905	725	17	789	48
2001	865	21	770	104
2002	0	0	0	67
2003	0	0	0	19
2004	85	804	0	870
2005	0	165	59	186
2006	45	1	0	24
2007	175	4	225	16
2008	295	7	349	22
2101	130	3	119	34
2102	795	19	860	68
2103	305	7	308	20
2104	130	3	136	7
2105	30	1	3	1
2106	310	371	308	452
2201	195	5	242	10
2202	80	2	3	2
2203	80	2	0	2
2204	45	1	0	2
2205	55	1	4	1
2206	85	2	0	4
2207	55	1	0	3
2208	135	3	241	28
2209	75	2	3	2
2210	65	2	0	2
2211	25	1	0	2
2212	55	1	0	2

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
2213	135	3	164	9
2214	130	3	144	10
2215	230	6	272	15
2216	405	10	503	26
2217	50	1	8	3
2218	50	1	1	4
2301	50	1	14	53
2302	85	2	134	55
2303	35	1	0	30
2304	175	4	242	86
2305	80	2	47	41
2306	55	1	53	42
2307	45	1	0	60
2308	65	349	30	418
2309	120	3	136	63
2310	195	5	256	65
2401	0	0	0	12
2402	5	0	31	24
2403	15	0	38	40
2404	20	0	34	33
2405	5	705	111	749
2406	20	0	38	26
2407	25	1	38	24
2408	40	115	34	143
2409	60	1	29	25
2410	5	0	39	38
2411	0	142	45	185
2412	30	405	50	457
2413	120	213	210	262
2414	0	119	0	144
2415	0	0	0	20
2416	45	1	12	21
2417	15	222	15	260
2418	20	262	22	301
2419	0	0	37	31
2420	0	301	69	362
2421	5	0	46	30
2422	460	176	702	219
2423	10	0	42	29
2424	40	1	0	29
2425	145	168	260	279
2501	35	1	0	54
2502	465	11	479	75
2503	480	12	555	42

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
2504	230	6	258	32
2505	145	3	193	47
2506	255	6	335	52
2507	125	3	213	44
2508	130	3	115	8
2509	355	9	359	21
2510	300	7	290	19
2511	175	4	164	11
2512	190	5	207	12
2513	155	4	170	11
2514	155	4	215	8
2601	65	2	10	6
2602	280	7	256	20
2603	245	6	238	16
2604	110	3	95	6
2605	95	2	0	4
2606	30	1	0	2
2607	0	0	11	0
2608	95	2	0	7
2609	335	8	327	27
2610	445	11	398	32
2611	120	3	122	10
2612	520	12	715	28
2613	15	0	40	2
2614	105	3	99	9
2615	70	2	158	13
2701	485	142	444	165
2702	35	416	31	444
2703	200	5	191	19
2704	95	2	0	13
2705	85	2	108	9
2706	475	137	468	167
2707	635	15	821	38
2708	900	22	1,013	61
2709	145	3	209	22
2710	620	15	903	57
2801	70	2	0	38
2802	90	2	3	9
2803	345	8	478	25
2804	770	18	704	85
2805	75	2	5	4
2806	195	5	264	62
2807	0	0	0	1
2808	0	0	0	26

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
2901	0	0	104	13
2902	0	0	155	5
2903	0	0	0	5
2904	350	202	574	237
3001	735	177	889	212
3002	385	9	420	31
3003	930	130	1,053	170
3004	545	150	555	185
3101	0	0	313	19
3102	5	0	602	29
3103	0	0	0	1
3104	0	222	0	265
3105	0	0	0	287
3201	1,450	132	1,328	197
3202	685	136	814	169
3203	165	4	507	70
3204	10	0	180	17
3205	0	0	0	9
3301	730	18	2,808	150
3302	1,500	36	1,399	97
3401	0	939	666	1,254
3402	0	0	124	213
3403	0	392	3,557	684
3404	0	365	0	384
3405	0	0	23	54
3406	75	2	23	185
3407	0	0	1,307	92
3501	430	10	411	39
3502	5	0	1	13
3503	425	10	372	29
3504	135	3	131	7
3505	550	13	601	38
3506	505	12	563	43
3507	205	5	1,499	67
3508	10	0	0	20
3509	30	1	551	17
3510	10	364	33	384
3511	10	0	0	2
3512	10	0	622	18
3601	295	7	274	45
3602	320	8	288	37
3603	50	1	90	32
3604	5	0	0	78
3701	0	0	3,221	91

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
3702	405	84	4,235	243
3703	845	20	778	22
3704	465	11	1,462	167
3705	165	249	132	288
3706	925	22	1,082	33
3707	1,400	34	1,222	94
3708	2,120	148	2,458	268
3709	1,620	39	1,425	157
3710	310	7	301	23
3901	0	0	0	335
4501	5	0	2,549	326
4502	475	11	882	39
4503	2,780	732	2,901	893
4601	0	0	0	102
4602	30	1	1,092	131
4603	0	0	53	3
4701	450	11	390	104
4702	255	6	219	23
4703	420	10	385	26
4704	95	2	841	27
4705	300	7	261	14
4706	770	18	751	22
4801	980	695	952	812
4802	1,605	192	1,824	262
4803	760	18	987	60
4901	545	13	520	45
4902	370	9	326	32
4903	895	21	785	62
4904	655	16	589	51
4905	1,280	31	1,901	69
4906	415	10	389	31
5001	0	0	0	657
5002	5	0	0	509
5003	0	0	0	323
5004	20	0	0	1,065
5101	0	0	0	2
5102	0	0	0	0
5103	0	0	0	4
5104	0	0	0	0
5105	0	0	651	18
5106	0	0	223	6
5107	0	0	1,892	87
5200	33	70	47	55
5201	0	0	0	0

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
5202	0	0	0	0
5203	0	0	203	7
5204	0	0	0	1
5205	5	0	916	29
5206	40	1	0	2
5300	79	72	75	88
5301	0	0	61	2
5302	0	0	54	1
5303	0	0	0	0
5401	0	0	182	226
5402	0	0	563	32
5403	0	0	590	22
5404	0	0	554	64
5405	10	0	428	718
5406	0	0	1,178	57
5407	0	0	502	22
5408	15	0	639	29
5501	0	0	1,055	275
5502	0	0	938	36
5503	0	0	425	13
5504	0	0	206	10
5505	0	0	137	10
5506	0	0	447	88
5507	45	1	783	162
5508	5	0	741	44
5509	0	0	496	35
5510	5	0	414	31
5511	0	0	701	85
5512	5	0	794	154
5601	15	0	0	0
5602	0	0	0	0
5603	15	0	0	0
5604	0	0	0	0
5605	0	0	0	0
5606	0	0	0	0
5607	0	0	0	0
5608	0	0	0	0
5609	0	0	0	0
5610	0	0	0	0
5611	15	188	22	200
5612	0	0	7	0
5613	0	0	0	0
5614	0	0	0	0
5615	0	0	0	0

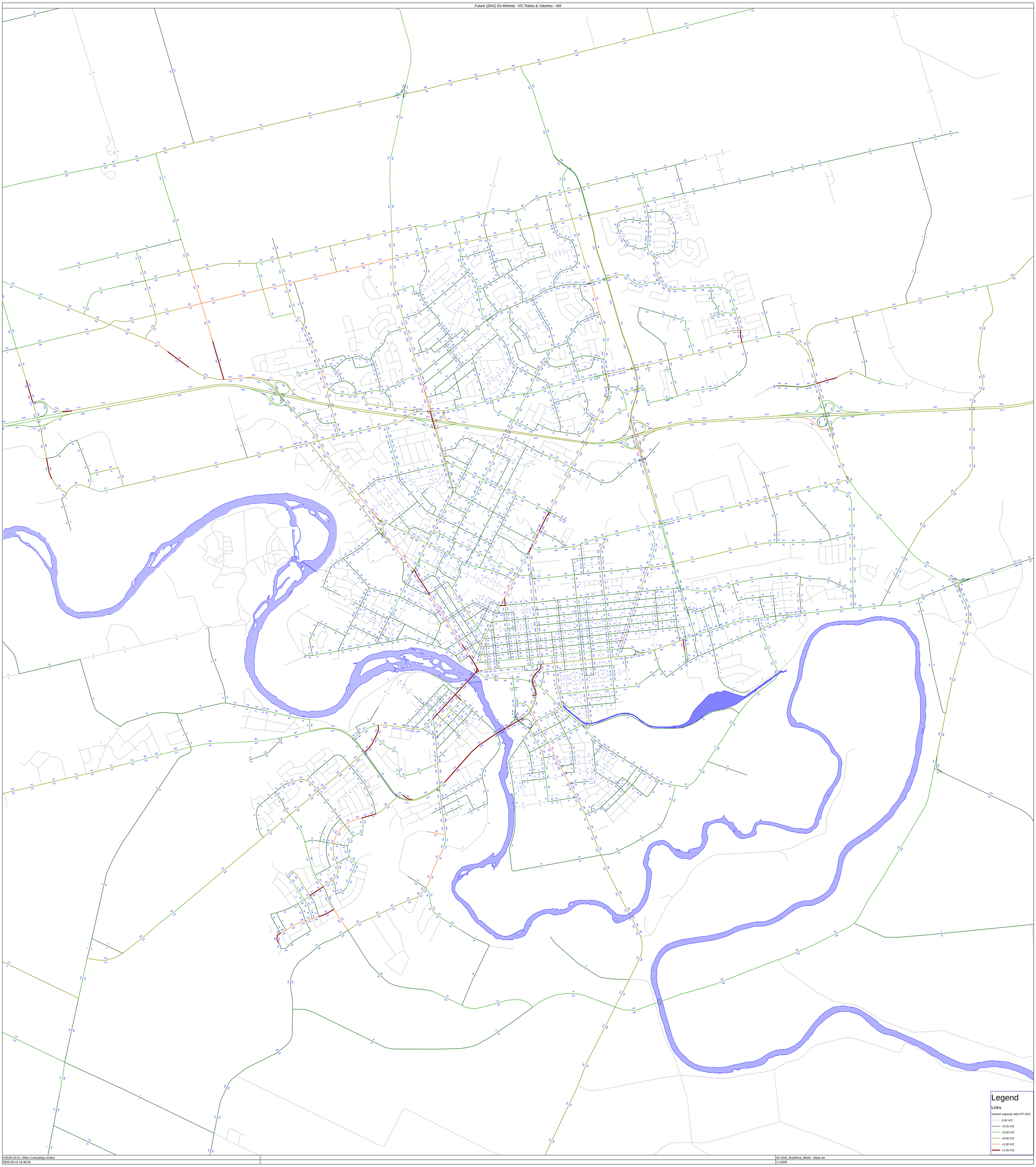
TAZ	2016		2041	
	Pop	Emp	Pop	Emp
5701	25	1	0	0
5702	0	0	0	0
5703	30	1	0	0
5704	0	0	0	0
5705	0	0	0	0
5706	10	0	5	2
5707	0	0	487	30
5708	0	0	532	31
5709	0	0	606	213
5710	5	0	919	97
5711	0	0	787	44
5712	0	0	360	80
5801	0	0	0	209
5802	0	0	0	0
5803	10	0	0	844
5804	0	0	232	462
5805	0	0	0	478
5806	15	0	204	375
5900	20	0	0	747
5901	10	0	0	810
5902	0	0	0	563
5903	15	0	1,225	44
5904	0	0	2,186	92
6000	64	71	38	44
6001	0	0	0	6
6002	0	0	0	8
6003	0	0	0	6
6004	0	0	0	38
6005	0	0	0	425
6006	0	0	0	786
6007	5	0	0	872
6008	0	0	0	21
6009	10	0	0	681
6010	0	0	0	548
7000	79	740	94	1,131
7001	0	0	0	0
7100	5,233	1,983	15,918	10,606
7200	868	251	1,172	282
7300	8,684	501	11,720	565
7400	1,042	1,504	1,406	1,692
7500	1,042	752	1,406	846
7600	695	501	937	565
7700	2,084	501	2,813	565
7800	2,952	1,002	3,985	1,128

TAZ	2016		2041	
	Pop	Emp	Pop	Emp
7900	250	67	450	104
7901	145	3	125	4
8000	397	102	473	153
8100	159	197	190	300
8200	0	1,304	0	1,980
8300	714	740	851	1,131
8400	79	72	94	110
8500	0	53	33	27
8501	40	1	636	19
8502	530	13	2,220	69
8600	70	2	4,399	181
8700	759	71	899	104
8701	35	1	127	9
8800	476	72	568	110
8900	1,032	72	1,230	110
9000	1,190	740	1,419	1,131
9100	556	72	663	110
9200	317	496	378	752
9300	476	72	568	110
9400	1,671	381	1,893	429
9500	1,193	508	1,352	572
9600	859	127	973	143
9700	1,050	254	1,189	286
9800	1,389	287	1,585	322
9900	780	110	891	123
10000	692	164	790	184
10100	793	126	898	143
10200	0	0	0	0
Total	**134,332**	**58,628**	**219,133**	**106,154**

Appendix B

Model Plots – Link Attributes & Volumes

Future (2041) Do Minimal - V/C Ratios & Volumes - AM



VISUM 20.01, Dillon Consulting Limited		A0 2041_Brantford_Model - Base.ver
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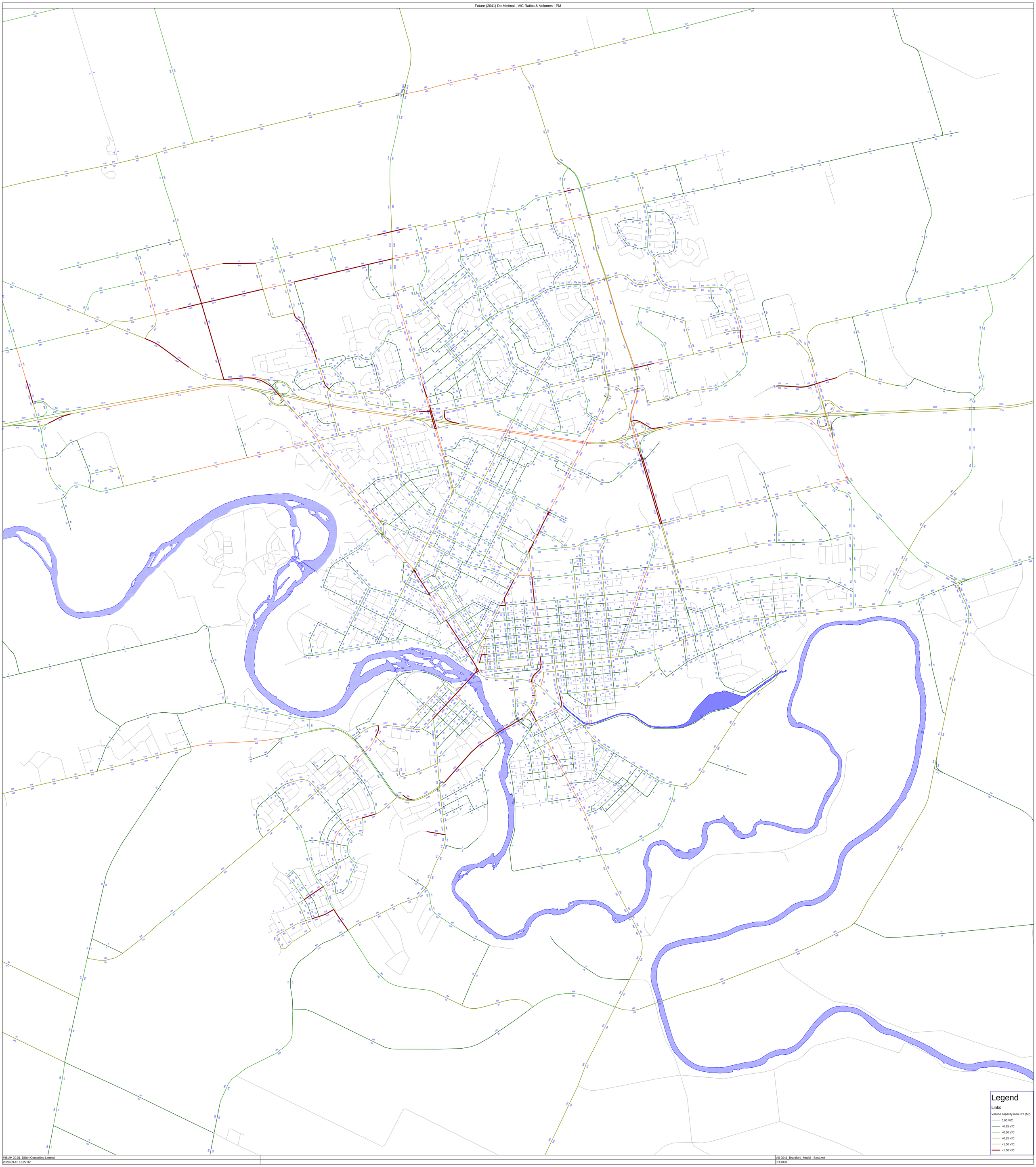
Future (2041) Do Minimal - V/C Ratios & Volumes - PM



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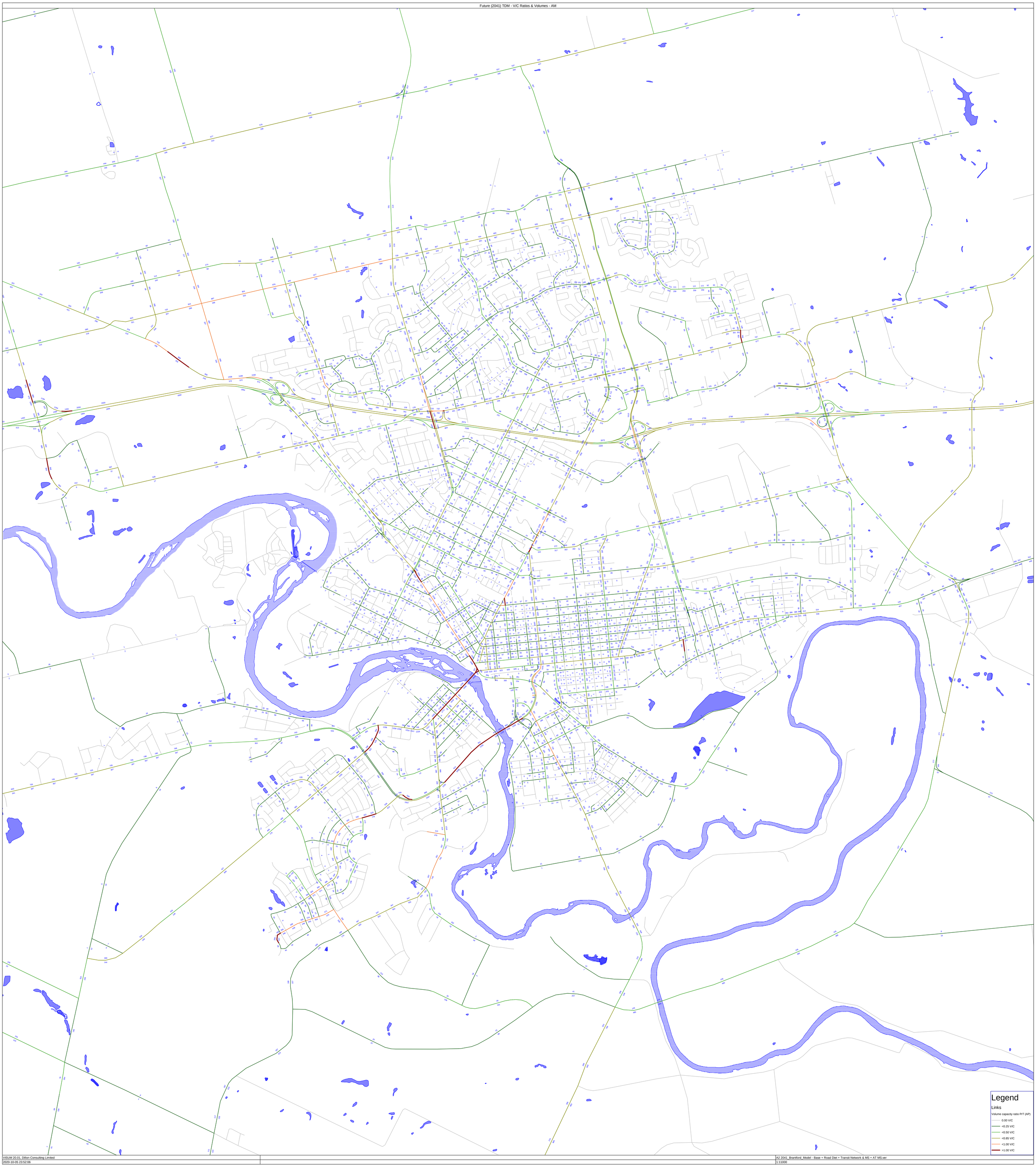
Future (2041) TDM - V/C Ratios & Volumes - AM



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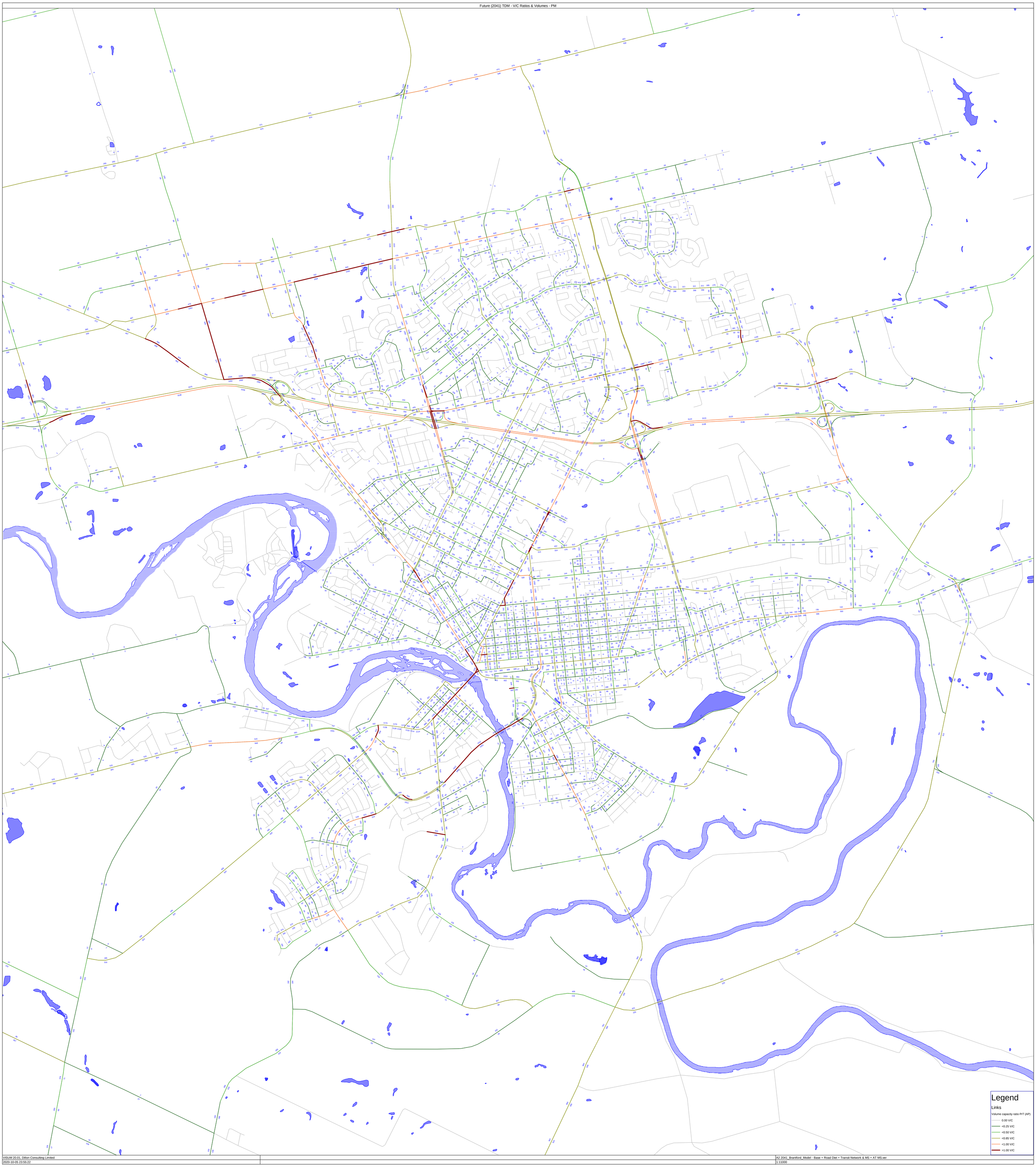
Future (2041) TDM - V/C Ratios & Volumes - PM



VISUM 20.01, Dillon Consulting Limited		A2 2041_Brantford_Model - Base + Road Diet + Transit Network & MS + AT MS.ver
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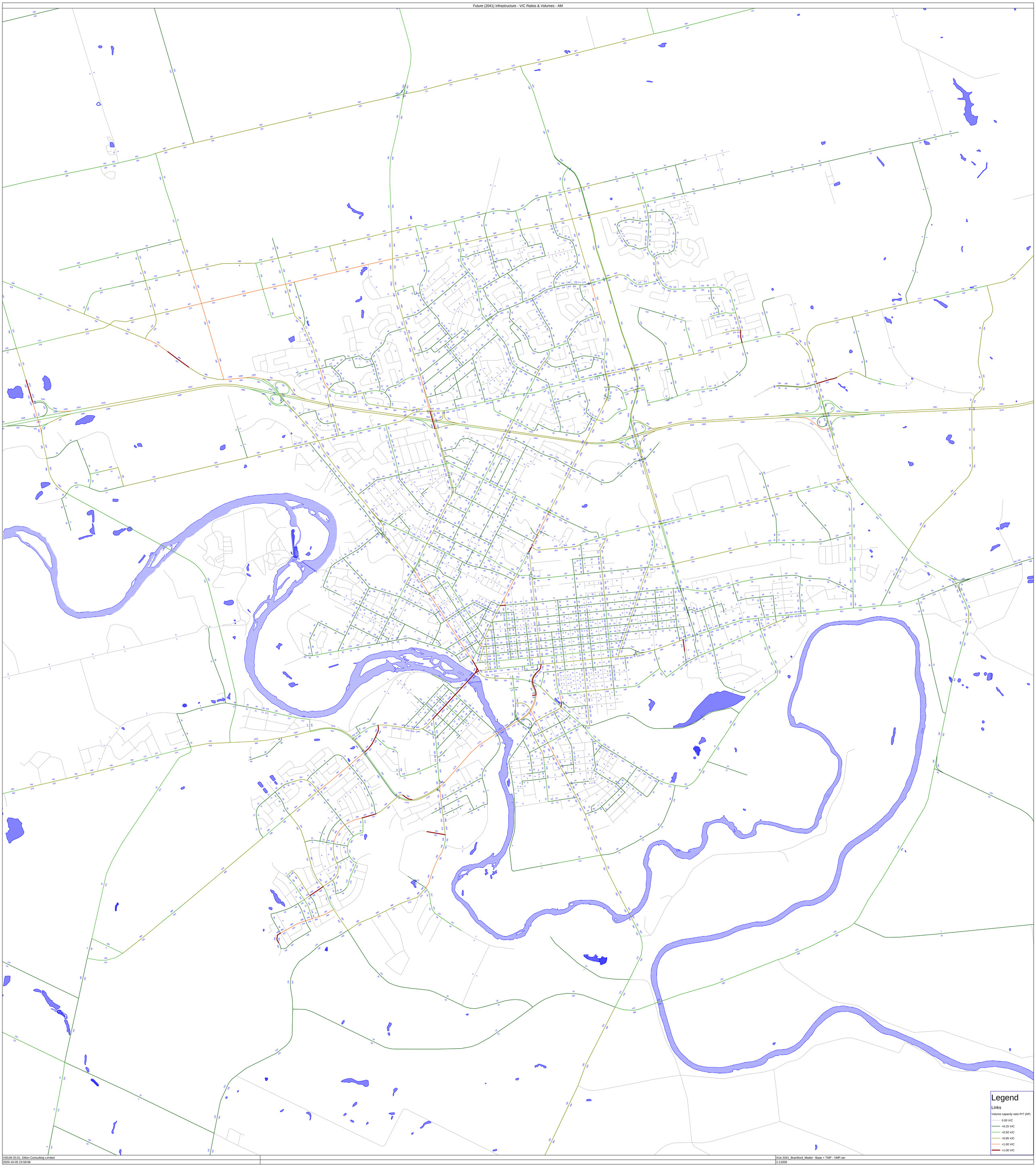
Future (2041) Infrastructure - V/C Ratios & Volumes - AM



VISUM 20.01, Dillon Consulting Limited		A1b 2041_Brantford_Model - Base + TMP - VMP.ver
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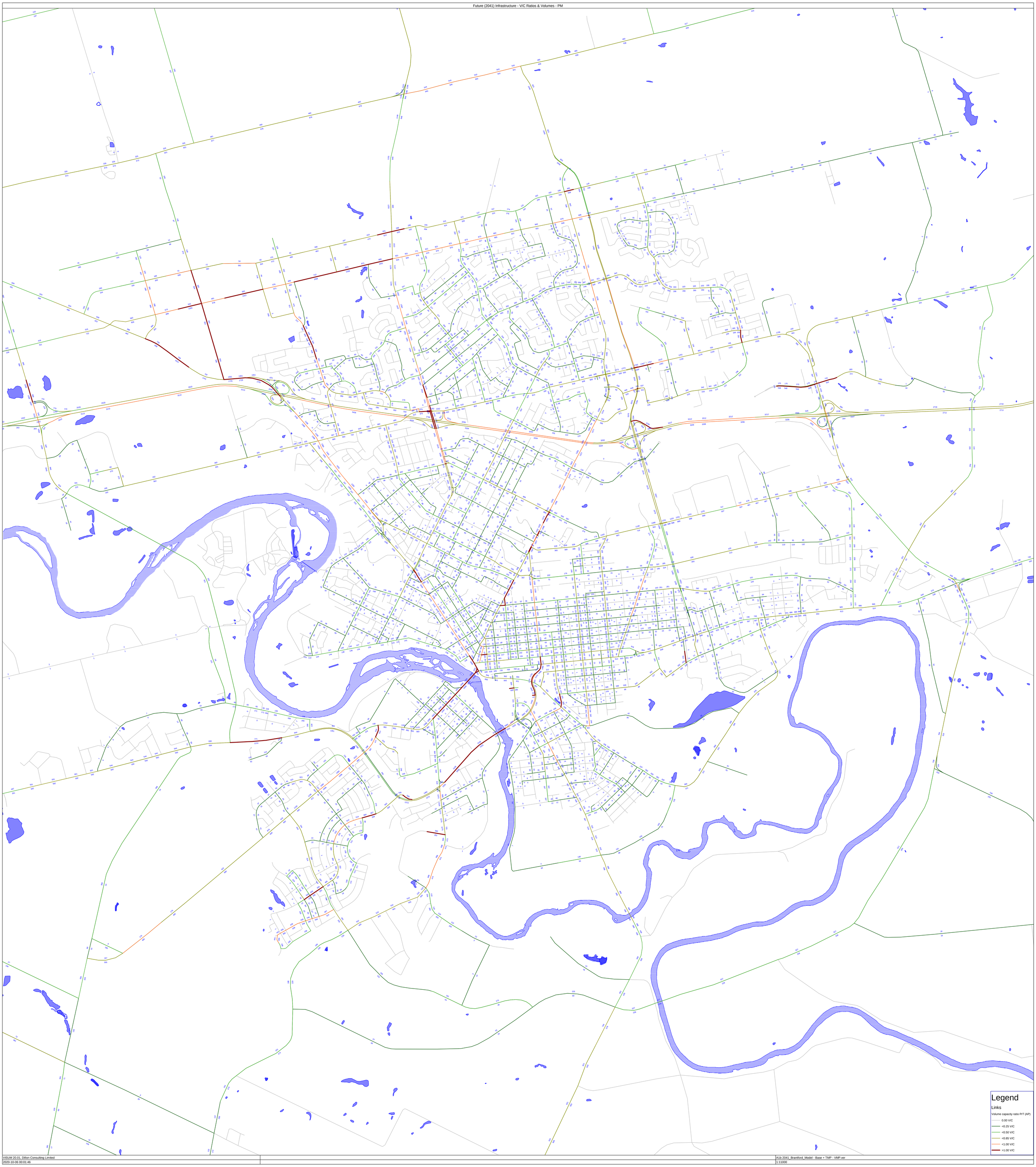
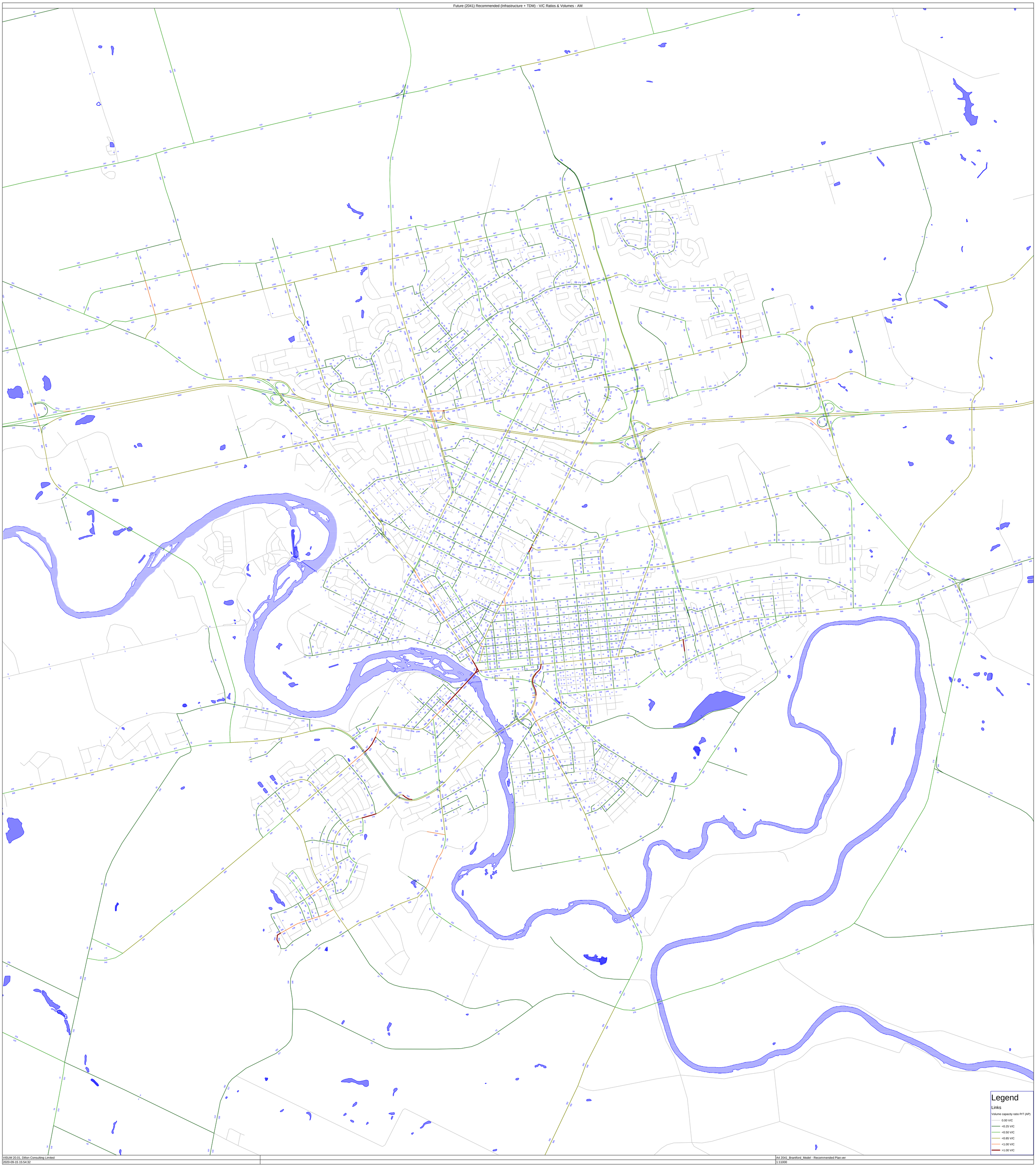
Future (2041) Infrastructure - V/C Ratios & Volumes - PM



Future (2041) Recommended (Infrastructure + TDM) - V/C Ratios & Volumes - AM



VISUM 20.01, Dillon Consulting Limited		A4 2041_Brantford_Model - Recommended Plan.ver
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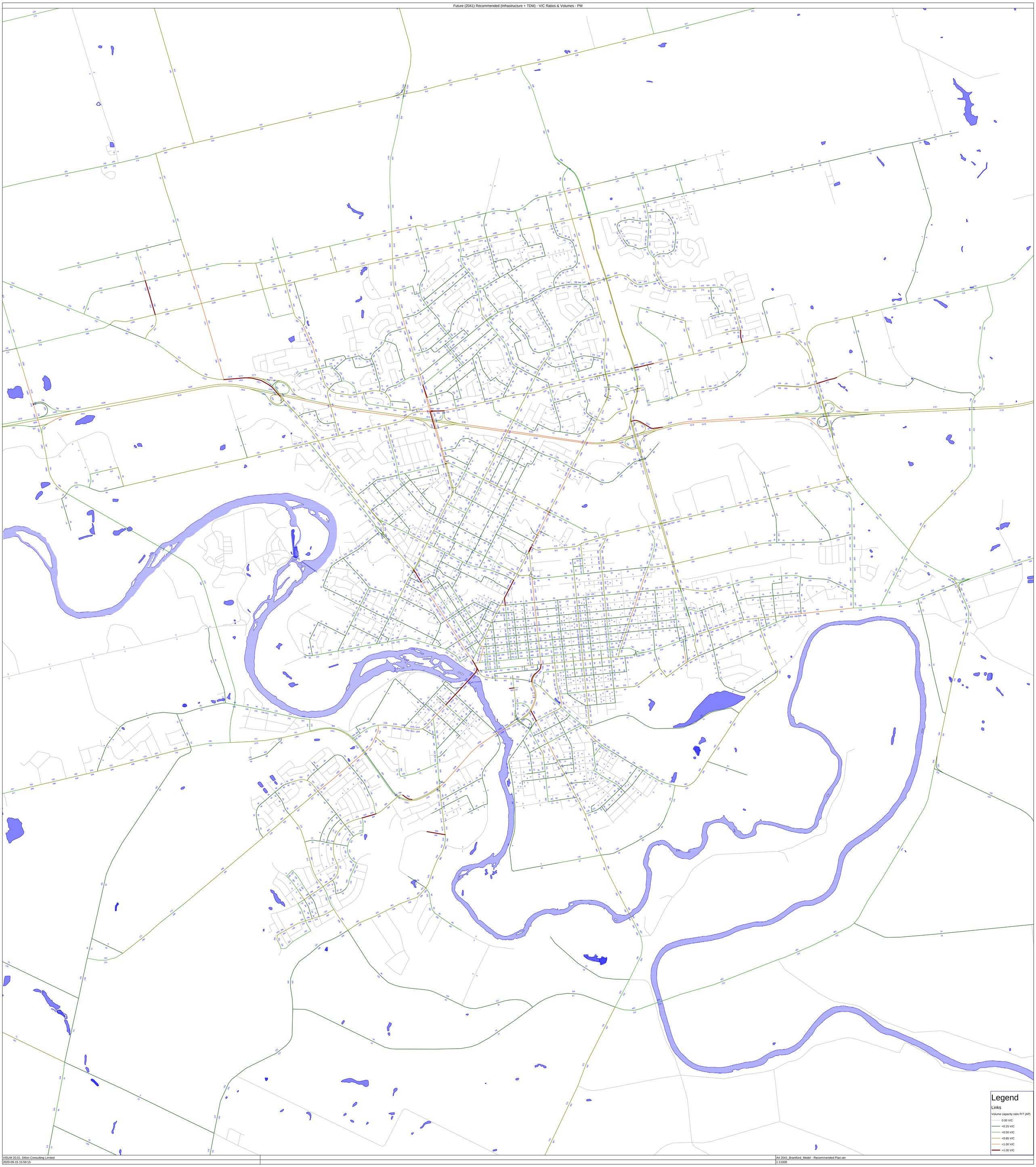
Future (2041) Recommended (Infrastructure + TDM) - V/C Ratios & Volumes - PM



VISUM 20.01, Dillon Consulting Limited		A4 2041_Brantford_Model - Recommended Plan.ver
2020-09-15 15:59:15		1:11000

Appendix C

Screenline Summary

Future 'Do Minimal' Screenline Summary

2041

#	Name	Direction	Capacity		AM Peak Hour		PM Peak Hour	
			Lanes	Total	Volume	V/C	Volume	V/C
1	Grand River South	EB	7	8,100	6,696	0.83	6,073	0.75
1	Grand River South	WB	7	8,100	4,404	0.54	7,450	0.92
2	Grand River North	EB	4	5,200	3,096	0.60	4,113	0.79
2	Grand River North	WB	5	6,000	2,756	0.46	3,822	0.64
3	Highway 403	NB	13	10,800	6,908	0.64	9,039	0.84
3	Highway 403	SB	13	10,800	7,296	0.68	9,254	0.86
4	King George Road	EB	11	9,600	5,201	0.54	8,413	0.88
4	King George Road	WB	11	9,600	6,792	0.71	7,269	0.76
5	Wayne Gretzky Parkway (North)	EB	7	7,600	4,399	0.58	6,210	0.82
5	Wayne Gretzky Parkway (North)	WB	7	7,600	5,312	0.70	5,827	0.77
6	Wayne Gretzky Parkway (South)	EB	7	4,900	1,986	0.41	2,302	0.47
6	Wayne Gretzky Parkway (South)	WB	7	4,900	1,600	0.33	2,822	0.58
7	Memorial Drive	EB	9	6,100	1,687	0.28	3,025	0.50
7	Memorial Drive	WB	9	6,100	2,339	0.38	2,599	0.43
8	West Street	EB	6	4,300	2,074	0.48	3,041	0.71
8	West Street	WB	6	4,300	2,671	0.62	3,032	0.71
9	CNR Corridor	NB	11	7,900	4,369	0.55	4,986	0.63
9	CNR Corridor	SB	11	7,900	4,231	0.54	6,068	0.77
10	Garden Avenue	EB	9	8,800	4,571	0.52	5,701	0.65
10	Garden Avenue	WB	9	8,800	4,389	0.50	6,052	0.69
11	Powerline Road	NB	13	9,400	4,158	0.44	5,843	0.62
11	Powerline Road	SB	13	9,400	4,671	0.50	6,092	0.65
12	Murray Street	EB	7	4,400	1,932	0.44	1,860	0.42
12	Murray Street	WB	8	5,200	1,589	0.31	2,381	0.46
13	West External	EB	7	7,300	1,711	0.23	2,241	0.31
13	West External	WB	7	7,300	1,664	0.23	2,190	0.30
14	South-West External	NB	4	4,300	1,560	0.36	1,168	0.27
14	South-West External	SB	4	4,300	949	0.22	1,632	0.38
15	East External	EB	5	6,900	2,931	0.42	3,448	0.50
15	East External	WB	5	6,900	2,996	0.43	3,634	0.53
16	North-East External	NB	3	3,200	1,355	0.42	1,614	0.50
16	North-East External	SB	3	3,200	1,168	0.37	2,281	0.71
17	North-West External	NB	3	3,300	780	0.24	929	0.28
17	North-West External	SB	3	3,300	791	0.24	978	0.30

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	1	Direction
Name	Grand River South	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	8,100	6,696	0.83	6,073	0.75
7	8,100	4,404	0.54	7,450	0.92

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,798	0.50	2,212	0.61
2	Highway 403	32103934	WB	1,800	2	3,600	1,619	0.45	2,069	0.57
3	Colborne Street	32102414	EB	800	2	1,600	2,494	1.56	2,003	1.25
4	Colborne Street	32102414	WB	800	2	1,600	1,407	0.88	2,685	1.68
5	Veterans Memorial Parkway	32101861	EB	1,000	1	1,000	1,256	1.26	1,095	1.10
6	Veterans Memorial Parkway	32101861	WB	1,000	1	1,000	978	0.98	1,353	1.35
7	Erie Avenue	32102875	EB	800	1	800	598	0.75	505	0.63
8	Erie Avenue	32102875	WB	800	1	800	252	0.32	648	0.81
9	Phelps Road (Brant Road 18)	31646482	EB	1,100	1	1,100	550	0.50	258	0.23
10	Phelps Road (Brant Road 18)	31646482	WB	1,100	1	1,100	148	0.13	695	0.63
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	2	Direction
Name	Grand River North	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	5,200	3,096	0.60	4,113	0.79
5	6,000	2,756	0.46	3,822	0.64

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,798	0.50	2,212	0.61
2	Highway 403	32103934	WB	1,800	2	3,600	1,619	0.45	2,069	0.57
3	Brant Road 2	32103340	EB	800	1	800	508	0.64	1,084	1.36
4	Brant Road 2	32103340	WB	800	1	800	674	0.84	811	1.01
5	William Street	31634058	EB	800	1	800	790	0.99	817	1.02
6	William Street	31634058	WB	800	2	1,600	463	0.29	942	0.59
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	3	Direction
Name	Highway 403	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
13	10,800	6,908	0.64	9,039	0.84
13	10,800	7,296	0.68	9,254	0.86

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32104457	NB	800	2	1,600	385	0.24	667	0.42
2	Oak Park Road	32104457	SB	800	2	1,600	932	0.58	425	0.27
3	Paris Road	32102313	NB	800	2	1,600	1,253	0.78	1,246	0.78
4	Paris Road	32102313	SB	800	2	1,600	661	0.41	1,596	1.00
5	King George Road	31683713	NB	800	2	1,600	1,282	0.80	1,431	0.89
6	King George Road	32102332	SB	800	2	1,600	1,238	0.77	1,492	0.93
7	Wayne Gretzky Parkway	31703983	NB	1,000	2	2,000	1,650	0.83	2,196	1.10
8	Wayne Gretzky Parkway	31703908	SB	1,000	2	2,000	1,843	0.92	2,220	1.11
9	Garden Avenue	32104072	NB	800	2	1,600	999	0.62	1,409	0.88
10	Garden Avenue	32104072	SB	800	2	1,600	1,047	0.65	1,497	0.94
11	North Park Street	31689884	NB	800	1	800	298	0.37	685	0.86
12	North Park Street	31689884	SB	800	1	800	461	0.58	673	0.84
13	West Street	31691064	NB	800	2	1,600	1,041	0.65	1,405	0.88
14	West Street	31691064	SB	800	2	1,600	1,114	0.70	1,351	0.84
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	4	Direction
Name	King George Road	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
11	9600	5201	0.54	8413	0.88
11	9600	6792	0.71	7269	0.76

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31663494	EB	1,000	1	1,000	689	0.69	1,014	1.01
2	Powerline Road	31663494	WB	1,000	1	1,000	922	0.92	909	0.91
3	Oxford Street	31685991	EB	500	1	500	202	0.40	225	0.45
4	Oxford Street	31685991	WB	500	1	500	133	0.27	238	0.48
5	Toll Gate Road	32101902	EB	800	1	800	622	0.78	835	1.04
6	Toll Gate Road	32101902	WB	800	1	800	550	0.69	870	1.09
7	Highway 403	32104048	EB	1,800	2	3,600	1,953	0.54	3,442	0.96
8	Highway 403	32104051	WB	1,800	2	3,600	3,042	0.85	2,713	0.75
9	Queensway Drive	31683036	EB	500	1	500	138	0.28	189	0.38
10	Queensway Drive	31683036	WB	500	1	500	90	0.18	215	0.43
11	St. George Street	31682564	EB	500	1	500	96	0.19	237	0.47
12	St. George Street	31682564	WB	500	1	500	60	0.12	140	0.28
13	Terrace Hill Street	31670392	EB	500	1	500	207	0.41	277	0.55
14	Terrace Hill Street	31670392	WB	500	1	500	154	0.31	265	0.53
15	Brant Avenue	31669648	EB	800	2	1,600	862	0.54	1,562	0.98
16	Brant Avenue	31669648	WB	800	2	1,600	1,420	0.89	1,286	0.80
17	New East/West Road	32104408	EB	600	1	600	432	0.72	632	1.05
18	New East/West Road	32104408	WB	600	1	600	421	0.70	633	1.06
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	5	Direction
Name	Wayne Gretzky Parkway (North)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	7,600	4,399	0.58	6,210	0.82
7	7,600	5,312	0.70	5,827	0.77

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31711969	EB	1,000	1	1,000	218	0.22	624	0.62
2	Powerline Road	31711969	WB	1,000	1	1,000	638	0.64	427	0.43
3	Dunsdon Street	32102051	EB	800	1	800	288	0.36	554	0.69
4	Dunsdon Street	32102051	WB	800	1	800	441	0.55	342	0.43
5	Lynden Road	32103996	EB	800	2	1,600	1,090	0.68	1,443	0.90
6	Lynden Road	32103996	WB	800	2	1,600	1,077	0.67	1,735	1.08
7	Highway 403	32104061	EB	1,800	2	3,600	2,716	0.75	3,159	0.88
8	Highway 403	32104062	WB	1,800	2	3,600	2,815	0.78	3,178	0.88
9	New East/West Road	32104398	EB	600	1	600	87	0.15	430	0.72
10	New East/West Road	32104398	WB	600	1	600	341	0.57	145	0.24
11										
12										
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Legned:

		V/C Range	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	6	Direction
Name	Wayne Gretzky Parkway (South)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	4,900	1,986	0.41	2,302	0.47
7	4,900	1,600	0.33	2,822	0.58

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	31701117	EB	800	2	1,600	691	0.43	910	0.57
2	Henry Street	31701117	WB	800	2	1,600	611	0.38	1,178	0.74
3	Elgin Street	31702288	EB	600	1	600	420	0.70	287	0.48
4	Elgin Street	31702288	WB	600	1	600	227	0.38	470	0.78
5	Grey Street	31701124	EB	600	1	600	225	0.38	330	0.55
6	Grey Street	31701124	WB	600	1	600	275	0.46	272	0.45
7	Chatham Street	31700439	EB	500	1	500	83	0.17	78	0.16
8	Chatham Street	31700439	WB	500	1	500	35	0.07	109	0.22
9	Colborne Street	31700015	EB	800	2	1,600	567	0.35	697	0.44
10	Colborne Street	31700015	WB	800	2	1,600	452	0.28	793	0.50
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12										
13										
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Legned:

		V/C Range	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	7	Direction
Name	Memorial Drive	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
9	6,100	1,687	0.28	3,025	0.50
9	6,100	2,339	0.38	2,599	0.43

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Varadi Avenue	32101917	EB	500	1	500	33	0.07	136	0.27
2	Varadi Avenue	32101917	WB	500	1	500	39	0.08	108	0.22
3	Dunsdon Street	31687743	EB	600	2	1,200	207	0.17	299	0.25
4	Dunsdon Street	31687743	WB	600	2	1,200	242	0.20	257	0.21
5	North Park Street	32101953	EB	600	2	1,200	167	0.14	375	0.31
6	North Park Street	32101953	WB	600	2	1,200	369	0.31	357	0.30
7	Fairview Drive	32102031	EB	800	2	1,600	341	0.21	819	0.51
8	Fairview Drive	32102031	WB	800	2	1,600	690	0.43	735	0.46
9	Powerline Road	31688305	EB	1,000	1	1,000	678	0.68	971	0.97
10	Powerline Road	31688305	WB	1,000	1	1,000	808	0.81	824	0.82
11	New East/West Road	32104387	EB	600	1	600	261	0.44	425	0.71
12	New East/West Road	32104387	WB	600	1	600	191	0.32	318	0.53
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14										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	8	Direction
Name	West Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
6	4,300	2,074	0.48	3,041	0.71
6	4,300	2,671	0.62	3,032	0.71

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Morton Avenue	31691008	EB	500	1	500	89	0.18	94	0.19
2	Morton Avenue	31691008	WB	500	1	500	133	0.27	187	0.37
3	Charing Cross Street	31689369	EB	800	2	1,600	435	0.27	653	0.41
4	Charing Cross Street	31689369	WB	800	2	1,600	649	0.41	800	0.50
5	Dundas Street	31679012	EB	600	1	600	345	0.58	462	0.77
6	Dundas Street	31679012	WB	600	1	600	204	0.34	341	0.57
7	Brant Avenue	31670814	EB	800	2	1,600	1,205	0.75	1,832	1.15
8	Brant Avenue	31670814	WB	800	2	1,600	1,685	1.05	1,704	1.07
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19										
20										

Legned:

		V/C Range	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	9	Direction
Name	CNR Corridor	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
11	7,900	4,369	0.55	4,986	0.63
11	7,900	4,231	0.54	6,068	0.77

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	St. Paul Avenue	32103535	NB	800	2	1,600	698	0.44	927	0.58
2	St. Paul Avenue	32103535	SB	800	2	1,600	948	0.59	1,006	0.63
3	West Street	31678374	NB	800	1	800	624	0.78	749	0.94
4	West Street	31678374	SB	800	1	800	766	0.96	924	1.16
5	Clarence Street	31678962	NB	800	2	1,600	1,329	0.83	1,379	0.86
6	Clarence Street	31678962	SB	800	2	1,600	1,133	0.71	1,612	1.01
7	Murray Street	31681384	NB	500	1	500	129	0.26	217	0.43
8	Murray Street	31681384	SB	500	1	500	91	0.18	379	0.76
9	Rawdon Street	31698868	NB	500	1	500	270	0.54	165	0.33
10	Rawdon Street	31698868	SB	500	1	500	85	0.17	390	0.78
11	Stanley Street	31698979	NB	500	1	500	404	0.81	364	0.73
12	Stanley Street	31698979	SB	500	1	500	303	0.61	442	0.88
13	Wayne Gretzky Parkway	31700977	NB	900	2	1,800	699	0.39	1,038	0.58
14	Wayne Gretzky Parkway	31700971	SB	900	2	1,800	730	0.41	1,036	0.58
15	Garden Avenue	32079892	NB	600	1	600	216	0.36	147	0.25
16	Garden Avenue	32079892	SB	600	1	600	175	0.29	279	0.47
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	10	Direction
Name	Garden Avenue	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
9	8,800	4,571	0.52	5,701	0.65
9	8,800	4,389	0.50	6,052	0.69

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Lynden Road	31708958	EB	800	2	1,600	744	0.47	1,066	0.67
2	Lynden Road	31708958	WB	800	2	1,600	710	0.44	1,185	0.74
3	Highway 403	32104066	EB	1,800	2	3,600	2,716	0.75	3,159	0.88
4	Highway 403	32104065	WB	1,800	2	3,600	2,815	0.78	3,178	0.88
5	Henry Street	32081112	EB	800	1	800	361	0.45	605	0.76
6	Henry Street	32081112	WB	800	1	800	358	0.45	543	0.68
7	Elgin Street	32079965	EB	600	1	600	97	0.16	201	0.34
8	Elgin Street	32079965	WB	600	1	600	125	0.21	116	0.19
9	Grey Street	32079358	EB	600	1	600	107	0.18	63	0.11
10	Grey Street	32079358	WB	600	1	600	52	0.09	101	0.17
11	Colborne Street	32102783	EB	800	2	1,600	546	0.34	607	0.38
12	Colborne Street	32102783	WB	800	2	1,600	329	0.21	929	0.58
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14										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	11	Direction
Name	Powerline Road	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
13	9,400	4,158	0.44	5,843	0.62
13	9,400	4,671	0.50	6,092	0.65

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32103349	NB	800	1	800	454	0.57	697	0.87
2	Oak Park Road	32103349	SB	800	1	800	550	0.69	614	0.77
3	Paris Road	32104353	NB	800	1	800	406	0.51	380	0.48
4	Paris Road	32104353	SB	800	1	800	230	0.29	465	0.58
5	Golf Road	32103116	NB	500	1	500	491	0.98	305	0.61
6	Golf Road	32103116	SB	500	1	500	203	0.41	565	1.13
7	Balmoral Drive	32104424	NB	600	1	600	386	0.64	301	0.50
8	Balmoral Drive	32104424	SB	600	1	600	197	0.33	433	0.72
9	King George Road	32101870	NB	800	2	1,600	811	0.51	1,145	0.72
10	King George Road	32101870	SB	800	2	1,600	1,111	0.69	1,174	0.73
11	Memorial Drive	31688335	NB	600	2	1,200	121	0.10	412	0.34
12	Memorial Drive	31688335	SB	600	2	1,200	328	0.27	419	0.35
13	Greenfield Road	31709585	NB	500	1	500	43	0.09	57	0.11
14	Greenfield Road	31709585	SB	500	1	500	36	0.07	39	0.08
15	Wayne Gretzky Parkway	31696170	NB	1,000	2	2,000	793	0.40	1,646	0.82
16	Wayne Gretzky Parkway	32101994	SB	1,000	2	2,000	1,297	0.65	1,485	0.74
17	Brantwood Park Road	32103099	NB	600	1	600	194	0.32	273	0.46
18	Brantwood Park Road	32103099	SB	600	1	600	173	0.29	270	0.45
19	Park Road North	32101996	NB	800	1	800	459	0.57	627	0.78
20	Park Road North	32101996	SB	800	1	800	546	0.68	628	0.79

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	12	Direction
Name	Murray Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	4,400	1,932	0.44	1,860	0.42
8	5,200	1,589	0.31	2,381	0.46

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	32102230	EB	800	1	800	313	0.39	339	0.42
2	Henry Street	32102230	WB	800	1	800	376	0.47	398	0.50
3	Elgin Street	32102140	EB	500	1	500	80	0.16	108	0.22
4	Elgin Street	32102140	WB	500	1	500	170	0.34	171	0.34
5	Grey Street	31680485	EB	500	1	500	78	0.16	164	0.33
6	Grey Street	31680485	WB	500	1	500	79	0.16	92	0.18
7	Colborne Street	31680092	EB	800	2	1,600	954	0.60	941	0.59
8	Dalhousie Street	31680105	WB	800	3	2,400	735	0.31	1,068	0.45
9	Mary Street	31677408	EB	500	1	500	174	0.35	54	0.11
10	Mary Street	31677408	WB	500	1	500	54	0.11	177	0.35
11	Greenwich Street	31677317	EB	500	1	500	333	0.67	254	0.51
12	Greenwich Street	31677317	WB	500	1	500	175	0.35	475	0.95
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14										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	13	Direction
Name	West External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	7,300	1,711	0.23	2,241	0.31
7	7,300	1,664	0.23	2,190	0.30

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Silver Street (Brant Road 52)	31635739	EB	800	1	800	232	0.29	325	0.41
2	Silver Street (Brant Road 52)	31635739	WB	800	1	800	169	0.21	193	0.24
3	Brant Road 2	31627987	EB	800	1	800	320	0.40	237	0.30
4	Brant Road 2	31627987	WB	800	1	800	192	0.24	618	0.77
5	Powerline Road	32103319	EB	500	1	500	52	0.10	59	0.12
6	Powerline Road	32103319	WB	500	1	500	54	0.11	61	0.12
7	Highway 403	32103921	EB	1,800	2	3,600	830	0.23	1,185	0.33
8	Highway 403	32103924	WB	1,800	2	3,600	934	0.26	1,115	0.31
9	Bethel Road	31626662	EB	500	1	500	0	0.00	25	0.05
10	Bethel Road	31626662	WB	500	1	500	0	0.00	0	0.00
11	Colborne Street (Brant Road 53)	32103323	EB	1,100	1	1,100	277	0.25	410	0.37
12	Colborne Street (Brant Road 53)	32103323	WB	1,100	1	1,100	315	0.29	203	0.18
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	14	Direction
Name	South-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	4,300	1,560	0.36	1,168	0.27
4	4,300	949	0.22	1,632	0.38

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Rest Acres Road (Highway 24)	31623575	NB	1,200	1	1,200	386	0.32	246	0.21
2	Rest Acres Road (Highway 24)	31623575	SB	1,200	1	1,200	374	0.31	393	0.33
3	Mount Pleasant Road (Brant Road 24)	31641599	NB	1,000	1	1,000	220	0.22	229	0.23
4	Mount Pleasant Road (Brant Road 24)	31641599	SB	1,000	1	1,000	198	0.20	266	0.27
5	Pleasant Ridge Road (Brant Road 7)	31641036	NB	1,000	1	1,000	145	0.15	99	0.10
6	Pleasant Ridge Road (Brant Road 7)	31641036	SB	1,000	1	1,000	66	0.07	152	0.15
7	Cockshutt Road (Brant Road 4)	32103199	NB	1,100	1	1,100	809	0.74	594	0.54
8	Cockshutt Road (Brant Road 4)	32103199	SB	1,100	1	1,100	311	0.28	821	0.75
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	15	Direction
Name	East External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
5	6,900	2,931	0.42	3,448	0.50
5	6,900	2,996	0.43	3,634	0.53

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32104077	EB	1,800	2	3,600	2,276	0.63	2,711	0.75
2	Highway 403	32104074	WB	1,800	2	3,600	2,461	0.68	2,665	0.74
3	Brant Road 2	32087178	EB	1,100	2	2,200	391	0.18	348	0.16
4	Brant Road 2	32087178	WB	1,100	2	2,200	234	0.11	590	0.27
5	Brant Road 54	32079101	EB	1,100	1	1,100	264	0.24	389	0.35
6	Brant Road 54	32079101	WB	1,100	1	1,100	301	0.27	379	0.34
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	16	Direction
Name	North-East External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,200	1,355	0.42	1,614	0.50
3	3,200	1,168	0.37	2,281	0.71

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	East River Road	31664248	NB	1,000	1	1,000	286	0.29	199	0.20
2	East River Road	31664248	SB	1,000	1	1,000	113	0.11	483	0.48
3	Highway 24	32104116	NB	1,200	1	1,200	749	0.62	927	0.77
4	Highway 24	32104116	SB	1,200	1	1,200	597	0.50	1,133	0.94
5	St. George Road	31864585	NB	1,000	1	1,000	320	0.32	488	0.49
6	St. George Road	31864585	SB	1,000	1	1,000	458	0.46	665	0.67
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	17	Direction
Name	North-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,300	780	0.24	929	0.28
3	3,300	791	0.24	978	0.30

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Brant-Oxford Road	31625759	NB	1,100	1	1,100	249	0.23	218	0.20
2	Brant-Oxford Road	31625759	SB	1,100	1	1,100	265	0.24	261	0.24
3	Ayr Road	31626456	NB	1,100	1	1,100	3	0.00	5	0.00
4	Ayr Road	31626456	SB	1,100	1	1,100	3	0.00	21	0.02
5	Pinehurst Road	32103147	NB	1,100	1	1,100	528	0.48	706	0.64
6	Pinehurst Road	32103147	SB	1,100	1	1,100	523	0.48	696	0.63
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

Future Manage Travel Demand Screenline Summary

2041

#	Name	Direction	Capacity		AM Peak Hour		PM Peak Hour	
			Lanes	Total	Volume	V/C	Volume	V/C
1	Grand River South	EB	7	8,100	6,367	0.79	5,794	0.72
1	Grand River South	WB	7	8,100	4,035	0.50	6,973	0.86
2	Grand River North	EB	4	5,200	2,941	0.57	3,977	0.76
2	Grand River North	WB	5	6,000	2,565	0.43	3,587	0.60
3	Highway 403	NB	13	10,800	6,422	0.59	8,432	0.78
3	Highway 403	SB	13	10,800	6,994	0.65	8,736	0.81
4	King George Road	EB	11	9,600	4,996	0.52	8,046	0.84
4	King George Road	WB	11	9,600	6,415	0.67	6,743	0.70
5	Wayne Gretzky Parkway (North)	EB	7	7,600	4,264	0.56	5,965	0.78
5	Wayne Gretzky Parkway (North)	WB	7	7,600	5,147	0.68	5,624	0.74
6	Wayne Gretzky Parkway (South)	EB	6	4,100	1,911	0.47	2,146	0.52
6	Wayne Gretzky Parkway (South)	WB	6	4,100	1,467	0.36	2,650	0.65
7	Memorial Drive	EB	7	4,900	1,594	0.33	2,775	0.57
7	Memorial Drive	WB	7	4,900	2,181	0.45	2,374	0.48
8	West Street	EB	6	4,300	1,916	0.45	2,951	0.69
8	West Street	WB	6	4,300	2,579	0.60	2,952	0.69
9	CNR Corridor	NB	11	7,900	4,080	0.52	4,694	0.59
9	CNR Corridor	SB	11	7,900	3,935	0.50	5,748	0.73
10	Garden Avenue	EB	8	8,000	4,462	0.56	5,421	0.68
10	Garden Avenue	WB	8	8,000	4,317	0.54	5,807	0.73
11	Powerline Road	NB	12	9,000	3,965	0.44	5,521	0.61
11	Powerline Road	SB	12	9,000	4,487	0.50	5,740	0.64
12	Murray Street	EB	7	4,400	1,916	0.44	1,734	0.39
12	Murray Street	WB	8	5,200	1,528	0.29	2,326	0.45
13	West External	EB	7	7,300	1,664	0.23	2,211	0.30
13	West External	WB	7	7,300	1,602	0.22	2,141	0.29
14	South-West External	NB	4	4,300	1,548	0.36	1,161	0.27
14	South-West External	SB	4	4,300	935	0.22	1,637	0.38
15	East External	EB	5	6,900	2,940	0.43	3,444	0.50
15	East External	WB	5	6,900	3,007	0.44	3,648	0.53
16	North-East External	NB	3	3,200	1,341	0.42	1,599	0.50
16	North-East External	SB	3	3,200	1,161	0.36	2,253	0.70
17	North-West External	NB	3	3,300	755	0.23	912	0.28
17	North-West External	SB	3	3,300	788	0.24	937	0.28

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	1	Direction
Name	Grand River South	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	8,100	6,367	0.79	5,794	0.72
7	8,100	4,035	0.50	6,973	0.86

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,695	0.47	2,137	0.59
2	Highway 403	32103934	WB	1,800	2	3,600	1,492	0.41	1,941	0.54
3	Colborne Street	32102414	EB	800	2	1,600	2,405	1.50	1,875	1.17
4	Colborne Street	32102414	WB	800	2	1,600	1,234	0.77	2,518	1.57
5	Veterans Memorial Parkway	32101861	EB	1,000	1	1,000	1,229	1.23	1,053	1.05
6	Veterans Memorial Parkway	32101861	WB	1,000	1	1,000	914	0.91	1,311	1.31
7	Erie Avenue	32102875	EB	800	1	800	552	0.69	504	0.63
8	Erie Avenue	32102875	WB	800	1	800	250	0.31	582	0.73
9	Phelps Road (Brant Road 18)	31646482	EB	1,100	1	1,100	486	0.44	225	0.20
10	Phelps Road (Brant Road 18)	31646482	WB	1,100	1	1,100	145	0.13	621	0.56
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19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	2	Direction
Name	Grand River North	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	5,200	2,941	0.57	3,977	0.76
5	6,000	2,565	0.43	3,587	0.60

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,695	0.47	2,137	0.59
2	Highway 403	32103934	WB	1,800	2	3,600	1,492	0.41	1,941	0.54
3	Brant Road 2	32103340	EB	800	1	800	453	0.57	1,066	1.33
4	Brant Road 2	32103340	WB	800	1	800	624	0.78	725	0.91
5	William Street	31634058	EB	800	1	800	793	0.99	774	0.97
6	William Street	31634058	WB	800	2	1,600	449	0.28	921	0.58
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19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	3	Direction
Name	Highway 403	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
13	10,800	6,422	0.59	8,432	0.78
13	10,800	6,994	0.65	8,736	0.81

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32104460	NB	800	2	1,600	359	0.22	561	0.35
2	Oak Park Road	32104460	SB	800	2	1,600	898	0.56	361	0.23
3	Paris Road	32102313	NB	800	2	1,600	1,170	0.73	1,095	0.68
4	Paris Road	32102313	SB	800	2	1,600	610	0.38	1,554	0.97
5	King George Road	31683713	NB	800	2	1,600	1,215	0.76	1,396	0.87
6	King George Road	32102332	SB	800	2	1,600	1,192	0.75	1,433	0.90
7	Wayne Gretzky Parkway	31703983	NB	1,000	2	2,000	1,557	0.78	2,133	1.07
8	Wayne Gretzky Parkway	31703908	SB	1,000	2	2,000	1,778	0.89	2,192	1.10
9	Garden Avenue	32104072	NB	800	2	1,600	895	0.56	1,334	0.83
10	Garden Avenue	32104072	SB	800	2	1,600	1,025	0.64	1,392	0.87
11	North Park Street	31689884	NB	800	1	800	277	0.35	584	0.73
12	North Park Street	31689884	SB	800	1	800	421	0.53	572	0.72
13	West Street	31691064	NB	800	2	1,600	949	0.59	1,329	0.83
14	West Street	31691064	SB	800	2	1,600	1,070	0.67	1,232	0.77
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	4	Direction
Name	King George Road	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
11	9600	4996	0.52	8046	0.84
11	9600	6415	0.67	6743	0.7

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31663494	EB	1,000	1	1,000	684	0.68	1,006	1.01
2	Powerline Road	31663494	WB	1,000	1	1,000	907	0.91	873	0.87
3	Oxford Street	31685991	EB	500	1	500	189	0.38	226	0.45
4	Oxford Street	31685991	WB	500	1	500	130	0.26	227	0.45
5	Toll Gate Road	32101902	EB	800	1	800	596	0.75	742	0.93
6	Toll Gate Road	32101902	WB	800	1	800	509	0.64	744	0.93
7	Highway 403	32104048	EB	1,800	2	3,600	1,903	0.53	3,346	0.93
8	Highway 403	32104051	WB	1,800	2	3,600	2,869	0.80	2,624	0.73
9	Queensway Drive	31683036	EB	500	1	500	123	0.25	183	0.37
10	Queensway Drive	31683036	WB	500	1	500	80	0.16	203	0.41
11	St. George Street	31682564	EB	500	1	500	68	0.14	181	0.36
12	St. George Street	31682564	WB	500	1	500	44	0.09	104	0.21
13	Terrace Hill Street	31670392	EB	500	1	500	199	0.40	269	0.54
14	Terrace Hill Street	31670392	WB	500	1	500	129	0.26	265	0.53
15	Brant Avenue	31669648	EB	800	2	1,600	815	0.51	1,486	0.93
16	Brant Avenue	31669648	WB	800	2	1,600	1,349	0.84	1,113	0.70
17	New East/West Road	32104408	EB	600	1	600	419	0.70	607	1.01
18	New East/West Road	32104408	WB	600	1	600	398	0.66	590	0.98
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	5	Direction
Name	Wayne Gretzky Parkway (North)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	7,600	4,264	0.56	5,965	0.78
7	7,600	5,147	0.68	5,624	0.74

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31711969	EB	1,000	1	1,000	194	0.19	579	0.58
2	Powerline Road	31711969	WB	1,000	1	1,000	600	0.60	380	0.38
3	Dunsdon Street	32102051	EB	800	1	800	279	0.35	526	0.66
4	Dunsdon Street	32102051	WB	800	1	800	423	0.53	317	0.40
5	Lynden Road	32103996	EB	800	2	1,600	986	0.62	1,314	0.82
6	Lynden Road	32103996	WB	800	2	1,600	1,004	0.63	1,668	1.04
7	Highway 403	32104061	EB	1,800	2	3,600	2,735	0.76	3,138	0.87
8	Highway 403	32104062	WB	1,800	2	3,600	2,796	0.78	3,123	0.87
9	New East/West Road	32104398	EB	600	1	600	70	0.12	408	0.68
10	New East/West Road	32104398	WB	600	1	600	324	0.54	136	0.23
11										
12										
13										
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Legned:

		V/C Range	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	6	Direction
Name	Wayne Gretzky Parkway (South)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
6	4,100	1,911	0.47	2,146	0.52
6	4,100	1,467	0.36	2,650	0.65

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	31701117	EB	800	2	1,600	650	0.41	815	0.51
2	Henry Street	31701117	WB	800	2	1,600	531	0.33	1,176	0.74
3	Elgin Street	31702288	EB	600	1	600	418	0.70	263	0.44
4	Elgin Street	31702288	WB	600	1	600	212	0.35	478	0.80
5	Grey Street	31701124	EB	600	1	600	220	0.37	359	0.60
6	Grey Street	31701124	WB	600	1	600	261	0.44	300	0.50
7	Chatham Street	31700439	EB	500	1	500	79	0.16	129	0.26
8	Chatham Street	31700439	WB	500	1	500	31	0.06	146	0.29
9	Colborne Street	31700015	EB	800	1	800	544	0.68	580	0.73
10	Colborne Street	31700015	WB	800	1	800	432	0.54	550	0.69
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12										
13										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	7	Direction
Name	Memorial Drive	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	4,900	1,594	0.33	2,775	0.57
7	4,900	2,181	0.45	2,374	0.48

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Varadi Avenue	32101917	EB	500	1	500	33	0.07	135	0.27
2	Varadi Avenue	32101917	WB	500	1	500	38	0.08	107	0.21
3	Dunsdon Street	31687743	EB	600	2	1,200	206	0.17	339	0.28
4	Dunsdon Street	31687743	WB	600	2	1,200	273	0.23	286	0.24
5	North Park Street	32101953	EB	800	1	800	160	0.20	391	0.49
6	North Park Street	32101953	WB	800	1	800	347	0.43	318	0.40
7	Fairview Drive	32102031	EB	800	1	800	311	0.39	541	0.68
8	Fairview Drive	32102031	WB	800	1	800	540	0.68	537	0.67
9	Powerline Road	31688305	EB	1,000	1	1,000	641	0.64	961	0.96
10	Powerline Road	31688305	WB	1,000	1	1,000	807	0.81	837	0.84
11	New East/West Road	32104387	EB	600	1	600	243	0.41	408	0.68
12	New East/West Road	32104387	WB	600	1	600	176	0.29	289	0.48
13										
14										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	8	Direction
Name	West Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
6	4,300	1,916	0.45	2,951	0.69
6	4,300	2,579	0.60	2,952	0.69

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Morton Avenue	31691008	EB	500	1	500	84	0.17	113	0.23
2	Morton Avenue	31691008	WB	500	1	500	123	0.25	184	0.37
3	Charing Cross Street	31689369	EB	800	2	1,600	440	0.28	659	0.41
4	Charing Cross Street	31689369	WB	800	2	1,600	628	0.39	846	0.53
5	Dundas Street	31679012	EB	600	1	600	294	0.49	431	0.72
6	Dundas Street	31679012	WB	600	1	600	187	0.31	299	0.50
7	Brant Avenue	31670814	EB	800	2	1,600	1,098	0.69	1,748	1.09
8	Brant Avenue	31670814	WB	800	2	1,600	1,641	1.03	1,623	1.01
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19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	9	Direction
Name	CNR Corridor	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
11	7,900	4,080	0.52	4,694	0.59
11	7,900	3,935	0.50	5,748	0.73

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	St. Paul Avenue	32103535	NB	800	2	1,600	655	0.41	948	0.59
2	St. Paul Avenue	32103535	SB	800	2	1,600	872	0.55	1,001	0.63
3	West Street	31678374	NB	800	1	800	604	0.76	718	0.90
4	West Street	31678374	SB	800	1	800	743	0.93	916	1.15
5	Clarence Street	31678962	NB	800	2	1,600	1,266	0.79	1,284	0.80
6	Clarence Street	31678962	SB	800	2	1,600	1,040	0.65	1,529	0.96
7	Murray Street	31681384	NB	500	1	500	101	0.20	161	0.32
8	Murray Street	31681384	SB	500	1	500	90	0.18	345	0.69
9	Rawdon Street	31698868	NB	500	1	500	242	0.48	150	0.30
10	Rawdon Street	31698868	SB	500	1	500	76	0.15	360	0.72
11	Stanley Street	31698979	NB	500	1	500	402	0.80	329	0.66
12	Stanley Street	31698979	SB	500	1	500	275	0.55	430	0.86
13	Wayne Gretzky Parkway	31700977	NB	900	2	1,800	630	0.35	963	0.54
14	Wayne Gretzky Parkway	31700971	SB	900	2	1,800	677	0.38	956	0.53
15	Garden Avenue	32079892	NB	600	1	600	180	0.30	141	0.24
16	Garden Avenue	32079892	SB	600	1	600	162	0.27	211	0.35
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	10	Direction
Name	Garden Avenue	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
8	8,000	4,462	0.56	5,421	0.68
8	8,000	4,317	0.54	5,807	0.73

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Lynden Road	31708958	EB	800	2	1,600	677	0.42	947	0.59
2	Lynden Road	31708958	WB	800	2	1,600	708	0.44	1,149	0.72
3	Highway 403	32104066	EB	1,800	2	3,600	2,735	0.76	3,138	0.87
4	Highway 403	32104065	WB	1,800	2	3,600	2,796	0.78	3,123	0.87
5	Henry Street	32081112	EB	800	1	800	326	0.41	568	0.71
6	Henry Street	32081112	WB	800	1	800	348	0.44	520	0.65
7	Elgin Street	32079965	EB	600	1	600	96	0.16	154	0.26
8	Elgin Street	32079965	WB	600	1	600	101	0.17	124	0.21
9	Grey Street	32079358	EB	600	1	600	105	0.18	64	0.11
10	Grey Street	32079358	WB	600	1	600	49	0.08	148	0.25
11	Colborne Street	32102783	EB	800	1	800	523	0.65	550	0.69
12	Colborne Street	32102783	WB	800	1	800	315	0.39	743	0.93
13										
14										
15										
16										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	11	Direction
Name	Powerline Road	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
12	9,000	3,965	0.44	5,521	0.61
12	9,000	4,487	0.50	5,740	0.64

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32103349	NB	800	1	800	491	0.61	667	0.83
2	Oak Park Road	32103349	SB	800	1	800	530	0.66	578	0.72
3	Paris Road	32104353	NB	800	1	800	380	0.48	303	0.38
4	Paris Road	32104353	SB	800	1	800	219	0.27	409	0.51
5	Golf Road	32103116	NB	500	1	500	468	0.94	288	0.58
6	Golf Road	32103116	SB	500	1	500	187	0.37	550	1.10
7	Balmoral Drive	32104424	NB	600	1	600	362	0.60	295	0.49
8	Balmoral Drive	32104424	SB	600	1	600	177	0.30	431	0.72
9	King George Road	32101870	NB	800	2	1,600	751	0.47	1,133	0.71
10	King George Road	32101870	SB	800	2	1,600	1,085	0.68	1,133	0.71
11	Memorial Drive	31688335	NB	800	1	800	121	0.15	367	0.46
12	Memorial Drive	31688335	SB	800	1	800	290	0.36	390	0.49
13	Greenfield Road	31709585	NB	500	1	500	38	0.08	63	0.13
14	Greenfield Road	31709585	SB	500	1	500	34	0.07	37	0.07
15	Wayne Gretzky Parkway	31696170	NB	1,000	2	2,000	748	0.37	1,571	0.79
16	Wayne Gretzky Parkway	32101994	SB	1,000	2	2,000	1,269	0.63	1,361	0.68
17	Brantwood Park Road	32103099	NB	600	1	600	187	0.31	247	0.41
18	Brantwood Park Road	32103099	SB	600	1	600	162	0.27	248	0.41
19	Park Road North	32101996	NB	800	1	800	419	0.52	587	0.73
20	Park Road North	32101996	SB	800	1	800	534	0.67	603	0.75

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	12	Direction
Name	Murray Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	4,400	1,916	0.44	1,734	0.39
8	5,200	1,528	0.29	2,326	0.45

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	32102230	EB	800	1	800	320	0.40	313	0.39
2	Henry Street	32102230	WB	800	1	800	367	0.46	465	0.58
3	Elgin Street	32102140	EB	500	1	500	102	0.20	105	0.21
4	Elgin Street	32102140	WB	500	1	500	148	0.30	143	0.29
5	Grey Street	31680485	EB	500	1	500	90	0.18	136	0.27
6	Grey Street	31680485	WB	500	1	500	74	0.15	83	0.17
7	Colborne Street	31680092	EB	800	2	1,600	938	0.59	906	0.57
8	Dalhousie Street	31680105	WB	800	3	2,400	717	0.30	990	0.41
9	Mary Street	31677408	EB	500	1	500	167	0.33	40	0.08
10	Mary Street	31677408	WB	500	1	500	55	0.11	188	0.38
11	Greenwich Street	31677317	EB	500	1	500	299	0.60	234	0.47
12	Greenwich Street	31677317	WB	500	1	500	167	0.33	457	0.91
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	13	Direction
Name	West External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	7,300	1,664	0.23	2,211	0.30
7	7,300	1,602	0.22	2,141	0.29

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Silver Street (Brant Road 52)	31635739	EB	800	1	800	224	0.28	289	0.36
2	Silver Street (Brant Road 52)	31635739	WB	800	1	800	166	0.21	170	0.21
3	Brant Road 2	31627987	EB	800	1	800	280	0.35	226	0.28
4	Brant Road 2	31627987	WB	800	1	800	193	0.24	571	0.71
5	Powerline Road	32103319	EB	500	1	500	52	0.10	59	0.12
6	Powerline Road	32103319	WB	500	1	500	54	0.11	59	0.12
7	Highway 403	32103921	EB	1,800	2	3,600	831	0.23	1,206	0.34
8	Highway 403	32103924	WB	1,800	2	3,600	928	0.26	1,119	0.31
9	Bethel Road	31626662	EB	500	1	500	0	0.00	25	0.05
10	Bethel Road	31626662	WB	500	1	500	0	0.00	0	0.00
11	Colborne Street (Brant Road 53)	32103323	EB	1,100	1	1,100	277	0.25	406	0.37
12	Colborne Street (Brant Road 53)	32103323	WB	1,100	1	1,100	261	0.24	222	0.20
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	14	Direction
Name	South-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	4,300	1,548	0.36	1,161	0.27
4	4,300	935	0.22	1,637	0.38

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Rest Acres Road (Highway 24)	31623575	NB	1,200	1	1,200	410	0.34	245	0.20
2	Rest Acres Road (Highway 24)	31623575	SB	1,200	1	1,200	374	0.31	430	0.36
3	Mount Pleasant Road (Brant Road 24)	31641599	NB	1,000	1	1,000	223	0.22	233	0.23
4	Mount Pleasant Road (Brant Road 24)	31641599	SB	1,000	1	1,000	187	0.19	265	0.27
5	Pleasant Ridge Road (Brant Road 7)	31641036	NB	1,000	1	1,000	146	0.15	103	0.10
6	Pleasant Ridge Road (Brant Road 7)	31641036	SB	1,000	1	1,000	64	0.06	150	0.15
7	Cockshutt Road (Brant Road 4)	32103199	NB	1,100	1	1,100	769	0.70	580	0.53
8	Cockshutt Road (Brant Road 4)	32103199	SB	1,100	1	1,100	310	0.28	792	0.72
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	15	Direction
Name	East External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
5	6,900	2,940	0.43	3,444	0.50
5	6,900	3,007	0.44	3,648	0.53

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32104077	EB	1,800	2	3,600	2,289	0.64	2,715	0.75
2	Highway 403	32104074	WB	1,800	2	3,600	2,477	0.69	2,706	0.75
3	Brant Road 2	32087178	EB	1,100	2	2,200	391	0.18	348	0.16
4	Brant Road 2	32087178	WB	1,100	2	2,200	234	0.11	561	0.26
5	Brant Road 54	32079101	EB	1,100	1	1,100	260	0.24	381	0.35
6	Brant Road 54	32079101	WB	1,100	1	1,100	296	0.27	381	0.35
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	16	Direction
Name	North-East External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,200	1,341	0.42	1,599	0.50
3	3,200	1,161	0.36	2,253	0.70

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	East River Road	31664248	NB	1,000	1	1,000	281	0.28	197	0.20
2	East River Road	31664248	SB	1,000	1	1,000	75	0.08	464	0.46
3	Highway 24	32104116	NB	1,200	1	1,200	742	0.62	919	0.77
4	Highway 24	32104116	SB	1,200	1	1,200	630	0.53	1,132	0.94
5	St. George Road	31864585	NB	1,000	1	1,000	318	0.32	483	0.48
6	St. George Road	31864585	SB	1,000	1	1,000	456	0.46	657	0.66
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	17	Direction
Name	North-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,300	755	0.23	912	0.28
3	3,300	788	0.24	937	0.28

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Brant-Oxford Road	31625759	NB	1,100	1	1,100	248	0.23	218	0.20
2	Brant-Oxford Road	31625759	SB	1,100	1	1,100	267	0.24	266	0.24
3	Ayr Road	31626456	NB	1,100	1	1,100	2	0.00	5	0.00
4	Ayr Road	31626456	SB	1,100	1	1,100	1	0.00	22	0.02
5	Pinehurst Road	32103147	NB	1,100	1	1,100	505	0.46	689	0.63
6	Pinehurst Road	32103147	SB	1,100	1	1,100	520	0.47	649	0.59
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

Future Increase Infrastructure Screenline Summary

2041

#	Name	Direction	Capacity		AM Peak Hour		PM Peak Hour	
			Lanes	Total	Volume	V/C	Volume	V/C
1	Grand River South	EB	10	11,100	6,261	0.56	7,118	0.64
1	Grand River South	WB	10	11,100	5,359	0.48	7,336	0.66
2	Grand River North	EB	4	5,200	2,872	0.55	4,232	0.81
2	Grand River North	WB	5	6,000	2,819	0.47	3,652	0.61
3	Highway 403	NB	14	11,800	7,192	0.61	9,095	0.77
3	Highway 403	SB	14	11,800	7,291	0.62	9,712	0.82
4	King George Road	EB	11	9,600	5,167	0.54	8,054	0.84
4	King George Road	WB	11	9,600	6,409	0.67	7,125	0.74
5	Wayne Gretzky Parkway (North)	EB	7	7,600	4,496	0.59	6,279	0.83
5	Wayne Gretzky Parkway (North)	WB	7	7,600	5,281	0.69	5,910	0.78
6	Wayne Gretzky Parkway (South)	EB	7	4,900	1,991	0.41	2,298	0.47
6	Wayne Gretzky Parkway (South)	WB	7	4,900	1,656	0.34	2,957	0.60
7	Memorial Drive	EB	9	6,100	1,700	0.28	2,989	0.49
7	Memorial Drive	WB	9	6,100	2,302	0.38	2,577	0.42
8	West Street	EB	6	4,300	2,032	0.47	3,005	0.70
8	West Street	WB	6	4,300	2,513	0.58	3,063	0.71
9	CNR Corridor	NB	12	8,800	4,362	0.50	5,143	0.58
9	CNR Corridor	SB	12	8,800	4,225	0.48	6,085	0.69
10	Garden Avenue	EB	9	8,800	4,717	0.54	5,601	0.64
10	Garden Avenue	WB	9	8,800	4,378	0.50	6,081	0.69
11	Powerline Road	NB	13	9,400	4,145	0.44	5,828	0.62
11	Powerline Road	SB	13	9,400	4,689	0.50	6,125	0.65
12	Murray Street	EB	7	4,400	1,989	0.45	1,800	0.41
12	Murray Street	WB	8	5,200	1,635	0.31	2,681	0.52
13	West External	EB	7	7,300	1,716	0.24	2,249	0.31
13	West External	WB	7	7,300	1,666	0.23	2,155	0.30
14	South-West External	NB	4	4,300	1,597	0.37	1,208	0.28
14	South-West External	SB	4	4,300	965	0.22	1,727	0.40
15	East External	EB	5	6,900	2,929	0.42	3,447	0.50
15	East External	WB	5	6,900	2,996	0.43	3,635	0.53
16	North-East External	NB	3	3,200	1,355	0.42	1,616	0.51
16	North-East External	SB	3	3,200	1,168	0.37	2,278	0.71
17	North-West External	NB	3	3,300	779	0.24	929	0.28
17	North-West External	SB	3	3,300	791	0.24	978	0.30

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	1	Direction
Name	Grand River South	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
10	11,100	6,261	0.56	7,118	0.64
10	11,100	5,359	0.48	7,336	0.66

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,565	0.43	2,366	0.66
2	Highway 403	32103934	WB	1,800	2	3,600	1,669	0.46	1,942	0.54
3	Oak Park Road	32104240	WB	1,000	2	2,000	876	0.44	327	0.16
4	Oak Park Road	32104240	EB	1,000	2	2,000	179	0.09	911	0.46
5	Colborne Street	32102414	EB	800	2	1,600	1,910	1.19	1,600	1.00
6	Colborne Street	32102414	WB	800	2	1,600	1,236	0.77	1,948	1.22
7	Veterans Memorial Parkway	32101861	EB	1,000	2	2,000	1,786	0.89	1,525	0.76
8	Veterans Memorial Parkway	32101861	WB	1,000	2	2,000	1,175	0.59	2,106	1.05
9	Erie Avenue	32102875	EB	800	1	800	432	0.54	488	0.61
10	Erie Avenue	32102875	WB	800	1	800	260	0.33	486	0.61
11	Phelps Road (Brant Road 18)	31646482	EB	1,100	1	1,100	389	0.35	228	0.21
12	Phelps Road (Brant Road 18)	31646482	WB	1,100	1	1,100	143	0.13	527	0.48
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14										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	2	Direction
Name	Grand River North	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	5,200	2,872	0.55	4,232	0.81
5	6,000	2,819	0.47	3,652	0.61

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,565	0.43	2,366	0.66
2	Highway 403	32103934	WB	1,800	2	3,600	1,669	0.46	1,942	0.54
3	Brant Road 2	32103340	EB	800	1	800	505	0.63	1,072	1.34
4	Brant Road 2	32103340	WB	800	1	800	670	0.84	773	0.97
5	William Street	31634058	EB	800	1	800	802	1.00	794	0.99
6	William Street	31634058	WB	800	2	1,600	480	0.30	937	0.59
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	3	Direction
Name	Highway 403	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
14	11,800	7,192	0.61	9,095	0.77
14	11,800	7,291	0.62	9,712	0.82

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32104456	NB	800	2	1,600	979	0.61	840	0.53
2	Oak Park Road	32104456	SB	800	2	1,600	985	0.62	1,084	0.68
3	Paris Road	32102313	NB	800	2	1,600	1,066	0.67	1,143	0.71
4	Paris Road	32102313	SB	800	2	1,600	606	0.38	1,437	0.90
5	King George Road	31683713	NB	800	2	1,600	1,255	0.78	1,432	0.90
6	King George Road	32102332	SB	800	2	1,600	1,244	0.78	1,450	0.91
7	Wayne Gretzky Parkway	31703983	NB	1,000	3	3,000	1,702	0.57	2,452	0.82
8	Wayne Gretzky Parkway	31703908	SB	1,000	3	3,000	1,936	0.65	2,468	0.82
9	Garden Avenue	32104072	NB	800	2	1,600	836	0.52	1,209	0.76
10	Garden Avenue	32104072	SB	800	2	1,600	1,010	0.63	1,348	0.84
11	North Park Street	31689884	NB	800	1	800	302	0.38	643	0.80
12	North Park Street	31689884	SB	800	1	800	442	0.55	622	0.78
13	West Street	31691064	NB	800	2	1,600	1,052	0.66	1,376	0.86
14	West Street	31691064	SB	800	2	1,600	1,068	0.67	1,303	0.81
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16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	4	Direction
Name	King George Road	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
11	9600	5167	0.54	8054	0.84
11	9600	6409	0.67	7125	0.74

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31663494	EB	1,000	1	1,000	674	0.67	1,001	1.00
2	Powerline Road	31663494	WB	1,000	1	1,000	917	0.92	898	0.90
3	Oxford Street	31685991	EB	500	1	500	202	0.40	223	0.45
4	Oxford Street	31685991	WB	500	1	500	132	0.26	237	0.47
5	Toll Gate Road	32101902	EB	800	1	800	622	0.78	878	1.10
6	Toll Gate Road	32101902	WB	800	1	800	543	0.68	878	1.10
7	Highway 403	32104048	EB	1,800	2	3,600	2,017	0.56	3,425	0.95
8	Highway 403	32104051	WB	1,800	2	3,600	2,997	0.83	2,766	0.77
9	Queensway Drive	31683036	EB	500	1	500	148	0.30	219	0.44
10	Queensway Drive	31683036	WB	500	1	500	98	0.20	259	0.52
11	St. George Street	31682564	EB	500	1	500	78	0.16	140	0.28
12	St. George Street	31682564	WB	500	1	500	41	0.08	98	0.20
13	Terrace Hill Street	31670392	EB	500	1	500	207	0.41	291	0.58
14	Terrace Hill Street	31670392	WB	500	1	500	124	0.25	256	0.51
15	Brant Avenue	31669648	EB	800	2	1,600	798	0.50	1,265	0.79
16	Brant Avenue	31669648	WB	800	2	1,600	1,136	0.71	1,112	0.70
17	New East/West Road	32104408	EB	600	1	600	421	0.70	612	1.02
18	New East/West Road	32104408	WB	600	1	600	421	0.70	621	1.04
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	5	Direction
Name	Wayne Gretzky Parkway (North)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	7,600	4,496	0.59	6,279	0.83
7	7,600	5,281	0.69	5,910	0.78

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31711969	EB	1,000	1	1,000	218	0.22	625	0.63
2	Powerline Road	31711969	WB	1,000	1	1,000	641	0.64	446	0.45
3	Dunsdon Street	32102051	EB	800	1	800	292	0.37	558	0.70
4	Dunsdon Street	32102051	WB	800	1	800	444	0.56	344	0.43
5	Lynden Road	32103996	EB	800	2	1,600	1,100	0.69	1,460	0.91
6	Lynden Road	32103996	WB	800	2	1,600	1,048	0.66	1,763	1.10
7	Highway 403	32104061	EB	1,800	2	3,600	2,799	0.78	3,206	0.89
8	Highway 403	32104062	WB	1,800	2	3,600	2,807	0.78	3,212	0.89
9	New East/West Road	32104398	EB	600	1	600	87	0.15	430	0.72
10	New East/West Road	32104398	WB	600	1	600	341	0.57	145	0.24
11										
12										
13										
14										
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16										
17										
18										
19										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	6	Direction
Name	Wayne Gretzky Parkway (South)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	4,900	1,991	0.41	2,298	0.47
7	4,900	1,656	0.34	2,957	0.60

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	31701117	EB	800	2	1,600	701	0.44	887	0.55
2	Henry Street	31701117	WB	800	2	1,600	643	0.40	1,230	0.77
3	Elgin Street	31702288	EB	600	1	600	424	0.71	294	0.49
4	Elgin Street	31702288	WB	600	1	600	228	0.38	500	0.83
5	Grey Street	31701124	EB	600	1	600	228	0.38	339	0.57
6	Grey Street	31701124	WB	600	1	600	280	0.47	280	0.47
7	Chatham Street	31700439	EB	500	1	500	85	0.17	80	0.16
8	Chatham Street	31700439	WB	500	1	500	36	0.07	108	0.22
9	Colborne Street	31700015	EB	800	2	1,600	553	0.35	698	0.44
10	Colborne Street	31700015	WB	800	2	1,600	469	0.29	839	0.52
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	7	Direction
Name	Memorial Drive	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
9	6,100	1,700	0.28	2,989	0.49
9	6,100	2,302	0.38	2,577	0.42

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Varadi Avenue	32101917	EB	500	1	500	33	0.07	136	0.27
2	Varadi Avenue	32101917	WB	500	1	500	38	0.08	107	0.21
3	Dunsdon Street	31687743	EB	600	2	1,200	209	0.17	300	0.25
4	Dunsdon Street	31687743	WB	600	2	1,200	231	0.19	252	0.21
5	North Park Street	32101953	EB	600	2	1,200	165	0.14	378	0.32
6	North Park Street	32101953	WB	600	2	1,200	378	0.32	337	0.28
7	Fairview Drive	32102031	EB	800	2	1,600	347	0.22	781	0.49
8	Fairview Drive	32102031	WB	800	2	1,600	670	0.42	744	0.47
9	Powerline Road	31688305	EB	1,000	1	1,000	689	0.69	970	0.97
10	Powerline Road	31688305	WB	1,000	1	1,000	795	0.80	821	0.82
11	New East/West Road	32104387	EB	600	1	600	257	0.43	424	0.71
12	New East/West Road	32104387	WB	600	1	600	190	0.32	316	0.53
13										
14										
15										
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19										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	8	Direction
Name	West Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
6	4,300	2,032	0.47	3,005	0.70
6	4,300	2,513	0.58	3,063	0.71

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Morton Avenue	31691008	EB	500	1	500	80	0.16	99	0.20
2	Morton Avenue	31691008	WB	500	1	500	114	0.23	151	0.30
3	Charing Cross Street	31689369	EB	800	2	1,600	551	0.34	898	0.56
4	Charing Cross Street	31689369	WB	800	2	1,600	694	0.43	1,023	0.64
5	Dundas Street	31679012	EB	600	1	600	291	0.49	358	0.60
6	Dundas Street	31679012	WB	600	1	600	180	0.30	244	0.41
7	Brant Avenue	31670814	EB	800	2	1,600	1,110	0.69	1,650	1.03
8	Brant Avenue	31670814	WB	800	2	1,600	1,525	0.95	1,645	1.03
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10										
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19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	9	Direction
Name	CNR Corridor	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
12	8,800	4,362	0.50	5,143	0.58
12	8,800	4,225	0.48	6,085	0.69

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	St. Paul Avenue	32103535	NB	800	2	1,600	774	0.48	1,004	0.63
2	St. Paul Avenue	32103535	SB	800	2	1,600	911	0.57	1,100	0.69
3	West Street	31678374	NB	800	1	800	599	0.75	725	0.91
4	West Street	31678374	SB	800	1	800	763	0.95	886	1.11
5	Clarence Street	31678962	NB	800	2	1,600	1,261	0.79	1,339	0.84
6	Clarence Street	31678962	SB	800	2	1,600	1,099	0.69	1,515	0.95
7	Murray Street	31681384	NB	500	1	500	99	0.20	172	0.34
8	Murray Street	31681384	SB	500	1	500	92	0.18	325	0.65
9	Rawdon Street	31698868	NB	500	1	500	291	0.58	258	0.52
10	Rawdon Street	31698868	SB	500	1	500	131	0.26	365	0.73
11	Stanley Street	31698979	NB	500	1	500	406	0.81	382	0.76
12	Stanley Street	31698979	SB	500	1	500	313	0.63	434	0.87
13	Wayne Gretzky Parkway	31700977	NB	900	3	2,700	731	0.27	1,053	0.39
14	Wayne Gretzky Parkway	31700971	SB	900	3	2,700	733	0.27	1,204	0.45
15	Garden Avenue	32079892	NB	600	1	600	201	0.34	210	0.35
16	Garden Avenue	32079892	SB	600	1	600	183	0.31	256	0.43
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	10	Direction
Name	Garden Avenue	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
9	8,800	4,717	0.54	5,601	0.64
9	8,800	4,378	0.50	6,081	0.69

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Lynden Road	31708958	EB	800	2	1,600	749	0.47	1,025	0.64
2	Lynden Road	31708958	WB	800	2	1,600	676	0.42	1,155	0.72
3	Highway 403	32104066	EB	1,800	2	3,600	2,799	0.78	3,206	0.89
4	Highway 403	32104065	WB	1,800	2	3,600	2,807	0.78	3,212	0.89
5	Henry Street	32081112	EB	800	1	800	363	0.45	534	0.67
6	Henry Street	32081112	WB	800	1	800	380	0.48	526	0.66
7	Elgin Street	32079965	EB	600	1	600	97	0.16	161	0.27
8	Elgin Street	32079965	WB	600	1	600	125	0.21	122	0.20
9	Grey Street	32079358	EB	600	1	600	99	0.17	62	0.10
10	Grey Street	32079358	WB	600	1	600	59	0.10	100	0.17
11	Colborne Street	32102783	EB	800	2	1,600	610	0.38	613	0.38
12	Colborne Street	32102783	WB	800	2	1,600	331	0.21	966	0.60
13										
14										
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	11	Direction
Name	Powerline Road	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
13	9,400	4,145	0.44	5,828	0.62
13	9,400	4,689	0.50	6,125	0.65

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32103349	NB	800	1	800	442	0.55	668	0.84
2	Oak Park Road	32103349	SB	800	1	800	578	0.72	669	0.84
3	Paris Road	32104353	NB	800	1	800	419	0.52	389	0.49
4	Paris Road	32104353	SB	800	1	800	220	0.28	464	0.58
5	Golf Road	32103116	NB	500	1	500	473	0.95	295	0.59
6	Golf Road	32103116	SB	500	1	500	198	0.40	552	1.10
7	Balmoral Drive	32104424	NB	600	1	600	386	0.64	301	0.50
8	Balmoral Drive	32104424	SB	600	1	600	196	0.33	446	0.74
9	King George Road	32101870	NB	800	2	1,600	823	0.51	1,147	0.72
10	King George Road	32101870	SB	800	2	1,600	1,090	0.68	1,156	0.72
11	Memorial Drive	31688335	NB	600	2	1,200	118	0.10	414	0.35
12	Memorial Drive	31688335	SB	600	2	1,200	319	0.27	410	0.34
13	Greenfield Road	31709585	NB	500	1	500	42	0.08	56	0.11
14	Greenfield Road	31709585	SB	500	1	500	35	0.07	39	0.08
15	Wayne Gretzky Parkway	31696170	NB	1,000	2	2,000	785	0.39	1,658	0.83
16	Wayne Gretzky Parkway	32101994	SB	1,000	2	2,000	1,328	0.66	1,482	0.74
17	Brantwood Park Road	32103099	NB	600	1	600	195	0.33	281	0.47
18	Brantwood Park Road	32103099	SB	600	1	600	171	0.29	277	0.46
19	Park Road North	32101996	NB	800	1	800	462	0.58	619	0.77
20	Park Road North	32101996	SB	800	1	800	554	0.69	630	0.79

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	12	Direction
Name	Murray Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	4,400	1,989	0.45	1,800	0.41
8	5,200	1,635	0.31	2,681	0.52

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	32102230	EB	800	1	800	366	0.46	350	0.44
2	Henry Street	32102230	WB	800	1	800	442	0.55	549	0.69
3	Elgin Street	32102140	EB	500	1	500	76	0.15	76	0.15
4	Elgin Street	32102140	WB	500	1	500	132	0.26	176	0.35
5	Grey Street	31680485	EB	500	1	500	94	0.19	137	0.27
6	Grey Street	31680485	WB	500	1	500	76	0.15	101	0.20
7	Colborne Street	31680092	EB	800	2	1,600	911	0.57	921	0.58
8	Dalhousie Street	31680105	WB	800	3	2,400	737	0.31	1,153	0.48
9	Mary Street	31677408	EB	500	1	500	228	0.46	55	0.11
10	Mary Street	31677408	WB	500	1	500	25	0.05	228	0.46
11	Greenwich Street	31677317	EB	500	1	500	314	0.63	261	0.52
12	Greenwich Street	31677317	WB	500	1	500	223	0.45	474	0.95
13										
14										
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	13	Direction
Name	West External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	7,300	1,716	0.24	2,249	0.31
7	7,300	1,666	0.23	2,155	0.30

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Silver Street (Brant Road 52)	31635739	EB	800	1	800	233	0.29	297	0.37
2	Silver Street (Brant Road 52)	31635739	WB	800	1	800	169	0.21	194	0.24
3	Brant Road 2	31627987	EB	800	1	800	281	0.35	295	0.37
4	Brant Road 2	31627987	WB	800	1	800	193	0.24	628	0.79
5	Powerline Road	32103319	EB	500	1	500	52	0.10	60	0.12
6	Powerline Road	32103319	WB	500	1	500	54	0.11	61	0.12
7	Highway 403	32103921	EB	1,800	2	3,600	838	0.23	1,242	0.35
8	Highway 403	32103924	WB	1,800	2	3,600	1,001	0.28	1,027	0.29
9	Bethel Road	31626662	EB	500	1	500	0	0.00	27	0.05
10	Bethel Road	31626662	WB	500	1	500	0	0.00	0	0.00
11	Colborne Street (Brant Road 53)	32103323	EB	1,100	1	1,100	312	0.28	328	0.30
12	Colborne Street (Brant Road 53)	32103323	WB	1,100	1	1,100	249	0.23	245	0.22
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14										
15										
16										
17										
18										
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	14	Direction
Name	South-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	4,300	1,597	0.37	1,208	0.28
4	4,300	965	0.22	1,727	0.40

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Rest Acres Road (Highway 24)	31623575	NB	1,200	1	1,200	468	0.39	231	0.19
2	Rest Acres Road (Highway 24)	31623575	SB	1,200	1	1,200	372	0.31	508	0.42
3	Mount Pleasant Road (Brant Road 24)	31641599	NB	1,000	1	1,000	225	0.23	273	0.27
4	Mount Pleasant Road (Brant Road 24)	31641599	SB	1,000	1	1,000	213	0.21	241	0.24
5	Pleasant Ridge Road (Brant Road 7)	31641036	NB	1,000	1	1,000	210	0.21	126	0.13
6	Pleasant Ridge Road (Brant Road 7)	31641036	SB	1,000	1	1,000	70	0.07	229	0.23
7	Cockshutt Road (Brant Road 4)	32103199	NB	1,100	1	1,100	694	0.63	578	0.53
8	Cockshutt Road (Brant Road 4)	32103199	SB	1,100	1	1,100	310	0.28	749	0.68
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	15	Direction
Name	East External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
5	6,900	2,929	0.42	3,447	0.50
5	6,900	2,996	0.43	3,635	0.53

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32104077	EB	1,800	2	3,600	2,276	0.63	2,711	0.75
2	Highway 403	32104074	WB	1,800	2	3,600	2,461	0.68	2,718	0.76
3	Brant Road 2	32087178	EB	1,100	2	2,200	391	0.18	348	0.16
4	Brant Road 2	32087178	WB	1,100	2	2,200	234	0.11	537	0.24
5	Brant Road 54	32079101	EB	1,100	1	1,100	262	0.24	388	0.35
6	Brant Road 54	32079101	WB	1,100	1	1,100	301	0.27	380	0.35
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	16	Direction
Name	North-East External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,200	1,355	0.42	1,616	0.51
3	3,200	1,168	0.37	2,278	0.71

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	East River Road	31664248	NB	1,000	1	1,000	282	0.28	199	0.20
2	East River Road	31664248	SB	1,000	1	1,000	116	0.12	481	0.48
3	Highway 24	32104116	NB	1,200	1	1,200	754	0.63	928	0.77
4	Highway 24	32104116	SB	1,200	1	1,200	594	0.50	1,133	0.94
5	St. George Road	31864585	NB	1,000	1	1,000	319	0.32	489	0.49
6	St. George Road	31864585	SB	1,000	1	1,000	458	0.46	664	0.66
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	17	Direction
Name	North-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,300	779	0.24	929	0.28
3	3,300	791	0.24	978	0.30

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Brant-Oxford Road	31625759	NB	1,100	1	1,100	248	0.23	218	0.20
2	Brant-Oxford Road	31625759	SB	1,100	1	1,100	265	0.24	261	0.24
3	Ayr Road	31626456	NB	1,100	1	1,100	2	0.00	5	0.00
4	Ayr Road	31626456	SB	1,100	1	1,100	2	0.00	19	0.02
5	Pinehurst Road	32103147	NB	1,100	1	1,100	529	0.48	706	0.64
6	Pinehurst Road	32103147	SB	1,100	1	1,100	524	0.48	698	0.63
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

Future Recommended Screenline Summary

2041

#	Name	Direction	Capacity		AM Peak Hour		PM Peak Hour	
			Lanes	Total	Volume	V/C	Volume	V/C
1	Grand River South	EB	10	11,100	6,628	0.60	6,199	0.56
1	Grand River South	WB	10	11,100	4,235	0.38	7,408	0.67
2	Grand River North	EB	4	5,200	2,770	0.53	4,114	0.79
2	Grand River North	WB	5	6,000	2,672	0.45	3,524	0.59
3	Highway 403	NB	14	11,800	6,709	0.57	8,565	0.73
3	Highway 403	SB	14	11,800	6,987	0.59	9,137	0.77
4	King George Road	EB	12	10,600	4,961	0.47	7,958	0.75
4	King George Road	WB	12	10,600	6,231	0.59	6,832	0.64
5	Wayne Gretzky Parkway (North)	EB	8	8,600	4,322	0.50	6,035	0.70
5	Wayne Gretzky Parkway (North)	WB	8	8,600	5,117	0.60	5,728	0.67
6	Wayne Gretzky Parkway (South)	EB	6	4,100	1,904	0.46	2,144	0.52
6	Wayne Gretzky Parkway (South)	WB	6	4,100	1,515	0.37	2,765	0.67
7	Memorial Drive	EB	8	5,900	1,635	0.28	3,004	0.51
7	Memorial Drive	WB	8	5,900	2,290	0.39	2,460	0.42
8	West Street	EB	6	4,300	1,875	0.44	2,786	0.65
8	West Street	WB	6	4,300	2,391	0.56	2,913	0.68
9	CNR Corridor	NB	11	7,900	4,109	0.52	4,812	0.61
9	CNR Corridor	SB	11	7,900	3,923	0.50	5,696	0.72
10	Garden Avenue	EB	8	8,000	4,562	0.57	5,349	0.67
10	Garden Avenue	WB	8	8,000	4,291	0.54	5,859	0.73
11	Powerline Road	NB	14	10,700	4,170	0.39	5,834	0.55
11	Powerline Road	SB	14	10,700	4,577	0.43	6,099	0.57
12	Murray Street	EB	7	4,400	1,968	0.45	1,664	0.38
12	Murray Street	WB	8	5,200	1,603	0.31	2,522	0.49
13	West External	EB	7	7,300	1,668	0.23	2,250	0.31
13	West External	WB	7	7,300	1,634	0.22	2,124	0.29
14	South-West External	NB	4	4,300	1,583	0.37	1,157	0.27
14	South-West External	SB	4	4,300	933	0.22	1,713	0.40
15	East External	EB	5	6,900	2,938	0.43	3,444	0.50
15	East External	WB	5	6,900	3,007	0.44	3,643	0.53
16	North-East External	NB	3	3,200	1,340	0.42	1,601	0.50
16	North-East External	SB	3	3,200	1,161	0.36	2,258	0.71
17	North-West External	NB	3	3,300	754	0.23	912	0.28
17	North-West External	SB	3	3,300	785	0.24	933	0.28

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	1	Direction
Name	Grand River South	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
10	11,100	6,628	0.60	6,199	0.56
10	11,100	4,235	0.38	7,408	0.67

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,515	0.42	2,242	0.62
2	Highway 403	32103934	WB	1,800	2	3,600	1,529	0.42	1,876	0.52
3	Oak Park Road	32104456	WB	1,000	2	2,000	175	0.09	906	0.45
4	Oak Park Road	32104456	EB	1,000	2	2,000	783	0.39	274	0.14
5	Colborne Street	32102414	EB	800	2	1,600	1,821	1.14	1,560	0.98
6	Colborne Street	32102414	WB	800	2	1,600	1,090	0.68	1,769	1.11
7	Veterans Memorial Parkway	32101861	EB	1,000	2	2,000	1,698	0.85	1,428	0.71
8	Veterans Memorial Parkway	32101861	WB	1,000	2	2,000	1,043	0.52	1,936	0.97
9	Erie Avenue	32102875	EB	800	1	800	435	0.54	485	0.61
10	Erie Avenue	32102875	WB	800	1	800	256	0.32	458	0.57
11	Phelps Road (Brant Road 18)	31646482	EB	1,100	1	1,100	376	0.34	210	0.19
12	Phelps Road (Brant Road 18)	31646482	WB	1,100	1	1,100	142	0.13	463	0.42
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	2	Direction
Name	Grand River North	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	5,200	2,770	0.53	4,114	0.79
5	6,000	2,672	0.45	3,524	0.59

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32103935	EB	1,800	2	3,600	1,515	0.42	2,242	0.62
2	Highway 403	32103934	WB	1,800	2	3,600	1,529	0.42	1,876	0.52
3	Brant Road 2	32103340	EB	800	1	800	462	0.58	1,063	1.33
4	Brant Road 2	32103340	WB	800	1	800	672	0.84	713	0.89
5	William Street	31634058	EB	800	1	800	793	0.99	809	1.01
6	William Street	31634058	WB	800	2	1,600	471	0.29	935	0.58
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	3	Direction
Name	Highway 403	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
14	11,800	6,709	0.57	8,565	0.73
14	11,800	6,987	0.59	9,137	0.77

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32104461	NB	800	2	1,600	920	0.58	791	0.49
2	Oak Park Road	32104461	SB	800	2	1,600	962	0.60	1,062	0.66
3	Paris Road	32102313	NB	800	2	1,600	992	0.62	1,003	0.63
4	Paris Road	32102313	SB	800	2	1,600	558	0.35	1,328	0.83
5	King George Road	31683713	NB	800	2	1,600	1,193	0.75	1,429	0.89
6	King George Road	32102332	SB	800	2	1,600	1,206	0.75	1,446	0.90
7	Wayne Gretzky Parkway	31703983	NB	1,000	3	3,000	1,586	0.53	2,359	0.79
8	Wayne Gretzky Parkway	31703908	SB	1,000	3	3,000	1,863	0.62	2,347	0.78
9	Garden Avenue	32104072	NB	800	2	1,600	776	0.49	1,149	0.72
10	Garden Avenue	32104072	SB	800	2	1,600	991	0.62	1,220	0.76
11	North Park Street	31689884	NB	800	1	800	273	0.34	528	0.66
12	North Park Street	31689884	SB	800	1	800	403	0.50	521	0.65
13	West Street	31691064	NB	800	2	1,600	969	0.61	1,306	0.82
14	West Street	31691064	SB	800	2	1,600	1,004	0.63	1,213	0.76
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16										
17										
18										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	4	Direction
Name	King George Road	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
12	10600	4961	0.47	7958	0.75
12	10600	6231	0.59	6832	0.64

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31663494	EB	1,000	2	2,000	738	0.37	1,670	0.84
2	Powerline Road	31663494	WB	1,000	2	2,000	1,307	0.65	1,226	0.61
3	Oxford Street	31685991	EB	500	1	500	182	0.36	212	0.42
4	Oxford Street	31685991	WB	500	1	500	124	0.25	212	0.42
5	Toll Gate Road	32101902	EB	800	1	800	588	0.74	716	0.90
6	Toll Gate Road	32101902	WB	800	1	800	453	0.57	701	0.88
7	Highway 403	32104048	EB	1,800	2	3,600	1,903	0.53	3,199	0.89
8	Highway 403	32104051	WB	1,800	2	3,600	2,737	0.76	2,678	0.74
9	Queensway Drive	31683036	EB	500	1	500	137	0.27	192	0.38
10	Queensway Drive	31683036	WB	500	1	500	92	0.18	224	0.45
11	St. George Street	31682564	EB	500	1	500	55	0.11	90	0.18
12	St. George Street	31682564	WB	500	1	500	33	0.07	80	0.16
13	Terrace Hill Street	31670392	EB	500	1	500	184	0.37	270	0.54
14	Terrace Hill Street	31670392	WB	500	1	500	107	0.21	249	0.50
15	Brant Avenue	31669648	EB	800	2	1,600	753	0.47	1,129	0.71
16	Brant Avenue	31669648	WB	800	2	1,600	1,064	0.67	973	0.61
17	New East/West Road	32104408	EB	600	1	600	421	0.70	480	0.80
18	New East/West Road	32104408	WB	600	1	600	314	0.52	489	0.82
19										
20										

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	5	Direction
Name	Wayne Gretzky Parkway (North)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
8	8,600	4,322	0.50	6,035	0.70
8	8,600	5,117	0.60	5,728	0.67

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Powerline Road	31711969	EB	1,000	2	2,000	203	0.10	614	0.31
2	Powerline Road	31711969	WB	1,000	2	2,000	673	0.34	423	0.21
3	Dunsdon Street	32102051	EB	800	1	800	274	0.34	527	0.66
4	Dunsdon Street	32102051	WB	800	1	800	416	0.52	299	0.37
5	Lynden Road	32103996	EB	800	2	1,600	990	0.62	1,339	0.84
6	Lynden Road	32103996	WB	800	2	1,600	960	0.60	1,688	1.06
7	Highway 403	32104061	EB	1,800	2	3,600	2,787	0.77	3,179	0.88
8	Highway 403	32104062	WB	1,800	2	3,600	2,782	0.77	3,188	0.89
9	New East/West Road	32104398	EB	600	1	600	68	0.11	376	0.63
10	New East/West Road	32104398	WB	600	1	600	286	0.48	130	0.22
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12										
13										
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15										
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18										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	6	Direction
Name	Wayne Gretzky Parkway (South)	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
6	4,100	1,904	0.46	2,144	0.52
6	4,100	1,515	0.37	2,765	0.67

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	31701117	EB	800	2	1,600	660	0.41	800	0.50
2	Henry Street	31701117	WB	800	2	1,600	563	0.35	1,201	0.75
3	Elgin Street	31702288	EB	600	1	600	422	0.70	257	0.43
4	Elgin Street	31702288	WB	600	1	600	212	0.35	497	0.83
5	Grey Street	31701124	EB	600	1	600	226	0.38	366	0.61
6	Grey Street	31701124	WB	600	1	600	289	0.48	319	0.53
7	Chatham Street	31700439	EB	500	1	500	80	0.16	131	0.26
8	Chatham Street	31700439	WB	500	1	500	33	0.07	147	0.29
9	Colborne Street	31700015	EB	800	1	800	516	0.65	590	0.74
10	Colborne Street	31700015	WB	800	1	800	418	0.52	601	0.75
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12										
13										
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	7	Direction
Name	Memorial Drive	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
8	5,900	1,635	0.28	3,004	0.51
8	5,900	2,290	0.39	2,460	0.42

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Varadi Avenue	32101917	EB	500	1	500	33	0.07	65	0.13
2	Varadi Avenue	32101917	WB	500	1	500	25	0.05	43	0.09
3	Dunsdon Street	31687743	EB	600	2	1,200	195	0.16	296	0.25
4	Dunsdon Street	31687743	WB	600	2	1,200	222	0.19	276	0.23
5	North Park Street	32101953	EB	800	1	800	158	0.20	350	0.44
6	North Park Street	32101953	WB	800	1	800	336	0.42	288	0.36
7	Fairview Drive	32102031	EB	800	1	800	306	0.38	520	0.65
8	Fairview Drive	32102031	WB	800	1	800	498	0.62	500	0.63
9	Powerline Road	31688305	EB	1,000	2	2,000	703	0.35	1,539	0.77
10	Powerline Road	31688305	WB	1,000	2	2,000	1,117	0.56	1,096	0.55
11	New East/West Road	32104387	EB	600	1	600	240	0.40	234	0.39
12	New East/West Road	32104387	WB	600	1	600	92	0.15	257	0.43
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	8	Direction
Name	West Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
6	4,300	1,875	0.44	2,786	0.65
6	4,300	2,391	0.56	2,913	0.68

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Morton Avenue	31691008	EB	500	1	500	74	0.15	82	0.16
2	Morton Avenue	31691008	WB	500	1	500	112	0.22	150	0.30
3	Charing Cross Street	31689369	EB	800	2	1,600	567	0.35	873	0.55
4	Charing Cross Street	31689369	WB	800	2	1,600	666	0.42	982	0.61
5	Dundas Street	31679012	EB	600	1	600	242	0.40	300	0.50
6	Dundas Street	31679012	WB	600	1	600	178	0.30	220	0.37
7	Brant Avenue	31670814	EB	800	2	1,600	992	0.62	1,531	0.96
8	Brant Avenue	31670814	WB	800	2	1,600	1,435	0.90	1,561	0.98
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	9	Direction
Name	CNR Corridor	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
11	7,900	4,109	0.52	4,812	0.61
11	7,900	3,923	0.50	5,696	0.72

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	St. Paul Avenue	32103535	NB	800	2	1,600	746	0.47	1,005	0.63
2	St. Paul Avenue	32103535	SB	800	2	1,600	834	0.52	1,048	0.66
3	West Street	31678374	NB	800	1	800	571	0.71	677	0.85
4	West Street	31678374	SB	800	1	800	744	0.93	840	1.05
5	Clarence Street	31678962	NB	800	2	1,600	1,224	0.77	1,260	0.79
6	Clarence Street	31678962	SB	800	2	1,600	1,004	0.63	1,459	0.91
7	Murray Street	31681384	NB	500	1	500	87	0.17	145	0.29
8	Murray Street	31681384	SB	500	1	500	88	0.18	319	0.64
9	Rawdon Street	31698868	NB	500	1	500	277	0.55	235	0.47
10	Rawdon Street	31698868	SB	500	1	500	132	0.26	338	0.68
11	Stanley Street	31698979	NB	500	1	500	397	0.79	348	0.70
12	Stanley Street	31698979	SB	500	1	500	280	0.56	429	0.86
13	Wayne Gretzky Parkway	31700977	NB	900	2	1,800	634	0.35	983	0.55
14	Wayne Gretzky Parkway	31700971	SB	900	2	1,800	671	0.37	1,069	0.59
15	Garden Avenue	32079892	NB	600	1	600	173	0.29	159	0.27
16	Garden Avenue	32079892	SB	600	1	600	170	0.28	194	0.32
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	10	Direction
Name	Garden Avenue	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
8	8,000	4,562	0.57	5,349	0.67
8	8,000	4,291	0.54	5,859	0.73

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Lynden Road	31708958	EB	800	2	1,600	676	0.42	928	0.58
2	Lynden Road	31708958	WB	800	2	1,600	664	0.42	1,133	0.71
3	Highway 403	32104066	EB	1,800	2	3,600	2,787	0.77	3,179	0.88
4	Highway 403	32104065	WB	1,800	2	3,600	2,782	0.77	3,188	0.89
5	Henry Street	32081112	EB	800	1	800	331	0.41	508	0.64
6	Henry Street	32081112	WB	800	1	800	371	0.46	485	0.61
7	Elgin Street	32079965	EB	600	1	600	96	0.16	116	0.19
8	Elgin Street	32079965	WB	600	1	600	101	0.17	125	0.21
9	Grey Street	32079358	EB	600	1	600	103	0.17	66	0.11
10	Grey Street	32079358	WB	600	1	600	57	0.10	160	0.27
11	Colborne Street	32102783	EB	800	1	800	569	0.71	552	0.69
12	Colborne Street	32102783	WB	800	1	800	316	0.40	768	0.96
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	11	Direction
Name	Powerline Road	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
14	10,700	4,170	0.39	5,834	0.55
14	10,700	4,577	0.43	6,099	0.57

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Oak Park Road	32103349	NB	800	2	1,600	663	0.41	1,007	0.63
2	Oak Park Road	32103349	SB	800	2	1,600	673	0.42	874	0.55
3	Paris Road	32104353	NB	800	2	1,600	263	0.16	242	0.15
4	Paris Road	32104353	SB	800	2	1,600	211	0.13	397	0.25
5	Golf Road	32103116	NB	600	1	600	478	0.80	323	0.54
6	Golf Road	32103116	SB	600	1	600	186	0.31	573	0.96
7	Balmoral Drive	32104424	NB	600	1	600	426	0.71	268	0.45
8	Balmoral Drive	32104424	SB	600	1	600	156	0.26	424	0.71
9	King George Road	32101870	NB	800	2	1,600	783	0.49	1,160	0.73
10	King George Road	32101870	SB	800	2	1,600	1,083	0.68	1,145	0.72
11	Memorial Drive	31688335	NB	800	1	800	138	0.17	319	0.40
12	Memorial Drive	31688335	SB	800	1	800	251	0.31	381	0.48
13	Greenfield Road	31709585	NB	500	1	500	40	0.08	46	0.09
14	Greenfield Road	31709585	SB	500	1	500	35	0.07	43	0.09
15	Wayne Gretzky Parkway	31696170	NB	1,000	2	2,000	740	0.37	1,574	0.79
16	Wayne Gretzky Parkway	32101994	SB	1,000	2	2,000	1,274	0.64	1,383	0.69
17	Brantwood Park Road	32103099	NB	600	1	600	197	0.33	272	0.45
18	Brantwood Park Road	32103099	SB	600	1	600	164	0.27	258	0.43
19	Park Road North	32101996	NB	800	1	800	442	0.55	623	0.78
20	Park Road North	32101996	SB	800	1	800	544	0.68	621	0.78

Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	12	Direction
Name	Murray Street	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	4,400	1,968	0.45	1,664	0.38
8	5,200	1,603	0.31	2,522	0.49

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Henry Street	32102230	EB	800	1	800	348	0.44	309	0.39
2	Henry Street	32102230	WB	800	1	800	457	0.57	584	0.73
3	Elgin Street	32102140	EB	500	1	500	134	0.27	68	0.14
4	Elgin Street	32102140	WB	500	1	500	128	0.26	161	0.32
5	Grey Street	31680485	EB	500	1	500	92	0.18	122	0.24
6	Grey Street	31680485	WB	500	1	500	85	0.17	117	0.23
7	Colborne Street	31680092	EB	800	2	1,600	893	0.56	898	0.56
8	Dalhousie Street	31680105	WB	800	3	2,400	711	0.30	1,016	0.42
9	Mary Street	31677408	EB	500	1	500	212	0.42	42	0.08
10	Mary Street	31677408	WB	500	1	500	15	0.03	203	0.41
11	Greenwich Street	31677317	EB	500	1	500	289	0.58	225	0.45
12	Greenwich Street	31677317	WB	500	1	500	207	0.41	441	0.88
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	13	Direction
Name	West External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
7	7,300	1,668	0.23	2,250	0.31
7	7,300	1,634	0.22	2,124	0.29

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Silver Street (Brant Road 52)	31635739	EB	800	1	800	222	0.28	258	0.32
2	Silver Street (Brant Road 52)	31635739	WB	800	1	800	166	0.21	170	0.21
3	Brant Road 2	31627987	EB	800	1	800	237	0.30	271	0.34
4	Brant Road 2	31627987	WB	800	1	800	194	0.24	563	0.70
5	Powerline Road	32103319	EB	500	1	500	52	0.10	60	0.12
6	Powerline Road	32103319	WB	500	1	500	54	0.11	56	0.11
7	Highway 403	32103921	EB	1,800	2	3,600	830	0.23	1,270	0.35
8	Highway 403	32103924	WB	1,800	2	3,600	991	0.28	1,092	0.30
9	Bethel Road	31626662	EB	500	1	500	0	0.00	4	0.01
10	Bethel Road	31626662	WB	500	1	500	0	0.00	0	0.00
11	Colborne Street (Brant Road 53)	32103323	EB	1,100	1	1,100	327	0.30	387	0.35
12	Colborne Street (Brant Road 53)	32103323	WB	1,100	1	1,100	229	0.21	243	0.22
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	14	Direction
Name	South-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
4	4,300	1,583	0.37	1,157	0.27
4	4,300	933	0.22	1,713	0.40

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Rest Acres Road (Highway 24)	31623575	NB	1,200	1	1,200	457	0.38	287	0.24
2	Rest Acres Road (Highway 24)	31623575	SB	1,200	1	1,200	372	0.31	557	0.46
3	Mount Pleasant Road (Brant Road 24)	31641599	NB	1,000	1	1,000	217	0.22	222	0.22
4	Mount Pleasant Road (Brant Road 24)	31641599	SB	1,000	1	1,000	181	0.18	231	0.23
5	Pleasant Ridge Road (Brant Road 7)	31641036	NB	1,000	1	1,000	210	0.21	111	0.11
6	Pleasant Ridge Road (Brant Road 7)	31641036	SB	1,000	1	1,000	74	0.07	220	0.22
7	Cockshutt Road (Brant Road 4)	32103199	NB	1,100	1	1,100	699	0.64	537	0.49
8	Cockshutt Road (Brant Road 4)	32103199	SB	1,100	1	1,100	306	0.28	705	0.64
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	15	Direction
Name	East External	
Direction	EB-WB	EB
		WB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
5	6,900	2,938	0.43	3,444	0.50
5	6,900	3,007	0.44	3,643	0.53

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Highway 403	32104077	EB	1,800	2	3,600	2,289	0.64	2,715	0.75
2	Highway 403	32104074	WB	1,800	2	3,600	2,477	0.69	2,747	0.76
3	Brant Road 2	32087178	EB	1,100	2	2,200	391	0.18	348	0.16
4	Brant Road 2	32087178	WB	1,100	2	2,200	234	0.11	520	0.24
5	Brant Road 54	32079101	EB	1,100	1	1,100	258	0.23	381	0.35
6	Brant Road 54	32079101	WB	1,100	1	1,100	296	0.27	376	0.34
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	16	Direction
Name	North-East External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,200	1,340	0.42	1,601	0.50
3	3,200	1,161	0.36	2,258	0.71

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	East River Road	31664248	NB	1,000	1	1,000	279	0.28	197	0.20
2	East River Road	31664248	SB	1,000	1	1,000	114	0.11	468	0.47
3	Highway 24	32104116	NB	1,200	1	1,200	745	0.62	921	0.77
4	Highway 24	32104116	SB	1,200	1	1,200	591	0.49	1,133	0.94
5	St. George Road	31864585	NB	1,000	1	1,000	316	0.32	483	0.48
6	St. George Road	31864585	SB	1,000	1	1,000	456	0.46	657	0.66
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-

SCREENLINE DETAILS

2041

Screenline	17	Direction
Name	North-West External	
Direction	NB-SB	NB
		SB

Capacity		AM Peak Hour		PM Peak Hour	
Lanes	Total	Volume	V/C	Volume	V/C
3	3,300	754	0.23	912	0.28
3	3,300	785	0.24	933	0.28

#	Name	Link	Direction	Capacity			AM Peak Hour		PM Peak Hour	
				Per	Lanes	Total	Volume	V/C	Volume	V/C
1	Brant-Oxford Road	31625759	NB	1,100	1	1,100	247	0.22	218	0.20
2	Brant-Oxford Road	31625759	SB	1,100	1	1,100	265	0.24	262	0.24
3	Ayr Road	31626456	NB	1,100	1	1,100	1	0.00	5	0.00
4	Ayr Road	31626456	SB	1,100	1	1,100	1	0.00	10	0.01
5	Pinehurst Road	32103147	NB	1,100	1	1,100	506	0.46	689	0.63
6	Pinehurst Road	32103147	SB	1,100	1	1,100	519	0.47	661	0.60
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Legned:		*V/C Range*	*From*	*To*
X	Good Capacity Conditions		0.00	0.70
X	Approaching Capacity Conditions		0.70	0.85
X	Over Capacity Conditions		0.85	-